

**New Exterior Doors & Frames**

# **Page High School**

**Guilford County Schools**

**201 Alma Pinnix Drive**

**Greensboro, NC 27405**

Commission # 15-01    March 04, 2015

Revised: March 09, 2015



**Guilford  
County Schools**

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**DIVISION 00. PROCUREMENT AND CONTRACTING REQUIREMENTS**

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General Construction

Sheet:

Title:

A1

LOCATION PLAN, ELEVATIONS, SCHEDULE, DETAILS

End of Section



## NOTICE TO BIDDERS

**New Exterior Doors & Frames  
Page High School  
201 Alma Pinnix Drive  
Greensboro, NC 27405**

Sealed proposals will be privately received by the Guilford County School System until **2:00 PM Local Time, Wednesday, April 01, 2015** at 501 W. Washington Street, Greensboro, North Carolina 27401, to furnish all materials and labor for the demolition and installation of selected exterior doors and frames at Page High School, 201 Alma Pinnix Drive, Greensboro, North Carolina 27405.

A **MANDATORY PRE-BID CONFERENCE** will be held at the site at **10:00 AM Local Time, Wednesday, March 18, 2015**. Attendees will assemble and check in at the office prior to the meeting. Attendance at this conference is required for all potential bidders to examine the existing conditions and to discuss particular details of the project. Bids will not be accepted from contractors that did not attend this pre-bid conference.

Plans, specifications, and contract documents will be available at the prebid conference and by contacting the project architect, Ricky L. Loman, AIA Architect, 603 Summit Avenue, Suite 102, Greensboro, NC 27405, telephone/fax (336) 273-7999, email: rroman@bellsouth.net, during normal business hours. A \$50.00 bid deposit is required to obtain a complete set of plans and specifications. The full deposit will be refundable to contractors submitting a Bona Fide bid and returning the plans and specifications in satisfactory condition within 10 days of the bid date.

A brief description of work in the project follows:

**Remove three existing pair of hollow metal doors, frames, glazing, and finished hardware. Install new hollow metal frames, doors, glazing, finished hardware, and paint. Doors to the main office to be prewired for installation of a future security system to be installed by others.**

Minority businesses are encouraged to submit bids for this project. The appropriate forms from the section entitled "Participation by Women and Minority Owned Businesses" must be submitted with each bid to show good faith efforts to obtain Minority and Women Owned Business Enterprise participation.

The Board of Education awards public contracts without regard to race, religion, color, creed, national origin, sex, age or handicapped condition as defined by North Carolina General Statutes, Section 168A-3. Contractors are hereby notified that they must have proper license under the State laws governing their respective trades and that North Carolina General Statute 87 will be observed in receiving and awarding contracts. General Contractors must have general license classification for at least LIMITED BUILDING in accordance with the Rules & Regulations of the North Carolina Licensing Board for General Contractors.

The Guilford County Board of Education reserves the right to reject any or all bids presented and to waive any informalities and irregularities.

Guilford County Schools  
Donald Reid, Purchasing Officer

Guilford County Board of Education  
**INSTRUCTIONS TO BIDDERS**

1. CONTRACTOR'S LICENSES. - All applicable state and local licenses will be required.

2. BUILDING PERMITS - Will be the responsibility of the successful contractor.

3. INSURANCE

**a. Workers' Compensation Insurance**

The Contractor will maintain during the life of his contract Workers' Compensation insurance for all of his employees employed at the site of the project, and, in case any work is sub-let, the contractor shall require the sub-contractor similarly to provide Workers' Compensation insurance for all the latter's employees employed at the site of the project, unless such employees are covered by the protection afforded by the contractor.

**b. Public Liability Insurance**

The Contractor will maintain public liability insurance covering his liability for bodily injury and property damage which may arise from his operations, contractual obligations, products and completed operations, as well as operations performed by independent contractors, in not less than the following amounts:

1. A combined single limit (CBL) of \$1,000,000 each occurrence, or
2. A \$1,000,000 limit for Bodily Injury Liability, and \$1,000,000 limit for Property Damage Liability.

**c. Automobile**

The contractor will maintain Automobile Liability Insurance, to include liability coverage, covering all owned, hired, and non-owned vehicles used in conjunction with the contract. The minimum combined single limit will be \$150,000 bodily injury and property damage, \$150,000 uninsured/underinsured motorist, and \$1,000.00 medical payment.

An occurrence form of policy will be required, and the certificate of insurance submitted by the Contractor must be personally signed by a resident licensed agent of each of the companies listed on that form.

**c. Certificate of Insurance**

Each contractor shall furnish the Owner a certificate of insurance showing that the required insurance coverages are carried by the Contractor. The certificate of insurance should show the Guilford County Board of Education, Greensboro, NC, as additional insured, and list the project for which coverage is applicable. All insurance carriers shall be licensed to do business in North Carolina or approved to issue insurance coverage by the Commission of Insurance of North Carolina.

The Certificate of insurance shall include substantially the following provision: The insurance policies to which this certificate refers shall not be altered or canceled until after ten (10) days written notice of such cancellation or alteration has been sent by certified mail to the Guilford County Board of Education, Greensboro, North Carolina.

**d.** The Board of Education reserves the right to reject any carrier of insurance shown in the certificate of insurance by the Contractor on the grounds of poor claim service or financial responsibility.

4. SAFETY - Contractor shall be familiar, and in complete compliance, with OSHA requirements and regulations.

5. EXAMINATION OF CONDITIONS

**a.** Before submitting a bid, each Bidder shall examine the site. He shall familiarize himself with the site conditions and with the specifications. He shall investigate such local conditions as rules and regulations, availability and cost of labor, etc. which may affect the performance of the contract. No allowances will be made for his failure to do so. No consideration will be given at a later time for alleged misunderstanding as to requirements of work, materials to be furnished, or conditions required by nature of the site. Examination of the site shall be after 3:00 p.m. only, and with notification to the school principal. Other times must be arranged by contacting a representative of GCS.

**b.** Items incorrect or obviously omitted from the specifications by oversight or error shall be called to the attention of the Owner's representative, who will send written instructions to all Bidders.

6. QUALIFICATIONS - Bidders must have a successful record of experience in the type of work specified.

Guilford County Board of Education  
**INSTRUCTIONS TO BIDDERS**

7. PAYMENT TO THE CONTRACTOR - Payment will be made in one lump sum thirty (30) days after the work has been successfully completed and every provision of the specifications complied with to the Owner's satisfaction, evidence that all accounts are paid in full and three copies of the warranties and guarantees have been submitted to Owner.
8. FINAL CLEANING
  - a. The contractor shall at all times keep the premises free from accumulation of waste materials
  - b. The Contractor shall be responsible for removing all the construction debris from the premises and disposing of the same at a dump location of his choice
  - c. Restore any grassy areas and replace any sidewalks or pavement damaged during construction.
9. THE BIDDER hereby declares that the only person or persons interested in the proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this proposal or in the contract to be entered into; that this proposal is made without connection with any other person, company or parties making a Bid or Proposal; and that is in all respects fair and in good faith without collusion or fraud. The Bidder further declares that he has examined the site of the work and informed himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the specifications for the work and has satisfied himself relative to the work to be performed.
10. THE GUILFORD COUNTY BOARD OF EDUCATION reserves the right to reject any or all bids and to waive any informalities or technicalities. All projects are awarded contingent on the availability of funds.
11. TAXES – PLEASE INCLUDE taxes in bid amount. TAX should be computed on the cost of your MATERIALS ONLY at the current tax rate (7.75% as of 10-01-09). Taxes will be added to purchase orders as a separate item.
12. DEFAULT AND PERFORMANCE BOND - In case of default by the contractor, Guilford County Schools (GCS) may procure the articles or services from other sources and hold the contractor responsible for any excess cost occasioned thereby. GCS reserves the right to require performance bond or other acceptable alternative guarantees from successful bidder without expense to GCS.
13. SUBCONTRACTOR- Subcontractors may not be used unless receiving prior written approval from Guilford County Schools.
14. DISPUTE RESOLUTION -All Construction and Repair projects in the amount of \$15,000 or more are subject to the requirements of NCGS 143-128(f1). A complete copy of the Guilford County Schools Dispute Resolution Procedure is available for review in the Purchasing Department, 501 W. Washington St., Greensboro NC 27401.
15. SPECIAL REQUIREMENTS REGARDING CRIMINAL BACKGROUND
  - A. Criminal Background Investigations of individuals working on school property (sites occupied with students and sites not occupied with students).
  - B. At a minimum, the contractor shall obtain a complete North Carolina statewide criminal background investigation for all employees and subcontractors who will work on this project, covering a period for the last seven (7) years. In the event that the contractor or subcontractor is from out of state, the criminal background investigation shall be broadened to include their home state, as well as the state of North Carolina as outlined above. The company providing such information must be recognized by local law enforcement agency as qualified to do so. All costs associated with these criminal background checks is the responsibility of the contractor.

Each prime contractor will be responsible for all their employees and all of their subcontractors working under them.



Guilford County Board of Education  
**INSTRUCTIONS TO BIDDERS**

On sites that are occupied with students and staff, a daily sign-in sheet will be presented by each prime contractor to the principal and SRO – Student Resource Officer by 9:00 a.m. each morning. If there is no SRO – provide to the Principal. This list will contain the name of each person on site and the company they work for.

- C. Any individual with the following criminal convictions or pending charges will **NOT** be permitted on any school project or property.
  - 1. Child Molestation or Abuse or indecent liberties with a child;
  - 2. Rape;
  - 3. Any Sexually Oriented Crime;
  - 4. Drugs: Felony use, possession or distribution;.
  - 5. Murder, manslaughter or other death related charge; or
  - 6. Assault with a deadly weapon or assault with intent to kill.
- D. Any individual with a prior conviction or pending charges contained in the aforementioned list, shall be banned (not allowed) from any school project or property.
- E. Each person on site must wear a plastic laminated identification badge that identifies the name of the company and the person's name. These badges are to be computer produced at a font large enough to be clearly visible. All costs associated with these criminal background checks is the responsibility of the contractor. The ID badge template will be made available to the successful prime contractors at the Pre-Construction Meeting.
- F. Guilford County Schools, may, at any time, request verification of criminal background investigation for any employee or subcontractor on school property.

**GUILFORD COUNTY SCHOOLS**  
**ADDITIONAL INSTRUCTIONS & GENERAL REQUIREMENTS FOR INFORMAL**  
**CONSTRUCTION**

**REQUIRED WORK SCHEDULE**

**Prior to beginning work, the contractor is to provide a schedule that defines the construction effort.** Work is to be completed as per the approved project schedule, unless revised by the Guilford County Schools (GCS) Maintenance or Facilities Department. Work may begin when a **Notice to Proceed** is given. The NTP may be a phone call from a GCS Maintenance or Facilities Department Representative, with a verbal PO number, followed by a written notice to proceed and/or actual PO.

**PERMITS**

The Contractor is responsible for obtaining all required permits and for having and insuring all applicable certification requirements are met prior to the start of the work. The cost of any required permits is also the responsibility of the Contractor.

**ASBESTOS:** The Contractor is advised that no representation is made by the Owner that the work site is completely free of asbestos-containing materials. Reasonable steps have been taken by the Owner to identify any such asbestos-containing materials; however, the Contractor is hereby notified that if any suspect materials are encountered, the following steps are to be taken:

- Stop work immediately.
- Rope off the work site to prevent anyone from contacting suspect materials.
- Contact the Owner and describe what was found.
- Comply with requirements of 29 CFR Part 1926 Occupational Safety and Health Standards for the Construction Industry.

**SITE CONDITIONS, UNDERGROUND UTILITIES**

It is the responsibility of the Contractor to become familiar with the specific conditions at the worksite. The Contractor is responsible for locating and marking all public and private underground utilities. Once marked, it is the Contractor's responsibility to maintain markings for reference. If the Contractor damages any underground utility, the Contractor must arrange for repair of the damage at their cost.

The Contractor must also isolate the work site as much as possible from students/public by means of ropes, fencing, barricades, etc.

**DIGGING:** All digging shall be done Monday-Friday from the hours of 7:00 am until 4:00pm UNLESS other times are approved by project manager.

**SOIL DISRUPTION**

1. The Contractor will ensure that all holes are refilled and compacted (minimum 95%) in 6" intervals and the area disrupted by his effort is leveled and re-seeded.
2. The Contractor shall avoid driving across sidewalks, grass or other non-vehicular areas. Where vehicular access cannot be avoided, the Contractor shall be responsible for repairing and reseeding these areas to the Owner's satisfaction. The Contractor shall notify the school principal or GCS representative prior to crossing non-vehicular areas.

## **TRASH**

All trash, construction debris, etc, should be removed from the site daily or stored safely in a container belonging to the contractor.

## **DAMAGES**

**Damages.** The contractor is responsible for repairing all damages his organization causes to any GCS property during the performance of the work.

## **CHANGE ORDERS**

When unforeseen conditions require modifications to the Contract, the Contractor must propose changes by submitting a request for a change to the Owner (GCS). This request must include the following:

1. A statement outlining the reasons for the change and the effect of the change on the contract total cost and time for completion. The request is to provide a detailed description of the proposed change.
2. A list of required products, quantities needed, and unit cost, with the total amount of purchases to be made.
3. Applicable taxes, delivery charges, equipment rental, and amounts of trade discounts

The GCS representative must accept the proposed changes and give a notice to proceed to the Contractor prior to any Change Order work being performed. This notice may be either verbal or written; **HOWEVER, verbal change orders are only authorized for amounts of \$500.00 or less.**

## **PROJECT DELAYS**

**The Contractor will be responsible for contacting the GCS PM when a delay is anticipated.** The PM will evaluate the cause and make a recommendation to his/her supervisor if the delay justifies an extension of time in completing the project. If the delay is deemed warranted and an extension is granted, the PM shall notify the Contractor in writing.

## **PROJECT DEFAULT**

If the Contractor defaults or neglects to carry out the work in accordance with the project specifications or fails to provide adequate manpower, material, or resources within 48 hours of written notice of default by Owner, GCS may correct such deficiencies, or provide adequate manpower, material, and resources (including supplementing the Contractor's workforce). In such cases, an appropriate change order shall be issued deducting from current or future payments due the Contractor to include the actual cost of correcting such deficiencies, or providing adequate manpower, material, and resources including all other expenses GCS incurs. GCS may withhold payments to the Contractor until the cost of correction is determined. If payments due to the Contractor are not sufficient to cover such amounts, the Contractor's surety shall pay the difference to GCS.

## **LIQUIDATED DAMAGES**

**If the Contractor fails to meet the project completion date, liquidated damages at the rate of \$150.00 per day per unit will apply for each day beyond the original/revised completion date. When Liquidated Damages apply, the amount will first be deducted from the amount billed by the Contractor.**

## **INSPECTIONS**

The contractor is to notify the GCS Maintenance or Facilities Department project manager of all inspection dates and times involving the services of all certifying agencies.

The contractor shall determine, within the specified contract period, when work is completed and ready for owner's acceptance inspection. At the acceptance inspection, the GCS representative will, if warranted, record a list of discrepancies that will be used to identify work that is incomplete or not in accordance with the specifications. **This list of discrepancies is to be known as the punch list.** At conclusion of the final inspection, the owner (**Guilford County Schools**) shall make the following determination:

- That the project is complete and accepted.
- That the project is accepted subject to resolution of the punch list. Correction of work not in accordance with specifications or determined to be unacceptable shall begin within 48 hours after receipt of notice from the owner or inspector and shall be pursued to completion.
- That the project is not accepted and another date for a final inspection will be identified.

## **WORKSITE CONDUCT**

The contractor shall at all times obey the rules and restrictions of the Guilford County Board of Education pertaining to conduct while on school property. **NO TOBACCO PRODUCTS, ALCOHOLIC BEVERAGES OR WEAPONS ON SCHOOL PROPERTY.**

Due to the commitment to a drug and alcohol free workplace, it is also the policy of the Guilford County Schools that the work environment shall be free of the presence of alcoholic beverages or unlawful controlled substances and that contractor's employees shall perform their job assignment(s) safely, efficiently, and without the adverse influence of alcohol or controlled substances. Therefore, the school system prohibits all employees from possessing, using, manufacturing, dispensing, selling, distributing, or being under the influence of illegal drugs and from the use, sale, distribution or possession of drug paraphernalia. All employees are prohibited from unlawfully possessing, using, manufacturing, dispensing, selling, distributing, or being under the influence of alcohol.

## **SPECIAL REQUIREMENT**

When on GCS property, the contractor and all persons performing work for him shall wear some form of identification showing the company name or logo, either by identification badge or by clothing (shirts, uniforms, hats) with the company name or logo.

**DIVISION 00. PROCUREMENT AND CONTRACTING REQUIREMENTS**

**SECTION 002113 INSTRUCTIONS TO BIDDERS**

1. **FINAL TIME FOR RECEIVING PROPOSALS:**  
2:00 P.M. local time, on Wednesday, April 01, 2015.
2. **PLACE FOR RECEIVING PROPOSALS:**  
Guilford County Schools Purchasing Department, 501 West Washington Street, Greensboro, NC 27401.
3. **PLACE FOR OPENING PROPOSALS:**  
Guilford County Schools Purchasing Department, 501 West Washington Street, Greensboro, NC 27401.
4. **PROPOSALS RECEIVED BEFORE TIME OF OPENING:**  
Will remain unopened until time for receiving bids.
5. **PROPOSALS RECEIVED AFTER TIME FOR OPENING:**  
Will not be accepted.
6. **OPENING OF PROPOSALS:**  
Privately opened.  
Tabulations will be sent to all bidders.
7. **EXAMINATION OF DRAWINGS AND DOCUMENTS:**  
Should a bidder find discrepancies in, or omissions from, the drawings or documents, or should he be in doubt as to their meaning, he should at once notify the Architect, who will send written instructions to all bidders. Neither the Owner nor the Architect will be responsible for any oral instructions.
8. **EXAMINATION OF THE SITE:**  
Before submitting a proposal, each bidder should visit the site of the work, fully inform himself as to all existing conditions and limitations, and shall include in the proposal a sum to cover all items included in the contract.
9. **PREBID MEETING:**  
A MANDATORY prebid meeting will be held at the site of the work at **10:00 AM local time, on Wednesday, March 18, 2015.** Attendees will assemble and check in at the office prior to the meeting.
10. **QUESTIONS AND CLARIFICATIONS:**  
Bidders will have until **12:00 PM local time, on Friday, March 27, 2015** to submit questions to the Guilford County Schools Purchasing Officer in charge of the project for clarification and inclusion in a project addendum to be issued to all bidders.
11. **ADDENDA:**  
Any addenda issued and received during the time of bidding shall be included and acknowledged in the proposal and in closing a contract, they will become a part thereof.
12. **ACCEPTANCE OR REJECTION OF PROPOSALS:**
  - A. The competency and responsibility of bidders and their proposed subcontractors will be considered in making the award. The Owner does not obligate himself to accept the lowest or any other bid.
  - B. The Owner reserves the right to hold proposals for 30 days before award or rejection, and to reject any or all bids.
13. **PAYMENTS:**  
Refer to the GCS Instructions to Bidders for payment terms.

**DIVISION 00. PROCUREMENT AND CONTRACTING REQUIREMENTS**

**SECTION 002113 INSTRUCTIONS TO BIDDERS (CONTINUED)**

**14. INSURANCE:**

- A. Refer to the Guilford County Schools Instructions to Bidders for general insurance requirements.
- B. As a condition precedent to the issuance of a purchase order and the start of work, furnish certificate of coverage of builder's risk and fire insurance for all work to be performed as a part of this project.

**15. TIME FOR COMPLETION:**

- A. The work included under this contract to be substantially complete no later than **August 10, 2015**.
- B. If the Contractor is delayed at anytime in the progress of his work by changes ordered in the work; abnormal weather conditions; or any causes beyond the Contractor's control or any other causes deemed justifiable by the Architect, then the contract time shall be reasonably extended in a written Change Order from the Architect.
- C. The Contractor is to notify the Architect within one day of any delays caused by conditions beyond his control. A written report shall be submitted with the Contractor's application for payment each month listing all requests for contract time extensions for that month. No extensions in time will be allowed if not handled in this manner.

**16. USE OF SITE:**

- A. The Contractor will have access and control of the area of work for construction purposes during normal business hours Monday through Friday when classes are not in session, and on weekends and holidays. Access is possible at other times but must be approved by the site administrator and the Guilford County Schools Facilities Department. Owner must have use of the facility throughout the construction period. Utilities will be provided by the Owner and must be kept in operation during business hours.
- B. Daily work hours are normally limited to the hours between 7:00 AM and 6:00 PM, Monday through Friday, work hours other than these times should be cleared in advance with the Owner's Representative. Weekend work and extended work day hours may be permissible with written permission of the Owner.

**17. PREPARATION OF PROPOSALS:**

To be entitled to consideration, proposals must be made in accordance with the following instructions:

- A. Proposals shall be made upon the proposal form provided by the Owner, and all blank spaces in the forms shall be filled; numbers shall be stated both in writing and in figures; the signature shall be long hand; and the completed forms shall be without interlineation, alteration, or erasure.
- B. Proposals shall not contain any recapitulation of the work to be done. No oral, telegraphic, or telephonic proposals or modifications will be considered.

**18. MINORITY AND WOMEN OWNED BUSINESS (MWBE) PROGRAM:**

Guilford County Schools Board of Education promotes full and equal access to business opportunities with Guilford County Schools (GCS). Minority and women owned businesses as well as other responsible vendors shall have a fair and reasonable opportunity to participate in GCS business opportunities.

Prime suppliers (i.e., those who deal directly with GCS) should support GCS MWBE Program by making an effort to engage minority and women owned businesses as subcontractors for goods and services to the extent available. GCS has a goal of 12.46% participation. The proposal should address efforts to meet the goal. If there are additional questions, please contact Julius Monk, at 336-370-3492 or email [monkj@gcsnc.com](mailto:monkj@gcsnc.com).

**DIVISION 00. PROCUREMENT AND CONTRACTING REQUIREMENTS**

**SECTION 002113 INSTRUCTIONS TO BIDDERS (CONTINUED)**

**19. PROPOSALS:**

Proposals may be transmitted to the Owner by the following method:

- A. Address to Owner and deliver enclosed in a sealed opaque envelope marked as follows:

**"New Exterior Doors & Frames  
Page High School  
Guilford County Schools  
201 Alma Pinnix Drive  
Greensboro, North Carolina 27405"**

Include North Carolina Contractor's license on envelope.

End of Section

# GUILFORD COUNTY SCHOOLS

## 2014-2015 Traditional Calendar

**FINAL**  
Approved 11/5/13

**AUGUST 14**

MON	TUE	WED	THU	FRI
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
		☒	☒	☐
25	26	27	28	29

**SEPTEMBER 14**

MON	TUE	WED	THU	FRI
1	2	3	4	5
▲	8	9	10	11
15	16	17	18	19
		●	25	26
22	23	24	25	26
29	30			

**OCTOBER 14**

MON	TUE	WED	THU	FRI
		1	2	3
				●
6	7	8	9	10
13	14	15	16	17
		●		
20	21	22	23	24
				GP44
27	28	29	30	31
☒				

**NOVEMBER 14**

MON	TUE	WED	THU	FRI
3	4	5	6	7
	☐			
10	11	12	13	14
	▲			
17	18	19	20	21
24	25	26	27	28
		☐	▲	▲

**DECEMBER 14**

MON	TUE	WED	THU	FRI
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
○	○	▲	▲	▲
29	30	31		
○	○	○		

**JANUARY 15**

MON	TUE	WED	THU	FRI
			1	2
			▲	○
5	6	7	8	9
☐ I-1				
12	13	14	15	16
19	20	21	22	23
▲			GP46	☐ I-2
26	27	28	29	30
☒ I-3				

**FEBRUARY 15**

MON	TUE	WED	THU	FRI
2	3	4	5	6
				●
9	10	11	12	13
16	17	18	19	20
		●		
23	24	25	26	27
				☒ I-4

**MARCH 15**

MON	TUE	WED	THU	FRI
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
		●		
23	24	25	26	27
30	31			
	GP45			

**APRIL 15**

MON	TUE	WED	THU	FRI
		1	2	3
				▲
6	7	8	9	10
○	○	○	○	☐ I-5
13	14	15	16	17
20	21	22	23	24
27	28	29	30	

**MAY 15**

MON	TUE	WED	THU	FRI
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29
▲				

**JUNE 15**

MON	TUE	WED	THU	FRI
1	2	3	4	5
8	9	10	11	12
			GP45	☐ I-6
15	16	17	18	19
☐ I-7	☐ I-8			
22	23	24	25	26
29	30			

<p>☐ Workday* (9)</p> <p>○ Vacation (10)</p> <p>■ First/Last Day for Students</p> <p>☒ Mandated Workday (5)</p>	<p>▲ Holiday (11)</p> <p>● Early release day for students, training for staff (6)</p>
<p>! Will become student days if other days are missed due to inclement weather. Makeup days will be taken in the order indicated.</p>	
<p>There are 180 Student Days in the Guilford County Schools Calendar</p>	
<p>* Annual leave may be taken</p>	



# GUILFORD COUNTY SCHOOLS

## 2015-2016 Traditional Calendar

**FINAL**  
Approved 12-2-14

**AUGUST 15**

MON	TUE	WED	THU	FRI
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28
31				

**SEPTEMBER 15**

MON	TUE	WED	THU	FRI
	1	2	3	4
7	8	9	10	11
▲	14	15	16	17
21	22	23	24	25
28	29	30		

**OCTOBER 15**

MON	TUE	WED	THU	FRI
			1	2
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
26	27	28	29	30

**NOVEMBER 15**

MON	TUE	WED	THU	FRI
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30				

**DECEMBER 15**

MON	TUE	WED	THU	FRI
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

**JANUARY 16**

MON	TUE	WED	THU	FRI
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

**FEBRUARY 16**

MON	TUE	WED	THU	FRI
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29				

**MARCH 16**

MON	TUE	WED	THU	FRI
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

**APRIL 16**

MON	TUE	WED	THU	FRI
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

**MAY 16**

MON	TUE	WED	THU	FRI
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30	31			

**JUNE 16**

MON	TUE	WED	THU	FRI
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
27	28	29	30	

☐ Workday\* (9)

○ Vacation (10)    ▲ Holiday (11)

■ First/Last Day for Students    ◐ Early release day for students, training for staff

☒ Mandated Workday (5)

! Will become student days if other days are missed due to inclement weather. Makeup days will be taken in the order indicated.

There are 180 Student Days in the Guilford County Schools Calendar

\* Annual leave may be taken

Guilford County Board of Education  
Administrative Procedure

Descriptor Term:  PARTICIPATION BY MINORITY AND WOMEN OWNED BUSINESSES (MWBE)		Descriptor Code:  DK-P	
Draft Date: March 29, 2007	Date Issued by the Superintendent:		Latest Revision Date: November 28, 2011

The Guilford County Schools' MWBE Office, Facilities and Purchasing Departments are committed to:

- Getting maximum benefits for the students from the school system's state, local and federal funds carrying out the purchasing process in the best interest of the Guilford County Schools, its students and employees and the taxpayers of Guilford County.
- Acting in accordance with NC General Statutes, local Board of Education policies and procedures, and recognized professional purchasing practices.
- Providing a climate of fair and open competition for all qualified vendors.

A. For the purposes of this procedure, the following definitions shall apply:

1. "Bidder/Participant" – Any person, firm, partnership, corporation, association, or joint venture seeking to be awarded a public contract or subcontract.
2. "Contract" – A mutually binding legal document which defines a business relationship or any modification at the level of performance which obligates the seller to furnish supplies, equipment, materials or services, knowledge in performing construction and procurements, and obligating the buyer to pay for services.
3. "Contractors" – Any person, firm, partnership, corporation, association, or joint venture awarded a contract purchase or service agreement at any level with GCS or has contracted with the GCS to perform construction work or repair.
4. "Discrimination" – To distinguish, differentiate, separate, or segregate solely on the basis of age, race, religion, sex, national origin, handicap or veteran's status.
5. "Disabled" – A person with a disability as that term is defined in N.C. Gen. Stat. § 168A-3(7a).
6. "Equipment" – Includes materials, supplies, commodities, apparatus.

7. “Goal” – An objective, expressed numerically to evaluate the type and amount of public contract awards and performance of MWBE firms.
8. “Good Faith Effort” – An activity performed by bidders to assure the participation of MWBE firms in contracts covered under this plan.
9. “Joint Venture” – A legal merger of two or more separately owned businesses/firms for the purpose of submitting a single bid, to carry out a single business enterprise for profit, for which purpose they combine their property, capital, efforts, skills or knowledge.
10. “LEA” – Local Education Administration unit, thusly Guilford County Schools (GCS).
11. “Minority” - a person who is a citizen or lawful permanent resident of the United States and who is:
  - a. African-American, that is, a person having origins in any of the original racial groups in Africa;
  - b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Island, regardless of race;
  - c. Native-American, that is, a person having origins in any of the original peoples of North America;
  - d. Asian-American, that is, persons having origin in any of the countries of the Far East, Southeast Asia, or the Indian areas.
12. “Minority or Women or Disabled or Disadvantaged Business Enterprises (MWBE )” – A business enterprise owned and controlled at a minimum of 51% by one or more members of a group defined as a minority or women. A business certified as an MWBE will show evidence of ownership and management interests and the daily business operations are real and continuing not created solely to meet the MWBE requirements.
13. “Owned and controlled” means a business, which is a: 1) sole proprietorship legitimately owned by a person who is a minority or white female; 2) a partnership or joint venture controlled by minorities and/or women, and in which at least 51% of the beneficial ownership interests legitimately are held by minorities and/or females, and in which at least 51% of the voting stock or interested 51% of the beneficial ownership interests are legitimately held by minorities and/or females. In addition, these persons must control the management and operations of the business on a day-to-day basis.
14. “Owner” – The Guilford County Board of Education (BOE).
15. “Subcontractor” – A firm under contract with the prime contractor for supplying materials or labor and materials and/or installation. The subcontractor may or may not provide materials in his subcontract. Work subcontracted in an emergency and which could not have been anticipated is excluded as a part of this program.
16. “Socially and Economically Disadvantaged Individual” – A person who is socially and economically disadvantaged as that term is defined in 15 U.S.C. § 637. Socially

disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities. Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area that are not socially disadvantaged.

17. “Verifiable Goal” –

- a. For purposes of separate prime contract system, that the awarding authority has adopted written guidelines specifying the actions that will be taken to ensure a good faith effort in the recruitment and selection of MWBE firms for participation in contracts awarded.
- b. For purposes of separate prime contract system, that the awarding authority has adopted written guidelines specifying the actions that the prime Contractor must take to ensure a good faith effort in the recruitment and selection of MWBE firms for participation in the contract awarded; and
- c. The required actions must be documented in writing by the prime contractors to the GCS.

B. GCS’s Duties

1. Identification/Certification of Minority, Women and Socially and Economically Disadvantaged Business Enterprises

- a. The school system shall affirmatively seek out and gain knowledge of minority and women-owned business enterprises (hereinafter MWBE) in the construction trades.
- b. The school system will maintain a list of products and services provided by MWBE firms.
- c. Attend the scheduled prebid conference.
- d. At least 10 days prior to the scheduled day of bid opening, notify MWBE firms that have requested notices from the GCS for public construction or repair work and MWBE firms that have indicated to the MWBE coordinator’s office an interest in the type of work being bid or the potential contracting opportunities listed in the proposal. The notification shall include the following:
  1. A description of the work for which the bid is being solicited.
  2. The date, time, and location where bids are to be submitted.
  3. The name of the individual within the owner’s organization who will be available to answer questions about the project.
  4. Where bid documents may be reviewed.
  5. Any special requirements that may exist.

- e. Utilize other media, as appropriate, likely to inform potential MWBE firms of the bid being sought.
- f. Maintain documentation of any contacts, correspondence, or conversation with MWBE firms made in an attempt to meet the goals.
- g. Review jointly with the designer all requirements of G.S.143-128.2(c) and G.S.143-128.2(f) – (i.e. bidders’ proposals for identification of the MWBE firms that will be utilized with corresponding total dollar value of the bid and affidavit listing good faith efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) prior to recommendation of award to the Guilford County Board of Education.
- h. Evaluate and analyze documentation to determine that a good faith effort has been achieved for MWBE utilization prior to recommendation of award to Guilford County Board of Education.
- i. Review prime contractor’s pay applications for compliance with MWBE utilization commitments prior to payment.
- j. Make documentation showing evidence of implementation of GCS’s responsibilities available for review by State Construction Office and HUB Office and other interested parties upon request.

C. Minority Business Subcontractor Goals

1. The goals set for participation by MWBE firms as subcontractors have been set at 12.46%. GCS goal for goods and services has been set at 10%.
2. The bidder must identify on its bid all MWBE firms that will be utilized on the project with corresponding total dollar value of the bid and an affidavit listing and documenting good faith efforts (Affidavit A) or an affidavit of self-performance of work (Affidavit B), if the bidder will perform work under contract by its own workforce, as required by G.S.143-128.2(c) and G.S.143-128.2(f).
3. The bidder must complete all Sections of Affidavit A and attach Affidavit A to its bid, with documentation of Good Faith Effort as required, including a description of the portion of work to be executed by MWBE firms expressed as a percentage of the total contract price, OR
4. Provide Affidavit B, which includes sufficient information for GCS to determine that the bidder does not customarily subcontract work on this type project.

The above information must be provided as required. Failure to earn at least 50 points from the Good Faith Efforts list on Affidavit A shall render the bid non-responsive. Achieving the participation goal of 12.46% creates a presumption that the bidder made the required Good Faith Effort. Regardless of the percentage of participation, however, ALL BIDDERS must complete and submit Affidavit A, and must further provide certain documentation as specified by Affidavit A with their bid in order to receive Good Faith Points for certain items. GCS also shall require the apparent lowest, responsible, responsive bidder to

provide additional documentation of Good Faith Efforts within 72 hours of notification of being the apparent lowest responsible, responsive bidder. Failure to submit these documents / information as requested shall be grounds for deduction of Good Faith Points. In the event such a deduction results in a failure to achieve the required number of Good Faith Points, the bid shall be rejected unless the bidder has otherwise demonstrated Good Faith Efforts.

#### D. Communications with MWBE firms

GCS shall provide information to MWBE firms about the GCS's construction program. This shall be accomplished by:

1. Sending a notice to each MWBE engaged in any aspect of school construction that is identified and certified for each school construction project that is advertised for bids;
2. Insuring that prospective MWBE bidders and subcontractors have access to bidding documents; and
3. Furnishing MWBE subcontractors with the name of prospective bidders on a project upon request, and providing prospective bidders with the schools system's list of known MWBE firms.

#### E. Designer

Under the single-prime bidding, separate prime bidding, construction manager at risk, or alternative contracting method, the designer will:

Attend the scheduled pre-bid conference to assist in the explanation of MWBE firms requirements to the prospective bidders.

Assist the owner to identify and notify prospective MWBE prime and subcontractors of potential contracting opportunities.

Maintain documentation of any contacts, correspondence, or conversation with MWBE firms made in an attempt to meet the goals.

Review jointly with the owner all requirements of G.S.143-128.2 (c) and G.S.143-128.2(f) – (i.e. bidders' proposals for identification of the MWBE firms that will be utilized with corresponding total dollar value of the bid and affidavit listing Good Faith Efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) – prior to recommendation of award.

During construction phase of the project, review "MWBE Documentation for Contract Payment" – (Appendix E) for compliance with MWBE utilization commitments. Submit Appendix E form with monthly pay applications to the owner.

Assist the Owner in evaluating any Contractor's request to terminate an MWBE, including, but not limited to, evaluation of the merits of termination request, and computation of percentage of completion of the work of the MWBE at issue.

Make documentation showing evidence of implementation of Designer's responsibilities available for review by State Construction Office and HUB Office, upon request.

## F. Anticipated Assurances from Contractors

1. Upon adoption of its verifiable goal GCS is expected to require bidders on projects to provide assurances in writing that they will make a good faith effort to solicit MWBE firms as subcontractors should they be awarded a construction contract. Bidders shall provide the following information to GCS and any other information requested in the attached forms:
  - a. Provide applicable GCS Affidavit A or B on bid date with backup information for any requested items as specified by Affidavit A or B. Failure to submit this information shall be deemed non-responsive and subject to rejection of bid.
  - b. An Identification of MWBE Participation form;
  - c. A description of the work, each named MWBE will perform; (AFFIDAVIT A, Section II)
  - d. The dollar amount of participation by each MWBE (AFFIDAVIT A, Section II) and
  - e. Documentation of Good Faith Efforts (Affidavit A, Section III)
2. A contractor's good faith effort to included but are not limited to involve MWBE firms in the project can be demonstrated by using, among other factors, the following:

Contacted at least three MWBE firms that reasonably could have been expected to submit a quote and that were known to the contractor, or available on approved lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed. "Contact" means contact by letter, fax, e-mail or other means to a viable and active address. Contractor must attach evidence of this contact to bid document to Affidavit A and submit with its bid.

Made the construction plans, specifications and requirements available for review by prospective MWBE firms or providing these documents to them at least 10 days before the bids are due.

Broken down or combined elements of work into economically feasible units to facilitate MWBE participation.

Worked with MWBE trade, community, or contractor organizations identified by the MWBE Administrator's Office and included in the bid documents that provide assistance in recruitment of MWBE firms.

Attended pre-bid meetings scheduled by the public owner.

Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.

Negotiated in good faith with interested MWBE firms and did not reject them as unqualified without discussion with entity a sound reasons based on their capabilities. Any

rejection of an MWBE based on lack of qualification should have the reasons documented in writing and submitted with Affidavit A with the bid.

Provided assistance to an otherwise qualified MWBE in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assist MWBE firms in obtaining the same unit pricing with the bidder's suppliers in order to help MWBE firms in establishing credit.

Negotiated joint venture and partnership arrangements with MWBE participation on this construction or repair project when possible.

Provide quick pay agreements and policies to enable MWBEs and suppliers to meet cash-flow demands.

3. Failure to submit backup information for any item required by Affidavit A may result in the bid being declared non responsive and subject to rejection.

#### G. MWBE Responsibilities

All MWBE firms must seek certification through the Department of Administration Office for Historically Underutilized Business ("HUB Office"). MWBEs who are not certified at the time the firm commits to provide services, should immediately apply for certification with the HUB Office. If the MWBE fails to submit an application or if the MWBE is not granted certification, that MWBE's contract dollars will not be counted as MWBE participation.

1. MWBE firms do not have to be certified to be listed on the bid documents; however, MWBE firms that have been awarded contracts will not be credited towards the Bidder's MWBE Participation Plan unless they are certified with the State of North Carolina.
2. MWBE firms should make every effort to establish contacts and relationships with contractors for potential future business, including attending pre-bid conferences and subscribing to industry and trade journals.
3. MWBE firms should also document all contact and communications made with contractors above so as to be able to assist the Grievance Designee in determining whether a complaint lodged by an MWBE against a bidder for failure to use good faith efforts is valid.
4. In addition, MWBE firms who are contacted by GCS or bidders should respond promptly as to whether or not they wish to submit a bid.
5. MWBE firms are urged to take advantage of appropriate technical assistance and training when it is available.

#### H. Subcontractor Replacement



1. The Director of Construction and the MWBE Administrator must be notified in writing immediately upon the need to replace any Subcontractor. The notification shall include the following:
  - a. The basis for the request to terminate;
  - b. The estimated percentage of completion of the work of the affected Subcontractor;
  - c. The amount due to the affected Subcontractor, if any, on account of work in place;
  - d. A description of any defective work;
  - e. The estimated cost of any corrective work; and
  - f. Any back charges claimed against the affected Subcontractor.
2. A Contractor shall not replace a mechanical, electrical or plumbing Subcontractor listed on its bid without the prior written consent of the Director of Construction (following prior notification to the Board) for good cause shown. A Contractor shall not replace an MWBE listed on its Affidavit A without the prior written consent of the Director of Construction and the MWBE Administrator (following prior notification to the Board) and for good cause shown.
3. Upon receipt of notification from a Contractor that it seeks to replace a Subcontractor, the Director of Construction shall inform the Superintendent or his designee. The Director of Construction also shall immediately provide the affected Subcontractor written notice of the request, and an opportunity of no less than seven (7) days within which to respond.

The response of the affected Subcontractor shall include the following:

- a. Subcontractor's response(s) to Contractor's allegation(s) offered in support of termination;
- b. The estimated percentage of completion of the work of the affected Subcontractor;
- c. The amount due to the affected Subcontractor if any, on account of work in place;
- d. Subcontractor's response to any claims of defective work;
- e. Subcontractor's response to any claims for back charges; and
- f. A list of all second tier subcontractors, vendors and suppliers, including for each the amount paid to date, amount currently due, and total contract value.

4. After receiving the response of the affected Subcontractor, if any, the Director of Construction may require the Contractor, the affected Subcontractor or both to submit further documentation in support of their position.
5. Prior to, or as a condition of, giving approval to replace a Subcontractor, the Director of Construction may require the Contractor and the affected Subcontractor to mediate any dispute.
6. If approval for termination is granted, the Contractor shall immediately pay any undisputed amounts owed to the affected Subcontractor.
7. The Contractor shall make and document Good Faith Efforts in the selection of a substitute Subcontractor to the same extent required of Bidders submitting an initial bid under N.C. Gen. Stat. § 143-128.2 and Guilford County Board of Education's MWBE Procedure. If the Subcontractor to be replaced is an MWBE, Contractor shall use its best efforts to select another MWBE to serve as a substitute Subcontractor.

The Director of Construction and the MWBE Administrator must approve any substitute Subcontractor in writing.

***Emergency Circumstances Exception as defined in the Financial Services Procedure Manual Section 7.3 page 51: GCS may waive the utilization requirements if it is determined that an emergency exists that requires goods or services to be provided with such immediacy that the contractor is unable to comply with the replacement procedure.***

I. Penalties for Contractor Noncompliance

1. The low bidder or bidders on a school construction project must provide assurance in writing to the BOE prior to the acceptance of their bid that they have made a good faith effort to meet the verifiable goal for MWBE participation adopted by the BOE.
2. When deciding whether or not a bidder has made a good faith effort, the BOE shall consider whether the bidder has met the verifiable goal for MWBE participation, as well as the criteria set forth above, including the number of certified MWBE firms available and capable of performing the work and the amount of other work being awarded or performed in the market area of the GCS.
3. Failure of a low bidder to make and demonstrate a good faith effort to meet the goal shall result in the bid being considered as non-responsive and being rejected.
4. Failure to comply with the requirements of this GCS Good Faith Effort policy may lead to the contractor's disqualification from bidding on and receiving other GCS contracts.
5. In the event that any contractor or subcontractor fails to provide requested records for inspection, such failure shall constitute a material breach of the contract and will permit the imposition of remedies noted in this section.

K. Competitive Bids

Nothing contained herein is to be construed as to require the GCS or contractors to purchase supplies and equipment or award contracts to MWBE firms whom do not submit the lowest responsible bid.

L. Grievance Procedures

It is the policy of this BOE that disputes, which involve a person's rights, duties or privileges, should be settled through informal procedures. Any participant feeling himself/herself aggrieved by implementation of the MWBE Program may present such grievance to the Superintendent or his designee. The grievance (internal complaint resolution) procedure is a resource available to all contractors, subcontractors, and vendors doing business with the Guilford County Schools under the MWBE Program. Grievances related to the administration of the MWBE Program will be processed as follows:

1. The grievance shall first be discussed with the responsible operating department. If the grievance is not resolved, exercise item #2.
2. The grievance (complaint) must be reported in writing, including a brief description and supporting documentation and evidence to the Superintendent's designee at 712 N. Eugene Street, Greensboro, North Carolina, 27401.
3. The Superintendent's designee will review the basis and the issue(s) of the complaint and may request additional supporting evidence. A response to the grievance will be completed within fifteen (15) working days unless circumstances mandate otherwise. Parties involved will be notified of any and all delays in processing the grievance.
4. Any participant not satisfied with the decision of the Superintendent's designee may avail himself/herself or any remedies available under applicable Federal, State and Local law.

To that end, MWBE disputes arising under these guidelines should be resolved.

## Identification of MWBE Participation

**Submission of Affidavits which include statements of "To Be Determined" or failure to submit the required information as outlined in the Specifications shall cause the Bid be deemed non-responsive and subject to rejection.**

I, \_\_\_\_\_  
(Name of Bidder)

do hereby certify that on this project, we will use the following minority business enterprises as construction subcontractors, vendors, suppliers or providers of professional services.

Firm Name, Address and Phone #	Work type	*MWBE Category

\*Minority categories: Black, African American **(B)**, Hispanic **(H)**, Asian American **(A)** American Indian **(I)**, Female **(F)** Socially and Economically Disadvantaged **(D)**

The total value of minority business contracting will be (\$)\_\_\_\_\_.

## AFFIDAVIT A

This Affidavit and **ALL THREE (3) SECTIONS** Herein Must Be Completed By **ALL BIDDERS** and Submitted with Bid.

### Section I - Listing of the Good Faith Effort

**Bidder must earn at least 50 points from the Good Faith Efforts list for their Bid to be considered responsive and must submit documentation supporting all items checked within the timeframes set forth in Section III below.**

I have made Good Faith Effort to comply under the following areas checked:

- 1** - Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed. "Contact" means contact by letter, fax, e-mail or other means to a viable and active address. **CONTRACTOR MUST ATTACH EVIDENCE OF CONTACT TO THIS AFFIDAVIT AND SUBMIT WITH BID.** Value = 10 points.
- 2**-Made the construction plans, specifications and requirements available for review by prospective MWBE businesses, or providing these documents to them at least 10 days before the bids are due. Value = 10 points.
- 3** - Broken down or combined elements of work into economically feasible units to facilitate minority participation. Value = 15 points.
- 4** - Worked with MWBE trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of MWBE'S. Value = 10 points.
- 5** - Attended prebid meetings scheduled by the public owner. Value = 10 points.
- 6** - Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors. Value = 20 points.
- 7** - Negotiated in good faith with interested MWBE'S and did not reject them as unqualified without discussing with MWBE'S sound reasons based on their capabilities. **CONTRACTOR MUST ATTACH TO THIS AFFIDAVIT AND SUBMIT WITH BID COPIES OF QUOTES OR RESPONSES FROM ALL FIRMS SUBMITTING QUOTES OR RESOPNSES, AND, IF APPLICABLE, WRITTEN JUSTIFICATION FOR ANY REJECTION OF A MWBE BASED ON LACK OF QUALIFICATION.** Value = 15 points.
- 8** - Provided assistance to an otherwise qualified MWBE in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help MWBE businesses in establishing credit. Value = 25 points.
- 9** - Negotiated joint venture and partnership arrangements with MWBE businesses in order to increase opportunities for MWBE business participation on the construction or repair project when possible. Value = 20 points.
- 10** - Provided quick pay agreements and policies to enable MWBE contractors and suppliers to meet cash-flow demands. Value = 20 points.

The undersigned hereby certifies that he or she has read the terms of the MWBE business commitment, that the bidder has made the Good Faith Efforts in the areas checked above, and that he or she is authorized to bind the bidder to the commitment herein set forth.

Date:\_\_\_\_\_ Name of Authorized Officer:\_\_\_\_\_

Signature:\_\_\_\_\_

## Section II - Portion of the Work to be Performed by Minority Firms

I will expend a minimum of \_\_\_\_\_% of the total dollar amount of the contract with MWBE. MWBE will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below.

(Attach additional sheets if necessary)

Name and Phone Number	*MWBE Category	Work description	Dollar Value

\*MWBE categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with MWBE for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

### Section III – Documentation of Good Faith Efforts

**ALL BIDDERS**, regardless of percentage of MWBE participation, **MUST** provide documentation of all Good Faith Efforts checked in Section I within the timeframes set forth in Parts A and B below.

Failure to submit these documents / information shall be grounds for deduction of Good Faith Points. In the event such a deduction results in a failure to achieve the required number of Good Faith Points, the Bid shall be rejected unless the bidder has otherwise demonstrated Good Faith Efforts.

#### **PART A (Documentation Required to be Submitted With Bid)**

Documentation **MUST** be provided **WITH THE BID** in order for the bidder to receive credit for certain items checked. If the bidder checked Items 1 or 7 in Section I, the bidder **MUST** provide documentation supporting those Good Faith Efforts **WITH THE BID**.

Examples of such documentation include, but are not limited to, the following:

#### **ITEM 1**

- Copies of solicitations for quotes to at least three (3) MWBE's from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
- Copies of quotes and responses received from each firm responding to the solicitation.
- A telephone log of follow-up calls to each firm sent a solicitation.

#### **ITEM 7**

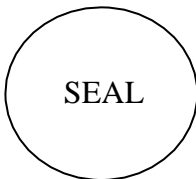
- Copies of quotes or responses received from all firms submitting quotes or responses for each subcontract, and, if applicable a letter detailing the reason(s) for any rejection of minority business(es) due to lack of qualification.

I do certify the attached documentation as true and accurate representation of my good faith efforts.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of North Carolina, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

**PART B (Documentation Required to be Submitted Within 72 Hours of Notification)**

Certain documentation **MUST** be provided within 72 hours of notification of being the apparent lowest responsible, responsive bidder in order to receive credit for certain additional Items checked. If the bidder checked Items 2, 3, 4, 5, 6, 8, 9 or 10, the bidder **MUST** provide documentation supporting those Good Faith Efforts within 72 hours of notification of being the apparent lowest responsible, responsive bidder.

Examples of such documentation include, but are not limited to the following:

**ITEM 2**

- Invitation to view construction plans, specifications and requirements.
- Cover letter enclosing construction plans, specifications and requirements.

**ITEM 3**

- Copies of all bid solicitations or request for proposals broken down by scope of work.
- Letter detailing contractor's efforts to break down or combine elements of work into economically feasible units to facilitate minority participation.

**ITEM 4**

- Documentation of any contacts or correspondence to MWBE, community, or contractor organizations in an attempt to meet the goal.

**ITEM 5**

- Copy of pre-bid roster.

**ITEM 6**

- Letter documenting efforts to provide assistance in obtaining required bonding or insurance for MWBE.

**ITEM 8**

- Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

**ITEM 9**

- Letter documenting negotiations with MWBE businesses to create joint venture or partnership arrangement for the construction or repair project.

**ITEM 10**

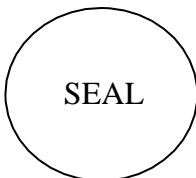
- Copy of quick pay agreements.
- Copy of quick pay policies.

I do certify the attached documentation as true and accurate representation of my good faith efforts.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of North Carolina, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_



## AFFIDAVIT B Intent to Perform Contract with Own Workforce.

County of \_\_\_\_\_

Affidavit of \_\_\_\_\_  
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the \_\_\_\_\_  
\_\_\_\_\_ contract.  
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

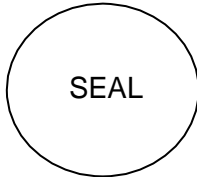
The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_



State of North Carolina, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

## APPENDIX E

### MWBE DOCUMENTATION FOR CONTRACT PAYMENTS

Prime Contractor/Architect: \_\_\_\_\_

Address & Phone: \_\_\_\_\_

Project Name: \_\_\_\_\_

Pay Application #: \_\_\_\_\_ Period: \_\_\_\_\_

The following is a list of payments made to Minority and Women Business Enterprises on this project for the above-mentioned period.

A	B	C	D	E	F	G	H
MWBE FIRM NAME	* TYPE OF MWBE	ORIGINAL CONTRACT AMOUNT	PREVIOUS PAYMENTS	PAYMENT THIS PERIOD	TOTAL CHANGE ORDERS TO DATE	TOTAL AMOUNT COMMITTED (C + F)	TOTAL RETAINED TO DATE

\*Minority categories: Black (B), Hispanic (H), Asian American (AA), American Indian (AI), White Female (WF), Socially and Economically Disadvantaged (SED)

Approved/Certified By:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SUBMIT WITH EACH PAY REQUEST - FINAL PAYMENT - FINAL REPORT**

Form of Proposal  
New Exterior Doors & Frames

# Page High School

Guilford County Schools  
201 Alma Pinnix Drive  
Greensboro, North Carolina 27405

Bidder: \_\_\_\_\_

Date: \_\_\_\_\_

The undersigned, as Bidder, hereby declares that the only person or persons interested in this proposal as principal or principals is / or named herein and that no other person than herein mentioned has any interest in this proposal or in the contract to be entered into; that this proposal is made without connection with any other person, company, or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the work and the contract documents relative thereto, and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be preformed.

The Bidder proposes and agrees if this proposal is accepted to contract with the Guilford County Board of Education (Owner), in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the fabrication and delivery of the project "New Exterior Doors & Frames, Page High School, Guilford County Schools, 201 Alma Pinnix Drive, Greensboro, North Carolina 27405" in full and complete accordance with the plans, specifications and contract documents, to the full and entire satisfaction of the Owner, with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and other contract documents, for the sum of:

Single-prime contract:

**BASE BID:**

\_\_\_\_\_

**Dollars**        \$ \_\_\_\_\_

A breakdown of this proposal into material and labor costs is as follows:

Labor Cost \$ \_\_\_\_\_ Material Cost \$ \_\_\_\_\_

Sales Tax for Materials \$ \_\_\_\_\_

-----

**TIME FOR COMPLETION:**

The bidder further proposes and agrees hereby to commence work under this contact upon receipt of a purchase order and a written notice to proceed from the Architect, and shall substantially complete all work on or before **August 10, 2015**.

**ADDENDA:**

The following addenda were received and used in computing this bid:

	Date	Initial		Date	Initial
Addendum No. 1:	_____	_____	Addendum No. 4:	_____	_____
Addendum No. 2:	_____	_____	Addendum No. 5:	_____	_____
Addendum No. 3:	_____	_____	Addendum No. 6:	_____	_____

RESPECTIVELY SUBMITTED this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_.

\_\_\_\_\_  
(Name of firm or corporation making bid)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Owner/Partner/President/Vice President)

WITNESS: (Proprietorship/Partnership)

Address: \_\_\_\_\_

By: \_\_\_\_\_

License No. \_\_\_\_\_

Federal ID No. \_\_\_\_\_

ATTEST: (Corporation)

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Corp. Secretary or Asst. Secretary Only)

(CORPORATE SEAL)

**DIVISION 00. PROCUREMENT AND CONTRACTING REQUIREMENTS**

**SECTION 007200 GENERAL CONDITIONS**

1. The "General Conditions of the Contract for Construction", AIA Document A201, 2007 Edition; Articles 1 thru 14 inclusive are hereby made a part of the contract documents to the same extent as if herein written out in full.
2. Copies of this document may be purchased from the American Institute of Architects, 1735 New York Avenue, N.W., Washington, D.C. 20066.
3. Copies of this document are available for inspection in the Architect's office and may be reviewed upon request.
4. Where any article is supplemented under Section 007300, the AIA provisions of such article shall remain in effect and the supplemental provisions shall be considered as added hereto.
5. Where any article is amended, voided, or superceded under Section 007300, the AIA provisions of such article not so specifically amended, voided, or superceded shall remain in effect.

**DIVISION 00. PROCUREMENT AND CONTRACTING REQUIREMENTS**

**SECTION 007300 SUPPLEMENTARY GENERAL CONDITIONS**

**ARTICLE 1:**

The Supplementary General Conditions are to supplement, or amend the "General Conditions of the Contract" and intended to address job specific issues.

**ARTICLE 2. CONTRACTORS LIABILITY INSURANCE:**

Refer to the enclosed "GUILFORD COUNTY BOARD OF EDUCATION INSTRUCTIONS TO BIDDERS" for necessary insurance requirements.

**ARTICLE 3. PROPERTY INSURANCE 11.3:**

Builders risk insurance shall be purchased by the Contractor.

**ARTICLE 4. TIME FOR COMPLETION:**

- A. The Contractor shall commence all work to be performed under this contract upon receipt of a Purchase Order from the Guilford County Schools and shall fully complete all work hereunder no later than **August 10, 2015**.
- B. If the Contractor is delayed at anytime in the progress of his work by changes ordered in the work; abnormal weather conditions; or any causes beyond the Contractor's control or any other causes deemed justifiable by the Architect, then the contract time shall be reasonably extended in a written Change Order from the Architect.
- C. The Contractor is to notify the Architect and the Owner within one day of any delays caused by conditions beyond his control. A written report shall be submitted with the Contractor's application for payment each month listing all requests for contract time extensions for that month. No extensions in time will be allowed if not handled in this manner.

**ARTICLE 5. SPECIFICATION EXPLANATION:**

- A. These specifications are of the abbreviated or "streamlined" type and include incomplete sentences. Omissions of works or phrases such as "the contractor shall", "in conformity therewith", "shall be", "as noted on the drawings", "according to the plans", "a". "the", and "all" are intentional. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" appears on the drawings.
- B. All references to known standard specifications shall mean and intend the latest edition of such specifications.

End of Section

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 011100 SCOPE OF WORK**

**PART 1 - GENERAL**

1.01 Work covered by the contract documents:

- A. Work under this contract consists of furnishing labor, materials, and equipment necessary to perform the following work, which includes, but is not limited to:
- B. Division 02 Existing Conditions:  
Remove existing hollow metal doors and frames, finished hardware.
- C. Division 07 Moisture Protection:  
Caulking & sealants associated with new hollow metal frame installations.
- D. Division 08 Doors Windows, Glass:
  - 1. New hollow metal doors and frames.
  - 2. Finished hardware.
  - 3. Glass and glazing.
- E. Division 09 Finishes:  
Painting:
  - A. New hollow metal door frames.
  - B. New hollow metal doors and trim.
  - C. Existing masonry, drywall, and plaster surfaces damaged by demolition and installation of the new work (touch up).

**PART 2 - PRODUCTS**                      Not Used.

**PART 3 - EXECUTION**                      Not Used.

End of Section

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 013323 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES**

**PART 1 - GENERAL**

- 1.01 Section Includes:
- A. Requirements for information to be provided in submittals.
  - B. Submittal procedures for shop drawings, product data, manufacturer's installation data and samples.
- 1.02 Related Requirements in other Sections:
- A. Product options and substitutions (Section 016000).
  - B. Definitions and additional responsibilities of parties (General Conditions).
  - C. Requirements of individual Sections of Specifications.
- 1.03 Shop Drawings:
- A. Shop Drawings are drawings, sketches, diagrams, or other data prepared for the Work by the Contractor or any Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work. The use of manufacturer's standard catalog details without modification is prohibited.
  - B. Present in a clear and thorough manner. Title each shop drawing with Project name and number, identify each element of drawings by reference to sheet number and detail.
  - C. Identify field dimensions; show relation to adjacent or critical features of work or products.
  - D. Details shall indicate materials to be used by product identification and their relation to as-built conditions. Show all fasteners including size, length, and spacing. Generic details of the membrane manufacturer may be submitted for information but will not be accepted as shop drawings.
- 1.04 Product Data:
- A. Product Data are illustrations, standard schedules, performance capabilities and charts, instructions, brochures, diagrams and other information furnished to illustrate a material, product, or system for some portion of the Work.
  - B. **Submit only pages which are pertinent;** mark each copy of standard printed data to identify pertinent products, referenced to Specification section and Article number. Show reference standards, and performance characteristics; finishes; dimensions; and required clearances.
  - C. Modify manufacturer's standard drawings and information in order to provide information specifically applicable to the work of this Contract. **Delete information not applicable.**
- 1.05 Samples:
- A. Label each sample to clearly identify material and function, and specific specification section which is applicable.
  - B. Samples shall be in triplicate, one to be retained by the Architect, one to be returned to the Contractor and one to be placed on file in the Contractor's field office for comparison to the materials delivered.
- 1.06 Contractor Review:
- A. Review submittals prior to transmittal; determine and verify field measurements, field construction criteria, manufacturer's catalog numbers, and conformance of submittal with requirements of Contract Documents.
  - B. Coordinate submittals with requirements of work and of Contract Documents. All submittals shall be transmitted to the Architect/Engineer in ample time to prevent delays in the work. Shop drawings shall be submitted in advance of start of work of this project.
  - C. Sign or initial each sheet of shop drawings and product data, and each sample label to certify compliance with requirements of Contract Documents. Notify Architect in writing at time of submittal, of any deviations from requirements of Contract Documents.
  - D. Do not fabricate products or begin work which requires submittals until return of submittal with Architect/Engineer acceptance.
- 1.07 Submittal Requirements:
- A. All Shop Drawings, Project Data, and Samples shall be submitted to the Architect/Engineer, through the Contractor, for review.
  - B. All Shop Drawings for the initial submission shall be submitted in the form of one reproducible copy (sepia media) and two prints for each sheet required. After the Architect/Engineer's review, this reproducible will be returned to the Contractor. Should printed catalog data be required with the submission, four copies shall be submitted. Two copies will be retained by



**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 013323 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES (CONTINUED)**

- the Architect who will forward one copy to the Owner, and the remainder will be returned to the Contractor.
- C. Transmit submittals in such sequence to avoid delay in the work or work of other contracts. All such submittals must be accompanied by a transmittal letter indicating:
- PROJECT NUMBER AND TITLE  
VENDOR'S OR MANUFACTURER'S NAME  
LIST OF SHOP DRAWINGS NUMBERS, TITLES & QUANTITIES OF EACH
- D. Provide 4" x 4" blank space on each submittal for Contractor and Architect/Engineer stamps.
- E. Apply Contractor's stamp, signed or initialed, certifying to review, verification of products, field dimensions and field construction criteria, and coordination of information with requirements of work and Contract Documents.
- F. Coordinate submittals into logical groupings to facilitate interrelation of the several items.
- G. Number of Submittals Required:
1. Shop Drawings: Submit to the Architect/Engineer one (1) reproducible on mylar film and two (2) bluelines.
  2. Product Data: Submit the number of copies which the Contractor requires, plus two (2) additional copies to the Architect/Engineer, one of which will be forwarded to the Owner.
  3. Samples: Submit the number stated in each specification section but in no case less than two (2) samples shall be submitted.
- H. Submittals Shall Contain:
1. The date of submission and the dates of any previous submissions.
  2. The Project title and number.
  3. Contract identification, including names of Contractor, Supplier and Manufacturer.
  4. Identification of the product, with the Specification section number.
  5. Field dimensions, clearly identified as such.
  6. Relation to adjacent or critical features of the work or materials.
  7. Applicable standards, such as ASTM or Federal Specification numbers.
  8. Identification of deviations from Contract Documents.
  9. Identification of revisions on resubmittals.
  10. Contractor's stamp "For Approval Only". All submittals not so stamped will not be accepted for review.
  11. Contractor's stamp certifying review of submittal by the Contractor.
- 1.08 Resubmittals:
- A. When corrections are necessary and a resubmittal is not requested, two copies of corrected "field use" drawings will be forwarded to the Architect/Engineer for file purposes. Where resubmittal is requested, the Contractor shall make all corrections required by the Architect/Engineer and shall resubmit accordingly.
- B. Make resubmittals under procedures specified for initial submittals; identify changes made since previous submittal.
- C. Shop Drawings and Product Data:
1. Revise initial drawings or data, and resubmit as specified for the initial submittal. Clearly indicate any changes which have been made other than those requested by the Architect/Engineer.
  2. When stamped for construction, submit two (2) reproducibles to the Architect/Engineer.
- D. Samples: Submit new samples, as required, for initial submittal.
- 1.09 Architect/Engineer Duties:
- A. Review submittals with reasonable promptness and in accordance with schedule. Transmittal turnaround time shall be approximately seven (7) days after receipt by Architect/Engineer.
- B. Affix stamp and initials or signature, and indicate requirements for resubmittal, or approval of submittal.
- C. Return submittals to Contractor for distribution or for re-submission.

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 013323 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES (CONTINUED)**

1.10 Owner's Duties:

- A. Approval or acceptance of Shop Drawings, Product Data or Samples will not preclude the rejection of the completed Work. After approval, no change in brand or make will be permitted unless agreed to in writing by the Owner. The Owner reserves the right to require submission of examples of any materials whether or not required by the Contract Documents.
- B. The Owner's review of Shop Drawings, Product Data or Samples shall not relieve the Contractor from its responsibility for complying with the Drawings and Specifications, for the accuracy of the Work, nor for the furnishing of all materials required for the Work.

**PART 2 - PRODUCTS** Not Used.

**PART 3 - EXECUTION** Not Used.

End of Section

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 014300 QUALITY CONTROL**

**PART 1 - GENERAL**

- 1.01 The General Contractor shall maintain quality control over products, services, site conditions, and workmanship, to produce work of specified quality.
- 1.02 The General Contractor shall arrange with material and equipment manufacturers and representatives, if required or requested by the Architect/Engineer, to provide qualified personnel to instruct installers, the Owner's maintenance personnel, and any other parties designated by the Owner on the proper handling, installation, and maintenance of materials and equipment used on this project.
- 1.03 Contractor shall provide a complete set of Drawings, shop drawings, and Specifications at a designated location on the project at all times for the use of all parties.
- 1.04 Telephone:
- A. The Contractor shall provide at this expense, a job telephone, mobile telephone, cell telephone, or pager for project communications for the duration of the contract.
  - B. Local calls shall be paid by the General Contractor, toll calls shall be paid by the party making the call.
- 1.05 Emergency Call List:  
The Contractor shall supply the Owner with an Emergency Call List of the Contractor's Supervision responsible for contacting Contractor's personnel in emergencies. The Contractor shall furnish and maintain pagers for the Contractor's Supervision. The Contractor shall be responsible for designating its supervision which will carry the pagers.
- 1.06 PROGRESS SCHEDULE:
- A. The Contractor shall prepare and deliver to the Owner a Progress Schedule satisfactory to the Owner covering all Work on the Project within twenty (20) days after a written Notice to Proceed or of the Contract Date. The Progress Schedule shall describe, in written form, the general step-by-step procedure of Work.
  - B. The Progress Schedule shall show the date when the operation of each Specification Section is to begin and is to be completed and the dollar value to be completed each month. Each Progress Schedule, after the first submission, shall incorporate a progress graph comparing the percent of the total work actually completed by the Contractor against that anticipated by the Progress Schedule. The Progress Schedule shall be updated bimonthly unless the Owner requires more frequent revision, in CPM format.
  - C. If the Contractor at any time knows or has reason to believe that the delivery of any item of material or equipment or the shortage of qualified labor or delays caused by others or the occurrence of any other difficulty may cause a delay in carrying out the approved order of Work of the Progress Schedule, the Contractor shall notify the Architect in writing within three (3) days of acquiring such knowledge, but in any event, within three (3) calendar days of the commencement of the delay.
- 1.07 Work found to be in violation of the specifications, or not in conformance with acceptable construction practices, shall be subject to rejection including complete removal and replacement with new material at the Contractor's expense.
- 1.08 Discrepancies:  
If during the performance of the Work, the Contractor discovers errors or discrepancies in the Drawings or Specifications, then the Contractor shall promptly bring these to the attention of the Architect/Engineer in writing which shall promptly reconcile such errors or discrepancies. The Owner will not be liable for any costs incurred by the Contractor due to such errors or discrepancies if the Contractor proceeds with the Work in question without the written approval of the Architect/Engineer.
- 1.09 Pre-construction, progress, and coordination Meetings:
- A. Pre-construction conference:  
Prior to commencement of construction, a pre-construction conference shall be scheduled at the site by the Architect and the Owner. The following parties shall be represented: General Contractor and his Job Superintendent, Owner's Representative, major Sub-Contractors, and the Project Architect/Engineers.
  - B. Construction progress and coordination meetings:
    - 1. Frequency:  
At a maximum, bi-weekly progress and coordination meetings are to be

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 014300 QUALITY CONTROL (CONTINUED)**

- scheduled and held at the project site.
2. Attendees:  
The following parties shall be represented at all project meetings:  
General Contractor and his Job Superintendent, Owner's Representatives,  
subcontractors, manufacturers, suppliers, Project Designers, and other  
concerned parties.
3. Minutes:  
The Architect shall record significant discussions and agreements achieved.  
Distribute the meeting minutes to everyone concerned, including the project  
designers and the Owner's Representative within 2 days of the meeting.  
Transmission via email in PDF format will be acceptable.

**PART 2 - PRODUCTS**                      Not Used.

**PART 3 - EXECUTION**                      Not Used.

End of Section

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 015000 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS**

**PART 1 - GENERAL**

- 1.01 Utilities/Equipment:
- A. Use of existing utilities, power and/or water will be furnished by the Owner for his work. Necessary connections to be by the Contractor.
  - B. Should usage become excessive, as determined solely by the Owner's representative, the Contractor shall pay City rates for the utility usage.
- 1.02 Storage and Ventilation:
- A. Provide, as required, facilities to maintain specific storage conditions as described within this specification and as recommended by materials manufacturers for use in construction.
  - B. Provide adequate ventilation within the building for all areas where fumes from construction materials will be present or airborne dust from construction activities is generated.
- 1.03 Sanitary Facilities:
- A. The Contractor shall provide and maintain adequate sanitary temporary toilets, located where directed for accommodations of all persons engaged on the work. Toilets shall be equipped with temporary water closets.
  - B. At the discretion of the Owner, staff toilets may be designated for use by the contractor. All other restroom facilities in any of the campus buildings will be off limits to construction personnel.
- 1.04 Construction Aids:
- A. Contractor shall provide power lifts, scaffolding and ladders for access to high work areas at all times during construction. Scaffolding and ladders shall meet all OSHA safety requirements. Contractor shall provide ladders for access to all adjacent work areas. Existing facilities of the Owner outside the area of construction may not be used for storage during construction.
  - B. Construction cranes shall be permitted on site only at times approved by the facility manager.
- 1.05 Use of Site:
- A. The Contractor shall be permitted access to the facility during the school year in the afternoon and evenings after class, weekends, holidays, teacher work days, summer break, and other times as allowed by the school principal until the project completion date. The Guilford County Schools academic calendar is included in these specifications for reference. Access to other buildings on the site necessary for the completion of his work must be approved by the facility manager.
  - B. The Owner should be advised at least 24 hours prior to commencement of any work which could affect facility operations.
  - C. Utilities that effect use of the facility by the Owner are to be kept in operation, accidental damage to existing systems designated to remain operational must be corrected immediately by the Contractor after notification has been given to the Architect and the Owner. If damages are not corrected in a timely manner, the Owner reserves the right to make the necessary repairs and deduct this expense for the contract amount.
- 1.06 Cleaning During Construction:
- A. The Contractor shall at all times, maintain the Owner's premises, property, and the Project site in a neat and orderly condition, free from accumulations of waste materials and rubbish during entire Project period. During the execution of the Work, adjoining areas shall not be littered or obstructed any more that necessary for the performance of the Work. The Contractor shall have the responsibility for removing and disposing of all cartons, crates, trash and all flammable waste materials from the Work areas and for complying with all codes and regulations pertaining to the disposal of debris.
  - B. Residue and debris from construction operations shall not be allowed to accumulate and shall be removed from the Site and disposed of daily, unless prior arrangement is made with the Architect/Engineer and the Owner's Representative.
  - C. Project debris and litter shall be disposed of in Contractor's dumpsters. The use of the Owner's trash bins and dumpsters is prohibited.

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 015000 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS (CONTINUED)**

- 1.07 Project Safety:
- A. It will be the Contractor's responsibility to maintain strict project safety standards and at all times take extreme caution to protect the safety of the public.
  - B. No unattended ladders may be left in place.
  - C. Area around all work must be roped-off with clear, highly visible, warning signs posted.
  - D. Protective measures must be maintained in all areas where work will be occurring that could endanger the safety of the public.
  - E. Scheduled times for deliveries, crane operation, and removal of debris will need to be coordinated with the local facility managers in order to cause the least amount of disturbance to facility activities.
- 1.08 Project Security:  
The Contractor shall be responsible for scheduling and coordination all work to prevent damage to the existing building by inclement weather, or by unauthorized entry during unoccupied periods and shall, where necessary, to control and prevent such damage or entry, install temporary closures for openings.
- 1.09 Protection of Facilities:
- A. The Contractor shall be responsible for guarding against fires and shall provide suitable and adequate fire extinguishers and first aid kits conveniently located at the Site. Competent operators shall be in attendance at all times any equipment is subject to use. Fire extinguishers shall be minimum of 20 ABC. All extinguishers shall have current inspection tags, current inspection, and shall be visible at all times.
  - B. The Contractor is responsible for providing all necessary scaffolding, chutes, canvas tarpaulins, or other measures required to protect the walls, parapets, and other property noted to remain from damage, soiling, staining, etc.
- 1.10 Daily Work Hours:  
Limitations:
- A. Prior to the start of work each day, all workmen shall check in with the school office and document with the school the names of all individuals to be on the site.
  - B. Daily work hours are normally limited to the hours between 3:00 PM and 8:00 PM Monday through Friday after school normal school hours, work hours other than these times should be cleared in advance with the school and the Owner's representative. Weekend work and extended work day hours may be permissible with written permission of the Owner. Normal 7:00 AM thru 6:00 PM work hours are possible after the end of the school year. The use of generators, mechanical equipment, and other work items generating noise are to be limited to times outside normal school hours, unless approved by the Owner.
  - C. Contractor shall, at all times, take all reasonable precautions to avoid disturbing the school system students and staff, and shall utilize all reasonable efforts to keep all noise, inconvenience or other disturbance to an absolute minimum.
  - D. The Contractor may be asked to suspend work at times that are critical to the Owner's operation of this facility. The Owner will notify the Contractor of upcoming events ahead of time. Claims for contract time extension or costs associated with work suspension will be considered if not declared by the Owner prior to the submission of bids for construction.
- 1.11 Worker Conduct:
- A. If the conduct or performance of any of the Contractor's personnel, Sub-Contractor, material vendor or any other person performing work for the Contractor, or is otherwise on the Owner's property as a result of the Contractor's work, is improper, inappropriate, or is not in strict accordance with the Contract Documents, the Contractor shall remove such persons from the Work.
  - B. Personnel wearing clothing with obscene designs or profane language will be asked to change clothes or be required to leave the site.
  - C. The use of all obscene language is prohibited.
  - D. Contractors personnel are prohibited from having firearms or drugs in their possession while on the Owner's property.
  - E. It is the school system's policy that the use of tobacco products while on school property is prohibited.

**DIVISION 1. GENERAL REQUIREMENTS**

**SECTION 01500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS (CONTINUED)**

- 1.12 Worker Identification:  
Contractor's and sub-contractor's personnel are to wear identity badges identifying the company by which they are employed at all times while on the site of the work.

**PART 2 - PRODUCTS**                      Not Used.

**PART 3 - EXECUTION**                      Not Used.

End of Section

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 016000 PRODUCT REQUIREMENTS**

**PART 1 - GENERAL**

- 1.01 Products:
- A. Products include materials, equipment and systems.
  - B. Comply with specifications and referenced standards as minimum requirements.
  - C. Do not use materials and equipment removed from existing structure, except as specifically required or allowed by Contract Documents.
- 1.02 Co-Operation:
- A. The Contractor and all Sub-Contractors shall co-ordinate their work with all adjacent work and shall cooperate with all trades to facilitate general progress of their work.
  - B. It is the responsibility of all the Contractors to keep the Architect and the Owner fully informed of work schedules and to contact the Architect and the Owner at least 24 hours prior to commencement of any phase of work that may affect any of the Owners on site activities.
- 1.03 Workmanship:
- A. Work shall be performed by persons qualified to produce workmanship and quality specified.
  - B. The Job Foreman shall provide full-time supervision. Job Foreman must speak and communicate in English. At no time shall mechanics and laborers be left on-site without supervision of the Job Foreman without notifying the Architect/Engineer.
  - C. The Contractor shall appoint a suitably qualified and competent Superintendent/Project Manager to supervise all of the Work on site. Where the extent of the Work is such that a full time Superintendent/Project Manager is not justified, the Contractor's Foreman is to be appointed to oversee the Work of the others, attend Owner's meetings and to be the Contractor's representative on site for the purpose of making on-site decisions.
- 1.04 Personnel:
- A. If the conduct or performance of any Subcontractor, material-vendor or any other person or entity performing Work under a contract or agreement with the Contractor is improper or is not in strict accordance with the Contract Documents, the Contractor shall terminate the contract or agreement of such Subcontractor, material-vendor, person or entity and remove it from the Work. The Contractor shall have the responsibility of ensuring that a termination provision setting for the foregoing agreement is included in each contract, purchase order, Subcontract or service agreement into which it enters with respect to the Work.
  - B. If the conduct or performance of any of the Contractor's personnel is improper or is not in strict accordance with the Contract Documents, the Contractor shall remove such persons from the Work.
- 1.05 Materials:
- A. All materials shall be new and of the quality specified. Workmanship shall be of the highest caliber of the particular trade involved. Also, except as exceeded or qualified by the Specifications, workmanship shall be as stipulated in written standards of recognized organizations of institutes of the respective trades.
  - B. Should the Specifications and Drawings fail to particularly describe the material or kind of goods to be used in any place, then it shall be the duty of the Contractor to make inquiry of the Architect/Engineer for what is best suited. The material that would normally be used in this place to produce first quality finished Work shall be considered a part of the Contract.
  - C. Materials as required by this Contract shall be provided by one manufacturer for each item unless specified otherwise or unless exception is made by the Architect/Engineer.
  - D. Materials Containing Asbestos:  
No materials containing asbestos are to be used on this project. If the Contractor encounters any such materials other than what is noted on the drawings or in the specifications for removal, or if any such materials are submitted for approval, he should at once contact the Architect who will authorize removal or replacement.
- 1.06 Manufacturer's Instructions:  
Work shall be performed in accordance with the Material Manufacturer's specifications or as modified by Contract Documents. Conflicts between these specifications and the Materials



**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 016000 PRODUCT REQUIREMENTS (CONTINUED)**

- Manufacturer's specifications shall be brought to the attention of the Architect/Engineer prior to beginning construction. Work as relates to conflict shall not proceed until conflicts are satisfactorily resolved by Architect/Engineer.
- 1.07 Transportation and Handling:
- A. Transport products by methods to avoid product damage. Deliver all materials with Manufacturer's labels intact and legible.
  - B. Provide equipment and personnel to handle products by methods to prevent damage.
  - C. Timing of deliveries of materials to the site to be coordinated with the Owner.
- 1.08 Storage and Protection:
- A. Store any material susceptible to water damage in clean, dry, weather tight condition in a manner to protect against loss, damage, and wetting. On site storage of materials to be coordinated with the Owner's representative. Wet materials shall be marked, rejected for installation, and removed from the Site.
  - B. Materials subject to moisture intrusion and damage shall be stored on clean, dry, and raised platforms so as to prevent wetting or moisture absorption and yet provide sufficient ventilation to prevent condensation. These materials shall be covered so as to be completely weathertight. Factory-applied wrapping shall be unacceptable as the sole means of protection.
  - C. Any materials which when subject to moisture intrusion may have a detrimental effect on the installation of the roofing system, shall be stored as indicated Item 1.07B.
  - D. Materials that are damaged in any way or indicate moisture content above equilibrium shall be rejected as unacceptable.
  - E. Contractor shall employ all means possible to protect the remaining Owner's Facilities from water intrusion. All materials used in the protection of the facilities shall be approved roofing membrane materials. The use of Visqueen, duct tape, or other similar materials by the Contractor is not acceptable for temporary protection.
- 1.09 Product Options:
- Contractor Product Selection:
- A. Products specified only by referenced standard: Any product meeting that standard.
  - B. Products specified by naming several manufacturers: Products of any named manufacturer meeting specifications.
  - C. Products specified by naming one or more manufacturers and "or as approved"; Submit a request for substitution in accordance with Item 1.10 of this Section.
- 1.10 Substitutions:
- A. After award of the contract and prior to commencing work, the Architect/Engineer will consider requests from the Contractor for substitutions. Substitutions will then be considered only when a product becomes unavailable due to no fault of the Contractor.
  - B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
  - C. A substitution request constitutes a representation that the Contractor:
    - 1. Has investigated the proposed product and determined that it meets or exceeds, in all respects, specified product.
    - 2. Shall provide the same warranty for substitution as for specified product.
    - 3. Shall coordinate installation and make other changes which may be required for work to be complete in all respects.
    - 4. Waives claims for additional costs which may consequently become apparent.
  - D. Substitutions will not be considered when they are indicated or implied on Shop Drawings or Product Data submittals without separate written request, or when acceptance will require substantial revision of Contract Documents.
  - E. Samples of proposed substitutions shall be submitted with the request for substitution. Shop Drawings will not be considered for review on materials which have not been completely checked and stamped by the Contractor and, if substitutions, have not been previously submitted as called for in Section 013323.
  - F. The Architect/Engineer will determine acceptability of proposed substitution and will notify the Contractor of acceptance or rejection in writing within a reasonable time.

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 016000 PRODUCT REQUIREMENTS (CONTINUED)**

**PART 2 - PRODUCTS**            Not Used.

**PART 3 - EXECUTION**        Not Used.

End of Section

**DIVISION 01. GENERAL REQUIREMENTS**

**SECTION 017000 EXECUTION AND CONTRACT CLOSEOUT**

**PART 1 - GENERAL**

- 1.01 Closeout Procedures:
- A. A final inspection shall be conducted at the completion of the project at a time and date acceptable to the Architect, Owner, and Contractor. The final inspection shall be attended by the General Contractor, Owner's Representative, the Architect, Consulting Engineer, primary Sub-Contractors, and other designated persons.
  - B. The results of the inspection conducted by these parties, shall be recorded by the Architect. Items found to be incomplete or not in accordance with the contract documents shall be noted and a written punchlist forwarded to the Contractor for remedial action. The Owner shall also receive a copy of the punchlist.
  - C. Contractor shall remedy any and all deficiencies prior to final acceptance by the Architect.
- 1.02 Final Cleanup:  
Remove waste and surplus materials, rubbish, and construction facilities from the site.
- 1.03 Closeout Documentation:
- A. Project Record Documents:
    - 1. At termination of work, the Contractor shall submit one set of record drawings for approval by the Architect and submission to the Owner at the completion of the project.
    - 2. These drawings shall note the location of capped utilities, active utilities encountered during demolition in the area of work, or other such information which could be of use during the construction of the future elementary school to be located at this site.
    - 3. Submit "as built" documents with letter of transmittal indicating date, project number, Contractor's name and address, list of documents, and signature of Contractor. "As-built" documents must be submitted prior to Owner releasing final payment for project.
  - B. Guaranties/Warranties:
    - 1. Provide copies of all contractor's and manufacturer's guaranties and warranties requested properly executed in triplicate.
    - 2. Guaranties and warranties shall state name of project, location, name of Owner, name of Applicator, and date of substantial completion and final acceptance. Date of substantial completion and final acceptance will be as determined by the Architect for the entire project.
  - C. Contractor's Final Application and Certificate for Payment (AIA Document G702) or approved equivalent in triplicate, properly executed and notarized.
  - E. Contractor's Affidavit of Release of Liens (AIA Document G706A) in triplicate.
  - F. Contractor's Affidavit of Payment of Debts and Claims (AIA Document G706) in triplicate.
  - G. Consent of Surety to Final Payment (AIA Document G707) to be submitted if performance bond was required, in triplicate.

**PART 2 - PRODUCTS** Not Used.

**PART 3 - EXECUTION** Not Used.

End of Section

**DIVISION 02. SITE WORK**

**SECTION 024100 DEMOLITION**

**PART 1 - GENERAL**

- 1.01 Section Includes:  
Work of this Section includes demolition and removal of all materials shown on Drawings and as specified herein within boundaries of work.
1. Demolish and remove in its entirety the following items:
    - A. Existing hollow metal doors and frames.
    - B. Miscellaneous items not listed above which must be removed for completion of the work.
  2. Removal of all debris from the site.
  3. Obtain necessary permits and comply with all local ordinances for demolition work and disposal of construction debris.
  4. Provide temporary partitions and dust barriers for noise, dust control and protection, existing construction to remain, and equipment.
  5. Cap and identify exposed utilities, connect utilities to remain as shown on the drawings.
  6. Security and safety measures, to include guardrails, barricades, roping, and safety tape around the area of work. Post warning signs as necessary to discourage unauthorized entry by the public in the areas of demolition.
  7. Existing asbestos containing materials:
    - A. Refer to the asbestos abatement specification section contained in these specifications for the removal of asbestos-containing caulk from doors, door frames, and adjoining surfaces of the building in the area of work.
    - B. Asbestos containing materials should be handled in compliance with current OSHA regulations regarding training requirements for individuals handling non-friable asbestos containing materials.
  8. Lead containing materials:
    - A. Due to age of the facilities being demolished or renovated, the Contractor should expect to encounter building materials that contain lead or that are covered with lead containing coatings. The Contractor shall protect his workforce and worksite according to the provisions of 29 CFR 1926-the OSHA Construction Industry Standards during the course of the Work. The Owner considers the Contractor's adherence to workplace safety and health standards a reasonable precaution to prevent excessive exposure to lead hazards.
    - B. These standards include (but are not limited to ) provisions for worker exposure assessments, engineering controls, work practices, written programs, administrative programs, respiratory protection, protective clothing/equipment, hygiene facilities, medical surveillance programs and / or employee information/training.
    - C. In addition, following any disturbance of potentially lead-containing substances, the Contractor(s) shall perform adequate cleaning to prevent lead exposure of Owners' employees, the general public and other trades.
    - D. The Contractor shall be responsible for waste categorization of any lead coated material or debris and proper disposal of same in a disposal facility permitted to accept the material or debris.
  9. Remove and relocate existing exit lights where shown at Northwest Middle School. Turn salvaged fixtures over to the owner.
- 1.02 Related Sections:  
Asbestos Abatement Work Plan (Section 028213).
- 1.03 Submittals:
  - A. Submit a copy of all permits and certificates required for work of this Section.
  - B. Submit demolition procedures and operational sequence for review and acceptance by the Owner. These procedures shall include the following:
    1. Description of methods and equipment to be used.
    2. Schedule of coordination of utility services.
    3. Methods to be used for disposal of debris.
    4. Scheduled hours of work to be approved in advance by the Owner.

**DIVISION 02. SITE WORK**

**SECTION 024100 DEMOLITION (CONTINUED)**

- 1.04 Protection:
- A. Safety measures and methods shall be used to protect personnel and property which is to remain undisturbed.
  - B. Schedule all work to cause minimum disturbance to facility operations. Advise the Owner 48 hours prior to beginning any work which could affect facility operations.
  - C. Do not interfere with use of the existing facility. Maintain free and safe passage to and from all areas normally trafficked by students, staff, and visitors.
  - D. Use approved methods to provide dust control during demolition.
  - E. Provide protection to adjacent construction and equipment not a part of this project from damage, and other areas where work is in progress.
  - F. Salvageable items noted for reuse shall be protected from damage, other items noted for salvage for the Owner, shall be turned over to him.
  - G. Contractor shall schedule and coordinate work to prevent damage to the existing building by un-authorized entry during unoccupied periods, and shall, where necessary, to control and prevent such damage or entry, install temporary closures for openings.
  - H. The Contractor is responsible for the protection of all public sidewalks that border the site. Any damage is to be repaired by removing damaged sections and replacement.
- 1.05 Existing Services:
- A. The Contractor shall disconnect and remove utility services only under the direction of the Owner. All temporary disconnection of the permanent services, prior to removal of the services in and to a structure to be demolished, shall be planned and authorized by the Architect/Engineer and the Owner.
  - B. Place markers to indicate location of disconnected services. Indicate service lines and capping locations on Project records.
  - C. Provide new connections and tie-ins to the utilities in the building as shown on the drawings.
- 1.06 Job Conditions:
- Condition of Structures: The Owner assumes no responsibility for the actual condition of areas to be demolished.
- A. Bidders for this work shall make such investigations as they deem necessary to arrive at a contract price.
  - B. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner in so far as practicable.
- 1.07 Site Examination: The Contractor shall visit the site as necessary prior to beginning any work and examine all existing equipment and other conditions that might affect his work.

**PART 2 - PRODUCTS**

- 2.01 Salvaged Materials:
- A. Any structures or items noted to be salvaged will be designated as such and shall be removed in a manner that will prevent breakage or undue damage. Material or parts of structures which are to be salvaged, such as lumber, pipe, brick, concrete, etc., shall be removed in the manner directed by the Owner and stacked at the Site for future use.
  - B. Materials or parts of structures which, in the opinion of the Owner, are not salvageable, or which are designated as surplus by the Owner, shall be disposed of at locations off the job site as approved by the Owner.
  - C. Items of existing finished hardware shall be considered salvageable and shall be turned over to the Owner's Representative.
- 2.02 Demolition Equipment: Equipment shall be selected for demolition operations which will not damage existing building components. Vibratory or percussion equipment shall be avoided whenever possible or whenever it will inflict damage to adjacent materials.

**PART 3 - EXECUTION**

- 3.01 Preparation:
- A. Maintain exit requirements.
  - B. Erect and maintain measures as required to prevent spread of dust, fumes and smoke to other parts of the building. On completion, remove partitions and repair damaged surfaces to match adjacent surfaces.

**DIVISION 02. SITE WORK**

**SECTION 024100 DEMOLITION (CONTINUED)**

- C. Carry out demolition work to cause as little inconvenience to adjacent occupied building areas as possible.
- 3.02 Temporary Shoring and Bracing:
  - A. The Contractor shall be responsible for providing shoring and/or bracing for any building component from which support is removed during construction operations.
  - B. Shoring and bracing shall be designed to support the dead load of the shored element and any anticipated construction loads.
  - C. Shoring and bracing shall be installed at locations which will not overstress or damage existing structural members.
- 3.03 Demolition:
  - A. All demolition shall be performed in accordance with applicable codes and regulations of authorities having jurisdiction.
  - B. Demolish in an orderly and careful manner as required to accommodate new work, including that required for connection to the existing building. Protect existing structural members, flooring to remain, and adjacent partitions.
  - C. Repair all demolition performed in excess of that required, at no cost to the Owner.
- 3.04 Removal:
  - A. Remove from site contaminated or dangerous materials encountered and dispose of by safe means so as not to endanger health of workers and public.
  - B. Remove demolished materials, debris, dust, tools and equipment from site upon completion of work. Leave site in a condition acceptable to the Architect and the Owner's Representative..
  - C. Transport all materials removed from demolished area and dispose of off-site. Off-site disposal shall be subject to agreement and provisions to be arranged and authorized by Architect, in accordance with local ordinances.
- 3.05 Repair:
  - A. All damage done to existing structures that are to remain shall be repaired to the satisfaction of the Architect and the Owner's Representative. Any unsightly places shall be cleaned up and the site left in a neat and orderly condition.
  - B. Remove and replace adjacent acoustical tile ceilings as required to install the new work. Repair or replace any damaged materials after installation of new door frames.

End of Section



**ASBESTOS WORK PLAN  
GUILFORD COUNTY SCHOOLS – PAGE HIGH SCHOOL  
EXTERIOR DOOR AND DOOR FRAME REPLACEMENT  
MAIN ENTRANCE AND 700 HALL ENTRANCE  
GREENSBORO, NORTH CAROLINA**

S&ME Project No. 4358-14-031

Prepared For:

Ricky L. Loman, AIA Architect  
603 Summit Avenue, Suite 102  
Greensboro, North Carolina 27404

Prepared By:

S&ME, Inc.  
3718 Old Battleground Road  
Greensboro, North Carolina 27410  
Phone: 336-288-7180  
Fax: 336-288-8980

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Dennis W. Forbis, CIH, CSP  
North Carolina Abatement Designer Accreditation No. 40132

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Stephen Costello  
North Carolina Asbestos Inspector Accreditation No. 12429

March 3, 2015

This asbestos work plan is provided to Ricky L. Loman, AIA Architect. The work described in this work plan is based upon information provided to S&ME, Inc. (S&ME) by Ricky Loman and a site visit and sampling conducted by S&ME. This work has been conducted in general accordance with S&ME Proposal Number: 43-1400267. Only the client, Ricky L. Loman Architect, the Owner, Guilford County Schools, the prospective bidders, for bidding purposes only, and the General Contractor and their asbestos abatement contractor chosen to perform the work may rely upon this document. This document applies to asbestos abatement activities related to specific asbestos containing materials installed at specific locations as described herein and is use for this project only. Those specified above may rely upon this work for the specific project for which it was prepared. S&ME disclaims any liability for reliance on this work by others, or for any other project. Work associated with this project is subject to the terms and conditions of the proposal specified above.



# **ASBESTOS WORK PLAN**

## **PART 1 – GENERAL**

Employees working in structures with Asbestos-Containing Materials (ACM) and Presumed Asbestos-Containing Materials (PACM) (as well as any other employer using such structures), are subject to the Occupational Safety and Health Administration's worker protection Standards for General Industry and/or the Construction Industry (29 CFR 1910.1001 and 29 CFR 1926.1101 respectively). These regulations mandate that building owners and employers take steps to protect employees and building occupants from asbestos exposure.

The Environmental Protection Agency (EPA) requires public K-12 schools (such as Guilford County Schools) to adhere to distinct regulatory requirements to protect school children and school employees from asbestos exposure through the Asbestos Hazard Emergency Response Act (or AHERA) regulations. In addition to other requirements, the AHERA regulation requires that asbestos professionals (including any worker, contractor or supervisor) working with asbestos-containing building materials in schools to be accredited. Likewise, the AHERA regulation mandates the use of specific post-removal clearance procedures.

Additionally when public or commercial facilities (such as schools) are subjected to renovation activities, compliance with the National Emission Standards for Hazardous Air Pollutants (or NESHAP) 40 CFR Part 61 Subpart M is mandated. NESHAP requires building owners to assess building materials that may be disturbed by renovation activities and remove friable asbestos containing materials. The asbestos inspections mandated by NESHAP must classify identified Asbestos Containing Material as to its friability, and to the likelihood of the ACM becoming friable during the planned renovation. According to the NESHAP, friable ACM is considered to be a Regulated Asbestos-Containing Material (RACM). When RACM is present or created during renovation or demolition activities and it exceeds certain thresholds, (currently 160 square feet and/or 260 linear feet and/or 35 cubic feet of RACM) then the activity is subject to additional NESHAP mandates such as:

- Permitting,
- Utilization of trained and accredited personnel for removal,
- Special asbestos emission control techniques,
- Specialized waste disposal/manifesting, and
- Record keeping

The State of North Carolina has established the Asbestos in Buildings program which further regulates asbestos management activities in the state. This Health Hazards Control Unit (HHCU) of the N.C. Department of Health and Human Services, Division of Public Health has specific asbestos statues and rules controlling asbestos work in the state. For example, the HHCU must be notified of most friable asbestos removal operations and plans to demolish buildings for commercial purposes in the state. Additionally, the HHCU has promulgated rules that mandate that asbestos removal operations and management of ACM beyond Operations and Maintenance activities in the state must be performed by North Carolina-accredited asbestos professionals.

Based on asbestos sampling performed at the request of Ricky Loman by S&ME, bulk samples collected of interior and exterior door caulk, and interior and exterior window caulk associated with

the Page High School Main Entrance and 700 Hall Entrance contained up to 3 percent Chrysotile asbestos. The identified ACMs were determined to be non-friable at the time of sampling. However, the removal of the door and window components will likely result in these materials becoming friable and therefore regulated under AHERA and NESHAP regulations. This work plan was prepared to aid the Owner in efforts to comply with these regulations.

## **Project Information**

The following information is applicable to this project:

**Building Owner:** Guilford County Board of Education  
712 N. Eugene St.  
Greensboro, NC 27401  
Phone: 336-370-8100

**Facility:** Page High School  
201 Alma Pinnix Dr.  
Greensboro, NC 27455  
Phone: 336-370-8200

Date of Construction: Main Building - 1955

Structure Size: 165,495 S.F. (per Guilford County Real Property Data website)

**Inspector of Record:** Stephen Costello – North Carolina Accredited Inspector No 12429  
Date of Sampling – 01/21/2015

## **Codes, Regulations, and Standards**

1. Except to the extent that more explicit and more stringent requirements are written directly into the Contract Documents, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herein.

a. Federal Requirements: which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

OSHA: U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA), including but not limited to:

Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules

Title 29, Part 1910, Section 1001 and  
Part 1926, Section 1101 of the Code of the  
Federal Regulations

Respiratory Protection

Title 29, Part 1910, Section 134 of the  
Code of Federal Regulations

Construction Industry  
Title 29, Part 1926, of the Code of Federal Regulations

Access to Employee Exposure and Medical Records  
Title 29, Part 1910, Section 2 of the  
Code of Federal Regulations

Hazard Communication  
Title 29, Part 1910, Section 1200 of the  
Code of Federal Regulations

Specification for Accident Prevention Signs and Tags  
Title 29, Part 1910, Section 145 of the  
Code of Federal Regulations

DOT: U.S. Department of Transportation, including but not limited to:

Hazardous Substances  
Title 29, Part 171 and 172 of the  
Code of Federal Regulations

EPA: U.S. Environmental Protection Agency (EPA), including but not limited to:

National Emission Standard for Hazardous Air Pollutants (NESHAP)  
National Emission Standard for Asbestos  
Title 40, Part 61, Sub-part A, and Sub-part M  
(Revised Sub-part B) of the Code of Federal Regulations

40 CFR Part 763, the Asbestos Hazard Emergency Response Act (AHERA)

- b. North Carolina Requirements: The State of North Carolina including but not limited to:

North Carolina Occupational Safety and Health Administration, North Carolina  
Department of Labor

NC Occupational Safety and Health Standards for Construction Industry 29 CFR  
1926.1101

North Carolina Solid Waste Management Rules, 15A NCAC 13B

North Carolina Department of Health and Environmental Control Regulations regarding Workers Compensation Commission Requirements

North Carolina Asbestos Hazard Management, 130A NCAC Asbestos 19, 130A444-452

North Carolina Asbestos Hazard Management Program Rules, 10A NCAC 41C .0600 - .0611

Licenses: Maintain current licenses as required by the State of North Carolina for the removal, transporting, disposal or other regulated activity relative to the work of this Contract.

- c. City of Greensboro and Guilford County, North Carolina: Abide by all requirements which govern asbestos abatement work, hauling and disposal of asbestos waste materials and all business license, including permits, building code, and fire protection requirements.

## **PART 2 – PRODUCTS**

As noted in other parts of this Document.

## **PART 3 – SUBMITTALS**

The entity performing the asbestos abatement work will provide three copies of the submittals to the Owner in a three-ring binder as follows:

### **Pre-Job Submittals**

1. Pre-Job Submittals:
  - a. A directory of contacts, including the Abatement Contractor's Corporate Office telephone and fax numbers, the Abatement Superintendent's cellular telephone numbers, the Project Site Foreman's cellular telephone numbers. In addition submit email addresses for these individuals.
  - b. Proof of Insurance (General Liability, Asbestos Specific Liability).
    - i. Asbestos Removal Liability Insurance: In addition to general insurance the Asbestos Abatement Contractor shall purchase from and maintain such insurance as will protect the abatement Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor is legally liable, whether such operations be by the Contractor or by a

subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

- ii. Asbestos Removal Liability Insurance including contractually assumed liability and completed operation coverage of \$1,000,000 per project. The coverage shall be on an “occurrence basis with no sunset clause.”
  - iii. The insurance required shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverage shall be maintained without interruption from date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment. The policy shall name Ricky L. Loman, AIA Architect and S&ME, Inc. as an additional insured and shall also provide no less than thirty days prior written notice of cancellation or material change. All insurance policies must be issued by insurers licensed to do business in the state in which the job site is located and have a Best Insurance Guide rating of A/X or better.
- c. Copy of current North Carolina Contractor’s License.
  - d. A copy of the project NESHAP notification and any resulting permit for the project.

**On-Site Documentation**

- a. A roster of workers and supervisors.
- b. A copy of each person’s North Carolina asbestos Worker’s or Supervisor’s accreditations and the Workers’ and Supervisors’ NC Asbestos Accreditation Cards.
- c. A copy of each person’s medical authorization to work with asbestos and to wear a respirator.
- d. A copy of the Contractor’s Respiratory Protection Program, including the rationale and documentation for respirator selection on this job.
- e. A copy of the Contractor’s Hazard Communication Program, including:
  - i. Material Safety Data Sheets (MSDSs) or Safety Data Sheets (SDS) for asbestos and all chemicals used on site.
  - ii. A chemical inventory of chemicals on site.

- f. A copy of the State of North Carolina NESHAP Notification and any resulting NESHAP Permit for the project.

### **Post-job Submittals**

Post-job Submittals: Prior to request for payment, the Asbestos Abatement Contractor shall furnish Post-job submittals. Submit 3 copies to the Owner in a three-ring binder. The Submittals shall be submitted within forty-five (45) days of work completion and shall include:

- a. Landfill Documentation and Receipts (Waste Manifest, Waste Shipment Record, Chain of Custody Report).
- b. A copy of the permit and any revisions there-of for the project.
- c. Daily Log of Workers, Visitors and Work Activities (completed daily by supervisor). The supervisor shall document engineering controls and the methods that were used to protect health and the environment.
- d. Alphabetized listing of all Workers and Supervisors actually utilized for the project (excluding all others). The list will include the Workers' and Supervisors' North Carolina Accreditation number, Accreditation expiration date, Date of last Fit Test and Date of last Medical Qualification.
- e. Copies of Fit Tests, Medical Qualification, and North Carolina Accreditation for all Workers and Supervisors utilized for the Work.
- f. Personnel air monitoring records performed at the site for purposes of OSHA compliance

### **PART 4 – EXECUTION**

The purpose of this project is removal of asbestos-containing caulk from doors, door frames and the adjoining surfaces of the building from the work areas specified elsewhere in the project specifications and drawings. As per the provisions of the Occupational Safety and Health Administration procedures for Class II asbestos work, the use of wet methods and HEPA vacuuming and prompt cleanup of debris shall be utilized to control airborne asbestos fiber concentrations where asbestos is being disturbed. Complete the abatement of these materials using the following procedures:

- 1. The Contractor shall utilize only North Carolina Accredited Asbestos Workers and Supervisors for all phases of the asbestos project.
- 2. The Contractor shall ensure that all Workers and Supervisors utilized for the Project use at a minimum NIOSH-approved ½ Face Air Purifying Respirators

equipped with disposable N-, P-, R-100 filters and disposable coveralls during all active asbestos removal, disposable and handling activities. Powered air purifying respirators (PAPRs) or respirators recognized by 1926.1101 as having higher protection factors are required unless/until the contractor can supply historic data that supports his choice of respiratory protection. The contractor has the option to utilize respirators that provide a higher protection factor than is indicated by the historical data. Workers shall wear disposable protective clothing when performing activities which may result in asbestos disturbance

3. Identify and remove any hardware that is to be reinstalled or that shall be returned to the Owner. Pre-clean the interior and exterior surfaces below the affected doors and glazing as well as nearby horizontal surfaces (e.g. window sills, floors, landings, etc.) in each window and door replacement area with a HEPA filtered vacuum.
4. The Contractor shall establish a Regulated Area for the removal of all Asbestos-Containing materials. The Contractor shall establish a decontamination area adjacent to each regulated area meeting the requirements of OSHA 1926.1101(j)(2). Workers shall HEPA vacuum and remove protective clothing in this area. As per the provisions of the Occupational Safety and Health Administration procedures, the Contractor shall perform the work as indicated below:

#### Asbestos Removal Operations: Door Caulking Procedures

The contractor may submit an alternate procedure for review and written approval by the Designer. This submittal shall be in writing and have sufficient detail to indicate that the work can be accomplished according to applicable regulations and that health and the environment will be protected. Do not proceed with any alternate procedure without written approval from the Owner or the Owner's representative.

Remove those doors designated on the plans prepared by the Ricky L. Loman, AIA Architect.

The Contractor shall establish a regulated area for the removal of all asbestos materials. Signs and barrier tape shall be utilized to establish the regulated area on the interior and exterior of the building at the site of each door removal.

Completely isolate the work area from the inside of the building with one or more layers of polyethylene sheeting, at least 6-mil in thickness, securely taped in place so as to prevent asbestos-containing dust or debris from passing beyond the isolated area. Utilize frosted or black polyethylene sheeting in areas where asbestos activities may disrupt educational activities – Coordinate with the Project Architect and Owner. Supply fire rated sheeting if required by local codes. Should the any portion of the building interior area beyond the work area(s) become contaminated with dust or debris as a result of the

work, immediately notify the Project Architect and thoroughly clean those areas in accordance with the procedures outlined below until the area is decontaminated. Perform all such required cleaning or decontamination at no additional cost to Owner.

Six mil sheet polyethylene shall be placed on the floor inside the building and on the ground outside the building prior to handling any door caulking materials. Each exterior work area for caulking material removal shall be equipped with durable impermeable dropcloths continuously secured to the structure and staked or weighted to the ground in a manner sufficient to prevent movement. The sheeting shall extend from the building a minimum of 10 feet from the exterior wall. Extend the sheeting beyond 10' as needed to receive all debris dislodged from door removal operations. The sheeting inside the building shall extend to the barrier that establishes the regulated area. Dropcloths may not be moved or otherwise reused after installation for asbestos operations.

After work area preparation is complete, the Abatement Contractor shall coat any visible caulking with a lockdown encapsulant to bind asbestos materials to the door components. Protect building components that shall remain from the encapsulant. The contractor shall be responsible for restoring any existing finishes scheduled to remain that are that are discolored or damaged by the encapsulant. The lockdown encapsulant shall be tinted so the workers and the Owner (or Owner's representative) can verify that the asbestos materials have been fully coated. The Contractor shall consider the environmental conditions, such as temperature and humidity, when selecting and applying this encapsulant. Workers shall wear respiratory protection and disposable coveralls after the regulated work area has been established.

After the encapsulant has dried, the workers shall carefully install duct tape and/or polyethylene sheeting sealed with duct tape over the door lights and their respective caulking. Glass, both interior and exterior sides, shall be completely coated to prevent breakage. The Project Architect shall be notified 48 hours in advance of the completion of door preparation in each work area so that an inspection might be scheduled if desired.

After the door preparations have been inspected, the Contractor shall perform demolition as necessary to remove the entire component intact. The component shall be removed to the outside of the building. Any debris resulting from this demolition, masonry or otherwise, shall be wetted and collected for disposal as asbestos waste. After removal, the entire door units shall be wrapped in a minimum of two (2) layers of 6-mil polyethylene and labeled per applicable regulations for transport and disposal. Remove any residual caulk present at the specified door or window frames/openings. Continue to clean the door opening until all visible traces of caulk have been removed. Protect the interior and exterior surfaces from damage. Utilize HEPA-filtered vacuums to clean asbestos-suspect dust and debris from all surfaces in each regulated area. The Project Architect shall be notified 48 hours in advance of the completion of window/door abatement activities in each work area so that an inspection might be scheduled if desired.



When the work has been completed and successfully passed the Contractor's Supervisor's visual inspection notify the Project Architect or Owners Representative and receive approval prior to removing the dropcloths and critical barriers. Guilford County Schools reserves the right to have any and all asbestos work areas inspected for asbestos-suspect debris by an accredited asbestos Inspector or asbestos Air Monitor prior to the removal of the regulated area.

Remove all asbestos waste from the site, making provisions to saturate any waste with water. Containerize, label, manifest, and transport to an approved disposal facility and dispose of the waste in compliance with National Emission Standards for Hazardous Air Pollutants requirements and all other applicable federal, state and local laws and regulations. **Store asbestos waste only in secure fully enclosed containers. Transport of asbestos waste from the work area to the disposal vehicle shall be performed in covered containers. The route and times of egress shall be coordinated with the Owner.**

5. The project shall be deemed complete only after:
  - a. Removal and disposal of all specified areas of asbestos-containing materials, used disposable materials, dust and debris,
  - b. Successful visual inspection by the project Contractor's Supervisor (and Project Architect or Owner's representative –if desired by the Owner),
  - c. Air samples, if desired by the Owner, meeting the clearance criteria,
  - d. Removal and disposal of the temporary containment components as asbestos waste, removal of residual duct tape and spray adhesive from and repair of any surface scheduled to remain, and
  - e. Submission of Post-Project Submittals with a Designer review notation of no exceptions taken.
6. The Contractor shall schedule and coordinate the work so that reinstallation of replacement windows / doors can take place.
9. Asbestos Quantities:

Three sets of door frames approximately 11 by 10 feet in size are scheduled to be removed. The Contractor shall be responsible for verifying field conditions and the quantity of all specified areas of asbestos-containing materials in such a manner to satisfy the requirements of the work.
10. Potential Asbestos Hazard

The disturbance or dislocation of asbestos-containing materials may cause asbestos fibers to be released into the atmosphere, thereby creating a potential health hazard to workmen. Apprise all workers, supervisory personnel, subcontractors, and other personnel who will be at the job site of the seriousness of the hazard and of proper work procedures which must be followed:

## **PART 5 – MONITORING**

### **Area Monitoring**

1. The Owner *may* contract for area asbestos air monitoring during some or all portions of the project (not in contract sum). The Contractor shall perform work in such a manner so that asbestos fiber concentrations at any location inside the building do not exceed 0.01 fibers per cubic centimeter of air as analyzed by Phase Contrast Microscopy, and/or 70 asbestos structures per square millimeter of filter area when collected and analyzed by the AHERA Transmission Electron Microscopy response action completion method.
2. If engaged by the Owner, the Air Monitor shall not be responsible for on-site project management.
3. The Contractor shall cooperate with the Air Monitor, diligently convey the anticipated asbestos abatement schedule, and should unsafe conditions be identified by the Monitor, appropriate corrective actions, shall be instituted.
4. The Air Monitor will not supervise the asbestos abatement work.
5. The Contractor shall be responsible for unsafe conditions that arise out of the work.
6. The Contractor shall cooperate with the Air Monitor and provide access to the work areas as well as sufficient electrical power and lighting to enable the air monitor to perform his duties. For elevated work the Contractor shall provide ladders/lifts etc. and appropriate fall protection for the air monitor or others so that the work can be safely inspected.

### **Clearance**

1. The Owner reserves the option to engage a North Carolina Accredited Inspector or a North Carolina Accredited Air Monitor to perform clearances at some or all asbestos work areas. If selected the Inspector/Air Monitor shall initially conduct a visual inspection of each work area.

2. Regardless of the Owner's option for clearance monitoring, the contractor shall be responsible for any additional cleaning activities necessary to leave the work areas free of visible dust, debris and asbestos contamination.
3. Additionally, if desired by the Owner, clearance air samples may be collected inside the building, directly adjacent to the Contractor's regulated area for clearance purposes. If clearance sampling is desired by the Owner, a minimum of 5 clearance air samples shall be collected inside the building adjacent to the regulated work area and analyzed by Phase Contrast Microscopy (PCM). The clearance criteria for PCM shall be that all samples are less than 0.01 f/cc of air. The Owner may also elect to have clearance samples analyzed by Transmission Electron Microscopy if project conditions warrant. The clearance criteria shall be that the average of the 5 samples does not exceed a concentration of 70 asbestos structures per square millimeter of filter area if samples are analyzed by Transmission Electron Microscopy.

### **Personal Samples**

1. The Contractor shall collect and analyze personal samples at his own expense as required by OSHA.
2. The results of personal sampling shall be provided to the employees.
3. A copy of all personal sample results shall be included in the post-job submittal package.

### **PART 6 – WASTE DISPOSAL**

1. Bags/wraps utilized for asbestos waste shall be of 6-mil polyethylene and shall have EPA generator, DOT and OSHA labels.
2. Wrapped doors and door frame components shall be wrapped in at least two continuous layers of 6-mil polyethylene and shall have EPA asbestos waste generator, DOT and OSHA labels affixed.
3. All waste, including rags, suits, polyethylene sheeting, etc. utilized for abatement purposes shall be double-bagged and adequately wet.
4. Waste shall be temporarily placed in a properly labeled lockable sealed trailer/dumpster. This temporary storage area shall be lined with 6-mil polyethylene.
5. Dispose of waste at a properly permitted landfill.
6. North Carolina-approved Waste Shipment Records shall be utilized to document disposal and shall be returned within forty-five (45) days of the completion of site work as part of

the post-abatement submittals. **Final payment will not be made until waste manifests are properly completed, transmitted and received by the Owner.**

**END OF ASBESTOS WORK PLAN**

**DIVISION 07. MOISTURE PROTECTION**

**SECTION 079200 CAULKING AND SEALANTS**

**PART 1 - GENERAL**

- 1.01 At areas of new work.
- 1.02 Interior and Exterior:
- A. Hollow metal door frames.
  - B. General use.
  - C. Where noted on drawings.
- 1.03 Other caulking to make building watertight in areas of new construction.
- 1.04 Submittals:  
Furnish manufacturer's specifications / recommendations / installation instructions for each type material required. Include manufacturer's published data, letter of certification, or certified test laboratory report indicating each material complies with requirements and intended generally for applications shown.
- 1.05 Warranty:  
Furnish a written warranties as specified below, covering loss of adhesion or cohesion, deterioration, leaking, and other defects. In addition, warrant that material has been installed according to manufacturer's written specifications.  
Prior to the start of work, the Manufacturer shall provide a full-time employee to verify that materials are suitable for intended applications, will provide long-term adhesion, and are compatible when dissimilar materials intersect or contact one another. No claims for additional costs shall be allowed because of changes of sealants required to comply with the provisions of this paragraph.
- A. General Warranty: Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
  - B. Installer's Warranty: Written warranty, signed by Installer agreeing to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period. Warranty Period: Two years from date of Substantial Completion.
  - C. Manufacturer's Warranty: Written warranty, signed by elastomeric sealant manufacturer agreeing to furnish elastomeric joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period. Warranty Period: 10 years from date of Substantial Completion.
  - D. Warranties specified in this Article exclude deterioration or failure of elastomeric joint sealants from the following:
    - 1. Movement of the structure resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression caused by structural settlement or errors attributable to design or construction.
    - 2. Disintegration of joint substrates from natural causes exceeding design specifications.
    - 3. Mechanical damage caused by individuals, tools, or other outside agents.

**PART 2 - PRODUCTS**

- 2.01 All items:
- A. Oakum joint filler:
    - 1. Untreated hemp or jute fiber rope, free of oil / tar / and / or other compounds which might stain surfaces, contaminate joint walls, or not be compatible with

**DIVISION 07. MOISTURE PROTECTION**

**SECTION 079200 CAULKING AND SEALANTS (CONTINUED)**

- sealants.
- 2. Hand packed, dry spun.
- B. Sealant backer rod:  
Compressible rod stock of polyethylene foam, polyethylene jacketed polyurethane foam, butyl rubber foam, neoprene foam, or other flexible / permanent / durable / non-absorptive material recommended for compatibility with sealant by sealant manufacturer.
- C. Joint primer / sealer:  
Provide type of joint primer / sealer recommended by the sealant manufacturer for the joint surfaces to be primed or sealed.

2.02 General use, exterior:

A. Silicone Sealant Compound:

- 1. Compound shall be a single-component, silicone-based sealant. Cured sealant shall have the following physical properties:

<u>Property</u>	<u>Test Method</u>	<u>Value</u>
Tensile Strength	ASTM D412	170 psi
Tear Strength	ASTM D624	27 psi
Hardness (Shore A)	ASTM D642	30 (min)
Peel Strength	MIL-S-8802D	32 lb/in.

- 2. Sealant shall meet or exceed all requirements of MIL-S-8802 and FS-TT-S-001543A.
- 3. One of the following:
  - A. "Dow Corning 795" as manufactured by Dow Corning Corp., Midland MI 48640.
  - B. "Silpruf 2000" as manufactured by General Electric Construction Products.
  - C. "Pecora 864" as manufactured by Pecora
  - D. "CRL 95C" as manufactured by CR Lawrence
- 4. Color shall be as approved by Designers and Owner.

2.03 General interior use, non-elastomeric sealants:

Acrylic Emulsion Sealant:

Acrylic emulsion or latex rubber modified acrylic emulsion sealant compound; permanently flexible, non-staining / non-bleeding; recommended by manufacturer for general interior exposure and capable of being painted. Products offered by manufacturers to comply with requirements include:

- Sonolac by Contect-Sonneborn
- DAP Acrylic Latex caulk by DAP, Inc.
- Easaply by W.R. Meadows, Inc.
- AC-20 Acrylic Latex by Pecora
- Sikaflex 420 by Sika Chemical
- Acrylic Latex Caulk by Tremco, Inc.

**PART 3 - EXECUTION**

3.01 Installation:

- A. Clean surfaces to be caulked, free from mortar and other foreign matter.
- B. Allow surfaces to dry before caulking.

**DIVISION 07. MOISTURE PROTECTION**

**SECTION 079200 CAULKING AND SEALANTS (CONTINUED)**

- C. Fill surfaces deeper than 3/4 inch with oakum or compressible backer rod for elastomeric sealants, packed tight.
- D. Force compound into joints and recessed with gun having nozzle of proper size and at sufficient pressure to fill joints to depths shown; if not shown, as recommended by sealant manufacturer but within following general limitations, measured at center of bead:
  - 1. For normal moving joints sealed with elastomeric sealants but not subject to traffic, fill joints to a depth equal to 50% of joint width, but never more than 1/2 inch deep not less than 1/4 inch deep.
- E. Form concave joints, slightly behind adjoining materials, unless otherwise shown, so compressed units will not protrude from joint.
- F. Remove excess material.
- G. Remove stains and soil from other work caused by this work.
- H. Color selected by architect from a list of manufacturer's full range of colors.

End of Section

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 081100 HOLLOW METAL DOORS AND FRAMES**

**PART 1 - GENERAL**

- 1.01 Section Includes:
  - A. Hollow metal doors.
  - B. Steel door frames.
  - C. Shop paint.
  - D. Shop drawings.
- 1.02 Related Sections:
  - A. Hardware (Section 087000).
  - B. Hardware Templates (Section 087000).
  - C. Glass and Glazing (Section 088100).
  - D. Caulking & Sealants (Section 079200).
- 1.03 Shop Drawings:
  - A. Metal doors and frames.
  - B. Note primer formulation.
  - C. Submit under provisions of Section 013323.

**PART 2 - PRODUCTS**

- 2.01 General  
Provide standard steel doors / frames by a single firm specializing in production of this type of work.
- 2.02 Steel Doors
  - A. As manufactured by Amweld Building Products Division, Republic Builders Products, Steelcraft Manufacturing, Fenestra, Ceco Corporation, or approved equal.
  - B. Doors to comply with SDI Recommended Specifications: Standard Steel Doors and Frames (SDI-100) and as herein specified.
  - C. Top and bottom channels: 14 gauge.
  - D. Stiles: 16 gauge.
  - E. Exterior doors top capped for weather protection.
  - F. Internal core system:
    - 1. Flush panel steel doors:  
Doors shall be reinforced with 20 gauge hat shaped steel stiffeners welded to the inside of the face sheets. Stiffeners to be located at a maximum of 6" on center, and welded to the face sheet on 4" centers.
    - 2. The areas between stiffeners to be filled with foam or fiberglass insulation.
  - G. Exposed faces, including stiles and rails of non-flush units, cold rolled steel:
    - 1. Exterior doors: 16 gauge, flush panel, galvanized.
    - 2. Interior doors: 18 gauge.
  - H. Edges:
    - 1. Invisible edge welding, beveled hinge and lock edges.
    - 2. Full height, epoxy filled mechanical interlock edges provide structural support and stability the full height of the door edges.
  - I. Factory drill and tap for mortise hardware.
  - J. Reinforce for surface applied hardware.
  - K. Field drill and tap for surface applied hardware.
  - L. Shop coat: Baked on synthetic primer in accordance with ANSI A250.10.
  - M. Primed steel light kits and trim with surface applied divider mullions where shown on the drawings.
  - N. Hardware by others.
  - O. Fire label requirements:  
Refer to drawings for U.L. fire label requirements.
  - P. Door Bottom Sweeps:
    - 1. Manufacturer supplied concealed double sealing sweep for use at exterior doors.
    - 2. Manufactured from a synthetic material impervious to the elements and capable to withstanding extreme temperatures.
    - 3. Compatible with UL fire ratings on doors where required.



**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 081100 HOLLOW METAL DOORS AND FRAMES (CONTINUED)**

4. To be used in the bottom door channel attached with No. 10 x 3/4" stainless steel pan head sheet metal screws.
- 2.03 Steel Door Frames:
- A. As manufactured by Amweld Building Products Division, Republic Builders Products, Steelcraft Manufacturing, Fenestra, Ceko Corporation, or approved equal.
  - B. Steel door frames to comply with SDI Recommended Specifications: Standard Steel Doors and Frames (SDI-100) and as herein specified.
  - C. Double rabbet.
  - D. Construction:
    1. 16 Gauge (U.S.A.) Prime quality cold rolled, pickled, annealed stretcher leveled steel.
    2. Galvannealed at exterior installations.
  - E. Sizes as indicated on drawings.
  - F. Fabrication:
    1. Welded construction: unit welds conforming to AWS.
    2. Knock-down frames may be used with prior approval.
  - G. Joints mitered and welds ground smooth.
  - H. Fill hairline joints with mineral filler.
  - I. Reinforcement:
    1. 1/8 Inch for surface applied hardware.
    2. 3/16 Inch thick for butts, 3 each frame.
    3. Other, 12 gauge.
  - J. Drill and tap to receive all mortise hardware.
  - K. Cover all mortised areas with 26 gauge material.
  - L. Anchor at bottom of each jamb to secure to floor.
  - M. Anchors:
    1. New masonry:
      - A. Loose Tee.
      - B. Minimum 3 per jamb, more if frame includes transoms or as noted on the drawings.
      - C. Provide for full internal grouting during installation.
      - D. Install adjustable base anchors directly to the floor and adjust as required.
      - E. Masonry wall to be built around the anchored frame.
    2. Existing masonry openings:
      - A. Specifically designed 18 gauge steel anchors with galvanized anchor bolts.
      - B. Minimum 3 per jamb, more if frame includes transoms or as noted on the drawings.
      - C. Provide openings in the frame sections adjacent to masonry as needed to fully grout the jambs with cementitious grout. Plug openings after grout installation.
    3. Stud walls:
      - A. 18 gauge lock-in steel jamb anchors.
      - B. Designed to be screw attached to wood or the webbing of closed steel studs.
      - C. Adjustable base anchors to be attached directly to the floor and adjusted to accommodate the rough opening.
      - D. After the frame is anchored, wallboard is to be installed and finished.
  - N. Three rubber door silencers each door.
  - O. Steel spreader, base each frame.
  - P. Clean thoroughly of oil, grease and other impurities, protecting with bonderite coating.
  - Q. Shop coat inside and out of gray zinc chromate rust inhibiting baked prime coat.
  - R. Fire label requirements:  
Refer to drawings for U.L. fire label requirements.

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 081100 HOLLOW METAL DOORS AND FRAMES (CONTINUED)**

**PART 3 - EXECUTION**

3.01 Installation.

- A. Installation shall conform to published manufacturer installation instructions, SDI-105 "*Recommended Installation Instructions for Steel Frames*", and ANSI/DHI A115-1G "*Installation Guide for Doors and Hardware*".
- B. Erect plumb and true.
- C. Anchor securely at floor, jamb and head.
- D. To maintain alignment provide spacer at intermediate point during construction of walls and partitions.
- E. Templates will be furnished by finished hardware division, when written request is received.
- F. Fit hollow metal doors accurately in frames, within clearances specified in SDI-100.

End of Section

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 087100 FINISHED HARDWARE**

**PART 1 - GENERAL**

- 1.01 Description of work:
- A. Furnishing and installation of finished hardware for complete and proper operation of new doors shown on the plans.
  - B. Items include but are not limited to the following:
    - 1. Hinges and Pivots.
    - 2. Flush Bolts.
    - 3. Exit Devices.
    - 4. Locksets and Cylinders.
    - 5. Push Plates - Pulls.
    - 6. Closers.
    - 7. Kick, Mop and Protection Plates.
    - 8. Stops, Wall Bumpers, O.H. Controls.
    - 9. Electrified Hold Open Devices.
    - 10. Thresholds, Gasketing, Sweeps, and Door Bottoms.
    - 11. Silencers, Miscellaneous Trim and Accessories.
- 1.02 References:
- A. NFPA-80-1995 - Standard for Fire Doors and Windows
  - B. NFPA-101-1994 - Life Safety Code
  - C. ADA - The Americans with Disabilities Act - Title III - Public Accommodations
  - D. ANSI-A 117.1-American National Standards Institute - Accessible and Usable Buildings and Facilities
  - E. ANSI-A156.5-American National Standards Institute - Auxiliary Locks and Associated Products
  - F. UL - Underwriter's Laboratories
  - G. WHI - Warnock Hersey International, Division of Inchscape Testing Services
  - H. State and Local Codes including Authority Having Jurisdiction
- 1.03 Shop drawings submittals:
- A. Refer to Section 013323 for submittal procedures.
  - B. Hardware schedules:
    - Submit copies of schedule in accordance with Division 1, General Requirements.
    - Schedule to be in vertical format, listing each door opening, including: handing of opening, all hardware scheduled for opening or otherwise required to allow for proper function of door opening as intended, and finish of hardware. At doors with door closers or door controls include degree of door opening.
  - C. Submit manufacturer's cut/catalog sheets on all hardware items and any required special mounting instructions with the hardware schedule including complete Key System Layout.
  - D. Certification of Compliance:
    - 1. Submit any information necessary to indicate compliance to all of these specifications as required.
    - 2. Submit a statement from the manufacturer that electronic hardware and systems being supplied comply with the operational descriptions exactly as specified.
    - 3. Submit any samples necessary as required by the Architect.
    - 4. Templates for finish hardware items to be sent to related door and frame suppliers within three (3) working days of receipt of approved hardware schedule.
- 1.04 Quality assurance:
- A. Hardware supplier must be experienced in educational installations and have an organization consisting of members of the American Society of Architectural Hardware

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 087100 FINISHED HARDWARE (CONTINUED)**

- consultant (A.H.C.). At least one employee with A.H.C. Membership must be available locally at all times for consultation and service.
- B. Hardware supplier to be a qualified direct distributor of the products to be furnished.
  - C. The hardware supplier have a factory trained and approved installer available for consultation and review of all finish hardware installations, functions, key system, etc.
  - D. There shall be a pre and post installation meeting and inspection by the Owner and the factory representative to insure all hardware is correctly installed and adjusted.
  - E. All hardware used in labeled fire or smoke rated openings to be listed for those types of openings and bear the identifying label or mark indicating U.L. (Underwriter's Laboratories) approved for fire. Exit devices in non-labeled openings to be listed for panic.
  - F. Pre-installation conference for electronic hardware (if noted on drawings and listed in the specifications):  
Prior to installation of electronic hardware, arrange conference between supplier, installers and related trades to review materials, procedures and coordinating related work.
- 1.05 Delivery, handling and packaging:
- A. Furnish all hardware with each unit clearly marked and numbered in accordance with the hardware schedule. Include door and item number for each.
  - B. Pack each item complete with all necessary parts and fasteners.
  - C. Properly wrap and cushion each item to prevent scratches and dents during delivery and storage.
- 1.06 Sequencing and scheduling:  
Any part of the finish hardware required by the frame or door manufacturers or other suppliers that is needed in order to produce doors or frames is to be sent to those suppliers in a timely manner, so as not to interrupt job progress.
- 1.07 Warranty:  
All finish hardware shall be supplied with a one (1) year warranty against defects in materials and workmanship, commencing with substantial completion of the project except door position switches in concealed closers to have a two (2) year warranty and all door closers to have a ten (10) year warranty.

**PART 2 - PRODUCTS:**

- 2.01 General:  
The trade names, catalog numbers, etc., mentioned herewith is intended to establish a general quality standard and are not restricted to same. Equals will be considered if not specifically noted otherwise and if prior approval is received from the Architect and substituted materials are compatible with materials specified.
- 2.02 Fasteners:
- A. Furnish with finish hardware all necessary screws, bolts and other fasteners of suitable size and type to anchor the hardware in position for a long life under hard use.
  - B. Furnish fastenings where necessary with expansion shields, toggle bolts and other anchors designated by the Architect according to the material to which the hardware is to be applied and the recommendations of the hardware manufacturer. All closers and exit devices on labeled wood doors shall be thru-bolted if required by the door manufacturer. All thresholds shall be fastened with machine screws and anchors. Where specified in the hardware sets, security type fasteners of the type called for are to be supplied.
  - C. Design of all fastenings shall harmonize with the hardware as to material and finish.
- 2.03 Environmental concern for packaging:

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 087100 FINISHED HARDWARE (CONTINUED)**

The hardware shipped to the jobsite is to be packaged in biodegradable packs such as paper or cardboard boxes and wrapping. If non-biodegradable packing such as plastic, plastic bags or large amounts of Styrofoam is utilized, then the Contractor will be responsible for the disposal of the non-biodegradable packing to a licensed or authorized collector for recycling of the non-biodegradable packing.

- 2.04 Hinges:
- A. All hinges and pivots, including single and double acting types, pocket hinges, electric hinges to be of one manufacturer as hereafter listed for continuity and consideration of warranty
  - B. Unless otherwise specified provide five-knuckle, heavy-duty, button tip, full mortise template type hinges with non-rising loose pins. Provide non-removable pins for outswinging doors at secured areas or as called for in this specification.
  - C. Exterior & Interior Door Hinges:  
Provide all swinging door hinges of solid bronze or stainless steel with non-removable pins. Furnish all exterior hinges with safety studs, or as called for in this specification.
  - D. Interior Door Hinges  
Wrought steel, polished and plated to match specified finish. Furnish three (3) hinges up to 90 inches (2,286) high and one (1) additional hinge for every 30 inches (762) or fraction thereof.
  - E. Hinge size: Provide the following, unless otherwise indicated, for special applications.
    - 1. Doors up to and including 36 inches wide, furnish 4 ½ inch x 4 ½ inch hinges.
    - 2. Doors over 36 inches wide, furnish 5 inch x 4 ½ inch hinges
    - 3. Doors over 36 inches wide, 1 3/4 inch thru 2 1/4 inch thick, use 5 inch x 5 inch hinges.
  - F.. Where required to clear trim or permit doors to swing 180 degrees, furnish hinges of sufficient throw.
  - G. Provide heavy weight hinges on all doors over 36 inches (914.4) in width.
  - H. At labeled doors, provide steel or stainless steel, bearing-type hinges. For all doors equipped with closers provide bearing-type hinges.
- 2.05 Locks and lock trim:
- A. All locksets, latchsets, electrified locksets and trim to be of one manufacturer as hereafter listed for continuity of design and consideration of warranty; electrified locksets to be the same series and design as mechanical locksets.
  - B. Provide metal wrought box strike boxes and curved lip strikes with proper lip length to protect trim of the frame, but not to project more than 1/8 inch (3.2) beyond frame trim or the inactive leaf of a pair of doors.
  - C. Mechanical mortise Locks to meet ANSI A156.13. Operational Grade 1 requirements where designated mortise locks to meet or exceed ANSI Security Grade 1 requirements.
    - 1. 12 gage (2.6) steel cap and case for all functions.
    - 2. Furnish 3/4 inch(19), stainless steel, 3 piece anti-friction latch bolts.
    - 3. One (1) inch (25.4) stainless steel deadbolt with hardened steel roller inserts.
    - 4. Hand of lock is to be easily field reversible without opening the lock body case.
    - 5. All lever trim is to be thru-bolted through the door and lock case.
    - 6. All cylinder collars for mortise locks to be cast.
    - 7. All lever handles to be Cast or Forged.
  - D. All hardware functions to be exactly as listed in the individual hardware sets.
  - E. Acceptable Products:

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 087100 FINISHED HARDWARE (CONTINUED)**

- |  |              |                                  |                                   |
|--|--------------|----------------------------------|-----------------------------------|
|  |              | Corbin / Russwin                 | Schlage [ OWNER<br>PREFERRED ]    |
|  | Mortise Lock | ML2200 Series<br>LSA Cast Design | L9000 Series<br>03A Forged Design |
- F. Finish: 26D.
- 2.06 Cylinders and keying:
- A. Furnish all locks and cylinders keyed to the Schlage Everest D Patented Grandmaster key system, or as directed by Mr. Archie Smart, Guilford County Schools. Mr. Smart may be reached at (336) 215-7740 for a copy of Guilford County's Hardware and Keying Guide. Furnish Everest D LFIC Cylinders at Exterior Doors and Everest D Cylinders at Interior Doors unless otherwise directed.
  - B. Equip locks with cylinders featuring patented, restricted keys and auxiliary locking pin.. Construction master key feature permits voiding of construction keying without cylinder removal on interior doors. Exterior cylinders will be equipped with temporary Construction Cores.
  - C. All keying to be accomplished at the factory of the lock manufacturer.
  - D. Each cylinder or lock to be supplied with five (5) change keys unless otherwise directed.
  - E. Six (6) masterkeys to be supplied for each master key group unless otherwise directed.
  - F. DO NOT supply any Grand Master Keys for this project.
  - G. All cylinders and keys shall be properly tagged to indicate their intended location and to enable the Owner, with a minimum of effort, to establish his key control system.
  - H. Furnish all locks and cylinders construction master keyed. Provide control keys for construction core and permanent cores.
  - I. Ten (10) construction masterkeys to be supplied for the project. Furnish Two(2) Construction Control Keys and two Permanent Control Keys.
  - J. Stamp all change keys with keyset symbol (VKC), stamp with key section or biting number Stamp " DO NOT DUPLICATE ".
  - K. **Knox Box:**
    - 1. Furnish a #4101 surface mounted Knox Box in standard dark bronze finish with the top core keyed for use by the Greensboro Municipal Fire Department, and the bottom core keyed for use by the Guilford County Emergency Services Department. Install adjacent to the main front entry where directed.
    - 2. Coordinate keying with Chris Kearns (email: [chris.kearns@guilford-es.com](mailto:chris.kearns@guilford-es.com) ; telephone: (336) 641-6563) with the Guilford County Fire Marshal's Office.
  - N. The distributor shall furnish owner with a final biting list on all projects.
  - O. Guilford County Schools must approve all keying before cylinders & locks are ordered.
- 2.07 Exit devices:
- A. All exit devices and trim, including electrified items, to be of one manufacturer as hereafter listed and in the hardware sets for continuity of design and consideration of warranty; electrified devices and trim to be the same series and design as mechanical devices and trim.
  - B. Exit Devices to be "UL" listed for life safety. All exit devices for labeled doors shall have "UL" label for "Fire Exit Hardware". All devices mounted on labeled wood doors are to be thru-bolted or per the manufacturer's listing requirements. All devices to conform to NFPA 80 and NFPA 101 requirements.
  - C. Exit devices shall comply with ANSI Standard 156.3 Grade 1. All exit devices to be heavy duty, with one piece removable covers. The housing shall be manufactured from extruded aluminum with no exposed screws or rivets.

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 087100 FINISHED HARDWARE (CONTINUED)**

- D. The devices shall be “touchpad” (modern) type. The touchpad which shall extend a minimum of 1/2 of the door width, and have hydraulic silencing of touchpad. All metal end caps to be standard with all exit devices
- E. All device latchbolts shall be molly coated and where used in wide stile rim or vertical rod devices shall have external deadlocking standard.
- F. Device strikes where surface applied shall be roller type and have anti-slip mounting plate. All outside device trim shall be forged brass full escutcheon. Lever trim shall be “breakaway type” with substantial resistance to rotation when locked but allowing vandalized lever to drop to vertical position when 35 ft. lbs. is applied. Returning lever to horizontal position will allow trim to be operational again.
- G. All vertical rod devices shall be concealed and have “latch retraction” hold back. Bottom latch shall have 1-1/2” adjustable projection.
- H. Device shall be secured to the door with sex bolts and through bolting at both ends. Device end cap shall be all metal and secured with three screws to truss bracket.
- I. Push pad exit devices shall be patterned punched to designate code requirements where required.
- J. Where required, Controlled Exit Devices shall be UL listed “Controlled Exit Panic Device” for use on accident hazard or fire exit applications. Devices shall include in the device housing the following features:  
Request to exit switch, nuisance alarm, remote alarm, relay, key switch, indicator lamp, internal horn, door position input, external inhibit input, fire alarm input and internal auxiliary lock. Device shall meet all requirements for NFPA 101, Special Locking Arrangement.
- K. Mullions shall be “keyed removable” type with only a key required for take down. No key or tools shall be required to reinstall. Mullions shall be by the same manufacturer as the exit devices.
- L. All exit devices are to be by the same manufacturer. No deviations will be considered.
- M. Devices shall have published three-year warranty.
- N. Finish: 26D.
- O. Acceptable Products:  

Von Duprin	99 Series	99-F x 996L Series OWNER
		PREFERRED ]

- 2.08 Surface mounted & concealed door closers:
  - A. All closers for this project to be the product of a single manufacturer for continuity of design and consideration of warranty.
  - B. All Closers shall have a ten (10) year warranty and tested by independent testing laboratory for 10,000,000 cycles
  - C. All closers to be heavy-duty surface and concealed mounted, hydraulic type, high strength Cast iron body with steel piston and full rack and pinion constructAll closers shall be handed and sized at factory to insure proper installation.
  - D. Closers shall have non-changing hydraulic fluid for temperature range of 120 degrees to - 30 degrees F, equal to LCN Liquid "X" fluid meeting UL 10C non-flammable liquid..
  - E. All closers to have tamper resistant, non-critical regulating screw valves for closing speed, latching speed and backcheck control as a standard feature.
  - F. All closer covers to be rectangular, full cover type of MC -ferrous, non-corrosive material painted to match closer.
  - G. Arms shall be solid forged with extra duty knuckled construction, threaded, stamped, or “formbreak” arms will not be acceptable. Furnish security tract type closers as listed in schedule.

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**SECTION 087100 FINISHED HARDWARE (CONTINUED)**

- H. Supply appropriate arm assembly for each closer so that closer body and arm are mounted on non-public side of door opening and on the interior side of exterior openings, except where required otherwise in the hardware sets.
  - I. Provide closers with special application and heavy-duty arms as specified in the hardware sets or as otherwise called for to insure a proper operating, long-lasting opening.
  - J. Where "stop" is part of arm bracket, use "spring cush" arm mounted at maximum possible swing.
  - K. Finish: Sprayed electro static finish to match other hardware.
  - L. Acceptable Products:

	LCN [ OWNER PREFERRED ]	Corbin
Surface	4040 XP Series x EDA X MC	8000 x PR HD Forged Arm X MC
- 2.09 Door stops and holders:
- A. Door stops are to be furnished for every door leaf. Every door to have either a floor, wall, or an overhead stop. Special arms on door closers do not constitute door stops.
  - B. Place door stops in such a position that they permit maximum door swing, but do not present a hazard or obstruction. Furnish floor strikes for floor holders of proper height to engage holders of doors.
  - C. Where Overhead Stops and Holders are specified, or otherwise required for proper door operation, they are to be heavy duty.
    - 1. Units shall have metal/plated end plugs. No plastic end plugs will be accepted.
    - 2. Units shall be field convertible from stop to holder by kits.
    - 3. Units shall have metal slide. No plastic slides will be acceptable.
    - 4. All stops shall be by same manufacturer.
    - 5. Finish: 32D.
    - 6. Acceptable O.H. stops/holders: GJ #90 Series and 100 Series.
  - D. Furnish floor and wall stops as listed in hardware sets. Equivalent products as manufactured by Glynn-Johnson (GJ), Ives & Trimco are acceptable.
- 2.10 Push plates, door pulls, and kickplates:
- A. All push plates, door pulls, kickplates and other miscellaneous hardware as listed in hardware sets. Equivalent products as manufactured by Glynn-Johnson (GJ), Ives & Trimco are acceptable.
  - B. Kickplates to be 8 inches high and Mop plates to be 4 inches High, both by 2 inches or 1 inch less than door width (LDW) as specified. They are to be of 16 Gauge 0.050 inches thick bronze, brass, or stainless steel. For doors with louvers or narrow bottom rails, kickplate height to be 1 inch less than the dimension shown from the bottom of the door to the bottom of the louver or glass.
  - C. Where required armor plates, edge guards and other protective hardware are to be supplied in sizes as scheduled in the hardware sets.
  - D. Finish: Same as other hardware, except use 32D and 32 (stainless steel) in lieu of 26D and 26 (plated chrome finishes), respectively, where available.
- 2.11 Flush bolts and coordinators:
- A. Provide Flush bolts with Dust Proof Strikes as indicated in the individual hardware sets by Glynn-Johnson (GJ), Ives or Trimco. Finish to match adjacent hardware.
- 2.12 Thresholds and gasketing:
- A. Provide materials and finishes as listed in hardware sets. Products by National Guard Products, Reese, Pemko are acceptable. All thresholds must be in accordance with the requirements of the ADA and ANSI A117.1.
  - B. Provide threshold with machine screws and lead anchors. Supply all necessary



**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 087100 FINISHED HARDWARE (CONTINUED)**

anchoring devices for weatherstrip and sound seal.  
2.13 Door Silencers:  
Furnish door silencers at all openings without gasketing. Provide 2 at each pair of doors and 3 for each single door.

2.14 Manufacturers' references:

AR	Adams Rite	MC	McKinney
AS	American Specialties	ME	Mohawk Engraving
B	Baldwin	MK	Markar
BE	Best	NR	Norton
BK	Bobrick	NGP	National Guard
BO	Bommer	P	Pemko
BR	Bradley	PR	Precision Hardware
CR	Corbin Russwin	RI	Rixson
D	Detex	RK	Rockwood
DJ	Don-Jo	SCH	Schlage
FA	Folger Adam	SCE	Security Technologies / Locknetics
FC	Falcon	SI	Simplex
G	Grant	ST	Stanley
GJ	Glynn - Johnson	T	Telkee
HA	Hager	VD	Von Duprin
IVE	Ives	Y	Yale
LCN	LCN Closers	X	By Others

Note: The references noted above are included as an abbreviation schedule for items that may be specified in Section 1.06, of the following Hardware Schedule. Items by manufacturer's not specifically listed by name or model number in the Hardware Schedule are not to be considered equal to what has been specified unless approved in writing.

2.05 Finishes:

US26D	Dull Chrome	626	Satin Chromium Plated
US32D	Dull Stainless Steel	Alum	Aluminum
A	Mill Finished Aluminum	689	Aluminum Painted
628	Satin Aluminum, Clear Anodized	US3	Polished Brass
630	Satin Stainless Steel	CHA	Charcoal
GRY	Grey	DKB	Dark Bronze
313	Duranodic Dark Bronze	613	Oil rubbed bronze on bronze

2.06 Hardware schedule:

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**SECTION 087100 FINISHED HARDWARE (CONTINUED)**

**HEADING #1**

Doors #1	300 Hall to Exterior	Pair 3'-6" x 7'-0" x 1.3/4" HM x HM
Doors #3	700 Hall to Exterior	Pair 3'-6" x 7'-0" x 1.3/4" HM x HM

Each pair to have:

HA	6.0 Ea. Heavy Weight Butts	BB1168 (5.0" x 5.0") NRP	626
VD	1.0 Ea. Exit Device	99NL X GBK	626
VD	1.0 Ea. Exit Device	99DT X GBK	626
VD	1.0 Ea. Mullion	KR4954 X DOOR HEIGHT	628
SCH	2.0 Ea. Cylinder	30-008T / 20-057T X AS REQD X CMK EVEREST D	626
SCH	2.0 Ea. Permanent Core	23-030 X GGMK TO EVEREST D SYSTEM	626
LCN	2.0 Ea. Closer	4041 XP - SP - CUSH X MC	689
GJ	2.0 Ea. Overhead Stop	905S	US32D
NGP	2.0 Ea. Sweeps	200SA	Alum
NGP	1.0 Set Astragal Set	A605A (SET) X DOOR HEIGHT	Alum
IVE	2.0 Ea. Kickplates	8400-8" x 2" LDW	630
NGP	1.0 Ea. Threshold	896S X LS X OPENING WIDTH	628
NGP	1.0 Set Door Seals	5050C X 700SA X HEAD & JAMBS	CHA

**HEADING #2**

Doors #2	Main Office to Exterior	Pair 3'-0" x 7'-0" x 1.3/4" HM x HM
----------	-------------------------	-------------------------------------

Each pair to have:

HA	6.0 Ea. Heavy Weight Butts	BB1168 (4.5" x 4.5") NRP	626
VD	1.0 Ea. Exit Device	HD-EL-99-NL X GBK X DOOR WIDTH (Extend wiring for electric latch through frame and stub out at ceiling for connection to power transfer.)	626
VD	1.0 Ea. Exit Device	HD-EL-99-DT X GBK X DOOR WIDTH (Extend wiring for electric latch through frame and stub out at ceiling for connection to power transfer.)	626
VD	2.0 Ea. Power Transfers	EPT-2 (Mount at ceiling, connect to exit device wiring and power supply unit.)	
VD	1.0 Ea. Power Supply	PS914-2RS - 120/240 VAC (Mount at ceiling, connect to power transfer wiring.)	
VD	1.0 Ea. Mullion	KR4954 X DOOR HEIGHT	628
SCH	2.0 Ea. Cylinder	30-008T / 20-057T X AS REQD X CMK EVEREST D	626
SCH	2.0 Ea. Permanent Core	23-030 X GGMK TO EVEREST D SYSTEM	626
LCN	2.0 Ea. Closer	4041 XP - SP - CUSH X MC	689.
GJ	2.0 Ea. Overhead Stop	904S	US32D
NGP	2.0 Ea. Sweeps	200SA	Alum
NGP	1.0 Set Astragal Set	A605A (SET) X DOOR HEIGHT	Alum
IVE	2.0 Ea. Kickplates	8400-8" x 2" LDW	630
NGP	1.0 Ea. Threshold	896S X LS X OPENING WIDTH	628
NGP	1.0 Set Door Seals	5050C X 700SA X HEAD & JAMBS	CHA

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**SECTION 087100 FINISHED HARDWARE (CONTINUED)**

- 2.07 Keying:
- A. All locks and cylinders are to be keyed into the existing Schlage Everest D master key system currently in use at this school.
  - B. Connect electro-magnetic locks and devices if specified to the existing security system if currently in place, otherwise leave so final connections may be made in the future by others.

**PART 3 - EXECUTION**

- 3.01 Package each item separately in individual containers, complete with screws, instructions and installation templates. Each container shall be identified with door number and item number corresponding with contractors hardware schedule.
- 3.02 Properly tag and envelope all keys.
- 3.03 Installation:
- A. Install hardware in accordance with manufacturer's printed instructions, with all items accurately fitted, securely applied and carefully adjusted.
  - B. Hardware is to be installed by experienced finish hardware installers only.
  - C. Check hardware against the reviewed hardware schedule upon delivery. Store the hardware in a dry secure location to protect against loss and damage.
  - D. Install finish hardware in accordance with approved hardware schedule and manufacturers printed instructions. Prefit hardware before finish is applied; remove and reinstall after finish is complete and dry. Install and adjust hardware so that parts operate smoothly, close tightly, and do not rattle.
  - E. Mortise and cutting to be done neatly, and evidence of cutting to be concealed in the finished work.
  - F. Protect all finish hardware from scratching or other damage.
  - G. Door hardware supplier's field service.
    - 1. Inspect door hardware items for correct installation and adjust after complete installation of door hardware.
    - 2. Instruct Owner's personnel in the proper operation, adjustment, and maintenance of door hardware and hardware finishes.
  - H. Prior to project completion, representatives of the hardware supplier, lock, exit device, and overhead door closer manufacturers shall inspect and adjust all units and certify that all units are installed in accordance with the manufacturer's instructions, and are regulated properly and functioning correctly. Program all Prox cards, and instruct the Owner's Representatives in the proper operation of the access card reader and programing equipment.
- 3.04 Schedules: Submit complete schedule of finished hardware for approval by the Architect. Schedule each item of hardware required for each door opening or item of equipment listing hardware item number, manufacturer, manufacturer's number or symbol, finish, and special instructions for installation.
- 3.05 Templates: Hardware for use with metal doors and frames shall be furnished to template and with metal screws. Supply all necessary templates and template information to plastic laminate covered wood door manufacturer, and metal door and frame manufacturers in ample time to prevent delay on the project.

End of Section

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 088100 GLASS AND GLAZING**

**PART 1 - GENERAL**

- 1.01 Work included:
- A. Glass for:
    - 1. Hollow metal doors.
    - 2. Hollow metal frames.
  - B. Glazing tape, splines.
  - C. Manufacturer approved sealant, compatible with other glazing materials.
  - D. Cleaning.
- 1.02 Related Sections:
- A. Hollow Metal Doors & Frames (Section 081100).
  - B. Glazing for Service and Teller Window Units (Section 085659).
- 1.03 References:
- A. ANSI Z97.1 - American National Standard for Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.
  - B. ASTM C162 - Standard Terminology of Glass and Glass Products.
  - C. ASTM C1036 - Standard Specification for Flat Glass.
  - D. ASTM C1048 - Standard Specification for Heat-Treated Flat Glass -- Kind HS, Kind FT Coated and Uncoated Glass.
  - E. ASTM E1300 - Standard Practice for Determining the Minimum Thickness and Type of Glass Required to Resist a Specified Load.
  - F. ASTM C1172-03 - Laminated Architectural Flat Glass.
  - G. ASTM E330-02 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
  - H. ASTM E774-97 - Sealed Insulating Glass Units.
  - I. NFPA 80-06 - Fire Doors and Windows.
  - J. Safety Glazing Certification Council (SGCC): Certified Products Directory (Issued Semi-Annually).
  - K. N.C. State Building Code.
  - J. N.C. Energy Conservation Code - latest edition.
- 1.04 System Description:
- A. Design Requirements:

Provide glazing systems capable of withstanding normal thermal movements, windloads and impact loads, without failure, including loss due to defective manufacture, fabrication and installation; deterioration of glazing materials; and other defects in construction.
  - B. Provide glass products in the thicknesses and strengths (annealed or heat-treated) required to meet or exceed the following criteria based on project loads and in-service conditions per ASTM E1300.
    - 1. Minimum thickness of annealed or heat-treated glass products is selected, so the worst-case probability of failure does not exceed the following:
      - A. 8 breaks per 1000 for glass installed vertically or not over 15 degrees from the vertical plane and under wind action.
      - B. 1 break per 1000 for glass installed 15 degrees or more from the vertical plane and under action of wind and/or snow.
- 1.05 Submittals:
- A. Submit manufacturer's product data sheet and glazing instructions.
  - B. Glazing contractor shall obtain compatibility and adhesion test reports from sealant manufacturer, indicating that glazing materials were tested for compatibility and adhesion with glazing sealant, as well as other glazing materials including insulating units.
  - C. Glazing Contractor shall provide test reports showing that the glass meets the requirements of any security test reports specified on drawings.
- 1.06 Labels:
- A. Temporary labels:
    - 1. Provide temporary label on each light of glass identifying manufacturer or brand and glass type, quality and nominal thickness.
    - 2. Label in accordance with NFRC (National Fenestration Rating Council) label requirements.

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 088100 GLASS AND GLAZING (CONTINUED)**

3. Temporary labels shall remain intact until glass is approved by the Architect and Owner's Representative.
- B. Permanent labels:
  1. Locate in corner for each pane.
  2. Label in accordance with ANSI Z97.1 and SGCC (Safety Glass Certification Council) label requirements.
    - A. Tempered glass.
    - B. Laminated glass or have certificate for panes without permanent label.
    - C. Organic coated glass.
- 1.07 Quality Assurance:
  - A. Comply with published recommendations of glass product manufacturers and organizations below, except where more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this section or referenced standards.
    1. GANA Publications.
    2. AAMA Publications.
  - B. Safety glass products to comply with CPSC 16 CFR Part 1201 for Category II materials.
  - C. Single-source fabrication responsibility: All glass fabricated for each type shall be processed and supplied by a single fabricator.
- 1.08 Delivery, Storage and Handling:
  - A. Comply with manufacturer's instruction for receiving, handling, storing and protecting glass & glazing materials.
  - B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
  - C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
  - D. Exercise exceptional care to prevent edge damage to glass, and damage/deterioration to coating on glass.
  - E. Where insulating glass units will be exposed to substantial altitude changes, comply with insulating glass fabricator's recommendations of venting and sealing.
- 1.09 Project / Site Conditions:
  - A. Environmental Requirements: Installation of glass products at ambient air temperature below 40 degrees F (4.4 degrees C) is prohibited.
  - B. Field Measurements: When construction schedule permits, verify field measurements with drawing dimensions prior to fabrication of glass products.
- 1.10 Warranty:
  - A. Provide a written warranty from date of manufacture for tempered glass.
  - B. Laminated glass units to remain laminated for 5 years.
  - C. Insulated panels shall be warranted for a period of 10 years from the date of installation that the insulating glass units will not develop material obstructions of vision on the internal glass surfaces resulting from dust or film formation caused by failure of the seal due to faulty manufacturing. All defective units shall be replaced at no cost to the Owner within the warranty period.

**PART 2 - PRODUCTS**

- 2.01 Manufacturers:

Manufacturer is used in this section to refer to a firm that produces primary glass or fabricated glass as defined in the referenced standards.

  - A. Oldcastle Glass.
  - B. Guardian Industries.
  - C. Pilkington.
  - D. PPG Industries.
  - E. CardVisteon Float Glass.
  - F. Approved Equal.
- 2.02 Glass:

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 088100 GLASS AND GLAZING (CONTINUED)**

- A. Insulated glass:
  - 1. Thickness:  
1 inch thick insulating unit construction at new exterior hollow metal frames and doors.
  - 2. Air spacer to be continuous, one piece, tin plated steel "U" channel.
  - 3. Sealants:  
Desiccated butyl to be extruded onto inside web of "U" channel, full perimeter.
  - 4. Exterior lite:
    - A. Thickness: 1/4 inch.
    - B. Tint: Clear.
    - C. Type: Fully tempered safety glass.
    - D. Thermal coating: The inside (#2) surface of the exterior lite to have a Low-E coating capable of providing the following minimum characteristics to the assembly:
      - 1. U-Value: 0.45.
      - 2. Solar Heat Gain Coefficient (SHGC): 0.25.
      - 3. Testing to be in accord with NFRC 100 environmental conditions.
  - 5. Interior lite:
    - A. Thickness: 1/4 inch.
    - B. Tint: Clear.
    - C. Type: Fully tempered safety glass.
- 2.03 Glazing Products:
  - A. General:

Select appropriate glazing sealants, tapes, gaskets and other glazing materials of proven compatibility with other materials that they contact. These include glass products, insulating glass unit seals and glazing channel substrates under installation and service conditions, as demonstrated by testing and field experience.
  - B. Setting Blocks: ASTM C864:
    - 1. Channel shape; having 6 mm (1/4 inch) internal depth.
    - 2. Shore a hardness of 80 to 90 Durometer.
    - 3. Block lengths: 50 mm (two inches) except 100 to 150 mm (four to six inches) for insulating glass.
    - 4. Block width: Approximately 1.6 mm (1/16 inch) less than the full width of the rabbet.
    - 5. Block thickness: Minimum 4.8 mm (3/16 inch). Thickness sized for rabbet depth as required.
  - C. Spacers: ASTM C864:
    - 1. Channel shape having a 6 mm (1/4 inch) internal depth.
    - 2. Flanges not less 2.4 mm (3/32 inch) thick and web 3 mm (1/8 inch) thick.
    - 3. Lengths: One to 25 to 76 mm (one to three inches).
    - 4. Shore a hardness of 40 to 50 Durometer.
  - D. Sealing Tapes:
    - 1. Semi-solid polymeric based material exhibiting pressure-sensitive adhesion and withstanding exposure to sunlight, moisture, heat, cold, and aging.
    - 2. Shape, size and degree of softness and strength suitable for use in glazing application to prevent water infiltration.
  - E. Spring Steel Spacer:
    - 1. Spring steel spacers may be used in rabbets of steel windows and hollow metal frames with stops.
    - 2. Galvanized steel wire or strip designed to position glazing in channel or rabbeted sash with stops.
  - F. Glazing Sealants:
    - 1. ASTM C920, silicone neutral cure.
    - 2. Type S.
    - 3. Class 25
    - 4. Grade NS.

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 088100 GLASS AND GLAZING (CONTINUED)**

5. Shore A hardness of 25 to 30 Durometer.

**PART 3 - EXECUTION**

- 3.01 Examination:  
Site Verification and Conditions:
- A. Verify that site conditions are acceptable for installation of the glass.
  - B. Verify openings for glazing are correctly sized and within tolerance.
  - C. Verify that the minimum required face and edge clearances are being followed.
  - D. Do not proceed with glazing until unsatisfactory conditions have been corrected.
- 3.02 Preparation:
- A. For sealant glazing, prepare glazing surfaces in accordance with GANA-02 Sealant Manual.
  - B. Protection  
Handle and store product according to manufacturers' recommendations.
  - C. Surface Preparation
    - 1. Clean and prepare glazing channels and other framing members to receive glass.
    - 2. Remove coatings and other harmful materials that will prevent glass and glazing installation required to comply with performance criteria specified.
    - 3. Prime surfaces scheduled to receive sealants, as determined by preconstruction sealant-substrate testing.
    - 4. Determine glazing unit size and edge clearances by measuring the actual unit to receive the glazing.
  - D. Shop fabricate and cut glass with smooth, straight edges of full size required by openings to provide GANA recommended edge clearances.
  - E. Verify that components used are compatible.
- 3.03 Installation:
- A. Install products using the recommendations of manufacturers of glass, sealants, gaskets and other glazing materials, except where more stringent requirements are indicated, including those in the "GANA Glazing Manual".
  - B. Install glass in prepared glazing channels and other framing members.
  - C. Exterior glazing in hollow metal frames:
    - 1. Cut glazing tape to length set against permanent stops. Seal corners by butting tape and sealing junctions with butyl sealant.
    - 2. Apply heel bead of butyl sealant along intersection of permanent stop with frame ensuring full perimeter seal between glass and frame to complete the continuity of the air and vapor seal.
    - 3. Install setting blocks in rabbets as recommended by referenced glazing standards in GANA Glazing Manual and IGMA Glazing Guidelines with edge blocks no more than 150 mm (6 inches) from corners .
    - 4. Rest glazing on setting blocks and push against tape and heel bead of sealant with sufficient pressure to achieve full contact at perimeter of pane or glass unit.
    - 5. Install removable stops with spacer strips inserted between glazing and applied stops, 6 mm (1/4 inch) below sight line. Place glazing tape on glazing pane or unit with tape flush with sight line.
    - 6. Fill gap between glazing and stop with sealant to depth equal to bite of frame on glazing, but not more than 9 mm (3/8 inch) below sight line.
    - 7. Apply cap bead of sealant along void between the stop and the glazing, to uniform line, flush with sight line. Tool or wipe sealant surface smooth.
  - D. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
  - E. Provide bite on glass, minimum edge and face clearances and glazing material tolerances recommended by GANA Glazing Manual.
  - F. Set glass lites in each series with uniform pattern, draw, bow and similar characteristics.
  - G. Laminated Glass:
    - 1. Tape edges to seal interlayer and protect from glazing sealants.
    - 2. Do not use putty or glazing compounds.
  - H. Distribute the weight of the glass unit along the edge rather than at the corner.

**DIVISION 08. DOORS, WINDOWS, GLASS**

**SECTION 088100 GLASS AND GLAZING (CONTINUED)**

- I. Comply with manufacturer's and referenced industry recommendations on expansion joints and anchors, accommodating thermal movement, glass openings, use of setting blocks, edge, face and bite clearances, use of glass spacers, edge blocks and installation of weep systems.
  - J. Protect glass from edge damage during handling and installation.
  - K. Prevent glass from contact with contaminating substances that result from construction operations, such as weld spatter, fireproofing or plaster.
  - L. Remove and replace glass that is broken, chipped, cracked or damaged in any way.
- 3.04 Cleaning:
- A. Clean excess sealant or compound from glass and framing members immediately after application, using solvents or cleaners recommended by manufacturers.
  - B. Glass to be cleaned according to:
    - 1. GANA Glass Informational Bulletin GANA 01-0300 - Proper Procedures for Cleaning Architectural Glass Products.
    - 2. GANA Glass Information Bulletin GANA TD-02-0402 - Heat-Treated Glass Surfaces Are Different.
  - C. Do not use scrapers or other metal tools to clean glass.

End of Section



**DIVISION 09. FINISHES**

**SECTION 099000 PAINTING**

**PART 1 - GENERAL**

- 1.01 Work Included:
  - A. Hollow metal doors and door frames.
  - B. Adjacent painted masonry materials damaged or marred during demolition.
  - C. Other exposed ferrous and galvanized metals related to this work.
- 1.02 Related Sections:
  - Caulking and Sealants (SECTION 079200).

**PART 2 - PRODUCTS**

- 2.01 Approved paint of the type required, manufactured by Benjamin Moore, or approved equal.
- 2.02 Prior to ordering materials submit list of materials and descriptions thereof for approval.
- 2.03 Deliver materials to building in original containers with labels intact and seals unbroken.
- 2.04 Pigments for tinting:
  - A. For oil paints: color ground oil.
  - B. Enamels: colors ground in oil.
- 2.05 Shellac:
  - A. White or orange, gum, cut in pure denatured alcohol.
  - B. Orange, limited to covering knots, resin sap.
- 2.06 Paint exterior:
  - A. Provide primer produced by the same manufacturer as the finish coats.
  - B. Ferrous metals:
    - 1st coat: Red oxide metal primer, performance equivalent to TT-P-86, Type III (Duron "Dura Clad" damp proof red oxide metal primer, 33-350, or approved equal).
    - 2nd coat: Semi-gloss alkyd enamel, TT-E-529, Class A.
    - 3rd coat: Semi-gloss alkyd enamel, TT-E-529, Class A.
    - First coat not required on items delivered shop primed.
  - C. Zinc-coated metal:
    - 1st coat: Zinc dust/zinc oxide primer TT-P-641.
    - 2nd coat: High gloss alkyd enamel, TT-E-489, Class A.
    - 3rd coat: High gloss alkyd enamel, TT-E-489, Class A.
- 2.07 Paint interior:
  - A. Provide primer produced by the same manufacturer as the finish coats.
  - B. Provide following paint systems for various substrates, as indicated.
  - C. Concrete masonry units (for necessary touch-up if damaged or marred during installation of new door frames):
    - Semi-gloss enamel finish.
    - 1<sup>st</sup> coat: Interior latex emulsion, TT-P-29.
    - 2<sup>nd</sup> coat: Interior enamel undercoat, TT-E-543.
    - 3<sup>rd</sup> coat: Interior enamel semi-gloss, TT-E-509.
    - Not less than 3.50 mils total dry thickness.
  - D. Ferrous metals:
    - Semi-gloss finish.
    - 1st coat: Red oxide metal primer, performance equivalent to TT-P-86, (Duron "Dura Clad" Damp Proof Red Oxide Metal Primer, 33-250, or approved equivalent).
    - 2nd coat: Enamel undercoater, TT-E-543.
    - 3rd coat: Semi-gloss enamel, TT-E-509.
    - First coat not required on items that are shop primed or previously painted.
  - E. Galvanized metal:
    - Semi-gloss finish.
    - 1st coat: Zinc dust-zinc oxide primer, TT-P-641.
    - 2nd coat: Enamel undercoat, TT-E-543.
    - 3rd coat: Semi-gloss enamel, TT-E-509.
    - Not less than 2.50 mils dry film thickness.
  - F. Adjacent surfaces:
    - Touch-up paint for adjacent surfaces to be the same type, color, and finish as original.

**DIVISION 09. FINISHES**

**SECTION 099000 PAINTING (CONTINUED)**

**PART 3 - EXECUTION**

- 3.01 Number of paint colors:  
Approximately 3.
- 3.02 Store materials in space designated and protect space from damage.
- A. Keep paints covered at all times, protect from freezing.
- B. Safeguard against fire, provide metal containers for oil, cloth and waste.
- 3.03 Inspection of surfaces:
- A. Before starting work have defects remedied. Commencing work implies acceptance of surfaces.
- B. If dryness of surfaces is doubtful, use dampness indicating meter for test.
- 3.04 Painting:
- A. Preparation of surfaces:
1. Do not start painting and finishing until surfaces are suitable.
  2. Report unsuitable surfaces to the Architect before application of paint or finish.
  3. Remove all efflorescence, chalk, and dust from cementitious surfaces.
  4. Remove rust and scale from metal surfaces with wire brushing and sanding.
  5. Remove oil and grease from metal surfaces with turpentine or benzine.
  6. Remove dirt and mildew in accordance with the paint manufacturer's recommendations.
  7. Scrape and clean acoustical over spray from around perimeter of existing walls, approximately 1'-0" down from ceiling.
- B. Determine alkalinity of surfaces to be painted by performing appropriate tests. If surfaces are found to be sufficiently alkaline to cause blistering and burning of the finish paint, correct this condition before application of paint.
- C. Shop primed metals:
1. Touch-up shop-applied and field-applied prime coats wherever damaged or bare and keep touched-up as necessary, before and after installation or erection of the items, to maintain protection of the metal from rust and corrosion.
  2. Clean and touch-up with the same type primer as initially used.
  3. Prime welds, new bolts, rivets and other fastening devices in metal work.
  4. Touch-up primed surfaces to be concealed in the construction prior to concealing.
- D. Application:
1. Quality work is recognized and will be demanded. Sloppy striking, holidays, inadequate coverage, etc., Will not be accepted.
  2. Spread materials evenly and flow on smoothly free from sags, runs, brush marks and corduroy, not less than manufacturer's recommended spreading rate to establish a total dry film thickness as specified, or if not specified, as recommended by the coating manufacturer.
  3. Allow undercoats to dry hard before application of subsequent coat.
  4. Mix and apply paints and finishes in accordance with manufacturer's detailed specifications or directions.
  5. Prime as soon as practical after delivery or placement of all uncoated work requiring painted finish. Retouch bare areas caused by working or handling.
  6. On surfaces of door frames, trim and metal work that will be concealed or inaccessible in the finished work, apply one coat of paint after the work is fitted but before it is placed.
  7. Provide adequate protection to prevent paint being splashed or dropped on adjacent surfaces or different finish.
  8. Mechanical and electrical work: Painting of mechanical / electrical work is limited to those items exposed in the finished areas.
  9. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint.
- 3.05 Protection:
- A. Loosen canopies of lighting fixtures, cover while painting, replace upon completion.
- B. Remove electric plates, surface hardware; protect and replace upon completion.
- C. Mask off all convenience outlets after removing cover plates before painting.
- D. Mask all areas to be left unfinished that are adjacent to painted surfaces.

End of Section