SAN FRANCISCO UNIFIED SCHOOL DISTRICT
2011 PROPOSITION A BOND PROGRAM
George Peabody Elementary School
New Multipurpose Building and Modernization

ADDENDUM NO. 1

PROJECT: George Peabody Elementary School
New Multipurpose Building and Modernization
251 6th Avenue, SF CA 94121

DATE: July 26, 2013

OWNER: San Francisco Unified School District
135 Van Ness Avenue
San Francisco, CA 94103

DSA FILE NO.: # 38-1

DSA APP. NO.: 01-113174

Notice is hereby given to all prospective bidders that plans and specifications on the subject project are modified as hereinafter set forth. This Addendum shall be attached to and form a part of the plans and specifications. All bidders must acknowledge receipt of this addendum on the Bid Form. In case of difference with previous addenda or communications, this addendum takes precedence.

It is the responsibility of all bidders to notify all subcontractors from whom they request bids and from whom they accept bids of all changes contained in this addendum.

SPECICAL CONDITIONS SECTION 800

1. Item No. 1 page 800-1

1.2 Contract Time/Milestone Schedule and Description of Phases

Contract Time and Milestone Schedule:


SPECIFICATION NARRATIVES

ITEM NO. AD1.1

Reference: Section 00010 Table of Contents
Description: Add specification section DIVISION 16 - Electrical
“16745 ASSISTED LISTENING SYSTEMS”
ITEM NO. AD1.2
Reference: Section 02300 Earthwork
Description: Add to section PART 1, 1.5 Definitions, Item D

"D. Over-excavation and Re-compaction of Existing Fill: Existing undocumented fill material within the footprint of the proposed new building and/or proposed building addition to be over-excavated and replaced up to the planned subgrade level with compacted engineered fill meeting the requirements for engineered fill per this Section. It is recommended that Temporary excavations (and subsequent backfill) that may extend below the foundation level of existing adjacent structures be done in sections and/or require some temporary shoring of adjacent improvements. The stability of temporary excavations shall be the sole responsibility of the Contractor."

ITEM NO. AD1.3
Reference: Section 02300 Earthwork
Description: Add to section PART 1, 1.9

"1.9 CONSTRUCTION SURVEYS AND MONITORING PLAN

A. General
1. The Contractor shall develop a work plan which mitigates the potential for possible vibration damage due to construction and demolition activities near the adjacent property/structures. The Contractor shall monitor crack behavior at the adjacent structures in order to protect them from any vibration induced damage.

B. Preconstruction Survey

1. Perform a pre-construction condition survey at existing buildings adjacent to the site and provide a copy of survey report(s) to the District no later than 7 calendar days prior to starting work.

2. The pre-construction condition survey shall include photos and plan sketches indicating an evaluation of the risk from construction vibration. Determine the construction methods required to protect the adjacent properties based on the pre-construction survey.

3. The survey shall document the structural and finish conditions through observations, actual measurements, plan sketches, photographs, and any other data the preparer may deem appropriate.

4. As applicable, the Contractor shall arrange with the property owner the rights-of-entry to their property in order to engage in condition surveys and crack monitoring.

5. In accordance with the project's monitoring plan, record existing cracks in such a way that future observations would clearly indicate whether cracks remained unchanged, opened, closed, or propagated. Monitor and log all cracks and crack monitoring devices weekly and immediately notify the Owner of any observed change.
C. Monitoring Plan

1. Complete a monitoring plan and provide a copy to the District no later than 7 calendar days prior to starting work.

2. The plan shall describe the following
   a. Identification of the individual, and their contact information, designated to oversee the crack monitoring system(s); and daily recording activities required in this specification. A brief description of qualifications or resume of the individual is also required.
   b. The plan shall describe in reasonable detail the method and means used to identify and monitor existing cracks and document new cracks. For cracks deemed significant and/or that appear to have a high potential to migrate, it is recommended that crack monitoring gauges be employed.
   c. Weekly activity log of crack monitors to ensure the identification of the cause of any vibration event.

D. Post Construction Survey

1. Perform a post-construction survey and analysis at the designated adjacent structure to determine if any structural changes are the result of the construction activity. Provide the District with a copy of all post construction survey reports, weekly log summaries for crack monitors, and analysis documents comparing pre and post structural condition prior to contract acceptance."

ITEM NO. AD1.4
Reference: Section 02300 Earthwork
Description: Add to section PART 3, 3.9 Placement of Structural Fill, Item G

"G. Fill materials should be placed in a manner that minimized lenses, pockets and/or layers of materials differing substantially in texture or gradation from the surrounding fill materials."

ITEM NO. AD1.5
Reference: Section 16010 Electrical General Requirements
Description: Clarification, PART 1 General, 1.1 Section Includes, Item B, to read

"B. Furnish and install all materials and equipment, and provide all labor required and necessary to complete the work specified on the Drawings and all Sections of Division 16 and all other work and miscellaneous items for a complete installation, including all accessories and appurtenances required for testing the system. The intent of the drawings and specifications is that all systems be complete and ready for operation."

ITEM NO. AD1.6
Reference: Section 16745 Assisted Listening System
Description: Add specification section
DRAWINGS

ARCHITECTURAL

ITEM NO. AD1.7
Reference: Sheet Plan Detail 1/A1.01
Description: Add Architectural sketch ASK-06, ASK-07 and ASK-08, Add Sheet note #H42. "H42: WOOD FRAMED, PLYWOOD SURFACE "BALL WALL" W/ PAINT FINISH; 12' TALL, 16' WIDTH, INSTALLED IN PHASE 6."

ITEM NO. AD1.8
Reference: Sheet Plan Detail 2/A1.20
Description: Add Architectural sketch ASK-04, Add sheet note #R45: "REMOVE EXISTING CEILING MOUNTED PARTITION TRACK AND ALL BRACING BACK TO STRUCTURE ABOVE, REPAIR ALL PENETRATIONS AT GYP BD CEILING ABOVE TO MAINTAIN REQUIRED RATING."

ITEM NO. AD1.9
Reference: Sheet Plan Detail 2/A2.20
Description: Add Architectural sketch ASK-01, Added section of full height wall furring at fire sprinkler seismic connector.

ITEM NO. AD1.10
Reference: Sheet Plan Detail 1/A2.21 and Sheet A10.11
Description: Add Architectural sketch ASK-02 AND ASK-03, Demolition of existing HM door at Food Service 102 and provide aluminum storefront window at opening. Coordinate Phasing of work scope with owner.

ITEM NO. AD1.11
Reference: Sheet Plan Detail 3/A6.04
Description: Add Architectural sketch ASK-05, Multi-purpose Building add gypsum board with paint finish, at top of soffit, between line "A.6" and "B".

FIRE ALARM

ITEM NO. AD1.12
Reference: Sheet Plan F0.01
Description: Add Electrical Sketch ESK-01

ITEM NO. AD1.13
Reference: Sheet Plan F0.01
Description: Add Electrical Sketch ESK-02

ITEM NO. AD1.14
Reference: Sheet Plan F0.02
Description: Add Electrical Sketch ESK-03

ITEM NO. AD1.15
Reference: Sheet Plan F0.02
Description: Add Electrical Sketch ESK-04
ITEM NO. AD1.16
   Reference:   Sheet Plan F2.10
   Description: Add Electrical Sketch ESK-05

ITEM NO. AD1.17
   Reference:   Sheet Plan F2.20
   Description: Add Electrical Sketch ESK-06

ITEM NO. AD1.18
   Reference:   Sheet Plan F2.30
   Description: Add Electrical Sketch ESK-07

END OF ADDENDUM ITEMS
DEMO AND SALVAGE DOOR AND HARDWARE

PROVIDE 8" CONC CURB AT OPENING, DOWEL INTO SLAB AND (E) CURB

STOREFRONT WINDOW, SEE ASK-03
Provide plaster "J" bead and 1/2' reveal at hm door frame, "J" bead to remain, provide sealant bead to new alum storefront.

Window Mark #21

Multi Bldg - To Slab +0-0' (+171.50')

Conc curb infill

Storefront window at food service N-102 see glazing legend on sheet A10.11
REMOVE EXISTING CEILING MOUNTED PARTITION TRACK AND ALL BRACING BACK TO STRUCTURE ABOVE. REPAIR ALL PENETRATIONS AT GYP BD CEILING ABOVE TO MAINTAIN REQUIRED RATING.

ADMINISTRATION BUILDING - REFLECTED CEILING DEMOLITION PLAN

MEEK, noll & tam
Architects and Planners
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

GEORGE PEABODY ELEMENTARY
SCHOOL MODERNIZATION
SFUSD JOB # 11496
251 6TH AVENUE
SAN FRANCISCO, CA 94118

SKETCH #: ASK-04

 SCALE: 1/8"=1'-0"

DRAWING REF: 2/11.20

DATE: 7/26/2013

MNT JOB#: 21205

DSA APP#01-113174

ISSUE REF #: ADDENDUM #01

R45

R31

R32
PROVIDE GYP BOARD WITH PAINT FINISH AT TOP OF SOFFIT, TYPICAL
(E) ADJACENT BUILDING

BALL WALL, VERIFY ALL UTILITY LINES PRIOR TO DRILLING FOOTINGS

SITE PLAN - BALL WALL

GEORGE PEABODY ELEMENTARY SCHOOL MODERNIZATION
SFUSD JOB #11496
251 6TH AVENUE
SAN FRANCISCO, CA 94118

SKETCH #: ASK-06
SCALE: 1/8" = 1'-0"

DRAWING REF: 1/A1.10
DATE: 7/25/2013

MEEK, noll & tam
Architects and Planners
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

MIN&J JOB #: 21205

DSA APP #01-113174
ISSUE REF #: ADDENDUM #01
BALL WALL ELEVATION

ASK 08

PLYWOOD WALL SURFACE, PAINT FINISH

16' - 0"

12' - 0"

8' - 0"

4' - 0"

6" TO GRADE

POST AND FOOTING, TYP OF 4

GEORGE PEABODY ELEMENTARY
SCHOOL MODERNIZATION
SFUSD JOB # 11496
251 6TH AVENUE
SAN FRANCISCO, CA 94118

DSA APP #01-113174

ISSUE REF #: ADDENDUM #01

SKETCH #: ASK-07

SCALE: 1/4" = 1'-0"

DRAWING REF: 1/A1.01

DATE: 7/26/2013

MEEK, noll & tam
Architects and Planners
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

MN&T JOB #: 21205
FRAMING

6x6 PRESSURE TREATED POST AT 4'-0" CO, MINIMUM OF 4

2 LAYERS OF 1" THICK MARINE GRADE PLYWOOD, OFFSET JOINTS, GLUE
BETWEEN LAYERS, ATTACH AT SUPPORTS W/ #10 STAINLESS STEEL SCREWS
AT 8" OC AT EACH SUPPORT

3X4 FLAT AT 16" OC, 2 - 3/8" Ø X 5" GALVANIZED LAG SCREWS AT EACH 6X POST,
COUNTERSINK FLUSH TO FACE OF 3X

CROWN CONCRETE CAP TO SLOPE

18" Ø DRILLED PIER

4 - #4 VERTICAL BAR

#4 SPIRAL AT 8" OC

VERIFY THE LOCATION OF ALL SUBSURFACE UTILITY LINES
CONTRACTOR SHALL COORDINATE WITH SIMPLEX FOR LATEST DETAILS AND WIRING DIAGRAMS FOR EACH DEVICES.

WIRE LEGEND:

M  -  1#16 TWISTED SHIELDED PAIR WIRING FOR (MAPNET/IDNET ADDRESSABLE DEVICES. PULL STATION, SMOKE DET'R & ETC)

H  -  2#14 AWG SOLID COPPER WIRING FOR WEATHERPROOF HORN.

P  -  2#14 AWG SOLID COPPER WIRING FOR 24V MAPNET/IDNET POWER.

T  -  2#16 TWISTED SHIELDED PAIR WIRING FOR RUI COMMUNICATION.

S  -  2#12 AWG TWISTED WIRING FOR ADDRESSABLE HORN/STROBE CIRCUIT.

Hu -  2#14 AWG SOLID COPPER WIRING FOR WEATHERPROOF HORN. (UNDERGROUND) WESS PENN AQUASEAL CABLE OR EQUAL.

Mu -  1#16 TWISTED SHIELDED PAIR WIRING FOR MAPNET/IDNET ADDRESSABLE DEVICES. (UNDERGROUND) WESS PENN AQUASEAL CABLE OR EQUAL.

Tu -  1#16 TWISTED SHIELDED PAIR WIRING FOR RUI COMMUNICATION. (UNDERGROUND)

Su -  2#12 AWG TWISTED WIRING FOR ADDRESSABLE HORN/STROBE CIRCUIT. (UNDERGROUND) WESS PENN AQUASEAL OR EQUAL.
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**SYMBOL LEGEND/MATERIAL LIST INDEX**

**MEEK nollG tam**

**GAYNERS ENGINEERS**

**MINST JOB #: 2205**

**REMARKS**

**SHESHA MODERNIZATION**

**SDA APP #11-13174**

**DRAWING REF: NONE**

**DATE: 07/25/2013**

**SCALE: NONE**

**SKETCH #: ESK-02**
SECTION 16745

ASSISTED LISTENING SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.

1.2 SUMMARY

A. This Section details a Portable Assisted Listening System.

1.3 DESCRIPTION

A. Provide a portable Assisted Listening System, usable in Multi-Purpose room. Transmitter shall be back mounted with input from house sound system. Personal receivers shall be body-worn and provided with pouch with belt clip.

1.4 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Product data for each type of product specified.

C. Provide a total number of seven (7) personal receivers and accessories including pouch with belt clip.

D. Proposed antenna location.

E. Local frequency usage, from frequency scanning survey with proposed frequency for this project.

1.5 QUALITY ASSURANCE

A. All electrical components shall be listed and approved by Underwriter's Laboratories. All broadcast/receiving components and system shall be approved by the Federal Communication Commission (FCC). Comply with all manufacturer’s requirements for installation and layout of system.

1.6 REGULATORY REQUIREMENTS

A. Conform to latest California Building code for assistive listening systems.
1.7 PRODUCT DELIVERY, STORAGE, HANDLING AND PROTECTION

A. Delivery, storage, and handling shall be in accordance with manufacturer’s requirements.

B. Provide any work or materials as is necessary to store, cover and protect all materials and work specified to be installed under this section. Store inside and under cover and keep them dry. Avoid marring and keep clean during all handling and installation operations. Protect all system components and materials after their installation from damage of any character. Work damaged through neglect or failure to provide protection shall be made good by the Contractor and without additional cost to the Owner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:

Williams Sound Motiva Personal FM System, Model PFM 330 RCHG and all included accessories, distributed by Centrum Sound Systems, Sunnyvale CA 94087

General Description:
Maximize a student’s ability to listen with the Motiva™ PFM 330 RCH from Williams Sound. Personal FM systems eliminate background noise and other distractions, and ensure that the speaker’s message is heard by everyone in the room. It’s perfect for classrooms, job training, consultation and more. Portable, no wire, no hassle. Each PFM 330 RCH system has a range of up to 150 feet, and will operate up to 20 hours at one time. Versatile 3.5 mm jack allows for a variety of earphone and headphone options, or equip it with a neckloop and it is compatible with most telecoil-equipped hearing aids. The T36 transmitter has an additional auxiliary input feature allowing the user to add another audio source i.e. MP3 or CD player, into the system. This gives the user the ability to mix that auxiliary input with the microphone input.

Transmitter PFM T36
a. The PFM T36 is a wide band body-pack transmitter and shall operate on 16 selectable frequencies between 72MHz and 76MHz.

b. The T36 shall operate for up to 20 hrs with two AA NiMH rechargeable batteries and shall be housed in a titanium colored PC/ABS plastic enclosure.

c. The T36 shall have a 3.5 mm microphone jack and a 2.5 mm auxiliary audio input jack.

d. The T36 shall have access to channel select, compression on/off, channel lock, master gain and aux gain inside the battery compartment.
e. There shall be a power switch which also serves as a microphone mute control on the top bezel of the transmitter.

f. The T36 shall have wide band modulation at 75KHz peak with a frequency response of 200Hz to 16KHz.

g. The transmitting antenna shall be integrated into the 40 inch microphone cable.

h. The PFM T36 shall be covered under a five year parts and labor warranty.

i. This transmitter shall be the Williams Sound Corp. PFM T36.

Receiver PFM R33

a. The Williams Sound Corp. PFM R33 shall be a wideband sixteen channel synthesized FM receiver operating on 72MHz to 76MHz. It shall be housed in a titanium colored PC/ABS plastic enclosure 4.6” x 1.1” x 2.8” and be compatible with the CHG 3502 and CHG3512 chargers.

b. The R33 shall be powered by two AA batteries and shall run for 17 hours on the Williams Sound Corp. BAT 026 rechargeable batteries.

c. The R33 shall have the antenna integrated into the headphone cord.

d. The top bezel shall have a 3.5mm stereo jack that can drive both stereo and mono headphones, a rotary on/off volume control and have a power LED and an FM indication LED.

e. Inside the battery compartment there shall be a rotary squelch control, rotary tone control, a sixteen position channel selector, an Alkaline or NiMH switch to select for charging operation and an output control which can reduce the maximum output by up to 17dB.

f. The R33 shall be FCC, Industrie Canada and RoHS compliant and shall have a five year warranty.

g. This receiver shall be the Williams Sound Corp. PFM R33.

Charger CHG 3512

a. The CHG 3512 shall be a 12-unit, drop-in battery charger and shall charge a maximum of 4 AA size NiMH batteries while they are installed into the Williams Sound PPA R37, PPA R35-8, R36, R863, RX22-4 style 3V receivers, or PPA T36, PFM T36, T863 style 3V transmitters.

b. The charger shall be a timed charger at 16 hours, and will provide a maintain charge once the timer has completed its charging cycle. Each bay on the charger shall have a red LED indicating charging status. The LEDs shall be on constantly during charging and will blink indicating when batteries are fully charged.

c. The charger CHG 3512 shall be powered by an external switching power supply (90-240 VAC input; 5 VDC, 4A output) via a CD barrel connector

d. The charger shall be the Williams Sound model CHG 3502.
2.2 TECHNICAL SPECIFICATION

A. PFM T36 Transmitter

Dimensions 4.1" L x 2.8" W x 1.1" H (104 mm x 71 mm x 28 mm)
Weight 2.6 oz (74 g), no batteries
Housing Material Shatter-resistant PC/ABS plastic

Battery Type Two (2) AA 1.5 V non-rechargeable Alkaline batteries (BAT 001), 70 mA nominal current drain, 30 hours approx. life or Two (2) AA 1.5 V NiMH rechargeable batteries (BAT 026), 70 mA nominal current drain, 20 hours per charge approx., recharges in 14-16 hours, uses CHG 3502 or CHG 3512 Charger

Operating Freq's Selectable, 16 channels, 72.1 - 75.9 MHz* (channels 1-8 correspond with R35-8 receiver channels)
Stability ± .005%, frequency synthesized, crystal reference, PLL
Modulation Wide-band FM, 75 kHz pk, 75 μS pre-emphasis
RF Output 80 mV/m at 3 m (max. allowed by FCC rules)
Freq Response 200 Hz to 13 kHz, ± 3 dB at 1% max. THD
Signal-to-Noise Ratio 65 dB (typical) transmitted
Transmit Antenna Integral with microphone cord
Microphone Electret type, 3.5 mm mono phone plug
External Controls Momentary push button: push and hold 3 seconds for power On/Off, push and release for microphone mute On/Off
Mic Input 3.5 mm mono phone jack with electret mic bias, internal adjustable master gain with 25 dB range
Aux Input 2.5 mm stereo phone jack, internal adjustable gain with 60 dB range
Audio Compression 1:1 or 2:1 ratio selected with internal slide switch
Compatible Receiver PFM R31, PFM R32, PFM R33, PFM R36, PPA R35, PPA R35-8, PPA R1600
Warranty 5 years, parts and labor (90 days on accessories)
B. PFM R33 Receiver

Dimensions 4.6" L x 2.8" W x 1.1" H (116 mm x 71 mm x 28 mm)
Weight 3.4 oz (96 g), no batteries
Color Titanium and Black Housing Material Shatter-resistant PC/ABS plastic
Battery Type Two (2) AA 1.5 V non-rechargeable Alkaline batteries (BAT 001), 70 mA nominal current drain, approximately 21 hours life, or Two (2) AA 1.5 V NiMH rechargeable batteries (BAT 026), 70 mA nominal current drain, approximately 17 hours per charge, recharges in 14-16 hours, uses CHG 3502 or CHG 3512 Charger.
Operating Freq’s Selectable, 16 channels, 72.1 - 75.9 MHz*
FM Deviation ± 75 kHz max synthesized, crystal reference, PLL
Sensitivity 2.5 µV at 12 dB SInad with Squelch defeated, Squelch set by user.
Freq Response 200 Hz to 12 kHz, -3 dB
Signal-to-Noise Ratio 62 dB at 100 µV
Receive Antenna Integral with earphone/headphone cord
External Controls FM Volume: rotary control with on/off switch
Environmental Mic Volume Rotary control
Internal Controls Tone: Rotary control

Channel 16 position rotary switch
Output (SPL) Limit Rotary control
Squelch Rotary control
Indicators On/off/low battery and FM LED's
Mic Input 3.5 mm mono phone jack with electret microphone bias, external adjustable gain with 50 dB range
Audio Output Stereo jack produces 30 mW, max at 16 Ohm, can be reduced by internal SPL limit control up to 17 dB
Approvals/Directives FCC, Industry Canada, RoHS, WEEE
Warranty 5 years, parts and labor (90 days on accessories)

C. MIC 090 Lapel Microphone

Color Black
Weight 15 g (0.5 oz)
Plug 3.5mm mono
Cord 39"
Phantom Powered No
Nominal Impedance 1500Ω @ 1kHz
Operating Voltage 1.5 - 10VDC
Freq. Response 20 - 18kHz
Pick-Up Pattern Omni-direct
Transducer Type Back electret
Max Input Level 110dB SPL
Sensitivity -56dB ± 3dB

July 26th 2013 – Addencum #1 16745-5 Assisted Listening System
D. HED 021 Folding Headphones

- Style: Mono, folding headphone
- Plug: 3.5mm mono
- Cord: 39"
- Driver Size: 30 mm
- Nominal Impedance: 3
- Freq. Response: 20 - 20kHz
- Weight: 52g
- Max Power Input: 100 mW
- Sensitivity: 110 dB @ 1kHz
- Replacement Pads: HED 023 (one pair)

E. NKL 001 Neckloop

- Color: Black
- Weight: 1.5 oz
- Length: 18.5" cord
- Connector: 3.5 mm mono plug
- Impedance: 8-16 Ohms
- Input Power: 500 mW max

Magnetic Field Strength:
25 mW input at 1000 Hz produces 1.7 A/m 6" above the center of loop.
85μW input produces 0.1 A/m (IEC Standard)

Approvals: RoHS, WEEE
Warranty: One Year

2.3 QUANTITY OF DEVICES

A. Provide the following devices in this project.
   a. One (1) PFM T36 transmitter.
   b. Seven (7) PFM R33 receivers.
   c. One (1) CHG 3512 charger.
   d. One MIC 090 lapel microphone.
   e. Seven (7) HED 021 folding headphones.
   f. Seven (7) NKL 001 neckloop.

2.4 ACCESSORIES

A. Provide all miscellaneous devices and appurtenance for the complete installation and operation of this assistive listening system, including wire connectors, clips fasteners, and other necessary accessories and devices.
PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Examine work of other trades necessary for work under this Section Commencement of installation of this work constitutes acceptance of work under other Sections. Any modifications of work under other Sections necessary to accommodate work under this Section shall be at the Contractor’s expense.

B. Prior to any other work under this Section, scan local frequencies to determine local frequency usage within the bandwidth specified. Submit scan results, with proposed system frequency for this project.

3.2 INSTALLATION-GENERAL

A. Install work neatly, install racks, fittings, and equipment level, plumb straight. Connectors, locknuts, screws, clamps, joints made up tightly.

B. Install the system in strict compliance with manufacturers’s written installation instructions.

3.3 TESTING

A. At completion of installation procedures, test all features of systems, and repair or replace any defective or non-functioning components.

3.4 MAINTENANCE AND TRAINING

A. Provide one-year maintenance agreement, from time of project Substantial Completion, including repair or replace defective units, change or adjustments to frequency, testing and repair of all mechanical and electrical parts, and express freight shipping for all parts to and from the manufacturer for diagnosis, repair, or replacement.

B. Instruct Owner’s maintenance staff and School staff in system operation and set-up. Schedule one instruction session after Substantial Completion.

C. Provide operation manuals and service agreement in one three-ring binder, labeled, with tabs for operation and warranty sections.

3.5 CLEANING AND PROTECTION

A. Perform the following operations immediately after completing system installation:
   1. Remove visible adhesive and other surface blemishes.
   2. Sweep or vacuum all dust and debris from in and around work.
   3. Place portable equipment, neatly coiled, arranged and stowed, in storage space designated by the School Principal, along with operation manual binder. Inform the Architect in writing of the storage location.

B. Protect work against mars, marks, indentations, and other damage from construction
operation and placement of equipment and fixtures during remainder of construction period.

C. Upon completion, remove all debris from job site.

END OF SECTION