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.

PROJECT SPECIFICATIONS

1. Item No. 09510

   Reference: 09510 – ACOUSTICAL CEILING

   Description:

   a. At part 2.01.C ACT-3 delete all subparagraphs and replace with the following subparagraphs:

   1. ‘1’x1’ Concealed Tee Acoustical Ceiling System.

      a. Armstrong Prelude Concealed Tee System with 12"x12"
         Fine Fissure, (item746) K4C4 Tiles. No substitution. Main
         runner spacing 4 foot centers, cross runner at 4 foot
         centers, and tee spline at 1 foot centers.

   2. Suspension System Attachment Devices.

      a. Hanger Wire: Galvanized carbon steel; soft temper; pre-
         stretched; yield stress load at least three times the design
         load but not less than 12-gauge.

   3. Access Panels.

      a. Each classroom shall have four concealed tee system
         access panels. Two per area bound by existing glulam
         beams. Located near dampers or junction boxes above
         ceiling.
PROJECT DRAWINGS

1. Item No. AD 1-1 (SK-1, SK-2 and SK-3 OF 8)
   Reference: DRAWING A2.04 – FINISH SCHEDULE
   Description: a. Add ACT-1, ACT-2 AND ACT-3 to the finish schedule ceiling column.
b. Add note to remarks column at ACT-3.

2. Item No. AD 1-2
   Reference: DRAWING A4.03 – ENLARGED PLANS - NEW
   Description: a. At 1/A4.03 (In Rm 110T) and 3/A4.03 (In Rm 119T), change Key Note #7 to Key Note #4.

3. Item No. AD 1-3
   Reference: DRAWING A4.04 – ENLARGED CLASSROOM PLANS - NEW
   Description: a. At New Key Notes, Alternate #2, at Key Note #15, add the following note. “AT ROOMS 111, SEE DETAILS 1 & 2/A9.07 SIM. FOR ATTACHENT. AT ROOMS 112, 113, AND 114, SEE DETAILS 9 & 10 /A9.08.”
   See AD 1-7 below.

4. Item No. AD 1-4
   Reference: DRAWING A4.05 – ENLARGED CLASSROOM PLANS - NEW
   Description: a. At New Key Notes, Alternate #2, at Key Note #15, add the following note. “AT ROOM 115 AND 118, SEE DETAILS 1 & 2/A9.07 SIM. FOR ATTACHENT. AT ROOMS 116, AND 117, SEE DETAILS 9 & 10 /A9.08.”
   See AD 1-7 below.

5. Item No. AD 1-5
   Reference: DRAWING A6.04 – LEGEND AND SYMBOLS
   Description: At NEW ACT-3, ADD “SEE SHEET A6.06 FOR TYP. HANGER AND BRACE SUSPENSION DETAILS”

6. Item No. AD 1-6 (SK-4 OF 8)
   Reference: DRAWING A9.07 – CASEWORK DETAILS
   Description: a. ADD DETAILS 9 AND 10, CUBBY BASE AND TOP AT DEMOUNTABLE WALL.

7. Item No. AD 1-7
   Reference: DRAWING S4.01 – DETAILS
   Description: a. At detail 2:
   1. Delete the note “LPT4 @ 8” O.C.*.
   2. Replace note, ** EXTEND A.B. TO SILL PLATE ABOVE IN LIEU OF LPT4.” with “EXTEND A.B. TO SILL PLATE ABOVE.”

8. Item No. AD 1-8 (HZ-0.00 THROUGH HZ-2.02 OF 8)
   Reference: DRAWING HAZMAT DRAWINGS
ATTACHMENTS:
Specifications:
09510 – ACOUSTICAL CEILING

Drawings:
SK-1 OF 8  1 Page (8 ½"x11") – Reference Sheet
SK-2 OF 8  1 Page (8 ½"x11") – Reference Sheet
SK-3 OF 8  1 Page (8 ½"x11") – Reference Sheet
SK-4 OF 8  1 Page (8 ½"x11") – Reference Sheet
HZ- 0.00 OF 8  1 Page (11"x17") – Reference Sheet
HZ- 1.00 OF 8  1 Page (11"x17") – Reference Sheet
HZ- 2.01 OF 8  1 Page (11"x17") – Reference Sheet
HZ- 2.02 OF 8  1 Page (11"x17") – Reference Sheet

END OF ADDENDUM ITEMS
SECTON 09510

ACOUSTICAL CEILINGS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes: Provision of acoustical ceiling boards, suspension system, and accessories, where shown on the Drawings, as specified, and as needed for a complete and proper installation.

B. Related Sections:
   1. Section 09100 - Metal Support Systems
   2. Section 09250 - Gypsum Board
   3. Division 15 - Mechanical
   4. Division 16 - Electrical

1.02 REFERENCES

A. California Department of General Services, Division of the State Architect, Interpretation of Regulations Document IR 25-2.13 Metal Suspension Systems for Lay-In Panel Ceilings: 2013 CBC.

B. Published specifications, standards, tests, or recommended methods of trade or industry apply to the work of this Section where cited by the abbreviations noted below.

   1. American Society for Testing and Materials (ASTM)
      a. ASTM E 580 Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions
      b. ASTM E84 - Surface Burning Characteristics of Building Materials
      d. ASTM C636 - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels


   3. CHPS - Collaborative for High-Performance Schools Indoor air quality emission testing of materials.

   4. COEHHA - The California Office of Environmental Health Hazard Assessment established exposure limits of chemicals.

   5. LEED for Schools - United States Green Building Council building type environmental rating system for schools.

   6. High Recycled Content (HRC) - Classified as containing greater than fifty percent total recycled content. Total recycled content is based on product composition of post-consumer and pre-consumer (post-industrial) recycled content per FTC guidelines.

   7. NFPA 70 - 2008 National Electrical Code (NEC) Section 410-36

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ACOUSTICAL CEILINGS
SECTION 09510-1
8. Fire-response tests are performed by a testing and inspecting agency that is acceptable to authorities having jurisdiction and that performs testing and follow-up services.

9. Fire-resistance-rated, acoustical tile ceilings are indicated by design designations listed in the UL "Fire Resistance Directory," in the Warnock Hersey "Certification Listings," or in the listing of another qualified testing and inspecting agency.

C. Where conflicts exist among the referenced standards, the standard affording the greatest protection shall govern.

1.03 SUBMITTALS

A. Documentation for submittals shall be in accordance with the requirements of Section 01300.

B. Materials List: List items proposed to be provided under this Section.

C. Product Data: Manufacturer's literature of acoustical material and suspension system.

D. Shop Drawings: submit reflected ceiling plans that are coordinated with mechanical, electrical and security work at acoustical ceilings. Show ceiling suspension members, method of anchorage of hangers and ceiling mounted work including light fixtures and air grilles.

E. Samples:
   1. Submit two 12” square samples of each type of acoustical material.
   2. Submit one 12” long sample of each suspension system member and molding.

F. Submit certificates from manufacturers of acoustical ceiling units and suspension systems attesting that their products comply with specification requirements and warranties.

1.04 QUALITY ASSURANCE

A. Single Source Responsibility: To obtain combined warranty for the Donn Brand suspension system and the acoustical panel, color match or ceiling panel and suspension system compatibility, all acoustical panel and suspension system components shall be produced and supplied by one manufacturer. Materials supplied by more than one manufacturer are not acceptable.

B. Subcontractor qualifications: Installer shall have successful experience in the installation of suspended ceiling systems on projects with requirements similar to requirements specified.

C. Requirements of regulatory agencies: Codes and regulations of authorities having jurisdiction.

D. Source quality control:
   1. Test reports: Manufacturer will provide test certification for minimum requirements as tested in accordance with applicable industry standards and/or to meet performance standards specified by various agencies.
   2. Changes from system: System performance following any substitution of materials or change in assembly design must be certified by the manufacturer.
   3. All ceiling panel cartons must contain UL label for acoustical compliance.
ACOUSTICAL CEILINGS
SECTION 09510

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in the original unopened protective packaging with the manufacturer's labels intact and legible, indicating brand name, pattern, size, thickness, and fire rating.

B. Deliver acoustical products only after glazing has been completed, exterior openings have been closed in, and wet work has been completed and dried out.

C. Storage:

1. Panels: Storage time of materials at the job site should be as short as possible, and environmental conditions should be as near as possible to those specified for occupancy (see no. 1.05 below). Excess humidity during storage can cause expansion of material and possible warp, sag, or poor fit after installation. Chemical changes in the mat and/or coatings can be aggravated by excess humidity and cause discoloration during storage, even in unopened cartons. Cartons should be removed from pallets and stringers to prevent distortion of material. Long-term (6-12 months) storage under uncontrolled environmental conditions should be avoided.

2. Suspension System: Store in manner that will prevent warping, scratches, or damage of any kind.

D. Handling: Handle in such manner to ensure against racking, distortion, or physical damage of any kind.

E. Damaged or deteriorated materials should be removed from the premises. Immediately before installation, to stabilize tile and panels, store them at a location where temperature and humidity conditions duplicate those ambient during installation and anticipated for occupancy.

1.06 PROJECT CONDITIONS

A. Environmental Conditions:

1. Installation of acoustical panels shall not begin until building is enclosed, permanent heating and cooling equipment is in operation, and residual moisture from plaster, concrete, or terrazzo work has dissipated.

2. Do not use ceiling panels in extreme or continuous high humidity, or areas exposed directly to weather or water. Ceiling panels are sized and designed for use within the standard occupancy range of temperature and humidity, 65-85 °F (18-29 °C), no more than 70% RH (relative humidity). Humidity can greatly affect product dimensional stability and sag resistance. Sag can become noticeable during periods of high humidity lasting only a few hours. CLIMAPLUS ceilings if used with DONN® Brand Suspension Systems, can withstand temperatures from 60-104 °F (32-40 °C) and relative humidity up to 95%-100% RH. See USG Interiors Inc. for specific warranty information.

3. Allow time for dimensional changes in ceiling panels stored at temperature/humidity conditions well outside of those recommended for service. With increases in temperature/humidity, these products expand (up to 1/64 in./ft. (4.3 mm/m) at 85 °F (29 °C)
CERVANTES DESIGN ASSOCIATES, INC.
San Francisco Unified School District
MCKINLEY ELEMENTARY SCHOOL
MODERNIZATION
2011-Proposition School Bond Program

4. Formaldehyde & VOC Classification, as tested per ASTM D5116 and according to standards established by the Collaborative for High-Performance Schools (CHPS), the California Office of Environmental Health Hazard Assessment (OEHHA), and the USGBC LEED for Schools.
   a. Products are classified as zero- or low-emitting for formaldehyde and VOC emissions as defined:
      1) "Zero-Emitting" - Materials producing concentration levels below the test-chamber background level specified by the "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers," including 2004 addendum. Section 3.8.4.3 states, "Background concentrations in the empty chamber ventilated at 1.0 air changes per hour shall not exceed 2 µg m⁻³ (1.6 ppb) for any individual VOC, including formaldehyde" and all VOCs with chronic inhalation Reference Exposure Levels adopted by California EPA COEHHA for Proposition 65 chemicals.
      2) "Low-Emitting" - Materials passing CHPS requirements as established in the "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers," including 2004 addendum. In addition, these products produce formaldehyde concentration levels below 16.5 µg m⁻³ (13.5 ppb) & contribute no more than one-half of the chronic inhalation Reference Exposure Level adopted by California EPA COEHHA for all other VOCs identified by Proposition 65.
   b. Must be tested by independent lab per these standards along with product submittals.
      1) Documentation of laboratory test must indicate products and item number if test results differ for other facility manufacturing location for supplied products.
   c. Acceptable products must be listed on the Collaborative for High-Performance Schools (CHPS) website found at http://www.chps.net/dev/Drupal/node/445.
   d. If only select item numbers within a product family or products formulated in select manufacturing facilities meet the CHPS requirements and are listed on the CHPS website, product literature and samples must clearly indicate that the product meets either zero- or low-emitting standards per the CHPS test protocol. In instances where only select items from a manufacturer meet the CHPS protocol, product packaging or labeling must clearly indicate the product meets the minimum requirements of the CHPS test standard for zero- or low-emitting Products as defined in Section 01350.

1.07 SEQUENCING AND SCHEDULING: Coordinate acoustical ceilings with mechanical and electrical work.

1.08 ALTERNATE CONSTRUCTION WASTE DISPOSAL
   A. RECYCLE:
      1. Separate clean dry ceiling tile pieces from contaminants for landfilling or reuse.
      2. Working with the local USG representative and the local waste hauler provide packaged and secure products for pick up.
      3. Allowed panels and Conditions: Check with manufacturer for acceptance.

1.09 MAINTENANCE
   A. Extra Materials: Prior to final acceptance of the Project, furnish the Owner with 2% of each type of 

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acoustical material installed. Provide the materials in either unopened manufacturer's cartons or dustproof packaging, plainly marked, indicating type and quantity of contents.

PART 2  PRODUCTS

2.01 MATERIALS FOR ACOUSTICAL CEILINGS

A.  ACT 1

1.  Acoustical Ceiling Panel
   a.  Gypsum Core, vinyl-laminated gypsum panels for acoustical ceiling panels
      1)  Available Product: USG Corporation “SHEETROCK Brand ClimaPlus™ Lay-In Ceiling Panels” - Item Number 3270
   b.  Classification: Provide panels complying with ASTM E 1264 for type, form, and pattern as follows:
      1)  Type XX, Pattern G
      2)  Surface Burning Characteristics: Firecode, Flame Spread 25, Smoke Developed 50
   c.  Color Finish: White
   d.  Recycled Content: Not Less Than 23
   e.  NRC Rating: Not Less Than
   f.  CAC Rating: Not Less Than 40
   g.  LR Rating: Not Less Than 0.77
   h.  Edge Detail: Reveal sized to fit flange of exposed suspension system members:
      1)  Square Edge
   i.  Thickness: 1/2 in
   j.  Panel Size: 2 ft x 4 ft x 1/2 in
   k.  Panel Warranty: When used with a USG Donn Brand suspension system, this panel has a 30 year warranty that it shall be free from manufacturing defects. When used without a USG Donn Brand suspension system, the period of warranty is 10 years.

2.  Metal Suspension System for Acoustical Ceiling Panel
   a.  General: ASTM C635, commercial quality pretreated and painted hot-dipped galvanized cold-rolled steel, exposed surfaces prefinished in manufacturer's standard corrosion resistant enamel paint finish; color: Flat White #050 or as selected from manufacturer's standard colors. Flat White 050
   b.  Available Products/ Systems:
      1)  USG Corporation: DONN Brand DX/DXL - 15/16"
   c.  Suspension System Components:
      1)  Fire Rated Main Tees: UL Classified Intermediate Duty Classification; double-web design; 1.64 in. high; rectangular top bulb; 15/16 in. exposed flange with roll-formed steel cap; cross tee holes and hanger wire holes at 6 in. o.c.; convenience holes at approximately 2 in. o.c.; integral reversible splices.
      2)  Cross tee: 1-1/2 in. high; roll-formed into double-web design with rectangular bulb; 15/16 in. exposed flange with prepainted steel cap; high tensile steel end clips clenched to web. 1 in. high; roll-formed into double-web design with
d. **Accessories:**
   1) **Wall Molding:** Angle shape; 7/8 in. mounting flange by 7/8 in. face flange or 1 in. mounting flange by 2 in. face flange or 2 in. mounting flange or 2 in. face flange; hemmed edges; exposed surface pre-finished to match suspension system components.
      a) **Inside Corner:** Field-mitered joints at wall molding; Prefabricated corner cap; formed to 90° angle; hemmed edge; size and finish to match wall molding.
      b) **Outside Corner:** Prefabricated corner cap; formed to 90° angle; hemmed edge; size and finish to match wall molding.
   2) **Channel Molding:** U-shape; hemmed edges; exposed surfaces pre-finished to match suspension system components; 1" or 1/2" exposed flange by depth as required for ceiling material.

e. **Suspension System Attachment devices**
   1) **Hanger Wire:** Galvanized carbon steel; soft temper; pre-stretched; yield stress load at least three times the design load but not less than 12-gauge.

f. **Suspension System Warranty:** When used with a USG acoustical ceiling panel, this suspension system has a Lifetime 30 year warranty that it shall be free from the occurrence of 50% red rust. When used without a USG acoustical ceiling panel, the period of warranty is 10 years.

B. **ACT 2**
   1. **Acoustical Ceiling Panel**
      a. **Cast Mineral-Base with painted finish Acoustical Panels for Acoustical Panel Ceiling**
         1) **Available Product:** USG Corporation "Frost™ ClimaPlus™ Ceiling Panels" - Item Number 490
      b. **Classification:** Provide panels complying with ASTM E 1264 for type, form, and pattern as follows:
         1) **Type III, Form 4, Pattern E**
         2) **Surface Burning Characteristics:** Class A, Flame Spread 25, Smoke Developed 50
      c. **Color Finish:** White
      d. **Recycled Content:** Not Less Than 71
      e. **NRC Rating:** Not Less Than 0.7
      f. **CAC Rating:** Not Less Than 35
      g. **LR Rating:** Not Less Than 0.88
      h. **Edge Detail:** Reveal sized to fit flange of exposed suspension system members: Shadowline Bevel
         i. **Thickness:** 3/4 in
         j. **Panel Size:** 2 ft x 2 ft x 3/4 in
      k. **Antimicrobial Treatment:** Coating based.
      l. **Formaldehyde and VOC Classification:** Zero producing concentration levels below the test-chamber background level as defined by CHPS, OEHHA, and LEED for Schools referenced in Section 09 51 13 1.05.E.
      m. **Panel Warranty:** When used with a USG Donn Brand suspension system, this panel has a 30 year warranty that it shall be free from manufacturing defects. When used

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without a USG Donn Brand suspension system, the period of warranty is 10 years. Panel Warranty: When used with a USG Donn Brand suspension system, this panel has a 30 year warranty that it shall be free from manufacturing defects. When used without a USG Donn Brand suspension system, the period of warranty is 10 years.

2. Metal Suspension System for Acoustical Ceiling Panel
   a. General: ASTM C635, commercial quality pretreated and painted hot-dipped galvanized cold-rolled steel, exposed surfaces prefinished in manufacturer's standard corrosion resistant enamel paint finish; color: Flat White #050 or as selected from manufacturer's standard colors. Flat White 050
   b. Available Products/Systems:
      1) USG Corporation: DONN Brand DX/DXL - 15/16"
   c. Suspension System Components:
   d. Main Tees: UL Classified Intermediate Duty Classification; double-web design; 1.64 in. high; rectangular top bulb; 15/16 in. exposed flange with roll-formed steel cap; cross tee holes and hanger wire holes at 6 in. o.c.; convenience holes at approximately 2 in. o.c.; integral reversible splices.
   e. Cross tee: 1-1/2 in. high; roll-formed into double-web design with rectangular bulb; 15/16 in. exposed flange with pre painted steel cap; high tensile steel end clips clenched to web. Main tees and cross tees shall be positively locked, yet shall be removable without the use of tools.
   f. Accessories:
      1) Wall Molding: Angle shape; 7/8 in. mounting flange by 7/8 in. face flange or 1 in. mounting flange by 2 in. face flange or 2 in. mounting flange by 2 in. face flange; hemmed edges; exposed surface pre-finished to match suspension system components.
         a) Inside Corner: Field-mitered joints at wall molding; Prefabricated corner cap; formed to 90° angle; hemmed edge; size and finish to match wall molding.
         b) Outside Corner: Prefabricated corner cap; formed to 90° angle; hemmed edge; size and finish to match wall molding.
      2) Channel Molding: U-shape; hemmed edges; exposed surfaces pre-finished to match suspension system components; 1" or 1/2" exposed flange by depth as required for ceiling material
   g. Suspension System Attachment devices
      1) Hanger Wire: Galvanized carbon steel; soft temper; pre-stretched; yield stress load at least three times the design load but not less than 12-gauge.
   h. Suspension System Warranty: When used with a USG acoustical ceiling panel, this suspension system has a Lifetime 30 year warranty that it shall be free from the occurrence of 50% red rust. When used without a USG acoustical ceiling panel, the period of warranty is 10 years.

C. ACT 3
   1. 1’x1’ Concealed Tee Acoustical Ceiling System.
a. Armstrong Prelude Concealed Tee System with 12"x12" Fine Fissure, (item746) K4C4 Tiles. No substitution. Main runner spacing 4 foot centers, cross runner at 4 foot centers, and tee spline at 1 foot centers.

2. Suspension System Attachment Devices.
   a. Hanger Wire: Galvanized carbon steel; soft temper; pre-stretched; yield stress load at least three times the design load but not less than 12-gauge.

3. Access Panels.
   a. Each classroom shall have four concealed tee system access panels. Two per area bound by existing glulam beams. Located near dampers or junction boxes above ceiling.

1. Acoustical Ceiling Panel:
      1) Available Product: USG Corporation "Radar™ Ceiling Panels" - Item Number 2990.
   b. Classification: Provide panels complying with ASTM E 1264 for type, form, and pattern as follows:
      1) Type III, Form 2, Pattern CDE
   c. Color Finish: White
   d. Recycled Content: Not Less Than 25
   e. NRC Rating: Not Less Than 0.5
   f. CAC Rating: Not Less Than 40
   g. LR Rating: Not Less Than 0.83
   h. Edge Detail: Reveal sized to fit flange of exposed suspension system members: BESK
   i. Thickness: 5/8 in
   j. Panel Size: 12 in x 12 in x 5/8 in
   k. Panel Warranty: When used with a USG Donn Brand suspension system, this panel has a 1 year warranty that it shall be free from manufacturing defects.

2. Metal Suspension System for Acoustical Ceiling Panel.
   a. General: ASTM C635, commercial quality pretreated and painted hot-dipped galvanized cold-rolled steel, exposed surfaces prefinished in manufacturer's standard corrosion resistant enamel paint finish; color: Flat White #050 or as selected from manufacturer's standard colors. Flat White 050
   b. Available Products/Systems:
      1) USG Corporation: DONN Brand DX/DXL Concealed
   c. Suspension System Components:
      1) Fire Rated Main Tees: UL Classified Intermediate Duty Classification: double-web design; 1.64 in. high; rectangular top bulb; 15/16 in. exposed flange with roll-formed steel cap; cross-tee holes and hanger wire holes at 6 in. o.c.; convenience holes at approximately 2 in. o.c.; integral reversible splices.
      2) Cross tee: 1-1/2 in. high; roll-formed into double-web design with rectangular bulb; 15/16 in. exposed flange with prepainted steel cap; high tensile steel end clips clenched to web. 1 in. high; roll-formed into double-web design with rectangular bulb; 15/16 in. exposed flange with prepainted steel cap; high
tensile steel end clips clenched to web. Main tees and cross tees shall be positively locked, yet shall be removable without the use of tools.

d. Accessories:
   1) Wall Molding: Angle shape; 7/8 in. mounting flange by 7/8 in. face flange or 1 in. mounting flange by 2 in. face flange or 2 in. mounting flange or 2 in. face flange; hemmed edges; exposed surface pre-finished to match suspension system components.
      a) Inside Corner: Field-mitered joints at wall molding; Prefabricated corner cap; formed to 90° angle; hemmed edge; size and finish to match wall molding.
      b) Outside Corner: Prefabricated corner cap; formed to 90° angle; hemmed edge; size and finish to match wall molding.
   2) Channel Molding: U-shape; hemmed edges; exposed surfaces pre-finished to match suspension system components; 1" or 1/2" exposed flange by depth as required for ceiling material.

e. Suspension System Attachment devices
   1) Hanger Wire: Galvanized carbon steel; soft temper; pre-stretched; yield stress load at least three times the design load but not less than 12-gauge.

f. Suspension System Warranty: When used with a USG acoustical ceiling panel, this suspension system has a Lifetime 30 year warranty that it shall be free from the occurrence of 50% red rust. When used without a USG acoustical ceiling panel, the period of warranty is 10 years.

2.02 FABRICATION

   A. Trim: Edges extruded to mate with attachment clips and provide positive mechanical lock with no visible fasteners. Factory finished to match approved samples.

   B. Splice Plates: Formed to screw into and provide positive lock between abutting pans with no visible fasteners. Factory finished to match trim.

   C. Mounting Clips: Formed to screw-attach to trim and provide positive mechanical lock with no visible fasteners while providing a variable angle, screw-fastened connection to suspension members which intersect the trim.

PART 3 EXECUTION

3.01 GENERAL

   A. Standard for Ceiling Suspension System Installations: Comply with ASTM C636.


   C. CISCA Ceilings Systems Handbook.

E. All applicable local and state codes.

3.02 EXAMINATION
A. Examine areas to receive acoustical ceilings and verify that:
1. Installation of building components located in ceiling space is complete.
2. Spacing, direction, and details of grid members and supports to accommodate installation of light fixtures, diffusers, and other items as shown on the Drawings are correct.
3. Areas are clean and free of materials or rubble that could damage acoustical surfaces.
B. Coordination: Coordinate with other work involved to determine areas of potential interference. Do not start installation of suspension system until interferences have been resolved. Ensure suspension system is located to accommodate fittings and units of equipment which are to be placed after installation of ceiling grid.
C. Obtain the Architect's approval before proceeding with the installation of acoustical ceilings.
D. Beginning of installation shall signify acceptance of conditions in areas to receive ceiling panels.
E. Fire-rating requirements: Construction above fire-rated assembly shall meet requirements of UL Design specified in 2: Products.

3.02 PREPARATION
A. Field dimensions: Installer must verify actual field dimensions prior to installation.
B. Renovation work: Installing contractor shall verify that existing ceiling structure is adequate to support additional Compasso ceiling suspension requirement.
C. Coordination: Coordinate and schedule installation of ceiling system with work of other trades affected by this installation, with particular attention given to mechanical and electrical work required to be installed and operating before ceiling work can begin.

3.03 FIELD QUALITY CONTROL
A. Deflection on installed system: Maximum deflection shall not exceed 1/360 of the span.

3.04 INSTALLATION OF SUSPENSION SYSTEM
A. Install suspension system in accordance with manufacturer's printed instructions, reviewed shop drawings, ASTM C636, and CBC 2010, DSA IR 25-2.10.
B. Hangers: Hanger spacing shall be 48” maximum center to center and not more than 8” from perimeter walls. Plumb hanger wires. Provide additional hangers as required to prevent eccentric deflection and rotation of supporting runners. Where ducts or other equipment prevent regular spacing of hangers, reinforce nearest adjacent hangers and related carrying channels as required to span required distance. Do not penetrate ductwork with hanger wires. Provide hanger wires at the intersections of grid members at corners of light fixtures. Provide hanger wire supports for all
recessed light fixtures for total support independent of acoustical ceiling systems.

C. Suspension Grillage: Space main runners and cross tees to support acoustical boards and other work resting in or on the ceiling as required to comply with specified performance requirements. Support runners directly from hangers; do not bear on walls or partitions.

D. Edge Molding: Install edge molding where suspended ceiling meets vertical surfaces. Miter joints where moldings intersect at corners; do not bend molding around corners. Provide corner caps. Plastic joints or fasteners will not be permitted. Provide fixed condition on 2 adjacent walls, and provide 3/4” space at free wall conditions.

E. Lateral Force Bracing: Provide horizontal restraints consisting of four wires splayed 90 degrees from each other at an angle not exceeding 45 degrees from the plane of the ceiling. Horizontal restraints shall be located 12 feet on center in both directions with the first point within 6 feet from each wall. At each point of horizontal restraint provide also a vertical strut extended and fastened to structure above to resist the vertical component induced by the bracing wires.

F. Perimeter Members: Provide hanger wires at 8” maximum from the ends of main runners and cross tees along the ceiling perimeter. Ends of runners and tees shall be tied together to prevent their spreading.

G. Lighting Fixtures: All recessed light fixtures shall be supported independent of the suspended ceiling system.

H. Where required, form expansion joints to accommodate movement and maintain visual closure without distorting system.

I. Hang system independent of walls, columns, ducts, pipes, and conduit. Where suspension system members are spliced, avoid visible displacement of the longitudinal axis or face plane of adjacent members.

J. Use of scrap or short-cut members is not permitted.

K. Span width of corridor using main runners equal to or greater than corridor width. Joining of two or more short ends to make additional runners will not be permitted.

L. Connect exposed grid members with positive interlocking method as standard with accepted manufacturer.

M. Level grid assembly in each area after installation of mechanical and electrical equipment.

3.05 INSTALLATION OF ACOUSTICAL BOARDS

A. Install acoustical boards as shown. Cut to fit around mechanical and electrical items such as diffusers, sprinklers, and lights.

B. Install in completed grid system in accordance with manufacturer's installation instructions and recommendations. Provide additional runners and wall angles as required to accommodate installation of lights, diffusers, grilles, and other items.

C. Balance border areas to avoid units of less than 1/2 board width wherever possible. Wherever ceiling area is a multiple of full size acoustical boards used in the work, balance alignment to be square and true, and install only full size units for entire ceiling, including borders, unless otherwise shown.

D. Adjustment: Adjust sags and twists which develop in ceiling system, and replace damaged and
faulty parts.

E. Retention Clips for Lay-In Boards: Install retention clips in accordance with the manufacturer’s recommendations.

3.04 CLEAN-UP AND PROTECTION

A. Suspension System: Remove panel material and perform any necessary cleaning maintenance with non-solvent based commercial cleaner

B. Immediately remove any corrosive substances or chemicals that would attack painted finishes (i.e. wallpaper adhesives)

C. Touch up all minor scratches and spots, as acceptable, or replace damaged sections when touch-up is not permitted

D. Painting: Repainting of suspension member shall be with a high-quality solvent base enamel paint and applied as recommended by paint manufacturer. Ceiling panels may be touched-up by spraying a thinned, non-bridging vinyl-acrylic flat wall paint. The type of paint selected and the method of application can alter the acoustical performance and fire ratings of any acoustical product. Therefore, USG Interiors, Inc. cannot guarantee that the field-painted panels will match the published performance.

E. Removal of debris: Remove all debris resulting from work of this section.

F. Clean exposed surface of acoustical boards in accordance with manufacturer’s instructions.

G. Remove and replace units and members which are damaged, cannot be cleaned, or are improperly installed.

H. Protect installation from damage during remainder of construction.

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FINISH SCHEDULE

Addendum: 1

A2.04

Sheet Title: FINISH SCHEDULE

Printed: 9/30/15

Anne M. Cervantes

Licensed Architect

State of California
### (N) INTERIOR KEY AND COLOR SCHEDULE

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**CUBBY TOP AT (E) DEMOUNTABLE WALL**

Scale 3"=1'-0"

1. **3"x2-1/8" CONT. ALUM. PRE-FIN. L (COLOR TO MATCH PLANK) FASTEN W/ #14 x 2-1/2" SHT MTL. SCREW TO EA. (E) STUD AT 16" OC.**
2. **3/8" MACHINE BOLT WI #14 LOCK NUT @ 12" OC. CENTERED IN EACH CUBBY.**

**CUBBY BASE AT (E) DEMOUNTABLE WALL**

Scale 3"=1'-0"

1. **3"x3-1/8" CONT. ALUM. L FASTEN W/ #14 x 2-1/2" SHT MTL. SCREW TO EA. (E) STUD TRACK AT 16" OC.**
2. **FLOORING SHALL BE INSTALLED PRIOR TO CABINET INSTALLATION. NOT EXCEPTIONS.**

**NOTE:** SEE 1B A9.07 FOR ANCHORAGE AT FRONT OF CUBBY.

---

**ADDENDUM 1**

**CASework DETAILS**

- **A9.07**
- **SK- 4 OF 8**
- **N.T.S.**
- **RNEL**
- **13-15**

---

**ARCHITECT:**

GERVANTEDESIGN ASSOCIATES • 86 COLUMBUS ST • SAN FRANCISCO, CA 94111 • PHONE 415.433.7681 • FAX 415.433.7982 • 2CA@GDESIGN@AOL.COM