AWu Government Services
727 Silver Spur Road, Ste 102
Rolling Hills Estates, CA 90274
Tel: (424) 251-4496
www.boa-gs.com

City of Torrance
New Emergency Operations Center (EOC) at the Torrance Municipal Airport
3301 Airport Dr
Torrance, CA 90505

July 24, 2023

Addendum 1 Narrative of Changes

Note: the following is a general description of clarifications and changes to the plans and specifications. This addendum consists of 18 sheets of specifications and 26 sheets of plans.

Specifications

Section 09 2216 Non-Structural Metal Framing
2.2.J – change security mesh to 'Not Used'.

Section 09 2423 Cement Plaster and Metal Lath
1.02.A and 1.02.B – strike out/delete the fiberglass reinforcing mesh.
1.05.A – change mock-ups to 'Not Used'.

Plans

G001 Title Sheet
Update table of contents total number of sheets to 69.
Add sheet C102 to the table of contents. Note that this sheet was included previously but was not listed in the table of contents.
Add new sheet S-6 to the table of contents.

C201 Civil Demolition Plan
Add keynotes 36 and 37.
Show existing accessible parking with keynote 37 referencing work on sheet A102.
Show trenching for new fire water line to EOC building.

C301 Civil Grading Plan

Add construction keynotes 22 through 29.
Add utility construction keynotes 41 and 42.
Show existing accessible parking with keynote 23 referencing work on sheet A102.
Show installation of new fire water line to EOC building.
Add (2) catch basins along open channel South of the EOC building.
Add storm drain headwall per keynote 27, near the Southwest corner of the EOC building.
Note the lower building pad elevation at the Northwest corner of the EOC building.

C401 Erosion Control Plan

Extend silt fence and stabilized construction entrance to include the work at the existing accessible parking spaces.

C502 Details

Add new details 6, 7, and 8 for repair work due to the installation of the new fire water line to the EOC building.

C503 Details

Add new detail 4 for where the pedestrian walkway to the EOC building crosses over the open drain near the Southeast corner of the building.
Add new detail 5 for the storm drain headwall.
Modify elevation callouts on details 1 and 2 for the biofiltration planter boxes.

A202 EOC Floor Plan and Details

Add keynote 13 for the electrical panel at Breakout Room 104.
Add keynote 14 for the FACP at Breakout Room 104.
Note on the floor plan to provide an end cab/boot at the wall expansion joints.
Note on the floor plan to reference the plumbing plan for roof and overflow drain lines from the existing roof, near grid lines ‘1’ and ‘D’.
Note on the floor plan to depress the slab for the mechanical return air at the Northwest corner of the building.

A301 Reflected Ceiling Plan and Details

Note re-routing of roof drain and overflow drain from existing building near gridline D.
Modify ductwork to re-route around the shear wall at gridline D.
Note plumbing supply lines from existing building to Kitchenette Room 105.
Note electrical conduit through roof at Breakout Room 104.
Due to re-routing of duct work, add a header along gridline D to provide wall space for the illuminated exit sign.

A302 Roof Plan and Details

Details 2, 3, and 4 - add notes regarding the EPDM water barrier to set it in mastic and to overlap the barrier between the roof and wall expansion joints.
Detail 3 - add notes for flashing to the existing building with metal deck siding.

Details 3 and 4 – note that the expansion joint cover will be spliced at 10’-0” max.
Note on the roof plan to provide a transition cover at the roof cap to wall expansion joint.
Show the existing roof drain and overflow drain on the existing building, and note that those drains will be re-routed through the new building per pluming plans.
Note the new electrical conduit on the roof, from the existing building to the panel at Breakout Room 104.

A401 Elevations

Add new detail 5 showing the EPDM water barrier expansion joint transitions.
Elevations 1 and 2 – note the transition cover at the roof to wall expansion joint, and note the end cap/boot at the base of the wall expansion joint.
Elevation 1 – note the overflow drain downspout nozzle from the re-routed existing roof overflow drain.
Elevation 3 – coordinate the return air duct size per Mechanical plans, and note that the distance from the door to the curb must be 24” minimum clear.

A501 Building Sections and Details

Detail 1 – note that the raised floor pedestal will be 1’-6” at room 105.
Building Section 2 – Revise room 105 to show the lower slab below the floor to allow for HVAC return air. Also call out plumbing lines and roof drain lines attached to the underside of the roof deck.

A601 Interior Elevations

Interior Elevation 1A and 1B – show the revised duct layout and 8’-0” header along gridline D.

A602 Interior Elevations

Interior Elevation 1A, 1B, and 1D – show the revised duct layout at the Breakout room and also the electrical equipment at the North wall.

S-1.1 Structural General Notes

Add new sheet S-6 to the Index of Drawings.

S-1.2 Structural Additional Notes and Legends

Modify structural details per Contractor pre-bid RFIs.

S-2 Foundation Plan and Roof Framing Plan

Modify foundation plan at Northwest corner to lower the slab 6” and to provide the required opening for the mechanical return air duct along gridline E.
Modify the roof framing plan to show a header along gridline D.
Modify the roof framing plan to show the sloped wall and extend roof framing South of gridline A.

S-3 Sections & Details

Modify structural details per Contractor pre-bid RFIs.

S-4 Sections & Details

New foundation stem wall details 2 and 9 for the return air opening duct.

S-5 Sections & Details

Modify structural details per Contractor pre-bid RFIs.

S-6 Sections & Details

New sheet with additional typical foundation details.

M201 Mechanical Floor Plan

Modify return air duct below floor due to interference with floor pedestal system.
Modify supply air duct along gridline D to re-route around the shear wall.

P201 Plumbing Floor Plan

Add general note 3 to provide a seismic joint for plumbing lines crossing the expansion joint.
Coordinate the fire riser location with the Architectural plan at the Southeast corner of the new building. Fire riser is to be located behind the wing wall to obscure from view.

E200 Electrical Overall Floor Plan

New details 2, 3, and 4 for the new conduit run at the roof.
New keynotes 6 through 11 for the new conduit run between the existing main switchboard and new panel EP.
Modify the overall floor plan to show the new conduit run between the existing main switchboard and new panel EP.

E201 Electrical Enlarged Lighting Plan

Coordinate gridlines A through E to match the layout on Architectural and Structural sheets.

E202 Electrical Enlarged Power and Signal Plan

Coordinate gridlines A through E to match the layout on Architectural and Structural sheets.
Add keynote 16 for conduit for radio cables.
Show radio cable conduit on the plan along gridline B and East of gridline 1.

E203 Electrical Fire Alarm Plan

Coordinate gridlines A through E to match the layout on Architectural and Structural sheets.

End of Narrative

SECTION 092216

NON-STRUCTURAL METAL FRAMING

< AS REVISED >
ADDENDUM 01

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Interior non load-bearing steel stud framing and furring 20 gage and lighter.
   2. Metal furring.
   3. Wood blocking.

B. Related Documents: The Contract Documents, as defined in Section 01 1000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM):
   1. ASTM A 653 - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
   2. ASTM C 645 - Specification for Non-Structural Steel Framing Members.
   3. ASTM C 754 - Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
   4. ASTM C 954 - Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 inches to 0.112 inches in Thickness.

B. United States Department of Commerce Product Standard (PS):
   1. PS 20 - American Softwood Lumber Standard.

C. Southern Pine Inspection Bureau (SPIB):
   1. Grading Ru

D. Western Wood Products Association (WWPA):
   1. Western Lumber Grading Rules.

1.3 SUBMITTALS

A. Section 01 3300 - Submittal Procedures: Procedures for submittals.
   1. Product Data:
      a. Framing Members: Standard materials and finish, product criteria, sizes and lengths, load charts, and limitations.
      b. Fasteners and Anchorage Devices: Standard materials and finish, sizes, and load charts.
   2. Shop Drawings:
      a. Indicate prefabricated work, component details, framing layout, framed openings, anchorage to structure, type and location of fasteners, and accessories or items required of other related work.
      b. Indicate methods of securing studs and framing to tracks, splicing, suspension, and for blocking and reinforcement to framing connections.

1.4 QUALITY ASSURANCE

A. Qualifications:
   1. Manufacturer: Company specializing in manufacturing Products specified with minimum 5 years documented experience.
   2. Installer: Company specializing in performing the Work of this Section with minimum 5 years documented experience.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Section 01 6000 - Product Requirements: Transport, handle, store, and protect Products.

B. Protect metal framing from corrosion, deformation, and other damage during delivery, storage, and handling.

C. Store and protect metal framing with weatherproof covering, and ventilate to avoid condensation.

D. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

1. Manufacturers: Subject to compliance with project requirements, alternate manufacturers offering specified items which may be incorporated in the Work include the following:
   a. Dale/Incor, Dearborn, MI (800) 882-7883.
   b. National Gypsum Company, Gold Bond Building Products, Charlotte, NC. (800) 628-4662.
   c. Clark Steel Framing Systems, Middletown, OH (800) 543-7140.

B. Section 01 6000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.

2.2 MATERIALS

A. Interior Nonload-Bearing Partition Framing: ASTM A 653 and ASTM C 645; galvanized sheet steel, channel shaped, punched for utility access, depth as indicated on Drawings, gages as indicated below unless indicated on Drawings.
   1. 2-1/2 Inch Studs - Unbraced Length 13 Feet or Less: Minimum 20 gage.
   2. 3-5/8 Inch Studs - Unbraced Length 17 Feet or Less: Minimum 22 gage.
   3. 3-5/8 Inch Studs - Unbraced Length 18 Feet or Less: Minimum 20 gage.
   4. 6 Inch Studs - Unbraced Length 25 Feet or Less: Minimum 22 gage.
   5. 6 Inch Studs - Unbraced Length Greater Than 25 Feet: Minimum 20 gage.
   6. Limiting heights are for 5/8 inch thick gypsum board panels on each side of partition and 5 pounds per square foot uniform load perpendicular to partition.

B. Partition Floor Tracks and Runners: ASTM A 653 and ASTM C 645; galvanized sheet steel, channel shaped, same depth and gage as studs, tight fit; solid web.

C. Wall Furring and Partition Bracing: ASTM A 653 and ASTM C 645; galvanized sheet steel.
   1. Studs: 2-1/2 inch deep, 22 gage.
   2. Studs: 3-5/8 inch deep, 20 gage.
   3. Hat-Shaped Channels: 7/8 inch deep x 1-1/2 inch wide, 25 gage.

4. Cold-Rolled Channels: 3/4 x 1/2 inch and 1-1/2 x 17/32 inch, 16 gage.
5. Z Furring Channel: 1-1/2 inch deep, 25 gage.
6. Clip Angles: 2 inches x 2 inches x 16 gage x 1/4 inch less than stud width.

D. Partition Framing Fasteners: Corrosion-resistant self-drilling self-tapping steel screws.
1. 22 Gage Framing: ASTM C 1002; 3/8 inch Type S pan head.
2. 20 Gage and Heavier Framing: ASTM C 954; 5/8 inch Type S-12 low-profile head.

E. Partition Floor Track Anchorage Device: Low velocity powder-actuated drive pins; minimum 0.140 inch shank diameter x 1-1/2 inch shank length with 7/8 inch diameter washer.
1. DX 451 System using X-DNI Pins with R23 washers, by Hilti, Tulsa, OK. (800) 879-8000.
2. Ramset/Red Head System using 4700SD Pins, by ITW Ramset/Redhead, Wood Dale, IL (708) 350-1858.
3. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.

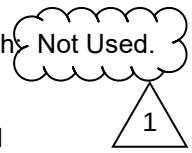
F. Wall Furring to Concrete or Masonry Wall Fasteners: Hex head sleeve anchors; minimum 1/4 inch diameter x minimum 1-1/8 inch embedment.
1. Slv Anch HX 5/16X2-1/2, by Hilti, Tulsa, OK (800) 879-8000.
2. Dynabolt HN-1413, by ITW Ramset/Redhead, Wood Dale, IL (708) 350-1558.
3. Section 016000 - Product Requirements: Product options and substitutions. Substitutions: Permitted.

G. Furring Channel to Masonry or Concrete Surface Fasteners: Low velocity powder-actuated drive pins of size to suit application.

H. Flat Straps and Plates: ASTM A 653; galvanized sheet steel, gage, shape, and configuration as indicated on Drawings.

I. Wood Blocking Attached to Partition Framing:
1. PS 20; S4S. Maximum of 19 percent moisture content, surfaced dry, No. 2 any species graded under WWPA grading rules or No. 3 Grade Southern Pine graded under SPIB grading rules.
2. Full sized, sound lumber without splits, warps, wane, or loose knots.

J. Security Mesh: Not Used.



PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 7300 - Execution: Verification of existing conditions before starting work.

B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.
1. Verify that building framing components are ready to receive Work.
2. Verify that rough-in utilities are in-place and located where required.

C. Report in writing to General Services Director or Designee prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.

D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the City of Torrance.

3.2 INSTALLATION

A. Install studs and fasteners in accordance with manufacturer's published instructions and ASTM C 754.

B. Metal Stud Spacing: 16 inches on center, maximum.

C. Align stud web openings horizontally.

D. Splice studs with minimum 8 inch nested lap, fasten each stud flange with minimum two screws.

E. Construct corners using minimum three studs.

F. Double stud at wall openings and door jambs, maximum 2 inches from each side of openings.

G. Place studs as indicated on Drawings, minimum 2 inches from abutting walls.

H. Install framing between studs for attachment of mechanical and electrical items.

I. Install intermediate studs above and below openings to match wall stud spacing.

J. Fasten studs adjacent to door frames, partition intersections, and corners to top and bottom runner flanges in double-stud fashion with metal lock fastener tools.
   1. Securely fasten studs to jamb and head anchor clips of door and borrowed-light frames.
   2. Place horizontally a cut-to-length section of runner with web-flange bend at each end, fasten with minimum one screw per flange.
   3. Position a cut-to-length stud (extending to top runner) at vertical panel joints over door frame header.

K. Blocking: Screw attach wood blocking between studs for support of surface mounted items.
   1. Plumbing fixtures.
   2. Toilet partitions.
   3. Wall cabinets.
   4. Toilet accessories
   5. Hardware.
   6. Architectural woodwork.
   7. Grab bars.
   8. Handrails and railings.
   9. Signage.
   10. Other items requiring backing for attachment.

L. Install batt insulation in walls, where indicated on Drawings, as specified in Section 072100.

M. Framing Fastening: Fasten framing in accordance with manufacturer's published instructions and schedule below, unless indicated otherwise on Drawings.

CONNECTION	FASTENER
Floor and Top Track to Concrete	1 - Pin at 32 inches on center.
Partition Stud to Floor Track	1 - Screw each side at each flange.
Plates and Straps to Studs	2 - Screws.
Stud Web to Stud Web	2 - Screws.
Runner to Header	1 - Screw at 16 inches on center, max. 6 inches from each end.

3.3 INSTALLATION - FURRING

A. Furring Channels:
   1. Attach vertically spaced at maximum 16 inches on center, to masonry and concrete surfaces with hammer set or powder driven fasteners staggered 24 inches on center on opposite flanges.
   2. Nest channels 8 inches at splices and anchor with 2 fasteners in each wing.

B. Wall Furring:
   1. Secure top and bottom runners to structure.
   2. Space metal studs at maximum 16 inches on center.

3.4 CONSTRUCTION

A. Interface with Other Work:
   1. Coordinate erection of studs at openings and with hollow metal door frames.
   2. Coordinate installation of anchors, supports, and blocking for mechanical, electrical, and building accessory items installed within framing.

B. Site Tolerances:
   1. Maximum Variation From True Position: 3 mm in 3 m.
   2. Maximum Variation From Plumb: 3 mm in 3 m.

3.5 FIELD QUALITY CONTROL

A. Section 01 4000 - Quality Requirements: Field testing and inspection.

B. Inspect metal framing erection, placement, spacing, fasteners, and connections to building.

C. Inspect security mesh installation, fastener type, spacing, and attachment to metal framing.

END OF SECTION

< AS REVISED >
ADDENDUM 01

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Lath and Portland cement plaster and stucco.

2. Lath and scratch coat of Portland cement plaster as a substrate for ceramic wall tile.

B. Related Requirements:

1. Division 01 - General Requirements.

2. Section 03 3000 – Cast-in-Place Concrete.

3. Section 07 2100 – Thermal Insulation.

4. Section 07 2719 – Plastic Sheet Air Barriers.

5. Section 09 2216 - Non-Structural Metal Framing.

1.02 SYSTEM DESCRIPTION

A. Continuous Insulation Under Cement Plaster: Three coat 7/8” cement plaster ~~with fiberglass reinforcing mesh~~ on metal lath over rigid foam insulation with drainage channels over water resistive barrier over plastic sheet air barrier over sheathing over metal studs.

B. Continuous Insulation on Z Channels Under Cement Plaster: Three coat 7/8” cement plaster ~~with fiberglass reinforcing mesh~~ on metal lath over water resistive barrier over plastic sheet air barrier over rigid foam insulation mounted on steel Z channels with foam tape over sheathing over metal studs.

C. Three coat 7/8” cement plaster on metal lath over water resistive barrier over plastic sheet air barrier over sheathing over metal studs.

D. Two coat 1/2” to 5/8” cement plaster over concrete.

E. Two coat 1/2” to 5/8” cement plaster over concrete.

F. Soffits and ceilings: Three coat 7/8” cement plaster on metal lath over suspended metal framing.

G. One coat cement plaster base for ceramic tile installation.

1.03 REFERENCES

A. ASTM International (ASTM):

1. ASTM A153 – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

2. ASTM A510 - Standard Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel, and Alloy Steel.

3. ASTM A641 – Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.

4. ASTM A653 – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

5. ASTM C150 – Standard Specification for Portland Cement.

6. ASTM C206 – Standard Specification for Finishing Hydrated Lime.

7. ASTM C841 - Standard Specification for Installation of Interior Lathing and Furring.

8. ASTM C847 - Standard Specification for Metal Lath.

9. ASTM C897 – Standard Specification for Aggregate for Job Mixed Portland Cement-Based Plasters.

10. ASTM C926 – Standard Specification for Application of Portland Cement-Based Plaster.

11. ASTM C932 - Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering.

12. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness.

13. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.

14. ASTM C1063 - Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster.

15. ASTM C1116 – Standard Specification for Fiber-Reinforced Concrete.

16. ASTM E1190 – Standard Test Methods for Power-Actuated Fasteners Installed in Structural members.

B. Federal Specifications (FS):

1. FS FF-N-105: Nails, Brads, Staples and Spikes: Wire, Cut and Wrought.

2. UU-B-790A: Building Paper, Vegetable Fiber: (Kraft, Waterproofed, Water Repellent, and Fire Resistant).

C. International Code Council (ICC):

1. ICC-ES AC11: Acceptance Criteria for Cementitious Exterior Wall Coatings.

2. ICC-ES AC 191: Acceptance Criteria for Metal Plaster Bases (Lath).

1.04 SUBMITTALS

A. Product Data: Submit manufacturer's product data for each material and component proposed for installation.

B. Plaster Samples: Submit minimum 24-inch by 24-inch samples of each stucco and Portland cement plaster texture for review. Samples shall be representative of texture, color, and proposed fabrication and finish quality. Maintain reviewed Samples on Project site for reference.

C. Accessories Samples: Submit 12 inch long samples of metal lath accessories: control joints, expansion joints, corner reinforcements, reveals and screeds.

D. Certificates: Submit test reports or ICC Evaluation Reports indicating that materials are in compliance with CBC requirements. Cementitious materials shall meet the acceptance requirements of ICC AC11, and metal lath the acceptance requirements of ICC AC191.

1.05 QUALITY ASSURANCE

A. Mock-ups: Not used. 1

B. Pre-Installation Conference: CONTRACTOR shall coordinate and conduct pre-installation conference in accordance to Section 01 3119, Project Meetings, to review the progress of construction activities and preparations for the installation of metal lath and cement plaster and other related work of this Section.

1.06 DELIVERY, STORAGE AND HANDLING

A. Store weather sensitive materials under cover, off the ground, and kept in a dry condition until ready for use.

B. Deliver materials to the Project site in manufacturer's sealed and labeled packages.

PART 2 - PRODUCTS

2.01 METAL LATH AND WEATHER RESISTIVE BACKING

A. Metal Lath:

1. Walls and Ceilings: Diamond mesh expanded metal lath, in conformance to ASTM C847, without paper backing. 3.4 pounds per square yard, hot-dip galvanized coating G60 in accordance with ASTM A653. Alabama Metal Industries Corporation (AMICO), California Expanded Metal Products Company (CEMCO), ClarkDietrich, Marino-Ware, or equal.

    a. V-grooved self-furring type for installation over sheathing. Lath shall be furred out a minimum of 1/4 inch when installed over a solid surface.

    b. Flat type for installation over spaced framing.

2. Walls: Self-furring Welded Wire Lath: Weight 1.95 pounds per square yard, with Class 1 galvanized coating in conformance to ASTM A641. Structa Mega Lath per ICC ESR-2017, as manufactured by Structa Wire Corp, or equal.

3. Walls & Ceilings: Self-furring Welded Wire Lath: Weight 2.2 pounds per square yard, with Class 1 galvanized coating in conformance to ASTM A641 with heavy perforated Kraft paper. V-Truss per ICC ESR-2017, as manufactured by Structa Wire Corp, or equal.

B. Water Resistive Barrier Backing for Metal Lath:

1. One layer of air barrier membrane per Section 07 2719, Plastic Sheet Air Barriers.

C. Self-Adhered Flashing:

1. Compatible with the Plastic Sheet Air Barrier, minimum 25 mils thick, self-sealing and waterproof.

2. Adhesives, primers and sealers for self-adhered flashings and water repellant backing shall be as recommended by manufacturer for installation with specified products and substrates, and shall be approved by the Architect.

2.02 METAL LATH ACCESSORIES

A. Materials: Minimum 0.0172 inch galvanized steel or 0.0207 zinc alloy with expanded wings. PVC is not permitted. Furnish casing beads, expansion and control joints, weep and vent screeds.

B. Manufacturers: Alabama Metal Industries Corporation (AMICO), California Expanded Metal Products Company (CEMCO), ClarkDietrich, Stockton Products, Marino-Ware, equal.

C. Products:

1. Exterior Stress Relief Joints: Sizes and profiles, indicated or required. Control joints shall have expanded wings when attachment flange is installed above the primary water-resistant barrier.

2. Expansion Joints: Two piece sections designed to accommodate expansion, contraction and shear forces. Industry generic name: #40-2 piece joint.

3. Control Joints: One-piece sections, with flange designed to engage plaster. Grounds shall provide full 7/8 inch thickness of cement plaster. Industry generic name: XJ-15.

4. Soffit Drip Screed: Similar to Stockton Products No. 5, with key holes.

5. Casing Beads: Expanded or standard flange type with 7/8 inch grounds to establish plaster thickness. Industry generic names: J-Mold or # 66.

6. Welded Wire Corner Reinforcement: 2-5/8 inch wire wings square or bullnose. Industry generic name: CornerAid.

7. Inner Corner Reinforcement: Shaped reinforcing expanded metal with 3 inch legs, for angle reinforcement. Industry generic name: Cornerite.

8. Lath Reinforcement: Flat expanded metal lath reinforcing units. Industry generic name: Striplath.

9. Outside Corner Reinforcing: 2 1/2" legs Class 1 Galvanized Coating complying with ASTM A641. VTruss Straight Corner per ICC ESR-2017, as manufactured by Structa Wire Corp, or equal.

10. Ventilating Screeds: Soffit, attic, fascia, edge, channel and expansion channel vent screeds, perforated web type, with integral plaster grounds, of sizes indicated on drawings.

11. Foundation Weep Screeds: Integral plaster ground and weep screed; 3-1/2” minimum attachment flange. Industry generic name: #7 Weep Screed.

12. Foundation Casing at Walls with Continuous Insulation: Custom shaped galvanized steel “J” mold with weep holes. Width shall be sized to accommodate insulation thickness plus 7/8 inch plaster.

2.03 LATH FASTENERS

A. Fasteners through Continuous Insulation: Fastener spacing as indicated on drawings.

1. Wood Studs: Fasteners shall be corrosion resistant.

a. Nails: In accordance to FS FF-N-105, **[0.113 inch] [0.120 inch] [0.131 inch]** with a 3/8 inch diameter head with length that penetrates wood framing (exclusive of sheathing) 1-1/4 inch minimum.

b. Lag Screws: 1/4 inch diameter with length that penetrates wood framing (exclusive of sheathing) 1-1/2 inch minimum.

2. Metal Studs: Corrosion resistant coated wafer head steel **[#8] [#10]** screws with length that penetrates framing steel thickness plus three threads minimum.

B. Fasteners at Locations with no Continuous Insulation:

1. Wood Studs: Fasteners shall be corrosion resistant.

a. Nails: In accordance to FS FF-N-105, 0.113 with a 3/8 inch diameter head with length that penetrates wood framing (exclusive of sheathing) 3/4 inch minimum.

b. Screws: Type A, in accordance to ASTM C1002, length that penetrates wood framing (exclusive of sheathing) 3/4 inch minimum.

c. Staples: In accordance to FS FF-N-105. Minimum 3/4 inch crown, 0.053 inch steel. Staples shall have sufficient length to penetrate studs at least 3/4 inch.

2. Metal Studs: Wafer head type S or S-12, corrosion resistant, with length to penetrate framing steel thickness plus three threads minimum.

a. Screws for fastening to steel members from 0.033 inch to 0.112 inch in thickness shall be in accordance to ASTM C954.

b. Screws for fastening to steel members 0.033 inch in thickness and less shall be in accordance to ASTM C1002.

C. Fasteners for Concrete and CMU Substrates: Power Actuated Fasteners: For attachment of lath to concrete and concrete masonry, recommended by manufacturer for the specific use intended. Minimum 3/4 inch long hardened drive style pin with a 1/2 inch diameter style washer. Fasteners shall be Fasteners shall be corrosion resistant and provide minimum withdrawal resistance of 50 pounds minimum.

D. Wire: Wire for fastening lath to supports, tying ends and edges of lath sheets, and securing accessories to lath, 0.0475 inch diameter (# 18 wire). Galvanized soft-annealed steel wire in conformance to ASTM A641.

2.04 PLASTER MATERIALS

A. Factory Blended Portland Cement Plaster Basecoats and Finish: Products as fabricated by California Stucco, La Habra, Shamrock Stucco, Merlex, Omega Stucco, Inc., Expo Stucco, Spec Mix, Quikrete or other manufacturer member of the Stucco Manufacturer's Association (SMA).

1. Material Standards:

a. Portland Cement: ASTM C150.

b. Hydrated Lime: ASTM C206.

c. Sand: ASTM C897.

d. Fibers: ASTM C1116.

2. Three Coat Systems:

a. Scratch and Brown Coats: Factory blended fiber reinforced plaster and sand mix conforming to ASTM C926, and requiring only the addition of water. Total thickness of coats: 3/4 inch.

b. Finish Coat: Factory blended cementitious stucco color coat, integrally colored with fade-resistant pigments. Coat thickness 1/8 inch.

1) Finish: **Light Dash**

2) Color: As selected by ARCHITECT.

3. Two Coat Systems:

a. Brown Coat: Factory blended fiber reinforced plaster and sand mix conforming to ASTM C926, and requiring only the addition of water. Coat thickness 3/8 to ½ inch.

b. Finish Coat: Factory blended cementitious stucco color coat, integrally colored with fade-resistant pigments. Coat thickness 1/8 inch.

1) Finish: **Light Dash**

2) Color: As selected by ARCHITECT.

B. Water: Clean, potable and from domestic source.

C. Plaster Bonding Agent: In conformance to ASTM C932 and formulated for exterior use. "Weld-Crete", manufactured by Larsen Products Co., or equal.

D. Plaster Patching Materials:

1. Bonding Agent: Acrylic resin type, Acryl 60, LHP Bonder, or equal.

2. Patching Plaster: Manufactured by Merlex Stucco, Inc., or equal. Furnish fast setting, compatible with existing plaster materials, "Exterior Pronto Patch," Portland cement base coat material, requiring only addition of water. Material shall provide initial set within 20 minutes and final set within one hour.

E. Flashing: Single ply self-adhesive waterproofing membrane as manufactured by W.R. Grace Company, Jiffy-Seal by Protecto Wrap, W.R. Meadows, Inc., or equal. Furnish for installation behind stress relief joints and backing on horizontal and vertical surfaces exposed to weather; under metal copings and flashings; and window jambs and sills.

F. Continuous Insulation: Refer to Section 07 2100, Thermal Insulation.

G. Miscellaneous Materials: Provide additional components and materials required for a complete installation.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that installation of plastic sheet air barrier and flashings, per Section 07 2719, and continuous insulation per Section 07 2100 are complete before starting Work of this Section.

3.02 INSTALLATION-OF WATER RESISTIVE BARRIER

A. Install one layer of water resistant barrier over air barrier. Install Kraft paper horizontally with each course weather lapped 2 inches over layer below and 6 inches on ends.

B. Repair and seal tears and holes in water resistive barrier prior to installing lath.

C. Install single ply self-adhesive flashing per manufacturer‘s recommendations in areas indicated on the Drawings and at locations where the plaster will be in less than a 60 degree plane or where water can pond, with a six inches extension onto the vertical wall surface. Apply self-adhesive flashing in a “shingle fashion”.

3.03 INSTALLATION OF LATH AND LATH ACCESSORIES

A. Exterior Lathing, General: Install in conformance to ASTM C1063 and CBC Chapter 25.

B. Install longest length of metal lath as possible. Do not use pieces shorter than six feet in length. Attach lath to framing supports not more than seven (7) inches apart along framing supports only.

C. Apply metal lath with long dimension at right angles to framing or furring supports and lap lath a minimum 1/2 inch at sides and minimum 1 inch on ends. Lap wire lath minimum one mesh on sides and ends. Stagger vertical laps at least 16 inches. Lath shall lap flanges of solid flanged trim accessories by a minimum of 50%.

D. Ends of lath on open framing (unsheathed) shall occur over supports. Where necessary, install additional studs to provide support for lath ends and support for separate flanges of stress relief joints.

E. Install trim accessories plumb, level and straight, attachments should not exceed 24 inches on center.

F. Lath shall not be continuous through control joints. Two-piece Expansion Joints shall have the lath cut, be attached to framing and lath lap the flanges. Place control joints as indicated on elevations. Water resistant barrier shall be continuous behind all control joints and vertical reveals.

G. Install a weep screed at or below foundation plate line on exterior stud walls in conformance to CBC section 2512. Screed shall be of a type permitting water to drain to exterior of building. Weather-resistant barrier and exterior lath shall cover and terminate on attachment flange of screed.

H. Powder Actuated Fasteners shall be used on concrete/masonry substrates when lath is applied. Fasteners shall be driven home and avoid spalling of concrete. Pattern shall simulate that of framed walls.

I. Interior Lathing, General: Install in conformance to ASTM C841 and CBC Chapter 25.

J. Metal lath shall be fastened to metal supports with specified fastener spaced not more than 6 inches apart or with other recognized fasteners.

3.04 PLASTER APPLICATION - GENERAL

A. Verify that installation of lath is complete prior to start plastering. Notify the Architect upon completion of lath and prior to start of plaster to schedule a lathing installation compliance meeting. TSIB will submit a written field observation report delineating any deficiencies. Site meeting shall be coordinated with General Services Director or Designee.

B. Proportion, mix, apply, and cure plaster in conformance with ASTM C926 and CBC Chapter 25.

C. Install each plaster coat to an entire wall or ceiling panel without interruption to avoid cold joints and abrupt changes in uniform appearance of succeeding coats. Wet plaster shall abut existing plaster at naturally occurring interruptions in plane of plaster (such as corner angles, openings and control joints) wherever possible. Cut joining, where necessary, square and straight and at least 6 inches away from a joining in preceding coat.

D. Provide sufficient moisture or curing methods to permit continuous and complete hydration of cementitious materials, considering climatic and Project site conditions. If water cured, each basecoat shall be continuously damp for at least 48 hours, including weekends and holidays. Other curing methods, spray applied curing compounds, or other approved equal are permitted.

E. Provide sufficient time between coats to permit each coat to cure or develop enough rigidity to resist cracking or other damage when next coat is installed.

3.06 EXTERIOR PLASTERING

A. Concrete surfaces, except where noted as "Exposed Concrete" or "Painted Concrete," shall be finished with stucco **light dash** finish coats, as specified.

B. Preparation of Concrete and Masonry Surfaces:

1. Exterior concrete and masonry surfaces to be plastered shall be free of oily or waxy substances, and loose or foreign material. Uniformly spray with nozzle-type water spray at least 12 hours before installation of plaster or as required to control suction.

2. Concrete and masonry surfaces to receive two coat application of 5/8 inch thick Portland cement plaster shall be treated with bonding agent. This surface preparation shall not be installed instead of a brown coat of plaster.

3. Concrete surfaces to receive stucco dash finish shall be lightly sandblasted to provide a roughened surface.

4. Verify that lath has been installed securely and that grounds, screeds, casing beads and other accessories are straight, in correct position, and securely fastened in place.

C. Mixing: Provide plaster mix: cementitious materials and aggregate in proportions specified, furnishing only sufficient water to obtain proper consistency before installation. Do not mix any more material at any time than can be installed within 1/2 hour after mixing. Do not re-temper. Add only enough water to allow proper application of cement plaster.

D. Application:

1. **Dash** Bond Coat: on concrete or masonry surfaces, leave undisturbed, and maintain damp for at least 24 hours following installation. Dash bond coat may be omitted when liquid bonding agent is used.

2. Scratch Coat: Install with sufficient material to completely cover laths and scratch across supports.

3. Brown Coat: Rod to a straight, true, even within 1/4 inch tolerance in 5 feet of surface and consolidate surface with a wood or neoprene float. Surface shall be left open and course, suitable to receive finish coat.

4. Stucco Finish Coat: Install in two coats to a total thickness of 1/8 inch, each coat covering surface uniformly. First coat shall completely cover basecoat with uniform color. Second color shall provide a uniform texture.

    a. First coat shall be installed adequately to cover surface and fill minor imperfection in the brown coat.

    b. The second coat shall be installed by doubling back same day, when first coat is sufficiently dry.

    c. Over concrete surfaces, second coat shall be installed 24 hours after installation of first coat. In warm weather, first coat shall be cured by light water spray after material has set.

    d. Protection: Protect those surfaces, which are not to receive dash finish coats. Such surfaces shall be shielded and shall have any sand left from dashing operation removed.

    e. Provide smoothed plaster finish to comply with ADA requirements behind handrails.

E. Curing Exterior Plaster: Adhere to current edition of CBC for curing requirements.

F. Option for Machine Application, Scratch and Brown Coats: Instead of hand installed plaster, the furnishing of plastering machines for interior or exterior scratch and brown coats or single base coat is permitted. Machine installation shall be in accordance with the following:

1. Qualifications: Provide proper equipment and apparatus.

2. Apparatus: Pump shall be equipped with an air pressure gage or factory installed blow-off valve and required safety devices. Hoses and connections shall be tight and pressure shall be maintained constant.

3. Proportion and Application: Proportioning, mixing, number of coats and thickness shall be same as specified for hand application. Cement aggregate and water shall be mixed to plaster machine. Plaster mix shall be projected into and conveyed through a hose to the nozzle at end of hose and deposited by pressure in its final position ready for manual straightening and finishing.

4. Follow-Up: Perform scoring operation of plaster, based on settings and drying conditions at time of installation. Curing shall be as previously specified.

5. Protection: Before installing any plaster, thoroughly protect other adjacent Work.

3.07 INTERIOR PLASTERING

A. Portland Cement Plaster, Scratch Coat: Install to vertical lathed surfaces where ceramic tile is indicated, and install Portland cement plaster finishes where indicated.

B. Preparation for Plastering:

1. Verify that lath has been installed securely and that grounds, screeds, casing beads and other accessories are straight, in correct position, and securely fastened in place.

2. Bonding Agent: Install to vertical concrete or masonry surfaces to receive ceramic tile.

3. Concrete and masonry surfaces on which suction must be reduced shall be sufficiently moistened before plastering operations start.

4. Install galvanized expanded metal lath on supports in conformance with requirements of ASTM C1063 and CBC.

C. Number of Coats and Thickness: Interior plastering to receive paint shall consist of the following, with thickness measured from face of supports or surface:

1. On Concrete or Masonry: two coats, brown and finish, 5/8 inch thick.

2. On Metal Lath: three coats, scratch, brown and finish 7/8 inch thick.

D. Proportions for Interior Plaster: Adhere to current edition of CBC for proportions and curing requirements.

1. Admixtures shall be proportioned, mixed and installed in accordance with printed directions of manufacturer.

E. Mix factory blended plaster using only sufficient water to obtain proper consistency before installation. Do not mix any more material at any time than can be installed within ½ hour after mixing. Do not allow material to remain in mixer or mixing boxes overnight.

F. Application:

1. Dash Bond Coat: Dash on surface, leave undisturbed, and maintain damp at least 24 hours following installation. Omit Dash bond coat when liquid bonding agent is used.

2. Scratch Coat: Install with sufficient material to form good keys, thoroughly cover lath, and cross scratch.

3. Brown Coat: Rod to a straight, true and even surface. Brown coat must be 1/16 inch below face of grounds to provide adequate space for finish coat. Float surface to increase density.

4. Smooth Finishes: Install two coats for a thickness of 1/8 inch. Install second coat after finish coat begins to set. Install to a true, even plane and trowel to a smooth finish, free from blemishes.

5. Float Finishes: Install to a thickness between 1/16 inch to 1/8 inch, install and uniformly float to true planes.

6. Plaster Screeds: On metal lath or wire fabric lath, install plaster screeds wherever permanent grounds are too far apart to serve as guides for rodding.

G. Curing Interior Plaster: Adhere to requirements of CBC.

3.08 QUALITY CONTROL

A. Finish interior and exterior plaster to a uniform texture, free of imperfections and flat within 1/4 inch in 5 feet. Form a suitable foundation for paint and other finishing materials. Avoid joining marks in finish coats.

3.09 REPAIR OF DAMAGED PLASTER

A. Plaster Detached from Framing:

1. Remove loose and broken plaster.

2. Repair or replace damaged water-resistant backing and lath in compliance with specified standards.

3. Remove stucco finish from surrounding area in the same plane by sandblasting.

4. Install a scratch coat and a brown coat mixed with liquid bonding agent instead of water to the areas devoid of plaster.

5. Install a coat of liquid bonding agent to entire wall plane.

6. Install a 1/8 inch thick stucco finish coat to entire wall plane and match existing texture and color.

B. Cracked Plaster 1/8 inch to 1/2 inch:

1. Remove loose material from crack with a wire brush.

2. Fill crack with slurry of stucco and liquid bonding agent.

3. Install a coat of liquid bonding agent to entire wall plane.

4. Install 1/8 inch thick stucco finish to entire wall plane and match existing texture and color.

C. Cracks Larger than ½ inch - Painted:

1. Remove loose material from crack with a wire brush.

2. Fill crack with slurry of one part Portland cement to three parts masonry or stucco sand and liquid bonding agent to match existing texture of adjacent surface.

3. Paint entire wall plane, color to match existing.

4. Where patching of plaster over existing lath is feasible, fasten loose lath and install new lath with nails at 6 inch centers. Where metal is furnished, lap new lath over existing 6 inches and tie at 6 inch centers. Install paper backings as required, shingled into existing.

5. Patching of Holes, Cracks, and Gouges: Holes, cracks, gouges, missing sections, and other defects in existing improvements shall be patched. For holes over 1 inch in size, cut small sections of lath and place in opening attached to existing material. Install 3 coats of plaster. For holes one inch and smaller, install bonding agent to existing surfaces and neatly fill hole with plaster, installing necessary coats to match adjacent surfaces, eliminate cracks and match existing surface texture. Cracks, gouges, and other defects shall be filled with plaster or spackle as required and neatly finished to match adjacent existing improvements.

3.10 CLEANING

A. Remove rubbish, debris, and waste material and legally dispose of off the Project site.

3.11 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION