Pacific Grove Unified School District
435 Hillcrest Avenue, Pacific Grove, CA 93950
Forest Grove Elementary School Site Improvements
Notice to Bidders - Addendum 03

Addendum Date: 3/23/2026
Addendum by: Ausonio Incorporated/Brailsford & Dunlavey
Attn: All Bidders
You are hereby notified of the following Additions/Deletions/Revisions to the Project Manual/Specifications and Drawings for this project, identified as Addendum 03.
Addendum 03 documents shall take precedence over the bidding documents previously issued.
Bidders shall acknowledge receipt and inclusion of Addendum 03 on their Bid Proposal.

AD03-01: Revisions to Project Manual – New Bid Due Date
Section 001113.11 “Notice Calling for Bids” of the project manual should be revised to reflect the following:

1. Latest Time / Date for Submission of Bid Proposals: New bid due date is **Tuesday, March 31, 2026**, at 3:00 pm.
2. Submittal of Bid Proposals: All bid proposals must be received prior to 3:00 pm on **March 31, 2026**.

AD03-02: Pre-Bid Questions and Answers

1. The specifications for both Forest Grove and Robert Down include a ball wall to be installed; however, only the Robert Down plan set contains the installation details. Are these details intended to be the same for Forest Grove as well?
   Ball Walls are not part of the scope of work at Forest Grove Elementary School.

2. Scope of work summary indicates modernization of building "C" and "D" but sheet A2.1 indicates building "C" and "B" confirm scope is "C" & "B".
   The scope of work is in buildings "C" and "D". The references on sheet A2.1 will be corrected in Addendum 3.

3. Provide specifications for pavement marking Hopscotch, student line up and 4 square on asphalt.
   A Pavement Marking Specification is included in Addendum 3

4. Who supplies and installs shade canopy that is on drawings?
   If the District accepts this Alternate, the Fabric Shade Structure would be provided by the Contractor.

5. Please provide ceramic tile specification for floor and wall patching.
   Ceramic Tile Specification is included in Addendum 3.

6. Will Contractor be issued auto cad files to reference for surveying and layout of new site work?
   Contractor can be issued CAD files upon request.

7. Confirm map of United States shown on A1.11 is by others since there is no detail indicating scale size or details.
   Map of the US is part of the Contract scope of work. General dimensions are added to the Addendum 3 revised drawings. This is a common installation that is expected to be done without additional details.

8. Do the handrails paint?
   Railings will not be painted. They will be finished in hot-dip galvanizing.

9. There is a soils report referenced in specification 31 05 13 and in general grading specification but not included in contract documents, please provide direction.
   The Geotechnical Investigation Report for this project is included in addendum 3 (Exhibit D).

10. Provide floor plan to building where IDF and Electrical panel are located per Sheet note #1 & #2 E201 to establish linear footage of conduit and wire.
    Building floor plans are not required as there is cabling or IDF connection in the scope of work. Contractor is only providing underground conduit and pullboxes as shown on Addendum 3 revised sheet E201.

11. Can you provide specifications for the bathroom parts and materials?
    Specification sections are included in Addendum 3.

12. Please confirm that the additive work for Forest Grove is the Shade Structure and the amphitheater seating under the structure.
    Only the Shade Structure is part of the Alternate. The amphitheater and all associated site improvements are part of the base bid scope.

13. Sheet C7.2 has fencing noted as 'FNC – 01' but didn't see anything for is in the plans-layout or details.
    All Fencing is shown on Architectural Drawings.

14. Can revenue reporting on statement of qualifications be confidential?
    Yes, revenue section of SOQ (Section 004513 #3) can be provided in separate envelope at bid time and note on chart that information is in separate envelope. It will be kept confidential.

15. Sheet C3.2 on the Forest Grove Plan Sheets notes: "Connect new water line to (E) water line at PRV. Match existing size." The 3-inch water line appears to continue onto the upper asphalt area near the basketball courts, where no work is indicated, and then extends off the sheet without showing a clear termination point on any of the plan sheets. Could you please clarify the total linear footage of the proposed 3-inch water line to be installed, and identify where this line is intended to terminate?
    See Sheets C1.1 and C3.2 of Addendum 3 for details. Contractor to properly and safely remove transite pipe, wrap and set aside for district disposal.

16. The plans depict an outline of the USA near Building H. Is this element intended to be included in the striping plan? If so, the plan set does not provide corresponding measurements or dimensions, nor is it referenced in the specifications. The map is noted on Sheet A1.11; however, no corresponding detail is provided. Please advise.
    General dimensions are added to the Addendum 3 revised drawings. This is a common installation that is expected to be done without additional details.

AD03-03 : Revisions to Drawings and Technical Specifications
Please see attached Addendum 03 from Derivi Castellanos Architects dated 3/23/26 for revisions to drawings and technical specifications (Exhibits A, B and C).
Note revisions to courtyard area between Buildings A and B on sheet C2.1.

Attachments:
Exhibit A: DCA Addendum 03 Narrative
Exhibit B: FGES Paving Maintenance Project – Revised Specifications
Exhibit C: FGES Paving Maintenance Project – Revised Plans
Exhibit D: Limited Geotechnical Engineering Investigation (Moore Twining, 2/24/26)

[END OF ADDENDUM 03]

EXHIBIT A

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PACIFIC GROVE UNIFIED SCHOOL DISTRICT
Forest Grove Elementary School
Site Improvement Project
Bid Number FGE-MD-076

ADDENDUM 03

PROJECT:	Forest Grove Elementary School Site Improvement Project 1065 Congress Avenue Pacific Grove CA 93950	**DATE: 03-23-26**
OWNER:	Pacific Grove Unified School District 435 Hillcrest Avenue Pacific Grove, CA 93950	**DSA APP. NO.: 01-122771**
ARCHITECT:	Derivi Castellanos Architects 95 S. Market St, Suite 480 San Jose, CA 95113	**DSA FILE NO.: 27-37** **Architects Project No.: 25.051**

Notice is hereby given that the Contract Documents of the subject project are modified as hereinafter set forth in this addendum. This Addendum shall be attached to and form a part of the Contract Documents.

1.0 SPECIFICATIONS-PROJECT MANUAL

Architectural:

ITEM 3S.001 Section 00 01 10 Table of Contents – Replace Section 00 01 10 Table of Contents in its entirety.

ITEM 3S.002 Section 09 30 13 Ceramic Tiling – Add Section 09 30 13 Ceramic Tiling in its entirety.

ITEM 3S.003 Section 10 28 00 Toilet, Bath, and Laundry Accessories – Replace Section 10 28 00 Toilet, Bath, and Laundry Accessories in its entirety.

ITEM 3S.004 Section 32 17 23.13 Painted Pavement Markings – Add Section 32 17 23.13 Painted Pavement Markings in its entirety.

Plumbing:

ITEM 3S.005 Section 22 00 00 Plumbing General Requirements – Add Section 22 00 00 Plumbing General Requirements in its entirety.

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ITEM 3S.006 Section 22 05 00 Plumbing – Add Section 22 05 00 Plumbing in its entirety.

ITEM 3S.007 Section 22 10 13 Trenching and Backfill – Add Section 22 10 13 Trenching and Backfill in its entirety.

2.0 DRAWINGS

Architectural:

ITEM 3D.001 **Sheet A0.0 COVER SHEET –** Revise Scope Of Work Summary description Item 6 to indicate P.C. shade structure is a bid alternate.

ITEM 3D.002 **Sheet A0.0 COVER SHEET** – Clarifies bid alternate scope of work.

ITEM 3D.003 **Sheet A0.10 FIRE LIFE SAFETY PLAN** – Add chain link fence south of (E) Building H.

ITEM 3D.004 **Sheet A0.11 ACCESS COMPLIANCE PLAN** – Add chain link fence south of (E) Building H.

ITEM 3D.005 **Sheet A1.11 CAMPUS SITE PLAN** – Add chain link fence south of (E) Building H and keynote notation 32-003. Add KEYNOTE 32-003 to read "6' HIGH BLACK VINYL CHAIN LINK FENCING, SEE DETAIL 4&8/A1.21."

ITEM 3D.006 **Sheet A1.11 CAMPUS SITE PLAN** – Clarify dimensions of the map striping. See 1/A1.11 CAMPUS SITE PLAN.

ITEM 3D.007 **Sheet A1.21 SITE DETAILS –** Add trench detail per detail 3/A1.21 TRENCH DETAIL.

ITEM 3D.008 **Sheet A1.21 SITE DETAILS –** Add chain link fence detail per detail 4/A1.21 CHAIN LINK FENCE, TYP.

ITEM 3D.009 **Sheet A1.21 SITE DETAILS –** Add chain link fence detail per detail 6/A1.21 CHAIN LINK FENCE CONNECTIONS.

ITEM 3D.010 **Sheet A1.21 SITE DETAILS –** Add chain link fence detail per detail 8/A1.21 CHAIN LINK FENCE ELEVATION.

ITEM 3D.011 **Sheet A1.21 SITE DETAILS –** Clarify shade structure height dimensions per revised 18/A1.21 SHADE STRUCTURE ELEVATIONS.

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ITEM 3D.012 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise 1/A2.01 title to read " (E) BOY RESTROOM DEMO PLAN – BLDG. D." SEE 1/A2.01 (E) BOY RESTROOM DEMO PLAN – BLDG. D.

ITEM 3D.013 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise 2/A2.01 title to read " BOY RESTROOM DIMENSION PLAN – BLDG. D." SEE 2/A2.01 BOY RESTROOM DIMENSION PLAN – BLDG. D.

ITEM 3D.014 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise 3/A2.01 title to read " (E) BOY RESTROOM FLOOR PLAN – BLDG. D." SEE 3/A2.01 BOY RESTROOM FLOOR PLAN – BLDG. D.

ITEM 3D.015 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise 6/A2.01 title to read " GIRL RESTROOM FLOOR PLAN – BLDG. C." SEE 6/A2.01 GIRL RESTROOM FLOOR PLAN – BLDG. C.

ITEM 3D.016 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise 6/A2.01 to add grab bar keynote notation 10-008.

ITEM 3D.017 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise 14/A2.01 to add grab bar keynote notation 10-008.

ITEM 3D.018 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise KEYNOTE 02-116 to read "REMOVE (E) WATER CLOSET AND SALVAGE WATER CLOSET FOR REINSTALLATION TO MEET AMBULITORY STALL DIMENSION REQUIREMENTS. REMOVE (E) FLOOR TILES, AND CONCRETE SLAB AS REQUIRED FOR NEW WORK. PROTECT EXISTING UTILITIES IN PLACE FOR CONNECTION TO RELOCATED SALVAGED WATER CLOSET. SAWCUT EXISTING SLAB AND PREP FOR BELOW GRADE WASTE PIPING."

ITEM 3D.019 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise KEYNOTE 02-119 to read "REMOVE (E) URINAL AND CARRIER AND SALVAGE URINAL FOR REINSTALLATION. PROTECT EXISTING UTILITIES IN PLACE FOR CONNECTION TO SALVAGED URINAL. REMOVE ADJACENT WALL TILES, GYP BOARD AND WALL FINISHES AS REQUIRED FOR NEW WORK."

ITEM 3D.020 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise KEYNOTE 22-001 to read "REINSTALL (E) FLOOR MOUNTED WATER CLOSET.TRENCH AND EXTEND WASTE PIPING BELOW GRADE, EXTEND VENT AND WATER PIPING AS REQUIRED FOR CONNECTION TO RELOCATED FLOOR MOUNTED WATER CLOSET."

ITEM 3D.021 **Sheet A2.01 ENLARGED RESTROOM PLANS –** Revise KEYNOTE 22-002 to read "REINSTALL (E) URINAL AND (E) CARRIER. EXTEND WASTE, VENT AND WATER PIPING AS REQUIRED FOR CONNECTION TO RELOCATED URINAL LOCATION."

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CONSULTANT DRAWINGS

Civil:

ITEM 3D.022 **C0.1 – NOTES. LEGEND & INDEX –**
Add: Geotechnical Report information added.

ITEM 3D.023 **C1.1 – DEMOLITION PLAN**
Revise: Demolition limit and work revised according to updated Site work between Bldg B & Bldg A1-A3.
Revise: Extent of Water lines removal revised.
Revise: Note no. 8 and 16 revised

ITEM 3D.024 **C2.1 – GRADING & DRAINAGE PLAN**
Revise: Grades and Slopes revised at revised Concrete paving, Decomposed Granite paving and Planting Area between Bldg B & Bldg A1-A2.
Revise: Drain Inlets and Trench Drain added or removed or shifted in above mentioned Grades and Slopes change area between at Bldg B & Bldg A1-A2.
Revise: Inlets located at bark mulch north of New Building H shifted with revised inlet grades and invert elevation.

ITEM 3D.025 **C3.1 & C3.2 – UNDERGROUND UTILITIES PLAN**
Revise: Drain Inlets and Trench Drain RIM & Invert Elevation added and revised.
Revise: Sanitary sewer line POC at and near Bldg A3, Bldg B and Bldg G to new 6" SS line revised.
Revise: Revise extent of 3" Water Line removal.
Revise: Underground Utilities Plan note no. 4 revised.

ITEM 3D.026 **C4.1 – HORIZONTAL CONTROL PLAN**
Add: Dimension added to new Sidewalks between Bldg B & Bldg A1-A2.

ITEM 3D.027 **C7.1 – MATERIAL & DETAIL REFERENCE PLAN**
Revise: Courtyard between Bldgs A1, A2, & B.
Revise: Planting in courtyard between Bldgs A1, A2, A3 & B.

ITEM 3D.028 **C7.2 – MATERIAL & DETAIL REFERENCE PLAN**
Add: Add keynote notation FNC-01 south of Bldg. H

Landscape:

ITEM 3D.029 **L1.1 – IRRIGATION PLAN**
Revise: Irrigation in courtyard between Bldgs A1, A2, A3, & B.

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ITEM 3D.030 **L2.1 – PLANTING PLAN**
Revise: Planting in courtyard between Bldgs A1, A2, A3, & B.

Electrical:
ITEM 3D.031 **E201 - ELECTRICAL SITE PLAN**
Revise: Revise conduit routing and pull- box locations for E201 - ELECTRICAL SITE PLAN.

END OF ADDENDUM ITEMS

ATTACHMENTS:
Geotechnical Report

Specifications:
00 01 10 Table of Contents
09 30 13 Ceramic Tiling
10 28 00 Toilet, Bath, and Laundry Accessories
22 00 00 Plumbing General Requirements
22 05 00 Plumbing
22 10 13 Trenching and Backfill

Construction Drawings:
A0.0 COVER SHEET
A0.10 FIRE LIFE SAFETY PLAN
A0.11 ACCESS COMPLIANCE PLAN
A1.11 CAMPUS SITE PLAN
A1.21 SITE DETAILS
A2.01 ENLARGED RESTROOM PLANS
C0.1 – NOTES. LEGEND & INDEX
C1.1 – DEMOLITION PLAN
C2.1 – GRADING & DRAINAGE PLAN
C3.1 – UNDERGROUND UTILITIES PLAN
C3.2 – UNDERGROUND UTILITIES PLAN
C4.1 – HORIZONTAL CONTROL PLAN
C7.1 – MATERIAL & DETAIL REFERENCE PLAN
C7.2 – MATERIAL & DETAIL REFERENCE PLAN
L1.1 – IRRIGATION PLAN
L2.1 – PLANTING PLAN
E201 – ELECTRICAL SITE PLAN

DOCUMENTS 00 01 10 - TABLE OF CONTENTS

DIVISION 06- WOOD, PLASTICS, AND COMPOSITES
Section

Not Used

DIVISION 07-THERMAL AND MOISTURE PROTECTION
Section

Not Used

DIVISION 08- OPENINGS
Section

Not Used

DIVISION 09- FINISHES
Section

09 30 13 Ceramic Tiling

DIVISION 10- SPECIALTIES
Section

10 21 13	Toilet Compartments
10 28 00	Toilet, Bath, and Laundry Accessories

DIVISION 11- EQUIPMENT
Section

Not Used

DIVISION 12- FURNISHINGS
Section

Not Used

DIVISION 13- SPECIAL CONSTRUCTION
Section

Not Used

DIVISION 14- CONVEYING EQUIPMENT
Section

Not Used

DIVISION 22- PLUMBING
Section

DIVISION 23- HEATING, VENTILATING, AND AIR CONDITIONING
Section

Not Used

DIVISION 25- INTEGRATED AUTOMATION

Not Used

DIVISION 26-ELECTRICAL
Section

Not Used

DIVISION 27-COMMUNICATIONS
Section

Not Used

DIVISION 28- ELECTRONIC SAFETY AND SECURITY
Section

Not Used

DIVISION 31 - EARTHWORK
Section

DIVISION 32 - EXTERIOR IMPROVEMENTS

Section

DIVISION 33-UTILITIES

Section

END OF SECTION

SECTION 093013 - CERAMIC TILING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Ceramic mosaic tile.
2. Glazed wall tile.

B. Related Requirements:
1. Section 079200 "Joint Sealants" for sealing of expansion, contraction, control, and isolation joints in tile surfaces.
2. Section 092900 "Gypsum Board" for cementitious backer units.

1.3 DEFINITIONS

A. General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.

B. ANSI A108 Series: ANSI A108.01, ANSI A108.02, ANSI A108.1A, ANSI A108.1B, ANSI A108.1C, ANSI A108.4, ANSI A108.5, ANSI A108.6, ANSI A108.8, ANSI A108.9, ANSI A108.10, ANSI A108.11, ANSI A108.12, ANSI A108.13, ANSI A108.14, ANSI A108.15, ANSI A108.16, and ANSI A108.17, which are contained in its "Specifications for Installation of Ceramic Tile."

C. Face Size: Actual tile size, excluding spacer lugs.

D. Module Size: Actual tile size plus joint width indicated.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples for Initial Selection: For tile, grout, and accessories involving color selection.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Master Grade Certificates: For each shipment, type, and composition of tile, signed by tile manufacturer and Installer.

C. Product Certificates: For each type of product.

D. Product Test Reports: For tile-setting and -grouting products.

1.6 QUALITY ASSURANCE

A. Installer Qualifications:

1. Installer is a Five-Star member of the National Tile Contractors Association or a Trowel of Excellence member of the Tile Contractors' Association of America.
2. Installer's supervisor for Project holds the International Masonry Institute's Foreman Certification.
3. Installer employs only Ceramic Tile Education Foundation Certified Installers or installers recognized by the U.S. Department of Labor as Journeyman Tile Layers for Project.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.

B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.

C. Store aggregates where grading and other required characteristics can be maintained and contamination can be avoided.

D. Store liquid materials in unopened containers and protected from freezing.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations for Tile: Obtain tile of each type and color or finish from single source or producer.

1. Obtain tile of each type and color or finish from same production run and of consistent quality in appearance and physical properties for each contiguous area.

B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from single manufacturer and each aggregate from single source or producer.

1. Obtain setting and grouting materials, except for unmodified Portland cement and aggregate, from single manufacturer.

2.2 PRODUCTS, GENERAL

A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.

1. Provide tile complying with Standard grade requirements.

B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCNA installation methods specified in tile installation schedules, and other requirements specified.

C. Factory Blending: For tile exhibiting color variations within ranges, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.

2.3 TILE PRODUCTS

A. Glazed Wall Tile.

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

a. American Marazzi Tile, Inc.
b. American Olean; a division of Dal-Tile Corporation.
c. Daltile.

2. Module Size: 4”x4”
3. Face Size Variation: Rectified.

4. Thickness: 5/16 inch (8 mm).
5. Finish: Match existing glaze.
6. Tile Color and Pattern: **Best match to existing adjacent tile**
7. Grout Color: **Best match to existing adjacent tile**
8. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile.

B. Glazed Coved Base Tile.

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

   a. American Marazzi Tile, Inc.
   b. American Olean; a division of Dal-Tile Corporation.
   c. Daltile.
2. Module Size: 6”x6”
3. Integral coved base to match existing profile
4. Face Size Variation: Rectified.
5. Thickness: 5/16 inch (8 mm).
6. Finish: Match existing glaze.
7. Tile Color and Pattern: **Best match to existing adjacent tile**
8. Grout Color: **Best match to existing adjacent tile**
9. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile.

C. Floor Tile.

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

   a. American Marazzi Tile, Inc.
   b. American Olean; a division of Dal-Tile Corporation.
   c. Daltile.

2. Through body Porcelain Mosaic
3. Module Size: 2”x2” Dot Mounted Mosaic
4. Face Size Variation: Rectified.
5. Thickness: 5/16 inch (8 mm).
6. Finish: Match existing glaze.
7. Tile Color and Pattern: **Best match to existing adjacent tile**
8. Grout Color: **Best match to existing adjacent tile**
9. Mounting: Factory, back mounted.

10. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile.

2.4 SETTING MATERIALS

1. Latex Additive: Manufacturer's standard water emulsion, serving as replacement for part or all of gaging water, of type specifically recommended by latex-additive manufacturer for use with field-mixed portland cement and aggregate mortar bed.

B. Improved Modified Dry-Set Mortar (Thinset): ANSI A118.15.

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

   a. ARDEX Americas.
   b. Custom Building Products.
   c. LATICRETE SUPERCAP, LLC.
   d. MAPEI Corporation.

2. Provide prepackaged, dry-mortar mix containing dry, redispersible, vinyl acetate or acrylic additive to which only water must be added at Project site.
3. Provide prepackaged, dry-mortar mix combined with acrylic resin liquid-latex additive at Project site.
4. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.15.

2.5 GROUT MATERIALS

A. Sand-Portland Cement Grout: ANSI A108.10, consisting of white or gray cement and white or colored aggregate as required to produce color indicated.

B. High-Performance Tile Grout: ANSI A118.7.

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

   a. ARDEX Americas.
   b. Bostik, Inc.
   c. Custom Building Products.
   d. LATICRETE SUPERCAP, LLC.
   e. MAPEI Corporation.

2. Polymer Type: Ethylene vinyl acetate or acrylic additive, in dry, redispersible form, prepackaged with other dry ingredients.
3. Polymer Type: Acrylic resin in liquid-latex form for addition to prepackaged dry-grout mix.

2.6 MISCELLANEOUS MATERIALS

A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.

B. Vapor-Retarder Membrane: Polyethylene sheeting, ASTM D4397, 4.0 mils (0.1 mm) thick.

C. Metal Edge Strips: Angle or L-shaped, height to match tile and setting-bed thickness, metallic or combination of metal and PVC or neoprene base, designed specifically for flooring applications; white zinc alloy exposed-edge material.

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

a. Blanke Corporation.
b. Ceramic Tool Company, Inc.
c. Schluter Systems L.P.

D. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.

2.7 MIXING MORTARS AND GROUT

A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.

B. Add materials, water, and additives in accurate proportions.

C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

1. Verify that substrates for setting tile are firm; dry; clean; free of coatings that are incompatible with tile-setting materials, including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.

2. Verify that concrete substrates for tile floors installed with thinset mortar comply with surface finish requirements in ANSI A108.01 for installations indicated.

    a. Verify that surfaces that received a steel trowel finish have been mechanically scarified.
    b. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.

3. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.
4. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with thinset mortar with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.

B. Where indicated, prepare substrates to receive waterproof membrane by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped 1/4 inch per foot (1:50) toward drains.

C. Blending: For tile exhibiting color variations, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. If not factory blended, either return to manufacturer or blend tiles at Project site before installing.

3.3 INSTALLATION OF CERAMIC TILE

A. Comply with TCNA's "Handbook for Ceramic, Glass, and Stone Tile Installation" for TCNA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 series "Specifications for Installation of Ceramic Tile" that are referenced in TCNA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.

B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.

C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.

D. Provide manufacturer's standard trim shapes where necessary to eliminate exposed tile edges.

E. Where accent tile differs in thickness from field tile, vary setting-bed thickness so that tiles are flush.

F. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.

1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
2. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align joints.
3. Where tiles are specified or indicated to be whole integer multiples of adjoining tiles on floor, base, walls, or trim, align joints unless otherwise indicated.

G. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:

1. Ceramic Mosaic Tile: [**1/16 inch (1.6 mm)**] [**1/8 inch (3.2 mm)**].
2. Glazed Wall Tile: [**1/16 inch (1.6 mm)**] [**1/8 inch (3.2 mm)**].

H. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.

I. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.

1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.

J. Metal Edge Strips: Install at locations indicated.

K. Floor Sealer: Apply floor sealer to cementitious grout joints in tile floors according to floor-sealer manufacturer's written instructions. As soon as floor sealer has penetrated grout joints, remove excess sealer and sealer from tile faces by wiping with soft cloth.

3.4 INSTALLATION OF TILE BACKING PANEL

A. Install panels and treat joints according to ANSI A108.11 and manufacturer's written instructions for type of application indicated. Use modified dry-set mortar for bonding material unless otherwise directed in manufacturer's written instructions.]

3.5 ADJUSTING AND CLEANING

A. Remove and replace tile that is damaged or that does not match adjoining tile. Provide new matching units, installed as specified and in a manner to eliminate evidence of replacement.

B. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.

1. Remove grout residue from tile as soon as possible.
2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.

3.6 PROTECTION

A. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls and floors.

B. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.

C. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

3.7 INTERIOR CERAMIC TILE INSTALLATION SCHEDULE

A. Interior Wall Installations, Wood or Furring:

1. Ceramic Tile Installation: Contractor shall investigate existing tile assembly and install new tile in conformance to existing assembly and as per similar TCNA installation methods

END OF SECTION 093013

SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Public-use washroom accessories.
2. Under lavatory guards.

B. Related Requirements:
1. Section 093013 "Ceramic Tiling" for ceramic toilet and bath accessories.

1.3 COORDINATION

A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.

B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
2. Include anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
3. Include electrical characteristics.

B. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.

1. Identify locations using room designations indicated.
2. Identify accessories using designations indicated.

1.5 INFORMATIONAL SUBMITTALS

A. Sample Warranty: For manufacturer's special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For accessories to include in maintenance manuals.

1.7 WARRANTY

A. Manufacturer's Special Warranty for Mirrors: Manufacturer agrees to repair or replace mirrors that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, visible silver spoilage defects.
2. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in CEC, by a qualified testing agency, and marked for intended location and application.

2.2 PUBLIC-USE WASHROOM ACCESSORIES

A. Source Limitations: Obtain public-use washroom accessories from single source from single manufacturer.

B. Toilet Tissue (Roll) Dispenser in Disabled Accessible Stalls:

1. American Specialties, 0030 or equal

2. Description: Semi-Recessed Multi-Roll Toilet Tissue Dispenser

3. 4” maximum projection from finished wall

C. Toilet Tissue (Roll) Dispenser in non- accessible Stalls:

1. Owner furnished, contractor installed where indicated in drawings

D. Liquid-Foaming Soap Dispenser:

1. Owner furnished, contractor installed where indicated in drawings

2. Description: Dispenser; maximum 4” protrusion from finished wall.

E. Paper Towel Dispensers:

1. Owner furnished, contractor installed where indicated in drawings.

2. Description: Dispenser; maximum 4" protrusion from finished wall.

F. Grab Bar: American Specialties, 3800 Series or Equal.

1. Mounting: Flanges with concealed fasteners.
2. Material: Stainless steel, 0.05 inch (1.3 mm) thick.

a. Finish: Smooth, No. 4 finish (satin) on ends and slip-resistant texture in grip area.

3. Outside Diameter: 1-1/2 inches (38 mm).
4. Configuration and Length: As indicated on Drawings.

G. Seat-Cover Dispenser:

1. Owner furnished, contractor installed
2. Description: Dispenser; maximum 4" protrusion from finished wall.

2.3 UNDERLAVATORY GUARDS

A. Underlavatory Guard:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Buckaroos, Inc.
b. Plumberex Specialty Products, Inc.

2. Description: Insulating pipe covering for supply and drain piping assemblies that prevents direct contact with and burns from piping; allow service access without removing coverings.
3. Material and Finish: Antimicrobial, molded plastic, white.

2.4 MATERIALS

A. Stainless Steel: ASTM A666, Type 304, 0.031-inch (0.8-mm) minimum nominal thickness unless otherwise indicated.

B. Brass: ASTM B19, flat products; ASTM B16/B16M, rods, shapes, forgings, and flat products with finished edges; or ASTM B30, castings.

C. Steel Sheet: ASTM A1008/A1008M, Designation CS (cold rolled, commercial steel), 0.036-inch (0.9-mm) minimum nominal thickness.

D. Galvanized-Steel Sheet: ASTM A653/A653M, with G60 (Z180) hot-dip zinc coating.

E. Galvanized-Steel Mounting Devices: ASTM A153/A153M, hot-dip galvanized after fabrication.

F. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.

G. Chrome Plating: ASTM B456, Service Condition Number SC 2 (moderate service).

H. Mirrors: ASTM C1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.

2.5 FABRICATION

A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.

B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

B. Grab Bars: Install to withstand a downward load of at least 250 lbf (1112 N), when tested according to ASTM F446.

3.2 ADJUSTING AND CLEANING

A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.

B. Remove temporary labels and protective coatings.

C. Clean and polish exposed surfaces according to manufacturer's written instructions.

END OF SECTION 102800

SECTION 22 00 00

PLUMBING GENERAL REQUIREMENTS

PART 1 – GENERAL

1.1 CONDITIONS AND REQUIREMENTS

A. Refer to the General Conditions, Supplementary Conditions, and Division 01 General Requirements.

1.2 SCOPE OF WORK

A. Provide all labor, apparatus, and materials that are required to provide a complete installation as indicated on the drawings and in the specifications, including that reasonably inferred for proper execution of this Division.

B. Consult all other Sections to determine the extent of this work specified elsewhere.

C. Coordinate all utility requirements for equipment furnished under this Division. Rough-in required systems and make final connections.

1.3 REGULATIONS AND STANDARDS

A. Install all work to meet or exceed requirements prescribed by governmental bodies having jurisdiction and in accordance with all federal, state, and local codes and ordinances, and all OSHA requirements. These codes include, but are not limited to the latest applicable edition of the following:

1. California Building Code
2. California Electrical Code
3. California Plumbing Code
4. California Mechanical Code
5. California Energy Code
6. California Green Buildings Standard
7. California Fire Code
8. National Fire Protection Association

1.4 QUALITY ASSURANCE

A. Comply with current governing codes, ordinance and regulations of the Authority Having Jurisdiction and the regulations and requirements of the Owner’s insurance underwriter.

B. Where requirements differ between drawings, specifications, codes and standards, apply the more stringent.

C. Should any change in drawings or specifications be required to comply with governing regulations, notify the Architect prior to submitting bid.

D. After contract is awarded, if minor changes or additions are required by the aforementioned authorities, even though such work is not shown on drawings or overtly covered in the specifications, they shall be included at the Contractor's expense.

E. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, skillful and well-executed manner by competent workers. Provide a competent, experienced full-time Superintendent who is authorized to make decisions on behalf of the Contractor.

F. The Architect or Architect's Representative may conduct unannounced field reviews of any work completed or in progress. A report will be issued for all items that are found to be inconsistent with the contract documents. All items in the report shall be addressed in writing by the Contractor within two (2) weeks.

1.5 SAFETY

A. Contractors must conduct a weekly safety meeting with their employees and maintain documentation of attendance and topics of discussion. Contractor shall comply with all OSHA regulations. Contractor is required to obtain and pay for insurance required to cover all activities withing Contractor's scope of work.

1.6 PERMITS, FEES, AND UTILITIES

A. Secure and pay for all permits, licenses, inspections, and fees required.

B. Coordinate with other Sections and schedule sequence of accomplishing the work in such a manner as not to interrupt existing services and utilities at a time that will inconvenience the Owner. Provide Owner a minimum 48 hour notice when utilities will be interrupted.

1.7 PAINTING

A. Paint all exposed piping and supports.

B. See Division 09 for painting.

1.8 COORDINATION

A. Coordinate with work performed by other Sections in order to ensure adequate space and proper location of all necessary work on this project whether or not work is under this Section. Coordination shall be done prior to order or manufacture of any systems or components.

B. At a minimum, coordinate location of each piece of equipment, requirements for access panels, space required for supports, power requirements for each piece of equipment, and control requirements for each piece of equipment.

C. Coordination meetings shall happen within the first two weeks of construction start. Coordination meeting minutes shall be submitted to the Architect for review.

D. Prepare complete set of construction coordination shop drawings indicating equipment actually purchased and exact routing of all piping and ductwork. Requirement for coordination shop drawings shall not be construed as authorization for contractor to make unauthorized changes to Contract Documents. Prior to final acceptance, contractor shall submit the coordination shop drawings as part of the record drawings.

E. Wherever the work is of sufficient complexity, prepare additional detail drawings to scale to coordinate the work with the work of other trades. At completion, include a set of these drawings with the record drawings.

F. Install the work in cooperation with other trades. Before installation, make proper provisions to avoid interferences.

G. Pipes which pitch have right-of-way over those which do not pitch. For example, condensate drains and waste normally have right-of-way.

H. No additional costs will be considered for work which has to be relocated due to conflicts with other trades or for additional equipment/parts that need to be installed due to a lack of coordination prior to, or during, construction.

PART 2 – PRODUCTS

2.1 EQUIPMENT AND MATERIALS

A. Provide products and materials that are new, clean, free of defects, damage and corrosion. Inspect all materials and remove defective materials from the site.

B. Provide materials and equipment bearing the label of, or listed by, the Underwriter's Laboratories (UL), unless the material or equipment is of a type for which label or listing service is not provided.

C. Furnish all materials and equipment of the same type by the same manufacturer.

2.2 ALTERNATE EQUIPMENT AND MATERIALS

A. No substitute materials or equipment may be installed without the written approval of the Architect.

B. Contract documents are based on materials specified and equipment manufacturers indicated. Acceptance of alternative equipment manufacturers does not relieve Contractor of the responsibility to provide equipment and materials which meet the quality and performance stated or implied in the contract documents.

C. All submittals for substitution must include comparison to show equal with scheduled equipment. Submit proposals to supply alternate materials or equipment, in writing, with sufficient lead time for review prior to the date equipment must be ordered to maintain project schedule.

D. No increase in the contract price will be considered to accommodate the use of alternative equipment, including revisions required by other trades.

2.3 SUBMITTALS

A. Submit shop drawings, manufacturer's data, samples and test reports as specified.

B. The review of submittals is for general compliance with the design concept and contract documents. Comments or absence of comments does not relieve the Contractor/Vendor/Manufacturer from compliance with the contract documents. The Contractor remains solely responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of construction, for performing the work in a safe manner, and for coordinating the work with that of other trades.

C. No part of the work shall be ordered, procured, or installed until that work has been submitted, reviewed, and returned without comment.

D. Items indicated in submittal comments shall be provided and installed by contractor.

E. The Engineer and/or Architect shall review the submitted documents for general conformance with the design concept of the project. The review does not relieve the Contractor of the responsibility of deviations from the requirements stated in the contract documents.

F. The Engineer's and/or Architect's review shall not be construed as a completed detailed check of the work submitted, nor shall it relieve the Manufacturer or Contractor of responsibility for errors or omissions of any sort or from the necessity of furnishing any work required by the contract documents.

G. Submittals are not reviewed for quantities, dimensions, weights, fabrication processes, construction methods, coordination with work of other trades, construction safety practices, service clearance, location of control and electrical panels, and other layout constraints. These items shall remain the sole responsibility of the Contractor.

H. A minimum period of ten (10) working days will be required in the Engineer's office each time a submittal is sent for review. Contractor shall prioritize submittal reviews where multiple submittals are sent for review. This time period must be considered by the Contractor in the scheduling of the work.

I. Submittals will be returned to indicate appropriate action taken as follows:

1. No Exceptions Taken.
2. Make Corrections Noted. No Resubmittal Required.
3. Revise and Resubmit.
4. Rejected.
5. Not Reviewed.

J. Use electronic form acceptable to Architect for electronic submittals, containing the following information:

1. Project name.
2. Date.
3. Name and address of Architect and Engineer.
4. Name of Owner.
5. Name, address and contact information of Contractor.
6. Names and contact information of sub-contractor, manufacturer, and supplier.
7. Name of entity that prepared submittal.
8. Category and type of submittal.
9. Specification Section number and title.
10. Drawing number and detail references, as appropriate.
11. Transmittal number, numbered consecutively, and revision number clearly identified.
12. Each item submitted labeled or identified the same as on the drawings.

K. Identify each sheet of submittal pages (using arrows, underlining or circling) to show applicable sizes, types, model numbers, ratings, capacities and options actually being proposed. Cross out non-applicable information.

L. Organize submittals to keep all related items together; break submittal into sections and provide appropriate identifying tags on submittal pages to indicate item being submitted.

M. Provide a bookmark for each submittal section. Include a table of contents at beginning of submittal.

N. Submit all items related to specification section in single submittal file. Partial submittals will be deemed incomplete and not reviewed.

O. Inadequate or incomplete submittals will not be reviewed and will be returned to the Contractor for resubmittal.

P. Place orders for all equipment in time to prevent any delay in construction schedule or completion of project. No additional costs will be considered for any special handling charges or expedited processing required for materials or equipment not ordered in time.

2.4 REQUEST FOR INFORMATION

A. While every effort has been made to coordinate the locations of equipment covered under other sections or divisions of these specifications, it is the responsibility of the Contractor to coordinate the exact requirements governed by actual job conditions. Check all information and report any discrepancies before submitting bid or fabricating work.

B. Report discrepancies in time to avoid unnecessary work, and make changes as directed by the Architect.

C. Do not make changes or additions that are subject to additional compensation without written authorization, based upon an agreed price. Any changes made without the above-mentioned authorization shall be at Contractor's own risk and expense.

D. Follow manufacturer’s instructions where they cover points not specifically indicated. However, if they are in conflicts with these drawings and specifications, obtain clarifications from the Architect before starting work.

E. All requests for information shall be accompanied with Contractor’s proposed solution.

PART 3 – EXECUTION

3.1 EXAMINATION OF SITE

A. The Contract Documents do not make representations regarding the character or the extent of the subsoils, water levels, existing structural, mechanical, plumbing, and electrical installations, above or below grade, or other sub-surface conditions which may be encountered during the work.

B. Evaluate existing conditions that may affect methods or cost of performing the work, based on examination of the site or other information. Failure to examine the Drawings or other information does not relieve the Contractor of responsibility for satisfactory completion of the work.

3.2 DRAWINGS

A. Drawings show general arrangement and location of piping and equipment. Drawings are diagrammatic and intended to show approximate location and routing. Dimensions on drawings shall take precedence over scaled dimensions on drawings. Allow for supports, expansion, and pitch of piping. Field verify all dimensions.

B. The exact locations of equipment and piping shall be ascertained from the Architect or the Owner's representative in the field. The Architect reserves the right to make minor changes in the location of piping and equipment up to the time of installation without additional cost.

C. Furnish and install any incidental work not shown or specified which can reasonably be inferred as part of the work and necessary to provide a complete and workable system. This includes any wiring of sensors, switches, etc.

D. Execute any work or apparatus shown on the Drawings and not specifically mentioned in the Specifications, or vice versa. Omission from Drawings or Specifications of any minor details of construction, installation, materials, or essential specialties does not relieve Contractor from furnishing complete workable system.

3.3 RECORD DRAWINGS

A. Contractor shall maintain a complete set of documents on site that are marked up during the construction process indicating all changes that have been made. Record drawings shall be maintained up to date throughout construction. Indicate clearly all work installed differently from that shown.

B. Upon completion of work, certify all record drawings with a stamp including the date and name of Contractor. Submit one (1) complete, bookmarked, set of electronic record drawings to the Architect for final review.

C. Record drawings must include the following as a minimum:

1. Actual equipment locations.
2. Revisions or substitutions to equipment schedules.
3. Pipe size and routing.
4. Dimensional changes to drawings.
5. Revisions to details shown on drawings.
6. Changes made by RFIs, Addenda, or Change Orders.
7. Locations of access panels and shut-off valves.
8. Locations and depths of underground utilities.

3.4 PROTECTION OF BUILDING

A. Protect new and existing building structures and adjacent finished surfaces during construction. Patch, repair, and refinish existing work damaged by work under this Division to match adjacent undisturbed areas.

3.5 DELIVERY, DRAYAGE AND HAULING

A. Include all drayage, hauling, hoisting, shoring and placement in the building of equipment specified and be responsible for the timely delivery of equipment to the project as required by the construction schedule.

B. Provide proper protection and storage of all items and tools required.

C. If equipment is not delivered or installed at the project site in a timely manner as required by the construction schedule, the Contractor shall be responsible for disassembly, re-assembly, manufacturer's supervision, shoring, general construction modification, delays, overtime costs, etc. at no additional cost to the Owner.

3.6 EQUIPMENT AND MATERIAL PROTECTION

A. Protect the work, equipment, and material of other trades from damage by work or workers of this trade, and correct damage caused without additional cost to the Owner.

B. The Contractor shall be responsible for all work, materials, and equipment until finally inspected, tested, and accepted. Protect work against theft, injury, or damage. Carefully store material and equipment received on site that is not immediately installed.

C. Cover open ends of work with temporary covers or plugs during construction to prevent entry of dust, dirt, water or other obstructing material. Cover and protect equipment and materials from damage due to water, humidity, paint, spray-on fireproofing, construction debris, etc. Store equipment subject to moisture damage, such as insulation or electrical components in dry, heated spaces.

D. Provide adequate means for fully protecting finished parts of the materials and equipment against damage from whatever cause during the process of the work until final acceptance.

E. Do not install damaged items. Take immediate steps to obtain replacement or repair. Replace all wet or damp insulation or acoustic lining.

F. Do not operate water systems until piping has been cleaned, disinfected and start-up strainers are in place.

3.7 QUALITY OF WORK

A. The quality of work shall be of a standard generally accepted in the respective trade. Use only experienced, competent, and properly equipped workers. Replace work falling below this standard as directed by the Architect.

B. Systems shall be worked into a complete and integrated arrangement with like elements arranged neatly with adequate head room and passageway free from obstructions.

3.8 FURRING AND PIPE SPACES

A. Spaces provided in the design of the building shall be utilized and the work shall be kept within the furring lines established on the Drawings.

B. Ensure necessary clearances on trim plates at exposed penetrations of walls and floors. If sufficient room is not available above suspended ceiling or vertical shafts obtain clarification from Architect before work is started.

3.9 CUTTING AND PATCHING

A. Do not cut, channel or drill unfinished masonry, tile, etc. unless written permission is obtained from the Architect. Perform this work in a manner acceptable to the Architect. Cutting of structural members or footings is prohibited without the prior written consent of the Structural Engineer.

B. Where cutting, channeling or drilling of floors, walls, partitions, ceilings, or other surfaces is necessary from the proper installation, support or anchorage of piping or equipment, lay out the work carefully in advance. Repair any damage to the building, piping, equipment or finishes using skilled tradesmen for all required work.

C. All core drilling, bolt anchor insertion, or cutting of existing structural concrete shall be approved prior to execution of any construction. At all structural concrete to be drilled, cut or bolt anchors inserted, the contractor shall find and mark all reinforcing in both faces located by means of x-ray, pach-ometer, or prof-ometer. Submit sketch showing location of rebar and proposed cuts, cores, or bolt anchor locations for approval.

D. Provide slots, chases, openings and recesses through floors, walls, ceilings and roofs as required. Where these openings are not provided, provide cutting and patching to accommodate penetrations.

E. Provide sleeves for all piping passing through new floors, walls, partitions, and any other building construction, of adequate diameter to allow minimum of 1” clearance all around between sleeve and piping. When piping is insulated, insulation shall pass continuously through sleeve with 1” clearance between insulation and sleeve or hole in existing construction.

3.10 ACCESS

A. Indicating equipment or specialties requiring reading, adjusting, inspection, repairing, removal, or replacement shall be conveniently and accessibly located with reference to finished building.

B. No controls, or equipment shall be placed in a location that will be inaccessible after the system is complete. Access panels or doors shall be provided where required whether shown on Drawings or not.

C. Access panels shall be 24” x 24” unless otherwise directed, style as selected by the Architect. Panels shall have the same acoustic barrier or rating as the construction in which panel is installed.

D. Doors shall be Milcor, Newman or equal, with concealed hinges, screwdriver locks, prime coated with rust inhibitive paint, finish painted in field to match adjacent surface. Provide key locks where required by Architect/Owner. All access doors shall be keyed the same. Doors in walls of toilet rooms shall be stainless steel.

E. Continuously check installation manuals for clearance and accessibility of equipment. No allowance of any kind will be made for negligence on part of Contractor to foresee means of installing equipment in proper position.

3.11 SEISMIC RESTRAINTS

A. All equipment, piping, and materials shall be fastened and securely anchored to building structure as required by the Drawings, Specifications, and the California Building Code.

B. Piping shall be braced as follows:

1. Brace all gas piping that is 1” nominal diameter and larger.
2. Brace all piping located in mechanical equipment rooms that is 1 1/4” nominal diameter and larger.
3. Brace all piping that is 2 1/2" nominal diameter and larger.

4. Transverse bracings at 40’-0” on center maximum (minimum of one brace per direction of run).
5. Longitudinal bracings at 80’-0” on center maximum (minimum of one brace per direction of run).
6. Transverse bracing shall be 20’-0” on center maximum and longitudinal bracing at 40’-0” on center maximum for gas piping and piping in mechanical rooms.
7. Transverse bracing for one pipe section may also act as longitudinal bracing for the pipe section connected perpendicular to it, if the bracing is installed within 24” of the elbow or tee and is connected to the largest pipe.
8. Do not use branch lines to brace main lines.
9. Provide flexibility in joints where pipes pass through building seismic or expansion joints or where rigidly supported pipes connect to equipment with vibration isolators.
10. At vertical pipe risers, support the weight of the riser at a point or points above the center of gravity of the riser wherever possible. Provide lateral guides at the top and bottom of the riser and at intermediate points not to exceed 30’-0” on center.
11. No bracing is required if the top of single pipe is suspended 12” or less from the connection point at the supporting structural member.

3.12 MANUFACTURER’S DIRECTIONS

A. Materials and equipment shall be installed in accordance with manufacturer’s application and recommendations, requirements, and instructions, and in accordance with Contract Documents.

B. Conflicts between manufacturer’s instructions and Contract Documents shall be brought to the Architect’s attention for resolution prior to installation.

C. Where requirements indicated in Contract Documents exceed manufacturer’s requirements, Contract Documents shall govern.

3.13 ELECTRICAL EQUIPMENT AND ELECTRICAL ROOM PRECAUTIONS

A. Do not install piping, equipment, plumbing, or any piping systems not included as part of the electrical work in the following rooms: switchgear, transformer, generator, elevator equipment, telephone, fire command, security, dimmer or electrical equipment rooms.

B. Do not install piping or equipment within the code required service space for switchboards, disconnects, panelboards, dimmers, control panels, VFDs, individual motor controllers, electronics, etc.

3.14 CATHODIC PROTECTION

A. Install dielectric unions at points in piping where dissimilar metal pipes are connected together.

3.15 PIPING AND EQUIPMENT IDENTIFICATION

A. Furnish and install engraved nameplates with 1/4” minimum lettering at panel mounted control devices, manual control stations, power disconnects, and pieces of equipment. Nameplates shall be white lettering on black background. For outdoor locations, provide brass engraved nameplates or plastic rated for outdoor use.

B. Each piping system installed under this work shall be identified and the direction of flow indicated. Markings shall be applied after all painting, priming, and cleaning of the piping and insulation is completed. Labels shall be black lettering on colored backgrounds. Lettering shall be easily readable from the floor and background colors easily discernible. Furnish labels in every room and every 20' of pipe length.

C. Tag all valves with 2" diameter brass tags noting the valve number and contents in the pipe. At the completion of the project, provide Owner with a valve listing for all valves installed in the project. Valve listing shall note valve tag number, contents in the pipe and the areas (room numbers, etc.) that are impacted by valve.

3.16 GUARANTEE

A. The Contractor shall guarantee the quality of all work and the quality of the equipment and materials in accordance with the provisions of the General Conditions and Special Conditions. Should any defects occur during this period, the Contractor shall promptly repair or replace defective items as directed by the Architect, without cost to the Owner.

B. Contractor shall be responsible for damage to any part of premises during guaranteed period caused by leaks or breaks in work furnished and/or installed under this Section.

3.17 TESTING

A. Test all equipment, piping, and systems as called for in the Specifications. Notify Architect and inspection authorities prior to testing so that they may be witnessed. Protect all personnel and equipment during testing.

3.18 OPENINGS

A. Locating and sizing of all openings for piping through walls, roof, etc. shall be done under this Division. Framing of openings shall be done by the respective trades in whose work the opening is made.

3.19 CLEAN-UP

A. During the course of work under this Division, all rubbish, debris, surplus materials, tools, etc. resulting from this work shall be removed from work area and shall be disposed of off-site at the end of each working day. The Owner's premises shall be left clean, and in a condition acceptable to the Architect.

B. Clean all work installed under this Contract to satisfaction of Owner.

3.20 PUNCH LIST

A. Respond to Architect's punch list in writing within 10 days of receipt. Include action plan and an estimated timeline for completion.

B. Submit photographs of completed items.

3.21 OPERATING INSTRUCTIONS AND OPERATOR TRAINING

A. Provide the services of factory-trained specialists to supervise the operation of all equipment and train the Owner's operating and maintenance personnel.

B. Instruct the Owner's operating personnel in the basis of design, the available documentation, the proper starting sequences, operation, shut-down, minor adjustments, troubleshooting, recommended spare parts, and regular maintenance procedures.

C. Submit training agenda, schedule and list of representatives to the Owner for review ten (10) days prior to training. Confirm attendance at training by sign-in sheet. At a minimum, the training agenda shall cover all items required to be provided in the operating and maintenance manuals.

3.22 OPERATING AND MAINTENANCE MANUALS

A. Provide operating instructions and maintenance manuals for all equipment and material furnished under this Division.

B. Provide the following equipment and maintenance information where applicable:

1. Systems and Equipment Controls – describe sequence of operation and diagram controls as required.
2. Identifying equipment manufacturer, product name, and model number.
3. Locations.
4. Wiring Diagrams.
5. Manufacturer's recommended operating and maintenance instructions, with all non-applicable information deleted.
6. Assembly and disassembly instructions.
7. Startup procedures.
8. Routine and normal operating instructions.
9. Normal and emergency shutdown instructions.
10. Troubleshooting diagnostic instructions.
11. Parts list and recommended spare parts including name and address of source of supply.

C. Contractor must start compiling above data immediately upon approval of submittals for equipment and materials.

D. Submit one (1) electronic copy of operating and maintenance manuals, indexed and bookmarked, for review by Architect/Engineer.

E. Submit three (3) complete sets of bound hard copies of operating and maintenance manuals, and one (1) electronic copy to Owner within thirty (30) days of issuance of final occupancy permit.

END OF SECTION

SECTION 22 05 00

PLUMBING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01, and Division 22 Sections apply to this Section.

1.2 SCOPE OF WORK

A. Provide labor, materials, equipment, and services to furnish and install complete plumbing and piping systems which shall include, but not limited to fixtures, equipment, piping, valves, and supports.

B. Salvage existing urinal and water closet as shown on drawings. Protect existing utilities for connection to salvaged fixture.

C. Sawcut existing slab and trench waste piping to relocated salvaged water closet.

D. Extend waste, vent and water piping to relocated salvaged fixtures.

1.3 SUBMITTALS

A. Submit for review, within fifteen (15) days after signing Contract, the required number of copies of a complete list of materials proposed for use. This list includes:

1. Plumbing fixtures and trim.
2. Piping and fittings.
3. Pipe hangers and supports.
4. Valves.
5. Drains and cleanouts.
6. Trap primers and water hammer arrestors.
7. Coordination Drawings: plans and details, drawn to scale, on which piping is shown and coordinated with other installations, using input from installers of the items involved.
8. Site Survey: Plans, drawn to scale, on which natural-gas piping is shown and coordinated with other services and utilities.
9. Welding certificates.

B. No substitute materials or equipment shall be installed without the written approval of the Architect.

C. No increase in the contract price will be considered to accommodate the use of alternative equipment, including revisions required by other trades.

D. Submit test reports on all systems tested. Tests required by Authorities Having Jurisdiction over the work shall be submitted on appropriate forms to the satisfaction of such authorities.

1.4 QUALITY ASSURANCE

A. Steel support welding qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, “Structural Welding Code – Steel.”

B. Pipe welding qualifications: Qualify procedures and operators according to ASME Boiler and Pressure Vessel Code.

C. Each length of pipe, fitting, trap, fixture, or device used in any piping system shall be stamped or indelibly marked with type, weight, quality, and manufacturer’s name or mark.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Pipes shall be shipped so as not to bend, dent, or otherwise damage the pipe during transport. Contractor shall take all necessary precautions to prevent damage to pipe and fittings during delivery and unloading. Any pipe found to have been damaged due to improper handling shall be removed from the jobsite at Contractor’s expense.

B. Handling flammable liquids: Remove and dispose of liquids from existing natural-gas piping according to requirements of authorities having jurisdiction.

C. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and to prevent entrance of dirt, debris, and moisture.

D. Store and handle pipes and tubes having factory-applies protective coatings to avoid damaging coating, and to protect from direct sunlight.

E. Protect stored PE pipes and valves from direct sunlight.

PART 2 – PRODUCTS

2.1 PLUMBING FIXTURES, TRIM AND ACCESSORIES

A. See Schedules on Drawings for plumbing fixtures. Furnish and install all fixtures in accordance with Drawings, manufacturer’s recommendations, and all applicable codes.

B. Fixture locations and heights as shown on Architectural Drawings.

C. Comply with applicable provisions and recommendations of CALGreen for water conservation measures.

D. Provide fixtures complete with all trim and materials, fittings, supports, fastening devices, faucets, valves, traps, and appurtenances required.

E. Lavatories and sinks shall be provided with required number of holes by faucet only, unless otherwise specified or required.

F. Install fixtures level, plumb and set at right angles to wall, floor, or both unless otherwise indicated.

G. Make connections between fixtures and waste pipe gastight and watertight with neoprene type gaskets or bowl wax.

H. Where fittings, trim, and accessories are exposed or semi-exposed, provide chrome plated 17 gauge seamless brass.

I. Where fixture supplies and drains penetrate walls, provide chrome plated brass escutcheons with setscrews.

J. Vitreous china: unmarked, true, clear, smooth and bright. Color shall be white unless otherwise indicated.

K. Porcelain lined ware: constructed of smooth, sound iron castings, properly finished, and provided with first quality, high temperature enamel.

2.2 WATER PIPING AND FITTING MATERIALS

A. All water piping shall comply with NSF/ANSI Standard 372 for low lead requirements.

B. Above Grade: ASTM B88, Type L copper tubing, hard temper with wrought copper fittings.

C. Below Grade: ASTM B88, Type K copper tubing, hard temper with wrought copper fittings.

D. Joints: 1/2" to 1-1/2” pipe sizes soldered using ASTM B32, lead-free alloys. Include water-flushable flux according to ASTM B813. 100 percent lead free, 95 percent tin and 5 percent antimony composition, silver bearing solders unless otherwise indicated.

E. Joints: 2” and larger pipe sizes brazed using AWS A5.8/A5.8M, AWS BCuP Series copper-phosphorous alloys.

F. Press fittings shall be permitted for use where approved by local authorities having jurisdiction and in compliance with current codes.

G. Water Hammer Arrestors: Provide at quick closing valves such as flush valves, etc. Certified under Plumbing and Drainage Institute Standard WH201 and by ASSE Standard 1010.

H. Select and size water hammer arrestors in accordance with Plumbing and Drainage Institute Standard WH201. Install above ceilings or behind wall access door at each plumbing fixture, or where plumbing fixtures are installed in groups, at each group of fixtures.

I. Insulation: Insulate outdoor piping with 1” Glass Fiber Insulation and 0.016 aluminum jacket.

2.3 WATER PIPING VALVES

A. All valves shall be the product of a single manufacturer. Milwaukee, NIBCO, Stockham, Crane, or approved equal. 125 PSIG steam service rated and 300 PSIG air and water rated. All valves shall be low lead type per NSF/ANSI Standard 372.

B. Provide valves with screwed or flanged ends as required by the piping system in which they are installed.

C. Shut-off valves 2 inches and smaller: Ball Valve. Bronze body, two piece, full port, extended handle that allows operation of valve without disturbing the insulation.

D. Shut-off valves 2 1/2 inches and larger: Gate Valve. Iron body, resilient wedge, outside screw and yoke.

E. Check valves: Bronze body, swing check, screwed. Provide non-slam check on pumped equipment or quick closing fixtures.

F. Relief valves: Bronze body, spring and diaphragm combination pressure and temperature relief valves with test lever and automatically resetting type thermostatic element. Tested under ANSI Z21.22 and rated relief capacities greater than water heater’s input rating.

2.4 WASTE AND VENT PIPING AND FITTING MATERIALS

A. Above Grade Waste and Vent: Hubless cast iron soil pipe and fittings, service weight per ASTM A888 and Cast-Iron Soil Pipe Institute Standard (CISPI) 301. Couplings conforming to ASTM and CISPI 310; stainless steel covered neoprene gasket sleeve and stainless steel clamps.

B. Below Grade Waste and Vent: ABS Schedule 40 per ASTM D2661 D2680 or PVC Schedule 40 per ASTM D17885 D2665 with solvent weld socket fittings.

C. Above Grade Vent alternate: ABS Schedule 40 per ASTM D2661 D2680 or PVC Schedule 40 per ASTM D1785 D2665 with solvent weld socket fittings may be used for above grade vent.

D. Traps: Provide traps at all fixtures connected to waste systems, except for fixtures having integral traps. Type of trap(s) shall be approved by local codes and be of same material as piping system. Exposed traps for fixtures shall be chrome plated 17 gauge brass.

E. Trap Primers: Pressure drop activated brass trap seal primer with view holes and removable filter screen and requires no adjustments or air pre-charge. Select appropriate model for number of drains being served. Precision Plumbing Products, MIFAB, or approved equal.

F. Drains: Size of drain outlets shall be same as connecting pipe and as indicated on Drawings. Provide trap primer connections on all drains. Drain outlet as required for connection to piping.

G. Temperature and Pressure Relief Drain: Material shall be rated at not less than the operating temperature of the system and approved for such use or shall comply with ASME A 112.4.1.

H. Cleanouts: Install cleanouts of same diameter as pipe (4 inch maximum) where indicated or required by code. Cleanouts shall be installed at all points of change in direction and in horizontal waste lines over 50 feet inside building and 100 feet outside building. Locate minimum 18 inches away from building construction to allow sufficient space for rodding.

1. Provide cleanouts in waste drop from each sink and urinal. Provide one wrench for each size and type of cleanout used.
2. Floor Cleanouts: ZURN Z1400 series, or approved equal. Nickel-bronze, round top, with vandal proof screws.
3. Wall Cleanouts: ZURN Z1446 series, or approved equal with stainless steel cover and vandal proof screws.
4. Unfinished Areas: Zurn Z1440, or approved equal. Cast iron cleanout.
5. Grass or Planting Area: Zurn Z1449, or approved equal. Locate in concrete box and cover.

2.5 UNIONS AND FLANGES

A. Install Watts, Epco, Nibco, or equal, dielectric unions or flanges at points of connection between copper or brass piping or material and steel or cast iron pipe or material except in drain, waste, or vent piping. Dielectric unions installed in potable water systems shall conform to lead free requirements.

B. Install unions in piping 2” and smaller and flanges in piping 2 1/2" and larger at each connection to all equipment, tanks, and automatic valves.

C. Locate unions for easy removal of equipment, tank, or valve.

2.6 PIPE HANGERS AND SUPPORTS

A. Provide adequate supports, hangers, guides, thrusters, etc. as necessary to allow for proper movement of the piping at the building seismic joints and at the thermal expansion loops and flexible connectors, taking into account the pipe size, flex connection type, required seismic movement and system operating temperature and pressure.

B. Acceptable manufacturers: B-line, Tolco, Superstrut, Unistrut, or approved equal.

C. All copper pipe shall be isolated from steel hangers and supports using factory Vibra-Cushion strip or plastic coated hangers. Field wrapping of pipe with tape is not acceptable.

D. Plumbers tape or sheetmetal straps shall not be used for hanging or supporting of pipes.

E. Support horizontal piping in accordance with the following schedule:

Pipe Size (inches)	Maximum Hanger Spacing (feet)						Hanger Rod Diameter (inches)		
	Steel	Cast Iron	Copper	Plastic			Steel / Cast Iron	Copper	Plastic
				CPVC	PVC	PP			
Up to 1	7	-	5	3.5	3	2.75	3/8	3/8	3/8
1 1/4	9	-	6	3.5	3	2.75	3/8	3/8	3/8
1 1/2 & 2	9	5	8	3.5	3.5	2.75	3/8	3/8	3/8
2 1/2	12	5	8	3.5	3.5	3.5	1/2	1/2	1/2
3	12	5	10	3.5	3.5	3.5	1/2	1/2	1/2
3 1/2	-	5	10	-	-	-	5/8	1/2	-
4	12	5	10	4	4	4	5/8	5/8	5/8
5	12	5	10	4	4	4	5/8	5/8	5/8
6	12	5	10	4	4	4	3/4	3/4	3/4
8 to 12	12	5	10	4	4	4	7/8	3/4	7/8

F. Provide hangers at each change in direction and both sides of valves 4-inch and larger. Place a hanger within 12 inches of each horizontal elbow, valve, strainer, or similar piping specialty item.

G. Support Steel piping on the roof in accordance with the following schedule:

Nominal Pipe Size (inches)	Spacing of Supports (feet)
1/2	6
3/4 or 1	8
1 1/4 or larger	10
1 1/4 or larger (Vertical)	Every floor level

For pipes on roof other than steel pipe, match support spacing from previous Hanger table above.

PART 3 – EXECUTION

3.1 PREPARATION

A. Close equipment shutoff valves before turning off natural gas to premises or piping section.

B. Inspect natural gas piping according to NFPA 54 to determine that natural gas utilization devices are turned off in piping section affected.

3.2 PIPE SIZES TO EQUIPMENT

A. Pipe sizes indicated, including required valving, shall be carried full size to equipment served. Any change of size to match equipment connection shall be made within 1’-0” of equipment.

3.3 PIPING GENERAL INSTALLATION

A. Thoroughly clean all pipe and maintain in clean condition during construction temporarily capping or plugging ends of pipe when not being worked on.

B. Cut pipes accurately to measurements established at the site and work into place without springing or undue forcing and out of the way of openings, ductwork, and equipment; ream ends of screwed pipes and tubing to original bore before connecting together.

C. Protect all piping located over switchboards, electrical machinery, or equipment against condensation. Insulate piping and install sheetmetal pan underneath piping running above electrical equipment and panels.

D. Where changes in pipe size occur, use only reducing fittings.

E. Provide screwed unions or flanges in locations required for disconnecting and connecting of all equipment.

F. Pipe runs in masonry and concrete floors shall be sleeved for protection.

G. Chase or sleeve all lines rising in footings and where running concealed through walls.

H. Caulk space between pipes and sleeves in exterior walls and in concrete slabs with graphite packing and waterproof plastic compound; caulk with Dow Corning #3 6548 Silicone RTV Foam per manufacturer's recommendations at fire walls.

I. Place escutcheons, stamped with #16 gauge steel and chromium plated, on pipes passing through sleeves in walls, floors or ceiling where exposed to view within a finished area. Grout in all other lines.

J. Support piping where necessary at sufficiently close intervals (and 24" from each fitting and change of direction) to keep it in alignment and to prevent sagging.

K. Anchor vertical risers with hooks, brackets, or clamps to make rigid.

L. All changes of direction of piping shall be made with fittings. Do not bend pipe.

M. Flash roof vent piping through roof with 24 gauge or heavier galvanized flashing. Make watertight with black fibrous mastic. Extend flashing into roofing felt 12” from pipes.

N. Insulate cold water piping outdoors for freeze protection.

3.4 PIPING JOINT CONSTRUCTION

A. Ream ends of pipes and tubes and remove burrs.

B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.

C. Threaded Joints:

1. Thread pipe with tapered pipe threads complying with ASME B1.20.1.
2. Cut threads full and clean using sharp dies.
3. Ream threaded pipe ends to remove burrs and restore full inside diameter of pipe.
4. Apply appropriate tape or thread compound to external pipe threads unless dryseal threading is specified.
5. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.

D. Welded Joints:

1. Construct joints according to AWS D10.12/D10.12M, using qualified processes and welding operators.
2. Bevel plain ends of steel pipe.
3. Patch factory-applied protective coating as recommended by manufacturer at field welds and where damage to coating occurs during construction.

E. Brazed Joints:

1. Construct joints according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter.

F. Flanged Joints:

1. Install gasket material, size, type, and thickness appropriate for natural-gas service. Install gasket concentrically positioned.

G. Flared Joints:

1. Cut tubing with roll cutting tool. Flare tube end with tool to result in flare dimensions complying with SAE J513. Tighten finger tight, then use wrench. Do not overtighten.

H. PE Piping Heat-Fusion Joints:

1. Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join according to ASTM D 2657.
2. Plain-End Pipe and Fittings: Use butt fusion.
3. Plain-End Pipe and Socket Fittings: Use socket fusion.

3.5 WASTE, VENT AND CONDENSATE DRAIN PIPING INSTALLATION

A. Lay piping in straight lines at a minimum slope of 2 percent in direction of flow of drainage system, unless otherwise noted on the Drawings.

B. Keep stopper in mouth of pipe when pipe when pipe laying is not in process.

C. Make changes in direction with long sweep or bends. Do not change direction of flow more than 90 degrees.

D. Reducing size of drainage piping in direction of flow is prohibited.

E. Make connections of branches to mains with “Y” fittings and 1/8 or 1/16 bends.

F. Install traps and fresh air inlets where required by code regulations.

G. Install traps with offset drain where required to meet ADA clearances.

H. Install trap primers discharge piping appropriate for trap primers installed. Coordinate discharge piping routing and method of connection to inlet side of floor drain and ensure discharge piping has positive drainage towards connection point floor drain. Slope piping at 1/8” per foot.

I. Install cleanouts at ends of horizontal runs in excess of 5’-0” and every 100’-0” of horizontal run.

J. Makeup cleanout plugs with graphite and oil to facilitate easy removal.

K. Extend vents through roof. Vents may be combined in accordance with California Plumbing Code. Arrange piping passing through roofs to be a minimum of 12 inches from walls or other obstructions so as to permit proper flashing.

L. Do not terminate vent outlet less than ten (10) feet from air intakes.

M. Deliver to the owner at completion of work two (2) suitable wrenches for each type of cleanout installed.

N. Take necessary precautions to protect cleanouts during course of construction.

O. Contractor to inquire from Owner the time to make tie-in to existing systems.

3.6 WATER PIPING INSTALLATION

A. Extend piping for hot and cold water, including mains, risers, and supplies to fixtures and indicated equipment. Carry headers for groups of fixtures full size throughout their length.

B. All domestic water piping shall be arranged to drain to low points and to provide for air elimination at high points.

C. All ferrous to non-ferrous pipe connections shall be made with accepted dielectric pipe or flange union isolating joints to prevent any electrolytic action between dissimilar metals.

D. Insulate all domestic hot and hot water return piping and fittings.

E. Make changes in pipe sizes with reducing tees or reducer fittings.

F. Install a shut off valve at domestic water line to each fixture group so that each group can be shut off without shutting down the other parts of the system.

G. Provide shut off valves for all plumbing equipment, fixtures, and fixture trim which do not have supply stop or integral isolation valves included.

H. Arrange and orientate valves, trap primers, water hammer arrestors, etc. in manner accessible for maintenance and/or removal.

I. No water piping will be permitted below slab on grade unless shown on Drawings.

J. Contractor to inquire from Owner the time to make tie-in to existing systems.

3.7 HANGER AND SUPPORT INSTALLATION

A. Support exposed piping tight to wall with support channels and pipe clamps. All pipe clamps shall include rubber cushion.

B. Install hangers, supports, clamps, and attachments as required to properly support piping from building structure. Comply with the details on the plans and the California Building Code.

C. Install hangers and supports complete with necessary inserts, bolts, rods, nuts, washers, and other accessories.

D. Install lateral bracing with pipe hangers and supports to prevent swaying.

E. Install hangers and supports so piping live and dead loads and stresses from movement will not be transmitted to connected equipment.

F. Install hangers and supports to provide indicated pipe slopes and so maximum pipe deflections allowed by ASME B31.9 are not exceeded.

G. Adjust hangers to distribute loads equally on attachments.

H. Trim excess length of continuous-thread hanger and support rods to 1 1/2 inches.

3.8 EXCAVATION AND BACKFILL

A. Provide excavation for the work of this Division. Excavate all material encountered, to the depths indicated on the Drawings or as required. Remove excavated materials not required or suitable for backfill from the site. Provide grading as may be necessary to prevent surface water from flowing into trenches or other excavations. Remove any water that accumulates. Provide sheeting and shoring as may be necessary for the protection of the work and for the safety of personnel.

A. Provide trenches of widths necessary for the proper execution of the work. Grade bottom of the trenches accurately to provide uniform bearing and supp ort the work on undisturbed soil at every point along its entire length.

B. Bedding shall be on minimum 6” deep layer of sand placed on leveled trench bottom. Sand removed to necessary depth for piping bells and couplings to maintain contact of pipe on sand for entire length. All other piping laid on smooth level trench bottom to maintain contact for entire length.

C. All backfill shall be bank run sand and/or gravel to 6” above piping up to slab on interior piping below slabs. All backfill placed in layers not exceeding 8” deep and compacted to 95% maximum density at optimum moisture content per AASHTO Standards.

D. Following backfilling, grade all trenches to level of surrounding subgrade. All excess soil shall be located per Owner’s instructions.

E. Do not backfill trenches until all required tests have been performed and the installation observed by the Architect.

F. After backfilling, remove all surplus earth resulting from this work from the premises and dispose off site.

3.9 PAINTING

A. Paint exposed, exterior metal piping, valves, service regulators, earthquake valves, and piping specialties except components with factory-applied paint or protective coating.

1. Alkyd System: MPI EXT 5.1D.

a. Prime Coat: Alkyd anticorrosive metal primer.

b. Intermediate Coat: Exterior alkyd enamel matching topcoat.

c. Topcoat: Exterior alkyd enamel (flat).

d. Color: Gray or as selected by Architect.

B. Paint exposed, interior metal piping, valves, service regulators, earthquake valves, and piping specialties except components, with factory-applied paint or protective coating.

2. Latex Over Alkyd Primer System: MPI INT 5.1Q.

a. Prime Coat: Alkyd anticorrosive metal primer.

b. Intermediate Coat: Interior latex matching topcoat.

c. Topcoat: Interior latex (flat).

d. Color: Gray or as selected by Architect.

C. Damage and Touchup: Repair marred and damaged factory-applied finishes with materials and by procedures to match original factory finish.

D. Refer to Division 09 for additional painting requirements.

3.10 TESTING, ADJUSTING, AND CLEANING

A. Provide testing of all installed gas, domestic water, drainage and vent systems during progress of work. Such tests shall be done in the presence of the Owner's representative, and all Authorities Having Jurisdiction. The inspection authority having jurisdiction and the Engineer shall be notified a minimum of 48 hours prior to performance of all tests so that they may be witnessed.

B. Provide the Architect with certified copies of the test results in written format. At a minimum include the date of the test, witnesses present, sections tested, length of tests, starting and final pressures.

C. Contractor shall provide all apparatus, temporary work, or any other requirements necessary for such tests. Take all due precautions to prevent damage to the building or its contents that may be incurred by such tests as the Contractor will be required to repair and make good, at own expense, any damage caused.

D. Any defects or deficiencies discovered as result of tests shall be immediately repaired and tests shall be repeated until all test requirements are fully met. No caulking of pipe joints to remedy leaks shall be permitted.

E. Gas Piping: All gas piping shall be tested per NFPA 54 to 60 psig for 1 hour without drop in pressure. Equipment and personnel shall be protected from this test procedure. Measure natural gas system test pressure with a water manometer or an equivalent device calibrated in increments not greater than 0.1 inch water column. System shall not be approved until it can be demonstrated that there is no measurable loss of test pressure during test period.

F. Waste and Condensate Drain Piping: All waste and condensate drain systems shall be tested hydraulically by filling to the highest vent point with water. Piping may be tested in sections. Each section of drainage piping tested shall have all openings tightly closed with screw plugs, or equal device, and stand without loss of level for a period of 4 hours when filled with water which produces at least a 10-foot head at the highest point of the section tested.

G. Water Piping: All water piping shall be tested to 100 psig with potable water and held for 8 hours without drop in pressure before it is covered and concealed. Equipment and personnel shall be protected from this test pressure. After fixtures are connected, test system for 2 hours at 75 psig or prevailing water pressure, whichever is higher.

H. Adjust and regulate all faucets, valves, water heating equipment, etc. and turn over to the Owner in perfect working order.

I. Upon completion of work, clean all equipment and piping installed under this Section.

3.11 DISINFECTION

A. Upon completion of all tests and necessary replacements, all domestic water piping shall be disinfected. Chlorination shall be accomplished by personnel in direct employ of a firm licensed to do this type of work. After work has been accomplished, provide the Owner and Architect with a statement from the laboratory indicating the water is suitable for human consumption.

B. Prior to testing, flush piping with clean water until clean water free of silt or grit is observed for at least one minute.

C. Comply with local requirements where local code requirements are more stringent. Provide necessary labor, equipment, material, and test kits for chlorine application and tests. Make all arrangements with jurisdictional water authority for witnessing chlorination tests and tests of proper disinfection.

D. Sterilize all parts of building water system with water solution containing 50 ppm of available chlorine for at least a 24 hour contact period. After contact period, flush all parts of system with clear water until system tests at no more than 0.2 ppm residual chlorine.

E. Flush thoroughly and submit bacteriological samples to a certified laboratory which shall certify in writing that the water is suitable for drinking.

3.12 TRAINING AND O&MS

A. Refer to Section 22 00 00 Plumbing General Requirements and Division 01 for Training requirements, Operating and Maintenance Manuals, and other Closeout procedures.

END OF SECTION

SECTION 22 10 13

TRENCHING AND BACKFILL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01, and Division 22 Sections apply to this Section.

1.2 SUMMARY

A. Section includes excavating trenches for utilities from outside building to final connection point or utility; compact fill from top of utility bedding to subgrade elevations; and backfilling and compaction.

1.3 REGULATIONS AND STANDARDS

A. Install all work to meet or exceed requirements prescribed by governmental bodies having jurisdiction and in accordance with all federal, state, and local codes and ordinances, and all OSHA requirements. These codes include, but are not limited to the latest applicable edition of the following:

1. California Building Code
2. California Electrical Code
3. California Plumbing Code
4. California Mechanical Code
5. California Energy Code
6. California Green Buildings Standard
7. California Fire Code
8. National Fire Protection Association

1.4 COORDINATION

A. Verify work associated with lower elevation utilities is complete before placing higher elevation utilities.

B. Verify elevations of existing facilities prior to placing new work.

C. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, skillful and well-executed manner by competent workers. Provide a competent, experienced full-time Superintendent who is authorized to make decisions on behalf of the Contractor.

D. Coordinate with work performed by other Sections in order to ensure adequate space and proper location of all necessary work on this project whether or not work is under this Section. Coordination shall be done prior to order or manufacture of any systems or components.

1.5 SAFETY

A. Contractors must conduct a weekly safety meeting with their employees and maintain documentation of attendance and topics of discussion. Contractor shall comply with all OSHA regulations. Contractor is required to obtain and pay for insurance required to cover all activities withing Contractor's scope of work.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

3.1 EXAMINATION OF SITE

A. The Contract Documents do not make representations regarding the character or the extent of the subsoils, water levels, existing structural, mechanical, plumbing, and electrical installations, above or below grade, or other sub-surface conditions which may be encountered during the work.

B. Evaluate existing conditions that may affect methods or cost of performing the work, based on examination of the site or other information. Failure to examine the Drawings or other information does not relieve the Contractor of responsibility for satisfactory completion of the work.

C. Verify all dimensions, lines, and levels at the site for all work specified herein. All inverts, slopes, and elevations shall be established by instrument working from established datum. Provide elevation markers and lines for Owner's use in determining that slopes and elevations are in accordance with contract requirements. Accurately locate trenches in relation to building and boundary lines.

3.2 LINES AND GRADES

A. Pipes shall be laid true to the lines and grades indicated.

B. The grade alignment of the pipe shall be maintained by the use of a string line parallel with the grade line and vertically above the centerline of the pipe. This line shall be established on level batter boards at intervals of not more than 25 feet. Batter boards shall span the trench and be rigidly anchored to substantial posts driven into the ground on each side of the trench. Three adjacent batter boards must be set before laying pipe to provide a check on the grades and line. Elevation and position of the string line shall be determined from the elevation and position of offset points or stakes located along the pipe route. Pipe shall not be laid using side lines for line or grade.

C. As an alternative means of establishing alignment and grade, a "Laser-Beam" instrument may be utilized with a competent operator.

D. An underground locate service shall be enlisted to discover the location of existing utilities regardless if they are shown on the drawings.

E. The Architect/Engineer reserves the right to make changes in lines, grades, and depths of pipe lines and manholes when such changes are necessary.

3.3 PREPARATION

A. Identify required lines, levels, contours, and datum locations.

B. Protect plant life, lawns, and other features remaining as a portion of final landscaping.

C. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

D. Maintain and protect above and below grade utilities which are to remain.

E. Cut out soft areas of subgrade not capable of compaction in place. Backfill and compact to density equal to or greater than requirements for subsequent backfill material.

3.4 EXCAVATING

A. Excavate subsoil required for utilities.

B. Cut trenches sufficiently wide to enable installation and allow inspection. Remove water or materials that interfere with work.

C. Do not interfere with 45 degree bearing splay of foundations.

D. Hand trim excavation. Hand trim for bell and spigot pipe joints. Remove loose matter.

E. Remove lumped subsoil, boulders, and rock as directed by inspector.

F. Correct over excavated areas with backfill and compact replacement as specified for authorized excavation.

G. Stockpile excavated material on site. Remove excess material not being used from site.

3.5 TRENCHING

A. Excavation shall be dug so that the pipe can be laid and jointed properly. The trench shall be made so that the pipe can be laid to the alignment and depth as shown on the Drawings. The excavation shall not be more than two feet wider at bottom than the outside diameter of the pipe or structure. If there is no interference with construction, or adjacent property, and if soil permits, the Contractor at his own expense shall be permitted to slope the side walls of the excavation starting at a point two (2) feet above the top of pipe.

B. The trench shall be excavated to the depth required so as to provide a uniform and continuous bearing and support the pipe on bedding material at every point between joints, except where pipe slings or other lifting tackle are withdrawn.

C. Where excavation indicates that the subsurface materials at the bottom of the trench are in loose of soft state, the Contractor shall be advised to excavate to a depth where suitable material is encountered.

D. Where the bottom of the trench has been excavated by mistake to a greater depth than required, the Contractor shall refill this area using approved material. No additional compensation shall be given to the Contractor. Refilling with earth to bring the bottom of the trench to the proper grade will not be permitted.

E. Excavation and shoring shall adhere to the requirements and safety standards set by OSHA.

F. Trenching in advance of pipe laying: the trench for the pipe lines shall not be opened for a distance of than 200 feet at any one time. At no time will the Contractor be permitted to leave more than 50 feet of trench open at the end of a working day. Adequate protection of open trench shall be provided by the Contractor and the Contractor shall be responsible therefore.

3.6 SHEETING AND BRACING

A. Sheeting and bracing of all excavations shall conform to the latest statutes of the State of California governing safety of workers in the construction industry. When necessary, in the opinion of the Contractor, adequate sheeting and bracing shall be installed to prevent ground movement that may cause damage or settlement to adjacent structures, pipelines and utilities. Any damage due to settlement because of failure to use sheeting or because of inadequate bracing, or through negligence or fault of Contractor in any other manner, shall be repaired at the Contractor's expense.

B. Sides of trenches in unsuitable, loose or soft material, five feet or more in depth, shall be shored, sheeted, braced, sloped, or otherwise supported by means of sufficient strength to protect employees working within them.

C. Where excavations are made with vertical sides which require supporting, the sheeting and bracing shall of sufficient strength to sustain the sides of the excavations and to prevent movement which could in any way injure the Work, or adjacent structures, or diminish the working space sufficiently to delay the Work. Special precautions shall be taken where there is additional pressure due to the presence of other structures.

D. It shall be the Contractor's responsibility to select sheeting and bracing of sufficient dimensions and strength and type to adequately support the sides of trenches and excavations.

E. Sheeting and bracing shall be removed before the completion of the Work.

3.7 BACKFILLING

A. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, or spongy subgrade surfaces.

B. Employ a placement method that does not disturb or damage utilities in trench. Jetting of backfill materials to achieve compaction shall not be permitted.

C. Maintain optimum moisture content of fill materials to attain required compaction density.

D. Remove surplus fill materials from site.

E. Reshape and re-compact fill subjected to vehicular traffic during construction.

F. Roll subgrade surface to identify soft spots; fill and compact to density equal or greater than requirements for subsequent fill material.

G. Backfill against supported walls and structures. Do not backfill against unsupported walls or structures.

H. Backfill simultaneously on each side of unsupported walls and structures until supports are in place.

I. Make gradual grade changes. Bend slope into level areas.

END OF SECTION

SECTION 32 17 23.13 – PAINTED PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 SUMMARY

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

B. Related Sections:

1. Section 32 12 16 - Asphalt Paving
2. Section 32 13 13 – Concrete Paving
3. Section 32 12 36 – Slurry Seal Existing Asphalt

1.2 SUMMARY

A. Section includes general protection and pruning of existing trees and plants that are affected by execution of the Work, whether temporary or permanent construction.

B. Description of Work:

1. This Section pertains to the application of pavement marking as indicated on the drawings and as specified herein.

1.3 SUBMITTALS

A. Product Data: Include material certificates, finishes and color charts

B. Accreditation Certificate for applicators.

1.4 PROJECT CONDITIONS

A. For new asphalt paving, Contractor shall review asphalt paving to receive pavement markings and verify the asphalt is free of defects and structurally stable. Notify Owner’s Representative prior to proceeding with pavement markings to make necessary repairs.

B. For new asphalt paving, the surface shall be dry and free from all foreign matter, including, but not limited to dirt, dust, de-icing materials, and chemical residue. Notify Owner’s Representative prior to proceeding with pavement markings to make necessary repairs.

C. For existing asphalt paving, Contractor shall review the asphalt does not contain any defects including cracks, ruts or potholes nor demonstrate any flushing, raveling or like deficiencies.

Notify Owner's Representative prior to proceeding with pavement markings to make necessary repairs.

D. For existing asphalt paving, Contractor shall review the surface conditions prior to placing bid. Bid shall include removal of existing pavement markings by sand-blasting, water-blasting, grinding, or other approved mechanical methods. The removal shall, to the fullest extent possible, cause no significant damage to the pavement surface. Obtain approval from Owner's Representative in writing if the removal of surface markings is satisfactory. Work shall not proceed until this approval is granted.

E. Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 deg F (4 deg C) for oil-based materials, 50 deg F (10 deg C) for water-based materials, and not exceeding 95 deg F (35 deg C).

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver pavement marking materials to Project site in original packages with seals unbroken and bearing manufacturer's labels containing brand name and type of material, date of manufacture, and directions for storage.

B. Store pavement markings materials to Project site in original packages with seals unbroken and bearing manufacturer's labels containing brand name and type of material, date of manufacture, and directions for storage.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Painted Pavement Markings shall consist of a product formulated to provide a balance of performance properties for a durable, long-lasting, color and a texture finish for asphalt pavement surfaces. Paint for Pavement Markings shall be environmentally safe and meet EPA requirements for Volatile Organic Compounds (VOC).

B. Manufacturer: Painted Pavement Markings shall be Sherwin-Williams Acryshield Exterior Paint or equal, with H&C SharkGrip additivie for non-skid finish.

1. Products available through:

a. Sherwin-Williams at www.Sherwin-Williams.com available through retail stores that cater to commercial clients. Allow a minimum of 1 week lead time to order.

b. H&C Concrete at www.hcconcrete.com, 1-800-867-8246

C. Painted Pavement Markings / Game Line Paint shall be white, unless noted otherwise on the plans, water based, 100% acrylic, lead free striping and marking materials manufactured for permanent, exterior game line marking.

D. Equipment for Painted Pavement Marking Application: Contractor shall execute work using equipment appropriate for the design / layout of the painted pavement markings. Contractor

shall not use equipment not suitable for this application which may compromise the performance of the coatings.

1. Brush: Synthetic Bristle, size of brush as required.
2. Roll: 3/8” – 3/4" Synthetic Cover
3. Sprayer: 2000 – 2500 PSI / .015” - .021” Tip

E. Painted Pavement Marking Templates:

1. Contractor shall create and fabricate sturdy, non-flexible, waterproof templates for each Challenge Course Activity Station, Map, Symbol, or other pavement marking.
2. Acceptable Template Materials are plastic, metal, or approved equal.
3. Contractor shall clean and thoroughly dry each template prior to re-use.
4. Refer to section 3.6 for Close-Out items related to this section.

PART 3 - EXECUTION.

3.1 APPLICATION

A. Do not apply pavement marking paint until layout, colors, and placement have been verified with Owner’s Representative.

B. Allow paving to age for 30-days before starting pavement marking or as specified by manufacturer’s recommendations.

C. Pavement surface to receive the striping shall be thoroughly cleaned of all dirt, organic growth, oil, grease, or other materials that will prevent adhesion of the paint to the roadway surface.

D. Paints shall applied by brush, spray or flow methods to clean and dry surfaces with surface temperature 50 F or above.

1. Paint shall be applied after OverKote Asphalt Pavement Coating application has had adequate time to cure. Refer to manufacture’s recommendations for cure time.
2. Paint shall be applied with mechanical equipment to produce uniform straight edges. Apply two (2) coats at manufacturer’s recommended rates.
3. Paint shall be applied as shown on drawings.

3.2 FIELD QUALITY CONTROL

A. Do not apply pavement -marking paint until layout, colors and placement have been verified with Owner’s Representative.

END OF SECTION 32 17 23.13 (Revised 11/07/2025)

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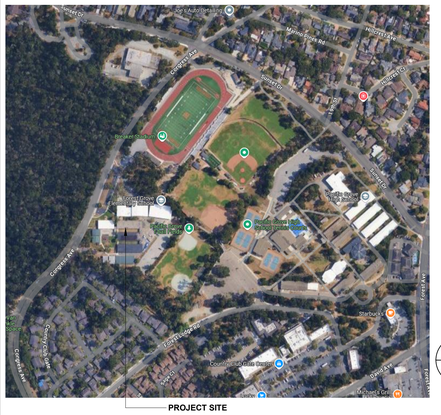

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EXHIBIT C

PACIFIC GROVE UNIFIED SCHOOL DISTRICT

FOREST GROVE ELEMENTARY SCHOOL
SITE IMPROVEMENTS PROJECT

1065 CONGRESS AVE., PACIFIC GROVE,
CALIFORNIA 93950

DSA FILE No. 27-37
DSA APPLICATION No. 01-122771
OPSC PROJECT TRACKING No. 66134-36

BID SET SUBMITTAL

STANDARD ABBREVIATIONS

&	AND
#	NUMBER
%	PERCENT
AC	AIR CONDITIONING
ACC.	ACCESSORY
A.D.A.	AMERICANS with DISABILITIES ACT
A.F.F.	ABOVE FINISH FLOOR
ALT.	ALTERNATE
A.P.N.	ASSESSOR'S PARCEL NUMBER
BD.	BOARD
BLDG.	BUILDING
BLKG.	BLOCKING
B.O.C.	BACK OF CURB
C.B.C.	CALIFORNIA BUILDING CODE
CL or ℄	CENTERLINE
CLG.	CEILING
CLR.	CLEAR
CONT.	CONTINUOUS
CTR.	COUNTER
DBL.	DOUBLE
DEMO.	DEMOLITION
DEPT.	DEPARTMENT
DET.	DETAIL
DIA. or Ø	DIAMETER
DIM.	DIMENSION
DWG.	DRAWING
E.	EAST
(E)	EXISTING
EA.	EACH
EEP	ENERGY EXPENDITURE PLAN
ELEC.	ELECTRICAL
EQ.	EQUAL
EQUIP.	EQUIPMENT
E.W.	EACH WAY
EXT.	EXTERIOR
F.A.	FIRE ALARM
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F.F.	FINISH FLOOR
FIN.	FINISH
FL.	FLOOR
F.O.F.	FACE OF FINISH
F.O.S.	FACE OF STUD
FRP	FIBERGLASS REINFORCED PLASTIC
FT.	FOOT or FEET
GA.	GAUGE
GSM	GALVANIZED SHEET METAL
G.C.	GENERAL CONTRACTOR
GEN.	GENERAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GR.	GRADE
GYP. BD.	GYPSUM BOARD
H.B.	HOSE BIB
HDWD.	HARDWOOD
HDW.	HARDWARE
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
HT.	HEIGHT
I.D.	INSIDE DIAMETER
I.E.	FOR EXAMPLE, SUCH AS
INSUL.	INSULATION
INT.	INTERIOR or INTEGRAL
L.	LONG or LENGTH
MAX.	MAXIMUM
MECH.	MECHANICAL
M.E.P.	MECHANICAL, ELECTRICAL, PLUMBING
MFG.	MANUFACTURE or MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.R.	MOISTURE RESISTANT
N.	NORTH
(N)	NEW
N.I.C.	NOT IN CONTRACT (NO WORK)
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPP.	OPPOSITE
O.S.B.	ORIENTED STRAND BOARD
(P)	PROPOSED
PL or ⅊	PROPERTY LINE
PLAM.	PLASTIC LAMINATE
PLYWD.	PLYWOOD
PNL.	PANEL
P.O.T.	PATH OF TRAVEL
PT.	PAINT
P.T.D.	PAPER TOWEL DISPENSER
PVC	POLYVINYL CHLORIDE
P.U.E.	PUBLIC UTILITY EASEMENT
R.	RADIUS
R.B.	RUBBER BASE
R.D.	ROOF DRAIN
REF.	REFERENCE
REINF.	REINFORCE
REQ.	REQUIRED or REQUIREMENT
RES.	RESILIENT
RM.	ROOM
R.O.	ROUGH OPENING
R.R.	REMOVE & RELOCATE
S.A.S.M.	SELF-ADHERE SHEET MEMBRANE
S.	SOUTH
S.C.	SOLID CORE
S.C.D.	SEAT COVER DISPENSER
SCHED.	SCHEDULE
SECT.	SECTION
S.E.D.	SEE ELECTRICAL DRAWINGS
S.F.	SQUARE FEET or SQUARE FOOT
SHT.	SHEET
SIM.	SIMILAR
S.M.D.	SEE MECHANICAL DRAWINGS
SPEC.	SPECIFICATIONS
SQ.FT.	SQUARE FEET or SQUARE FOOT
STL.	STEEL
STOR.	STORAGE
STRUCT.	STRUCTURAL or STRUCTURE
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
T&B	TOP & BOTTOM
T.B.D.	TO BE DETERMINED
TEMP.	TEMPORARY
T&G	TONGUE & GROOVE
THK.	THICK
TMP.	TEMPERED
T.O.	TOP OF
TYP.	TYPICAL
U.C.	UNDER COUNTER
UNF.	UNFINISHED
U.O.N.	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
VEST.	VESTIBULE
V.I.F.	VERIFY IN FIELD
W.	WEST
W.C.	WATER CLOSET
WD.	WOOD
WIND.	WINDOW
W.R.	WATER RESISTANT
WSCT.	WAINSCOT
WT.	WEIGHT
w/	WITH
w/o	WITHOUT

GENERAL NOTES

1. DO NOT SCALE THE DRAWINGS. EVERY ATTEMPT HAS BEEN MADE TO SHOW ITEMS TO SCALE, BUT NO GUARANTEE IS IMPLIED. ALWAYS INFORM THE ARCHITECT OF MISSING, INCOMPLETE, OR IMPROPER DIMENSIONS ON THE PLANS, OR WHEN EXISTING CONDITIONS DO NOT MATCH WHAT IS SHOWN ON THE PLANS. VERIFY CRITICAL DIMENSIONS.
2. DIMENSIONS TO EXISTING CONSTRUCTION ARE GIVEN TO FACE OF FINISH, UNLESS INDICATED OTHERWISE.
3. IF PROVIDED, SEE ELECTRICAL, CIVIL AND PLUMING DRAWINGS FOR RELATED WORK AND EQUIPMENT. WHERE ELECTRICAL ITEMS ARE SHOWN, AND NO DIMENSIONS OR OTHER FORMS OF LOCATION INFORMATION ARE PROVIDED, THE ARCHITECTURAL DRAWINGS SHALL GOVERN WITH RESPECT TO LOCATION.
4. SINCE THE WORK INCLUDES ALTERATIONS OF EXISTING FACILITIES, EXAMINATION OF THE EXISTING CONSTRUCTION SHALL BE MADE BY THE GENERAL CONTRACTOR AS IT RELATES TO THE WORK. THE GENERAL CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND DIMENSIONS AS REQUIRED. NO ALLOWANCE SHALL BE ALLOWED FOR ANY EXPENSE INCURRED DUE TO FAILURE OR NEGLECT TO EXAMINE AND VERIFY EXISTING CONDITIONS. ANY CONFLICTS, OMISSIONS, ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BID SUBMISSION.
5. THE PURPOSE OF THESE DOCUMENTS IS TO SHOW THE GENERAL ARRANGEMENT AND EXTENT OF NEW WORK, INCLUDING ADDITIONS, ALTERATIONS. ALL WORK WHICH IS OBVIOUSLY REQUIRED TO BE PERFORMED TO PROVIDE A COMPLETE AND OPERABLE FINISHED PROJECT SHALL BE ASSUMED TO BE INCLUDED WITHING THE SCOPE OF THE CONTRACT.
6. ALL SCOPE INDICATED ON THESE DRAWINGS SHALL BE ASSUMED TO BE NEW AND PART OF THE CONSTRCUTION CONTRACT UNLESS IT IS SPECIFICALLY NOTED AS EXISTING (E), OR EXISTING TO REAMAIN.
7. REMOVE PORTIONS OF EXISTING CONSTRUCTION AS NECESSARY TO ACCOMMODATE NEW WORK AND REPLACE, PATCH OR REPAIR AS NEEDED. PROTECT AREA FROM DAMAGE WHICH MAY OCCUR FROM DEMOLITION, DUST, WATER, ETC. PROVIDE AND MAINTAIN TEMPORARY BARRICADES, CLOSURE WALLS, ETC. AS REQUIRED DURING THE PERIOD OF CONSTRUCTION.
8. DAMAGE TO EXISTING STRUCTURES, FINISH, AND EQUIPMENT SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.
9. THE FINAL LOCATION OF ALL ELECTRICAL AND SIGNAL EQUIPMENT, PANEL BOARDS, FIXTURES, OUTLETS, ETC. SHALL BE APPROVED BY OWNER PRIOR TO INSTALLATION.
10. DIMENSIONS NOTED "CLEAR" OR "CLR." MUST BE PRECISELY MAINTAINED WITHOUT TOLERANCE.
11. DO NOT SCALE DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION PRIOR TO DEMOLITION, FABRICATION OR CONSTRUCTION. DIMENSIONS ARE NOT ADJUSTABLE WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT
12. DIMENSIONS NOTED "V.I.F." OR "VERIFY" SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF FABRICATION OR CONSTRUCTION. VERIFY ALL ROUGH OPENING DIMENSIONS, FOR FABRICATED ITEMS, WITH THE MANUFACTURER PRIOR TO CONSTRUCTION.
13. THE GROUND FLOOR LEVEL IS INDICATED AS +0.00' ON ARCHITECTURAL DWGS. REFER TO CIVIL DWGS FOR FINISH FLOOR ELEVATIONS RELATIVE TO A TOPOGRAPHIC SURVEY BENCHMARK.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL LEFTOVER MATERIALS, DEBRIS, TOOLS AND EQUIPMENT INVOLVED IN HIS OPERATIONS AT THE CONCLUSION OF THE WORK.
15. CONTRACTOR SHALL REPAIR OR REPLACE ANY FENCE, SIDEWALK, PAVING, LANDSCAPING, ELEVATOR, FLOORING OR ANY OTHER BUILDING MATERIAL OR SYSTEM DAMAGED AS A RESULT OF LABOR, MATERIAL AND EQUIPMENT DELIVERY AND HANDLING.
16. THE ARCHITECT AND CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL OR DISPOSAL OF, OR EXPOSURE OF PERSONS TO ASBESTOS, HAZARDOUS OR TOXIC SUBSTANCES IN ANY FORM AT THE PROJECT SITE. PROFESSIONAL SERVICES RELATED OR IN ANY WAY CONNECTED WITH THE INVESTIGATION, DETECTION, ABATEMENT, REPLACEMENT, USE, SPECIFICATION, OR REMOVAL OF PRODUCTS, MATERIALS OR PROCESSES CONTAINING ASBESTOS, HAZARDOUS OR TOXIC MATERIALS ARE NOT WITHIN THE ARCHITECT'S SCOPE OF SERVICES.
17. THE INTENT OF THESE DRAWINGS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION SHALL BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITIONS, SUCH AS DETERIORATION OR NONCOMPLIANT CONSTRUCTION, BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS, WHEREIN THE FINISHED WORK SHALL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY AND WAIT FOR INSTRUCTION BEFORE PROCEEDING WITH WORK.

ADMINISTRATIVE REQUIREMENTS

1. A COPY OF THE 2022 CALIFORNIA BUILDING CODE PARTS 1 TO 5 SHALL BE KEPT ON SITE AT ALL TIMES.
2. CHANGES TO THE APPROVED DRAWINGS OR SPECIFICATIONS SHALL BE MADE BY ADDENDA, REVISION OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY THE SECTIONS 4-338 OF CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 1 (CAC 4-338)
3. TESTS AND SPECIAL INSPECTION OF MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 4-335.
4. DSA SHALL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO PLACEMENT OF CONCRETE PER SECTION 4-331.
5. A “DSA CERTIFIED” PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
6. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
7. SUPERVISION OF CONSTRUCTION BY DSA SHALL BE IN ACCORDANCE WITH 4-334.
8. CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS SHALL SUBMIT VERIFIED REPORTS (DSA-6) IN ACCORDANCE WITH SECTION 4-336 AND 4-343.
9. THE ARCHITECT AND THE STRUCTURAL ENGINEERS SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTIONS 4-333(a) AND 4-341.
10. THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343.
11. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS THE (RE) CONSTRUCTION OF A SCHOOL BUILDING(S) IN ACCORDANCE WITH TITLE 24, C.C.R. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH SAID C.C.R. A CONSTRUCTION CHANGE DOCUMENT ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
12. DSA IS NOT SUBJECT TO ARBITRATION.
13. DIVISION OF THE STATE ARCHITECT (DSA) APPROVAL OF THIS APPLICATION DOES NOT INCLUDE FUTURE OR N.I.C. ITEMS.
14. COMPLIANCE WITH CFC CHAPTER 33 (FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION) AND CBC CHAPTER 33 (SAFETY DURING CONSTRUCTION) WILL BE ENFORCED.

a. THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE.

b. LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT).

c. MECHANICAL SYSTEM ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021.

d. ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER’S AGENT.

e. A LISTING OF CERTIFIED ATT CAN BE FOUND AT: HTTPS://WWW.ENERGY.CA.GOV/PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE.

f. THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA.

g. PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.

PROJECT LOCATION

GENERAL LEGEND

APPLICABLE CODES AND STANDARDS

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC)- PART 1, TITLE 24 CCR*
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR
2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
2022 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 CCR
TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

APPLICABLE STANDARDS
FOR A LIST OF APPLICABALE STANDARDS, INCLUDING CALIFORNIA AMMENDMENTS TO THE NFPA STARDARDS, REFER TO CBC CHAPTER 35 AND CFC CHAPTER 80

BID ALTERNATES

BID ADD ALTERNATE 1:
INSTALLATION OF PC SHADE STRUCTURE AND FOOTINGS

DEFERRED SUBMITTALS

NO DEFERRED SUBMITTALS

SCOPE OF WORK SUMMARY

THE SCOPE OF THIS PROJECT CONSIST OF (BUT NOT LIMITED TO) THE FOLLOWING:

1. SITEWORK INCLUDES CONCRETE PAVEMENT AND AC REPLACMENT/REPAVING TO MEET ADA ACCESSIBILITY COMPLIANCE
2. NEW EXTERIOR AMPHITHEATER SEATING
3. NEW RAMPS TO MEET ADA ACCESSIBILITY COMPLIANCE
4. MODERNIZATION OF BUILDING C RESTROOM
5. MODERNIZATION OF BUILDING D RESTROOM
6. PC SHADE STRUCTURE (BID ALTERNATE)
7. NEW GAME STRIPING

NOTE: CERTIFICATION OF CURRENT PROJECT 01-122771 IS CONTINGENT ON CERTIFICATION OF DSA APPLICATION 01-122451

PROJECT DRAWINGS

GENERAL	
A0.0	COVER SHEET
A0.10	FIRE LIFE SAFETY PLAN
A0.11	ACCESS COMPLIANCE PLAN
CIVIL	
C0.1	NOTES, LEGEND & INDEX
C1.1	DEMOLITION PLAN
C2.1	GRADING & DRAINAGE PLAN
C2.2	GRADING & DRAINAGE PLAN
C3.1	UNDERGROUND UTILITIES PLAN
C3.2	UNDERGROUND UTILITIES PLAN
C4.1	HORIZONTAL CONROL PLAN
C4.2	HORIZONTAL CONROL PLAN
C5.1	EROSION CONTROL PLAN
C6.01	DETAILS
C6.1	CONSTRUCTION DETAILS
C6.2	CONSTRUCTION DETAILS
C6.3	CONSTRUCTION DETAILS
C6.4	CONSTRUCTION DETAILS
C6.5	CONSTRUCTION DETAILS
C7.1	MATERIAL & DETAIL REFERENCE PLAN
C7.2	MATERIAL & DETAIL REFERENCE PLAN
LANDSCAPE	
L1.1	IRRIGATION PLAN
L2.1	PLANTING PLAN
L3.1	IRRIGATION DETAILS
L4.1	PLANTING DETAILS
ARCHITECTURAL	
A1.01	DEMO SITE PLAN
A1.11	CAMPUS SITE PLAN
A1.21	SITE DETAILS
A2.01	ENLARGED RESTROOM PLANS
A8.21	INTERIOR DETAILS
ELECTRICAL	
E201	ELECTRICAL SITE PLAN
JOINED SHADE STRUCTURE	
T-1.0	TITLE SHEET
T-2.0	UNIT SELECTION
T-3.0	T&I FORMS
JOINED SHADE STRUCTURE SPECS	
12.1-1000	PRODUCT INFORMATION
12.2-2000	SPECIFICATIONS
Grand total: 35	

PROJECT TEAM

OWNER(S)	PACIFIC GROVE UNIFIED SCHOOL DISTRICT CONTACT: JON ANDERSON TITLE: DIRECTOR OF MAINTENANCE OPERATIONS AND TRANSPORTATION PACIFIC GROVE, CA 93950-4398 PHONE: (831) 646-6511 E-MAIL: janderson@pgusd.org
	BOARD OF EDUCATION ELLIOT HAZEN - PRESIDENT JENNIFER MCNARY - CLERK BETH SHAMMAS - TRUSTEE LAURA OTTMAR - TRUSTEE MIKE WACHS - TRUSTEE
ARCHITECT	DERIVI CASTELLANOS ARCHITECTS 95 S. MARKET ST. SUITE 480 SAN JOSE, CALIFORNIA 95113 ARCHITECT OF RECORD: RAMON GOMEZ PHONE: 408-320-4871 EXT. 101 E-MAIL: rgomez@dcaaia.com PROJECT MANAGER : RONNIE LEE PHONE: 408-320-4871 E-MAIL: rlee@dcaaia.com
CONSTRUCTION MANAGER:	AUSONIO / BRAILSFORD & DUNLAVEY CONTACT: CODY CARPINO PHONE: 530-320-7083 E-MAIL: ccarpino@Bdconnect.com
STRUCTURAL	BASE DESIGN 582 MARKET STREET, SUITE 1402 SAN FRANCISCO, CA 94104 CONTACT: GOKHAN AKALAN PHONE: 415-4662997 E-MAIL: gokhan@basedesigninc.com
MECHANICAL	CYPRESS ENGINEERING GROUP 8 HARRIS COURT, SUITE A8 MONTEREY, CA 93940 CONTACT: METIN SERTTUNÇ PHONE: 408-510-0906 E-MAIL: metin@cypresseg.com
ELECTRICAL	AURUM CONSULTING ENGINEERS 404 W. FRANKLIN ST., SUITE 100 MONTEREY, CA 93940 CONTACT: RILEY SCHOFIELD PHONE: 831-646-3330 EXT. 109 E-MAIL: Riley@acemb.com
CIVIL	CARROLL ENGINEERING, INC. 1101 S. WINCHESTER BLVD. SUITE #H-184 SAN JOSE, CA 95128-3903 CONTACT: MATT MARTUS, P.E. PHONE: 408-261-9800 EXT. 101 E-MAIL: matt@carroll-engineering.com
LANDSCAPE	CARROLL ENGINEERING, INC. 1101 S. WINCHESTER BLVD. SUITE #H-184 SAN JOSE, CA 95128-3903 CONTACT: MIKE HARRINGTON PHONE: 408-313-9943 E-MAIL: mike@carroll-engineering.com

STATEMENT OF GENERAL COMPLIANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS,
INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

(Application No. **01-122771** File No. 27-37)

☒ The drawings or sheets prepared by Structural, Civil, Landscape, Mechanical, Plumbing and Electrical Engineers
☐ This drawing, page of specifications/calculations

have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

1) design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2) coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

The Statement of General Conformance “shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344” of Title 24, Part 1. (Title 24, Part 1, Section 4-317 (b))

I find that All consultant drawings or sheets listed on the cover or index sheet:

☒ is/are in general conformance with the project design, and
☒ has/have been coordinated with the project plans and specifications.

Signature ____________ Date ____________

Architect or Engineer designated to be in general responsible charge

RAMON GOMEZ JR.
Print Name

C-31014 05/31/2027
License Number Expiration Date

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3/2/26

PACIFIC GROVE UNIFIED SCHOOL DISTRICT

FOREST GROVE ELEMENTARY SCHOOL
SITE IMPROVEMENTS

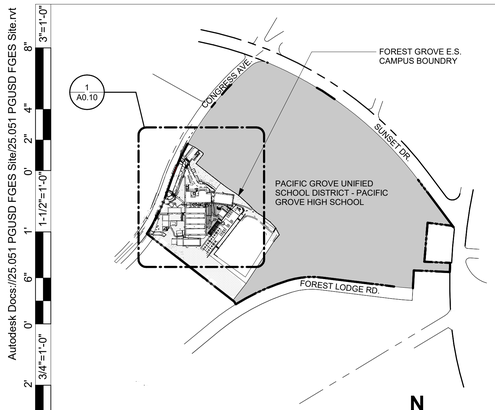
1065 CONGRESS AVE
PACIFIC GROVE, CA 93950

SHEET TITLE:
COVER SHEET

Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

PROJECT # 25.051
ISSUE DATE: 03/23/2026
SHEET # A0.0



2 OVERALL CAMPUS BOUNDRY
SCALE: 1" = 400'-0"

N

1 FIRE LIFE SAFETY PLAN
SCALE: 1" = 30'-0"

N

222'
95'
30'
160'
+ 70'
~577'
ALTERNATE
HOSE LENGTH

(E) FIRE HYDRANT

90'
103'
74'
215'
14'
113'
+ 32'
=641'
HOSE LENGTH

(E) FIRE HYDRANT

(E) CURB RAMP
DSA #01-115846

(E) CURB RAMP
DSA #01-115846

CONGRESS AVE

DROP OFF AREA

(E) GENERAL USE PARKING LOT
DSA #01-110324

(E) BUILDING OVEHANG

(E) BUILDING OVEHANG

(E) BUILDING CLEARANCE
HEIGHT 9'-1" ABOVE FINISH
GRADE

BUILDING A1
DSA #18384

BUILDING A2
DSA #20444

BLDG. A3
DSA #25594

11'-0" LANE WIDTH
W/ 10'-9" CLR. HT.

BUILDING G
DSA #25594

(E) BUILDING CLEARANCE
HEIGHT 10'-9" ABOVE FINISH
GRADE

BUILDING K
DSA #18384

BUILDING B
DSA #18384

BUILDING H
DSA #01-100717

BLDG. K3
DSA #
01-103114

BLDG. K4
DSA #
01-113429

BUILDING C
DSA #18584

BUILDING D
DSA #18384

(E) PLAYGROUND

SAFE DISPERSAL
AREA : 460 S.F. (O.K.)
450 S.F. REQ'D

(E) AC PAVING, TYP.

(E) PLAYGROUND
STRIPING, TYP.

(E) BASEBALL
FIELD

FABRIC SHADE STRUCTURE J
(ADD ALTERNATE 1)
(AREA : 1800 S.F.)

BLDG. E6
DSA #
01-116703

BLDG. E5
DSA #
01-116703

BUILDING E
DSA #01-103114

(90')
(105')
(74')
(215')

BUILDING CODE ANALYSIS

BUILDING ANALYSIS: BUILDING C

(E) CONSTRUCTION TYPE:		V-B
(E) OCCUPANCY GROUP:		E
FIRE SPRINKLERED:		NO
ALLOWABLE AREA PER TABLE 506.2		
OCCUPANCY E (W/ SPRINKLER, W/O HEIGHT INCREASE):		9,500 S.F.
BUILDING AREA (BLDG C):		4,318 S.F. , OK
ALLOWABLE HEIGHT PER TABLE 504.3:	40'-0"	
ACTUAL HEIGHT:	+/- 14'-0", OK	
ALLOWABLE STORIES PER TABLE 504.4:	1	
ACTUAL STORIES:	1, OK	

BUILDING ANALYSIS: BUILDING D

(E) CONSTRUCTION TYPE:		V-B
(E) OCCUPANCY GROUP:		E
FIRE SPRINKLERED:		NO
ALLOWABLE AREA PER TABLE 506.2		
OCCUPANCY E (W/ SPRINKLER, W/O HEIGHT INCREASE):		9,500 S.F.
BUILDING AREA (BLDG D):		4,318 S.F. , OK
ALLOWABLE HEIGHT PER TABLE 504.3:	40'-0"	
ACTUAL HEIGHT:	+/- 14'-0", OK	
ALLOWABLE STORIES PER TABLE 504.4:	1	
ACTUAL STORIES:	1, OK	

BUILDING ANALYSIS: NEW SHADE STRUCTURE

CONSTRUCTION TYPE:		V-B
OCCUPANCY GROUP:		E
FIRE SPRINKLERED:		NO
ALLOWABLE AREA PER TABLE 506.2		
OCCUPANCY E:		9,500 S.F.
SHADE STRUCTURE AREA:		1,800 S.F. , OK
ALLOWABLE HEIGHT PER TABLE 504.3:	40'-0"	
ACTUAL HEIGHT:	17'-3", OK	
ALLOWABLE STORIES PER TABLE 504.4:	1	
ACTUAL STORIES:	1 = 1, OK	

SAFE DISPERSAL AREA FOR NEW SHADE STRUCTURE J:

OCCUPANT LOAD: 1,800 S.F./20 OLF = 90 OCCUPANTS

90 OCC. x 5 SF/OCC = 450 S.F. OF DISPERSAL AREA REQUIRED
460 S.F. OF DISPERSAL AREA PROVIDED

GENERAL NOTES

A. CONTRACTOR SHALL MAINTAIN FIRE DEPARTMENT ACCESS THROUGHOUT DEMOLITION AND CONSTRUCTION

B. COMPLIANCE WITH CHAPTER 33 (FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION) ANS CBC CHAPTER 33 (SAFETY DURING CONSTRUCTION) WILL BE ENFORCED.

LEGEND

- AC PAVING
- (E) BLDG — (E) BUILDING - NOT IN SCOPE OF WORK
- (E) CONCRETE PAVING
- CONCRETE PAVING
- (E) LANDSCAPE
- DECOMPOSED GRANITE
- PLANTING AREA
- PROPERTY LINE
- (E) CHAIN LINK FENCE
- (E) FIRE LANE (DSA #01-115846 & DSA #01-116703)
- PROPOSED ALTERNATE FIRE LANE
- (E) FIRE HYDRANT
- (#) — HOSE LENGTH FROM FIRE HYDRANT

KEYNOTES

FIRE & LIFE SAFETY FORM

DSA **810**

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Forms or DSA Publications webpages.

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1 through 3 below is to be provided for all project types indicated above. Information associated with items 4 through 7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the Local Fire Authority (LFA) is only required when an alternate design means is being requested.

The Project Information and Fire & Life Safety Information sections are to be completed for all projects and imaged onto the fire access site plan. When an alternate design/means is proposed, all sections on pages 1 and 2 are to be completed and imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy *PL 09-01: Fire Flow for Buildings.*

PROJECT INFORMATION	
School District/Owner:	Pacific Grove Unified School District
Project Name/School:	Forest Grove Elementary School
Project Address:	1065 Congress Ave., Pacific Grove, CA 93950

FIRE & LIFE SAFETY INFORMATION				
1.	Has a fire hydrant flow test been performed within the past 12 months? *(If yes, provide a copy of the test data.)*	Yes ☐		No X
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☐		No X
3.	Is the project located within a designated fire hazard severity zone (FHSZ) as established by Cal-Fire? *(If yes, indicate FHSZ classification below.)*	Yes X		No ☐
	Refer to the following website for FHSZ locations: Fire Hazard Severity Zones in State Responsibility Area	Moderate X	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

DGS DSA 810 (revised 12/29/20) — Page 1 of 4
DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES — STATE OF CALIFORNIA

DSA 810
FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	N/A	N/R	
4.	Emergency vehicle access roadways do not meet CFC requirements.		✓		
4a.	**Acceptable Alternate:** Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.	✓			
5.	**Fire Hydrants:** Number and spacing does not meet CFC requirements.		✓		
5a.	**Acceptable Alternate:** Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.	✓			
6.	**Fire Hydrants:** Water flow and pressure are less than CFC minimum.		✓		
6a.	**Acceptable Alternate:** The available flow and pressure is acceptable for providing fire suppression and protection of life and property.	✓			
7.	Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.			✓	
7a.	**Acceptable Alternate:** The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property.			✓	

School District Acceptance of Acceptable Design Alternates

By signing this form, the school district acknowledges and accepts the proposed design as an alternative to California Building Code (CBC) and California Fire Code (CFC) minimum requirements, as indicated by one or more of the conditions indicated at items 4a, 5a, 6a or 7a, for providing fire and life safety protection of life and property.

Accepted by: David Jones — Title: Fire Inspector

Signature: David Jones — Date: 2/24/2026

LOCAL FIRE AUTHORITY (LFA) INFORMATION	
LFA Agency Name:	
LFA Review Official:	
Title:	Work Phone:
Work Email:	

LFA Reviewer's Signature: _____ Date: _____

DGS DSA 810 (revised 12/29/20) — Page 2 of 4
DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES — STATE OF CALIFORNIA

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PACIFIC GROVE UNIFIED SCHOOL DISTRICT

FOREST GROVE ELEMENTARY SCHOOL
SITE IMPROVEMENTS

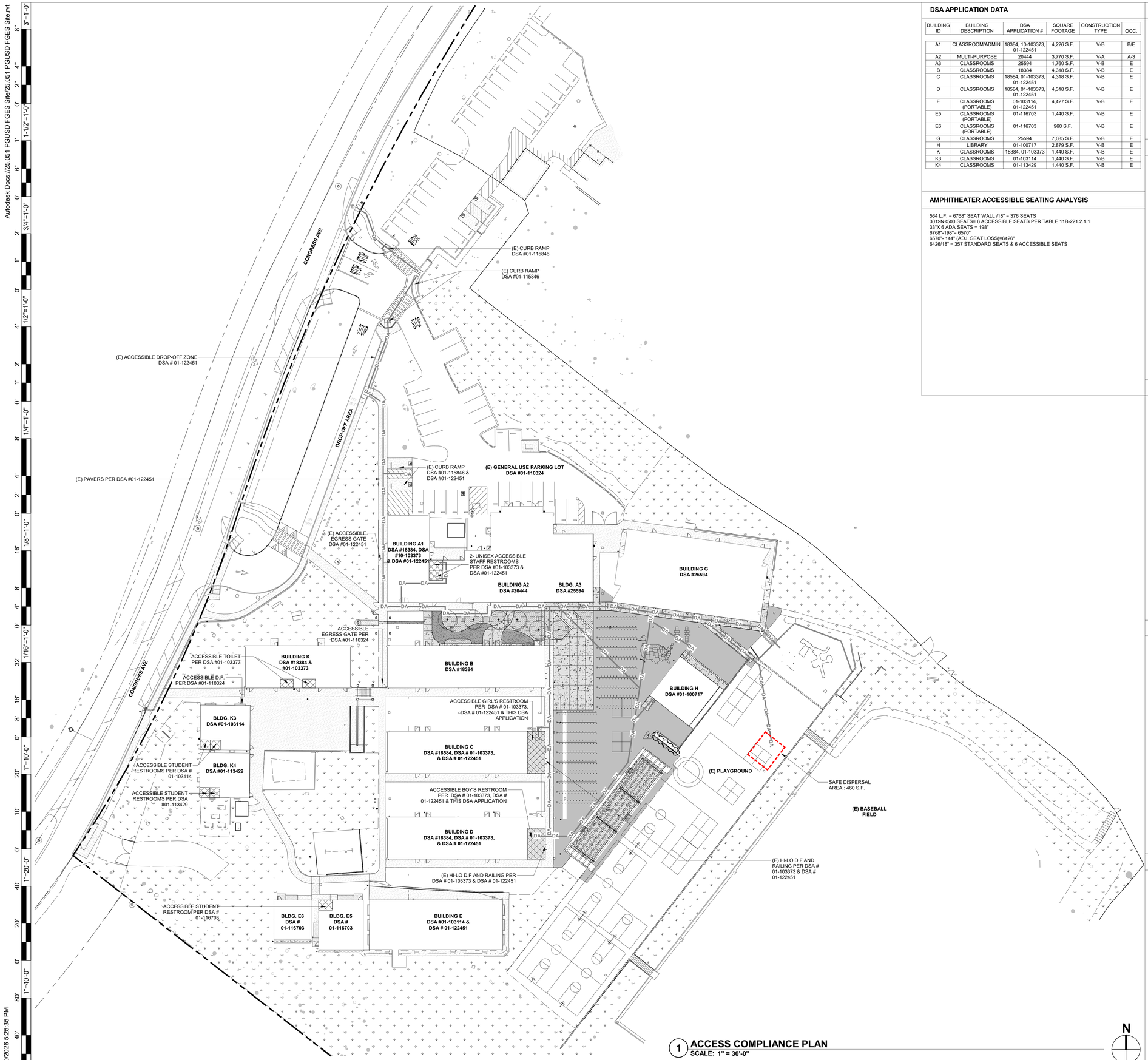
1065 CONGRESS AVE
PACIFIC GROVE, CA 93950

SHEET TITLE:
FIRE LIFE SAFETY PLAN

Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

PROJECT # 25.051
ISSUE DATE: 03/23/2026
SHEET # A0.10



1 **ACCESS COMPLIANCE PLAN**
SCALE: 1" = 30'-0"

DSA APPLICATION DATA

BUILDING ID	BUILDING DESCRIPTION	DSA APPLICATION #	SQUARE FOOTAGE	CONSTRUCTION TYPE	OCC.
A1	CLASSROOM/ADMIN.	18384, 10-103373, 01-122451	4,226 S.F.	V-B	B/E
A2	MULTI-PURPOSE	20444	3,770 S.F.	V-A	A-3
A3	CLASSROOMS	25594	1,760 S.F.	V-B	E
B	CLASSROOMS	18384	4,318 S.F.	V-B	E
C	CLASSROOMS	18584, 01-103373, 01-122451	4,318 S.F.	V-B	E
D	CLASSROOMS	18584, 01-103373, 01-122451	4,318 S.F.	V-B	E
E	CLASSROOMS (PORTABLE)	01-103114, 01-122451	4,427 S.F.	V-B	E
E5	CLASSROOMS (PORTABLE)	01-116703	1,440 S.F.	V-B	E
E6	CLASSROOMS (PORTABLE)	01-116703	960 S.F.	V-B	E
G	CLASSROOMS	25594	7,085 S.F.	V-B	E
H	LIBRARY	01-100717	2,879 S.F.	V-B	E
K	CLASSROOMS	18384, 01-103373	1,440 S.F.	V-B	E
K3	CLASSROOMS	01-103114	1,440 S.F.	V-B	E
K4	CLASSROOMS	01-113429	1,440 S.F.	V-B	E

AMPHITHEATER ACCESSIBLE SEATING ANALYSIS

564 L.F. = 6768" SEAT WALL /18" = 376 SEATS
301>N<500 SEATS= 6 ACCESSIBLE SEATS PER TABLE 11B-221.2.1.1
33"X 6 ADA SEATS = 198"
6768"-198"= 6570"
6570"- 144" (ADJ. SEAT LOSS)=6426"
6426/18" = 357 STANDARD SEATS & 6 ACCESSIBLE SEATS

SHEET NOTES

A. THE D.A. POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR POT REQUIREMENTS FOR NEW CONSTRUCTION.

B. ONLY D.A. POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS HAS BEEN EVALUATED TO BE COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS. COMPLIANCE OF PATHS OTHER THAN THOSE INDICATED HEREIN IS NEITHER CONFIRMED OR IMPLIED.

C. DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CCD.

PATH OF TRAVEL STATEMENT

D.A. PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER FREE ACCESS WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAXIMUM SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAXIMUM AND AT LEAST 48" WIDE. SURFACE IS SLIP RESISTANT, STABLE, FIRM, AND SMOOTH. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. D.A. PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM HEIGHT AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL ABOVE 27" AND BELOW 80". ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

NOTE:
DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATION, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.
DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

KEYNOTES

LEGEND

- AC PAVING
- (E) BLDG — (E) BUILDING - NOT IN SCOPE OF WORK
- (E) RESTROOM TO BE MODERNIZED
- (E) RESTROOM
- (E) CONCRETE PAVING
- CONCRETE PAVING
- (E) LANDSCAPE
- DECOMPOSED GRANITE
- NEW LANDSCAPE
- PROPERTY LINE
- (E) CHAIN LINK FENCE
- DA DA — ACCESSIBLE PATH OF TRAVEL

PARKING ANALYSIS

EXISTING PARKING LOT	
TOTAL PARKING SPACES	29
ACCESSIBLE SPACES REQUIRED (STANDARD+VAN)	2
STANDARD ACCESSIBLE SPACES PROVIDED	1
VAN ACCESSIBLE SPACES PROVIDED	1
TOTAL ACCESIBLE SPACES PROVIDED (STANDARD+VAN)	2

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Professional Seals

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3/2/26

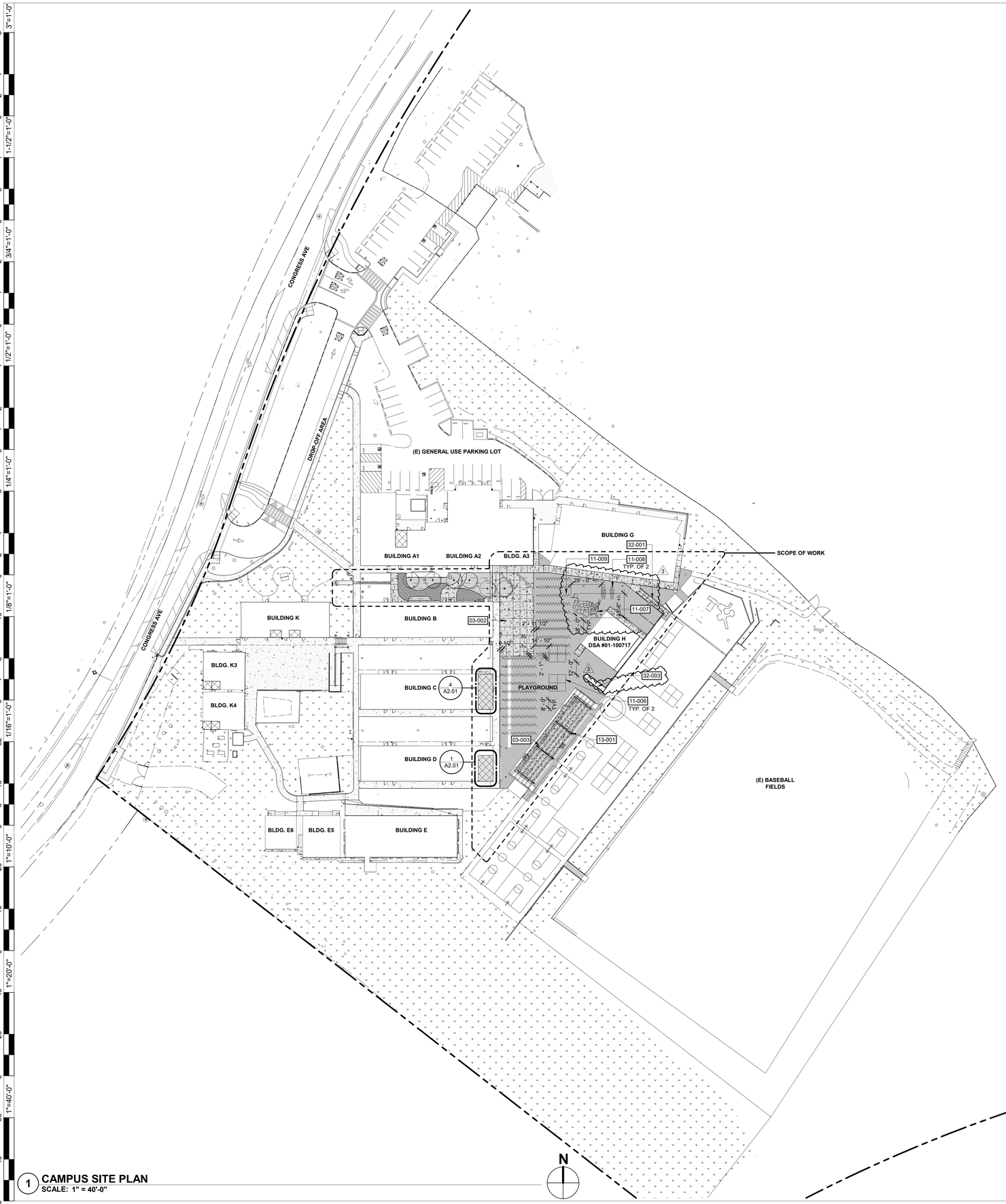
PACIFIC GROVE UNIFIED SCHOOL DISTRICT
FOREST GROVE ELEMENTARY SCHOOL
SITE IMPROVEMENTS
1065 CONGRESS AVE
PACIFIC GROVE, CA 93950

SHEET TITLE:
ACCESS COMPLIANCE PLAN

Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

PROJECT #	SHEET #
25.051	A0.11
ISSUE DATE: 03/23/2026	



1 **CAMPUS SITE PLAN**
SCALE: 1" = 40'-0"

GENERAL SHEET NOTES

A. THIS SITE PLAN IS PROVIDED TO SHOW THE EXTENT OF THE SCHOOL PROPERTY AND ESTABLISH THE GENERAL AREA OF WORK ONLY. REFER TO LARGER SCALE DRAWINGS FOR DETAILED SCOPE OF WORK.

B. BOUNDARY OR PROPERTY LINES SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR HORIZONTAL CONTROL OR ONSITE CONSTRUCTION LOCATING

C. ONLY ACCESSIBILITY PATH OF TRAVEL IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS HAS BEEN EVALUATED TO BE COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS. COMPLIANCE OF PATHS OTHER THAN THOSE INDICATED HEREIN IS NEITHER CONFIRMED OR IMPLIED

D. SEE SHEET A1.22 FOR COURT STRIPING DETAILS AND DIMENSIONS

KEYNOTES

03-002 CONC. PAVING
03-003 TERRACED CONC. SEAT WALL
11-006 FOURSQUARE COURT, SEE DETAIL 2/A1.21
11-007 USA MAP
11-008 HOPSCOTCH, SEE DETAIL 2/A1.21
11-009 STUDENT LINE UP LANE, SEE DETAIL 1/A1.21
13-001 FABRIC SHADE STRUCTURE, ADD ALTERNATE 1
32-001 RAMP AND HANDRAILS (1:12 MAX SLOPE). SEE CIVIL AND LANDSCAPE DRAWINGS FOR ADD. INFO.
32-003 6' HIGH BLACK VINYL CHAIN LINK FENCING, SEE DETAIL 4&8/A1.21

LEGEND

- AC PAVING
- (E) BLDG — (E) BUILDING - NOT IN SCOPE OF WORK
- (E) RESTROOM TO BE MODERNIZED
- (E) RESTROOM
- (E) CONCRETE PAVING
- CONCRETE PAVING
- (E) LANDSCAPE
- DECOMPOSED GRANITE
- PLANTING AREA
- PROPERTY LINE

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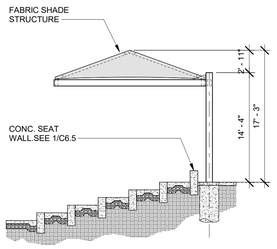
SHEET TITLE:
CAMPUS SITE PLAN

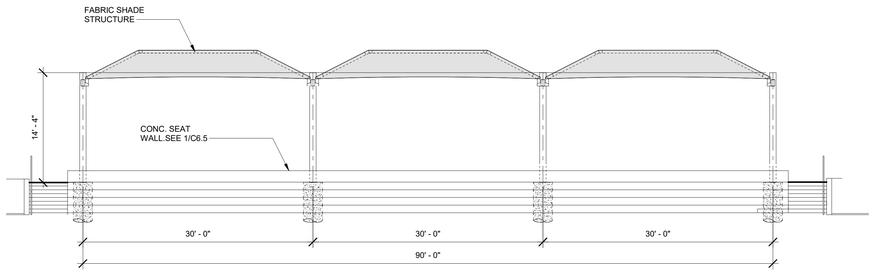
Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

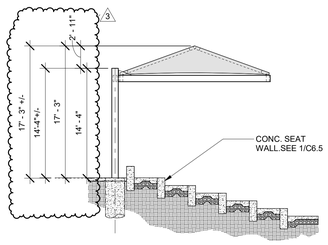
PROJECT # 25.051
ISSUE DATE: 03/23/2026
SHEET # A1.11



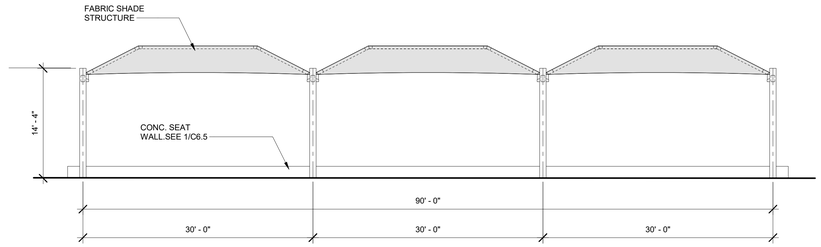
RIGHT ELEVATION



FRONT ELEVATION

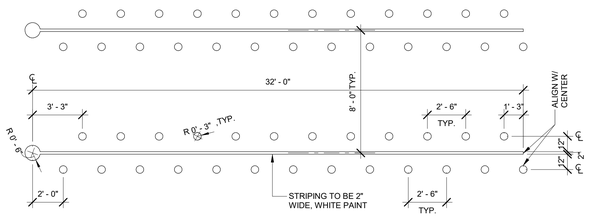


LEFT ELEVATION



REAR ELEVATION

18 SHADE STRUCTURE ELEVATIONS
SCALE: 1/8" = 1'-0"



1 STUDENT LINE UP LANE
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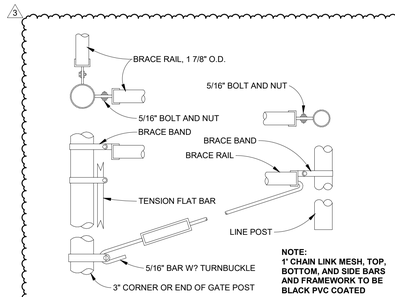
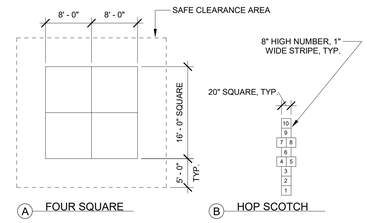
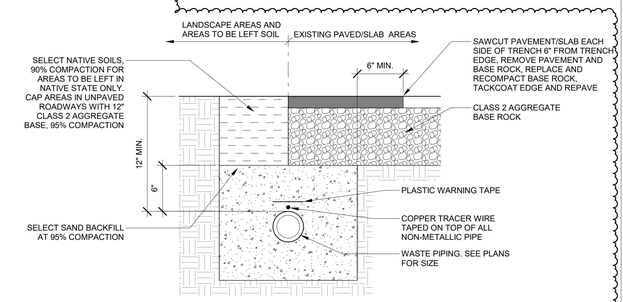


6 CHAIN LINK FENCE CONNECTIONS
SCALE: 1 1/2" = 1'-0"

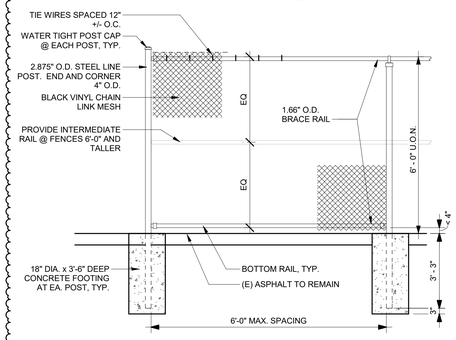


NOTES:
1. REFER TO SPECIFICATION SECTION XYZ FOR GAME LINE PAINT REQUIREMENTS FOR ALL GAME COURT STRIPING.
2. FONT AT ALL LETTERS AND/OR NUMBERS IS TO BE ARIAL, HEIGHT & COLOR AS SHOWN. EDGES OF ALL LETTERS ARE TO BE CRISP AND WITH NO OVERSPRAY OR OVERPAINTING ON ADJACENT SURFACES. IF A STENCIL IS USED FOR THE LETTERS THEN ALL STENCIL GAPS SHALL BE FILLED IN TO CREATE CONTINUOUS LETTERING WITH NO GAPS.
3. FOUR SQUARE STRIPING TO BE 2" WIDE, WHITE PAINT.
4. HOP SCOTCH STRIPING TO BE 2" WIDE, WHITE PAINT.

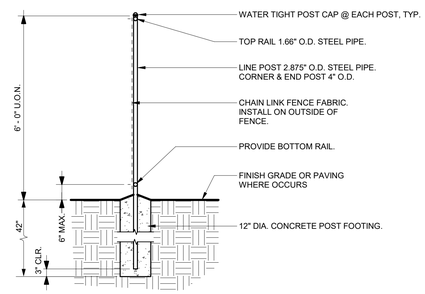
2 GAME COURT STRIPING
SCALE: 3/32" = 1'-0"



3 TRENCH DETAIL
SCALE: 1 1/2" = 1'-0"



8 CHAIN LINK FENCE ELEVATION
SCALE: 3/8" = 1'-0"



4 CHAIN-LINK FENCE, TYP.
SCALE: 1/2" = 1'-0"

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PACIFIC GROVE UNIFIED SCHOOL DISTRICT

FOREST GROVE ELEMENTARY SCHOOL
SITE IMPROVEMENTS

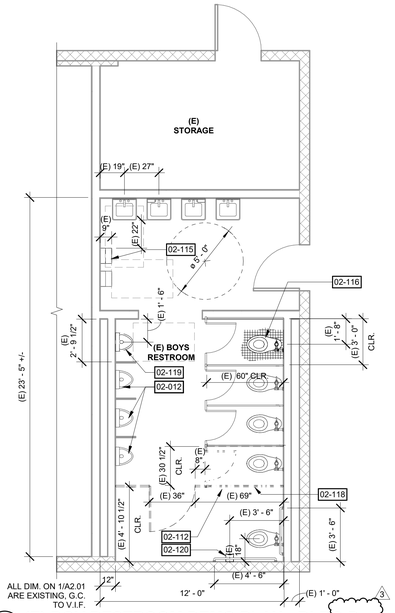
1065 CONGRESS AVE
PACIFIC GROVE, CA 93950

SHEET TITLE:
SITE DETAILS

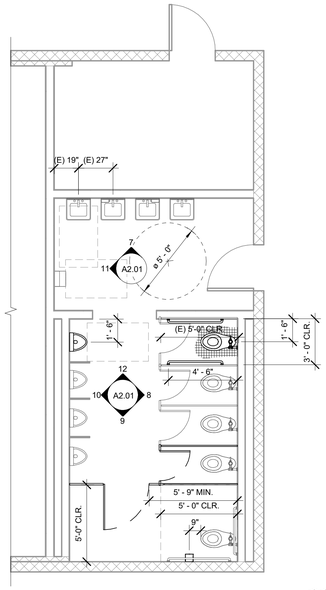
Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

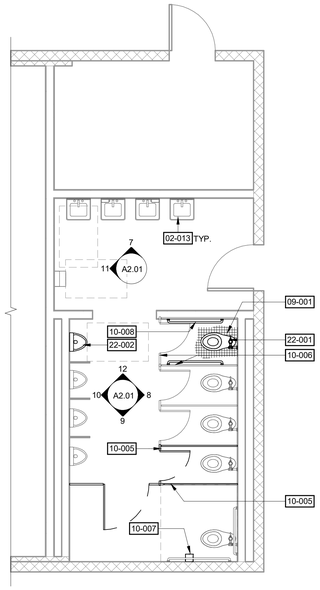
PROJECT #	SHEET #
25.051	A1.21
ISSUE DATE: 03/23/2026	



1 **(E) BOY RESTROOM DEMO PLAN - BLDG D**
SCALE: 1/4" = 1'-0"

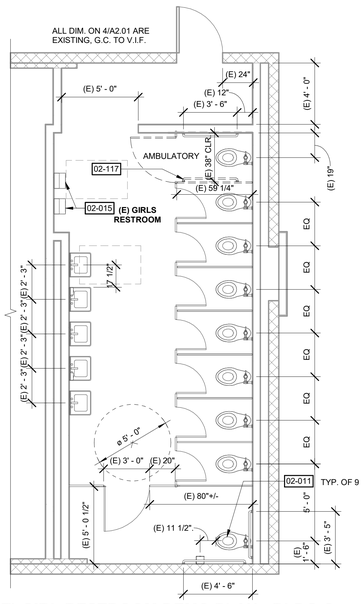


2 **BOY RESTROOM DIMENSION PLAN - BLDG D**
SCALE: 1/4" = 1'-0"

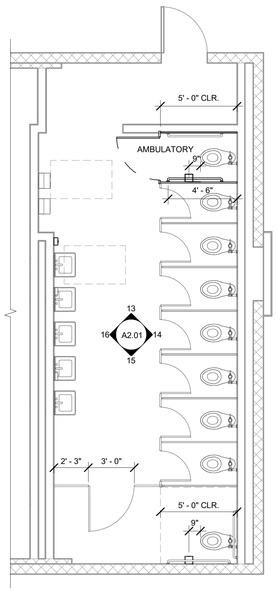


3 **BOY RESTROOM FLOOR PLAN - BLDG D**
SCALE: 1/4" = 1'-0"

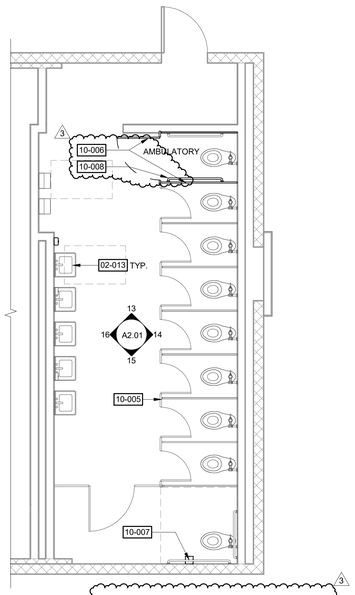
N



4 **(E) GIRL RESTROOM DEMO PLAN - BLDG C**
SCALE: 1/4" = 1'-0"

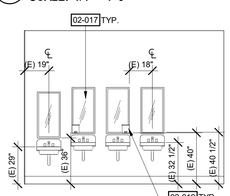


5 **GIRL RESTROOM DIMENSION PLAN - BLDG C**
SCALE: 1/4" = 1'-0"

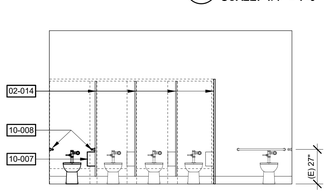


6 **GIRL RESTROOM FLOOR PLAN - BLDG C**
SCALE: 1/4" = 1'-0"

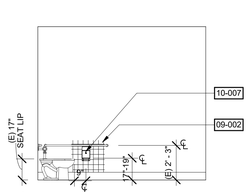
N



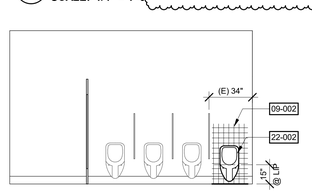
7 **BOYS RR - N1**
SCALE: 1/4" = 1'-0"



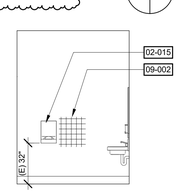
8 **BOYS RR - E**
SCALE: 1/4" = 1'-0"



9 **BOYS RR - S**
SCALE: 1/4" = 1'-0"



10 **BOYS RR - W1**
SCALE: 1/4" = 1'-0"



11 **BOYS RR - W2**
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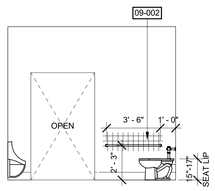

12 **BOYS RR - N2**
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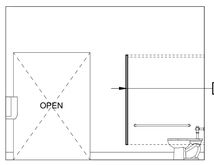
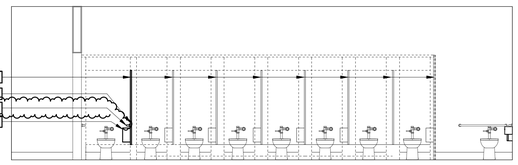
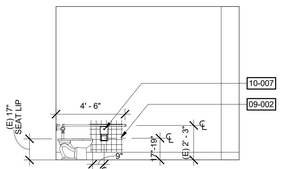


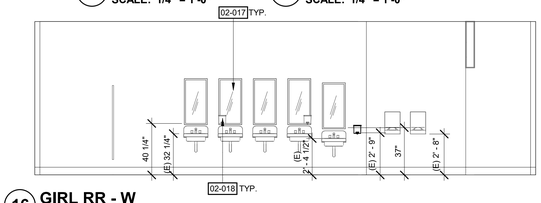
13 **GIRL RR - N**
SCALE: 1/4" = 1'-0"



14 **GIRL RR - E**
SCALE: 1/4" = 1'-0"



15 **GIRL RR - S**
SCALE: 1/4" = 1'-0"



16 **GIRL RR - W**
SCALE: 1/4" = 1'-0"

SHEET NOTES

A. WHERE (E) FINISHES AND SUBSTRATES ARE NOTED AS REMOVED, CONTRACTOR SHALL COORDINATE WITH HAZARDOUS MATERIALS REPORTS AND OR SPECIFICATIONS PREPARED BY OTHERS FOR PROPER HANDLING AND ABATEMENT OF HAZARDOUS MATERIALS

B. ALL ITEMS SHOWN DASHED SHALL BE REMOVED U.N.O.

C. COORDINATE THE EXTENT OF DEMOLITION WITH NEW WORK. REMOVE ITEMS NECESSARY TO COMPLETE NEW WORK.

D. REFER TO STRUCT, MECH, PLUMB, AND ELEC DWGS FOR DEMOLITION SCOPE RELATED TO EACH DISCIPLINE.

E. WHERE FINISHES ARE INDICATED TO BE REMOVED AND NOT REPLACED, AREAS DISRUPTED BY DEMOLITION SHALL BE RESTORED AND FINISHED TO MATCH (E) ADJACENT SURFACES

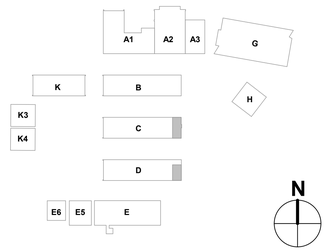
F. WHERE WALL FINISHES ARE INDICATED TO BE REMOVED, REMOVE ALL MISCELLANEOUS TRIM, CASEWORK, EQUIPMENT, CONDUIT, BASES, AND OTHER SURFACE MOUNTED ITEMS WHETHER SHOWN OR NOT. REMOVE AND CAP ALL OUTLETS, SWITCHES, WIRES, THERMOSTATS, ETC. TO THEIR SOURCE AS REQUIRED. SEE CONSULTANTS' DRAWINGS FOR ADDITIONAL INFORMATION AND SCOPE OF WORK.

G. REFER TO RESTROOM FLOOR PLAN DETAILS FOR COMPLETE RESTROOM CONSTRUCTION DOCUMENTATION INFORMATION.

KEYNOTES

02-011	EXISTING WATERCLOSET TO REMAIN
02-012	EXISTING URINAL TO REMAIN
02-013	EXISTING LAVATORY TO REMAIN
02-014	EXISTING TOILET PARTITION AND ACCESSORIES TO REMAIN
02-015	EXISTING PAPER TOWEL DISPENSER TO REMAIN
02-017	EXISTING MIRROR TO REMAIN
02-018	EXISTING SOAP DISPENSER TO REMAIN
02-112	REMOVE (E) TOILET PARTITION AND INSTALL NEW STALL PER 11B-604.8.2. SEE DETAIL 18/A8.21
02-115	REMOVE (E) PAPER TOWEL DISPENSER. PATCH AND REPLACE (E) WALL TILES TO MATCH (E) ADJACENT
02-116	REMOVE (E) WATER CLOSET AND SALVAGE WATER CLOSET FOR REINSTALLATION TO MEET AMBULITORY STALL DIMENSION REQUIREMENTS. REMOVE (E) FLOOR TILES, AND CONCRETE SLAB AS REQUIRED FOR NEW WORK. PROTECT EXISTING UTILITIES IN PLACE FOR CONNECTION TO RELOCATED SALVAGED WATER CLOSET. SAWCUT EXISTING SLAB AND PREP FOR BELOW GRADE WASTE PIPING
02-117	REMOVE (E) TOILET PARTITIONS, PARTITION DOOR AND HARDWARE, AS REQUIRED TO MEET AMBULITORY STALL DIMENSION REQUIREMENTS
02-118	REMOVE (E) TOILET PARTITIONS, PARTITION DOOR AND HARDWARE, AS REQUIRED TO MEET ACCESSIBLE STALL DIMENSION REQUIREMENTS
02-119	REMOVE (E) URINAL AND CARRIER AND SALVAGE URINAL FOR REINSTALLATION. PROTECT EXISTING UTILITIES IN PLACE FOR CONNECTION TO SALVAGED URINAL. REMOVE ADJACENT WALL TILES, GYP. BOARD AND WALL FINISHES AS REQUIRED FOR NEW WORK
02-120	REMOVE (E) TOILET PAPER DISPENSER AND ADJACENT WALL TILE, AS REQUIRED FOR NEW WORK
09-001	PATCH SLAB AND FLOOR TILES AT NEW WORK AREA. MATCH TILES TO MATCH ADJACENT EXISTING
09-002	PATCH WALL AND WALL TILES TO MATCH (E) ADJACENT
10-005	FLOOR MOUNTED TOILET PARTITION, REF. DETAIL 18/A8.21
10-006	FLOOR MOUNTED TOILET PARTITION, PARTITION DOOR AND GRAB BAR, REF. DETAIL 18/A8.21
10-007	TOILET PAPER DISPENSER
10-008	42" SS GRAB BAR
22-001	REINSTALL (E) FLOOR MOUNTED WATER CLOSET,TRENCH AND EXTEND WASTE PIPING BELOW GRADE, EXTEND VENT AND WATER PIPING AS REQUIRED FOR CONNECTION TO RELOCATED FLOOR MOUNTED WATER CLOSET
22-002	REINSTALL (E) URINAL AND (E) CARRIER. EXTEND WASTE, VENT AND WATER PIPING AS REQUIRED FOR CONNECTION TO RELOCATED URINAL LOCATION

KEY PLAN



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PACIFIC GROVE UNIFIED SCHOOL DISTRICT

FOREST GROVE ELEMENTARY SCHOOL
SITE IMPROVEMENTS

1065 CONGRESS AVE
PACIFIC GROVE, CA 93950

SHEET TITLE:
ENLARGED RESTROOM PLANS

Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

PROJECT # 25.051

ISSUE DATE: 03/23/2026

SHEET # A2.01

GENERAL NOTES

1. All work shall be done in accordance with the following:
   - a) Applicable sections of the State of California Department of Transportation Standard Specifications, latest edition, hereinafter called "Caltrans";
   - b) California Plumbing Code and California Building Code Provisions
   - c) AWWA standards and specifications;
   - d) City of Pacific Grove Standard Details and Specifications where applicable;
   - e) These plans and details shown hereon;
   - f) Standards of the United States Department of Labor, Occupational Safety and Health Administration, Office of Standards and rules of the State Division of Industrial Safety.
   - g) Latest edition of the California State Code of Regulations Title 24.
   - ~~h) The Project Specifications~~
   - i) Soils Investigation prepared by Moore Twining Associates, Inc. dated February 27, 2026 file no. H46201.01-02

   3

Where conflicts exist between any of the above listed specifications, the most stringent listed specification shall prevail.

2. It is the responsibility of the Contractor to secure all permits necessary to perform the work, including but not limited to, work in the public right-of-way, grading, tree removal, and utility modifications.

3. Contractor shall supply all equipment, labor, and materials necessary to perform the work shown on this plan.

4. It shall be the responsibility of the various contractors to coordinate their work so as to eliminate conflicts and work toward the general good and completion of the entire project.

5. All workmanship and materials furnished by Contractor shall be of the kind and quality described in the specifications and shall be first class throughout. Neither final acceptance nor final payment by Owner shall relieve the Contractor of responsibility for faulty materials or workmanship.

6. In the event of any conflict of information shown in these plans or any conflict between these plans and the intent of a consistent and functional product, the Contractor shall so notify the Owner in writing, upon which notice the Owner shall resolve the conflict by the issuance of a written order, revised plans or both. The Contractor shall bear full cost and responsibility for work affected by such conflicts and performed by Contractor prior to such notice to the Owner and issuance of such order and/or revised plans.

7. Contractor shall provide adequate dust control at all times as required by Owner's representative.

8. Contractor shall exercise all necessary caution to avoid damage to any existing trees, or surface improvements, or to any existing drainage structure, water structures, sewer cleanouts, manholes, or junction boxes for underground electric, telephone, or cable TV, or storm sewer, sanitary sewer, water line, and underground utilities, which are to remain in place and shall bear full responsibility for any damage thereto.

9. All known existing utility lines are shown for information only. Contractor shall exercise all necessary caution to avoid damage to any existing utility lines or facilities to remain in place, whether or not such lines or facilities are shown on these plans, and shall bear full responsibility for any damage thereto. Contractor is advised to Contact Underground Service Alert (USA) at (800) 642-2444 or a private Underground Locater Service (at contractor's expense) and the affected utility company for marking underground lines prior to beginning work.

10. Inspection of work: The City of Pacific Grove Public Works Department will inspect all work involving conformance to encroachment permit. A representative of Owner will inspect all work, including grades and compaction of earthwork. Contractor shall notify the City of Pacific Grove Public Works at least forty eight (48) hours prior to work within the public ROW.

11. Engineer shall have no responsibility for Contractor's work methods and procedures, jobsite conditions, jobsite safety or adherence to safety procedures and requirements.

12. The Contractor agrees that, in accordance with generally accepted construction practices, the Contractor will be required to assume sole and complete responsibility for jobsite conditions during the course of construction of the project, including safety of all persons and property. This requirement shall apply continuously and not be limited to normal working hours. The contractor agrees to defend, indemnify and hold Owner and Engineer harmless from any and all liability, real or alleged, in connection with the performance of the work on this project, exempting liability arising from the sole negligence of the Engineer or Owner.

13. Parking lot striping shall be laid out in accordance with the Horizontal Control Plan, and in accordance with the City of Pacific Grove Standard specifications.

14. Contractor shall provide appropriate traffic control measures as outlined in the City of Pacific Grove specifications and as directed by the City Engineer.

GRADING AND PAVING NOTES

1. Work shall consist of all clearing, grubbing, and stripping, preparation of land to be filled, excavation, spreading, compaction and control of the fill, and all subsidiary work necessary to complete the grading to conform to the lines, grades and slopes, as shown on the accepted plans and as specified in the Geotechnical Investigation Report.

2. The contractor's attention is directed to the Geotechnical Investigation prepared by Moore Twining Associates, Inc. dated February 27, 2026 file no. H46201.01-02

   3

3. The Contractor's attention is directed to the City of Pacific Grove Off-Site plans for work within the ROW. Contractor shall adhere to the requirements thereof.

4. The Contractor shall notify the Soil Engineer at least forty-eight (48) hours prior to commencement of any grading operations on-site.

5. A representative of the Soils Engineer shall be on site during grading operations and shall perform such testing as deemed necessary. The representative shall observe the grading operation for conditions that should be corrected, and identify those conditions with recommended corrective measures to the Contractor.

6. In the event that any unusual conditions not covered by these notes and the Soils Investigation are encountered during grading operations, the Soils Engineer shall be immediately notified for recommendations.

7. All existing trash, debris, roots, tree remains and other rubbish shall be removed from the site so as to leave the areas that have been disturbed with a neat and finished appearance free from unsightly debris. No burning shall be permitted.

8. Contractor shall grade to the line and elevations shown on the plan within the following horizontal and vertical tolerance, in the areas indicated:

	Horizontal	Vertical
a. Building Pad Subgrade	0.50'+	0.05'+
b. Driveway and parking area subgrade preparation	0.05'+	0.05'+

9. All aggregate base material and the handling and placement thereof shall be in accordance with the Caltrans Standard Specifications. Aggregate base materials shall be Class II.

10. Compacted building pads shall extend 5 feet minimum beyond building footprint.

11. Asphalt concrete (AC) shall be Type A, 3/4" maximum aggregate size for base course and 1/2" maximum aggregate size for surface course, as specified for surface course material in the Caltrans Specification. 2" thickness may be placed in one lift.

12. SS-I emulsified asphalt paint binder conforming to the provisions of the Caltrans Specification shall be applied at the rate of 0.07+ gallons per square yard to existing asphalt concrete surface and vertical concrete surfaces to receive asphalt concrete.

13. SS-I emulsified liquid asphalt seal coat conforming to the provisions of the Caltrans Specifications shall be diluted with equal parts water and applied at the rate of 0.15+ gallons per square yard to surface of the new finished asphalt paving surface and existing asphalt paving surfaces to remain in place. Existing asphalt surfaces shall be cleaned prior to seal coat operation.

14. Contractor shall adjust all inlets, valve boxes, manhole rims, and sewer cleanouts to new finish grade.

15. Materials handling and placement of Portland Cement Concrete shall be in accordance with applicable sections of the Caltrans Standard Specifications and these plans and details shown hereon. Concrete to be Class A, 6 sack, 3000 PSI concrete.

UNDERGROUND NOTES

1. Contractor shall expose and verify location and elevation of existing utilities, including sanitary and storm sewers, and water lines before constructing new facilities. Contractor shall cap existing irrigation lines where necessary so that the remaining irrigation system will continue to be operational for the existing landscaping to remain.

2. Materials for pipe, storm water inlets and cleanouts and installation procedures shall be in accordance with applicable California Building Code sections and the City of Pacific Grove Standard Specifications, the Project Specifications and these plans and details shown hereon.

   Storm Sewer Pipe designated "SD" shall be SDR 26 PVC pipe or HDPE ADS N-12 pipe appropriate for such use. Storm Sewer Pipe designated "DIP" shall be ductile iron pipe appropriate for such use.

   Storm Sewer Pipe designated "RCP" shall be reinforced concrete pipe appropriate for such use.

   Sanitary Sewer Pipe designated "SS" shall be vitrified clay pipe or SDR 26 PVC pipe appropriate for such use.

   Water Pipe designated "WATER" or "W" shall be Schedule 80 PVC pipe appropriate for such use

   Fire Lines designated "FIRE LINE" or "F" shall be AWWA C900 PVC – DR 18 pipe appropriate for such use

3. Ensure grates are ADA compliant for all existing inlets to remain in travelled access paths, subject to pedestrian traffic. Replace as necessary.

4. All trench excavation and backfill for sewer lines shall conform to requirements of the City of Pacific Grove Standard Specifications. Jetting of backfill materials to achieve compaction is not allowed.

5. All trenches and excavations shall be constructed in strict compliance with the applicable sections of California and Federal O.S.H.A. requirements and other applicable safety ordinances. Contractor shall bear full responsibility for trench shoring design and installation.

6. Materials for pipe and installation requirements for domestic water lines shall be in accordance with applicable California Plumbing Code sections and the City of Pacific Grove Standard Specifications and these plans and details shown hereon.

7. Soils on the site have been found to be corrosive. All buried metallic pipes, fittings and appurtenances associated with the water pipelines shall be encased in 8-mil polyethylene per AWWA C-105. All buried copper water service lines shall be encased in 6-mil polyethylene sleeve in accordance with AWWA C-105

8. Storm Drain Cleaning: Remove dirt and sediment from all drain boxes and storm drain cleanouts in project area and downstream to public storm drain mainline, use vac truck where possible. Hyrdowash/jet out storm drain line until free flowing. Start at downstream inlets and work towards project area. If clogged SD line cannot be unclogged by jetting, notify engineer, pothole blocked location and repair drain line as needed.

ABBREVIATIONS

AB	AGGREGATE BASE		
AC	ASPHALT CONCRETE	LTB	LIME TREATED BASE
ACC	ACCESSIBLE	(ME)	MATCH EXISTING ELEVATION
ARCH	ARCHITECTURAL	MH	MANHOLE
BS	BOTTOM OF STEP	ML	MONUMENT LINE
BW	BACK OF WALK ELEVATION	(N)	NEW
BOW	BOTTOM OF WALL ELEVATIONS	PAV	PAVEMENT SURFACE ELEVATION
CB	CATCH BASIN	ℙ	PROPERTY LINE
CI	CAST IRON	PP	PERFORATED PIPE
℄	CENTER LINE	RIM	RIM ELEVATION
CLF	CHAIN LINK FENCE	RS	TOP OF RAT SLAB ELEVATION
C&G	CURB AND GUTTER	RWL	RAIN WATER LEADER
CONC	CONCRETE	S=	SLOPE
C	CONCRETE ELEVATION	SD	STORM DRAIN
DWY	DRIVEWAY	S.A.D.	SEE ARCHITECT DRAWINGS
E	ELECTRICAL	S.E.D.	SEE ELECTRICAL DRAWINGS
(E)	EXISTING	S.L.D.	SEE LANDSCAPE DRAWINGS
EBOX	ELECTRICAL BOX	S.P.D.	SEE PLUMBING DRAWINGS
EC	EDGE OF CONCRETE	SG	SUBGRADE ELEVATION
EP	EDGE OF PAVEMENT	SS	SANITARY SEWER
EV	ELECTRICAL VAULT	SSCO	SANITARY SEWER CLEANOUT
F	FIRE LINE	S/W	SIDEWALK
FG	FINISH GRADE	STLT	STREET LIGHT
FNC	FENCE	T	TELEPHONE
FH	FIRE HYDRANT	TC	TOP OF CURB
FF	FINISHED FLOOR ELEVATION	TD	TRENCH DRAIN
FL	FLOW LINE	TILE	TOP OF TILE ELEVATION
FOC	FACE OF CURB	TOE	TOE OF BANK
G	GAS	TOW	TOP OF WALL ELEVATION
GB	GRADE BREAK	TP	TELEPHONE POLE
GND	GROUND ELEVATION	TR	TOP OF RAMP
JP	JOINT POLE	TS	TOP OF STEP
ICV	IRRIGATION CONTROL VALVE	TSB	TRAFFIC SIGNAL BOX
INV	INVERT	VLT	VAULT
LF	LINEAR FEET	W	WATER
LS	LANDSCAPE	WV	WATER VALVE

SHEET INDEX

LEGEND

DESCRIPTION	PROPOSED	EXISTING
PROPERTY LINE		
CENTERLINE		
CURB & GUTTER		
VERTICAL CURB		
ASPHALT EDGE / SAWCUT		
EXPANSION JOINT		
SCORE JOINT		
VALLEY GUTTER		
TRENCH DRAIN / PERF PIPE		
RAINWATER LEADER		
STORM LINE		SD
SANITARY LINE		SS
WATER LINE		W
GAS LINE	G	
FIRE SPRINKLER	FS	
FIRE LINE	F	
FENCE		X
ROLLING FENCE		
CITY CONFORM		
ADA DROP OFF		
FIRE LANE		
TYPICAL RAMP		
ACCESSIBLE RAMP		
TRUNCATED DOMES		
STORM DRAIN INLET		
AREA DRAIN		
BUBBLER BOX		
END SECTION		
FLARED END SECTION		
END SECTION MITERED DRAIN GRATE		
DRY WELL CONDENSATE		
BOLLARD		
HYDRANT		
FIRE DEPARTMENT CONNECTION (FDC)		
POST INDICATOR VALVE (PIV)		
THRUST BLOCK		
SHUT OFF VALVE (SOV)		
CHECK VALVE		
BACKFLOW PREVENTER		
ELECTROLIER		
ELECTROLIER CONDUIT & CABLE W/PULL BOX		
DIRECTION & RATE OF SLOPE	0.015	
SWALE		
CONTOUR		
LIGHTING POLE		
EV CHARGING STATION		

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PACIFIC GROVE UNIFIED SCHOOL DISTRICT

FOREST GROVE ELEMENTARY SCHOOL SITE IMPROVEMENTS

485 PINE AVE.
PACIFIC GROVE, CA 93950

SHEET TITLE:
NOTES, LEGEND & INDEX

Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

PROJECT # DCA 25.051 CEI 3264
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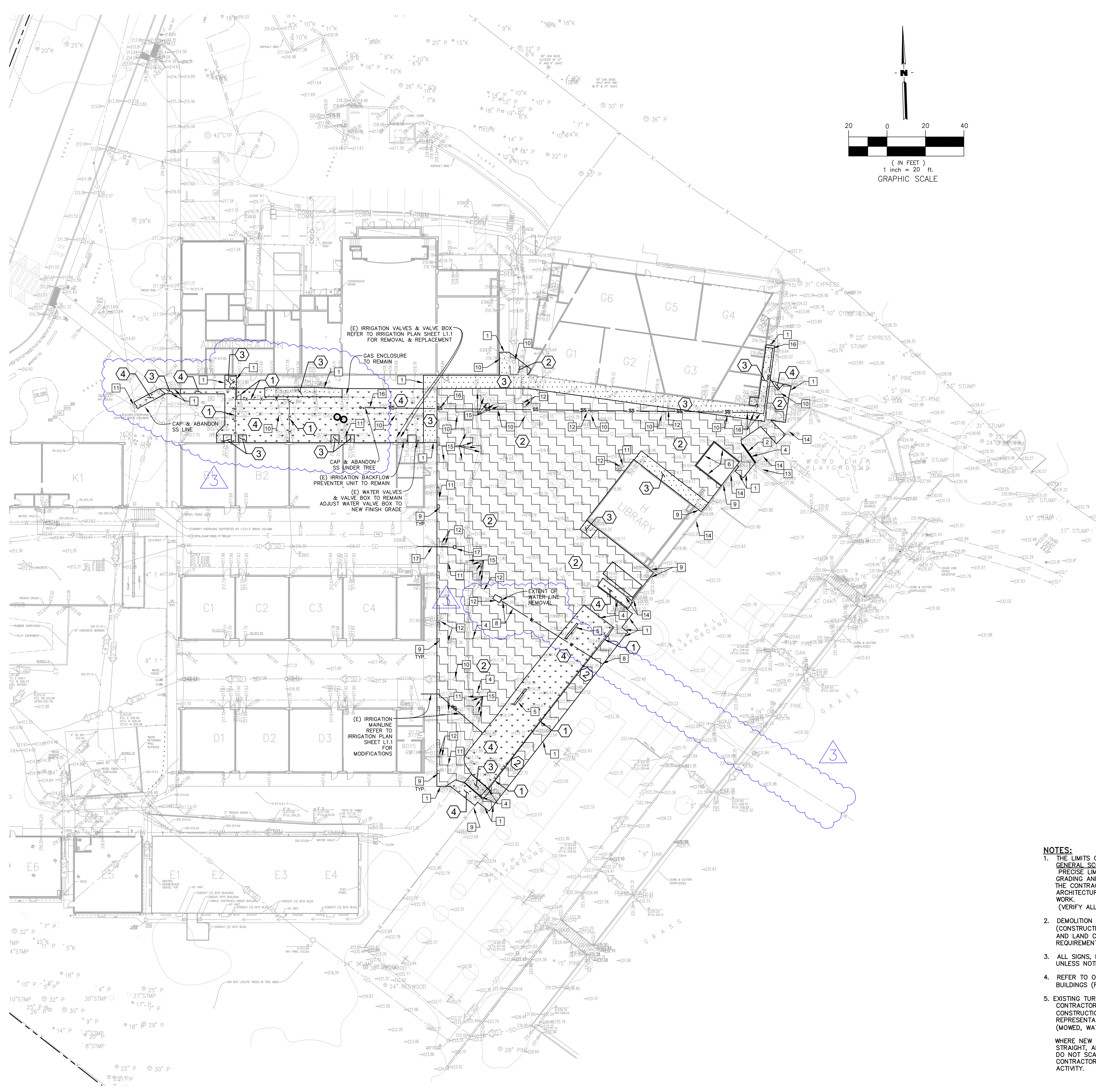

DEMOLITION LEGEND

	DESCRIPTION	SYMBOL
	TREE TO REMAIN. PROTECT FROM DAMAGE. SEE SPECIAL PROVISION 01 56 39 TREE AND PLANT PROTECTION AND LANDSCAPE DRAWINGS FOR TREE PROTECTION NOTES.	o
	TREE TO BE REMOVED. REMOVE ALL ROOTS.	X
KEYNOTE	DESCRIPTION	SYMBOL
1	FENCE / GATES/ FOUNDATIONS TO BE REMOVED	—x—x—x—
2	ASPHALT PAVING & AGGREGATE BASE ROCK TO RE REMOVED. REMOVE HEADER BOARD, TYP.	
3	CONCRETE TO BE REMOVED. REMOVE AGGREGATE BASE.	
4	SHRUBS AND/OR LANDSCAPING TO BE REMOVED. GRUB OUT ALL VEGETATION / REMOVE BARK / WOOD CHIPS. REMOVE PLANTER BOXES. REMOVE ANY IRRIGATION LINES, VALVES, AND POP-UP SPRAY HEADS.	
	WATER LINES AND VALVE BOXES TO BE REMOVED	— W —
	SANITARY SEWER LINES AND CLEANOUTS TO BE REMOVED	— SS —
	STORM SEWER LINES AND CLEANOUTS TO BE REMOVED	— SD —

KEYNOTE	DESCRIPTION
1	SAWCUT ASPHALT OR REMOVE CONCRETE TO NEAREST CONTROL JOINT
2	REMOVE CURB / CURB & GUTTER
3	NOT USED.
4	REMOVE POLE / POST / BOLLARD / HANDRAIL AND FOUNDATIONS
5	REMOVE BENCH
6	REMOVE SAND BOX RETAINING WALL & SAND
7	EXTENT OF REMOVAL OF CURB WALL / RETAINING WALL / WALL
8	REMOVE WATER LINES, VAULT, VALVE, METER, BOX, DRINKING FOUNTAIN. CAPLINES AT EXTENT OF REMOVAL. (E) WATER LINES HAVE BEEN FOUND TO BE TRANSITE.
9	POLE / POST/ COLUMN / BOLLARD / HANDRAIL / FENCE / GATE TO REMAIN. PROTECT FROM DAMAGE.
10	STORM LINES, DRAIN INLET, SDMH, SDCO TO REMAIN. PROTECT FROM DAMAGE. ADJUST RIM TO NEW FG.
11	SS LINES, SSMH, SSCO TO REMAIN. PROTECT FROM DAMAGE. ADJUST RIM TO NEW FG.
12	WATER LINE, VAULT, VALVE, METER, BOX, DRINKING FOUNTAIN, HOSE BIB TO REMAIN. PROTECT FROM DAMAGE. ADJUST RIM TO NEW FG.
13	CURB / CURB & GUTTER TO REMAIN. PROTECT FROM DAMAGE.
14	CURB WALL / RETAINING WALL / WALL & FOUNDATION TO REMAIN. PROTECT FROM DAMAGE.
15	ELECTRICAL BOX TO REMAIN. PROTECT FROM DAMAGE. ADJUST RIM TO NEW FG.
16	REMOVE SANITARY LINES, SSMH, SSCO CAP LINE AT EXTENT OF REMOVAL. VIDEO INSPECT (E) SS LINE PRIOR TO DEMO TO DETERMINE ALL LATERAL LOCATIONS TO BE RECONNECTED TO NEW SS LINE.
17	REMOVE STORM LINES, DRAIN INLET, TRENCH DRAIN, SSMH, SDCO CAP LINE AT EXTENT OF REMOVAL.

NOTES:

1. THE LIMITS OF DEMOLITION SHOWN HEREON ARE TO PROVIDE THE CONTRACTOR WITH A GENERAL SCOPE OF WORK.
   PRECISE LIMITS OF PAVEMENT REMOVAL AND GRADING SHOULD BE TAKEN FROM THE GRADING AND DRAINAGE PLAN.
   THE CONTRACTOR SHOULD ALSO REFERENCE LANDSCAPE ARCHITECT PLANS, ARCHITECTURAL PLANS, AND THE CONSTRUCTION DOCUMENTS FOR A COMPLETE SCOPE OF WORK.
   (VERIFY ALL DEMOLITION WITH THE SCHOOL DISTRICT).
2. DEMOLITION WORK SHALL CONFORM TO CAL GREEN CODE SECTIONS 5.408.3 (CONSTRUCTION WASTE REDUCTION BY AT LEAST 50%) AND 5.408..4 (EXCAVATED SOIL AND LAND CLEARING DEBRIS), AND LOCAL CONSTRUCTION WASTE MANAGEMENT REQUIREMENTS. THE MOST STRINGENT CODE SHALL PREVAIL.
3. ALL SIGNS, POSTS, AND FOOTINGS TO BE REMOVED WITHIN THE LIMITS OF DEMOLITION UNLESS NOTED OTHERWISE.
4. REFER TO ORIGINAL DESIGN DRAWINGS, AVAILABLE FROM DISTRICT, FOR EXISTING BUILDINGS (FOOTINGS, MATERIALS, ETC.).
5. EXISTING TURF TO REMAIN. LANDSCAPE CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR IF REPLACEMENT IS REQUIRED DUE TO STAGING, CONSTRUCTION ACCESS, OR CONSTRUCTION ACTIVITY. REPAIR WITH SOD TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. TURF AREAS FENCED DURING CONSTRUCTION SHALL BE MAINTAINED (MOWED, WATERED, AND FERTILIZED) BY CONTRACTOR.

   WHERE NEW SOD IS INSTALLED, SHOVEL CUT EDGE OF EXISTING TURF VERTICAL AND STRAIGHT, AMEND SOIL AND GRADE TO RECEIVE NEW SOD FLUSH WITH EXISTING EDGES. DO NOT SCALE SOD REPAIR FROM THIS DRAWING. COORDINATE WITH GENERAL CONTRACTOR FOR EXTENT OF REPAIR REQUIRED TO RESTORE TURF DUE TO CONSTRUCTION ACTIVITY.

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SHEET TITLE:

DEMOLITION PLAN

Revision Schedule

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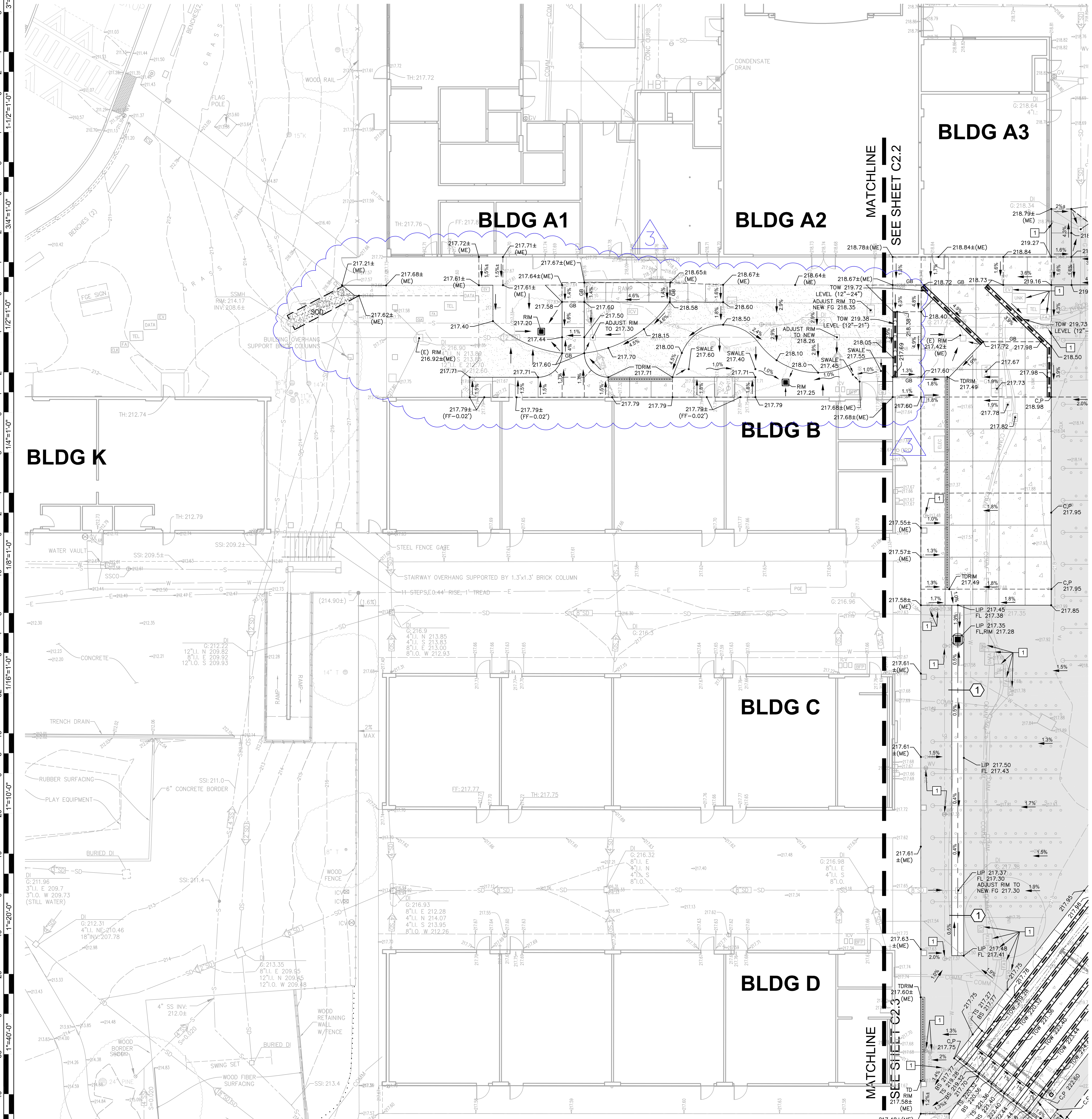

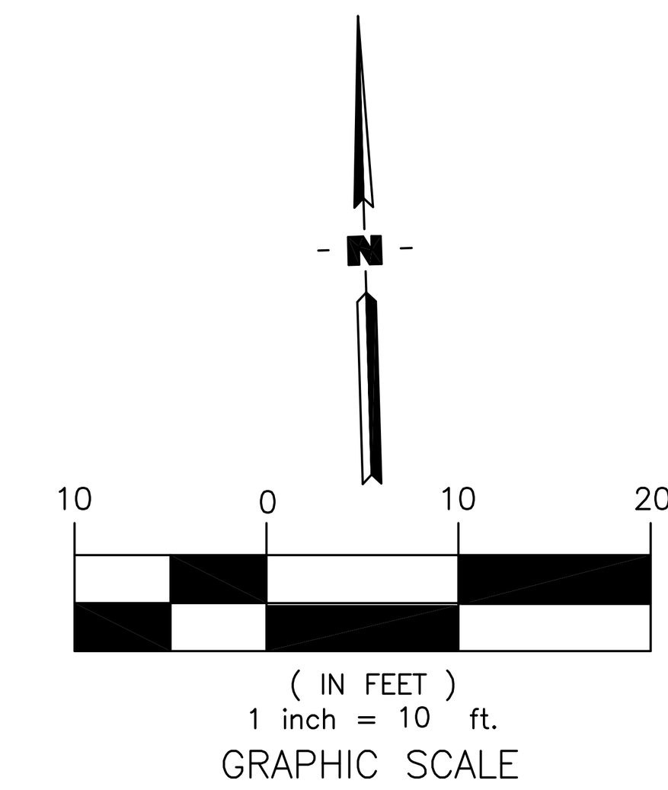

GRADING CONSTRUCTION DETAIL REFERENCES

KEYNOTE	DETAIL NAME	SYMBOL	DETAIL REFERENCE
1	ADA VALLEY GUTTER - 36 INCH		6 / C6.01

GRADING PLAN NOTES

KEYNOTE	DETAIL NAME
1	ADJUST UTILITY BOX TO NEW FINISHED GRADE, TYP.

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SHEET TITLE:

GRADING & DRAINAGE PLAN

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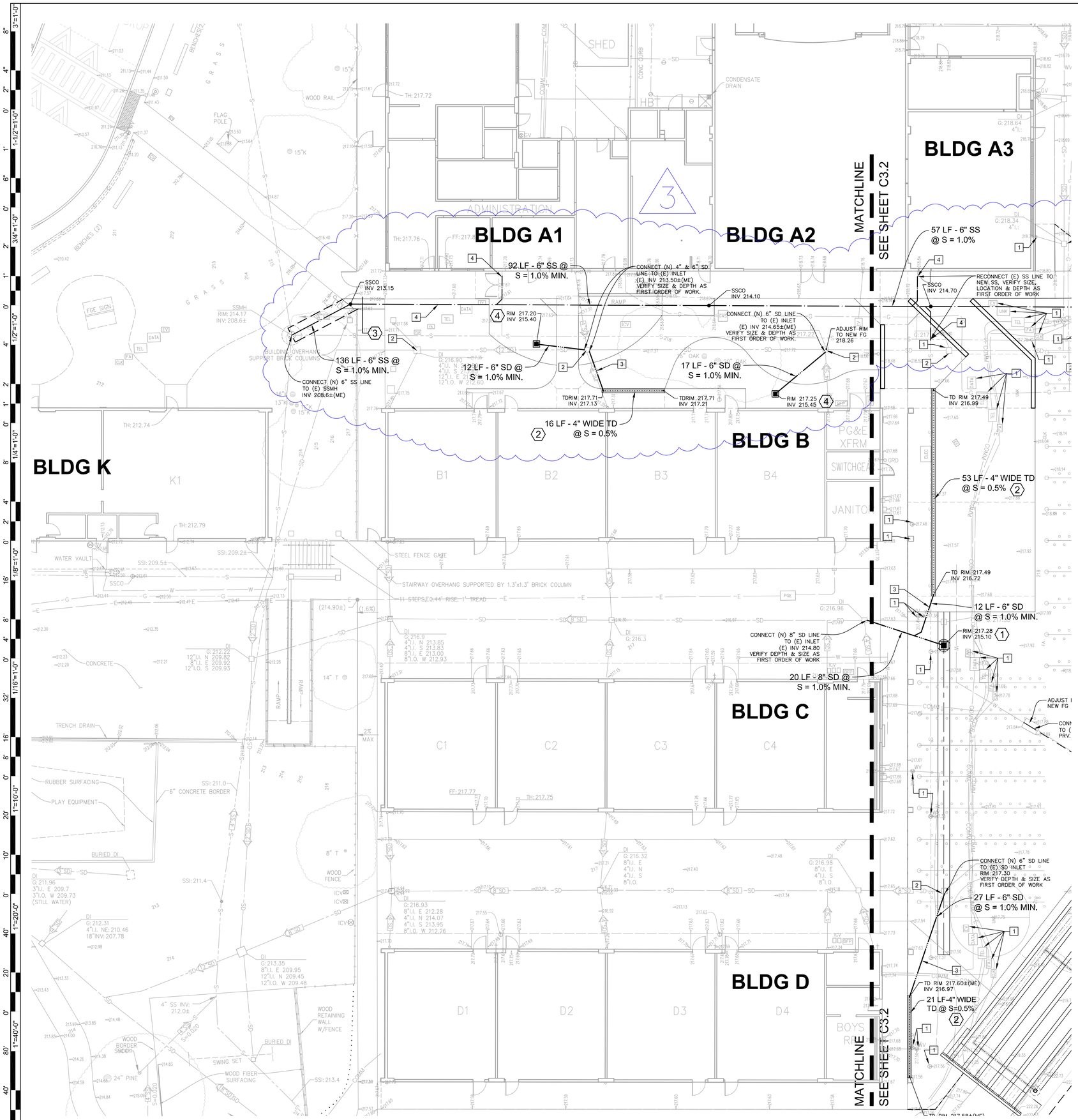

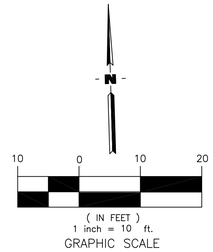

UNDERGROUND UTILITIES
CONSTRUCTION DETAIL REFERENCES

KEYNOTE	DETAIL NAME	SYMBOL	DETAIL REFERENCE
1	18" STORM INLET		1 / C6.01
2	TRENCH DRAIN		8 / C6.01
3	UTILITY TRENCH		7 / C6.01
4	12" STORM INLET		9 / C6.01

UNDERGROUND UTILITIES PLAN NOTES

KEYNOTE	DETAIL NAME
1	ADJUST UTILITY BOX TO NEW FINISH GRADE, TYP.
2	CLEAN OUT DEBRIS & HYDROJET STORM DRAIN SYSTEM TO BE FREE FLOWING, SEE UNDERGROUND NOTE #8 / SHEET C0.1
3	CONNECT 4" TD TO NEAREST SD LINE WITH 4" SD LINE @ S=1.0% MIN
4	RECONNECT (E) 4" SS LINE, S=1.0% MIN. VERIFY SIZE, DEPTH & LOCATION AS FIRST ORDER OF WORK AND VERIFY LOCATIONS OF ALL SS LATERALS FROM (E) BUILDINGS AND RECONNECT TO NEW SS LINE

3

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SHEET TITLE:
UNDERGROUND UTILITIES PLAN

Revision Schedule

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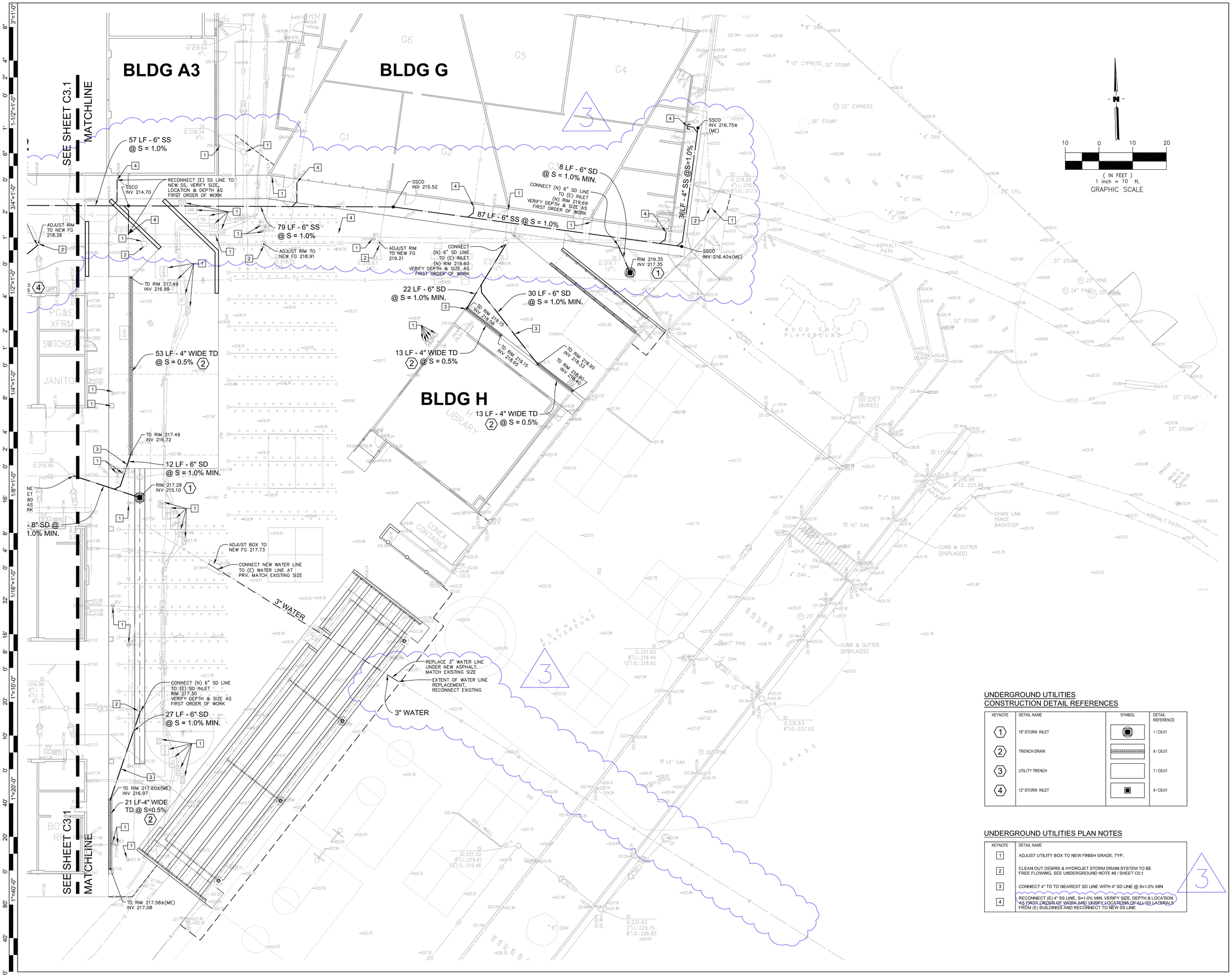

10 0 10 20
(IN FEET)
1 inch = 10 ft.
GRAPHIC SCALE

UNDERGROUND UTILITIES CONSTRUCTION DETAIL REFERENCES

KEYNOTE	DETAIL NAME	SYMBOL	DETAIL REFERENCE
1	18" STORM INLET		1 / C6.01
2	TRENCH DRAIN		8 / C6.01
3	UTILITY TRENCH		7 / C6.01
4	12" STORM INLET		9 / C6.01

UNDERGROUND UTILITIES PLAN NOTES

KEYNOTE	DETAIL NAME
1	ADJUST UTILITY BOX TO NEW FINISH GRADE, TYP.
2	CLEAN OUT DEBRIS & HYDROJET STORM DRAIN SYSTEM TO BE FREE FLOWING, SEE UNDERGROUND NOTE #8 / SHEET C0.1
3	CONNECT 4" TD TO NEAREST SD LINE WITH 4" SD LINE @ S=1.0% MIN
4	RECONNECT (E) 4" SS LINE, S=1.0% MIN, VERIFY SIZE, DEPTH & LOCATION AS FIRST ORDER OF WORK AND VERIFY LOCATIONS OF ALL SS LATERALS FROM (E) BUILDINGS AND RECONNECT TO NEW SS LINE

3

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SHEET TITLE:

UNDERGROUND UTILITIES PLAN

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SHEET TITLE:

HORIZONTAL CONROL PLAN

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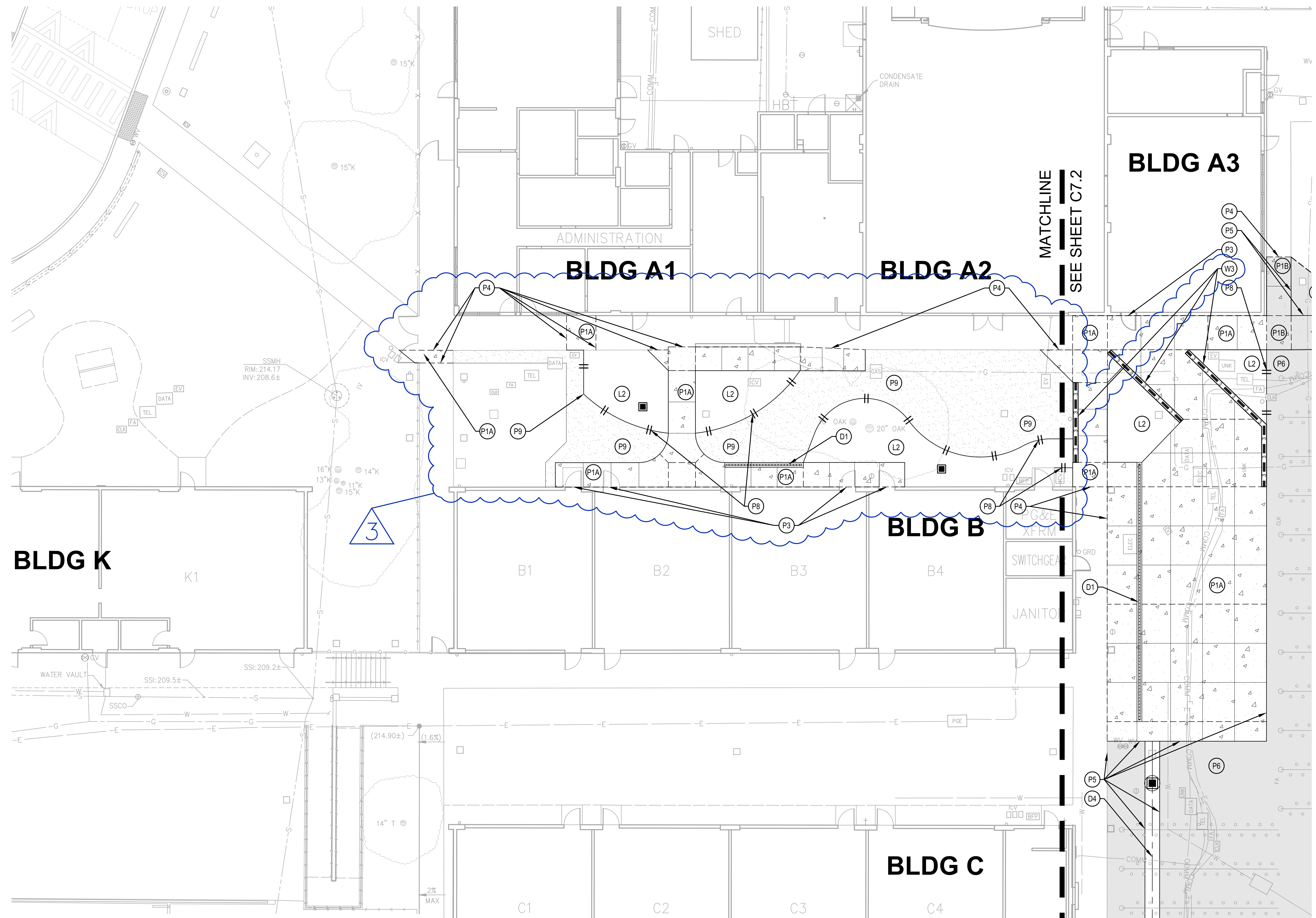

MATERIAL & DETAIL REFERENCE NOTES

1. THESE NOTES ARE FOR GENERAL REFERENCE IN CONJUNCTION WITH AND AS A SUPPLEMENT TO THE WRITTEN SPECIFICATIONS, DETAILS, ADDENDA AND CHANGE ORDERS ASSOCIATED WITH THE CONTRACT DOCUMENTS.
2. CONTRACTOR SHALL BECOME FAMILIAR WITH THE LOCATION OF EXISTING AND PROPOSED UNDERGROUND SERVICES. CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 PRIOR TO BEGINNING WORK. CONTACT DISTRICT REPRESENTATIVE SHOULD ANY CONFLICTS ARISE.
3. SCORE AND EXPANSION JOINTS SHALL BE LOCATED AS INDICATED ON THIS PLAN. CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS WHEN NECESSARY TO ALIGN SCORE AND EXPANSION JOINTS WITH RELATIVE ELEMENTS AS SHOWN ON THE PLAN.
4. DETAIL CALLOUTS ON PLAN ARE PROVIDED FOR CONVENIENCE AND GENERAL REFERENCE ONLY. CONTRACTOR SHALL PROVIDE QUANTITY OF PRODUCTS, ELEMENTS AND MATERIALS AS SYMBOLIZED ON PLANS, ASSOCIATED DETAILS AND SPECIFICATIONS.
5. FOR EACH CONCRETE FINISH SPECIFIED, CONTRACTOR SHALL POUR A 2'x2' SAMPLE FOR APPROVAL BY DISTRICT REPRESENTATIVE PRIOR TO INSTALLING CONCRETE PAVING.
6. CIVIL ENGINEER IS NOT RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION. IF WORK WITHIN THIS SCOPE REQUIRES REMOVAL, RENOVATION, OR DEMOLITION OF EXISTING TO REMAIN ELEMENTS, BOTH SURFACE AND KNOWN SUBSURFACE CONDITIONS, CONTRACTOR SHALL INCLUDE IN THE BID SUFFICIENT LABOR AND MATERIALS TO RESTORE EXISTING TO REMAIN IMPROVEMENTS IN-KIND AND AS ACCEPTABLE TO DISTRICT REPRESENTATIVE.
7. CONTRACTOR SHALL COORDINATE ROUGH GRADING AND FINE GRADING TO ENSURE EXISTING SUITABLE TOPSOIL IS REMOVED, STOCKPILED AND REINSTALLED INTO ALL PROPOSED LANDSCAPE AREAS PER LANDSCAPE SPECIFICATION SECTION 32 90 00. IN THE EVENT THERE IS NOT ENOUGH EXISTING TOPSOIL, OR NO PLACE TO STOCKPILE TOPSOIL, CONTRACTOR SHALL IMPORT AND INSTALL TOPSOIL PER LANDSCAPE SPECIFICATION SECTION 32 90 00.
8. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT FOR REPAIRING OR REPLACING, AT THEIR OWN EXPENSE, SURFACE AND SUBSURFACE SITE FEATURES TO REMAIN, INCLUDING BUT NOT LIMITED TO ANY STRUCTURES, FENCES, WALLS, PAVING SURFACES, PLANT MATERIAL AND/OR TREES DAMAGED OR DESTROYED, BOTH ON THIS PROPERTY OR THOSE PROPERTIES ADJACENT TO THIS SITE. THE DAMAGED ITEM(S) WILL BE RESTORED TO THEIR ORIGINAL CONDITION OR REPLACED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
9. CONTRACTOR SHALL ADJUST EXISTING UTILITY BOXES TO BE FLUSH WITH PROPOSED GRADES.
10. REFER TO ARCHITECTURAL PLANS FOR PLAYGROUND STRIPING AND GAME COURTS.
11. REFER TO CONSTRUCTION DETAILS ON SHEETS C6.1 - C6.5
12. REFER TO THE FOLLOWING SPECIFICATION SECTIONS:

01 56 39	TEMPORARY TREE AND PLANT PROTECTION
05 52 00	METAL RAILINGS
32 12 16	ASPHALT PAVING
32 12 36	SLURRY SEAL EXISTING ASPHALT PLAYGROUND
32 13 13	CONCRETE WORK
32 14 40	STONE PAVING
32 84 00	PLANTING IRRIGATION
32 90 00	LANDSCAPE PLANTING
32 92 00	TURF PLANTING

MATERIAL & DETAIL REFERENCE LEGEND

PAVING DETAILS

KEYNOTE	DETAIL NAME	SYMBOL	DETAIL REFERENCE
P1A	CONCRETE PAVING - PEDESTRIAN		1 / C6.1
P1B	CONCRETE PAVING - VEHICULAR		1 / C6.1
P2	CONCRETE LANDING		2 / C6.1
P3	CONCRETE THRESHOLD @ (E) BLDG.		3/ C6.1
P4	(N) CONCRETE TO (E) CONCRETE (EXPANSION JOINT)		4 / C6.1 1 / C6.1
P5	CONCRETE TO ASPHALT		5 / C6.1
P6	ASPHALT PAVING		6 / C6.1
P7	(N) ASPHALT TO (E) ASPHALT (ASPHALT SAW CUT EDGE)		7 / C6.1
P8	HEADERBOARD @ ASPHALT / DECOMPOSED GRANITE PAVING		8 / C6.1
P9	DECOMPOSED GRANITE PAVING		9 / C6.1
P10	CONCRETE APRON @ (E) BLDG		9 / C6.1

CURB & WALL DETAILS

KEYNOTE	DETAIL NAME	SYMBOL	DETAIL REFERENCE
C1	CONCRETE CURB - TYPE I		1 / C6.2
C2	NOT USED		
C3	CONCRETE CURB - TYPE III		3 / C6.2
C4	NOT USED		
ER1	EDGE OR RAMP - TYPE I (HANDRAIL IN CURB)		6 / C6.2
ER2	EDGE OF RAMP - TYPE II (HANDRAIL IN RAMP)		7 / C6.2
ER3	NOT USED		
ER4	NOT USED		
ER5	NOT USED		
W1	CONCRETE WALL - TYPE I		1 / C6.3
W2	CONCRETE WALL - TYPE II		2 / C6.3
W3	CONCRETE WALL - TYPE III		3 / C6.3
ST1	CONCRETE STEPS		5 / C6.3
ES1	EDGE OF STEPS - TYPE I (HANDRAIL IN STEP)		6 / C6.3
ES2	EDGE OF STEPS - TYPE II (HANDRAIL IN STEP)		7 / C6.3
AS	AMPHITHEATER SECTION		1 / C6.5

HANDRAILS

KEYNOTE	DETAIL NAME	SYMBOL	SHEET REFERENCE
H1	NOT USED		
H2	NOT USED		
H3	HANDRAIL @ RAMP IN RAMP - TYPE II		3 / C6.4
H4	HANDRAIL @ RAMP IN CURB - TYPE IV		4 / C6.4
H5	HANDRAIL IN STEPS - TYPE I		5 / C6.4
H6	HANDRAIL IN STEPS - TYPE II		6 / C6.4

DRAINAGE

KEYNOTE	DETAIL NAME	SYMBOL	SHEET REFERENCE
D1	TRENCH DRAIN		8 / C6.01
D2	NOT USED		
D3	NOT USED		
D4	VALLEY GUTTER - 36 INCH		6 / C6.01

LANDSCAPE

KEYNOTE	DETAIL NAME	SYMBOL	SHEET REFERENCE
L1	BARK MULCH - 3" DEPTH REFER TO SPECIFICATION SECTION 32 90 00 - LANDSCAPE PLANTING		L2.1
L2	PLANTING AREA REFER TO SPECIFICATION SECTION 32 90 00 - LANDSCAPE PLANTING		L2.1

FENCING

KEYNOTE	DETAIL NAME	SYMBOL	SHEET REFERENCE
FNC - 01	CHAIN LINK FENCE REFER TO ARCHITECTURAL PLANS		

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CARROLL ENGINEERING
engineers and surveyors

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3/2/26

PACIFIC GROVE UNIFIED SCHOOL DISTRICT

FOREST GROVE ELEMENTARY SCHOOL SITE IMPROVEMENTS

485 PINE AVE.
PACIFIC GROVE, CA 93950

SHEET TITLE:

MATERIAL & DETAIL REFERENCE PLAN

Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

PROJECT #
DCA 25.051
CEI 3264

ISSUE DATE:
03/23/2026

SHEET #
C7.1

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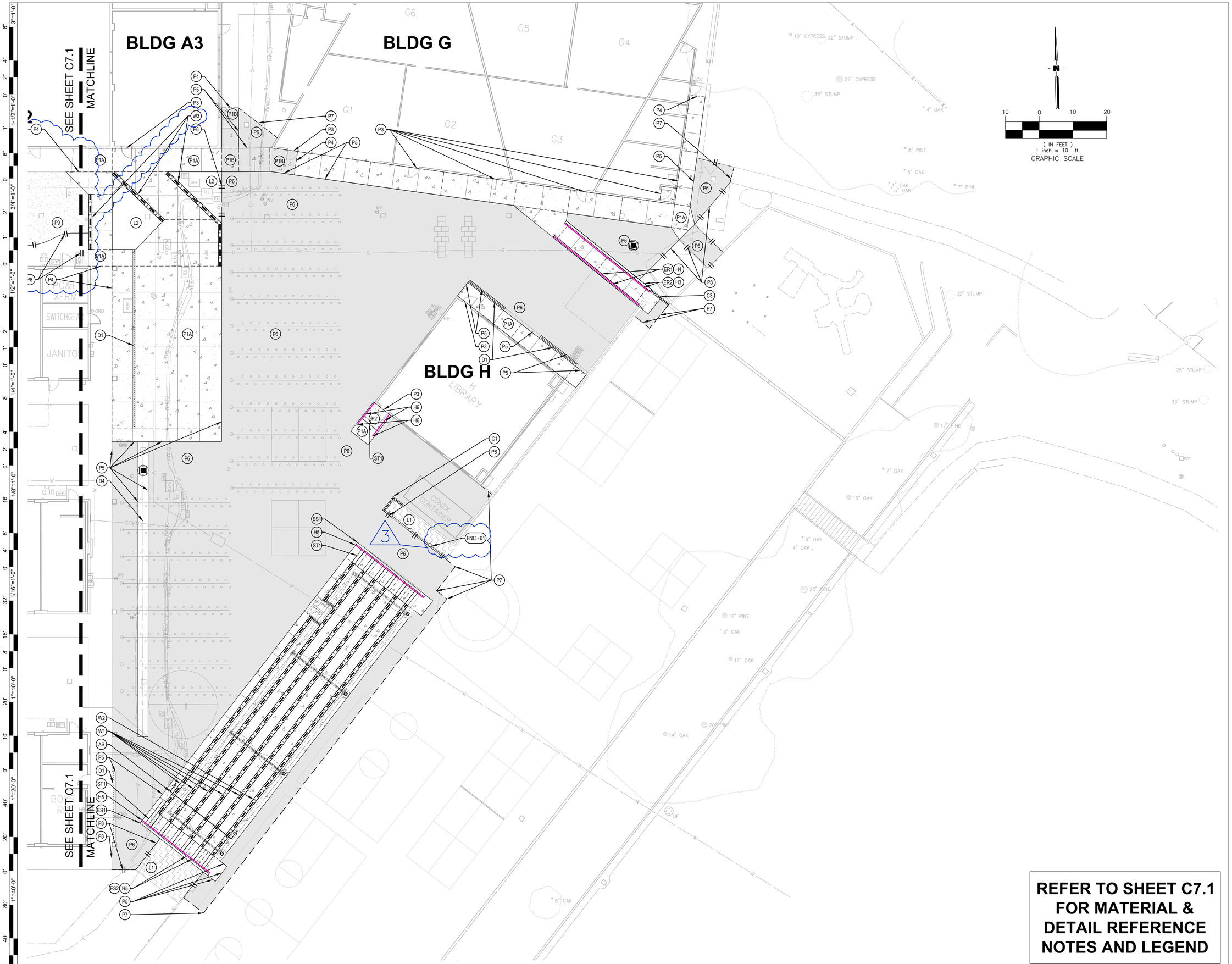

REFER TO SHEET C7.1 FOR MATERIAL & DETAIL REFERENCE NOTES AND LEGEND

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PACIFIC GROVE UNIFIED SCHOOL DISTRICT

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SHEET TITLE:

MATERIAL & DETAIL REFERENCE PLAN

Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

PROJECT # DCA 25.051 CEI 3264

ISSUE DATE: 03/23/2026

SHEET # C7.2

1. CARROLL ENGINEERING, INC. HAS COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

MATTHEW PAUL MARTUS, CALIFORNIA PE #68770

2. THESE NOTES ARE FOR GENERAL REFERENCE IN CONJUNCTION WITH AND AS A SUPPLEMENT TO THE WRITTEN SPECIFICATIONS, DETAILS, ADDENDA AND CHANGE ORDERS ASSOCIATED WITH THE CONTRACT DOCUMENTS.
3. CONTRACTOR SHALL BECOME FAMILIAR WITH THE LOCATION OF EXISTING AND PROPOSED UNDERGROUND SERVICES. CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 PRIOR TO BEGINNING WORK. CONTACT DISTRICT REPRESENTATIVE SHOULD ANY CONFLICTS ARISE.
4. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS.
5. SCHOOL IRRIGATION SYSTEM IS DESIGNED TO OPERATE AT 75 PSI AND 100 GPM FROM THE POINT OF CONNECTION. CONTRACTOR SHALL VERIFY PRESSURE AND FLOW PRIOR TO BEGINNING OF WORK CONTACT DISTRICT REPRESENTATIVE IMMEDIATELY SHOULD CONFLICTS ARISE.
6. THE IRRIGATION SYSTEM DESIGN IS DIAGRAMMATIC. WHERE PIPING, VALVES, ETC. ARE SHOWN OUTSIDE OF PLANTING AREAS, THE INTENT IS FOR PIPING, VALVES, ETC. TO BE INSTALLED WITHIN PLANTING AREAS UNLESS OTHERWISE NOTED AND DETAILED.
7. CONTRACTOR SHALL COORDINATE IRRIGATION INSTALLATION WITH OTHER TRADES. CONTRACTOR TO COORDINATE AND VERIFY ALL SLEEVING, PIPING, ELECTRICAL SUPPLY, POINT OF CONNECTION, ETC.
8. CONTRACTOR IS RESPONSIBLE FOR COMPLETE AND UNIFORM COVERAGE OF ALL PLANTING AND TURF AREAS. CONTRACTOR TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN OPTIMUM OPERATING PRESSURE FOR EACH CIRCUIT. ADJUST SPRAY HEADS AND NOZZLES FOR OPTIMUM COVERAGE WHILE PREVENTING OVERSPRAY ONTO WALKWAYS AND STRUCTURES BY USE OF PRESSURE COMPENSATING DEVICES.
9. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN TRENCHING AROUND EXISTING TREES AND SHRUBS. CONTRACTOR SHALL HAND TRENCH WHEN TRENCHING ACROSS ROOTS 2" AND LARGER TO PRESERVE ROOT SYSTEM. ROOTS SMALLER THAN 2" MAY BE TRIMMED. DO NOT TEAR ANY ROOTS.
10. REMOTE CONTROL VALVES FOR TURF FIELD ARE BURIED BELOW FINISH GRADE. CONTRACTOR SHALL ENSURE (E) VALVES ARE OPERATION BEFORE, DURING AND AFTER CONSTRUCTION.
11. REFER TO SPECIFICATIONS SECTION 32 84 00 AND IRRIGATIONS DETAILS ON SHEET L3.1

IRRIGATION LEGEND

SYM	MODEL	MANUF.	DESCRIPTION	GPM	PSI	RAD
BUBBLERS						
	PCN-50	HUNTER	TREE FLOOD BUBBLER IN DRAIN TUBE, TWO PER TREE	0.50	30	TRICKLE
	PCN-25	HUNTER	SHRUB FLOOD BUBBLER, ONE PER SHRUB	0.25	30	TRICKLE
VALVES/CONTROLLER						
	-	-	(E) BACKFLOW PREVENT UNIT, LOCATED ON NORTHEAST CORNER OF BLDG B			
	MC-12E (EXISTING)	IRRITROL	(E) 12-STATION INTERIOR WALL MOUNT IRRIGATION CONTROLLER TO REMAIN. LOCATED IN JANITOR ROOM IN BLDG B			
	LFGV	WATTS	GATE VALVE, LINE SIZE			
	IPS	AQUA	BRONZE BALL VALVE, LINE SIZE			
	PEB-PRS-D SERIES	RAINBIRD	PRESSURE REGULATING ELECTRIC REMOTE CONTROL VALVE, SIZE PER PLAN, INSTALL IN VALVE BOX			
	44LRC	RAINBIRD	QUICK COUPLING VALVE WITH RUBBER LOCKING CAP, PROVIDE MATCHING QUICK COUPLING KEY (1 PER COUPLING VALVE) TO DISTRICT REPRESENTATIVE.			
S			IRRIGATION SPLICE BOX WITH LOCKABLE LID			
PIPING						
			SCH 40 PVC NON-PRESSURIZED, LATERAL LINE, 18" DEPTH, NSF APPROVED, SIZE PER PIPE SIZE CHART. INSTALL WITH 6" OF SAND BACKFILL.			
			SCH 40 (UP TO 2 1/2") CLASS 315 (3" AND LARGER) PVC PRESSURIZED, MAINLINE, NSF APPROVED, SIZE PER PLAN, 24" DEPTH. INSTALL TRACER WIRE ALONG ENTIRE LENGTH OF MAINLINE & 6" OF SAND BACKFILL.			
			SCH 40 PVC SLEEVES, MIN. 2 IN EACH LOCATION, SIZE AS REQUIRED. RUN CONTROL WIRE IN SEPARATE SLEEVE FROM IRRIGATION PIPES. SLEEVING SHALL BE INSTALLED AT 30" DEPTH.			

C = GALLONS PER MINUTE
A = VALVE NUMBER
B = VALVE SIZE
D = DESCRIPTION
E = HYDROZONE

IRRIGATION LATERAL LINE SIZE CHART (SCH 40)

GPM	PIPE SIZE
0 - 12 GPM	1"
12.01 - 22 GPM	1 1/4"
22.01 - 30 GPM	1 1/2"
30.01 - 50 GPM	2"
50.01 - 70 GPM	2 1/2"
70.01 - 110.0 GPM	3"

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485 PINE AVE,
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SHEET TITLE:

IRRIGATION PLAN

Revision Schedule		
NO.	Description	Date
3	ADDENDUM 3	3/23/26

PROJECT #
DCA 25.051
CEI 3264

ISSUE DATE:
03/23/2026

SHEET #
L1.1

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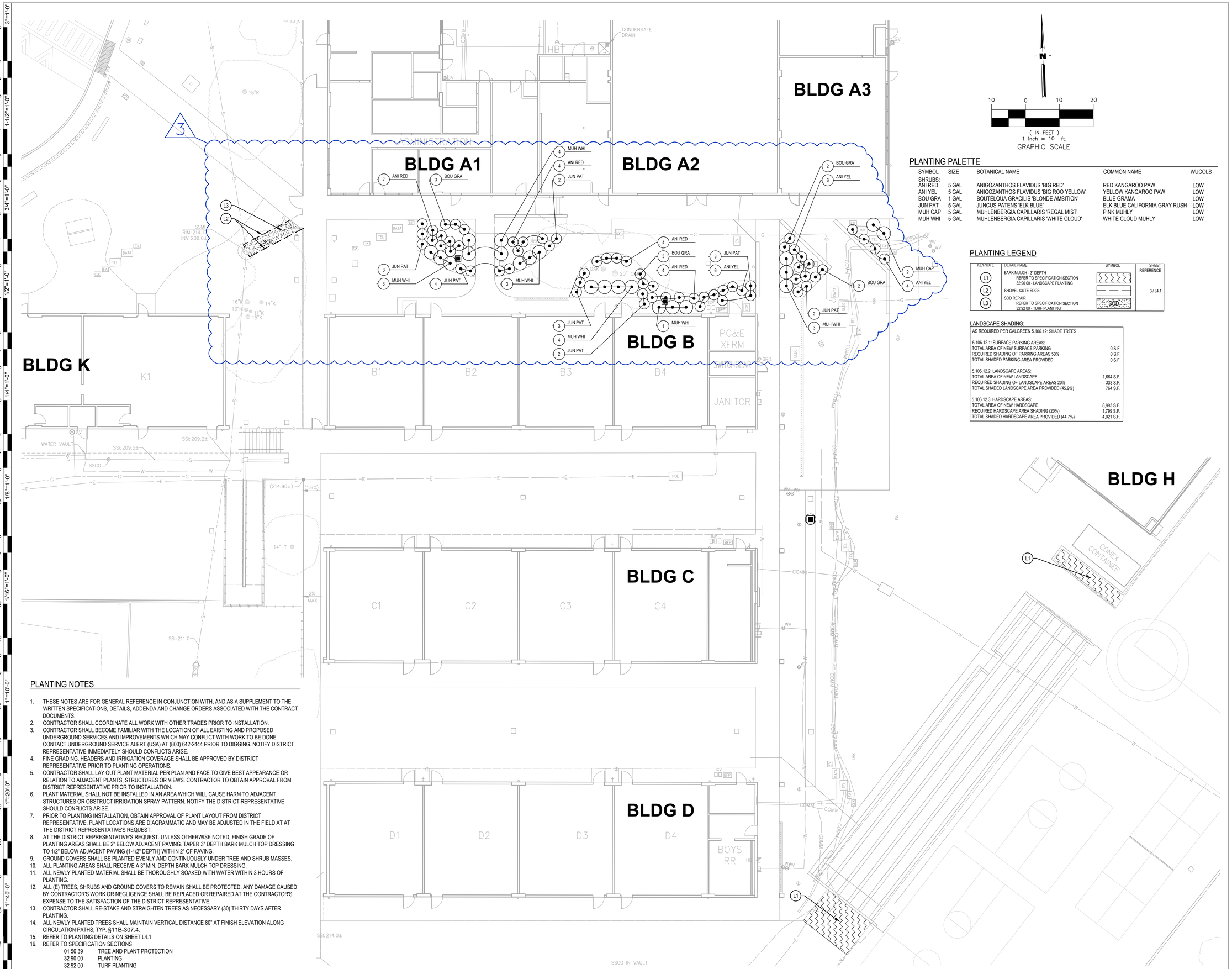

(IN FEET)
1 inch = 10 ft.
GRAPHIC SCALE

PLANTING PALETTE

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME	WUCOLS
SHRUBS:				
ANI RED	5 GAL	ANIGOZANTHOS FLAVIDUS 'BIG RED'	RED KANGAROO PAW	LOW
ANI YEL	5 GAL	ANIGOZANTHOS FLAVIDUS 'BIG ROO YELLOW'	YELLOW KANGAROO PAW	LOW
BOU GRA	1 GAL	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLUE GRAMA	LOW
JUN PAT	5 GAL	JUNCUS PATENS 'ELK BLUE'	ELK BLUE CALIFORNIA GRAY RUSH	LOW
MUH CAP	5 GAL	MUHLENBERGIA CAPILLARIS 'REGAL MIST'	PINK MUHLY	LOW
MUH WHI	5 GAL	MUHLENBERGIA CAPILLARIS 'WHITE CLOUD'	WHITE CLOUD MUHLY	LOW

PLANTING LEGEND

KEYNOTE	DETAIL NAME	SYMBOL	SHEET REFERENCE
L1	BARK MULCH - 3" DEPTH REFER TO SPECIFICATION SECTION 32 90 00 - LANDSCAPE PLANTING		
L2	SHOVEL CUTE EDGE		3 / L4.1
L3	SOD REPAIR REFER TO SPECIFICATION SECTION 32 92 00 - TURF PLANTING	SOD	

LANDSCAPE SHADING:

AS REQUIRED PER CALGREEN 5.106.12: SHADE TREES

5.106.12.1: SURFACE PARKING AREAS:	
TOTAL AREA OF NEW SURFACE PARKING	0 S.F.
REQUIRED SHADING OF PARKING AREAS 50%	0 S.F.
TOTAL SHADED PARKING AREA PROVIDED	0 S.F.
5.106.12.2: LANDSCAPE AREAS:	
TOTAL AREA OF NEW LANDSCAPE	1,664 S.F.
REQUIRED SHADING OF LANDSCAPE AREAS 20%	333 S.F.
TOTAL SHADED LANDSCAPE AREA PROVIDED (45.9%)	764 S.F.
5.106.12.3: HARDSCAPE AREAS:	
TOTAL AREA OF NEW HARDSCAPE	8,993 S.F.
REQUIRED HARDSCAPE AREA SHADING (20%)	1,799 S.F.
TOTAL SHADED HARDSCAPE AREA PROVIDED (44.7%)	4,021 S.F.

PLANTING NOTES

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2. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
3. CONTRACTOR SHALL BECOME FAMILIAR WITH THE LOCATION OF ALL EXISTING AND PROPOSED UNDERGROUND SERVICES AND IMPROVEMENTS WHICH MAY CONFLICT WITH WORK TO BE DONE. CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 PRIOR TO DIGGING. NOTIFY DISTRICT REPRESENTATIVE IMMEDIATELY SHOULD CONFLICTS ARISE.
4. FINE GRADING, HEADERS AND IRRIGATION COVERAGE SHALL BE APPROVED BY DISTRICT REPRESENTATIVE PRIOR TO PLANTING OPERATIONS.
5. CONTRACTOR SHALL LAY OUT PLANT MATERIAL PER PLAN AND FACE TO GIVE BEST APPEARANCE OR RELATION TO ADJACENT PLANTS, STRUCTURES OR VIEWS. CONTRACTOR TO OBTAIN APPROVAL FROM DISTRICT REPRESENTATIVE PRIOR TO INSTALLATION.
6. PLANT MATERIAL SHALL NOT BE INSTALLED IN AN AREA WHICH WILL CAUSE HARM TO ADJACENT STRUCTURES OR OBSTRUCT IRRIGATION SPRAY PATTERN. NOTIFY THE DISTRICT REPRESENTATIVE SHOULD CONFLICTS ARISE.
7. PRIOR TO PLANTING INSTALLATION, OBTAIN APPROVAL OF PLANT LAYOUT FROM DISTRICT REPRESENTATIVE. PLANT LOCATIONS ARE DIAGRAMMATIC AND MAY BE ADJUSTED IN THE FIELD AT AT THE DISTRICT REPRESENTATIVE'S REQUEST.
8. AT THE DISTRICT REPRESENTATIVE'S REQUEST. UNLESS OTHERWISE NOTED, FINISH GRADE OF PLANTING AREAS SHALL BE 2" BELOW ADJACENT PAVING. TAPER 3" DEPTH BARK MULCH TOP DRESSING TO 1/2" BELOW ADJACENT PAVING (1-1/2" DEPTH) WITHIN 2" OF PAVING.
9. GROUND COVERS SHALL BE PLANTED EVENLY AND CONTINUOUSLY UNDER TREE AND SHRUB MASSES.
10. ALL PLANTING AREAS SHALL RECEIVE A 3" MIN. DEPTH BARK MULCH TOP DRESSING.
11. ALL NEWLY PLANTED MATERIAL SHALL BE THOROUGHLY SOAKED WITH WATER WITHIN 3 HOURS OF PLANTING.
12. ALL (E) TREES, SHRUBS AND GROUND COVERS TO REMAIN SHALL BE PROTECTED. ANY DAMAGE CAUSED BY CONTRACTOR'S WORK OR NEGLIGENCE SHALL BE REPLACED OR REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE DISTRICT REPRESENTATIVE.
13. CONTRACTOR SHALL RE-STAKE AND STRAIGHTEN TREES AS NECESSARY (30) THIRTY DAYS AFTER PLANTING.
14. ALL NEWLY PLANTED TREES SHALL MAINTAIN VERTICAL DISTANCE 80" AT FINISH ELEVATION ALONG CIRCULATION PATHS, TYP. §11B-307.4.
15. REFER TO PLANTING DETAILS ON SHEET L4.1
16. REFER TO SPECIFICATION SECTIONS

01 56 39	TREE AND PLANT PROTECTION
32 90 00	PLANTING
32 92 00	TURF PLANTING

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3/2/26

PACIFIC GROVE UNIFIED SCHOOL DISTRICT
FOREST GROVE ELEMENTARY SCHOOL
SITE IMPROVEMENTS
485 PINE AVE.
PACIFIC GROVE, CA 93950

SHEET TITLE:
PLANTING PLAN

Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	3/23/26

PROJECT # DCA 25.051 CEI 3264	SHEET # L2.1
ISSUE DATE: 03/23/2026	

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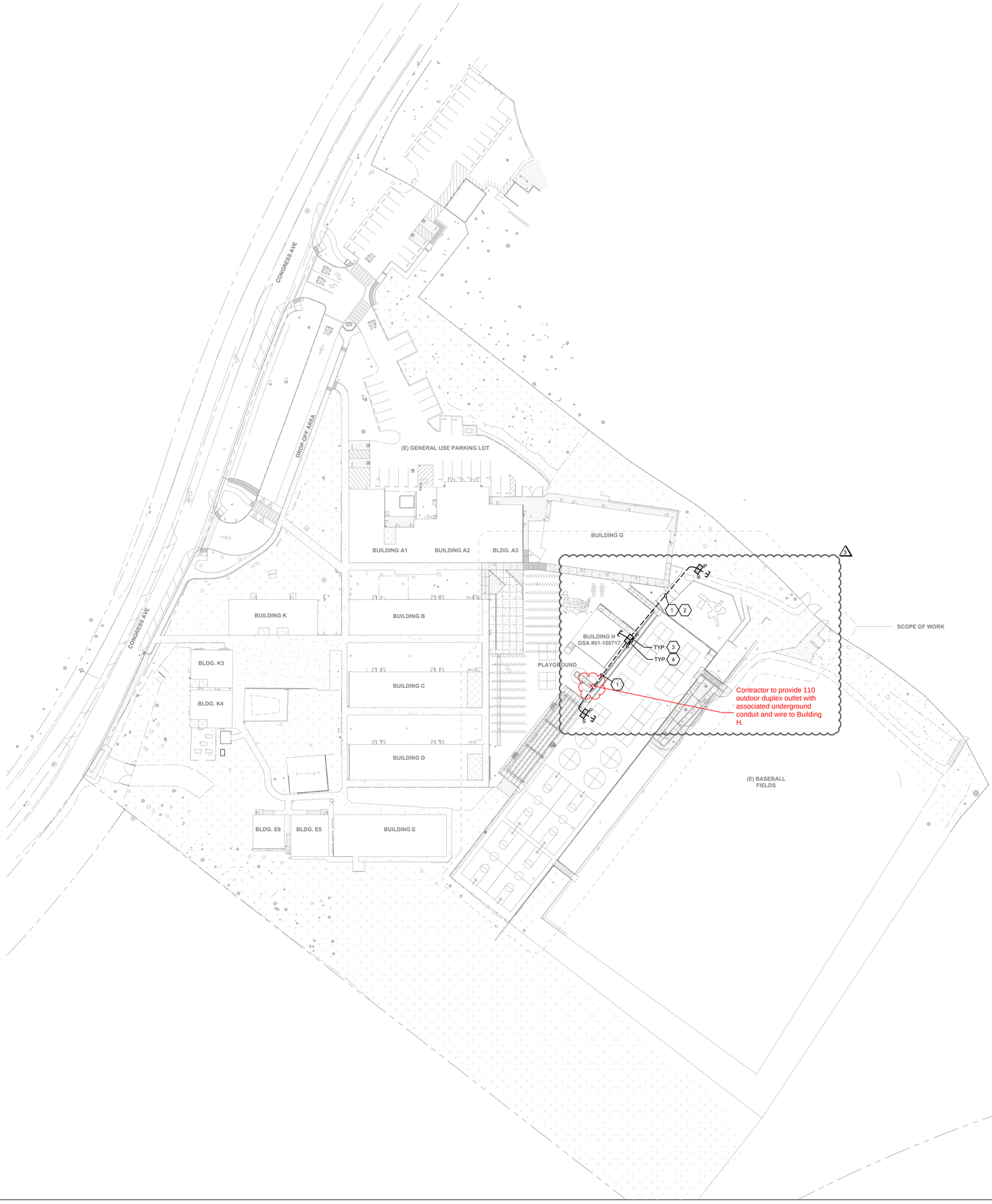

SHEET NOTES

1. PROVIDE AND INSTALL 1" C.O. FOR POWER AND 1 1/2" C.O. FOR DATA TO FUTURE CAMERA LOCATION. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE AT BUILDING H AND HOMERUN TO (E) IDF AND NEAREST ELECTRICAL PANEL.
2. PROVIDE AND INSTALL 1" C.O. FOR POWER AND 1 1/2" C.O. FOR DATA TO FUTURE GATE KEYPAD LOCATION. STUB CONDUIT INTO ACCESSIBLE CEILING SPACE AT BUILDING H AND HOMERUN TO (E) IDF AND NEAREST ELECTRICAL PANEL.
3. PROVIDE AND INSTALL CHRISTY #N16 CONCRETE PULLBOX. LABEL LID "ELECTRICAL".
4. PROVIDE AND INSTALL CHRISTY #N16 CONCRETE PULLBOX. LABEL LID "SECURITY".

NOTES:

A. CONTRACTOR SHALL LOCATE ALL (E) UNDERGROUND UTILITIES PRIOR TO TRENCHING AND TAKE CAUTION TO AVOID DAMAGE DURING TRENCHING. HAND TRENCH IF NECESSARY. CONTRACTOR SHALL MAKE ALL REPAIRS TO DAMAGED UTILITIES AT NO CHARGE TO OWNER.

B. ALL WIRING FOR SITE LIGHTING SHALL BE #10 AWG MINIMUM, U.O.N.

SCALE: 1"=40'-0"

NORTH

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PACIFIC GROVE UNIFIED SCHOOL DISTRICT

FOREST GROVE ELEMENTARY SCHOOL
SITE IMPROVEMENTS

1065 CONGRESS AVE
PACIFIC GROVE, CA 93950

SHEET TITLE:
ELECTRICAL SITE PLAN

Revision Schedule

NO.	Description	Date
3	ADDENDUM 3	03/23/26

PROJECT #	SHEET #
25.051	E201
ISSUE DATE: 03/23/2026	

EXHIBIT D

MOORE TWINING ASSOCIATES, INC.

February 27, 2026 H46201.01-02

Mr. Josh Jorn
Pacific Grove Unified School District
433 Hillcrest Avenue
Pacific Grove, California 93950

Subject: Limited Geotechnical Engineering Investigation
Playcourt Pavement Replacement Project
Forest Grove Elementary School
1065 Congress Avenue
Pacific Grove, California

Dear Mr. Jorn:

We are pleased to present the results of this limited geotechnical engineering investigation conducted for replacement of the playcourt pavements at Forest Grove Elementary School in Pacific Grove, California.

The scope of work conducted for this investigation was specified by Brailsford & Dunlavey, Inc, including an Overall Site Plan, Existing Conditions, with red-lined exploration locations.

1.0 SITE AND PROJECT DESCRIPTION

It is our understanding that the project will include replacement of existing asphalt-concrete paved playcourts within the Forest Grove Elementary School (FGES) campus, located at 1065 Congress Avenue, in Pacific Grove, California. The playcourts cover about 40,000 square feet within the central, southern, and eastern portion of the campus. The approximate site location is indicated on Drawing No. 1 in Appendix A of this report. Brailsford & Dunlavey, Inc. requested Moore Twining Associates, Inc. (Moore Twining) to collect two (2) bulk soil samples at the locations shown on Drawing No. 2, Site Plan in Appendix A.

At the time of our site observations, the subject area supported asphalt-concrete (AC) playcourts with court striping and decorative paint. It should be further noted that the subject area contains poles with foundations such as basketball hoops.

The project will reportedly include removal of the existing pavement sections and replacement with new asphalt concrete pavement sections. Based on information provided by Brailsford & Dunlavey, Inc., it is our understanding that the potential traffic loading for the new pavement areas would range from occasional light vehicles and potentially a fire truck.

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Fresno, CA 93721

2.0 PURPOSE OF SAMPLING AND TESTING

The purpose of our services was to conduct a limited subsurface investigation in order to sample and test the subgrade soils and provide recommendations for design and preparation of the new asphalt concrete pavements. Our services did not include an evaluation of existing pavement conditions, proposed underground utilities, curbs, gutters or sidewalks; or, evaluation of any proposed structures, geologic or seismic hazards.

3.0 FIELD EXPLORATION

Two (2) test borings were cored and hand augered on December 16, 2025, in order to measure the existing pavement thickness, log the near surfaces soils, and obtain samples for laboratory testing. The borings were drilled by coring the existing asphalt pavement surface using a diamond-tip core barrel advanced with a concrete coring machine. The underlying soils were then excavated and collected using a 6-inch diameter hand auger. The borings were augered to final depths of about 32 to 34 inches below the ground surface. The approximate hand-auger boring locations are shown on Drawing No. 2 in Appendix A of this report.

It should be noted that this investigation was conducted along with three (3) other sites. Thus, the hand auger borings advanced for the four campuses investigated were labeled HA-1 for Pacific Grove High School, HA-2 and HA-3 for Forest Grove Elementary School, HA-4, HA-5, and HA-6 for Robert Down Elementary School, and HA-7 and HA-8 for the Pacific Grove Adult Education campus.

During drilling, bulk samples of soil were obtained for laboratory testing. The test borings were hand augered by a Moore Twining technician and logged by a staff engineer. The soil classification was in accordance with the Unified Soil Classification System and consisted of particle size, color, and other distinguishing features of the soil.

At the completion of drilling and sampling operations, the boring holes were backfilled with soil cuttings and restored/topped with cold patch asphalt.

4.0 PAVEMENT SECTION THICKNESS AND LABORATORY TEST RESULTS

The pavement materials and thicknesses encountered at the boring locations are reported in the following table. The approximate locations of the borings are shown on Drawing No. 2 and the materials encountered at each boring are noted on the logs in Appendix B.

Table No. 1
Existing Pavement Section Thicknesses And Subgrade Test Results

Location	AC Section Thickness (inches)	Granular Fill / Aggregate Base (inches)	Native Subgrade Soils Classification	R-Value
HA-2	3¼	3½	Silty Sand (SM)	63
HA-3	2½	5	Silty Sand (SM)	68

5.0 EVALUATION

The data and methodology used to develop recommendations for project design and preparation of construction specifications are summarized in the following subsections. The evaluation was based upon the subsurface soil conditions determined from this investigation and our understanding of the proposed construction.

5.1 Asphalt Concrete Pavement Design: The subgrade soils encountered in the two test boring locations, HA-2 and HA-3, within the asphalt paved playcourt areas consisted of silty sands. The samples tested indicated good pavement support characteristics considering R-values of 63 and 68, respectively. Thus, an R-value of 50 was used for design of the replacement pavement sections. Pavement section thicknesses are provided in this report using a typical two layer pavement with a new asphalt concrete section over a new layer of Class 2 aggregate base using the gravel equivalent method in accordance with the California Department of Transportation (Caltrans) Highway Design Manual and our experience with similar projects.

6.0 RECOMMENDATIONS

Based on the evaluation of the field and laboratory data and our geotechnical experience in the vicinity of the project, the following recommendations are presented for use in the project design and construction. However, this report should be considered in its entirety. When applying the recommendations for design, the background information, procedures used and findings should be considered. The recommended design consultation and construction monitoring by Moore Twining are integral to the proper application of the recommendations.

Where the requirements of a governing agency differ from the recommendations of this report, the more stringent recommendations should be applied to the project.

6.1 General

6.1.1 Moore Twining should be retained to review the final grading and pavement plans so that any relevant recommendations can be presented.

6.1.2 Plans should identify the requirements for maintaining drainage, ADA accessibility, applicable minimum and maximum slope requirements, striping, etc.

6.1.3 Where repairs or modification of pavements adjacent to the buildings are conducted (if any), it will be critical to develop and maintain site grades which will drain surface and roof runoff away from foundations - both during and after construction. Adjacent surfaces which are paved should be sloped at least 1 percent away from the foundations or as required by applicable local, state and federal regulations, while also maintaining ADA requirements.

6.1.4 A preconstruction meeting including, as a minimum, the owner, general contractor, earthwork contractor, paving subcontractor, and Moore Twining should be scheduled by the general contractor at least one week prior to the start of demolition. The purpose of the meeting should be to discuss critical project requirements and scheduling.

6.1.5 Contractor(s) bidding on this project should determine if the data are adequate for accurate bid purposes. If the data are not sufficient, the contractor should notify the Owner in writing prior to bidding the project if sufficient data is not available to accurately bid the project. The contractor shall describe in detail the issues that are not sufficient to submit an accurate bid.

6.1.6 A demolition plan should be prepared to identify existing improvements such as underground utilities, pavements, etc. that are to be demolished and removed as part of the project, and which improvements are to remain and be protected.

6.2 Site Preparation and Engineered Fill Compaction for New Pavements

6.2.1 As part of the subgrade preparation, after removal of the existing surface improvements, the subgrade soils should be scarified to a depth of 12 inches, moisture conditioned to within two (2) percent of optimum moisture content and compacted to a minimum of 95 percent relative compaction (based on the maximum dry density determined in accordance with ASTM D 1557) and to achieve a stable subgrade condition prior to placement of aggregate base.

6.2.2 The onsite soils will be suitable for use as engineered fill below the aggregate base in the areas of the pavement rehabilitation, provided the onsite soils are aerated/moisture conditioned in accordance with the recommendations of this report. Although not anticipated, if clay soils are encountered, Moore Twining should be notified to develop specific recommendations for those areas. If significant areas of clay subgrade soils are exposed during grading, the recommended pavement sections may need to be revised.

6.2.3 If soils other than those considered in this report are encountered, Moore Twining should be notified to provide alternate recommendations.

6.2.4 The compactability of the native or import soils is dependent upon the moisture contents, subgrade conditions, degree of mixing, type of equipment, as well as other factors. The evaluation of such factors was beyond the scope of this report; therefore, it is recommended that they be evaluated by the contractor during preparation of bids and construction of the project.

6.2.5 Prior to placement of the asphalt concrete, the prepared aggregate base section surface should be proof-rolled under the observations of Moore Twining to confirm a firm, non-yielding condition. Any unstable areas should be repaired/stabilized prior to placement of the aggregate base. Unstable areas identified during proofrolling shall be excavated and replaced with aggregate base compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM Test Method D1557 to achieve a stable condition.

6.2.6 Import fill soil (if needed) should be non-recycled and granular in nature with the following acceptance criteria recommended.

Percent Passing 3-Inch Sieve	100
Percent Passing No. 4 Sieve	85 - 100
Percent Passing No. 200 Sieve	10 - 40
Organics	Less than 3 percent by weight
R-value	Minimum 50

6.2.7 Prior to importing fill, the Contractor shall submit test data that demonstrates that the proposed import soils comply with the recommended criteria for both geotechnical and environmental compliance. Also, prior to being transported to the site, the import material shall be certified by the Contractor and the supplier (to the satisfaction of the Owner) that the soils do not contain any environmental contaminates regulated by local, state or federal agencies having jurisdiction. This certification shall consist of, as a minimum, analytical data specific to the source of the import material in accordance with the Department of Toxic Substances Control, "Informational Advisory, Clean Imported Fill Material," dated October 2001. The list of constituents to be tested for the fill source shall be submitted to the Owner for review and approval prior to the Contractor testing the fill.

6.2.8 Imported engineered fill soils (and onsite granular fill) should be placed in loose lifts approximately 8 inches thick, moisture-conditioned to between optimum and three (3) percent above of optimum moisture content, and compacted to a dry density of at least 92 percent of the maximum dry density as determined by ASTM Test Method D1557, with exception that the upper 12 inches of fill placed in pavement areas should be compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM Test Method D1557. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

6.2.9 In-place density testing should be conducted in accordance with ASTM D 6938 (nuclear methods) at a frequency of at least:

Table No. 2
Area and Minimum Test Frequency

Area	Minimum Test Frequency
Pavement Areas, Mass Grading, Subgrade, and Aggregate Base	1 test per 2,500 square feet per compacted lift
Utility Lines	1 test per 100 feet per compacted lift

6.2.10 All utility trench backfill should be moisture conditioned and compacted as engineered fill.

6.2.11 Open graded gravel and rock material such as ¾-inch crushed rock or ½-inch crushed rock should not be used as backfill including trench backfill. In the event gravel or rock is required by a regulatory agency for use as backfill (Contractor to obtain a letter from the agency stating the requirement for rock and/or gravel as backfill), all open graded materials shall be fully encased in a geotextile filter fabric, such as Mirafi 140N, to prevent migration of fine grained soils into the porous material. Gravel and rock cannot be used without the written approval of Moore Twining. If the contractor elects to use crushed rock (and if approved by Moore Twining), the contractor will be responsible for slurry cut off walls at the locations directed by Moore Twining. Crushed rock should be placed in thin (less than 8 inch) lifts and densified with a minimum of three (3) passes using a vibratory compactor.

6.2.12 Aggregate base used for asphalt concrete pavement construction should comply with Class 2 aggregate base in accordance with the State of California Standard Specifications. Aggregate base shall be compacted to a minimum relative compaction of 95 percent of the maximum dry density determined in accordance with ASTM D1557 standards. Prior to importing the aggregate base material, the contractor should submit documentation demonstrating that the material meets all the project requirements (i.e., gradation, R-value, durability, sand equivalent, recycled content, etc.) for the applicable aggregate base to the Project Civil Engineer for review and approval.

6.3 Asphalt Concrete (AC) Pavements

Based on the findings of this investigation, recommendations are provided below for new asphalt concrete pavements based on our understanding of the pavement uses.

6.3.1 The following pavement sections are based on an R-value of 50, traffic index values ranging from 4.5 to 8.0 and a minimum of 3 inches of asphalt concrete. It should be noted that if pavements are constructed prior to construction of the buildings, the traffic index value should account for construction traffic. It would be anticipated that the traffic indices for the new pavement areas and uses would range from about 4.5 (light vehicles), to about 6.0 (fire truck areas), and approximately 8.0 (trash truck). However, the actual traffic index values applicable to the project should be determined by the project civil engineer. If recommendations are needed for different traffic loading conditions, Moore Twining should be contacted to develop additional pavement section recommendations. The subgrade soils should be prepared as recommended in this report.

Table No. 3
Pavement Section Thicknesses (R-value = 50)

Pavement Use	AC thickness, inches	AB thickness, inches
4.5	2.5	4.0
5.0	3.0	4.0
5.5	3.0	4.0
6.0	3.5	4.0
6.5	3.5	4.5
7.0	4.0	4.5
7.5	4.5	5.0
8.0	4.5	6.0

AC - Asphalt Concrete compacted as recommended in this report
AB - Class II Aggregate Base compacted to at least 95 percent relative compaction (ASTM D1557)

6.3.2 The curbs (if any) where pavements meet irrigated landscape areas or uncovered open areas should be extended to the bottom of the aggregate base section. This should reduce subgrade moisture from irrigation and runoff from migrating into the base section and reducing the life of the pavements. If an increased risk of wetting of the subgrade soils and an accelerated distress to the pavement is acceptable to the owner, the deepened curbs may be omitted.

6.3.3 If actual pavement subgrade materials are significantly different from those tested for this study due to unanticipated grading or soil importing, the pavement sections should be re-evaluated for the changed subgrade conditions.

6.3.4 Pavement section design assumes that proper maintenance, such as sealing and repair of localized distress, will be performed on an as needed basis for longevity and safety.

6.3.5 The asphalt concrete, including the joint density, should be compacted to an average relative compaction of 93 percent, with no single test value being below a relative compaction of 91 percent and no single test value being above a relative compaction of 97 percent of the referenced laboratory density according to ASTM D2041.

6.3.6 The asphalt concrete should comply with the requirements for a Type A asphalt concrete in accordance with the current State of California Department of Transportation (Caltrans) Standard Specification, or the requirements of the governing agency, whichever is more stringent.

7.0 DESIGN CONSULTATION

Moore Twining should be retained to review those portions of the contract drawings and specifications that pertain to earthwork operations and pavements prior to finalization to determine whether they are consistent with our recommendations. This service is not part of this current contractual agreement. If Moore Twining is not retained for review, we assume no liability for the misinterpretation of our conclusions and recommendations. This review is documented by a formal plan/specification review report provided by Moore Twining.

8.0 CONSTRUCTION MONITORING

8.1 It is recommended that Moore Twining be retained to observe the excavation, earthwork, and paving phases of work to determine that the subsurface conditions are compatible with those used in the analysis and design.

8.2 Moore Twining can conduct the necessary observation and field testing to provide results so that action necessary to remedy indicated deficiencies can be taken in accordance with the plans and specifications. Upon completion of the work, a written summary of our observations, field testing and conclusions will be provided regarding the conformance of the completed work to the intent of the plans and specifications. This service is not, however, part of this current contractual agreement.

8.3 In the event that the earthwork operations for this project are conducted such that the construction sequence is not continuous, (or if construction operations disturb the surface soils) it is recommended that the exposed subgrade that will receive pavements be tested to verify adequate compaction and/or moisture conditioning. If adequate compaction, stability, or moisture contents are not verified, the fill soils should be over-excavated, scarified, moisture conditioned and compacted are recommended in the Recommendations of this report.

8.4 The construction monitoring is an integral part of this investigation. This phase of the work provides Moore Twining the opportunity to verify the subsurface conditions interpolated from the soil borings and make alternative recommendations if the conditions differ from those anticipated.

8.5 If Moore Twining is not retained to provide engineering observation and field-testing services during construction activities related to earthwork and pavements; then, Moore Twining will not be responsible for compliance of any aspect of the construction with our recommendations or performance of the pavements if the recommendations of this report are not followed. It is recommended that if a firm other than Moore Twining is selected to conduct these services that they provide evidence of professional liability insurance satisfactory to the Owner. After their review, the firm should, in writing, state that they understand and agree with the recommendations of this report and agree to conduct sufficient observations and testing to ensure the construction complies with this report's recommendations. Moore Twining should be notified, in writing, if another firm is selected to conduct observations and field-testing services prior to construction.

8.6 Upon the completion of work, a final report should be prepared by Moore Twining. This report is essential to ensure that the recommendations presented are incorporated into the project construction, and to note any deviations from the project plans and specifications. The client should notify Moore Twining upon the completion of work to prepare a final report summarizing the observations during site preparation activities relative to the recommendations of this report. This service is not, however, part of this current contractual agreement.

9.0 NOTIFICATION AND LIMITATIONS

9.1 The recommendations presented in this report are based on the information provided regarding the proposed construction, and the results of the field and laboratory investigation, combined with interpolation of the subsurface conditions between boring locations. The nature and extent of subsurface variations between borings may not become evident until construction.

9.2 If variations or undesirable conditions are encountered during construction, Moore Twining should be notified promptly so that these conditions can be reviewed and our recommendations reconsidered where necessary. It should be noted that unexpected conditions frequently require additional expenditures for proper construction of the project.

9.3 If the proposed construction is relocated or redesigned, or if there is a substantial lapse of time between the submission of our report and the start of work (over 12 months) at the site, or if conditions have changed due to natural cause or construction operations at or adjacent to the site, the recommendations contained in this report should be considered invalid unless the changes are reviewed and our recommendations modified or approved in writing.

9.4 The recommendations contained in this report are valid only for the project discussed in Section 1.0, Site and Project Description. The use of the information and recommendations contained in this report for improvements on this site not discussed herein or for structures on other sites not discussed in this report is not recommended. The entity or entities that use or cause to use this report or any portion thereof for another structure or site not covered by this report shall hold Moore Twining, its officers and employees harmless from any and all claims and provide Moore Twining's defense in the event of a claim.

9.5 This report presents the results of a geotechnical engineering investigation for new pavements only and should not be construed as an environmental audit or study.

9.6 Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally-accepted engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied.

9.7 Reliance on this report by a third party (i.e., that is not a party to our written agreement) is at the party's sole risk. If the project and/or site are purchased by another party, the purchaser must obtain written authorization and sign an agreement with Moore Twining in order to rely upon the information provided in this report.

We appreciate the opportunity to be of service to Pacific Grove Unified School District and Brailsford & Dunlavey, Inc. If you have any questions regarding this report, or if we can be of further assistance, please contact us at your convenience.

Sincerely,
MOORE TWINING ASSOCIATES, INC.
Geotechnical Engineering Division

Shaun Reich EIT
Staff Engineer

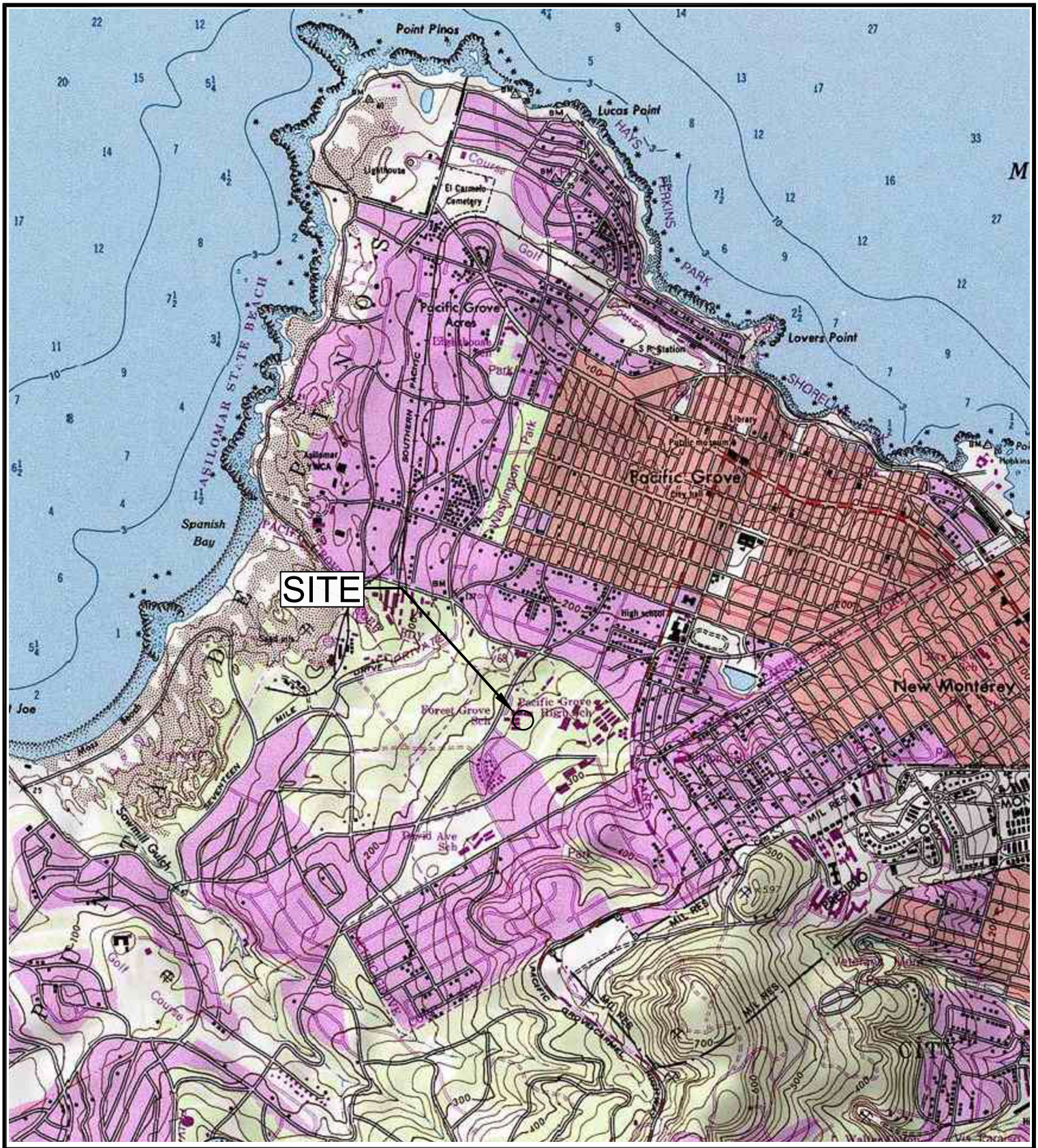
Read L. Andersen, RGE
Geotechnical Division Manager

APPENDIX A

DRAWINGS

Drawing No. 1 - Site Location Map

Drawing No. 2 - Test Boring Location Map



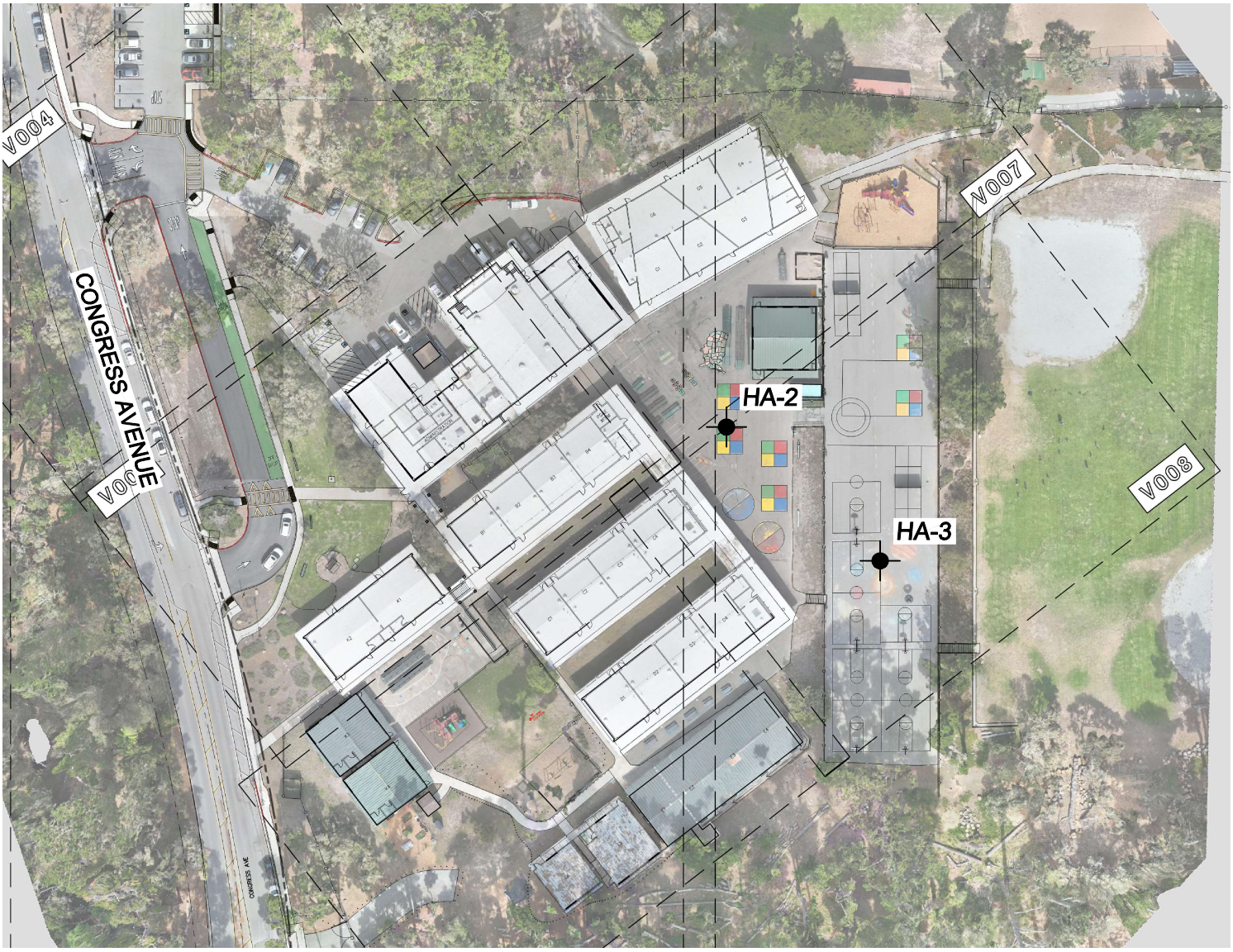
SOURCE: U.S.G.S. TOPOGRAPHIC MAP, 7 ½ MINUTE SERIES
MONTEREY, CALIFORNIA QUADRANGLE 1971

0 2000
APPROXIMATE SCALE
IN FEET

SITE LOCATION MAP
FOREST GROVE ELEMENTARY SCHOOL
1065 CONGRESS AVENUE
MONTEREY, CALIFORNIA

FILE NO.: 46201-01-01	DATE: 02/20/2026
DRAWN BY: RM	APPROVED BY:
PROJECT NO. H46201.01	DRAWING NO. 1

MOORE TWINING ASSOCIATES, INC.



APPROXIMATE HAND AUGER BORING LOCATION

N

0 100

APPROXIMATE SCALE IN FEET

HAND AUGER BORING LOCATION MAP
FOREST GROVE ELEMENTARY SCHOOL
1065 CONGRESS AVENUE
MONTEREY, CALIFORNIA

FILE NO. 46201-01-02	DATE DRAWN: 02/20/2026
DRAWN BY: RM	APPROVED BY:
PROJECT NO. H46201.01-2	DRAWING NO. 2

MOORE TWINING ASSOCIATES, INC.

APPENDIX B

LOGS OF BORINGS

This appendix contains the final logs of borings. These logs represent our interpretation of the contents of the field logs and the results of the field and laboratory tests.

The logs and related information depict subsurface conditions only at these locations and at the particular time designated on the logs. Soil conditions at other locations may differ from conditions occurring at these test boring locations. Also, the passage of time may result in changes in the soil conditions at these test boring locations.

In addition, an explanation of the abbreviations used in the preparation of the logs and a description of the Unified Soil Classification System are provided at the end of Appendix B.

MOORE TWINING ASSOCIATES, INC.

Test Boring: HA-1

Project: Forest Grove Elementary School, Pacific Grove USD

Project Number: H46201.01-02

Drilled By: HR

Drill Type: Hand Auger

Auger Type: 6" O.D. Hand Auger

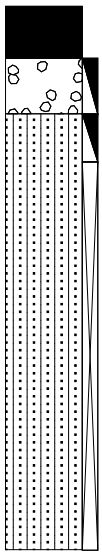
Hammer Type: N/A

Logged By: SR

Date: 12/16/2025

Elevation:

Depth to Groundwater First Encountered During Drilling: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		AC	Asphalt Concrete Thickness = 3.25 inches	R-Value = 63 -200 = 17.5% Sand = 82.1% +4 = 0.4%		
		AB	AGGREGATE BASE Thickness = 3.5 inches; moist, brown, medium to coarse grained with fine sand and trace fine to coarse gravel.			
1		SM	SILTY SAND; moist, brown, fine to medium grained sand with coarse sand and trace fine gravel fine to medium grained sand with trace coarse sand and fine gravel			
2						
3			Bottom of Hand Auger Boring B-2 at 34 inches BSG			
4						
5						

Notes: *Asphalt Concrete Playground Surface, R-Value sample collected from 9.75" to 34" BSG.*

Figure Number

MOORE TWINING ASSOCIATES, INC.

Test Boring: HA-2

Project: Forest Grove Elementary School, Pacific Grove USD

Project Number: H46201.01-02

Drilled By: HR

Drill Type: Hand Auger

Auger Type: 6" O.D. Hand Auger

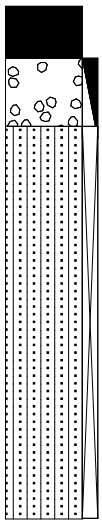
Hammer Type: N/A

Logged By: SR

Date: 12/16/2025

Elevation:

Depth to Groundwater First Encountered During Drilling: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		AC	Asphalt Concrete Thickness = 2.5 inches	R-Value = 68 -200 = 15.6% Sand = 76.8% +4 = 7.6%		
		AB	AGGREGATE BASE Thickness = 5.0 inches; moist, brown, fine to medium grained with trace fine gravel.			
1		SM	SILTY SAND; moist, light brown, fine to medium grained sand			
2						
3			Bottom of Hand Auger Boring B-3 at 32 inches BSG			
4						
5						

Notes: *Asphalt Concrete Playground Surface, R-Value sample collected from 7.5" to 32" BSG.*

Figure Number

KEY TO SYMBOLS

Symbol Description

Strata symbols

Asphalt concrete

Gravel frac

Silty Sand

Soil Samplers

Bulk/Grab sample

Bulk sample taken from auger

Notes:

1. **Exploratory borings were drilled on December 16, 2025 using a 6-0" outside diameter hand auger.**

2. **Groundwater was not encountered during drilling of some of the borings, see logs.**

3. **Boring locations were measured or paced from existing features.**

4. **These logs are subject to the limitations, conclusions, and recommendations in this report.**

5. **The "N-value" reported for the California Modified Split Barrel Sampler is the uncorrected field blow count. This value should not be interpreted as an SPT equivalent N-value.**

6. **Results of tests conducted on samples recovered are reported on the logs.**

+4 = Percent retained on the No. 4 sieve(%)
-200 = Percent passing the No. 200 sieve (%)
Sand = Percent passing the No. 4
R-Value = Resistance Value
O.D. = Outside diameter
N/A = Not applicable
N/E = Not encountered
BSG = Below Site Grade Elevation

APPENDIX C

RESULTS OF LABORATORY TESTS

This appendix contains the individual results of the following tests. The results of the moisture content and dry density tests are included on the test boring logs in Appendix B. These data, along with the field observations, were used to prepare the final test boring logs in Appendix B.

These Included:	To Determine:
Grain-Size Distribution (ASTM D422)	Size and distribution of soil particles, i.e., sand, gravel and fines (silt and clay).
R-Value (ASTM D2844)	The capacity of a subgrade or subbase to support a pavement section designed to carry a specified traffic load.

Particle Size Distribution Report

% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.4	0.9	22.9	58.3	17.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8 in.	100.0		
#4	99.6		
#8	98.9		
#16	97.0		
#30	92.7		
#50	57.5		
#100	24.3		
#200	17.5		

* (no specification provided)

Material Description

Silty sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.512 D_{60}= 0.314 D_{50}= 0.262
D_{30}= 0.176 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Sample No.: HA-2 **Source of Sample:** **Date:** 12/16/25
Location: **Elev./Depth:** 9.75-34"

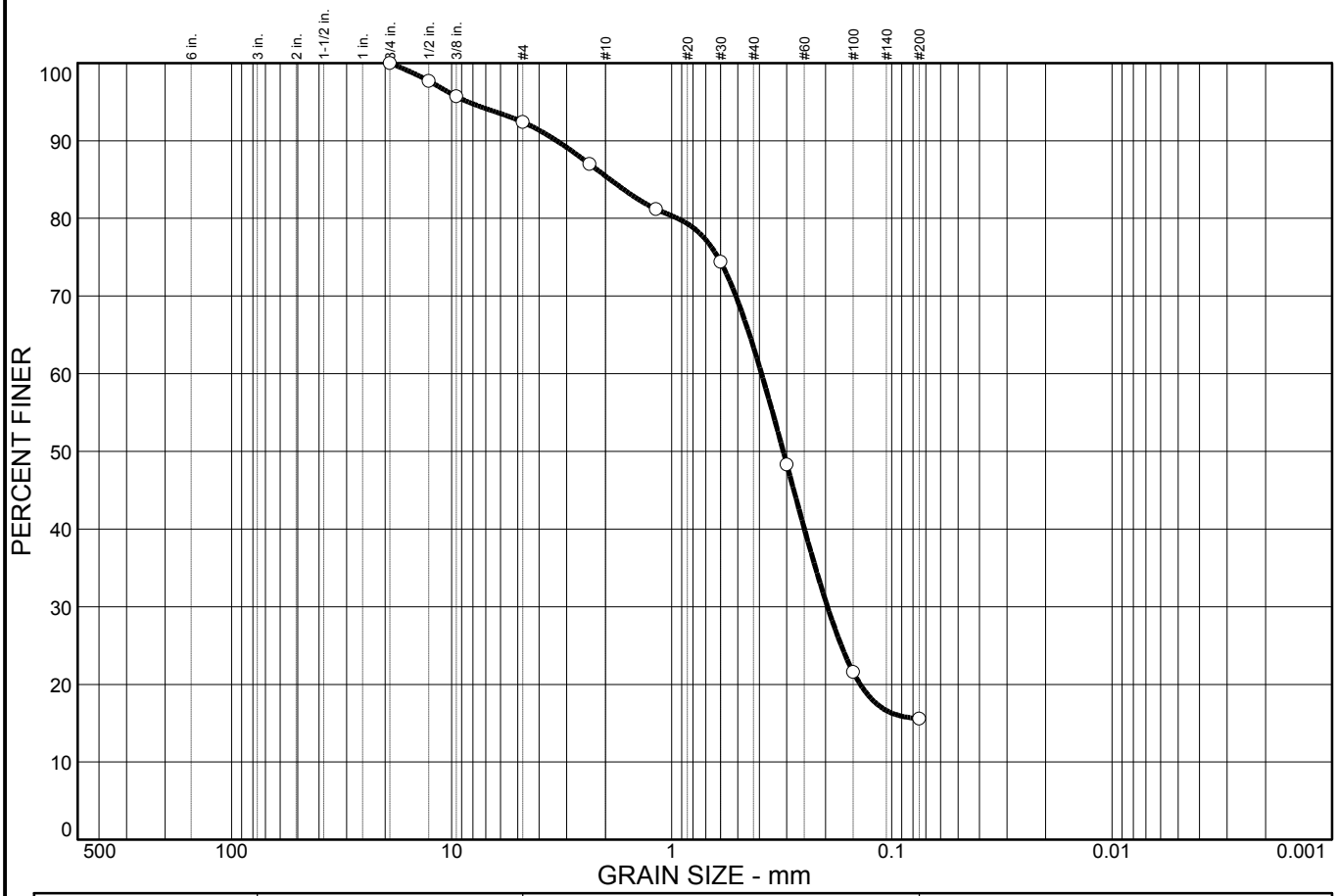
Moore Twining Associates, Inc.

Fresno, CA

Client: Pacific Grove USD
Project: Forest Grove Elementary School Campus

Project No: H46201.01 **Figure**

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	7.6	6.9	22.1	47.8	15.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4 in.	100.0		
1/2 in.	97.7		
3/8 in.	95.7		
#4	92.4		
#8	87.0		
#16	81.2		
#30	74.4		
#50	48.3		
#100	21.6		
#200	15.6		

* (no specification provided)

Material Description

Silty sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 1.91 D_{60}= 0.391 D_{50}= 0.311
D_{30}= 0.196 D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

Sample No.: HA-3 **Source of Sample:** **Date:** 12/16/25
Location: **Elev./Depth:** 7.5-32"

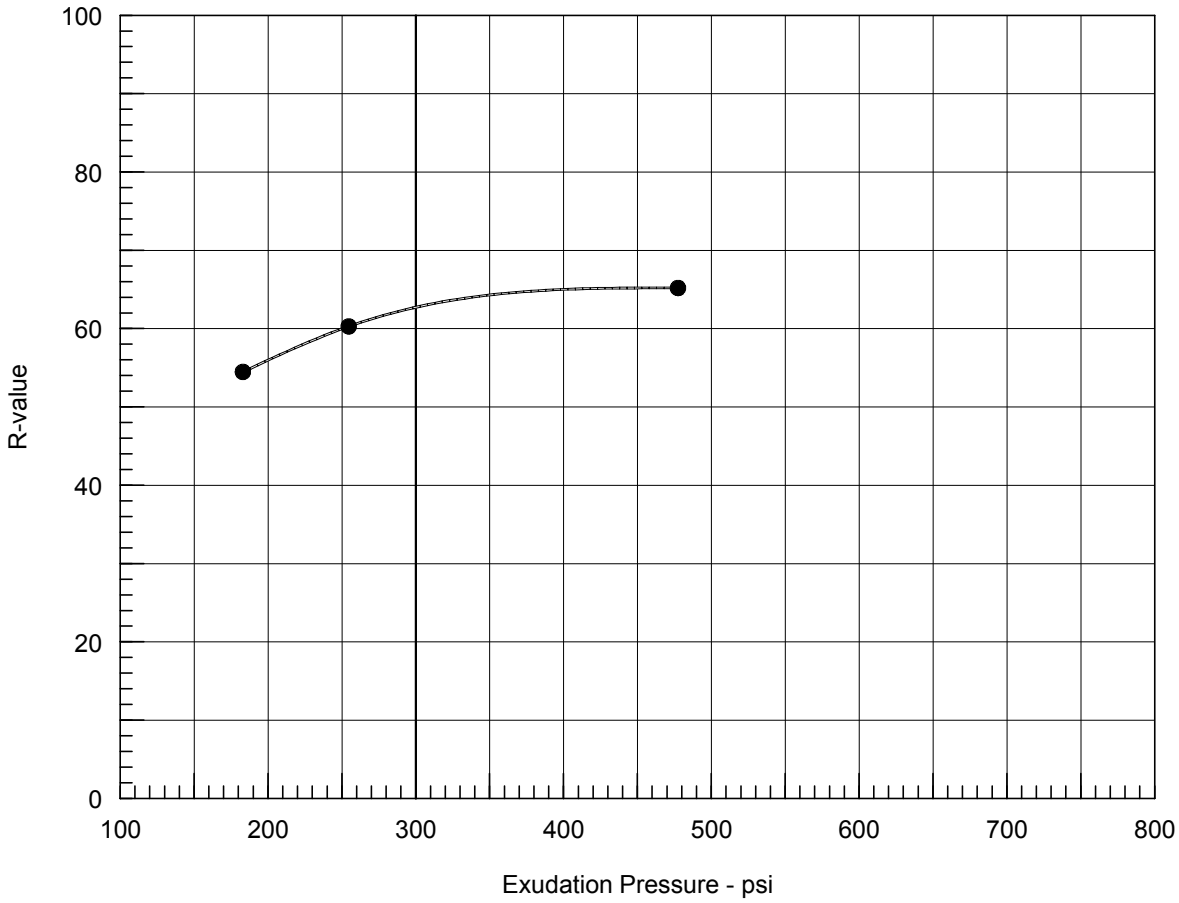
Moore Twining Associates, Inc.

Fresno, CA

Client: Pacific Grove USD
Project: Forest Grove Elementary School Campus

Project No: H46201.01 **Figure**

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - ASTM D 2844

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	350	112.9	13.0	0.00	50	2.56	183	53	54
2	350	117.9	12.0	0.00	36	2.46	477	65	65
3	350	113.4	12.5	0.00	42	2.52	255	60	60

Test Results	Material Description
R-value at 300 psi exudation pressure = 63	Silty sand

Project No.: H46201.01
Project: Forest Grove Elementary School Campus
Sample Number: HA-2 **Depth:** 9.75-34"
Date: 1/19/2026

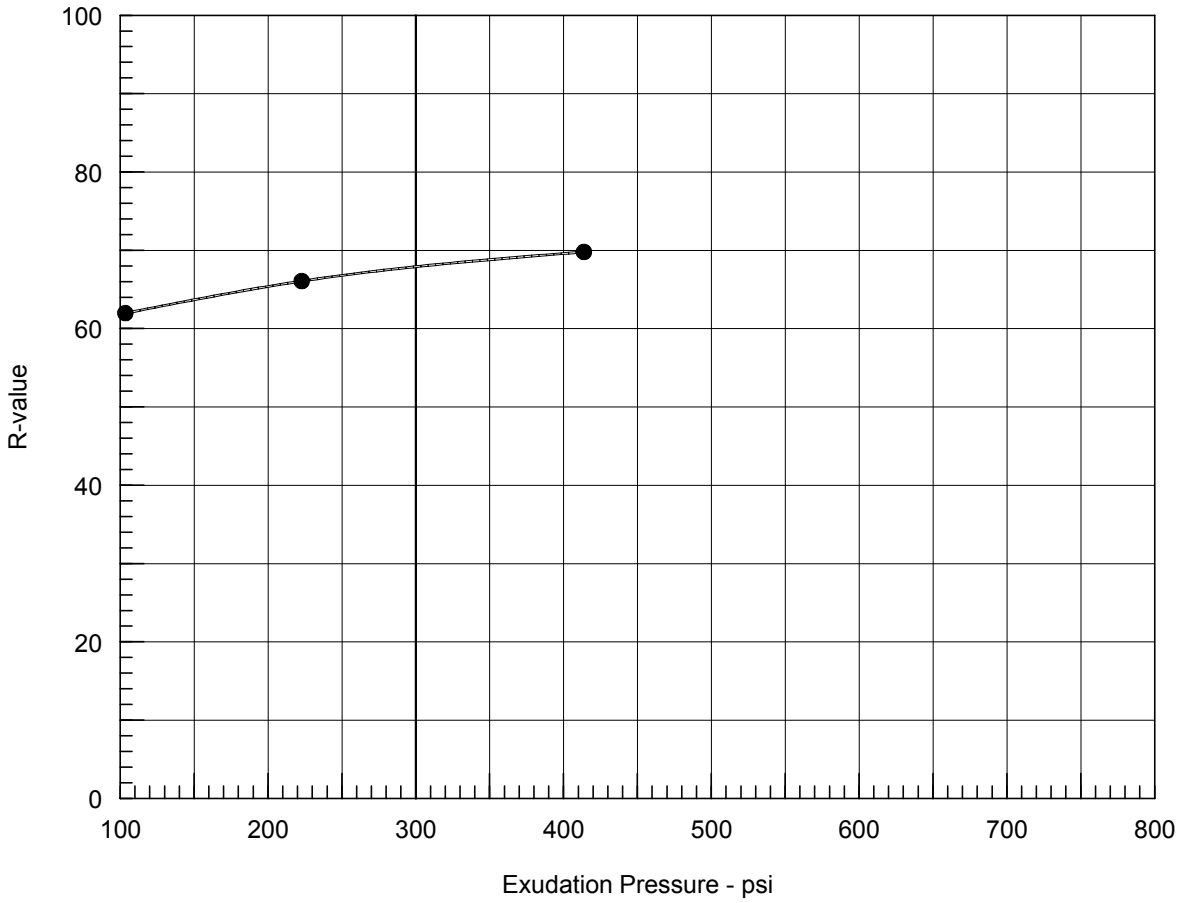
Tested by: JR
Checked by: MS
Remarks:

R-VALUE TEST REPORT

Moore Twining Associates, Inc.

Figure N/A

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - ASTM D 2844

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	350	122.0	12.1	0.00	29	2.50	414	70	70
2	350	121.7	12.6	0.00	34	2.52	223	66	66
3	350	118.0	13.1	0.00	40	2.56	103	60	62

Test Results	Material Description
R-value at 300 psi exudation pressure = 68	Silty sand

Project No.: H46201.01
Project: Forest Grove Elementary School Campus
Sample Number: HA-3 **Depth:** 7.5-32"
Date: 1/19/2026

Tested by: JB
Checked by: MS
Remarks:

R-VALUE TEST REPORT

Moore Twining Associates, Inc.

Figure N/A