NOTICE INVITING INFORMAL BIDS

Notice is hereby given that the governing board ("Board") of the Alum Rock Union School District ("District") will receive sealed bids for the following project, **McCollam Play Structure Sitework**, **Project No. 4**. The project includes demolition and sitework associated with replacing an existing play structure. Contract Documents will be available on or after **March 28, 2024**, for review at the District Bonds Office, and may be downloaded from the District's website, https://www.arusd.org/district/departments/business-services/purchasing/bids.

Sealed Bids will be received until **2:00 p.m., April 22, 2024**, at the District Purchasing Department, 2930 Gay Avenue, San Jose, California 95127, at or after which time the bids will be opened and publicly read aloud. All bids shall be on the form provided by the District and must be responsive. No oral, telegraphic, electronic, facsimile, or telephonic proposals or modifications will be considered. Proposals received after the scheduled submittal deadline will be considered non-responsive and returned unopened. The consultant is responsible for the delivery of the proposal, if the proposal is delivered to the wrong office, by any delivery method, the consultant bears full responsibility.

To bid on this Project, the Bidder is required to be registered as a public works contractor with the Department of Industrial Relations and to possess one or more of the following State of California Contractor Licenses: **A, B, C-8, C-12**. The Bidder's license(s) must remain active and in good standing throughout the term of the Contract.

A mandatory pre-bid conference and site visit will be held on **April 3, 2024, at 10:00 a.m.** at McCollam Elementary 3311 Lucian Ave., San Jose, CA 95127. All participants are required to sign in front of the Main Building. The site visit is expected to take approximately 1 hour. Failure to attend or tardiness will render bid ineligible. The Site Visit Certification will be provided at the end of the Site Visit and must be submitted with the Bid.

The successful Bidder shall be required to furnish a 100% Performance Bond and a 100% Payment Bond if it is awarded the contract for the Work. The successful Bidder may substitute securities for any monies withheld by the District to ensure performance under the Contract, in accordance with the provisions of section 22300 of the Public Contract Code.

The successful Bidder shall comply with all requirements of Division 2, Part 7, Chapter 1, of the Labor Code and Title 8 of the California Code of Regulations. For all work performed pursuant to this Contract, the Contractor and all subcontractors shall pay all workers not less than the general prevailing rate of per diem wages and for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, ("DIR") for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code. Prevailing wage rates are also available from the District or the DIR website at: http://www.dir.ca.gov. This Project is subject to labor compliance monitoring and enforcement by the DIR.

The Board reserves the right to reject any and all bids and/or waive any irregularity in any bid received. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

END OF DOCUMENT

INSTRUCTIONS TO BIDDERS

Contractors shall follow the instructions in this document, and shall submit all documents, forms, and information required for consideration of a Bid.

Alum Rock Union School District ("District") will evaluate information submitted by the apparent low Bidder and, if incomplete or unsatisfactory to District, Bidder's bid may be rejected at the sole discretion of District.

1. Bids are requested for a general construction contract, or work described in general, ("Work") for the following project:

   McCollam Elementary Play Structure Sitework Project.

2. District will receive sealed bids from bidders as stipulated in the Notice to Bidders.

   a. All bids must be sealed in an envelope, marked with the name and address of the Bidder, name of the Project, the Project Number and/or bid number, and time of bid opening.

   b. Bids must be submitted to the District Purchasing Department (2930 Gay Ave, San Jose, CA 95127) by date and time shown in the Notice to Bidders.

   c. Bids must contain all documents as required herein.

3. Bidders are advised that on the date that bids are opened, telephones will not be available at the District Offices for use by bidders or their representatives.

4. Bids will be opened at or after the time indicated for receipt of bids.

5. Bidders must submit Bids on the documents titled Bid Form and Proposal and must submit all other required District forms. Bids not submitted on the District's required forms shall be deemed nonresponsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible.

6. Bidders shall not modify the Bid Form and Proposal or qualify their bids. Bidders shall not submit to the District a re-formatted, re-typed, altered, modified, or otherwise recreated version of the Bid Form and Proposal or other District-provided document.

7. Bids shall be clearly written and without erasure or deletions. District reserves the right to reject any bid containing erasures, deletions, or illegible contents.

8. Bidders must supply all information required by each Bid Document. Bids must be full and complete. District reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Bidders must complete and submit all of the following documents with the Bid Form and Proposal:

   a. Bid Bond on the District's form, or other security.

   b. Designated Subcontractors List.

c. Site Visit Certification, if a site visit was required.

d. Non-Collusion Declaration.

9. Bidders must submit with their Bids a cashier's check or a certified check payable to District, or a bid bond by an admitted surety insurer of not less than ten percent (10%) of amount of base Bid, plus all additive alternates ("Bid Bond"). If Bidder chooses to provide a Bid Bond as security, Bidder must use the required form of corporate surety provided by District. The Surety on Bidder's Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed non-responsive and will not be considered.

10. If Bidder to whom a contract is awarded ("Contract" or "Agreement") fails or neglects to enter into Contract and submit required bonds, insurance certificates, and all other required documents, within **SEVEN (7)** calendar days after the date of the Notice of Award, District may deposit Bid Bond, cash, cashier's check, or certified check for collection, and proceeds thereof may be retained by District as liquidated damages for failure of Bidder to enter into Contract, in the sole discretion of District. It is agreed that calculation of damages District may suffer as a result of Bidder's failure to enter into the Contract would be extremely difficult and impractical to determine and that the amount of the Bidder's required bid security shall be the agreed and conclusively presumed amount of damages.

11. Bidders must submit with the Bid the Designated Subcontractors List for those subcontractors who will perform any portion of the Project, ("Subcontractor") including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of the total Bid. Failure to submit this list when required by law shall result in bid being deemed nonresponsive and the bid will not be considered.

12. All of the listed subcontractors are required to be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code.

    a. An inadvertent error in listing the California contractor license number on the Designated Subcontractors List shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.

    b. An inadvertent error listing an unregistered subcontractor shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:

        (1) The subcontractor is registered prior to the bid opening.

        (2) The subcontractor is registered and has paid the penalty registration fee within 24 hours after the bid opening.

        (3) The subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.

13. If a mandatory pre-bid conference and site visit ("Site Visit") is required as referenced in the Notice to Bidders, then Bidders must submit the Site Visit Certification with their Bid. District will transmit to all prospective Bidders of record such Addenda as District in its discretion considers necessary in response to questions arising at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the District as a result of the Site Visit, if any, shall constitute the sole and exclusive record and statement of the results of the Site Visit.

14. Bidders shall submit the Non-Collusion Declaration with their Bids. Bids submitted without the Non-Collusion Declaration shall be deemed non-responsive and will not be considered.

15. The Contractor and all Subcontractors under the Contractor shall pay all workers on all work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the Department of Industrial Relations, are available upon request at the District's principal office. Prevailing wage rates are also available on the internet at http://www.dir.ca.gov.

16. The District has entered into a Project Labor Agreement that is applicable to this Project. A copy of the Project Labor Agreement is available for review at the District Bonds Office. The successful bidder and all subcontractors will be required to agree to be bound by the Project Labor Agreement.

17. Section 17076.11 of the Education Code requires school districts using funds allocated pursuant to the State of California School Facility Program for the construction and/or modernization of school building(s) to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%) per year of the overall dollar amount expended on projects that receive state funding or demonstrate its good faith effort to solicit DVBE participation in this Contract. In order to meet this requirement by demonstrating a good faith effort, Bidder must advertise for DVBE-certified subcontractors and suppliers before submitting its Bid. For any project that is at least partially state-funded, the lowest responsive responsible Bidder awarded the Contract must submit certification of compliance with the procedures for implementation of DVBE contracting goals with its signed Agreement. DVBE Certification Participation Form is attached. Do not submit this form with your Bid.

18. Submission of Bid signifies careful examination of the District's proposed Contract Documents for the Project and complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of a Bid shall constitute the Bidder's express representation to District that Bidder has fully completed the following:

    a. Bidder has visited the Site, if required, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Project and Work sites, locality, actual conditions, as-built conditions, and all local

conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;

b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Work Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;

c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;

d. Bidder has given the District prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution(s) thereof by the District is/are acceptable to Bidder;

e. Bidder has made a complete disclosure in writing to the District of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of the District or other officer or employee of the District presently has or will have in this Contract or in the performance thereof or in any portion of the profits thereof;

f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by this document and that Bidder represented in its Bid Form and Proposal and the Contract that it performed prior to bidding. Contractor under this Contract is charged with all information and knowledge that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work "incidental" to completion of the Work.

g. Conditions Shown on the Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, District only warrants, and Contractor may only rely, on the accuracy of limited types of information.

(1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, express or implied, or any representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Contractor is required to

make such verification as a condition to bidding. In submitting its Bid, Contractor shall rely on the results of its own independent investigation. In submitting its Bid, Contractor shall not rely on District-supplied information regarding above-ground conditions or as-built conditions.

(2) As to any subsurface condition shown or indicated in the Contract Documents, Contractor may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. District is not responsible for the completeness of such information for bidding or construction; nor is District responsible in any way for any conclusions or opinions that the Contractor has drawn from such information; nor is the District responsible for subsurface conditions that are not specifically shown (for example, District is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).

h. Conditions Shown in Reports and Drawings Supplied for Informational Purposes: Reference is made to the document entitled Geotechnical Data, and the document entitled Existing Conditions, for identification of:

(1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by Architect in preparing the Contract Documents; and

(2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that has been utilized by Architect in preparing the Contract Documents.

(3) These reports and drawings are **not** Contract Documents and, except for any "technical" data regarding subsurface conditions specifically identified in Geotechnical Data and Existing Conditions, and underground facilities data, Contractor may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Contractor must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by District.

19. Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Bidder may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified. The District is not responsible and/or liable in any way for a Contractor's damages and/or claims related, in any way, to that Contractor's basing its bid on any requested substitution that the District has not approved in advance and in writing. Contractors and materials suppliers who submit requests for substitutions prior to the award of the Contract must do so in writing and in compliance with Public Contract Code section 3400. All requests must comply with the following:

a. District must receive any notice of request for substitution of a specified item a minimum of **TEN (10)** calendar days prior to bid opening. The Successful Bidder will not be allowed to substitute specified items unless properly noticed.

b. Within 35 days after the date of the Notice of Award, the Successful Bidder shall submit data substantiating the request(s) for all substitution(s) containing sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.

c. Approved substitutions, if any, shall be listed in Addenda. District reserves the right not to act upon submittals of substitutions until after bid opening.

d. Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions and the Specifications.

20. Bidders may examine any available "as-built" drawings of previous work by giving District reasonable advance notice. District will not be responsible for accuracy of "as-built" drawings. The document entitled Existing Conditions applies to all supplied "as-built" drawings.

21. All questions about the meaning or intent of the Contract Documents are to be directed via email to the District to **6D PMCM** at **Seth.Kalkman@6DPMCM.com** and copy **Marc Freitas, District Bonds Manager** at **Marc.Freitas@arusd.org**. Interpretations or clarifications considered necessary by the District in response to such questions will be issued in writing by Addenda and posted on the District's website at https://www.arusd.org/district/departments/business-services/purchasing/bids. Questions received later than **April 10th, 2024 at 4:00pm** may not be answered. Responses to questions will be posted via Addendum by **April 16h, 2024**. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

22. Addenda may also be issued to modify other parts of the Contract Documents, as deemed advisable by the District.

23. Each Bidder must acknowledge each Addendum in its Bid Form and Proposal by number or its Bid shall be considered non-responsive. Each Addendum shall be part of the Contract Documents. A complete listing of Addenda may be obtained from the District.

24. The Contract may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction that may, at the District's option and under terms established in the Contract and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work.

25. The District shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Notice to Bidders. In the event two or more responsible bidders submit identical bids, the District shall select the Bidder to whom to award the Contract by lot. In the event all Bids exceed the

informal bid threshold of $200,000, the District's Governing Board may elect to pass a resolution to award the Contract at $212,500 or less to the lowest responsible Bidder, in accordance with Public Contract Code section 22034(d).

26. Time for Completion: District may issue a Notice to Proceed within **NINETY (90) days** from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.

    a. In the event that the District desires to postpone issuing the Notice to Proceed beyond this 90-day period, it is expressly understood that with reasonable notice to the Contractor, the District may postpone issuing the Notice to Proceed.

    b. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed beyond a 90-day period. If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to the Contractor, the Contractor may terminate the Contract. Contractor's termination due to a postponement beyond this 90-day period shall be by written notice to District within **TEN (10)** calendar days after receipt by Contractor of District's notice of postponement.

    c. It is further understood by the Contractor that in the event that Contractor terminates the Contract as a result of postponement by the District, the District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement and which the District had in writing authorized Contractor to perform prior to issuing a Notice to Proceed.

    d. Should the Contractor terminate the Contract as a result of a notice of postponement, District shall have the authority to award the Contract to the next lowest responsive responsible Bidder.

27. The Bidder to whom a Contract is awarded shall execute and submit the following documents by 5:00 p.m. of the **THIRD (3rd)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles District to reject the bid as non-responsive.

    a. Agreement: To be executed by successful Bidder. Submit four (4) copies, each bearing an original signature.

    b. Performance Bond (100% of Contract Price): On the form provided in the Contract Documents and fully executed as indicated on the form.

    c. Payment Bond (100%) (Contractor's Labor and Material Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.

    d. Insurance Certificates and Endorsements, as required.

    e. Workers' Compensation Certification.

f. Prevailing Wage and Related Labor Requirements Certification.

g. Disabled Veterans' Business Enterprise Participation Certification.

h. Drug-Free Workplace Certification.

i. Tobacco-Free Environment Certification.

j. Hazardous Materials Certification.

k. Criminal Background Investigation/Fingerprinting Certification.

l. Registered Subcontractors List: Must include Department of Industrial Relations (DIR) registration number of each subcontractor for all tiers.

28. Any Bid protest by any Bidder regarding any other Bid must be submitted in writing to the District, before 5:00 p.m. of the **THIRD (3rd)** business day following Bid opening.

a. Only a Bidder who has actually submitted a Bid, and who could be awarded the Contract if the bid protest is upheld, is eligible to submit a Bid protest. Subcontractors are not eligible to submit Bid protests. A Bidder may not rely on the bid protest submitted by another Bidder.

b. A Bid protest must contain a complete statement of any and all bases for the protest and all supporting documentation. Materials submitted after the Bid protest deadline will not be considered.

c. The protest must refer to the specific portions of all documents that form the basis for the protest.

(1) Without limitation to any other basis for protest, an inadvertent error in listing the California contractor's license number on the Designated Subcontractors List shall not be grounds for filing a Bid protest or grounds for considering the Bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.

(2) Without limitation to any other basis for protest, an inadvertent error listing an unregistered subcontractor shall not be grounds for filing a Bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:

(i) The Subcontractor is registered prior to the Bid opening.

(ii) The Subcontractor is registered and has paid the penalty registration fee within 24 hours after the Bid opening.

(iii) The subcontractor is replaced by another registered Subcontractor pursuant to Public Contract Code section 4107.

d. The protest must include the name, address and telephone number of the person representing the protesting party.

e. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.

f. The procedure and time limits set forth in this paragraph are mandatory and are each Bidder's sole and exclusive remedy in the event of Bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings.

29. District reserves the right to reject any or all Bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional Bids, to re-bid, and to reject the Bid of any Bidder if District believes that it would not be in the best interest of the District to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by District. District also reserves the right to waive any inconsequential deviations or irregularities in any bid. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for some work items and/or enhanced prices for other work items.

30. Discrepancies between written words and figures, or words and numerals, will be resolved in favor of figures or numerals.

31. It is the policy of the District that no qualified person shall be excluded from participating in, be denied the benefits of, or otherwise be subjected to discrimination in any consideration leading to the award of contract, based on race, color, gender, sexual orientation, political affiliation, age, ancestry, religion, marital status, national origin, medical condition or disability. The Successful Bidder and its subcontractors shall comply with applicable federal and state laws, including, but not limited to the California Fair Employment and Housing Act, beginning with Government Code section 12900, and Labor Code section 1735.

32. Prior to the award of Contract, District reserves the right to consider the responsibility of the Bidder. District may conduct investigations as District deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to District's satisfaction within the prescribed time.

END OF DOCUMENT

BID FORM AND PROPOSAL

To: Governing Board of Alum Rock Union School District ("District" or "Owner")

From: _____
(Proper Name of Bidder)

The undersigned declares that the Contract Documents, including, without limitation, the Notice to Bidders and the Instructions to Bidders, have been read, and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of Bid No. _____ ("Work") for the following project known as:

_____

("Project") and will accept in full payment for that Work the following total lump sum amount, all taxes included:

_____ dollars $ _____

BASE BID

Bidder acknowledges and agrees that the Base Bid accounts for any and all Allowance(s), Total Cost for Unit Prices.

Additive/Deductive Alternates:

Alternate #1

_____ dollars $ _____

Additive/Deductive

Descriptions of alternates are primarily scope definitions and do not necessarily detail the full range of materials and processes needed to complete the construction.

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Additional Detail Regarding Calculation of Base Bid

1. **Unit Prices**. The Bidder's Base Bid includes the following unit prices, which the Bidder must provide and the District may, at its discretion, utilize in valuing additive and/or deductive change orders (Unit Prices shall include all labor, materials, services, profit, overhead, insurance, bonds, taxes, and all other incidental costs of Contractor, subcontractors, and suppliers):

   SCHEDULE OF UNIT PRICES

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Price	Total Cost = Unit Price x Estimated Quantity (Included in Base Bid)
1	NOT USED			$_____	$_____

   Where scope of Work is decreased, all Work pertaining to the item, whether specifically stated or not, shall be omitted, and where scope of Work is increased, all work pertaining to that item required to render same ready for use on the Project in accordance with intentions of the Drawings and Specifications shall be included in the above agreed-upon price amount.

2. **Allowance**. The Bidder's Base Bid and each alternate shall include a ten percent (10%) allowance for unforeseen items.

   The above allowance shall only be allocated for unforeseen items or other public health emergency/epidemic/pandemic compliance relating to the Work. Contractor shall not bill for or be due any portion of this allowance unless the District has identified specific work, Contractor has submitted a price for that work or the District has proposed a price for that work, the District has accepted the cost for that work, and the District has prepared a change order incorporating that work. Contractor hereby authorizes the District to execute a unilateral deductive change order at or near the end of the Project for all or any portion of the allowance not allocated. Any unused portion of the allowance will revert back to the District documented by a deductive change order.

3. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Proposal, understands the construction and project management function(s) as described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the District, and agrees that its Proposal, if accepted by the District, will be the basis for the Bidder to enter into a contract with the District in accordance with the intent of the Contract Documents.

4. The undersigned has notified the District in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager or other official point of

contact for the District before Bid date to verify the issuance of any clarifying Addenda.

5. The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all Work within the time specified in the Contract Documents.

6. **The liquidated damages clause of the Agreement is hereby acknowledged.**

7. It is understood that the District reserves the right to reject this Bid and that the Bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.

8. The following documents are attached with this Bid Form and Proposal:

   - Bid Bond on the District's form or other security
   - Registered Subcontractors List
   - Site Visit Certification
   - Non-Collusion Declaration

9. **Receipt and acceptance of all issued Addenda(s) is hereby acknowledged:**

No. _____, Dated _____	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____

10. Bidder acknowledges that the license required for performance of the Work is a A, B, C-8, or C-12 license.

11. Bidder hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.

12. Bidder specifically acknowledges and understands that if it is awarded the Contract, that it shall perform the Work of the Project while complying with all requirements of the Department of Industrial Relations and with all requirements of the Project Labor Agreement.

13. Bidder hereby certifies that its bid includes sufficient funds to permit Bidder to comply with all local, state or federal labor laws or regulations during the Project, including payment of prevailing wage, and that Bidder will comply with the provisions of Labor Code section 2810(d) if awarded the Contract.

14. Bidder agrees to comply with all requirements of the Project Labor Agreement.

15. Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions

existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.

16. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.

17. Bidder expressly acknowledges that it is familiar with and capable of complying with applicable federal, State, and local requirements relating to public health emergency/epidemic/pandemic including, if required, preparing, posting, and implementing a Social Distancing Protocol.

18. Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Gov. Code, § 12650 et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.

19. The undersigned Bidder certifies that it is, at the time of bidding, and shall be throughout the period of the contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents and registered as a public works contractor with the Department of Industrial Relations. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

Furthermore, Bidder hereby certifies to the District that all representations, certifications, and statements made by Bidder, as set forth in this bid form, are true and correct and are made under penalty of perjury.

Dated this _____ day of _____ 20 ____

Name of Bidder _____

Type of Organization _____

Signature _____

Print Name _____

Title _____

Address of Bidder _____

Taxpayer's Identification No. of Bidder _____

Telephone Number _____

Fax Number _____

E-mail _____ Web page _____

Contractor's License No(s): No.: _____ Class: _____ Expiration Date: _____

No.: _____ Class:_____ Expiration Date: _____

No.: _____ Class:_____ Expiration Date: _____

Public Works Contractor Registration No.: _____

END OF DOCUMENT

BID BOND

(Note: If Bidder is providing a bid bond as its bid security, Bidder must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned,_____, as Principal ("Principal"),

and _____, as Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the State of California and authorized to do business as a surety in the State of California, are held and firmly bound unto the Alum Rock Union School District ("District") of Santa Clara County, State of California, as Obligee, in an amount equal to ten percent (10%) of the Base Bid plus alternates, in the sum of

_____ Dollars ($ _____)

lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to the District for all Work specifically described in the accompanying bid for the following project: _____ ("Project" or "Contract").

NOW, THEREFORE, if the Principal is awarded the Contract and, within the time and manner required under the Contract Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract, in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the Contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the written contract and to file the required performance and labor and material bonds, and to meet all other conditions to the Contract between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to execute the Contract within seven (7) days of the date of the District's Notice of Award to Principal.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work, or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

If the District awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

IN WITNESS WHEREOF, this instrument has been duty executed by the Principal and Surety above named, on the _____ day of _____, 20___.

_____
Principal

_____
By

_____
Surety

_____
By

_____
Name of California Agent of Surety

_____
Address of California Agent of Surety

_____
Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of Authority for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

END OF DOCUMENT

DESIGNATED SUBCONTRACTORS LIST
(Public Contact Code Sections 4100-4114)

Bidder acknowledges and agrees that it must clearly set forth below the name, location and California contractor license number of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work or who will specially fabricate and install a portion of the Work according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of one percent (0.5%) of Bidder's total Base Bid and the kind of Work that each will perform. Vendors or suppliers of materials only do not need to be listed.

Bidder acknowledges and agrees that, if Bidder fails to list as to any portion of Work, or if Bidder lists more than one subcontractor to perform the same portion of Work, Bidder must perform that portion itself or be subjected to penalty under applicable law. In case more than one subcontractor is named for the same kind of Work, state the portion of the kind of Work that each subcontractor will perform.

If alternate bid(s) is/are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the Base Bid, Bidder must list subcontractors that will perform Work in an amount in excess of one half of one percent (0.5%) of Bidder's total Base Bid plus alternate(s).

If further space is required for the list of proposed subcontractors, attach additional copies of page 2 showing the required information, as indicated below.

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

DIR Registration #: _____

Portion of Work: _____

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

SITE VISIT CERTIFICATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
IF SITE VISIT WAS MANDATORY

PROJECT: Mccollam Play Structure Site Work Project

Check option that applies:

_____ I certify that I visited the Site of the proposed Work, received the attached ___ pages of information, and became fully acquainted with the conditions relating to construction and labor. I fully understand the facilities, difficulties, and restrictions attending the execution of the Work under contract.

_____ I certify that _____ (Bidder's representative) visited the Site of the proposed Work, received the attached _____ pages of information, and became fully acquainted with the conditions relating to construction and labor. The Bidder's representative fully understood the facilities, difficulties, and restrictions attending the execution of the Work under contract.

Bidder fully indemnifies the Alum Rock Union School District, its Architect, its Engineers, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any damage, or omissions, related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

ATTACHMENTS:

1.

2.

3.

END OF DOCUMENT

NON-COLLUSION DECLARATION
To Be Executed By Bidder And Submitted With Bid
Public Contract Code Section 7106

The undersigned declares:

I am the_____ of _____, the party making the foregoing Bid.

The Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham Bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder. All statements contained in the Bid are true. The Bidder has not, directly or indirectly, submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham Bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on ___[date], at ___[city], ___[state].

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

General

Application Number:	**School Name:**	**School District:**
01-121324	McCollam Elementary Schol	Alum Rock Union Elementary School
DSA File Number:	**Increment Number:**	**Date Created:**
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IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC).

****NOTE:** Undefined section and table references found in this document are from the CBC, or California Building Code.

KEY TO COLUMNS

1. TYPE	2. PERFORMED BY
Continuous – Indicates that a continuous special inspection is required **Periodic –** Indicates that a periodic special inspection is required **Test –** Indicates that a test is required	**GE (Geotechnical Engineer) –** Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative. **LOR (Laboratory of Record) –** Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335. **PI (Project Inspector) –** Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA. **SI (Special Inspection) –** Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8

Application Number:	**School Name:**	**School District:**
01-121324	McCollam Elementary Schol	Alum Rock Union Elementary School
DSA File Number:	**Increment Number:**	**Date Created:**
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Geotechnical Reports: Project does NOT have and does NOT require a geotechnical report

	S1. GENERAL:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings must not contain loose material, mud, organic silt, organic clays, or peat.	**See Notes**	**PI**	Refer to specific items identified in the Appendix listing exemptions for limitations. Placement of controlled fill exceeding 12" depth under foundations and/or within the building envelope is not permitted without a geotechnical report.

	S2. SOIL COMPACTION AND FILL:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Perform classification and testing of fill materials.	**Test**	**LOR***	* Under the supervision of the geotechnical engineer.
☑	**b.** Verify use of proper materials, densities and inspect lift thicknesses, placement and compaction during placement of fill.	**Continuous**	**LOR***	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	**c.** Compaction testing.	**Test**	**LOR***	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.

	S3. DRIVEN DEEP FOUNDATIONS (PILES):			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Verify pile materials, sizes and lengths comply with the requirements.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8

Application Number:	**School Name:**	**School District:**
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DSA File Number:	**Increment Number:**	**Date Created:**
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	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**b.** Determine capacities of test piles and conduct additional load tests as required.	**Test**	**LOR***	* Under the supervision of the geotechnical engineer.
☐	**c.** Inspect driving operations and maintain complete and accurate records for each pile.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.
☐	**d.** Verify locations of piles and their plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and record any pile damage.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.
☐	**e.** Steel piles.	Provide tests and inspections per STEEL section below.		
☐	**f.** Concrete piles and concrete filled piles.	Provide tests and inspections per CONCRETE section below.		
☐	**g.** For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge.	*	*	* As defined on drawings or specifications.

	S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Note**
☐	**a.** Inspect drilling operations and maintain complete and accurate records for each pier.	**Continuous**	**PI**	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☐	**b.** Verify pier locations, diameters, plumbness and lengths.Record concrete or grout volumes.	**Continuous**	**PI**	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☐	**c.** Concrete piers.	Provide tests and inspections per CONCRETE section below.		

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8

Application Number:	**School Name:**	**School District:**
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DSA File Number:	**Increment Number:**	**Date Created:**
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	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
	S5. RETAINING WALLS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Placement, compaction and inspection of backfill.	**Continuous**	**GE***	**1705A.6.1.** * By geotechnical engineer or his or her qualified representative. (See section S2 above).
☐	**b.** Placement of soil reinforcement and/or drainage devices.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.
☐	**c.** Segmental retaining walls; inspect placement of units, dowels, connectors, etc.	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative. See DSA IR 18-2.
☐	**d.** Concrete retaining walls.	Provide tests and inspections per CONCRETE section below.		
☐	**e.** Masonry retaining walls.	Provide tests and inspections per MASONRY section below.		

	S6. OTHER SOILS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Soil Improvements	**Test**	**GE***	Submit a comprehensive report documenting final soil improvements constructed, construction observation and the results of the confirmation testing and analysis to CGS (California Geological Survey) for final acceptance. * By geotechnical engineer or his or her qualified representative.
☐	**b.** Inspection of Soil Improvements	**Continuous**	**GE***	* By geotechnical engineer or his or her qualified representative.
☐	**c.**			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13

Application Number:	**School Name:**	**School District:**
01-121324	McCollam Elementary Schol	Alum Rock Union Elementary School
DSA File Number:	**Increment Number:**	**Date Created:**
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	C1. CAST-IN-PLACE CONCRETE			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify use of required design mix.	**Continuous**	**SI**	**Table 1705A.3 Item 5, 1910A.1.**
☑	**b.** Identifiy, sample, and test reinforcing steel.	**Test**	**LOR**	**1910A.2;** ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☑	**c.** During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	**Test**	**LOR**	**Table 1705A.3 Item 6**; ACI 318-19 Sections 26.5 & 26.12.
☑	**d.** Test concrete (f'_c).	**Test**	**LOR**	**1905A.1.17;** ACI 318-19 Section 26.12.
☑	**e.** Batch plant inspection: **Not Required**	**See Notes**	**SI**	Default of **'Continuous'** per **1705A.3.3**. If approved by DSA, batch plant inspection may be reduced to **'Periodic'** subject to requirements in Section **1705A.3.3.1,** or not required per **1705A.3.3.2.** See IR 17-13. (See Appendix (end of this form) for exemptions.)
☐	**f.** Welding of reinforcing steel.	Provide special inspection per STEEL, Category S/A4(d) & (e) and/or S/A5(g) & (h) below.		

	C2. PRESTRESSED / POST-TENSIONED CONCRETE (IN ADDITION TO SECTION C1):			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Sample and test prestressing tendons and anchorages.	**Test**	**LOR**	**1705A.3.4, 1910A.3**
☐	**b.** Inspect placement of prestressing tendons.	**Periodic**	**SI**	**1705A.3.4, Table 1705A.3 Items 1 & 9.**

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13

Application Number:	**School Name:**	**School District:**
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	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**c.** Verify in-situ concrete strength prior to stressing of post-tensioning tendons.	**Periodic**	**SI**	**Table 1705A.3 Item 13.** Special inspector to verify specified concrete strength test prior to stressing.
☐	**d.** Inspect application of post-tensioning or prestressing forces and grouting of bonded prestressing tendons.	**Continuous**	**SI**	**1705A.3.4, Table 1705A.3 Item 9;** ACI 318-19 Section 26.13

	C3. PRECAST CONCRETE (IN ADDITION TO SECTION C1):			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Inspect fabrication of precast concrete members.	**Continuous**	**SI**	ACI 318-19 Section 26.13, and PCI MNL-128 and -130.
☐	**b.** Inspect erection of precast concrete members.	**Periodic**	**SI***	**Table 1705A.3 Item 10.** * May be performed by PI when specifically approved by DSA.
☐	**c.** For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (MDE or HDE) in structures assigned to Seismic Design Category D, E or F, inspect such connections and reinforcement in the field for: 1. Installation of the embedded parts 2. Completion of the continuity of reinforcement across joints. 3. Completion of connections in the field.	**Continuous**	**SI**	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5
☐	**d.** Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5.	**Periodic**	**SI**	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13

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	C4. SHOTCRETE (IN ADDITION TO SECTION C1):			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Inspect shotcrete placement for proper application techniques.	**Continuous**	**SI**	**1705A.3.9, Table 1705A.3 Item 7, 1908A.1, 1908A.2, 1908A.3.** See ACI 506.2-13 Section 3.4, ACI 506R-16.
☐	**b.** Sample and test shotcrete (f'_c).	**Test**	**LOR**	**1908A.2, 1705A.3.9**

	C5. POST-INSTALLED ANCHORS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☒	**a.** Inspect installation of post-installed anchors	**See Notes**	**SI***	**1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8** (See Appendix (end of this form) for exemptions). ACI 318-19 Section 26.13. * May be performed by the project inspector when specifically approved by DSA.
☒	**b.** Test post-installed anchors.	**Test**	**LOR**	**1910A.5.** (See Appendix (end of this form) for exemptions.)

	C6. OTHER CONCRETE:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.**			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

Application Number:	**School Name:**	**School District:**
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	S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. •Material sizes, types and grades comply with requirements.	**Periodic**	*	**Table 1705A.2.1 Item 3a–3c.** 2202A.1**;** AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * By special inspector or qualified technician when performed off-site.
☑	**b.** Test unidentified materials	**Test**	**LOR**	**2202A.1.**
☑	**c.** Examine seam welds of HSS shapes	**Periodic**	**SI**	DSA IR 17-3.
☑	**d.** Verify and document steel fabrication per DSA-approved construction documents.	**Periodic**	**SI**	Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**).
☐	**e.** Buckling restrained braces.	**Test**	**LOR**	Testing and special inspections in accordance with IR 22-4.

	S/A2. HIGH-STRENGTH BOLTS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA-approved documents.	**Periodic**	**SI**	**Table 1705A.2.1 Items 1a & 1b, 2202A.1;** AISC 360-16 Section A3.3, J3.1, and N3.2; RCSC 2014 Section 1.5 & 2.1; DSA IR 17-8 & DSA IR 17-9.
☐	**b.** Test high-strength bolts, nuts and washers.	**Test**	**LOR**	**Table 1705A.2.1 Item 1c, 2213A.1**; RCSC 2014 Section 7.2; DSA IR 17-8.
☐	**c.** Bearing-type ("snug tight") connections.	**Periodic**	**SI**	**Table 1705A.2.1 Item 2a, 1705A.2.6, 2204A.2**; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 9.1; DSA IR 17-9.
☐	**d.** Pretensioned and slip-critical connections.	*	**SI**	**Table 1705A.2.1 Items 2b & 2c, 1705A.2.6, 2204A.2;** AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Sections 9.2 & 9.3; DSA IR 17-9. *"Continuous" or "Periodic" depends on the tightening method used.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

Application Number:	**School Name:**	**School District:**
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DSA File Number:	**Increment Number:**	**Date Created:**
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	S/A3. WELDING:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	**Periodic**	**SI**	**1705A.2.5, Table 1705A.2.1 Items 4 & 5**; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
☑	b. Verify weld filler material manufacturer's certificate of compliance.	**Periodic**	**SI**	DSA IR 17-3.
☑	**c.** Verify WPS, welder qualifications and equipment.	**Periodic**	**SI**	DSA IR 17-3.

	S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3):			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	**Continuous**	**SI**	**Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	**Periodic**	**SI**	**1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☐	**c.** Inspect welding of stairs and railing systems.	**Periodic**	**SI**	**1705A.2.1**; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.
☐	**d.** Verification of reinforcing steel weldability other than ASTM A706.	**Periodic**	**SI**	**1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	**e.** Inspect welding of reinforcing steel.	**Continuous**	**SI**	**Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	Test or Special Inspection	Type	Performed By	Code References and Notes
	S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3):			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	**Continuous**	**SI**	**Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
☐	b. Inspect single-pass fillet welds ≤ 5/16".	**Periodic**	**SI**	**Table 1705A.2.1 Item 5a.5;** AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
☐	**c.** Inspect end-welded studs (ASTM A-108) installation (including bend test).	**Periodic**	**SI**	**2213A.2**; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1; DSA IR 17-3.
☐	**d.** Inspect floor and roof deck welds.	**Periodic**	**SI**	**1705A.2.2, Table 1705A.2.1 Item 5a.6;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.3; DSA IR 17-3.
☐	**e.** Inspect welding of structural cold-formed steel.	**Periodic**	**SI***	**1705A.2.5; AWS D1.3; DSA IR 17-3.** The quality control provisions of AISI S240-20 Chapter D shall also apply. * May be performed by the project inspector when specifically approved by DSA.
☐	**f.** Inspect welding of stairs and railing systems.	**Periodic**	**SI***	**1705A.2.1;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA.
☐	**g.** Verification of reinforcing steel weldability.	**Periodic**	**SI**	**1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	**h.** Inspect welding of reinforcing steel.	**Continuous**	**SI**	**Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3.

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1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
	S/A6. NONDESTRUCTIVE TESTING:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Ultrasonic	**Test**	**LOR**	**1705A.2.1, 1705A.2.5;** AISC 341-16 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2.
☐	**b.** Magnetic Particle	**Test**	**LOR**	**1705A.2.1, 1705A.2.5;** AISC 341-16 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2.
☐	**c.**	**Test**	**LOR**	

	S/A7. STEEL JOISTS AND TRUSSES:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Verify size, type and grade for all chord and web members as well as connectors and weld filler material; verify joist profile, dimensions and camber (if applicable); verify all weld locations, lengths and profiles; mark or tag each joist.	**Continuous**	**SI**	**1705A.2.3, Table 1705A.2.3;** AWS D1.1; DSA IR 22-3 for steel joists only. **1705A.2.4;** AWS D1.3 for cold-formed steel trusses.

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	Test or Special Inspection	Type	Performed By	Code References and Notes
	S/A8. SPRAYED FIRE-RESISTANT MATERIALS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Examine structural steel surface conditions, inspect application, take samples, measure thickness and verify compliance of all aspects of application with DSA-approved documents.	**Periodic**	**SI**	**1705A.15, 1705A.15.1, 1705A.15.2, 1705A.15.3, 1705A.15.4, 1705A.15.5, 1705A.15.6.**
☐	**b.** Test density.	**Test**	**LOR**	**1705A.15.1, 1705A.15.5, ASTM E605**
☐	**c.** Bond strength adhesion/cohesion.	**Test**	**LOR**	**1705A.15.1, 1705A.15.6, ASTM E736**

	Test or Special Inspection	Type	Performed By	Code References and Notes
	S/A9. ANCHOR BOLTS AND ANCHOR RODS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Anchor Bolts and Anchor Rods	**Test**	**LOR**	Identify, sample and test anchor bolts and anchor rods **not** meeting exemptions identified in Section 1 of IR 17-11.
☐	**b.** Threaded rod not used for foundation anchorage.	**Test**	**LOR**	Identify, sample and test threaded rods **not** meeting exemptions identified in Section 1 of IR 17-11.

	Test or Special Inspection	Type	Performed By	Code References and Notes
	S/A10. STORAGE RACK SYSTEMS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Materials used, to verify compliance with one or more of the material test reports in accordance with the approved construction documents.	**Periodic**	**SI**	Table 1705A.13.7
☐	**b.** Fabricated storage rack elements.	**Periodic**	**SI**	1704A.2.5; Table 1705A.13.7

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	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	**c.** Storage rack anchorage installation.	**Periodic**	**SI**	ANSI/MH16.1 Section 7.3.2; Table 1705A.13.7
☐	**d.** Completed storage rack system to indicate compliance with the approved construction documents.	**Periodic**	**SI***	Table 1705A.13.7; * May be preformed by the project inspector when specifically approved by DSA.

	S/A11. Other Steel			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.**			

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Application Number:	School Name:	School District:
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Exempt items given in DSA IR A-22 or the 2022 CBC (including DSA amendments) and those items identified below with a check mark by the design professional are NOT subject to DSA requirements for the structural tests **/** special inspections noted. **Items marked as exempt shall be identified on the approved construction documents**. The project inspector shall verify all construction complies with the approved construction documents.

	SOILS:
☐	1. Deep foundations acting as a cantilever footing with a design based on minimum allowable pressures per CBC Table 1806A.2 and without a geotechnical report for the following cases: A) free standing sign or scoreboard, B) cell or antenna towers and poles less than 35'-0" tall (e.g., lighting poles, flag poles, poles supporting open mesh fences, etc.), C) single-story structure with dead load less than 5 psf (e.g., open fabric shade structure), or D) covered walkway structure with an apex height less than 10'-0" above adjacent grade.
☐	2. Shallow foundations, etc. are exempt from special inspections and testing by a Geotechnical Engineer for the following cases: A) buildings without a geotechnical report and meeting the exception item #1 criteria in CBC Section 1803A.2 supported by native soil (any excavation depth) or fill soil (not exceeding 12" depth per CBC Section 1804A.6), B) soil scarification/recompaction not exceeding 12" depth, C) native or fill soil supporting exterior non-structural flatwork (e.g., sidewalks, site concrete ramps, site stairs, parking lots, driveways, etc.), D) unpaved landscaping and playground areas, or E) utility trench backfill with depth not exceeding 12".

	CONCRETE/MASONRY:
☐	1. Post-installed anchors for the following: A) exempt non-structural components (e.g., mechanical, electrical, plumbing equipment - see item 7 for "Welding" in the Appendix below) given in CBC Section 1617A.1.18 (which replaces ASCE 7-16, Section 13.1.4) or B) interior nonstructural wall partitions meeting criteria listed in exempt item 3 for "Welding" in the Appendix below
☐	2. Concrete batch plant inspection is not required for items given in CBC Section 1705A.3.3.2 subject to the requirements and limitations in that section.
☐	3. Non-bearing non-shear masonry walls may be exempt from certain DSA masonry testing and special inspection items as allowed per DSA IR 21-1. Refer to construction documents for specific exemptions accordingly for each applicable wall condition shown in Appendix A of IR 21-1.
☐	4. Epoxy shear dowels in site flatwork and/or other non-structural concrete.

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Application Number:	School Name:	School District:
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	CONCRETE/MASONRY:
☐	5. Testing of reinforcing bars is not required for items given in CBC Section 1910A.2 subject to the requirements and limitations in that section.

	WELDING:
☐	1. Solid-clad and open-mesh fences, gates with maximum leaf span of 10', and gates with a maximum rolling section of 10' all having an apex height less than 8'-0" above lowest adjacent grade. When located above circulation or occupied space below, these gates/fences are not located within 1.5x gate/fence height (max 8'-0") to the edge of floor or roof.
☐	2. Handrails, guardrails, and modular or relocatable ramps associated with walking surfaces less than 30" above adjacent grade (excluding post base connections per the 'Exception' language in Section 1705A.2.1); fillet welds shall not be ground flush.
☐	3. Non-structural interior cold-formed steel framing spanning less than 15'-0", such as in interior partitions, interior soffits, etc. supporting only self weight and light-weight finishes or adhered tile, masonry, stone, or terra cotta veneer no more than 5/8" thickness and apex less than 20'-0" in height and not over an exit way. Maximum tributary load to a member shall not exceed the equivalent of that occurring from a 10'x10' opening in a 15' tall wall for a header or king stud.
☐	4. Manufactured support frames and curbs using hot rolled or cold-formed steel (i.e., light gauge) for mechanical, electrical, or plumbing equipment weighing less than 2000# (equipment only) (connections of such frames to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections S/A3, S/A4 and/or S/A5 of listing above).
☐	5. Manufactured components (e.g., Tolco, B-Line, Afcon, etc.) for mechanical, electrical, or plumbing hanger support and bracing (connections of such components to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections S/A3, S/A4 and/or S/A5 of listing above).
☐	6. TV Brackets, projector mounts with a valid listing (see DSA IR A-5) and recreational equipment (e.g., playground structures, basketball backstops, etc.) (connections of such elements to superstructure elements using welding will require special inspection as noted in selected item(s) for sections S/A3, S/A4 and/or S/A5 located in the Steel/Aluminum category of listing above).

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Application Number:	School Name:	School District:
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	WELDING:
☐	7. Any support for exempt non-structural components given in CBC Section 1617A.1.18 (which replaces ASCE 7-16, Section 13.1.4) meeting the following: A) when supported on a floor/roof, <400# and resulting composite center of mass (including component's center of mass) ≤4' above supporting floor/roof, B) when hung from a wall or roof/floor, <20# for discrete units or <5 plf for distributed systems.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS(SIGNATURE), 2022 CBC

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Name of Architect or Engineer in general responsible charge:

Robert Simons

Name of Structural Engineer (When structural design has been delegated):

Signature of Architect or Structural Engineer:

Robert M. Simons

Date: 12/16/23

Note: To facilitate DSA electronic mark-ups and identification stamp application, DSA recommends against using secured electronic or digital signatures.

DSA STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☐ ACS ☐
DATE: 1/12/2024

DSA 103-22: LIST OF REQUIRED VERIFIED REPORTS, CBC 2022

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1. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291

2. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

PROJECT MANUAL
INCLUDING SPECIFICATIONS

FOR

McCollam ES Playground and Shade Structure Project

3311 Lucian Ave, San Jose, CA 95127

Client Project Number: TBD

ARCHITECT

SVA ARCHITECTS
7901 Stoneridge Dr, Suite 100
Pleasanton, California 94588
Telephone: (510) 267-3180

SVA Project Number: 2023-40152

November 8, 2023

SECTION 00 00 01

STAMPS PAGE







IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

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PROJECT MANUAL
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Not used.

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END OF SECTION

SECTION 01 11 00

SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

A. Project consists of construction of ***McCollam Elementary School Playground and Shade Structure Project***, located at 3311 Lucian Ave, San Jose, CA 95127, as indicated in Contract Documents.

1. Owner reserves right to remove and retain possession of existing items prior to start of Contract.

2. Removal of hazardous material shall be per separately provided hazardous material abatement report prepared by others. Architect shall not be involved in determination, removal or disposal of hazardous materials.

1.2 REQUIREMENTS INCLUDED

A. This section includes administrative provisions:

1. Work sequence.
2. Contractors use of premises.
3. Field engineering.
4. Regulatory requirements and reference standards.
5. Owner furnished Contractor installed products (OFCI).
6. Owner pre-ordered products.

1.3 WORK SEQUENCE

A. Coordinate construction schedule and operations with Owner and Architect.

B. Perform construction in phases as indicated.

1.4 CONTRACTORS USE OF PREMISES

A. Limit use of premises for Work and construction operations and to allow for work by other contractors.

B. Coordinate use of premises and access to site under direction of Owner and Architect.

1.5 FIELD ENGINEERING

A. Provide field engineering services; establish lines and levels by use of recognized engineering survey practices.

B. Locate and protect control and reference points.

1.6 REGULATORY REQUIREMENTS AND REFERENCE STANDARDS

A. Regulatory Requirements:

1. Architect has contacted governing authorities and reviewed design requirements of local, state and federal agencies for applicability to Project.

2. Contractor shall be responsible for contacting governing authorities directly for necessary information and decisions bearing upon performance of Work.

B. Reference Standards:

1. For Products specified by association or trade standards, comply with requirements of referenced standard, except when more rigid requirements are specified or are required by applicable codes.

2. Applicable date of each standard is that in effect as of date on proposal or date on Contract where no proposal is available, except when a specific date is specified.

1.7 OWNER FURNISHED CONTRACTOR INSTALLED PRODUCTS (OFCI

A. Select products are to be furnished and paid for by Owner and installed by Contractor:

1. Refer to Drawings and Specifications.

B. Owner's Responsibilities:

1. Arrange for and deliver shop drawings, product data, and samples to Contractor.
2. Arrange and pay for product delivery to site.
3. Inspect products jointly with Contractor on delivery.
4. Submit claims for transportation damage.
5. Arrange for replacement of damaged, defective, or missing items.
6. Arrange for manufacturer's warranties, inspections, and service.

C. Contractor's Responsibilities:

1. Review shop drawings, product data, and samples.
2. Receive and unload products at site.
3. Inspect jointly with Owner for completeness and damage.
4. Handle, store, and install products.
5. Finish products as required after installation.
6. Repair or replace items damaged by Work of this Contract.

1.8 OWNER PRE-ORDERED PRODUCTS

A. Select products have been pre-ordered by Owner:

1. Refer to Drawings.

B. Owner has negotiated purchase orders for these products for incorporation into Project.

1. Purchase orders are assigned to Contractor; costs shall be included into base bid.

2. Contractor's responsibilities are same as if Contractor negotiated purchase orders.

END OF SECTION

SECTION 01 20 00

PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Special administrative and procedural requirements necessary to prepare and process Application for Payment.

1.2 SCHEDULE OF VALUE

A. Coordination: Coordinate preparation of Schedule of Values with preparation of Contractor's Construction Schedule.

1. Correlate line items in Schedule of Values with other required administrative forms and schedules, including application for Payment forms with Continuation Sheets, Submittals Schedule, and Contractor's Construction Schedule.

2. Submit Schedule of Values to Architect at earliest possible date but no later than seven days before date scheduled for submittal of initial Application for Payment.

B. Format and Content: Use Project Manual table of contents as guide to establish line items for Schedule of Values. Provide at least one line item for each Specification Section.

1. Identification: Include following Project identification on Schedule of Values.

a. Project name and location.
b. Name of Architect.
c. Architect's Project number.
d. Contractor's name and address.
e. Date of submittal.

2. Submit draft of AIA Document G703 Continuation Sheets.

3. Provide breakdown of Contract Sum in enough detail to facilitate continued evaluation of Application for Payment and progress reports. Coordinate with Project Manual table of contents.

a. Provide several line items for principal subcontract amounts where appropriate.

4. Round amounts to nearest whole dollar; total shall equal Contract Sum.

5. Provide separate line item in Schedule of Values for each part of Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.

6. Provide separate line items in Schedule of Value for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of Work.

7. Each item in Schedule of Values and Application for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

    a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in Schedule of Values or distributed as general overhead expense at Contractor's option.

8. Schedule Updating: Update and resubmit Schedule of Values before next application for Payment when Change Orders or Construction Change Directives result in a change in Contract Sum.

1.3 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.

    1. Initial Application for Payment: Application for Payment at time of Completion, and final Application for Payment involve additional requirements.

B. Payment Application Times: Date for each progress payment is indicated in Agreement between Owner and Contractor. Period of construction Work covered by each Application for Payment is period indicated in Agreement.

C. Payment Application Forms: AIA Document G702 and AIA Document G703 Continuation Sheets as form for Application for Payment.

D. Application Preparation: Complete every entry on form. Execute by person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.

    1. Entries shall match data on Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.

    2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

E. Transmittal:

    1. Contractor shall provide ten copies of Application for Payment one week prior to Payment Request ("Draw") Meeting, for review of team members.

    2. Contractor shall provide ten wet signed copies of Application for Payment at Payment Request ("Draw") Meeting.

        a. Provide each copy with transmittal form listing attachments and recording appropriate information about application.

b. Copies shall include waivers of lien and similar attachments if required.

F. Waivers of Mechanic's Lien: With each Application for Payment submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of Contract and related to Work covered by payment.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.

2. When an application shows completion of an item, submit final or full waivers.

3. Owner reserves right to designate which entities involved in Work must submit waivers.

4. Waiver Forms: Submit waivers of lien on forms executed in manner acceptable to Owner.

G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following.

1. List of subcontractors.

2. Schedule of Values.

3. Contractor's Construction Schedule (preliminary if not final).

4. Schedule of unit prices.

5. Submittals Schedule (preliminary if not final).

6. List of Contractor's staff assignments.

7. List of Contractor's principal consultants.

8. Copies of building permits.

9. Copies of authorizations and licenses from authorities having jurisdiction for performance of Work.

10. Initial progress report.

11. Report of preconstruction conference.

12. Certificates of insurance and insurance policies.

H. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted including but not necessarily limited to following.

1. Evidence of completion of Project closeout requirements.

2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.

3. Updated final statement accounting for final changes to Contract Sum.

4. AIA Document G706, Contractor's Affidavit of Payment of Debts and Claims.

5. AIA Document G706A, Contractor's Affidavit of Release of Liens.

6. AIA Document G707, Consent of Surety to Final Payment.

7. Evidence that claims have been settled.

8. Final meter readings for utilities, a measured record of stored fuel, and simliar data as of date of Completion.

9. Final liquidated damages settlement statement.

END OF SECTION

SECTION 01 25 00

SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. General: Procedures are described for requesting substitution of unlisted materials in lieu of materials named in Specifications or approved for use in addenda.

1. Provide products listed in Contract Documents, products by manufacturers listed in Contract Documents, and products meeting specified requirements.

a. Contract Amount: Base on materials and products included in Contract Documents.

b. Where materials and products are listed in Contract Documents, materials and products by manufacturers not listed shall not be used without Owner’s and Architect’s approval of Contractor's written request for substitution.

2. Purpose: After bidding, substitutions will only be considered where Owner will receive benefit or because specified materials are no longer available due to no fault of Contractor.

3. Purpose: Substitutions will only be considered where Owner will receive benefit or because specified materials are no longer available due to conditions beyond Contractor control.

a. Owner benefits either from a Contractor proposed reduction of the Contract amount or from a reduction in Contract time based on acceptance of proposed substitution.

b. List proposed cost or time reductions on request for substitution.

c. Requests not including a proposed cost or time reduction will not be considered unless Contractor submits supporting information indicating specified materials are not available.

B. Related Sections:

1. Section 01 60 00: Product requirements.

1.2 SUBSTITUTIONS

A. Within a period of 35 days after award of Contract, Owner and Architect will consider formal requests for substitutions only from Contractor as specified in 1.1 Summary.

1. Owner and Architect will consider only one request for substitution for each material; where requests are denied Contractor shall be required to provide specified materials.

2. After initial 35-day period, requests will be considered only when a product becomes unavailable through no fault of Contractor; more than one request for substitution will be considered if necessary.

B. Prior to submittal of second Request for Payment Owner and Architect will consider formal requests for substitutions from Contractor as specified in 1.1 Summary.

1. Owner and Architect will consider only one request for substitution for each material; where requests are denied Contractor shall be required to provide specified materials.

2. After payments begin, requests will be considered only when a product becomes unavailable through no fault of Contractor; more than one request for substitution will be considered if necessary.

C. Submit each request with sequentially numbered “Substitution Request Transmittal” acceptable to Owner and Architect; submit separate request for each product and support each request with:

1. Product identification with manufacturer's literature and samples where applicable.

2. Name and address of similar projects on which product has been used, and date of installation.

D. Submit itemized comparison of proposed substitution with product specified and list significant variations.

E. Submit data relating to changes in construction schedule.

F. Note effect of substitution on other work, products, or separate contracts.

1. Note if acceptance of substitution could require revision of Contract Documents, Drawings, details or Specifications.

G. Include accurate cost data comparing proposed substitution with product and amount of net change in Contract price.

1. Include costs to other contractors and costs for revisions to Drawings, details or Specifications.

H. Substitutions will not be considered for acceptance when:

1. They are indicated or implied on submittals without a formal request from Contractor.

2. They are requested directly by a subcontractor or supplier.

3. Acceptance will require substantial revision of Contract Documents.

I. Substitute products shall not be ordered without written acceptance of Owner and Architect.

J. Owner and Architect will determine acceptability of proposed substitutions and reserves right to reject proposals due to insufficient information.

1.3 CONTRACTOR'S REPRESENTATION

A. Requests constitute a representation that Contractor:

1. Has investigated proposed product and determined it meets or exceeds, in all respects, specified product.

2. Will provide same warranty or longer warranty for substitution as for specified product.

3. Will coordinate installation and make other changes that may be required for Work to be complete in all respects.

4. Waives claims for additional costs that subsequently become apparent.

5. Will pay costs of changes to Contract Documents, Drawings, details and Specifications required by accepted substitutions.

1.4 ARCHITECT'S DUTIES

A. Review Contractor's requests for substitutions with reasonable promptness.

1. Architect will recommend that Owner accept or reject substitution request.

2. Upon request, Architect will provide cost for changes to Contract Documents, Drawings, details and Specifications required for substitutions.

B. Notify Contractor in writing of decision to accept or reject requested substitution.

CONTRACTOR'S SUBSTITUTION REQUEST

(Use separate form for each request)

Date: _____ Request No.: _____

TO: Architect _____
Phone: _____ Fax: _____

PROJECT: _____ Project No.: _____
CONTRACTOR _____

SPECIFIED ITEM: _____
Section: _____ Page: _____ Paragraph: _____ Description: _____
Drawing Number(s): _____ Detail Number(s): _____
The undersigned request consideration of the following:
PROPOSED SUBSTITUTION: _____

_____
REASON FOR NOT GIVING PRIORITY TO SPECIFIED ITEMS: _____

_____
SAVINGS or CREDIT to OWNER for ACCEPTING SUBSTITUTE: $ _____
PROJECT COMPLETION CHANGE for ACCEPTING SUBSTITUTE Days _____

Attached data includes description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The undersigned certifies that the following paragraphs, unless modified by attachments, are correct:

1. Proposed substitution has been fully checked and coordinated with the Contract Documents.
2. The proposed substitution does not affect dimensions shown on Drawings.
3. The proposed substitution does not require revisions to mechanical or electrical work.
4. The undersigned will pay for changes to the building design, including architectural and engineering design, detailing, and construction costs caused by the requested substitution.
5. The proposed substitution will have no adverse effect on other trades, construction schedule, or warranty.
6. Maintenance and service parts will be locally available for the proposed substitution.
7. The proposed substitution will have no adverse effect on LEED credits (applies to LEED Projects ONLY)
8. The proposed substitution will have no adverse effect on Green Building Requirements where applicable.

The undersigned further states that the function, appearance, and quality of the proposed substitution are equivalent or superior to the specified item.

Attachments: The attached data is furnished herewith for evaluation of the proposed substitution.
☐ Catalog ☐ Drawings ☐ Samples ☐ Reports ☐ Tests ☐ Other: _____
Submitted by:

_____ _____
(Firm) (Authorized Legal Signature)

_____ ( ) _____
(Address) (Telephone)

For use by the Architect: ☐ Accepted ☐ Accepted as Noted ☐ Rejected: Submit Specified Item
BY: _____
(Authorized Signature)

Date: _____ Remarks: _____

END OF SECTION

SECTION 01 26 00

CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: This section specifies administrative and procedural requirements governing Contract modification procedures.

1. Requests for Information (RFI).
2. Change Order.
3. Allowances.
4. Construction Change Directive.

B. Related Requirements:

1. Section 01 25 00: Substitution procedures.
2. Section 01 30 00: Administrative requirements.

1.2 MINOR CHANGES IN WORK

A. Architect will issue supplemental instructions authorizing minor changes in Work, not involving adjustment to Contract Sum or Contract Time, on AIA Form G710, Architect's Supplemental Instructions or similar form.

1.3 REQUESTS FOR INFORMATION

A. Contractor may submit a written Request for Information (RFI) in format approved by Architect relating to perceived inconsistencies and omissions in Contract Documents.

1. A record of RFI's is to be maintained by Contractor along with information regarding origin of request, date of request, and date request was received from Architect. Number RFI's sequentially based on date of request.

B. Requests for Information shall be used only as a means of obtaining clarification of information not included in Contract Documents and shall not be used to assist Contractor in preparation of shop drawings or other information required by Contract.

1. Contract Documents are intended to contain enough information to show aesthetic and design intent and to provide information such that construction procedures (means and methods) may be reasonably inferred.

2. Contract Documents are not intended to provide specific information related to means and methods of construction nor are they intended to be exhaustive in content.

C. Contractor shall carefully review requests for information by subcontractors and suppliers to ascertain if information is in Contract Documents prior to submitting a Request for Information to Architect based on requests by others.

1. Contractor may suggest possible solutions to fit Project conditions where appropriate.

D. Architect reserves right to return RFI's that do not reasonably relate to necessary clarification of intent of Contract Documents and to charge Contractor for time and materials involved in answering RFI's where information is in Contract Documents.

1. RFI's shall not be used as a request for substitutions; refer to Section 01 25 00 – Substitution Procedures.

1.4 CHANGE ORDERS

A. Owner-Initiated Proposal Requests: Architect will issue detailed description of proposed changes in Work that require adjustment to Contract Sum or Contract Time. If necessary, description will include supplemental or revised Drawings and Specifications.

1. Proposal requests issued by Architect are for information only. Do not consider changer order proposal requests as instruction either to stop work in progress or to execute proposed change.

2. Within 10 days of receipt of a proposal request, submit estimate of cost necessary to execute change to Architect for Owner's review.

a. Include list of quantities of products required and unit costs, with total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.

b. Indicate applicable taxes, delivery charges, equipment rental and amounts of trade discounts.

c. Include a statement indicating effect of proposed change in Work will have on Contract Time.

B. Contractor-Initiated Proposals: When latent or unforeseen conditions require modifications to Contract, Contractor may propose changes by submitting a request for a change to Architect and Owner.

1. Include statement of reasons for change and effect of change on Work. Provide a complete description of proposed change. Indicate effect of proposed change on Contract Sum and Contract Time.

2. Include a list of quantities of products required and unit costs with total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.

3. Indicate applicable taxes, delivery charges, equipment rental and amounts of trade discounts.

4. Comply with requirements in Section 01 25 00 - Substitution Procedures if proposed change requires substitution of unspecified product or system for specified product or system.

C. Proposal Request Form: Use AIA Document G709 for Change Order Proposal Requests; other substitute formats shall be submitted to Owner and Architect for approval prior to use.

D. Change Order Procedures: Contractor shall be directed to proceed with Work upon Owner's approval of Proposal.

1. Architect will issue Change Order for signatures of Owner and Contractor on AIA Form G701 or similar form, including approved Change Order proposals for that time period.

2. Amounts of each Change Order shall be indicated in each Request for Payment including payment status for each individual Change Order.

1.5 ALLOWANCES

A. Allowance Adjustment: For Contract items bid based on allowance, submit Change Order Proposal on difference between actual purchase amount and allowance, based on work-in-place.

1. Include installation cost in purchase amount only where indicated as part of allowance.

2. When requested, prepare explanations and documentation to substantiate amounts claimed for work done based on allowances.

3. Submit substantiation of a change in Scope of work claimed in Change Orders related to allowances.

4. Owner reserves right to establish actual quantity of work-in-place by independent quantity survey, measure or count.

B. Submit claims for increase costs because of a change in scope or nature of allowance described in Contract Documents, whether for purchase order amount or Contractor's handling, labor, installation, overhead and profit.

1. Submit claims within 21 days of receipt of Change Order or Construction Change Directive authorizing work to proceed. Owner will reject claims submitted later than 21 days.

2. Do not include Contractor's or subcontractor's indirect expense in Change Order cost amount unless it is clearly shown that nature or extent of work has changed from what could have been foreseen from information in Contract Documents.

3. No change to Contractor's indirect expense is permitted for selection of higher or lower-priced materials or systems of same scope and nature as originally indicated.

1.6 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: When Owner and Contractor disagree on terms of Proposal Request, Architect may issue a Construction Change Directive per AIA Form G714 or similar form.

1. Construction Change Directive instructs Contractor to proceed with change in Work, for subsequent inclusion in Change Order.

2. Construction Change Directive contains a complete description of change in Work. It also designates method to be followed to determine change in Contract Sum or Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of Work required by Construction Change Directive. Coordinate scheduling with Construction Manager to allow monitoring by Owner if desired.

1. After completion of change, submit itemized account and supporting data necessary to substantiate cost and time adjustments to Contract.

END OF SECTION

SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. This section describes general procedural requirements for ongoing submittals.

1. Schedule of values.
2. Product data and manufacturer’s literature.
3. Shop drawings.
4. Samples.
5. Manufacturers' certificates.
6. Excess materials and attic stock.
7. Design build (delegated design) procedures.
8. Deferred approval requirements.

B. Related Requirements:

1. Section 01 31 00: Project management and coordination.
2. Section 01 32 10: Construction Schedule – Bar Chart.
3. Section 01 40 00: Test reports, manufacturer's field reports, and mock-ups.
4. Section 01 70 00: Manufacturers’ instructions.
5. Section 01 77 00: Closeout requirements including Project Record Documents.
6. Section 01 78 00: Warranties.

1.2 GENERAL SUBMITTAL PROCEDURES

A. Submittals: Transmit each item using form approved by Architect; submit sample to Architect for approval prior to use.

1. Identify Project, Contractor, subcontractor, major supplier.

a. Attach sequential identification number for each new submittal.

b. Identify each resubmittal using original submittal number and sequential identification clearly indicating item is resubmitted.

2. Identify pertinent Drawing sheet and detail number, and Specification section number as appropriate.

3. Identify deviations from Contract Documents.

4. Provide space for Contractor and Architect review stamps.

5. Contractor: Review and stamp submittals from subcontractors prior to submitting to Architect.

    a. Review submittals and indicate where conflicts occur with Contract Documents and with work of other subcontractors.

    b. Return submittals that vary significantly from Contract Documents for correction and resubmittal prior to submitting to Architect.

    c. Submittals that vary significantly from Contract Documents and that fail to indicate thorough Contractor review prior to submission to Architect will be returned without review.

    d. Cursory review and stamping of subcontractor submittal by Contractor shall not be acceptable.

B. Initial Schedules: Submit initial progress schedule and schedule of value in duplicate within 15 working days after award of Contract.

    1. After review by Owner and Architect revise and resubmit where required.

C. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.

D. After Architect review of submittal, revise and resubmit as required, identify changes made since previous submittal.

E. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply.

1.3 TYPES OF SUBMITTALS

A. General: Project requires various types of submittals to maintain communications, minimize misunderstandings, avoid unnecessary conflicts, and to ensure complete documentation for Project Record Documents.

    1. Maintain complete set of submittals including required revisions.

B. Construction Schedules: Submit construction progress schedules for Design Team and Owner review and to maintain entire team up-to-date on construction activities.

C. Schedule of Values: Submit Schedule of Values indicating division of Work, subcontractors to perform work, products being used, and values attributed to each to inform Design Team and Owner.

D. Action Submittals: Submittals relating to product data and manufacturer’s literature, shop drawings, and samples for Design Team review and comment; do not begin fabrication, delivery, or installation until Design Team review is complete.

E. Information Submittals: Submittals relating to certifications, qualifications, reports, including test reports, and instructions are for information; Design Team may choose to comment but action is not generally anticipated.

1. Manufacturer installation instructions and recommendations shall be considered information submittals.

F. Design/Build Submittals: Where portion of Work requires design by specialized professionals submit information necessary to ensure work complies with Contract Documents along with certifications signed by qualified professional.

1. Calculations: Do not submit calculations unless specifically required by Contract Documents; submit calculations required by applicable authorities directly to applicable authorities;

a. Submit certification by qualified professional indicating required calculations have been prepared and work conforms to Contract Documents and applicable codes and regulations.

G. Maintenance Materials Submittals: Compile maintenance information and materials during Work to ensure complete set of documents, maintenance manuals, and operation instructions.

H. Closeout Submittals: Compile closeout submittals, organize, and submit to Owner prior to or at time of Substantial Completion. Project will not be considered Substantially Complete until closeout submittals have been received by Owner.

I. Material Safety Data Sheets (MSDS): MSDS will only be reviewed by Architect when submitted to show compliance with LEED certification requirements.

1. Non-LEED submittals that include material safety data sheets will be returned for resubmittal.

1.4 SCHEDULE OF VALUES

A. Submit typed schedule on AIA Form G703 or another Owner and Architect pre-approved 8-1/2" by 11" paper format; Contractor's standard media-driven printout will be considered on request. Submit within 15 days after award of Contract.

B. Format: Table of Contents of this Project Manual, with modifications as pre-approved by Owner and Architect; identify each line item with number and title of major Specification sections.

C. Include in each line item a directly proportional amount of Contractor overhead and profit.

D. Revise schedule to list change orders for each Application for Payment.

1. Submit subschedule for each phase of Work.

1.5 PRODUCT DATA/MANUFACTURERS' LITERATURE

A. Action Submittals: Mark each copy to identify applicable Products, models, options, and other data; supplement manufacturers' standard data to provide information unique to the Work.

B. Information Submittals: Include manufacturers' installation instructions only when required by Specifications or specifically requested by Architect.

1. Maintain copy of manufacturer installation instructions and recommendations in Contractor's field office for review.

C. Product data shall be submitted as electronic PDF files unless otherwise noted or approved by Architect in advance.

1. Where paper copies are permitted submit number of copies Contractor requires, plus one copy to be retained by Architect.

D. Submit number of copies Contractor requires, plus one copy to be retained by Architect.

1.6 SHOP DRAWINGS

A. Shop drawings shall be submitted as electronic PDF files unless otherwise noted or approved by Architect in advance.

1. Where prints are permitted submit one reproducible print; minimum sheet size 8-1/2” by 11”.

B. Shop drawings shall be submitted in reproducible format acceptable to Architect and Owner; computerized PDF files will be acceptable unless otherwise directed.

1. Prints: Submit one reproducible print; minimum sheet size 8-1/2” by 11”.

2. Prints: Submit three reproducible prints; minimum sheet size 8-1/2" by 11".

C. Distribution: After review, reproduce and distribute.

1.7 SAMPLES

A. Submit full range of manufacturers' standard colors, textures, and patterns for Architect's selection.

B. Submit samples to illustrate functional characteristics of Product, with integral parts and attachment devices.

C. Coordinate submittal of different categories for interfacing work.

D. Include identification on each sample, giving full information.

E. Submit number of samples required by Contractor plus one to be retained by Architect.

1. Maintain one set of approved samples at Project Field Office.

F. Sizes: Provide following sizes unless otherwise specified.

1. Flat or Sheet Products: Minimum 6" square, maximum 12" by 12".
2. Linear Products: Minimum 6", maximum 12" long.
3. Bulk Products: Minimum one pint, maximum one gallon.

G. Full size samples may be used in the Work upon approval.

1.8 MANUFACTURERS' CERTIFICATES

A. Submit certificates, in duplicate in accordance with requirements of each Specification section.

1.9 EXCESS MATERIALS AND ATTIC STOCK

A. Excess Materials: Excess materials shall be considered property of Owner; inform Owner of extent of excess materials and methods required for handling and storage; remove from site excess materials not required by Owner for maintenance stock.

B. Attic Stock: Owner may choose to obtain additional attic stock for maintenance purposes where excess materials are not considered adequate.

1. Owner may require as much as 5% extra materials for maintenance purposes. Exact amount of each material shall be determined by Owner based on following meeting and additional costs determined by Contractor.

a. Contractor shall be prepared to order up to 5% extra materials on items that may not be readily available in future such as custom colors, off-shore manufacture, anticipated life span under 5 years, and potential for damage.

1) Do not order extra attic stock until extent is determined and agreed to by Owner including which materials require extra stock and exactly how much those materials will cost including shipping and handling.

b. Excess Materials: Furnish excess materials only for materials that have a shelf-life of more than three years.

2. Meeting: Conduct meeting prior to beginning Work to discuss extent of materials Owner would like to receive at Project Closeout for attic stock for maintenance materials; where available include personnel from Owner’s maintenance crew.

a. Estimate amount of excess materials to be anticipated to be ordered in addition to materials for handling and storage and how those materials will be invoiced and identified regarding material and location in Project.

b. Determine area necessary for adequate storage, handling, and identifying excess materials and attic stock and discuss with Owner.

c. Submit information regarding equipment necessary for handling of excess materials and attic stock due to weight, size, and storage requirements.

d. Assist Owner in determining where on-site or off-site additional attic stock for maintenance purposes will be delivered and stored.

3. Additional Costs: After meeting submit to Owner detailed listing of additional costs for each material Owner may like to receive for attic stock and assist Owner in modifying listing to determine acceptable final costs.

    a. Include unit prices for desired attic stock where excess materials are not adequate for Owner maintenance stock.

4. Substantial Completion: Submit Construction Bulletin at Substantial Completion indicating changes to Contract Amount for attic stock including unit price totals for materials where excess materials are not adequate.

5. Final Completion: Ensure attic stock has been received, identified, cataloged, and stored at locations agreed upon with Owner based on Change Order indicating amounts finally agreed to by Owner.

1.10 DESIGN/BUILD PROCEDURES

A. Design as Part of Means and Methods of Construction: Select Project components require construction team design as part of means and methods of construction as described in various sections.

1. Terms commonly used such as Design/Build, Delegated Design, and Design/Assist are applicable to these procedures as determined by law but shall be generally referred to in these documents as Design/Build.

    a. In general Design/Build includes design by licensed professionals with expertise beyond that allowed under standard architectural licensure, and outside of scope of work of other design professionals on the design team.

2. Contractor may be required to provide design services as part of construction for specific work defined as design or design-build where special expertise is required that is not available in the Project design team.

3. Subcontractors, fabricators, and manufacturers may be required to provide design services as part of their work due to special expertise in design services for their specific components, refer to technical sections for Design/Build.

4. Contractor, subcontractors, fabricators, manufacturers, and suppliers shall be responsible for attachments, anchors, fasteners, adhesives, and connectors suitable to applications unless specific items are listed in Contract Documents.

    a. Where specific items are listed in Contract Documents Contractor, subcontractors, fabricators, manufacturers, and suppliers shall review and submit comments where items listed are not acceptable.

    b. Where no comments are received, listed items shall be considered acceptable.

B. Contractor acknowledges and accepts responsibility for specialty design as part of means and methods of construction, as well as coordination of parties involved to achieve architectural design intent indicated in Contract Documents.

1. Design-build work includes sizing, sequencing, and detailing for construction by professional licensed or registered engineer or design professional with special expertise applicable to portion of Work involved.

2. Design-build work shall be constructed in compliance with building codes and regulations in effect and shall be fit and proper for intended use.

3. Design-build work shall include drawings, specifications, and calculations prepared, stamped, and signed by qualified professional licensed or registered engineer licensed in the Project location as appropriate to design-build work.

a. Plans, specifications, and calculations shall be acceptable to Owner, Owner's Representative, and applicable authorities.

C. Where required by Owner Contractor shall submit copies of current insurance policies covering errors and omissions of persons designing design-build work with deductibles and limits per occurrence as mutually agreed by Owner and Contractor.

1. Provide endorsement to insurance providing for 30-day notice to Owner prior to cancellation or material reduction in coverage.

2. Insurance shall be maintained for not less than applicable statute of limitations for claims of latent defects, if such insurance is not written on an occurrence basis during time design-build work is designed and constructed.

D. Review proposed layouts with Design Team and with various trades prior to commencing work related to design-build work.

1.11 DEFERRED APPROVAL REQUIREMENTS

A. Installation of deferred approval items shall not be started until detailed plans, specifications, and engineering calculations have been accepted and signed by Architect or Engineer of Record responsible for Project design.

B. Deferred Approval Items shall be signed by California registered architect or professional engineer delegated responsibility covering specific work shown requiring approval by Division of the State Architect.

1. Deferred approval items for this Project include but may not be limited to following:

a. None.

2. Deferred approval drawings and specifications become part of the approved submittal documents for the Project when they are submitted to and approved by Division of the State Architect.

3. Submit four prints of each drawing. Drawings shall include empty 7" by 9" space

on first sheet reserved for Architect to add “General Conformance Block” required for DSA.

4. Submit four copies of calculations, product data and test reports.

5. Identify and specify supports, fasteners, spacing, penetrations, etc., for each deferred approval items, including calculations for each fastener.

6. Submit documents to Architect of Record for review.

7. Deferred submittal documents shall bear stamp and signature of architect or engineer licensed in State of California and responsible for work shown on deferred submittal documents.

8. Architect of Record will forward submittal to appropriate Project Engineer.

9. Review of Project Architect or Engineer of Record is for conformance with design concept shown on Contract Documents. Neither Architect or Engineer of Project shall be responsible for review for correctness of deferred approval items.

10. After review by Architect/Engineer of Record, Architect of Record will forward two copies of submittal to Division of the State Architect for approval.

11. Respond to review comments made by Division of the State Architect and revise and resubmit submittal for final approval.

12. Architect of Record will forward two copies of final revised submittal to the Division of the State Architect for approval.

13. The Division of the State Architect will return one copy of final submittal to the Architect of Record.

14. Architect of Record will forward one copy of evidence of submittal approval by Division of the State Architect for final distribution by General Contractor.

END OF SECTION

SECTION 01 31 00

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Description of Project management and coordination including but not necessarily limited to the following:

1. General Project coordination procedures.
2. Coordination drawings.
3. Staff names.
4. Administrative and supervisory personnel.
5. Project meetings.

B. Related Sections:

1. Section 01 30 00: Administrative requirements.
2. Section 01 79 00: Demonstration and training.

1.2 COORDINATION

A. Coordination: Coordinate construction operations included in various Specifications sections to ensure efficient and orderly installation of each part of Work.

1. Coordinate construction operations that depend on each other for proper installation, connection, and operation.

2. Coordinate work to assure efficient and orderly sequence of installation of construction elements.

3. Make provisions for accommodating items installed by Owner or under separate contracts.

B. Prepare memoranda for distribution to each party involved as needed, outlining special procedures required for coordination.

1. Include required notices, reports, and list of attendees at meetings; include Architect and Owner in distribution.

C. Verify characteristics of interrelated operating equipment are compatible; coordinate work having interdependent responsibilities for installing, connection to, and placing such equipment in service.

D. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings.

1. Follow routing shown for pipes, ducts, and conduits as closely as possible; make runs parallel with lines of building.

2. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

E. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated; coordinate locations of fixtures and outlets with finish elements.

F. Administrative Procedures: Coordinate scheduling and timing of administrative procedures with other construction activities and activities of other contractors to avoid conflicts and ensure orderly progress of Work.

1.3 SUBMITTALS

A. Coordination Drawings: Prepare Coordination Drawings for areas where space availability is limited and necessitates maximum utilization of space for components and where separate entities, products, and materials require coordination.

1. Require each subcontractor with items located in ceiling space to furnish coordination drawings of their items to assist in preparation of Contractor's Coordination Drawings.

2. Indicate relationship of components shown on separate Shop Drawings.

3. Indicate required installation sequences.

4. Ceiling Spaces: Take special care to coordinate structure, ceiling systems, equipment located in ceiling spaces, fire protection systems, mechanical systems, and electrical systems.

B. Staff Names: Immediately after receipt of notice to proceed or immediately after signing of Contract by Owner and Contractor, submit list of principal staff assignments, including superintendent and other personnel in attendance at Project site.

1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone.

1.4 SUPERVISORY AND ADMINISTRATIVE PERSONNEL

A. Provide supervisory personnel, in addition to Project Superintendent, as required for proper and timely performance of Work and coordination of subcontracts.

B. Provide administrative staff as required to allow Project Superintendent and supervisory personnel to allocate maximum time to Project supervision and coordination.

1.5 PROJECT MEETINGS

A. Schedule and administer Project meetings throughout progress of Work:

1. Pre-construction meeting.
2. Progress meetings at weekly intervals.
3. Pre-installation conferences.
4. Coordination meetings.
5. Special meetings.

B. Make physical arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes and distribute copies within two days to Architect, Owner, participants, and those affected.

C. Attendance: Job superintendent, major subcontractors and suppliers as appropriate to agenda; Architect, Owner, and Owner and Architect's consultants as appropriate to agenda topics for each meeting.

D. Suggested Agenda: Review of Work progress, status of progress schedule and adjustments, delivery schedules, submittals, requests for information, maintenance of quality standards, pending changes and substitutions, and issues needing resolution.

END OF SECTION

SECTION 01 32 10

CONSTRUCTION SCHEDULE - BAR CHART

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. References.

B. Performance requirements.

C. Qualifications.

D. Quality Assurance.

E. Project record documents.

F. Submittals.

G. Review and evaluation.

H. Format.

I. Cost and schedule reports.

J. Early work schedule.

K. Construction schedule.

L. Short interval schedule.

M. Requested time adjustment schedule.

N. Recovery schedule.

O. Updating schedules.

P. Distribution.

1.2 REFERENCES

A. Construction Planning and Scheduling Manual - A Manual for General Contractors and the Construction Industry, The Associated General Contractors of America (AGC).

B. National Weather Service - Local Climatological Data.

1.3 PERFORMANCE REQUIREMENTS

A. Ensure adequate scheduling during construction activities so work may be prosecuted in an orderly and expeditious manner within stipulated Contract Time.

B. Ensure coordination of Contractor and subcontractors at all levels.

C. Ensure coordination of submittals, fabrication, delivery, erection, installation, and testing of materials and equipment.

D. Ensure on-time delivery of Owner furnished materials and equipment.

E. Ensure coordination of jurisdictional reviews.

F. Assist in preparation and evaluation of applications for payment.

G. Assist in monitoring progress of work.

H. Assist in evaluation of proposed changes to Contract Time.

I. Assist in evaluation of proposed changes to Construction Schedule.

J. Assist in detection of schedule delays and identification of corrective actions.

1.4 QUALIFICATIONS

A. Scheduler: Personnel with 3 years minimum experience in scheduling construction work of a complexity and size comparable to this Project.

B. Administrative Personnel: 3 years minimum experience in using and monitoring schedules on comparable projects.

1.5 QUALITY ASSURANCE

A. Perform work in accordance with Construction Planning and Scheduling Manual published by the AGC.

B. In the event of discrepancy between the AGC publication and this section, provisions of this section shall govern.

1.6 PROJECT RECORD DOCUMENTS

A. Submit record documents under provisions of Section 01 77 00.

B. Submit one reproducible and two copies of final Record Construction Schedule which reflects actual construction of this Project.

C. Record schedule shall be certified for compliance with actual way project was constructed.

D. Receipt of Record Construction Schedule shall be a condition precedent to any retainage release or final payment.

1.7 SUBMITTALS

A. Within 7 days from the Notice of Award submit proposed Early Work Schedule and preliminary Cost Report defining activities for first 60 days of Work.

B. Within 45 days from the Notice of Award submit proposed Construction Schedule and final Cost Report.

C. Submit updated Construction Schedule at least 10 days prior to each Application for Payment.

D. Submit Short Interval Schedule at each Construction Progress Meeting.

E. Submit Time Adjustment Schedule within 10 days of commencement of a claimed delay.

F. Submit Recovery Schedules as required by completion of work.

G. Submit one reproducible and two copies of each schedule and cost report.

1.8 REVIEW AND EVALUATION

A. Early Work Schedule shall be reviewed during Preconstruction Conference with Owner and Architect.

B. Within 5 days of receipt of Owner and Architect's comments provide satisfactory revision to Early Work Schedule or adequate justification for activities in question.

C. Acceptance by Owner of corrected Early Work Schedule shall be a condition precedent to making any progress payments for first 60 days of Contract.

D. Cost loaded values of Early Work Schedule shall be a basis for determining progress payments during first 60 days of Contract.

E. Participate in joint review of Construction Schedule and Reports with Owner and Architect.

F. Within 7 days of receipt of Owner and Architect's comments provide satisfactory revision to Construction Schedule or adequate justification for activities in question.

G. In the event that an activity or element of work is not detected by Owner or Architect review, such omission or error shall be corrected by next scheduled update and shall not affect Contract Time.

H. Acceptance by Owner of corrected Construction Schedule shall be a condition precedent to making any progress payments after first 60 days of Contract.

I. Cost-loaded values of Construction Schedule shall be basis for determining progress payments.

J. Review and acceptance by Owner and Architect of Early Work Schedule or Construction Schedule does not constitute responsibility whatsoever for accuracy or feasibility of schedules nor does such acceptance expressly or impliedly warrant, acknowledge or admit reasonableness of activities, logic, duration, or cost loading stated or implied on schedules.

1.9 FORMAT

A. Shall be fully developed horizontal bar-chart-type schedule prepared under concepts and methods outlined in AGC Construction Planning and Scheduling Manual.

B. Provide separate bar for each activity or operation.

C. Activity shall not have a duration longer than 14 days or a value over $20,000.00 except non-construction activities for procurement and delivery.

D. Prepare schedule on sheet of sufficient width to clearly show data.

E. Provide continuous heavy vertical line identifying first day of week.

F. Provide continuous subordinate vertical line identifying each day of week.

G. Identify activities by number, description, and cost.

H. Show each activity in proper sequence.

I. Indicate graphically sequences necessary for related activities.

J. Provide legend of symbols and abbreviations used.

1.10 COST AND SCHEDULE REPORTS

A. Activity Analysis: Tabulate each activity and identify for each activity:

1. Description.
2. Interface with outside contractors or agencies.
3. Duration.
4. Start date.
5. Finish date.
6. Actual start date.
7. Actual finish date.
8. Monetary value keyed to Schedule of Values.
9. Responsibility.
10. Percentage complete.
11. Variance positive or negative.

B. Cost Report: Tabulate each activity and identify for each activity:

1. Description.
2. Total cost.
3. Percentage complete.
4. Value prior to current period.
5. Value this period.
6. Value to date.

1.11 EARLY WORK SCHEDULE

A. Shall establish scope of work to be performed during the first 60 days of Contract.

B. Shall contain the following phases and activities:

1. Procurement activities to include mobilization, shop drawings and sample submittals.
2. Identification of key and long-lead elements and realistic delivery dates.
3. Construction activities in units of whole days limited to 14 days for each activity except non-construction activities for procurement and delivery.
4. Approximate cost and duration of each activity.

C. Shall contain seasonal weather considerations. Seasonal rainfall shall be 10 year average for the month as evidenced by Local Climatological Data obtained from U.S. National Weather Service.

D. Activities shall be incorporated into Construction Schedule.

E. No application for payment will be evaluated or processed until Early Work Schedule has been submitted and reviewed.

F. Shall be updated on a monthly basis while Construction Schedule is being developed.

G. Failure to submit an adequate or accurate Early Work Schedule or failure to submit on established dates will be considered a substantial breach of Contract.

1.12 CONSTRUCTION SCHEDULE

A. Shall include Early Work Schedule as first 60 days of Construction Schedule.

B. Shall be a fully developed horizontal bar-chart-type schedule.

C. Shall indicate a completion date for project that is no later than required completion date.

D. Conform to mandatory dates specified in the contract documents.

E. Should schedule indicate a completion date earlier than any required completion date, Owner or Architect shall not be liable for any costs should project be unable to be completed by such date.

F. Seasonal weather shall be considered in planning and scheduling of all work. Seasonal rainfall shall be 10 year average for the month as evidenced by Local Climatological Data obtained from U.S. National Weather Service.

G. Provide sub-schedules to define critical portions of entire schedule.

H. Indicate procurement activities, delivery and installation of Owner furnished material and equipment.

I. Level of detail shall correspond to complexity of work involved.

J. As developed shall show sequence of activities required for complete performance of Work.

K. Shall be logical and show a coordinated plan of Work.

L. Show order of activities. Include specific dates of completion.

M. Duration of activities shall be coordinated with subcontractors and suppliers and shall be best estimate of time required.

N. Failure to include any activity shall not be an excuse for completing all work by required completion date.

O. An activity shall meet the following criteria:

1. Any portion or element of work, action, or reaction that is precisely described, readily identifiable, and is a function of a logical sequential process.

2. Descriptions shall be clear and concise. Beginning and end shall be readily verifiable. Starts and finishes shall be scheduled by logical restraints.

3. Responsibility shall be identified with a single performing entity.

4. Additional codes shall identify building, floor, bid item and CSI classification.

5. Assigned dollar value (cost-loading) of each activity shall cumulatively equal total contract amount. Mobilization, bond and insurance costs shall be separate. General requirement costs, overhead, profit, shall be prorated throughout all activities. Activity costs shall correlate with Schedule of Values.

P. For major equipment and materials show a sequence of activities including:

1. Preparation of shop drawings and sample submissions.

2. Review of shop drawings and samples.

3. Finish and color selection.

4. Fabrication and delivery.

5. Erection or installation.

6. Testing.

Q. Include a minimum of 15 days prior to completion date for punch lists and clean up. No other activities shall be scheduled during this period.

1.13 SHORT INTERVAL SCHEDULE

A. Shall be fully developed horizontal bar-chart-type schedule directly derived from Construction Schedule.

B. Prepare schedule on sheet of sufficient width to clearly show data.

C. Identify activities by same description as Construction Schedule.

D. Show each activity in proper sequence.

E. Indicate graphically sequences necessary for related activities.

F. Indicate activities completed or in progress for previous 2 week period.

G. Indicate activities scheduled for succeeding 2 week period.

H. Further detail may be added if necessary to monitor schedule.

1.14 REQUESTED TIME ADJUSTMENT SCHEDULE

A. Updated Construction Schedule shall not show a completion date later than the Contract Time, subject to any time extensions processed as part of a Change Order.

B. If an extension of time is requested a separate schedule entitled "Requested Time Adjustment Schedule" shall be submitted to Owner and Architect.

C. Indicate requested adjustments in Contract Time which are due to changes or delays in completion of work.

D. Extension request shall include forecast of project completion date and actual achievement of any dates listed in Agreement.

E. To the extent that any requests are pending at time of any Construction Schedule update, Time Adjustment Schedule shall also be updated.

F. Schedule shall be a fully developed horizontal bar-chart-type schedule.

G. Accompany schedule with formal written time extension request and detailed impact analysis justifying extension.

H. Time impact analysis shall demonstrate time impact based upon date of delay, and status of construction at that time.

I. Activity delays shall not automatically constitute an extension of Contract Time.

J. Failure of subcontractors shall not be justification for an extension of time.

K. Extensions will be granted only to extent that time adjustments extend Contract completion date.

L. Owner shall not have an obligation to consider any time extension request unless requirements of Contract Documents, and specifically, but not limited to these requirements are complied with.

M. Owner shall not be responsible or liable for any construction acceleration due to failure of Owner to grant time extensions under Contract Documents should requested adjustments in Contract Time not substantially comply with submission and justification requirements of Contract for time extension requests.

N. In the event a Requested Time Adjustment Schedule and Time Impact Analysis are not submitted within 10 days after commencement of a delay it is mutually agreed that delay does not require a Contract time extension.

1.15 RECOVERY SCHEDULE

A. When activities are behind Construction Schedule a supplementary Recovery Schedule shall be submitted.

B. Form and detail shall be sufficient to explain and display how activities will be rescheduled to regain compliance with Construction Schedule.

C. Maximum duration shall be one month and shall coincide with payment period.

D. Ten days prior to expiration of Recovery Schedule verification to determine if activities have regained compliance with Construction Schedule will be made. Based upon this verification the following will occur:

1. Supplemental Recovery Schedule will be submitted to address subsequent payment period.

2. Construction Schedule will be resumed.

1.16 UPDATING SCHEDULES

A. Review and update schedule at least 10 days prior to submitting an Application for Payment.

B. Approved change orders which affect schedule shall be identified as separate new activities.

C. Change orders of less than $20,000.00 value or less than 3 days duration need not be shown unless completion date is affected.

D. Maintain schedule to record actual prosecution and progress.

E. No other revisions shall be made to schedule unless authorized by Owner.

F. Provide narrative Progress Report at time of schedule update which details the following:

1. Activities or portions of activities completed during previous reporting period.

2. Actual start dates for activities currently in progress.

3. List of major construction equipment used during reporting period and any equipment idle.

4. Number of personnel by craft engaged on Work during reporting period.

5. Progress analysis describing problem areas.

6. Current and anticipated delay factors and their impact.

7. Proposed corrective actions for Recovery Schedule.

8. Proposed modifications, additions, deletions and changes in Construction Schedule.

G. Schedule update will form basis upon which progress payments will be made.

H. Owner will not be obligated to review or process Application for Payment until schedule and Progress Report have been submitted.

1.17 DISTRIBUTION

A. Following joint review and acceptance of updated schedules distribute copies to Owner, Architect, and all other concerned parties.

B. Instruct recipients to promptly report in writing any problem anticipated by projections shown in schedule.

END OF SECTION

SECTION 01 35 15

CALGREEN ENVIRONMENTAL REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Comply with CALGreen environmental requirements related to energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality.

1. Comply with specific CALGreen requirements as adopted by authorities having jurisdiction and applicable to Project.

1.2 ENVIRONMENTAL REQUIREMENTS

A. Mandatory Measures: Comply with CALGreen Mandatory Measures applicable to Project.

1. Design team and construction team are each required to participate to maximum degree possible to achieve CALGreen environmental requirements.

2. Contract Documents are not intended to limit alternative means of achieving environmental requirements.

a. Suggestions from Contractor, subcontractors, suppliers, and manufacturers for achieving environmental requirements are encouraged; team approach is also encouraged.

3. Voluntary Tiers: Verify extent of Voluntary Tiers applicability to Project.

a. Construction team is encouraged to work with Owner and Design Team to incorporate additional measures as defined in CALGreen Appendixes.

b. Contact Owner and Architect regarding extent of intent of Project to reach Voluntary Tiers, additional work necessary to achieve enhanced Voluntary Tiers, and potential costs involved in achieving each Voluntary Tier.

c. Construction team is required to achieve Mandatory Measures and Voluntary Tiers as applicable, and to achieve as much as possible without unacceptable cost impact or schedule impact as determined by Owner.

B. Requirements: Construction team is required to review CALGreen requirements relative to Project related to following.

1. Energy Efficiency: Comply with California Energy Commission requirements.

2. Water Efficiency and Conservation: Comply with requirements for both indoor and outdoor water use.

3. Material Conservation and Resource Efficiency:

a. Nonresidential Projects: Provide weather-resistant exterior wall and foundation envelope including prevention of landscape irrigation spray on structures (if any) and prevent water intrusion at exterior entries.

b. Residential Projects: Seal openings and penetrations in building envelope Construction Waste:

c. Provide construction waste management plan as defined by CALGreen with demolition and construction waste diverted from landfill by recycling or salvage for reuse.

d. Nonresidential Projects Building Maintenance and Operation: Provide for commissioning requirements as required by CALGreen including but not limited to testing, documentation and training, testing and adjusting.

e. Residential Projects Building Maintenance and Operation: Provide operation and maintenance data as required by CALGreen.

4. Nonresidential Projects Environmental Quality: Comply with following as adopted by authorities having jurisdiction and as applicable to Project.

a. Fireplaces: Comply with requirement for fireplaces (if any) to be direct-vent sealed-combustion gas type or sealed wood-burning fireplace, woodstove, or pellet stove.

b. Mechanical Equipment Pollution Control: Cover duct and related air distribution component openings to prevent dust and debris accumulation.

c. Finish Material Pollution Control: Comply with CALGreen requirements for volatile organic compound (VOC) emissions including but not necessarily limited to following (as applicable):

1) Adhesives, sealants and caulks.
2) Paints and coatings.
3) Carpet systems including carpet, carpet cushion, and adhesives.
4) Resilient flooring systems.
5) Composite wood products formaldehyde limitations.

d. Filters: Comply with requirements for mechanically ventilated buildings to have air filtration media for outside and return air prior to occupancy.

e. Environmental Tobacco Smoke (ETS) Control: Comply with CALGreen requirements for ETS.

f. Interior Moisture Control: Comply with California Building Code requirements and CALGreen requirements for vapor retarder at concrete slab foundations and capillary break (aggregate base).

g. Building Material Moisture Content: Do not use water damaged building materials, remove and place wet and high moisture content insulation, and do not enclose wall or floor framing when moisture content exceeds 19%.

h. Indoor Air Quality: Comply with CALGreen requirements for outside air delivery and carbon dioxide monitoring.

i. Environmental Comfort: Comply with CALGreen requirements for whole acoustical control and interior sound control.

j. Outdoor Air Quality: Comply with CALGreen requirements for reduction of greenhouse gases and ozone depletion.

5. Residential Projects Environmental Quality:

a. Fireplaces: Comply with requirement that gas fireplaces (if any) shall be direct-vent sealed-combustion type and woodstoves or pellet stoves (if any) comply with U.S. EPA Phase II emissions limits.

b. Mechanical Equipment Pollution Control: Cover duct and related air distribution component openings to prevent dust and debris accumulation.

c. Finish Material Pollution Control: Comply with CALGreen requirements for volatile organic compound (VOC) emissions including but not necessarily limited to following (as applicable):

1) Adhesives, sealants and caulks.
2) Paints and coatings.
3) Carpet systems including carpet, carpet cushion, and adhesives.
4) Resilient flooring systems.
5) Composite wood products formaldehyde limitations.

d. Interior Moisture Control: Comply with CALGreen requirements for vapor retarder at concrete slab foundations and capillary break (aggregate base).

e. Building Material Moisture Content: Do not use water damaged building materials, remove and place wet and high moisture content insulation, and do not enclose wall or floor framing when moisture content exceeds 19%.

f. Indoor Air Quality: Provide humidistat-controlled bathroom exhaust fans with Energy Star compliance, ducted to terminate outside building.

g. Environmental Comfort: Comply with CALGreen requirements for whole house exhaust fan louvers to be insulated or have covers which close when fan is off, and with heating and air-conditioning system design requirements.

C. Planning and Design: Construction team shall coordinate with Design Team regarding Project Planning and Design methods related to CALGreen requirements related to Project design and shall comply with requirements related to construction.

1.3 QUALITY ASSURANCE

A. Project Management and Coordination: Contractor to identify one person on Contractor’s staff to be responsible for CALGreen issues compliance and coordination.

1. Experience: Environmental project manager to have experience relating to CALGreen building construction.

2. Responsibilities: Carefully review Contract Documents for CALGreen issues, coordinate work of trades, subcontractors, and suppliers; instruct workers relating to environmental issues; and oversee Project Environmental Goals.

    a. Submittals: Collect, compile, verify, and maintain sufficient information for submittals indicating compliance with applicable CALGreen requirements.

3. Meetings: Discuss CALGreen Goals at following meetings.

    a. Pre-construction meeting.
    b. Pre-installation meetings.
    c. Regularly scheduled job-site meetings.

B. CALGreen Issues Criteria: Comply with requirements listed in CALGreen and various Specification sections.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General Issues: Do not use materials with moisture stains or with signs of mold or mildew.

1. Moisture Stains: Materials that have evidence of moisture damage, including stains, are not acceptable, including both stored and installed materials; immediately remove from site.

2. Mold and Mildew: Materials that have evidence of growth of molds or of mildew are not acceptable, including both stored and installed materials; immediately remove from site.

2.2 SUBSTITUTIONS

A. Substitutions Environmental Issues: Requests for substitutions shall comply with requirements specified in Section 01 25 00 – Substitution Procedures, with following additional information required where environmental issues are involved.

1. Indicate each proposed substitution complies with CALGreen requirements.

2. Owner and Architect reserve right to reject proposed substitutions where CALGreen information is not provided and where substitution may impact mandatory requirements or Project voluntary tier requirements.

PART 3 - EXECUTION

3.1 PROTECTION

A. Environmental Issues: Protect interior materials from water damage; where interior products not intended for wet applications are exposed to moisture, immediately remove from site.

1. Protect installed products using methods that do not support growth of molds and mildews. Immediately remove from site materials with mold and materials with mildew.

END OF SECTION

SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. This section describes general quality control requirements.

1. General quality control.
2. Manufacturers' field services.
3. Mock-ups.
4. Independent testing laboratory services and inspections.

B. Related Requirements:

1. Refer to applicable codes and Specifications sections for test requirements.

1.2 QUALITY CONTROL, GENERAL

A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

1.3 MANUFACTURER'S FIELD SERVICES

A. When specified in respective Specification sections, require manufacturer or supplier to have qualified personnel provide on-site observations and recommendations.

1. Observe field conditions, including conditions of surfaces and installation.
2. Observe quality of workmanship.
3. Provide recommendations to assure acceptable installation and workmanship.
4. Where required, start, test, and adjust equipment as applicable.

B. Representative shall submit written report to Architect or Owner listing observations and recommendations.

1.4 MOCK-UPS

A. Erect field samples and field mock-ups at locations on site as approved in advance and in accordance with requirements where included in Specifications section.

1. Test mock-ups requiring special equipment may be erected at location having access to necessary equipment; coordinate with Architect.

B. Field samples and mock-ups not approved and not capable of being acceptably revised shall be removed from site.

C. Approved field samples and mock-ups may be used as part of Project.

1.5 TESTING LABORATORY SERVICES AND INSPECTIONS

A. Testing laboratory services and inspections specified and required by applicable codes and regulations will be performed by firms independent of firms related to construction operations and shall be acceptable to applicable authorities.

1. Notify Owner immediately where potential conflict of interest may be involved with testing laboratories or inspection services for Project.

2. Owner or Architect may also require independent testing of items where doubts exist that product or system does not conform to Contract Documents.

3. Owner will employ and pay for testing laboratory and special inspectors to provide Project specific testing and inspections under applicable codes and Specification sections except where indicated otherwise.

a. Owner employment of testing laboratory and inspectors shall not relieve Contractor of obligation to perform Work in accordance with requirements of applicable codes and Contract Documents.

1) Laboratory and inspectors may not release, revoke, alter, or enlarge on requirements of Contract Documents.

b. Retesting required because of non-conformance to specified requirements shall be performed by Owner's testing laboratory.

1) Payment for retesting shall be charged to Contractor by deducting inspection and testing charges from Contract amount.

c. Owner provided testing shall be limited to Project specific testing and shall not include general tests or approvals of materials, equipment or systems.

d. Owner provided inspections shall be limited to Project design team inspections and special inspectors required by applicable authorities.

B. Services shall be performed in accordance with requirements of governing authorities and with specified standards.

C. DSA Projects: Testing and inspections shall be performed in accordance with DSA 103 Form.

D. Reports will be submitted to Architect in duplicate giving observations and results of tests and inspections, indicating compliance or non-compliance with specified standards and with Contract Documents.

1. Where required, testing laboratory and inspectors will submit copy of tests and inspections directly to enforcing agency.

E. Contractor shall cooperate with testing laboratory and inspection personnel; furnish tools, samples of materials, design mix, equipment, storage and assistance as requested.

1. Notify Owner, Architect, inspectors, and testing laboratory sufficiently in advance of expected time for operations requiring inspection and testing services.

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. This section describes temporary construction facilities and temporary controls.

1. Electricity and lighting.
2. Heat and ventilation.
3. Water and sanitary facilities.
4. Construction aids.
5. Temporary enclosures.
6. Barriers.
7. Cleaning during construction.
8. Project identification.
9. Field offices.
10. Cellular telephone service.
11. Storage.

B. Related Requirements:

1. Section 01 70 00: Progress cleaning and final cleaning.
2. Section 01 74 10: Waste management.

C. Provide temporary construction facilities and temporary controls as required to conform to applicable authorities and as required to complete Project in accordance with Contract Documents.

1. Authorities: Contact governing authorities to establish extent of temporary facilities and temporary controls required by authorities.

1.2 ELECTRICITY AND LIGHTING

A. Provide electrical service required for construction operations, with branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords.

1. Connection to existing electrical service is permitted.

B. Provide lighting for construction operations.

1. Permanent lighting may be used during construction; maintain lighting and make routine repairs.

C. Owner will pay costs of energy used from existing on-site services.

1.3 HEAT AND VENTILATION

A. Provide heat and ventilation as required to maintain specified conditions for construction operation, to protect materials and finishes from damage due to temperature and humidity.

B. Owner will pay costs of energy used from existing on-site services.

1.4 WATER AND SANITARY FACILITIES

A. Provide water service required for construction operations; extend branch piping with outlets located so water is available by use of hoses.

1. Connection to existing facilities is permitted.

2. Owner will pay for water used from existing on-site services.

B. Provide and maintain required sanitary facilities and enclosures.

1.5 CONSTRUCTION AIDS

A. Noise, Dust and Pollution Control: Provide materials and equipment necessary to comply with local requirements for noise, dust and pollution control.

B. Fire Protection: Maintain on-site fire protection facilities as required by applicable authorities and insurance requirements.

C. Security: Protect Site and Work; prevent unauthorized entry, vandalism, and theft.

1. Coordinate with Owner’s security program.

D. Dewatering: Provide and operate drainage and pumping equipment; maintain excavations and site free of standing water.

1.6 ENCLOSURES

A. Temporary Closures: Provide temporary weather-tight closures for exterior openings for acceptable working conditions, for protection for materials, to protect interior materials from dampness, for temporary heating, and to prevent unauthorized entry.

1. Provide doors with self-closing hardware and locks.

B. Temporary Partitions: Provide temporary partitions as required to separate work areas from completed areas, to prevent penetration of dust and moisture into completed areas, and to prevent damage to finished areas and installed equipment.

1. Construction: Framing and sheet materials with closed joints and sealed edges at intersections with existing surfaces; Flame Spread Rating of 25 in accordance with ASTM E84.

1.7 BARRIERS

A. Barriers: Provide barriers as required to prevent public entry to construction areas and to protect adjacent properties from damage from construction operations.

1. Fence: Provide minimum 8-foot high commercial grade chain link or painted solid wood fence around construction site; equip with gates with locks.

2. Covered Walkways: Provide lighted covered painted walkways as required by governing authorities for public rights-of-way and for public access to existing building.

B. Barricades: Provide barricades as required by governing authorities.

C. Tree Protection: Provide barriers around trees and plants designated to remain; protect against vehicular traffic, stored materials, dumping, chemically injurious materials, and puddling or continuous running water.

1.8 CLEANING DURING CONSTRUCTION

A. Control accumulation of waste materials and rubbish; recycle or dispose of off-site.

B. Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.

1.9 PROJECT IDENTIFICATION

A. Project Sign: Provide minimum 32-square foot Project identification sign of wood frame and exterior grade plywood construction, painted, with computer generated graphics by professional sign maker.

1. Design: As furnished by Architect.

2. Submit to Owner and Architect additional names or changes proposed to Project sign for prior written approval.

3. Erect on site at location established by Architect.

B. Other Signs: Subject to approval of Architect and Owner.

1.10 FIELD OFFICES

A. Field Office: Provide weather-tight field office, with lighting, electrical outlets, data outlets, heating, and ventilating equipment, and equipped with furniture.

1. Meeting Space: In addition, provide space for Project meetings with table and chairs to accommodate minimum six persons.

2. Telephone Service: Provide telephone service to field office.

3. Multi-Purpose Copier: Provide plain paper multi-purpose color and black-and-white copier with enlargement and reduction capability and with built-in printer, scanner, and facsimile capabilities.

1.11 CELLULAR TELEPHONE SERVICE

A. Cellular Telephone Service: Furnish on-site Project Managers with cellular telephone. Ensure Owner and Architect ability to contact site during construction operations.

1. Schedules: Submit schedules of on-site Project Managers with individual cellular telephone numbers to Owner and Architect; maintain schedules and cell phone numbers up to date during Project on-site operations.

1.12 STORAGE

A. Storage for Tools, Materials, and Equipment: Limit on-site storage to Project area; provide weather-tight storage, with heat and ventilation for products requiring controlled conditions.

1. Maintain adequate space for organized storage and access.

2. Provide lighting for inspection of stored materials.

1.13 REMOVAL

A. Remove temporary materials, equipment, services, and construction prior to Substantial Completion Inspection.

B. Clean and repair damage caused by installation or use of temporary facilities.

C. Restore existing facilities used during construction to specified or original condition.

END OF SECTION

SECTION 01 56 39

TEMPORARY TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Furnish all labor, materials, equipment, facilities, transportation and services to complete tree protection and related work as shown on the drawings and/or specified herein.

B. Description of Work:

1. Protection of existing trees and vegetation to remain.

2. Trimming of existing trees.

3. Maintenance of existing trees during construction.

4. Removal and re-installation of existing trees.

5. Contractor shall retain the services of a certified arborist to perform routine visits and oversee the protection of the existing trees within the project area during demolition, construction and maintenance and to especially review and recommend treatment when roots are encountered and to perform routine maintenance during the construction phase.

C. Traffic:

1. Do not interfere with or close public ways without permission of the Owner's Representative.

2. Do not interfere with adjacent private properties without permission of the Owner's Representative.

D. Site Utilities:

1. Advise utility companies of excavation activities before starting excavations.

2. Locate and identify underground utilities passing through work area before starting work.

3. In event unidentified underground utilities are encountered during work, advise utility owner immediately before proceeding. Add any new utility information to project record drawings for actual location.

4. Protect all existing-to-remain utilities.

5. Do not interrupt existing utilities without advance notice to and approval from the Owner's Representative.

1.3 SUBMITTALS

A. Qualification Data: For qualified tree service firm.

B. Existing Conditions: Submit documentation of existing trees and plantings indicated to remain and/or relocate, which establishes preconstruction conditions that might be misconstrued as damage caused by construction activities.

1. Use sufficiently detailed photographs.

2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.

C. Certification: From arborist, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.

D. Written Maintenance Recommendations: From certified arborist, for care and protection of trees affected by construction during and after completing the Work and for removal and re-installation of existing trees.

1.4 QUALITY ASSURANCE

A. Arborist Qualifications: Certified Arborist as certified by the International Society of Arboriculture (ISA) and having performed similar services for a minimum of five (5) years.

B. Certified Arborist Written Recommendations: Contractor shall retain the services of a reputable Arborist certified by the International Society of Arboriculture (ISA) for review and prepare written recommendations for existing to remain shrubs and trees within the project area under the following circumstances. Contractor shall submit the written recommendations to the Owner's Representative for review. Contractor shall implement Arborist recommendations.

1. Grading, excavation, trenching or any other similar work is required that may disturb roots of existing to remain trees over six (6) inches in diameter measured three (3) feet above finish grade.

2. Pruning is required on branches more than two (2) inches in diameter for existing to remain trees over six (6) inches in diameter measured three (3) feet above finish grade.

3. Damage to existing to remain tree(s) has occurred during construction to any part of the tree.

4. Construction is required within ten (10) horizontal feet of a tree and/or shrub to remain, with a trunk diameter over six (6) inches in diameter measured three (3) feet above finish grade.

C. Certified Arborist Over-sight: Certified Arborist shall perform site inspections, provide over-sight and written summary of visit to Owner's Representative prior to demolition and construction work within the dripline of existing to remain trees with a trunk diameter over six (6) inches in diameter measured three (3) feet above finish grade and provide routine maintenance as required to maintain healthy, viable trees throughout the construction process. Certified Arborist shall provide over-site for recommended pruning for branches two (2) inches and larger in size for existing to remain trees.

D. Contractor shall be liable for the loss in value due to damaged trees and for repair costs resulting as determined by the Client. Due to the irreplaceable nature of many existing trees and vegetation, the liability to the General Contractor shall be set at $1,500.00 minimum per tree. The Trunk Formula method for Northern California established by the International Society of Arboriculture will be used to compute the actual value. Other vegetation lost due to construction activity and/or neglect shall be replaced by General Contractor in kind with similar size, potted plant stock to match existing prior to construction.

1.5 PROJECT CONDITIONS

A. The following practices are prohibited within protection zones:

1. Storage of construction materials, debris, or excavated material.

2. Parking vehicles or equipment.

3. Foot traffic.

4. Erection of sheds or structures.

5. Impoundment of water.

6. Excavation or other digging unless otherwise indicated.

7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.

B. Do not direct vehicle or equipment exhaust toward protection zones.

C. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.

1.6 Definitions

A. Caliper: Caliper on young trees is taken six (6) inches above the soil level and measured by a diameter across the tree trunk. For a tree exceeding a four (4) inch caliper, the diameter measurement is then taken at twelve (12) inches above the soil level. For a mature tree, the caliper is taken at chest height, generally 4-1/2 to 5 feet above the soil level. The measurement is taken using a tree caliper, a utensil in the shape of an “F” with an adjustable cross arm to slide and rest up against the trunk to measure the precise distance of the trunk width.

B. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction, and indicated on Drawings.

C. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by a circle concentric with each tree with a radius equal to the diameter of the drip line unless otherwise indicated.

D. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

PART 2 - PRODUCTS

2.1 TREE PROTECTION PROTECTIVE FENCE

A. Existing vegetation and/or trees to remain on the site shall be protected with a five (5) foot high orange plastic snow fence. Fence shall be mounted on two (2) inch diameter lodge pole posts driven into the ground every six (6) feet to a depth of at least two (2) feet. Fence shall be erected and installed around the perimeter dripline of each shrub, tree or groups of shrubs or trees to remain.

1. Snow Fence: Orange, UV resistance, 3-inch thickness, 60 inches in height, oval mesh, extruded thermal plastic polymer, Tenax or equal, fence fabric.

2. Lodgepole: Rough-sawn, sound, new hardwood, redwood, or pressure-preservative-treated Douglas Fir or lodgepole pine, free of knots, holes, cross grain, and other defects, two (2) inches in diameter by length required, and pointed at one end.

3. Signage: Each tree fence shall have a prominently displayed 8.5 inch x 11 inch sign stating “Warning – Protection Zone”.

B. During planting and irrigation operations, protective fencing is not required beneath existing to remain trees and shrubs that fall within the newly landscaped and/or irrigation area.

2.2 TOPSOIL

A. Natural or cultivated top layer of the soil profile or manufactured topsoil; containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than one (1) inch in diameter; and free of weeds, roots, and toxic and other non-soil materials.

2.3 ORGANIC MULCH

A. Refer to specification section 32 90 00 “Planting” and match organic mulch material to use in non-bio-retention planting areas.

B. If specification section 32 90 00 “Planting” is not issued as part of this project, provide the following mulch for non-bio-retention planting areas:

1. Organic Mulch for non-bio-retention planting areas: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of organic bark from Vision Recycling. Mahogany Wood Chip, available from Vision Recycling (510) 429-1300, www.visionrecycling.com, 41900 Boscell Road, Fremont, CA 94538. Color to be Mahogany. Submit sample to Owners Representative’s for review and approval.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Erosion and Sedimentation Control: Examine the site to verify that temporary erosion- and sedimentation-control measures are in place. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.

B. Prior to demolition and construction, Certified Arborist shall review existing to remain trees and vegetation and prepare a written report(s) as required for the protection, treatment and maintenance of existing trees and vegetation throughout the phases of the Project.

C. For the record, prepare written report, endorsed by arborist, listing conditions detrimental to tree and plant protection.

3.2 PREPARATION

A. Inspections: Engage a qualified arborist to direct plant protection measures in the vicinity of trees, shrubs, and other vegetation indicated to remain, to over-see removal and re-installation of existing plant material and to prepare inspection reports.

B. Locate and clearly identify trees, shrubs, and other vegetation to remain. Tie a 1-inch blue-vinyl tape around each tree trunk at 54 inches above the ground.

C. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.

D. Tree-Protection Zones: Mulch areas inside tree-protection zones and other areas if indicated within Drawings.

1. Apply 3-inch minimum thickness of organic mulch. Do not place mulch within 6 inches of tree trunks.

3.3 PROTECTIVE FENCE INSTALLATION

A. Protection-Zone Fencing: Install protection-zone fencing along edges of protection zones before materials or equipment are brought on the site and construction operations begin. Install fencing in a manner that will prevent people from easily entering protected area except by entrance gates. Construct fencing so as not to obstruct safe passage or visibility at vehicle intersections where fencing is located adjacent to pedestrian walkways or in close proximity to street intersections, drives, or other vehicular circulation.

1. Plastic Protection Zone Fencing: Neatly install protection zone plastic fabric by securing to posts with plastic bands or steel wires, a minimum of two per post, additionally if required to withstand typical construction activity.

2. Posts: Set or drive posts into ground at least two (2) feet without concrete footings and no more than six (6) feet on center spacing. Where a post is located on existing paving or concrete to remain, provide appropriate means of post support acceptable to Owner’s Representative.

3. Access Gates: Install as necessary; adjust to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

B. Protection-Zone Signage: Install protection-zone signage in visibly prominent locations in a manner approved by Owner’s Representative. Install one sign spaced approximately every 50 feet on protection-zone fencing, but no fewer than two signs with each facing a different direction.

C. Maintain protection zones free of weeds and trash.

D. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by the Owner’s Representative.

E. Maintain protection-zone fencing and signage in good condition as acceptable to Owner's Representative and remove when construction operations are complete and equipment has been removed from the site.

1. Do not remove protection-zone fencing, even temporarily, to allow deliveries or equipment access through the protection zone.

2. Temporary access is permitted subject to preapproval in writing by arborist if a root buffer effective against soil compaction is constructed as directed by arborist. Maintain root buffer so long as access is permitted.

3. Temporary access is permitted for landscape irrigation and planting operations.

3.4 ARBORIST SUPERVISION

A. For construction within ten (10) horizontal feet of a tree and/or shrub to remain, with a trunk diameter of twelve (12) inches or larger measured three (3) feet above original finish grade, Contractor shall retain the services of a reputable Arborist certified by the International Society of Arboriculture (ISA) to review the tree(s) and/or shrubs(s), the work to be performed and provide written recommendations to minimize the impact on existing trees and/or shrubs to remain. Submit recommendations to Owner's Representative for review.

B. Contractor shall implement Arborist recommendations.

C. Contractor shall consult Arborist for further recommendations if tree(s) and/or shrub(s) appear in failing health until final completion and acceptance of landscape work.

3.5 EXCAVATION

A. General: Excavation and trenching shall be performed at a minimum, in accordance with these specifications and per Drawings and Details and in accordance with recommendations from project Arborist retained by Contractor.

B. Trenching near Trees: Where utility trenches are required within protection zones, hand excavate under or around tree roots or tunnel under the roots by drilling, auger boring, or pipe jacking. Do not cut main lateral tree roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots as required for root pruning.

C. Redirect roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and redirect them without breaking. If encountered immediately adjacent to location of new construction and redirection is not practical, cut roots approximately 3 inches (75 mm) back from new construction and as required for root pruning.

D. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

3.6 REGRADING

A. Lowering Grade: Where new finish grade is indicated below existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.

B. Lowering Grade within Protection Zone: Where new finish grade is indicated below existing grade around trees, slope grade away from trees as recommended by arborist unless otherwise indicated.

1. Root Pruning: Prune tree roots exposed by lowering the grade. Do not cut main lateral roots or taproots; cut only smaller roots. Cut roots as required for root pruning.

C. Raising Grade: Where new finish grade is indicated above existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.

D. Minor Fill within Protection Zone: Where existing grade is 2 inches or less below elevation of finish grade, fill with topsoil

3.7 ROOT PRUNING

A. Prune roots that are affected by temporary and permanent construction. Prune roots as follows:

1. Cut roots manually by digging a trench and cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.

2. Cut Ends: Coat cut ends of roots more than 1-1/2 inches in diameter with an emulsified asphalt or other coating formulated for use on damaged plant tissues and that is acceptable to arborist.

3. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.

4. Cover exposed roots with burlap and water regularly.

5. Backfill as soon as possible.

B. Root Pruning at Edge of Protection Zone: Prune roots flush with the edge of the protection zone, by cleanly cutting all roots to the depth of the required excavation.

C. Root Pruning within Protection Zone: Avoid cutting trenches within shrub and/or tree protection zone. If trenching is unavoidable, cut trenches with an air spade tool to expose roots without cutting them. Roots encountered smaller than two (2) inches in diameter may be cut, not torn for removal. Cleanly cut roots as close as possible to excavation. Roots larger than two (2) inches in diameter shall remain.

3.8 CANOPY PRUNING

A. General Pruning Procedures:

1. Prune trees according to ANSI A300 (Part 1).

2. Cut branches with sharp pruning instruments; do not break or chop.

3. Do not apply pruning paint to wounds.

B. Pruning Goals (Prune as follows and under the direction of Certified Arborist):

1. Prune trees to remain to compensate for root loss caused by construction damage. Provide subsequent maintenance during landscape irrigation and planting maintenance period and until “final completion” as recommended by Certified Arborist.

2. Prune to remove dead wood, promote proper structure, thin and open canopy, and for general health for the specific tree species.

3. Prune for clearance from structures, pathways and driveways and streets and for a balanced canopy.

C. Shrubs, Vines, and Ground Covers:

1. Prune, thin, and shape shrubs according to standard horticultural practices.

2. Prune to remove injured or dead branches from shrubs.

3. Cleaning: Chip removed branches and dispose of off-site.

3.9 IRRIGATION

A. Irrigate existing vegetation and/or trees to remain and those relocated during hot and/or dry periods and as required to maintain material in a healthy, vigorous condition.

3.10 REMOVE AND RE-INSTALL EXISTING TREES

A. Plant material noted on Drawing to be transplanted shall be carefully removed from planting area and planted in new location indicated on Planting Plan. Removal shall consist of digging around the dripline of each plant to be transplanted and to the depth where roots are present. Plant and rootball shall be carefully moved to new planting pit.

B. Re-install transplanted plant material to location indicated on Drawing as follows:

1. Excavate circular pits with sides sloped inward. Trim base leaving center area raised slightly to support root ball and assist in drainage. Do not further disturb base. Scarify sides of plant pit smeared or smoothed during excavation. Excavate approximately planting pit sizes twice the width of the planting pot and equal to the depth of the planting pot.

2. Carefully install root ball without damaging root ball or plant.

3. Set rootball onto compacted native soil so the rootball sits one (1) inch above adjacent finish grade.

4. Amend backfill soil per tree planting detail and landscape planting specifications.

5. Place planting soil around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil.

6. Stake tree(s) per tree planting detail.

3.11 REPAIR AND REPLACEMENT

A. General: Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by the Owner’s Representative.

1. Submit details of proposed root cutting and tree and shrub repairs.

2. Have arborist perform the root cutting, branch pruning, and damage repair of trees and shrubs.

3. Treat damaged trunks, limbs, and roots according to arborist's written instructions.

4. Perform repairs within 24 hours.

5. Replace vegetation that cannot be repaired and restored to full-growth status, as determined by the Owner’s Representative.

B. Trees: Remove and replace trees indicated to remain that are more than 25 percent dead or in an unhealthy condition before the end of the maintenance period or are damaged during construction operations that the Owner's Representative determines are incapable of restoring to normal growth pattern.

1. Provide new trees of same size and species as those being replaced for each tree that measures three (3) inches or smaller in caliper size.

2. Provide new trees of 48" box size and species as those being replaced for each tree that measures greater than three (3) inches. In addition, the liability to the General Contractor shall be set at $1,500.00 minimum per tree. The Trunk Formula method for Northern California established by the International Society of Arboriculture must be used to compute the actual value.

3. Plant and maintain new trees as specified in Section 32 90 00 "Planting."

C. Soil Aeration: Where directed by the Owner's Representative, aerate surface soil compacted during construction. Aerate 10 feet beyond drip line and no closer than 36 inches to tree trunk. Drill two (2) inch diameter holes a minimum of 12 inches (300 mm) deep at 24 inches o.c. Backfill holes with an equal mix of augured soil and sand.

3.12 REMOVAL OF EXISTING TREES:

A. Contractor shall remove and demolish from the site trees and vegetation indicated on the Drawings. Additional trees and vegetation conflicting with work require written approval by Owner or Architect.

B. Tree removal shall include branches, leaves, roots, stumps and stump grindings to a minimum depth of 18" below proposed subgrade. Exact depth shall be determined in accordance with and as required for building and hardscape work included under this contract.

C. Contractor shall fill depressions caused by tree removal with topsoil or site soil.

D. Properly dispose of any vegetation debris in a legal and acceptable manner off project/site property.

3.13 MAINTENANCE OF EXISTING SHRUBS AND/OR TREES DURING CONSTRUCTION

A. Irrigate existing shrubs and/or trees to remain and those relocated during hot and/or dry periods and as required to maintain material in a healthy, vigorous condition.

B. Do not store equipment, materials or vehicles beneath existing to remain trees.

C. Contractor shall exercise caution when working around tree canopies to ensure branches are not torn or broken, bark is not damaged and canopy remains intact.

D. Protect tree and/or shrub root systems from damage caused by runoff or spillage of noxious materials while mixing, placing or storing construction materials. Protect root system from ponding, eroding or excessive wetting caused by dewatering operations.

E. Monitor existing to remain trees and/or shrubs to remain for pests and diseases and signs of distress. Retain the services of a Certified Arborist to review and remedy signs of distress, pests and/or disease.

F. Maintain protective fencing at original location in vertical, undamaged condition until all contractors and subcontractors are complete.

G. The project Certified Arborist shall be notified of any damage that occurs to a protected tree during construction and proper treatment shall be administered as recommended by the Certified Arborist.

END OF SECTION 01 56 39
(REVISED 11/6/2023)

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. This section describes basic product requirements governing material and equipment.

1. General product requirements.
2. Product list.
3. Quality assurance.
4. Delivery, storage, and handling.

B. Related Requirements:

1. Section 01 25 00: Substitution procedures.
2. Section 01 30 00: Submittal of manufacturers' certificates.
3. Section 01 77 00: Operation and maintenance data.

1.2 GENERAL PRODUCTS REQUIREMENTS

A. Products include material, equipment, and systems.

B. Comply with Specifications, referenced standards, and applicable codes and regulations as minimum requirements.

C. Provide new materials except as specifically allowed by Contract Documents.

D. Materials to be supplied in quantity within a Specification section shall be by one manufacturer, shall be the same, and shall be interchangeable.

E. Provide equipment and systems composed of materials from a single manufacturer except where otherwise recommended by equipment or systems manufacturer or where otherwise indicated in Contract Documents.

F. Contractor’s Options: Comply with following options; requests for substitutions for named manufacturers and products shall comply with requirements specified in Section 01 25 00 – Substitution Procedures.

1. Products Identified by Reference Standards: Select product meeting referenced standard for products specified only by reference standard.

a. Requests for Substitutions to be limited to products not complying with referenced standards.

1) Submit justification for non-compliance with reference standards as part of Request for Substitutions; if product is foreign made submit rationale why foreign standards and basic materials indicates compliance.

2. Named Manufacturers: Where names of manufacturers are specified select any named manufacturer product meeting Specifications for products specified by naming one or more manufacturers.

    a. Submit Request for Substitution for any manufacturer not named.

3. Named Manufacturers and Named Products: Select any named manufacturer named product meeting Specifications for products specified by naming one or more manufacturers and products.

    a. Where only one manufacturer and product is named together with additional manufacturers without specific products, Requests for Substitutions to be limited to products not comparable to that specified.

        1) Contractors, subcontractors, suppliers, and manufacturers shall take special care to ensure comparable products are being supplied based on design, performance, quality, and longevity.

        2) Substitutions: Submit Request for Substitution for any manufacturer not named and for products not comparable to those specified in design, performance, quality, and longevity.

4. Basis of Design: Where manufacturer or manufacturer and product both are indicated as Basis of Design, submit Request for Substitution for other manufacturers and products.

5. “Or Equal” Clauses: Submit request for substitution for manufacturer or product not specifically named in Specifications where terms "or equal", "or approved equal", or similar references are made.

G. Nameplates: Do not attach or imprint manufacturer or producer nameplates on exposed surfaces in occupied spaces except for required labels and operating data.

    1. Equipment Nameplates: Provide permanent nameplate on service connected and power operated equipment located on easily accessible surface inconspicuous in occupied spaces.

        a. Provide name of product and manufacturer, model and serial number, capacity, speed, rating, and similar information.

1.3 SUBMITTALS

A. Product List: Within 35 days after award of Contract, submit to Owner and Architect a complete list of major products proposed for installation, with name of manufacturer, trade name, and model.

B. Product List: Prior to submittal of second Request for Payment, submit to Architect complete list of major products which are proposed for installation, with name of manufacturer, trade name, and model.

1. Tabulate products by Specification number and title.

C. Substitutions: Refer to Section 01 25 00 – Substitution Procedures.

1.4 QUALITY ASSURANCE

A. Comply with industry standards and applicable codes except when more restrictive tolerances or requirements indicate more rigid standards or precise workmanship.

B. Perform work by persons qualified to produce workmanship of specified quality.

C. Install products straight, true-to-line, and in correct relationship to adjacent materials, with hairline joints, free of rough, sharp and potentially hazardous edges.

D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1. Seismic Anchors: Conform to code requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Transport products by methods to avoid product damage, deliver in undamaged condition in manufacturer's unopened containers or packaging.

B. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.

C. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.

D. For exterior storage of fabricated products, place on sloped supports above ground.

E. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.

F. Arrange storage to provide access for inspection; periodically inspect to assure products are undamaged and are maintained under required conditions.

G. Provide equipment and personnel to handle products by methods to prevent soiling and prevent damage.

H. Promptly inspect shipments to assure products comply with requirements, quantities are correct, and products are undamaged.

I. Immediately remove from Project products damaged, wet, stained, and products with mold and products with mildew.

1. Take special care to prevent absorbent products such as gypsum board and acoustical ceiling units from becoming wet.

END OF SECTION

SECTION 01 70 00

EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. This section describes execution requirements.

1. Installer qualifications.
2. Examination.
3. Manufacturer's instructions.
4. Installation.
5. Cleaning.
6. Protection.

B. Related Requirements:

1. Section 01 50 00: Cleaning during construction.
2. Section 01 77 00: Closeout procedures.
3. Section 01 79 00: Demonstration and training.

1.2 INSTALLER QUALIFICATIONS

A. Experienced Installers: Installers to have minimum five-years successful experience installing items like those required for Project, except for individuals in training under direct supervision of experienced installer.

1.3 EXAMINATION

A. Acceptance of Conditions: Beginning installation of a product signifies installer has examined substrates, areas, and conditions for compliance with manufacturer requirements for tolerances and other conditions affecting performance.

B. Field Measurements: Take field measurements as required to fit Work properly; recheck measurements prior to installing each product.

1. Where portions of Work are to fit to other construction verify dimensions of other construction by field measurements before fabrication; allow for cutting and patching to avoid delaying Work.

C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

1.4 MANUFACTURERS' INSTRUCTIONS

A. Manufacturer’s Recommendations: When work is specified to comply with manufacturers' recommendations or instructions, distribute copies to persons involved and maintain one set in field office.

1. Conform to requirements specified in Section 01 30 00 for submittal of recommendations or instructions to Architect; submit to Architect only where specified or where specifically requested; otherwise keep in Field Office.

B. Perform work in accordance with details of recommendations and instructions and specified requirements.

1. Should a conflict exist between Specifications and recommendations or instructions consult with Architect.

C. Where manufacturer's information notes special recommendations in addition to installation instructions, comply with both recommendations and instructions.

1.5 INSTALLATION

A. Pre-Installation Meetings: Installers and suppliers are to attend pre-installation meetings scheduled by Contractor.

B. Comply with manufacturers written recommendations and installation instructions unless more restrictive requirements are specified.

C. Locate Work and components accurately, in correct alignment and elevation.

1. Make vertical work plumb and horizontal work level.

2. Install components to allow space for maintenance and ease of removal for replacement.

D. Install products at time and under conditions to ensure best possible results; maintain conditions required for product performance until Substantial Completion.

E. Conduct operations so no part of Work is subject to damaging operations or excessive loads during normal conditions.

F. Securely anchor permanent construction in place, accurately located and aligned with other portions of Work.

G. Allow for building movement including thermal expansion and contraction.

H. Make joints of uniform width; arrange joints as indicated, for best visual effect where not otherwise indicated; fit exposed connections together to form hairline joints except where otherwise indicated.

1.6 CLEANING

A. Cleaning During Construction: Specified in Section 01 50 00 - Temporary Facilities and Controls.

B. Progress Cleaning: Keep installed areas clean using cleaning materials specifically recommended by manufacturers of product being cleaned; where not otherwise recommended use nontoxic materials that will not damage surfaces.

1. Remove debris from concealed spaces before enclosing space.

2. Supervise construction operations to assure no part of construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.

C. Final Cleaning: Execute final cleaning at Substantial Completion.

1. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances; polish transparent and glossy surfaces; vacuum carpeted and soft surfaces.

a. Vacuuming Equipment: Type with high efficiency particulate arrestor (HEPA) type filters; properly maintained.

2. Clean equipment and fixtures to a sanitary condition, clean filters of mechanical equipment, replace filters where cleaning is impractical.

a. Clean ducts.

3. Clean site; sweep paved areas.

4. Remove waste, surplus materials and rubbish from Project and site; recycle to maximum extent feasible.

1.7 PROTECTION

A. Protect products subject to deterioration with impervious cover. Provide ventilation to avoid condensation and trapping water.

B. Take care to use protective covering and blocking materials that do not soil, stain, or damage materials being protected.

C. After installation, provide coverings to protect products from damage from traffic and construction operations, remove when no longer needed.

D. Protect interior materials from water damage; immediately remove wet materials from site to prevent growth of mold and mildew on site.

END OF SECTION

SECTION 01 73 00

CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

A. Contractor is responsible for cutting, fitting and patching to complete Work and to:

1. Make its parts fit together properly.
2. Uncover work to provide for installation of ill-timed work.
3. Remove and replace defective work.
4. Remove and replace work not conforming to Contract Documents.
5. Remove samples of installed work as required for testing.
6. Provide routine penetrations of non-structural surfaces for installation of piping.
7. Provide routine penetrations of non-structural surfaces for installation of conduit.

B. Related Requirements:

1. Section 01 50 00: Temporary facilities and controls.

1.2 SUBMITTALS

A. Submit written request well in advance of cutting or alteration which affects:

1. Work of Owner or separate contractor.
2. Structural value or integrity of any element of Project.
3. Integrity of weather-exposed or moisture-resistant elements.
4. Efficiency, operational life, maintenance or safety of operational elements.
5. Visual qualities of sight-exposed elements.

B. Request shall include:

1. Identification of Project and description of affected work.
2. Necessity for cutting or alteration.
3. Effect on work of Owner or separate contractor.
4. Effect on structural integrity, or weatherproof integrity of Project.
5. Alternatives to cutting and patching.
6. Cost proposal, when applicable.
7. Written permission of separate contractor whose work will be affected.
8. Description of proposed work including:

a. Scope of cutting, patching, alteration, or excavation.
b. Products proposed to be used.
c. Extent of refinishing to be included.

C. Should conditions of Work or schedule indicate a change of products from original installation, Contractor shall submit request for substitution as specified in Section 01 25 00 – Substitution Procedures.

D. Submit written notice to Architect designating date and time work will be uncovered.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Comply with Specifications and standards for each specific product involved.

B. Where Specifications and standards have not been provided, provide materials and fabrication consistent with quality of Project and intended for commercial construction.

C. Provide new materials for cutting and patching unless otherwise indicated.

PART 3 - EXECUTION

3.1 INSPECTION

A. Inspect existing conditions of Project, including elements subject to damage or to movement during cutting and patching.

B. After uncovering work, inspect conditions affecting installation of products, or performance of work.

C. Report unsatisfactory or questionable conditions to Architect in writing; do not proceed with work until Architect has provided further instructions.

3.2 PREPARATION

A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of Work.

1. Provide services of licensed engineer for designing temporary support where required by applicable authorities for temporary supports and for shoring; submit engineering calculations directly to applicable authorities upon request.

B. Protect other portions of Project from damage.

3.3 PERFORMANCE

A. Execute cutting by methods that provide proper surfaces to receive installation of repairs and finishes.

1. Execute excavating and backfilling by methods which will prevent settlement, and which will prevent damage to other work.

B. Employ same installer or fabricator to perform cutting and patching work as employed for new construction for:

1. Weather-exposed or moisture resistant elements.

2. Sight-exposed finished surfaces.

C. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.

D. Restore work that has been cut or removed; install new products to provide completed Work in accordance with requirements of Contract Documents.

E. Fit work tight to pipes, sleeves, ducts, conduit and penetrations through surfaces.

F. Refinish entire surfaces as necessary to provide even finish to match adjacent finishes:

1. For continuous surfaces, refinish to nearest intersection.

2. For an assembly, refinish entire unit.

END OF SECTION

SECTION 01 74 10

WASTE MANAGEMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Project requires special Waste Management Program.
   1. CALGreen Waste Management: As required in Section 01 35 15.
   2. Provide itemization of costs related to Waste Management Program.
   3. Effect optimum control of solid wastes.
   4. Prevent environmental pollution and damage.

B. Related Work:
   1. Section 01 35 15: CALGreen environmental requirements.
   2. Section 01 50 00: Temporary facilities and controls.

1.2 DEFINITIONS

A. Inert Fill: A permitted facility that accepts inert waste such as asphalt and concrete exclusively.

B. Class III Landfill: A landfill that accepts non-hazardous waste such as household, commercial, and industrial waste, including construction, remodeling, repair, and demolition operations.

C. Construction and Demolition Waste: Includes solid wastes, such as building materials, packaging, rubbish, debris, and rubble resulting from construction, remodeling, repair, and demolition operations.

   1. Rubbish: Includes both combustible and noncombustible wastes, such as paper, boxes, glass, crockery, metal and lumber scrap, tin cans, and bones.

   2. Debris: Includes both combustible and noncombustible wastes, such as leaves and tree trimmings that result from construction or maintenance and repair work.

D. Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals and inorganic wastes.

E. Sanitary Wastes:

   1. Garbage: Refuse and scraps resulting from preparation, cooking, distribution, or consumption of food.

   2. Sewage: Domestic sanitary sewage.

1.3 SUBMITTALS

A. Waste Management Program: Comply with Contract Documents and applicable code requirements for salvaging, recycling, and disposing of nonhazardous waste.

1. Prior to commencement of Work, schedule and conduct meeting with Owner and Architect to discuss proposed Waste Management Program.

2. Develop mutual understanding relative to details of recycling, and rebate programs.

3. Prepare and submit a written and graphic Waste Management Program including, but not limited to, the following:

a. Indicate procedures to be implemented.

b. Estimate total Project waste to be generated, and estimated cost of disposing of Project waste in landfills.

c. Estimate total cubic yards of following waste categories to be diverted from landfill.

1) Clean dimensional wood, palette wood.
2) Plywood, oriented strand board, and medium density fiberboard.
3) Cardboard, paper, packaging.
4) Other items as directed by Owner and Architect.

d. Estimate amounts of following waste categories in appropriate units (weight, feet, square yards, gallons).

1) Metals.
2) Gypsum board.
3) Carpet.
4) Paint.
5) Other items as directed by Owner and Architect.

e. Submit permit or license and location of waste disposal areas.

f. Submit procedures for recycling/re-use program.

g. Submit procedures for rebate programs.

h. Revise and resubmit Waste Management Program as required by Owner and Architect.

1) Review of Contractor's Waste Management Program will not relieve Contractor of responsibility for control of pollutants and other environmental protection measures.

B. Submit summary of solid waste generated by Project with each application for progress payment, on form acceptable to Owner and Architect; include manifests, weight tickets, receipts, and invoices identifying Project and waste delivered to following locations.

1. Recycling Centers.
2. Class III landfills.
3. Inert fills.

C. Prepare rebate information and product documentation as required for Owner to qualify for rebate programs; submit with final closeout submittals.

1. Where feasible submit in electronic format, otherwise in 3-ring binder.

1.4 RECYCLING PROGRAM

A. Recycling: Implement recycling program that includes separate collection of waste materials of following types as applicable to Project requirements; recycling program to be applied by Contractors and subcontractors.

1. Land clearing debris.
2. Asphaltic concrete.
3. Concrete.
4. Masonry materials.
5. Ferrous metal.
6. Non-ferrous metal.
7. Clean dimensional wood and palette wood.
8. Plywood, oriented strand board, and medium density fiberboard.
9. Paper - bond.
10. Paper - newsprint.
11. Cardboard and paper packaging materials.
12. Glass.
13. Plastics.
14. Gypsum board (unpainted).
15. Paint.
16. Rigid foam.
17. Carpet and pad.
18. Beverage containers.
19. Porcelain plumbing fixtures.
20. Insulation.
21. Others as appropriate.

B. Handling: Keep materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to recycling process.

1. Clean materials contaminated prior to placing in collection containers.

2. Arrange for collection by or delivery to appropriate recycling center or transfer station that accepts construction and demolition waste for purpose of recycling.

C. Participate in Re-Use Programs: Rebates, tax credits, and other savings obtained for recycled or re-used materials shall accrue to Contractor.

END OF SECTION

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. This section describes Contract closeout procedures.

1. Substantial Completion.
2. Final Completion.
3. Project record documents.
4. Material and finish data.
5. Operation and maintenance manuals.

B. Related Requirements:

1. Section 01 30 00: Administrative requirements including attic stock.
2. Section 01 78 00: Warranties.
3. Section 01 79 00: Demonstration and training.

1.2 SUBSTANTIAL COMPLETION

A. Immediately prior to Substantial Completion, schedule agency reviews as required for “temporary certificate of occupancy” or for “certificate of occupancy”.

B. When Contractor considers Work, or a designated portion thereof is substantially complete, submit written notice, with list of items to be completed or corrected.

1. List (“Punch List”): Format pre-approved by Owner and Architect; tabular form with each space listed required.

C. Within a reasonable time, Owner and Architect will inspect status of completion and may add to “Punch List”.

1. Contractor shall pay for Architect's time and direct expenses where more than one Substantial Completion inspection is required.

D. Should Owner and Architect determine Work is not substantially complete, Contractor will be promptly notified in writing, giving reasons.

E. Contractor shall remedy deficiencies and send a second written notice of substantial completion; Architect will reinspect Work.

1. Contractor shall pay for Architect's time and direct expenses where more than one Substantial Completion inspection is required.

F. When Work is determined to be substantially complete by Architect, a Certificate of Substantial Completion will be prepared in accordance with General Conditions.

G. DSA Projects: Contractor shall complete DSA 6-C Form and upload electronically to DSAbox within three days of completion of Work.

1.3 FINAL COMPLETION

A. When Work is complete, submit written certification indicating:

1. Work has been inspected for compliance with Contract Documents.

2. Work has been completed in accordance with Contract Documents and deficiencies listed (in 'Punch List") with Certificate of Substantial Completion have been corrected.

3. Equipment and systems have been tested in presence of Owner's representative and are operational.

4. Work is complete and ready for final inspection.

B. Special Submittals: In addition to submittals required by Contract, submit following.

1. Provide submittals required by governing authorities to governing authorities with copies included in Project Record Documents.

2. Submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.

1.4 PROJECT RECORD DOCUMENTS

A. Keep documents current; do not permanently conceal any work until required information has been recorded.

1. Owner will provide Contractor with a separate set of Drawings to maintain for Project Record Documents.

2. Store reproducible Drawings, one set of Project Manual, and one copy of each Change Order separate from documents used for construction, for use as Project Record Documents.

3. Indicate actual work on Drawings; indicate actual products used in Project Manual, including manufacturer, model number and options.

4. Update Project Record Documents daily and allow for Architect inspection at least once a month.

B. At Contract close-out submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

C. As-Built Documents: General Contractor shall have electronic "As Built" sets of Contract Documents (Project Drawings and Project Specifications) prepared prior to Final Completion.

1. Contractor shall use one complete electronic set of Contract Documents (Drawings and Specifications) for use for “As-Builts”.

2. As-Built Drawings: Revise Drawings based on Record Documents and field measurements made after installation and indicate actual locations of structural elements, ducts, piping, wiring, and equipment.

    a. Professional draftspersons experienced in electronic media used for Contract Documents shall revise original Project Drawings based on information recorded on Project Record Documents.

3. As-Built Specifications: Revise Specifications to indicate manufacturers who provided materials specified along with specifics indicating accessories, options, and finishes used in Project.

    a. Cross referencing Submittal records is acceptable for accessories only.

4. Review Submittal: Submit two copies of electronic media of “As-Built” Documents to Architect for review.

    a. After Architect review, revise where indicated and submit final electronic media to Owner.

D. Final Completion Submittal: At Project Completion submit both Project Record Documents and As-Built Documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

1.5 MATERIAL AND FINISH DATA

A. Provide data for primary materials and finishes.

B. Submit two sets prior to final inspection, bound in 8-1/2" by 11" three-ring binders with durable plastic covers, clearly identified regarding extent of contents.

1. Electronic Format: Where available in electronic format, submit USB 3.0 flash drives with information required for material and finish data.

C. Arrange by Specification division and give names, addresses, and telephone numbers of subcontractors and suppliers. List:

1. Trade names, model or type numbers.
2. Cleaning instructions.
3. Product data.
4. Maintenance recommendations.

1.6 OPERATION AND MAINTENANCE MANUALS

A. Provide manuals for:

1. Electrically operated items.
2. Electrical equipment and controls.
3. Maintenance manuals provided as part of Submittals.

B. Submit two sets prior to final inspection, bound in 8-1/2" by 11" three-ring binders with durable plastic covers, clearly identified regarding extent of contents.

C. Provide a separate volume for each system, with a table of contents and index tabs for each volume.

D. Arrange by Specification division and gives names, addresses, and telephone numbers of Subcontractors and suppliers. List:

1. Appropriate design criteria.
2. List of equipment and parts lists.
3. Operating and maintenance instructions.
4. Shop drawings and product data.

E. Electronic Format: Where available in electronic format, submit two USB 3.0 flash drives with information required for operation and maintenance manuals.

END OF SECTION

SECTION 01 78 00

WARRANTIES

PART 1 - GENERAL

1.1 SUMMARY

A. Warranties: Compile required, and incidental warranties required by Contract Documents.

1. Manufacturer Warranties: Provide manufacturer's standard warranties where specified including inspections and services included or required as part of manufacturer's standard warranty.

2. Special Warranties: Provide special warranties as required by Specifications sections.

3. These warranties shall be in addition to and not a limitation of other rights Owner may have against Contractor under Contract Documents and which may be prescribed by law, regardless of wording of warranty.

B. Extended Correction Period: Contractor shall correct failure of materials and systems to perform in a manner consistent with their intended use including but not limited to failure of waterproofing and roofing systems to resist penetration from water.

1. Standard Correction Period: One year after Substantial Completion or Beneficial Occupancy by Owner except where otherwise noted in Contract Documents; coordinate with General Conditions and Supplementary Conditions.

a. Items used by Contractor during construction operations shall not be considered substantially completed.

b. Correction of Work Period begins with Owner occupancy not completion of component.

2. Extended Correction Period: Requirements are same as standard correction period but for an extended period as indicated in Specifications sections.

3. Contractor Responsibilities: Bear cost of correcting failed work and replacing construction damaged by failure of materials and systems to perform in a manner consistent with their intended use during correction period.

a. Requirements for correction period shall apply to Subcontractors, suppliers, installers, and those responsible for failed work.

b. Owner and Design Team shall not be responsible for determining degree of responsibility of those involved.

4. Owner’s Rights under Law: Correction period shall be in addition to and not a limitation of other rights Owner may have against Contractor under Contract Documents and which may be prescribed by law.

1.2 FORM OF SUBMITTAL

A. Special Warranty and Extended Correction Period Forms: Provide duplicate copies, notarized or on Contractor and Manufacturer's letterhead without conditions or exceptions to requirements specified.

1. Assemble documents executed by subcontractors, installers, suppliers, and manufacturers.

2. Provide table of contents and assemble in binder with durable plastic cover, clearly identified regarding extent of contents.

3. Electronic Format: Submit USB 3.0 flash drives of warranties, in Microsoft Word.

B. Manufacturer Warranty Forms: Use manufacturer’s standard forms unless otherwise directed in Contract Documents; completed form shall not detract from or confuse interpretations of Contract Documents.

1. Manufacturer’s authorized representative shall sign manufacturer warranties.

2. Subcontractor and installer shall countersign warranty where specified.

a. Provide required warranties for waterproofing and roofing systems countersigned by subcontractor and installer.

C. Submit final warranties prior to final application for payment.

1. For equipment put into use with Owner's permission during construction, submit within ten days after first operation.

2. For items of Work delayed materially beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

D. Provide information for Owner's personnel regarding proper procedure in case of failure and instances that might affect validity of manufacturer warranty.

E. Size: 8-1/2" by 11" for three-ring binder; fold larger sheets to fit.

1.3 WARRANTIES AND CORRECTION OF WORK DOCUMENTS

A. Warranties and Correction of Work Documents are intended to protect Owner against failure of work and against deficient, defective and faulty materials and workmanship, regardless of sources.

B. Limitations: Warranties and correction of work requirements are not intended to cover failures that result from:

1. Unusual or abnormal phenomena of the elements.

2. Owner's misuse, maltreatment or improper maintenance of work.

3. Vandalism after substantial completion.

4. Insurrection or acts of aggression including war.

C. Related Damages and Losses: Remove and replace work which is damaged as result of failure, or which must be removed and replaced to provide access for correction of work.

D. Reinstatement: After correction of work reinstate warranty or extended correction period for corrected work to date of original expiration, but not less than half original period.

1. Correction of Work Period: The general correction of work period specified shall not be extended by corrective work except to extent required to correct failure and repair or replace materials damaged by failure.

E. Replacement Cost: Replace or restore failing items without regard to anticipated useful service lives where part of correction of work period, extended correction of work period, and special warranty period unless otherwise noted.

F. Rejection of Warranties: Owner reserves right to reject unsolicited and coincidental product warranties that detract from or confuse interpretations of Contract Documents.

END OF SECTION

SECTION 01 79 00

DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Provide equipment and systems demonstration and instruction in accordance with Contract Documents.

1. Video record seminars and system demonstrations.

B. Related Sections:

1. Section 01 31 00: Project management and coordination.
2. Section 01 77 00: Contract closeout procedures.
3. Refer to Facility Services Subgroups for mechanical and electrical requirements.

1.2 DESCRIPTION

A. Seminar Agenda and Outline:

1. Prepare a seminar agenda and outline in consultation and cooperation with Owner. Include following:

a. Equipment and systems that will be included in seminars.
b. Name of companies and representatives presenting at seminars.
c. Outline of each seminar's content.
d. Time and date allocated to each system and item of equipment.

2. Submit preliminary seminar agenda and outline for review and comment by Owner.

a. Revise and resubmit agenda and outline until all seminar requirements have been satisfied and seminar dates and presenters have been finalized.

3. Submit final seminar agenda and outline no later than eight weeks before date of Acceptance of Work.

B. Seminar Organization:

1. Contractor’s presentation leaders shall chair seminars.

a. Coordinate qualification of training personnel, seminar contents, and presentations with Owner.

2. Coordinate individual presentations and ensure manufacturer’s representatives scheduled to be at training seminars are present.

3. Arrange for presentation leaders familiar with design operation, maintenance and troubleshooting of equipment and systems.

    a. Where one person is not familiar with all aspects of equipment or system; arrange for specialists familiar with each aspect.

4. Coordinate proposed seminar dates with Owner and select mutually agreeable dates.

5. Video Recording: Arrange for video recording (audio and video) of training seminars and system demonstrations, including seminar and demonstration questions and answers.

C. Seminar Content:

1. Architect’s Consultants will explain design philosophy of primary systems.

2. Include following information in presentations dealing with specific systems.

    a. An overview of how system is intended to operate.
    b. Describe design parameters, constrains and operational requirements.
    c. Describe system operation strategies.
    d. Provide information to help in identifying and troubleshooting problems.

3. Include following information in presentations dealing with equipment.

    a. Explanation of how equipment operates.
    b. Recommended preventative and routine maintenance.

D. System Demonstration:

1. Demonstrate operation of equipment and systems when specified in individual technical sections. Include following in demonstration.

    a. Start-up and shut down.
    c. Operation.
    d. Scheduled and preventative maintenance.
    e. Troubleshooting.

2. Demonstration may be conducted at time of original starting with Owner's prior approval.

E. Seminar and Demonstration Questions:

1. Be prepared to answer questions raised by Owner’s personnel at demonstrations and seminars.

2. If unable to satisfactorily answer questions immediately, provide written response within three days.

F. Use manufacturer’s operation and maintenance data as basis of instruction.

1.3 SUBMITTALS

A. Video Recording: Submit three copies of each video recording in DVD format acceptable to Owner; include label on each DVD and on each container identifying Project and Seminar content.

END OF SECTION

SECTION 02 40 00

DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Removing above-grade site improvements within limits indicated.

B. Disconnecting, capping or sealing, and abandoning site utilities in place.

C. Disconnecting, capping or sealing, and removing site utilities.

D. Disposing of objectionable material.

1.2 RELATED SECTIONS

A. Section 31 23 00 – Excavation and Fill.

B. Section 31 23 33 – Trenching and Backfill.

1.3 RELATED DOCUMENTS

A. California Building Code: Chapter 33 – Site Work, Demolition and Construction.

B. California Building Code: Section 1809A.14 – Pipes and Trenches.

1.4 DEFINITIONS

A. ANSI: American National Standards Institute.

B. CAL-OSHA: California Occupational Safety and Health Administration.

1.5 SUBMITTALS

A. Follow Submittal procedure outlined in Section 01 33 00 – Submittal Procedures.

1.6 PROJECT CONDITIONS

A. Except for materials indicated to be stockpiled or to remain the Owner’s property, cleared materials are the Contractor's property. Remove cleared materials from site and dispose of in lawful manner.

B. Salvable Improvements: Carefully remove items indicated to be salvaged and store where indicated on plans or where designated by the Owner. Avoid damaging materials designated for salvage.

C. Unidentified Materials: If unidentified materials are discovered, including hazardous materials that will require additional removal other than is required by the Contract Documents, immediately report the discovery to the Owner. If necessary, the Owner will arrange for any testing or analysis of the discovered materials and will provide instructions regarding the removal and disposal of the unidentified materials.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. Backfill excavations resulting from demolition operations with on-site or import materials conforming to structural backfill defined in Section 31 23 00 – Excavation and Fill.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect and maintain benchmarks and survey control points during construction.

B. Protect existing site improvements to remain during construction.

3.2 RESTORATION

A. Restore damaged improvements to their original condition, as acceptable to the Owner.

3.3 UTILITIES

A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed or abandoned.

B. Arrange to shut off indicated utilities with utility companies or verify that utilities have been shut off.

C. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless authorized in writing by the Owner, and then only after arranging to provide temporary utility services according to requirements indicated.

D. Coordinate utility interruptions with utility company affected.

E. Do not proceed with utility interruptions without the permission of the Owner and utility company affected. Notify Owner and utility company affected two working days prior to utility interruptions.

F. Excavate and remove underground utilities that are indicated to be removed.

G. Securely close ends of abandoned piping with tight fitting plug or wall of concrete minimum 6-inches thick.

3.4 SITE IMPROVEMENTS

A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.

B. Remove slabs, paving, curbs, and gutters, as indicated. Where concrete slabs, curb, gutter and asphalt pavements are designated to be removed, remove bases and subbase to surface of underlying, undisturbed soil.

C. Unless the existing full-depth joints coincide with line of pavement demolition, neatly saw-cut to full depth the length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.

D. Remove driveways, curbs, gutters and sidewalks by saw cutting to full depth. If saw cut falls within 30-inches of a construction joint, expansions joint, score mark or edge, remove material to joint, mark or edge.

3.5 BACKFILL

A. Place and compact material in excavations and depressions remaining after site clearing in conformance with Section 31 23 33 – Trenching and Backfill.

3.6 DISPOSAL

A. Remove surplus obstructions, demolished materials, and waste materials, including trash and debris, and legally dispose of them off the Owner's property.

END OF SECTION

SECTION 11 68 16

PLAY STRUCTURES

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. The extent of work in this Section includes the provision and installation of the play structures with miscellaneous hardware, foundations and appurtenances required for installation.

B. The general extent of work for this Section is shown on the drawings and includes, but is not limited to, the following:

1. Kindergarten Play Structure

2. Primary Play Structure

C. Related Sections include the following:

1. Specification Section 32 13 13.1 Concrete Work (Landscape)

2. Division 31 for Grading.

D. Prior to bidding:

1. Contractor shall review play components with manufacturer representative and include in their bid special delivery, delivery lead times, and off-loading requirements (according to size, weight and proportions of play components), recommended rigging procedures, protection and security of play components prior to installation, manufacturer recommended footings and installation procedures.

2. Contractor shall review manufacturer’s installation manual and include recommended procedures in their bid.

1.3 REFERENCES AND STANDARDS

A. ASTM: American Society for Testing and Materials.

B. CPSC: Consumer Product Safety Commission.

C. IPEMA: International Playground Equipment Manufacturer's Association.

D. ADA: Americans with Disabilities Act.

E. ISO: International Organization for Standardization.

F. CPSI: Certified Playground Safety Inspector by the National Recreation and Park Association.

G. CBC: California Building Code

1.4 QUALITY ASSURANCE

A. All manufactured items shall be inspected and approved upon delivery by Contractor.

B. Unless otherwise specified, install all materials in accordance with manufacturer's recommendations.

C. Play structure manufacturer shall carry International Organization for Standardization (ISO) certification ISO 9001 for customer focused, emphasizing continuous improvement in quality and ISO 14001 for operating in a manner that is environmentally conscious.

D. Play structure manufacturer shall be a member in good standing with the International Play Equipment Manufacturers Association (IPEMA), and be Third Party Certified conforming to ASTM F1487-11, excluding sections 7.1.1, 10 and 12.6.1 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use.

E. Play structure and installation methods shall conform to the U.S. Consumer Product Safety Commission (CPSC) "Public Playground Safety Handbook" (Publication No. 325 CPSC, www.cpsc.gov/PageFiles/122149/325.pdf).

F. Contractor installing play structure shall have installed at least 20 play structures of similar magnitude, size and complexity within the last 5 years on a DSA approved California school campus.

G. Play structure shall conform to regulations published in the Code of Federal Regulations (CFR) for the following:

1. 16 CFR 1303 Ban of Lead-containing paint and certain consumer products bearing lead-containing paint.

2. 16 CFR 1501 Method for identifying toys and other articles intended for use by children under 3 years of age which present choking, aspiration or ingestion hazards because of small parts.

3. 15 CFR 1500.48 Technical requirements for determining a sharp point in toys and other articles intended for use by children under 8 years of age.

H. Design and installation shall meet or exceed the Americans with Disabilities Act (ADA) “2010 ADA Standards for Accessible Design” & CBC.

I. Play structure finishes shall conform to the following:

1. ASTM D 522 for flexibility.

2. ASTM D 4541 for adhesion.

3. ASTM D 2794 for impact resistance.

4. ASTM D 523 for gloss.

5. ASTM D 4060 for taber abrasion.

6. ASTM D 638 for tensile strength.

7. ASTM D 638 for % elongation.

8. ASTM D 2247 for humidity resistance.

9. ASTM B 117 for salt spray.

10. ASTM G 53 for QUV.

1.5 SUBMITTALS

A. Product Data: Submit manufacturer's technical data and installation instructions for play structure(s) conforming to requirements of Division 01, Section 01 33 00 “Submittals”. Submit the following:

1. Play structure manufacturer and manufacturer’s representative’s name(s) and address(es).

2. Plan view drawings with model numbers, descriptive labels (including component names), deck heights, and notations of compliance with CPSC, ASTM F1487, ADA & CBC.

3. Detailed component list with model numbers and catalog descriptions.

4. Manufacturer’s Standard Color Chart.

5. Written material specifications for all components.

6. IPEMA certification certificate from the IPEMA website.

7. Copy of manufacturer’s warranty in certificate format.

8. Copy of manufacturer’s ISO 9001 Certification.

B. Spare or replacement parts, if provided, and/or maintenance care instructions shipped with components shall be delivered to Owner's Representative prior to substantial completion.

C. Third Party Certified Playground Safety Inspector (CPSI): Identify third party safety inspector name, address and phone number Contractor shall retain for installation inspection.

1.6 WARRANTY/GUARANTEE

A. The structure manufacturer shall warrant material and workmanship against defects, from the date of manufacturer's invoice, for the period of time as follows:

1. Limited Warranty for as long as you own the product against structural failure due to corrosion or defects in materials and workmanship on aluminum decks, steel deck posts, clamping/fastening and associated fastening hardware.

2. Limited fifteen (15) year warranty against structural failure due to corrosion or defects in materials and workmanship on steel support legs, steel components including railings, rungs and rigid climbers.

B. Contractor shall guarantee installation workmanship for a period of one year from the date of substantial completion of the project. The Contractor shall be responsible for coordinating manufacturer material warranty items with the manufacturer/distributor and for the installation of replacement materials(s) at no additional cost to the owner.

1.7 DELIVERY, STORAGE AND HANDLING

A. Contractor shall schedule delivery and receive play structures specified within this Specification whether purchased as part of this project or purchased by Owner. Receiving process shall include off-loading play structure and accompanying components, taking inventory, accepting delivery and follow-up in event parts are missing and/or damaged, to ensure all components required are delivered in good condition.

B. Contractor shall contact play structure supplier and/or delivery company and verify size and weight of items delivered and provide adequate equipment to facilitate safe and proper off-loading procedures acceptable to the manufacturer.

C. Store and handle products so as not to impede work of others.

D. Protect products from damage or theft during delivery, handling, storage and installation.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Structure: See drawings and details for type, style, configuration, size and height of play structure(s) to be provided.

B. Colors: Shall be selected from manufacturer's standard colors.

C. Model and Manufacturer: specified for play structures are school district standard. Substitutions will not be allowed.

Description	Manufacturer	Model #	Local Rep
Kindergarten Play Structure	Miracle Recreation	Refer to drawings	Miracle Playsystems
Primary Play Structure	Miracle Recreation	Refer to drawings	Miracle Playsystems

Local Representative(s)	Phone	Website	Email
Miracle Playsystems. Contact: Jean Tyan	(800) 879-7730	miracleplaygroup.com	jean@miracleplaygroup.com

Contractor shall purchase touch-up paint for each color of powder coated products for use as needed after installation. Deliver un-used touch-up paint to Owner prior to substantial completion for new play structure(s).

PART 3 - EXECUTION

3.1 SEQUENCING AND SCHEDULING

A. Coordinate construction timing with installation of site furnishings in conformance with other pertinent Sections of the Specifications.

3.2 INSTALLATION

A. Contractor shall coordinate installation of play structure with installation of perimeter curbing, subsurface drainage, underground utilities, base installation and resilient surfacing installation.

B. Contractor shall review sub-base per safety requirements.

C. Contractor shall lay out footing locations and obtain manufacturer approval on safety clearances in writing prior to installation of adjacent hardscape.

D. Resilient Surfacing: Contractor shall review resilient surfacing area prior to installation of play structure. Contractor shall verify fall attenuation is adequate for proposed play structure fall heights and verify Americans with Disabilities Act (ADA) access to points of entry and exit.

E. Concrete Footings: Install footings with top of concrete sloped to drain at 1%. Install where shown on drawings and as detailed and per manufacturer's instructions.

F. Installation instructions, detailed, printed installation instructions, written in English, shall be provided by the manufacturer which shall include detailed, scaled plan views, elevations and footing drawings and details when applicable, as well as sequential assembly instructions to assure proper installation of the playground structure(s).

G. Contractor shall install play structure according to manufacturer’s installation instructions.

H. Contractor shall keep site clean. Tools, trash, debris and surplus installation materials shall be removed on a daily basis.

I. Materials may be stored on site during installation with appropriate protective measures for job site safety and to protect from theft.

3.3 FIELD QUALITY CONTROL

A. The contractor is responsible for hiring a Third-Party Certified Playground Inspector (CPSI), not employed by the installer. The contractor shall obtain sign-off in writing from the third-party CPSI ensuring that all areas of the play structure (including new play structures, retrofit play structures, and existing play structures within the area of work) meet the current national standards set by the American Society for Testing and Materials (ASTM) and U.S. Consumer Product Safety Commission (CPSC), by said CPSI before the play structure is open for use.

3.4 CLOSE-OUT

A. Contractor shall provide Owner’s Representative with written certification of installation by Third-Party Certified Playground Safety Inspector.

B. Contractor shall provide Owner’s Representative with one (1) copy of complete manufacturer’s installation instructions and maintenance kit, if provided.

C. Contractor shall deliver spare and/or replacement parts, if provided, to Owner’s Representative prior to substantial completion.

D. Contractor shall purchase and deliver touch-up paint for each powder-coat color represented on play structure(s) to Owner’s Representative.

END OF SECTION 11 68 16
(REVISED 11/16/2023)

SECTION 31 11 00

CLEARING AND GRUBBING

PART 1 - GENERAL

1.1 SUMMARY

A. Clearing vegetation, debris, trash and other materials within limits indicated.

B. Grubbing of vegetation within limits indicated.

1.2 RELATED DOCUMENTS

A. Caltrans Standard Specifications.

1. Section 17-2, Clearing and Grubbing.

B. California Building Code: Chapter 33 – Site Work, Demolition and Construction.

PART 2 - PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 PREPARATION

A. Locate and clearly flag vegetation to remain or to be relocated.

3.2 RESTORATION

A. Repair or replace vegetation indicated to remain that is damaged by construction operations, as directed by the Owner.

B. Employ a qualified arborist, licensed in jurisdiction where the Project is located, to submit details of proposed repairs and to repair damage to shrubs.

3.3 CLEARING AND GRUBBING

A. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction. Removal includes digging out stumps and obstructions and grubbing roots.

B. Remove trash, debris, logs, concrete, masonry and other waste materials.

C. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.

D. Completely remove stumps, roots, obstructions, and debris extending to a depth of 18-inches below subgrade.

E. Use only hand methods for grubbing within drip line of remaining trees.

END OF SECTION

SECTION 31 13 00

SELECTIVE TREE REMOVAL AND TRIMMING

PART 1 - GENERAL

1.1 SUMMARY

A. Protecting existing trees and vegetation to remain.

B. Trimming tree limbs and roots.

C. Removing trees as designated.

1.2 DEFINITIONS

A. ANSI: American National Standards Institute.

B. CAL-OSHA: California Occupational Safety and Health Administration.

1.3 QUALITY ASSURANCE

A. Do not remove or prune trees without first securing a permit from the appropriate agency.

B. Prune to the standards of the International Society of Arborists and to ANSI A300.

PART 2 - PRODUCTS

A. NOT USED

PART 3 - EXECUTION

3.1 PREPARATION

A. Locate and clearly flag trees to remain or to be relocated.

3.2 TREE PROTECTION

A. Erect and maintain temporary fence around drip line of individual trees or around perimeter drip line of groups of trees to remain. Remove fence when construction is complete.

B. Do not store construction materials, debris, or excavated material within drip line of remaining trees.

C. Do not permit vehicles or equipment within drip line of remaining trees.

D. Do not excavate within drip line of remaining trees, unless otherwise indicated.

E. Where excavation for new construction is required within drip line of trees, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation edge as possible.

F. Cover exposed roots with burlap and water regularly.

G. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

H. Coat cut faces of roots more than 1 ½ inches in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.

I. Cover exposed roots with wet burlap to prevent roots from drying out. Backfill with soil as soon as possible.

3.3 TREE PRUNING

A. Prune trees to balance the crown and eliminate hazards. Perform main work to reduce sail effect through thinning, reducing end weights, shortening long heavy limbs, removing deadwood, weak limbs and sucker growth. Prune limbs back to an appropriate lateral branch.

B. Make final cuts at the outer edge of the branch collar in accordance with the arborist's recommendations.

C. Perform pruning work in a safe and proper manner, adhering to CAL-OSHA and ANSI Standards.

3.4 ROOT PRUNING

A. Do not cut tree roots greater than 3-inch in diameter and less than 12-inches below ground level without approval of the Owner.

B. Cut tree roots cleanly, as far from the trunk as possible, and not underneath any area where walkways are to be constructed. Root pruning shall be to a depth of 18-inches.

C. Tree root prune using a Vermeer root-cutting machine. Obtain the Owner's approval before using alternate equipment or techniques.

D. Complete tree root pruning prior to any excavation adjacent to the tree.

E. Do not expose tree roots to drying out. Cover root ends with soil or burlap and keep moist until the final backfill is completed.

3.5 TREE REMOVAL

A. Remove trees designated for removal prior to the construction of new improvements.

B. Perform tree removal work in a safe and proper manner, adhering to CAL-OSHA and ANSI Standards.

C. Remove or grind stumps to a minimum of 18-inches below finish subgrade. Remove surface roots to this depth within 24-inches of the tree trunk.

3.6 RESTORATION

A. Repair or replace trees indicated to remain that are damaged by construction operations, as directed by the Owner.

B. Employ a qualified arborist, licensed in the jurisdiction where the Project is located, to submit details of proposed repairs and to repair damage to trees.

C. Replace trees that cannot be repaired and restored to full-growth status, as determined by the Owner.

END OF SECTION

SECTION 31 20 00

EARTHWORK

PART 1 – GENERAL

1.1 WORK SPECIFIED IN THIS SECTION

A. Work of this section includes all required excavation, grading, preparation of subgrade for fills, proper placement of fills, including backfilling and compaction, the watering, rolling and compacting of fill material in place and the finish grading all as required by the drawings and as specified herein.

B. All grading work shall be performed in accordance with:
1. Title 24, Part 2, C.C.R., 2022 C.B.C., 2021 I.B.C. with California Amendments & Supplements
2. The grading code of the County and any special requirements of the permit.
3. The Geotechnical Investigation report for the project site
4. Provide special inspection for engineered fill and compaction, Title 24, Part 2, C.C.R., 2022 C.B.C., 2021 I.B.C. with California Amendments & Supplements
5. Applicable General and Special Conditions of these specifications herein after set forth in full or by reference.
6. A final grading report shall be submitted by the Geotechnical Consultant in accordance with Title 24, Part 2, C.C.R., 2022 C.B.C. Appendix J

1.2 PRINCIPAL ITEMS OR WORK INCLUDED HEREIN.

A. Excavation
B. Filling
C. Backfilling
D. Geotechnical Consultant and Tests
E. Grading
F. Miscellaneous related work necessary for a complete job.
G. Special Requirements.

1.3 SCHEDULING

A. PAD GRADING: It is imperative that Building construction commence as quickly as possible, therefore, contractor shall submit a schedule of grading that clearly establishes the construction of the Building Pad area as a priority of grading construction along with providing appropriate or required reports and certifications from the Geotechnical Consultant, Civil Engineer, and governmental authority necessary to commence foundation excavation and building construction.

1.4 RELATED WORK SPECIFIED IN OTHER SECTIONS.

A. Clearing and Grubbing: Section 31 11 00

B. Final subgrade preparation for asphalt paving: Section 32 12 00. Flexible Paving.

C. Aggregate base beneath asphalt paving is specified under Flexible Paving, Section 32 12 00.

D. Excavation and backfill for utility lines specified under Mechanical and Electrical Sections, shall be performed as specified in this Section.

PART 2 - PROTECTION

2.1 Contractor shall protect adjacent properties, roads, right-of-ways, easements and existing improvements from damage during the life of the grading operation and prevent caving, sloughing or the placing of materials or stock piles on adjacent properties.

2.2 Provide cribbing, sheathing, and shoring necessary to safely retain the earth banks and protect excavations and adjoining grades from caving and other damage resulting from excavating, together with suitable forms of protection against bodily injury to personnel employed on the work and the general public. The responsibility for the design, installation, and maintenance of required cribbing and shoring shall be entirely that of the Contractor and shall meet the approval of the State Division of Industrial Safety and local governing agencies' requirements.

2.3 Utility lines and structures shown shall be protected and treated as indicated. Where work not shown is encountered, report it to the Architect before proceeding with excavation. The Contractor shall bear the costs for all repairs to damaged or broken utilities and any damages related thereto.

2.4 It shall be the Contractor's full responsibility to take all measures necessary during grading to protect slope areas, both cut and fill, existing improvements and adjacent properties from storm damage and flood hazard originating on this project until final acceptance by the Owner. It shall be the Contractor's responsibility to maintain completed slopes until all slopes are in satisfactory compliance with the job specifications, all berms have been properly constructed, and all associates drainage devices have met the requirements of the Architect. It shall also be the Contractor's responsibility to prevent silt run-off from the limits of work.

PART 3 - GEOTECHNICAL CONSULTANT, TESTS, AND REPORTS

3.1 A Geotechnical Consultant designated by the Owner will be engaged to perform continuous inspection of the placing and compacting of all fills and backfills within the limits of grading of this project. All work shall be done in accordance with these specifications and as recommended and approved by the Geotechnical Consultant. Costs for all such inspections and tests shall be paid by the Owner. The Contractor shall be responsible for notifying the Geotechnical Consultant in advance so that he may be present to perform his services as needed. The Geotechnical Consultant shall approve all subgrades prior to placement of fill or placement of forms and reinforcing.

3.2 The Geotechnical Consultant shall also make an investigation of the fill material to establish the ability of the soil to sustain the vertical loads to be imposed on the fill by the proposed structure.

3.3 The Geotechnical Consultant shall submit compaction reports to the Architect and the Civil Engineer at the completion of the work, including test results and plot plans indicating the locations from which the tested samples of fill were taken. The Geotechnical Consultant shall keep the Architect informed on the progress of the grading work.

3.4 No clearing, demolitions, filling and backfilling, or grading operations shall be performed without the presence of a representative of the Geotechnical Consulting firm. Operations undertaken at the site without the Geotechnical Consultant present may result in exclusions of affected areas from the final compaction report for the project. The presence of the Geotechnical Consultant will be for the purpose of providing observation and field testing, and will not include any supervising or directing of the actual work of the Contractor, directing his/her employees or agents. Neither the presence of the field representative nor the observations and testing by the Geotechnical Consulting firm shall excuse the Contractor in any way for defects discovered in the Contractor's work. The Geotechnical Consulting firm shall not be responsible for job or site safety on this project, which shall be the sole responsibility of the Contractor.

3.5 The existing soil conditions at this site have been investigated, and a report of findings is on file at the Owners office for review by the Contractors during the bidding period. This information is offered as supplemental information only, and no guarantee of existing soil or other conditions is intended.

PART 4 - MATERIALS

4.1 All imported material and sources for import material shall be approved by the Geotechnical Consultant prior to hauling on site. Contractor shall be responsible for communicating the necessary information to the Geotechnical Consultant in a timely manner so the Geotechnical Consultant may perform appropriate testing and reporting.

4.2 The Contractor shall import any and all additional fill material required to complete the grading on this project. Imported fill soils shall be non-expansive, granular soils meeting the USCS classifications of SM, SP-SM or SW-SM with a maximum rock size of 3 inches and 5 to 35% passing the No. 200 sieve. The Geotechnical Consultant shall evaluate the import fill soils before hauling to the site. The imported fill shall be placed in lifts no greater than 8 inches in loose thickness and compacted to at least 90% relative compaction (ASTM D1557) near optimum moisture content.

4.3 Fill material within new building and paved areas shall be clean, well-pulverized soil free of vegetation matter, rocks larger than 3 inches in any dimension, and other debris, and shall be subject to approval by the Geotechnical Consultant.

4.4 Backfill material for storm drain and utility lines shall be non-expansive granular materials, such as clean sand, and shall be placed in a minimum thickness of 6 inches for bedding and backfilled to 12 inches above top of pipe. Bedding sand shall have a sand equivalent value of 30 or greater determined in accordance with Cal-Trans Test Method # 217.

PART 5 - SURPLUS EARTH MATERIAL

5.1 All surplus earth material not needed for the completion of the grading shall be removed from the site by the Contractor and disposed of in a legal manner.

PART 6 - INADEQUATE SOIL CONDITIONS

6.1 Should soil of inadequate density and bearing capability be encountered at the elevations indicated on the drawings, or where new fill is to be placed upon existing loose fill material exposed by excavation, the excavation shall be carried to the depth required to attain soil of bearing quality as determined by the Geotechnical Consultant. The adequacy of all soil bearing value shall be determined by the Geotechnical Consultant.

PART 7 - EXECUTION

7.1 PRE JOB CONFERENCE

An onsite pre job meeting with Architect, the Construction Manager, the Geotechnical Consultant, Civil Engineer, Inspector, and the Utility Line and Earthwork Subcontractor(s) is required prior to all grading related operations. ATTENDANCE IS MANDATORY.

7.2 PREPARATION

A. Protect adjacent property and existing improvements and structures as necessary to prevent undermining, caving of cuts, and miscellaneous damage, or sloughing of material onto adjacent property.

B. Provide cribbing, sheathing, and shoring necessary to safely retain the earth banks and protect excavations and adjoining grades from caving and other damage resulting from excavation together with suitable forms of protection against bodily injury to personnel employed on the work and the general public. Be responsible for the design, installation, and maintenance of required cribbing and shoring and same shall meet the approval of the State Division of Industrial Safety and local governing agencies' requirements.

C. Protect existing improvements and adjacent properties from storm damage and flood hazard originating on this project until final acceptance by the Owner. Prevent silt runoff from the limits of work in accordance with governmental requirements, and the S.W.P.P.P.

D. Borrow pits, if any, shall meet all requirements of these Specifications for over-excavation and backfill.

7.3 DUST CONTROL

During all grading operations, water shall be applied to the surfaces in the working area at frequent intervals and in sufficient quantities to allay the dust and for proper compaction. No other method will be permitted.

7.4 CLEAN-UP

Upon completion of work in this Section, remove rubbish, trash, and debris resulting from operations. Remove disused equipment and implements of service, and leave entire area involved in a neat, clean, and acceptable condition.

7.5 EXCAVATION

A. Prior to any excavation or filling operation, the entire area within the limits of work containing vegetation shall be excavated to a minimum depth to ensure removal of all vegetation. This material shall be disposed of off the site in a legal manner.

B. Excavate to the depths, lines, and grades indicated. Excavate sufficiently over-size to permit installation and removal of concrete forms and all other required work.

C. Footing pads, if poured neatly, may be excavated to the net pad widths plus two inches if approved by the Architect. Approval will not be given until the completed excavation has been inspected.

D. Should footing excavations exceed reburied dimensions or should sloughing occur, fill such extra space with concrete at no additional cost to the contract. If unsuitable material is found at the indicated depths, immediately notify the Architect.

E. Sequencing of the work to ensure that one part of the excavating does not interfere with another part rests with the Contractor.

F. Notify the Structural Engineer 48 hours before foundation excavations are ready for inspection.

G. The bottoms of footings shall be free of loose material, debris, and water before concrete is placed.

H. Cut banks shall be neatly trimmed to the required finish surface as the cut progresses, or the Contractor shall have the option of leaving the cuts full and finish grading by mechanical equipment which will produce the finish surfaces as shown on the drawings.

I. All cut or "at grade" building, concrete and asphalt pavement areas shall be scarified to a minimum depth of 8 inches below subgrade brought to an optimum moisture content, and compacted to a density of not less than 90% of maximum dry density.

7.6 FILLING

A. Prior to placing new fill in all other areas, the exposed cleared surface should be plowed, scarified, or otherwise processed to a depth of at least 24 inches, watered and/or aerated, as required, thoroughly mixed to a uniform, near optimum moisture condition, and recompacted to at least 90 percent of the ASTM D1557 test standard.

B. All recompacted and new fill required to secure final subgrade elevations should be

spread, water and/or aerated as required, thoroughly mixed to a uniform near optimum moisture condition, and compacted in approximated 8-inch thick lifts to at least 90 percent. Backfilling of excavations made for removal of any existing buried elements during site clearing should also be performed in this manner.

C. Imported fill materials should consist of clean soils, free from vegetation, debris, or rocks larger than 3 inches. The Expansion Index value should not exceed a maximum of 50 ("Low" expansive per UBC Table 18-1-B.)

D. Where fills are placed on existing slopes exceeding a slope of five horizontal to one vertical, the slopes shall be benched in accordance with the Geotechnical Consultant's requirements and local governing public agencies' requirements, and compacted as herein specified before placing fill material on same, so that all fills shall be placed in horizontal layers as specified. Widths of benches shall be as directed by the Geotechnical Consultant.

E. Rock encountered in the excavation on this site may, at the option of the Contractor, be broken up into pieces not larger than three inches in maximum dimension, and be incorporated in the fill material if spread as directed by the Geotechnical Consultant. Otherwise, all rocks larger than three inches in maximum dimensions shall be removed from the site. Rocks and stones larger than one inch in maximum dimension will not be permitted within the top 12 inches of finished grade in non-paved areas.

F. Fill banks shall be graded full and compacted beyond the grade of the finish bank. After the banks have been filled, they shall be trimmed to the finish grades and limits shown on the drawings.

7.7 BACKFILLING

A. Place no backfill until work in excavations has been approved. Remove cave-ins and loose soil to permit inspection.

B. Place backfill in layers which will compact to six inches maximum, concurrently on both sides of footings and walls. Thoroughly compact each layer with mechanical tampers, adding water as required to obtain optimum moisture content, and compact as set forth in paragraph 7.9 herein.

C. Backfill placed in narrow, restricted areas, such as along utility trenches, may possibly be placed in up to 12-inch thick lifts, depending on the materials, procedures and equipment being employed. Backfill consolidation by flooding or jetting is prohibited unless approved by the Geotechnical Consultant. In any case, all backfill should be mechanically compacted to at least 90 percent of the aforementioned test standard.

7.8 FINISH GRADING

A. The entire area within the limits of grading as indicated on the Drawings shall be constructed to the lines, grades, elevations, slopes, and cross sections indicated on the Drawings. When the grading has been completed, the areas shall be rolled smooth with a steel tandem roller or equal.

B. Fine grade to bring areas to required lines and grades. The subgrade elevation within the building area for slabs on grade (without a base course) shall be within 0.50 inch along a 10-foot straight edge.

C. Slope finish grades to drain surface water away from buildings, walks, paving, and other structures. Generally, grade with uniform slope between points where elevations are given, or between such points and existing grades. Excavate and grade swales to provide drainage away from and around buildings.

D. Areas to Receive Paving or Surfacing: Review plans and details for each area. See plans for paving and base course thickness. Review Drawings for site work details.

E. Areas to Receive Interior Building Slab-on-Grade: Review plans and details for thickness of slabs and granular fill under slabs.

F. Areas to receive Topsoil and/or Planting: Where not otherwise indicated, areas outside of buildings shall be given uniform slopes between points for which finish grades are shown, or between such points and existing established grade, except that vertical curves or roundings shall be provided at abrupt changes in slope.

G. Rocks or cobbles larger than 1-inch in diameter shall not be placed in the upper 12-inches of planting area fill, rocks, or cobbles larger than 3/4 inch shall not appear on the finish graded surface.

H. It shall be the Contractor's full responsibility to take all measures necessary during grading to protect slope areas, both cut and fill, and adjacent properties form storm damage and flood hazard originating on this project until final acceptance by the Owner. It shall be the Contractor's responsibility to maintain completed slopes until all slopes are in satisfactory compliance with the job specifications.

7.9 COMPACTION

A. All fills shall be compacted to at least 90 percent of maximum density obtainable using the ASTM test procedure D1557. All areas, which are scarified, shall be recompacted to these same requirements.

B. All earthwork operations should be subject to compaction monitoring field observation and testing by the Geotechnical Consultant. The Geotechnical Consultant should be notified at least two days in advance of the start of grading. A joint meeting between a representative of the Client, the Contractor and the Geotechnical Consultant is recommended prior to grading to discuss specific procedures and scheduling.

C. Compaction by flooding or jetting is prohibited unless approved by the Geotechnical Consultant.

7.10 SPECIAL REQUIREMENTS

A. REMEDIAL GRADING

1. Building slabs and Footings
   Overexcavate to a depth of 2 feet below existing grade or the bottom of building footings, whichever is greater, to extend a minimum of 5 feet beyond the outer edge of the building slabs or footings (including column supports).

2. Garden and Retaining walls
   Overexcavate to a depth of 2 feet below existing grade or the bottom of footings, whichever is greater, to extend a minimum of 2 feet beyond the face of the footing.

3. Areas to receive fill, pavements or hardscape
   The top 18 inches of the native subgrade shall be overexcavated. The bottom of overexcavation shall be scarified an additional 6 inches, moisture conditioned and compacted to 90% relative compaction per ASTM D1557.

B. A representative of the Geotechnical Consultant's firm shall observe the bottom of all excavations. Artificial fill, soft soils, organic soils, or other unsuitable material remaining in the bottom of the excavations shall be overexcavated until competent natural material is encountered. Competent natural soil is defined as undisturbed material exhibiting a relative compaction of at least 85 percent.

C. Prior to replacing compacted fill in over-cut building, concrete flatwork and A.C. paved areas, the exposed over-cut surface should be plowed, scarified, or otherwise processed to an additional depth of at least 12 inches, water and/or aerated as required, thoroughly mixed to an uniform, near optimum moisture condition, and recompacted to at least 90 percent of maximum dry density obtainable using the ASTM D1557 test standard.

D. All recompacted and new fill should be spread, watered, mixed and compacted by mechanical means in approximate 8 inch thick lifts to at least 90 percent of the aforementioned standard.

E. Completed building, exterior concrete pavement, and A.C. pavement subgrades should be trimmed and rolled to a firm smooth surface. Final watering and rolling should be performed immediately prior to placing concrete or paving.

F. Prior to placing backfill within the remaining excavation behind new retaining walls, these areas should first be cleared of all significant vegetation, construction debris, loose and/or disturbed soils, etc. All new backfill should be spread, watered or aerated as required, thoroughly mixed to a uniform near optimum moisture condition and compacted by mechanical means in approximate 6 to 8 inch thick lifts. The degree of compaction obtained should be at least 90 percent of maximum dry density per the ASTM D1557 laboratory test standard.

G. The top 12 inches of soil within all designated planted areas shall be imported topsoil or stockpiled existing site soil capable of supporting plant growth. The 12-

inch layer shall be measured down from the finish grade shown on the project drawings.

H At the completion of grading operations and prior to building, A.C. pavement and concrete paving construction, Contractor shall provide an as-built grading plan at his own expense. As-built grading plan shall be prepared, signed and dated by a licensed land surveyor or Registered Civil Engineer licensed to practice land surveying.

I. The upper 6 inches of subgrade soils shall be compacted to 95% of maximum dry density when no aggregate base material is specified for asphalt paving.

END OF SECTION

SECTION 31 23 00

EXCAVATION AND FILL

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Excavation and/or embankment from existing ground to subgrade, including soil sterilant, for roadways, driveways, parking areas, walks, paths, or trails and any other site improvements called for on the Plans.

1.2 SECTION EXCLUDES

A. Earthwork related to underground utility installation, see Section 31 23 33 – Trenching and Backfilling.

1.3 RELATED DOCUMENTS

A. ASTM:

1. D 1557, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)).

2. D 1586, Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils.

3. D 2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).

4. D 3740, Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.

5. D 4318. Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

6. E 329, Standard Specification for Agencies Engaged in Construction Inspection, Testing or special Inspection.

B. California Code of Regulation Title 24, Part 2, California Building Code:

1. Chapter 11B – Accessibility to Public Buildings.

2. Chapter 33 – Safeguards During Construction.

C. Caltrans Standard Specifications:

1. Section 10-6, Watering.

2. Section 19, Earthwork.

D. CAL/OSHA, Title 8.

1.4 DEFINITIONS

A. Borrow: Approved soil material imported from off-site for use as Structural Fill or Backfill.

B. Excavation: Removal of material encountered above subgrade elevations.

1. Authorized Over-Excavation: Excavation below subgrade elevations or beyond indicated horizontal dimensions as shown on plans.

2. Unauthorized Over-Excavation: Excavation below subgrade elevations or beyond indicated horizontal dimensions. Unauthorized excavation shall be without additional compensation.

C. Structural Backfill: Soil materials used to fill excavations resulting from removal of existing below grade facilities, including trees. Any fill soil or aggregate base or crush rock under the building shall not contain recycled asphalt, asphalt grindings, or soil with petroleum products. See Section 31 23 33 – Trenching and Backfilling.

D. Structural Fill: Soil materials used to raise existing grades.

E. Rock: Rock material in beds, ledges, unstratified masses, and conglomerate deposits and boulders of rock material ¾-cubic yards or more in volume that, according to ASTM D 1586, exceeds a standard penetration resistance of 100 blows/2-inches.

F. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below grade.

G. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, base or topsoil materials.

H. Unsuitable Material: Any soil material that is not suitable for specific use on the Project.

I. Utilities: onsite underground pipes, conduits, ducts and cables.

1.5 SUBMITTALS

A. Follow submittal procedures outlined in Section 01 33 00 – Submittal Procedures.

B. Submit material certificates signed by the material producer and the Contractor, certifying that that each material item complies with, or exceeds the specified requirements.

1.6 QUALITY ASSURANCE

A. Conform all work to the appropriate portion(s) of the California Code of Regulations, Title 24 and Caltrans Standard Specifications, Sections 10-6 and 19.

B. Percentage of compaction specified shall be the minimum acceptable. The percentage represents the ratio of the dry density of the compacted material to the maximum dry density of the material as determined by the procedure set forth in ASTM D 1557.

C. Upon completion of the construction work, certify that all compacted fills and foundations are in place at the correct locations, and have been constructed in accordance with sound construction practice. In addition, certify that the materials used are of the types, quality and quantity required by these Technical Specifications. The Contractor shall be responsible for the stability of all fills and backfills constructed by his forces.

D. Finish soil grade tolerance at completion of grading:

1. Building and paved areas: +0.05

2. Other areas: ±0.10 feet.

E. The project geotechnical engineer shall be notified of the construction schedule at least one week prior to the beginning of major site construction, and notified at least 48 hours (working days) before being required to perform field observation and testing.

1.7 PROJECT CONDITIONS

A. Promptly notify the Owner of surface or subsurface conditions differing from those disclosed in the construction documents. First notify the Owner verbally to permit verification and extent of condition and then in writing. No claim for conditions differing from those anticipated in the Contract Documents will be allowed unless the Contractor has notified the Owner in writing of differing conditions prior to the Contractor starting work on affected items.

B. Protect open excavations, trenches, and the like with fences, covers and railings to maintain safe pedestrian and vehicular traffic passage.

C. Prevent erosion of freshly graded areas during construction and until such time as permanent drainage and erosion control measures have been installed.

D. Temporarily stockpile fill material in an orderly and safe manner and in a location approved by the Owner.

E. Provide dust and noise control in conformance with Division 1 General Requirements for Cleaning and Waste Management.

F. Environmental Requirements: When unfavorable weather conditions necessitate interrupting earthwork operation, areas shall be prepared by compaction of surface and grading to avoid collection of water. Provide adequate temporary drainage to prevent erosion. After interruption, compaction specified in last layer shall be re-established before resuming work.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from on-site excavations.

B. On-Site Structural Fill and Structural Backfill: Soil or soil-rock mixture from on site excavations, free from organic matter or other deleterious substances. On-site structural fill and backfill shall not contain rocks or rock fragments over 4 inches in greatest dimension and not more than 15 percent shall be over 2-1/2 inches in greatest dimension and with an organic content less than 3.0 percent by weight.

C. Imported Structural Fill and Structural Backfill: Conform to the requirements of on-site structural fill. Material shall also be a non-expansive and predominantly granular soil or

soil-rock mixture with plasticity index of 15 or less in accordance with ASTM D 4318 and an R-Value of 25 or greater.

PART 3 - EXECUTION

3.1 GENERAL

A. Conform to Section 19, Earthwork, Caltrans Standard Specifications as modified by the Contract Documents.

B. Placement and compaction of material by flooding, ponding, or jetting will not be permitted.

C. The use of explosives will not be permitted.

3.2 CONTROL OF WATER AND DEWATERING

A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding the site and surrounding area. Provide dewatering equipment necessary to drain and keep excavations and site free from water.

B. Dewater during backfilling operation so that groundwater is maintained at least one foot below level of compaction effort.

C. Obtain the Owner’s approval for proposed control of water and dewatering methods.

D. Protect subgrades from softening, undermining, washout and damage by rain or water accumulation.

E. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations.

F. Maintain dewatering system in place until dewatering is no longer required.

3.3 WET WEATHER CONDITIONS

A. Do not prepare subgrade, place or compact soil materials if above optimum moisture content.

3.4 BRACING AND SHORING

A. Conform to California and Federal OSHA requirements.

B. Place and maintain such bracing and shoring as may be required to support the sides of the excavations for the proper protection of workmen; to facilitate the work; to prevent damage to the facility being constructed; and to prevent damage to adjacent structures or facilities. Remove all bracing and shoring upon completion of the work.

C. Be solely responsible for all bracing and shoring and, if requested by the Owner, submit details and calculations to the Owner. The Owner may forward the submittal to the Consulting Engineer and/or the California Division of Industrial Safety for their review. The Contractor's submittal shall include the basic design, assumed soils conditions and estimation of forces to be resisted, together with plans and specifications of the materials and methods to be used, and shall be prepared by a civil engineer or structural engineer

registered in California. No excavations related to the proposed facility shall precede a response to the submittal by the Owner.

D. Be solely responsible for installing and extracting the sheathing in a manner which will not disturb the position or operation of the facility being constructed or adjacent utilities and facilities.

3.5 EXCAVATION

A. Excavate earth and rock to lines and grades shown on drawings and to the neat dimensions indicated on the Plans, required herein or as required to satisfactorily compact backfill.

B. Remove and dispose of large rocks, pieces of concrete and other obstructions encountered during excavation.

C. Where forming is required, excavate only as much material as necessary to permit placing and removing forms.

D. Provide supports, shoring and sheet piles required to support the sides of excavations or for protection of adjacent existing improvements.

3.6 REMOVAL OF EXISTING FILLS AND UNSUITABLE MATERIAL

A. Over-excavate areas of existing fills and other unsuitable material encountered during mass grading.

B. Compensation for increased removal widths and depths that are not required will not be considered, except when such increase is necessary for protection of life and property as determined by and approved by the Owner.

3.7 GRADING

A. Uniformly grade the Project to the elevations shown on plans.

B. Finish ditches, gutters and swales to the sections, lines and grades indicated and to permit proper surface drainage.

C. Round tops and bottoms of slopes as indicated or to blend with existing contours.

3.8 SUBGRADE PREPARATION

A. Install underground utilities and service connections prior to final preparation of subgrade and placement of base materials for final surface facilities. Extend services so that final surface facilities are not disturbed when service connections are made.

B. Prepare subgrades under paved areas, curbs, gutters, walks, structures, other surface facilities and areas to receive structural fill.

C. Prepare subgrades for paved areas, curbs and gutters by plowing or scarifying surface at least 6 inches below final subgrade elevations and 5-feet beyond edge of pavement. Uniformly moisture condition to obtain optimum moisture contents. Break clods and

condition surface by harrowing or dry rolling. Remove boulders, hard ribs and solid rock. Prepare earth uniform for full depth and width of subgrade.

D. Protect utilities from damage during compaction of subgrades and until placement of final pavements or other surface facilities.

3.9 PLACEMENT OF STRUCTURAL FILL

A. Place structural fill on prepared subgrade.

B. Spread structural fill material in uniform lifts not more than 8-inches in un-compacted thickness and compact.

C. Place structural fill material to suitable elevations above grade to provide for anticipated settlement and shrinkage.

D. Overbuild fill slopes to obtain required compaction. Remove excess material to lines and grades indicated.

E. Do not drop fill on structures. Do not backfill around, against, upon concrete, or masonry structures until structure has attained sufficient strength to withstand loads imposed and the horizontal structural system had been installed.

F. Backfill in uniform lifts not exceeding 8 inches in uncompacted thickness. Each lift should be brought to a uniform moisture content of at lease 1 percent above optimum prior to compacting by either spraying the soil with water of it is too dry or aerating the material if it is too wet.

3.10 KEYWAYS AND BENCHES

A. Provide keyways as indicated for fill slopes steeper than 6 horizontal to 1 vertical. Extend keyway -feet minimum into competent, undisturbed soil or 3-feet minimum into competent, undisturbed rock.

B. Place subsurface drains in bottom of keyway in conformance with Section 33 46 00 – Subdrainage.

C. Bench subgrade as indicated above toe of fill.

D. Place subsurface drains at benches every 20 vertical feet.

3.11 LOT FINISH GRADING

A. Blade finish lots to lines and grades indicated.

3.12 COMPACTION AND TESTING

A. Do not compact by ponding, flooding or jetting.

B. Compact soils at optimum water content. Aerate material if it is too wet. Add water to material if it is too dry. Thoroughly mix lifts before compaction to ensure uniform moisture distribution.

C. Perform compaction using rollers, pneumatic or vibratory compactors.

D. Compaction requirements:

1. Compact structural fills less than 5-feet thick to 90 percent compaction.

2. Compact structural fill 5-feet thick or greater to 95 percent compaction.

3. Compact the upper 6 inches of subgrade soils beneath pavements, curbs and gutters to 95 percent compaction. Extend compaction 5-feet beyond pavement.

4. Compact the upper 6-inches of subgrade soils to the following percentage of compaction: 95 percent under walks and pavements; 93 percent for foundations; and 90 percent for areas to receive structural fill."

3.13 DISPOSAL

A. Lawfully dispose of all unsuitable and excess or surplus material off-site at no cost to the Owner.

END OF SECTION

SECTION 31 23 33

TRENCHING AND BACKFILLING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Excavation, bedding, and backfill for underground storm drain, sanitary sewer, and water piping and associated structures.

1.2 SECTION EXCLUDES

A. Drainage fill material and placement around subdrains.

B. Trenching and backfill for other utilities such as underground HVAC piping, electrical conduit, telephone conduit, gas piping, cable TV conduit, etc.

1.3 RELATED DOCUMENTS

A. ASTM:

1. C 33, Standard Specification for Concrete Aggregates.

2. C 150, Standard Specification for Portland Cement.

3. C 260, Standard Specification for Air-Entraining Admixtures for Concrete.

4. C 618, Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.

5. D 1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)).

6. D 2321, Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.

7. D 2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).

8. D 3740, Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.

9. E 329, Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.

B. California Code of Regulation Title 24, Part 2, California Building Code:

1. Chapter 11B – Accessibility to Public Buildings.

2. Chapter 33 – Safeguards During Construction.

C. Caltrans Standard Specifications:

1. Section 19, Earthwork.

2. Section 26, Aggregate Bases.
3. Section 68, Subsurface Drains.
4. Section 96, Geosynthetics.

D. CAL/OSHA, Title 8.

1.4 DEFINITIONS

A. AC: Asphalt Concrete.

B. ASTM: American Society for Testing and Materials.

C. Bedding: Material from bottom of trench to bottom of pipe.

D. CDF: Controlled Density Fill.

E. DIP: Ductile Iron Pipe.

F. Initial Backfill: Material from bottom of pipe to 12-inches above top of pipe.

G. PCC: Portland Cement Concrete.

H. RCP: Reinforced Concrete Pipe.

I. Springline of Pipe: Imaginary line on surface of pipe at a vertical distance of ½ the outside diameter measured from the top or bottom of the pipe.

J. Subsequent Backfill: Material from 12-inches above top of pipe to subgrade of surface material or subgrade of surface facility or to finish grade.

K. Trench Excavation: Removal of material encountered above subgrade elevations and within horizontal trench dimensions.

1. Authorized Trench Over-Excavation: Excavation below trench subgrade elevations or beyond indicated horizontal trench dimensions as shown on plans.
2. Unauthorized Trench Over-Excavation: Excavation below trench subgrade elevations or beyond indicated horizontal trench dimensions. Unauthorized excavation shall be without additional compensation.

L. Utility Structures:

1. Storm drainage manholes, catch basins, drop inlets, curb inlets, vaults, etc.
2. Sanitary sewer manholes, vaults, etc.
3. Water vaults, etc.

1.5 SUBMITTALS

A. Follow submittal procedures outlined in Section 01 33 00 – Submittal Procedures.

B. Product Data:

1. Grading and quality characteristics showing compliance with requirements for the Work.

2. Certify that material meets requirements of the Project.

C. Samples:

1. If required, provide 40-pound samples of all imported trench bedding and backfill material sealed in airtight containers, tagged with source locations and suppliers of each proposed material.

2. Provide materials from same source throughout work. Change of source requires approval of the Owner.

1.6 QUALITY ASSURANCE

A. Conform all work to the appropriate portion(s) of the Caltrans Standard Specifications, Section 19.

B. Percentage of compaction specified shall be the minimum acceptable. The percentage represents the ratio of the dry density of the compacted material to the maximum dry density of the material as determined by the procedure set forth in ASTM D 1557.

C. Conform work to the requirements of the California Building Code.

1. Section 1809A.14 – Pipe and Trenches.

1.7 PROJECT CONDITIONS

A. Promptly notify the Owner of surface or subsurface conditions differing from those disclosed in the construction documents. First notify the Owner verbally to permit verification and extent of condition and then in writing. No claim for conditions differing from those anticipated in the Contract Documents will be allowed unless Contractor has notified the Owner in writing of differing conditions prior to contractor starting work on affected items.

B. Protect open, trenches, and utility structure excavations with fences, covers and railings to maintain safe pedestrian and vehicular traffic passage.

C. Stockpile on-site and imported backfill material temporarily in an orderly and safe manner.

D. Provide dust and noise control in conformance with Division 1 General Requirements for Cleaning and Waste Management.

PART 2 - PRODUCTS

2.1 PIPE BEDDING AND INITIAL BACKFILL

A. ASTM D 2321, Class IA, IB or II.

1. Clean and free of clay, silt or organic matter.

B. Permeable Material: Conform to Section 68-2.02F(3) of Caltrans Standard Specifications, Class 2 permeable.

C. Class 2 Aggregate Base: Conform to Section 26 of Caltrans Standard Specifications, ¾-inch maximum. Material shall also be non-expansive and predominantly granular soil or soil-rock mixture "(percent of passing #200: 50 maximum, 5 minimum)" with plasticity index of 15 or less.

D. Sand: Conform to Section 19-3.02F(2) of Caltrans Standard Specifications.

2.2 WARNING TAPE

A. See Section 33 10 00 – Water Utilities.

2.3 SUBSEQUENT BACKFILL

A. Conform to on-site or imported structural backfill in Section 31 23 00 – Excavation and Fill.

2.4 CONTROLLED DENSITY FILL (CDF) (IN TRENCHES)

A. Provide non-structural CDF, from bottom of trench to finish subgrade of subbase or base material, that can be excavated by hand and produce unconfined compressive 28-day strengths from 50-psi to a maximum of 150-psi. Provide aggregate no larger than 3/8-inch top size. The 3/8-inch aggregate shall not comprise more than 30% of the total aggregate content.

B. Cement: Conform to the standards as set forth in ASTM C-150, Type II Cement.

C. Fly Ash: Conform to the standards as set forth in ASTM C-618, for Class F pozzolan. Do not inhibit the entrainment of air with the fly ash.

D. Air Entraining Agent: Conform to the standards as set forth in ASTM C-260.

E. Aggregates need not meet the standards as set forth in ASTM C-33. Any aggregate, producing performances characteristics described herein will be accepted for consideration. The amount of material passing a #200 sieve shall not exceed 12% and no plastic fines shall be present.

F. Provide CDF that is a mixture of cement, Class F pozzolan, aggregate, air entraining agent and water. CDF shall be batched by a ready mixed concrete plant and delivered to the job site by means of transit mixing trucks.

G. The Contractor shall determine the actual mix proportions of the controlled density fill to meet job site conditions, minimum and maximum strengths, and unit weight. Entrained air content shall be a minimum of 4.0%. The actual entrained air content shall be established for each job with the materials and aggregates to be used to meet the placing and unit weight requirements. Entrained air content may be as high as 20% for fluidity requirements.

2.5 CONCRETE STRUCTURE BEDDING AND BACKFILL

A. Precast Structures: Same materials to the same heights as specified for pipe bedding and backfill.

B. Poured-in-Place Structures:

1. Bedding: In general, bedding is not required, pour bases against undisturbed native earth in cut areas and against engineered fill compacted to 90% relative compaction in embankment areas.

2. Side Backfill: On-site or imported structural fill meeting the requirements given in Section 31 23 00 – Excavation and Fill.

2.6 FILTER FABRIC

A. Filter Fabric:

1. Filter Fabric: Section 96-1.02B of Caltrans Standard Specifications.

2. Mirafi 140N (Mirafi Inc., Charlotte, NC) (Tel. 800-438-1855) or equal.

PART 3 - EXECUTION

3.1 TRENCHING AND EXCAVATION

A. Existing PCC or AC Areas: Cut PCC or AC to full depth at a minimum distance of 12-inches beyond the edge of the trench.

B. Excavate by hand or machine. For gravity systems begin excavation at the outlet end and proceed upstream. Excavate sides of the trench parallel and equal distant from the centerline of the pipe. Hand trim excavation. Remove loose matter.

C. Excavation Depth for Bedding: Minimum of 4-inches below bottom, except that bedding is not required for nominal pipe diameters of 2-inches or less.

D. Excavation Width at Springline of Pipe:

1. Up to a nominal pipe diameter of 24-inches: Minimum of twice the outside pipe diameter.

2. Nominal pipe diameter of 30-inches through 36-inches: Minimum of the outside pipe diameter plus 2-feet.

3. Nominal pipe diameter of 42-inches through 60-inches: Minimum of the outside pipe diameter plus 3-feet.

E. Over-Excavations: Backfill trenches that have been excavated below bedding design subgrade, with approved bedding material.

F. Comply with the Owner’s limitations on the amount of trench that is opened or partially opened at any one time. Do not leave trenches open overnight without the approval of the Owner.

G. Where forming is required, excavate only as much material as necessary to permit placing and removal of forms.

H. Grade bottom of trench to provide uniform thickness of bedding material and to provide uniform bearing and support for pipe along entire length. Remove stones to avoid point bearing.

3.2 CONTROL OF WATER AND DEWATERING

A. Be solely responsible for dewatering trenches and excavations and subsequent control of ground and surface water. Provide and maintain such pumps or other equipment as may be necessary to control ground water.

B. Dewater during backfilling operation so that groundwater is maintained a least one foot below level of compaction effort.

C. Reroute surface water runoff away from open trenches and excavations. Do not allow water to accumulate in trenches and excavations.

D. Maintain dewatering system in place until dewatering is no longer required.

3.3 BRACING AND SHORING

A. Conform to California and Federal OSHA requirements.

B. Place and maintain such bracing and shoring as may be required to support the sides of the excavations for the proper protection of workmen; to facilitate the work; to prevent damage to the pipes and appurtenances being constructed; and to prevent damage to adjacent structures or facilities. Remove all bracing and shoring upon completion of the work.

C. Be solely responsible for all bracing and shoring and, if requested by the Owner, submit details and calculations to the Owner. The Owner may forward the submittal to the Consulting Engineer and/or the California Division of Industrial Safety for their review. The Contractor's submittal shall include the basic design, assumed soils conditions and estimation of forces to be resisted, together with plans and specifications of the materials and methods to be used, and shall be prepared by a civil engineer or structural engineer registered in California. No excavations in trench section or around structures shall precede a response to the submittal by the Owner.

D. Be solely responsible for installing and extracting the sheathing in a manner which will not disturb the line, grade, or backfill compaction or operation of the utility being installed or adjacent utilities and facilities.

3.4 PIPE BEDDING

A. Accurately shape bedding material to the line and grade called for on the Plans. Carefully place and compact bedding material to the elevation of the bottom of the pipe in layers not exceeding 8-inches in loose thickness. Compact bedding material at optimum water content to 95% relative compaction unless specified otherwise on the. Compact by pneumatic tampers or other mechanical means. Jetting or ponding of bedding material will not be permitted.

3.5 WARNING TAPE

A. Install in accordance with Section 33 10 00 – Water Utilities.

3.6 BACKFILLING

A. Bring initial backfill up simultaneously on both sides of the pipe, so as to prevent any displacement of the pipe from its true alignment. Carefully place and compact initial backfill material to an elevation of 12-inches above the top of the pipe in layers not exceeding 8-inches in loose thickness. Compact bedding material at optimum water content to 90% relative compaction unless specified otherwise on the. Compact by pneumatic tampers or other mechanical means. Jetting or ponding of initial backfill material will not be permitted.

B. Bring subsequent backfill to subgrade or finish grade as indicated. Carefully place and compact subsequent backfill material to the proper elevation in layers not exceeding 8-inches in loose thickness. Compact bedding material at optimum water content to 90% relative compaction, unless specified otherwise on the Plans. Compact by pneumatic tampers or other mechanical means. Jetting or ponding of subsequent backfill material will not be permitted.

C. Do not use compaction equipment or methods that produce horizontal or vertical earth pressures that may cause excessive pipe displacement or damage the pipe.

3.7 CLEANUP

A. Upon completion of utility earthwork all lines, manholes catch basins, inlets, water meter boxes and other structures shall be thoroughly cleaned of dirt, rubbish, debris and obstructions of any kind to the satisfaction of the Owner.

B. See Section 01 74 00 – Refer to Division 1 General Requirements for Cleaning and Waste Management for further cleanup requirements.

END OF SECTION

SECTION 31 31 19

VEGETATION CONTROL

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Application of soil sterilant on subgrades for roadways, driveways, parking areas, walks, paths, trails and any other site improvements called for on the plans.

1.2 RELATED SECTIONS

A. Section 31 23 00 – Excavation and Fill.

1.3 RELATED DOCUMENTS

A. CAL/OSHA, Title 8.

1.4 SUBMITTALS

A. Follow submittal procedures outlined in Section 01 30 00 – Submittal Procedures.

PART 2 - PRODUCTS

2.1 SOIL STERILANT

A. Commercial chemical for weed control, registered by EPA. Provide granular, liquid or wet-able powder form.

PART 3 - EXECUTION

3.1 SOIL STERILIZATION

A. Apply soil sterilant to areas indicated, such as beneath asphalt concrete pavement, brick pavement, concreter pavement and at grade concrete slabs, including sidewalks, curbs and gutters. Also where indicated apply soil sterilant below expansion and control joints and at areas where pipes, ducts or other features penetrate slabs.

B. Apply soil sterilant uniformly and at the rates recommended by the manufacturer.

C. Apply soil sterilant to prepared subgrade, or after installation of aggregate base as recommended by the manufacturer.

3.2 DISPOSAL

A. Lawfully dispose of all unsuitable and excess or surplus material off-site at no cost to the Owner.

END OF SECTION

SECTION 32 11 00

BASE COURSES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Aggregate subbase.
B. Aggregate base.
C. Cement treated base.
D. Lime stabilization.

1.2 RELATED DOCUMENTS

A. ASTM:

1. D 3740, Standard Practice for Minimum Requirement for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
2. E 329, Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
3. E 548, Standard Guide for General Criteria Used for Evaluating Laboratory Competence.

B. Caltrans Standard Specifications:

1. Section 24-2, Lime Stabilized Soil.
2. Section 25, Aggregate Subbases.
3. Section 26, Aggregate Bases.
4. Section 27, Cement Treated Bases.

1.3 DEFINITIONS

A. Geotechnical Testing Agency: An independent testing agency qualified according to ASTM E 329 to conduct soil materials and rock definition testing, as documented according to ASTM D 3740 and ASTM E 548.
B. Rock: Rock material in beds, ledges, unstratified masses, and conglomerate deposits and boulders of rock material ¾-cubic yards or more in volume that when tested, according to ASTM D 1586, exceeds a standard penetration resistance of 100 blows/2-inches.
C. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below grade.
D. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, base or topsoil materials.

1.4 SUBMITTALS

A. Follow submittal procedures outlined in Section 01 33 00 – Submittal Procedures.

B. Submit material certificates signed by the material producer and the Contractor, certifying that that each material item complies with, or exceeds the specified requirements.

1.5 QUALITY ASSURANCE

A. Percentage of compaction specified shall be the minimum acceptable. The percentage represents the ratio of the dry density of the compacted material to the maximum dry density of the material as determined by the procedure set forth in ASTM D 1557.
B. Do not mix or place cement treated base when the temperature is below is below 36 degrees F or when the ground is frozen.
C. Finish surface of material to be stabilized prior to lime treatment shall be as specified in Section 24-2.01D(1)(a) of Caltrans Standard Specifications.
D. Finish surface of the stabilized material after lime treatment shall be as specified in Section 24-2.03F of Caltrans Standard Specifications.
E. Finish surface of cement treated base shall be as specified in Section 27 of Caltrans Standard Specifications.
F. Do not project the finish surface of aggregate subbase above the design subgrade.
G. Finish grade tolerance at completion of base installation: +0.05’

1.6 PROJECT CONDITIONS

A. Protect open excavations, trenches, and the like with fences, covers and railings to maintain safe pedestrian and vehicular traffic passage.
B. Temporarily stockpile material in an orderly and safe manner and in a location approved by the Owner.
C. Provide dust and noise control in conformance with Division 1 General Requirements.

PART 2 - PRODUCTS

2.1 AGGREGATE SUBBASE

A. Material: Caltrans Standard Specification Section 25.

1. Class 1, 2, or 3: Section 25-1.02B.
2. Class 4: Section 25-1.02C.
3. Class 5: Section 25-1.02D.

2.2 AGGREGATE BASE

A. Material: Caltrans Standard Specification Section 26.

1. Class 2, 1-1/2-inch Maximum: Section 26-1.02B.
2. Class 2, 3/4-inch Maximum: Section 26-1.02B.
3. Class 3: Section 26-1.02C.

2.3 CEMENT TREATED BASE

A. Materials: Caltrans Standard Specification Section 27-1.02.

2.4 LIME STABILIZATION

A. Lime Treatment Material: Conform to Section 24-2.03B and 24-2.03C of Caltrans Standard Specifications.

PART 3 - EXECUTION

3.1 GENERAL

A. Placement and compaction of material by flooding, ponding, or jetting will not be permitted.

3.2 WET WEATHER CONDITIONS

A. Do not place or compact subgrade if above optimum moisture content.

3.3 AGGREGATE SUBBASE

A. Spreading and Compacting: Sections 25-1.03D and 25-1.03E of Caltrans Standard Specifications.

3.4 AGGREGATE BASE

A. Spreading and Compacting: Section 26-1.03D and 26-1.03E of Caltrans Standard Specifications.

3.5 CEMENT TREATED BASE

A. Cement treated base shall be as follows: Proportioning and Mixing Plant-Mixed: Section 27-1.03D of Caltrans Standard Specifications.

3.6 LIME STABILIZATION

A. Performing the stabilization shall conform to Section 24-2.03C through 24-2.03F of Caltrans Standard Specifications and the following:
   1. Add lime in the amount specified by a Geotechnical Consultant.
   2. Lime treat subgrade soils from back of curb to back of curb to a depth specified by a Geotechnical Consultant.
   3. Mix in two mixing periods, both with the tines lowered to the same depth. Both mixing periods shall be monitored and verified by a Geotechnical Consultant. The second mixing shall occur at about 36 hours after the initial mixing.
   4. Compact and grade the lime mixed subgrade immediately after the second mixing.
   5. Compact the lime treated subgrade to 95 percent as determined by ASTM D1557.
   6. After application of the curing seal, do not allow traffic on the lime treated material for a period of 7 days in lieu of the 3 days specified in Section 24-2.03A of Caltrans Standard Specifications.

7. Proof-roll the stabilized subgrade after compacting to confirm that a non-yielding surface has been achieved. Yielding areas, if any, shall be mitigated. Mitigation could consist of over-excavation, utilization of stabilization fabric, or chemical treatment. Each case shall be addressed individually in the field by a Geotechnical Consultant.

3.7 DISPOSAL

A. Lawfully dispose of all unsuitable and excess or surplus material off-site at no cost to the Owner.

END OF SECTION

SECTION 32 11 23

AGGREGATE BASE COURSE

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes aggregate base course.

B. Related Sections:

1. Section 31 23 33 – Trenching and Backfilling.

2. Section 32 13 13.1 – Concrete Work (Landscape)

PART 2 - PRODUCTS

2.1 MATERIALS

A. Class II Aggregate Base per Caltrans Standard Specifications, or Local Municipality.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 30 00 - Administrative Requirements: Coordination and project conditions.

B. Verify substrate has been inspected, gradients and elevations are correct, and is dry.

3.2 PREPARATION

A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re compacting.

B. Do not place fill on soft, muddy, or frozen surfaces.

3.3 AGGREGATE PLACEMENT

A. Place aggregate in maximum 6-inch layers and compact to specified density.

B. Level and contour surfaces to elevations and gradients indicated.

C. Add small quantities of fine aggregate to coarse aggregate as appropriate to assist compaction.

D. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.

E. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.4 TOLERANCES

A. Section 01 40 00 - Quality Requirements: Tolerances.

B. Flatness: Maximum variation of 1/4 inch measured with 10-foot straight edge.

C. Scheduled Compacted Thickness: Within 1/4 inch.

D. Variation From Design Elevation: Within 1/2 inch.

3.5 FIELD QUALITY CONTROL

A. Section 01 40 00 Quality Requirements: Testing and inspection services.

B. Compaction testing will be performed in accordance with ASTM D1557.

C. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at no cost to owner.

END OF SECTION 31 11 23
(REVISED 11/6/2023)

SECTION 32 12 00

FLEXIBLE PAVING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Prime coat.
B. Tack coat.
C. Asphaltic concrete paving.
D. Asphaltic concrete overlay and slurry seals.
E. Speed bumps.
F. Asphalt curbs.
G. Pavement grinding.

1.2 RELATED DOCUMENTS

A. ASTM:

1. D 979: Standard Practice for Sampling Bituminous Paving Mixtures.
2. D 1073: Standard Specification for Fine Aggregate for Asphalt Paving Mixtures.
3. D 1188: Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples.
4. D 2041: Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures.
5. D 2726: Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Asphalt Mixtures.
6. D 2950: Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods.
7. D 3549: Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens.
8. D 3666: Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Mixtures.

B. Caltrans Standard Specifications.

1. Section 37: Bituminous Seals.
2. Section 39: Asphalt Concrete.
3. Section 96: Geosynthetics.
4. Section 92: Asphalt Binders.
5. Section 94: Asphaltic Emulsions.

C. California Building Code:

1. Chapter 11B – Accessibility to Public Buildings, Public Accommodations, Commercial Buildings, and Public Housing.
2. Section 1127B – Exterior Routes of Travel.

1.3 DEFINITIONS

A. ASTM: American Society for Testing Materials.

1.4 QUALITY ASSURANCE

A. Testing Agency: Owner will engage a qualified independent testing agency to perform field inspections and tests and to prepare test reports.

1. Testing agency will conduct and interpret tests and state in each report whether tested work complies with or deviates from specified requirements.

B. Additional testing, at Contractor's expense, will be performed to determine compliance of corrected Work with specified requirements.
C. Thickness of Asphaltic Concrete: In-place compacted thickness of asphalt courses will be determined according to ASTM D 3549.
D. Surface Smoothness: Finished surface of each asphalt course will be tested for compliance with smoothness tolerances.
E. In-Place Density: Samples of uncompacted paving mixtures and compacted pavement will be secured by testing agency according to ASTM D 979.

1. Reference maximum theoretical density will be determined by averaging results from 4 samples of hot-mix asphalt-paving mixture delivered daily to site, prepared according to ASTM D 2041, and compacted according to job-mix specifications.
2. In-place density of compacted pavement may be determined by testing core samples according to ASTM D 1188 or ASTM D 2726.

(a) One core sample may be taken for every 1000 sq. yd. or less of installed pavement, but in no case will fewer than 3 cores be taken.
(b) Field density of in-place compacted pavement may also be determined by nuclear method according to ASTM D 2950 and correlated with ASTM D 1188 or ASTM D 2726.

1.5 SUBMITTALS

A. Follow submittal procedures outlined in Section 01 33 00 – Submittal Procedures.
B. Job-Mix Designs: Certificates signed by manufacturers certifying that each asphaltic concrete mix complies with requirements.
C. Material Certificates: Certificates signed by manufacturers certifying that each material complies with requirements.

1.6 PROJECT CONDITIONS

A. Environmental Limitations:

1. Prime Coat: Minimum surface temperature of 60 deg F at application.
2. Tack Coat: Minimum surface temperature of 60 deg F at application.
3. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at application.

4. Asphalt Surface Course: Minimum surface temperature of 60 deg F at application.
5. Reinforcing Fabric: Air temperature is 50 deg F and rising and pavement temperature is 40 deg F and rising.

PART 2 - PRODUCTS

2.1 ASPHALTIC CONCRETE

A. Caltrans Standard Specifications Section 39, Type B.
B. Asphalt Materials:

1. Asphalt: Caltrans Standard Specification Section 92, steam refined paving asphalt.
   (a) Asphalt Curbs: use grade PG 70-10
   (b) All other asphalt products: use grade PG 64-10.
2. Prime Coat: Caltrans Standard Specification Section 93, SC-70.
3. Tack Coat: Caltrans Standard Specification Section 94, SS1.
4. Asphaltic Emulsion: Caltrans Standard Specification Section 94, quick-setting type, Grade QS1h anionic or CQS1h cationic.

C. Aggregates: Conform to Caltrans Standard Specification Sections 37-3.02B(2) and 39-2.02 as applicable.
D. Storing, Proportioning and Mixing Materials: Caltrans Standard Specification Section 39-3.
E. Pavement Reinforcing Fabric: Caltrans Standard Specification Section 96.
F. Sand: ASTM D 1073, Grade No. 2 or 3.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that subgrade is dry and in suitable condition to support paving and imposed loads.
B. Proof-roll subbase using heavy, pneumatic-tired rollers to locate areas that are unstable or that require further compaction.
C. Notify Owner in writing of any unsatisfactory conditions. Do not begin paving until these conditions have been satisfactorily corrected.

3.2 PAVEMENT GRINDING

A. Clean existing paving surface of loose or deleterious material immediately before pavement grinding.
B. Grind conforms as indicated.

3.3 SOIL STERILANT

A. Furnish and apply to areas indicated in accordance with Section 31 31 19 – Vegetation Control.

3.4 SURFACE PREPARATION FOR AGGREGATE BASE MATERIALS

A. General: Immediately before placing asphalt materials remove loose and deleterious material from substrate surfaces and ensure that prepared subgrade is ready to receive paving according to the Caltrans Standard Specification Section 39-4.01.
B. Prime Coat: Apply uniformly over surface of compacted-aggregate base according to the Caltrans Standard Specification Section 39-4.02. Apply enough material to penetrate and seal, but not flood, surface. Allow prime coat to cure for 24 hours minimum.

    1. If prime coat is not entirely absorbed within 8 hours after application, spread excess prime coat with hand tools and broadcast sand over surface to blot excess asphalt. Use just enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
    2. Protect primed substrate from damage until ready to receive paving.

C. Tack Coat: Apply uniformly to all vertical surfaces against which asphaltic concrete is to be placed, including existing surfaces of previously constructed asphalt or portland cement concrete paving and to surfaces abutting or projecting into new asphalt pavement, according to the Caltrans Standard Specification Section 39-4.02.

    1. Allow tack coat to cure undisturbed before paving.
    2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.5 SURFACE PREPARATION FOR PAVEMENT AT ASPHALTIC CONCRETE OVERLAYS AND SLURRY SEALS

A. Pavement Irregularities: Level with asphaltic concrete, Type B, No. 4 maximum.
B. Pavement Cracks:

    1. Less than 1/8-inch wide: Clean of all dirt by compressed air jet, spray and seal with RS-1 asphaltic emulsion.
    2. Wider than 1/8-inch: Clean of all dirt by compressed air jet, spray and seal with RS-1 asphaltic emulsion and skin patch.

C. Clean surface of all material, such as leaves, dirt, sand, gravel, water and vegetation including roots prior to applying binder of paving asphalt to existing surface.
D. Oil spots shall be removed with brush and detergents and covered with Oil Spot Sealer by OverKote or an equal product.
E. Prior to first application in exceptionally hot weather, dampen surface with water. Remove excess water and leave surface slightly damp.

3.6 APPLYING ASPHALT PAVEMENT OVERLAYS AND SLURRY SEALS

A. Use OverKote Asphalt Pavement Coating or equal product.
B. Apply at a rate of 25 gallons per 1,000 sf of surface area.
C. Follow all manufacturers' recommendations for preparation and applications procedure of the products used.
D. Apply second coat as soon as first coat is dry.

3.7 PAVEMENT REINFORCING FABRIC

A. Protect from exposure to ultraviolet rays until placed.
B. Reject rolls with broken or damaged cores, or factory wrinkled fabric that prevents wrinkle free placement.
C. Place with binder of paving asphalt in accordance with Section 39-4.03 of Caltrans Standard Specifications.

3.8 ASPHALTIC CONCRETE SPREADING AND COMPACTING EQUIPMENT

A. Spreading Equipment: Caltrans Standard Specification Section 39-5.01.
B. Compaction Equipment: Caltrans Standard Specification Section 39-5.02.

3.9 ASPHALTIC CONCRETE PLACEMENT

A. Place, spread and compact asphaltic concrete to required grade, cross section, and thickness according to the Caltrans Standard Specification Sections 39-6.01, 39-6.02 and 39-6.03.
B. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.10 JOINTS

A. Construct joints to ensure continuous bond between adjoining paving sections according to the Caltrans Standard Specification Sections 39-6.01 and 39-6.02.

    1. Construct joints free of depressions with same texture and smoothness as other sections of asphalt course.
    2. Clean contact surfaces and apply tack coat.
    3. Offset longitudinal joints in successive courses a minimum of 6 inches.
    4. Offset transverse joints in successive courses a minimum of 24 inches.
    5. Compact joints as soon as asphaltic concrete will bear roller weight without excessive displacement.

3.11 COMPACTION

A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact according to the Caltrans Standard Specification Sections 39-6.01 and 39-6.03.
B. Compaction Requirements: Average Density to be 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.
C. Finish Rolling: Finish roll paved surfaces to remove roller marks while asphalt is still warm.
D. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while still hot, with back of rake or smooth iron. Compact thoroughly using tamper or other satisfactory method.
E. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh asphalt. Compact by rolling to specified density and surface smoothness.

F. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.12 ASPHALT CURBS

A. Construction: Place over compacted surfaces according to Caltrans Standard Specification Section 39-7.01 as specified for dikes. Apply a light tack coat prior to construction, unless pavement surface is still tacky and free of dust.
B. Shape: Place asphaltic concrete to curb cross section indicated.

3.13 SPEED BUMPS

A. Construct speed bumps over compacted pavement surfaces according to Caltrans Standard Specification Section 39-6. Apply a light tack coat prior to construction, unless pavement surface is still tacky and free of dust.
B. Place asphaltic concrete by hand using a template/screed designed to result in speed bump cross-section indicated after compaction.
C. Compact speed bumps with 8-ton static roller.

3.14 INSTALLATION TOLERANCES

A. Asphalt Pavement:

1. Course thickness and surface smoothness within the tolerances in the Caltrans Standard Specification Sections 39-6.01, 39-6.02 and 39-6.03.
2. Total Thickness: Not less than indicated.

B. Trench Patch:

1. Compacted surface: Within 0.01 foot of adjacent pavement.
2. Do not create ponding.

END OF SECTION

SECTION 32 12 16.1

ASPHALT PAVING (LANDSCAPE)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

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

1.2 DESCRIPTION OF WORK:

A. Extent of asphalt concrete paving work is shown on drawings.

1.3 SUBMITTALS:

A. Material Certificates: Provide copies of materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

1.4 SITE CONDITIONS:

A. Weather Limitations: Apply prime and tack coats when ambient temperature is above 50 deg F (10 deg C), and when temperature has not been below 35 deg F (1 deg C) for 12 hours immediately prior to application. Do not apply when base is wet or contains an excess of moisture.

B. Construct asphalt concrete surface course when atmospheric temperature is above 40 deg F (4 deg C), and when base is dry. Base course may be placed when air temperature is above 30 deg F (-1 deg C) and rising.

C. Grade Control: Establish and maintain required lines and elevations.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. General: Use locally available materials and gradations which exhibit a satisfactory record of previous installations.

B. Asphalt Paving Playground:

1. Base Course Aggregate: Refer to Aggregate Base Courses, specification section 32 11 23 for base course aggregates.

2. Surface Course Aggregate: 3/8" maximum crushed stone, crushed gravel, crushed slag, and sharp-edged natural sand.

3. Herbicide Treatment: Ronstar-G.

4. Asphalt Cement: Comply with AASHTO M 226 (ASTM D 3381) for viscosity-graded material and AASHTO M 20 (ASTM D 946) for penetration-graded material.

5. Prime Coat: Cut-back asphalt type; AASHTO M 82 (ASTM D 2027) MC-30, MC-70 or MC-250.

6. Tack Coat: Emulsified asphalt, AASHTO M 140 (ASTM D 997) or M 208 (D 2397); SS-1, SS-1h, CSS-1 or CSS-1h, diluted with one part water to one part emulsified asphalt.

7. Slurry Seal: Overkote Asphalt Pavement Coating manufactured by Reed & Graham, Inc. (408) 287-1400 conforming to the following:

a.	Residue at 300 to 400 degrees F	55-65
b.	Dehydration, 96 hours at 100 degrees F	0.6 min
c.	Solubility of residue in C2HCL	15-20
d.	Loss on ignition of insoluble reside %	16 max
e.	Cone penetration at 77 degrees F	dmm 400-700

8. Game Line Paint: White, unless noted otherwise on the plans, water based, 100% acrylic, lead free striping and marking materials manufactured for permanent, exterior game line marking.

9. Redwood Headerboard: Construction heart redwood. Size per detail.

C. Asphalt Paving Vehicular:

1. Base Course Aggregate: Refer to Aggregate Base Courses, specification section 32 11 23 for base course aggregates.

2. Surface Course Aggregate: 3/8" maximum crushed stone, crushed gravel, crushed slag, and sharp-edged natural sand.

3. Herbicide Treatment: Ronstar-G.

4. Asphalt Cement: Comply with AASHTO M 226 (ASTM D 3381) for viscosity-graded material and AASHTO M 20 (ASTM D 946) for penetration-graded material.

5. Prime Coat: Cut-back asphalt type; AASHTO M 82 (ASTM D 2027) SC-70.

6. Tack Coat: Emulsified asphalt, AASHTO M 140 (ASTM D 997) or M 208 (D 2397); SS-1, SS-1h, CSS-1 or CSS-1h, diluted with one part water to one part emulsified asphalt.

7. Slurry Seal: Overkote Asphalt Pavement Coating manufactured by Reed & Graham, Inc. (408) 287-1400 conforming to the following:

a.	Residue at 300 to 400 degrees F	55-65
b.	Dehydration, 96 hours at 100 degrees F	0.6 min
c.	Solubility of residue in C2HCL	15-20
d.	Loss on ignition of insoluble reside %	16 max
e.	Cone penetration at 77 degrees F	dmm 400-700

8. Parking Striping: Refer to Civil Drawings.

9. Redwood Headerboard: Construction heart redwood. Size per detail.

2.2 ASPHALT-AGGREGATE MIXTURE:

A. Provide asphalt-aggregate mixture in accordance with Section 39, State of California "Standard Specifications", Latest Edition.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION:

A. Remove loose material from compacted subbase surface immediately before applying herbicide treatment or prime coat.

B. Proof roll prepared subbase surface to check for unstable areas and areas requiring additional compaction.

C. Notify Contractor of unsatisfactory conditions. Do not begin paving work until deficient subbase areas have been corrected and are ready to receive paving.

D. Herbicide Treatment: Apply chemical weed control agent in strict compliance with manufacturer's recommended dosages and application instructions. Apply to compacted, dry subbase prior to application of prime coat.

E. Base Course Aggregate: Refer to Aggregate Base Courses, specification section 32 11 23 for base course aggregate installation.

F. Prime Coat: Apply at rate of 0.20 to 0.50 gal. per sq. yd., over compacted aggregate base. Apply material to penetrate and seal, but not flood, surface. Cure and dry as long as necessary to attain penetration and evaporation of volatile.

G. Tack Coat: Apply to contact surfaces of previously constructed asphalt or Portland cement concrete and surfaces abutting or projecting into asphalt concrete pavement. Distribute at rate of 0.05 to 0.15 gal. per square yard of surface. Allow to dry until at proper condition to receive paving.

H. Exercise care in applying bituminous materials to avoid smearing of adjoining concrete surfaces. Remove and clean damaged surfaces.

I. Rigid Edging:

1. Asphalt Paving Playground Redwood Headerboard: Install wood headers or edgings where indicated on Drawings and where edge of asphalt paving does not abut a firm, vertical edge. Anchor with wood stakes, spaced per detail, driven at least one (1) inch below top elevation of header or edging. Use two (2) galvanized nails per stake to fasten headers and edging; length as needed to penetrate both members and provide ½-inch clinch at point. Predrill stakes if needed to avoid splitting.

2. Asphalt Paving Vehicular: Refer to Civil Drawings.

3.2 PLACING MIX:

A. General: Place asphalt concrete mixture on prepared surface, spread and strike off. Spread mixture at minimum temperature of 225 deg F (107 deg C). Place inaccessible and small areas by hand. Place each course to required grade, cross-section, and compacted thickness.

B. Paver Placing: Place in strips not less than 10' wide, unless otherwise acceptable to Architect. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete base course for a section before placing surface course.

C. Joints: Make joints between old and new pavements, or between successive days' work, to ensure continuous bond between adjoining work. Construct joints to have same texture, density and smoothness as other sections of asphalt concrete course. Clean contact surfaces and apply tack coat.

D. Asphalt paving shall be installed in lifts not exceeding two (2) inches in thickness per lift.

3.3 ROLLING:

A. General: Begin rolling when mixture will bear roller weight without excessive displacement.

B. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.

C. Breakdown Rolling: Accomplish breakdown or initial rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling, and repair displaced areas by loosening and filling, if required, with hot material.

D. Second Rolling: Follow breakdown as soon as possible, while mixture is still hot. Continue second rolling until mixture has been thoroughly compacted.

E. Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until roller marks are eliminated and course has attained maximum density.

F. Patching: Remove and replace paving areas mixed with foreign materials and defective areas. Cut-out such areas and fill with fresh, hot asphalt concrete. Compact by rolling to maximum surface density and smoothness.

G. Protection: After final rolling, do not permit vehicular or pedestrian traffic on pavement until it has cooled and hardened.

H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

I. Slurry Seal: Apply slurry seal per manufacturer recommendations.

1. Apply to a clean, smooth, and uniform surface.

2. Apply when the ambient conditions are 50°F and rising with no precipitation or freezing temperatures in forecast for 24 hours.

3. Substrate temperature must be 50°F and rising.

4. Keep traffic off coating until it is completely dry.

5. Spray with a texture sprayer or can be applied by squeegee.

6. Apply (2) coats at a rate of 1 gallon per 100 square feet of surface area for both coats.

7. Apply second coat as soon as the first coat is dry enough to walk on.

3.4 GAME LINE PAINT AND PARKING STRIPING:

A. Game Line Paint:

1. Cleaning: Sweep and clean surface to eliminate loose material and dust.

2. Color: White, unless noted otherwise on drawings and details.

3. Do not apply game line paint until layout and placement has been verified with Architect.

4. Apply paint with mechanical equipment to produce uniform straight edges. Apply in 2 coats at manufacturer's recommended rates.

B. Parking Striping: Refer to Civil Drawings.

3.5 FIELD QUALITY CONTROL:

A. General: Test in-place asphalt concrete courses for compliance with requirements for thickness and surface smoothness. Repair or remove and replace unacceptable paving as directed by Architect.

B. Thickness: In-place compacted thickness will not be acceptable if exceeding following allowable variation from required thickness:

C. Base Course: 3/8", plus or minus.

D. Surface Course: 1/4", plus or minus.

E. Surface Smoothness: Test finished surface of each asphalt concrete course for smoothness, using 10' straightedge applied parallel with, and at right angles to centerline of paved area. Surfaces will not be acceptable if exceeding the following tolerances for smoothness.

1. Base Course Surface: 1/4".

2. Wearing Course Surface: 3/16".

3. Check surface areas at intervals as directed by Owner’s Representative.

END OF SECTION 32 12 16.1
(REVISED 11/6/2023)

SECTION 32 13 13.1

CONCRETE WORK (LANDSCAPE)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

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

B. All grading, earthwork, excavations, backfills, compaction, and other grading operations shall be accomplished in accordance with the soils report (which shall be part of the Contract Documents). Contractor shall be responsible for securing a copy of the soils report. The project soils engineer shall be present during all grading operations. The soils engineer shall direct samples to be submitted and tests to be taken. Contractor shall cooperate with the requirements of the soils engineer.

C. Specification Division 31, Earthwork, Soils and Earthwork, Rough Grading, and Excavation and Fill.

D. Specification 32 11 23 Aggregate Base Course.

1.2 DESCRIPTION OF WORK:

A. The extent of concrete work is shown on the landscape architectural drawings and details and shall include, but is not limited to, pedestrian concrete walkways, steps, ramps, curbs, mowbands, footings and walls.

1.3 QUALITY ASSURANCE:

A. Codes and Standards: Comply with provisions of following codes, specifications and standards, except where more stringent requirements are shown or specified:

1. Concrete Reinforcing Steel Institute, "Manual of Standard Practice".

2. ACI 318 Building Code Requirements for Structural Concrete.

3. ASTM C150, for Type I, Type II or Type III Portland cement concrete.

4. Chapter 19A, 2022 C.B.C.

B. Certification: Weighmaster Certificate

C. Duties of the Inspector: The inspector shall notify the Architect, Structural Engineer and the Division of State Architect at least 48 hours in advance of the first pour of concrete and sufficiently in advance of subsequent pours. Comply with Section 4-333.1 and Chapter 7, Part I, Title 24, California Code of Regulations (CCR).

D. Installer Qualifications:

1. Experience: The concrete installing firm shall have contracted for and successfully completed construction of a minimum of five (5) California public school district construction projects, approved by the Division of the State Architect (DSA), within the past five (5) years of similar size, complexity, budget and scope.

2. Licensure: The concrete installation firm shall hold a current, active C8 “Concrete Contractor” license classification by the California State License Board that has been consistently active for at least five (5) years and that has not been suspended or revoked.

3. Supervision: The concrete installing firm shall have a qualified and experienced concrete technician on site during concrete installation.

1.4 SUBMITTALS:

A. Shop Drawings Reinforcement: Submit shop drawings for fabrication, bending, and placement of concrete reinforcement. Comply with ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures" showing bar schedules, stirrup spacing, diagrams of bent bars, arrangement of concrete reinforcement. Include special reinforcement required and openings through concrete structures.

B. Design Mixes Submittal: Submit written reports of design mixes to the Architect of each proposed mix for each class of concrete within thirty-five (35) days after the issuance of the "Notice to Proceed", but no later than ten (10) days prior to the first scheduled concrete pour. Do not begin concrete production until all design mixes have been reviewed by the Architect and independent testing facility.

C. Separate submittal data shall be submitted for each mixture for the following:

1. Concrete Paving – Pedestrian, steps, curbs, walls, footings and concrete base at resilient surfacing

PART 2 - PRODUCTS

2.1 FORM MATERIALS:

A. Forms for Exposed Finish Concrete: Unless otherwise indicated, construct formwork for exposed concrete surfaces with plywood, metal, metal-framed plywood faced or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings. Provide form material with sufficient thickness to withstand pressure of newly-placed concrete without bow or deflection.

B. Forms for Unexposed Finish Concrete: Form concrete surfaces which will be unexposed in finished structure with plywood, lumber, metal or other acceptable material. Provide lumber dressed on at least 2 edges and one side for tight fit.

C. Form Coatings: Provide commercial formulation form-coating compounds that will not bond with, stain nor adversely affect concrete surfaces, and will not impair subsequent treatments.

D. Expansion Joint for flatwork that does not have a stamp pattern: Asphalt impregnated felt fiber expansion material, one half inch (1/2") thick by full depth of concrete, in compliance with ASTM D1751.

E. Expansion Joint for poured-in-place walls: Asphalt impregnated felt fiber expansion material, one half inch (1/2") thick by full depth of concrete, in compliance with ASTM D1751.

2.2 REINFORCING MATERIALS:

A. Reinforcing Bars (Rebar): ASTM A 615, Grade 60, deformed, except #3 and smaller may be Grade 40. Test in accordance with Section 1903A and 1910A.2, 2022 C.B.C.

B. Supports for Reinforcement: Provide supports for reinforcement including bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcing bars and welded wire fabric in place.

2.3 CONCRETE MATERIALS:

A. Portland Cement: ASTM C 150, Type V, conforming to ACI 318-14 and test in accordance with Section 1903A, 2022 C.B.C.

B. Fly Ash or other pozzolan can be used as a partial substitute for ASTM 150 Portland cement as follows:

1. Fly Ash conforming to ASTM C618, Class F, the maximum Loss on Ignition (LOI) shall be less than 3%. Class C is not permitted.

2. Slag, Ground Granulated Blast Furnace Slag Cement (GGBFS) shall conform to ASTM C989 or AASHTO M 302 Grade 100 or 120.

3. Silica Fume: ASTM C1240, Standard Specification for Silica Fume used in cementitious mixtures.

4. High-Reactivity Metakaolin (HRM): ASTM C618, aluminosilicate pozzolan.

C. Normal Weight Aggregates: Shall be #57 aggregate, uniformly graded and in compliance with ASTM C 33. Test in accordance with ACI 318-19.

1. Maximum aggregate size: 100% passing 1" sieve for footings, walls, steps, curbs and exterior walkways.

2. Class: Negligible weathering region, but not less than 1N.

3. Aggregate shall be certified by testing to be "innocuous" with respect to alkali silica reactivity, or shall be certified by the supplier based on service records in accordance with ASTM C33 Appendix X1.

D. Water: Water used in mixing concrete shall be clean and free from injurious amounts of oils, acids, alkalis, salts, organic materials or other substances that may be deleterious to concrete or reinforcement and shall be tested and verified through ASTM C1602.

E. Admixtures: Admixtures certified by manufacturer to contain not more than 0.1 percent water-soluable chloride ions by mass of cementitious material and to be compatible with other admixtures and cementitious materials. Do not use admixtures containing calcium chloride.

1. Air-Entraining Admixture: ASTM C 260.

2. Water-Reducing Admixture: ANSI/ASTM C 494, Type A, and contain not more than 1% chloride ions.

3. High-Range, Water-Reducing Admixture: ASTM C 494, Type F

4. Water-Reducing and Accelerating Admixture: ASTM C 494, Type E

5. Water-Reducing and Retarding Admixture: ASTM C 494, Type D

F. Crushed Aggregate Base Rock: Shall be coarse aggregate for regular weight concrete. Aggregate shall be hard, durable, uncoated, graded, cleaned and screened crushed rock or gravel conforming to current requirements of ASTM C33. Crusher-run stone or bank-run gravel will not be permitted.

G. Liquid Membrane-Forming Curing Compound: Liquid type membrane-forming curing compound complying with ASTM C-309, Type I, Class A unless other type acceptable to Architect. Comply with Volatile Organic Compounds (VOC) content limits, as required by Air Pollution Control Regulations on Architectural Coatings (less than 350 g/l).

H. Curing Methods:

1. Moist Curing: continuous misting, sprinkling or ponding.

2. Moisture-retaining cover curing: After wetting the concrete surface, cover with wet-curing blanket. Lay blanket in accordance with manufacturer's instructions, over-lapping edges and extending edges twelve (12) inches beyond area of concrete to be cured. Remove air pockets. Repair any holes or tears that occur using sheeting material and waterproof tape.

3. Compound curing: Apply specified curing compound as soon as final finishing operations are complete. Use as recommended by the manufacturer's written instructions.

I. Color Materials:

1. Liquid lamp black shall be default color for concrete flatwork not specified on drawings as "Natural" or "Colored". Add one pint of liquid lamp black per cubic yard of concrete flatwork.

2. Concrete specified as "Natural" shall have no color added. Unless specified otherwise on Drawings, concrete curbs, steps, and walls to be "Natural."

J. Concrete Colors and Patterns:

1. Type I – Lamp Black with asphalt impregnated felt fiber expansion material.

2.4 PROPORTIONING AND DESIGN OF MIXES:

A. Prepare design mixes for each type and strength of concrete. Use an independent testing facility acceptable to Architect for preparing and reporting proposed mix designs. The testing facility shall not be the same as used for field quality control testing unless otherwise acceptable to Architect.

B. Comply with Section ACI 318-19. The compressive strength of concrete shall be proportioned by one of the following methods: Design Mix (Method B) or Pre-Test Mix (Method C).

C. Submit written reports to Architect of each proposed mix for each class of concrete at least 10 days prior to the first scheduled concrete pour. Do not begin concrete production until mixes have been reviewed by Architect.

D. Design mixes to provide normal weight concrete with the following properties:

1. Concrete Paving – Pedestrian, steps, curbs, walls, footings and concrete base at resilient surfacing:

   a. 3,000 psi 28-day compressive strength
   b. 0.60, maximum, water to cement (W/C) ratio
   c. Minimum cementitious content shall be 470 pounds, minimum, per cubic yard.
   d. Aggregate to be 1” maximum.
   e. 28-day shrinkage, SEAONC Method: 0.050 maximum.

2. Concrete Paving – Vehicular

   a. 4,000 psi 28-day compressive strength
   b. 0.50, maximum, water to cement (W/C) ratio
   c. Minimum cementitious content shall be 470 pounds, minimum, per cubic yard.
   d. Aggregate to be 1” maximum.
   e. 28-day shrinkage, SEAONC Method: 0.050 maximum.

E. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant; at no additional cost to Owner and as accepted by Architect. Laboratory test data for revised mix design and strength results must be submitted to and accepted by Architect before using in work.

F. Admixtures: Use only as indicated by approved design mix.

G. Color Additive for concrete not specified as “colored”: add one pint of liquid lamp black per cubic yard of all exterior Concrete Paving – Pedestrian and Concrete Paving - Vehicular. Steps, Curbs, Walls and Footings shall not include lamp black in the design mix.

H. Slump Limits: Proportion and design mixes to result in concrete slump at point of placement as follows:

1. All concrete: Shall be four (4) inches, plus or minus one (1) inch.

2.5 CONCRETE MIXES:

A. Ready-Mix Concrete: Comply with ASTM C94. Measure, batch and mix concrete materials and concrete according to ASTM C-94. Furnish batch certificates, indicating project identification, name and number, date, mixture type, mixing time, quantity and amount of water added for each batch discharged and used in the Work to the Architect.

2.6 SACK FINISH MORTAR

A. Mortar shall be composed of Portland cement, sand, and water proportioned and mixed as specified in this Section 51 1.135.

B. Mortar shall be furnished and placed in recesses and holes, on surfaces, under structural members, and at other locations specified in these specifications, the special provisions or shown on the plans.

C. The proportion of cement to sand, measured by volume, shall be one to two (1:2) unless otherwise specified.

D. Materials shall conform to the provisions in Section 90, "Portland Cement Concrete."

E. The maximum size of sand shall not be larger than 0.5 of the size of the recess, hole or space where the mortar is to be placed.

F. The mortar shall contain only enough water to permit placing and packing.

G. Concrete areas to be in contact with the mortar shall be cleaned of all loose or foreign material that would in any way prevent bond between the mortar and the concrete surfaces and shall be flushed with water and allowed to dry to a surface dry condition immediately prior to placing the mortar.

H. The mortar shall completely fill and shall be tightly packed into recesses and holes, on surfaces, under structural members, and at other locations specified. After placing, all surfaces of mortar shall be cured by the water method as provided in Section 90 7, "Curing Concrete," for a period of not less than 3 days.

I. Keyways, spaces between structural members, holes, spaces under structural members and other locations where mortar could escape shall be mortar tight before placing mortar.

J. No load shall be allowed on mortar that has been in place less than 72 hours, unless otherwise permitted by the Engineer.

K. All improperly cured or otherwise defective mortar shall be removed and replaced by the Contractor at the Contractor's expense.

2.7 WATERPROOF MEMBRANE:

A. Rolled, self-adhering waterproof membrane, composed of nominally 56 millimeter thick layer of polymeric waterproofing membrane on a heavy duty, four-millimeter thick, cross-laminated polyethylene carrier film laminated together, MEL-ROL, product of W. R. Meadows/Sea Tight, or equal conforming to A.R.E.M.A. Specifications Chapter 29, Waterproofing.

PART 3 - EXECUTION

3.1 AGGREGATE BASE PLACEMENT

A. Place aggregate in maximum 6-inch layers and compact to specified density.

B. Level and contour surfaces to elevations and gradients indicated.

C. Add small quantities of fine aggregate to coarse aggregate as appropriate to assist compaction.

D. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.

E. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

F. Tolerances:

1. Flatness: Maximum variation of 1/4 inch measured with 10-foot straight edge.

2. Scheduled Compacted Thickness: Within 1/4 inch.

3. Variation From Design Elevation: Within 1/2 inch.

G. Field Quality Control:

1. Flatness: Compaction testing will be performed in accordance with ASTM D1557.

2. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at no cost to Owner.

3.2 FORMS

A. FORMS – FOR FLATWORK WITHOUT A STAMP PATTERN

1. Design, erect, support, brace and maintain formwork to support vertical and lateral loads that might be applied until such loads can be supported by concrete structure. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation and position.

2. Construct forms to sizes, shapes, lines and dimensions shown, and to obtain accurate alignment, location, grades, level and plumb work in finished structures. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts and other features required in work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent leakage of cement paste.

3. Fabricate forms for easy removal without hammering or prying against concrete surfaces or damage to cast-in-place concrete or adjacent materials. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses, and the like, to prevent swelling and for easy removal.

4. Provisions for Other Trades: Provide openings in concrete formwork to accommodate work of other trades. Determine size and location of openings, recesses and chases from trades providing such items. Accurately place and securely support items build into forms. Comply with ACI 347 and ACI 318-14 Section 26.11.

5. Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt or other debris just before concrete is placed. Retighten forms and bracing after concrete placement is required to eliminate mortar leaks and maintain proper alignment.

6. Coat contact surfaces of forms with a form-coating compound before reinforcement is placed.

3.3 PLACING REINFORCEMENT:

A. Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars", for details and methods of reinforcement placement and supports, and as herein specified.

B. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials which reduce or destroy bond with concrete.

C. Accurately position, support and secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as required.

D. Place reinforcement to obtain at least minimum coverage for concrete protection. Arrange, space and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

E. Where concrete is installed at door thresholds and/or transitions to building interior spaces, 24” length, #3 smooth rebar dowels shall be installed12” into the new concrete paving and 12” into the adjacent building structure, spaced at 18” on center with a minimum of two in each location. Epoxy to secure end of dowel set into building and lubricate end cast into new concrete paving.

F. Where concrete is installed at door thresholds of modular buildings with steel framing, #5 rebar shall be welded securely to building floor plate, extending 12” into new concrete paving, spaced 18” on center with a minimum of two at each door threshold. Lubricate end cast into new concrete paving.

G. Where concrete is installed adjacent to concrete walkways that are part of the building structural pad, 24" length, #3 smooth rebar dowels shall be installed12" into the new concrete paving and 12" into the adjacent building structure pad, spaced at 18" on center spacing. Epoxy to secure end of dowel set into building structural pad and lubricate end cast into new concrete paving.

3.4 EXPANSION AND CONTROL JOINTS:

A. Locate and install joints so as not to impair strength and appearance of the structure, and as acceptable to Architect.

B. Continue reinforcement across expansion and control joints or install smooth rebar dowels.

C. Control/score joints (for walkways, steps, ramps and curbs): Unless shown otherwise on plan, install ½" radius score joints evenly spaced at a maximum of eight feet in two perpendicular directions, continuous and one third the depth of the slab.

D. Control/score joints (for walls, steps and vertical surfaces): Unless shown otherwise on plan, install ½" radius score joints evenly spaced at a maximum of eight feet in on center. Align vertical wall score joints with horizontal paving joints whenever possible. Install ½" radius or chamfered edge at each side of joint as called for in drawings, continuous and 1 ½" in depth.

E. Expansion Joints for new walkways and ramps that are not colored and/or do not have a stamp pattern: Asphalt impregnated felt fiber expansion material, one half inch (1/2") thick by full depth of concrete, in compliance with ASTM D1751.

F. Expansion Joints (for walls, steps and vertical surfaces): Unless shown otherwise on plan, install expansions joints where walls meet existing or proposed structures and evenly spaced at a maximum of 24 feet in two perpendicular directions. Align vertical wall expansion joints with horizontal paving joints whenever possible. Install ½" asphalt saturated felt expansion joint material ½" below the finish surface where ½" radius concrete edges are indicated and flush with base of chamfer were chamfer edges are indicated and continuously throughout the concrete section. Install ½" radius or chamfered edge at each side of joint as called for in drawings.

3.5 INSTALLATION OF EMBEDDED ITEMS:

A. General: Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions and directions provided by suppliers of items to be attached thereto.

B. Edge Forms and Screed Strips for Slabs: Set edge forms or bulkheads and intermediate screed strips for slabs to obtain required elevations and contours in finished slab surface. Provide and secure units sufficiently strong to support types of screed strips by use of strike-off templates or accepted compacting type screeds.

3.6 PREPARATION OF FORM SURFACES:

A. Coat contact surfaces of forms with a form-coating compound before reinforcement is placed.

3.7 CONCRETE PLACEMENT:

A. Pre-placement Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast-in, in accordance with ACI 318-14. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work. Moisten wood dorms immediately before placing concrete where form coatings are not used.

B. Coordinate the installation of joint materials with placement of forms and reinforcing steel.

C. General: Comply with ACI 304, and as herein specified.

D. Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation.

E. Placing Concrete in Forms: Deposit concrete in forms in horizontal layers not deeper than 24" and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.

F. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI recommended practices.

G. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to rapidly penetrate placed layer and at least 6" in to preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.

H. Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction (expansion) joints, until the placing of a panel or section is completed.

I. Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.

J. Bring slab surfaces to correct level with straightedge and strikeoff. Use bull floats or darbies to smooth surface, free of humps or hollows. Do not disturb slab surfaces prior to beginning finishing operations.

K. Maintain reinforcing in proper position during concrete placement operations.

L. Cold Weather Placing: Do not place concrete when air temperature is below 40 degrees F., or expected to fall below within 24 hours. Comply with ACI 306.

M. Hot Weather Placing: When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305.

N. Concrete flatwork over-pour: Over-pour is excess concrete spilling beyond the limits of the concrete forms. Contractor shall remove over-pour to allow for installation of tree root barriers, irrigation and similar landscape improvements.

3.8 FINISH OF FORMED SURFACES:

A. Rough Form Finish: For formed concrete surfaces not exposed-to-view in the finish work or by other construction, unless otherwise indicated. This is the concrete surface having texture impaired by form facing material used, with tie holes and defective areas repaired and patched and fine and other projections exceeding 1/4" in height rubbed down or chipped off.

B. Smooth Form Finish: For formed concrete surfaces exposed-to-view, or that are to be covered with a coating material applied directly to concrete, or a covering material applied directly to concrete, such as waterproofing, damp proofing, painting or other similar system. For "as-cast" concrete surface obtained with selected form facing material, arranged orderly and symmetrically with a minimum of seams, repair and patch defective areas with fins or other projections completely removed and smoothed

C. Related Unformed Surfaces: At tops of walls, horizontal offsets surfaces occurring adjacent to formed surfaces, strike-off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.9 CONCRETE EXTERIOR FLATWORK FINISHES:

A. Float Finish: Apply float finish to concrete slab surfaces to receive trowel finish and other finishes as hereinafter specified.

B. After screeding, consolidating, and leveling concrete slabs, do not work surface until ready for floating. Begin floating when surface water has disappeared or when concrete has stiffened sufficiently to permit operation of power-driven floats, or both. Consolidate surface with power-driven floats, or by hand-floating if area is small or inaccessible to power units. Check and level surface plane to a tolerance not exceeding 1/8" in 10' when tested with a 10' straightedge. Cut down high spots and fill low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.

C. Round top edges of all exposed slabs, nosing, etc. with 3/8" radius edging tool, unless chamfered or otherwise noted.

D. Non-Slip Broom Finish (NSBrm-Fn): Unless specified otherwise, apply non-slip broom finish to exterior concrete walks, platforms, steps and ramps, and elsewhere as indicated. Slopes less than 6% shall have a medium broom finish. Slopes 6% and greater shall be heavy broom slip resistant.

E. Immediately after trowel finishing, slightly roughen concrete surface by brooming with fiber bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

3.10 CONCRETE CURING AND PROTECTION:

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 305R-10, Guide to Hot Weather Concreting.

B. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than 7 days and above 50 deg. F.

C. Begin final curing procedures immediately following initial curing and before concrete has dried. Continue final curing for at least 7 days in accordance with ACI 301 procedures. Avoid rapid drying at end of final curing period.

D. Curing Method: Perform curing of concrete by moist curing, by moisture-retaining cover curing, by curing compound, and/or by combinations thereof, at contractor's option except as noted during hot weather.

E. Cold Weather Requirements: Protect concrete from freezing conditions during the first seven (7) days after placement.

F. Hot Weather Requirements: When hot weather conditions will cause an evaporation rate exceeding 0.2 pounds of water per square foot per hour, as determined by Figure 2.1.5 of ACI 305, cure for initial 24 hours minimum by moisture retaining cover methods.

3.11 REMOVAL OF FORMS:

A. Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 deg F (10 deg C) for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided curing and protection operations are maintained.

B. Form removal shall comply with ACI 347 and ACI 318-14 Section 26.11.

3.12 RE-USE OF FORMS:

A. Clean and repair surfaces of forms to be re-used in work. Split, frayed, delaminated or otherwise damaged form facing material will not be acceptable for exposed surfaces. Apply new form coating compound as specified for new formwork.

B. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces, except as acceptable to Architect.

3.13 MISCELLANEOUS CONCRETE ITEMS:

A. Filling-In: Fill-in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place and cure concrete as herein specified, to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete work.

B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and steel-troweling surfaces to a hard, dense finish with corners, intersections and terminations slightly rounded.

C. Equipment and Enclosure Bases and Foundations: Provide machine and equipment bases and foundations, as shown on drawings. Set anchor bolts for machines and equipment to template at correct elevations, complying with certified diagrams or templates of manufacturer furnishing machines and equipment.

3.14 CONCRETE SURFACE REPAIRS

A. Concrete pavement surface repairs shall be stable, firm and slip resistant per CBC 11B-302.1.

B. Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after removal of forms, when acceptable to Owner’s Representative.

C. Cut out honeycomb, rock pockets, voids over 1/4" in any dimension, and holes left by tie rods and bolts, down to solid concrete but, in no case to a depth of less than 1". Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water and brush-coat the area to be patched with specified bonding agent. Place patching mortar, colored to match surrounding surfaces after bonding compound has dried. Surfaces exposed-to-view shall be sacked with colored mortar as directed by Owner’s Representative.

D. Repair of Formed Surfaces: Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of Owner’s Representative. Surface defects, as such, include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets; fins and other projections on surface; and stains and other discolorations that cannot be removed by cleaning.

E. Flush out form tie holes, fill with dry pack mortar.

F. Repair concealed formed surfaces, where possible, that contain defects that affect the durability of concrete. If defects cannot be repaired, remove and replace concrete.

G. Repair of Unformed Surfaces: Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface plane to tolerances specified for each surface and finish. Correct low and high areas as herein specified. Test unformed surfaces sloped to drain for trueness of slope, in addition to smoothness, using a template having required slope.

H. Repair finished unformed surfaces that contain defects, which affect durability of concrete. Surface defects, as such, include crazing, cracks in excess of 0.01" wide or which penetrate reinforcement or completely through non-reinforced sections regardless of width, spalling, pop-outs, honeycomb, rock pockets, and other objectionable conditions. Color of repair shall match surrounding surface color.

I. Correct high areas in unformed surfaces by grinding, after concrete has cured at least 14 days.

J. Correct low areas in unformed surfaces during, or immediately after completion of surface finishing operations by cutting out low areas and replacing with fresh concrete. Finish repaired areas to blend into adjacent concrete. Proprietary patching compounds may be used when acceptable to Owner’s Representative.

K. Repair methods not specified above may be used, subject to acceptance of Owner’s Representative.

3.15 WATERPROOFING SITE RETAINING WALLS:

A. Contractor shall apply waterproof membrane to site retaining walls. Membrane shall continuously cover the surface in contact with soil, vertically from the footing to 2” above the finished grade level of the soil retained.

B. Prepare surface as recommended by manufacturer by filling cracks, priming, filling joint and voids, penetrations and corners.

C. Apply waterproof membrane as recommended by manufacturer.

3.16 SACK FINISH WALLS, STEP SEATING AND CURBS

A. Sack finish shall consist of filling holes or depressions in the surface of the concrete, repairing all rock pockets, removing fins, and removing stains and discolorations visible from traveled ways. Sack finish, unless otherwise specified, shall be considered as a final finish where designated on the plans and details.

B. Except as provided herein, form bolts and any metal placed for the convenience of the Contractor shall be removed to a depth of at least one inch below the surface of the concrete. All rock pockets and other unsound concrete shall be removed. The resulting holes or depressions shall be cleaned and filled with mortar. Form bolts projecting into the cells of box girders need not be removed unless deck forms are removed from the cells, in which case the bolts shall be removed flush with the surface of the concrete.

C. Mortar used to fill bolt holes shall conform to the provisions in this Section for "Mortar." Other depressions and pockets shall be filled with packed mortar as directed by the Architect and the mortar shall be cured in conformance with the provisions in this Section

D. For exposed surfaces, integral concrete color (LM Scofield Chromix) cement shall be added to the mortar in an amount sufficient to result in a patch which, when dry, matches the surrounding concrete.

E. If rock pockets, in the opinion of the Architect, are of such an extent or character as to affect the strength of the structure materially or to endanger the life of the steel reinforcement, the Architect may declare the concrete defective and require the removal and replacement of the portions of the structure affected.

3.17 QUALITY CONTROL TESTING DURING CONSTRUCTION:

A. The Owner will employ a testing laboratory to perform other tests and to submit test reports.

B. Reinforcing steel shall be supplied with heat number and mill analysis per ACI 318-14.

C. Shrinkage Limitation: All concrete shall meet drying shrinkage limitations as follows:

D. 0.032 percent at age 21 days, with tolerance of +25% for specimens taken during the course of the work.

E. The use of aggregates with a proven history of compliance with the above limitations will be accepted as fulfilling this requirement. In the absence of satisfactory evidence, the laboratory shall prepare specimens (4" x 4" prisms 10" gage length, ASTM C-157-64T) and test for compliance prior to approval.

3.18 PROJECT CLOSE-OUT: (not applicable)

END OF SECTION 32 13 13.1
(REVISED 11/16/2023)

SECTION 32 18 16.16

PLAYGROUND PROTECTIVE SURFACING

PART 1 - GENERAL

1.1 POURED-IN-PLACE RUBBER PLAYGROUND SURFACING

A. Safepour EPDM playground surfacing is a two (2)-layer, seamless system comprised of a base layer of 100% post-consumer recycled SBR rubber (Styrene Butadiene Rubber) and polyurethane binder. Top layer wear course of EPDM (Ethylene Propylene Diene Monomer) rubber and either “Standard” Aromatic polyurethane binder or “Premium” Aliphatic UV Stable polyurethane binder. The porous system is mixed and field-applied in any configuration and dimensions with thickness to achieve required critical fall heights.

1.2 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to the work of this section. Also reference 32 13 13.1 Concrete Work (Landscape).

1.3 DESCRIPTION OF WORK:

A. The extent of work in this Section includes the provision and installation of the following paving materials, base foundations and appurtenances required for installation.

B. The general extent of work for this Section is shown on the drawings and includes, but is not limited to, the following:

1. Base Preparation – refer to 32 13 13.1 Concrete Work (Landscape)

1.4 QUALITY ASSURANCE:

A. All manufactured items shall be inspected and approved upon delivery.

B. Protect from damage and intrusion of deleterious materials during delivery, handling, storage, and installation.

C. Installer's Qualifications:

1. Utilize the manufacturer’s installation crew that has been trained and certified, and has experience with other projects of the same scope and scale of the work described.

D. Area of safety: Poured in place surfacing within playground equipment use zones shall meet or exceed the performance requirements of the CPSC, ADA and Fall Height Test ASTM F 1292-18. The surface must yield both a peak deceleration of no more than 200 g-max and a Head Injury Criteria (HIC) value of no more than 1,000 for a head-first fall from the highest accessible portion of play equipment being installed as shown on drawings. IPEMA certification is required. (ASTM F 1292-18 section 4.3.3: The laboratory test used to determine critical fall height shall have been conducted on surfacing material samples identical in design, materials, components, thickness and manufactured as the installed playground surface.)

E. Accessibility: Children's outdoor play areas shall be in compliance with the Uniform Federal Accessibility Standards (9UFAS) FED-STD-795 and the Architectural and Engineer Instructions (9AEI) Design Criteria. The requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) 28 CFR Part 36 that provide equal or greater accessibility than the requirements of the UFAS must also be met in children's outdoor play areas.

F. Path of Travel: Poured in place surfacing intended to serve as accessible path of travel for persons with disabilities shall be firm, stable and slip resistant, and shall meet the requirements of ASTM F 1951-14 and ASTM F 1292-18.

G. Wear Course: Wear course, covering cushion layer, shall be angular granules with a (Shore A) hardness of 65 degrees A +/-5 and particle size between .5-1.5 mm. Binder shall be not less than 15 percent of the total weight of the wear course material used in the wear surface, and shall provide 100 percent coating of the particles. No other granule sizes are acceptable.

H. Third party test results of tensile strength equal to or greater than 170 psi and elongation yield equal to or greater than 180%.

1.5 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension.

2. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.

3. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine.

4. ASTM D2859 Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.

5. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.

6. ASTM F1292 Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment.

7. ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

B. US Consumer Product Safety Commission (CPSC) Handbook for Playground Safety.

1.6 SPECIFIC DEFINITIONS

A. Critical Fall Height: Standard measure of shock attenuation. According to the United States Consumer Product Safety Commission Public Playground Safety Handbook, critical fall height is defined as “the fall height below which a life-threatening head injury would not be expected to occur.”

B. Fall Height: According to the United States Consumer Product Safety Commission Public Playground Safety Handbook, fall height is defined as “the vertical distance between the highest designated play surface on a piece of equipment and the protective surfacing beneath it.” The fall height of playground equipment should not exceed the critical height of the protective surfacing beneath it.

1.7 SYSTEM DESCRIPTION

A. Provide a two (2)-layer SBR rubber, polyurethane binder (Aromatic or Aliphatic), and EPDM rubber playground safety surfacing system which has been designed, manufactured, and installed to meet the following criteria:

B. Performance Requirements:

1. Shock attenuation (ASTM F1292) Gmax - Less than 200

2. Head Injury Criteria (HIC) - Less than 1000

3. Flammability (ASTM D2859): Pass.

4. Tensile Strength (ASTM D412): 60 psi (413 kPa).

5. Tear Resistance (ASTM D624): 140%.

6. Water Permeability: 0.4 gal/yd2/second.

7. Accessibility: Comply with requirements of ASTM F1951

8. Dry Static Coefficient of Friction (ASTM D2047): 1.0.

9. Wet Static Coefficient of Friction (ASTM D2047): 0.9.

10. Dry Skid Resistance (ASTM E303): 89.

11. Wet Skid Resistance (ASTM E303): 57.

1.8 SUBMITTALS:

A. Product Data: Submit manufacturer's technical data and color samples for review and selection.

B. Samples: Submit color sample to architect for selection prior to installation. Color selection may be a mixture of up to three standard colors.

C. Test Reports:

1. Contractor shall hire a qualified independent testing agency and submit test reports indicating results of the following tests:

a. Impact Attenuation: ASTM F 1292.

2. Owner shall inspect ground surface regularly to comply with ASTM F1951 and CBC 11B-1008.2.6.

D. Certificate of Compliance:

1. Submit manufacturer's certificate of compliance indicating materials comply with specified requirements.

E. Maintenance Instructions:

1. Submit manufacturer's maintenance and cleaning instructions.

F. Warranty:

1. Submit manufacturer's standard warranty.

G. Copy of manufacturer issued installation certification.

H. Certificate of Insurance for poured in place surfacing manufacturer covering general and product liability for not less than $1,000,000 for each occurrence, $2,000,000 general aggregate. Issuing underwrite shall be AA rated.

1.9 DELIVERY, STORAGE AND HANDLING

A. Delivery: Deliver materials to site in manufacturer's original, unopened, undamaged containers and packaging, with labels clearly identifying product name and manufacturer. Inspect material in ensure nothing is broken, open or missing upon delivery to the project site.

B. Storage: Store materials in a clean, dry location, protected from weather and deterioration, exposure to harmful environmental conditions, and at a minimum temperature of 40 degrees F and a maximum temperature of 90 degrees F. Comply with any other manufacturer’s written instructions for temperature requirements for storage.

C. Handling: Protect materials during handling and installation to prevent damage.

1.10 INSPECTION OF PLAY AREA

A. It is the installer's responsibility to ensure that U.S. Product Safety Guidelines and ASTM Standards 1487-01 and F1292-04 are complied with on playgrounds prior to installation, such as, but not limited to, discharge heights for decks, transfer stations, slides and the like, safety fall zone clearances are sufficient and fall heights are met. Notify Owner's Representative for corrections of compliance issues.

B. It is the installer's responsibility to ensure drainage is acceptable to validate the product warranty.

C. Prepare sub-base per plans and details for concrete paving, asphalt paving or 90% compacted base material.

D. Owner shall inspect ground surface regularly to comply with ASTM F1951 and CBC 11B-1008.2.6.

1.11 PROJECT SITE CONDITIONS

A. Install surfacing on a dry sub-surface with no prospect of rain within the initial drying period, and within 40 degrees F and 90 degrees F.

1.12 LIMITATIONS

A. Some chemicals may cause damage to the playground surface and should be avoided. These include disinfectants, concentrated chlorine bleach, gasoline, diesel fuel, hydraulic and lubricating oils, acids, and organic solvents.

B. Though not commonly used in water play areas, pool surrounds, and similar applications, dissolved minerals and other chemicals (hydrochlorides) may cause surface discoloration over time. This condition, should it occur, is not considered to be a product failure.

1.13 WARRANTY

A. The playground surface shall be guaranteed against defects in product quality and material for a period of no less than five (5) years for the EPDM "Standard" product and not less than seven (7) years for the EPDM "Premium" product, from the date of completion of the work. See also specifier contract documents. Ordinary wear and tear, abuse, or neglect will be excepted. Warranty coverage is provided by Playgrounds Unlimited. Maintenance requirements must be maintained for the duration of the warranty period. Proper drainage is critical to the longevity of the Safepour surfacing system. Inadequate drainage will cause premature breakdown of the poured system in affected areas and void the warranty.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. The playground surface shall consist of synthetic materials meeting the requirements of this Specification. The type or safety surfacing shall be poured-in-place safety surfacing system Safepour EPDM, available through Playgrounds Unlimited.

Contact Richard MacDermott, (408) 244-9848

customerservice@playgroundsunlimited.com

2.2 BASE LAYER

A. Safepour Primer: Polyurethane.

B. SBR (Styrene Butadiene Rubber) Color: Black.

C. Safepour Poured-In-Place Base: Blend strand 100% recycled SBR (Styrene Butadiene Rubber) and polyurethane to the proper ratios based on weight: 86% SBR rubber and 14% polyurethane (as divided by total combined weight) or (16+% when urethane divided by SBR weight).

D. Base Thickness: May vary as determined by the fall height of the play equipment and as required to meet ASTM F1292 requirements for critical fall height.

Critical Play Height of Equipment	**Base Thickness ****
Up to 4′	1.5″
Up to 5′	2″
Up to 6′	2.5″
Up to 7′	3″
Up to 8′	3.5″
Up to 9′	4.0″
Up to 10′	4.5″
Up to 11′	5″
Up to 12′	5.5″

*****ADD .5″ Top Coat for Total System Thickness.**

2.3 TOP LAYER

A. Safepour Primer: Polyurethane.

B. Safepour EPDM (Ethylene Propylene Diene Monomer) rubber; “Standard” Granule 1-4 mm.

C. Colors:

1. Terra Cotta Red, Primary Red, Gold, Beige, Yellow, Bright Green, Army Green, Hunter Green, Teal, Sky Blue, Royal Blue, Purple, Pearl, Eggshell, Brown, Light Gray, Dark Gray, Black. Standard Colors: Terracotta, Hunter Green, Bright Green, Sky Blue, Royal Blue, Beige, & Black.

2. Custom colors combinations available (specify)

D. Safepour Poured-In-Place Top: Blend of EPDM and polyurethane. 82% rubber and 18% polyurethane (as divided by total combined weight) or (22+% when urethane weight divided by EPDM weight).

E. Nominal thickness of TPV top layer 0.5”, with a minimum 0.325” and a maximum 0.625”.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive playground safety surfacing. Notify Architect if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

B. Verify finished elevations of adjacent areas are as indicated on drawings, that the appropriate sub-grade elevation has been established for the particular safety surface to be installed and the subsurface has been installed in a true, even plane and sloped to drain as indicated on drawings. To conform to ADA guidelines, there must not be more than a 2 percent slope.

C. Verify sub base has cured and that all concrete curing compounds and other deleterious substances that might adversely affect adhesion have been removed and that surface is clean and dry.

D. Drainage: Proper drainage is critical to the longevity of the Safepour surfacing system. Inadequate drainage will cause premature breakdown of the poured system in affected areas and void the warranty. PREPARATION

E. Prepare subsurface in accordance with manufacturer's instructions to ensure proper support and drainage for playground safety surfacing tiles.

F. Concrete Subsurface (where occurs):

1. Concrete subsurface shall be as specified in Section 32 13 13.1

2. Apply light broom finish.

3. Ensure concrete is sound with no loose material or cracks over 1/8 inch wide.

4. Ensure concrete is a minimum of 28 days old.

5. Test concrete for moisture in accordance with manufacturer's instructions to ensure it has sufficiently cured and is dry.

6. Power wash existing concrete in accordance with manufacturer's instructions.

7. Repair variations in elevation of completed subsurface greater than plus or minus ¼ inch over 10 feet in any direction.

3.2 PREPARATION

A. Surface Preparation: Using a brush or short nap roller, apply primer to the substrate perimeter and any adjacent vertical barriers (such as playground equipment) that will contact the surfacing system at the rate of 300 ft2/gal.

3.3 INSTALLATION

A. Do not proceed with playground surfacing installation until all applicable site work, including substrate preparation, fencing, playground equipment installation, and other relevant work, has been completed. Consider dust and traffic in adjacent work areas that may impact surfacing finish.

B. Base Layer Installation:

1. Using screeds and hand trowels, install the base layer at a consistent density of 29 pounds, 1 ounce per cubic foot to the specified thickness.

2. Allow the base layer to cure for sufficient time so indentations are not left in the base layer from applicator foot traffic or equipment.

3. Do not allow foot traffic or use of the base layer surface until it is sufficiently cured.

C. Primer Application: Using a brush or short nap roller, apply primer to the base layer perimeter and any adjacent vertical barriers that will contact the surfacing system at the rate of 300 ft2/gal.

D. Top Layer Installation:

1. Using a hand trowel, install top layer at a consistent density of 58 pounds, 9 ounces per cubic foot to a nominal thickness of 0.5".

2. Allow the top layer to cure for a minimum of 48 hours with aromatic binder and up to 72 hours with aliphatic binder (dependent on weather conditions).

3. At the end of the minimum curing period, verify the surface is sufficiently dry and firm to allow foot traffic and use without damage to the surface.

4. Do not allow foot traffic or use of the surface until it is sufficiently cured.

3.4 PROTECTION

A. Protect playground safety surfacing from foot traffic for a minimum of 48 hours after installation, more if necessary, to allow surfacing to fully cure.

B. Protect completed play surfacing from damage during construction.

3.5 CLEANING AND COMPLETION

A. Remove adhesive spills from playground safety surfacing, adjacent paving and playground equipment in accordance with manufacturer's instructions.

B. Clean safety surfacing in accordance with manufacturer's instructions.

C. Protect all installed work from other construction activities as installation progresses.

D. The Contractor shall keep the area clean throughout the construction period and free from the installation process, including track surfaces.

E. Upon completion of the installation, thoroughly clean surfaces and site of all refuse resulting from the installation process, including track surfaces.

F. Any damage to existing fixtures or facilities resulting from the installation of the playground protective surfacing system shall be repaired to original condition at the Contractor’s expense prior to Substantial Completion and commencement of the Warranty Period.

G. A deficiency list will be produced by the Engineer at the conclusion of the project. All installation project deficiencies not in dispute must be remedied by the Contractor prior to the issuance of a certificate of Substantial Completion.

3.6 FIELD QUALITY CONTROL

A. After-Installation Inspection:

1. Provide third party inspection of playground safety surfacing within 30 days of installation.

2. Conduct inspection by National Recreation and Parks Association/National Playground Safety Institute (NRPA/NPSI) Certified Playground Safety Inspector (CPSI).

3. Determine compliance with this Specification and Drawings and make corrections as necessary to obtain written certification of compliance with this Specification and Drawings.

4. Post Installation Test: ASTM F1292 Field Test Method

a. Perform impact attenuation testing according to ASTM F1292 filed test method in presence of Owner’s representative within 30 days of installation.

1) Confirm Impact Attenuation Performance of Playground Tile System:
   a) g-max Score: Less than 125.
   b) Head Injury Criteria (HIC) Score: Less than 700.

b. Operator Qualifications:

1) Trained in the proper operation of test equipment by competent agency.

c. Determine compliance with ASTM F 1292, unless otherwise specified in this section.

5. The contractor is responsible for hiring a Third-Party Certified Playground Inspector (CPSI), not employed by the installer. The contractor shall obtain sign-off from the third-party CPSI ensuring that all areas of the Playground Protective Surfacing System meet the current national standards set by the American Society for Testing and Materials (ASTM) and U.S. Consumer Product Safety Commission (CPSC), by said CPSI before the play structure is open for use.

3.7 CLOSE-OUT

A. Contractor shall provide Owner's Representative with written certification of installation by Third-Party Certified Playground Safety Inspector.

END OF SECTION 32 18 16.16
(REVISED 11/6/2023)

SECTION 32 90 00

PLANTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following:

1. Mulch.

B. Related Sections include the following:

1. Specification Section 01 56 39 “Tree and Plant Protection”.
2. Specification Section 31 20 00“Earthwork” for excavation, filling and rough grading and for subsurface aggregate drainage and drainage backfill materials.

1.3 DEFINITIONS

A. Finish Grade: Elevation of finished surface of planting soil.

B. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill, before placing planting soil.

C. Substantial completion for landscape and irrigation: Work shall be considered substantially complete when irrigation, planting, turf planting and seeding are installed correctly per plans and specifications with only minor adjustments required and approval has been submitted in writing by Owner's Representative.

D. Final completion for landscape and irrigation: Work shall be considered complete when irrigation, planting, turf planting and seeding are installed correctly per plans and specifications and the maintenance period has been completed per plans and specifications and approval has been submitted in writing by Owner's Representative.

1.4 SUBMITTALS

A. Product, Material Data and/or Samples: For each type of product specified. Submit manufacturer's technical data and installation instructions for landscape products conforming to requirements of Section 01 33 00 Submittal Procedures to include, but not be limited to:

1. Samples for the following:

a. Organic mulch top dressing (1/2 c.f. each)

1.5 QUALITY ASSURANCE

A. Protect existing to remain and newly installed lawn and/or landscape areas from damage or trespass by maintaining construction fencing during construction and maintenance.

B. Protect all planting areas from trespass or damage by installing temporary barriers or protective fencing during construction. Barrier and/or fencing material and installation method shall be approved by Owner's Representative prior to installation.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Notify Owner's Representative fourteen (14) days prior to anticipated plant material delivery to schedule review of plant material prior to installation.

1.7 PROJECT/SITE CONDITIONS

A. Weather Limitations: Proceed with planting only when weather conditions permit.

B. Coordination with Lawns: Plant trees and shrubs after finish grades are established and before planting lawns, unless otherwise acceptable to Owner's Representative.

1. When planting trees and shrubs after lawns, protect lawn areas and promptly repair damage caused by planting operations.

C. Irrigation system shall be installed and operable before beginning planting operation.

PART 2 - PRODUCTS

2.1 MULCHES

A. Due to variations in mulch sizes, Contractor shall remove large bark mulch in excess of approximately ¾" x ½" x 6" in size or 2.5 cubic inches in volume.

B. Organic Mulch for non-bio-retention planting areas: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of organic bark from Vision Recycling. Mahogany Wood Chip, available from Vision Recycling (510) 429-1300, www.visionrecycling.com, 41900 Boscell Road, Fremont, CA 94538. Color to be Mahogany. Submit sample to Owners Representative's for review and approval.

2.2 WATER

A. Water shall be suitable for irrigation and free from ingredients harmful to planting areas.

PART 3 - EXECUTION

3.1 PREPARATION

A. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

B. Protect structures, utilities, sidewalks, pavements, and other facilities, and lawns and existing exterior plants from damage caused by planting operations.

C. Install protective barriers and/or fencing as necessary.

D. Contact and obtain Owner's Representative, Local, State and Federal policies and procedures for regulating application of fertilizers, fungicides, insecticides, pesticides and herbicides. Contractor shall comply with all applicable policies and/or procedures for application, posting and notifications.

E. Do not excavate, place soils or amend soils during wet or saturated conditions.

3.2 PLANTING BED MULCHING

A. Apply three (3) inch minimum thickness of organic mulch, unless specified otherwise on Drawings, continuously throughout planting areas. Do not place mulch within two (2) inches of stems and twelve (12) inches of tree trunks.

3.3 CLEANUP AND PROTECTION

A. During exterior planting, keep adjacent paving and construction work area in a clean and orderly condition.

B. Protect exterior plants from damage due to landscape operations, operations by other contractors and trades, and others. Maintain protection during installation treat, repair, or replace damaged exterior planting.

C. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.

3.4 MAINTENANCE SCHEDULE

A. Protection: Protect work from damage, erosion and trespass. Maintain temporary fencing and/or barriers in proper condition. Remove temporary fencing and/or barriers prior to final completion and at end of maintenance period.

B. Organic Mulch: Re-apply organic mulch top dressing after initial settling and again prior to end of maintenance to ensure specified depth is achieved.

C. End of maintenance shall be reviewed and approved in writing by Owner's Representative. Upon approval, Contractor shall notify Owner's Representative in writing when maintenance is complete with a date which maintenance transfers to Owner.

3.5 FIELD QUALITY CONTROL, SUBSTANTIAL COMPLETION AND FINAL COMPLETION

A. Owner's Representative shall inspect and approve the following prior to proceeding with subsequent work:

1. Preparation: at completion of finish grading and prior to planting, grading tolerances and soil preparation shall be checked for conformance to Drawings and as specified herein.
2. Substantial Completion Review: At substantial completion of this Section, work shall be reviewed for conformance with the Drawings and Contractor shall make recommended repairs and/or corrections in a timely manner.
3. Final Completion Review: After substantial completion repairs and/or corrections have been completed, work shall be reviewed for final completion and approved by Owner's Representative in writing.

B. Re-inspections required due to Contractor not being prepared or non-conformance to Drawings shall be back charged to the Contractor.

C. Contractor shall remove protective fencing and/or barriers prior to final completion review.

END OF SECTION 32 90 00
(REVISED 11/6/2023)

SECTION 32 92 00

TURF PLANTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following:

1. Sodding.

B. Related Sections include the following:

1. Specification Section 31 11 00"Site Clearing" for topsoil stripping and stockpiling.
2. Specification Section 31 20 00"Earthwork" for excavation, filling and backfilling, and rough grading.
3. Specification Section "Subdrainage" for subsurface drainage.

1.3 DEFINITION:

A. Finish Grade: Elevation of finished surface of planting soil.

B. Import Topsoil: Shall be obtained from a local source and coming from a site with similar soil characteristics as the project site. Topsoil shall be fertile, friable, natural loam surface soil, reasonably free of subsoil, clay lumps, brush, weeds and other litter and free of roots, stumps, stones and rocks and other extraneous or toxic matter harmful to plant growth.

C. Manufactured Topsoil: Soil produced off-site by homogeneously blending nutrients, minerals, soils or sand with stabilized organic soil amendments to produce surface planting soil capable of sustaining plant growth.

D. Planting Soil: On-site topsoil, import topsoil or manufactured topsoil.

E. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill immediately beneath topsoil.

F. On-site Topsoil: Naturally occurring, on-site, surface soil, usually occurring in the top four (4) to twelve (12) inches of original, undisturbed surface soil containing organic material, necessary nutrients and minerals to sustain plant growth and be approved to sustain plant life by an approved soil and plant lab.

G. Substantial completion for landscape and irrigation: Work shall be considered substantially complete when irrigation, planting, turf planting and seeding are installed correctly per plans and specifications with only minor adjustments required and approval has been submitted in writing by Owner's Representative.

H. Final completion for landscape and irrigation: Work shall be considered complete when irrigation, planting, turf planting and seeding are installed correctly per plans and specifications and the maintenance period has been completed per plans and specifications and approval has been submitted in writing by Owner's Representative.

1.4 SUBMITTALS

A. Product and Material Data: For each type of product specified. Submit manufacturer's technical data and installation instructions for landscape products conforming to requirements of Section 01 33 00 Submittal Procedures to include, but not be limited to:

1. Samples for Verification: For each of the following:

a. Soil conditioner (1/2 c.f. each).

2. Certification of turfgrass sod, identifying source, including name and telephone number of supplier.

B. Qualification Data: For landscape Installer prior to performing work.

C. Planting Schedule: Indicating anticipated planting dates for turf installation.

1.5 QUALITY ASSURANCE

A. Installer Qualifications:

1. Licensure: The turf installation firm shall hold a current, active C27 “Landscaping Contractor” license classification by the California State License Board that has been consistently active for at least five (5) years and that has not been suspended or revoked.

2. Supervision: The turf installation firm shall have a qualified and experienced turf technician on site during turf installation.

B. Protect all lawn areas from damage or trespass by maintaining construction fencing during construction and maintenance.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Sod: Harvest, deliver, store, and handle sod according to requirements in Turf Producers International’s (TPI) "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in its "Guideline Specifications to Turfgrass Sodding."

1.7 SCHEDULING

A. Planting Restrictions: Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.

B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.

1.8 LAWN MAINTENANCE

A. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:

1. Sodded Lawns: Maintenance period shall be a minimum of sixty (60) days from date of Owner's Representative written approval of Substantial Completion and when there are no visible joints, roots are thoroughly knit to the soil and sod appears to be uniformly healthy and green in color.

B. Maintain and establish lawn by watering, fertilizing, weeding, mowing, trimming, replanting, and spraying for insects and disease and other operations. Roll, re-grade, and replant bare or eroded areas and re-mulch to produce a uniformly smooth lawn. Implement pest management as necessary to controls pests, including gophers.

1. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch. Anchor as required to prevent displacement.

C. Watering: Provide and/or maintain temporary piping, hoses, and lawn-watering equipment as necessary to convey water from sources and to keep lawn uniformly moist to a depth of 4 inches.

1. Schedule watering to prevent wilting, puddling, erosion, and displacement of mulch.

2. Lay out temporary watering system to avoid walking over muddy or newly planted areas.

D. Mow lawn as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one third (1/3) of grass height. Remove no more than one third (1/3) of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:

1. Mow and edge before turf reaches three and one-quarter (3-1/4) inches high.

2. Cut to two and one-half (2-1/2) inches high.

3. Remove all clippings.

E. Lawn Post-fertilization: Apply fertilizer after initial mowing and when grass is dry.

1. Use fertilizer that will provide actual nitrogen of at least 1 lb/1000 sq. ft. to lawn area.

F. Maintain protective barriers in place, erect and secure and clear of lawn edges to allow for uniform growth and for trimming and so as not to block irrigation spray pattern.

1.9 WARRANTY

A. All work executed under this Section shall be warranted free of defects and poor workmanship for a period of one (1) year after date of Final Completion.

B. Turf planting shall be warranted to be in healthy and thriving condition during Warranty period, except for defects resulting from neglect by Owner, abuse or damage by others, or unusual phenomena or incidents which are beyond Contractor's control.

C. Repair and/or re-sod turf areas not in vigorous condition immediately upon notification by Owner's Representative during Warranty period.

PART 2 - PRODUCTS

2.1 TURFGRASS SOD

A. Turfgrass Sod: Number 1 Quality/Premium, including limitations on thatch, weeds, diseases, nematodes, and insects, complying with TPI's "Specifications for Turfgrass Sod Materials" in its "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture, strongly rooted, and capable of vigorous growth and development when planted. Not less than 2 years old, free of weeds and undesirable native grasses and machine cut rolls to pad thickness of 5/8 inch, rolled, 4' wide and 90' length.

B. Turfgrass Species: Sod of grass species as follows, with not less than 90 percent germination, not less than 95 percent pure seed, and free of weed seed:

1. Blue-Rye or equal. www.deltabluegrass.com, (800) 637-8873.

    a. Mixture of 50% bluegrass blend and 50% premium ryegrass blend.

C. Delivery, Storage and Handling: Sod shall be harvested, delivered and installed within a period of 24 hours. Sod shall be kept moist, fresh and protected at all times.

2.2 PLANTING SOIL

A. Prior to placing bid, Contractor to coordinate with General Contractor, Demolition and/or Grading Contractors and verify quantity and source of planting soil for turf planting areas. Identify Contractor responsible for stockpiling on-site topsoil and/or acquiring import planting soil and installing a minimum of six (6) inches of planting soil in turf planting areas and rough grading in accordance with these specifications, details, notes, grading and drainage plans.

B. Coordinate with General Contractor, Demolition and/or Grading Contractors for removal and replacement of any lime treated soils and replacement with planting soil prior to planting turf to depth required to remove lime treatment.

C. On-site topsoil: Reuse existing topsoil or existing surface soil, found in the top twelve (12) inches, excavated and stockpiled on-site.

D. Import Topsoil: Supplement with imported or manufactured topsoil from off-site, local sources, when quantities of on-site topsoil are insufficient. Do not obtain topsoil from bogs or marshes. If soil is obtained from agricultural land, Contractor shall submit proof soil is nematode free. Import topsoil shall meet the following requirements:

1. USDA Classification of fraction passing 2.0 mm sieve: sandy loam, sandy clay loam or loam.

Class	**Particle Size Range**	**Maximum %**	**Minimum %**
Coarse Sand	0.5 – 2mm	15	0
Silt	.002 - .05 mm	30	10
Clay	< .002 mm	25	10
Other Classes			
Gravel	2 – 13 mm	15	0
Rock	½ - 1 inch	5% by volume with none > 1 inch	
Organic		15	0

2. Chemistry – Suitability Considerations

Salinity: Saturation Extract Conductivity (ECe)

Less than 3.0 dS/m @ 25 degrees C.

Sodium: Sodium Adsorption Ratio (SAR)

Less than 1.00 ppm

Boron: Saturation Extract Concentration

Less than 6

Reaction: pH of Saturated Paste: 5.5 – 7.5 without high lime content.

3. Soil to contain sufficient quantities of available nitrogen, phosphorus, potassium, calcium and magnesium to support normal plant growth. In the event of nutrient inadequacies, provisions shall be made to add required materials prior to planting.

4. Soil testing: Contractor shall submit to the Owner's representative for approval, certification from an agricultural soils testing laboratory, Waypoint Analytical California, Inc. (408) 727-0330, or approved equal, that the import topsoil provided conforms to the specifications prior to delivery of import or placement of on-site topsoil. Soil testing shall have been performed on import topsoil source within the previous year.

2.3 HERBICIDES

A. All herbicides shall be approved by the District prior to use.

B. Contractor shall contact Owner's Representative prior to application of herbicides for District policies, rules and regulations pertaining to herbicide application.

C. Selective Herbicides: EPA registered and approved, of type recommended by manufacturer for application to remove broad-leaf weeds from existing turf.

D. Non-selective Herbicides: EPA registered and approved, of type recommended by manufacturer for application to remove herbacious vegetation in areas indicated.

2.4 WATER

A. Water shall be suitable for irrigation and free from ingredients harmful to sodded areas.

2.5 LANDSCAPE EDGINGS/HEADERBOARD

A. Wood Strip Edging: Of sizes shown, and as follows:

1. Wood Material: Construction heart redwood, 2 by 6 in size, length as required.
2. Stakes: Construction grade, rough sawn, wood, 2 by 2 by 16 inches long in nominal size, with galvanized, wood, screws for anchoring edging to wood strip edging.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive lawns and grass for compliance with requirements and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

B. Planting operations shall be performed when weather and soil conditions are suitable for planting.

3.2 PREPARATION

A. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

B. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.

C. Install protective barriers and/or fencing as necessary.

D. Contact and obtain Owner's Representative, Local, State and Federal policies and procedures for regulating application of fertilizers, fungicides, insecticides, pesticides and herbicides. Contractor shall comply with all applicable policies and/or procedures for application, posting and notifications.

E. Import Planting Soil Installation:

1. Remove and dispose of stones larger than one (1) inch in any dimension, vegetation and foreign inorganic material from surface to receive import topsoil.
2. Scarify or plow the subgrade by crossripping or equivalent to a minimum depth of four (4) inches until it is loose and uncompacted to provide bonding of imported topsoil layer to subgrade.
3. Place topsoil on loosened material in six (6) inch layers. Crossrip first import topsoil layer to a depth of eight (8) inches and blend import topsoil with loose native surface soil. Roll lightly with appropriate lawn roller to consolidate topsoil and compact to 85% density.
4. Continue placement of import topsoil after blending first layer with native soil in six (6) inch layers and rolling lightly to consolidate and compact each layer of topsoil.
5. Place topsoil to the lines and grades in accordance with grading Drawings.

F. Verify installation of planting soil to minimum depth of six (6) inches and rough grading completed to proper slopes and elevations.

G. Verify lime treated soils have been removed and replaced with acceptable planting soil.

3.3 SOIL PREPARATION AND FINE GRADING

A. Soil Preparation: Loosen subgrade of planting beds by crossripping or equivalent cultivation to a minimum depth of ten (10) inches. Remove stones larger than one (1) inch in any dimension and sticks, roots, rubbish, and other extraneous matter in the top six (6) inches of soil and legally dispose of them off Owner's property.

B. Fine Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Refer to civil grading plans and conform to designed grades, drainage patterns, swales, and ridges.

1. There shall be no areas that hold water or drain toward buildings or structures, unless designed per civil grading plans.
2. In sodded turf areas, one (1) inch below adjacent paved surfaces, utility boxes, tops of curbs, etc.

C. Moisten prepared lawn areas before planting if planting soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil conditions.

D. Restore areas if eroded or otherwise disturbed after finish grading and before planting.

3.4 SODDING

A. Lay sod within 24 hours of harvesting. Do not lay sod if dormant or if ground is frozen or muddy.

B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to subgrade or sod during installation. Tamp and roll lightly to ensure contact with subgrade, eliminate air pockets, and form a smooth surface. Work sifted planting soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.

1. Lay sod across angle of slopes exceeding 1:3.
2. Anchor sod on slopes exceeding 1:6 with wood pegs or steel staples spaced as recommended by sod manufacturer but not less than 2 anchors per sod strip to prevent slippage.
3. Hold sod clear of all tree trunks and tree staking, create a circular edge 12” clear of all tree trunks.

C. Saturate sod with fine water spray within two hours of planting. During first week, water daily or more frequently as necessary to maintain moist planting soil to a minimum depth of 1-1/2 inches below sod.

3.5 SELECTIVE BROADLEAF WEED KILL

A. Refer to herbicide manufacturer recommendations. Apply selective broadleaf herbicide where indicated prior to disturbing on-site soil per manufacturer recommendations. Re-apply as necessary for complete weed kill by end of maintenance period.

3.6 MAINTENANCE SCHEDULE

A. Protection: Protect work from damage, erosion and trespass. Maintain construction fencing in proper condition. Remove temporary fencing and/or barriers prior to final completion and at end of maintenance period.

B. Water: Contractor shall be solely responsible for ensuring that all planting is sufficiently watered to promote vigorous growth. Test and inspect irrigation system on a regular basis, each week during plant establishment and monthly thereafter. Adjust and repair the irrigation system and its components as necessary for turf establishment and growth and for watering efficiency. Check and adjust any obstructions to emission devices.

C. Fertilizing: Immediately after completion of planting, fertilize landscape areas with ammonium sulfate (21-0-0) fertilizer at a rate of five (5) pounds per 1000 square feet. Fertilize with specified fertilizer after 45 days, prior to end of maintenance period. After landscape becomes well-established, fertilize in fall and spring with (16-6-8) commercial fertilizer at a rate of six (6) pounds per 1000 square feet.

D. Weed Control: Maintain turf planting areas in a weed-free condition to be performed weekly during maintenance period. Weeding may be done manually or by the use of selective herbicides. Contractor shall obtain written approval from project owner prior to application of herbicide. No herbicide shall be used without the Owner Representative's prior consent. Use only approved herbicides, use in accordance with manufacturer's recommendations and per Pest Control Advisor's recommendations. If selective herbicides are used, extreme caution shall be observed so as not to damage any other plants. Spraying shall be done only under windless conditions. Review and perform weekly during maintenance period.

E. Lawns: Maintain lawns by watering, fertilizing weeding, trimming, mowing and other operations such as rolling, re-grading and replanting as required to establish a smooth, acceptable lawn, free of weeds, bare spots and rocks. All lawn areas shall be mowed regularly when grass reaches a height of three and one-quarter (3-1/4) inches and a minimum of two (2) days prior to end of maintenance period.

F. Disease, Pest and Insect Control: Disease, pest (including moles, gophers and geese) and insect damage shall be controlled by the use of fungicides, insecticides, pesticides, poisons and/or mechanical means. Contractor shall obtain written approval from project Owner prior to application of fungicides, insecticides, poisons, pesticides and/or mechanical means and shall abide by all posting requirements prior to application. Review and perform weekly during maintenance period.

3.7 FIELD QUALITY CONTROL, SUBSTANTIAL COMPLETION AND FINAL COMPLETION

A. Contact Owner's Representative a minimum of 48 hours prior notice for review and approval of the following prior to proceeding with subsequent work:

1. Preparation: at completion of finish grading and prior to planting, grading tolerances and soil preparation shall be checked for conformance to Drawings and as specified herein.
2. Layout: Layout of all plants, headerboard and other major elements shall be directed and/or approved by the Owner's Representative.
3. Substantial Completion Review (Pre-maintenance): At substantial completion of this Section, work shall be reviewed for conformance with the Drawings. Written approval shall mark beginning of the maintenance period.
4. Final Completion Review: At the end of specified maintenance period, work shall be reviewed for conformance with Drawings including additional requirements stipulated during maintenance period shall be extended at Contractors sole cost as directed by the Owner's Representative.
5. Re-inspections required due to Contractor not being prepared or non-conformance to Drawings shall be back charged to the Contractor.

B. Satisfactory Sodded Lawn: At end of maintenance period, a healthy, well-rooted, even-colored, viable lawn has been established, free of weeds, open joints, bare areas, and surface irregularities.

C. Reestablish lawns that do not comply with requirements and continue maintenance until lawns are satisfactory and upon written approval of Owner.

3.8 CLEANUP AND PROTECTION

A. Promptly remove soil and debris created by lawn work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

B. Erect barricades and warning signs as required to protect newly planted areas from traffic. Maintain barricades throughout maintenance period and remove after lawn is established.

C. Remove erosion-control measures after grass establishment period

END OF SECTION 32 92 00
(REVISED 11/6/2023)

SECTION 33 05 16

UTILITY STRUCTURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Manhole structures for gravity storm drain and sanitary sewer utilities.

1.2 RELATED DOCUMENTS

A. AASHTO:

1. M 199: Standard Specification for Precast Reinforced Concrete Manhole Sections.

B. ASTM:

1. A 615/A615M: Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
2. C 478: Standard Specification for Circular Precast Reinforced Concrete Manhole Sections.
3. C 1244: Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill.

C. Caltrans Standard Specifications.

1. Section 51, Concrete Structures.
2. Section 75, Miscellaneous Metal.

D. California Building Code.

1. Section 1110A – Exterior Accessible Routes.

1.3 DEFINITIONS

A. AASHTO: American Association of State Highway and Transportation Officials.

B. ASTM: American Society for Testing Materials.

1.4 SUBMITTALS

A. Follow submittal procedures outlined in Section 01 30 00 – Submittal Procedures.

B. Product data for the following:

1. Cleanout plugs or caps.

C. Shop drawings: Include plans, elevations, details and attachments for the following:

1. Precast concrete manholes, frames and covers.
2. Precast concrete clean out boxes and box covers.

D. Design Mix Reports and Calculations: For each class of cast-in-place concrete.

E. Field Test Reports: Indicate and interpret test results for compliance with performance.

1.5 DELIVERY, STORAGE AND HANDLING

A. Handle precast concrete manholes according to manufacturer's written instructions.

B. Protect imported bedding and backfill material from contamination by other materials.

PART 2 - PRODUCTS

2.1 CLEANOUTS

A. Piping: Same as sanitary sewer line if possible.

B. Top Cap: Threaded and of same material as piping if possible.

C. Box Size: As required to provide access and allow easy removal and reinstallation of cap.

D. Box Types:

1. Landscape Areas: Portland cement concrete box and box cover (bolt-down), light duty.

2. Traffic Areas: Portland cement concrete box and box cover or steel or cast iron cover, heavy duty, both box and cover (bolt down) to be rated for AASHTO H20 loading.

E. Box Cover Markings: "S.D." for storm drain cleanouts, "S.S." for sanitary sewer cleanouts, unless otherwise specified.

F. Available Manufacturers: Subject to compliance with requirements, box manufacturers offering products that may be incorporated into the Project include, but are not limited to the following:

1. Associated Concrete Products, Inc. (Santa Ana, California) (Tel. 714-557-7470).

2. Brooks Products Inc. (El Monte, California) (Tel. 818-443-3017).

3. Christy Concrete Products, Inc. (Fremont, California) (Tel. 800-486 7070).

2.2 MANHOLES

A. General: Size, shape, configuration, depth, etc. of manhole and frame and cover shall be as indicated.

B. Portland Cement Concrete and Reinforcing:

1. Cast-In-Place Portion: Use Class A Concrete per Caltrans Standard Specification Section 90, and ASTM A615 Grade 60 reinforcing steel bars.

2. Precast Portion: ASTM C 478. Rate for AASHTO H20 loading in traffic areas.

C. Frames and Covers: As indicated and in accordance with Caltrans Standard Specification Section 75-2.

D. Steps: ASTM C 478 or AASHTO M 199. Manufacture from deformed, ½-inch steel reinforcement rod complying with ASTM A 615 and encased in polypropylene complying with ASTM D4101. Include pattern designed to prevent lateral slippage off step. Acceptable manufacturer is Hanson Concrete Products, (Milpitas, CA) (Tel 408-262-1091) or equal.

E. Force Main Piping Access Openings:

1. General: As indicated.

2.3 JOINT SEALANT FOR STRUCTURES AND MANHOLES

A. Mortar: Caltrans Standard Specification Sections 51-1.02F and 51-1.03E.

1. Use to seal around pipes at connections to structures and manholes. Also use to seal joints between precast sections of structures and manholes.

B. Gaskets: Preformed flexible rubber or plastic gasket.

1. Rubber Gaskets: ASTM C443.

2. Plastic Gaskets: Federal Specification SS-S-00210 (GSA-FSS), Type I, Rope Form; or alternate standard which may exist. Acceptable material is “Ram-Nek,” as manufactured by the K. T. Snyder Company (Houston TX), or equal.

PART 3 - EXECUTION

3.1 CLEANOUT INSTALLATION

A. General: Install as indicated.

3.2 MANHOLE INSTALLATION

A. General: Install as indicated.

3.3 TESTING OF MANHOLES ON GRAVITY LINES

A. At the option of the Contractor, either the following hydrostatic or vacuum test shall be performed.

B. Hydrostatic Test:

1. Insert inflatable plugs in all sewer inlets and outlets.

2. Fill the manhole with water to a point six inches below the base of the manhole frame.

3. Maintain the water at this point for one hour to allow time for absorption.

4. Begin one-hour test period. Measure the amount of water added in one-hour period to maintain the water level at six inches below the base of the manhole frame. Do not allow water level to drop more than 25% of the manhole depth.

5. Determine the allowable leakage by the following formula.

6. L=0.0002 x D X H 1/2

7. L = Allowable leakage, gallons per minute.

8. D = Depth of manhole from top to bottom, feet.

9. H = Head of water in feet as measured from the surface of the water in the manhole to the sewer line invert or to the prevailing ground water surface outside the manhole. The lesser height governs.

10. If the leakage exceeds the allowable, determine the cause, take remedial action and re-test the manhole. If the leakage is less than the allowable and leaks are observed, repair the leaks.

C. Vacuum Test:

1. General: Test in accordance with ASTM C 1244.

2. Test prior to backfilling around the manhole.

3. Test Preparation: Plug all lift holes and pipes entering or exiting the manhole.

4. Place test head inside the top section of the manhole's cone section and inflate in accordance with the manufacturers instructions.

5. Draw a vacuum of 10-inches of mercury and shut the pump off.

6. With the valve closed, the time for the vacuum to drop 9-inches shall be measured.

7. The manhole shall pass the test if the time is greater than 60 seconds for a 48-inch diameter manhole, 75 seconds for a 60-inch diameter manhole and 90 seconds for a 72-inch diameter manhole.

8. If the manhole fails the initial test, make necessary repairs with a non-shrink grout while the vacuum is still being drawn. Retest until a satisfactory test is obtained.

END OF SECTION

SECTION 33 40 00

STORM DRAINAGE UTILITIES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Roadway and/or site storm drainage up to 5-feet of any on-site building.

1.2 RELATED DOCUMENTS

A. AASHTO:

1. M 252: Standard Specification for Corrugated Polyethylene Drainage Pipe.
2. M 294: Standard Specification for Corrugated Polyethylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter.

B. ASTM:

1. A 74: Standard Specification for Cast Iron Soil Pipe and Fittings.
2. A 615/A615M: Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
3. C 443: Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
4. C 564: Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings.
5. C 1173: Standard Specification for Flexible Transition Couplings for Underground Piping Systems.
6. D 1785: Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
7. D 2235: Standard Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings.
8. D 2321: Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications.
9. D 2564: Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems.
10. D 2751: Acrylontrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings.
11. D 3034: Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
12. D 4101: Standard Specification for Polypropylene Injection and Extrusion Materials.

13. F 477: Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
14. F 656: Standard Specification for Primers for Use in Solvent Cement Joints of Poly(Vinyl Chloride) (PVC)Plastic Pipe and Fittings.
15. F 679: Standard Specification for Poly(Vinyl Chloride) (PVC) Large Diameter Plastic Gravity Sewer Pipe and Fittings.
16. F-1336: Standard Specification for Poly(Vinyl Chloride) (PVC) Gasket Sewer Fittings.

C. AWWA:

1. C104: Cement-Mortar Lining for Ductile Iron Pipe and Fittings.
2. C105: Polyethylene Encasement for Ductile-Iron Pipe Systems.
3. C110: Ductile-Iron and Gray-Iron Fittings.
4. C111: Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
5. C150: Thickness design of Ductile-Iron Pipe.
6. C151: Ductile-Iron Pipe, Centrifugally Cast.
7. C153: Ductile-Iron Compact Fittings.
8. M41: Ductile Iron Pipe and Fittings.

D. Caltrans Standard Specifications:

1. Section 65, Concrete Pipe.
2. Section 66, Corrugated Metal Pipe.
3. Section 70. Miscellaneous Drainage Facilities.
4. Section 72, Slope Protection.

E. Caltrans Standard Plans:

1. Plan D94A: Metal and Plastic Flared End Sections.
2. Plan D94B: Concrete Flared End Sections.
3. Plan D97A: Corrugated Metal Pipe Coupling Details No.1, Annular Coupling Band Bar and Strap and Angle Connections.
4. Plan D97B: Corrugated Metal Pipe Coupling Details No. 2, Hat Band Coupler and Flange Details.
5. Plan D97C: Corrugated Metal Pipe Coupling Details No. 3, Helical and Universal Couplers.
6. Plan D97D: Corrugated Metal Pipe Coupling Details No. 4, Hugger Coupling Bands.

7. Plan D97E: Corrugated Metal Pipe Coupling Details No. 5, Standard Joint.
8. Plan D97F: Corrugated Metal Pipe Coupling Details No. 6, Positive Joint.
9. Plan D97G: Corrugated Metal Pipe Coupling Details No. 7, Downdrain.
10. Plan D98A: Slotted Corrugated Steel Pipe Drain Details.
11. Plan D98B: Slotted Corrugated Steel Pipe Drain Details.

F. California Building Code:

1. Section 1806A.11 – Pipes and Trenches.
2. Section 1133B.7.2 – Gratings.

G. California Plumbing Code.

1.3 DEFINITIONS

A. AASHTO: American Association of State Highway and Transportation Officials.

B. ABS: Acylonitrile-butadiene-styrene.

C. ASTM: American Society for Testing Materials.

D. AWWA: American Water Works Association.

E. CMP: Corrugated metal pipe.

F. DIP: Ductile iron pipe.

G. HDPE: High-density polyethylene.

H. NPS: Nominal pipe size.

I. PE: Polyethylene.

J. PVC: Polyvinyl chloride.

K. RCP: Reinforced concrete pipe.

1.4 SUBMITTALS

A. Follow submittal procedures outlined in Section 01 33 00 – Submittal Procedures.

B. Product Data Shop Drawings, Etc.: For the following:

1. Piping materials and fittings.
2. Special pipe couplings.
3. Polymer-concrete, channel drainage systems (trench drains).
4. Joint sealants.
5. Plastic area drains.

6. Precast concrete catch basins, inlets, curb inlets, and area drains, including frames and grates.

7. Concrete, metal and plastic flared end sections.

C. Design Mix Reports and Calculations: For each class of cast in place concrete.

D. Field Test Reports: Indicate and interpret test results for compliance with performance.

1.5 DELIVERY, STORAGE AND HANDLING

A. Do not store plastic structures, pipe and fittings in direct sunlight.

B. Protect pipe, fittings, and seals from dirt and damage.

C. Handle precast concrete pipe and other precast structures according to manufacturer's written instructions.

D. Protect imported beddin

E. g and backfill material from contamination by other materials.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

A. ABS Pipe and Fittings: Smaller than 4-inch, ASTM D 2751, SDR 35. Solvent cement joints.

1. Solvent Cement: ASTM D 2235.

B. ABS Pipe and Fittings: 4-inch through 12 inch, ASTM D 2751, SDR 35. Bell and spigot joints.

1. Bell and Spigot Joint Gasket: Elastomeric seal, ASTM F 477.

C. Cast Iron Pipe and Fittings: Hub and spigot, 2-inch through 15-inch, ASTM A74, service class.

1. Gaskets: ASTM 564, rubber, compression type, thickness to match class of pipe.

D. Corrugated Metal Pipe: Caltrans Standard Specification Section 66.

1. Bituminous Coating: Caltrans Standard Specification Section 66-1.02C.

2. Bituminous Lining: Caltrans Standard Specification Section 66-1.02C.

3. Bituminous Pavings: Caltrans Standard Specification Section 66-1.02C.

4. Corrugated Aluminum Pipe: Caltrans Standard Specification Section 66-1.02F.

5. Corrugated Steel Pipe: Caltrans Standard Specification Section 66-1.02E.

6. Slotted Corrugated Steel Pipe: Caltrans Standard Specification Section 66-2.

7. Details: Caltrans Standard Plans D97A, D97B, D97C, D97D, D97E, D97F, D97G, D98A and D98B.

E. DIP: Sizes 4-inch through 48-inch.

1. Pipe: AWWA C150 and C151.

2. Pressure Class: Minimum pressure class for size indicated.

3. Fittings:

(a) Standard: AWWA C110, sizes 4-inch through 48-inch.

(b) Compact: AWWA C153, sizes 4-inch through 24-inch.

4. Pipe and Fitting Lining: Cement Mortar, AWWA C104.

5. Pipe and Fitting Coating: Asphaltic, AWWA C151 or C115.

6. Exterior Soil Corrosion Protection for Pipe and Fittings: Polyethylene encasement, AWWA C105.

7. Joints:

(a) Push-On Bell and Spigot Joint: AWWA C111.

(b) Mechanical Joint: AWWA C111.

(c) Flanged joint. AWWA C115.

F. Reinforced Concrete Pipe: Designated by Class, rubber gasketed joints.

1. Circular Reinforced Concrete Pipe: Caltrans Standard Specification Section 65-2.01D(3). Class III.

2. Oval shaped (Elliptical) Reinforced Concrete Pipe: Caltrans Standard Specification Section 65-2.01D(5)/2.02D. Class HE-III and VE-III.

3. Reinforced Concrete Pipe Arch: Caltrans Standard Specification Section 65-1.02C.

4. Rubber Gasketed Joints: Caltrans Standard Specification Section 65-2.02F.

G. PE Pipe and Fittings: 4-inch through 10-inch, AASHTO M 252 Type S, smooth interior and corrugated exterior. Bell and spigot joints.

1. Bell and Spigot Joint Gasket: Elastomeric seal, ASTM F 477.

2. Couplings: AASHTO M 252, corrugated band type. Engage a minimum of 4 corrugations, 2 on each side of pipe joint.

H. PE Pipe and Fittings: 12-inch through 48-inch, AASHTO M 294.Type S, smooth interior and corrugated exterior. Bell and spigot joints.

1. Bell and Spigot Joint Gasket: Elastomeric seal, ASTM F 477.

2. Couplings: AASHTO M 252, corrugated band type. Engage a minimum of 4 corrugations, 2 on each side of pipe joint.

I. PVC Pipe and Fittings-Smaller than 4-Inch: ASTM D1785, Schedule 40.

1. Joints: Solvent Cement, ASTM D 2564. Include primer according to ASTM F656.

J. PVC Pipe and Fittings,4-Inch and Larger

1. Pipe:

(a) 4-inch through 15-inch: ASTM D 3034, SDR 35. Bell and spigot joints.

(b) 18 inch through 36-inch: ASTM F 679, T-1 wall. Bell and spigot joints.

2. Fittings:

(a) 4-inch through 27-inch: ASTM F 1336.

(b) 30-inch through 36-inch: ASTM D 3034, SDR 35

3. Joint Gasket: Elastomeric seal, ASTM F 477.

2.2 PIPE ANCHORS

A. Section 32 05 23 – Cement and Concrete for Exterior Improvements.

2.3 SPECIAL PIPE COUPLINGS

A. Plastic, Cast Iron and Ductile Iron Pipe: ASTM C 1173, rubber or elastomeric sleeve and band assembly fabricated to match outside diameters of pipes to be joined.

B. Reinforced Concrete Pipe: Portland cement concrete collar as indicated.

C. Section 32 05 23 – Cement and Concrete for Exterior Improvements.

2.4 CURB INLETS, CATCH BASINS, DROP INLETS, AREA DRAINS, ETC.

A. General: Size, shape, configuration, depth, etc. of structure and frame, grate, or cover shall be as indicated.

B. Section 32 05 23 – Cement and Concrete for Exterior Improvements.

C. Precast Structure: Rate for AASHTO H20 loading in paved areas.

D. Steps: ASTM C 478 or AASHTO M 199. Manufacture from deformed, ½-inch steel reinforcement rod complying with ASTM A 615 and encased in polypropylene complying with ASTM D4101. Include pattern designed to prevent lateral slippage off step. Acceptable manufacturer is Hanson Concrete Products, (Milpitas, CA) (Tel 408-262-1091).

E. Frames, Grates and Covers: Caltrans Standard Specification Section 75-2, 75-3 and 75-1.02B.

1. Galvanize steel frames, grates and covers.

2. Grates and covers shall be non-rocking, bolt-down type.

3. Rate for AASHTO H20 loading in paved areas.

2.5 MANHOLES AND CLEANOUTS

A. See Section 33 05 16 – Utility Structures.

2.6 POLYMER-CONCRETE TRENCH DRAINS

A. General: Modular system of precast, polymer-concrete channel sections, grates, and appurtenances; designed so grates fit into channel recesses without rocking or rattling. Include number of units required to form total length required.

B. Include the following components:

1. Channel Sections: Interlocking-joint, precast modular units with end caps. Inside width as indicated with deep, rounded bottom, with built in slope or flat invert as indicated and outlets in number, sizes, and locations indicated. Include extension sections necessary for required depth.

2. Frame and Grate: Gray iron, ductile iron or galvanized steel as indicated. Where drain is located in traffic areas, rate for AASHTO H20 loading.

C. Locking Mechanism: Manufacturer's standard device for securing grates to channel sections.

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

1. "Polydrain" by ABT Inc. (Troutman, NC) (Tel 704-528-9806).

2. "ACO Drain" by ACO Polymer Products Inc. (Chardon, OH) (Tel. 800-543-4764).

2.7 METAL, CONCRETE OR PLASTIC FLARED END SECTIONS

A. General: Caltrans Standard Specification Section 70-5.02 and Caltrans Standard Plan D94A and D94B.

2.8 SLOPE PROTECTION

A. Rock Slope Protection: Caltrans Standard Specification Section 72-2.02.

1. Class: *[Select Class applicable to the Project.]*

2. Fabric: Caltrans Standard Specification Section 72-2.02C.

B. Concrete/Shotcrete Slope Protection: Caltrans Standard Specification Section 72-5.02.

1. Bar Reinforcement: Caltrans Standard Specification Section 52-1.02B, minimum Grade 40.

2. Welded Wire Fabric: Caltrans Standard Specification Section 52-1.02C. Use 6 x 6-W1.4 xW1.4 unless otherwise indicated.

C. Concreted-Rock Slope Protection: Caltrans Standard Specification Section 72-3.02.

1. Class: *[Select Class applicable to the Project.]*

D. Sacked Concrete Slope Protection.

1. Concrete: Caltrans Standard Specification Section 90, Class 3.

2. Sacks: 10 ounce burlap measuring approximately 19.5-inches by 36 inches when empty and laid flat.

2.9 CONCRETE/SHOTCRETE DITCH LINING

A. General: Caltrans Standard Specification Section 72-5.02.

1. Bar Reinforcement: Caltrans Standard Specification Section 52-1.02B, minimum Grade 40.

2. Welded Wire Fabric: Caltrans Standard Specification Section 52-1.02C. Use 6 x 6-W1.4 xW1.4 unless otherwise indicated.

PART 3 - EXECUTION

3.1 PIPE INSTALLATION

A. General: Install pipe, fittings, and appurtenances utilizing best practices, manufacturer's instructions, and in accordance with Section 6 and 7 of ASTM D 2321 for plastic pipe, Caltrans Standard Specification Section 65-2.03C for reinforced concrete pipe, Caltrans Standard Specification Sections 66-1.045 and 66-105 for corrugated metal pipe and chapter 11.3.3 of AWWA M41 for cast iron and ductile iron pipe.

B. Pipe Depth and Trench Configuration: Conform to typical trench section(s) indicated.

C. Excavation, Bedding, Backfill, and Compaction: Section 31 23 33 – Trenching and Backfilling.

D. Handling: Carefully handle during loading, hauling, unloading and placing operations to avoid breakage or damage. Use strap type slings for lifting and placing; no chains or hooks will be permitted. Comply with manufacturer's recommendations.

E. Laying: Before lowering pipe into the trench, remove all stakes, debris, loose rock and other hard materials from the bottom of the trench. Lay accurately in conformance with lines and grades indicated. Start laying the pipeline at the low end and proceed upstream. Lay bell and spigot pipe with the bell end facing upstream. Lay pipe on a bed prepared by handwork, dug true to grade. Furnish firm bearing for pipe throughout it's entire length with bell holes provided at the ends of each pipe length of sufficient size to permit making up the particular type of joint being used. Adjust pipe to line and grade by scraping away or filling and tamping material under the body of the pipe for the entire pipe length and not by blocking or wedging. After final positioning, hold pipe in place in trench with backfill material placed equally on both sides of the pipe at as many locations as required to hold the pipe section in place.

F. Curved Alignment: When necessary to conform to the alignment specifically indicated, lay pipe on a curved alignment by means of asymmetrical closure of joints or bending of

the pipe barrel. Use shorter lengths of pipe than the standard length if necessary to achieve curvature specified. Do not exceed the recommendations of the pipe manufacture for deflections at the joints or pipe bending.

G. Closure: Close open ends of pipes and appurtenance openings at the end of each days work or when work is not in progress.

3.2 INSTALLATION OF PIPE ANCHORS

A. Install at location, configuration and details shown on the Plans.

3.3 SPECIAL PIPE COUPLINGS

A. General: Use where required to join piping and no other appropriate method is specified. Do not use instead of specified joining methods.

B. Installation: Per manufacturer's instructions.

3.4 INSTALLATION OF CURB INLETS, CATCH BASINS, DROP INLETS, AREA DRAINS, ETC.

A. Excavation, Bedding, Backfill, and Compaction: Section 31 23 33 – Trenching and Backfilling.

B. Poured in Place Structures: Install as indicated and Caltrans Standard Specification Section 51.

1. Shape bottoms to convey flows as indicated.

C. Precast Structures: Install as indicated.

1. Seal all joints and pipe entrances and exits.

2. Place concrete in bottom and shape to convey flows as indicated.

3.5 POLYMER-CONCRETE TRENCH DRAIN INSTALLATION

A. Excavation, Bedding, Backfill, and Compaction: Section 31 23 33 – Trenching and Backfilling.

B. Install: As indicated and in accordance with the manufacturer’s instructions.

3.6 CONCRETE OR PLASTIC FLARED END SECTION INSTALLATION

A. Install: As indicated.

3.7 SLOPE PROTECTION PLACEMENT

A. Rock Slope Protection: Caltrans Standard Specification Section 72-2.03C and as indicated.

1. Use Method B Placement unless otherwise indicated. If Method A is used, then refer to Caltrans Standard Specification Section 72-2.03B

B. Concrete/Shotcrete Slope Protection: Caltrans Standard Specification Section 72-5.03.

C. Concreted-Rock Slope Protection: Caltrans Standard Specification Section 72-3.03A and 72-3.03E.

1. Use Method B Placement unless otherwise indicated. If Method A is used, then refer to Caltrans Standard Specification Section 72-3.03B.

D. Sacked Concrete Slope Protection.

1. Detailed configuration: As indicated.

2. Use one cubic foot of concrete per sack.

3. Locate headers and stretchers as indicated.

4. Headers: Folded end to bank.

5. Stretchers: Folded ends are not to be adjacent.

6. Place no more than four vertical courses until initial set has taken place in first course.

3.8 CONCRETE/SHOTCRETE DITCH LINING PLACEMENT

A. Concrete/Shotcrete Slope Protection: Caltrans Standard Specification Section 72-5.03.

END OF SECTION

SECTION 33 46 00

SUBDRAINAGE

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Subdrains in trenches and subdrains or prefabricated composite drainage panels at walls or foundations.

B. Sand-Swale filters in parking lot areas.

1.2 RELATED SECTIONS

A. Section 31 23 33 – Trenching and Backfilling.

B. Section 33 05 16 – Utility Structures.

C. Section 33 40 00 – Storm Drainage Utilities.

1.3 RELATED DOCUMENTS

A. AASHTO:

1. M 252: Standard Specification for Corrugated Polyethylene Drainage Pipe.

2. M 278: Standard Specification for Class PS46 Poly(Vinyl Chloride) (PVC) Pipe.

3. M 288: Standard Specification for Geotextiles Used for Subsurface Drainage Purposes.

4. M 294: Standard Specification for Corrugated Polyethylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter.

B. ASTM:

1. C 1173: Standard Specifications for Flexible Transition Couplings for Underground Piping Systems.

2. D 448: Standard Classification for Sizes of Aggregate for Road and Bridge Construction.

3. D 1621: Standard Test Method for Compressive Properties of Rigid Cellular Plastics.

4. D 1785: Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.

5. D 2235: Standard Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings.

6. D 2321: Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.

7. D 2564: Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC)

Plastic Piping Systems.

8. D 2729: Standard Specification for Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
9. D 2751: Acrylontrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings.
10. D 3034: Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
11. D 4716: Standard Test Method for Determining the (In-plane) Flow Rate per Unit Width and Hydraulic Transmissivity of Geosynthetic Using a Constant Head.
12. F 477: Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
13. F 656: Standard Specification for Primers for Use in Solvent Cement Joints of Poly(Vinyl Chloride) (PVC) Plastic Pipe and Fittings.
14. F-1336: Standard Specification for Poly(Vinyl Chloride) (PVC) Gasketed Sewer Fittings.

C. Caltrans Standard Specifications:

1. Section 68-Subsurface Drains
2. Section 96-Geosynthetics

1.4 DEFINITIONS

A. AASHTO: American Association of State Highway and Transportation Officials.

B. ABS: Acylonitrile-Butadiene-Styrene.

C. AWWA: American Water Works Association.

D. ABS: Acylonitrile-butadiene-styrene.

E. HDPE: High-density polyethylene.

F. PE: Polyethylene.

G. PVC: Polyvinyl Chloride.

1.5 SUBMITTALS

A. Follow submittal procedures outlined in Section 01 33 00 – Submittal Procedures.

B. Product data for the following:

1. Perforated pipe and fittings.
2. Solid pipe and fittings.
3. Prefabricated composite drainage panels.
4. Geotextile fabrics.

C. Samples:

1. Drainage Fill.

1.6 DELIVERY, STORAGE AND HANDLING

A. Do not store plastic structures, pipe, and fittings in direct sunlight.

B. Protect pipe, pipe-fittings, and seals from dirt and damage.

C. Protect permeable material from contamination by other materials.

PART 2 - PRODUCTS

2.1 PERFORATED WALL AND SOLID WALL PIPE

A. ABS Pipe and Fittings: Smaller than 4-inch, ASTM D 2751, SDR 35. Solvent cement joints.

1. Solvent Cement: ASTM D 2235.

2. Perforation Size, Location, and Spacing: ASTM D 2729.

B. ABS Pipe and Fittings: 4-inch through 12-inch, ASTM D 2751, SDR 35. Bell and spigot joints.

1. Bell and Spigot Joint Gasket: Elastomeric seal, ASTM F 477.

2. Perforation Size, Location, and Spacing: ASTM D 2729.

C. PE Pipe and Fittings (HDPE): 4-inch through 10-inch, AASHTO M252 Type S (Solid wall.) or SP (Perforated wall.), smooth interior and corrugated exterior. Bell and spigot joints.

1. Bell and Spigot Joint Gasket: Elastomeric seal, ASTM F 477.

2. Couplings: AASHTO M 252, corrugated band type. Engage a minimum of 4 corrugations, 2 on each side of pipe joint.

3. Perforation Size, Location, and Spacing: AASHTO M 252, Class 2.

D. PE Pipe and Fittings (HDPE): 12-inch through 48-inch, AASHTO M 294.Type S (Solid Wall.) or Type SP (Perforated wall.), smooth interior and corrugated exterior. Bell and spigot joints.

1. Bell and Spigot Joint Gasket: Elastomeric seal, ASTM F 477.

2. Couplings: AASHTO M 252, corrugated band type. Engage a minimum of 4 corrugations, 2 on each side of pipe joint.

3. Perforation Size, Location, and Spacing: AASHTO M 294, Class 2.

E. PVC pipe and Fittings: Smaller than 4-inch, ASTM D1785, Schedule 40. Solvent cement joints.

1. Solvent Cement: ASTM D 2564. Include primer according to ASTM F656.

2. Perforation Size, Location, and Spacing: ASTM D 2729.

F. PVC Pipe and Fittings:

1. Pipe: 4-inch through 15-inch, ASTM D 3034, SDR 35. Bell and spigot joints.

2. Perforation Size, Location, and Spacing: ASTM D 2729.

3. Fittings: ASTM F 1336.

4. Joint Gasket: Elastomeric seal, ASTM F 477.

2.2 SPECIAL PIPE COUPLINGS

A. Description: ASTM C 1173. Rubber or elastomeric sleeve and band assembly fabricated to match outside diameters of pipes to be joined.

2.3 CLEANOUTS

A. See 33 05 16 – Utility Structures.

2.4 PREFABRICATED COMPOSITE DRAINAGE PANELS

A. Description: Prefabricated composite panels, 36 to 60-inches wide and manufactured with geotextile facing laminated to molded drainage core.

B. Drainage Core: Three-dimensional, non-biodegradable, molded Polypropylene or Polystyrene.

1. Minimum Compressive Strength: 10,000-lbf./sq. ft. when tested according to ASTM D 1621.

2. Minimum Flow Rate: 7 gpm per foot at hydraulic gradient of 0.1 and compressive stress of 25 psig when tested according to ASTM D 4716.

C. Geotextile: Non-woven needle-punched geotextile, manufactured for subsurface drainage, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with the following properties determined according to AASHTO M 288.

1. Survivability Class: 2.

2. Apparent Opening Size: No. 60 sieve maximum.

3. Permittivity: 0.2 per second, minimum.

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

1. American Wick Drain Corporation (Matthews, NC).

2. Mirafi Inc. (Charlotte, NC) (Tel. 800-438-1855).

3. Multi-Flow (Prinsburg, MN) (Tel. 800978-8007).

4. Phillips Fibers Corporation (Greenville, SC) (Tel. 800-845-5737).

2.5 DRAINAGE FILL MATERIAL

A. Caltrans Permeable Material: Conform to Section 68-2.02F of Caltrans Standard Specifications.

1. Class 2

B. Washed, evenly graded mixture of crushed stone, or crushed or uncrushed gravel, ASTM D 448, coarse aggregate, Stone No. 57, with 100 percent passing 1-1/2-inch sieve and not more than 5 percent passing No. 8 sieve.

C. Sand: Conform to Section 19-3.02F(2) of Caltrans Standard Specifications.

2.6 FILTER FABRIC

A. When required, use filter fabric for encasing permeable material around subdrains.

1. Caltrans Filter Fabric: Section 96.102B of Caltrans Standard Specifications.

2. Mirafi 140N (Mirafi Inc., Charlotte, NC) (Tel. 800-438-1855) or equal.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces and areas for suitable conditions where subdrainage systems are to be installed.

B. Install only after unsatisfactory conditions have been corrected.

3.2 PIPING APPLICATIONS

A. Refer to Plans for location, size, and material designation for individual subdrains.

3.3 INSTALLATION OF PERFORATED PORTIONS OF SUBDRAINS

A. Excavation: Section 6 of ASTM D 2321 and as indicated.

B. Subdrain Bedding: Place supporting layer of drainage fill over compacted subgrade to compacted depth indicated. If drainage fill requires encasement in filter fabric, lay filter fabric in trench and overlap trench sides before installing drainage fill.

C. Piping Installation: Install pipe in accordance with Section 7 of ASTM D 2321. Install piping beginning at low point of system, true to grades and alignment indicated, with unbroken continuity of invert. Excavate recesses for bottoms of bell ends of pipe. Lay pipe with bells facing upslope and with spigot end centered fully into adjacent bell. Bed piping with full pipe bearing in drainage fill material. Lay perforated pipe with perforations down. Install gaskets, seals, sleeves, and couplings in accordance with manufacturers written instructions. Use increasers, reducers, and couplings made for different sizes of materials of pipes and fittings being connected. Reduction of pipe size in direction of flow is prohibited.

D. Initial Subdrain Backfill: After installing drainage piping, add drainage fill up to top of pipe

to perform tests.

E. Testing Subdrain: After installing drainage fill to top of pipe, test drain piping with water to ensure free flow before backfilling with drainage fill. Remove obstructions, replace damaged components, and repeat test until results are satisfactory.

F. Subsequent Subdrain Backfill: After satisfactory testing, cover piping with drainage fill to width and height indicated. Place drainage fill in layers not exceeding 3 inches in loose depth; compact each layer placed. If filter fabric is required complete the filter fabric encasement by bringing fabric to top and closing the encasement.

G. Fill to Grade: Place native fill material over compacted drainage fill to thickness indicated. Place material in loose-depth layers not exceeding 6 inches. Thoroughly compact each layer. Fill to finish elevations unless otherwise specified on the plans.

3.4 INSTALLATION OF NON-PERFORATED PORTIONS OF SUBDRAINS

A. Conform to Section 31 23 33 – Trenching and Backfilling, and Section 33 40 00 – Storm Drainage Utilities.

3.5 PREFABRICATED COMPOSITE DRAINAGE PANELS

A. Coordinate placement with other drainage materials.

B. Install prefabricated drainage panels in accordance with manufacturer's instructions.

C. Place perforated drainage pipe at base of footing and attach to composite drainage panels in accordance with the manufacturer's instructions.

3.6 JOINING PIPE

A. Join ABS and PVC pipe and fittings with elastomeric seals according to ASTM D 2321 or solvent cement.

B. Special pipe couplings: Join piping made of different materials and dimensions with special couplings made for this application. Use couplings that are compatible with and that fit both pipe materials and dimensions.

3.7 CLEANING

A. Clear interior of installed piping and structures of dirt and other superfluous material as work progresses. Maintain swab or drag in piping and pull past each joint as it is completed. Place plugs in ends of uncompleted pipe at end of each day or when work stops.

END OF SECTION

PROJECT ADDRESS:
3311 LUCIAN AVE., SAN JOSE, CA 95127

PROJECT DESCRIPTION:
REPLACEMENT OF EXISTING PLAY STRUCTURES AND CONSTRUCTION OF (2) NEW SHADE STRUCTURES AND ASSOCIATED SITE WORK. ALTERATION OF BUILDING B RESTROOMS.

CONTINGENT PROJECT:
DSA CERTIFICATION OF THE CURRENT PROJECT 01-121324 IS CONTINGENT UPON THE CERTIFICATION OF 01-120631

CODE ANALYSIS
REF. SITE PLAN

PROJECT SUMMARY

DIVISION OF THE STATE ARCHITECT (DSA)
DSA OAKLAND REGIONAL OFFICE
1515 CLAY ST # 1201
OAKLAND, CA 94612
P: (510) 622-3101

LOCAL FIRE AUTHORITY
SAN JOSE FIRE PROTECTION DISTRICT
200 EAST SANTA CLARA STREET
SAN JOSE, CA 95113
P: 408.535.3500

GOVERNING AGENCIES

THIS PROJECT SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

FEDERAL:
AMERICANS WITH DISABILITIES ACT (ADA)

ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG)

STATE OF CALIFORNIA PARTIAL LIST OF APPLICABLE CODES AS OF JAN 1, 2020

2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE
CALIFORNIA CODE OF REGULATIONS (CCR) PART 1, TITLE 24 C.C.R.

2022 CALIFORNIA BUILDING CODE (CBC)
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 2
(2021 INTERNATIONAL BUILDING CODE WITH THE INTERNATIONAL CODE COUNCIL WITH CALIFORNIA AMENDMENTS)

2022 CALIFORNIA ELECTRICAL CODE (CEC)
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 3
(2020 NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA)

2022 CALIFORNIA MECHANICAL CODE
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 4
(2021 UNIFORM MECHANICAL CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)

2022 CALIFORNIA PLUMBING CODE
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 5
(2021 UNIFORM PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF THE PLUMBING AND MECHANICAL OFFICIALS, IAPMO)

2022 CALIFORNIA ENERGY CODE
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 6

2022 CALIFORNIA FIRE CODE
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 9
(2021 INTERNATIONAL FIRE CODE OF THE INTERNATIONAL CODE COUNCIL)

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL GREEN CODE)
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 11

2022 CALIFORNIA REFERENCED STANDARDS CODE
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12

PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 19

PARTIAL LIST OF APPLICABLE STANDARDS:

2022 BUILDING CODE (FOR SFM) REFERENCED STANDARDS CHAPTER 35

NFPA 13	AUTOMATIC SPRINKLER SYSTEM	2022 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2021 EDITION
NFPA 17A	WET CHEMICAL SYSTEMS	2021 EDITION
NFPA 72	NATIONAL FIRE ALARM CODE	2022 EDITION
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES	2019 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2018 EDITION
UL 464	AUDIBLE SIGNAL APPLIANCES	2003 EDITION
UL 521	HEAT DETECTORS FOR FIRE PROTECTION SIGNAL SYSTEMS	1999 EDITION

APPLICABLE CODES

SVA ARCHITECTS IS THE DESIGNATED ARCHITECT OF RECORD AS REQUIRED BY THE STATE OF CALIFORNIA. THE ARCHITECT OF RECORD SHALL REVIEW SUBMITTALS AND COORDINATE SUBMITTALS AND DEFERRED SUBMITTALS THROUGH THE DIVISION OF THE STATE ARCHITECT. DEFERRED SUBMITTALS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE DIVISION OF THE STATE ARCHITECT.

DSA SHALL BE NOTIFIED IN WRITING BY THE OWNER IF THE ARCHITECT OF RECORD IS CHANGED OR IS UNABLE TO CONTINUE TO PERFORM THE DUTIES. THE OWNER SHALL DESIGNATE A SUBSTITUTE ARCHITECT OR ENGINEER OF RECORD WHO SHALL PERFORM ALL OF THE DUTIES REQUIRED OF THE ORIGINAL ARCHITECT OF RECORD.

REVIEW AND COMMENT ON SUBMITTALS AND DEFERRED SUBMITTALS SHALL NOT RELIEVE THE AUTHOR OF THE DOCUMENTS OR THE CONTRACTOR FROM COMPLIANCE WITH ALL APPLICABLE CODES AND THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THE REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATING HIS WORK WITH THAT OF OTHER TRADES, AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

ARCHITECT OF RECORD

STATEMENT OF GENERAL CONFORMANCE
THE CIVIL, LANDSCAPE AND PC DRAWINGS OR SHEETS LISTED IN THE INDEX ON THIS SHEET HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAD 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
2. COORDINATION WITH MY PLANS AND SPECIFICATIONS AND IS ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THE PROJECT.

THIS STATEMENT OF GENERAL CONFORMANCE "SHALL" NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES AND RESPONSIBILITIES UNDER SECTION 17302 AND 81138 OF THE EDUCATION CODE AND SECTION 4-336, 4-341 AND 4-344 OF TITLE 24, PART 1 (TITLE 24, PART 1 SECTION 4-317) (B))

GENERAL CONFORMANCE STATEMENT

I CERTIFY THAT ALL DRAWINGS OR SHEETS LISTED IN THE INDEX ON THIS SHEET (CIVIL, LANDSCAPE AND PC) ARE IN GENERAL CONFORMANCE AND HAVE BEEN COORDINATED.

LICENSED ARCHITECT
ROBERT M. SIMONS
No. C-18301
JAN. 31, 2025
STATE OF CALIFORNIA

SIGNED 12/23/23

OWNER
ALUM ROCK SCHOOL DISTRICT
2930 GAY AVENUE
SAN JOSE, CA 95127
CONTACT: MARC FREITAS
P: 408.928.6800

ARCHITECT
SVA ARCHITECTS
7901 STONERIDGE DR., SUITE 100
PLEASANTON, CA 94588
CONTACT: CHRIS BRADLEY
P: 510.267.3180

CIVIL
HOBACH-LEWIN
260 SHERIDAN AVE. SUITE 150
PALO ALTO, CA 94306
CONTACT: BILL HENN
P: 650-617-5930

LANDSCAPE ARCHITECT
ANLA
1723 HAMILTON AVE, SUITE 101
SAN JOSE, CA 95125
CONTACT: SARAH LOPEZ
P: 408-292-2196

PROGRAM MANAGER
CUMMING GROUP
201 MOFFETT BLVD.,
MOUNTAIN VIEW, CA 94043
CONTACT: DEBORAH SLIVKOFF
P: 650-324-5324

CONSTRUCTION MANAGER
SIXTH DIMENSION
1504 FRANKLIN ST., SUITE LL-102
OAKLAND, CA 94612
CONTACT: SETH KALKMAN
P: 916-246-6222

PROJECT DIRECTORY

1. ALL WORK SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
2. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT APPROVED BY THE DIVISION OF THE STATE ARCHITECT (DSA), AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
3. A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR: CLASS 3.
4. CCD MUST BE SIGNED AS REQUIRED BY DSA IR A-6.
5. A COPY OF CCR TITLE 24, ALL APPLICABLE PARTS REFERRED TO BY THE PLANS AND SPECIFICATIONS MUST BE KEPT ON SITE DURING CONSTRUCTION.

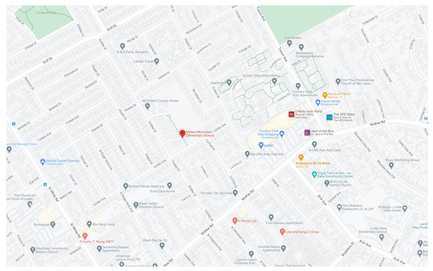
GENERAL NOTES

1. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.

2. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT, OR SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR).

3. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

DEFERRED APPROVALS



VICINITY MAP

SHEET INDEX

GEN SHEETS

GEN-1	PROJECT INFORMATION & SHEET INDEX
GEN-2	GENERAL NOTES
GEN-3	GENERAL ACCESSIBILITY

CIVIL SHEETS

C1.0	COVER SHEET
C1.1	NOTES
C2.0	DEMOLITION PLAN
C3.0	GRADING AND DRAINAGE PLAN
C3.1	PAVEMENT PLAN
C4.0	UTILITY PLAN
C5.0	EROSION CONTROL PLAN
C6.0	DETAILS

ARCHITECTURAL SHEETS

A1.0	SITE PLAN
A2.0	ENLARGED RR PLAN AND DETAILS

LANDSCAPE SHEETS

L1	LAYOUT PLAN
L2	MATERIAL AND DETAIL REFERENCE PLAN
L3.1	CONSTRUCTION DETAILS
L3.2	CONSTRUCTION DETAILS
L3.3	CONSTRUCTION DETAILS

PC 04-121769

T001	TITLE SHEET & CAL-FIRE MATERIAL CERT.
A002	T&I GUIDELINE
S1.1	GENERAL NOTES & TYPICAL DETAILS
S1.2	GENERAL NOTES & TYPICAL DETAILS
S1.3	GENERAL NOTES & TYPICAL DETAILS
HC4030-1	40'X30'X12' HIP CANOPY DRAWINGS
HC4030-2	40'X30'X12' HIP CANOPY DRAWINGS
HC4030-3	40'X30'X12' HIP CANOPY DRAWINGS

26 SHEETS TOTAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED ARCHITECT
ROBERT M. SIMONS
No. C-18301
JAN. 31, 2025
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

PROJECT NO: Project Number
DATE ISSUED: Issue Date
SCALE: 12" = 1'-0"

GEN-1

PROJECT INFORMATION & SHEET INDEX

SVA ARCHITECTS
6 HUTTON CENTRE DR, SUITE 1150 SANTA ANA, CA 92707
T 949.809.3380 WWW.SVA-ARCHITECTS.COM

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ACCESSIBILITY NOTES

1. SITE DEVELOPMENT

A. GRADE AND DEVELOP SITE SUCH THAT ALL PRIMARY BUILDING ENTRANCES ARE ACCESSIBLE TO THE PHYSICALLY DISABLED FROM THE PUBLIC WAY AND DISABLED PARKING PROVIDED.

B. ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, FACILITIES AND SPACES ON THE SAME SITE. WHERE MORE THAN ONE ROUTE IS PROVIDED, ALL ROUTES SHALL BE ACCESSIBLE

C. IF AN ACCESSIBLE ROUTE HAS A CHANGE IN LEVEL GREATER THAN 1/2", THEN A CURB RAMP, RAMP, ELEVATOR, OR PLATFORM LIFT SHALL BE PROVIDED.

D. ALL WALKS, HALLS, CORRIDORS, AISLES, AND OTHER SPACES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL PROVIDE A MINIMUM CLEAR WIDTH OF 48 INCHES AND A CLEAR HEIGHT OF 80 INCHES.

2. WALKS AND SIDEWALKS

A. WALKS AND SIDEWALKS SUBJECT TO THESE REGULATIONS SHALL HAVE A CONTINUOUS COMMON SURFACE, NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2", AND SHALL BE A MINIMUM OF 48 INCHES IN WIDTH.

B. ALL SIDEWALKS SHALL BE STABLE, FIRM AND SLIP RESISTANT.

C. SURFACE CROSS SLOPES SHALL NOT EXCEED 1:48 (CBC 11B-403.3).

D. WALKS, SIDEWALKS AND PEDESTRIAN WAYS SHALL BE FREE OF GRATINGS WHENEVER POSSIBLE. GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE AREAS, GRID OPENINGS IN THE GRATING SHALL BE LIMITED TO 1/2" IN THE DIRECTION OF TRAFFIC FLOW.

E. ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE SHALL NOT EXCEED 1/2". WHEN CHANGES DO OCCUR, THEY SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2 EXCEPT THAT LEVELS NOT EXCEEDING 1/4" MAY BE VERTICAL.

F. WHEN CHANGES IN LEVELS GREATER THAN 1/2" ARE NECESSARY THEY SHALL COMPLY WITH THE REQUIREMENTS FOR CURB RAMPS OR RAMPS AS REQUIRED.

G. WALKS SHALL BE PROVIDED WITH A LEVEL AREA NOT LESS THAN 60" SQUARE AT A DOOR OR GATE THAT SWINGS TOWARD THE WALK, AND NOT LESS THAN 48" WIDE BY 44" DEEP AT A DOOR OR GATE THAT SWINGS AWAY FROM THE WALK. SUCH WALKS SHALL EXTEND 24" TO THE SIDE OF THE STRIKE EDGE OF A DOOR OR GATE THAT SWINGS TOWARD THE WALK.

H. WHEN THE SLOPE IN THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 5%, IT MUST COMPLY WITH THE PROVISIONS FOR PEDESTRIAN RAMPS (PER CBC 11B-405).

I. ALL WALKS WITH CONTINUOUS GRADIENTS SHALL HAVE LEVEL AREAS AT LEAST 5 FEET IN LENGTH AT INTERVALS NOT EXCEEDING 400 FEET.

3. ENTRANCES AND DOORWAYS

A. PRIMARY ENTRANCES TO BUILDINGS AND FACILITIES SHALL BE MADE ACCESSIBLE TO THE DISABLED.

B. ACCESSIBLE ENTRANCES SHALL BE IDENTIFIED WITH AT LEAST ONE "ISA" SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS AS REQUIRED VISIBLE FROM APPROACHING PEDESTRIAN WAYS.

C. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND ARE IN THE PATH OF TRAVEL, SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.

D. HAND ACTIVATED DOOR HARDWARE SHALL BE CENTERED BETWEEN 34" AND 44" ABOVE THE FLOOR (CBC 11B-404.2.7).

E. THE FLOOR OR LANDING ON EACH SIDE OF AN ENTRANCE OR PASSAGE DOOR SHALL BE LEVEL AND CLEAR. THE LEVEL AND CLEAR AREA SHALL BE A MINIMUM 60" SQUARE IN THE DIRECTION OF THE DOOR SWING AND A MINIMUM 44" SQUARE OPPOSITE THE DIRECTION OF DOOR SWING (48" IF THE DOOR HAS BOTH LATCH AND CLOSER). THE SQUARES SHALL BE MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN ITS CLOSED POSITION. SEE NOTE I BELOW FOR STRIKE SIDE REQUIREMENTS.

F. THE WIDTH OF THE LEVEL AND CLEAR AREA ON THE SIDE TO WHICH THE DOOR SWINGS SHALL EXTEND 24" PAST THE STRIKE EDGE OF THE DOOR FOR EXTERIOR DOORS AND 18" PAST THE STRIKE EDGE FOR INTERIOR DOORS AND THE PRIMARY ENTRANCE TO THE DWELLING UNIT.

G THE FLOOR OR LANDING SHALL BE NOT MORE THAN 1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGE IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED NO GREATER THAN 1:2.

H. THE BOTTOM 10 INCHES OF ALL DOORS EXCEPT SLIDING AND POCKET DOORS SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.

I. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS FOR EXTERIOR DOORS AND 5 LBS FOR INTERIOR DOORS, SUCH PULL OR PUSH EFFORT SHALL BE APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. THE AUTHORITY HAVING JURISDICTION MAY INCREASE THE MAXIMUM EFFORT TO OPERATE FIRE DOORS TO ACHIEVE POSITIVE LATCHING, BUT NOT TO EXCEED 15 LBS MAX.

J. EXIT DOORS MUST OPEN FROM THE INSIDE WITHOUT A KEY, OR ANY SPECIAL KNOWLEDGE OR EFFORT. EXIT DOORS FROM BUILDINGS OR ROOMS SERVING 10 OR FEWER OCCUPANTS MAY HAVE A NIGHT LATCH, DEADBOLT OR SECURITY CHAIN, AS LONG AS THE DOORS CAN STILL BE OPENED FROM THE INSIDE WITHOUT A KEY, SPECIAL KNOWLEDGE OR EFFORT. IN ADDITION, THESE DEVICES ARE NOT MOUNTED MORE THAN 48" ABOVE THE FLOOR. MANUALLY OPERATED EDGE BOLTS, SURFACE MOUNTED FLUSH BOLTS AND SURFACE BOLTS ARE PROHIBITED. WHEN EXIT DOORS ARE USED IN PAIRS AND AUTOMATIC FLUSH BOLTS ARE USED, THE DOOR LEAF WITH THE FLUSH BOLT MUST HAVE NO DOORKNOB OR SURFACE MOUNTED HARDWARE. THE UNLATCHING OF ANY LEAF MUST NOT REQUIRE MORE THAN ONE OPERATION.

K. EVERY REQUIRED EXIT MUST BE LARGE ENOUGH TO PERMIT A DOOR AT LEAST 3'-0" WIDE BY 6'-8" HIGH. EXIT DOORS SHALL OPEN AT LEAST 90 DEGREES AND PROVIDE A CLEAR WIDTH OF AT LEAST 32".

L. THRESHOLDS AT ALL EXTERIOR DOORS SHALL BE NO HIGHER THAN 1/2". SUCH THRESHOLDS SHALL BE BEVELED NO GREATER THAN 1:2.

M. THE FLOOR LANDING IMMEDIATELY OUTSIDE THE ENTRY MAY BE SLOPED UP TO 1/8" PER FOOT IN THE DIRECTION AWAY FROM THE PRIMARY ENTRANCE FOR DRAINAGE.

N. THE SPACE BETWEEN TWO CONSECUTIVE DOOR OPENINGS IN A VESTIBULE, SERVING OTHER THAN A REQUIRED EXIT STAIRWAY, MUST HAVE AT LEAST 48" OF CLEAR SPACE FROM ANY DOOR OPENING INTO THE VESTIBULE WHEN THE DOOR IS OPEN 90 DEGREES FROM ITS CLOSED POSITION. DOORS IN SERIES MUST SWING IN THE SAME DIRECTION OR AWAY FROM THE SPACE BETWEEN THE DOORS.

4. STAIRWAYS

A. STAIRWAYS SHALL HAVE HANDRAILS ON EACH SIDE. STAIRWAYS SHALL HAVE INTERMEDIATE HANDRAILS WHERE REQUIRED SUCH THAT ALL PORTIONS OF THE STAIRWAY WIDTH REQUIRED FOR EGRESS CAPACITY ARE WITHIN 30 INCHES OF A HANDRAIL. INTERMEDIATE HANDRAILS SHALL BE SPACED AT EQUAL INTERVALS WITHIN THE WIDTH OF THE STAIRWAY AND BE CONTINUOUS FOR THE ENTIRE LENGTH.

B. HANDRAILS MUST BE 34 TO 38 INCHES ABOVE THE NOSING OF THE TREADS AND MUST EXTEND IN THE DIRECTION OF THE STAIR RUN FOR AT LEAST 12" BEYOND THE TOP NOSING AND 12" PLUS THE TREAD WIDTH BEYOND THE BOTTOM NOSING.

C. ENDS SHALL BE RETURNED OR SHALL TERMINATE IN A NEWEL POST OR SAFETY TERMINAL.

D. HANDRAILS PROJECTING FROM A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1-1/2-INCH BETWEEN THE WALL AND THE HANDRAIL.

E. THE HANDGRIP PORTION OF HANDRAILS SHALL BE NOT LESS THAN 1-1/4-INCHES NOR MORE THAN 1 1/2-INCHES IN CROSS-SECTIONAL DIMENSION OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE AND SHALL HAVE A SMOOTH SURFACE WITH NO SHARP OR ABRASIVE CORNERS AND ALL EDGES MUST HAVE A MINIMUM 1/8" RADIUS.

F. THE UPPER APPROACH AND THE LOWER TREAD OF EACH INTERIOR STAIR SHALL BE MARKED BY A STRIP OF CLEARLY CONTRASTING COLOR THE FULL WIDTH OF THE TREAD AT LEAST 2-INCHES WIDE PLACED PARALLEL TOAND NOT MORE THAN 1-INCH FROM THE NOSE OF THE STEP OR LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIP SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE OTHER TREADS OF THE STAIR.

G. WHERE STAIRWAYS OCCUR OUTSIDE A BUILDING, THE UPPER APPROACH AND ALL TREADS SHALL BE MARKED BY A STRIP OF CLEARLY CONTRASTING COLOR AT LEAST 2-INCHES WIDE AND PLACED PARALLEL TO AND NOT MORE THAN 1-INCH FROM THE NOSE OF THE STEP OR LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIP SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE OTHER TREADS OF THE STAIR. A PAINTED STRIP SHALL BE ACCEPTABLE.

H. ALL TREAD SURFACES SHALL BE SLIP RESISTANT.

I. TREADS SHALL HAVE A SMOOTH, ROUNDED OR CHAMFERED EXPOSED EDGES, AND NO ABRUPT EDGES AT THE NOSING (LOWER FRONT EDGE).

J. NOSING SHALL NOT PROJECT MORE THAN 1-1/4 INCH PAST THE FACE OF THE RISER BELOW.

K. STAIR RISERS SHALL BE SOLID PER CBC 11B-504.

5. SANITARY FACILITIES

A. WHEELCHAIR ACCESSIBLE WATER CLOSET COMPARTMENTS SHALL BE EQUIPPED WITH A DOOR THAT HAS AN AUTOMATIC CLOSING DEVICE, AND SHALL HAVE A CLEAR UNOBSTRUCTED OPENING WIDTH OF 32-INCHES WHEN LOCATED AT THE END AND 34-INCHES WHEN LOCATED AT THE SIDE WITH THE DOOR POSITION AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.

B. TOILET FLUSH CONTROLS SHALL BE OPERABLE WITH ONE HAND, AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET AREAS, NO MORE THAN 44-INCHES ABOVE THE FLOOR. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS PER FOOT.

C. WHERE URINALS ARE PROVIDED AT LEAST ONE WITH A RIM PROJECTING A MINIMUM OF 14-INCHES FROM THE WALL AND AT A MAXIMUM OF 17-INCHES ABOVE THE FLOOR SHALL BE PROVIDED.

D. URINAL FLUSH CONTROLS SHALL BE OPERABLE WITH ONE HAND, AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST AND SHALL BE MOUNTED NO MORE THAN 44" ABOVE THE FLOOR. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS PER FOOT.

E. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED.

F. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS PER FOOT. LEVER OPERATED, PUSH TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

G. MIRRORS SHALL BE MOUNTED WITH THE BOTTOM GLASS EDGE NOT MORE THAN 40-INCHES ABOVE THE FLOOR.

H. LOCATE TOWEL, SANITARY NAPKIN, AND WASTE RECEPTACLES WITH ALL OPERABLE PARTS NOT MORE THAN 40-INCHES FROM THE FLOOR.

I. TOILET TISSUE DISPENSERS SHALL BE LOCATED ON THE WALL OR PARTITION WITHIN 7" TO 9" TO CENTERLINE FROM THE FRONT EDGE OF THE TOILET SEAT, MOUTED BELOW THE GRAB BAR, AT A MINIMUM HEIGHT OF 19 INCHES, AND 36 INCHES MAXIMUM TO THE FAR EDGE FROM THE REAR WALL. DISPENSERS SHALL PERMIT CONTINUOUS FLOW AND NOT CONTROL DELIVERY (CBC 11B-604.7).

J. GRAB BARS, TUB AND SHOWER SEATS, FASTENERS AND MOUNTING DEVICES SHALL BE DESIGNED FOR 250 LB. PER CBC 1607A.8.2.

K. GRAB BARS:
1. THE DIAMETER OR WIDTH OF THE GRIPPING SURFACE OF A GRAB BAR SHALL BE 1-1/4" TO 1-1/2" OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE.
2. IF THE GRAB BARS ARE MOUNTED ADJACENT TO A WALL, THE SPACE BETWEEN THE WALL AND THE GRAB BARS SHALL BE 1-1/2".
3. A GRAB BAR AND ANY WALL OR OTHER SURFACE ADJACENT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS.
4. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
5. EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8".

6. SWITCHES CONTROLS AND ELECTRICAL OUTLETS

A. RECEPTACLE OUTLETS SHALL BE 15" MIN ABOVE THE FINISHED FLOOR TO THE BOTTOM OF THE BOX PER CBC 11B-308.1.2.

B. SWITCHES SHALL BE 48" MAX. ABOVE THE FINISHED FLOOR TO THE TOP OF THE BOX (11B-308.1.1).

C. IF REACH IS OVER AN OBSTRUCTION (FOR EXAMPLE, A BASE CABINET) BETWEEN 20" AND 25" IN DEPTH, THE MAXIMUM HEIGHT IS REDUCED TO 44" FOR FORWARD APPROACH, OR 46" FOR SIDE APPROACH PROVIDED THE OBSTRUCTION IS NO MORE THAN 24" IN DEPTH. THE OBSTRUCTION MAY NOT EXTEND MORE THAN 25" FROM THE WALL BENEATH THE CONTROL.

D. THE CENTER OF FIRE ALARM INITIATING DEVICES (BOXES) SHALL BE LOCATED 48" ABOVE THE LEVEL OF THE FLOOR, WORKING PLATFORM, GROUND SURFACE OR SIDEWALK.

E. IF EMERGENCY WARNING SYSTEMS ARE REQUIRED THEY SHALL ACTIVATE A MEANS OF WARNINGTHE HEARING IMPAIRED. FLASHING VISUAL WARNING SHALL HAVE A FREQUENCY OF NOT MORE THAN 60 FLASHES PER MINUTE.

GENERAL NOTES

1. THESE DOCUMENTS AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF SVA ARCHITECTS, AND ARE NOT TO BE USED, IN WHOLE OR IN PART FOR ANOTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF SVA ARCHITECTS.

2. THE WORK SHOWN ON THESE DRAWINGS AS EXISTING CONDITIONS WAS PREPARED FROM INFORMATION FURNISHED BY THE OWNER. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, SVA ARCHITECTS INC. IS NOT RESPONSIBLE FOR THE ACCURACY OR ADEQUACY OF ANY WORK SHOWN AS EXISTING NOR IS SVA ARCHITECTS INC. RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.

3. EACH BIDDER SHALL POSSESS AT THE TIME OF BID A CLASS B OR THE APPROPRIATE CLASS C CONTRACTOR'S LICENSE PURSUANT TO PUBLIC CONTRACT CODE SECTION 3300 AND BUSINESS AND PROFESSIONS CODE SECTION 7028.15. THE SUCCESSFUL BIDDER MUST MAINTAIN THE LICENSE THROUGHOUT THE DURATION OF THIS CONTRACT.

4. FIRE SAFETY DURING CONSTRUCTION AND THE DURATION OF THIS CONTRACT:

A. GENERAL: FIRE SAFETY DURING CONSTRUCTION SHALL COMPLY WITH 2016 CALIFORNIA FIRE CODE TITLE 24, PART 9, CHAPTER 33.

B. ACCESS ROADS: FIRE DEPARTMENT ACCESS ROADS SHALL BE ESTABLISHED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410.

C. WATER SUPPLY: WATER MAINS AND HYDRANTS SHALL BE OPERATIONAL IN ACCORDANCE WITH SECTION 1412.

D. BUILDING ACCESS: ACCESS TO BUILDINGS FOR THE PURPOSE OF FIREFIGHTING SHALL BE PROVIDED. CONSTRUCTION MATERIAL SHALL NOT BLOCK ACCESS TO BUILDINGS, HYDRANTS OR FIRE APPLIANCES.

E. ALTERATIONS OF BUILDINGS: SHALL COMPLY WITH APPLICABLE PROVISIONS OF SECTIONS 1405, 1411, 1413, AND 1415.

G. FIRE WATCH: MAINTAIN FIRE WATCH WHEN REQUIRED BY THE BUILDING OFFICIAL AND WHEN EXISTING FIRE PROTECTION SYSTEMS ARE SHUT DOWN FOR ALTERATIONS. FIRE WATCH SHALL REMAIN IN EFFECT UNTIL EXISTING FIRE PROTECTION SYSTEMS ARE RETURNED TO SERVICE OR AS ALLOWED BY THE BUILDING OFFICIAL.

5. PENETRATIONS TO FIRE RATED MATERIALS OR ASSEMBLIES SHALL BE RESTORED TO EQUAL RATING. FIRE STOP SYSTEMS AS LISTED BY UNDERWRITERS LABORATORIES SHALL BE INSTALLED PER FIRE RESISTANCE DIRECTORY. FIRE STOP SYSTEMS SHALL BE AS SPECIFIED.

6. STATEMENT (TITLE 24, PART 6): NONRESIDENTIAL ENERGY STANDARDS COMPLIANCE: THE DESIGN INDICATED HEREIN COMPLIES WITH THE REQUIREMENTS OF THE ENERGY CONSERVATION STANDARDS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THE PROPOSED BUILDING(S) WILL BE IN COMPLIANCE WITH THE ENERGY CONSERVATION STANDARDS PROVIDED IT (THEY) IS (ARE) BUILT ACCORDING TO THESE DRAWINGS AND SPECIFICATIONS AND PROVIDED ANY FUTURE IMPROVEMENTS ARE COMPLETED ACCORDING TO THE REQUIREMENTS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED TO INCLUDE ALL SIGNIFICANT ENERGY CONSERVATION FEATURES REQUIRED FOR COMPLIANCE WITH THE STANDARDS. BUILDING AREAS THAT ARE UNCONDITIONED AND/OR NOT SUBJECT TO THE STANDARDS ARE INDICATED ON THE PLANS.

ENVELOPE MANDATORY MEASURES:

A. INSTALLED INSULATING MATERIALS SHALL HAVE BEEN CERTIFIED BY THE MANUFACTURER TO COMPLY WITH THE CALIFORNIA QUALITY STANDARDS FOR INSULATING MATERIAL.

B. ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF [TITLE 24, PART 2, CALIFORNIA BUILDING CODE, SECTIONS 719 AND 2603.]

C. ALL EXTERIOR JOINTS AND OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL AND OBSERVABLE SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED OR OTHERWISE SEALED.

D. SITE CONSTRUCTED DOORS, AND WINDOWS SHALL BE CAULKED BETWEEN THE UNIT AND THE BUILDING, AND SHALL BE WEATHERSTRIPPED (EXCEPT FOR UNFRAMED GLASS DOORS AND FIRE DOORS).

E. MANUFACTURED DOORS AND WINDOWS INSTALLED SHALL HAVE AIR INFILTRATION RATES CERTIFIED BY THE MANUFACTURER IN ACCORDANCE WITH TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS, SECTION 116(a)1.

F. MANUFACTURED FENESTRATION PRODUCTS IN THE ENVELOPE OF THE BUILDING, INCLUDING, BUT NOT LIMITED TO, WINDOWS, SLIDING GLASS DOORS, FRENCH DOORS, SKYLIGHTS, CURTAIN WALLS, AND GARDEN WINDOWS MUST BE LABELED FOR U-VALUE IN ACCORDANCE WITH THE (NFRC) NATIONAL FENESTRATION RATING COUNCIL'S INTERIM U-VALUE RATING PROCEDURE.

G. DEMISING WALL INSULATION SHALL BE INSTALLED IN ALL OPAQUE PORTIONS OF FRAMED WALLS (EXCEPT DOORS).

7. INSPECTOR OF RECORD REQUIREMENTS: A. ONE OR MORE INSPECTORS EMPLOYED BY THE OWNER IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS WILL BE ASSIGNED TO THE WORK. THE INSPECTORS DUTIES ARE SPECIFICALLY DEFINED IN SECTION 4-342 OF SAID TITLE 24, PART 1 AND IN ADDITION SHALL BE AS STIPULATED IN INTERPRETATION OF REGULATION DOCUMENT IR A-8. B. INSPECTOR SHALL BE CERTIFIED AS A CLASS [2] INSPECTOR THROUGH THE DIVISION OF THE STATE ARCHITECT INSPECTOR EXAMINATION PROGRAM. INSPECTOR SHALL ALSO BE SPECIFICALLY APPROVED BY THE DIVISION OF THE STATE ARCHITECT FOR THIS PROJECT AT LEAST 10 DAYS PRIOR TO THE START OF ANY WORK FOR THIS PROJECT.

8. ALL WORK SHOWN ON THESE DRAWINGS SHALL COMPLY WITH THE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).

9. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CCD APPROVED BY THE DIVISION OF THE STATE ARCHITECT.

10. GRADING PLANS, DRAINAGE IMPRPOVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIROMENTAL HEALTH CONCIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

11. DRINKING WATER SHALL COMPLY WITH ALL LOCAL HEALTH DEPARTMENT REQUIREMENTS.

12. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE CODES. ALL ENGINEERING SHALL COMFORM WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS HAVING JURISDICTION INCLUDING ACCESSIBILITY STANDARDS AND ADA REQUIREMENTS.

13. DO NOT SCALE THE DRAWINGS. THE DRAWINGS ARE NOT NECESSARILY TO SCALE. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO BIDDING AND START OF CONSTRUCTION. IF DISCREPANCIES ARE FOUND, THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION BEFORE COMMENCING WORK.

14. ALL DIMENSIONS ARE TO FACE OF CONCRETE, FACE OF MASONRY UNITS, CENTERLINE OF COLUMNS AND BEAMS, OR FACE OF STUDS, UNLESS OTHERWIS NOTED. FINISH FLOOR ELEVATIONS ARE TO TOP OF CONCRETE SLAB OR TOP OF INTERIOR PAVING UNLESS NOTED OTHERWISE. CEILING HEIGHT DIMENSIONS ARE TO FINISHED SURFACES UNLESS NOTED OTHERWISE.

15. THE CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK WITH THE ARCHITECTURAL DRAWINGS BEFORE PROCEEDING WITH INSTALLATION OF CIVIL, STRUCTURAL MECHANICAL, PLUMBING, AND ELECTRICAL WORK. SHOULD THERE BE ANY DISCREPANCIES BETWEEN THE ARCHITECT'S AND THE CONSULTING ENGINEER'S DRAWINGS AND SPECIFICATIONS THAT WOULD CAUSE A CONFLICT, IT SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION FOR CLARIFICATION PRIOR TO INSTALLATION OF SAID WORK. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECTURAL DRAWINGS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER OR ARCHITECT.

16. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING ABBREVIATIONS OR THEIR EXACT MEANING, THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION.

17. DETAILS MARKED "TYPICAL" SHALL APPLY IN ALL SIMILAR CASES UNLES SPECIFICALLY INDICATED OTHERWISE.

18. ALL RUBBISH AND DEBRIS RESULTING FROM DEMOLITION AND/OR NEW WORK SHALL BE DISPOSED OF OFF-SITE AND SHALL NOT BE ALLOWED TO ACCUMULATE.

19. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH SECTION 01 30 00 OF SPECIFICATIONS AND AS REQUIRED BY INDIVIDUAL SPECIFICATION SECTIONS.

20. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL. REQUEST FOR SUBSTITUTION SHALL BE IN ACCORDANCE WITH SECTION 01 60 00 OF SPECIFICATIONS.

21. ALL METAL FRAMING MEMBERS SHALL BE SO ARRANGED AND SPACED AS TO PERMIT INSTALLATION OF PIPE CONDUITS AND DUCT-WORK WITH A MINIMUM OF CUTTING. SHAFT WALLS SHALL BE PROVIDED WITH NECESSARY FRAMES, BRACING, AND SEALANT AROUND THE OPENING.

22. OFFSET STUDS WHERE REQUIRED SO THAT FINISH WALL SURFACE WILL BE FLUSH.

24. DOORS IN RATED WALLS SHALL CONSIST OF SELF-CLOSING, SELF-LATCHING ASSEMBLIES WITH SMOKE AND DRAFT SEALS AT HEAD AND JAMBS. DOOR ASSEMBLY RATINGS SHALL BE AS INDICATED ON DOOR AND ACTIVATED BY SMOKE DETECTORS.

25. INSTALL METAL CORNER BEADS AT ALL EXPOSED GYPSUM BOARD EDGES INSTALL CASING BEADS WHEREVER GYPSUM BOARD, PLASTER, ETC. ABUTS DISSIMILAR FINISH MATERIAL AND PROVIDE SEALANT AS REQUIRED.

26. GYPSUM BOARD SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE AT ALL COLUMNS AND EXTERIOR PERIMETER WALLS UNLESS OTHERWISE NOTED. WELD FURRING CHANNELS TO STEEL COLUMN PRIOR TO FIRE PROOFING WHEN REQUIRED.

27. CONTRACTOR SHALL PROVIDE AND INSTALL ALL STIFFENERS, BRACING, BACK-UP PLATES, AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION OF ALL CASEWORK, STAIR RAILINGS, TOILET ROOM ACCESSORIES AND PARTITIONS, AND OF ALL WALL MOUNTED OR SUSPENDED MECHANICAL, ELECTRICAL, OR MISCELLANEOUS EQUIPMENT.

28. ALL GLAZING SHALL COMPLY WITH THE CONSUMER PRODUCT SAFETY COMMISSION REQUIREMENTS (C.P.S.C.), CFC, AND CBC.

29. CONTACT BETWEEN DISSIMILAR METAL SHALL BE PROTECTED.

30. ALL DOOR SIZES SHOWN ON DOOR SCHEDULE ARE OPENING SIZES. ALLOWANCE FOR THRESHOLDS, ETC. SHALL BE TAKEN OFF DOOR. ALL DOORS AND FRAME SHALL BE REINFORCED WHERE REQUIRED FOR CLOSERS, STOPS, AND HARDWARE.

31. ROOFING SYSTEM SHALL BEAR U.L. LISTING AS A CLASS "A" SYSTEM. ALL MANUFACTURED MATERIALS USED SHALL BEAR THE APPROPRIATE U.L. LABEL.

32. ALL WOOD TRIM, SPACER, FILLER, ETC., THROUGHOUT JOB SHOULD BE FIRE TREATED.

33. INSPECTION AND TESTING LABORATORY MUST BE IN THE EMPLOY OF THE OWNER, NOT THE CONTRACTOR.

34. MINIMUM HEADROOM CLEARANCE AT STAIRS SHALL BE 6'-8" MEASURED VERTICALLY FROM A PLANE PARALLEL AND TANGENT TO THE TREAD NOSING TO THE SOFFIT ABOVE AT ALL POINTS.

35. ALL EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEGE. LOCKING DEVICES SHALL BE OF AN APPROVED TYPE.

36. EXIT SIGNS SHALL HAVE 6" MINIMUM HEIGHT LETTERS AND SHALL CONFORM TO SECTION 1013 OF THE CALIFORNIA BUILDING CODE.

37. FURNISH AND INSTALL ACCESS DOORS, FIRE DAMPERS, ETC. IN CEILING AND WALL CONSTRUCTION LOCATED AS REQUIRED BY INSTALLATION OF MECHANICAL PLUMBING, AND ELECTRICAL WORK AND AS APPROVED BY THE ARCHITECT. PROVIDE RATED ASSEMBLIES IN RATED WALLS AND CEILINGS AND SHALL BE APPROVED BY BUILDING INSPECTOR PRIOR TO INSTALLATION.

38. FURNISH AND INSTALL EMERGENCY LIGHTING AS SPECIFIED AND INDICATED BUT IN NO CASE SHALL THE LIGHT VALUE BE LESS THAN ONE FOOT CANDLE AT FLOOR LEVEL IN ALL EXIT CORRIDORS AND STAIR SHAFTS (CBC SECTION 1008).

39. THERE SHALL BE NO TRENCHES OR EXCAVATIONS 5' OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DECEND UNLESS A PERMIT IS OBTAINED FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE ISSUANCE OF A BUILDING OR GRADING PERMIT.

40. THE CONSTRUCTION OR DEMOLITION OF ANY BUILDING, STRUCTURE, SCAFFOLDING OR FALSEWORK MORE THAN 3 STORIES OR 36' IN HEIGHT REQUIRES A PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.

41. GLASS DOORS, ADJACENT PANELS AND ALL GLAZED OPENINGS WITHIN 18" OF THE ADJACENT FLOOR SHALL BE GLASS APPROVED FOR IMPACT HAZARD.

42. ALL LIGHT GAUGE METAL STUDS AND BRACING SHALL COMPLY WITH 2016 CALIFORNIA BUILDING CODE.

43. INSTALLATION OF SHORING, UNDERPINNING, AND/OR SLOT CUTTING EXCAVATIONS SHALL BE PERFORMED UNDER THE CONTINUOUS INSPECTION AND APPROVAL OF THE GEOTECHNICAL ENGINEER.

44. ALL CONSTRUCTION SHALL PERFORMED IN ACCORDANCE WITH THE STATE CONSTRUCTION SAFETY ORDERS ENFORCED BY THE STATE DIVISION OF INDUSTRIAL SAFETY.

45. DIMENSIONS AND CONDITIONS AT THE JOB SITE SHALL BE VERIFIED BY ALL CONTRACTORS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS TO THE OWNER SINCE PROPOSALS MUST TAKE INTO CONSIDERATION ALL SUCH CONDITIONS THAT MAY AFFECT THE WORK. DISCREPANCIES IN THE DRAWINGS OR BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITION SHALL BE REPORTED TO THE ARCHITECT. REVISED DRAWINGS OR INSTRUCTIONS SHALL BE ISSUED BY THE OWNER PRIOR TO THE INSTALLATION OF ANY WORK.

46. CONTRACTORS SHALL PROVIDE AND INSTALL ALL CONCRETE HOUSEKEEPING PADS FOR MECHANICAL AND ELECTRICAL EQUIPMENT, AS REQUIRED.

47. ALL GYPSUM WALL BOARD TO BE 5/8" THICK TYPE 'X' UNLESS OTHERWISE NOTED OR REQUIRED FOR SPECIFIC WALL CONSTRUCTION.

48. THERMAL INSULATION SHALL BE PROVIDED PER TYPICAL ASSEMBLIES NOTED ON DRAWINGS. REFER TO SPECS FOR PRODUCT INFORMATION.

49. PROVIDE TEMPERED GLASS AT LOCATIONS REQUIRED BY CBC SECTION 2406 AND BY OTHER APPLICABLE CODE.

50. ROOF DRAINS DISCHARGING WATER MUST BE CONDUCTED UNDER THE SIDEWALK

51. DOORS SHALL NOT PROJECT MORE THAN 7 INCHES INTO THE REQUIRED CORRIDOR WIDTH WHEN FULLY OPENED OR MORE THAN ONE HALF INTO THE REQUIRED WIDTH WHEN IN ANY POSITION. (CBC SECTION 1005.7.1)

52. PUBLIC HALLWAYS AND EXIT COURT PASSAGEWAYS TO HAVE 7'-0" CLEAR HEIGHT TO LOWEST PROJECTION. (CBC SECTION 1005.3)

53. OCCUPANCY LOAD SIGNS SHALL BE POSTED IN EACH CLASSROOM, ASSEMBLY ROOM, OR SIMILAR PURPOSE ROOM, HAVING AN OCCUPANT LOAD OF 50 OR MORE.

54. DUCT PENETRATIONS THROUGH PROTECTIVE ELEMENTS OF FIRE RATED CORRIDOR WALLS SHALL BE PROTECTED WITH A COMBINATON FIRE SMOKE DAMPERS PER CBC SECTION 714.

55. NO CHANGES ARE TO BE MADE ON THESE PLANS WITHOUT THE KNOWLEDGE OR CONSENT OF THE ARCHITECT/ENGINEER WHOSE SIGNATURE APPEARS HEREON.

56. THESE DRAWINGS DO NOT CONTAIN THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

57. LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID INTERCEPTING EXISTING PIPING OR CONDUITS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT AND TO PROTECT THEM FROM DAMAGE. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACT. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD ANY UNIDENTIFIED CONDITIONS BE DISCOVERED. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE PROSECUTION OF THIS WORK.

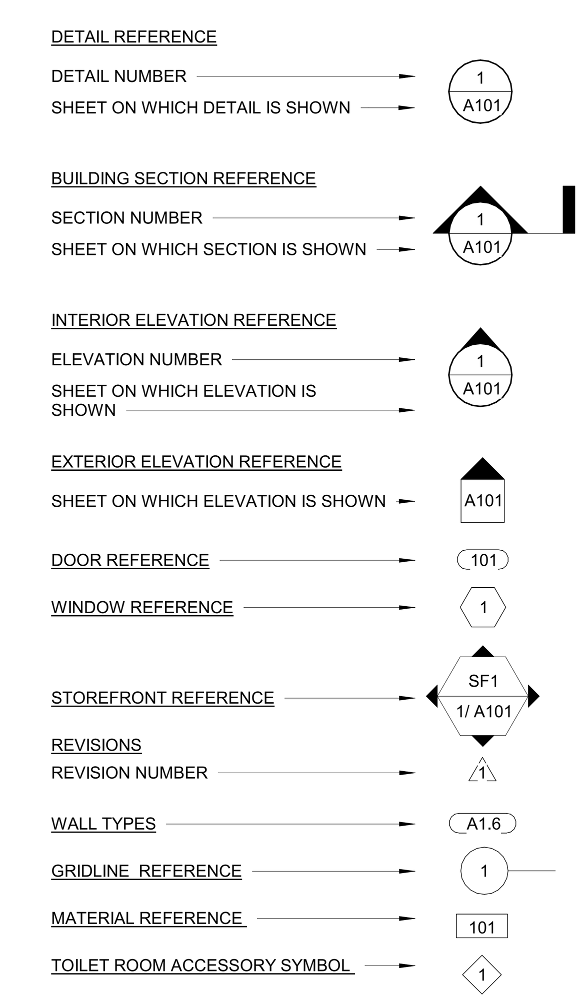
58. THE PROJECT APPLICANT SHALL COMPLY WITH THE REQUIREMENTS OF THE ENGINEERING DIVISION FOR ALL PUBLIC IMPROVEMENTS.

ABBREVIATIONS

A.B.	ANCHOR BOLT (S)
A.C.	ASPHALT CONCRETE PAVING
ACOUS	ACOUSTIC
AC. T.	ACOUSTICAL TILE
A.D.	AREA DRAIN
ADJ.	ADJUSTABLE
AGG	AGGREGATE
ALT.	ALTERNATE
ALUM.	ALUMINUM
APPROX.	APPROXIMATE
APT.	APARTMENT
ASPH.	ASPHALT
A.S.T.M.	AMERICAN SOCIETY OF TESTING MATERIALS
@	AT
B.B	BOTTOM OF BEAM
BD.	BOARD
BLK.	BLOCK
BLK'G.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
BDRM.	BEDROOM
BR.	BROOM
CAB.	CABINET
CPT.	CARPET
C.B.	CATCH BASIN
CEM.	CEMENT
CEM. PLAS.	CEMENT PLASTER
C.	CENTER LINE
CER.	CERAMIC
C.I.	CAST IRON
CIRC.	CIRCULAR
CLG.	CEILING
CLR.	CLEAR
C.M.T.	CERAMIC MOSAIC TILE
COMPC.	COMPOSITION
CONC.	CONCRETE
CONT.	CONTINUOUS
CTSK.	COUNTERSUNK
CU. FT.	CUBIC FEET
CU. IN.	CUBIC INCH
CU. YD.	CUBIC YARD
D.	DRYER
D.F.	DOUGLAS FIR
D.F.	DRINKING FOUNTAIN
DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
DR.	DOOR
D.S.	DOWN SPOUT
DSP.	DRY STANDPIPE
DUP.	DUPLICATE
DW.	DISHWASHER
DWGS.	DRAWINGS
E.	EAST
EA.	EACH
E.J.	EXPANSION JOINT
ELEVA.	ELEVATOR
ELEV.	ELEVATION
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
E.W.W.M.	ELECTRIC WELDED WIRE MESH
EXPN.	EXPANSION
EXP.	EXPOSED
EXT.	EXTERIOR
EXTR.	EXTINGUISHER
FHS	FLAT HEAD SCREW
F.A.U.	FORCED AIR UNIT
F.F.	FINISH FLOOR
F.G.	FIXED GLASS
FHWS	FLAT HEAD WOOD SCREW
FIN.	FINISH
FIXT.	FIXTURE
FLASH.	FLASHING
FLR	FLOOR
FLR'G	FLOORING
FLUOR.	FLUORESCENT
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
F.P.	FIRE PLACE
F.S.	FINISH SURFACE
FREQ.	FREQUENCY
FT.	FEET, FOOT
FTG.	FOOTING
FXC	FIRE EXTINGUISHER & CABINET
GA.	GAUGE
GALV.	GALVANIZED
G.I.	GALVANIZED IRON (STEEL)
GUN.	FUNITE
GYP.	GYPSUM
GYP. BD.	GYPSUM BOARD
H.B.	HOSE BIBB
H.C.	HOLLOW CORE
HD	DEAD
H.M.	HOWLLOW METAL
HORIZ.	HORIZONTAL
HR.	HOUR
I.	IRON
I.D.	INSIDE DIAMETER
INC.	INCORPORATED
INSUL.	INSULATION
INT	INTERIOR
JT.	JOINT
JST.	JOIST
K.	KITCHEN
LAM.	LAMINATED
LAM. PLAS.	LAMINATED PLASTIC
LAV.	LAVATORY
LT.	LIGHT
LVR.	LOUVER

M.C.	MEDICINE CABINET
MECH.	MECHANICAL
MEMB.	MEMBRANE
MET.	METAL
MFG.	MANUFACTURE
M.H.	MAN HOLE
MIN.	MINIMUM
MIR.	MIRROR
MTG.	MOUNTING
MTL.	METAL
N.	NORTH
NAT.	NATURAL
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.T.S.	NOT TO SCALE
O/	OVER
O.C.	ON CENTER
O.D.	OVERFLOW DRAIN
OPP.	OPPOSITE
OV.	OVEN
OVHD.	OVERHEAD
PB.	PUSHBUTTON
PC	PULL CHAIN
PL	PLATE
P	PROPERTY LINE
PLAS.	PLASTER
PL. GLS.	PLATE GLASS
PLAST.	PLASTER
PLYWD.	PLYWOOD
PNL.	PANEL
PR.	PAIR
PRCST.	PRECAST
PREFAB.	PREFABRICATED
%	[ERCEMT
QRY.	QUARRY
QTY.	QUANTITY
RAD.	RADIUS
R.	RISER
R.A.G.	RETURN AIR GRILLE
RD.	ROAD
R.D.	ROOF DRAIN
RDWD.	REDWOOD
RECP.	RECEPTABLE
REF.	REFERENCE
REF.	REFRIGERATOR
REG.	REGISTER
REINF.	REINFORCEMENT
REQ'D	REQUIRED
RES. FLR.	RESILIENT FLOORING
RET.	RETAINING
RF.	ROOF
RF'G.	ROOFING
RM.	ROOM
RO.	ROUGH
R.O.	ROUGH OPENING
RUB.	RUBBER
R.B.	RUBBER (RESILIENT) BASE
S.	SOUTH
S.C.	SOLID CORE
S.D.	STORM DRAIN
SHT.	SHEET
SHT'G	SHEATHING
SIM.	SIMILAR
S&P	SHELF AND POLE
SPECS.	SPECIFICATIONS
SPRKL.	SPRINKLER
SQ. IN.	SQUARE INCH
SQ. FT.	SQUARE FOOT
ST.	STEEL
STOR.	STORAGE
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED
SIM.	SIMILAR
S4S	SMOOTH FOUR SIDES
T	TREAD
T&B	TOP AND BOTTOM
T.B.	TOP OF BEAM
T.C.	TOP OF CURB
T.C.	TOP OF CONCRETE
T.G.	TOP OF GRATE
TEL	TELEPHONE
TEMP.	TEMPERED
T&G	TONGUE AND GROOVE
THK.	THICK
THRESH	THRESHOLD
T.P.	TOP OF PAVING
T.S.	TOP OF SHEATHING
T.W.	TOP OF WALL
TYP.	TYPICAL
UL	UNDERWRITER'S LABEL
ULT.	ULTIMATE
UNFIN.	UNFINISHED
U.R.F.	UNDER ROOF FRAMING
V.A.T.	VINYL ASBESTOS TILE
VENT.	VENTILATOR
VERT.	VERTICAL
VIT.	VITREOUS
VOL.	VOLUME
V.T.	VINYL TILE
W.	WEST
W/	WITH
W.C.	WATER CLOSET
WD.	WOOD
W	WIDE FLANGE (STEEL)
W.G.	WIRE GLASS
W.H.	WATER HEATER
W.I.	WROUGHT IRON
W/O	WITH OUT
WP.	WATERPROOFING
WS	WEATHERSTRIPPING
W.S.P.	WET STANDPIPE
WT.	WEIGHT
YD.	YARD

ARCHITECTURAL SYMBOLS LEGEND



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED ARCHITECT
ROBERT M. SIMONS
No. C-18301
JAN. 31, 2025
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
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PROJECT NO: Project Number
DATE ISSUED: Issue Date
SCALE: 1 1/2" = 1'-0"

GEN-2

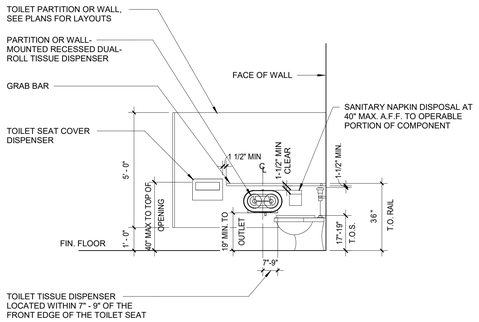
GENERAL NOTES

SVA ARCHITECTS
6 HUTTON CENTRE DR, SUITE 1150 SANTA ANA, CA 92707
T 949.809.3380 WWW.SVA-ARCHITECTS.COM

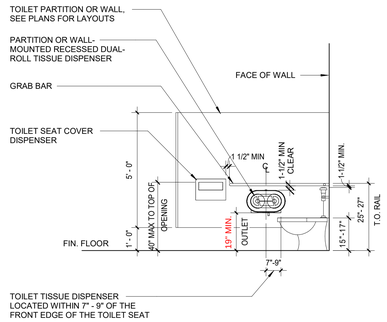
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REACH RANGES AND MOUNTING HEIGHTS		
DIMENSIONS	**ADULT AGE 12+**	**ELEMENTARY AGE 9-12**
TOILET CENTERING FROM WALL	17-18	15-18
TOILET SEAT HEIGHT	17-19	15-17
GRAB BAR HEIGHT (TOP OF BAR)	33-36	25-27
TOILET PAPER DISPENSER HEIGHT	19 MIN.	17-19
TOILET PAPER IN FRONT OF TOILET	7-9 (CL)	7-9 (CL)
DISPENSER OR MIRROR BOTTOM OF REFLECTING SURFACE HEIGHT	40 MAX	40 MAX
LAVATORY/ SINK TOP HEIGHT	34 MAX	31 MAX
LAVATORY/ SINK KNEE CLEARANCE	27 MIN	24 MIN
URINAL LIP HEIGHT	17 MAX	17 MAX
URINAL FLUSH HANDLE HEIGHT	44 MAX	44 MAX
DRINKING FOUNTAIN BUBBLER HEIGHT	36 MAX	36 MAX
DRINKING FOUNTAIN KNEE CLEARANCE	27 MAX	27 MAX
RAMP/ STAIR HANDRAIL HEIGHT	34-38	34-38

ADULT DIMENSIONS ARE TO BE USED AT STAFF RESTROOMS
ELEMENTARY AGE (9 - 12) DIMENSIONS ARE TO BE USED AT STUDENT RESTROOMS

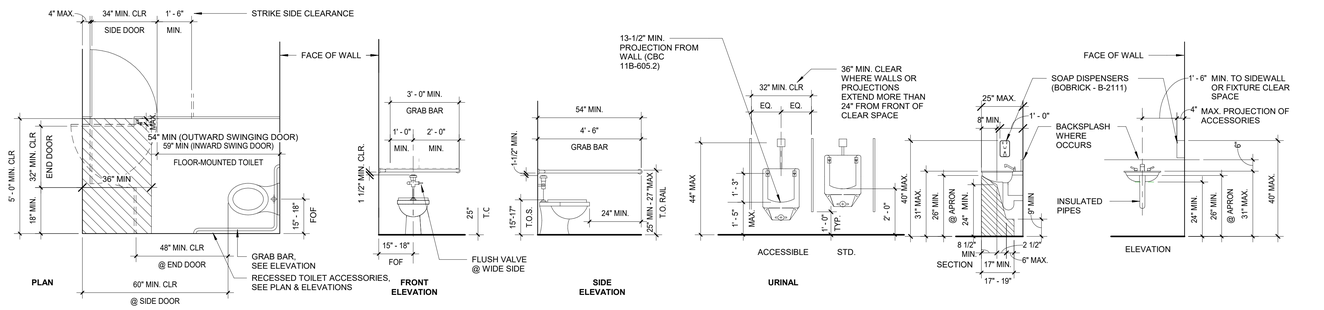


ADULT ACCESSIBLE TOILET COMPARTMENT ACCESSORIES INDIVIDUAL ITEMS



STUDENT (9-12) ACCESSIBLE TOILET COMPARTMENT ACCESSORIES INDIVIDUAL ITEMS

NOTE: SEE PLANS FOR RESTROOMS ACCESSIBILITY SCOPE



BOYS/GIRLS TOILET ROOM PLUMBING FIXTURE HEIGHTS/DIMENSIONS

LAVATORY NOTES:
1. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE LAVATORY.
2. ALL HOT WATER & DRAIN PIPES ACCESSIBLE UNDER LAVATORIES MUST BE INSULATED OR OTHERWISE COVERED.

NOTE: ALL DIMENSIONS SHOWN ABOVE ARE FOR ELEMENTARY AGE USE, REFER TO TABLE 11B-604.9 (2/GEN-4) FOR SUGGESTED DIMENSIONS.

TOILET ROOM ACCESSORY & PLUMBING FIXTURE HEIGHT | 3/8" = 1'-0" | 2

1. SWITCHES, CONTROLS AND ELECTRICAL OUTLETS: (REFER TO DETAIL 5/GEN-3)

A. ELECTRICAL AND COMMUNICATION SYSTEMS OUTLETS SHALL BE MOUNTED NOT LESS THAN 15 INCHES ABOVE THE FLOOR OR WORKING PLATFORMTO BOTTOM OF BOX.

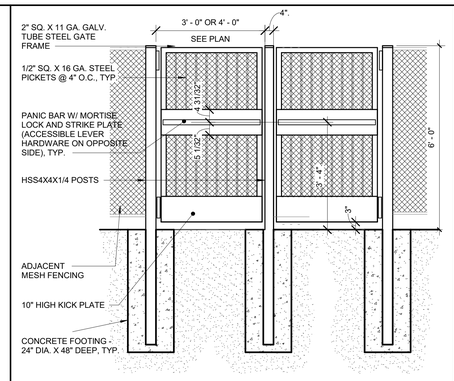
B. THE HIGHEST OPERABLE PART OF ALL CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE WITHIN 15 INCHES TO NO MORE THAN 4 FEET ABOVE THE FLOOR OR WORKING PLATFORM AT BOTH FORWARD AND PARALLEL APPROACH.

C. IF REACH IS OVER AN OBSTRUCTION (FOR EXAMPLE, A BASE CABINET) BETWEEN 20" AND 25" IN DEPTH, THE MAXIMUM HEIGHT IS REDUCED TO 44" FOR FORWARD APPROACH. FOR SIDE APPROACH PROVIDED THE OBSTRUCTION IS NO MORE THAN 24" IN DEPTH, THE MAXIMUM HEIGHT IS REDUCED TO 46". THE OBSTURCTION MAY NOT EXTEND MORE THAN 24" FROM THE WALL BENEATH THE CONTROL.

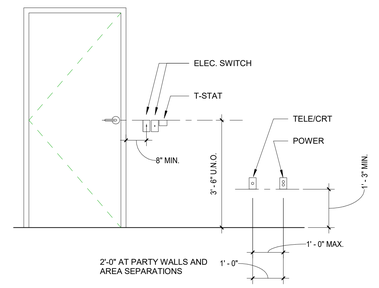
D. FIRE ALARM INITIATING DEVICES (BOXES) SHALL BE LOCATED 48" ABOVE THE LEVEL OF THE FLOOR, WORKING PLATFORM, GROUND SURFACE, OR SIDEWALK.

E. IF EMERGENCY WARNING SYSTEMS ARE REQUIRED THEY SHALL ACTIVATE A MEANS OF WARNING THE HEARING IMPAIRED. FLASHING VISUAL WARNING SHALL HAVE A FREQUENCY OF NOT MORE THAN 60 FLASHES PER MINUTE.

COMMON ELEC. ACCESSIBILITY NOTES | 1 : 1 | 9

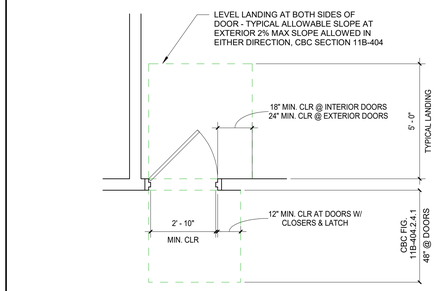


(E) DOUBLE EGRESS GATE | 1/2" = 1'-0" | 7



ELEVATION

SWITCHES, CONTROLS & OUTLETS | 1/2" = 1'-0" | 5



DOOR LANDING | 3/8" = 1'-0" | 3

1. ADDITIONAL COMPLIANCE REQUIREMENTS:

A. AT LEAST 5%, AND A MINIMUM WIDTH OF 36", OF EACH TABLE/COUNTER WORK SURFACE AND/OR TRANSACTION STATION IN EMPLOYEE WORK AREAS, SHALL HAVE A SURFACE BETWEEN 28" AND 34" ABOVE THE FLOOR(CBC 11B-203.9).

B. WARNING SYSTEMS SHALL COMPLY WITH NFPA 72 AND 72G (AS AMENDED BY CHAPTER 35) AND SHALL PROVIDE VISUAL ALARMS (I.E. STROBES) IN RESTROOMS, CORRIDORS, MULTI-PURPOSES ROOMS, LOBBIES, MEETING ROOMS, AND ANY OTHER COMMON USE ROOMS (CBC 11B-702.1).

C. COUNTERTOPS AND WORK SURFACES SHALL BE ACCESSIBLE (HEIGHT BETWEEN 28" AND 34" AFF) W/ ACCESSIBLE CLEAR SPACE BELOW PER CBC 11B-902.1.

2. ACCESSIBLE TOILET COMPARTMENTS:

A. SEE TOILET ROOM FLOOR PLAN FOR ACCESSIBLE TOILET STALL LOCATION.

B.VERIFY TOILET ACCESSORIES & TYPE OF PARTITION IN SPECS.

C. PROVIDE BACKING IN WALL & TOILET PARTITION FOR GRAB BAR ANCHORAGE.

D. COMPARTMENT DOOR TO PROVIDE MINIMUM 18" STRIKE-SIDE CLEARANCE (CBC 11B-604.8.1.2).

E. INSIDE AND OUTSIDE OF THE COMPARTMENT DOOR IS EQUIPPED WITH A LOOP OR U-SHAPED HANDLE IMMEDIATELY BELOW THE LATCH. THE LATCH IS A FLIP-OVER STYLE, SLIDING, OR OTHER HARDWARE NOT REQUIRING GRASPING OR TWISTING (CBC 11B-309.4).

F. OPENING HARDWARE IS MOUNTED BETWEEN 34" AND 44" ABOVE FINISH FLOOR (CBC 11B-404.2.7).

G. TOILET PAPER DISPENSER SHALL PERMIT CONTINUOUS PAPER FLOW AND SHALL NOT CONTROL DELIVERY (CBC 11B-604.7).

H. ACCESSIBLE COMPARTMENT DOOR EQUIPPED WITH AN AUTOMATIC CLOSING DEVICES (3 SECONDS MIN. SWEEP TIME FROM OPEN POSITION OF 70 DEGREES TO A POINT 3" FROM THE LATCH).

I. SEE ACCESSIBILITY NOTES FOR ADDITIONAL REQUIREMENTS.

J. FLUSH CONTROL SHALL BE ON WIDE SIDE OF TOILET COMPARTMENT AT ALL ACCESSIBLE STALLS, TYP.

K. WHERE ONLY ONE TYPE OF TOILET FIXTURE OR ACCESSORY IS USED, IT SHALL BE POSITIONED FOR ACCESSIBILITY.

3. DRINKING FOUNTAINS: (REFER TO DETAIL 10/GEN-3)

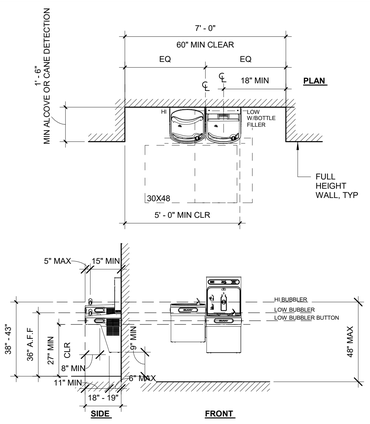
A. ON ANY FLOOR WHERE DRINKING FOUNTAINS ARE PROVIDED, THERE SHALL BE A DRINKING FOUNTAIN THAT IS ACCESSIBLE TO INDIVIDUALS WHO USE WHEELCHAIRS AND ONE ACCESSIBLE TO THOSE WHO HAVE DIFFICULTY BENDING OR STOOPING ("HI-LO" FOUNTAIN) PER CBC 11B-211.2) WHERE MORE THAN ONE IS PROVIDED ON A FLOOR, 50% SHALL COMPLY WITH THESE REQUIREMENTS.(CBC 11B-211.3)

B. THE DRINKING FOUNTAIN SHALL BE A MINIMUM OF 18 INCHES AND A MAXIMUM OF 19 INCHES IN DEPTH AND THERE SHALL BE A CLEAR AND UNOBSTRUCTED KNEE SPACE UNDER THE DRINKING FOUNTAIN NOT LESS THAN 27 INCHES IN HEIGHT, 30 INCHES IN WIDTH, AND 8 INCHES IN DEPTH, THE DEPTH MEASUREMENT BEING TAKEN FROM THE FRONT EDGE OF THE FOUNTAIN. ADDITIONALLY THERE SHALL BE TOE CLEARANCE OF 9 INCHES IN HEIGHT ABOVE THE FLOOR, AND 17 INCHES IN DEPTH FROM THE FRONT EDGE OF THE FOUNTAIN. A SIDE APPROACH DRINKING FOUNTAIN IS NOT ACCEPTABLE.

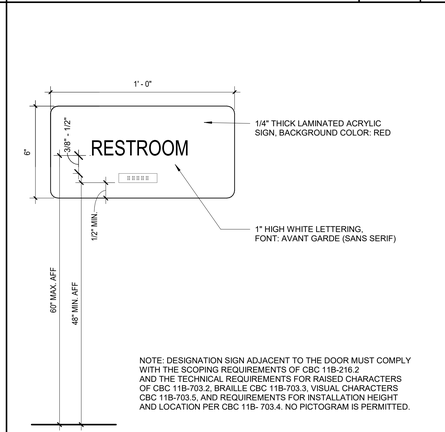
C. THE BUBBLER SHALL BE ACTIVATED BY A CONTROL WHICH IS EASILY OPERATED BY A PERSON WITH DISABILITIES SUCH AS A HAND-OPERATED LEVER TYPE LOCATED WITHIN 6" INCHES OF THE FRONT OF THE DRINKING FOUNTAIN, ETC. THE BUBBLER OUTLET ORIFICE SHALL BE LOCATED WITHIN 5" INCHES OF THE FRONT OF THE DRINKING FOUNTAIN AND SHALL BE WITHIN 36 INCHES OF THE FLOOR. THE WATER STREAM FROM THE BUBBLER SHALL BE SUBSTANTIALLY PARALLEL TO THE FRONT EDGE OF THE DRINKING FOUNTAIN. THE SPOUT SHALL PROVIDE A FLOW OF WATER THAT IS AT LEAST 4 INCHES HIGH SO AS TO ALLOW THE INSERTION OF A CUP OR GLASS UNDER THE FLOW OF WATER. THE FORCE REQUIRED TO ACTIVATE THE CONTROLS SHALL BE NO GREATER THAN 5 LB.

D. WATER FLOW. THE SPOUT SHALL PROVIDE A FLOW OF WATER 4 INCHES (102 MM) HIGH MINIMUM AND SHALL BE LOCATED 5 INCHES (127 MM) MAXIMUM FROM THE FRONT OF THE UNIT. THE ANGLE OF THE WATER STREAM SHALL BE MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE UNIT. WHERE SPOUTS ARE LOCATED LESS THAN 3 INCHES (76 MM) OF THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE SPOUTS ARE LOCATED BETWEEN 3 INCHES (76 MM) AND 5 INCHES (127 MM) MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15 DEGREES MAXIMUM.

COMMON AREA ACCESSIBILITY NOTES | 1 : 1 | 1



(E) DRINKING FOUNTAIN FIXTURES | 3/8" = 1'-0" | 10



NOTE: DESIGNATION SIGN ADJACENT TO THE DOOR MUST COMPLY WITH THE SCOPING REQUIREMENTS OF CBC 11B-216.2 AND THE TECHNICAL REQUIREMENTS FOR RAISED CHARACTERS OF CBC 11B-703.2, BRAILLE CBC 11B-703.3, VISUAL CHARACTERS CBC 11B-703.5, AND REQUIREMENTS FOR INSTALLATION HEIGHT AND LOCATION PER CBC 11B- 703.4. NO PICTOGRAM IS PERMITTED.

RR-SIGN- UNISEX | 3" = 1'-0" | 8

11B-703.7.2.6.4 EDGES AND VERTICES ON GEOMETRIC SYMBOLS. EDGES SHALL BE EASED OR ROUNDED AT 1/16 INCH MINIMUM, OR CHAMFERED AT 1/8 INCH BETWEEN 1/8 INCH MINIMUM AND 1/4 INCH MAXIMUM.

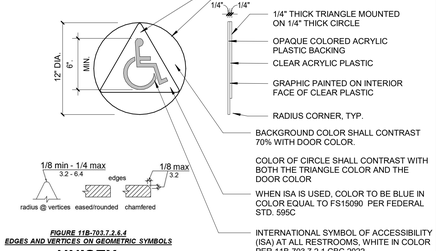


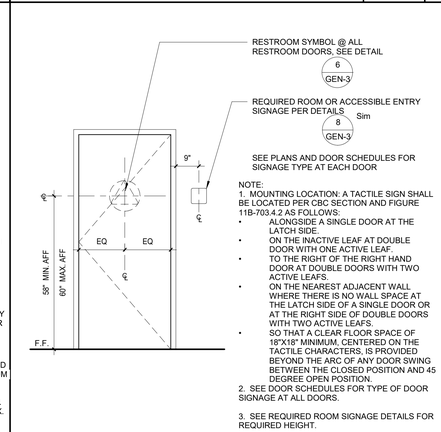
FIGURE 11B-703.7.2.6.4
EDGES AND VERTICES ON GEOMETRIC SYMBOLS

UNISEX

NOTE:
1. ATTACH SIGNS USING THREE FLATHEAD VANDAL RESISTANT COUNTERSUNK SCREWS AND ADHESIVE. SIGNS SHALL BE CENTERED ON THE DOOR AND MOUNTED BEING A 4'-10" MINIMUM AND A 5'-0" MAXIMUM ABOVE FINISH FLOOR LINE TO CENTER OF SIGN.

2. EDGES AND VERTICES ON GENERIC SYMBOLS SHALL BE EASED OR ROUNDED @1/16" MIN. OR CHAMFERED @1/8" MAX. VERTICES SHALL BE RADIUSED BETWEEN 1/8"MIN. AND 1/4" MAX. PER CBC 11B-703.7.2.6.4

TOILET ROOM DOOR SYMBOL - UNISEX | 1 1/2" = 1'-0" | 6



NOTE:
1. MOUNTING LOCATION: A TACTILE SIGN SHALL BE LOCATED PER CBC SECTION AND FIGURE 11B-703.4.2 AS FOLLOWS:
   - ALONGSIDE A SINGLE DOOR AT THE LATCH SIDE.
   - ON THE INACTIVE LEAF AT DOUBLE DOOR WITH ONE ACTIVE LEAF.
   - TO THE RIGHT OF THE RIGHT HAND DOOR AT DOUBLE DOORS WITH TWO ACTIVE LEAFS.
   - ON THE NEAREST ADJACENT WALL WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS WITH TWO ACTIVE LEAFS.
   - SO THAT A CLEAR FLOOR SPACE OF 18"X18" MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION.
2. SEE DOOR SCHEDULES FOR TYPE OF DOOR SIGNAGE AT ALL DOORS.

3. SEE REQUIRED ROOM SIGNAGE DETAILS FOR REQUIRED HEIGHT.

RESTROOM SIGNAGE | 1/2" = 1'-0" | 4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED ARCHITECT
ROBERT M. SIMMONS
No. C-18301
JAN. 31, 2025
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1		
2		
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PROJECT NO: Project Number
DATE ISSUED: Issue Date
SCALE: As indicated

SHEET NUMBER: GEN-3

SHEET TITLE:

GENERAL ACCESSIBILITY

SVA ARCHITECTS
2030 FRANKLIN, SUITE 210 OAKLAND, CA 94612
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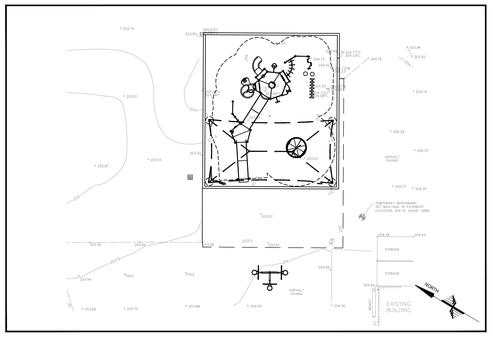
IMPROVEMENT PLANS

FOR

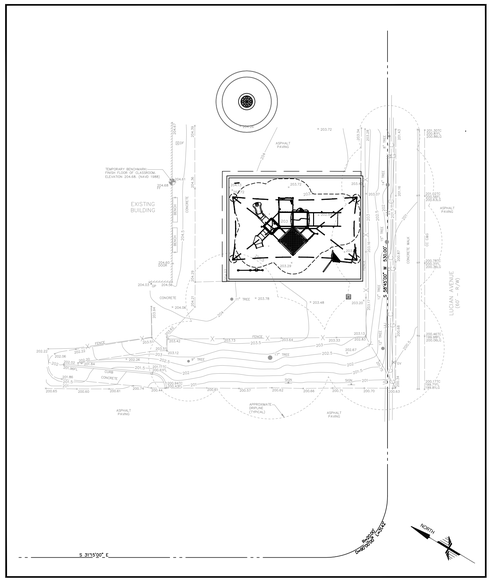
MCCOLLAM ES PLAYGROUND PROJECT

3311 LUCIAN AVENUE

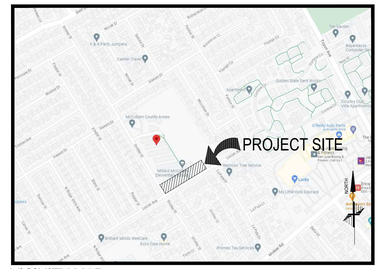
SAN JOSE, CA 95127



PLAYGROUND AREA - PRIMARY



PLAYGROUND AREA - KINDERGARTEN



VICINITY MAP

GENERAL CIVIL NOTES

GENERAL:

1. ALL PERMITS WILL BE SECURED BY THE OWNER AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH THE CONDITIONS AND REQUIREMENTS OF THE PERMITS.
2. THE CONTRACTOR SHALL TAKE EFFECTIVE ACTION TO PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE AND SHALL BE RESPONSIBLE FOR DAMAGE RESULTING FROM THEIR FAILURE TO DO SO.
3. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR SAFETY.
4. THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR THE POLICE, FIRE AMBULANCE, AND THOSE AGENCIES RESPONSIBLE FOR MAINTENANCE OF UTILITIES IN THE VICINITY OF THE JOB SITE.
5. LENGTHS OF SANITARY SEWERS AND STORM DRAINS SPECIFIED ARE HORIZONTAL DISTANCES AS MEASURED FROM CENTERS OF STRUCTURES ROUNDED TO THE NEAREST FOOT.
6. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL PERFORM AT THEIR EXPENSE A FIELD OBSERVATION LOCATING ALL EXISTING UTILITIES INCLUDING ELEVATIONS AND NOTIFY THE OWNER AND THE ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTING LOCATIONS OF UTILITIES SHOWN ON THESE PLANS. ANY ADDITIONAL COST INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF THE EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.
7. CONTRACTOR TO VERIFY ALL EXISTING INVERT ELEVATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO ANY WORK. ALL WORK FOR STORM DRAIN AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR ANY NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT AND WORKS UPSTREAM, HE SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY.
8. CONTRACTOR SHALL UNCOVER AND EXPOSE ALL EXISTING UTILITY AND SEWER LINES WHERE THEY ARE CROSSED ABOVE OR BELOW BY THE NEW FACILITY BEING CONSTRUCTED IN ORDER TO VERIFY THE GRADE AND TO ASSURE THAT THERE IS SUFFICIENT CLEARANCE. PIPES SHALL NOT BE STRUNG NOR TRENCHING COMMENCED UNTIL ALL CROSSINGS HAVE BEEN VERIFIED FOR CLEARANCE. IF THE CONTRACTOR FAILS TO FOLLOW THIS PROCEDURE HE WILL BE SOLELY RESPONSIBLE FOR ANY EXTRA WORK OR MATERIAL REQUIRED IF MODIFICATIONS TO THE DESIGN ARE NECESSARY.
9. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S SOLE EXPENSE.
10. CONTRACTOR TO TAKE NECESSARY PRECAUTIONARY MEASURES TO PREVENT SOIL EROSION AND SEDIMENTATION. EXISTING AND PROPOSED DRAINAGE STRUCTURES TO BE TEMPORARILY COVERED WITH FILTER FABRIC OR EQUAL UNTIL SURROUNDING PAVEMENT IS INSTALLED.
11. ANY RELOCATION OF UTILITIES SHALL BE COORDINATED WITH THE OWNER AND CONDUCTED IN ACCORDANCE WITH ANY AND ALL REQUIREMENTS OF THE OWNER, INCLUDING FEES, BONDS. PERMITS AND WORKING CONDITIONS, ETC. THE OWNER SHALL PAY THE FEES, BONDS, AND FILE. THE APPROPRIATE PERMITS FOR ALL SUCH RELOCATION WORK. ALL ON- SITE UTILITY WORK IS THE RESPONSIBILITY OF THE CONTRACTOR (MATERIALS AND INSTALLATION).
12. IF ARCHAEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING. TRENCHING OR OTHER EXCAVATION, EARTHWORK WITHIN 100 FEET OF THESE MATERIALS SHALL BE STOPPED UNTIL A PROFESSIONAL ARCHAEOLOGIST WHO IS CERTIFIED BY THE SOCIETY OF CALIFORNIA ARCHAEOLOGY (SCA) AND/OR THE SOCIETY OF PROFESSIONAL ARCHAEOLOGY (SOPA) HAS HAD AN OPPORTUNITY TO EVALUATE THE SIGNIFICANCE OF THE FIND AND SUGGEST APPROPRIATE MITIGATION MEASURES, IF THEY ARE DEEMED NECESSARY.
13. THESE PLANS DO NOT SPECIFY NOR RECOMMEND THE USE OR INSTALLATION OF ANY MATERIAL OR EQUIPMENT WHICH IS MADE FROM, OR WHICH CONTAINS ASBESTOS FOR USE IN THE CONSTRUCTION OF THESE IMPROVEMENTS. ANY PARTY INSTALLING OR USING SUCH MATERIALS OR EQUIPMENT SHALL BE SOLELY RESPONSIBLE FOR ALL INJURES. DAMAGES, OR LIABILITIES, OF ANY KIND, CAUSED BY THE USE OF SUCH MATERIALS, OR EQUIPMENT. NOTIFY OWNER WHEN DISCOVERING ASBESTOS MATERIALS. REFER TO SPECIFICATION 'HAZARDOUS MATERIALS PROCEDURES AND CONTROL' AND 'HAZARDOUS MATERIALS ABATEMENT AND CONTROL.'
14. THE CONTRACTOR SHALL MEET AND FOLLOW ALL (NPDES) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM REQUIREMENTS IN EFFECT AT THE TIME OF CONSTRUCTION.
15. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
16. CONTRACTOR SHALL ARRANGE, INSTALL, AND PAY FOR ANY TEMPORARY UTILITIES, INCLUDING BUT NOT LIMITED TO TELEPHONE, ELECTRIC, SEWER, WATER, ETC.. THE CONTRACTOR IS TO COORDINATE ANY SUCH UTILITY NEEDS WITH THE OWNER.
17. ALL SITE AREAS SHALL BE GRADED AT 1% MINIMUM FOR DRAINAGE UNLESS OTHERWISE NOTED OR ALONG FLOWLINES OF CONCRETE LINED GUTTERS AND VALLEY GUTTERS.
18. ESTIMATED EARTHWORK QUANTITIES SHOWN ARE APPROXIMATE ONLY AND SHOWN FOR THE PURPOSES OF ESTIMATING GRADING PERMIT FEES, HOHBACH-LEWIN ASSUMES NO LIABILITY FOR THE ACCURACY OF THESE QUANTITIES.
19. WHERE EXISTING STRUCTURES ARE TO REMAIN IN CONSTRUCTION ZONE AREA, CONTRACTOR SHALL ADJUST RIMS OF THESE STRUCTURES, I.E. CATCH BASINS, VALVE BOXES, CLEAN OUTS, UTILITY BOXES, ETC. TO NEW FINISH GRADE.
20. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR NORTHERN CALIFORNIA AT LEAST 48 HOURS (2 WORKING DAY) PRIOR TO COMMENCEMENT OF CONSTRUCTION. (800) 227-2600.
21. THE ORGANIC MATERIAL COVERING THE SITE SHALL BE STRIPPED AND STOCKPILED. THE STRIPPINGS SHALL BE USED TO BACKFILL ALL LANDSCAPE PLANTERS AND ROUGH GRADE MOUND AREAS, AS SHOWN ON LANDSCAPE DRAWINGS, TO WITHIN 1" OF GRADES SHOWN. EXCESS STRIPPINGS AND EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
22. ADJUSTMENTS TO PAD ELEVATIONS OR PARKING LOT GRADES TO ACHIEVE EARTHWORK BALANCE SHALL BE MADE ONLY WITH APPROVAL OF THE ENGINEER.
23. COMPACTION TO BE DETERMINED USING ASTM D1557-LATEST EDITION.
24. STORM DRAIN PIPES DESIGNATED AS SD FROM 4" TO 24" IN DIAMETER SHALL BE SDR-35 PVC. (GREEN-TITE PIPE BY MANVILLE OR APPROVED EQUAL), CLASS HDPE SMOOTH INTERIOR PIPE PER ASTM 03212 HANCOR SURE-LOK WT PIPE OR APPROVED EQUAL WITH CLASS 1 BACKFILL OR DUCTILE IRON PIPE DIP, IF SPECIFIED ON PLANS. NO MATERIAL SUBSTITUTE SHALL BE ALLOWED FOR DUCTILE IRON PIPE. ANY PIPES LARGER THAN 24" IN DIAMETER SHALL BE CLASS III REINFORCED CONCRETE PIPE RCP. PVC PIPE EXCEEDING 24" DIAMETER SHALL ONLY BE USED WHEN APPROVED BY MANUFACTURER IN THIS JURISDICTION.
25. PROPOSED SPOT GRADES (ELEVATIONS) SHOWN HEREON ARE FINISHED PAVEMENT GRADES, NOT TOP OF CURB GRADES, UNLESS NOTED OTHERWISE.
26. THE CONTRACTOR SHALL VERIFY THE CONTENTS AND THICKNESS OF THE BUILDING SLAB SECTION (IE: CONCRETE, SAND, ROCK) WITH THE STRUCTURAL PLANS AND THE ELEVATIONS SHOWN HEREON PRIOR TO COMMENCEMENT OF GRADING.
27. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE O.S.H.A. REGULATIONS.
28. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.
29. WHERE OFF-SITE DRIVEWAY APPROACHES ARE TO BE CONSTRUCTED THE ON-SITE DRIVEWAY SHALL NOT BE CONSTRUCTED UNTIL THE OFF-SITE IMPROVEMENTS ARE INSTALLED. THE ON-SITE DRIVEWAY SHALL CONFORM TO THE COMPLETED OFF-SITE DRIVEWAY.

GRADING NOTES:

1. UNDERGROUND UTILITY LOCATIONS SHOWN HEREON WERE TAKEN FROM RECORD DATA. NO GUARANTEE IS MADE OR IMPLIED AS TO THE ACCURACY OF SUCH RECORD DATA. NO EXCAVATIONS WERE MADE TO CONFIRM LOCATIONS. CONTRACTORS ARE CAUTIONED TO CONTACT U.S.A. UNDERGROUND AND TO EXERCISE EXTREME CARE IN VERIFYING ALL LOCATIONS PRIOR TO COMMENCING EXCAVATIONS OR OTHER WORK WHICH MAY AFFECT THESE UTILITIES.
2. IRRIGATION LATERALS, PARKING LOT LIGHTING WIRING AND SIGNAL WIRING NOT SHOWN. VERIFY LOCATION BEFORE COMMENCING TRENCHING. REPLACE OR REPAIR IMMEDIATELY WHERE BROKEN TO PROVIDE UNINTERRUPTED SERVICE.
3. ALL FINISH GRADES SHOWN ARE FINISH GRADE ELEVATIONS UNLESS NOTED OTHERWISE.

UTILITY NOTES:

1. THIS SURVEY IS NOT INTENDED TO REPRESENT THE EXACT LOCATIONS, SIZES OR EXTENT OF THE UTILITIES WITHIN THE AREA ENCOMPASSED BY THIS SURVEY. THEREFORE, IT IS THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO VERIFY THE LOCATION, SIZE AND EXTENT OF ANY EXISTING UTILITIES PRIOR TO DESIGN OR CONSTRUCTION. CONTRACTORS ARE CAUTIONED TO CONTACT U.S.A. UNDERGROUND AND TO EXERCISE EXTREME CARE IN VERIFYING ALL LOCATIONS PRIOR TO COMMENCING EXCAVATIONS OR OTHER WORK WHICH MAY AFFECT THESE UTILITIES.
2. IRRIGATION LATERALS, PARKING LOT LIGHTING WIRING AND SIGNAL WIRING NOT SHOWN. VERIFY LOCATION BEFORE COMMENCING TRENCHING. REPLACE OR REPAIR IMMEDIATELY WHERE BROKEN TO PROVIDE UNINTERRUPTED SERVICE.
3. UTILITY ABANDONMENT/REMOVAL: DISCONNECT AND CAP PIPES AND SERVICES TO REMAIN. REMOVE ALL PORTIONS OF ALL UTILITIES WITHIN NEW BUILDING FOOTPRINT AND DISPOSE OF OFF-SITE. OTHERWISE ABANDON IN PLACE UNLESS NOTED OTHERWISE.
4. NOTIFY THE ENGINEER IMMEDIATELY OF ANY UTILITIES ENCOUNTERED THAT ARE NOT SHOWN ON THE DRAWINGS. PRESERVE AND REPAIR ANY UTILITIES THAT ARE DAMAGED AND THAT ARE TO REMAIN.
5. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CROSSINGS OF NEW UTILITIES WITH EACH OTHER, AND WITH EXISTING UTILITIES. VERIFY EXISTING PIPE LOCATION AND INVERT PRIOR TO INSTALLING NEW UTILITIES. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR DEVIATIONS.
6. PRIOR TO CONNECTING TO EXISTING UTILITIES FIELD VERIFY LOCATION 6. & INVERT OR DEPTH PRIOR TO INSTALLING NEW PIPE OR EQUIPMENT.
7. EACH BUILDING WATER SERVICE CONNECTION SHALL BE WITH VALVE AND VALVE BOX SET AT GRADE.
8. ALL BUILDING SEWER LATERALS SHALL BE WITH CLEANOUT TO GRADE.
9. ALL CATCH BASINS WITHIN VEHICULAR AREAS SHALL BE TRAFFIC RATED FOR H20 VEHICULAR LOADS. FOR CATCH BASINS IN WALKWAY AREAS, INCLUDING EXISTING CATCH BASINS, USE HEEL PROOF AND ADA GRATE.

ADA COMPLIANCE:

1. ALL NEW WORK SHALL CONFORM TO TITLE 24 OF THE CALIFORNIA ADMINISTRATIVE CODE AND THE AMERICANS WITH DISABILITIES ACT 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, AND ANY LOCAL OR STATE AMENDMENTS THEREOF.
2. ALL NEW CURB RAMPS SHALL NOT EXCEED A SLOPE OF 1:12 (8.33%).
3. ALL NEW ENTRANCE WALKS TO THE BUILDINGS SHALL NOT EXCEED A SLOPE OF 1:20 (5%) LONGITUDINALLY UNLESS RAILINGS ARE PROVIDED IN WHICH CASE THE SLOPE SHALL NOT EXCEED 1:12 (8.33%). SEE ARCHITECTURAL PLANS FOR RAILING REQUIREMENTS.
4. LANDINGS SHALL BE PROVIDED AT PRIMARY ENTRANCES TO BUILDINGS WITH A 2% MAXIMUM SLOPE THE LANDINGS SHALL HAVE A MINIMUM WIDTH OF 60" AND A MINIMUM DEPTH OF 60" WHEN THE DOOR OPENS INTO THE BUILDING, AND 42" PLUS THE WIDTH OF THE DOOR WHEN THE DOOR OPENS ONTO THE LANDING.
5. RAMPS ARE DEFINED AS ANY WALKWAY BETWEEN SLOPES OF 1:20 (5%) AND 1:12 (8.33%), AND SHALL HAVE A MINIMUM WIDTH OF 48" AND A MAXIMUM CROSS-SLOPE OF 2%. RAMPS EXCEEDING 30" VERTICAL DROP SHALL HAVE INTERMEDIATE (2% MAXIMUM SLOPE) LANDINGS HAVING A MINIMUM LENGTH IN THE DIRECTION OF TRAVEL OF 60". BOTTOM LANDINGS AND LANDINGS AT CHANGES IN RAMP DIRECTION SHALL HAVE A MINIMUM LENGTH OF 72".
6. MAXIMUM CROSS-SLOPE ON ANY SIDEWALK OR RAMP SHALL BE 2%. MAXIMUM SLOPE IN ANY DIRECTION WITHIN PARKING STALLS DESIGNATED AS ACCESSIBLE PARKING STALL SHALL BE 2%.

LEGEND

BOUNDARY LINES

- CENTER LINE
- EASEMENT LINE
- PROPERTY LINE
- ADJACENT PROPERTY LINE

MISCELLANEOUS LINES

- SIDEWALK
- LIP OF GUTTER
- FENCE-WIRE

UTILITY LINES

- ELECTRIC
- FIBER OPTIC
- FIRE SERVICE
- GAS LINE
- IRRIGATION LINE
- JOINT TRENCH
- NITROGEN GAS
- OVERHEAD
- RECYCLED WATER
- STORM DRAIN
- SANITARY SEWER
- TELEPHONE
- WATER

UTILITY LEGEND

- WATER VALVE
- WATER METER
- STORM DRAIN MANHOLE
- CATCH BASIN
- AREA DRAIN
- CLEANOUT TO GRADE

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALTIC CONCRETE
AD	AREA DRAIN
ATT	AT&T
BC	BACK OF CURB
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BOL	BOLLARD
BOW	BACK OF WALK
BW	BOTTOM OF WALL
BW/FS	BOTTOM OF WALL/FINISHED SURFACE
C	CONCRETE
CATV	CABLE TV
CB	CATCH BASIN
CONC	CONCRETE
COTG	CLEANOUT TO GRADE
DI	DRAIN INLET
DS	DOWN SPOUT
E	ELECTRIC OR EAST
EW	EACH WAY
EX.	EXISTING
(E)	EXISTING
ELEC	ELECTRIC
ESMT	EASEMENT
G	GAS
GB	GRADE BREAK
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOWLINE
FM	FORCE MAIN
FNC	FENCE
FS	FINISHED SURFACE
GRN	GROUND
HP	HIGH POINT
INV	INVERT
JP	JOINT POLE
LF	LINEAR FEET
LIP	LIP OF GUTTER
LT	LIGHT
M	MAPS
N	NORTH
NE	NORTHEAST
NTS	NOT TO SCALE
NW	NORTHWEST
OC	ON CENTER
OH	OVERHEAD
OR	OF RECORD
PERF	PERFORATED PIPE
PGE	PACIFIC GAS & ELECTRIC
POC	POINT OF CONNECTION
PV	PAVEMENT
RC	RELATIVE COMPACTION
RW	RECYCLED WATER
RIM	RIM OF UTILITY OBJECT
S	SOUTH
SD	STORMDRAIN
SE	SOUTHEAST
SJWC	SAN JOSE WATER COMPANY
SS	SANITARY SEWER
SL	STREET LIGHT
SW	SOUTHWEST
T	TREE
TC	TOP OF CURB
TW	TOP OF WALL
TW/FS	TOP OF WALL/FINISHED SURFACE
TYP.	TYPICAL
UON	UNLESS OTHERWISE NOTED
USA	UNDERGROUND SERVICE ALERT
VG	VALLEY GUTTER
W	WATER/WEST/WITH
WM	WATER METER
WTR	WATER
WV	WATER VALVE

SHEET INDEX

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C4.0	UTILITY PLAN
C5.0	EROSION CONTROL PLAN
C6.0	DETAILS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. KEPLER
NO. C38408
CIVIL
CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

PROJECT NO:

DATE ISSUED: 2023.11.16

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

SHEET NUMBER: **C1.0**

COVER SHEET

CALL BEFORE YOU DIG
USA
800-227-2600

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

HOHBACH-LEWIN #17316.31

Plot Date: Nov 16, 2023 - 5:40 PM

CAUTION:

1. THE LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS PLAN WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES). CONTRACTOR SHALL VERIFY LOCATION AND DEPTH PRIOR TO ANY EXCAVATION OR IMPROVEMENT.
2. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION-PHONE (800) 642-2444. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK ON THIS SITE.
3. THESE DRAWINGS DO NOT ADDRESS CONTRACTOR MEANS, METHODS OR PROCESSES THAT MAY BE ASSOCIATED WITH ANY TOXIC SOILS IF FOUND ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL CITY AND COUNTY STANDARDS AND APPROPRIATE REGULATIONS IF TOXIC SOILS ARE ENCOUNTERED. CONTRACTOR MUST NOTIFY THE OWNER'S PROJECT MANAGER IMMEDIATELY IF ANY SOILS ARE EVEN SUSPECTED OF BEING CONTAMINATED.

GENERAL SITE NOTES:

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE EXISTING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSSESSION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.
2. ALL WORK IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS & SPECIFICATIONS.
3. PRIOR TO BEGINNING WORK, AND AFTER INITIAL HORIZONTAL CONTROL STAKING, CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH (E) AND REPORT ANY DISCREPANCIES GREATER THAN 0.05' TO OWNER'S PROJECT MANAGER.
4. DAMAGE TO ANY EXISTING SITE IMPROVEMENTS, UTILITIES AND/OR SERVICES TO REMAIN SHALL BE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
5. CONTRACTOR SHALL REPLACE ALL STRUCTURES AND GRATE LIDS FOR VAULTS, CATCH BASINS, ETC.., WITH VEHICULAR-RATED STRUCTURES IN ALL TRAFFIC ACCESSIBLE AREAS.
6. CONTRACTOR SHALL MAINTAIN THE EXISTING SITE IN A SAFE AND USABLE MANNER SUCH THAT EMERGENCY VEHICLE ACCESS IS AVAILABLE AT ALL TIMES. CONTRACTOR TO SUPPLY, INSTALL AND MAINTAIN ALL NECESSARY FENCING, GATES, SIGNAGE, TEMPORARY WALKWAYS, AND PROVISIONS FOR ENSURING THE PROJECT'S SECURITY AND SAFE PASSAGEWAY AROUND IT BY CAMPUS STAFF, STUDENTS AND VISITORS AT ALL TIMES.
7. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING ALL NECESSARY & REQUIRED PERMITS FOR THIS WORK.
8. NOTIFICATION PRIOR TO THE START OF THE WORK MUST BE GIVEN TO THE UNDERGROUND SERVICE ALERT (USA).
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING APPROVAL FROM DISTRICT PERSONNEL AND PROJECT ARCHITECT FOR THE LOCATION OF ALL STAGING, STORAGE, CONSTRUCTION OFFICE AND LAY DOWN AREAS.
10. CONSTRUCTION HOURS TO BE VERIFIED AND APPROVED BY DISTRICT AND LOCAL AGENCIES.
11. CONTRACTOR MUST HAVE OWNER'S REPRESENTATIVE OR ENGINEER/ARCHITECT FIELD REVIEW AND APPROVE FORMWORK PRIOR TO PLACING SITE CONCRETE FOR CURBS, RAMPS, STAIRS, WALKS, DRIVEWAYS AND RELATED FLATWORK.
12. IF ARCHEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING, TRENCHING OR OTHER ON-SITE EXCAVATION, ALL WORK ON THE SITE SHALL BE STOPPED AND THE CITY IMMEDIATELY NOTIFIED. THE COUNTY CORONER & THE NATIVE AMERICAN HERITAGE COMMISSION SHALL ALSO BE NOTIFIED AND PROCEDURES FOLLOWED AS REQUIRED IN APPENDIX "K" OF THE CALIFORNIA ENVIRONMENTAL ACT.
13. CONTRACTOR TO COORDINATE WITH SCHOOL PERSONNEL AND ENSURE HIS/HER WORK DOES NOT IMPACT SCHOOL OPERATION AND TRAFFIC CIRCULATION OF BUSSES, EMERGENCY VEHICLES, STAFF AND STUDENT VEHICLES.

SITE MAINTENANCE:

1. CONTRACTOR SHALL: GATHER ALL CONSTRUCTION DEBRIS ON A REGULAR BASIS AND PLACE IT IN A DUMPSTER OR OTHER CONTAINER WHICH IS EMPTIED OR REMOVED ON A REGULAR BASIS. WHEN APPROPRIATE, USE TARPS ON THE GROUND TO COLLECT FALLEN DEBRIS OR SPLATTERS THAT COULD CONTRIBUTE TO STORM WATER RUNOFF POLLUTION.
2. REMOVE ALL DIRT, GRAVEL, RUBBISH, REFUSE, AND GREEN WASTE FROM STREET PAVEMENT AND STORM DRAINS ADJOINING THE SITE. LIMIT CONSTRUCTION ACCESS ROUTES ONTO THE SITE AND PLACE GRAVEL PADS AT THESE LOCATIONS. DO NOT DRIVE VEHICLES AND EQUIPMENT OFF THE PAVED OR GRAVELED AREAS DURING WET WEATHER.
3. SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJOINING THE PROJECT SITE AND THE ON-SITE PAVED AREAS ON A DAILY BASIS. SCRAPE CAKED-ON MUD AND DIRT FROM THESE AREAS BEFORE SWEEPING. CORNERS AND HARD TO REACH AREAS SHALL BE SWEPT MANUALLY.
4. IF THE STREETS, SIDEWALKS AND/OR PARKING LOT ARE PRESSURE WASHED, DEBRIS MUST BE TRAPPED AND COLLECTED TO PREVENT ENTRY INTO THE STORM DRAIN SYSTEM. NO CLEANING AGENT MAY BE DISCHARGED INTO THE STORM DRAIN. IF ANY CLEANING AGENT OR DEGREASER IS USED, WASH WATER MUST BE COLLECTED AND DISCHARGED TO THE SANITARY SEWER, SUBJECT TO THE APPROVAL OF THE OWNER'S PROJECT MANAGER, OR OTHERWISE DISPOSED OF THROUGH APPROVED DISPOSAL METHODS.
5. CREATE A CONTAINED AND COVERED AREA ON THE SITE FOR THE STORAGE OF BAGS, CEMENT, PAINTS, OILS, FERTILIZERS, PESTICIDES, OR OTHER MATERIALS USED ON THE SITE THAT HAVE THE POTENTIAL OF BEING DISCHARGED INTO THE STORM DRAIN SYSTEM THROUGH EITHER BEING WIND-BLOWN OR IN THE EVENT OF A MATERIAL SPILL.
6. NEVER CLEAN MACHINERY, EQUIPMENT OR TOOLS INTO A STREET, GUTTER OR STORM DRAIN.
7. ENSURE THAT CEMENT TRUCKS, PAINTERS, OR STUCCO/PLASTER FINISHING CONTRACTORS DO NOT DISCHARGE WASH WATER FROM EQUIPMENT, TOOLS OR RINSE CONTAINERS INTO GUTTERS OR DRAINS.
8. PREVENT DUST FROM LEAVING THE SITE AND ACCUMULATING ON ADJACENT AREAS AS REQUIRED IN THE DUST CONTROL NOTES ON THIS SHEET.
9. PREVENT SEDIMENT LADEN STORM RUN-OFF FROM LEAVING THE SITE OR ENTERING STORM DRAIN OR SANITARY SEWER SYSTEMS AS REQUIRED IN THE EROSION AND SEDIMENTATION CONTROL NOTES ON THIS SHEET.
10. MAINTAIN EXISTING TREES AND PLANTS THAT ARE TO REMAIN AS REQUIRED BY THE TREE AND PLANT PROTECTION NOTES ON THIS SHEET.

DUST CONTROL:

1. WATER TRUCKS SHALL BE PRESENT AND IN USE AT THE CONSTRUCTION SITE. ALL PORTIONS OF THE SITE SUBJECT TO BLOWING DUST SHALL BE WATERED AS OFTEN AS DEEMED NECESSARY BY THE APPROPRIATE GOVERNMENTAL AGENCY IN ORDER TO ENSURE PROPER CONTROL OF BLOWING DUST FOR THE DURATION OF THE PROJECT.
2. WATERING ASSOCIATED WITH ON-SITE CONSTRUCTION ACTIVITY SHALL TAKE PLACE BETWEEN THE ESTABLISHED CONSTRUCTION HOURS AND SHALL INCLUDE AT LEAST ONE LATE-AFTERNOON WATERING TO MINIMIZE THE EFFECTS OF BLOWING DUST.
3. ALL PUBLIC STREETS AND MEDIANS SOILED OR LITTERED DUE TO THIS CONSTRUCTION ACTIVITY SHALL BE CLEANED AND SWEPT ON A DAILY BASIS DURING THE WORK WEEK, OR AS OFTEN AS DEEMED NECESSARY BY THE OWNER'S ENGINEER/INSPECTOR, TO THE SATISFACTION OF THE CITY'S DEPARTMENT OF PUBLIC WORKS.
4. WATERING ON PUBLIC STREETS OR POWER WASHING SEDIMENTATION ON STREETS SHALL NOT OCCUR, UNLESS CONTRACTOR COLLECTS AND FILTERS THE WASH WATER PRIOR TO ITS ENTERING THE CITY'S STORM DRAIN SYSTEM.
5. ON-SITE PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS SHALL BE SWEPT DAILY WITH A WATER SWEEPER.
6. ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPAULINS OR OTHER EFFECTIVE COVERS.
7. THE SPEED OF ALL VEHICLES DRIVING ON UNPAVED ROADS OR PORTIONS OF THE SITE SHALL BE LIMITED TO 10 MPH.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. EROSION CONTROL MEASURES ARE INTENDED TO PREVENT SEDIMENT AND DEBRIS FROM ENTERING THE CITY, COUNTY STORM DRAIN SYSTEM, SANITARY SEWER SYSTEM OR FROM LEAVING THE SITE. THE CONTRACTOR SHALL MAKE ADJUSTMENTS IN THE FIELD TO MAKE SURE THAT THIS CONCEPT IS CARRIED OUT.
2. EROSION CONTROL FACILITIES AND MEASURES ARE TO BE INSTALLED AND OPERABLE BY OCTOBER 1st AND SHALL CONTINUE IN EFFECT UNTIL DISTURBED AREAS ARE STABILIZED OR UNTIL INSTALLATION OF THE PERMANENT SITE IMPROVEMENTS.
3. CONTRACTOR SHALL ASSUME THE CONCEPTS ON THE EROSION CONTROL PLAN, C5.0, ARE SCHEMATIC MINIMUM REQUIREMENTS, THE FULL EXTENT OF WHICH ARE TO BE DETERMINED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR THE EXACT DESIGN AND EXTENT OF THE EROSION CONTROL SYSTEM SO THAT IT WORKS WITH THE CONTRACTOR'S INTENDED USE AND MANAGEMENT OF THE CONSTRUCTION SITE, AND IS APPROVAL BY THE APPROPRIATE GOVERNMENTAL AGENCIES.
4. ALL EROSION CONTROL FACILITIES SHALL BE INSPECTED BY THE CONTRACTOR AND REPAIRED, AS REQUIRED, AT THE CONCLUSION OF EACH WORKING DAY DURING THE RAINY SEASON. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL FACILITIES AND MAKE NECESSARY REPAIRS PRIOR TO ANTICIPATED STORMS AND AT REASONABLE INTERVALS DURING STORMS OF EXTENDED DURATION. REPAIRS TO DAMAGED FACILITIES SHALL BE MADE IMMEDIATELY UPON DISCOVERY.
5. AS SOON AS PRACTICAL FOLLOWING EACH STORM, THE CONTRACTOR SHALL REMOVE ANY ACCUMULATION OF SILT OR DEBRIS FROM THE EROSION CONTROL SEDIMENT BASINS AND SHALL CLEAR THE OUTLET PIPES OF ANY BLOCKAGE.
6. PROVISION SHALL BE MADE TO ASSURE THAT BORROW AREAS AND STOCK PILED SOILS ARE PROTECTED FROM EROSION WITH EROSION CONTROL MEASURES SATISFACTORY TO THE APPROPRIATE GOVERNMENTAL AGENCIES.
7. ALL STOCKPILE MATERIALS SHALL BE COVERED AND PROTECTED FROM THE ELEMENTS WITH A NON-PERMEABLE PLASTIC MEMBRANE SO AS TO PREVENT SOIL EROSION FROM OCCURRING. THIS COVER SHALL BE SECURED WITH ANCHORS OR WEIGHTS OF SUFFICIENT SIZE AND FREQUENCY TO PREVENT DISRUPTION OR REMOVAL BY WIND OR RAIN. ANCHORAGE AT THE BASE OF THE SLOPE SHALL BE AS INDICATED BY DETAIL ON THIS SHEET. ALL MEMBRANE AND COVERINGS SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR OR HIS REPRESENTATIVE ON A FREQUENT AND REGULAR BASIS. SPECIFICALLY BEFORE AND AFTER ANY INCLEMENT WEATHER, WITH ANY NECESSARY REPAIRS BEING IMMEDIATELY PERFORMED. COVERINGS SHALL REMAIN IN PLACE UNTIL THE STOCKPILE(S) IS READY TO BE REMOVED FROM THE SITE, AT WHICH TIME THEY MAY BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
8. EARTHEN BERMS, STRAW-FIBER FILLED TUBES AND/OR GEOTEXTILE FABRIC BARRIER (SILT FENCING) SHALL BE CONSTRUCTED AS SHOWN TO PREVENT OFF-FLOW OF SEDIMENT-LADEN RUNOFF, OR THE EROSION OF BANKS OR ROADWAYS. ALL SUCH TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY THE CONTRACTOR AS SOON AS CONSTRUCTION IS COMPLETED AND VEGETATION IS ESTABLISHED. HAY BALES SHALL NOT BE USED.
9. ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS, SWEPT ON A REGULAR BASIS, TO THE SATISFACTION OF THE ON-SITE INSPECTORS.
10. SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJOINING THE PROJECT SITE AND THE ON-SITE PAVED AREAS ON A DAILY BASIS OR AS REQUIRED BY THE CITY. SCRAPE CAKED-ON MUD AND DIRT FROM THESE AREAS BEFORE SWEEPING. CORNERS AND HARD TO REACH AREAS SHALL BE SWEPT MANUALLY.
11. PERSON RESPONSIBLE FOR EROSION CONTROL IMPLEMENTATION, TO BE DETERMINED.
12. WHEEL WASHERS SHALL BE INSTALLED AND USED TO CLEAN ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE. IF WHEEL WASHERS CANNOT BE INSTALLED, TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT SHALL BE WASHED OFF BEFORE LEAVING THE CONSTRUCTION SITE.

TREE/PLANT PROTECTION NOTES:

1. PRIOR TO BEGINNING CONSTRUCTION ON SITE, CONTRACTOR SHALL IDENTIFY, CONFIRM WITH OWNER AND PROTECT EXISTING TREES AND PLANTS DESIGNATED AS TO REMAIN.
2. PROVIDE 6 FOOT TALL TREE PROTECTION FENCE WITH DISTINCTIVE MARKING VISIBLE TO CONSTRUCION EQUIPMENT, ENCLOSING DRIP LINES OF TREES DESIGNATED TO REMAIN.
3. WORK REQUIRED WITHIN FENCE LINE SHALL BE HELD TO A MINIMUM, AVOID UNNECESSARY MOVEMENT OF HEAVY EQUIPMENT WITHIN FENCED AREA AND DO NOT PARK ANY VEHICLES UNDER DRIP LINE OF TREES. DO NOT STORE EQUIPMENT OR MATERIALS WITHIN FENCE LINE.
4. PRIOR TO REMOVING ROOTS AND BRANCHES LARGER THAN 2" IN DIAMETER OF TREES OR PLANTS THAT ARE TO REMAIN, CONSULT WITH THE OWNER'S PROJECT MANAGER.
5. ANY GRADE CHANGES GREATER THAN 6" WITHIN THE DRIPLINE OF EXISTING TREES SHALL NOT BE MADE WITHOUT FIRST CONSULTING THE LANDSCAPE ARCHITECT / CIVIL ENGINEER.
6. PROTECT EXISTING TREES TO REMAIN FROM SPILLED CHEMICALS, FUEL OIL, MOTOR OIL, GASOLINE AND ALL OTHER CHEMICALLY INJURIOUS MATERIAL; AS WELL AS FROM PUDDLING OR CONTINUOUSLY RUNNING WATER. SHOULD A SPILL OCCUR, STOP WORK IN THAT AREA AND CONTACT THE CITY'S ENGINEER / INSPECTOR IMMEDIATELY. CONTRACTOR SHALL BE RESPONSIBLE TO MITIGATE DAMAGE FROM SPILLED MATERIAL AS WELL AS MATERIAL CLEAN UP.
7. PROVIDE TEMPORARY IRRIGATION TO ALL TREES AND PLANTS THAT ARE IN OR ADJACENT TO CONSTRUCTION AREAS WHERE EXISTING IRRIGATION SYSTEMS MAY BE AFFECTED BY THE CONSTRUCTION. ALSO PROVIDE TEMPORARY IRRIGATION TO RELOCATED TREES.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR ONGOING MAINTENANCE OF ALL TREES DESIGNATED TO REMAIN AND FOR MAINTENANCE OF RELOCATED TREES STOCKPILED DURING CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REPLACE TREES THAT DIE DUE TO LACK OF MAINTENANCE.
9. CONSULT WITH LANDSCAPE ARCHITECT SHOULD SPECIAL CIRCUMSTANCES ARISE OR QUESTIONS ARISE REGARDING THESE PROCEDURES.

DEMOLITION NOTES :

1. DEMOLITION AND CONSTRUCTION WORK MAY BE PERFORMED OVER THE TOP OF AND AROUND TELEPHONE AND POWER SERVICES. CONTRACTOR SHALL WORK BY HAND IN ALL AREAS WHERE THESE SERVICES MIGHT BE HARMED BY LARGER LESS PRECISE EQUIPMENT.
2. THE CONTRACTOR SHALL LOCATE AND CLEARLY MARK (AND THEN PRESERVE THESE MARKERS) FOR THE DURATION OF CONSTRUCTION OF ALL TELEPHONE, DATA, STREET LIGHT, SIGNAL LIGHT AND POWER FACILITIES THAT ARE IN OR NEAR THE AREA OF CONSTRUCTION.
3. CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
6. CONTRACTOR SHALL PAY DISPOSAL FEES.
7. BACKFILL ALL DEPRESSIONS AND TRENCHES FROM DEMOLITION OF FOUNDATIONS & UTILITIES TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
8. WITHIN LIMITS OF WORK, REMOVE CURBS, GUTTERS, LANDSCAPING, SIGNAGE, TREES, SHRUBS, ASPHALT, UNDERGROUND PIPES, ETC. AS INDICATED ON THE DRAWINGS.
9. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIALS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
10. PRIOR TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL PLAN & DETAILS.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING ALL DEMOLITION MATERIALS, OR STORING SELECTED ITEMS BY OWNER'S REPRESENTATIVE AT DESIGNATED LOCATIONS.
12. ABANDONED UTILITIES WITHIN 6 FEET OF THE PROPOSED BUILDING FOOTPRINT SHOULD BE REMOVED IN THEIR ENTIRETY. UTILITIES OUTSIDE THE BUILDING AREA SHOULD BE REMOVED OR ABANDONED IN-PLACE BY LOCATING AND PLUGGING ALL LATERALS AND ENDS OF PIPES WITH CONCRETE, AND THEN FILLING THE ENTIRE PIPE WITH GROUT. REMOVAL OF ANY UTILITIES WILL REQUIRE THAT ALL TRENCHES BE BACKFILLED PER THE SPECIFICATIONS WITH APPROPRIATE TESTS BY THE GEOTECHNICAL ENGINEER TO VERIFY COMPACTION VALUES.

SITE FENCING NOTES :

1. CONTRACTOR SHALL PROVIDE A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION, INCLUDING ALL STAGING, STORAGE, CONSTRUCTION OFFICE AND LAYDOWN AREAS.
2. FENCE LOCATION MAY BE ADJUSTED FROM TIME TO TIME AS CONSTRUCTION PROCEEDS TO EXCLUDE SOME AREAS WHERE CONSTRUCTION WORK IS NOT BEING DONE AND THE AREA IS NOT OBJECTIONABLE IN VISUAL APPEARANCE, AT THE DISCRETION AND APPROVAL OF THE DISTRICT STAFF. CONSTRUCTION FENCE SHALL BE A MINIMUM OF A 6' HIGH GALVANIZED CHAIN LINK.
3. CONSTRUCTION FENCE ADDRESSED IN THESE NOTES IS TO MEET MINIMUM SEPARATION REQUIREMENTS FROM CONSTRUCTION SITE AND THE CAMPUS. CONTRACTOR IS REQUIRED TO INSTALL ANY ADDITIONAL FENCING, BARRICADES OR OTHER SAFETY DEVICES NEEDED TO KEEP THE SITE SECURE & SAFE AT ALL TIMES.
4. ALL FENCING SHALL BE INSTALLED AT ONLY LOCATIONS DESIGNATED AND APPROVED BY DISTRICT PERSONNEL, WITH PARTICULAR CARE GIVEN SUCH THAT THE FENCING DOES NOT CREATE A TRAFFIC HAZARD OR NUISANCE, OR RESTRICT CAMPUS CIRCULATION & FIRE EXITING.

GRADING & EARTHWORK NOTES:

1. ALL PAVED AREAS ARE TO SLOPE A MINIMUM OF 1%. ACCESSIBLE STALLS AND LOADING ZONES ARE TO SLOPE AT A MAXIMUM OF 2% IN ANY DIRECTION AND ACCESSIBLE PATHWAYS ARE TO SLOPE AT A MAXIMUM OF 8.33%, WITH A MAXIMUM CROSS-SLOPE OF 2%. ANY AREAS ON THE SITE NOT CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH FORMWORK FOR CURBS AND/OR FLATWORK.
2. CONTRACTOR SHALL DETERMINE EARTHWORK QUANTITIES BASED ON THE TOPOGRAPHIC SURVEY, THE SOILS INVESTIGATION AND THE PROPOSED SURFACE GRADES AND BASE THE BID ACCORDINGLY. ANY DIFFERENCES BETWEEN THE STATE IN WHICH THE PROJECT SITE IS DELIVERED TO THE CONTRACTOR AND THESE DOCUMENTS SHOULD BE NOTED TO THE CIVIL ENGINEER.
3. ALL FILL SHALL BE COMPACTED PER THE CONSTRUCTION SPECIFICATIONS AND THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH THE OWNER'S TESTING AGENCY TO TAKE THE APPROPRIATE TESTS TO VERIFY COMPACTION VALUES.
4. IMPORT SOILS MUST MEET THE REQUIREMENTS OF THE CONSTRUCTION SPECIFICATIONS.
5. COORDINATE THE PLACEMENT OF ALL SLEEVES FOR LANDSCAPE IRRIGATION (WATER AND CONTROL WIRING) AND STREET LIGHTING PRIOR TO THE PLACEMENT OF ANY ASPHALT, BASEROCK OR CONCRETE SURFACING. SEE LANDSCAPE AND SITE ELECTRICAL DRAWINGS.
6. DO NOT ADJUST GRADES ON THIS PLAN WITHOUT PRIOR WRITTEN APPROVAL OF ARCHITECT & ENGINEER.
7. SPOT ELEVATIONS ARE TO FINISHED SURFACE.
8. TOP OF CONCRETE CURBS ARE 0.50' ABOVE TOP OF PAVING ELEVATIONS, U.N.O.
9. ROUGH GRADING TO BE WITHIN 0.1' AND FINISH GRADES ARE TO BE WITHIN 0.05'.
10. SUBGRADES SHALL BE PROOF ROLLED, OR AS INSTRUCTED PER THE CONSTRUCTION SPECIFICATIONS.
11. CONTRACTOR TO GRADE LANDSCAPED (NON PAVED) AREAS TO A FINISH GRADE OF 8" BELOW PROPOSED FINISH GRADE SHOWN ON THE GRADING PLANS. DISTRICT WILL INSTALL TOP 8 INCHES OF TOPSOIL AND PERFORM FINISH GRADING. CONTRACTOR TO GRADE PLANTER & LANDSCAPED AREAS (NON-PAVED AREAS ADJACENT TO BUILDINGS) TO FINISH GRADE 24" BELOW FINISH FLOOR OF BUILDING. DISTRICT TO INSTALL FINAL FILL MATERIAL, AND INSTALL IRRIGATION SYSTEMS.
12. AFTER STAKING FOR HORIZONTAL CONTROL CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH (E) AND REPORT ANY DISCREPANCIES GREATER THAN 0.05' TO ARCH/ENGR.
13. ALL EXISTING UTILITY STRUCTURES WITHIN THE AREA OF WORK SHALL HAVE THE LIDS, GRATES, COVERS, ETC. ADJUSTED TO BE FLUSH WITH FINISHED GRADES. CONTRACTOR SHALL IDENTIFY ALL SUCH ITEMS BY USE OF THESE PLANS AND THOROUGH FIELD INVESTIGATION.
14. GEOTECHNICAL CONSULTANT TO BE NOTIFIED OF DELIVERY OF ALL IMPORTED SOILS TO SITE FOR HIS/HER INSPECTION AND APPROVAL PRIOR TO PLACING BY CONTRACTOR.

EARTHWORK QUANTITY NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITIES OF ALL FORMS OF EARTHWORK ON THIS PROJECT AND BASING THE BID ON THOSE QUANTITIES WITH FULL KNOWLEDGE THAT ADDITIONAL PROCESSES - INCLUDING ENGINEERING - AND QUANTITIES ARE ALSO TO BE INCLUDED IN THE BID PER THE FOLLOWING NOTES.
2. THE CONTRACTOR SHALL MAKE AN INITIAL DETERMINATION OF THE QUANTITIES, BASED ON A DETAILED SITE VISIT, THE TOPOGRAPHIC SURVEY, THE GEOTECHNICAL REPORT, THE FINISH GRADES SHOWN ON THESE DRAWINGS, THE SIZE AND EXTENT OF FOOTINGS, THE PREPARATION AND MATERIALS USED FOR BUILDING SLABS, PAVEMENT SECTIONS, AND THE SIZE AND DEPTH OF UTILITY TRENCHES, INCLUDING THE UTILITY CONTRACTORS ANTICIPATED RE-USE OF EXISTING MATERIAL FOR BACKFILL IF ANY.
3. THE CONTRACTOR SHALL MEET THE GRADES SHOWN ON THE DRAWINGS, ADJUSTING THE AMOUNT OF IMPORT OR EXPORT AS REQUIRED TO DO SO. NO ASSUMPTIONS SHOULD BE MADE ABOUT THE SITE BALANCING. NO ADJUSTMENTS TO THE GRADES SHALL BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE ARCH/ENGR IN WRITING AFTER THE IMPACT OF ANY GRADE CHANGES (IMPACT TO RAMPS, STAIRS, WORK BY OTHERS, ETC.) HAS BEEN THOROUGHLY REVIEWED BY THE ARCH/ENGR. WHEN PREPARING THE EARTHWORK BIDS, DO NOT ASSUME ANY CHANGES TO THE FINISHED GRADES SHOWN ON THESE DRAWINGS WILL BE PERMITTED.
4. THE EARTHWORK SPECIFICATIONS AND GEOTECHNICAL REPORT HAVE SPECIFIC REQUIREMENTS FOR BRINGING FILL MATERIAL ONTO THE SITE (IMPORT) SINCE THE EXISTING SOILS ARE NOT SUITABLE FOR FILL MATERIAL IN CERTAIN AREAS. THE EARTHWORK SPECIFICATIONS AND GEOTECHNICAL REPORT MAY IDENTIFY ALTERNATIVES THAT ALLOW TREATMENT OF EXISTING SOILS TO MINIMIZE IMPORT, HOWEVER MEETING THE GRADES SHOWN ON THESE DRAWINGS MUST ALSO BE CONSIDERED WHEN DETERMINING THE METHOD.
5. AFTER THE BID IS AWARDED THE CONTRACTOR SHALL SUBMIT A DETAILED EARTHWORK HANDLING PLAN THAT SHOWS THE INTENT AND LOCATIONS OF EARTH MOVEMENT AND QUANTITIES OF CUT, FILL, IMPORT AND EXPORT AS THE PROJECT WAS BID. PROPOSING ALTERNATIVE PLANS THAT MAY IDENTIFY GRADE ADJUSTMENTS TO MINIMIZE THE DISTANCE SOIL IS MOVED OR TO MINIMIZE IMPORT OR EXPORT WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF PREPARING AN EARTHWORK PLAN AS BID.

GENERAL UTILITY SYSTEM NOTES :

1. ALL TRENCHES SHALL BE BACKFILLED PER THE SPECIFICATIONS WITH APPROPRIATE TESTS TO VERIFY COMPACTION VALUES.
2. CONTRACTOR SHALL STAKE LOCATION OF ABOVE GROUND UTILITY EQUIPMENT (HYDRANTS, TRANSFORMERS, ETC.) AND MEET WITH THE APPROPRIATE GOVERNMENTAL AUTHORITY AND PROPER UTILITY AUTHORITY TO REVIEW LOCATION PRIOR TO INSTALLATION. THE APPROPRIATE GOVERNMENTAL AUTHORITY AND PROPER UTILITY AUTHORITY MUST SPECIFICALLY AGREE WITH LOCATION PRIOR TO PROCEEDING WITH THE INSTALLATION.
3. CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF PROPOSED UTILITIES, AND INFORM ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH WORK.
4. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AND ASSEMBLIES THAT ARE IN CONTACT WITH THE SOIL. CONTRACTOR IS RESPONSIBLE FOR FULLY ENGINEERING AND INSTALLING THIS SYSTEM AND COORDINATE ANODE AND TEST STATION LOCATIONS WITH OWNER'S ENGINEER. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL CORROSION PROTECTION REQUIREMENTS.
5. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INVERTS AND LOCATIONS PRIOR TO BEGINNING ANY WORK ON THIS SITE.
6. ALL DRAINAGE STRUCTURES LOCATED IN VEHICULAR TRAFFIC AREAS SHALL HAVE TRAFFIC RATED COVERS AND BOLT-DOWN GRATES. ALL DRAINAGE STRUCTURES IN PEDESTRIAN ACCESSIBLE AREAS SHALL HAVE ADA APPROVED BOLT-DOWN GRATES.
7. ALL UTILITY STRUCTURES WITHIN THE AREA OF WORK SHALL HAVE THE LIDS, GRATES, COVERS, ETC. ADJUSTED TO BE FLUSH WITH FINISHED GRADES. CONTRACTOR SHALL IDENTIFY ALL SUCH ITEMS BY USE OF THESE PLANS AND FIELD INVESTIGATION.
8. SEE LANDSCAPE LAYOUT PLANS FOR IRRIGATION SLEEVE LOCATIONS.
9. ALL EXISTING UTILITY STRUCTURES (CLEANOUTS, VALVES, BOXES, MANHOLES, CB'S, ETC.) SHALL BE RAISED TO FINAL FINISH GRADE AND COMPLETED WITH THE NECESSARY LABOR AND MATERIALS TO BE IN ACCORDANCE WITH DETAILS SHOWN ON THESE PLANS.
10. CLEANOUTS, CATCH BASINS, MANHOLES AND AREA DRAINS ARE TO BE ACCURATELY LOCATED BY THEIR RELATIONSHIP TO THE BUILDING, FLATWORK, BUILDING UTILITIES, AND/OR CURB LAYOUT. NOT BY THE LENGTH OF PIPE SPECIFIED ON THE DRAWINGS. (WHICH IS APPROXIMATE)

GENERAL UTILITY SYSTEM NOTES (Cont.) :

11. SEE ELECTRICAL PLANS FOR SITE ELECTRICAL WORK. ADVISE ENGINEER OF ANY CONFLICTS WITH OTHER UTILITIES PRIOR TO BEGINNING WORK.
12. COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE ALL FITTINGS, ACCESSORIES & WORK NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.
13. SEE SPECIFICATION SECTION 01300 FOR SUBMITTAL REQUIREMENTS OF UTILITY COMPONENTS.

STORM DRAIN NOTES:

1. INSTALL DETECTABLE METALIZED WARNING TAPE APPROXIMATELY 18" BELOW THE SURFACE IN NON-PAVED AREAS, AND AT BOTTOM OF BASEROCK FOR PAVED AREAS. GREEN, IMPRINTED WITH "CAUTION-STORM DRAIN LINE BELOW", CALPICO TYPE 2 OR EQUAL.
2. PAINT THE TOP OF THE CURBS ADJACENT TO EACH CATCH BASIN INSTALLED UNDER THIS WORK OR ADJACENT TO THIS SITE WITH THE WORDS "NO DUMPING - DRAINS TO BAY". WORDING TO BE BLUE 4" HIGH LETTERS ON A PAINTED WHITE BACKGROUND.
3. INSTALL ADA APPROVED GRATES ON ALL DRAINAGE STRUCTURES WITHIN PEDESTRIAN ACCESSIBLE PAVED AREAS. INSTALL BOLT-DOWN GRATES ON ALL DRAINAGE STRUCTURES.
4. WHERE CONNECTION IS TO BE MADE TO AN EXISTING SEWER OR STRUCTURE, SAID EXISTING SEWER OR STRUCTURE SHALL BE UNCOVERED AND CHECKED FOR LOCATION AND ELEVATION PRIOR TO STAKING NEW SEWER DEPTH AND LOCATION. ANY DISCREPANCY BETWEEN THE PLANS AND FIELD INFORMATION SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
5. REFER TO STORM SEWER SPECIFICATIONS FOR LABOR AND MATERIAL, TESTING AND QUALITY CONTROL REQUIREMENTS.
6. MINIMUM SLOPE FOR SITE STORM DRAIN PIPES SHALL BE:

   4" @ 2%
   6" @ 1%
   8" & LARGER @ 0.5%
   UNLESS INDICATED OTHERWISE
7. PRIVATE STORM DRAIN LINE 4-INCH THROUGH 12-INCH WITH A MINIMUM OF TWO (2) FEET OF COVER IN NON-TRAFFIC AREAS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35.
8. PRIVATE STORM DRAIN LINE 6-INCH THROUGH 12-INCH WITH LESS THAN THREE (3) FEET OF COVER IN VEHICULAR TRAFFIC AREAS SHALL BE POLYVINYL CHLORIDE (PVC) C900, RATED 150 PSI CLASS PIPE.

WATER SYSTEM NOTES:

1. INSTALL DETECTABLE METALIZED WARNING TAPE APPROXIMATELY 18" BELOW THE SURFACE IN NON-PAVED AREAS, AND AT BOTTOM OF BASEROCK FOR PAVED AREAS. BLUE, IMPRINTED WITH "CAUTION-WATER-LINE BELOW", CALPICO TYPE 2 OR EQUAL.
2. PROVIDE THRUST BLOCKS OR COMPARABLE RESTRAINTS PER THE LOCAL WATER AGENCY, AT BENDS OF 22 1/2 DEGREES OR GREATER (HORIZONTAL AND VERTICAL), AT SIZE CHANGES AND AT FIRE HYDRANTS PER CITY STANDARD. AWWA C600, SECTION 3.8 UNLESSS NOTED OTHERWISE.
3. PROVIDE MINIMUM OF 3 FEET OF COVER OVER WATER LINES, UNLESS NOTED OTHERWISE.
4. MAINTAIN PUBLIC WATER LINES 10' AWAY FROM PUBLIC SANITARY SEWER LINES.
5. WHERE WATER LINES HAVE TO CROSS SANITARY SEWER LINES, DO SO AT A 90 DEGREE ANGLE AND WATER LINES SHALL BE MINIMUM OF 12" ABOVE TOP OF SANITARY SEWER LINES AND WATERLINE JOINTS SHALL BE A MINIMUM OF 10 FEET FROM SANITARY SEWERS.
6. WATER LINES ARE SHOWN SCHEMATICALLY. CONTRACTOR SHALL IDENTIFY EACH ANGLE AND/OR BEND WITH APPROPRIATE FITTINGS THAT MAY BE REQUIRED TO ACCOMPLISH THE INTENDED DESIGN.
7. BOTTOM OF BACKFLOW PREVENTOR ASSEMBLY TO BE INSTALLED NO GREATER OR LESS THAN 12" FROM FINISH GRADE.
8. THE UNDERGROUND DOMESTIC WATER SYSTEM INSTALLER SHALL OBTAIN ALL APPROVALS AND PERMITS PRIOR TO ORDERING MATERIALS, FABRICATING SYSTEMS OR ANY INSTALLATION.
9. CONTRACTOR TO POTHOLE AND VERIFY LOCATION, DEPTH & SIZE OF P.O.C. TO EXISTING WATERMAIN PRIOR TO INSTALLING ANY NEW WATERMAIN AND ADVISE THE OWNER ENGINEER OF ANY FIELD DISCREPANCIES THAT WILL IMPACT THE DESIGN.
10. REFER TO DOMESTIC WATER SPECIFICATIONS FOR LABOR AND MATERIAL, TESTING AND QUALITY CONTROL REQUIREMENTS.
11. PUBLIC AND PRIVATE WATER MAIN AND WATER SERVICE LINE 4-INCH THROUGH 12-INCH SHALL BE POLYVINYL CHLORIDE (PVC) AND SHALL MEET AWWA C900, RATED FOR 200 PSI CLASS PIPE WITH EPOXY COATED DUCTILE IRON FITTINGS AND FUSION EPOXY COATED GATE VALVES.
12. ALL WATER LINES 3" OR SMALLER SHALL BE TYPE K COPPER WITH SILVER BRAZED JOINTS. CONTRACTOR TO VERIFY PRESSURES FROM EXISTING LINES ARE ADEQUATE TO SERVICE BUILDINGS AS SPECIFIED BY THE PLUMBING PLANS.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127



REVISIONS:

	DESCRIPTION	DATE
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PROJECT NO:	
DATE ISSUED:	2023.11.16
DRAWN BY:	AKW, VAB
SCALE:	AS SHOWN
SHEET NUMBER:	C1.1

NOTES

Plot Date: Nov 16, 2023 - 5:40 PM

HOHBACH-LEWIN #17516.31

HOHBACH—LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

DEMOLITION LEGEND

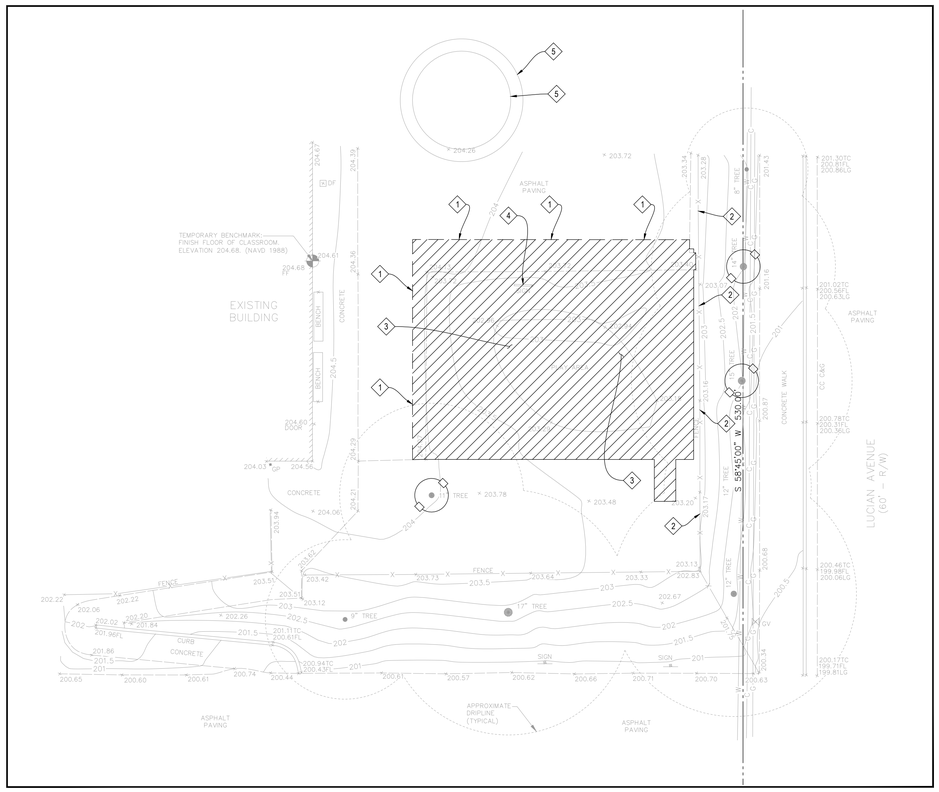
- DEMOLITION AREA - ALL SITE FEATURES WITHIN THIS AREA ARE TO BE REMOVED, UNLESS NOTED TO REMAIN.
- EXISTING BUILDING STRUCTURE TO BE DEMOLISHED
- TREE TO BE REMOVED. SEE LANDSCAPE PLANS.
- TREE PROTECTION TREES TO REMAIN

DEMOLITION KEYNOTES

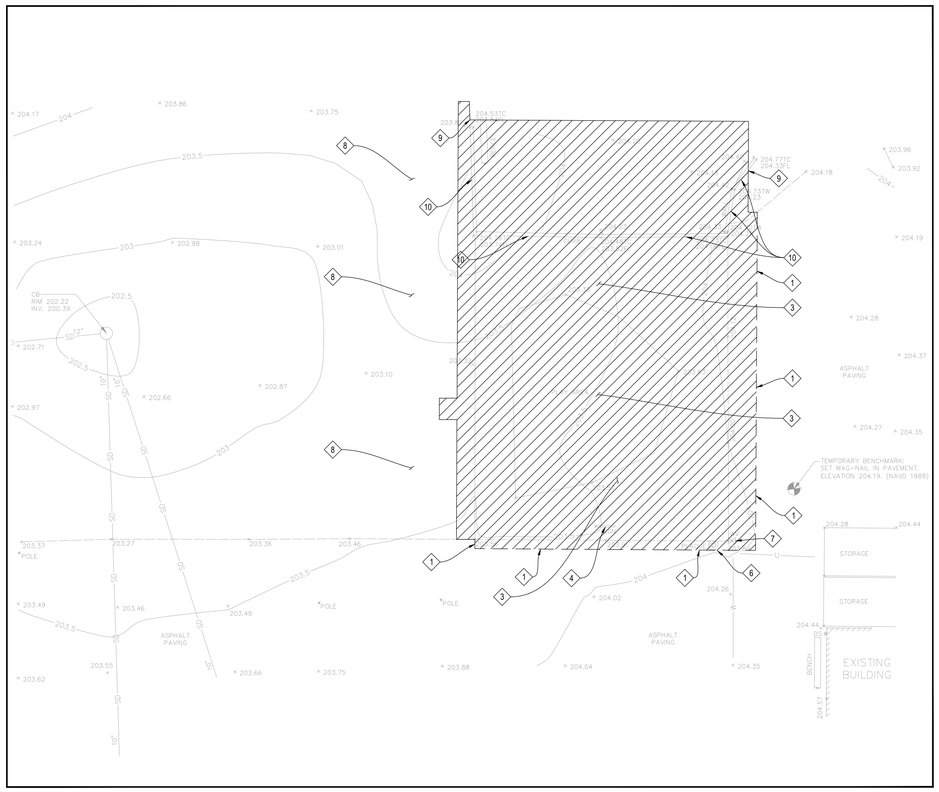
1. SAWCUT AND CONFORM
2. EXISTING CHAINLINK FENCE TO REMAIN, PROTECT IN PLACE
3. EXISTING PLAY EQUIPMENT TO BE REMOVED
4. EXISTING SIGN TO BE REMOVED
5. EXISTING PLAY STRIPING TO REMAIN, PROTECT IN PLACE. CONTRACTOR TO VERIFY EXACT LOCATION IN FIELD
6. EXISTING PLAQUE TO BE REMOVED
7. EXISTING WATER VALVE TO REMAIN, PROTECT IN PLACE
8. LANDSCAPE AROUND NEW PLAY AREA TO BE REGRADED TO ENSURE POSITIVE DRAINAGE TOWARDS EXISTING CATCH BASIN
9. EXISTING CURB/WALL TO BE CUT AT THIS POINT & TIED INTO. OUTSIDE OF DEMO EXTENTS, EXISTING CURB/WALL TO REMAIN, PROTECT IN PLACE
10. EXISTING CURB/WALL AND FOOTING TO BE REMOVED

DEMOLITION NOTES

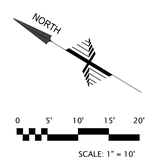
1. SEE ELECTRICAL PLANS FOR REMOVAL OR RELOCATION OF ALL ELEC/COMM CONDUITS, BOXES, LINE ETC.
2. SEE UTILITY PLAN FOR ALL NEW TIE-IN LOCATIONS AND ANY INSTANCES OF STORM, SANITARY SEWER, OR WATER BEING RELOCATED. ANY EXISTING UTILITIES NOT BEING USED ARE TO BE REMOVED.
3. ALL EXISTING SERVICES AND UTILITIES THAT ARE WITHIN THE LIMITS OF DEMOLITION AND ARE TO REMAIN OPERATIONAL SHALL BE RELOCATED AS NECESSARY.
4. ALL TREES THAT ARE TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.
5. CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF PROPOSED UTILITIES, AND INFORM ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH WORK.
6. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INVERTS AND LOCATIONS PRIOR TO BEGINNING ANY WORK ON THIS SITE.



DEMOLITION AREA - KINDERGARTEN
SCALE: 1"=10'



DEMOLITION AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

CALL BEFORE YOU DIG
811
800-227-2600

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. LEWIN
No. C38405
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

PROJECT NO:	
DATE ISSUED:	2023.11.16
DRAWN BY:	AKW, VAB
SCALE:	AS SHOWN
SHEET NUMBER:	**C2.0**

DEMOLITION PLAN

HOHBACH-LEWIN, INC.
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260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

Plot Date: Nov 16, 2023 - 5:41 PM

HOHBACH-LEWIN #17516.31

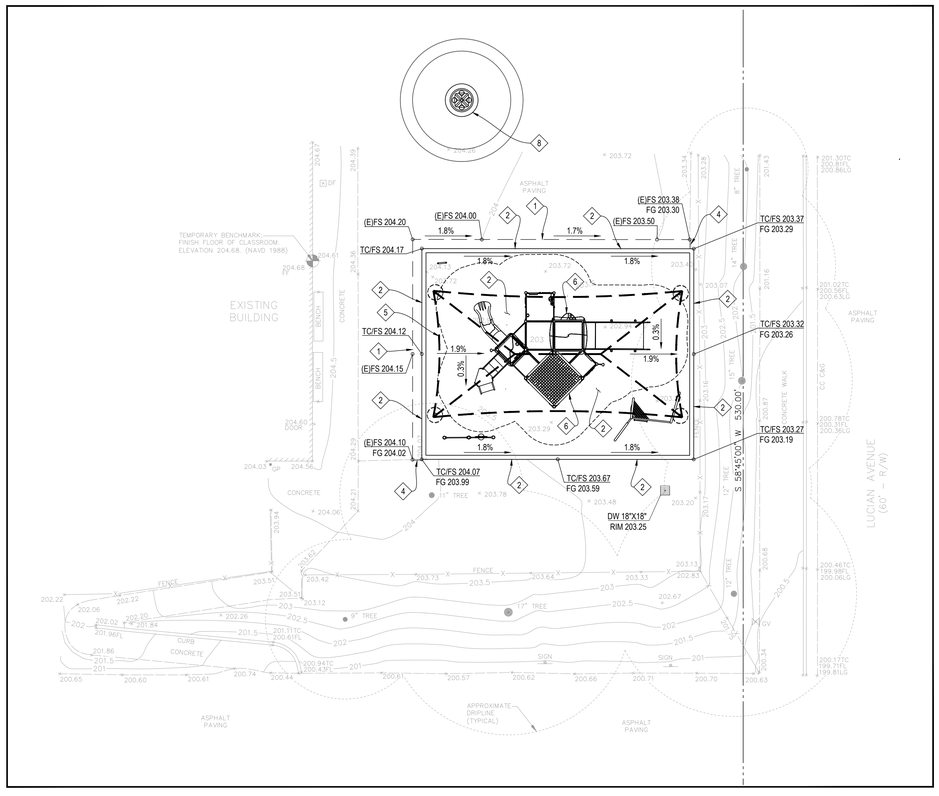
GRADING LEGEND

XX.XX — GRADE ELEVATION

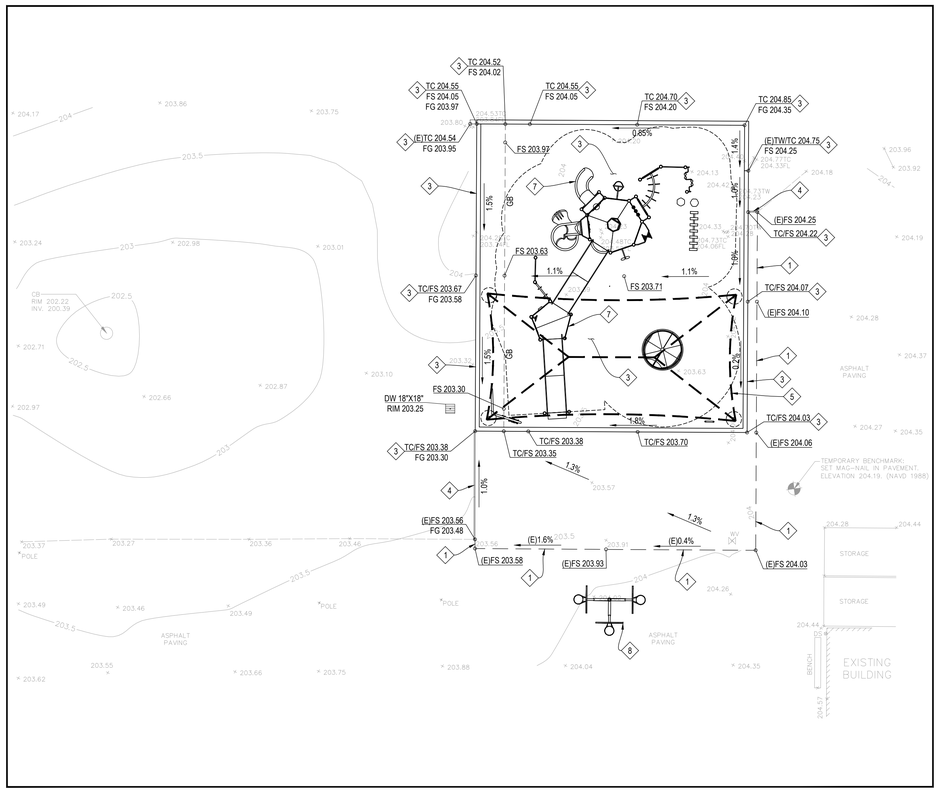
X% — SLOPE AND DIRECTION

GRADING KEYNOTES

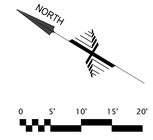
1. SAWCUT AND CONFORM
2. NEW PLAY SURFACE & CURB FOR KINDERGARTEN, SEE LANDSCAPE PLANS & DETAIL E/L3.1
3. NEW PLAY SURFACE & CURB FOR PRIMARY, SEE LANDSCAPE PLANS & DETAIL F/L3.1
4. NEW REDWOOD HEADERBOARD, SEE DETAIL C/L3.1
5. NEW SHADE STRUCTURE, SEE ARCHITECTURAL PLANS
6. NEW PLAY EQUIPMENT FOR KINDERGARTEN, SEE L3.2
7. NEW PLAY EQUIPMENT FOR PRIMARY, SEE L3.3
8. NEW PLAY EQUIPMENT, SEE LANDSCAPE PLANS



PLAYGROUND AREA - KINDERGARTEN
SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

CALL BEFORE YOU DIG
USA
800.227.2600

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. KEEGAN
NO. C38409
CIVIL
CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
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PROJECT NO:

DATE ISSUED: 2023.11.16

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

SHEET NUMBER: C3.0

GRADING AND DRAINAGE PLAN

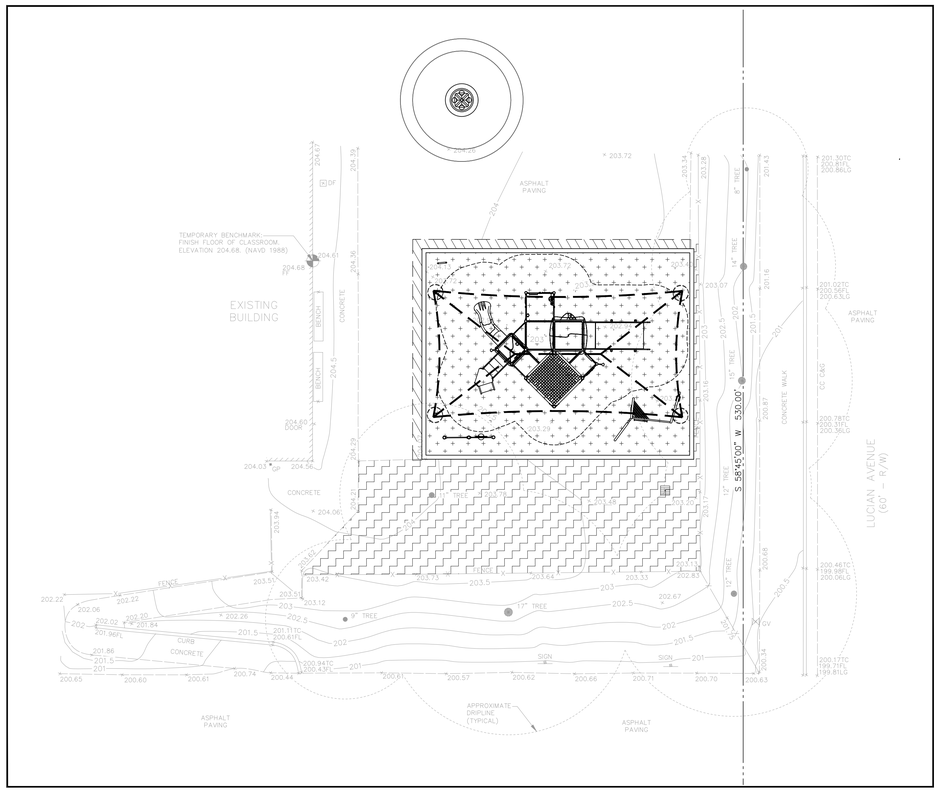
HOHBACH–LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

HOHBACH-LEWIN #17516.31

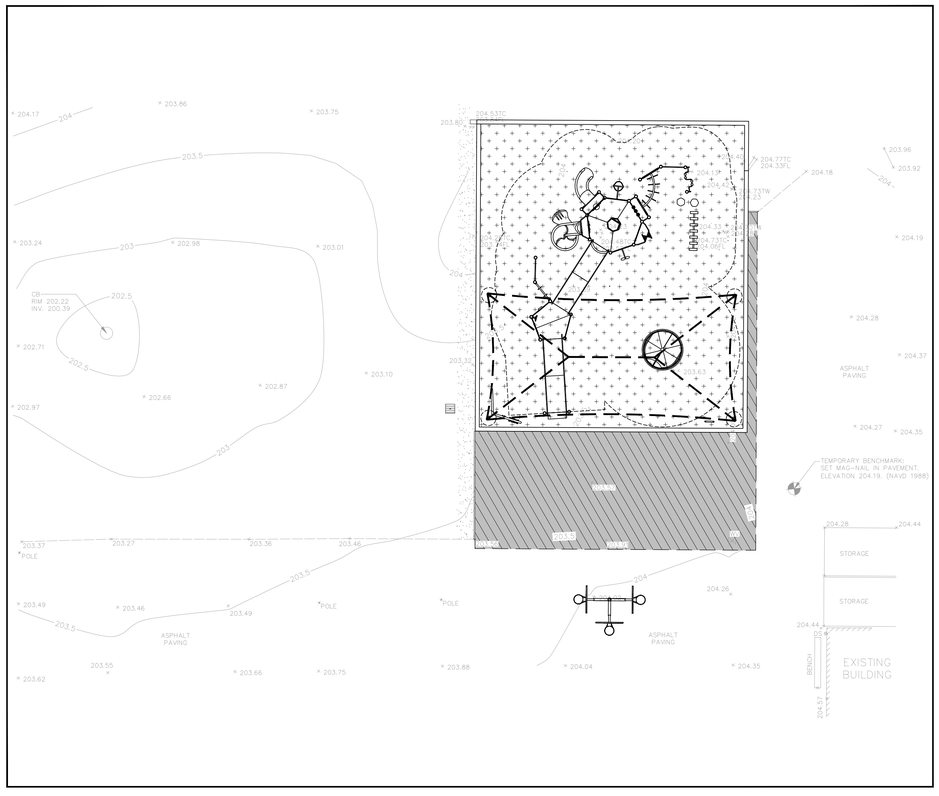
Plot Date: Nov 16, 2023 - 5:41 PM

PAVEMENT LEGEND

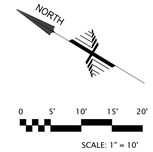
	AC PAVEMENT VEHICULAR	3" AC PAVEMENT OVER 12" CLASS 2 BASEROCK COMPACTED TO 95% R.C. OVER NATIVE SOILS COMPACTED TO 90% R.C.
	AC PAVEMENT PEDESTRIAN	SEE LANDSCAPE PLANS, DETAIL A/L3.1
	RESILIENT SURFACING	SEE LANDSCAPE PLANS, DETAILS E&F/L3.1
	BARK MULCH	SEE LANDSCAPE PLANS
	TURF	SEE LANDSCAPE PLANS



PLAYGROUND AREA - KINDERGARTEN
SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. LEWIN
NO. C38408
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
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PROJECT NO:

DATE ISSUED: 2023.11.16

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

SHEET NUMBER: C3.1

PAVEMENT PLAN

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

HOHBACH-LEWIN #17516.31

Plot Date: Nov 16, 2023 - 5:41 PM

UTILITY LEGEND

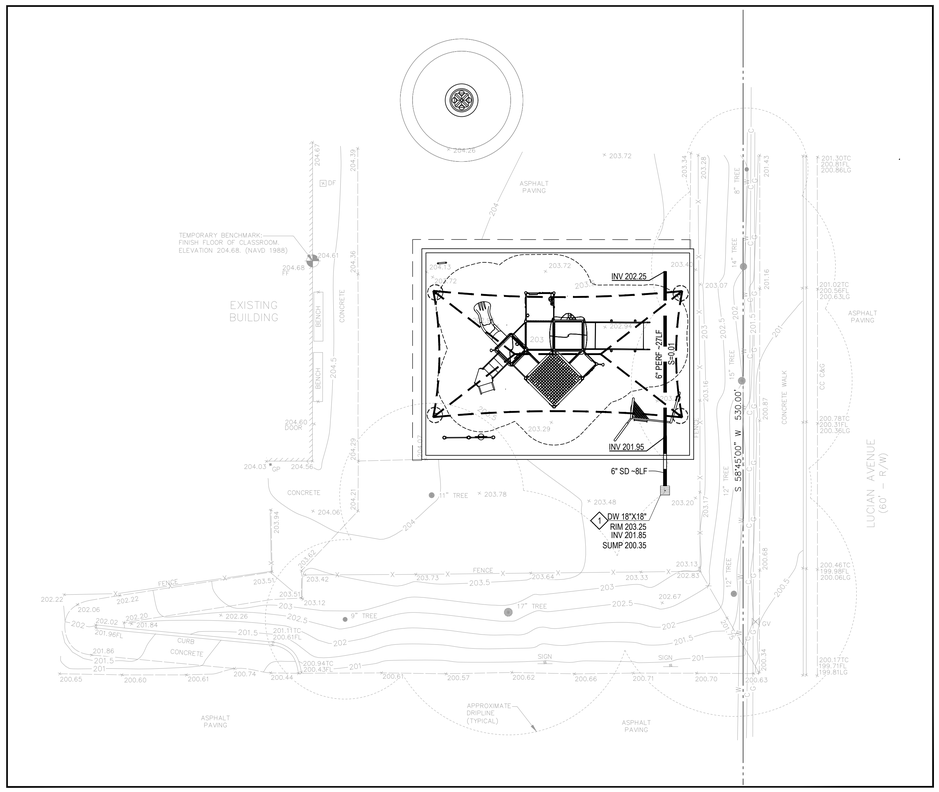
- WATER VALVE
- WATER METER
- STORM DRAIN MANHOLE
- CATCH BASIN
- AREA DRAIN
- CLEANOUT TO GRADE

UTILITY KEYNOTES

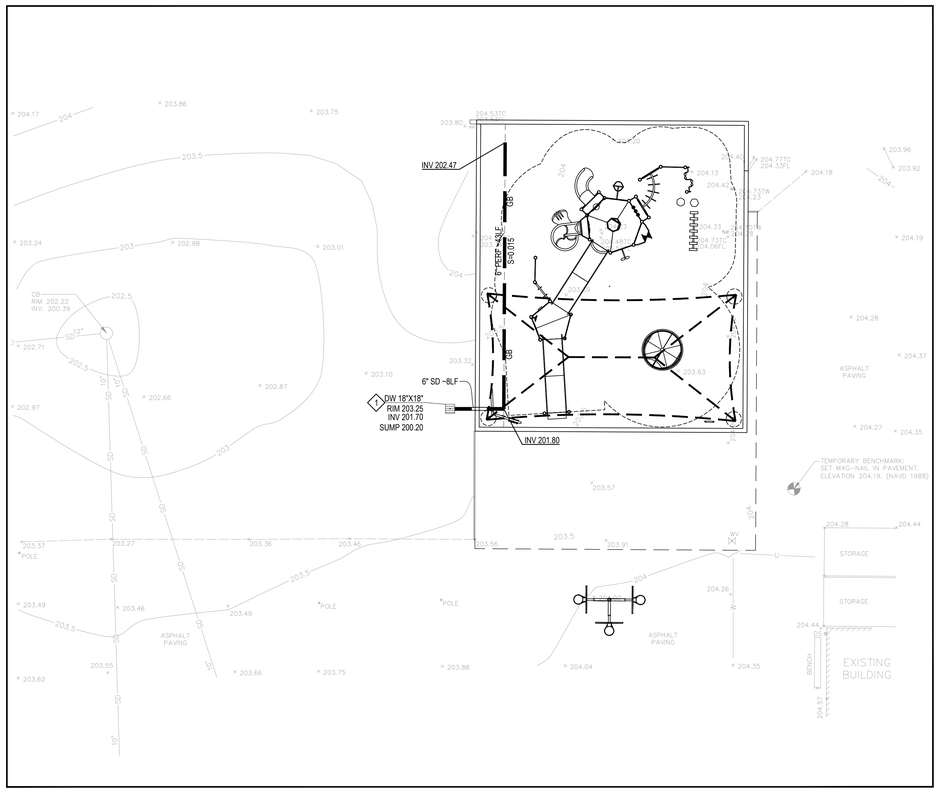
1. AREA DRAIN, SEE DETAIL 1/C6.0 & L3.1

UTILITY NOTES

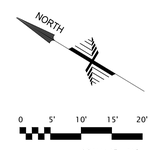
1. CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF PROPOSED UTILITIES, AND INFORM ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH WORK.
2. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INVERTS AND LOCATIONS PRIOR TO BEGINNING ANY WORK ON THIS SITE.



PLAYGROUND AREA - KINDERGARTEN
SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
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DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. LEWIN
NO. C38406
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
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PROJECT NO:
DATE ISSUED: 2023.11.16
DRAWN BY: AKW, VAB
SCALE: AS SHOWN
SHEET NUMBER: C4.0

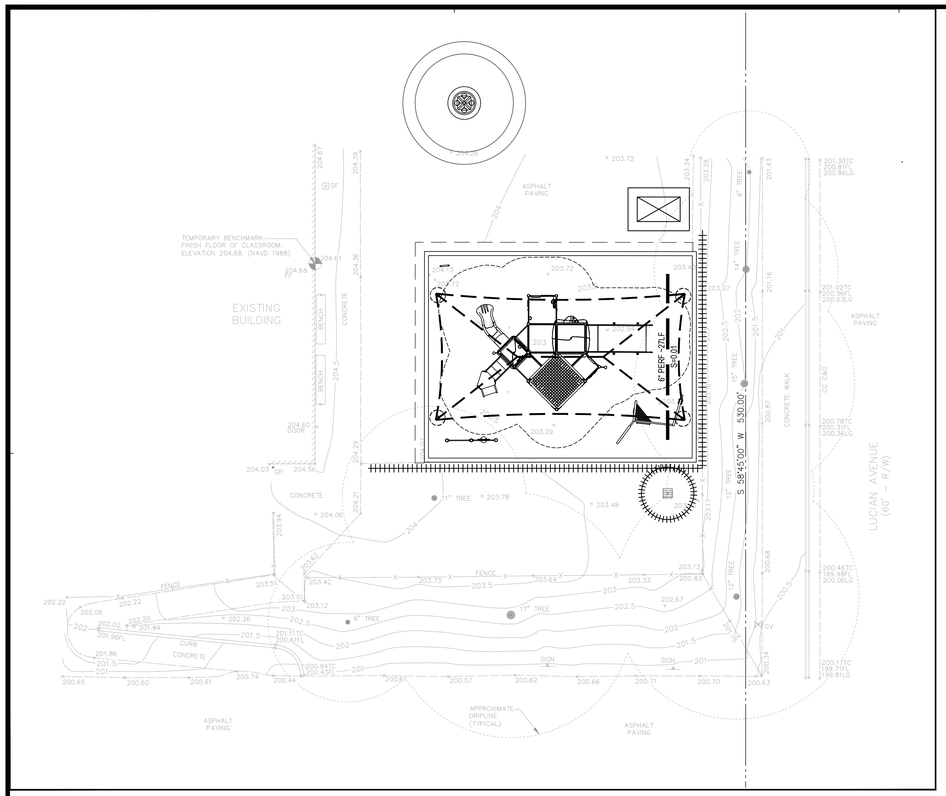
UTILITY PLAN

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STRUCTURAL & CIVIL ENGINEERS
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Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

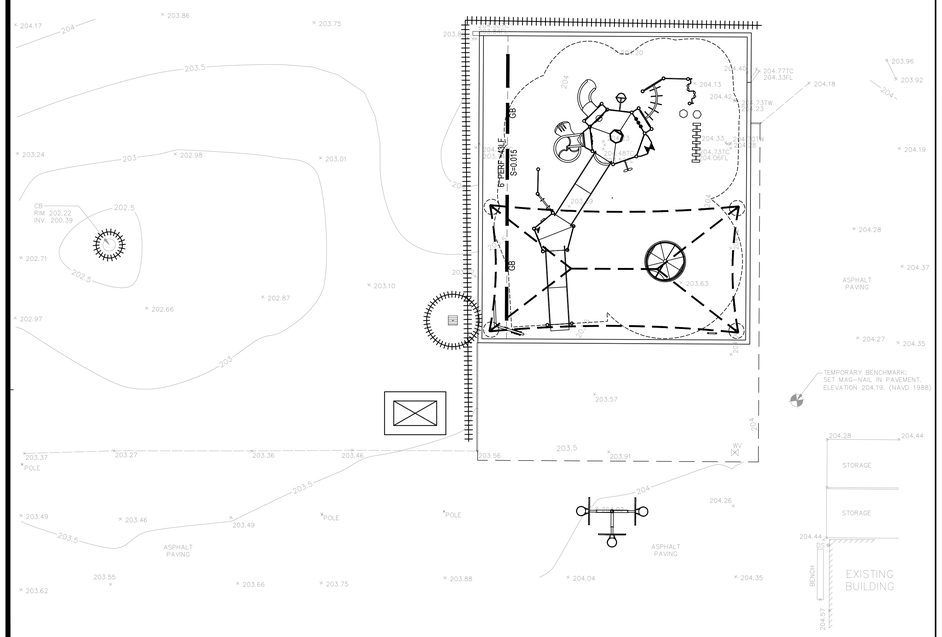
HOHBACH-LEWIN #1715.31

Plot Date: Nov 16, 2023 - 5:41 PM



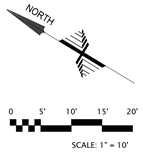
PLAYGROUND AREA - KINDERGARTEN

SCALE: 1"=10'

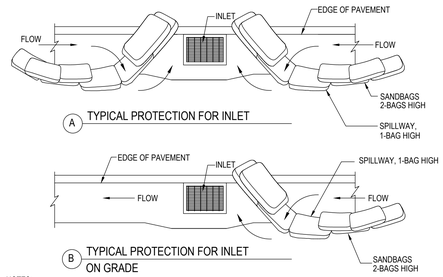


PLAYGROUND AREA - PRIMARY

SCALE: 1"=10'



SCALE: 1" = 10'



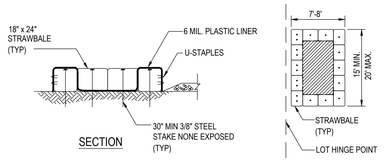
A TYPICAL PROTECTION FOR INLET

B TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

1. INTENDED FOR SHORT-TERM USE.
2. USE TO INHIBIT NON-STORM WATER FLOW.
3. ALLOW FOR PROPER MAINTENANCE AND CLEANUP.
4. BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED.
5. NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

4 CATCH BASIN PROTECTION ALONG GUTTERS

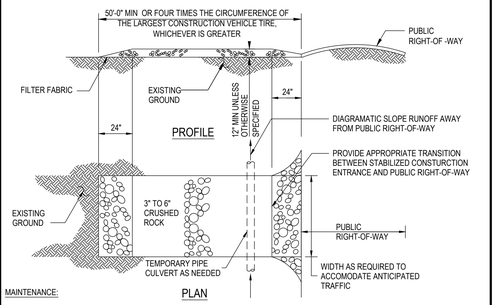


SECTION

NOTES:

1. WHEN WASHING ON-SITE, USE DESIGNATED, BERMED WASH AREAS TO PREVENT WASHWATER CONTACT WITH STORM WATER, CREEKS, RIVERS, AND OTHER WATER BODIES. THE WASH AREA CAN BE SLOPED FOR WASH WATER COLLECTION AND SUBSEQUENT INFILTRATION INTO THE GROUND.
2. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES. DO NOT ALLOW RUNOFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE.
3. WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY.

1 CONCRETE WASH AREA

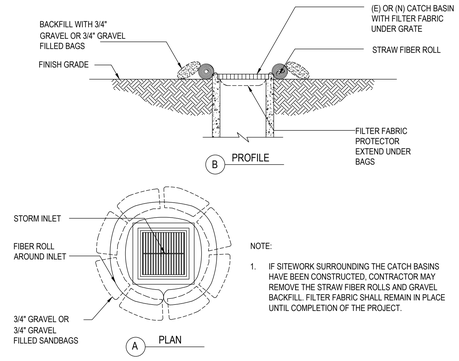


PLAN

MAINTENANCE:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AND REPAIR OR CLEAN OUT OF TRAPPED SEDIMENT.
2. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY.
3. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. THIS SHALL BE DONE AT AN AREA STABILIZED WITH CRUSHED STONE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

5 STABILIZED CONTRUCTION ENTRANCE



B PROFILE

A PLAN

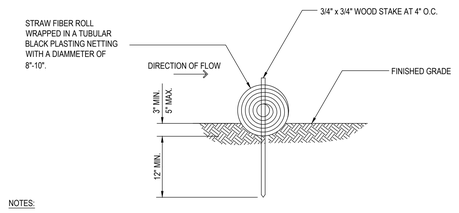
NOTE:

1. IF SITEWORK SURROUNDING THE CATCH BASINS HAVE BEEN CONSTRUCTED, CONTRACTOR MAY REMOVE THE STRAW FIBER ROLLS AND GRAVEL BACKFILL. FILTER FABRIC SHALL REMAIN IN PLACE UNTIL COMPLETION OF THE PROJECT.

2 CATCH BASIN PROTECTION (TYP.)

LEGEND

- CONCRETE WASHOUT, SEE DETAIL 1/-
- CATCH BASIN PROTECTION, SEE DETAIL 2/-
- FIBER ROLL, SEE DETAIL 3/-
- CATCH BASIN PROTECTION ALONG GUTTERS SEE DETAIL 4/-
- STABILIZED CONSTRUCTION ENTRANCE, SEE DETAIL 5/-



NOTES:

1. FIBER ROLL COMPOSED OF BIO-DEGRADEABLE FIBERS STUFFED INTO A PHOTO-DEGRADABLE OPEN WEAVE NETTING.
2. FIBER ROLL EROSION BARRIER TRAPS SEDIMENT AND REDUCES SHEET AND HILL SIDE EROSIONS BY REDUCING SLOPE GRADIENT. IT INCREASING INFILTRATION RATES AND BY PRODUCING A FAVORABLE ENVIRONMENT FOR PLANT ESTABLISHMENT.
3. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH 3"-5" DEEP, DUG ON CONTOUR , RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.

3 FIBER ROLL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER DANIEL G. ... NO. C38406 CIVIL CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
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PROJECT NO:

DATE ISSUED: 2023.11.16

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

SHEET NUMBER: C5.0

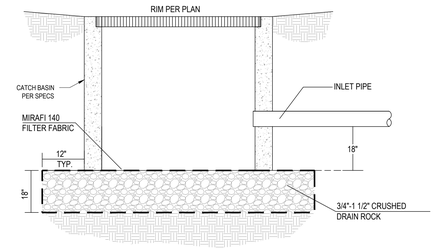
EROSION CONTROL PLAN

CALL BEFORE YOU DIG USA 800-227-2600

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

HOHBACH-LEWIN #175.16.31

Plot Date: Nov 16, 2023 - 5:42 PM



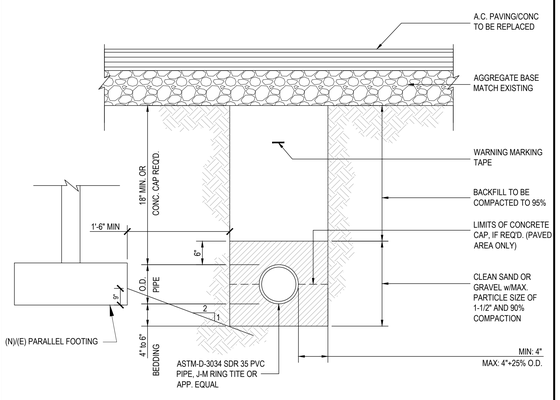
NOTES:

1. CONTRACTOR SHALL NOTIFY OWNER THAT PERIODIC AND REGULAR INSPECTION AND CLEARING OF SILT BASINS FOR LONG TERM PERFORMANCE IS REQUIRED.

13 | 9 | 5 | 1 DRY WELL

14 | 10 | 6 | 2

15 | 11 | 7 | 3



16 | UTILITY TRENCH | 12 | 8 | 4

Plot Date: Nov 16, 2023 - 5:42 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
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ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. ...
NO. C38406
CALIFORNIA

REVISIONS:

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PROJECT NO:

DATE ISSUED: 2023.11.16

DRAWN BY: AKW, VAB

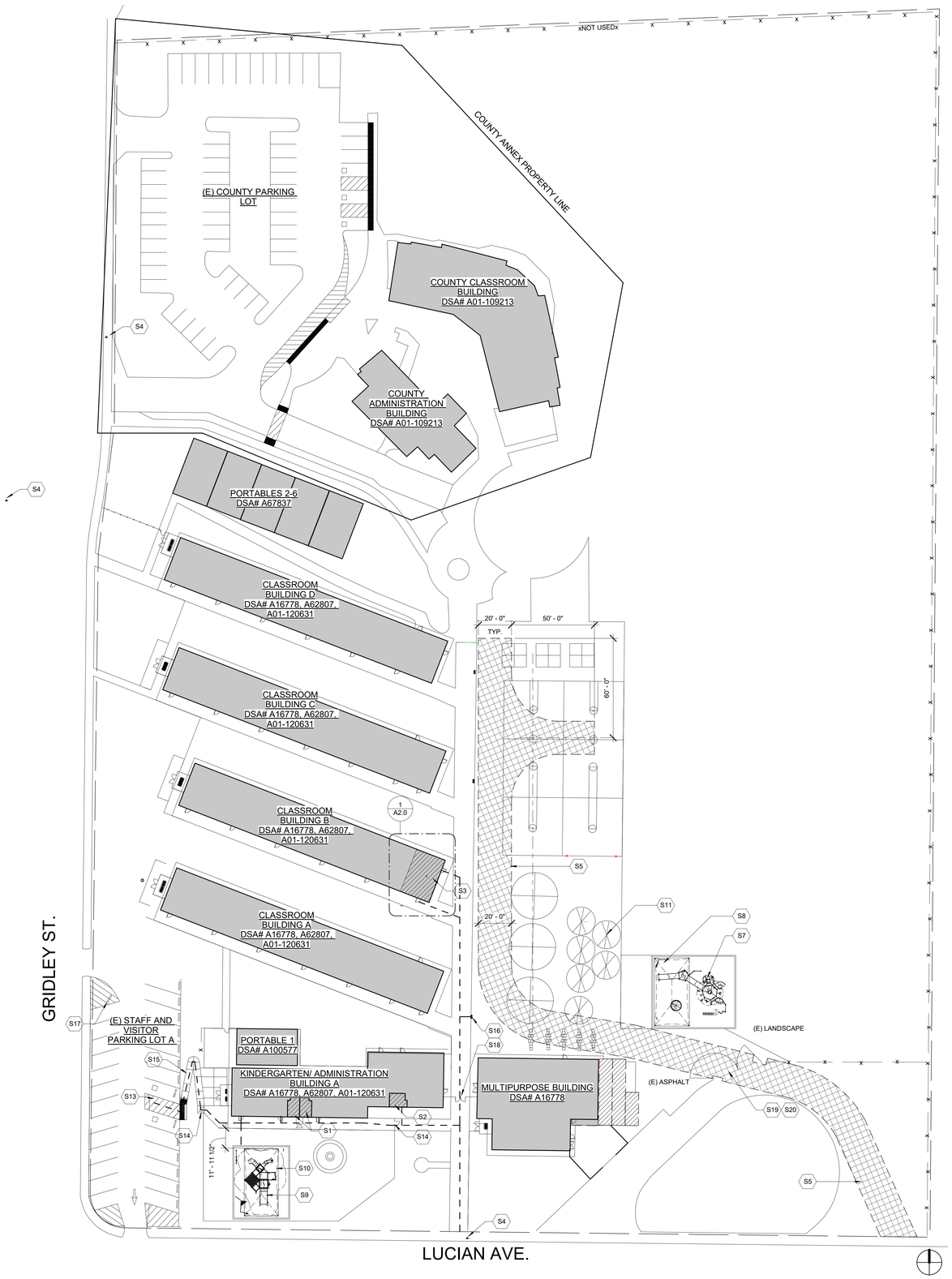
SCALE: AS SHOWN

SHEET NUMBER: **C6.0**

DETAILS

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

HOHBACH-LEWIN #175.16.31



OVERALL SITE PLAN | 1" = 30'-0" | **1**

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:	Alum Rock Union Elementary School
Project Name/School:	McCollam ES Playground and Shade Structure Project
Project Address:	3311 Lucian Ave, San Jose, CA 95127

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 ☑
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☐		No ☑
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 ☐		No ☑
	Refer to the following website for FHSZ locations: http://egis.fire.ca.gov/FHSZ/	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	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: _____ Title: _____

Signature: _____ Date: _____

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

LFA Reviewer's Signature: _____ Date: _____

DSA 810

KINDERGARTEN SHADE STRUCTURE

CONSTRUCTION TYPE:	V-B/A-3
BASIC ALLOWABLE AREA:	6000 SQ. FT.
ACTUAL AREA:	835 SQ. FT.
# OF STORIES:	1

ELEMENTARY SHADE STRUCTURE

CONSTRUCTION TYPE:	V-B/A-3
BASIC ALLOWABLE AREA:	6000 SQ. FT.
ACTUAL AREA:	835 SQ. FT.
# OF STORIES:	1

CODE ANALYSIS

PARKING LOT A

STANDARD STALLS	24
ACCESSIBLE STALLS REQ'D	1
ACCESSIBLE STALLS PROV'D	2

PARKING SUMMARY

- S1 (E) ACCESSIBLE KINDERGARTEN STUDENT RESTROOMS PER 01-120631
- S2 (E) ACCESSIBLE STAFF RESTROOMS PER 01-120631
- S3 (E) ACCESSIBLE ELEMENTARY STUDENT RESTROOMS PER A62307. REF. 3/A2.0 FOR EXISTING RESTROOM FLOOR PLAN AND DIMENSIONS.
- S4 (E) FIRE HYDRANT
- S5 REVISED FIRE LANE AND FIRE APPARATUS TURN AROUND PER 01-120631
- S6 (N) ASPHALT, REF. CIVIL
- S7 (N) ELEMENTARY PLAY STRUCTURES AND FALL PROTECTION, REF. LANDSCAPE
- S8 (N) ELEMENTARY LEVEL SHADE STRUCTURE PER PC 04-121769
- S9 (N) KINDERGARTEN PLAY STRUCTURES AND FALL PROTECTION, REF. LANDSCAPE
- S10 (N) KINDERGARTEN LEVEL SHADE STRUCTURE PER PC 04-121769
- S11 (E) TETHERBALL POLES AND STRIPING, TYP.
- S12 (E) PLAY STRIPING, TYP.
- S13 (E) ACCESSIBLE PARKING PER 01-120631
- S14 (E) ACCESSIBLE GATE WITH PANIC HARDWARE PER 01-120631
- S15 (E) ACCESSIBLE SLOPED SWITCHBACK WALKWAY PER 01-120631
- S16 (E) ACCESSIBLE DRINKING FOUNTAIN PER 01-120631
- S17 (E) TOW-AWAY SIGN PER 01-120631
- S18 (E) ACCESSIBLE DOUBLE GATE. SEE DET 7/GEN-3
- S19 (N) 26'-0" WIDE FIRE APPRATUS GATE PER DET. 3/A2.0.
- S20 DEMOLISH EXISTING FIRE APPARATUS GATE AND ADJACENT FENCING TO ACCOMMODATE NEW FIRE APPARATUS GATE. EXISTING FENCE REMOVAL TO BE BACK TO NEAREST EXISTING FECE POST BEYOND EITHER SIDE OF NEW GATE. INSTALL NEW INFILL FENCING PER DET. 2/A2.0.

SITE PLAN KEYNOTES

(E) PATH OF TRAVEL PER 01-120631
PATH OF TRAVEL (P.O.T) AS INDICATED MEETS THE FOLLOWING REQUIREMENTS:
1. IS A BARRIER-FREE ACCESSIBLE ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT A SLOPE NOT STEEPER THAN 1:2 EXCEPT THAT LEVEL CHANGES ARE 1/4" MAX VERTICAL & IS AT LEAST 48" WIDE.
2. SURFACE SHALL BE STABLE, FIRM AND SLIP RESISTANT.
3. CROSS-SLOPE SHALL NOT BE STEEPER THAN 1:48 AND RUNNING SLOPE SHALL NOT BE STEEPER THAN 1:20 UNLESS OTHERWISE INDICATED (SEC 11B-403.3)
4. P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM (SECTION 11B-307.4) AND PROTRUDING OBJECTS GREATER THAN 4"
PROJECTION FROM WALL SURFACE BETWEEN 27" AND 80" ABOVE FINISH FLOOR
OR GROUND (SECTION 11B-307.2)
5. PROVIDE FLUSH TRANSITIONS AT ANY ADJOINING JOINTS BETWEEN DIFFERENT WALK SURFACES IN P.O.T.
6. ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IN COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR **PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS.** AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. 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 UPON THE VALUATION THRESHOLD OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF P.O.T. 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 PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

PROPERTY LINE

LIMITS OF WORK FOR THIS PROJECT

(E) ALARM HORN PER 01-120631

SITE PLAN LEGEND - DSA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED ARCHITECT
ROBERT M. SIMMONS
No. C-18301
JAN. 31, 2025
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1		
2		
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4		
5		
6		
7		
8		
9		
10		

PROJECT NO: Project Number

DATE ISSUED: Issue Date

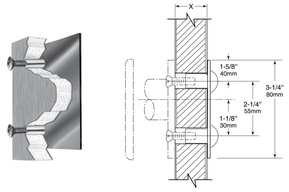
SCALE: As indicated

A1.0

SITE PLAN

SVA ARCHITECTS
6 HUTTON CENTRE DR, SUITE 1150 SANTA ANA, CA 92707
T 949.809.3380 WWW.SVA-ARCHITECTS.COM

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For B-530, B-5806 and B-6806 Series Grab Bars

Anchor No.	Partition Thickness X
2583	3/4" to 1" 19 to 25mm
2586	1/2" 13mm

MATERIALS:

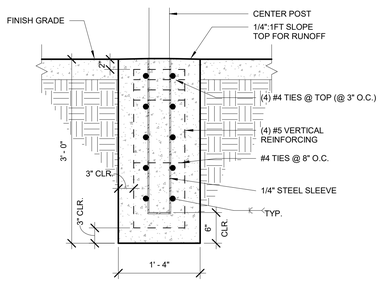
Backplate — 18-8, Type-304, 16-gauge (1.6mm) stainless steel with satin-finish.

Screws — For 2586 Anchor - (2) Part No. 2584-6 Screw (1/4 - 20 x 1/2" Phillips Round Stainless Steel Machine Screw)
For 2583 Anchor - (2) Part No. 2582-3 Screw (1/4 - 20 x 3/4" Phillips Pan Head Stainless Steel Machine Screw)

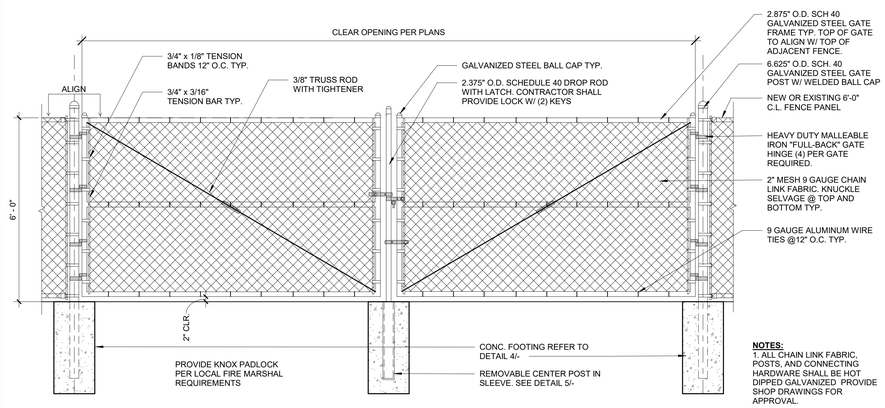
Nuts — For 2586 Anchor - (2) Part No. 2584-104 Nut (Chrome Plated Brass, Sphere Head 1/2" Nut)
For 2583 Anchor - (2) Part No. 2584-104 Nut (Chrome Plated Brass, Sphere Head 3/4" Nut)

GRAB BAR SPAN SHALL NOT EXCEED 36" WITH THE ABOVE DETAIL PER DSA IR 16-12 2.3. BACKER PLATE SHALL BE A MINIMUM OF 2" WIDE PER IR 16-12.

GRAB BAR ANCHORAGE TO PARTITION — 1 1/2" = 1'-0" — 7

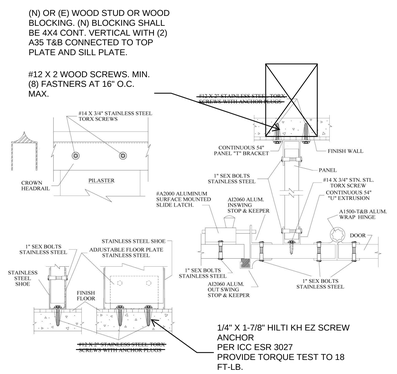


FOOTING DETAIL - SLEEVE — 1" = 1'-0" — 5

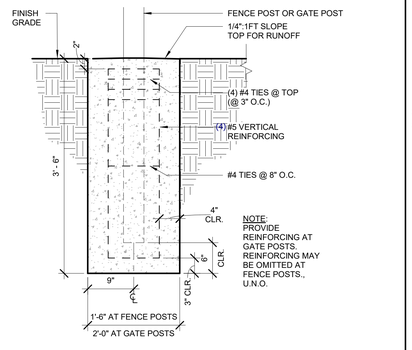


NOTES:
1. ALL CHAIN LINK FABRIC, POSTS, AND CONNECTING HARDWARE SHALL BE HOT DIPPED GALVANIZED. PROVIDE SHOP DRAWINGS FOR APPROVAL.

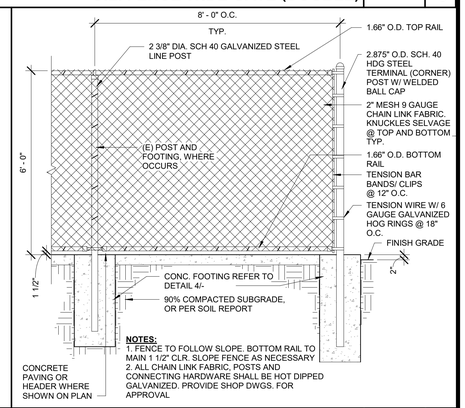
C.L. FENCE WIDE GATE (DOUBLE) — 1/2" = 1'-0" — 3



TOILET PARTITION ATTACHMENT — 3" = 1'-0" — 6

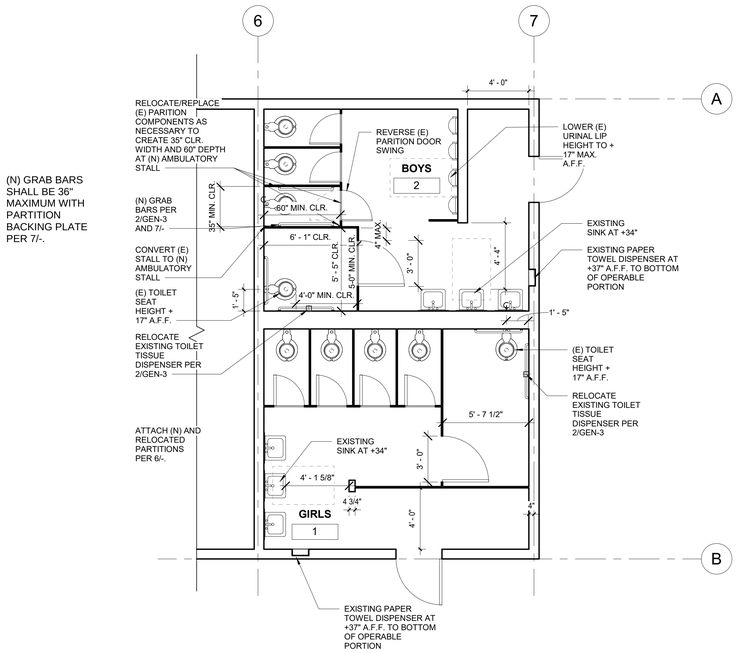


TYPICAL FENCE/GATE FOOTINGS — 1" = 1'-0" — 4



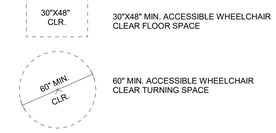
NOTES:
1. FENCE TO FOLLOW SLOPE. BOTTOM RAIL TO MAIN 1 1/2" CLR. SLOPE FENCE AS NECESSARY
2. ALL CHAIN LINK FABRIC, POSTS AND CONNECTING HARDWARE SHALL BE HOT DIPPED GALVANIZED. PROVIDE SHOP DWGS. FOR APPROVAL

6'-0" C.L. FENCE — 1/2" = 1'-0" — 2



(N) GRAB BARS SHALL BE 36" MAXIMUM WITH PARTITION BACKING PLATE PER 7/-.

ENLARGED FLOOR PLAN - BUILDING B RESTROOM — 1/4" = 1'-0" — 1



FLOOR PLAN GENERAL NOTES:
1. ALL DIMENSIONS ARE TO CENTERLINE OF THE GRID LINES AND/OR TO THE FACE OF STUDS, U.N.O.

2. UNLESS NOTED OTHERWISE, ALL WALLS ARE FULL HEIGHT.

3. REFER TO SHEET GEN-4 FOR TYPICAL ACCESSIBILTY REQUIREMENTS AND DIMENSIONS.

4. REFER TO ENLARGED PLANS FOR DIMENSIONS AND CALLOUTS NOT SHOWN HERE.

FLOOR PLAN LEGEND

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED ARCHITECT
ROBERT M. SIMONDS
No. C-18301
JAN. 31, 2025
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE

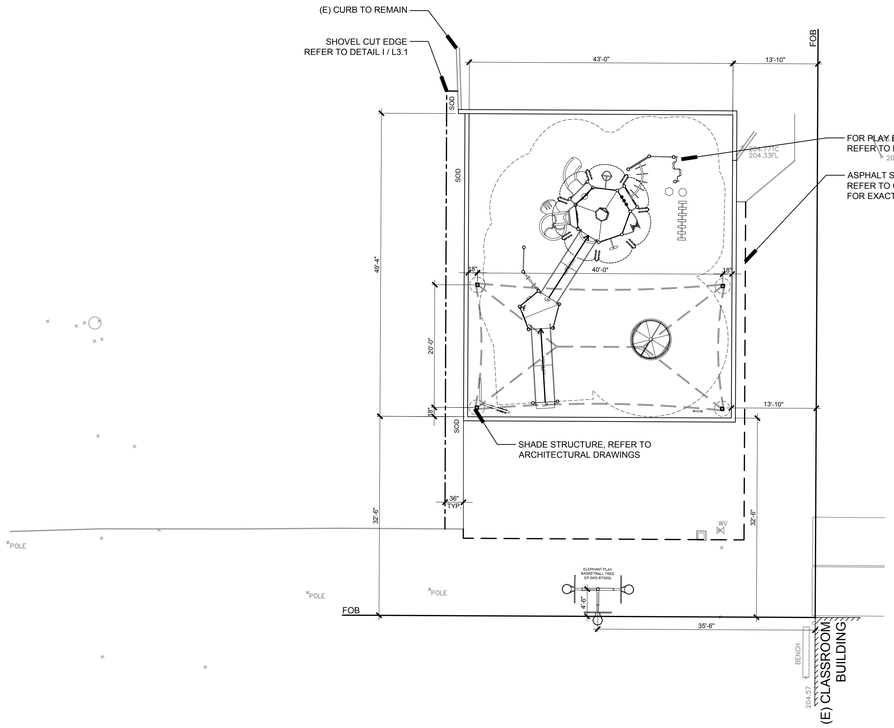
PROJECT NO: Project Number
DATE ISSUED: Issue Date
SCALE: As indicated

A2.0

ENLARGED RR PLAN AND DETAILS

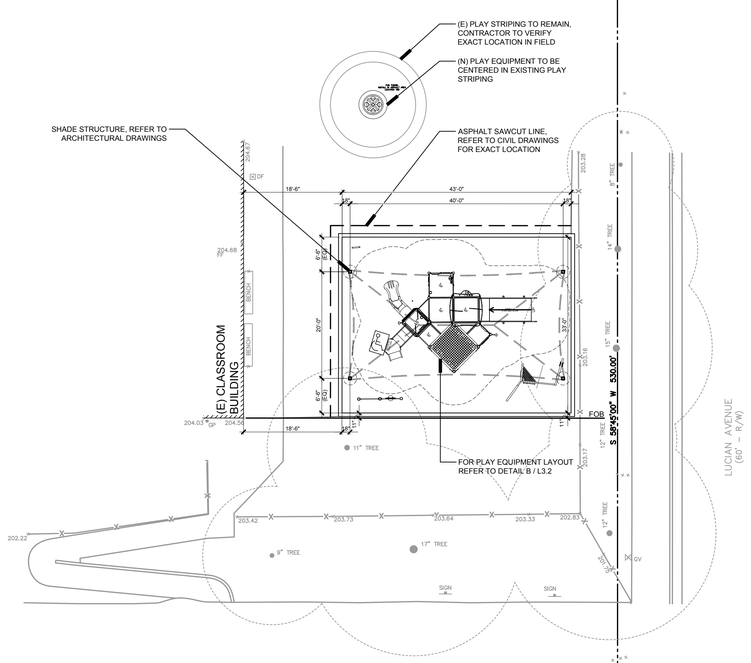
SVA ARCHITECTS
6 HUTTON CENTRE DR, SUITE 1150 SANTA ANA, CA 92707
T 949.809.3380 WWW.SVA-ARCHITECTS.COM

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B PLAY STRUCTURE - PRIMARY

SCALE: 1" = 10'-0"



A PLAY STRUCTURE - KINDERGARTEN

SCALE: 1" = 10'-0"

LAYOUT 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. DRAWINGS SHALL NOT BE SCALED. WRITTEN DIMENSIONS TAKE PRECEDENCE. IF CONTRACTOR FINDS A DISCREPANCY WITH WRITTEN DIMENSIONS, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE OF AND LOCATIONS OF EXISTING AND PROPOSED UNDERGROUND SERVICES AND IMPROVEMENTS WHICH MAY CONFLICT WITH THE WORK. CONTACT THE DISTRICT REPRESENTATIVE AND UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 PRIOR TO INITIATING CONSTRUCTION FOR ASSISTANCE.
4. COORDINATE ALL CONSTRUCTION ELEMENTS PRIOR TO INSTALLATION. VERIFY , CURBS, FENCES, ETC. AND CRITICAL DIMENSIONS, REFERENCE AND COORDINATE POINT LOCATIONS, AND CONSTRUCTION CONDITIONS PRIOR TO INITIATING CONSTRUCTION. NOTIFY THE DISTRICT REPRESENTATIVE IMMEDIATELY SHOULD DISCREPANCIES ARISE.
5. CONTRACTOR SHALL LAYOUT ALL PROJECT ELEMENTS IN FIELD AS SHOWN ON THESE PLANS AND HAVE THEM APPROVED BY THE DISTRICT REPRESENTATIVE PRIOR TO CONSTRUCTION.
6. ALL MINOR ADJUSTMENTS MADE TO ACCOMMODATE EXISTING SITE CONDITIONS SHALL MAINTAIN THE OVERALL DESIGN LAYOUT. ALL ADJUSTMENTS SHALL BE APPROVED BY THE DISTRICT REPRESENTATIVE PRIOR TO CONSTRUCTION.
7. ALL NEW PAVED SURFACES SHALL CONFORM TO EXISTING PAVED SURFACES, FLUSH AND SMOOTH. CONTRACTOR SHALL CONSTRUCT SMOOTH TRANSITIONS OF PAVING AND WALKS WHILE MAINTAINING POSITIVE DRAINAGE.
8. COORDINATE ALL SLEEVING AND UTILITY LOCATIONS AS SHOWN ON THE PLANS AND DETAILS CONTAINED WITHIN THESE CONTRACT DOCUMENTS.
9. CONDITIONS NOT SPECIFICALLY NOTED OR DETAILED ON THESE PLANS SHALL BE CALLED TO THE ATTENTION OF THE DISTRICT REPRESENTATIVE FOR REVIEW PRIOR TO IMPLEMENTATION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT FOR REPAIRING OR REPLACING, AT HIS OWN EXPENSE, ANY STRUCTURES, FENCES, WALLS, PLANT MATERIAL 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 DISTRICT REPRESENTATIVE.
11. ALL ANGLES FOR LAYOUT TO BE 90 DEGREES UNLESS OTHERWISE NOTED.

LAYOUT LEGEND

SYMBOL	DESCRIPTION OF SYMBOL
BOC	BACK OF CURB
BOW	BACK OF WALL
℄	CENTERLINE
℄	CENTERLINE OF COLUMN
COP	CENTER OF POST
EOD	EDGE OF DOOR
℞	END OF RADIUS
EQ	EQUAL
(E)	EXISTING
FOB	FACE OF BUILDING
FOC	FACE OF CURB
FOW	FACE OF WALL
IOC	INSIDE OF CURB
MAX	MAXIMUM
MIN	MINIMUM
(N)	NEW
OC	ON CENTER SPACING
R	RADIUS
TYP	TYPICAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
SEAN R.L. Lopez No. 6561
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1		
2		
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9		
10		
11		
12		

PROJECT NO: ANLA - #2334

DATE ISSUED: 11/08/23

SCALE: As indicated

SHEET NUMBER: L1

SHEET TITLE:

LAYOUT PLAN

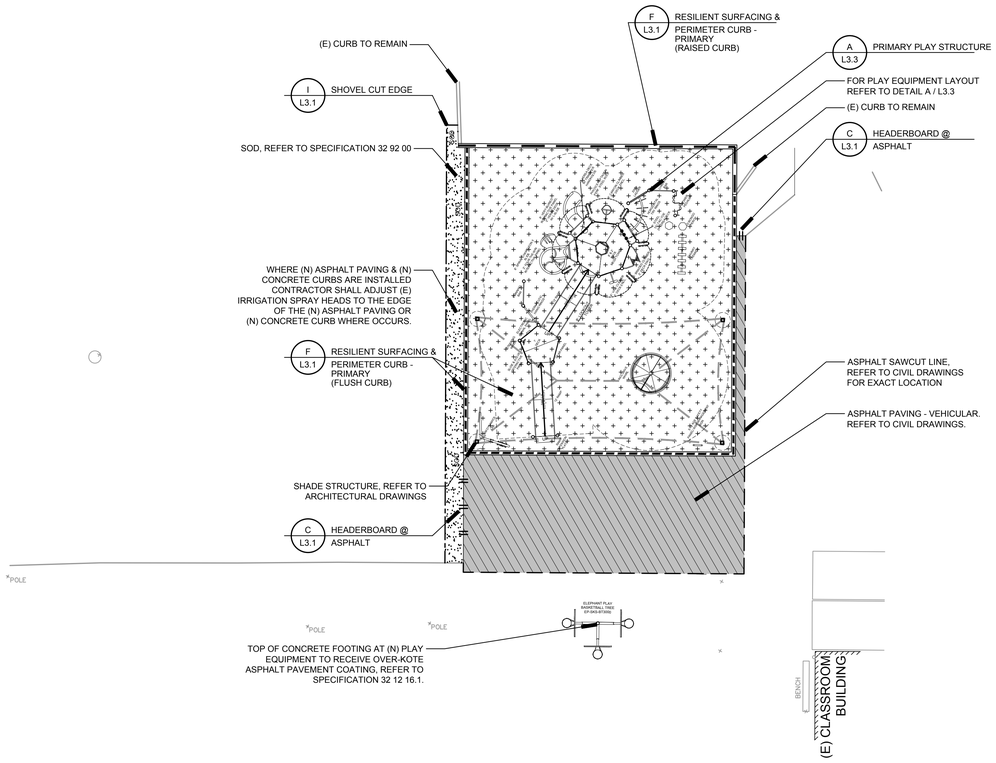
NORTH

SCALE: 1" = 10'-0"

0' 5' 10' 20'

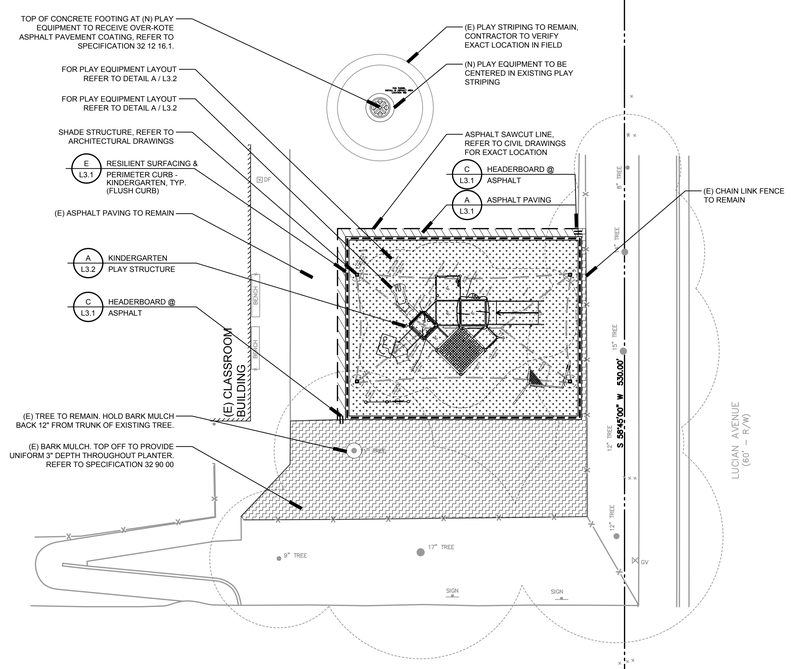
ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
San Jose, CA 95125
T. 408.292.2196
www.anla-associates.com

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B PLAY STRUCTURE - PRIMARY

SCALE: 1" = 10'-0"



A PLAY STRUCTURE - KINDERGARTEN

SCALE: 1" = 10'-0"

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. 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.
4. LANDSCAPE ARCHITECT 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.
5. 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.
6. CONTRACTOR SHALL ADJUST EXISTING UTILITY BOXES TO BE FLUSH WITH PROPOSED GRADES.
7. REFER TO CONSTRUCTION DETAILS ON SHEETS L3.1 - L3.3
8. REFER TO THE FOLLOWING SPECIFICATION SECTIONS:

01 56 39	TEMPORARY TREE AND PLANT PROTECTION
11 68 16	PLAY STRUCTURES
32 12 16.1	ASPHALT PAVING (LANDSCAPE)
32 13 13.1	CONCRETE WORK (LANDSCAPE)
32 18 16.16	PLAYGROUND PROTECTIVE SURFACING
32 90 00	PLANTING
32 92 00	TURF PLANTING

MATERIAL & DETAIL REFERENCE LEGEND

SYMBOL	DETAIL DESCRIPTION	DETAIL REFERENCE
	ASPHALT PAVING - PEDESTRIAN	A / L3.1
	ASPHALT PAVING - VEHICULAR REFER TO CIVIL DRAWINGS	
	HEADERBOARD @ ASPHALT	C / L3.1
	RESILIENT SAFETY SURFACING & PERIMETER CURB - KINDERGARTEN	E / L3.1
	RESILIENT SAFETY SURFACING - PRIMARY	F / L3.1
	RESILIENT SURFACING PERIMETER CURB (FLUSH CURB)	F / L3.1
	RESILIENT SURFACING PERIMETER CURB (RAISED CURB)	F / L3.1
	ASPHALT SAWCUT LINE REFER TO CIVIL PLANS FOR EXACT LOCATIONS	
GROUNDCOVER		
	BARK MULCH ONLY (E) BARK MULCH. TOP OFF TO PROVIDE UNIFORM 3" DEPTH THROUGHOUT PLANTER. REFER TO SPECIFICATION 32 90 00	
TURF		
	SOD DELTA BLUEGRASS BLUE RYE BLEND, WWW.DELTABLUEGRASS.COM, (800) 637-8873 REFER TO SPECIFICATION 32 92 00	
	SHOVEL CUT EDGE	I / L3.1

NORTH

SCALE: 1" = 10'-0"

0' 5' 10' 20'

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
SUSAN R.L. Lopez No. 5887
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

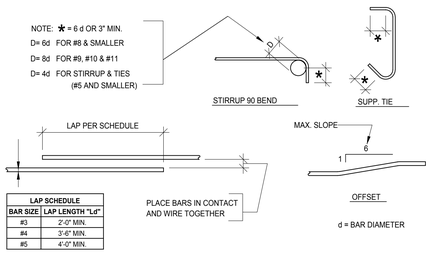
REVISIONS:

	DESCRIPTION	DATE
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PROJECT NO:	ANLA - #2334
DATE ISSUED:	11/08/23
SCALE:	As indicated
SHEET NUMBER:	**L2**
SHEET TITLE:	

MATERIAL & DETAIL REFERENCE PLAN

ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
San Jose, CA 95125
T. 408.292.2196
www.anla-associates.com



LAP SCHEDULE	
BAR SIZE	LAP LENGTH "Ld"
#3	2'-0" MIN.
#4	3'-6" MIN.
#5	4'-0" MIN.

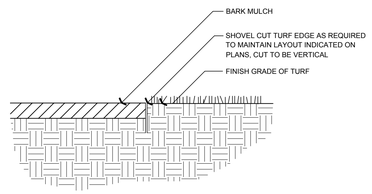
J TYP. CONCRETE REINFORCEMENT BENDING & SPLICING SCALE: NTS

NOT USED

H

NOT USED

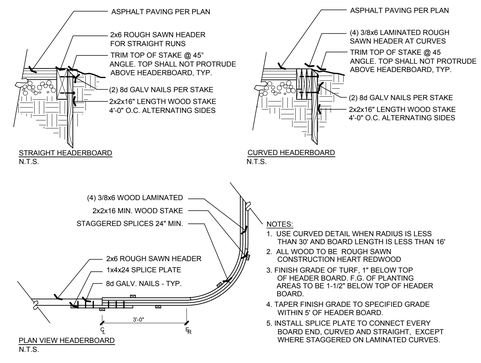
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I SHOVEL CUT EDGE SCALE: NTS

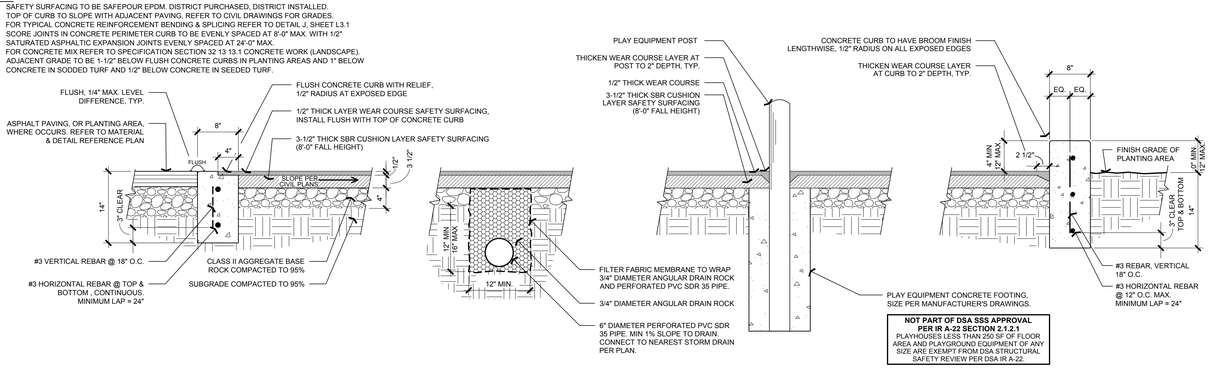
NOT USED

G

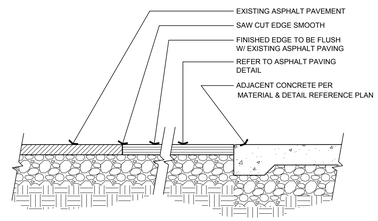


C HEADERBOARD @ ASPHALT SCALE: NTS

NOTES:
1. SAFETY SURFACING TO BE SAFEPOUR EPDM. DISTRICT PURCHASED, DISTRICT INSTALLED.
2. TOP OF CURB TO SLOPE WITH ADJACENT PAVING, REFER TO CIVIL DRAWINGS FOR GRADES.
3. FOR TYPICAL CONCRETE REINFORCEMENT BENDING & SPLICING REFER TO DETAIL J, SHEET L3.1
4. SCORE JOINTS IN CONCRETE PERIMETER CURB TO BE EVENLY SPACED AT 8'-0" MAX. WITH 1/2" SATURATED ASPHALTIC EXPANSION JOINTS EVENLY SPACED AT 24'-0" MAX.
5. FOR CONCRETE MIX REFER TO SPECIFICATION SECTION 32 13 13.1 CONCRETE WORK (LANDSCAPE).
7. ADJACENT GRADE TO BE 1-1/2" BELOW FLUSH CONCRETE CURBS IN PLANTING AREAS AND 1" BELOW CONCRETE IN SODDED TURF AND 1/2" BELOW CONCRETE IN SEEDED TURF.

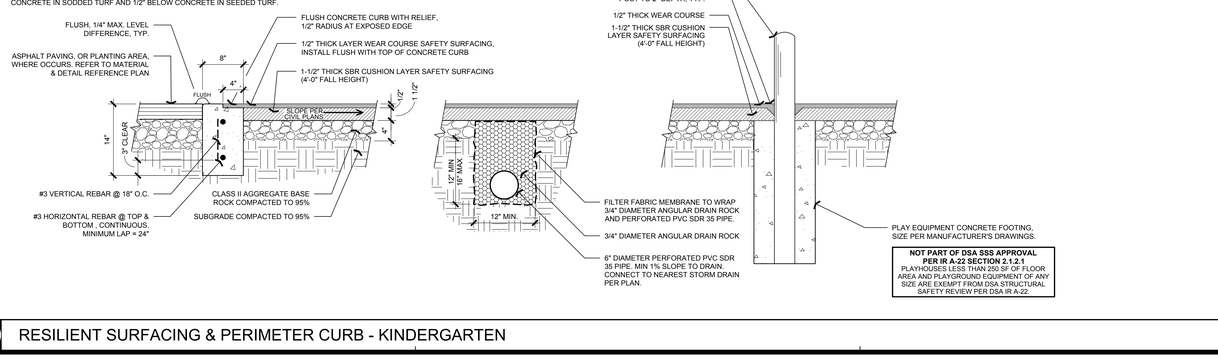


F RESILIENT SURFACING & PERIMETER CURBS - PRIMARY SCALE: NTS

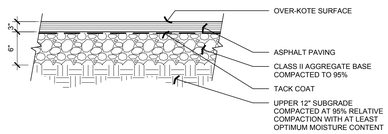


B (N) ASPHALT TO (E) ASPHALT SCALE: NTS

NOTES:
1. SAFETY SURFACING TO BE SAFEPOUR EPDM. DISTRICT PURCHASED, DISTRICT INSTALLED.
2. TOP OF CURB TO SLOPE WITH ADJACENT PAVING, REFER TO CIVIL DRAWINGS FOR GRADES.
3. FOR TYPICAL CONCRETE REINFORCEMENT BENDING & SPLICING REFER TO DETAIL J, SHEET L3.1
4. SCORE JOINTS IN CONCRETE PERIMETER CURB TO BE EVENLY SPACED AT 8'-0" MAX. WITH 1/2" SATURATED ASPHALTIC EXPANSION JOINTS EVENLY SPACED AT 24'-0" MAX.
5. FOR CONCRETE MIX REFER TO SPECIFICATION SECTION 32 13 13.1 CONCRETE WORK (LANDSCAPE).
7. ADJACENT GRADE TO BE 1-1/2" BELOW FLUSH CONCRETE CURBS IN PLANTING AREAS AND 1" BELOW CONCRETE IN SODDED TURF AND 1/2" BELOW CONCRETE IN SEEDED TURF.



E RESILIENT SURFACING & PERIMETER CURB - KINDERGARTEN SCALE: NTS



NOTES:
1. INSTALL REDWOOD HEADERBOARD AT PERIMETER OF ASPHALT PAVING WHERE ASPHALT DOES NOT ABUT A HARD SURFACE. REFER TO HEADERBOARD @ ASPHALT PAVING DETAIL C. SHEET L3.1
2. ASPHALT SHALL RECEIVE OVER-KOTE ASPHALT PAVEMENT COATING AVAILABLE THROUGH REED AND GRAHAM. APPLY PER MANUFACTURES RECOMMENDATIONS.
3. REFER TO SPECIFICATION SECTION 32 12 16.1 - ASPHALT PAVING (LANDSCAPE)

A ASPHALT PAVING SCALE: NTS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
SUSAN R.L. Lopez No. 5887
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

PROJECT NO: ANLA - #2334

DATE ISSUED: 11/08/23

SCALE: As indicated

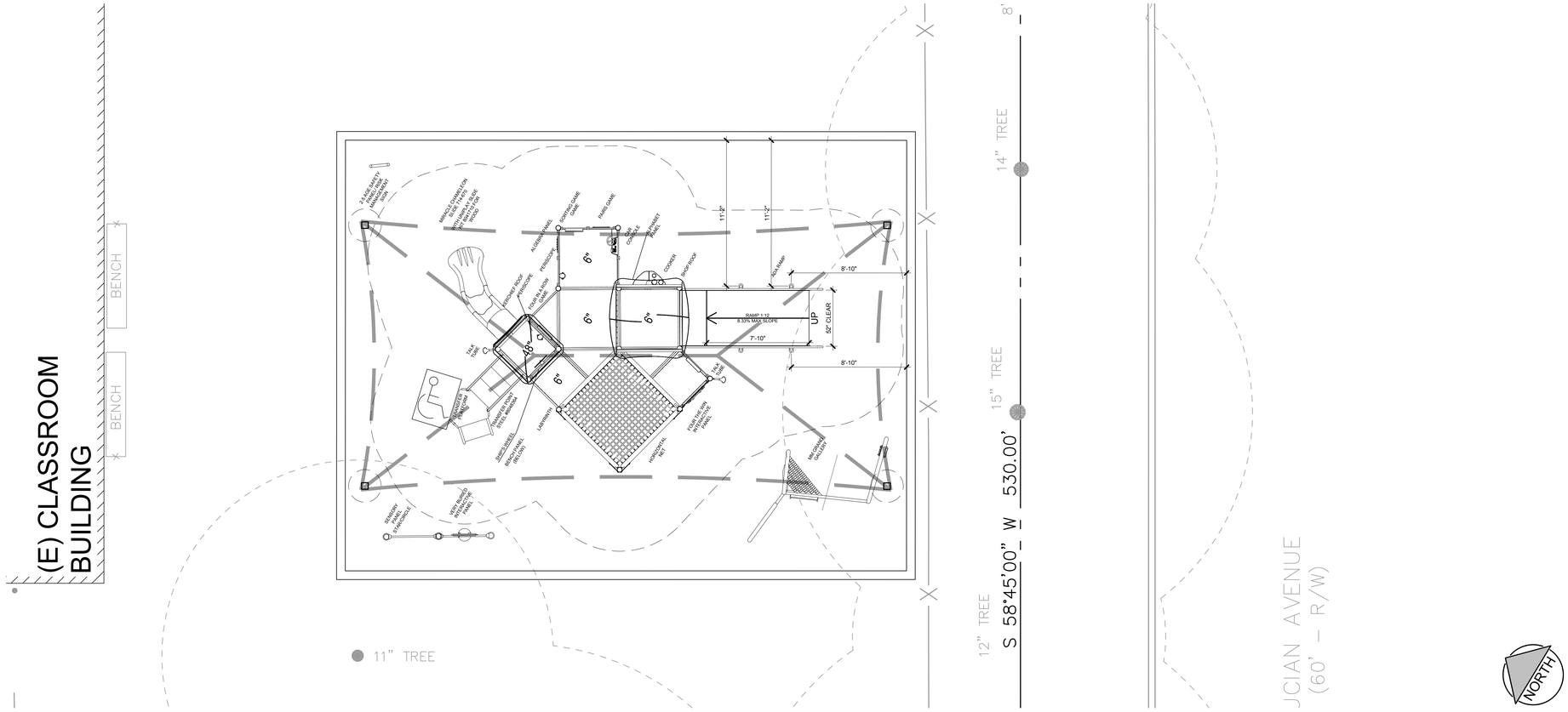
SHEET NUMBER: L3.1

SHEET TITLE:

CONSTRUCTION DETAILS

ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
San Jose, CA 95125
T. 408.292.2196
www.anla-associates.com

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NOTES:
1. ALL DIMENSIONS FOR LOCATING THE PLAY STRUCTURE SHALL BE TAKEN FROM THE INSIDE OF THE CURB (IOC).

B KINDERGARTEN PLAY STRUCTURE - LAYOUT

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

NOTES:
1. CONTRACTOR SHALL LOCATE PLAY STRUCTURES AS SHOWN.
2. ALL COMPONENTS ARE AVAILABLE THROUGH MIRACLE PLAYSYSTEMS. CONTACT PERSON: JEAN TYAN (800) 879-7730 2.
3. PLAY STRUCTURE IS TO BE DISTRICT PURCHASED, DISTRICT INSTALLED.
4. USE ZONES FINISH SURFACE OF PLAYGROUND COMPLIES WITH ASTM F1292-99.
5. GROUND SURFACING COMPLIES WITH ASTM 1951-99
6. PLAYGROUND EQUIPMENT SHALL COMPLY WITH ASTM F1487-98.
7. THIS PLAY AREA MEETS CBC SECTION 11B-1008.
8. HANDRAILS AT PLAY STRUCTURE RAMPS COMPLY WITH CBC 11B-1008.2.5.3. REFER TO "RAMP @ KINDERGARTEN PLAY STRUCTURE" DETAIL AA / L3.2
   - 8.1. HANDRAIL EXTENSION ARE NOT REQUIRED AT RAMPS SERVING PLAY COMPONENTS.
   - 8.2. HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 0.95 INCH MINIMUM AND 1.55 INCHES MAXIMUM.
   - 8.3. THE TOP OF HANDRAIL GRIPPING SURFACES SHALL BE 20" MINIMUM AND 28" MAXIMUM ABOVE THE RAMP SURFACE.

CRITICAL FALL HEIGHT OF STRUCTURES = 4'-0"

TOTAL ELEVATED PLAY COMPONENTS	11		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	8	REQUIRED	6
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	3	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	14	REQUIRED	0"
TOTAL DIFFERENT TYPES OF ACCESSIBLE GROUND LEVEL COMPONENTS	4	REQUIRED	0"

*11B-240.2.1.2 EXCEPTION: IF AT LEAST 50% OF THE ELEVATED PLAY COMPONENTS ARE CONNECTED BY A RAMP AND AT LEAST 3 OF THE ELEVATED PLAY COMPONENTS CONNECTED BY THE RAMP ARE DIFFERENT TYPES OF PLAY COMPONENTS, THE PLAY AREA SHALL NOT BE REQUIRED TO COMPLY WITH SECTION 11B-240.2.1.2

NOT PART OF DSA SSS APPROVAL PER IR A-22 SECTION 2.1.2.1
PLAYHOUSES LESS THAN 250 SF OF FLOOR AREA AND PLAYGROUND EQUIPMENT OF ANY SIZE ARE EXEMPT FROM DSA STRUCTURAL SAFETY REVIEW PER DSA IR A-22.

A KINDERGARTEN PLAY STRUCTURE

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



AA RAMP @ KINDERGARTEN PLAY STRUCTURE SCALE: NTS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
SEAN R.L. Lopez No. 6561
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE

PROJECT NO:	ANLA - #2334
DATE ISSUED:	11/08/23
SCALE:	As indicated
SHEET NUMBER:	**L3.2**
SHEET TITLE:	

CONSTRUCTION DETAILS

ANLA ASSOCIATES, INC.
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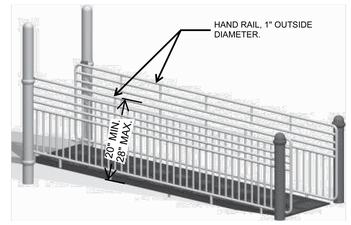
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NOTES:
1. CONTRACTOR SHALL LOCATE PLAY STRUCTURES AS SHOWN.
2. ALL COMPONENTS ARE AVAILABLE THROUGH MIRACLE PLAYSYSTEMS.
   CONTACT PERSON: JEAN TYAN (800) 879-7730 2.
3. PLAY STRUCTURE IS TO BE DISTRICT PURCHASED, DISTRICT INSTALLED.
4. USE ZONES FINISH SURFACE OF PLAYGROUND COMPLIES WITH ASTM F1292-99.
5. GROUND SURFACING COMPLIES WITH ASTM 1951-99
6. PLAYGROUND EQUIPMENT SHALL COMPLY WITH ASTM F1487-98.
7. THIS PLAY AREA MEETS CBC SECTION 11B-1008.
8. HANDRAILS AT PLAY STRUCTURE RAMPS COMPLY WITH CBC 11B-1008.2.5.3. REFER TO "RAMP @ PRIMARY PLAY STRUCTURE" DETAIL AA / L3.3
   8.1. HANDRAIL EXTENSION ARE NOT REQUIRED AT RAMPS SERVING PLAY COMPONENTS.
   8.2. HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 0.95 INCH MINIMUM AND 1.55 INCHES MAXIMUM.
   8.3. THE TOP OF HANDRAIL GRIPPING SURFACES SHALL BE 20" MINIMUM AND 28" MAXIMUM ABOVE THE RAMP SURFACE.

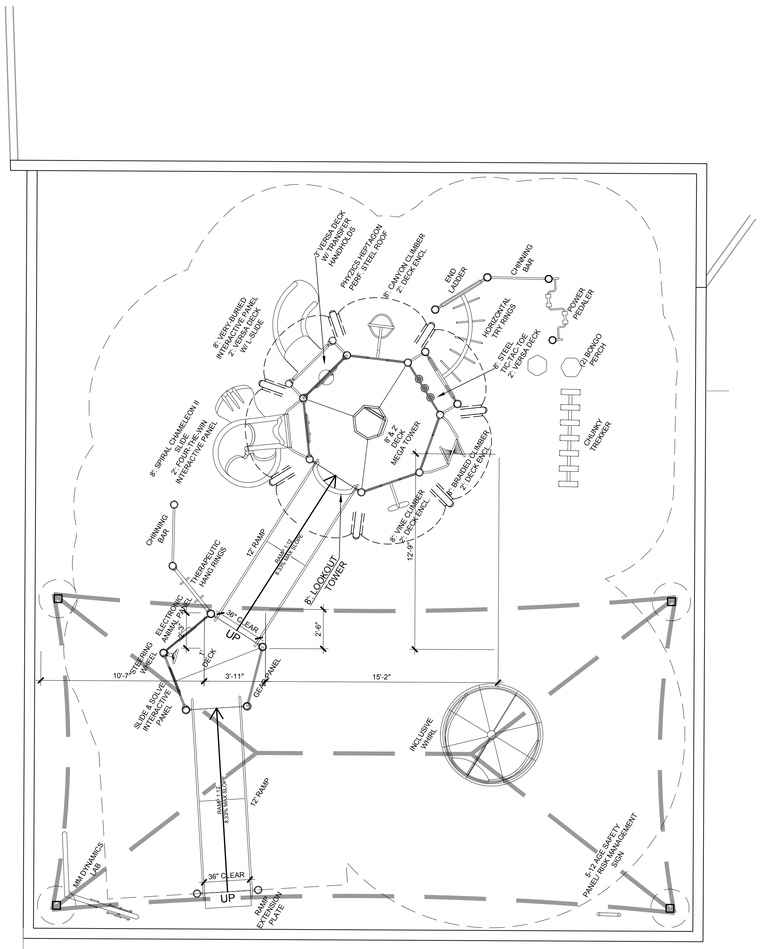
CRITICAL FALL HEIGHT OF STRUCTURES = 8'-0"

TOTAL ELEVATED PLAY COMPONENTS	13		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	9	REQUIRED	7
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	1	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	12	REQUIRED	0*
TOTAL DIFFERENT TYPES OF ACCESSIBLE GROUND LEVEL COMPONENTS	6	REQUIRED	0*

*11B-240.2.1.2 EXCEPTION: IF AT LEAST 50% OF THE ELEVATED PLAY COMPONENTS ARE CONNECTED BY A RAMP AND AT LEAST 3 OF THE ELEVATED PLAY COMPONENTS CONNECTED BY THE RAMP ARE DIFFERENT TYPES OF PLAY COMPONENTS, THE PLAY AREA SHALL NOT BE REQUIRED TO COMPLY WITH SECTION 11B-240.2.1.2



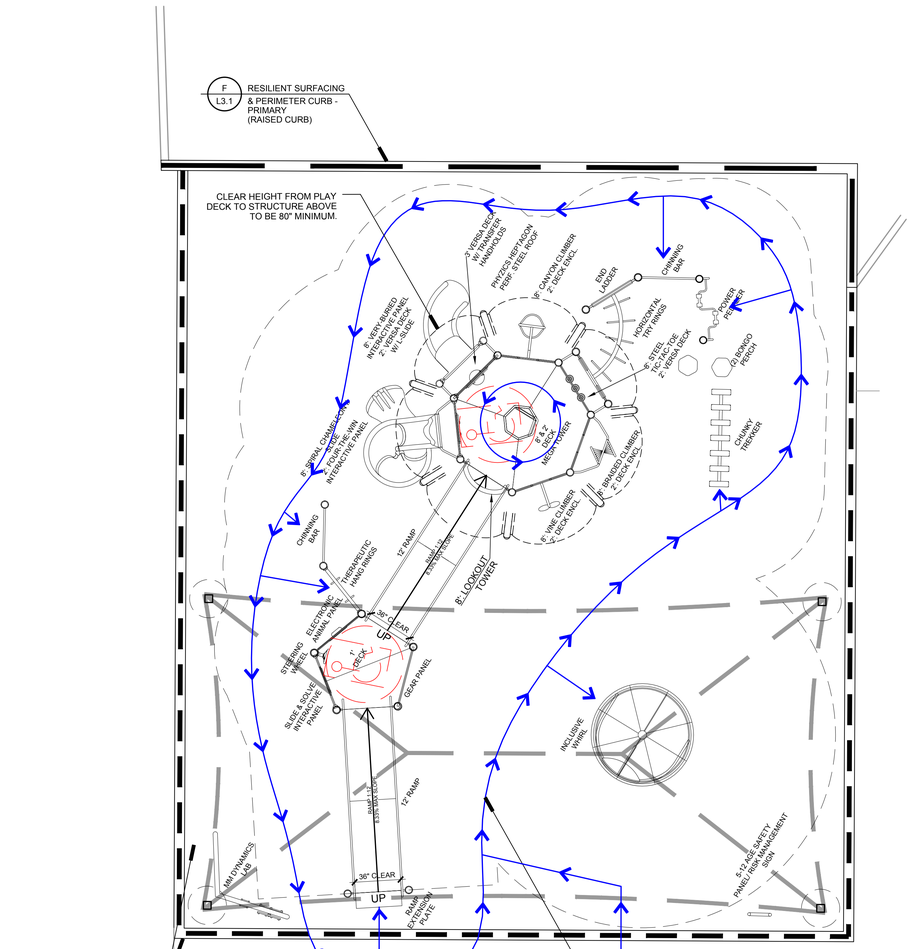
AA RAMP @ PRIMARY PLAY STRUCTURE SCALE: NTS



NOTES:
1. ALL DIMENSIONS FOR LOCATING THE PLAY STRUCTURE SHALL BE TAKEN FROM THE INSIDE OF THE CURB (IOC).

NORTH

B PRIMARY PLAY STRUCTURE - LAYOUT SCALE: 1/4" = 1'-0"



NOT PART OF DSA SSS APPROVAL PER IR A-22 SECTION 2.1.2.1
PLAYHOUSES LESS THAN 250 SF OF FLOOR AREA AND PLAYGROUND EQUIPMENT OF ANY SIZE ARE EXEMPT FROM DSA STRUCTURAL SAFETY REVIEW PER DSA IR A-22.

NORTH

A PRIMARY PLAY STRUCTURE SCALE: 1/4" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
No. 5834 R.L. Lopez No. 5834
12/31/2024
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE

PROJECT NO:	ANLA - #2334
DATE ISSUED:	11/08/23
SCALE:	As indicated
SHEET NUMBER:	**L3.3**
SHEET TITLE:	

CONSTRUCTION DETAILS

ANLA ASSOCIATES, INC.
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PRECHECK FABRIC SHADE STRUCTURE II

FOR CUSTOM CANOPIES

PROJECT DIRECTORY

OWNER
CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670
T: (562) 464-4766
F: (562) 464-4770
CONTACT: STEVE GRAAF

ARCHITECT
RON EDWARDS ARCHITECT
7400 PEDRICK CT
BAKERSFIELD, CA 93313
T: (661) 394-0053
CONTACT: RON EDWARDS

STRUCTURAL
JAMES L. MITCHELL
220 CHERRY LAUREL LANE
KYLE, TX 78640
T: (936) 446-9999

SHEET INDEX

SHT	SHEET INDEX	
	ARCHITECTURAL:	
T001	TITLE SHEET & CAL-FIRE MATERIAL CERT.	
A002	T&I GUIDELINE	2 SHEETS
	STRUCTURAL:	
S1.1	GENERAL NOTES & TYPICAL DETAILS	
S1.2	GENERAL NOTES & TYPICAL DETAILS	
S1.3	GENERAL NOTES & TYPICAL DETAILS	
~~HC2020-1~~	~~20'X20'X12' HIP CANOPY DRAWINGS~~	
~~HC2020-2~~	~~20'X20'X12' HIP CANOPY DRAWINGS~~	
~~HC2020-3~~	~~20'X20'X12' HIP CANOPY DRAWINGS~~	
~~HC3030-1~~	~~30'X30'X12' HIP CANOPY DRAWINGS~~	
~~HC3030-2~~	~~30'X30'X12' HIP CANOPY DRAWINGS~~	
~~HC3030-3~~	~~30'X30'X12' HIP CANOPY DRAWINGS~~	
HC4030-1	40'X30'X12' HIP CANOPY DRAWINGS	
HC4030-2	40'X30'X12' HIP CANOPY DRAWINGS	
HC4030-3	40'X30'X12' HIP CANOPY DRAWINGS	
~~HS3030-1~~	~~30'X30'X14'/16' HYPAR SHADE DRAWINGS~~	
~~HS3030-2~~	~~30'X30'X14'/16' HYPAR SHADE DRAWINGS~~	
~~HS3030-3~~	~~30'X30'X14'/16' HYPAR SHADE DRAWINGS~~	
~~TS3030-1~~	~~30'X30'X14'/16' TRIANGULAR SHADE DRAWINGS~~	
~~TS3030-2~~	~~30'X30'X14'/16' TRIANGULAR SHADE DRAWINGS~~	
~~TS3030-3~~	~~30'X30'X14'/16' TRIANGULAR SHADE DRAWINGS~~	18 SHEETS
TOTAL		20 SHEETS

MATERIAL SPECIFICATIONS - SEE ALSO SHEETS S1.1 & S1.2

1. MATERIAL WIRE ROPE CLIPS
   - 1.A. CABLE CLIPS SHALL BE FORGED STEEL PER FEDERAL INSPECTION FF-C-40 TYPE 1, CLASS 2 INSTALLED WITH THE U-BOLT ON THE CALBE DEAD END (SEE SPECIFICATION SHEET ON THIS SHEET.)
   - 1.B. BOLT TORQUE FOR $\frac{1}{4}$"Ø CALBE CLIPS = 15 lb-ft, FOR $\frac{5}{16}$"Ø CABLE CLIPS = 30 lb-ft.
2. BOLT HOLES
   - 2.A. BOLT HOLE DIAMETERS SHALL BE $\frac{1}{8}$" MAX. LARGER THAN THE BOLT DIAMETER.
   - 2.B. ALL BOLTS SHALL BE INSTALLED WITH LOCK WASHERS.
3. CORROSION PROTECTION
   - 3.A. STEEL TUBE ROOF MEMBER SHALL BE TRIPLE COATED USING IN-LINE ZINC ELECTROPLATING PER ASTM E-6 AND THEN POWDER COATED WITH A TGIC POLYESTER TOP COAT.
   - 3.B. STEEL PIPE COLUMNS SHALL BE POWDER COATED WITH A TGIC POLYESTER PRIMER AND TOP COAT.
   - 3.C. ZINC SPELTER CONFORMS TO ASTM B-6 HIGH GRADE ZINC.
4. FABRIC MATERIAL
   - 4.A. FABRIC MATERIAL SHALL BE EXTRA BLOCK. SEE FABRIC CUT SHEET ON S1.1
   - 4.B. THE FABRIC SHALL BE MANUFACTURED FROM HIGH DENSITY POLYETHYLENE POLYMER.
   - 4.C. MIN. WEIGHT - 8.3 oz/sq.yd
     FABRIC THICKNESS - 50.4 mil. MAXIMUM FABRIC MODULUS OF ESTASTICITY IS 10.0 KSI.
   - 4.D. MIN. BREAKING STRENGTH PER ASTM D 5034: WARP = 165 lbs., WEFT = 260 lbs.
   - 4.E. MAX. ELONGATION WARP = 115%, WEFT = 76%.
   - 4.F. MIN. TEAR STRENGTH PER ASTM D 2261: WARP = 26 lbs., WEFT = 26 lbs
   - 4.G. FIRE RETARDANT RATING PER CSFM - TITLE 19, (REGISTRATION #: ALNET EXTRA BLOCK SHADECLOTH - F94501)
   - 4.H. THE FABRIC SHALL BE CAPABLE OF MAINTAINING 80% OF IT'S TENSILE AND TEARING STRENGTH AFTER EXPOSURE TO A 313NM LIGHT SOURCE APPLIED FOR 500 HOURS AND WHILE MOISTENED FOR 1 HOUR EVERY 12 HOURS PER ASTM G53. THE FABRIC SHALL REQUIRE ANNUAL INSPECTION AND MAINTENANCE.
   - 4.I. THE FABRIC SHALL MAINTAIN AT LEAST 50% OF IT'S ORIGINAL BREAKING STRENGTH AFTER 5 YEARS OF EXPOSURE TO SUNLIGHT.
5. STANDARD NOTES
   - 5.A. ALL WORK SHALL CONFORM TO 2022 EDITION TITLE 24, CALIFORNIA CODE OF REGULATION (CCR)
   - 5.B. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24 (CCR)
   - 5.C. A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY DSA SHALL PROVIDE (CCR). MINIMUM CLASS 2 PROJECT INSPECTOR FOR THE PROJECT.
   - 5.D. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TEST AND INSPECTIONS FOR THE PROJECT.
   - 5.E. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH THE TITLE24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD) OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA.
   - 5.F. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND REQUIREMENTS AND ENVIROMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

APPLICABLE CODES

2022 California Administrative Code (CAC), Part 1, Title 24 CCR2022
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 CCR2022 California Plumbing Code (CPC), Part 5, Title 24 CCR
2022 California Energy Code, 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 Code, Part 12, Title 24 CCR
Title 19 CCR, Public Safety, State Fire Marshal Regulations

APPLICABLE STANDARDS
For a list of applicable standards, including California amendments to the NFPA Standards, refer to CBC Chapter 35 and CFC Chapter 80.

GENERAL NOTES

1. FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION SHALL COMPLY WITH CFC CHAPTER 33 AND CBC CHAPTER 33.

FLAME RETARDANT

Fabric Registration

LICENSE NUMBER: F-094501

EXTRA BLOCK SHADECLOTH

Product Marketed by:
ALNET PTY (LTD)
MOORSOM AVENUE, EPPING, INDUSTRY II
CAPE TOWN, S. AFRICA, ,

Issue Date : 03/06/2023
Expiration Date : 06/30/2024

This product meets the minimum requirements of flame resistance established by the California State Fire Marshal for products identified in Section 13115, California Health and Safety Code. The scope of the approved use of this product is provided in the current edition of the CALIFORNIA APPROVED LIST OF FLAME RETARDANT CHEMICALS AND FABRICS, GENERAL AND LIMITED APPLICATIONS CONCERNS published by the California State Fire Marshal.

Issued By Cortney Walker
Fire Engineering License Manager
Fire Engineering & Investigations Division

Reviewed and Approved By Patricia Setter
Deputy State Fire Marshal III
Fire Engineering & Investigations Division

OFFICE OF THE STATE FIRE MARSHAL

Please visit calfire.govmotus.org for more information on Licensing and Permitting with CAL FIRE

Page 1 of 1

DESIGN PARAMETER CHECKLIST FOR OTC REVIEW

THE FOLLOWING CHECKLIST IS INTENDED TO ASSIST THE PLAN REVIEWER TO DETERMINE IF THIS PRE-CHECKED SUBMITTAL IS APPLICABLE TO THE SITE SPECIFIC CONDITIONS IN WHICH IT IS INTENDED TO BE USED. IT IS THE SITE APPROVAL ARCHITECT'S RESPONSIBILITY TO FILL IN THE APPROPRIATE BOXES AND CONFIRM SITE CONDITIONS. IF THIS CHECKLIST CANNOT BE COMPLETED, ADDITIONAL ENGINEERING PROVING SITE-SPECIFIC COMPLIANCE IS REQUIRED.

THIS PRE-CHECKED SUBMITTAL IS APPLICABLE UNDER THE FOLLOWING CIRCUMSTANCES:

- ☒ NONE OF THE STRUCTURAL DESIGN CRITERIA ARE EXCEEDED
- ☒ THE RISK CATEGORY IS 'II' OR LESS
- ☒ THE WIND EXPOSURE CATEGORY IS 'C'
- ☒ THE PROJECT SITE BASIC ULTIMATE WIND SPEED IS <100mph
- ☒ THE PROJECT SITE CLASS CATEGORY IS 'D'
- ☒ THE PROJECT SEISMIC DESIGN CATEGORY IS 'E'
- ☒ THE PROJECT SEISMIC SDS IS MAXIMUM 2.40
- ☒ THE PROJECT SITE IS NOT IN A FLOOD ZONE OTHER THAN ZONE 'X'. IF SO, THEN A GEOTECHNICAL LETTER IS REQUIRED PER IR PC-4 1.7.2.
- ☒ THE PROJECT SITE IS NOT IN AN AREA WITH SNOW LOADING EXCEEDING 5 PSF.
- ☒ THE PROJECT IS DESIGNED FOR VERY HIGH FIRE HAZARD SEVERITY ZONE (AREAS PER CBC CHAPTER 7A.
- ☒ THE ALLOWABLE SOIL BEARING PRESSURE IS 1500psf OR GREATER
- ☒ IF THE CANOPY SIZE IS <1600s.f. IN AREA, NO GEOTECHNICAL/GEOHAZARDS REPORT IS REQUIRED.
- ☒ IF THE CANOPY SIZE IS >1600s.f. AND <4000s.f. AND THERE IS A GEOTECHNICAL REPORT PROVING THAT NO POTENTIAL FOR LIQUIFICATION EXISTS, NO GEOHAZARDS REPORT IS REQUIRED.
- ☒ IF THE CANOPY SIZE IS >4000s.f., A SITE SPECIFIC GEOTECHNICAL/GEOHAZARD REPORT IS REQUIRED GEOTECHNICAL/GEOHAZARD REPORT REQUIRED IN MAPPED GEOLOGIC HAZARD ZONES AND AS REQUIRED BY IR A-4.
- ☒ THE CANOPY SIZE PROVIDES THE MAXIMUM REQUIRED AREA FOR SELECTED USE AND DESIRED OCCUPANCY LOAD (SEE USE CHECKLIST)
- ☒ THE PROJECT IS NOT INTENDED TO PROVIDE SOLAR PANELS
- ☒ THE PROJECT DOES NOT INCLUDE FIRE SPRINKLERS.

ASSEMBLY USE SELECTION CHECKLIST

THE FOLLOWING CHECKLIST IS TO BE USED BY THE PARTY SUBMITTING THIS PRE-CHECK TO INDICATE THE INTENDED ASSEMBLY USE FOR THIS STRUCTURE.

- ☐ DINING CANOPY - ASSEMBLY USE - 'A2'
- ☐ SHADE STRUCTURE - ASSEMBLY USE - 'A3'
- ☒ SHADE STRUCTURE - OUTDOOR INSTRUCTIONAL USE - 'E' ('B' at Secondary College Campuses)
- ☒ SHADE STRUCTURE OVER PLAY EQUIPMENT - 'E'
- ☐ SHADE STRUCTURE OVER PARKING - 'S2' OR 'U'

SITE-SPECIFIC CODE ANALYSIS

THE SECTION IS TO BE FILLED OUT BY THE ARCHITECT OF RECORD FOR THE SITE-SPECIFIC APPROVAL

- ☒ OCCUPANCY GROUP: E (SEE ASSEMBLY USE CHECKLIST) OCCUPANCY LOAD FACTOR: 20
- ☒ OCCUPANCY LOAD: 40
- ☒ TYPE OF CONSTRUCTION: TYPE II-B
- ☒ PROPOSED AREA: 800
- ☒ ALLOWABLE AREA: 14,500

CANOPY SIZE SELECTION CHECKLIST

THE FOLLOWING CHECKLIST IS TO BE USED BY THE PARTY SUBMITTING THIS PRE-CHECK TO INDICATE THE INTENDED SIZES USED FOR THIS PRE-CHECK STRUCTURE. SITE SPECIFIC AOR TO SPECIFY IF CONJOINED OR NON-CONJOINED COLUMNS PER SHEET S2.0.

- ☐ 20'X20'
- ☐ 30'X30'
- ☐ 40'X30'
- ☒ 40' 'X 20' ' (FOR INTERMEDIATE SIZE) (USING 40'-30' STRUCTURE)
- ☐ 'X' (FOR INTERMEDIATE SIZE)

NOTES:
1. PLAN DIMENSIONS ARE REPEATABLE IN ANY ONE DIRECTION TO A TOTAL AREA OF 4000 SQ.FT. STRUCTURALLY. MAXIMUM SIZES MAY BE LESS DUE TO RISK CATEGORY THRESHOLDS. SEE TABLE 1604.5, 2022 CBC.
2. INTERMEDIATE SIZES MAY USE THE MEMBER SIZES OF THE NEXT LARGEST CANOPY WITH AN IDENTICAL WIDTH TO LENGTH RATIO.

COLUMN HEIGHTS:
- ☐ 9' COLUMN HEIGHT
- ☒ 10' COLUMN HEIGHT
- ☐ 11' COLUMN HEIGHT
- ☐ 12' COLUMN HEIGHT

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

rea architect RONEDWARDS
Architecture
7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net

LICENSED ARCHITECT RONALD W. EDWARDS C-25192 Exp. 08/31/25 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT
CODE: 2022 CBC
A separate application for construction is required

PC APPROVAL STAMP:

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-121769 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 09/05/2023

PRECHECK FABRIC SHADE STRUCTURE II

TITLE SHEET

Project # 22-037
Drawn By RWE
Date 9-5-23

T001

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

2022 CBC

IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC).

**NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code.

KEY TO COLUMNS

1. TYPE	2. PERFORMED BY
Continuous – Indicates that a continuous special inspection is required	GE (Geotechnical Engineer) – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative.
Periodic – Indicates that a periodic special inspection is required	LOR (Laboratory of Record – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335.
Test – Indicates that a test is required	PI (Project Inspector) – Indicates that the special inspection may be performed by the project inspector/person specifically approved by DSA.
	SI (Special Inspection) – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

Geotechnical Reports: Project does NOT have and does NOT require a geotechnical report

S1. GENERAL:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify that • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and into proper bearing material. • Materials below footings are adequate to achieve the design bearing capacity.	See Notes	PI	Refer to specific items identified in the Appendix listing exemptions for limitations. Placement of controlled fill exceeding 12" depth under foundations is not permitted without a geotechnical report.

S2. SOIL COMPACTION AND FILL:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify type of compact materials, densities and inspect lift thicknesses, placement and compaction during placement of fill.	Continuous	LOR*	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	b. Compaction testing.	Test	LOR*	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.

S3. DRIVEN DEEP FOUNDATIONS (PILES):

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Verify pile materials, sizes and lengths comply with the requirements.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
*	b. Determine capacities of test piles and conduct additional load tests as required.	Test	LOR*	* Under the supervision of the geotechnical engineer.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8
Application Number: 04-121769 | School Name: | School District:
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	Test or Special Inspection	Type	Performed By	Code References and Notes
*	c. Inspect driving operations and maintain complete and accurate records for each pile.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
*	d. Verify locations of piles and their plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and record any pile damage.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
*	e. Steel piles.	Provide tests and inspections per STEEL section below.		
*	f. Concrete piles and concrete filled piles.	Provide tests and inspections per CONCRETE section below.		
*	g. For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge.	*	*	* As defined on drawings or specifications.

S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):

	Test or Special Inspection	Type	Performed By	Code References and Note
*	a. Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	PI	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
*	b. Verify pier locations, diameters, plumbness and lengths.Record concrete or grout volumes.	Continuous	PI	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
*	c. Concrete piers.	Provide tests and inspections per CONCRETE section below.		

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Placement, compaction and inspection of backfill.	Continuous	GE*	1705A.6.1. * By geotechnical engineer or his or her qualified representative. (See section S2 above).
*	b. Placement of soil reinforcement and/or drainage devices.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
*	c. Segmental retaining walls; inspect placement of units, dowels, connectors, etc.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. See DSA IR 1B-2.
*	d. Concrete retaining walls.	Provide tests and inspections per CONCRETE section below.		
*	e. Masonry retaining walls.	Provide tests and inspections per MASONRY section below.		

S6. OTHER SOILS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Soil Improvements	Test	GE*	Submit a comprehensive report documenting final soil improvements constructed, construction observation and the results of the confirmation testing and analysis to CGS (California Geological Survey) for final acceptance. * By geotechnical engineer or his or her qualified representative.
*	b. Inspection of Soil Improvements	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
*	c.			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3, ACI 318-19 Sections 26.12 & 26.13
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

C1. CAST-IN-PLACE CONCRETE

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify use of required design mix.	Periodic	SI	Table 1705A.3 Item 5, 1910A.1
☑	b. Identify, sample, and test reinforcing steel.	Test	LOR	1910A.2; ACI 318-19 Chapter 26 & ASTM Section 26.6.1.2; DSA IR 17-10. (See Appendix (and of this form for exemptions.)
☑	c. During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	Table 1705A.3 Item 5; ACI 318-19 Sections 26.5 & 26.12.
☑	d. Test concrete (F.).	Test	LOR	1905A.1.17; ACI 318-19 Section 26.12.
☑	e. Batch plant inspection: Eliminated	See Notes	SI	On behalf of 'Continuous' per 1705A.3.3, if approved by DSA, batch plant inspection may be reduced to 'Periodic' subject to requirements in Section 1705A.3.3, 1, or eliminated per 1705A.3.3.2. See IR 17-13. (See Appendix (and of this form) for exemptions.)
*	f. Welding of reinforcing steel.	Provide special inspection per STEEL, Category S/A4(d) & (e) and/or S/A5(g) & (h) below.		

C2. PRESTRESSED / POST-TENSIONED CONCRETE (IN ADDITION TO SECTION C1):

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Sample and test prestressing tendons and anchorages.	Test	LOR	1705A.3.4, 1910A.3
*	b. Inspect placement of prestressing tendons.	Periodic	SI	1705A.3.4, Table 1705A.3 Items 1 & 9.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3, ACI 318-19 Sections 26.12 & 26.13
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Inspect fabrication of precast concrete members.	Continuous	SI	ACI 318-19 Section 26.13.
*	b. Inspect erection of precast concrete members.	Periodic	SI*	Table 1705A.3 Item 10. * May be performed by PI when specifically approved by DSA.
*	c. For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (NOT detailed as HCE) or assigned to Seismic Design Category D, E or F, inspect each connections and reinforcement in the field for: 1. Installation of the embedded parts 2. Completion of the continuity of reinforcement across joints. 3. Completion of connections in the field.	Continuous	SI	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5
*	d. Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5.	Periodic	SI	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3, ACI 318-19 Sections 26.12 & 26.13
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

C4. SHOTCRETE (IN ADDITION TO SECTION C1):

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Inspect shotcrete placement for proper application techniques.	Continuous	SI	1705A.3.9; Table 1705A.3 Item 7; 1908A.1; 1908A.2; 1908A.3; See ACI 506.2-13 Section 3.4, ACI 506R-16.
*	b. Sample and test shotcrete (F.).	Test	LOR	1908A.2, 1705A.3.9

C5. POST-INSTALLED ANCHORS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Inspect installation of post-installed anchors	See Notes	SI*	1617A.1.19; Table 1705A.3 Item 4a (Continuous) & 4b (Periodic); 1705A.3.8 (See Appendix (end of this form) for exemptions); ACI 318-14 Sections 17.8 & 26.13.* May be performed by the project inspector when specifically approved by DSA.
*	b. Test post-installed anchors.	Test	LOR	1910A.5. (See Appendix (end of this form) for exemptions.)

C6. OTHER CONCRETE:

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a.			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMINUM), 2022 CBC

1705A.2.1, Table 1705A.3.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16 AISI S100-20 RCSC 2014, AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

S1A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements, • Material sizes, types and grades comply with requirements.	Periodic	*	Table 1705A.2.1 Item 3a–3c, 2202A.1; AISC 360-16 Section A3.1 & A3.2; AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * By special inspector or qualified technician when fabricated off-site.
☑	b. Test unidentified materials	Test	LOR	2202A.1.
☑	c. Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
☑	d. Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
*	e. Buckling restrained braces.	Test	LOR	Testing and special inspections in accordance with IR 22-4.

S1A2. HIGH-STRENGTH BOLTS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA-approved documents.	Periodic	SI	Table 1705A.2.1 Items 1a & 1b, 2202A.1; AISC 360-16 Section A3.3, J3.1, and N3.2; RCSC 2014 Section 1.5 & 2.1; DSA IR 17-8 & DSA IR 17-9.
*	b. Test high-strength bolts, nuts and washers.	Test	LOR	Table 1705A.2.1 Item 1c, 2213A.1; RCSC 2014 Section 7.2; DSA IR 17-8.
*	c. Bearing-type ("snug tight") connections.	Periodic	SI	Table 1705A.2.1 Item 2a; 1705A.2.6; 2204A.2; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 9.1; DSA IR 17-9.
*	d. Pretensioned and slip-critical connections.	*	SI	Table 1705A.2.1 Items 2b & 2c; 1705A.2.6; 2204A.2; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Sections 9.2 & 9.3; DSA IR 17-9. *"Continuous" or "Periodic" depends on the tightening method used.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMINUM), 2022 CBC

1705A.2.1, Table 1705A.3.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16 AISI S100-20 RCSC 2014, AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

S1A3. WELDING:

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	SI	1705A.2.5, Table 1705A.2.1 Items 4 & 5; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
☑	b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
☑	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.

S1A4. SHOP WELDING (IN ADDITION TO SECTION S1A3):

	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	Table 1705A.2.1 Items 5a.1–4.; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI	1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
*	c. Inspect welding of studs and railing systems.	Periodic	SI	1705A.2.1; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.
*	d. Verification of reinforcing steel weldability other than ASTM A706.	Periodic	SI	1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
*	e. Inspect welding of reinforcing steel.	Continuous	SI	Table 1705A.2.1 Item 5b; 1705A.3.1, Table 1705A.3 Item 2, 1913A.8; AWS D1.4; DSA IR 17-3.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMINUM), 2022 CBC

1705A.2.1, Table 1705A.3.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16 AISI S100-20 RCSC 2014, AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

S1A5. FIELD WELDING (IN ADDITION TO SECTION S1A3):

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	Table 1705A.2.1 Items 5a.1–4.; AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
*	b. Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	Table 1705A.2.1 Item 5a.5; AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
*	c. Inspect end-welded studs (ASTM A-108) installation (including bend test).	Periodic	SI	2213A.2; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1; DSA IR 17-3.
*	d. Inspect floor and roof deck welds.	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.6; AISC 360-16 (AISC 341-16 as applicable); AWS D1.3; DSA IR 17-3.
*	e. Inspect welding of structural cold-formed steel.	Periodic	SI*	1705A.2.1; AWS D1.3; DSA IR 17-3. The quality control provisions of AISI S240-20 Chapter D shall also apply. * May be performed by the project inspector when specifically approved by DSA.
*	f. Inspect welding of stairs and railing systems.	Periodic	SI*	1705A.2.1; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA.
*	g. Verification of reinforcing steel weldability.	Periodic	SI	1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
*	h. Inspect welding of reinforcing steel.	Continuous	SI	Table 1705A.2.1 Item 5b; 1705A.3.1, Table 1705A.3 Item 2, 1913A.8; AWS D1.4; DSA IR 17-3.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMINUM), 2022 CBC

1705A.2.1, Table 1705A.3.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16 AISI S100-20 RCSC 2014, AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
Application Number: 04-121769 | School Name: | School District:
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	Test or Special Inspection	Type	Performed By	Code References and Notes
*	c. Storage rack anchorage installation	Periodic	SI	ANSI/MH16.1 Section 7.3.2; Table 1705A.13.7
*	d. Completed storage rack system to indicate compliance with the approved construction documents.	Periodic	SI*	Table 1705A.13.7.* May be performed by the project inspector when specifically approved by DSA.

S1A11. Other Steel:

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a.			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMINUM), 2022 CBC

1705A.2.1, Table 1705A.3.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16 AISI S100-20 RCSC 2014, AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

S1A7. STEEL JOISTS AND TRUSSES:

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Verify size, type and grade for all chord and web members as well as connectors and weld filler material; verify joist profile, dimensions and camber (if applicable); verify all weld locations, lengths and profiles; mark or tag each joist.	Continuous	SI	1705A.2.3, Table 1705A.2.3; AWS D1.1; DSA IR 22-3 for steel joists only. 1705A.2.4; AWS D1.3 for cold-formed steel trusses.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMINUM), 2022 CBC

1705A.2.1, Table 1705A.3.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16 AISI S100-20 RCSC 2014, AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8
Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

S1A8. SPRAYED FIRE-RESISTANT MATERIALS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Examine structural steel surface conditions, inspect application, take samples, measure thickness and verify compliance of all aspects of application with DSA approved documents.	Periodic	SI	1705A.15, 1705A.1, 1705A.2, 1705A.3, 1705A.4.
*	b. Test density.	Test	LOR	1705A.15.1, 1705A.15.3, ASTM E736
*	c. Bond strength adhesion/cohesion.	Test	LOR	1705A.15.1, 1705A.15.4, ASTM E605

S1A9. ANCHOR BOLTS AND ANCHOR RODS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Anchor Bolts and Anchor Rods	Test	LOR	Sample and test anchor bolts and anchor rods not visibly identifiable per procedures noted in DSA IR 17-11.
*	b. Threaded rod not used for foundation anchorage.	Test	LOR	Sample and test threaded rods not readily identifiable per procedures noted in DSA IR 17-11.

S1A10. STORAGE RACK SYSTEMS:

	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Materials used, to verify compliance with one or more of the material test reports in accordance with the approved construction documents.	Periodic	SI	Table 1705A.13.0
*	b. Fabricated storage rack elements.	Periodic	SI	1704A.2.1; Table 1705A.13.7

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SIGNATURE), 2022 CBC

Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

Name of Architect or Engineer in general responsible charge:

Name of Structural Engineer (When structural design has been delegated):

Signature of Architect or Structural Engineer: Date:

Note: To facilitate DSA electronic mark-ups and identification stamp application, DSA recommends submit using secured electronic or digital signatures.

DSA STAMP

DSA 103-22: LIST OF REQUIRED VERIFIED REPORTS, CBC 2022

Application Number: 04-121769 | School Name: | School District:
DSA File Number: | Increment Number: | Date Created: 2022-12-18 09:01:08

1. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
2. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

NOTES

1. THE EXAMPLE FORM DSA-103(s) SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSES ONLY. A FORM DSA-103 IS TO BE FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND ALL EXAMPLE DSA-103(s) ARE TO BE CROSSED OUT ON THIS DRAWING.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

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LICENSED ARCHITECT RONALD W. EDWARDS C 25592 Exp. 8/31/2025 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT CODE: 2022 CBC
A separate application for construction is required
PC APPROVAL STAMP:

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-121769 PC A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 09/05/2023

PRECHECK FABRIC SHADE STRUCTURE II

T&I GUIDELINE

Project # 22-037
Drawn By RWE
Date 9-5-23
A002

CONCRETE:

1. ALL CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE 2022 C.B.C. AND THE A.C.I. 318-19 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
2. SLAB AND FOUNDATION CONCRETE SHALL BE 150 P.C.F. HARDROCK, MIXED PER A.S.T.M. C-94, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 P.S.I. AT 28 DAY. MAX. SLUMP TO BE 4" ± 1" OF W/C RATIO < .45
3. THE MAXIMUM SIZE AGGREGATE IN FOUNDATION AND MASS CONCRETE WORK SHALL BE 1 INCH.
4. CEMENT SHALL CONFORM TO A.S.T.M.. C-150 TYPE V, LOW ALKALI. AGGREGATES FOR NORMAL WEIGHT SHALL CONFORM TO A.S.T.M. C-33.
5. ADMIXTURES AND COLORS (EXCEPT AS NOTED HEREIN) SHALL NOT BE USED UNLESS SUBSTANTIATING DATE IS SUBMITTED TO AND ACCEPTED BY THE ENGINEER AND ARCHITECT OF RECORD AND DSA.
6. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY. THE MIX DESIGNS SHALL CONFORM TO ACI 318-19 SECTION 26.4.3.1 UNLESS NOTED OTHERWISE.
7. NON-STRUCTURAL STEEL EMBEDDED IN CONCRETE SHALL BE GALVANIZED OR PAINTED. ALL DAMAGED GALVANIZED AREAS SHALL BE REPAIRED PRIOR TO EMBEDMENT.
8. READY MIXED CONCRETE SHALL CONFORM TO (A.S.T.M. C-94).
9. PLACEMENT OF CONCRETE SHALL CONFORM THE 2022 C.B.C. AND THE TO A.C.I. 304. CLEAN AND ROUGHEN A FULL AMPLITUDE OF ¼" BY REMOVING THE ENTIRE SURFACE AND EXPOSING CLEAN AGGREGATE SOLIDLY EMBEDDED IN THE MORTAR MATRIX AGAINST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE POURED.
10. ALL EXPOSED CONCRETE SHALL HAVE A SMOOTH FORM FINISH USING B-B PLYFORM, CLASS I, EXT-A.P.A. PLYWOOD.
11. ALL SLABS SHALL HAVE A TROWELED FINISH EXCEPT AS NOTED ON THE DRAWINGS.
12. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
13. IF THE CONTRACTOR DESIRES TO MAKE ANY CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THESE DRAWINGS, HE SHALL SUBMIT DETAILS OF CHANGES TO THE ENGINEER OF RECORD FOR REVIEW BEFORE STARTING WORK AND THE ENGINEER OF RECORD TO OBTAIN DSA APPROVAL PRIOR TO STARTING WORK.
14. NO BRICK OR POROUS MATERIAL SHALL BE USED TO SUPPORT FOUNDATION STEEL OF THE GROUND.
15. PROVIDE ½ INCH CHAMFER ON ALL EXPOSED CONCRETE CORNERS, U.N.O.
16. MINIMUM CONCRETE COVERAGES

FOOTINGS CAST AGAINST EARTH	3"
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER	2"

17. CONCRETE CURING:
SLAB AND FDN; TYPICALLY REQUIRED FOR 10 DAYS TO ACHIEVE A MINIMUM OF 3000 PSI STRENGTH PRIOR TO INSTALLATION OF OTHER MAJOR STRUCTURAL COMPONENTS.

FOUNDATION:

1. THIS P.C. IS DESIGN TO THE C.B.C. MINIMUM. WHERE SOIL REPORT IS AVAILABLE; ATTACH ONE COPY OF SOILS REPORT TO THE APPROVED SET OF CONSTRUCTION DOCUMENTS. SOILS REPORT SHALL BE PART OF THESE NOTES. PRIOR TO THE POURING OF CONCRETE AND PRIOR TO THE CONTRACTOR REQUESTING A DSA FOUNDATION INSPECTION, THE GEOTECHNICAL ENGINEER SHALL INSPECT AND APPROVE THE FOOTING EXCAVATIONS. HE SHALL POST NOTICE ON THE JOB SITE AND ADVISE THE DSA INSPECTOR IN WRITING THAT THE WORK SO INSPECTED MEETS THE CONDITIONS OF THE REPORT. A WRITTEN CERIFICATION TO VERIFY THAT:
   A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE SOIL REPORT.
   B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED, AND
   C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE SOILS REPORT.
2. TYPE OF FOOTING:
   A. DESIGN SOIL PRESSURE:

FOOTING TYPE	STATIC BEARING PRESSURE
CONTINUOUS FOOTING	1,500 psf
LATERAL BEARING	100 pcf*

*MAY BE DOUBLED PER SECTION 1806A.3.4

3. ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
4. THE CONTRACTOR SHALL DETERMINE LOCATION OF UTILITY SERVICES IN AREAS TO BE EXCAVATED BEFORE BEGINNING EXCAVATION. EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING. DAMAGE CAUSED AS A RESULT OF FAILING TO EXACTLY LOCATE AND PRESERVE ALL EXISTING UNDERGROUND UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, APPROVALS, PERMITS, INSTALLATION AND MONITORING OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN TEMPORARY EXCAVATIONS.
6. ALL PLANTERS IN CLOSE PROXIMITY TO THE STRUCTURE SHALL HAVE ADEQUATE DRAINAGE OF SURFACE WATER TO PREVENT SATURATION OF SOIL UNDER FOUNDATION.
7. 2022 C.B.C. SEISMIC SITE CLASS A, B, C, D, + D-DEFAULT

GENERAL NOTES:

1. THE PROJECT SPECIFICATIONS SHALL BE PART OF THE CONTRACT DOCUMENTS.
2. THE STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
3. THE CONTRACTOR SHALL REVIEW EXISTING CONDITIONS ON THE SITE DURING THE BIDDING. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARING WORK. THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES PRIOR TO PROCEEDING.
4. ALL PHASES OF WORK ARE TO CONFORM TO THE MINIMUM STANDARDS OF THE CALIFORNIA BUILDING CODE (2022 EDITION C.B.C.), RELATED CALIFORNIA BUILDING CODE STANDARDS, AND ANY A.S.T.M. SPECIFICATIONS ON WHICH THESE STANDARDS ARE BASED. WHERE CONFLICT BETWEEN BUILDING CODES AND SPECIFICATIONS OCCURS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
5. ALL A.S.T.M. DESIGNATIONS REFERRED TO ON THESE DRAWINGS SHALL BE THE LATEST ADOPTED OR REVISED SPECIFICATION, AS OF THE DATE OF THESE DRAWINGS.
6. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS. DRAWINGS SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
7. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
8. THE STRUCTURAL DRAWINGS SHOW ONLY THE BASIC STRUCTURAL REQUIREMENTS. REFER TO CIVIL, ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS THAT OCCUR PER SPECIFIC PLANS FOR NON-STRUCTURAL ITEMS, SUCH AS:
   A. SIZE AND LOCATION OF ALL OPENINGS.
   B. SIZE AND LOCATION OF ALL NON-BEARING WALLS.
   C. SIZE AND LOCATION OF ALL CONCRETE CURBS, WALKS, ROOF AND FLOOR DRAINS, SLOPES, DEPRESSED SLAB AREAS, ETC.
   D. FLOOR, ROOF AND WALL FINISHES.
   E. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
9. THE STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.
10. NEITHER THE OWNER NOR THE ARCHITECT/STRUCTURAL ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STARE AND FEDERAL SAFETY AND HEALTH STANDARDS, SLAWS AND REGULATIONS. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE SAFETY ITEMS.
11. SATISFACTORY EXECUTION OF CONSTRUCTION IS DEPENDENT UPON CONFORMANCE WITH THE INTENT OF THESE DRAWINGS. OWNER OR CONTRACTOR SHALL RETAIN A CALIFORNIA LICENSED STRUCTURAL ENGINEER DURING CONSTRUCTION TO OBSERVE THE CONSTRUCTION AND FILE A REPORT (DSA 6AE) STATING THE "THE CONSTRUCTION HAS, IN EVERY MATERIAL RESPECT, BEEN PERFORMED IN COMPLIANCE WITH THE DSA APPROVED DOCUMENTS".
12. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOAD SHALL NOT EXCEED DESIGN LIVE LOAD FOR EACH PARTICULAR LEVEL. WHEN WEIGHT OF MATERIALS OR EQUIPMENT MAY EXCEED DESIGN LOAD, STRUCTURAL SYSTEMS SHALL BE SHORED.
13. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK. THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.

DESIGN BASIS:

CODE: 2022 C.B.C. (CALIFORNIA BUILDING CODE CCR, TITLE 24, PART 2)

GRAVITY LOADS:

1. ROOF LIVE LOAD 5 P.S.F. (REDUCIBLE)
   ROOF DEAD LOAD 1.5 P.S.F. (MAX.)
2. SNOW LOAD Pg 5.0 PS.F.

LATERAL LOADS:

1. SEISMIC DESIGN

☐ SITE CLASS D Default were no Geotechical Report required

Note: Design values may also be used where Site Class C is justified by location specific Geotechnical Report

RISK CATEGORY = II
REDUNDANCY (p) = 1

Ss = 2.5
S_{DS} = 1.67 S_{ds} = S_{ms} X 2/ 3

☐ CANOPIES OCCUPANCY = II

☐ ORDINARY STEEL CANTILEVER COLUMNS

SEISMIC DESIGN CATEGORY = E (ASCE 7-16 TABLE 11.6.1 AND TABLE 11.6.2)
Ie = 1.25
R = 1.25
$C_S = S_{ds}/(R/Ie)$ (LRFD) = 1.33 Ultimate .993 ASD
ANALYSIS METHOD = EQUIVALENT LATERAL FORCE ANALYSIS

Note: Design values may also be used conservatively where Site Class C is justified by location specific Geotechnical Report

2. WIND DESIGN
   ANALYSIS METHOD = DIRECTIONAL PROCEDURE (OPEN STRUCTURE)
   V = 110 M.P.H. BASIC WIND SPEED, ASCE 7-16
   EXPOSURE "C"
   Kzt = 1.0
   RISK CATEGORY = II

STRUCTURE IS DESIGN FOR CLEAR WIND FLOW

FLOOD HAZARD: DESIGN DOES NOT ACCOUNT FOR FLOOD HAZARD

SITE SPECIFIC GEOTECHNICAL STUDY IS NOT REQUIRED FOR

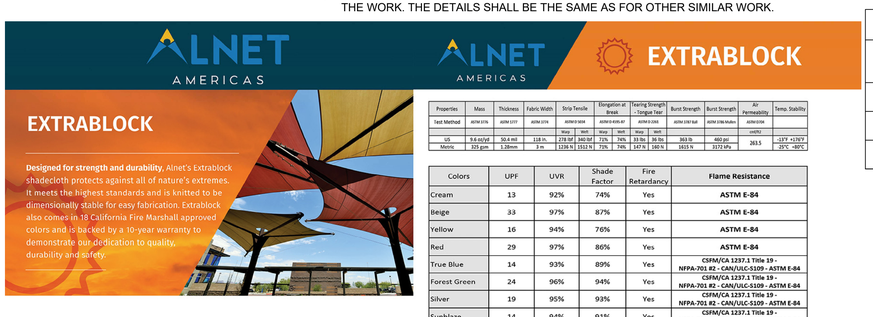
THIS PC PROJECT IS NOT DESIGNED TO INCLUDE WEIGHT OF SPRINKLERS

BUILDING SEPERATION REQUIREMENT:

MINIMUM CLEAR DISTANCE REQUIRED BETWEEN EXISTING SITE STRUCTURE/ ADJACENT SITE STRUCTURE AND SHADE STRUCTURE IS TO BE AT LEAST 10'.

SEISMIC BASE SHEAR (LRFD)

BUILDING CONFIGURATION	BASE SHEAR (KIP)
20'X20'	1.5K
30'X30'	3.00K
40'X30'	3.50K



ALNET
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Properties	Mass	Thickness	Fabric Width	Strip Tensile		Elongation at Break		Tearing Strength Tongue Tear		Burst Strength	Burst Strength	Air Permeability	Temp. Stability
Test Method	ASTM D776	ASTM D777	ASTM D774	ASTM D5034		ASTM D 4595-86*		ASTM D 2261		ASTM D3786 Hydr.	ASTM D3786 Hydraulic	ASTM D736	
				Warp	Weft	Warp	Weft	Warp	Weft			cm3/ft2	
US	9.6 oz/yd	50.4 mil	118 in.	278 lbf	360 lbf	71%	74%	33 lbs	36 lbs	363 lb	460 psi	203.5	-13°F +176°F
Metric	325 gsm	1.28mm	3 m	1238 N	1552 N	71%	74%	147 N	160 N	1615 N	3172 kPa		-25°C +80°C

Colors	UPF	UVR	Shade Factor	Fire Retardancy	Flame Resistance
Cream	13	92%	74%	Yes	**ASTM E-84**
Beige	33	97%	87%	Yes	**ASTM E-84**
Yellow	16	94%	76%	Yes	**ASTM E-84**
Red	29	97%	86%	Yes	**ASTM E-84**
True Blue	14	93%	89%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Forest Green	24	96%	94%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Silver	19	95%	93%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Sunblaze	14	94%	91%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Latte	18	95%	90%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Bottle Green	16	94%	91%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Charcoal	20	96%	94%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Midnight	33	98%	98%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Mint Green	18	95%	93%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Dove Blue	13	93%	90%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Oxide Red	14	93%	91%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Pearl Onyx	16	94%	86%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Purple	16	94%	86%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Olive	26	97%	96%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Brown	19	95%	93%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Navy Blue	23	96%	96%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Lime	18	95%	79%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Hazelnut	18	95%	91%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84

CERTIFICATIONS

NFPA 701 · ASTM E84 TESTING · UP TO 10 YEARS 98% UVR PROTECTION · 100% RECYCLABLE · SABS APPROVED · Certified BSE Rating

10 Year Warranty

ALNET is the leading innovator in synthetic textile and netting material production for the world's ***architectural, agricultural, aquacultural*** and ***industrial industries.***

For more information, please contact **protect@AlnetAmericas.com** or visit us at **www.AlnetAmericas.com**

FNAME
REVDATE
USER

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

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PRECHECK FABRIC SHADE STRUCTURE II

Project # 22-037
Drawn By RWE
Date 12-20-22

S1.1

STRUCTURAL OBSERVATION:

1. PER C.B.C. CHAPTER 17A, 1704A.6 THE OWNER SHALL EMPLOY A LICENSED ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, OR HIS DESIGNATED ENGINEER OR ARCHITECT TO MAKE SITE VISITS TO OBSERVE. GENERAL COMPLIANCE WITH THE APPROVED STRUCTURAL PLANS, SPECIFICATIONS AND CHANGE ORDERS. THE ENGINEER OR ARCHITECT SHALL SUBMIT A STATEMENT IN WRITING TO THE BUILDING OFFICIAL STATING THAT THE SITE VISIT HAS BEEN MADE AND THAT ANY DEFICIENCIES NOTED HAVE BEEN CORRECTED.

2. IN ACCORDANCE WITH SECT. 4-333 (a) OF TITLE 24, PART 1, STRUCTURAL OBSERVATION SHALL INCLUDE AND OCCUR AT THE FOLLOWING STAGES:
   A. OBSERVATION AT THE SITE PRIOR TO PLACING CONCRETE.
   B. OBSERVATION OF THE BUILDING DURING FABRICATION AFTER MAJORITY OF STRUCTURAL ITEMS ARE IN PLACE.
   C. OBSERVATION OF THE COMPLETED STRUCTURE PRIOR TO BEING COVERED FINISHES.

3. AT COMPETITION OF IN-PLANT MANUFACTURING THE INDIVIDUAL ACCEPTING RESPONSIBILITY FOR OBSERVATION OF IN-PLANT MANUFACTURING SHALL SIGN THE VERIFIED REPORT, DSA 152-IPI (IN-PLANT INSPECTOR VERIFIED REPORT).

4. OBSERVATION OF THE ON SITE CONSTRUCTION INCLUDES THE SCOPE OF WORK INDICATED ON THE DSA APPROVED BUILDING PLANS AND SPECS.

5. INTERIM AND FINAL VERIFIED REPORTS ARE REQUIRED DURING, AND AT THE COMPLETION OF, ON SITE CONSTRUCTION AND INSTALLATION USING FORM DSA 6-AE (ARCHITECT/ENGINEER VERIFIED REPORT).

6. STRUCTURAL TESTING & SPECIAL INSPECTIONS: SEE APPROVED DSA-103 FORM FOR STRUCTURAL TESTING AND INSPECTIONS.

COLD FORMED STRUCTURAL STEEL:

1. ALL LIGHT GAUGE METAL FRAMING SHALL BE THE TYPE, SIZE, GAUGE AS SHOWN ON THE PLANS AND BE FABRICATED AND ERECTED IN ACCORDANCE WITH 2016 (2020) A.I.S.I. S100 SPECIFICATIONS. WITH SUPPLEMENT 2 AND 2022 CBC SECTIONS 2210A, 2211A, &2213A.

2. STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123 OR A153 CLASS D OR PAINTED WITH ZINC-RICH PRIMER, UNDERCOAT, AND FINISH COAT; OR EQUIVALENT PAINT SYSTEM. COLD FORMER STEEL MEMBERS SHALL BE 5 PERCENT ALUMINUM-ZINC ALLOY COATED PER ASTM A792/A792M STANDARD IN ACCORDANCE TO AMERICAN IRON AND STEEL INSTITUTE (AISI) S240 TABLE A4-1, CP 90 COATING DESIGNATION.

3. TOUCH UP COLD GALVANIZING USING ZRC CHEMICAL PRODUCTS CO., ZRC COLD GALVANIZING COMPOUND OR EQUAL.

STEEL CABLES:

1. ALL CABLE STEEL TO BE ASTM A1023, 6X19 CLASS IWRC OR 7x19 CLASS IWRC

2. CABLES SHALL BE GALVANIZED (CLASS A ZINC COATING) OR STAINLESS STEEL, CLASS BRIGHT WIRE ROPE

3. MAXIMUM CABLE STRENGTH:

5 / 16"	7X19 304 SS	=	3.068K
3 / 8"	7X19 304 SS	=	4.091K
7/16"	6X19 Galv.	=	6.259K
1/2"	6X19 Galv.	=	8.181K

4. MAX. PRETENSION LOAD:

1 / 4"	DIA.	=	0.30k
3 / 8"	DIA.	=	0.30k
7/ 16"	DIA.	=	0.30k
1/2"	DIA	=	0.50K

5. FOR CABLE (ROPE CLIPS) SEE SHEET T001

WELDING:

1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICAN WELDING SOCIETY CODE D1.1.-15, AND CFC.

2. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS.

3. ALL WELDING SHALL BE DONE BY THE SHIELDED ARC PROCESS USING APPROVED ELECTRODES PER A.W.S. SPECIFICATIONS E70XX (LOW HYDROGEN ELECTRODES).

4. ALL WELDS SHALL HAVE A WELD CONTROLLED SEQUENCE AND TECHNIQUE IN ORDER TO MINIMIZE SHRINKAGE, STRESSES AND DISTORTION.

5. ALL ELECTRODES FILLER MATERIAL SHALL BE A MINIMUM OF E70XX.

6. SPECIAL INSPECTION IS REQUIRED FOR ALL WELDING.

7. ALL SHOP AND FIELD WELDING OF MOMENT CONNECTIONS OR MOMENT RESISTING FRAMES, AND ALL COLUMN SPLICE WELDS, SHALL BE TESTED AS PER C.B.C.

   A. ALL WELDS WITHIN MEMBERS DESIGNATED AS PER OF THE LATERAL FORCE RESISTING SYSTEM (LFRS) SHALL CONFORM TO THE DETAILING, MATERIALS, WORKMANSHIP, TESTING AND INSPECTION REQUIREMENTS PER AWS D1.8 AND AISC 341-16, AND SHALL USE A FILLER METAL WITH A CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LB AT 0° F.
   B. WHERE WELDS ARE DESIGNATED AS DEMAND CRITICAL, THEY SHALL BE MADE WITH A FILLER METAL CAPABLE OF PROVIDING A MINIMUM CVN TOUGHNESS OF 20 FT-LB AT 20° F AND 40 FT-LB AT 70° F. SEE AWS D1.8 SECTION 6.3.6,
   C. WELDERS PERFORMING WELDING WITHIN THE "LFRS" SHALL BE QUALIFIED IN ACCORDANCE WITH AWS D1.8 CHAPTER 5.

STEEL:

1. QUALIFIED AND CERTIFIED WELDERS SHALL BE USED FOR ALL WELDING. ALL WELDING TO CONFORM TO THE LATEST ADOPTED EDITION OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE A.W.S. D1.1.

2. MATERIALS:

MISCELLANEOUS PLATES	A.S.T.M. A-36
STRUCTURAL STEEL PIPES (COLUMNS)	A.S.T.M. A53 GRADE B
WELDING ELECTRODES	A.W.S. STRUCTURAL STEEL E70XX,
TYPICAL STEEL CONNECTION BOLTS	GALVANIZED A307, A304XX
GALVANIZING	A.S.T.M. A-123
RUST-INHIBITING PRIMER	CC-M10
STEEL TUBING (HIPS RIDGES, AND BRACES MEMEBERS)	A.S.T.M. A-500, GRADE B
	(HSS ROUND) (Fy = 46 K.S.I.)
	(HSS RECT) (Fy = 50 K.S.I.)

3. STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123, UNDERCOAT AND FINISH COAT OR EQUIVALENT PAINT SYSTEM.

4. CONNECTED MEMBERS SHALL BEAR ONLY UPON UNTHREADED PORTIONS OF BOLTS.

5. BURNING OF HOLES IS NOT ALLOWED.

6. INSPECTION OF WELDING SHALL CONFORM TO C.B.C. REQUIREMENTS (CHAPTER 17A).

7. THE STRUCTURAL STEEL FABRICATOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

8. BOLT HOLES SHALL BE 1 / 8" LARGER IN DIAMETER THAN NOMINAL SIZE OF BOLTS USED, UNLESS NOTED OTHERWISE.

9. STRUCTURAL STEEL SHALL BE DELIVERED TO THE JOB SITE FREE OF EXCESSIVE RUST, MILL SCALE, GREASE, ETC.

10. OPENINGS SHALL NOT BE PLACED IN STEEL MEMBERS UNLESS SPECIFICALLY DETAILED.

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PRECHECK FABRIC SHADE STRUCTURE II

Project # 22-037	S1.2
Drawn By RWE	
Date 12-20-22	

FNAME
REVDATE
USER

ABBREVIATIONS:

&	AND
@	AT
℄	CENTER LINE
℞	PLATE, PROPERTY LINE
A.B.	ANCHOR BOLT
ADJ	ADJACENT
A.F.F.	ABOVE FINISH FLOOR
ARCH'L	ARCHITECTURAL
BD	BOARD
BLD'G	BUILDING
BLK	BLOCK
BLK'G	BLOCKING
BLW	BELOW
BM	BEAM
B.N.	BOUNDARY NAIL/SCREW
BOT.	BOTTOM
BRG	BEARING
B.S.	BOTH SIDE
BTWN	BETWEEN
C.B.	CARRIAGE BOLT
C.F.	CUBIC FOOT
CHAM	CHAMFER
C.I.	CAST-IRON
C.I.P.	CAST-IN-PLACE
C.J.	CONTROL JOINT
CLG	CEILING
CLK	CAULK
CLK'G	CAULKING
CLR.	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
CNTR	CENTER
COL.	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CNTRSNK	COUNTERSINK
d	PENNY
DBL	DOUBLE
DEP	DEPRESSED
DET	DETAILED
D.F.	DOUGLAS FIR
D.F.L.	DOUGLAS FIR/LARCH
DIA	DIAMETER
DIAG	DIAGONAL
DIAM.	DIMENSION
D.L.	DEAD LOAD
DN	DOWN
DIV	DIVISION
DR	DOOR
DWG	DRAWING
DWL	DOWEL
EA	EACH
E.F.	EACH FACE
EL.	ELEVATION
ELEV.	ELEVATION / ELEVATOR
EMBED	EMBEDMENT
E.N.	EDGE NAIL/SCREW
EQ.	EQUAL
EQUIP	EQUIPMENT
E.S.	EACH SIDE
E.W.	EACH WAY
EXIST'G	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F.D.	FLOOR DRAIN
FDN	FOUNDATION
F.F.	FINSIH FLOOR
FIN.	FINISH
F.N.	FIELD NAIL
F.O.	FACE OF
FRM'G	FRAMING
F.S.	FAR SIDE
FT	FEET / FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
G.I.	GALVANIZED IRON
GLB	GLU-LAMINATED BEAM
GRD	GRADE
GYP	GYPSUM
H.D.	HOLDOWN
HDR	HEADER
HGR	HANGER
HORIZ	HORIZONTAL
HRD	HARD
H.S.B.	HIGH STRENGTH BOLT
HT.	HEIGHT
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
IN.	INCH
INSP.	INSPECTION / INSPECTOR
INT.	INTERIOR
JST	JOIST
JT	JOINT
KIPS	KILOPOUNDS (1,000 POUNDS)
K.O.	KNOCK OUT
LB	POUND
L.B.	LAG BOLT
L.F.	LINEAR FOOT
LG	LONG
L.L.	LIVE LOAD
L.L.H.	LONG LEG HORIZONTAL
L.L.V.	LONG LEG VERTICAL
L.S.	LAG SCREW
LT.	LIGHT
MAS	MASONRY
MAT.	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MECH'L	MECHANICAL
MEZZ.	MEZZANINE
MIN.	MINIMUM
M.H.	MANHOLE
MANUF.	MANUFACTURER
MTL.	METAL
N.S.	NEAR SIDE
N.I.C.	NOT IN CONTACT
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.H.	OPPOSITE HAND
OPN'G	OPENING
OPP	OPPOSITE
O.W.J.	OPEN WEB JOIST
P.C.	PRECAST
PERP.	PERPENDICULAR
PLYWD	PLYWOOD
PNL	PANEL
PREFAB	PREFABRICATED
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
PT	POINT
P.T.	PRESSURE TREATED
P.V.C.	POLYVINYL CHLORIDE
RAD	RADIUS
R.D.	ROOF DRAIN
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REQ'D	REQURIRED
REV	REVISION
RF	ROOF
RFTR	RAFTER
R.H.	ROOF HATCH
RM	ROOM
R.O.	ROUGH OPENING
R.S.	ROUGH SAWN
SCHED.	SCHEDULE
SECT.	SECTION
S.F.	SQUARE FOOT
SHT	SHEET
SHT'G	SHEETING
SIM.	SIMULAR
S.M.S.	SHEET METAL SCREW
SPEC.	SPECIFICATION
SQ.	SQUARE
S.S.	STAINLESS STEEL
STAGG.	STAGGARED
STD	STANDARD
STIFF.	STIFFENER
STL.	STEEL
STRUCT'L	STRUCTURAL
STS	SELF TAPPING SCREW
SYM	SYMMETRICAL
SYS	SYSTEM
T & B	TOP AND BOTTM
T & G	TONGUE AND GROOVE
TEMP	TEMPORARY
THK	THICK
THKN'D	THICKENED
THRU	THROUGH
T.L.	TOTAL LOAD
T.O.	TOP OF
T.S.G.	TAPERED STEEL GIRDER
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U.T.	ULTRASONIC TESTING
VERT.	VERTICAL
W/	WITH
W/O	WITHOUT
WD	WOOD
WIN	WINDOW
W.P.	WATERPROOF / WORK POINT
W.P.J.	WEAKENED PLAN JOINT
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
W.W.M.	WELDED WIRE MESH

FNAME
REVDATE
USER

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

rea architect
RONEDWARDS
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(661) 394-0053
ron@rearchitect.net
LICENSED ARCHITECT RONALD W. EDWARDS C 25192 REN 12-31-24 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT
CODE: 2022 CBC
A separate application for construction is required

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-121769 PC
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SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 09/05/2023

PRECHECK FABRIC SHADE STRUCTURE II

Project #	22-037
Drawn By	RWE
Date	12-20-22

S1.3

6X19/37 Class Galvanized Wire Rope

Size (in)	Approx. Wt per ft (lbs)		Nominal Breaking Load (lbs)			
			IPS		EIPS	
	FC	IWRC	FC	IWRC	FC	IWRC
1/4	0.015	0.116	4,940	5,300	5,430	6,120
5/16	0.164	0.18	7,660	8,240	8,440	9,480
3/8	0.236	0.26	10,980	11,800	12,090	13,600
☒ 7/16	0.32	0.35	14,880	16,000	16,380	18,350
1/2	0.42	0.46	19,260	20,700	21,240	24,000
9/16	0.53	0.59	24,300	26,100	26,820	30,200
5/8	0.66	0.72	30,000	32,200	32,940	37,000
3/4	0.95	1.04	42,800	46,000	47,160	53,000
7/8	1.29	1.42	58,000	62,200	63,720	71,600
1	1.68	1.85	75,200	80,800	82,800	93,000
1-1/8	2.13	2.34	94,600	101,800	104,040	117,000
1-1/4	2.63	2.89	116,200	125,000	127,980	143,800
1-3/8	3.18	3.50	139,800	150,400	153,900	172,800

kulkoni MALLEABLE WIRE ROPE CLIPS



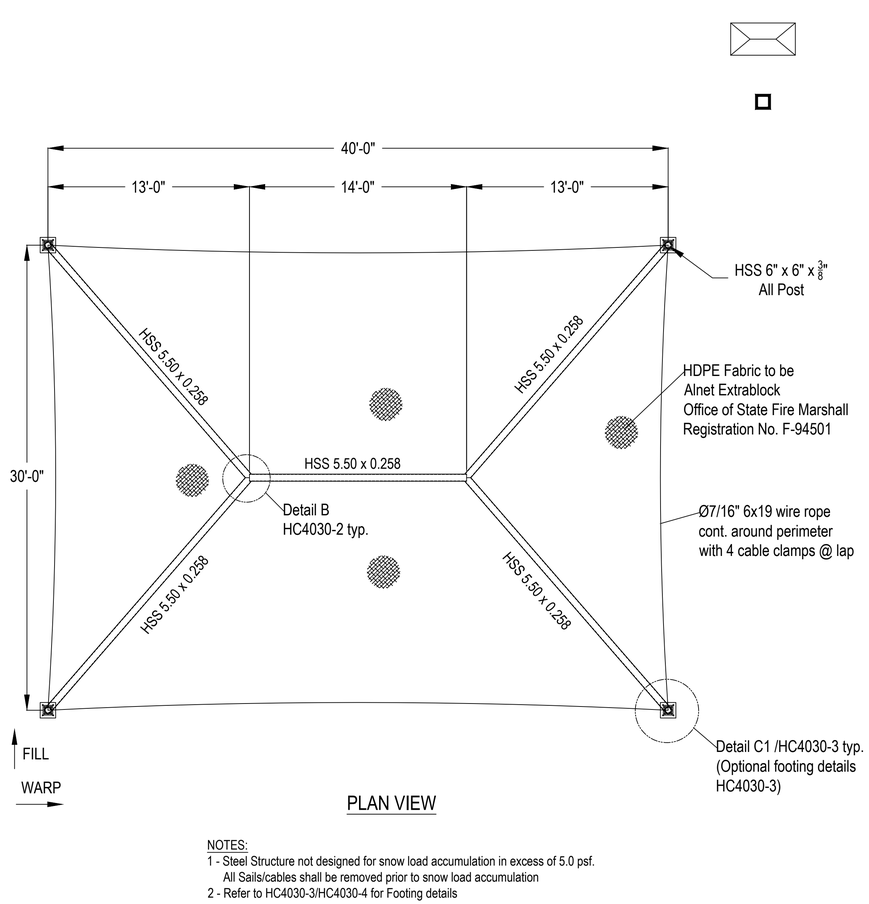
ZINC PLATED, MALLEABLE

Size in Inches	Min. Clips Required	Wire Rope Turn Back in Inches	Torque in Foot Pounds*	Approx. Wt. in Pounds	Dimensions in Inches						
					A	B	C	D	E	F	G
1/16**	3	4	2.0	0.030	0.15	0.65	0.45	0.36	0.38	0.45	0.69
1/8**	3	4.3/4	3.0	0.040	0.18	0.81	0.50	0.50	0.50	0.56	0.94
3/16	3	5.1/2	4.5	0.063	0.25	0.94	0.56	0.56	0.56	0.63	1.06
1/4	3	7	15.0	0.130	0.31	1.19	0.75	0.75	0.69	0.75	1.31
5/16	3	7.3/4	15.0	0.150	0.31	1.31	0.84	0.75	0.75	0.75	1.44
3/8	3	9.1/2	30.0	0.210	0.38	1.63	1.00	0.88	0.84	0.88	1.63
☒ 7/16	4	10.1/4	40.0	0.370	0.38	2.00	1.19	1.06	1.00	1.06	1.88
1/2	4	15.1/4	40.0	0.370	0.44	2.00	1.19	1.06	1.00	1.06	1.88
9/16	4	16	50.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
5/8	4	16	75.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
3/4	5	22.1/4	75.0	0.840	0.56	2.56	1.56	1.31	1.44	1.56	2.38
7/8	5	23.1/2	130.0	1.250	0.63	3.06	1.81	1.63	1.75	1.81	2.88
1	6	31	130.0	1.660	0.63	3.44	2.00	1.88	2.06	2.00	3.00
1.1/8	7	39	200.0	2.430	0.75	4.00	2.75	2.00	2.19	2.06	3.38

Meets the performance requirements of Federal Specification FF-C-450, current revision, Type 1, Class 2.**
* Based on clean, unlubricated threads. The table above shows the minimum torque required to reach maximum holding power of wire rope clips.
** NOTE: 1/16" and 1/8" are not covered by Federal Specification FF-C-450, current revision.

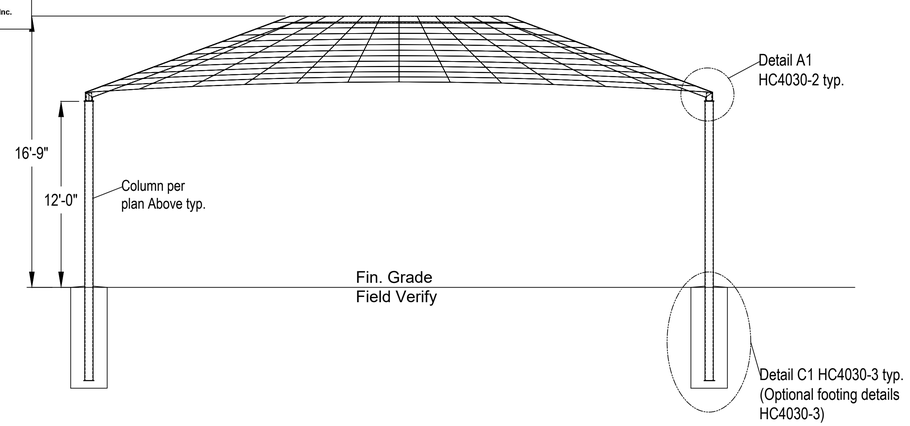
Improper use and installation of cast malleable wire rope clips can result in serious injury or death.
NEVER use cast malleable wire rope clips for lifting or suspending ANY load.
Cast malleable wire rope clips are to be used only for non-critical, light duty applications with small applied loads.
For complete installation instructions refer to page 48.

Page 52 | v921 | WARNING: NEVER EXCEED WORKING LOAD LIMIT Read important warnings and information on pages 2 - 5 and page 48. | Kulkoni, Inc.

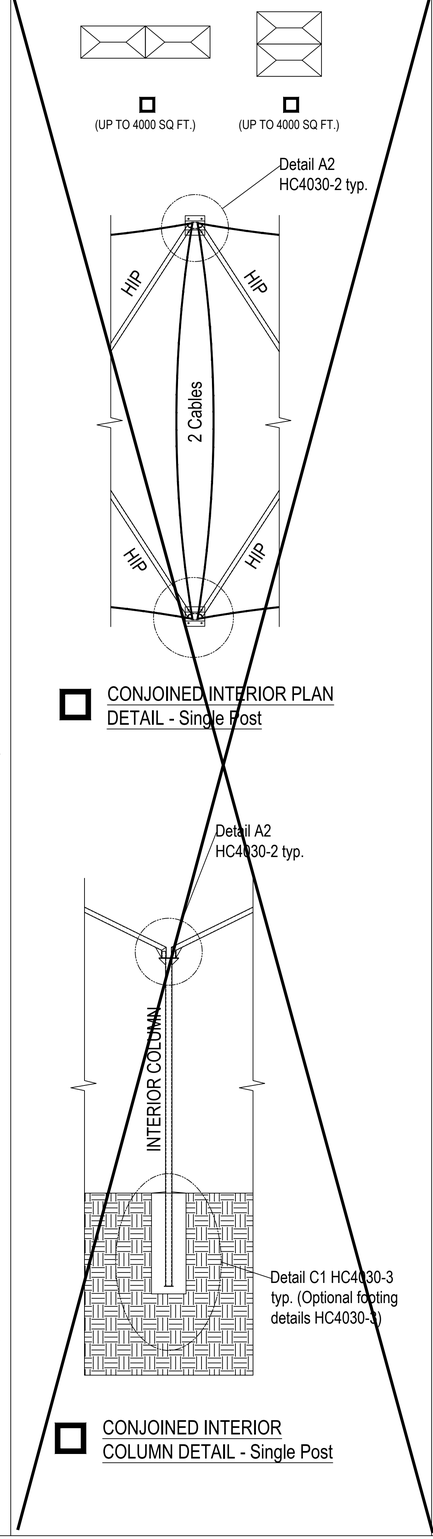


PLAN VIEW

NOTES:
1 - Steel Structure not designed for snow load accumulation in excess of 5.0 psf. All Sails/cables shall be removed prior to snow load accumulation
2 - Refer to HC4030-3/HC4030-4 for Footing details

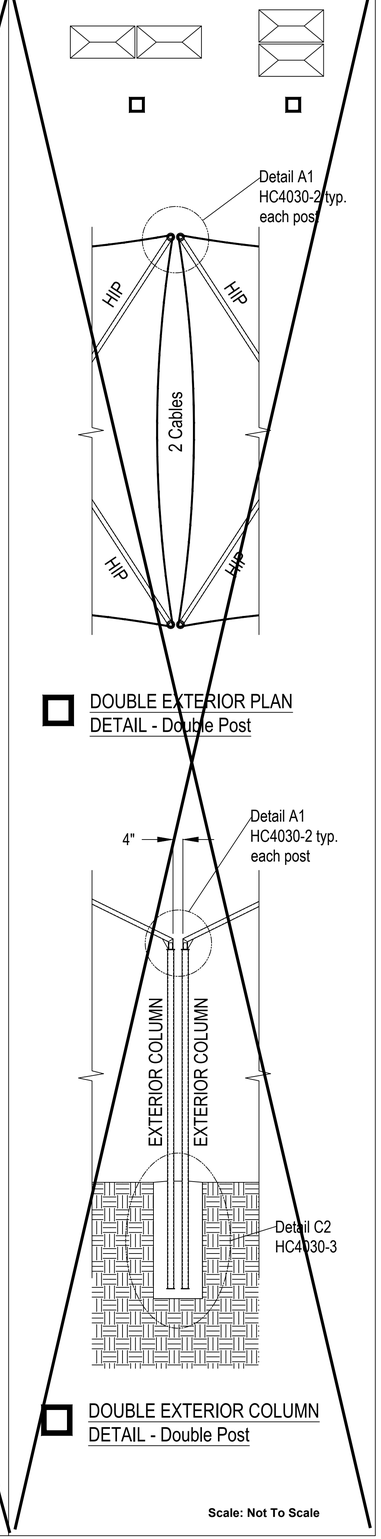


ELEVATION VIEW



CONJOINED INTERIOR PLAN DETAIL - Single Post

CONJOINED INTERIOR COLUMN DETAIL - Single Post



DOUBLE EXTERIOR PLAN DETAIL - Double Post

DOUBLE EXTERIOR COLUMN DETAIL - Double Post

Scale: Not To Scale

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 1/12/2024

rea architect
RONE DWARDS
Architecture
7400 Pedrick Court
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(661) 394-0053
ron@rearchitect.net
LICENSED ARCHITECT RONALD W. EDWARDS C 25192 Approved 12-31-2024 STATE OF CALIFORNIA

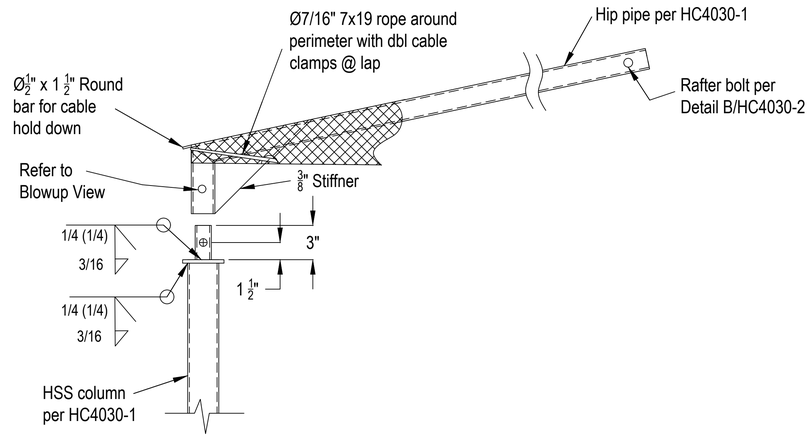
MANUFACTURER:
CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

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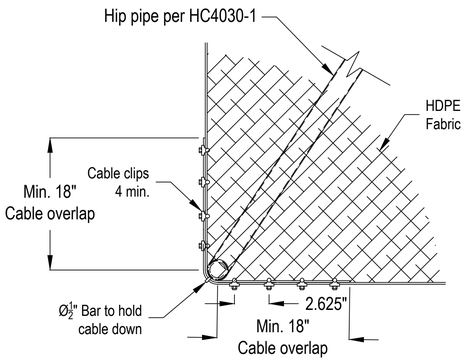
40'X30'X12' HIP CANOPY

Project #	
22-037	
Drawn By	HC4030-1
RWE	
Date	
12-20-22	

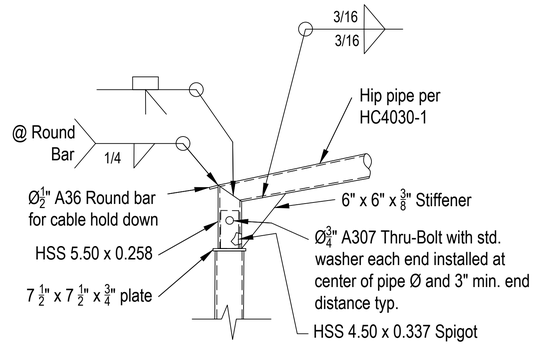
FNAME
REVDATE
USER



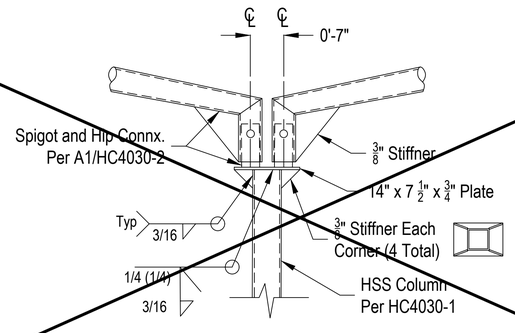
Detail A1



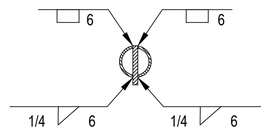
Detail A1 Top View



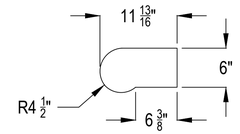
Detail A1 Blowup View



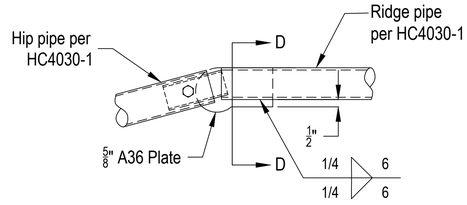
Detail A2 Blowup View



Section View D-D

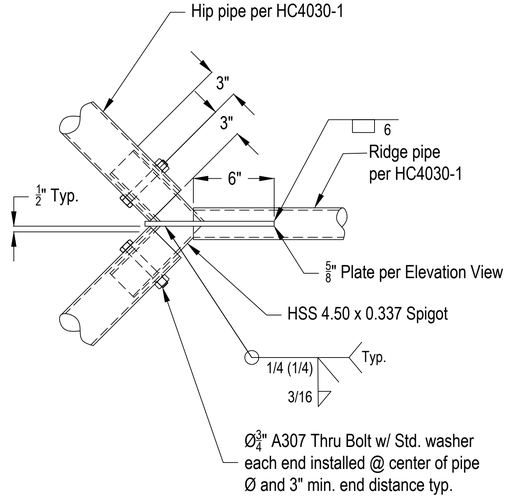


Knife Plate Detail



Plan View

Detail B Elevation View



Detail B Plan View

Scale: Not To Scale

FNAME
REVDATE
USER

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DATE: 1/12/2024

rea architect
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Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net

LICENSED ARCHITECT RONALD W. EDWARDS C 25192 REN 12-31-2024 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

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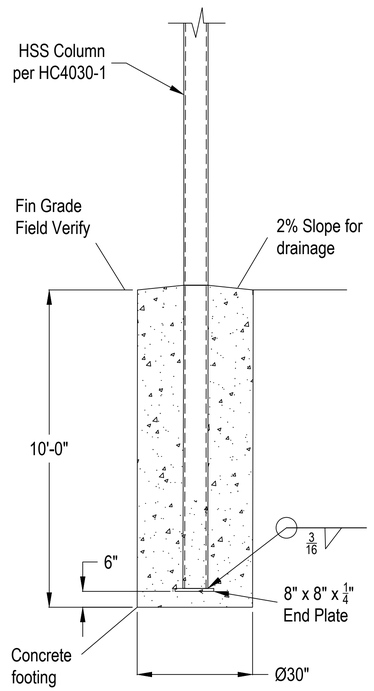
APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-121769 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 09/05/2023

40'X30'X12' HIP CANOPY

Project # 22-037
Drawn By RWE
Date 12-20-22

HC4030-2

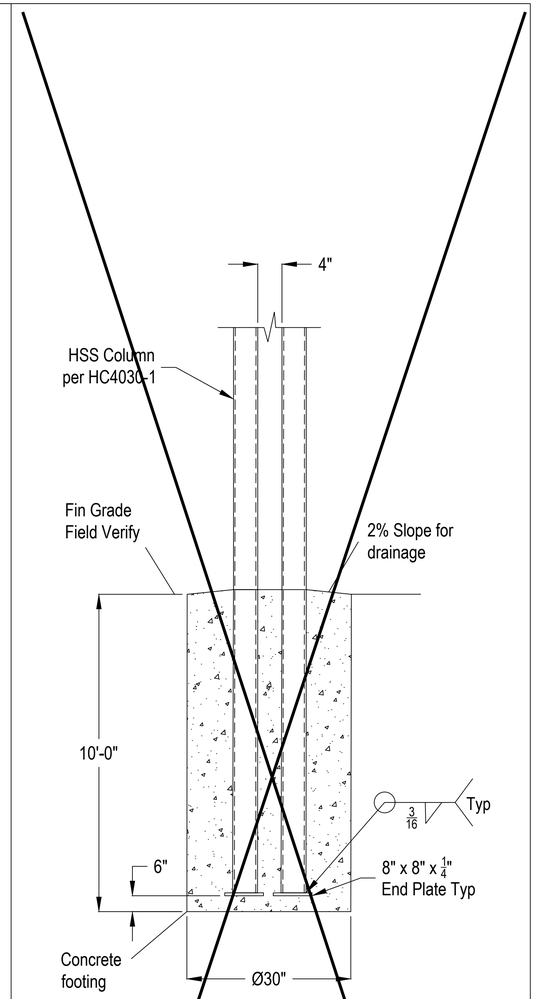
Node No.		Support Forces Px [kip]	Py [kip]	Pz [kip]	Support Moments Mx [kipft]	My [kipft]	Mz [kipft]
	D	LC1 - Self-weight					
1		-0.119	-0.104	-0.677	0.51	-0.59	0.00
3		0.119	-0.104	-0.677	0.51	0.59	0.00
5		-0.119	0.104	-0.677	-0.51	-0.59	0.00
7		0.119	0.104	-0.677	-0.51	0.59	0.00
	Tv	LC2 - Prestress					
1		0.093	0.084	0.000	-0.59	0.75	0.04
3		-0.093	0.084	0.000	-0.59	-0.75	-0.04
5		0.093	-0.084	0.000	0.59	0.75	-0.04
7		-0.093	-0.084	0.000	0.59	-0.75	0.04
	L	LC3 - Live					
1		-0.104	0.228	-0.953	-2.74	-0.55	-0.21
3		0.104	0.228	-0.953	-2.74	0.55	0.21
5		-0.103	-0.228	-0.953	2.74	-0.54	0.21
7		0.103	-0.228	-0.953	2.74	0.55	-0.21
	W	LC4 - Wind 1					
1		2.114	3.076	0.736	-24.56	16.71	0.85
3		-2.114	3.076	0.736	-24.56	-16.71	-0.85
5		2.474	-1.910	2.417	11.88	18.31	-0.63
7		-2.474	-1.909	2.417	11.87	-18.31	0.63
	W	LC5 - Wind 2					
1		0.494	1.856	1.513	-13.70	1.16	0.21
3		-2.314	2.526	0.066	-21.00	-18.49	0.55
5		0.494	-1.856	1.514	13.70	1.17	-0.21
7		-2.315	-2.526	0.066	20.99	-18.49	-0.55
	S	LC6 - Snow					
1		-0.104	0.228	-0.953	-2.74	-0.55	-0.21
3		0.104	0.228	-0.953	-2.74	0.55	0.21
5		-0.103	-0.228	-0.953	2.74	-0.54	0.21
7		0.103	-0.228	-0.953	2.74	0.55	-0.21



NOTE: This drawing shall not be used on Double Post Option

Detail C1

☐ Embedded Single Post Option



Detail C2

☐ Embedded Double Post Option

Scale: Not To Scale

FNAME

REVDATE

USER

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rea architect
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LICENSED ARCHITECT
RONALD W. EDWARDS
C 25192
12-31-23
STATE OF CALIFORNIA

MANUFACTURER:

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DATE: 09/05/2023

40'X30'X12' HIP CANOPY

Project # 22-037
Drawn By RWE
Date 12-20-22

HC4030-3

DSA **140**

APPLICATION FOR SUBMITTAL OF POST-APPROVAL DOCUMENT

This application is for submittal of documents, after the initial approval of the project (post-approval documents), that require Division of the State Architect (DSA) review and approval.This form shall be completed by the Design Professional in General Responsible Charge of the project, in accordance with California Code of Regulations, Title 24, Part 1, Sections 4-317, 4-323 and 4-338 and in compliance with DSA IR A-6: Construction Change Document Submittal and Approval Process.

DSA documents referenced within this form are available on the DSA Forms or DSA Publications webpages.

1. SUBMITTAL TYPE: (Is this a resubmittal? Yes ☐ No ☐)

Deferred Submittal ☐	Addendum Number: 0	Revision Number:	CCD Number:	Category A ☐ or B ☐

2. PROJECT INFORMATION:

School District/Owner: Alum Rock Union School District	DSA File Number: 43 4
Project Name/School: McCollam ES Playground and Shade Structure Replacement	DSA Application Number 01 121324

3. APPLICANT INFORMATION:

Date Submitted: 02/12/24	Attached Pages? No ☐ Yes ☑ Number of pages? 10		
Firm Name: SVA Architects	Contact Name: Christopher Bradley		
Work Email: cbradley@sva-architects.com	Work Phone: (510) 267-3180		
Firm Address: 7901 Stoneridge Dr., Suite 100	City: Pleasanton	State: CA	Zip Code: 94588

4. REASON FOR SUBMITTAL: (Check applicable boxes)

☑ For revision or addendum prior to construction.

☐ For a project currently under construction.

☐ For a project that has a form *DSA 301-N: Notification of Requirement for Certification*, *DSA 301-P: Posted Notification of Requirement for Certification* or a 90-Day Letter issued.

☐ To obtain DSA approval of an existing uncertified building or buildings.

☐ For Category B CCD this is: ☐ a voluntary submittal, ☐ a DSA required submittal (attach DSA notice requiring submission).

5. DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE:

Name of the Design Professional In General Responsible Charge: Robert Simons

Professional License Number: C18301 Discipline: Architecture

Design Professional in General Responsible Charge Statement: The attached post-approval documents have been examined by me for design intent and appear to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications. They are acceptable for incorporation into the construction of the project.

Signature: Robert M. Simons

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE

6. CONFIRMATION, DESCRIPTION AND LISTING OF DOCUMENTS:

For addenda, revisions, or CCDs: CHECK THIS BOX ☑ to confirm that *all* post-approval documents have been stamped and signed by the Responsible Design Professional listed on form *DSA 1: Application for Approval of Plans and Specifications* for this project. (For *Deferred Submittals*, refer to *IR A-18: Use of Construction Documents Prepared by Other Professionals,* and *IR A-19: Design Professional's Signature and Seal (Stamp) on Construction Documents*, when applicable, for signature and seal requirements.)

Provide a brief description of construction scope for this post-approval document (attach additional sheets if needed):

Adjustment of upper grade play structure location to reduce new asphalt needed.

List of DSA-approved drawings affected by this post-approval document:

A1.0, C2.0, C3.0, C3.1, C4.0, C5.0, C6.0, L1, L2, L3.3

DSA USE ONLY

SSS KF Date 2/27/2024 ☒ Approved ☐ Disapproved ☐ Not Required

Comments:

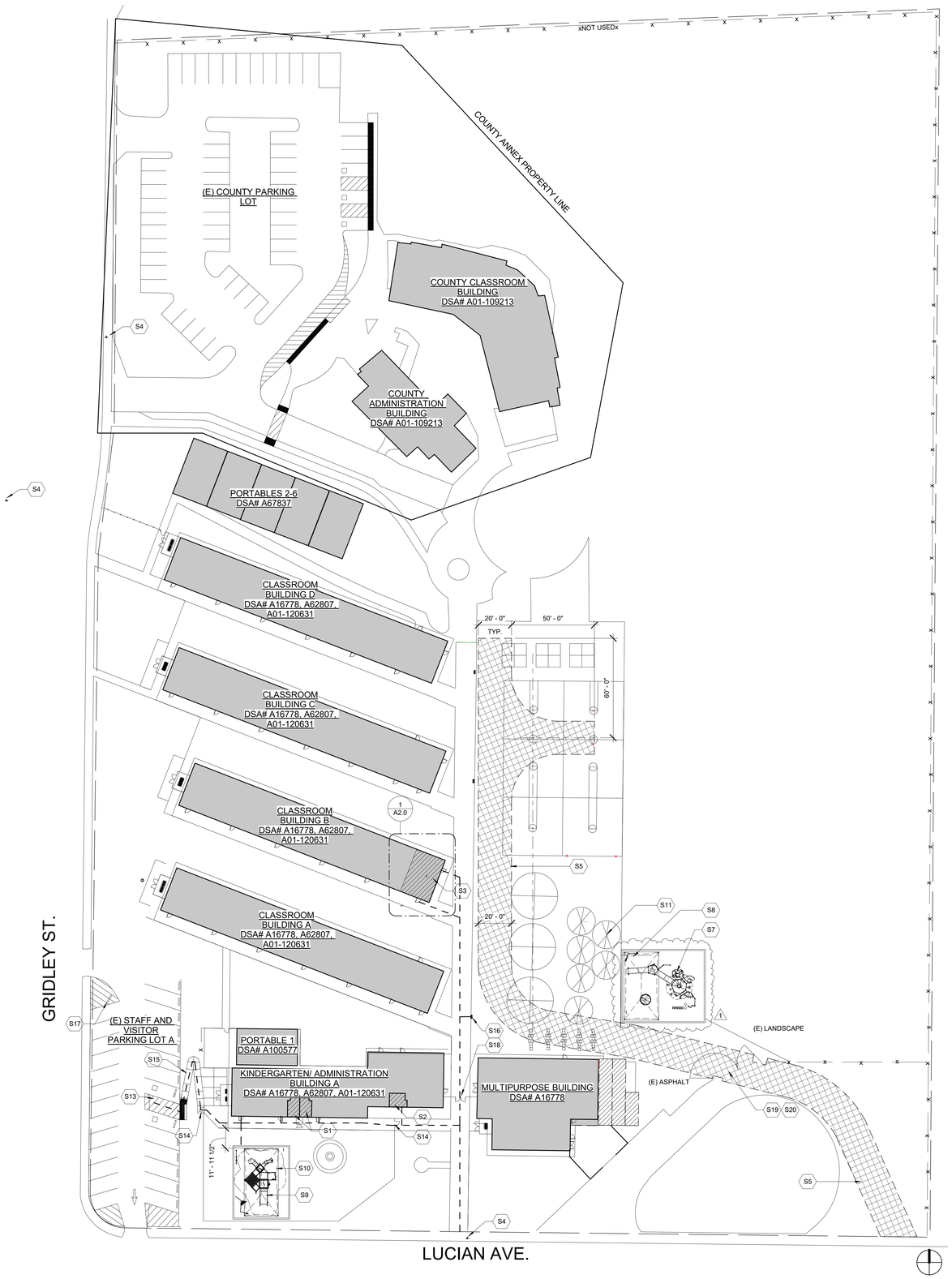
FLS MS Date 02/27/2024 ☐ Approved ☐ Disapproved ☐ Not Required

Comments:

ACS Ken Koyama Date 2/26/24 ☐ Approved ☐ Disapproved ☐ Not Required

Comments:

Returned	DSA STAMP
Date:	APPROVED DIV. OF THE STATE ARCHITECT APP: 01-121324 INC: REVIEWED FOR SS ☑ FLS ☑ ACS ☑ DATE: 02/27/2024
By:	



OVERALL SITE PLAN | 1" = 30'-0" | **1**

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:	Alum Rock Union Elementary School
Project Name/School:	McCollam ES Playground and Shade Structure Project
Project Address:	3311 Lucian Ave, San Jose, CA 95127

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 ☑
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☐		No ☑
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 ☐		No ☑
	Refer to the following website for FHSZ locations: http://egis.fire.ca.gov/FHSZ/	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	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: _____ Title: _____

Signature: _____ Date: _____

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

LFA Reviewer's Signature: _____ Date: _____

DSA 810

KINDERGARTEN SHADE STRUCTURE

CONSTRUCTION TYPE:	V-B/A-3
BASIC ALLOWABLE AREA:	6000 SQ. FT.
ACTUAL AREA:	835 SQ. FT.
# OF STORIES:	1

ELEMENTARY SHADE STRUCTURE

CONSTRUCTION TYPE:	V-B/A-3
BASIC ALLOWABLE AREA:	6000 SQ. FT.
ACTUAL AREA:	835 SQ. FT.
# OF STORIES:	1

CODE ANALYSIS

PARKING LOT A

STANDARD STALLS	24
ACCESSIBLE STALLS REQ'D	1
ACCESSIBLE STALLS PROV'D	2

PARKING SUMMARY

- S1 (E) ACCESSIBLE KINDERGARTEN STUDENT RESTROOMS PER 01-120631
- S2 (E) ACCESSIBLE STAFF RESTROOMS PER 01-120631
- S3 (E) ACCESSIBLE ELEMENTARY STUDENT RESTROOMS PER A62307. REF. 3/A2.0 FOR EXISTING RESTROOM FLOOR PLAN AND DIMENSIONS.
- S4 (E) FIRE HYDRANT
- S5 REVISED FIRE LANE AND FIRE APPARATUS TURN AROUND PER 01-120631
- S6 (N) ASPHALT, REF. CIVIL
- S7 (N) ELEMENTARY PLAY STRUCTURES AND FALL PROTECTION, REF. LANDSCAPE
- S8 (N) ELEMENTARY LEVEL SHADE STRUCTURE PER PC 04-121769
- S9 (N) KINDERGARTEN PLAY STRUCTURES AND FALL PROTECTION, REF. LANDSCAPE
- S10 (N) KINDERGARTEN LEVEL SHADE STRUCTURE PER PC 04-121769
- S11 (E) TETHERBALL POLES AND STRIPING, TYP.
- S12 (E) PLAY STRIPING, TYP.
- S13 (E) ACCESSIBLE PARKING PER 01-120631
- S14 (E) ACCESSIBLE GATE WITH PANIC HARDWARE PER 01-120631
- S15 (E) ACCESSIBLE SLOPED SWITCHBACK WALKWAY PER 01-120631
- S16 (E) ACCESSIBLE DRINKING FOUNTAIN PER 01-120631
- S17 (E) TOW-AWAY SIGN PER 01-120631
- S18 (E) ACCESSIBLE DOUBLE GATE. SEE DET 7/GEN-3
- S19 (N) 26'-0" WIDE FIRE APPRATUS GATE PER DET. 3/A2.0.
- S20 DEMOLISH EXISTING FIRE APPARATUS GATE AND ADJACENT FENCING TO ACCOMMODATE NEW FIRE APPARATUS GATE. EXISTING FENCE REMOVAL TO BE BACK TO NEAREST EXISTING FECE POST BEYOND EITHER SIDE OF NEW GATE. INSTALL NEW INFILL FENCING PER DET. 2/A2.0.

SITE PLAN KEYNOTES

(E) PATH OF TRAVEL PER 01-120631
PATH OF TRAVEL (P.O.T) AS INDICATED MEETS THE FOLLOWING REQUIREMENTS:
1. IS A BARRIER-FREE ACCESSIBLE ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT A SLOPE NOT STEEPER THAN 1:2 EXCEPT THAT LEVEL CHANGES ARE 1/4" MAX VERTICAL & IS AT LEAST 48" WIDE.
2. SURFACE SHALL BE STABLE, FIRM AND SLIP RESISTANT.
3. CROSS-SLOPE SHALL NOT BE STEEPER THAN 1:48 AND RUNNING SLOPE SHALL NOT BE STEEPER THAN 1:20 UNLESS OTHERWISE INDICATED (SEC 11B-403.3)
4. P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM (SECTION 11B-307.4) AND PROTRUDING OBJECTS GREATER THAN 4"
PROJECTION FROM WALL SURFACE BETWEEN 27" AND 80" ABOVE FINISH FLOOR
OR GROUND (SECTION 11B-307.2)
5. PROVIDE FLUSH TRANSITIONS AT ANY ADJOINING JOINTS BETWEEN DIFFERENT WALK SURFACES IN P.O.T.
6. ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IN COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR **PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS.** AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. 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 UPON THE VALUATION THRESHOLD OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF P.O.T. 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 PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

PROPERTY LINE

LIMITS OF WORK FOR THIS PROJECT

(E) ALARM HORN PER 01-120631

SITE PLAN LEGEND - DSA

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED ARCHITECT
ROBERT M. SIMONDS
No. C-18301
JAN. 31, 2025
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO: Project Number
DATE ISSUED: Issue Date
SCALE: As indicated

A1.0

SITE PLAN

SVA ARCHITECTS
6 HUTTON CENTRE DR, SUITE 1150 SANTA ANA, CA 92707
T 949.809.3380 WWW.SVA-ARCHITECTS.COM

THIS DOCUMENT CONTAINS INFORMATION PROPRIETARY TO SVA ARCHITECTS INC. AND IS FURNISHED IN CONFIDENCE FOR THE LIMITED PURPOSE OF REVIEW, BIDDING OR REVIEW. THIS DOCUMENT OR ITS CONTENTS MAY NOT BE USED FOR ANY OTHER PURPOSE AND MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF SVA ARCHITECTS INC. ALL RIGHTS RESERVED. © COPYRIGHT 2018.

DSA 810

DEMOLITION LEGEND

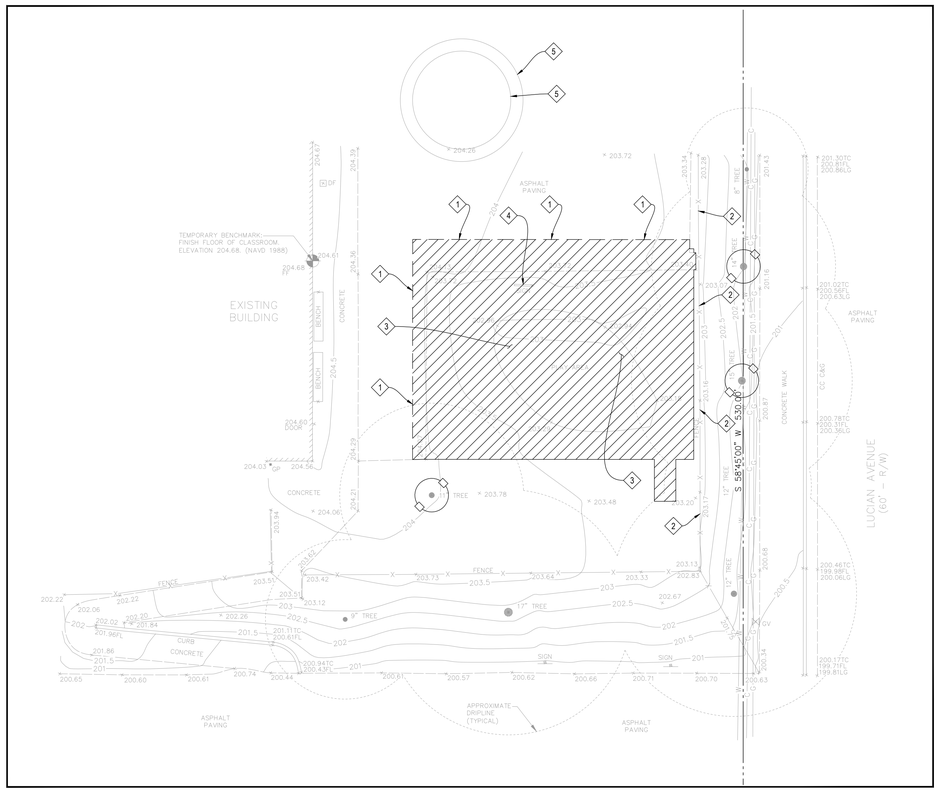
- DEMOLITION AREA - ALL SITE FEATURES WITHIN THIS AREA ARE TO BE REMOVED, UNLESS NOTED TO REMAIN.
- EXISTING BUILDING STRUCTURE TO BE DEMOLISHED
- TREE TO BE REMOVED. SEE LANDSCAPE PLANS.
- TREE PROTECTION TREES TO REMAIN

DEMOLITION KEYNOTES

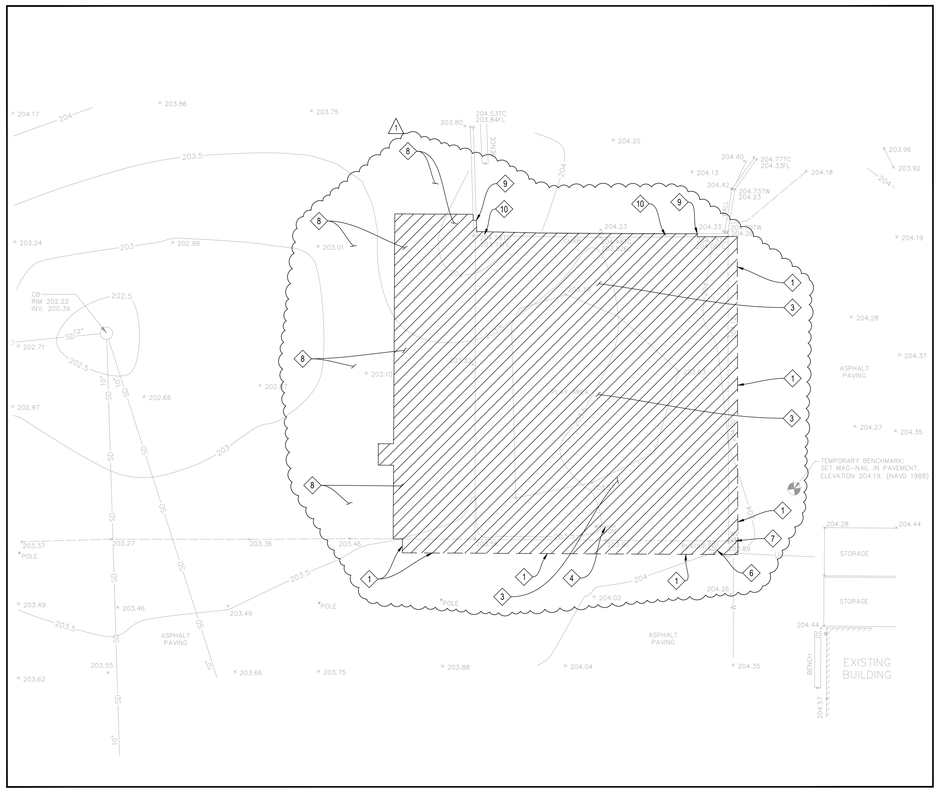
1. SAWCUT AND CONFORM
2. EXISTING CHAINLINK FENCE TO REMAIN, PROTECT IN PLACE
3. EXISTING PLAY EQUIPMENT TO BE REMOVED
4. EXISTING SIGN TO BE REMOVED
5. EXISTING PLAY STRIPING TO REMAIN, PROTECT IN PLACE. CONTRACTOR TO VERIFY EXACT LOCATION IN FIELD
6. EXISTING PLAQUE TO BE REMOVED
7. EXISTING WATER VALVE TO REMAIN, PROTECT IN PLACE
8. LANDSCAPE AROUND NEW PLAY AREA TO BE REGRADED TO ENSURE POSITIVE DRAINAGE TOWARDS EXISTING CATCH BASIN
9. EXISTING CURB/WALL TO BE CUT AT THIS POINT & TIED INTO. OUTSIDE OF DEMO EXTENTS, EXISTING CURB/WALL TO REMAIN, PROTECT IN PLACE
10. EXISTING CURB/WALL AND FOOTING TO BE REMOVED

DEMOLITION NOTES

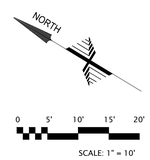
1. SEE ELECTRICAL PLANS FOR REMOVAL OR RELOCATION OF ALL ELEC/COMM CONDUITS, BOXES, LINE ETC.
2. SEE UTILITY PLAN FOR ALL NEW TIE-IN LOCATIONS AND ANY INSTANCES OF STORM, SANITARY SEWER, OR WATER BEING RELOCATED. ANY EXISTING UTILITIES NOT BEING USED ARE TO BE REMOVED.
3. ALL EXISTING SERVICES AND UTILITIES THAT ARE WITHIN THE LIMITS OF DEMOLITION AND ARE TO REMAIN OPERATIONAL SHALL BE RELOCATED AS NECESSARY.
4. ALL TREES THAT ARE TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.
5. CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF PROPOSED UTILITIES, AND INFORM ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH WORK.
6. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INVERTS AND LOCATIONS PRIOR TO BEGINNING ANY WORK ON THIS SITE.



DEMOLITION AREA - KINDERGARTEN
SCALE: 1"=10'



DEMOLITION AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

CALL BEFORE YOU DIG
811
800.227.2600

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. STEWART
NO. C38406
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:	
DATE ISSUED:	2024.02.14
DRAWN BY:	AKW, VAB
SCALE:	AS SHOWN
SHEET NUMBER:	**C2.0**

DEMOLITION PLAN

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

Plot Date: Feb 14, 2024 - 2:31 PM

HOHBACH-LEWIN #17516.31

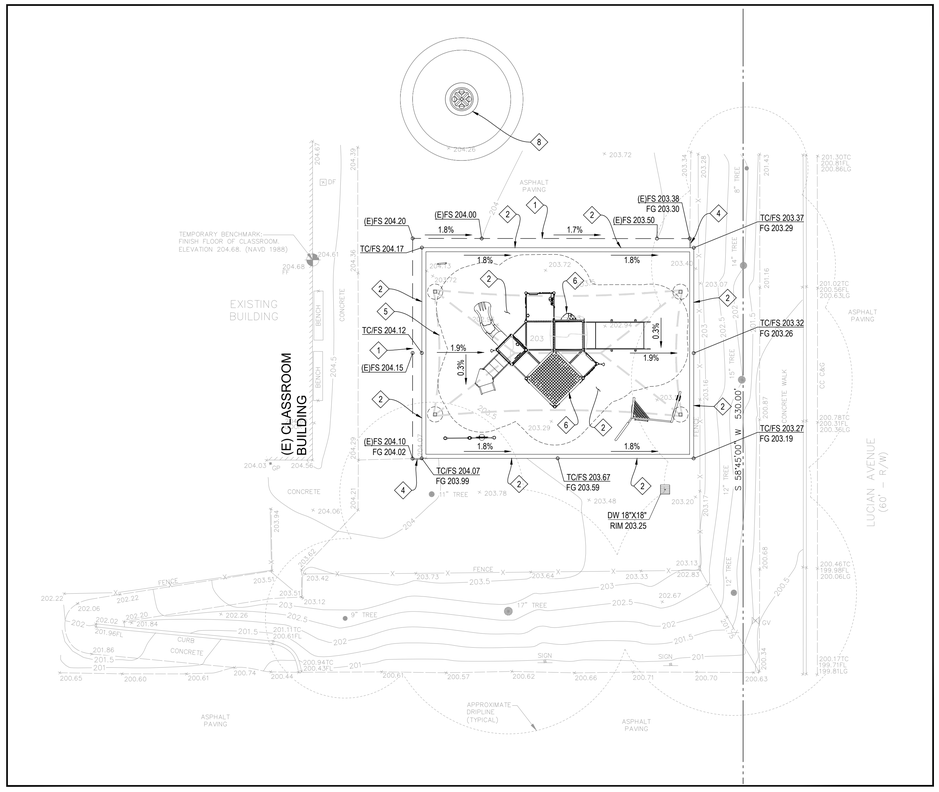
GRADING LEGEND

XX.XX — GRADE ELEVATION

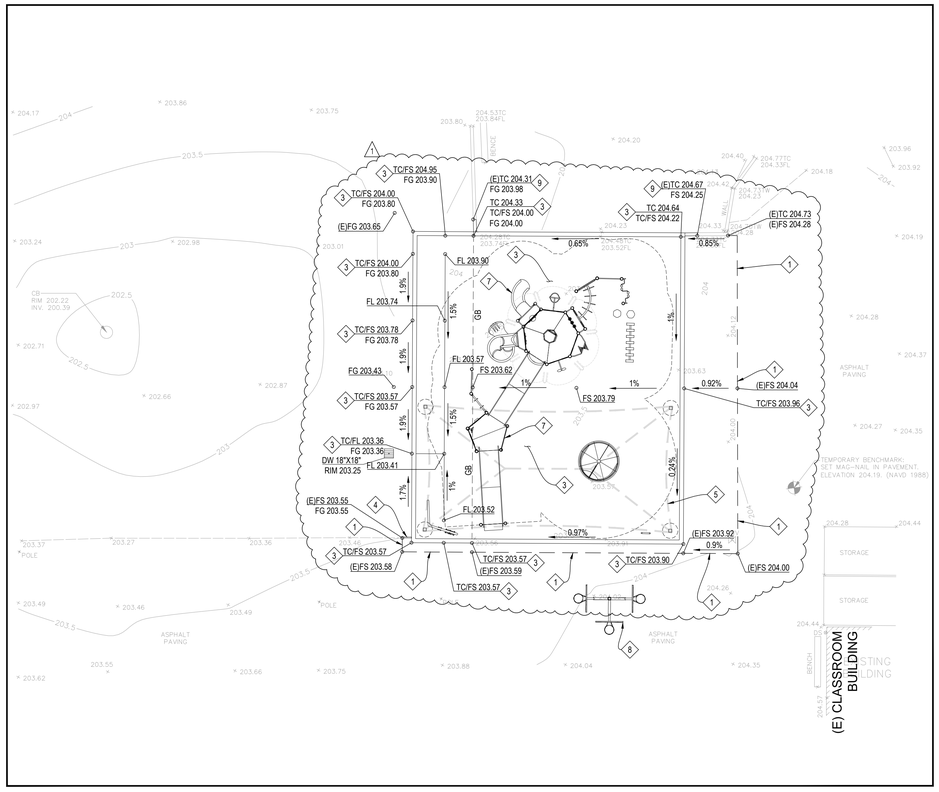
X% — SLOPE AND DIRECTION

GRADING KEYNOTES

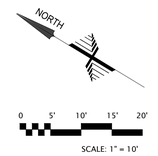
1. SAWCUT AND CONFORM
2. NEW PLAY SURFACE & CURB FOR KINDERGARTEN, SEE LANDSCAPE PLANS & DETAIL E/L3.1
3. NEW PLAY SURFACE & CURB FOR PRIMARY, SEE LANDSCAPE PLANS & DETAIL F/L3.1
4. NEW REDWOOD HEADERBOARD, SEE DETAIL C/L3.1
5. NEW SHADE STRUCTURE, SEE ARCHITECTURAL PLANS
6. NEW PLAY EQUIPMENT FOR KINDERGARTEN, SEE L3.2
7. NEW PLAY EQUIPMENT FOR PRIMARY, SEE L3.3
8. NEW PLAY EQUIPMENT, SEE LANDSCAPE PLANS



PLAYGROUND AREA - KINDERGARTEN
SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER — DANIEL G. KEEGAN — No. C38409 — CIVIL

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:

DATE ISSUED: 2024.02.14

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

SHEET NUMBER: C3.0

GRADING AND DRAINAGE PLAN

HOHBACH–LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

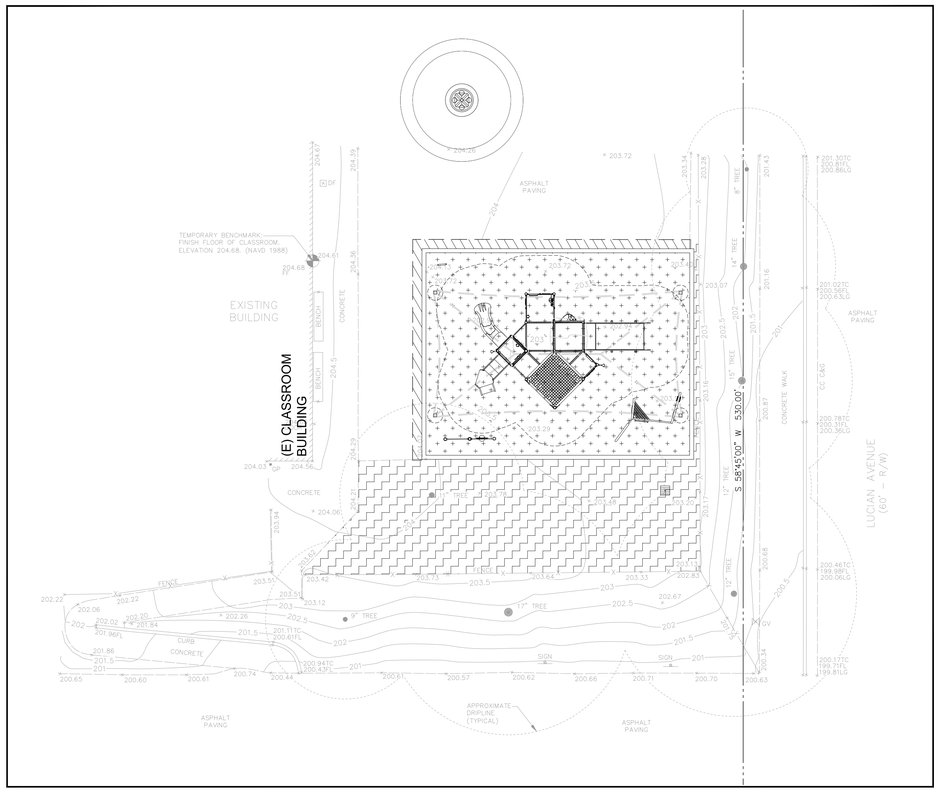
CALL BEFORE YOU DIG — USA — 800.227.2600

HOHBACH-LEWIN # IT516.31

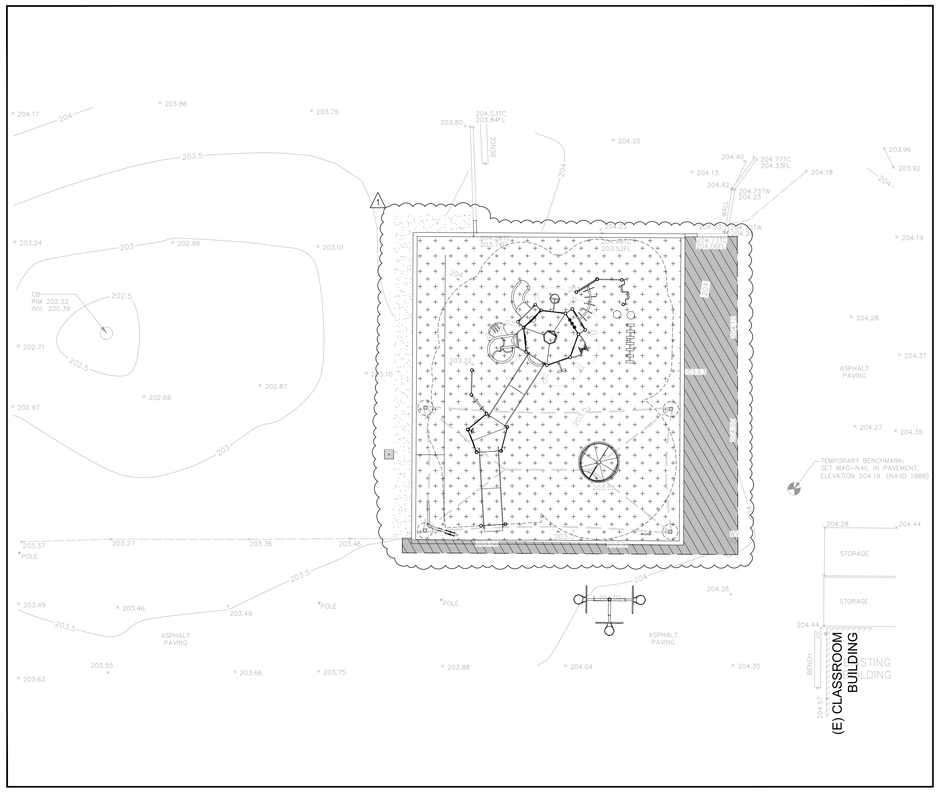
Plot Date: Feb 14, 2024 - 2:31 PM

PAVEMENT LEGEND

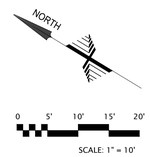
	AC PAVEMENT VEHICULAR	3" AC PAVEMENT OVER 12" CLASS 2 BASEROCK COMPACTED TO 95% R.C. OVER NATIVE SOILS COMPACTED TO 90% R.C.
	AC PAVEMENT PEDESTRIAN	SEE LANDSCAPE PLANS, DETAIL A/L3.1
	RESILIENT SURFACING	SEE LANDSCAPE PLANS, DETAILS E&F/L3.1
	BARK MULCH	SEE LANDSCAPE PLANS
	TURF	SEE LANDSCAPE PLANS



PLAYGROUND AREA - KINDERGARTEN
SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

CALL BEFORE YOU DIG
811
800-227-2600

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
RACHEL G. [illegible]
NO. C38404
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:	
DATE ISSUED:	2024.02.14
DRAWN BY:	AKW, VAB
SCALE:	AS SHOWN
SHEET NUMBER:	**C3.1**

PAVEMENT PLAN

HOHBACH–LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

Plot Date: Feb 14, 2024 - 2:23 PM

HOHBACH-LEWIN #1751631

UTILITY LEGEND

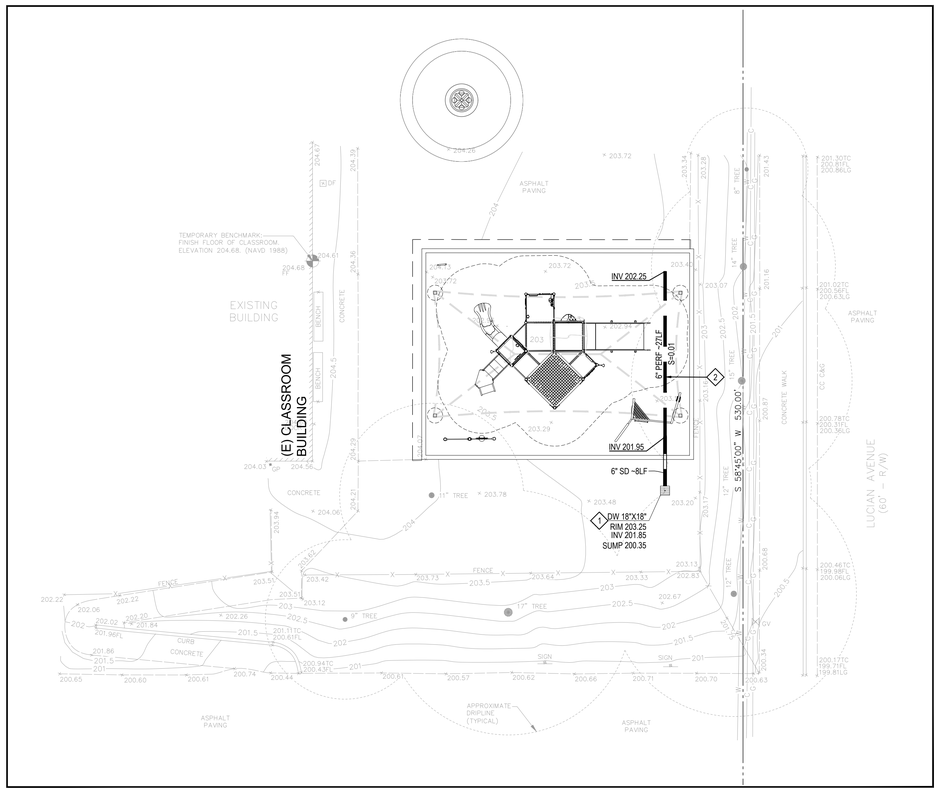
- WATER VALVE
- WATER METER
- STORM DRAIN MANHOLE
- CATCH BASIN
- AREA DRAIN
- CLEANOUT TO GRADE

UTILITY KEYNOTES

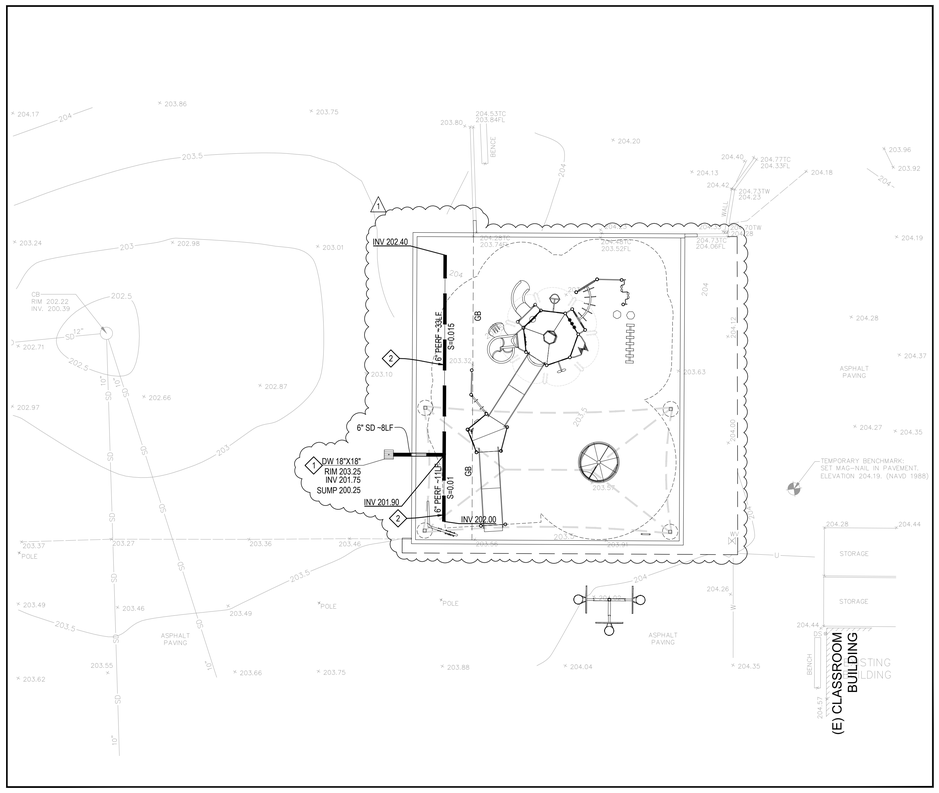
1. DRY WELL, SEE DETAIL 1/C6.0
2. PLAY AREA SUB DRAIN, SEE DETAILS F&E/L3.1

UTILITY NOTES

1. CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF PROPOSED UTILITIES, AND INFORM ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH WORK.
2. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INVERTS AND LOCATIONS PRIOR TO BEGINNING ANY WORK ON THIS SITE.



PLAYGROUND AREA - KINDERGARTEN
SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY
SCALE: 1"=10'

NORTH

0 5' 10' 15' 20'

SCALE: 1" = 10'

CALL BEFORE YOU DIG
USA
800-227-2600

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
RACHEL G. [illegible]
No. C38404
CIVIL
STRUCTURAL

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:

DATE ISSUED: 2024.02.14

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

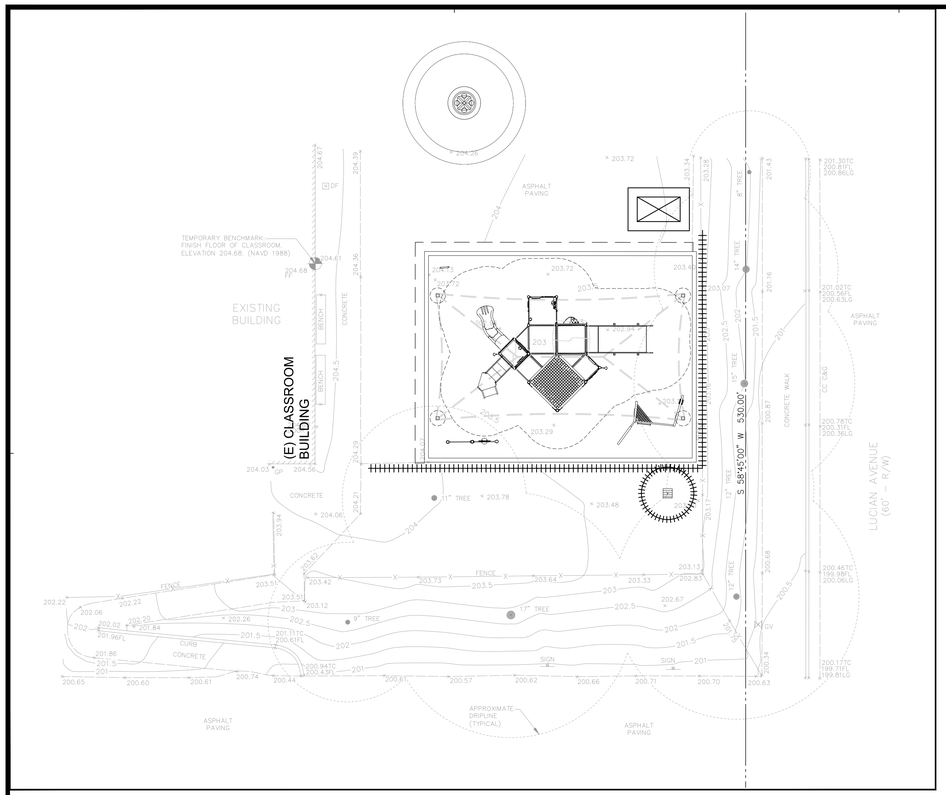
SHEET NUMBER: **C4.0**

UTILITY PLAN

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

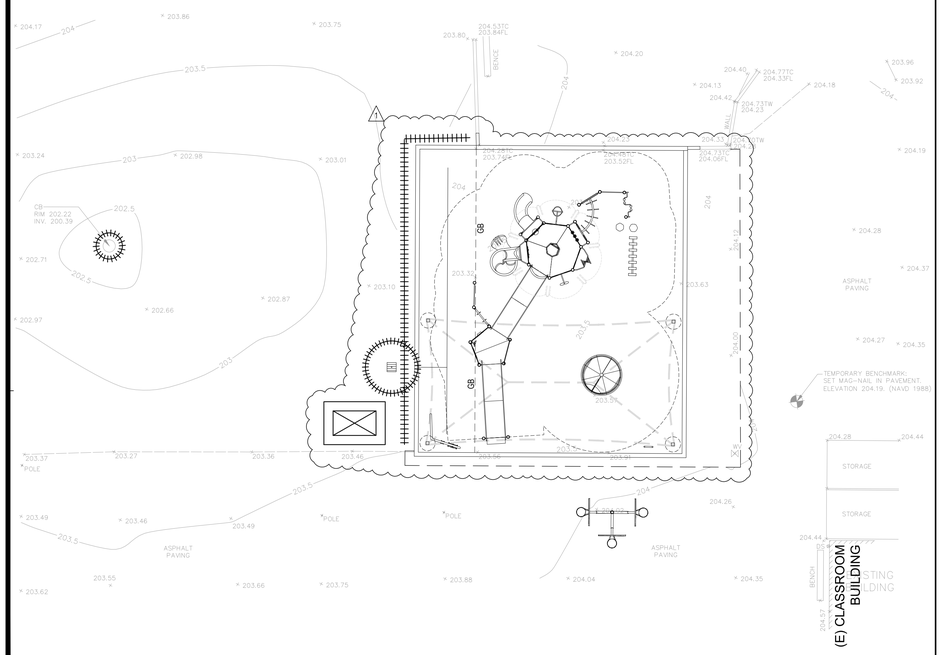
HOHBACH-LEWIN #1516.31

Plot Date: Feb 14, 2024 - 2:23 PM



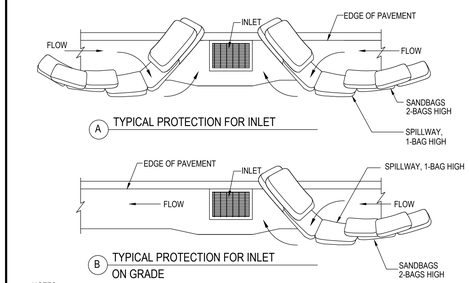
PLAYGROUND AREA - KINDERGARTEN

SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY

SCALE: 1"=10'



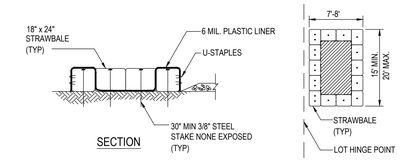
A TYPICAL PROTECTION FOR INLET

B TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

1. INTENDED FOR SHORT-TERM USE.
2. USE TO INHIBIT NON-STORM WATER FLOW.
3. ALLOW FOR PROPER MAINTENANCE AND CLEANUP.
4. BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED.
5. NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

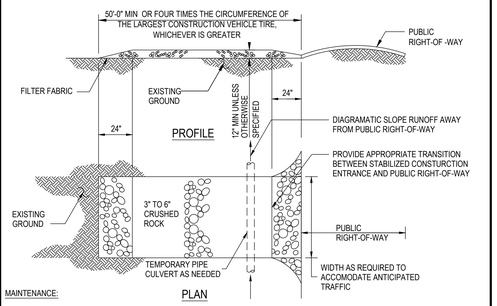
4 CATCH BASIN PROTECTION ALONG GUTTERS



NOTES:

1. WHEN WASHING ON-SITE, USE DESIGNATED, BERMED WASH AREAS TO PREVENT WASHWATER CONTACT WITH STORM WATER, CREEKS, RIVERS, AND OTHER WATER BODIES. THE WASH AREA CAN BE SLOPED FOR WASH WATER COLLECTION AND SUBSEQUENT INFILTRATION INTO THE GROUND.
2. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES. DO NOT ALLOW RUNOFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE.
3. WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY.

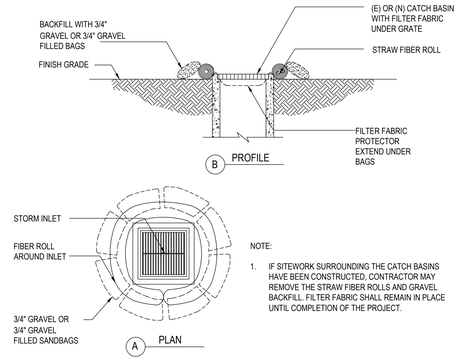
1 CONCRETE WASH AREA



MAINTENANCE:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AND REPAIR OR CLEAN OUT OF TRAPPED SEDIMENT.
2. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY.
3. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. THIS SHALL BE DONE AT AN AREA STABILIZED WITH CRUSHED STONE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

5 STABILIZED CONTRUCTION ENTRANCE



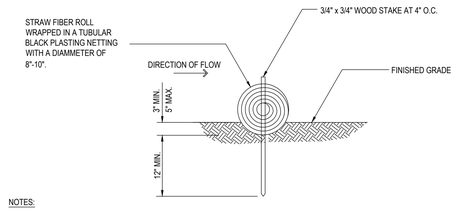
NOTE:

1. IF SITEWORK SURROUNDING THE CATCH BASINS HAVE BEEN CONSTRUCTED, CONTRACTOR MAY REMOVE THE STRAW FIBER ROLLS AND GRAVEL BACKFILL. FILTER FABRIC SHALL REMAIN IN PLACE UNTIL COMPLETION OF THE PROJECT.

2 CATCH BASIN PROTECTION (TYP.)

LEGEND

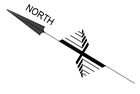
- CONCRETE WASHOUT, SEE DETAIL 1/-
- CATCH BASIN PROTECTION, SEE DETAIL 2/-
- FIBER ROLL, SEE DETAIL 3/-
- CATCH BASIN PROTECTION ALONG GUTTERS SEE DETAIL 4/-
- STABILIZED CONSTRUCTION ENTRANCE, SEE DETAIL 5/-



NOTES:

1. FIBER ROLL COMPOSED OF BIO-DEGRADEABLE FIBERS STUFFED INTO A PHOTO-DEGRADABLE OPEN WEAVE NETTING.
2. FIBER ROLL EROSION BARRIER TRAPS SEDIMENT AND REDUCES SHEET AND HILL SIDE EROSIONS BY REDUCING SLOPE GRADIENT. IT INCREASING INFILTRATION RATES AND BY PRODUCING A FAVORABLE ENVIRONMENT FOR PLANT ESTABLISHMENT.
3. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH 3"-5" DEEP, DUG ON CONTOUR , RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.

3 FIBER ROLL



0 5' 10' 15' 20'

SCALE: 1" = 10'

CALL BEFORE YOU DIG USA 800.227.2600

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER DANIEL G. ... NO. C38409 CIVIL STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:

DATE ISSUED: 2024.02.14

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

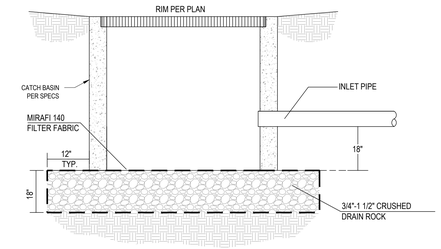
SHEET NUMBER: C5.0

EROSION CONTROL PLAN

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

HOHBACH-LEWIN #175.16.31

Plot Date: Feb 14, 2024 - 2:32 PM

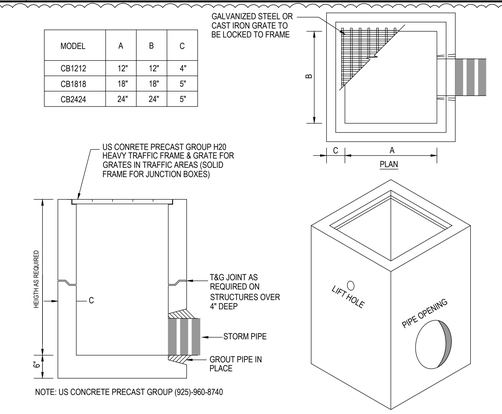


NOTES:

1. CONTRACTOR SHALL NOTIFY OWNER THAT PERIODIC AND REGULAR INSPECTION AND CLEARING OF SILT BASINS FOR LONG TERM PERFORMANCE IS REQUIRED.

13 | 9 | 5 | 1 DRY WELL

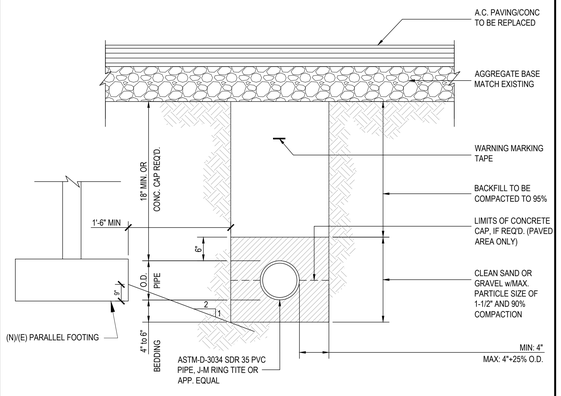
MODEL	A	B	C
CB1212	12"	12"	4"
CB1818	18"	18"	5"
CB2424	24"	24"	5"



NOTE: US CONCRETE PRECAST GROUP (925)-960-8740

14 | 10 | 6 | 2 TYPICAL CATCH BASIN

15 | 11 | 7 | 3



16 | UTILITY TRENCH | 12 | 8 | 4

Plot Date: Feb 14, 2024 - 2:32 PM

HOHBACH-LEWIN #17516.31

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. ...
NO. C38406
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:

DATE ISSUED: 2024.02.14

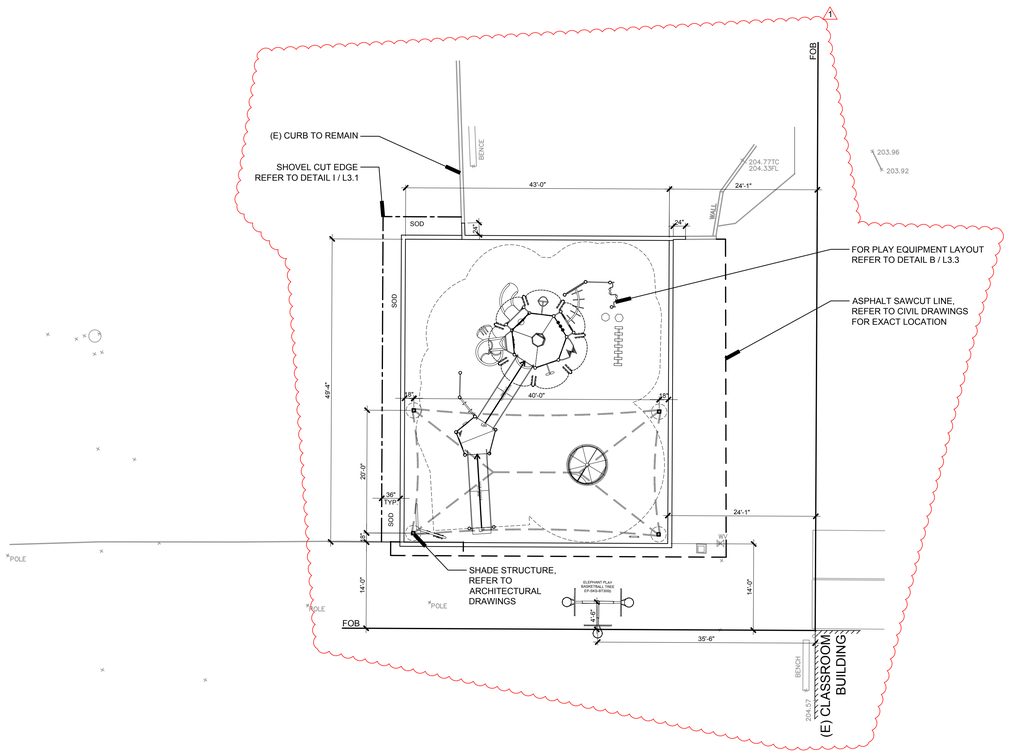
DRAWN BY: AKW, VAB

SCALE: AS SHOWN

SHEET NUMBER: **C6.0**

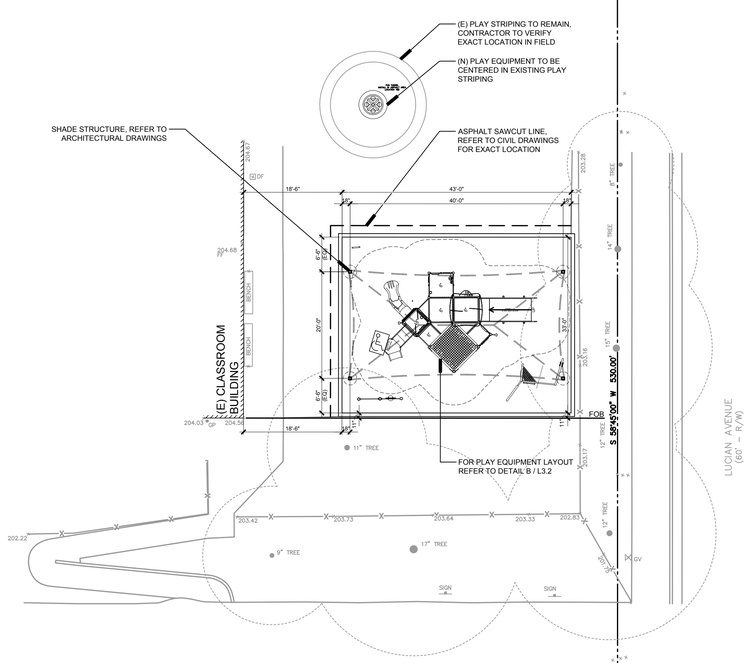
DETAILS

HOHBACH–LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932



B PLAY STRUCTURE - PRIMARY

SCALE: 1" = 10'-0"



A PLAY STRUCTURE - KINDERGARTEN

SCALE: 1" = 10'-0"

LAYOUT 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. DRAWINGS SHALL NOT BE SCALED. WRITTEN DIMENSIONS TAKE PRECEDENCE. IF CONTRACTOR FINDS A DISCREPANCY WITH WRITTEN DIMENSIONS, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE OF AND LOCATIONS OF EXISTING AND PROPOSED UNDERGROUND SERVICES AND IMPROVEMENTS WHICH MAY CONFLICT WITH THE WORK. CONTACT THE DISTRICT REPRESENTATIVE AND UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 PRIOR TO INITIATING CONSTRUCTION FOR ASSISTANCE.
4. COORDINATE ALL CONSTRUCTION ELEMENTS PRIOR TO INSTALLATION. VERIFY , CURBS, FENCES, ETC. AND CRITICAL DIMENSIONS, REFERENCE AND COORDINATE POINT LOCATIONS, AND CONSTRUCTION CONDITIONS PRIOR TO INITIATING CONSTRUCTION. NOTIFY THE DISTRICT REPRESENTATIVE IMMEDIATELY SHOULD DISCREPANCIES ARISE.
5. CONTRACTOR SHALL LAYOUT ALL PROJECT ELEMENTS IN FIELD AS SHOWN ON THESE PLANS AND HAVE THEM APPROVED BY THE DISTRICT REPRESENTATIVE PRIOR TO CONSTRUCTION.
6. ALL MINOR ADJUSTMENTS MADE TO ACCOMMODATE EXISTING SITE CONDITIONS SHALL MAINTAIN THE OVERALL DESIGN LAYOUT. ALL ADJUSTMENTS SHALL BE APPROVED BY THE DISTRICT REPRESENTATIVE PRIOR TO CONSTRUCTION.
7. ALL NEW PAVED SURFACES SHALL CONFORM TO EXISTING PAVED SURFACES, FLUSH AND SMOOTH. CONTRACTOR SHALL CONSTRUCT SMOOTH TRANSITIONS OF PAVING AND WALKS WHILE MAINTAINING POSITIVE DRAINAGE.
8. COORDINATE ALL SLEEVING AND UTILITY LOCATIONS AS SHOWN ON THE PLANS AND DETAILS CONTAINED WITHIN THESE CONTRACT DOCUMENTS.
9. CONDITIONS NOT SPECIFICALLY NOTED OR DETAILED ON THESE PLANS SHALL BE CALLED TO THE ATTENTION OF THE DISTRICT REPRESENTATIVE FOR REVIEW PRIOR TO IMPLEMENTATION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT FOR REPAIRING OR REPLACING, AT HIS OWN EXPENSE, ANY STRUCTURES, FENCES, WALLS, PLANT MATERIAL 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 DISTRICT REPRESENTATIVE.
11. ALL ANGLES FOR LAYOUT TO BE 90 DEGREES UNLESS OTHERWISE NOTED.

LAYOUT LEGEND

SYMBOL	DESCRIPTION OF SYMBOL
BOC	BACK OF CURB
BOW	BACK OF WALL
℄	CENTERLINE
℄	CENTERLINE OF COLUMN
COP	CENTER OF POST
EOD	EDGE OF DOOR
℞	END OF RADIUS
EQ	EQUAL
(E)	EXISTING
FOB	FACE OF BUILDING
FOC	FACE OF CURB
FOW	FACE OF WALL
IOC	INSIDE OF CURB
MAX	MAXIMUM
MIN	MINIMUM
(N)	NEW
OC	ON CENTER SPACING
R	RADIUS
TYP	TYPICAL

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
RAMIRO A.L. LOPEZ No. 5981
STATE OF CALIFORNIA
12/31/2024
Renewal Date
11/08/2023
Date

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	02-12-2024

PROJECT NO: ANLA - #2334

DATE ISSUED: 11/08/23

SCALE: As indicated

SHEET NUMBER: L1

SHEET TITLE:

LAYOUT PLAN

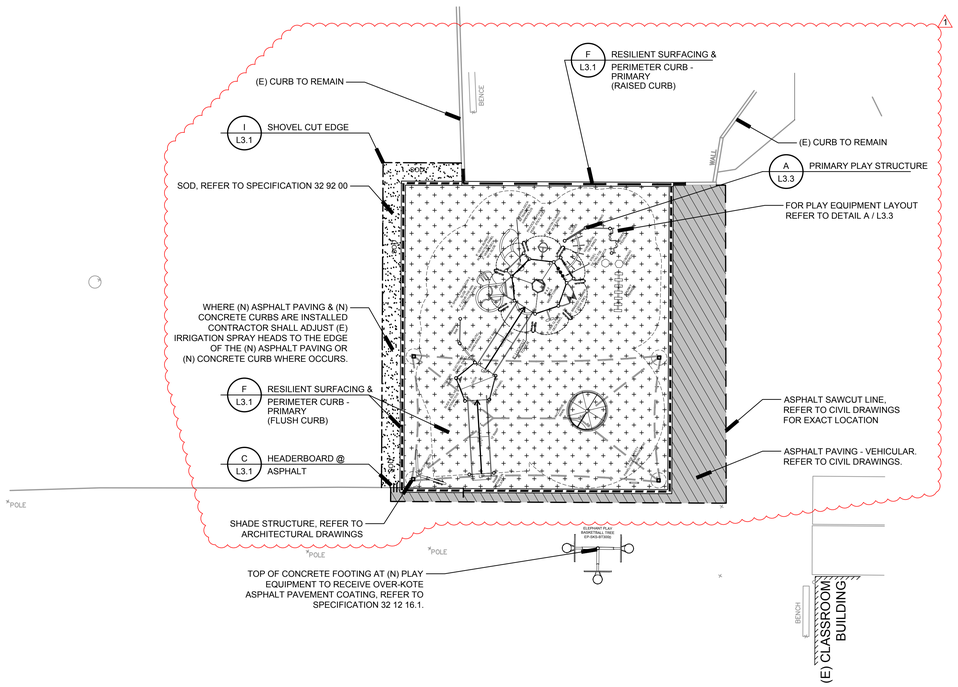
NORTH

SCALE: 1" = 10'-0"

0' 5' 10' 20'

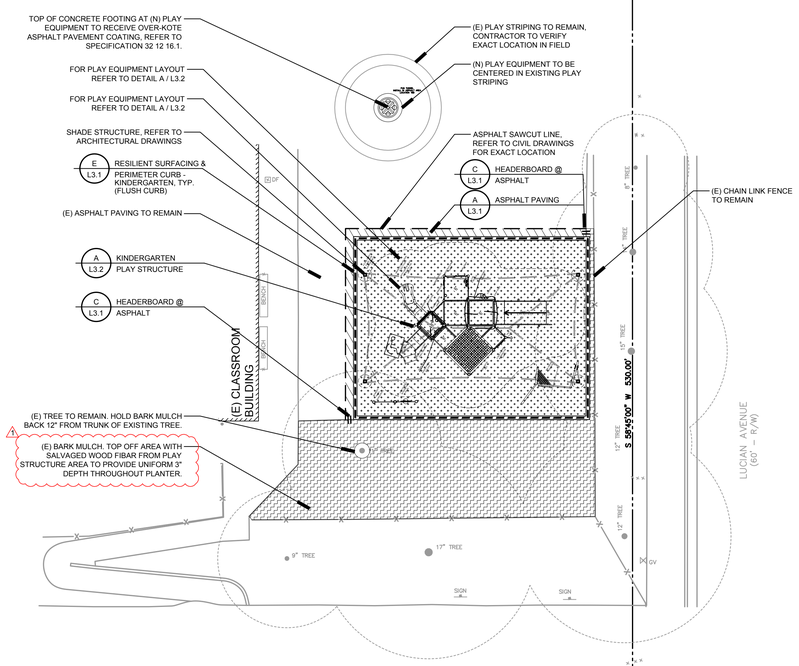
ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
San Jose, CA 95125
T. 408.292.2196
www.anla-associates.com

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B PLAY STRUCTURE - PRIMARY

SCALE: 1" = 10'-0"



A PLAY STRUCTURE - KINDERGARTEN

SCALE: 1" = 10'-0"

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. 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.
4. LANDSCAPE ARCHITECT 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.
5. 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.
6. CONTRACTOR SHALL ADJUST EXISTING UTILITY BOXES TO BE FLUSH WITH PROPOSED GRADES.
7. REFER TO CONSTRUCTION DETAILS ON SHEETS L3.1 - L3.3
8. REFER TO THE FOLLOWING SPECIFICATION SECTIONS:

01 56 39	TEMPORARY TREE AND PLANT PROTECTION
11 68 16	PLAY STRUCTURES
32 12 16.1	ASPHALT PAVING (LANDSCAPE)
32 13 13.1	CONCRETE WORK (LANDSCAPE)
32 18 16.16	PLAYGROUND PROTECTIVE SURFACING
32 90 00	PLANTING
32 92 00	TURF PLANTING

MATERIAL & DETAIL REFERENCE LEGEND

SYMBOL	DETAIL DESCRIPTION	DETAIL REFERENCE
	ASPHALT PAVING - PEDESTRIAN	A / L3.1
	ASPHALT PAVING - VEHICULAR REFER TO CIVIL DRAWINGS	
	HEADERBOARD @ ASPHALT	C / L3.1
	RESILIENT SAFETY SURFACING & PERIMETER CURB - KINDERGARTEN	E / L3.1
	RESILIENT SAFETY SURFACING - PRIMARY	F / L3.1
	RESILIENT SURFACING PERIMETER CURB (FLUSH CURB)	F / L3.1
	RESILIENT SURFACING PERIMETER CURB (RAISED CURB)	F / L3.1
	ASPHALT SAWCUT LINE REFER TO CIVIL PLANS FOR EXACT LOCATIONS	
GROUNDCOVER	BARK MULCH ONLY (E) BARK MULCH. TOP OFF AREA WITH SALVAGED WOOD FIBAR FROM PLAY STRUCTURE AREA TO PROVIDE UNIFORM 3" DEPTH THROUGHOUT PLANTER.	
TURF	SOD DELTA BLUEGRASS BLUE RYE BLEND, WWW.DELTABLUEGRASS.COM, (800) 637-8873 REFER TO SPECIFICATION 32 92 00	
	SHOVEL CUT EDGE	I / L3.1

NORTH

SCALE: 1" = 10'-0"

0' 5' 10' 20'

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APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
SUSAN R.L. LOPEZ No. 5581
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	02-12-2024

PROJECT NO:	ANLA - #2334
DATE ISSUED:	11/08/23
SCALE:	As indicated
SHEET NUMBER:	**L2**
SHEET TITLE:	

MATERIAL & DETAIL REFERENCE PLAN

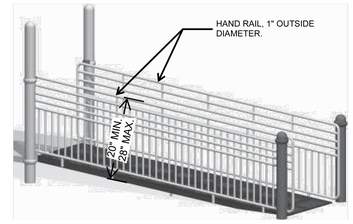
ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
San Jose, CA 95125
T. 408.292.2196
www.anla-associates.com

NOTES:
1. CONTRACTOR SHALL LOCATE PLAY STRUCTURES AS SHOWN.
2. ALL COMPONENTS ARE AVAILABLE THROUGH MIRACLE PLAYSYSTEMS. CONTACT PERSON: JEAN TYAN (800) 879-7730 2.
3. PLAY STRUCTURE IS TO BE DISTRICT PURCHASED, DISTRICT INSTALLED.
4. USE ZONES FINISH SURFACE OF PLAYGROUND COMPLIES WITH ASTM F1292-99.
5. GROUND SURFACING COMPLIES WITH ASTM 1951-99
6. PLAYGROUND EQUIPMENT SHALL COMPLY WITH ASTM F1487-98.
7. THIS PLAY AREA MEETS CBC SECTION 11B-1008.
8. HANDRAILS AT PLAY STRUCTURE RAMPS COMPLY WITH CBC 11B-1008.2.5.3. REFER TO "RAMP @ PRIMARY PLAY STRUCTURE" DETAIL AA / L3.3
   - 8.1. HANDRAIL EXTENSION ARE NOT REQUIRED AT RAMPS SERVING PLAY COMPONENTS.
   - 8.2. HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 0.95 INCH MINIMUM AND 1.55 INCHES MAXIMUM.
   - 8.3. THE TOP OF HANDRAIL GRIPPING SURFACES SHALL BE 20" MINIMUM AND 28" MAXIMUM ABOVE THE RAMP SURFACE.

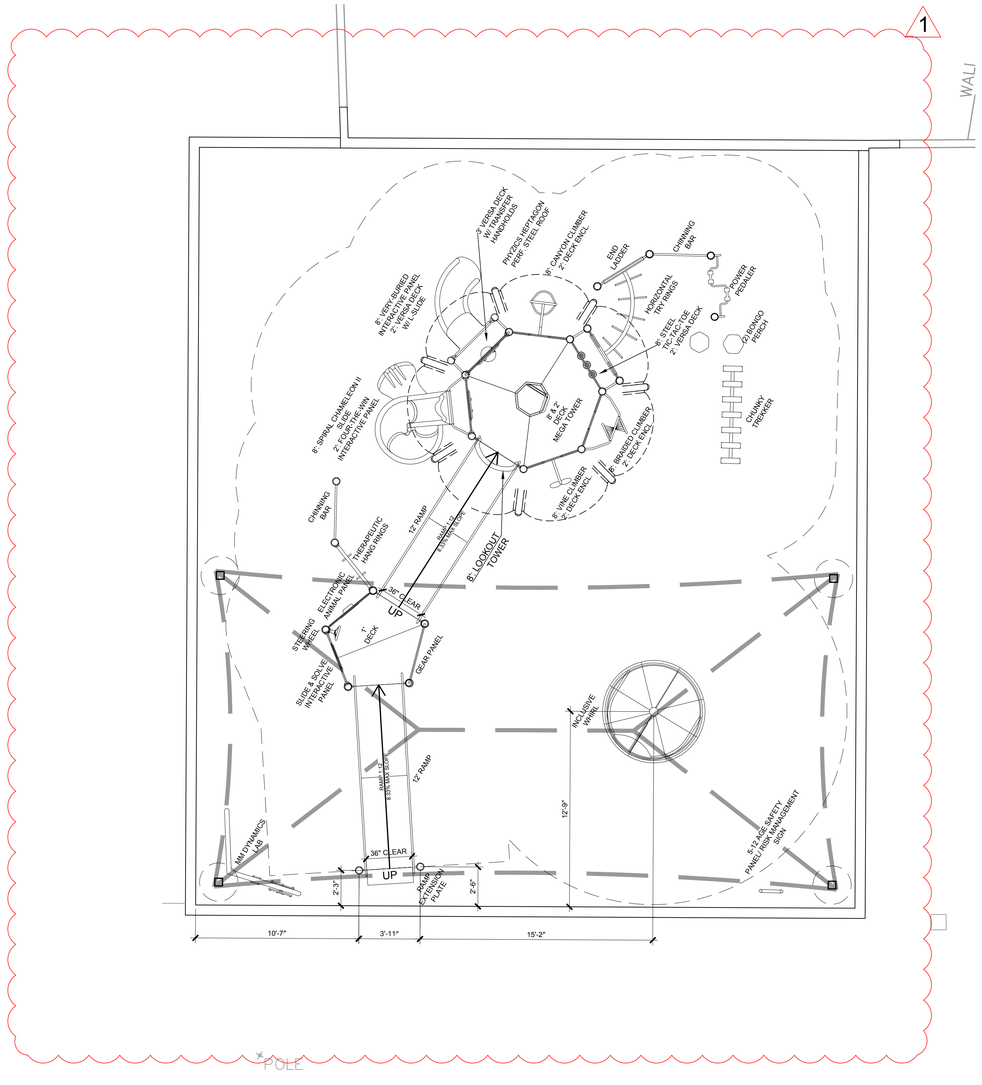
CRITICAL FALL HEIGHT OF STRUCTURES = 8'-0"

TOTAL ELEVATED PLAY COMPONENTS	13		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	9	REQUIRED	7
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	1	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	12	REQUIRED	0*
TOTAL DIFFERENT TYPES OF ACCESSIBLE GROUND LEVEL COMPONENTS	6	REQUIRED	0*

*11B-240.2.1.2 EXCEPTION: IF AT LEAST 50% OF THE ELEVATED PLAY COMPONENTS ARE CONNECTED BY A RAMP AND AT LEAST 3 OF THE ELEVATED PLAY COMPONENTS CONNECTED BY THE RAMP ARE DIFFERENT TYPES OF PLAY COMPONENTS, THE PLAY AREA SHALL NOT BE REQUIRED TO COMPLY WITH SECTION 11B-240.2.1.2



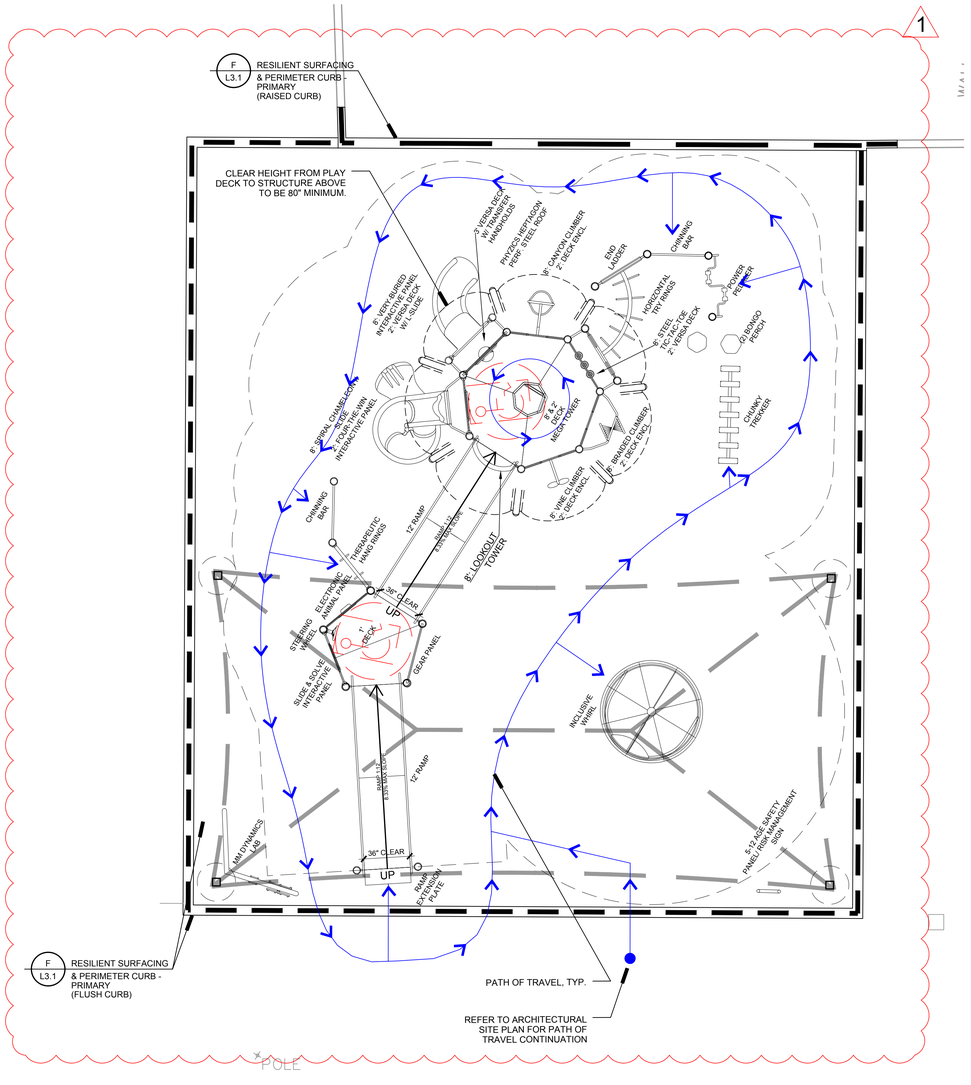
AA RAMP @ PRIMARY PLAY STRUCTURE SCALE: NTS



NOTES:
1. ALL DIMENSIONS FOR LOCATING THE PLAY STRUCTURE SHALL BE TAKEN FROM THE INSIDE OF THE CURB (IOC).

NORTH

B PRIMARY PLAY STRUCTURE - LAYOUT SCALE: 1/4" = 1'-0"



NOT PART OF DSA SSS APPROVAL PER IR A-22 SECTION 2.1.2.1
PLAYHOUSES LESS THAN 250 SF OF FLOOR AREA AND PLAYGROUND EQUIPMENT OF ANY SIZE ARE EXEMPT FROM DSA STRUCTURAL SAFETY REVIEW PER DSA IR A-22.

NORTH

A PRIMARY PLAY STRUCTURE SCALE: 1/4" = 1'-0"

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
SUSAN A.L. Lopez No. 5581
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	02-12-2024

PROJECT NO:	ANLA - #2334
DATE ISSUED:	11/08/23
SCALE:	As indicated
SHEET NUMBER:	**L3.3**
SHEET TITLE:	

CONSTRUCTION DETAILS

ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
San Jose, CA 95125
T. 408.292.2196
www.anla-associates.com

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DSA **140**

APPLICATION FOR SUBMITTAL OF POST-APPROVAL DOCUMENT

This application is for submittal of documents, after the initial approval of the project (post-approval documents), that require Division of the State Architect (DSA) review and approval.This form shall be completed by the Design Professional in General Responsible Charge of the project, in accordance with California Code of Regulations, Title 24, Part 1, Sections 4-317, 4-323 and 4-338 and in compliance with DSA IR A-6: Construction Change Document Submittal and Approval Process.

DSA documents referenced within this form are available on the DSA Forms or DSA Publications webpages.

1. SUBMITTAL TYPE: (Is this a resubmittal? Yes ☐ No ☐)

Deferred Submittal ☐	Addendum Number: 0	Revision Number:	CCD Number:	Category A ☐ or B ☐

2. PROJECT INFORMATION:

School District/Owner: Alum Rock Union School District	DSA File Number: 43 4
Project Name/School: McCollam ES Playground and Shade Structure Replacement	DSA Application Number 01 121324

3. APPLICANT INFORMATION:

Date Submitted: 02/12/24	Attached Pages? No ☐ Yes ☑ Number of pages? 10		
Firm Name: SVA Architects	Contact Name: Christopher Bradley		
Work Email: cbradley@sva-architects.com	Work Phone: (510) 267-3180		
Firm Address: 7901 Stoneridge Dr., Suite 100	City: Pleasanton	State: CA	Zip Code: 94588

4. REASON FOR SUBMITTAL: (Check applicable boxes)

☑ For revision or addendum prior to construction.

☐ For a project currently under construction.

☐ For a project that has a form *DSA 301-N: Notification of Requirement for Certification*, *DSA 301-P: Posted Notification of Requirement for Certification* or a 90-Day Letter issued.

☐ To obtain DSA approval of an existing uncertified building or buildings.

☐ For Category B CCD this is: ☐ a voluntary submittal, ☐ a DSA required submittal (attach DSA notice requiring submission).

5. DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE:

Name of the Design Professional In General Responsible Charge: Robert Simons

Professional License Number: C18301 Discipline: Architecture

Design Professional in General Responsible Charge Statement: The attached post-approval documents have been examined by me for design intent and appear to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications. They are acceptable for incorporation into the construction of the project.

Signature: Robert M. Simons

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE

6. CONFIRMATION, DESCRIPTION AND LISTING OF DOCUMENTS:

For addenda, revisions, or CCDs: CHECK THIS BOX ☑ to confirm that *all* post-approval documents have been stamped and signed by the Responsible Design Professional listed on form *DSA 1: Application for Approval of Plans and Specifications* for this project. (For *Deferred Submittals*, refer to *IR A-18: Use of Construction Documents Prepared by Other Professionals,* and *IR A-19: Design Professional's Signature and Seal (Stamp) on Construction Documents*, when applicable, for signature and seal requirements.)

Provide a brief description of construction scope for this post-approval document (attach additional sheets if needed):

Adjustment of upper grade play structure location to reduce new asphalt needed.

List of DSA-approved drawings affected by this post-approval document:

A1.0, C2.0, C3.0, C3.1, C4.0, C5.0, C6.0, L1, L2, L3.3

DSA USE ONLY

SSS KF Date 2/27/2024 ☒ Approved ☐ Disapproved ☐ Not Required

Comments:

FLS MS Date 02/27/2024 ☐ Approved ☐ Disapproved ☐ Not Required

Comments:

ACS Ken Koyama Date 2/26/24 ☐ Approved ☐ Disapproved ☐ Not Required

Comments:

Returned	DSA STAMP
Date:	APPROVED DIV. OF THE STATE ARCHITECT APP: 01-121324 INC: REVIEWED FOR SS ☑ FLS ☑ ACS ☑ DATE: 02/27/2024
By:	

INSTRUCTIONS: FORM DSA 140
APPLICATION FOR SUBMITTAL OF POST-APPROVAL DOCUMENT

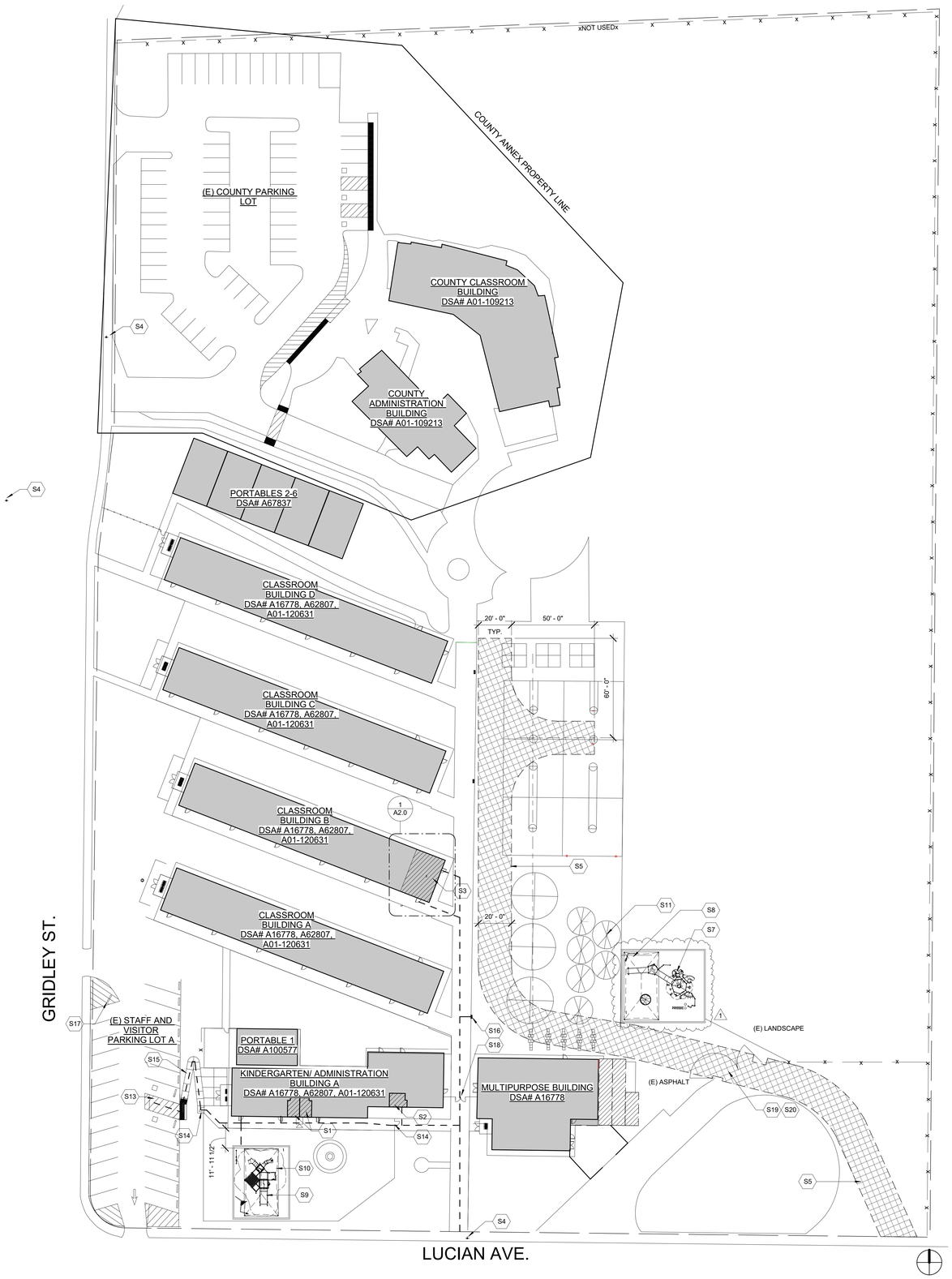
PURPOSE: Form *DSA 140: Application for Submittal of Post-Approval Document* is an application for submittal of the following post-approval documents to DSA for review and approval:

A. Deferred Submittals
B. Addenda
C. Revisions (*NOTE:* Revisions are significant changes to the DSA-approved construction documents or redesign of previously approved items.)
D. Construction Change Documents (CCDs)

INSTRUCTIONS FOR EACH SECTION:

1. Identify the type of submitted document (including whether it is a resubmittal or not) and, when applicable, the number and category (e.g., for CCDs, reference *IR A-6: Construction Change Document Submittal and Approval Process*).
2. School District/Owner is the same as line two on form *DSA 1: Application For Approval of Plans and Specifications*. Project Name/School is the same as line one on form DSA 1. DSA file and application numbers are the same as indicated on the DSA identification stamp on the plans and the signature sheet of the specifications.
3. Enter the submittal date, whether additional pages are attached, and how many. Enter the “applicant” (the architect or engineer in general responsible charge identified on line 21 of form DSA 1) contact information including the name and address of the firm where they are employed.
4. Check the applicable boxes based on the nature of the post-approval submittal document and related project information. For projects with a *form DSA 301-N: Notification of Requirement for Certification*, *DSA 301-P: Posted Notification of Requirement for Certification*, or 90-day Letter, refer to *PR 13-02: Project Certification Process* for further information and requirements.
5. Enter the following information for the individual identified on line 21 of form DSA 1: name, California professional license number, discipline and signature.
6. For addenda, revisions, or CCDs, check the box to indicate compliance with the statement. Provide a brief description of construction scope for the post-approval document and listing of approved drawings affected by the submitted post-approval documents.

   NOTE: For addenda and revisions, a summary letter of all changes and affected DSA-approved construction documents shall be provided in addition to the brief descriptions provided in this section.



OVERALL SITE PLAN | 1" = 30'-0" | **1**

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:	Alum Rock Union Elementary School
Project Name/School:	McCollam ES Playground and Shade Structure Project
Project Address:	3311 Lucian Ave, San Jose, CA 95127

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 ☑
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☐		No ☑
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 ☐		No ☑
	Refer to the following website for FHSZ locations: http://egis.fire.ca.gov/FHSZ/	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	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: _____ Title: _____

Signature: _____ Date: _____

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

LFA Reviewer's Signature: _____ Date: _____

DSA 810

KINDERGARTEN SHADE STRUCTURE

CONSTRUCTION TYPE:	V-B/A-3
BASIC ALLOWABLE AREA:	6000 SQ. FT.
ACTUAL AREA:	835 SQ. FT.
# OF STORIES:	1

ELEMENTARY SHADE STRUCTURE

CONSTRUCTION TYPE:	V-B/A-3
BASIC ALLOWABLE AREA:	6000 SQ. FT.
ACTUAL AREA:	835 SQ. FT.
# OF STORIES:	1

CODE ANALYSIS

PARKING LOT A

STANDARD STALLS	24
ACCESSIBLE STALLS REQ'D	1
ACCESSIBLE STALLS PROV'D	2

PARKING SUMMARY

- S1 (E) ACCESSIBLE KINDERGARTEN STUDENT RESTROOMS PER 01-120631
- S2 (E) ACCESSIBLE STAFF RESTROOMS PER 01-120631
- S3 (E) ACCESSIBLE ELEMENTARY STUDENT RESTROOMS PER A62307. REF. 3/A2.0 FOR EXISTING RESTROOM FLOOR PLAN AND DIMENSIONS.
- S4 (E) FIRE HYDRANT
- S5 REVISED FIRE LANE AND FIRE APPARATUS TURN AROUND PER 01-120631
- S6 (N) ASPHALT, REF. CIVIL
- S7 (N) ELEMENTARY PLAY STRUCTURES AND FALL PROTECTION, REF. LANDSCAPE
- S8 (N) ELEMENTARY LEVEL SHADE STRUCTURE PER PC 04-121769
- S9 (N) KINDERGARTEN PLAY STRUCTURES AND FALL PROTECTION, REF. LANDSCAPE
- S10 (N) KINDERGARTEN LEVEL SHADE STRUCTURE PER PC 04-121769
- S11 (E) TETHERBALL POLES AND STRIPING, TYP.
- S12 (E) PLAY STRIPING, TYP.
- S13 (E) ACCESSIBLE PARKING PER 01-120631
- S14 (E) ACCESSIBLE GATE WITH PANIC HARDWARE PER 01-120631
- S15 (E) ACCESSIBLE SLOPED SWITCHBACK WALKWAY PER 01-120631
- S16 (E) ACCESSIBLE DRINKING FOUNTAIN PER 01-120631
- S17 (E) TOW-AWAY SIGN PER 01-120631
- S18 (E) ACCESSIBLE DOUBLE GATE. SEE DET 7/GEN-3
- S19 (N) 26'-0" WIDE FIRE APPRATUS GATE PER DET. 3/A2.0.
- S20 DEMOLISH EXISTING FIRE APPARATUS GATE AND ADJACENT FENCING TO ACCOMMODATE NEW FIRE APPARATUS GATE. EXISTING FENCE REMOVAL TO BE BACK TO NEAREST EXISTING FECE POST BEYOND EITHER SIDE OF NEW GATE. INSTALL NEW INFILL FENCING PER DET. 2/A2.0.

SITE PLAN KEYNOTES

(E) PATH OF TRAVEL PER 01-120631
PATH OF TRAVEL (P.O.T) AS INDICATED MEETS THE FOLLOWING REQUIREMENTS:
1. IS A BARRIER-FREE ACCESSIBLE ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT A SLOPE NOT STEEPER THAN 1:2 EXCEPT THAT LEVEL CHANGES ARE 1/4" MAX VERTICAL & IS AT LEAST 48" WIDE.
2. SURFACE SHALL BE STABLE, FIRM AND SLIP RESISTANT.
3. CROSS-SLOPE SHALL NOT BE STEEPER THAN 1:48 AND RUNNING SLOPE SHALL NOT BE STEEPER THAN 1:20 UNLESS OTHERWISE INDICATED (SEC 11B-403.3)
4. P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM (SECTION 11B-307.4) AND PROTRUDING OBJECTS GREATER THAN 4"
PROJECTION FROM WALL SURFACE BETWEEN 27" AND 80" ABOVE FINISH FLOOR
OR GROUND (SECTION 11B-307.2)
5. PROVIDE FLUSH TRANSITIONS AT ANY ADJOINING JOINTS BETWEEN DIFFERENT WALK SURFACES IN P.O.T.
6. ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IN COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR **PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS.** AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. 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 UPON THE VALUATION THRESHOLD OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF P.O.T. 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 PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

PROPERTY LINE

LIMITS OF WORK FOR THIS PROJECT

(E) ALARM HORN PER 01-120631

SITE PLAN LEGEND - DSA

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED ARCHITECT
ROBERT M. SIMONDS
No. C-18301
JAN. 31, 2025
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO: Project Number
DATE ISSUED: Issue Date
SCALE: As indicated

A1.0

SITE PLAN

SVA ARCHITECTS
6 HUTTON CENTRE DR, SUITE 1150 SANTA ANA, CA 92707
T 949.809.3380 WWW.SVA-ARCHITECTS.COM

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DSA 810

DEMOLITION LEGEND

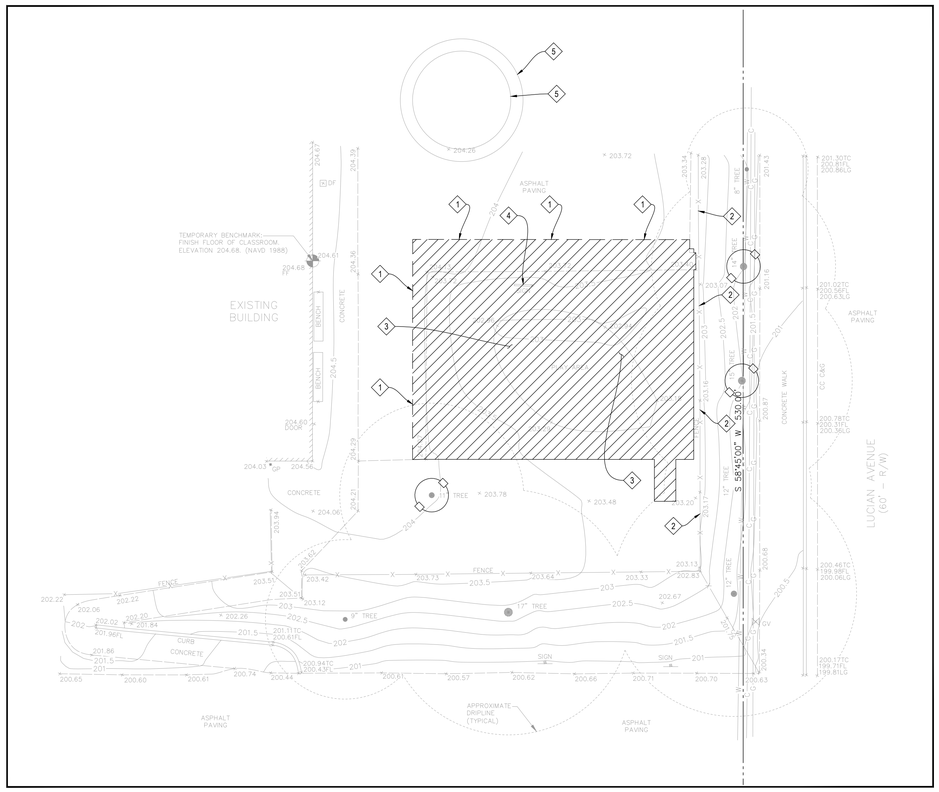
- DEMOLITION AREA - ALL SITE FEATURES WITHIN THIS AREA ARE TO BE REMOVED, UNLESS NOTED TO REMAIN.
- EXISTING BUILDING STRUCTURE TO BE DEMOLISHED
- TREE TO BE REMOVED. SEE LANDSCAPE PLANS.
- TREE PROTECTION TREES TO REMAIN

DEMOLITION KEYNOTES

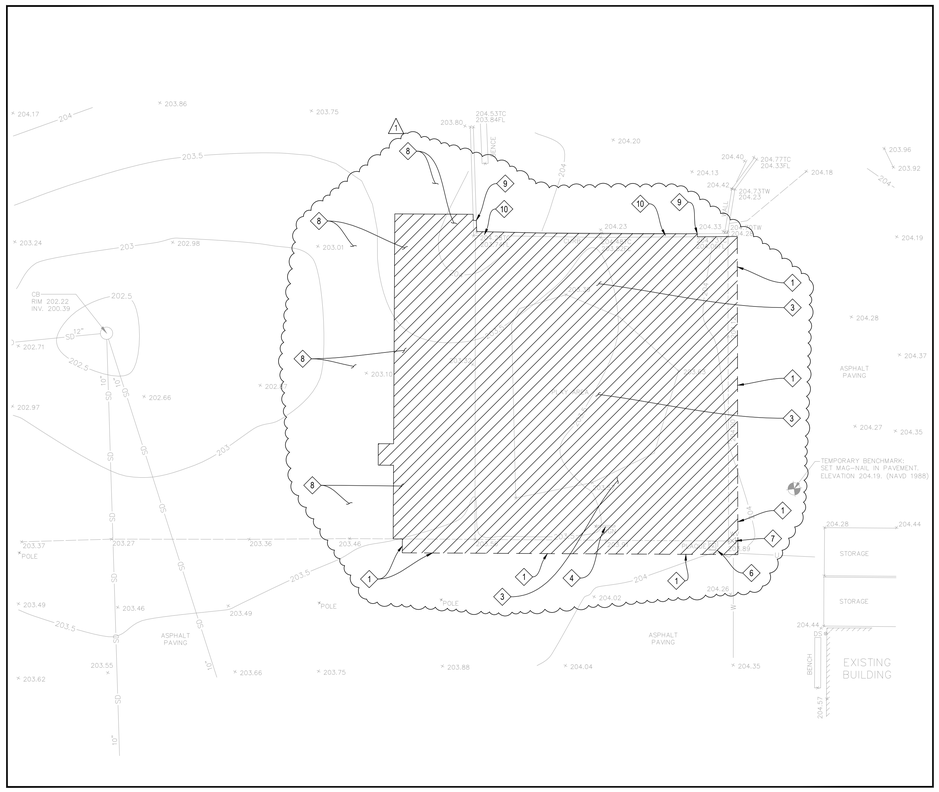
1. SAWCUT AND CONFORM
2. EXISTING CHAINLINK FENCE TO REMAIN, PROTECT IN PLACE
3. EXISTING PLAY EQUIPMENT TO BE REMOVED
4. EXISTING SIGN TO BE REMOVED
5. EXISTING PLAY STRIPING TO REMAIN, PROTECT IN PLACE. CONTRACTOR TO VERIFY EXACT LOCATION IN FIELD
6. EXISTING PLAQUE TO BE REMOVED
7. EXISTING WATER VALVE TO REMAIN, PROTECT IN PLACE
8. LANDSCAPE AROUND NEW PLAY AREA TO BE REGRADED TO ENSURE POSITIVE DRAINAGE TOWARDS EXISTING CATCH BASIN
9. EXISTING CURB/WALL TO BE CUT AT THIS POINT & TIED INTO. OUTSIDE OF DEMO EXTENTS, EXISTING CURB/WALL TO REMAIN, PROTECT IN PLACE
10. EXISTING CURB/WALL AND FOOTING TO BE REMOVED

DEMOLITION NOTES

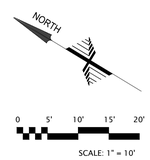
1. SEE ELECTRICAL PLANS FOR REMOVAL OR RELOCATION OF ALL ELEC/COMM CONDUITS, BOXES, LINE ETC.
2. SEE UTILITY PLAN FOR ALL NEW TIE-IN LOCATIONS AND ANY INSTANCES OF STORM, SANITARY SEWER, OR WATER BEING RELOCATED. ANY EXISTING UTILITIES NOT BEING USED ARE TO BE REMOVED.
3. ALL EXISTING SERVICES AND UTILITIES THAT ARE WITHIN THE LIMITS OF DEMOLITION AND ARE TO REMAIN OPERATIONAL SHALL BE RELOCATED AS NECESSARY.
4. ALL TREES THAT ARE TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.
5. CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF PROPOSED UTILITIES, AND INFORM ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH WORK.
6. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INVERTS AND LOCATIONS PRIOR TO BEGINNING ANY WORK ON THIS SITE.



DEMOLITION AREA - KINDERGARTEN
SCALE: 1"=10'



DEMOLITION AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

CALL BEFORE YOU DIG
811
800.227.2600

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. STEWART
NO. C38406
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:	
DATE ISSUED:	2024.02.14
DRAWN BY:	AKW, VAB
SCALE:	AS SHOWN
SHEET NUMBER:	**C2.0**

DEMOLITION PLAN

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

Plot Date: Feb 14, 2024 - 2:31 PM

HOHBACH-LEWIN #17516.31

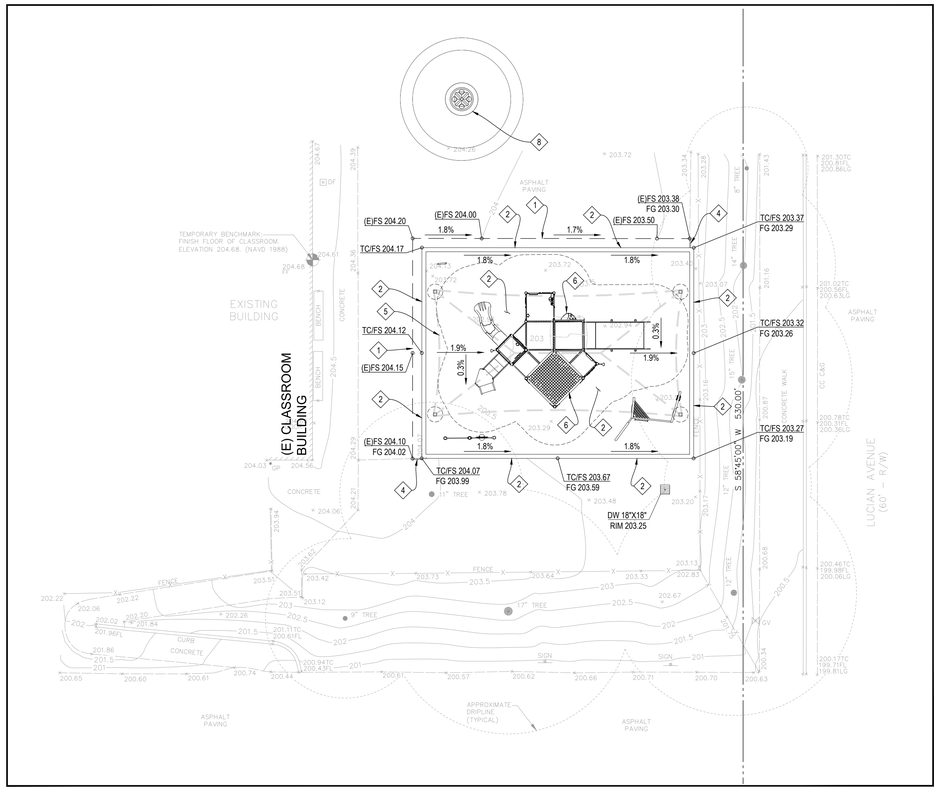
GRADING LEGEND

XX.XX — GRADE ELEVATION

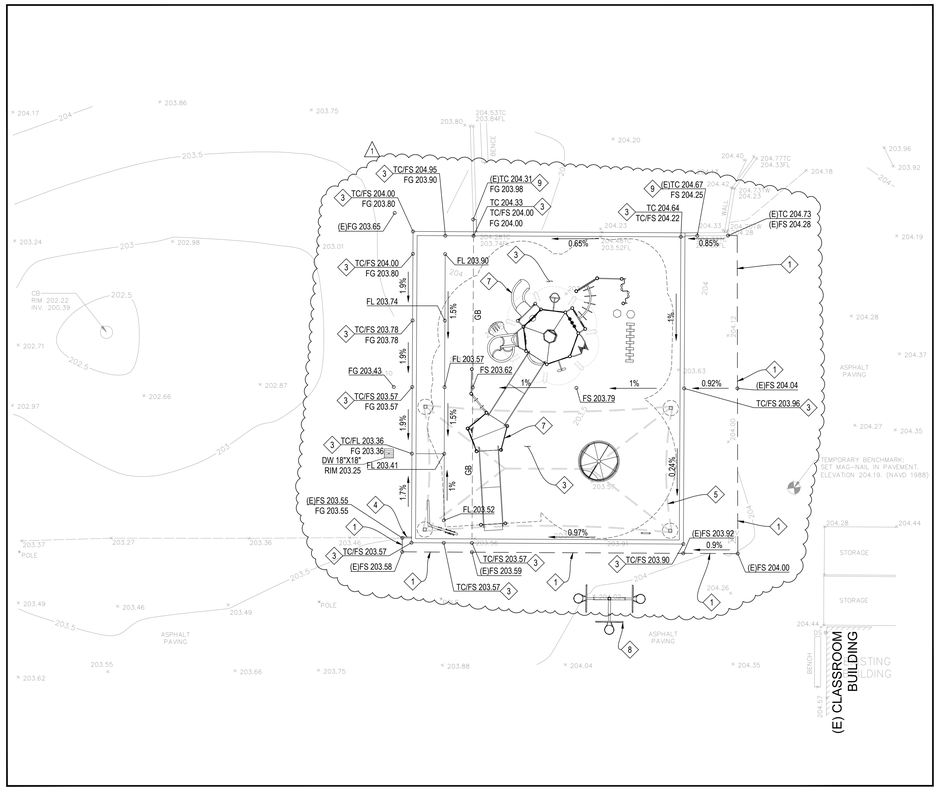
X% — SLOPE AND DIRECTION

GRADING KEYNOTES

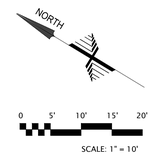
1. SAWCUT AND CONFORM
2. NEW PLAY SURFACE & CURB FOR KINDERGARTEN, SEE LANDSCAPE PLANS & DETAIL E/L3.1
3. NEW PLAY SURFACE & CURB FOR PRIMARY, SEE LANDSCAPE PLANS & DETAIL F/L3.1
4. NEW REDWOOD HEADERBOARD, SEE DETAIL C/L3.1
5. NEW SHADE STRUCTURE, SEE ARCHITECTURAL PLANS
6. NEW PLAY EQUIPMENT FOR KINDERGARTEN, SEE L3.2
7. NEW PLAY EQUIPMENT FOR PRIMARY, SEE L3.3
8. NEW PLAY EQUIPMENT, SEE LANDSCAPE PLANS



PLAYGROUND AREA - KINDERGARTEN
SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER — DANIEL G. KEEGAN — No. C38409 — CIVIL

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:

DATE ISSUED: 2024.02.14

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

SHEET NUMBER: C3.0

GRADING AND DRAINAGE PLAN

HOHBACH–LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

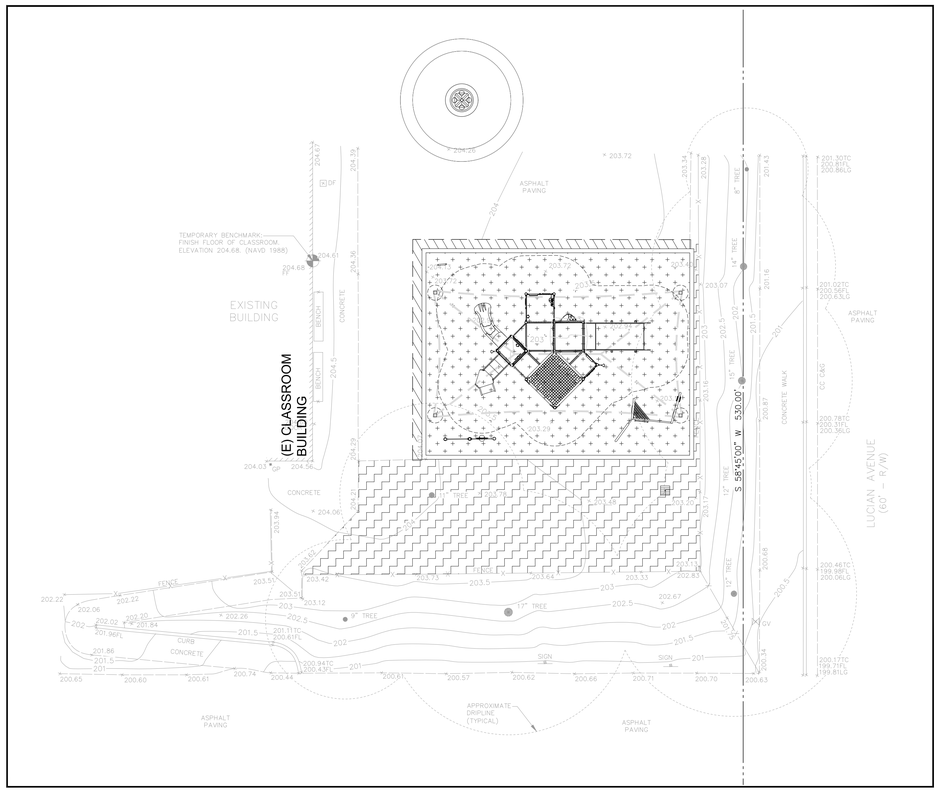
CALL BEFORE YOU DIG — USA — 800.227.2600

HOHBACH-LEWIN # IT516.31

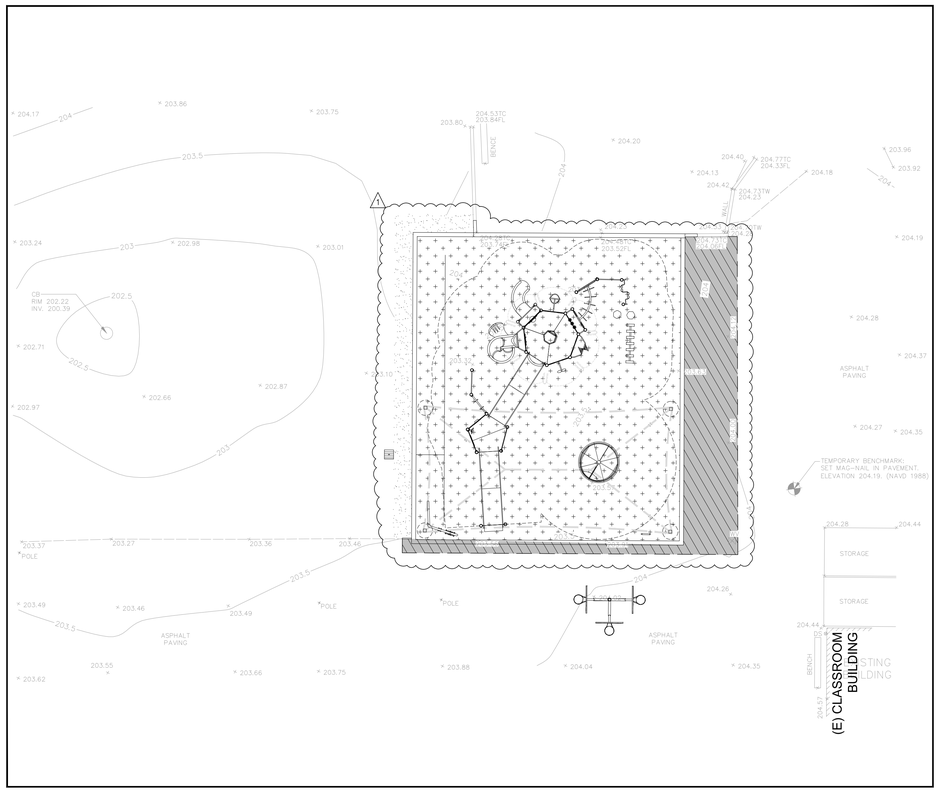
Plot Date: Feb 14, 2024 - 2:31 PM

PAVEMENT LEGEND

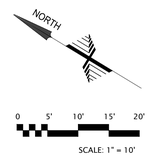
	AC PAVEMENT VEHICULAR	3" AC PAVEMENT OVER 12" CLASS 2 BASEROCK COMPACTED TO 95% R.C. OVER NATIVE SOILS COMPACTED TO 90% R.C.
	AC PAVEMENT PEDESTRIAN	SEE LANDSCAPE PLANS, DETAIL A/L3.1
	RESILIENT SURFACING	SEE LANDSCAPE PLANS, DETAILS E&F/L3.1
	BARK MULCH	SEE LANDSCAPE PLANS
	TURF	SEE LANDSCAPE PLANS



PLAYGROUND AREA - KINDERGARTEN
SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY
SCALE: 1"=10'



SCALE: 1" = 10'

CALL BEFORE YOU DIG
811
800-227-2600

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
RACHEL G. [illegible]
NO. C38404
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:	
DATE ISSUED:	2024.02.14
DRAWN BY:	AKW, VAB
SCALE:	AS SHOWN
SHEET NUMBER:	**C3.1**

PAVEMENT PLAN

HOHBACH–LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

Plot Date: Feb 14, 2024 - 2:23 PM

HOHBACH-LEWIN #1751631

UTILITY LEGEND

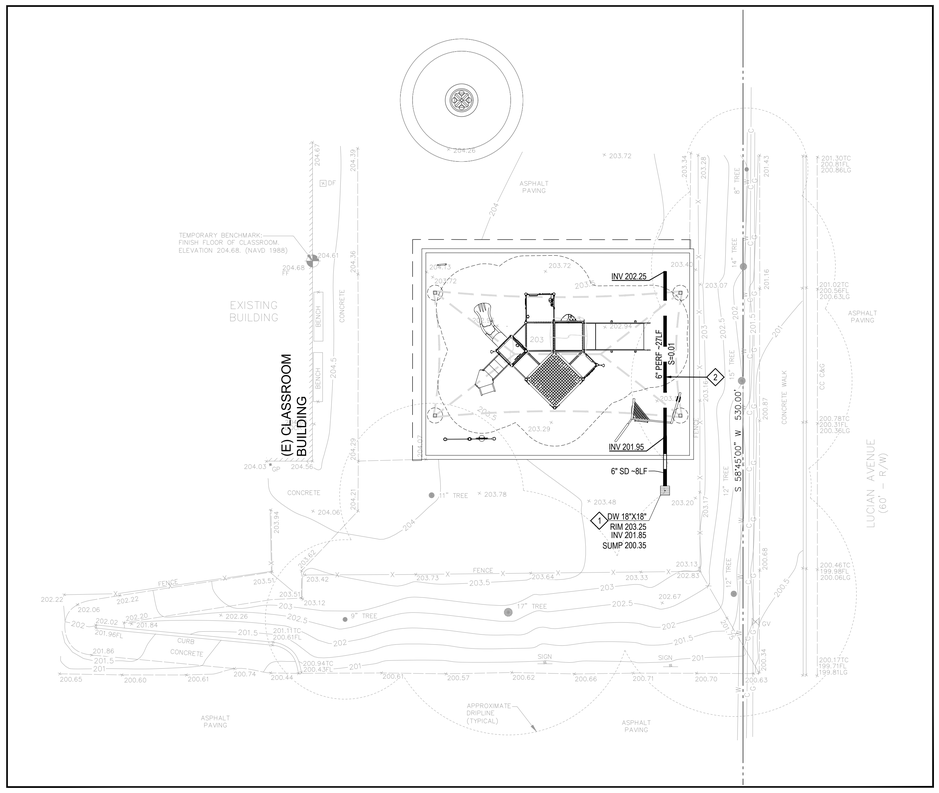
- WATER VALVE
- WATER METER
- STORM DRAIN MANHOLE
- CATCH BASIN
- AREA DRAIN
- CLEANOUT TO GRADE

UTILITY KEYNOTES

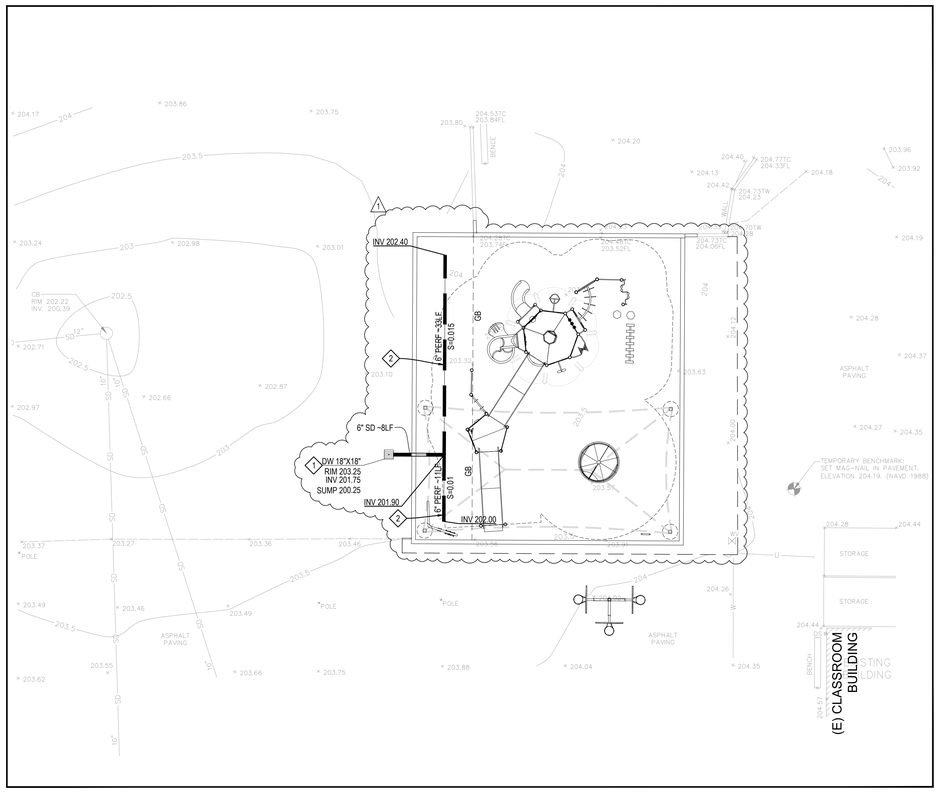
1. DRY WELL, SEE DETAIL 1/C6.0
2. PLAY AREA SUB DRAIN, SEE DETAILS F&E/L3.1

UTILITY NOTES

1. CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF PROPOSED UTILITIES, AND INFORM ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH WORK.
2. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INVERTS AND LOCATIONS PRIOR TO BEGINNING ANY WORK ON THIS SITE.



PLAYGROUND AREA - KINDERGARTEN
SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY
SCALE: 1"=10'

NORTH

0 5' 10' 15' 20'

SCALE: 1" = 10'

CALL BEFORE YOU DIG
USA
800-227-2600

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
RACHEL G. [illegible]
No. C38404
CIVIL
STRUCTURAL

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:

DATE ISSUED: 2024.02.14

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

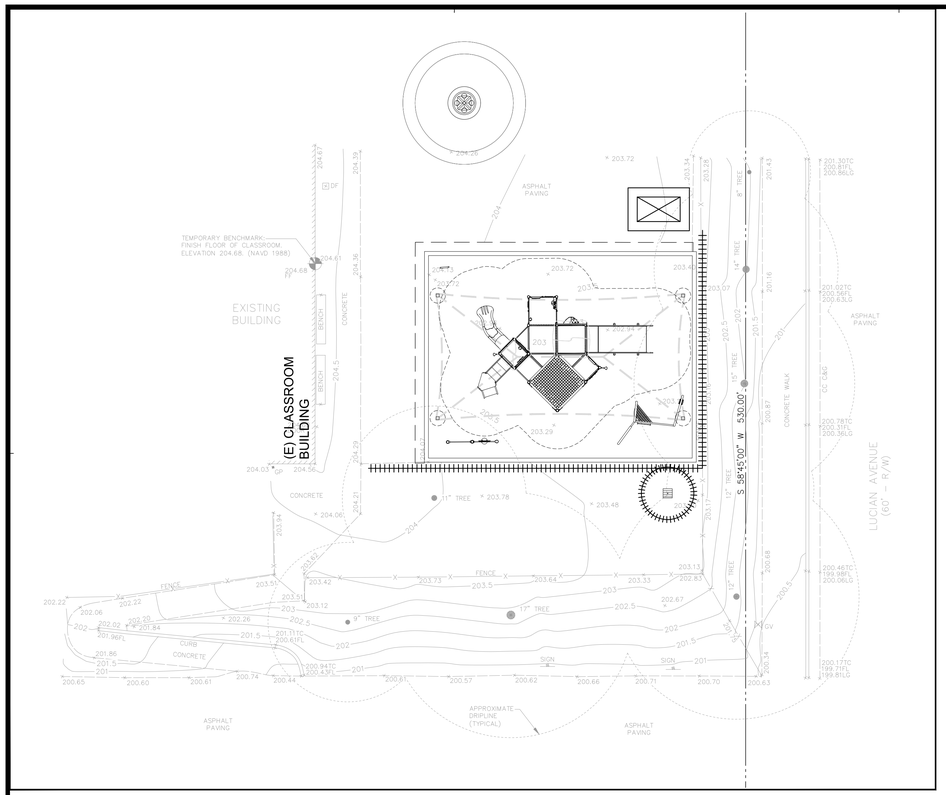
SHEET NUMBER: **C4.0**

UTILITY PLAN

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

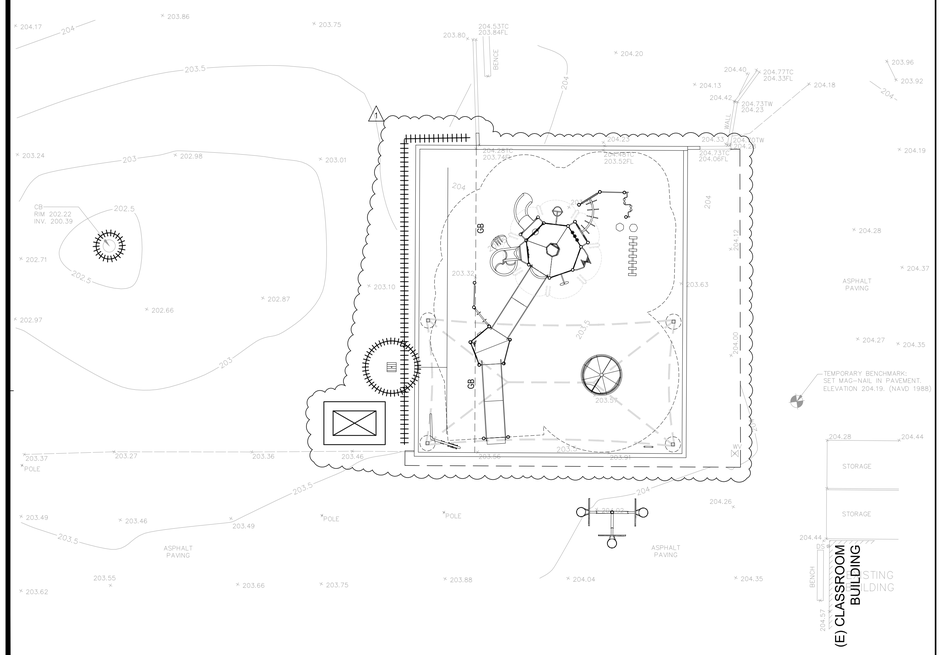
HOHBACH-LEWIN #1516.31

Plot Date: Feb 14, 2024 - 2:23 PM



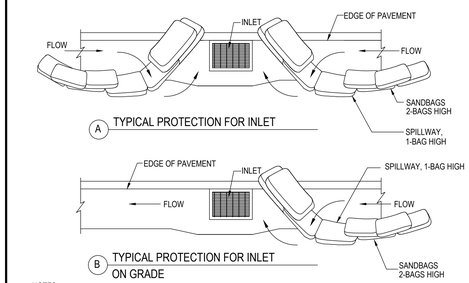
PLAYGROUND AREA - KINDERGARTEN

SCALE: 1"=10'



PLAYGROUND AREA - PRIMARY

SCALE: 1"=10'



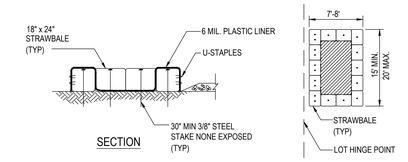
A TYPICAL PROTECTION FOR INLET

B TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

1. INTENDED FOR SHORT-TERM USE.
2. USE TO INHIBIT NON-STORM WATER FLOW.
3. ALLOW FOR PROPER MAINTENANCE AND CLEANUP.
4. BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED.
5. NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

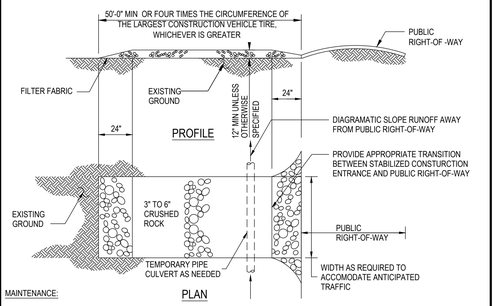
4 CATCH BASIN PROTECTION ALONG GUTTERS



NOTES:

1. WHEN WASHING ON-SITE, USE DESIGNATED, BERMED WASH AREAS TO PREVENT WASHWATER CONTACT WITH STORM WATER, CREEKS, RIVERS, AND OTHER WATER BODIES. THE WASH AREA CAN BE SLOPED FOR WASH WATER COLLECTION AND SUBSEQUENT INFILTRATION INTO THE GROUND.
2. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES. DO NOT ALLOW RUNOFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE.
3. WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY.

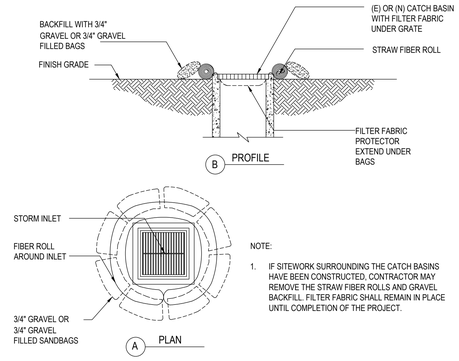
1 CONCRETE WASH AREA



MAINTENANCE:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AND REPAIR OR CLEAN OUT OF TRAPPED SEDIMENT.
2. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY.
3. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. THIS SHALL BE DONE AT AN AREA STABILIZED WITH CRUSHED STONE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

5 STABILIZED CONTRUCTION ENTRANCE



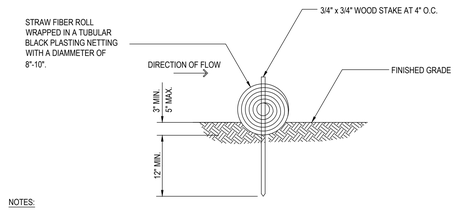
NOTE:

1. IF SITEWORK SURROUNDING THE CATCH BASINS HAVE BEEN CONSTRUCTED, CONTRACTOR MAY REMOVE THE STRAW FIBER ROLLS AND GRAVEL BACKFILL. FILTER FABRIC SHALL REMAIN IN PLACE UNTIL COMPLETION OF THE PROJECT.

2 CATCH BASIN PROTECTION (TYP.)

LEGEND

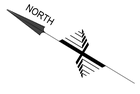
- CONCRETE WASHOUT, SEE DETAIL 1/-
- CATCH BASIN PROTECTION, SEE DETAIL 2/-
- FIBER ROLL, SEE DETAIL 3/-
- CATCH BASIN PROTECTION ALONG GUTTERS SEE DETAIL 4/-
- STABILIZED CONSTRUCTION ENTRANCE, SEE DETAIL 5/-



NOTES:

1. FIBER ROLL COMPOSED OF BIO-DEGRADEABLE FIBERS STUFFED INTO A PHOTO-DEGRADABLE OPEN WEAVE NETTING.
2. FIBER ROLL EROSION BARRIER TRAPS SEDIMENT AND REDUCES SHEET AND HILL SIDE EROSIONS BY REDUCING SLOPE GRADIENT. IT INCREASING INFILTRATION RATES AND BY PRODUCING A FAVORABLE ENVIRONMENT FOR PLANT ESTABLISHMENT.
3. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH 3"-5" DEEP, DUG ON CONTOUR , RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.

3 FIBER ROLL



0 5' 10' 15' 20'

SCALE: 1" = 10'

CALL BEFORE YOU DIG USA 800.227.2600

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER DANIEL G. ... NO. C38409 CIVIL STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:

DATE ISSUED: 2024.02.14

DRAWN BY: AKW, VAB

SCALE: AS SHOWN

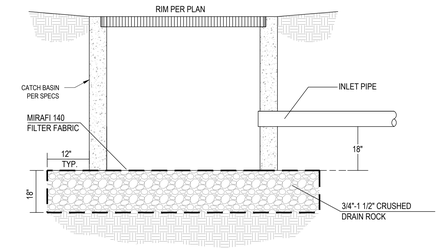
SHEET NUMBER: C5.0

EROSION CONTROL PLAN

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932

HOHBACH-LEWIN #175.16.31

Plot Date: Feb 14, 2024 - 2:32 PM

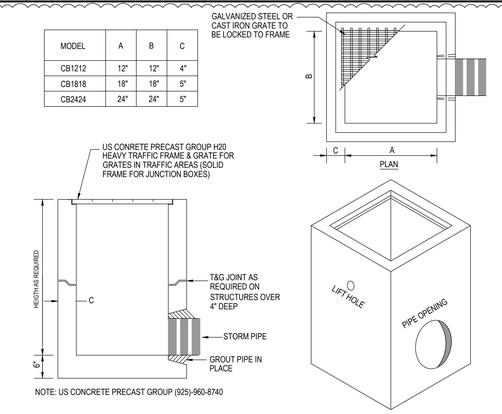


NOTES:

1. CONTRACTOR SHALL NOTIFY OWNER THAT PERIODIC AND REGULAR INSPECTION AND CLEARING OF SILT BASINS FOR LONG TERM PERFORMANCE IS REQUIRED.

13 | 9 | 5 | 1 DRY WELL

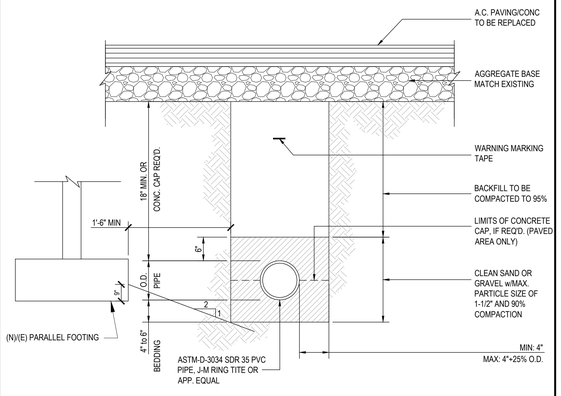
MODEL	A	B	C
CB1212	12"	12"	4"
CB1818	18"	18"	5"
CB2424	24"	24"	5"



NOTE: US CONCRETE PRECAST GROUP (925)-960-8740

14 | 10 | 6 | 2 TYPICAL CATCH BASIN

15 | 11 | 7 | 3



16 | UTILITY TRENCH | 12 | 8 | 4

Plot Date: Feb 14, 2024 - 2:32 PM

HOHBACH-LEWIN #17516.31

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

REGISTERED PROFESSIONAL ENGINEER
DANIEL G. ...
NO. C38406
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	2/12/24

PROJECT NO:

DATE ISSUED: 2024.02.14

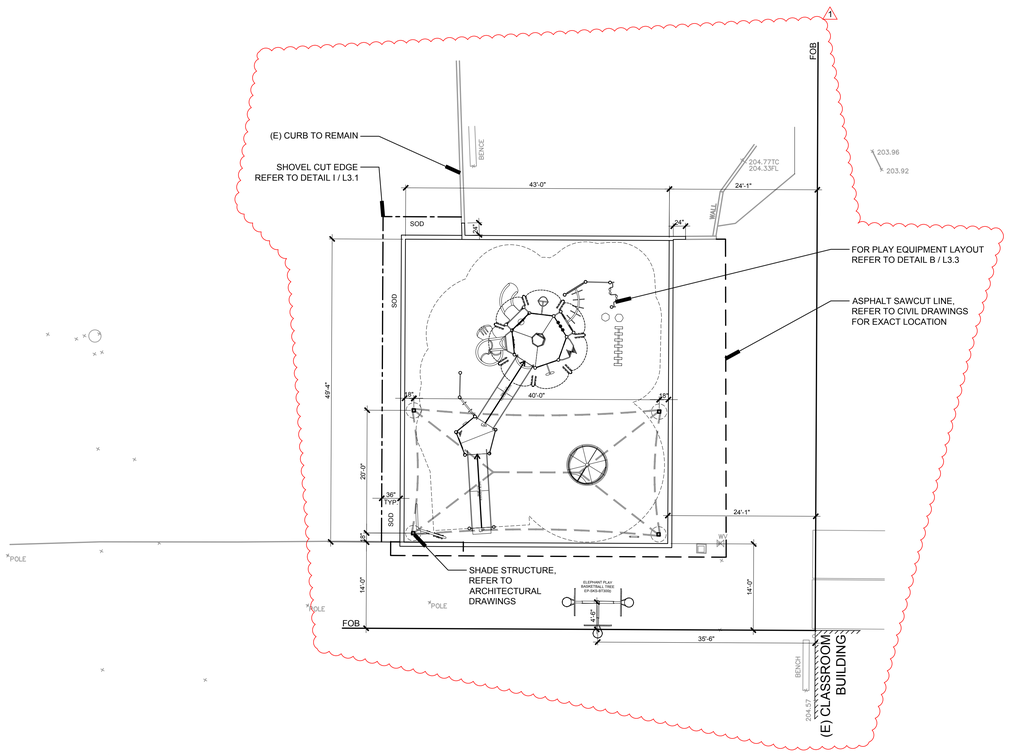
DRAWN BY: AKW, VAB

SCALE: AS SHOWN

SHEET NUMBER: **C6.0**

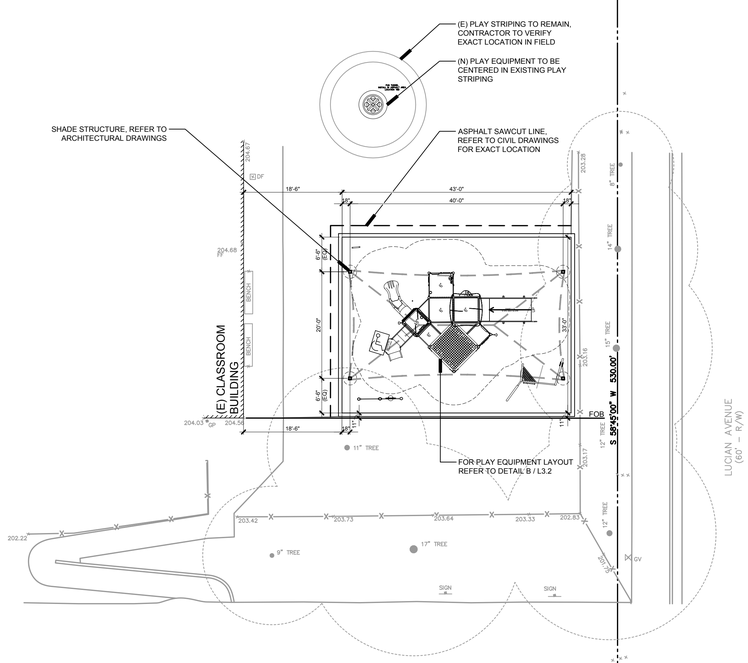
DETAILS

HOHBACH–LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-5930, Fax (650) 617-5932



B PLAY STRUCTURE - PRIMARY

SCALE: 1" = 10'-0"



A PLAY STRUCTURE - KINDERGARTEN

SCALE: 1" = 10'-0"

LAYOUT 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. DRAWINGS SHALL NOT BE SCALED. WRITTEN DIMENSIONS TAKE PRECEDENCE. IF CONTRACTOR FINDS A DISCREPANCY WITH WRITTEN DIMENSIONS, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE OF AND LOCATIONS OF EXISTING AND PROPOSED UNDERGROUND SERVICES AND IMPROVEMENTS WHICH MAY CONFLICT WITH THE WORK. CONTACT THE DISTRICT REPRESENTATIVE AND UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 PRIOR TO INITIATING CONSTRUCTION FOR ASSISTANCE.
4. COORDINATE ALL CONSTRUCTION ELEMENTS PRIOR TO INSTALLATION. VERIFY , CURBS, FENCES, ETC. AND CRITICAL DIMENSIONS, REFERENCE AND COORDINATE POINT LOCATIONS, AND CONSTRUCTION CONDITIONS PRIOR TO INITIATING CONSTRUCTION. NOTIFY THE DISTRICT REPRESENTATIVE IMMEDIATELY SHOULD DISCREPANCIES ARISE.
5. CONTRACTOR SHALL LAYOUT ALL PROJECT ELEMENTS IN FIELD AS SHOWN ON THESE PLANS AND HAVE THEM APPROVED BY THE DISTRICT REPRESENTATIVE PRIOR TO CONSTRUCTION.
6. ALL MINOR ADJUSTMENTS MADE TO ACCOMMODATE EXISTING SITE CONDITIONS SHALL MAINTAIN THE OVERALL DESIGN LAYOUT. ALL ADJUSTMENTS SHALL BE APPROVED BY THE DISTRICT REPRESENTATIVE PRIOR TO CONSTRUCTION.
7. ALL NEW PAVED SURFACES SHALL CONFORM TO EXISTING PAVED SURFACES, FLUSH AND SMOOTH. CONTRACTOR SHALL CONSTRUCT SMOOTH TRANSITIONS OF PAVING AND WALKS WHILE MAINTAINING POSITIVE DRAINAGE.
8. COORDINATE ALL SLEEVING AND UTILITY LOCATIONS AS SHOWN ON THE PLANS AND DETAILS CONTAINED WITHIN THESE CONTRACT DOCUMENTS.
9. CONDITIONS NOT SPECIFICALLY NOTED OR DETAILED ON THESE PLANS SHALL BE CALLED TO THE ATTENTION OF THE DISTRICT REPRESENTATIVE FOR REVIEW PRIOR TO IMPLEMENTATION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT FOR REPAIRING OR REPLACING, AT HIS OWN EXPENSE, ANY STRUCTURES, FENCES, WALLS, PLANT MATERIAL 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 DISTRICT REPRESENTATIVE.
11. ALL ANGLES FOR LAYOUT TO BE 90 DEGREES UNLESS OTHERWISE NOTED.

LAYOUT LEGEND

SYMBOL	DESCRIPTION OF SYMBOL
BOC	BACK OF CURB
BOW	BACK OF WALL
℄	CENTERLINE
℄	CENTERLINE OF COLUMN
COP	CENTER OF POST
EOD	EDGE OF DOOR
℞	END OF RADIUS
EQ	EQUAL
(E)	EXISTING
FOB	FACE OF BUILDING
FOC	FACE OF CURB
FOW	FACE OF WALL
IOC	INSIDE OF CURB
MAX	MAXIMUM
MIN	MINIMUM
(N)	NEW
OC	ON CENTER SPACING
R	RADIUS
TYP	TYPICAL

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
RAMIRO A.L. LOPEZ No. 5981
STATE OF CALIFORNIA
12/31/2024
Renewal Date
11/08/2023
Date

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	02-12-2024

PROJECT NO: ANLA - #2334

DATE ISSUED: 11/08/23

SCALE: As indicated

SHEET NUMBER: L1

SHEET TITLE:

LAYOUT PLAN

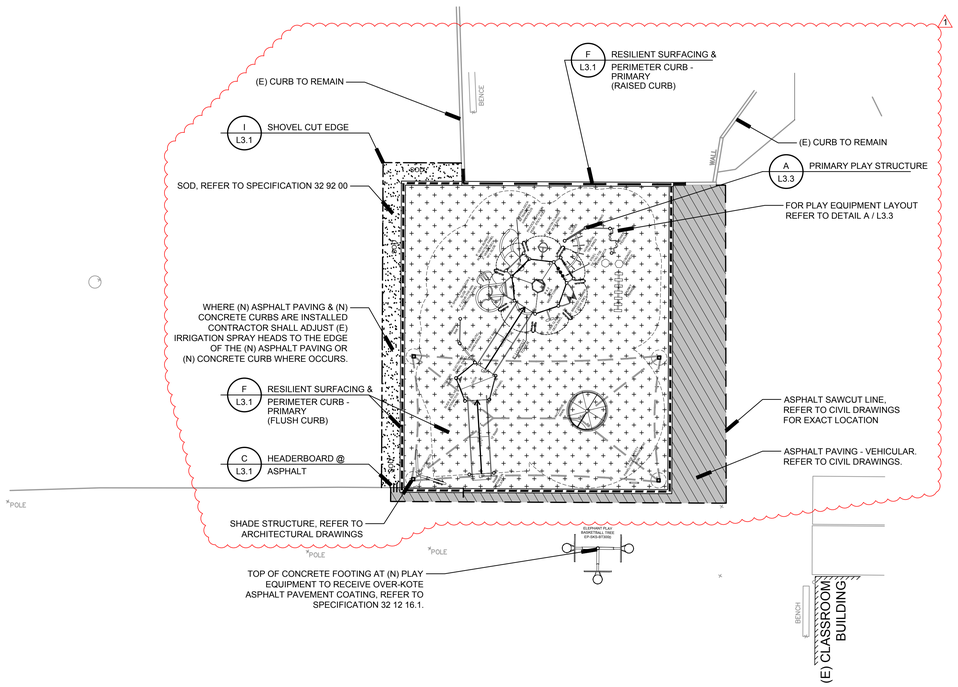
NORTH

SCALE: 1" = 10'-0"

0' 5' 10' 20'

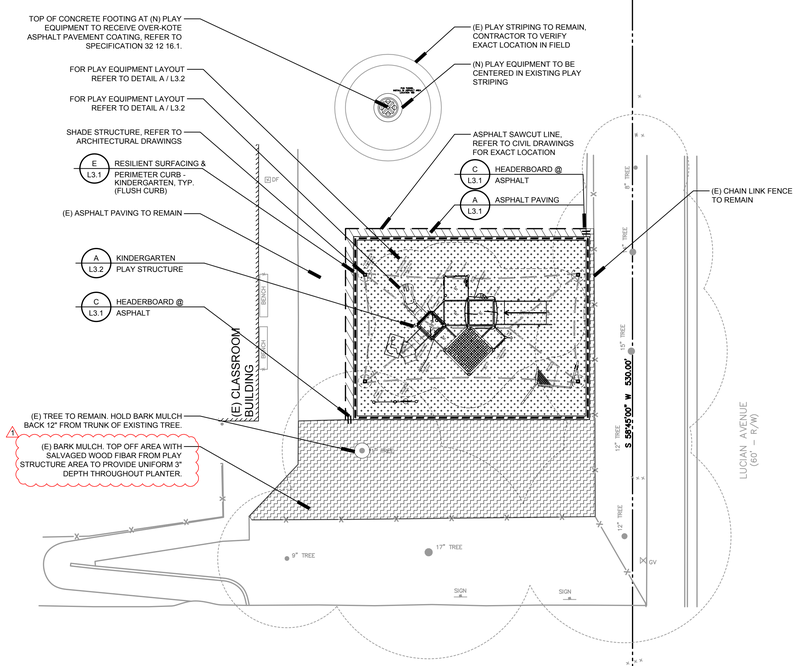
ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
San Jose, CA 95125
T. 408.292.2196
www.anla-associates.com

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B PLAY STRUCTURE - PRIMARY

SCALE: 1" = 10'-0"



A PLAY STRUCTURE - KINDERGARTEN

SCALE: 1" = 10'-0"

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. 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.
4. LANDSCAPE ARCHITECT 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.
5. 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.
6. CONTRACTOR SHALL ADJUST EXISTING UTILITY BOXES TO BE FLUSH WITH PROPOSED GRADES.
7. REFER TO CONSTRUCTION DETAILS ON SHEETS L3.1 - L3.3
8. REFER TO THE FOLLOWING SPECIFICATION SECTIONS:

01 56 39	TEMPORARY TREE AND PLANT PROTECTION
11 68 16	PLAY STRUCTURES
32 12 16.1	ASPHALT PAVING (LANDSCAPE)
32 13 13.1	CONCRETE WORK (LANDSCAPE)
32 18 16.16	PLAYGROUND PROTECTIVE SURFACING
32 90 00	PLANTING
32 92 00	TURF PLANTING

MATERIAL & DETAIL REFERENCE LEGEND

SYMBOL	DETAIL DESCRIPTION	DETAIL REFERENCE
	ASPHALT PAVING - PEDESTRIAN	A / L3.1
	ASPHALT PAVING - VEHICULAR REFER TO CIVIL DRAWINGS	
	HEADERBOARD @ ASPHALT	C / L3.1
	RESILIENT SAFETY SURFACING & PERIMETER CURB - KINDERGARTEN	E / L3.1
	RESILIENT SAFETY SURFACING - PRIMARY	F / L3.1
	RESILIENT SURFACING PERIMETER CURB (FLUSH CURB)	F / L3.1
	RESILIENT SURFACING PERIMETER CURB (RAISED CURB)	F / L3.1
	ASPHALT SAWCUT LINE REFER TO CIVIL PLANS FOR EXACT LOCATIONS	
GROUNDCOVER	BARK MULCH ONLY (E) BARK MULCH. TOP OFF AREA WITH SALVAGED WOOD FIBAR FROM PLAY STRUCTURE AREA TO PROVIDE UNIFORM 3" DEPTH THROUGHOUT PLANTER.	
TURF	SOD DELTA BLUEGRASS BLUE RYE BLEND, WWW.DELTABLUEGRASS.COM, (800) 637-8873 REFER TO SPECIFICATION 32 92 00	
	SHOVEL CUT EDGE	I / L3.1

NORTH

SCALE: 1" = 10'-0"

0' 5' 10' 20'

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APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
SUSAN R.L. LOPEZ No. 5581
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	02-12-2024

PROJECT NO:	ANLA - #2334
DATE ISSUED:	11/08/23
SCALE:	As indicated
SHEET NUMBER:	**L2**
SHEET TITLE:	

MATERIAL & DETAIL REFERENCE PLAN

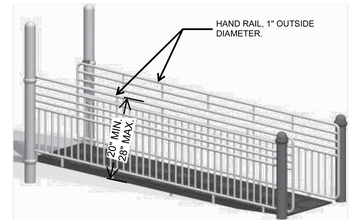
ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
San Jose, CA 95125
T. 408.292.2196
www.anla-associates.com

NOTES:
1. CONTRACTOR SHALL LOCATE PLAY STRUCTURES AS SHOWN.
2. ALL COMPONENTS ARE AVAILABLE THROUGH MIRACLE PLAYSYSTEMS. CONTACT PERSON: JEAN TYAN (800) 879-7730 2.
3. PLAY STRUCTURE IS TO BE DISTRICT PURCHASED, DISTRICT INSTALLED.
4. USE ZONES FINISH SURFACE OF PLAYGROUND COMPLIES WITH ASTM F1292-99.
5. GROUND SURFACING COMPLIES WITH ASTM 1951-99
6. PLAYGROUND EQUIPMENT SHALL COMPLY WITH ASTM F1487-98.
7. THIS PLAY AREA MEETS CBC SECTION 11B-1008.
8. HANDRAILS AT PLAY STRUCTURE RAMPS COMPLY WITH CBC 11B-1008.2.5.3. REFER TO "RAMP @ PRIMARY PLAY STRUCTURE" DETAIL AA / L3.3
   - 8.1. HANDRAIL EXTENSION ARE NOT REQUIRED AT RAMPS SERVING PLAY COMPONENTS.
   - 8.2. HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 0.95 INCH MINIMUM AND 1.55 INCHES MAXIMUM.
   - 8.3. THE TOP OF HANDRAIL GRIPPING SURFACES SHALL BE 20" MINIMUM AND 28" MAXIMUM ABOVE THE RAMP SURFACE.

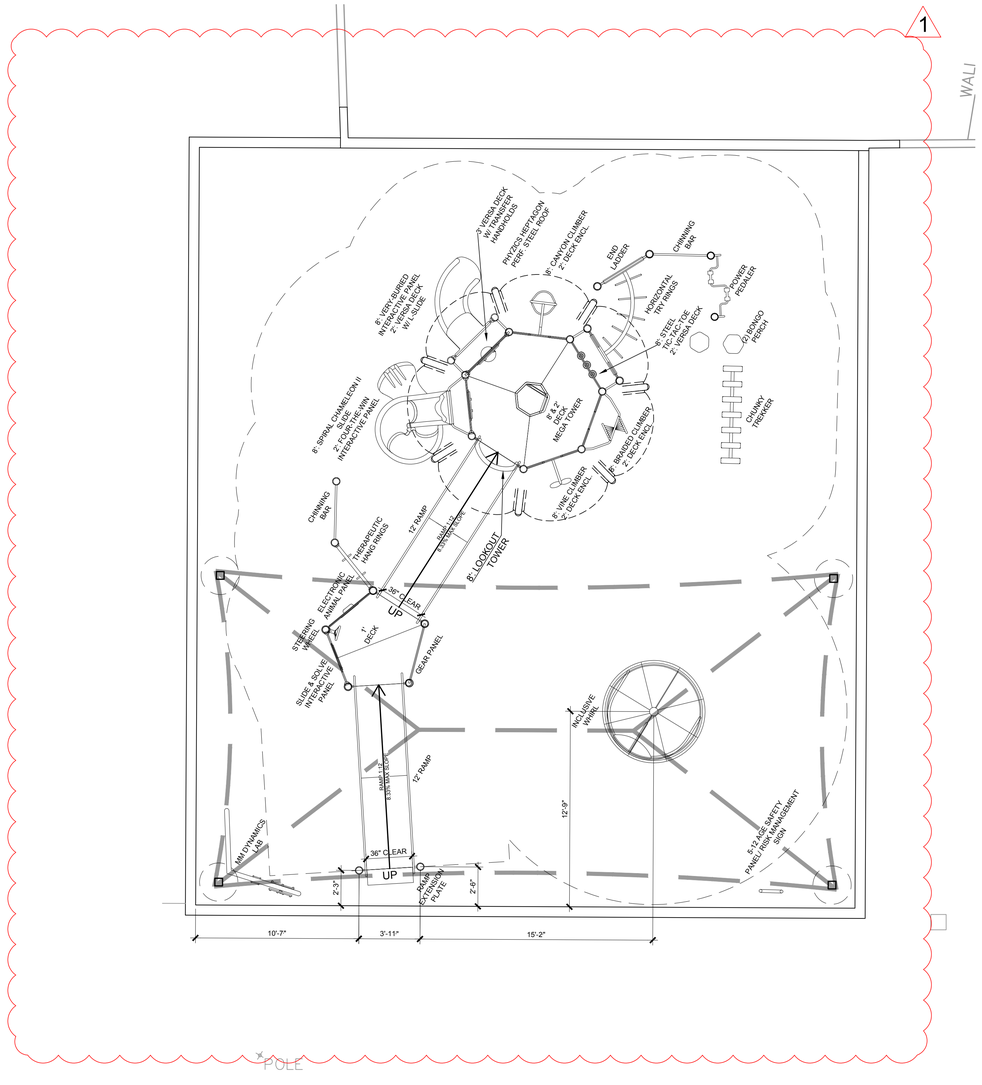
CRITICAL FALL HEIGHT OF STRUCTURES = 8'-0"

TOTAL ELEVATED PLAY COMPONENTS	13		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	9	REQUIRED	7
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	1	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	12	REQUIRED	0*
TOTAL DIFFERENT TYPES OF ACCESSIBLE GROUND LEVEL COMPONENTS	6	REQUIRED	0*

*11B-240.2.1.2 EXCEPTION: IF AT LEAST 50% OF THE ELEVATED PLAY COMPONENTS ARE CONNECTED BY A RAMP AND AT LEAST 3 OF THE ELEVATED PLAY COMPONENTS CONNECTED BY THE RAMP ARE DIFFERENT TYPES OF PLAY COMPONENTS, THE PLAY AREA SHALL NOT BE REQUIRED TO COMPLY WITH SECTION 11B-240.2.1.2



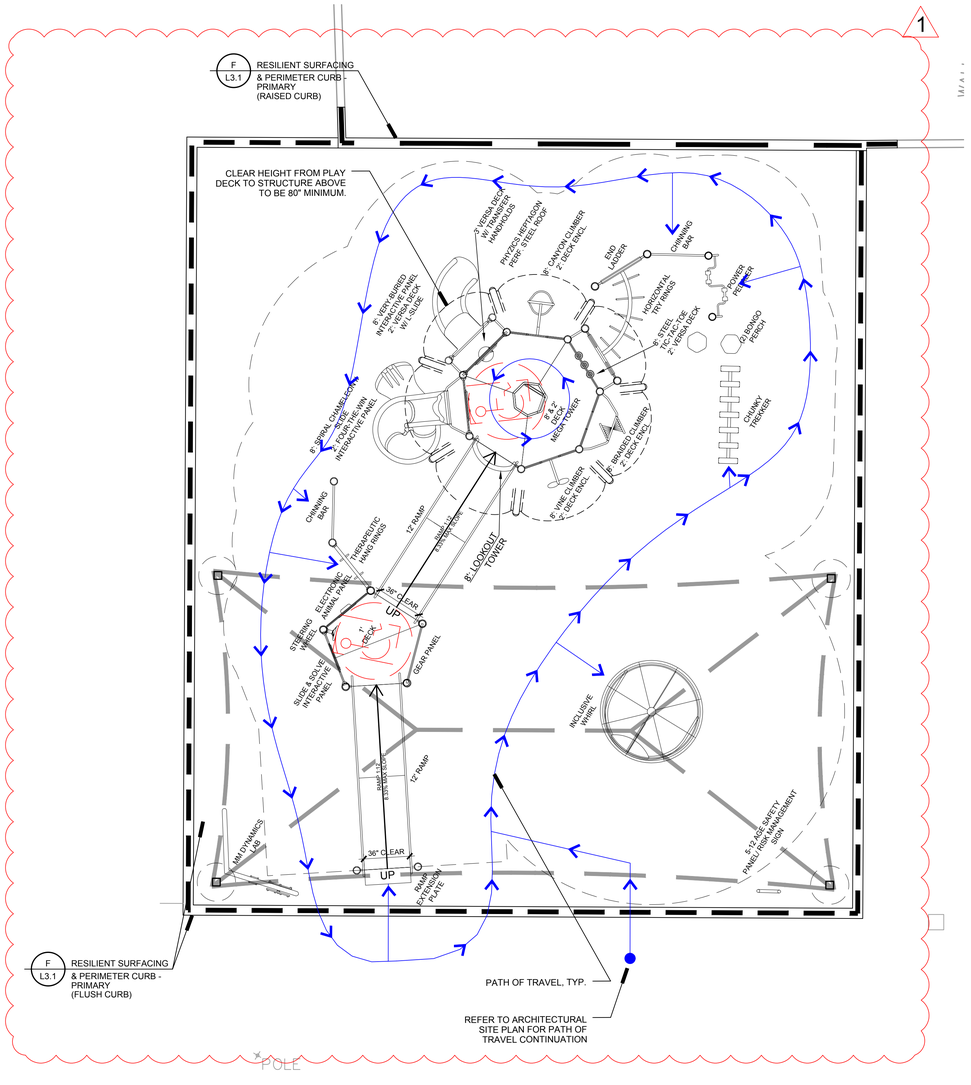
AA RAMP @ PRIMARY PLAY STRUCTURE SCALE: NTS



NOTES:
1. ALL DIMENSIONS FOR LOCATING THE PLAY STRUCTURE SHALL BE TAKEN FROM THE INSIDE OF THE CURB (IOC).

NORTH

B PRIMARY PLAY STRUCTURE - LAYOUT SCALE: 1/4" = 1'-0"



NOT PART OF DSA SSS APPROVAL PER IR A-22 SECTION 2.1.2.1
PLAYHOUSES LESS THAN 250 SF OF FLOOR AREA AND PLAYGROUND EQUIPMENT OF ANY SIZE ARE EXEMPT FROM DSA STRUCTURAL SAFETY REVIEW PER DSA IR A-22.

NORTH

A PRIMARY PLAY STRUCTURE SCALE: 1/4" = 1'-0"

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 01-121324 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/27/2024

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
SUSAN A.L. Lopez No. 5581
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	02-12-2024

PROJECT NO:	ANLA - #2334
DATE ISSUED:	11/08/23
SCALE:	As indicated
SHEET NUMBER:	**L3.3**
SHEET TITLE:	

CONSTRUCTION DETAILS

ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
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T. 408.292.2196
www.anla-associates.com

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Project: McCollam Elementary School
Playground and Shade Structure Project
Alum Rock Union School District

Owner: Alum Rock Union School District
2930 Gay Ave
San Jose, CA 95127

Architect: SVA Architects, Inc.
7901 Stoneridge Dr, Suite 100, Pleasanton, California 94588

ADDENDUM 2

Revision: 3/19/2024

Note: The following revisions and clarifications to the Contract Documents (plans and specifications) shall become a part of the Contract Documents. All bidders are required to incorporate all necessary changes, additions, or deductions into their proposals.

1. PROJECT MANUAL

A. Section 01 11 00 Summary of Work
   a. Add the following:

"1.9 Owner Furnished Owner Installed and Not In Contract Work

A. NIC and OFOI Items: Items designated on the Drawings and/or described in the Project Manual as "NIC" (Not In Contract) or "OFOI" (Owner Furnished, Owner Installed) are not included in the Contract.

B. Contractor Responsibilities for NIC and OFOI items:
   1. Storage of products if requested.
   2. Coordination of installation with Project Schedule.
   3. Provide all preparatory work necessary for proper installation of OFOI work.

C. Work of the Project which will be executed concurrently with the Work of this Contract, and which is specifically excluded from this Contract:
   1. Shade structures and shade structure footings - OFOI
   2. Play structures and play structure footings - OFOI
   3. Poured in place safety surfacing- OFOI"

2. LANDSCAPE

A. Sheet L2
   a. Replace sheet L2 with the attached Addendum 2 sheet L2.

B. Sheet L3.1
   a. Replace sheet L3.1 with the attached Addendum 2 sheet L3.1.

C. Sheet L3.2
   a. Replace sheet L3.2 with the attached Addendum 2 sheet L3.2.

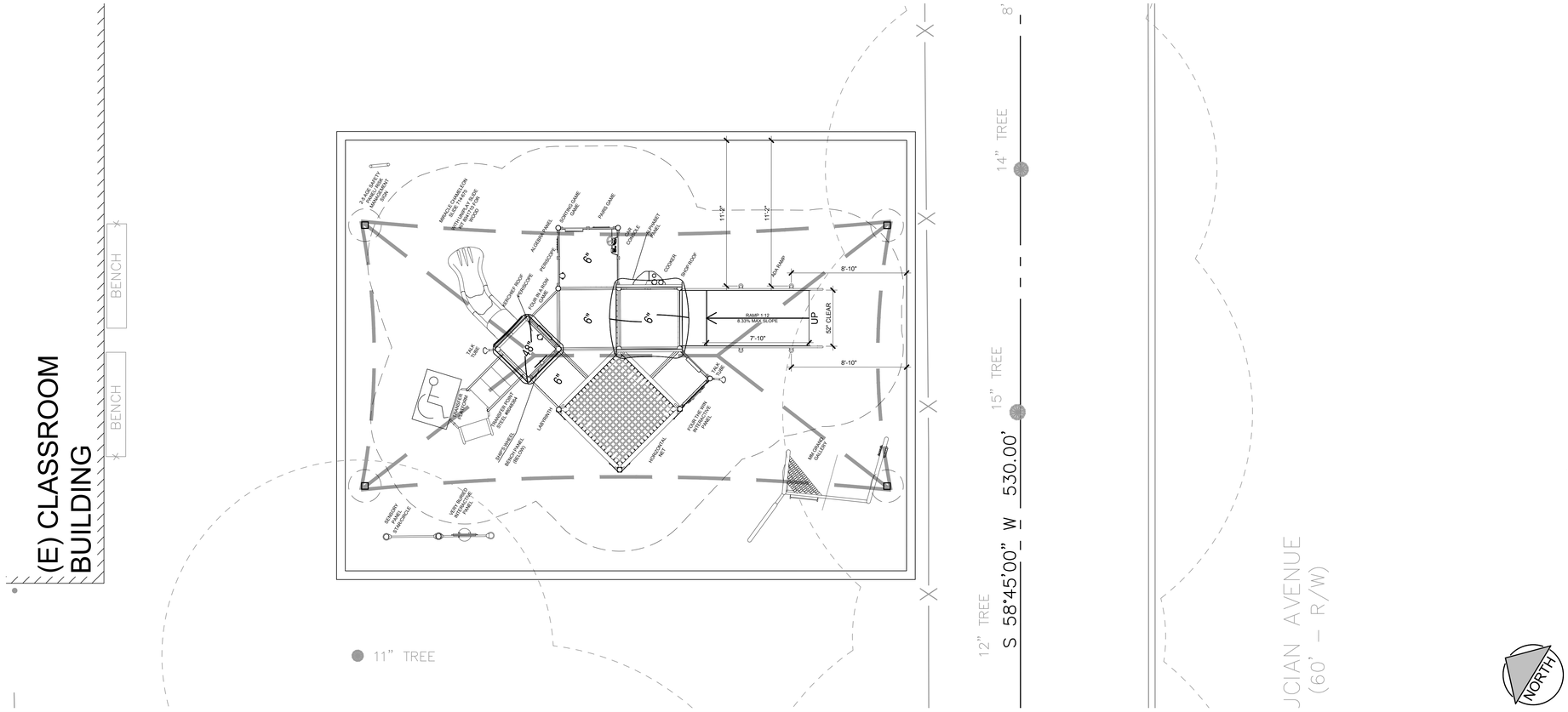
D. Sheet L3.3
   a. Replace sheet L3.3 with the attached Addendum 2 sheet L3.3.

Attachments
Sheet L2
Sheet L3.1
Sheet L3.2
Sheet L3.3

Reason: Change to procurement of play structures, safety surfacing, and shade structures

Distribution:
Bidders
Owner
Inspector

CB:cb
O:\2023\2023-40152 McCollam ES Play Structures Replacement\04-Bidding\02-Addenda\2023-40152 Addendum 2.docx



NOTES:
1. ALL DIMENSIONS FOR LOCATING THE PLAY STRUCTURE SHALL BE TAKEN FROM THE INSIDE OF THE CURB (IOC).

B KINDERGARTEN PLAY STRUCTURE - LAYOUT

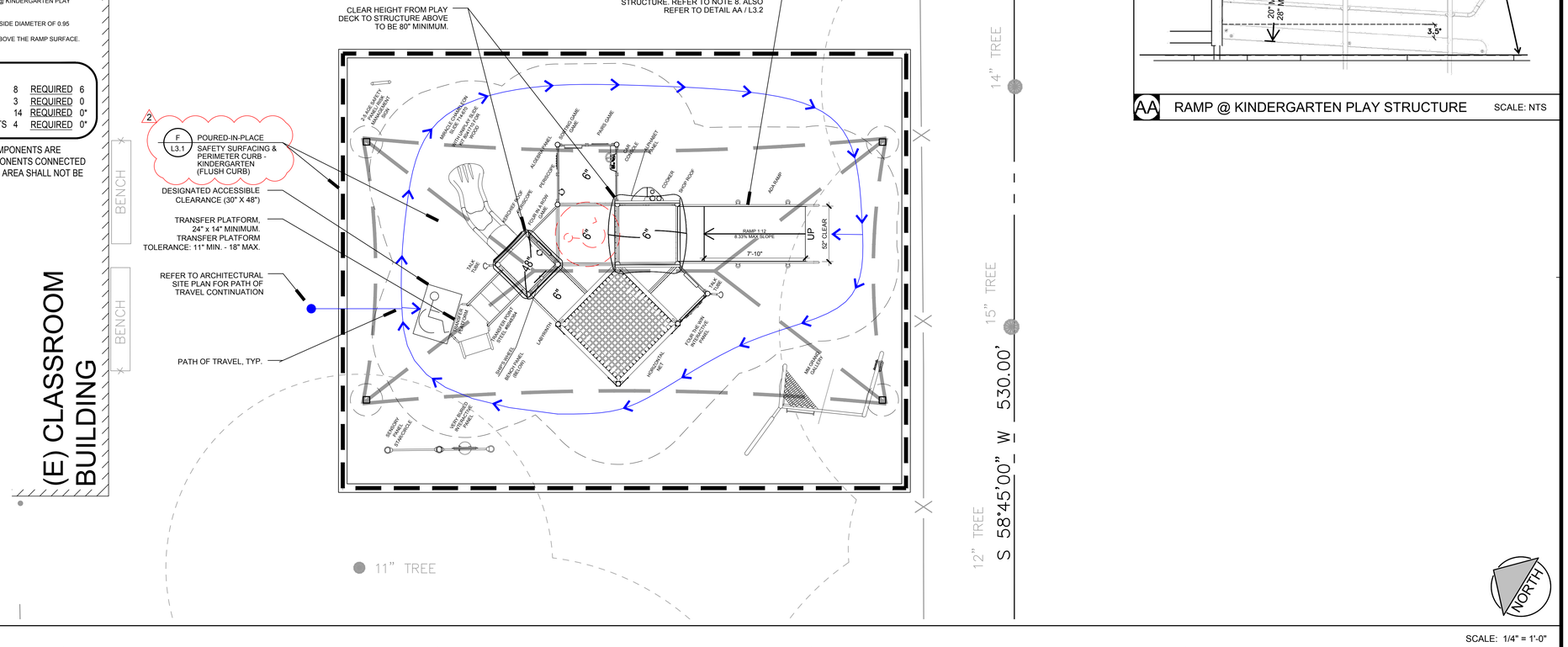
SCALE: 1/4" = 1'-0"

NOTES:
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   - 8.3. THE TOP OF HANDRAIL GRIPPING SURFACES SHALL BE 20" MINIMUM AND 28" MAXIMUM ABOVE THE RAMP SURFACE.

CRITICAL FALL HEIGHT OF STRUCTURES = 4'-0"

TOTAL ELEVATED PLAY COMPONENTS	11		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	8	REQUIRED	6
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	3	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	14	REQUIRED	0"
TOTAL DIFFERENT TYPES OF ACCESSIBLE GROUND LEVEL COMPONENTS	4	REQUIRED	0"

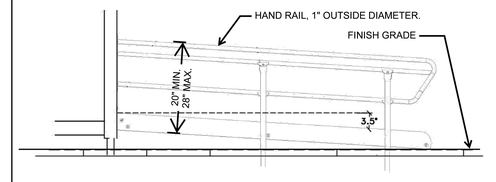
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NOT PART OF DSA SSS APPROVAL PER IR A-22 SECTION 2.1.2.1
PLAYHOUSES LESS THAN 250 SF OF FLOOR AREA AND PLAYGROUND EQUIPMENT OF ANY SIZE ARE EXEMPT FROM DSA STRUCTURAL SAFETY REVIEW PER DSA IR A-22.

A KINDERGARTEN PLAY STRUCTURE

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



AA RAMP @ KINDERGARTEN PLAY STRUCTURE SCALE: NTS

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
SUSAN R.L. Lopez No. 5581
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	02-12-2024
2	ADDENDUM 2	03-19-2024

PROJECT NO:	ANLA - #2334
DATE ISSUED:	11/08/23
SCALE:	As indicated
SHEET NUMBER:	**L3.2**
SHEET TITLE:	

CONSTRUCTION DETAILS

ANLA ASSOCIATES, INC.
1723 Hamilton Ave, Suite 101
San Jose, CA 95125
T. 408.292.2196
www.anla-associates.com

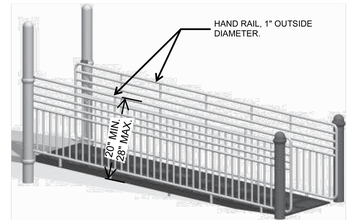
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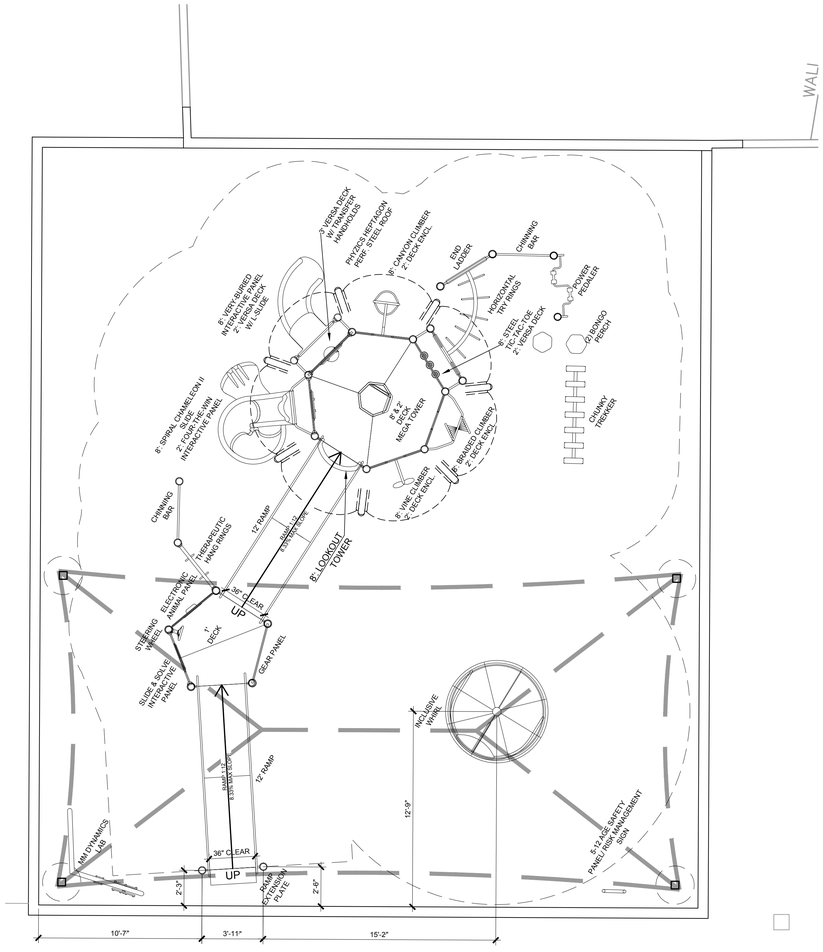
CRITICAL FALL HEIGHT OF STRUCTURES = 8'-0"

TOTAL ELEVATED PLAY COMPONENTS	13		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	9	REQUIRED	7
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	1	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	12	REQUIRED	0*
TOTAL DIFFERENT TYPES OF ACCESSIBLE GROUND LEVEL COMPONENTS	6	REQUIRED	0*

*11B-240.2.1.2 EXCEPTION: IF AT LEAST 50% OF THE ELEVATED PLAY COMPONENTS ARE CONNECTED BY A RAMP AND AT LEAST 3 OF THE ELEVATED PLAY COMPONENTS CONNECTED BY THE RAMP ARE DIFFERENT TYPES OF PLAY COMPONENTS, THE PLAY AREA SHALL NOT BE REQUIRED TO COMPLY WITH SECTION 11B-240.2.1.2



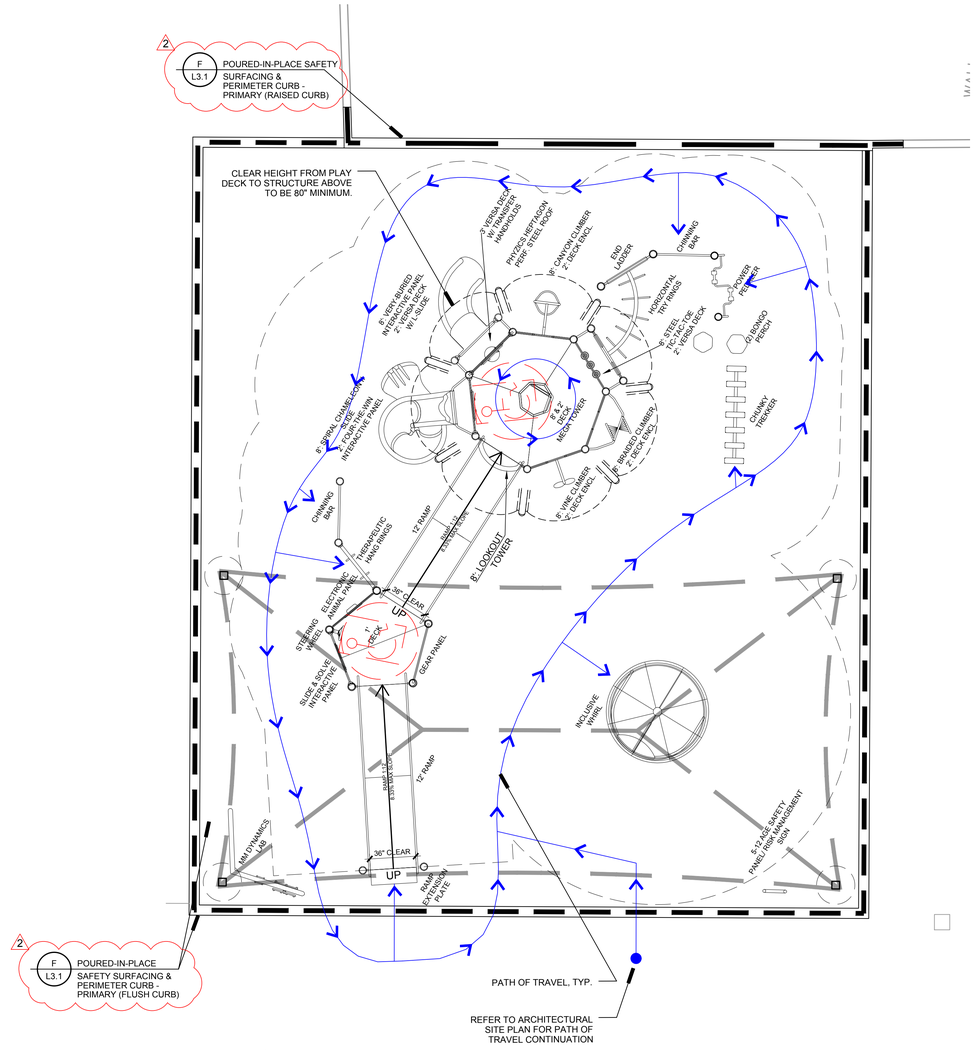
AA RAMP @ PRIMARY PLAY STRUCTURE SCALE: NTS



NOTES:
1. ALL DIMENSIONS FOR LOCATING THE PLAY STRUCTURE SHALL BE TAKEN FROM THE INSIDE OF THE CURB (IOC).

NORTH

B PRIMARY PLAY STRUCTURE - LAYOUT SCALE: 1/4" = 1'-0"



NOT PART OF DSA SSS APPROVAL
PER IR A-22 SECTION 2.1.2.1
PLAYHOUSES LESS THAN 250 SF OF FLOOR AREA AND PLAYGROUND EQUIPMENT OF ANY SIZE ARE EXEMPT FROM DSA STRUCTURAL SAFETY REVIEW PER DSA IR A-22.

NORTH

A PRIMARY PLAY STRUCTURE SCALE: 1/4" = 1'-0"

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT
No. 5834 R.L. Lopez No. 5834
12/31/2024
Renewal Date
11/08/2023
Date
STATE OF CALIFORNIA

REVISIONS:

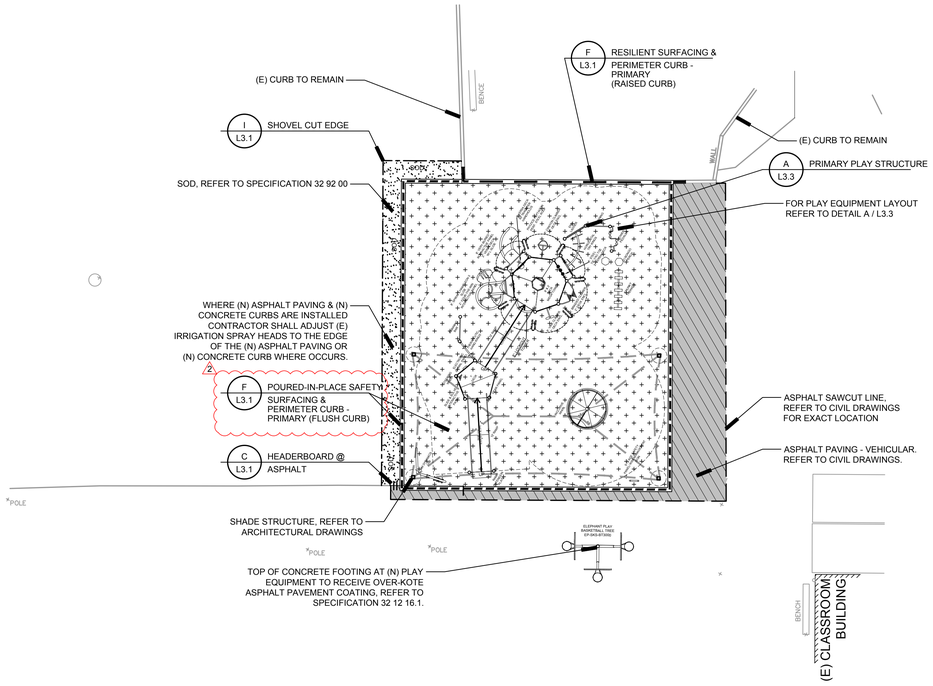
	DESCRIPTION	DATE
1	ADDENDUM 1	02-12-2024
2	ADDENDUM 2	03-19-2024

PROJECT NO: ANLA - #2334
DATE ISSUED: 11/08/23
SCALE: As indicated
SHEET NUMBER: L3.3
SHEET TITLE:

CONSTRUCTION DETAILS

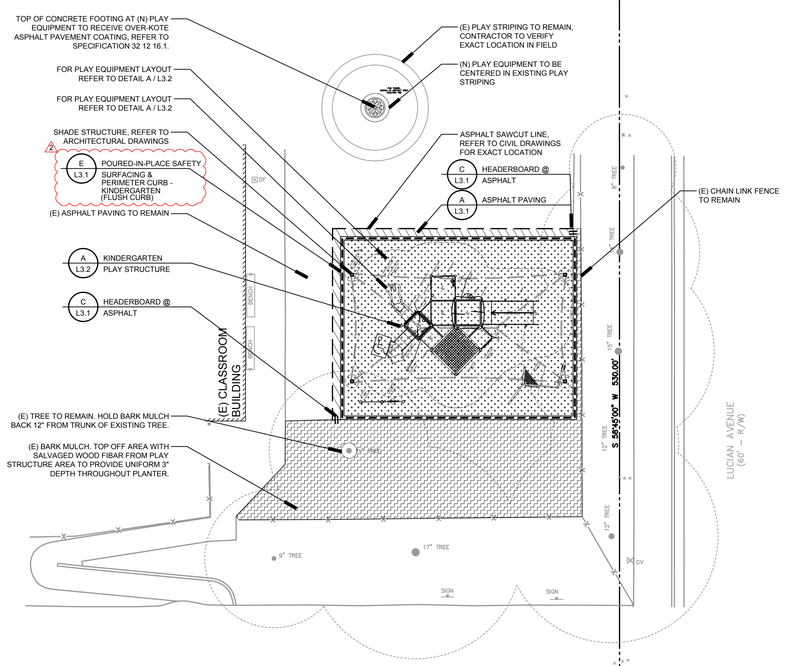
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B PLAY STRUCTURE - PRIMARY

SCALE: 1" = 10'-0"



A PLAY STRUCTURE - KINDERGARTEN

SCALE: 1" = 10'-0"

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. 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.
4. LANDSCAPE ARCHITECT 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.
5. 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.
6. CONTRACTOR SHALL ADJUST EXISTING UTILITY BOXES TO BE FLUSH WITH PROPOSED GRADES.
7. REFER TO CONSTRUCTION DETAILS ON SHEETS L3.1 - L3.3
8. REFER TO THE FOLLOWING SPECIFICATION SECTIONS:

01 56 39	TEMPORARY TREE AND PLANT PROTECTION
11 68 16	PLAY STRUCTURES
32 12 16.1	ASPHALT PAVING (LANDSCAPE)
32 13 13.1	CONCRETE WORK (LANDSCAPE)
32 18 16.16	PLAYGROUND PROTECTIVE SURFACING
32 90 00	PLANTING
32 92 00	TURF PLANTING

MATERIAL & DETAIL REFERENCE LEGEND

SYMBOL	DETAIL DESCRIPTION	DETAIL REFERENCE
	ASPHALT PAVING - PEDESTRIAN	A / L3.1
	ASPHALT PAVING - VEHICULAR REFER TO CIVIL DRAWINGS	
	HEADERBOARD @ ASPHALT	C / L3.1
2	POURED-IN-PLACE SAFETY SURFACING & PERIMETER CURB - KINDERGARTEN	E / L3.1
	POURED-IN-PLACE SAFETY SURFACING & PERIMETER CURB - PRIMARY	F / L3.1
	RESILIENT SURFACING PERIMETER CURB (FLUSH CURB)	F / L3.1
	RESILIENT SURFACING PERIMETER CURB (RAISED CURB)	F / L3.1
	ASPHALT SAWCUT LINE REFER TO CIVIL PLANS FOR EXACT LOCATIONS	
GROUNDCOVER	BARK MULCH ONLY (E) BARK MULCH. TOP OFF AREA WITH SALVAGED WOOD FIBAR FROM PLAY STRUCTURE AREA TO PROVIDE UNIFORM 3" DEPTH THROUGHOUT PLANTER.	
TURF	SOD DELTA BLUEGRASS BLUE RYE BLEND, WWW.DELTABLUEGRASS.COM, (800) 637-8873 REFER TO SPECIFICATION 32 92 00	
	SHOVEL CUT EDGE	I / L3.1

NORTH

SCALE: 1" = 10'-0"

0' 5' 10' 20'

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT — SUSAN R.L. LOPEZ No. 5581 — Renewal Date 12/31/2024 — Date 11/08/2023 — STATE OF CALIFORNIA

REVISIONS:

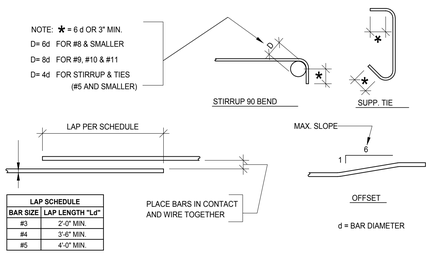
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LAP SCHEDULE	
BAR SIZE	LAP LENGTH "Ld"
#3	2'-0" MIN.
#4	3'-6" MIN.
#5	4'-0" MIN.

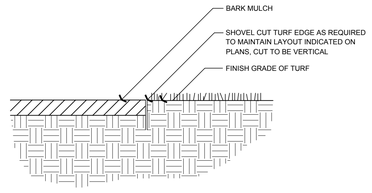
J TYP. CONCRETE REINFORCEMENT BENDING & SPLICING SCALE: NTS

NOT USED

H

NOT USED

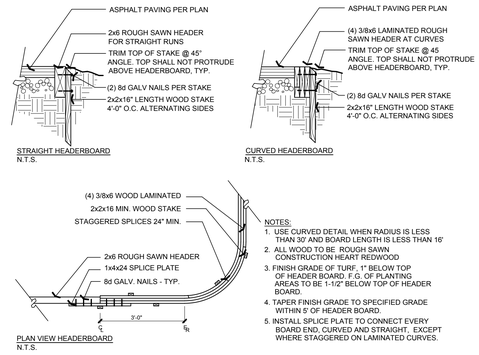
D



I SHOVEL CUT EDGE SCALE: NTS

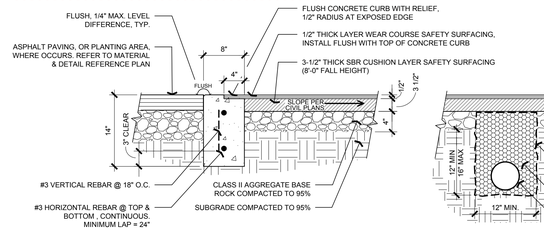
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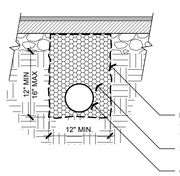
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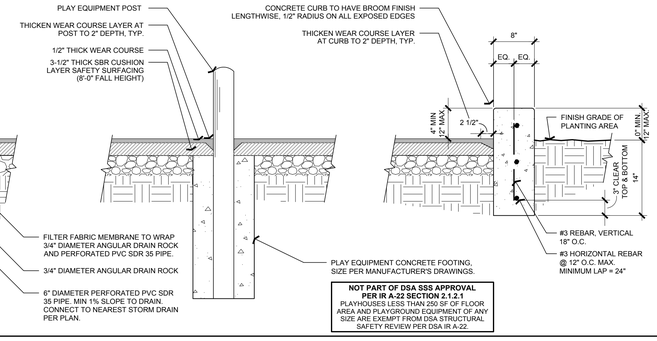


C HEADERBOARD @ ASPHALT SCALE: NTS

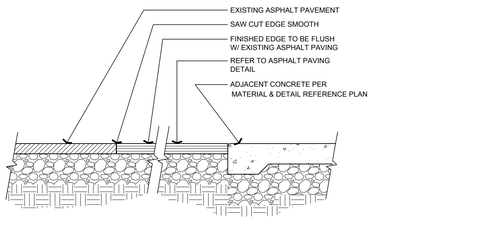
NOTES:
1. POURED-IN-PLACE SAFETY SURFACING TO BE SAFEPOUR EPDM, OWNER PURCHASED, OWNER INSTALLED. 2
2. TOP OF CURB TO SLOPE WITH ADJACENT PAVING, REFER TO CIVIL DRAWINGS FOR GRADES.
3. FOR TYPICAL CONCRETE REINFORCEMENT BENDING & SPLICING REFER TO DETAIL J, SHEET L3.1
4. SCORE JOINTS IN CONCRETE PERIMETER CURB TO BE EVENLY SPACED AT 8'-0" MAX. WITH 1/2" SATURATED ASPHALTIC EXPANSION JOINTS EVENLY SPACED AT 24'-0" MAX.
5. FOR CONCRETE MIX REFER TO SPECIFICATION SECTION 32 13 13.1 CONCRETE WORK (LANDSCAPE).
7. ADJACENT GRADE TO BE 1-1/2" BELOW FLUSH CONCRETE CURBS IN PLANTING AREAS AND 1" BELOW CONCRETE IN SODDED TURF AND 1/2" BELOW CONCRETE IN SEEDED TURF.
8. FOR POURED-IN-PLACE SAFETY SURFACING INFORMATION REFER TO SPECIFICATION 32 18 16.14 PLAYGROUND PROTECTIVE SURFACING. 2





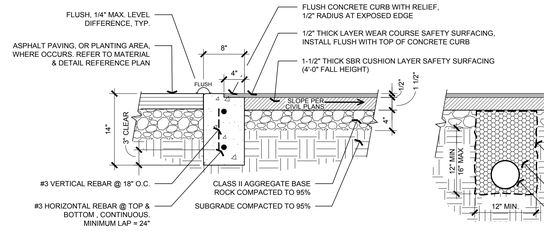


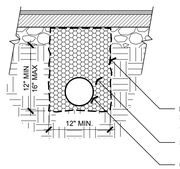
F POURED-IN-PLACE SAFETY SURFACING & PERIMETER CURBS - PRIMARY SCALE: NTS

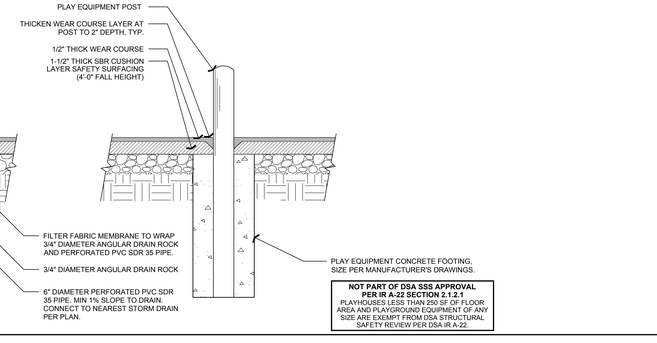


B (N) ASPHALT TO (E) ASPHALT SCALE: NTS

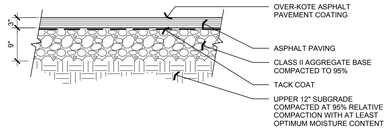
NOTES:
1. POURED-IN-PLACE SAFETY SURFACING TO BE SAFEPOUR EPDM, OWNER PURCHASED, OWNER INSTALLED. 2
2. TOP OF CURB TO SLOPE WITH ADJACENT PAVING, REFER TO CIVIL DRAWINGS FOR GRADES.
3. FOR TYPICAL CONCRETE REINFORCEMENT BENDING & SPLICING REFER TO DETAIL J, SHEET L3.1
4. SCORE JOINTS IN CONCRETE PERIMETER CURB TO BE EVENLY SPACED AT 8'-0" MAX. WITH 1/2" SATURATED ASPHALTIC EXPANSION JOINTS EVENLY SPACED AT 24'-0" MAX.
5. FOR CONCRETE MIX REFER TO SPECIFICATION SECTION 32 13 13.1 CONCRETE WORK (LANDSCAPE).
7. ADJACENT GRADE TO BE 1-1/2" BELOW FLUSH CONCRETE CURBS IN PLANTING AREAS AND 1" BELOW CONCRETE IN SODDED TURF AND 1/2" BELOW CONCRETE IN SEEDED TURF.
8. FOR POURED-IN-PLACE SAFETY SURFACING INFORMATION REFER TO SPECIFICATION 32 18 16.14 PLAYGROUND PROTECTIVE SURFACING. 2







E POURED-IN-PLACE SAFETY SURFACING & PERIMETER CURB - KINDERGARTEN SCALE: NTS



NOTES:
1. INSTALL REDWOOD HEADERBOARD AT PERIMETER OF ASPHALT PAVING WHERE ASPHALT DOES NOT ABUT A HARD SURFACE. REFER TO HEADERBOARD @ ASPHALT PAVING DETAIL C. SHEET L3.1
2. ASPHALT SHALL RECEIVE OVER-KOTE ASPHALT PAVEMENT COATING AVAILABLE THROUGH REED AND GRAHAM. APPLY PER MANUFACTURES RECOMMENDATIONS.
3. REFER TO SPECIFICATION SECTION 32 12 16.1 - ASPHALT PAVING (LANDSCAPE)

A ASPHALT PAVING SCALE: NTS

OWNER: ALUM ROCK UNION SCHOOL DISTRICT

PROJECT NAME: MCCOLLAM ES PLAYGROUND AND SHADE STRUCTURE PROJECT

CLIENT ADDRESS: 3311 LUCIAN AVE., SAN JOSE, CA 95127

LICENSED LANDSCAPE ARCHITECT — SEAN R.L. Lopez No. 5981 — 12/31/2024 Renewal Date — 11/08/2023 Date — STATE OF CALIFORNIA

REVISIONS:

	DESCRIPTION	DATE
1	ADDENDUM 1	02-12-2024
2	ADDENDUM 2	03-19-2024

PROJECT NO:	ANLA - #2334
DATE ISSUED:	11/08/23
SCALE:	As indicated
SHEET NUMBER:	**L3.1**
SHEET TITLE:	

CONSTRUCTION DETAILS

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