CONSTRUCTION CONTRACT DOCUMENTS

BID #21-02

County of San Mateo

Quarry Park Pump Track Project

Quarry Park
El Granada, CA

County of San Mateo Parks Department
455 County Center, 4th Floor
Redwood City, CA 94063

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NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that the County of San Mateo will receive sealed bids for the Quarry Park Pump Track project located at Quarry Park, El Granada, CA in accordance with the plans and specifications prepared by **Gates & Associates** ("Design Team").

1. Time of Opening: Bids will be opened on **February 16, 2022.** Bid documents must be sealed, marked with the project name and bid title. All Bids must be received at the County of San Mateo Parks Department, at 455 County Center, Fourth-floor, Redwood City, CA 94063 **BEFORE 2:00:00 p.m.** Bids which are submitted on or after **2:00:00 p.m.** or facsimile bid transmissions will not be accepted.

2. Contractors Requirements:

a. Pre-qualification: This project includes major scopes of work that require very specific installation expertise. All Bidders must be prequalified prior to bidding on this project. All Bidders must be prequalified on or before **January 26, 2022** to be eligible to bid on this project. If a General Contractor bidding this work is not self-performing the specialized scopes of work, then the sub-contractor performing the work must be pre-qualified. Pre-Qualification Questionnaire can be found in the forms section or interested parties may request the Prequalification forms and more information by sending a request to the County's representative, Mike Wassermann at Mike@CapitalPM.com. Requirements for pre-qualification are as follows:

i. Contractors bidding the Pump Track features as described in the bid documents shall have satisfactorily completed the installation of (3 minimum number) similar projects in accordance with the project plans and written specifications. Qualifying projects must include Pump Track projects with specific terrain of comparable size, type and layout built within the last six (6) years.

ii. Only Pump Track projects where the contractor bidding the specialty work has performed all of the same work as described herein shall be considered as acceptable projects to evidence credible experience and qualifications of the bidding Contractor.

iii. The Pump Track specialty contractor shall provide references for three (3) qualifying projects including location of qualifying projects, size, owner, budget and owner's contact information.

b. All Bidders must have and maintain a General Engineering "A" Class or General Contractor "B" Class contractor's license in order for their bids to be considered responsive. Bidder may bid only on work of a kind for which it is properly licensed by the California Contractors' State License Board. Joint venture Bidders must possess a joint venture license. The Bidder must be licensed at the time of bid and the license must remain current for the duration of the Project. Failure to supply complete license requirement information and signature under penalty of perjury on the bid form may result in the bid being considered non-responsive and rejected.

c. Pursuant to Senate Bill (SB) 854, all bidders on public works, including any project resulting from this bid process, must register with the California Department of Industrial Relations (DIR) and pay an annual renewal fee to the DIR. Only bidders that have registered with the DIR and that are current in payment of annual renewal fees are eligible to bid as contractors or subcontractors on any project resulting from this bid process. Likewise, only contractors and subcontractors that have registered with the DIR and who are current in payment of their annual

renewal fees shall be eligible to receive a contract or subcontract or to perform work under any contracts resulting from this bid process. Pursuant to the California Labor Code, the general prevailing rate of per diem wages and for holiday and overtime work shall be paid to all workers employed by the contractor selected for this project. Copies of prevailing rates of per diem wages are available upon request at the County's Offices or at www.dir.ca.gov. The Department of Industrial Relations/Labor Commissioner will monitor and enforce compliance with applicable prevailing wage requirements on this project and enforce compliance with applicable prevailing wage requirements in accordance with the California Labor Code, including sections 1771, 1774, 1776, 1777.5, 1813, and 1815. Contractors on any project resulting from this bid process will be required to submit certified payroll records in electronic format to the California Labor Commissioner unless excused by the Labor Commissioner from this requirement.

3. Duration of Bid: All bid proposals submitted shall be considered irrevocable offers to perform the work in accordance with the Contract Documents if a Notice of Award is issued within thirty (30) days from the bid opening.

4. Plans and Specifications: Plans and specifications for the above-mentioned project will be available on **January 4, 2022**. Plans and specifications may be purchased, at the contractor's expense, from Prints Charles Reprographics, 1653 S. Main Street, Milpitas, CA 95035, Phone (408) 240-3330 email: incoming@printscharlesrepro.com. Please contact Owner's Representative, Mike Wassermann, for further information at mike@capitalpm.com or (916)-812-9654.

5. Inspection of Site: Non-Mandatory Pre-Bid Site Inspection and Conference will be held at Quarry Park, Santa Maria Ave, El Granada, CA on **January 12, 2022 at 3:00 PM.** All attendees are to meet in the Park Entrance. Attendees must comply with California state and County of San Mateo social distancing and face covering requirements. Attendees must sign in by scheduled time. The County shall have the discretion to bar attendees who fail to arrive by scheduled time from signing in if the circumstances warrant. Before submitting a bid proposal, Bidders shall examine the drawings, read the specifications, the form of Agreement, and other Contract Documents. They shall visit the site of the proposed Project; examine the building, or buildings, if any, and any work that may have been done thereon. They shall fully inform themselves of all conditions on, in, at, and about the site, the buildings, if any, and any work that may have been done thereon.

6. Format of Bids: Bid proposals shall be made on the Bid Form included with the Contract Documents. All items on the form must be filled out. Numbers on the Bid Form document shall be written as Arabic numbers and shall also be written out as words and the signatures of all individuals must be in longhand. The completed form should be without interlineations, alterations, or erasures. A bid response to any specific item of this bid with terms such as "negotiable" "will negotiate" or similar, will be considered as nonresponsive to that specific term.

7. Method of Determining Lowest Bidder: The lowest bidder will be determined based on the lowest Total Base Bid as described on the Bid Form.

8. Signatures on Bids: Each bid must give the full business address of the Bidder. Bids by partnerships must furnish the full name of all partners and must be signed in the partnership's name by one of the members of the partnership, or by an authorized representative, followed by the signature and designation of the person signing. Bids by corporations must be signed with the legal name of the corporation, followed by the name of the state of the incorporation and by the signature and designation of the president, secretary, or other person authorized to bind it in the matter. The name of each person signing shall also be typed or printed below the signature. When requested by the County satisfactory evidence of the authority of the officer signing on behalf of the corporation shall be furnished.

9. Taxes: Taxes shall be included in the bid prices.

10. Use of Subcontractors: Pursuant to the provisions of sections 4100 to 4114, inclusive, of the California Public Contract Code, every Bidder shall, in its bid, set forth:

a. The name and location of the place of business of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Project or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Bidder, specially fabricates and installs a portion of the Project or improvement according to detailed drawings contained in plans and specifications, in an amount in excess of one-half (1/2) of one percent (1%) of the Bidder's total bid.

b. The portion of the Project which will be done by each such subcontractor. If the Bidder fails to specify a subcontractor for any portion of the Project to be performed under the Agreement in excess of one-half (1/2) of one percent (1%) of the Bidder's total bid, it agrees to perform that portion itself. The successful Bidder shall not, without the consent of the County, either:

i. Substitute any person as subcontractor in place of the subcontractor designated in the original bid.

ii. Permit any subcontractor to be assigned or transferred or allow the work to be performed by anyone other than the subcontractor.

iii. Sublet or subcontract any portion of the Project in excess of one-half (1/2) of one percent (1%) of the total bid as to which its original bid did not designate a subcontractor. In accordance with Public Contract Code section 7106, each Bidder shall be required to complete the Non-Collusion Declaration form, which is included in and is part of the Contract Documents.

Further, pursuant to SB 854, only subcontractors who have registered with the DIR and who are current in paying the annual renewal fee to the DIR shall be eligible to perform work on the project resulting from this bid process.

11. Sureties: Any bonds must be issued by an admitted surety insurer, as defined in California Code of Civil Procedure sections 995.010, *et seq*.

12. Bid Proposal Security: Bid proposals should be accompanied by a certified cashier's check or Bidder's bond for an amount not less than ten percent (10%) of the maximum contract price. The cashier's check or bid bond shall be made payable to the order of the County. The cashier's check or bond shall be given as a guarantee that the Bidder will enter into the Agreement if awarded the Project, and in the case of refusal or failure to enter into the Agreement within ten (10) calendar days after notification of the award of the Agreement, the cashier's check or bond, as the case may be, shall be retained by the County as liquidated damages. Failure to provide bid security, or bid security in the proper amount, may result in rejection of the bid. Cashiers or certified checks that are filed with the bid will be returned to the unsuccessful Bidder(s) within ten (10) calendar days after the award of the Agreement resulting from this bid process.

13. Evidence of Responsibility: Prior to awarding a contract, the County may require the Bidder to submit evidence of the Bidder’s and/or the Bidder’s subcontractor’s qualifications to perform the proposed agreement. The County may consider such evidence before making its decision awarding the proposed agreement. Failure to submit evidence of the Bidder's or its subcontractors' responsibility to perform the proposed agreement may result in rejection of the bid.

14. Bid Protest: Bid protests shall be filed in writing with the County of San Mateo, Office of the Superintendent, at 455 County Center, Redwood City, CA 94063 by registered mail, not later than three

(3) working days after the bid opening. The protest shall specify the reasons and facts upon which the protest is based.

15. Award of Agreement/Rejection of Bids: The County may issue a "Notification of Apparent Low Bid" to the bidder that it determines to be the lowest responsible and responsive bidder. The County reserves the right to reject any or all proposals, to contract work with whomever and in whatever manner, to abandon the Project entirely, or to waive any informality in bids received. Unless and until a "Notice to Proceed" is issued by the County, no obligation on behalf of either party exists. Upon issuance of the "Notice to Proceed", the successful bidder will post all required bonds and submit proper evidence of insurance coverage as called for by the Contract Documents. If this is not accomplished within ten (10) calendar days, the County reserves the right to cash bidder's bid security check to cover the differential in the higher bid award and the County administrative costs, and award the bid to the next lowest responsible and responsive bidder or otherwise proceed as allowed by law.

16. Form of Agreement: The form of contract which the successful Bidder will be required to execute, if awarded the Project, shall be per the attached template that is contained in the bid package. The terms and conditions, in their entirety, in the County's Agreement are NOT NEGOTIABLE. Proposals requesting modifications to the non-negotiable terms will be deemed non-responsive and will not be reviewed. The Agreement shall contain, among other things, matters required by State law to be inserted in contracts for public work.

17. Payment and Performance Bonds: The successful Bidder, upon notice of award of bid and prior to commencing Project, shall furnish in duplicate a labor and material bond in the amount of one hundred percent (100%) of the contract sum and a faithful performance bond in the amount of one hundred percent (100%) of the contract sum.

18. Insurance: Prior to commencing work, the Contractor is required to furnish the County with Certificates of Insurance for workers' compensation, and comprehensive General Liability including broad form property damage, automobile liability and all additional requirements per Article 16 of the Agreement. As set forth more fully in Article 16 of the Agreement, the County has reserved the right to modify the insurance requirements contained in the Agreement, including but not limited to, by implementing, an Owner Controlled Insurance Program ("OCIP") for the Project.

19. Prevailing Wage Rates: In accordance with the provisions of section 1770 of the Labor Code, the Director of the Department of Industrial Relations of the State of California has determined the general prevailing rates of wages and employee payments for health and welfare, pension, vacation, travel time, working hours and apprenticeable training requirements which must be paid to all workers on public work contracts. (See Labor Code § 1770, *et seq.*)

20. Non-Discrimination: The County will affirmatively ensure that in any contract entered into pursuant to this advertisement, qualified contractors will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, creed, sex or national origin in consideration for award.

21. Withdrawal or Modification of Bid Proposals: Bid proposals may be withdrawn or modified by the Bidder prior to the time fixed for the opening of bids. A notice of withdrawal or modification to a bid must be signed by the Bidder or its designated representative. Following bid opening, a Bidder shall not be relieved of its bid unless by consent of the County or Bidder's recourse to Public Contract Code sections 5100-5108. Bidders must hold their bids open for one hundred and twenty (120) days after the Bid Opening Date.

22. Prevailing Law: In the event of any conflict or ambiguity between these instructions and state or federal law or regulations, the latter shall prevail.

23. Inquiries; Addenda: Questions regarding documents, discrepancies, omissions, or doubt as to meanings shall be referred immediately in writing to the Project Manager, Mike Wassermann, at Capital Program Management at: **mike@capitalpm.com** who will review and if applicable forward to the Design Team who will send written addenda clarifying such questions to each Bidder. Oral responses will

not be binding upon the County. If, in the opinion of the bidder, the construction details indicated on the drawings or otherwise specified are in conflict with accepted industry standards for quality construction and therefore might interfere with the bidder's full guaranty of any work covered by this bid process, the bidder must promptly bring this information to the attention of the Project Manager in writing, for appropriate action before submission of a bid. Any addenda or bulletins issued during the time of bidding, shall be covered in the bid, and shall be made a part of the Contract Documents.

26. Forms to Submit with Bid: Except for Deferred Items, all bid proposals shall include the following documents, each complete in its entirety. Deferred Items shall be submitted within 24 hours after submission of Bid. Failure by the bidder to submit the documents/forms will render the bid non-responsive.

Bid Form
Bid Bond
Non-Collusion Declaration
Designation of Subcontractors
Statement of Compliance
Iran Contracting Act Certification

Publication Dates: **January 4, 2022 and January 11, 2022**

BID FORM

County of San Mateo Parks Department

Quarry Park Pump Track Project

_____
(Date)

County of San Mateo Parks Department
455 County Center, 4th Floor
Redwood City, CA 94063

The Undersigned, doing business under the firm name of _____, hereby proposes and agrees to enter into an agreement, to furnish any and all labor, materials equipment and services for the completion of work described hereinafter and in the Contract Documents entitled construction of:

Quarry Park Pump Track Project

Prepared by:

_____
(Estimator Name)

MANDATORY PREQUALIFICATION

Indicate below if the Contractor or its sub-contractor performing the specialized pump track construction has been successfully pre-qualified for this bid:

___ General Contract is Prequalified

___ Sub-Contractor is Prequalified

If bidder is not prequalified to bid project by January 26, 2022, the bid will not be considered.

A. **BASE BID:** Based upon all work required to satisfactorily complete the work indicated in the related Plans and Specifications complying with the Division of State Architect and in Section 00700 Scope of Work, excluding the Alternate Bids.

TOTAL BASE BID: Quarry Park Pump Track Project as indicated on the plans.

LUMP SUM IN WORDS & FIGURES

_____DOLLARS

$_____

The low bidder will be determined based on above "Total Base Bid".

B. **ALLOWANCES:** The Bidder's Base Bid shall **NOT** include the following Allowance(s). The County will add some or all of the following Allowance(s) amount(s) to the successful bidder's Contract, at

the County's discretion. Contractor shall be permitted to invoice for Work under an Allowance in the identical structure as a Change Order.

Allowance #1: Unforeseen Conditions and Owner Requested revisions.	**$50,000**

C. **LETTER OF INTENT TO AWARD:** The undersigned hereby designates as its office to which the Notice of Apparent Low Bid may be mailed, e-mailed, or delivered:

_____

_____

D. **INSURANCE:**

(1) Our Public Liability and Property Damage Insurance is placed with

_____

_____

(2) Our Workers' Compensation Insurance is placed with

_____

_____

E. **COMPLETION DATE.**

Contractor agrees that all work required to be performed by the Contract Documents shall be completed by all milestone dates specified in Section 00800 Special Provisions. Contractor acknowledges that it shall be liable for liquidated damages if the Project is not completed by these dates.

F. **ADDENDA.**

Contractor acknowledges receipt of the following addenda:

Addendum No. ____ Date of Document: _____
Addendum No. ____ Date of Document: _____
Addendum No. ____ Date of Document: _____
Addendum No. ____ Date of Document: _____

G. **EXECUTION OF BID.**

If the Bidder is a corporation, state the capacity/title of the corporate officer signing and affix the corporate seal; if a partnership, all partners should sign under the partnership name on a separate page attached to and made part of the bid. Unsigned bids will not be accepted. The undersigned declares under penalty of perjury under the laws of the State of California that the representations made in this bid are true and correct.

SIGNATURE	**TITLE**
NAME OF COMPANY AS LICENSED	**CONTRACTOR LICENSE NO.**
ADDRESS	**CLASS** **EXPIRATION DATE**
CITY	**STATE** **ZIP**
TELEPHONE NUMBER	**DATE**
	DIR REGISTRATION NO.

BID BOND

KNOW ALL MEN BY THESE PRESENTS that we the undersigned _____ as Principal and _____ as Surety, are hereby held and firmly bound unto the [County of San Mateo Parks] "County" in the sum of _____ Dollars ($_____) for payment of which sum, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of the above obligation is such that whereas the Principal has submitted to the County a certain bid, attached hereto and hereby made a part hereof, to enter into a contract in writing for the construction of

County of San Mateo Parks Department

Quarry Park Pump Track Project

in strict accordance with Contract Documents.

NOW, THEREFORE,

a. If said bid shall be rejected, or, in the alternative;

b. If said bid shall be accepted and the Principal shall execute and deliver a contract in the form of agreement attached hereto and shall execute and deliver Performance and Payment Bonds in the forms attached hereto (all properly completed in accordance with said bid), and shall in all other respects perform the agreement created by the acceptance of said bid;

Then this obligation shall be void, otherwise the same shall remain in full force and effect, it being expressly understood and agreed that the liability of the Surety for any and all default of the Principal hereunder shall be the amount of this obligation as herein stated.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract on the call for bids, or to the work to be performed hereunder, 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 said 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 County and judgment is recovered, the Surety shall pay all costs incurred by the County in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under several seals this _____ day of _____, 20__, the name and corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body. In presence of:

(Notary Seal)

_____
(Principal)

_____
(Business Address)
_____

_____

_____
(Corporate Surety)

By:_____

_____
(Business Address)
_____

The rate or premium of this bond is _____ per thousand, the total amount of premium charged, $_____.

(The above must be filled in by Corporate Surety).

SAN MATEO COUNTY PARKS
QUARRY PARK PUMP TRACK PROJECT

• PRE-QUALIFICATION QUESTIONNAIRE

• APPLICANT INFORMATION

Company Name: _____

Contractor's License Number(s): _____

Contact Person: _____

Address: _____

Phone: _____Email: _____

• MANDATORY REQUIREMENTS FOR QUALIFICATION

Contractor will be disqualified if the answer to any of questions 1 through 3 is "No."

1. Contractors bidding the Pump Track features as described herein shall have satisfactorily completed the installation of three (3 minimum number) similar projects in accordance with the project plans and written specifications. Qualifying projects must include Pump Track projects with specific terrain of comparable size, type, and layout built within the last six (6) years. Does the Contractor have the required experience as stated?

   ☐ Yes ☐ No

2. Only Pump Track projects where the Contractor bidding the "specialty work" has performed all of the same work as described herein shall be considered as acceptable projects to evidence credible experience and qualifications of the bidding Contractor. Does the Specialty Contractor have the required experience as stated?

   ☐ Yes ☐ No

3. Provide on the following page the Pump Track specialty contractor references for three (3) qualifying projects including location of qualifying projects, size, owner, budget, and owners contact information.

   ☐ Yes ☐ No

Contractor Experience/ References

1. **Project #1**
   a. Project Name: _____
   b. Project Address: _____
   _____
   c. Owner Name: _____
   d. Owner Phone: _____
   e. Date of Completion: _____
   f. Contract Value: _____
   g. Prime Contractor or Sub-Contractor? _____

2. **Project #2**
   a. Project Name: _____
   b. Project Address: _____
   _____
   c. Owner Name: _____
   d. Owner Phone: _____
   e. Date of Completion: _____
   f. Contract Value: _____
   g. Prime Contractor or Sub-Contractor? _____

3. **Project #3**
   a. Project Name: _____
   b. Project Address: _____
   _____
   c. Owner Name: _____
   d. Owner Phone: _____
   e. Date of Completion: _____
   f. Contract Value: _____
   g. Prime Contractor or Sub-Contractor? _____

NONCOLLUSION DECLARATION

County of San Mateo Parks Department

Quarry Park Pump Track Project

I, _____, declare that I am the party making the foregoing bid, that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix any overhead, profit, or cost element of the bid price, or of that of any other Bidder, or to secure any advantage against the public body awarding the Agreement of anyone interested in the proposed Agreement; that all statements contained in the bid are true, and, further, that the Bidder has not, directly or indirectly, submitted its bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member of agent thereof to effectuate a collusive or sham bid.

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

_____
(Date)

_____
(Print Name)

_____
(Signature)

_____
(Official Capacity)

_____
(Company Name)

_____
(Company Address)

_____

_____
(Company Telephone Number)

DESIGNATION OF SUBCONTRACTORS

Bidders shall state the portion of work by trade (electrical, painting, etc.) that each subcontractor will perform. Additionally, the Bidder shall state the name and business address for all designated subcontractors. Failure to provide this information in a legible manner may result in the rejection of an otherwise acceptable bid.

In compliance with the provisions of sections 4100 to 4113, inclusive, of the California Public Contract Code, and any amendments thereof, each Bidder shall set forth below the name and the location of the mill, shop, or office of each subcontractor who will perform work or labor or render service to the Bidder on, in, or about the construction of the work or improvement to be performed under these specifications and the portion of the work which will be done by each subcontractor. In addition, effective July 1, 2014, pursuant to Assembly Bill 44 (AB 44), Contractors are required to list the license numbers of all subcontractors required to be listed below. AB 44 provides a grace period of twenty-four hours after bid opening for Bidders to provide subcontractor license numbers that were omitted or incorrect as of the time of bid opening. Further, pursuant to Senate Bill 854 (SB 854), only subcontractors who have registered with the California Department of Industrial Relations (DIR) and who are current in paying the annual renewal fee to the DIR shall be eligible to perform work on the project resulting from this bid process.

If the Bidder fails to specify a subcontractor for any portion of the work to be performed under the contract, the Bidder shall be deemed to have agreed to perform such portion itself, and it shall not be permitted to subcontract that portion of the work except under the conditions hereinafter set forth.

Subletting or subcontracting of any portion of the work as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the legislative body of the County.

[USE FORM ON THE FOLLOWING PAGE]

DESIGNATION OF SUBCONTRACTORS

PRINT LEGIBLY, USE ADDITIONAL PAGE AS NECESSARY

PORTION OF WORK	SUBCONTRACTOR	LOCATION (CITY & STATE)	SUBCONTRACTOR LICENSE #	SUBCONTRACTOR DIR #

STATEMENT OF COMPLIANCE

County of San Mateo Parks Department

Quarry Park Pump Track Project

_____
(Company Name)

(hereinafter referred to as "prospective Contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 and provisions of the California Code of Regulations promulgated pursuant to Section 12990 in matters relating to the development, implementation, and maintenance of a nondiscrimination program. Prospective Contractor agrees not to unlawfully discriminate against any employee or applicants for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status.

I, _____
(Name of Official)

hereby swear that I am duly authorized to legally bind the prospective Contractor to the above-described certification. I am fully aware that this certification, signed on _____
(date)

in the County of _____, is made under the penalty of perjury
(County)

under the laws of the State of California.

_____
(Signature)

_____

(Print or Type Title)

IRAN CONTRACTING ACT CERTIFICATION
(Public Contract Code Section 2200, *et seq*.)

County of San Mateo: Quarry Park Pump Track Project

Contractor Name: _____

I, the person who is identified below and who has signed this certification, hereby certify, subject to penalty for perjury, that: (i) I have inherent authority, or I have been duly authorized by the Contractor, to execute this certification on behalf of the Contractor; and (ii) the option checked below relating to the Contractor's status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200, *et seq*.) is true and correct:

☐ The Contractor is not:

(i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or

(ii) a financial institution that extends, for 45 days or more, credit in the amount of $20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

☐ The County has exempted the Contractor from the requirements of the Iran Contacting Act of 2010 after making a public finding that, absent the exemption, the County will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

☐ The Final Contract Sum, as defined in Section 5 of the Agreement, payable to the Contractor for the Project as of the date of this certification does not exceed $1,000,000.

Certifier Signature: _____

Printed Name: _____

Title: _____

Date Executed: _____

Please note: In accordance with Public Contract Code Section 2205, false certification of this form may result in civil penalties equal to the greater of $250,000 or twice the contract amount, termination of the contract and/or ineligibility to bid on contracts for three years.

AGREEMENT

This Agreement made and entered into this _____ day of _____, 20__, between the **County of San Mateo Parks Department, 455 County Center Redwood City, CA 94063** ("County"), and _____ ("Contractor").

Contractor and County agree as follows:

ARTICLE 1 - THE PROJECT. Contractor agrees to obtain all necessary permits and licenses as are required by law, furnish all labor and materials, including required tools, implements, and appliances and to perform all the work in a good and workmanlike manner, free from any and all liens and claims of mechanics, material, men, subcontractors, artisans, machinists, teamsters, and laborers required in the bid proposal, all in strict compliance with the plans, drawings, and other Contract Documents, required for the Project, which, for purposes of this Agreement, refers to the following:

County of San Mateo Parks Department

Quarry Park Pump Track Project

Unless otherwise specifically noted, the Contractor shall provide and pay for all labor, materials, equipment, transportation, and other facilities and services necessary for the proper execution and completion of the Project. The Contractor shall at all times enforce strict discipline and good order among Contractor's employees and shall not employ on the Project any unfit person or anyone not skilled in the task assigned.

ARTICLE 2 - THE AGREEMENT: The Contractor and the County agree that the Contract Documents are composed of all those documents described in paragraph 2.1 of the General Conditions, all of which are incorporated herein by reference. The specifications and drawings are to be read together such that any work exhibited in the drawings and not mentioned in the specifications, or vice versa, is to be executed as if both mentioned in the specifications and set forth in the drawings to the true intent and meaning of the said drawings and specifications, when taken together. But no part of said specifications that is in conflict with any portion of this Agreement shall be considered as part of this Agreement.

ARTICLE 3 - CONTRACTOR'S LICENSE: Contractor shall have, and maintain in good standing, and require the same of all its subcontractors, the appropriate classification of California State contractor's license during the entire term of this Project. Contractor confirms that, pursuant to SB 854, it has registered with the California Department of Industrial Relations (DIR) and that it has, through the date of this Agreement, paid all annual renewal fees due to the DIR. Contractor shall pay all annual renewal fees to the DIR that come due during the term of the Agreement.

ARTICLE 4 - COMPLETION DATE / NOTICE TO PROCEED: Contractor agrees that all work required to be performed by the Contract Documents shall be completed by the milestone dates specified in the Section 00800 Special Provisions. Contractor acknowledges that it shall be liable for liquidated damages as set forth in this Agreement if the Project is not completed by these dates.

If the Notice to Proceed and/or the Agreement is issued more than ten (10) but less than ninety (90) days after the "Letter of Intent to Award Contract", Contractor's sole remedy shall be an extension to the Completion Date, measured by the number of days beyond ten (10) it took to issue the Notice to Proceed. In such instances, Contractor shall not be entitled to any monetary damages or other compensation for lost profit or overhead or for increased cost of performance.

The term "day" as used in the Contract Documents shall mean calendar day.

ARTICLE 5 - CONTRACT SUM: The contract sum is the total amount payable by the County to Contractor for the performance of work under the Contract Documents. The contract sum is _____ Dollars ($_____) ("Contract Sum"), unless modified in writing in accordance with the Contract Documents.

ARTICLE 6 - LIQUIDATED DAMAGES: The Completion Date specified in Article 4 is of the essence of the Agreement. The Contractor shall complete the Project by the date specified in Article 4 unless the County agrees in writing to an extension of time.

Failure to complete the Project within the time and in the manner provided for by the Contract Documents shall subject the Contractor to liquidated damages. The actual occurrence of damages and the actual amount of the damages which the County would suffer if the Project were not completed within the specified times set forth are dependent upon many circumstances and conditions which could prevail in various combinations and, from the nature of the case, it is impracticable and extremely difficult to fix the actual damages. Damages which the County would suffer in the event of delay include, but are not limited to, loss of the use of the Project, disruption of school activities, costs of administration, inspection, supervision and the loss suffered by the public within the County.

Accordingly, the parties agree that the amount herein set forth shall be presumed to be the amount of damages which the County shall directly incur upon failure of the Contractor to complete the Project within the time specified: **One Thousand Dollars** (**$1000.00**), plus the extra inspection costs incurred by the County, during or as a result of each calendar day by which the substantial completion of the Project is delayed beyond the date specified in Article 4 of the Agreement and **One Thousand Dollars** ($**1000.00**), plus the extra inspection costs incurred by the County, during or as a result of each calendar day by which final completion of the Project is delayed beyond the date specified in the Article 4 of the Agreement.

If the Contractor becomes liable for liquidated damages under this section, the County, in addition to all other remedies provided by law, shall have the right to withhold any and all retained percentages of payments, and to collect the interest thereon, which would otherwise be or become due the Contractor until the liability of the Contractor under this section has been finally determined. If the retained percentage is not sufficient to discharge all liabilities of the Contractor incurred under this Article, the Contractor and its sureties shall continue to remain liable to the County until all such liabilities are satisfied in full.

If the County accepts any work or makes any payment under this Agreement after a default by reason of delays, the payment or payments shall in no respect constitute a waiver or modification of any Agreement provisions regarding time of completion and liquidated damages.

ARTICLE 7 - EARLY COMPLETION: Regardless of the cause therefore, the Contractor may not maintain any claim or cause of action against the County for damages incurred as a result of its failure or inability to complete its work on the Project in a shorter period than established in Article 4 of this Agreement, the parties stipulating that such period is a reasonable time within which to perform the work on the Project.

ARTICLE 8 – PAYMENT: The County agrees to pay the Contractor in current funds for the performance of the Agreement the amount proposed in this bid, including approved change orders, and to make payments on account thereof as follows: Each calendar month, ninety-five percent (95%) of the value, proportionate to the amount of the Agreement, of labor and materials incorporated in the Project up to the first day of that month as estimated by the County, and Project Manager, less the aggregate of previous payments. On substantial completion of the entire Project, a sum sufficient to increase the total payments to ninety-five percent (95%) of the contract sum set forth in Article 5 of this Agreement, and thirty-five (35) days after the Notice of Completion has been recorded, provided the Project is fully completed and the Agreement fully performed, the balance due under the Agreement. The payment of progress payments by the County shall not be construed as an acceptance of the work done up to the time of such payments, except as to such matters as are open and obvious. The entire Project is to be subjected to inspection and approval of the County or Project Manager to defects not obvious upon inspection during the progress of the work at the time when it shall be claimed by the Contractor that the Agreement is completed. The

County and Project Manager shall exercise all reasonable diligence in the discovery, and report to the Contractor as the Project progresses, materials and labor which are not satisfactory to the County, so as to avoid unnecessary trouble and cost to the Contractor in making good defective parts or work.

In accordance with the provisions of Public Contract Code section 22300, the County shall, at the request and expense of the Contractor, permit the substitution of securities or the payment of funds equivalent to the amount of monies withheld as retention from progress payments.

ARTICLE 9 - EARLY TERMINATION: Notwithstanding any provision herein to the contrary, if for any fiscal year of this Agreement the governing body of the County fails to appropriate or allocate funds for future periodic payments under the Agreement after exercising reasonable efforts to do so, the County may, upon thirty (30) days written notice, order work on the project to cease. The County will remain obligated to pay for the work already performed but shall not be obligated to pay the balance remaining unpaid beyond the fiscal period for which funds have been appropriated or allocated and for which the work has not been done.

ARTICLE 10 - TERMINATION FOR CAUSE: If Contractor (1) should be adjudged bankrupt; (2) should make a general assignment for the benefit of its creditors; (3) should persistently or repeatedly refuse or fail, except in cases for which an extension of time is provided, to supply enough properly skilled workers or proper materials; (4) should fail to make prompt payment to subcontractors or for material or labor; (5) persistently disregards laws, ordinances or the instructions of the County; or if any of its subcontractors should persistently violate any of the provisions of the Agreement; or (6) a receiver should be appointed on account of Contractor's insolvency, then the County may serve written notice upon the Contractor and its surety of its intention to terminate the Agreement. Unless, within five (5) days after the serving of such notice, such violations shall cease and satisfactory arrangements for corrections thereof be made, the Agreement shall, upon the expiration of said five (5) days, at the County's option, terminate.

In the event of any such termination, the County shall immediately serve written notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and perform the Agreement; provided, however, that if the surety, within ten (10) days after the serving upon it of Notice of Termination, does not give the County written notice of its intention to take over and perform the Agreement or does not commence performance within ten (10) days from the date of the serving of such notice, the County may take over the Project and prosecute the same to completion by Agreement or by any other method it may deem advisable, for the account and at the expense of the Contractor, and the Contractor and the surety shall be liable to the County for any excess cost occasioned the County thereby. In such event, the County may without liability for so doing, take possession of and utilize in completing the Project, such materials, appliances and other property belonging to the Contractor as may be on the site of the Project and necessary therefore. In such case the Contractor shall not be entitled to receive any further payment until the Project is finished. If the unpaid balance of the contract sum shall exceed the expense of finishing the Project, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the County.

ARTICLE 11 - PERFORMING A PORTION OF THE WORK: If the Contractor fails to correct defective work or persistently fails to carry out the work in accordance with the Contract Documents, the County, by written order, may order the Contractor to stop the work, or any portion thereof, until the cause of such order has been eliminated. The County shall not have any duty to stop the work for the benefit of the Contractor or any other person or entity. If the County chooses to correct or carry out the work itself, it shall normally give the Contractor seven (7) days after providing written notice to commence and continue correction of such default or neglect with diligence and promptness. If, however, the condition constitutes an emergency which may subject the County to penalties or termination of the Project by outside jurisdictional agencies, the County may do so without notice to the Contractor. In either case, an appropriate change order shall be issued, deducting, from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the Project Manager's and consultants' additional services made necessary by such default, neglect, or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor and its surety shall pay the County the difference.

ARTICLE 12 - USE OF SUBCONTRACTORS: Contractor agrees that, as required by State law and the Instruction to Bidders, all subcontractors which will perform work on this project shall be listed on the Designation of Subcontractors form, provided with the Contract Documents.

ARTICLE 13 - PREVAILING WAGE RATES: In accordance with the provisions of section 1720, *et seq*., of the California Labor Code, the Director of the California Department of Industrial Relations has determined the general prevailing rates or wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in section 1770, *et seq.,* of the California Labor Code. **Pursuant to the California Labor Code, the general prevailing rate of per diem wages and for holiday and overtime work shall be paid to all workers employed by the Contractor selected for this project. Copies of prevailing rates of per diem wages are available upon request at the County's Offices or at www.dir.ca.gov. If this project is state funded, the Department of Industrial Relations will monitor and enforce compliance with applicable prevailing wage requirements on this project through the Compliance Monitoring Unit (CMU) and enforce compliance with applicable prevailing wage requirements in accordance with the California Labor Code, including sections 1771, 1774, 1776, 1777.5, 1813, and 1815. Further information regarding this requirement is available at https://www.dir.ca.gov/t8/16450.html.**

Contractor may be responsible for paying subcontractors' employees' prevailing wages if it does not comply with the provisions of Labor Code sections 1770, *et seq.*

The Contractor and each subcontractor shall keep or cause to be kept an accurate record showing the names and occupations of all laborers, workers and mechanics employed by it in connection with the execution of this Agreement or any subcontract thereunder, and showing also the actual per diem wage paid to each of such workers, which records shall be open at all reasonable hours to inspection by the County, its officers and agents and to the representatives of the Division of Labor Standards Enforcement of the State Department of Industrial Relations (DIR). Attention is directed to the provisions in section 1777.5 and section 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under it.

Pursuant to Senate Bill (SB) 854, Contractor will electronically submit certified payroll records to the Labor Commissioner/DIR unless the Labor Commissioner excuses Contractor from this requirement. The parties understand and agree that the project will be subject to compliance monitoring and enforcement by the DIR.

This Agreement may be subject to a labor compliance program, as described in Section 1771.5 of the Labor Code. As required by law, the Department of Industrial Relations will monitor and enforce compliance with applicable prevailing wage requirements.

ARTICLE 14 - WORKING HOURS: In accordance with the provisions of the California Labor Code, eight (8) hours labor shall constitute a day's work, and no laborer, workman or mechanic in the employ of the Contractor, or any subcontractor, doing or contracting to do any part of the work contemplated by this Agreement, shall be required to or permitted to work more than eight (8) hours in one calendar day or forty (40) hours during any one calendar week unless such work is compensated at the lawful overtime rate set forth in the California Labor Code. The Contractor and each subcontractor shall also keep an accurate record showing the names and actual hours worked of all workers employed by it in connection with the work contemplated by this Agreement, which record shall be open at all reasonable hours to the inspection of the County, or its officers or agents and to the Chief of the Division of Labor Standards Enforcement of the DIR, its deputies or agents; and it is hereby further agreed that Contractor shall forfeit as a penalty to the County the sum of twenty-five dollars ($25.00) for each laborer, workman or mechanic who is required or permitted to labor more than eight (8) hours a day or forty (40) hours a week in violation of this Article 14.

ARTICLE 15 - EMPLOYMENT OF APPRENTICES: Contractor agrees to comply with all provisions of the law regarding the employment of apprentices, including, but not limited to Labor Code §§ 1773.3, 1777.5, 1777.6 and 3077, *et seq*. These sections require that contractors and subcontractors employ apprentices

in apprenticeable occupations in a ratio of not less than one (1) apprentice hour for each five (5) journeyman hours, unless an exemption is granted, and that contractors and subcontractors shall not discriminate among otherwise qualified employees as indentured apprentices on any public work on the grounds of race, religious creed, color, national origin, ancestry, sex, or age. Only apprentices who are in training under written apprenticeship agreements will be employed on public works in apprenticeable occupations. The responsibility for compliance with these provisions for all apprenticeable occupations rests with the Contractor.

ARTICLE 16 – INSURANCE: The Contractor shall procure and maintain for the duration of this Contract and for two years thereafter, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, and Contractor's agent, representatives, employees, or subcontractors. Contractor shall include in all of its contracts with Subcontractors provisions requiring such Subcontractors to meet the same insurance requirements as set forth herein.

Comprehensive or commercial general liability (CGL) insurance, on Insurance Office Services Form CG 00 01 (or a form at least as broad as Form CG 00 01) covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal and advertising injury with limits no less than $1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this Project and location or the general aggregate limit shall be twice the required occurrence limit.

Automobile Liability Insurance, on Insurance Services Office Form Number CA 0001 covering Code 1 (any auto) with limits no less than $5,000,000 per accident for bodily injury and property damage.

Workers' Compensation, including Employers' Liability Insurance, as required by the State of California with Statutory Limits, and Employers' Liability insurance with a limit of no less than $1,000,000 each accident, injury or disease. The Contractor shall require subcontractors to provide workers' compensation insurance for all subcontractors' employees engaged in Work under the subcontract. Any class of employee or employees not covered by a subcontractor's insurance shall be covered by the Contractor's insurance. If the Contractor fails to maintain such insurance, the County, at its sole option and without incurring any further obligation to provide insurance, may take out Workers' Compensation insurance to cover any compensation payable under the provisions of the Act by reason of any employee of the Contractor or a subcontractor being injured or killed, and to deduct the amount of the premium for such insurance from any sums due the Contractor. If injury occurs to any employee of the Contractor for which the employee, or its dependents in the event of its death, is entitled to compensation from the County under the provisions of said Act, or from the sums due the Contractor under these Contract Documents the County may deduct and retain an amount sufficient to cover such compensation or payment of such compensation.

The Contractor shall sign and file with the County the following certification prior to performing the Work of the Contract: "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of the Contract."

Fire insurance on all Work subject to loss or damage by fire. Contractor shall maintain fire insurance in an amount of fire insurance shall be sufficient to protect the Project and all appurtenant structures against loss of damage in full until the Work is accepted by the County.

Coverage for debris removal limits not less than $1,000,000. In the event that the Contractor is performing abatement of hazardous or contaminated materials work or employs a subcontractor or entity for abatement of hazardous or contaminated materials, environmental liability and pollution insurance, with limits not less than $1,000,000. The policy shall be written on an occurrence form and any deductible shall not exceed $25,000.

Minimum Amounts Required. The amounts of insurance coverage stated above are the minimums that Contractor is required to procure and maintain. If Contractor maintains higher limits than the minimums

stated above, the County requires, and shall be entitled to, coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the County.

Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions must be declared to and approved by the County. At the option of the County, either the Contractor shall cause the insurer to reduce or eliminate such deductibles or self-insured retentions as respects the County, its officers, officials, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the County guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

Required Endorsements. The insurance policies required in this Article 16 of this Agreement shall contain or shall be endorsed to contain the following provisions:

(a) The County, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor, including materials, parts, or equipment furnished in connection with work or operation and automobiles owned, leased, hired, or borrowed by or on behalf of the Contractor. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10, CG 11 85 or both CG 20 10 and CG 20 37 if later revisions are used);

(b) For any claims related to the Project, the Contractor's insurance coverage shall be primary insurance as respects the County, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the County, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute to it; and

(c) Each insurance policy required by this Agreement shall provide that coverage shall not be canceled, except with prior written notice to the County.

Acceptability of Insurers: Insurance companies providing coverage required under this Agreement shall be legally licensed and admitted through the California Department of Insurance to engage in the business of furnishing insurance in the State of California. All insurance companies shall have an "A-VII" in Bests Rating Guide and shall be satisfactory to the County.

Waiver of Subrogation: Contractor hereby waives the right of subrogation which any insurer of Contractor may acquire from Contractor by virtue of payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the County for all work performed by the Contractor, its employees, agents, and subcontractors.

In the event of any damage, not insured by the County, as identified in this agreement under Builder's Risk/All Risk section, it shall be the Contractor's responsibility to perform at its expense all required repair and replacement including damage to adjacent areas.

Verification of Coverage. Before commencement of the Work under this Agreement, certificates of insurance shall be furnished to the County, with complete copies of policies to be furnished to the County promptly upon request. All policies of insurance, exclusions, deductibles, self-insured retentions, and certificates shall be reviewed by, and satisfactory to the County before Contractor commences work on the Project. Approval of the insurance by the County shall not relieve or decrease the extent to which the Contractor or subcontractor of any tier may be held responsible for payment of any and all damages resulting from its action, inaction or operations. Further, failure by Contractor to obtain the required documents prior to work beginning on the Project shall not relieve the Contractor of the obligation to obtain them or constitute a waiver by the County of Contractor's obligation to provide them. The County reserves the right to require complete, certified copies of all required insurance policies, including endorsements, required by this Agreement, at any time.

Liability insurance shall be on an occurrence basis. The coverage afforded thereby shall be primary and non-contributory to any other existing valid and collectable insurance to the full limit of liability stated in the

declaration, and such insurance shall apply separately to each insured against whom claim is made or suit is brought, but the inclusion of more than one (1) insured shall not operate to increase the insurer's limits of liability.

Certificates of insurance shall state in particular those insured, the extent of insurance, location and operation to which the insurance applies, the expiration date, and cancellation and reduction notices. Certificates and insurance policies shall include the following clause: "This policy shall not be non-renewed, canceled, or reduced in required limits of liability or amounts of insurance until notice has been mailed to the County. Date of cancellation or reduction may not be less than thirty (30) days after the date of mailing notice." If, at any time during the life of this Agreement, the Contractor fails to maintain any item of the required insurance in full force and effect, all Work of this Agreement may, at the County's sole option, be discontinued immediately, and all payments due or that become due under the Agreement will be withheld, until notice is received by the County as provided hereinabove that such insurance has been restored to full force and effect and that the premiums therefrom have been paid for a period satisfactory to the County.

Any failure to maintain any item of the required insurance may, at County's sole option, be considered material breach of the Agreement and, in such an event, the County may immediately terminate this Agreement.

Subcontractors. Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated in this Agreement and Contractor shall ensure that the County is an additional insured on insurance required from subcontractors. For CGL coverage, subcontractors shall provide coverage with a format at least as broad as ISO Form CG 20 38 04 13.

Reservation of Rights to Implement Owner Controlled Insurance Program.

Notwithstanding the foregoing requirements set forth in this Article 16 of the Agreement, the County hereby reserves the right to modify the insurance requirements set forth in the Agreement, including but not limited to reserving the right to implement an Owner Controlled Insurance Program ("OCIP") for the Project.

In the event an OCIP is implemented, the OCIP will provide certain specified insurance coverages for County, and any Contractor or Subcontractor working on the Project who are eligible for, and are properly enrolled in the OCIP. The insurance coverages that may potentially be included in the OCIP include, but are not limited to, workers compensation insurance, commercial general liability insurance, and excess liability insurance. The selection of insurance coverages that may be included in the OCIP, and the limits, terms, and conditions of coverage, shall be established by the County, in its sole discretion. The coverages included in the OCIP will be identified by County, in writing, if and when the County decides to implement an OCIP for the Project.

In the event an OCIP is implemented, Contractor and any Subcontractor eligible for the OCIP shall be required to enroll in the OCIP. As part of the OCIP enrollment process, Contractor and each eligible Subcontractor shall be required to provide information to County, or its agents, sufficient to enable County to determine each Contractor's and Subcontractor's reduction in insurance costs due to enrollment in the OCIP. In order to enroll in the OCIP, Contractor and any eligible Subcontractor will be required to accept an insurance credit, either by accepting a deductive credit to their contract price, or by agreeing to exclude from their contract price an amount equal to their reduction insurance costs due to enrollment in the OCIP. The methodology and procedures for identifying the insurance credit, and enrolling in the OCIP, will be established in writing, by the County, if and when an OCIP is implemented.

In the event an OCIP is implemented, Contractor and all Subcontractors will still be required to maintain other insurance coverages that are not provided under the OCIP. For example, Contractor and Subcontractor will generally still be required to maintain off-site workers compensation, off-site commercial general liability, and commercial automobile liability insurance consistent with the terms of the Agreement, or as further directed by County.

ARTICLE 17 - INDEMNIFICATION AGAINST LIABILITY: Notwithstanding any other provision of the Contract Documents, Contractor agrees to indemnify, defend and save harmless the County, its Governing

Board, related entities and divisions, officers, agents, consultants and employees from and against any and all claims, demands, losses, defense costs, or liabilities of any kind or nature which they may sustain or incur or which may be imposed upon them for injury to or death of persons, damage to property, or delay or damage to another contractor, or for attorney's fees incurred in defending or prosecuting suits to enforce laws relating to public works contracts, resulting or arising out of, or in any manner connected with Contractor or Contractor's agents, employees or subcontractors' performance or failure to perform under the terms of the Contract Documents, excepting only liability arising out of the sole negligence or willful misconduct of the County. The parties stipulate that any such claims, demands, losses, defense costs, or liabilities would be above, beyond, and entirely separate from, those damages which would be liquidated pursuant to Article 6.

ARTICLE 18 - CONTRACT MATERIALS: At the end of this Agreement, or in the event of termination, all finished or unfinished documents, data, studies, maps, photographs, reports, and other written materials (collectively referred to as "contract materials") prepared by Contractor under this Agreement shall become the property of County and shall be promptly delivered to County. Upon termination, Contractor may make and retain a copy of such contract materials if permitted by law.

ARTICLE 19 - RELATIONSHIP OF PARTIES: Contractor agrees and understands that the work/services performed under this Agreement are performed as an independent contractor and not as an employee of County and that neither Contractor nor its employees acquire any of the rights, privileges, powers, or advantages of County employees.

ARTICLE 20 - ASSIGNABILITY AND SUBCONTRACTING: Contractor shall not assign this Agreement or any portion of it to a third party or subcontract with a third party to provide services required by Contractor under this Agreement without the prior written consent of County. Any such assignment or subcontract without County's prior written consent shall give County the right to automatically and immediately terminate this Agreement without penalty or advance notice.

ARTICLE 21 - COMPLIANCE WITH LAWS: All services to be performed by Contractor pursuant to this Agreement shall be performed in accordance with all applicable Federal, State, County, and municipal laws, ordinances, and regulations, including but not limited to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Federal Regulations promulgated thereunder, as amended (if applicable), the Business Associate requirements set forth in Attachment H (if attached), the Americans with Disabilities Act of 1990, as amended, and Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of disability in programs and activities receiving any Federal or County financial assistance. Such services shall also be performed in accordance with all applicable ordinances and regulations, including but not limited to appropriate licensure, certification regulations, provisions pertaining to confidentiality of records, and applicable quality assurance regulations. In the event of a conflict between the terms of this Agreement and any applicable State, Federal, County, or municipal law or regulation, the requirements of the applicable law or regulation will take precedence over the requirements set forth in this Agreement.

Further, Contractor certifies that it and all of its subcontractors will adhere to all applicable provisions of Chapter 4.106 of the San Mateo County Ordinance Code, which regulates the use of disposable food service ware. Accordingly, Contractor shall not use any non-recyclable plastic disposable food service ware when providing prepared food on property owned or leased by the County and instead shall use biodegradable, compostable, reusable, or recyclable plastic food service ware on property owned or leased by the County. (This paragraph may be deleted without County Counsel Review if not relevant to this agreement)

Contractor will timely and accurately complete, sign, and submit all necessary documentation of compliance.

ARTICLE 22 - NON-DISCRIMINATION AND OTHER REQUIREMENTS:

a. General Non-discrimination

No person shall be denied any services provided pursuant to this Agreement (except as limited by the scope of services) on the grounds of race, color, national origin, ancestry, age, disability (physical or mental), sex, sexual orientation, gender identity, marital or domestic partner status, religion, political beliefs or affiliation, familial or parental status (including pregnancy), medical condition (cancer-related), military service, or genetic information.

b. Equal Employment Opportunity

Contractor shall ensure equal employment opportunity based on objective standards of recruitment, classification, selection, promotion, compensation, performance evaluation, and management relations for all employees under this Agreement. Contractor's equal employment policies shall be made available to County upon request.

c. Section 504 of the Rehabilitation Act of 1973

Contractor shall comply with Section 504 of the Rehabilitation Act of 1973, as amended, which provides that no otherwise qualified individual with a disability shall, solely by reason of a disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in the performance of any services this Agreement. This Section applies only to contractors who are providing services to members of the public under this Agreement.

d. Compliance with County's Equal Benefits Ordinance

Contractor shall comply with all laws relating to the provision of benefits to its employees and their spouses or domestic partners, including, but not limited to, such laws prohibiting discrimination in the provision of such benefits on the basis that the spouse or domestic partner of the Contractor's employee is of the same or opposite sex as the employee.

e. Discrimination Against Individuals with Disabilities

The nondiscrimination requirements of 41 C.F.R. 60-741.5(a) are incorporated into this Agreement as if fully set forth here, and Contractor and any subcontractor shall abide by the requirements of 41 C.F.R. 60–741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

f. History of Discrimination

Contractor certifies that no finding of discrimination has been issued in the past 365 days against Contractor by the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or any other investigative entity. If any finding(s) of discrimination have been issued against Contractor within the past 365 days by the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or other investigative entity, Contractor shall provide County with a written explanation of the outcome(s) or remedy for the discrimination prior to execution of this Agreement. Failure to comply with this Section shall constitute a material breach of this Agreement and subjects the Agreement to immediate termination at the sole option of the County.

g. Reporting; Violation of Non-discrimination Provisions

Contractor shall report to the County Manager the filing in any court or with any administrative agency of any complaint or allegation of discrimination on any of the bases prohibited by this Section of the Agreement or the Section titled "Compliance with Laws". Such duty shall include reporting of the filing of any and all charges with the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or any other entity charged with the investigation or adjudication of allegations covered by this subsection within 30 days of such filing, provided that within such 30 days such entity has not notified Contractor that such charges are dismissed or otherwise unfounded. Such notification shall

include a general description of the circumstances involved and a general description of the kind of discrimination alleged (for example, gender-, sexual orientation-, religion-, or race-based discrimination).

Violation of the non-discrimination provisions of this Agreement shall be considered a breach of this Agreement and subject the Contractor to penalties, to be determined by the County Manager, including but not limited to the following:

i. termination of this Agreement;

ii. disqualification of the Contractor from being considered for or being awarded a County contract for a period of up to 3 years;

iii. liquidated damages of $2,500 per violation; and/or

iv. imposition of other appropriate contractual and civil remedies and sanctions, as determined by the County Manager.

To effectuate the provisions of this Section, the County Manager shall have the authority to offset all or any portion of the amount described in this Section against amounts due to Contractor under this Agreement or any other agreement between Contractor and County.

h. Compliance with Living Wage Ordinance

As required by Chapter 2.88 of the San Mateo County Ordinance Code, Contractor certifies all contractor(s) and subcontractor(s) obligated under this contract shall fully comply with the provisions of the County of San Mateo Living Wage Ordinance, including, but not limited to, paying all Covered Employees the current Living Wage and providing notice to all Covered Employees and Subcontractors as required under the Ordinance. (If LWO is not applicable to this contract, you may delete this section without County Counsel review. Contact your assigned County Counsel if you are unsure if LWO is applicable)

ARTICLE 23 - <u>COMPLIANCE WITH COUNTY EMPLOYEE JURY SERVICE ORDINANCE:</u> Contractor shall comply with Chapter 2.85 of the County's Ordinance Code, which states that Contractor shall have and adhere to a written policy providing that its employees, to the extent they are full-time employees and live in San Mateo County, shall receive from the Contractor, on an annual basis, no fewer than five days of regular pay for jury service in San Mateo County, with jury pay being provided only for each day of actual jury service. The policy may provide that such employees deposit any fees received for such jury service with Contractor or that the Contractor may deduct from an employee's regular pay the fees received for jury service in San Mateo County. By signing this Agreement, Contractor certifies that it has and adheres to a policy consistent with Chapter 2.85. For purposes of this Section, if Contractor has no employees in San Mateo County, it is sufficient for Contractor to provide the following written statement to County: "For purposes of San Mateo County's jury service ordinance, Contractor certifies that it has no full-time employees who live in San Mateo County. To the extent that it hires any such employees during the term of its Agreement with San Mateo County, Contractor shall adopt a policy that complies with Chapter 2.85 of the County's Ordinance Code." The requirements of Chapter 2.85 do not apply if this Agreement's total value listed in the Section titled "Payments", is less than one-hundred thousand dollars ($100,000), but Contractor acknowledges that Chapter 2.85's requirements will apply if this Agreement is amended such that its total value meets or exceeds that threshold amount.

ARTICLE 24 - <u>PAYMENT OF PERMITS/LICENSES:</u> Contractor bears responsibility to obtain any license, permit, or approval required from any agency for work/services to be performed under this Agreement at Contractor's own expense prior to commencement of said work/services. Failure to do so will result in forfeit of any right to compensation under this Agreement.

ARTICLE 25 - ACCOUNTING/RETENTION OF RECORDS:

a. Contractor shall maintain all required records relating to services provided under this Agreement for three (3) years after County makes final payment and all other pending matters are closed, and the Contractor shall be subject to the examination and/or audit by County, a Federal grantor agency, and the State of California.

b. Contractor shall comply with all program and fiscal reporting requirements set forth by applicable Federal, State, and local agencies and as required by County.

c. Contractor agrees upon reasonable notice to provide to County, to any Federal or State department having monitoring or review authority, to County's authorized representative, and/or to any of their respective audit agencies access to and the right to examine all records and documents necessary to determine compliance with relevant Federal, State, and local statutes, rules, and regulations, to determine compliance with this Agreement, and to evaluate the quality, appropriateness, and timeliness of services performed.

ARTICLE 26 - MISCELLANEOUS PROVISIONS:

a. Entire Agreement: This Agreement constitutes the entire agreement between the parties, and supersedes any prior agreement between the parties, oral or written, including the County's award of the Project to Contractor, unless such agreement is expressly incorporated herein. The County makes no representations or warranties, express or implied, not specified in this Agreement.

b. Execution of Other Documents: The parties to this Agreement shall cooperate fully in the execution of any and all other documents and in the completion of any additional actions that may be necessary or appropriate to give full force and effect to the terms and intent of this Agreement.

c. Execution in Counterparts: This Agreement may be executed in counterparts such that the signatures may appear on separate signature pages. A copy, or an original, with all signatures appended together, shall be deemed a fully executed agreement.

d. Binding Effect: Contractor, by execution of this Agreement, acknowledges that Contractor has read this Agreement, understands it, and agrees to be bound by its terms and conditions. This Agreement shall inure to the benefit of and shall be binding upon the Contractor and the County and their respective successors and assigns.

e. Severability: If any provision of this Agreement shall be held invalid or unenforceable by a court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

f. Amendments: The terms of this Agreement shall not be waived, altered, modified, supplemented or amended in any manner whatsoever except by written agreement signed by the parties.

g. Assignment of Agreement: The Contractor shall not assign or transfer by operation of law or otherwise any or all of its rights, burdens, duties or obligations without the prior written consent of the surety on the payment bond, the surety on the performance bond and the County.

h. Written Notice: Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail or courier to the last business address known to it who gives the notice.

i. Electronic Signature. Both County and Contractor wish to permit this Agreement and future documents relating to this Agreement to be digitally signed in accordance with California law and County's Electronic Signature Administrative Memo. Any party to this Agreement may revoke such agreement to

permit electronic signatures at any time in relation to all future documents by providing notice pursuant to this Agreement.

j. Controlling Law; Venue. The validity of this Agreement and of its terms, the rights and duties of the parties under this Agreement, the interpretation of this Agreement, the performance of this Agreement, and any other dispute of any nature arising out of this Agreement shall be governed by the laws of the State of California without regard to its choice of law or conflict of law rules. Any dispute arising out of this Agreement shall be venued either in the San Mateo County Superior Court or in the United States District Court for the Northern District of California. In the event of breach or other dispute arising out of this Agreement, County reserves the right to pursue all remedies, legal, contractual, administrative or otherwise against Contractor, including the recovery of any sanctions and penalties authorized by law.

IN WITNESS WHEREOF the parties have executed this Agreement on the date first hereinabove written.

CONTRACTOR,
(By signing below, also certifies awareness of and compliance with Labor Code Sections 1861 and 3700 concerning Worker's Compensation Law.)

By: _____ _____
Signature Date

Type or Print Name: _____

Official Capacity: _____ (Affix Corporate Seal)

By: _____ _____
Signature Date

Type or Print Name: _____

Official Capacity: _____

County of San Mateo

By: _____ _____
Mr. Warren Slocum Date
Supervisor

Note to Contractor:

a. For corporations, the contract must be signed by two officers. The first signature must be that of the chairman of the board, president or vice president; the second signature must be that of the secretary or chief financial officer. The signatures must be acknowledged by a Notary Public and seal attached.

b. If Partnership, all partners should sign under the partnership name. The signatures must be acknowledged by a Notary Public and seal attached.

PERFORMANCE BOND

County of San Mateo ("County") and _____ ("Contractor") have entered into a contract for the furnishing of all materials and labor, services and transportation which are necessary, convenient, and proper to construct:

County of San Mateo Parks Department

Quarry Park Pump Track Project

WHEREAS, the Agreement between the County and the Contractor dated _____, 20__, and all of the documents attached to or forming a part of the Contract Documents, are hereby referred to and made a part hereof; and

WHEREAS, the Contractor is required by the Agreement, before entering upon the performance of the work, to file a good and sufficient bond with the County to ensure Contractor's good and faithful performance thereunder.

NOW, THEREFORE, the Contractor and _____ ("Surety"), as Corporate Surety, hereby bind themselves, their heirs, executors, administrators, successors, or assigns, jointly and severally, unto the County in the sum of _____ Dollars ($_____), to be paid to the County upon the occurrence of the condition set forth below.

THE CONDITION OF THIS OBLIGATION IS that if the Contractor shall fail to well and truly perform and fulfill all the undertakings, covenants, terms, and conditions of the Agreement during the original term of the Agreement and any extensions thereof that may be granted by the County, and during the life of any guaranty required under the Agreement, or shall fail to well and truly perform and fulfill all the undertakings, covenants, terms, and conditions of any and all duly authorized modifications to the Agreement that may hereafter be made, then the Surety shall indemnify the County for any damage or loss suffered thereby. In case suit is brought upon this bond the Surety shall pay all court costs, expenses and reasonable attorney's fees.

IT IS HEREBY EXPRESSLY STIPULATED AND AGREED that no change, extension of time, alteration, or addition to the terms of the contract or the work to be performed thereunder or the specifications accompanying the same, shall in any way diminish the Surety's obligation on this bond, and the Surety does hereby waive notice of any such change, extension, alteration, or addition.

SHOULD THE CONDITION of this bond be fully performed, this obligation becomes void; otherwise the obligation shall remain in full force and effect.

IN WITNESS WHEREOF, this instrument has been duly executed by the Contractor and Surety this _____ day of _____, 20__.

(Notary Seal)

_____
(Principal)

_____
(Business Address)
_____

_____

_____
(Corporate Surety)

By: _____

_____
(Business Address)
_____

The rate or premium of this bond is _____ per Thousand Dollars; the total amount of premium charged, $_____.

(The above must be filled in by Corporate Surety).

PAYMENT BOND
(Labor and Material)

County of San Mateo ("County") and _____ ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to construct:

County of San Mateo Parks Department

Quarry Park Pump Track Project

WHEREAS, the Agreement between the County and the Principal dated _____, 20__, and all of the documents attached to or forming a part of the Contract Documents, are hereby referred to and made a part hereof; and

WHEREAS, the Principal is required by the Agreement, before entering upon the performance of the work, to file a good and sufficient bond with the body by whom the contract is awarded to secure the claims arising under the Agreement.

NOW, THEREFORE, the Principal and the undersigned _____ ("Surety"), as Corporate Surety, hereby bind themselves, their heirs, executors, administrators, successors, or assigns, jointly and severally, unto the County for the use and benefit of all persons provided under Civil Code section 9554, subdivision (b), in the sum of _____ Dollars ($_____).

THE CONDITION OF THIS OBLIGATION IS that if the Principal or a subcontractor, or their heirs, executors, administrators, successors, or assigns fails to pay any of the persons named in Civil Code section 9100, or any of the amounts due as specified in Civil Code section 9554, subdivision (b), Surety will pay the same in an amount not exceeding the amount hereinabove set forth. Additionally, Surety shall pay all court costs, expenses and reasonable attorneys' fees as fixed by the Court associated with any suit brought upon this bond, including costs and attorneys' fees incurred by the County.

IT IS HEREBY EXPRESSLY STIPULATED AND AGREED that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims so as to give a right of action to them or their assigns in any suit brought upon this bond.

IT IS FURTHER EXPRESSLY STIPULATED AND AGREED that no change, extension of time, alteration, or addition to the terms of said contract or the specifications accompanying the same, shall in any manner diminish the Surety's obligations on this bond, and the Surety does hereby waive notice of any such change, extension, alteration, or addition.

SHOULD THE CONDITION of this bond be fully performed, then this obligation shall become void; otherwise the obligation shall be and remain in full force and effect.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety this _____ day of _____, 20__.

(Notary Seal)

_____
(Principal)

_____
(Business Address)
_____

_____

_____
(Corporate Surety)

By: _____

_____
(Business Address)
_____

The rate or premium of this bond is _____ per thousand; the total amount of premium charged, $_____.

(The above must be filled in by Corporate Surety).

GENERAL CONDITIONS

Article 1 DEFINITIONS

1.1 Project Manager: Individual designated to represent the County. The term "County" shall also be defined to include the County's Representative. The Project Manager will be the Contractor's primary contact during construction of the Project.

1.2 Day: The term "day" as used in the Contract Documents shall mean calendar day.

1.3 CO: Change Order.

1.4 COR: Change Order Request.

1.5 Submit/Submission: An application for payment, request for information, substitution, or change order or requests for approval of samples or submittals or shop drawings. Includes resubmission after initial denial or direction to provide additional information.

1.6 Beneficial Occupancy: Notwithstanding any common law principal to the contrary, occupancy by the County shall be "beneficial" when occupancy for teaching purposes is safe and convenient (considering all visual, sound, and odor factors); the Project is weather-tight, functional, and aesthetically pleasing; all portions of the Project (including finishes, painting, hardware, services, safety systems and utilities) are complete and operational; and any remaining punch list work may be conveniently and effectively performed after 3:30 p.m. and/or on weekends and can and shall be completed within the immediately subsequent twenty eight (28) days after such occupancy.

1.7 Substantial Completion: Substantial Completion is the stage in progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents, except for minor punch list items, that the building may be Beneficially Occupied.

1.8 Final Completion: The point at which Contractor fully completes all contract work including punch list work and has submitted closeout documentation to the satisfaction of the County and Project Manager.

Article 2 CONTRACT DOCUMENTS.

2.1 The Contract Documents are the following:

1. Agreement
2. Bid Form
3. Bid Bond
4. Payment Bond
5. Performance Bond
6. Insurance Forms
7. Notice to Bidders and Instructions
8. Designation of Subcontractors Form
9. Non-Collusion Affidavit
10. Iran Contracting Act Certification
11. General and Special Conditions
12. Conditional Waiver and Release Upon Progress Payment for General Contractor

13. Conditional Waiver and Release Upon Progress Payment for Subcontractor (when requested)
14. Unconditional Waiver and Release Upon Progress Payment for General Contractor
15. Unconditional Waiver and Release Upon Progress Payment for Subcontractor (when requested)
16. Conditional Waiver and Release Upon Final Progress Payment for General Contractor
17. Conditional Waiver and Release Upon Final Progress Payment for Subcontractor
18. Contractor's Affidavit of Release of Liens
19. Consent of Surety Company to Final Payment
20. Contractor's Affidavit of Payment of Debts and Claims
21. Contractor's Affidavit of Payment of Prevailing Wage
22. Subcontractor's Affidavit of Payment of Prevailing Wage
23. Supplementary Conditions (if applicable)
24. Plans and Specifications and Drawings
25. County's Schedule of Milestones
26. Other Forms and Attachments (if applicable)
27. Addenda or Clarifications to any of the above

2.2 The County must approve any additions to the listed Contract Documents. Any modification amending or extending the Work covered by the Contract Documents shall be as binding as if originally included in the Contract Documents.

2.3 The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. The intention of the documents is to include all labor, materials, equipment, and other items necessary for the proper execution, completion, and operation of the Project. It is not intended that work not covered under any heading, section, branch, class, or trade of the specifications shall be supplied unless it is required elsewhere in the Contract Documents or is reasonably inferable therefrom as being necessary to produce the intended results. Words which have well-known technical or trade meanings are used herein in accordance with such recognized meanings.

2.4 The organization of the specifications into divisions, sections, and articles, and the arrangement of drawings shall not control the Contractor in dividing the Project among subcontractors or in establishing the extent of work to be performed by any trade. Neither the stated description nor the division of the Plans and Specifications to various sections, which is done solely for convenience, shall be deemed to limit the work required, divide or indicate it by labor jurisdiction or trade practice, or set up any bidding barriers to the various sub-contractors or suppliers.

2.5 The Contractor shall be responsible for the proper execution of all work required by the Contract Documents and for allocating such portions as it sees fit to the various sub-contractors. The Contractor is cautioned that the various individual sections may not contain all work that the Contractor may wish to allocate to a particular sub-contractor or everything bearing on the work of a particular trade, some of which may appear in other portions of the Plans or Specifications.

2.6 <u>Intent of Drawings and Specifications</u>.

2.6.1 The Contractor shall make its own layout of lines and elevations and shall be responsible for the accuracy of both its and the subcontractors' work resulting therefrom. All dimensions affecting proper fabrication and installation of all contract Work must be verified prior to fabrication by taking field measurements of the true conditions. The Contractor

shall take, and assist subcontractors in taking, all field dimensions required in performance of the work, and shall verify all dimensions and conditions on the site. If there are any discrepancies between dimensions in drawings and existing conditions which will affect the work, the Contractor shall bring such discrepancies to the attention of the Project Manager for adjustment immediately and in any case before proceeding with the Work. The Contractor shall be responsible for the proper fitting of all Work and for the coordination of all trades, subcontractors and persons engaged upon this Contract.

2.6.2 It is the intent of the Contract Plans and Specifications to show and describe complete installations. Items shown but not specified, or specified but not shown, shall be included unless specifically omitted. These Plans and Specifications shall be deemed to include and require everything necessary and reasonably incidental to the completion of all work described and indicated on the drawings, whether or not particularly mentioned or shown.

2.6.3 The specifications and drawings are intended to be explanatory of each other. Any work shown on the drawings, and not in the specifications, or vice versa, is to be treated as if indicated in both. In the case of conflict or inconsistency, the Supplementary Conditions (if any) shall control over the General Conditions and the specifications shall control over the drawings. In case of conflict within the drawings, larger scale drawings shall govern smaller scale drawings, written dimensions shall govern over scaled dimensions and figured dimensions shall control over scaled measurements. In all cases, the more costly or expensive interpretation is deemed to control and is to be the interpretation incorporated into the Contract Documents and Contract Sum.

2.7 Ambiguities, Errors, and Inconsistencies: If, in the opinion of the Contractor, the construction details indicated on the drawings or otherwise specified are in conflict with accepted industry standards for quality construction and therefore might interfere with Contractor's full guarantee of the Work involved, the Contractor shall promptly bring its opinion and the basis for it to the attention of the Project Manager for appropriate action before submittal of the bid. Contractor's failure to request clarification or interpretation of an apparent ambiguity, error or inconsistency waives that Contractor's right to thereafter claim any entitlement to additional compensation based upon an ambiguity, inconsistency, or error, which should have been discovered by a reasonably prudent Contractor, subject to the limitations of Public Contract Code §1104. During the Project, should any discrepancy appear or any misunderstanding arise as to the import of anything contained in the Contract Documents, the matter shall be promptly referred to the Project Manager, who will issue instructions or corrections.

2.8 Lines and Planes: All lines and planes appearing on Contract drawings to be horizontal or vertical and not explicitly indicated otherwise shall be constructed true and plumb. All lines and planes appearing on Contract drawings to intersect at right angles and not explicitly indicated otherwise shall be constructed at true right angles. Where details are indicated covering specific conditions, such details also apply to all similar conditions not specifically indicated.

2.9 Standards: The specification standards of the various sections of the Specifications shall be the procedural, performance, and material standards of the applicable association publications identified and shall be the required level of installation, materials, workmanship, and performance for the applicable work. Except where a specific date of issue is mentioned hereinafter, references to specification standards shall mean the edition, including amendments and supplements, in effect on the date of the Notice to Bidders for the Project. Where no standard is identified and a manufacturer is specified, the manufacturer's specifications are the standards. All standards shall be subordinate to the requirements of the applicable codes and regulations.

2.10 Reference to the Singular: Wherever in the Specifications an article, device or piece of equipment is referred to in the singular number, such reference shall include as many such items as are shown on drawings or required to complete the installation.

Article 3 PROJECT MANAGER

3.1 Nothing contained in the Contract Documents shall create any contractual relationship between the Project Manager and the Contractor.

3.2 The Project Manager will be the County's representative during construction and until final payment. Unless directed otherwise herein, all communications and correspondence from the Contractor shall be directed jointly to the Project Manager and the County.

3.3 The Project Manager shall at all times have access to the Project wherever it is in preparation and progress.

3.4 The Project Manager will make periodic visits to the Project site to familiarize itself generally with the progress and quality of the work and to determine in general if the Project is proceeding in accordance with the Contract Documents and will keep the County informed of its observations.

3.5 Based on such observations and the Contractor's applications for payment, the Project Manager will determine and verify the amounts owing to the Contractor and will issue recommendations for payment to the County as provided herein.

3.6 The Project Manager's decision in matters relating to artistic effect will be final if consistent with the intent of the Contract Documents.

3.7 The Project Manager will have authority to reject work which does not conform to the Contract Documents. Whenever, in its reasonable opinion, the Project Manager considers it necessary or advisable to ensure the proper implementation of the intent of the Contract Documents, it will have authority to require the Contractor to stop the Project or any portion thereof, or to require special inspection or testing of the work as provided herein whether or not such work be then fabricated, installed or completed. However, neither the authority to act under this subparagraph, nor any decision made by the Project Manager in good faith, either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the Project Manager to the Contractor, any subcontractor, any of their agents or employees, or any other person performing any of the work.

3.8 Submittals.

3.8.1 All submittals are due within 30-days of contract award. Long lead time items are required to accommodate project schedule. The Project Manager will monitor the submittal process. The Project Manager will review or take other appropriate action upon the Contractor's submittals, such as shop drawings, product data and samples, but only for the limited purpose of checking for conformance with the information given and design concept expressed in the Contract Documents. Contractor shall assume that the Project Manager may take as many as fourteen (14) days to review submittals and shall include such review period in its Project schedule. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents.

3.9 The Project Manager will have authority to order minor changes in the Project after notifying the County. The Project Manager will prepare change orders in accordance with the Contract Documents. Upon a change order request by the County, the Contractor is to submit a breakdown of all costs and/or credits incurred to accomplish the requested change. The breakdown is to be of sufficient detail to allow justification of additional costs and/or credits. All change orders shall be signed by the County, Project Manager, Engineer, and Contractor, and if applicable, must be approved by the County Building Department.

3.10 The Project Manager will conduct inspections to determine the dates of Substantial Completion and Final Completion. The Project Manager will receive written guarantees and waivers and related documents required of and assembled by the Contractor, and, upon review by the design team, will recommend issuance of a final certificate of payment.

3.11 The duties, responsibilities and limitations of authority of the Project Manager as the County's representative during construction as set forth in these General Conditions will not be modified without written consent of the County which the modification will be shown to the Contractor.

3.12 The Project Manager will not be responsible for the acts or omissions of the Contractor, or any subcontractors, or any of its agents or employees, or any other persons performing any of the work.

Article 4 THE COUNTY.

4.1 The County shall not be held responsible for delays caused by the period of time during which the County Building Department or any other state or local government agency reviews change order requests, requests for information or submittals unless (and then only to the extent to which) the County caused the delay.

4.2 Information and Services:

4.2.1 The County shall furnish all existing surveys describing the physical characteristics, known utility locations, legal limitations, and a legal description of the Project site.

4.2.2 Except as provided herein, the County shall secure and pay for necessary approvals, easements, assessments, and charges required for the construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

4.2.3 The County shall forward all instructions to the Contractor through the Project Manager.

4.2.4 The County will reimburse the Contractor with no additional markup for all fees required by the County Building Department.

4.3 County's Right to Carry Out the Work. If the Contractor defaults or neglects to carry out any portion of the work for the Project in accordance with the Contract Documents and fails within seven (7) days after receipt of written notice from the County to commence and continue correction of such default or neglect with diligence and promptness, the County may, without prejudice to any other remedy it may have, make good such deficiencies. In such case, an appropriate change order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the additional services of the Architect, and Engineers, and other representatives and consultants made necessary by such default, neglect, or failure. If

payments then or thereafter due the Contractor are not sufficient to cover such amount, County shall have the right to recover the difference from the Contractor or its sureties.

4.4 Use of Completed Parts of the Work before Acceptance.

4.4.1 Prior to Substantial Completion, whenever the work or any part thereof is in a condition making use thereof possible, and the best interest of the County requires such use, the County may take possession of, connect to, open for public use, or use the work or a part thereof. When so used, maintenance and repairs due to ordinary wear and tear or vandalism will be made at the County's expense.

4.4.2 The use by the County of the work or part thereof as contemplated in this section shall in no case be construed as constituting acceptance of the work or any part thereof and shall not constitute Substantial Completion until the County may take Beneficial Occupancy, as such is defined in these General Conditions. Such use shall neither relieve the Contractor of any of its responsibilities under the Contract nor act as a waiver by the County of any of the conditions thereof. Contractor shall continue to maintain all required insurance on the Project.

Article 5 CONTRACTOR.

5.1 Review of Contract Documents.

5.1.1 The Contractor shall carefully study and compare the Agreement, general conditions, drawings, specifications, addenda and modifications and shall at once report to the Project Manager any error, inconsistency or omission it may discover. The Contractor shall do no work without proper drawings and specifications or interpretations. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Project Manager, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.

5.1.2 The County will not be responsible for the cost of delays related to Contractor's failure to submit complete RFIs, submittals, or requests for substitution in sufficient time to receive a response prior to commencement of the related work.

5.1.3 The Contractor shall perform all the work and activities required by the Contract Documents and furnish all labor, materials, equipment, tools and appurtenances necessary to perform the work and complete it to the County's satisfaction within the time specified. The Contractor shall at all times perform the work of this Contract in a competent and workmanlike manner and, if not specifically stated, accomplish the work according to the best standards of construction practice. The Contractor in no way is relieved of any responsibility by the activities of the Project Manager, Architect, Engineer, or County Building Department in the performance of such duties.

5.1.4 Contractor shall make the layout of lines and elevations and shall be responsible for the accuracy of both the Contractor's and the Subcontractors' work resulting therefrom. All dimensions affecting proper fabrication and installation of all Contract work must be verified by the Contractor prior to fabrication and installation by taking field measurements of the true conditions. The Contractor shall take, and assist Subcontractors in taking, all field dimensions required in performance of the work, and shall verify all dimensions and conditions on the site. If there are any discrepancies between dimensions in drawings and existing conditions which will affect the work, the Contractor shall promptly bring such

discrepancies to the attention of the Project Manager for adjustment before proceeding with the work. Contractor shall be responsible for the proper fitting of all work and for the coordination of all trades, Subcontractors and persons engaged upon this Contract.

5.1.5 Contractor shall do all cutting, fitting, or patching of Contractor's work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors as shown, or reasonably implied by, the drawings and Specifications for the completed work. Any cost incurred by the County due to defective or ill-timed work shall be borne by the Contractor.

5.2 Personnel.

5.2.1 The Contractor shall comply with Education Code Section 45125.2 regarding Contractor/Subcontractor personnel and pupil safety and Contractor will take, and will ensure that all subcontractors take, all measures mandated under section 45125.2. Contractor acknowledges that it has responsibility for Contractor's and all Subcontractors' compliance with this requirement and that failure to comply shall with this requirement shall be a material breach of this Agreement.

5.2.2 All persons working for Contractor and subcontractors on the Project will refrain from using profane or vulgar language, or any other language that is inappropriate if it were spoken by employees of the County, on the job site. Contractor will take all reasonable measures to ensure that its personnel and personnel of all subcontractors comply with this Section 5.2.2 of these General Conditions.

5.2.3 The Contractor shall employ a full-time, on site competent superintendent and necessary assistants who shall have complete authority to act for the Contractor on all matters pertaining to the work, who shall be designated in writing by the Contractor prior to commencement of work on the Project. The superintendent shall have a minimum of five (5) years of experience in construction supervision. The superintendent shall be satisfactory to the County and, if not satisfactory, shall be replaced by the Contractor with one that is acceptable. The superintendent shall not be changed without the written consent of the County unless the superintendent ceases to be employed by the Contractor.

5.2.4 The Contractor shall employ a competent estimator and necessary assistants, or contract for sufficient services of an estimating consultant who shall be designated in writing by the Contractor prior to commencement of work on the Project. The estimator shall have a minimum of five (5) years of experience in estimating. The estimator shall be satisfactory to the County and, if not satisfactory, shall be replaced by the Contractor with one that is acceptable. The estimator shall not be changed without the written consent of the County unless the estimator ceases to be employed by the Contractor.

5.2.5 The Contractor shall employ a competent scheduler and necessary assistants, or contract for sufficient services of a scheduling consultant who shall be designated in writing by the Contractor prior to commencement of work on the Project. The scheduler shall have a minimum of five (5) years of experience in scheduling. The scheduler shall be satisfactory to the County and, if not satisfactory, shall be replaced by the Contractor with one that is acceptable. The scheduler shall not be changed without the written consent of the County unless the scheduler ceases to be employed by the Contractor.

5.2.6 Contractor shall at all times enforce strict discipline and good order among Contractor's employees, and shall not employ on the Project any unfit person or anyone not skilled in the task assigned.

5.2.7 If Contractor or any subcontractor on the Project site fails to comply with any provision of this paragraph 5.2 of these General Conditions, the County may have the non-complying person(s) immediately removed from the Project site, and such person(s) shall be replaced, at no additional expense to the County, within three (3) days of such removal. Contractor, on behalf of it and its subcontractors, hereby waives any claim that the provisions of this paragraph or the enforcement thereof interferes, or has the potential to interfere, with its right to control the means and methods of its performance of its duties under this Contract.

5.3 Subcontractors.

5.3.1 Within ten (10) days of the date that the County executes the Agreement, the Contractor shall provide the Project Manager with signed contracts with all of its subcontractors (including those which need not be listed in the Bid), and a typed list of all subcontractors, which shall include the following information:

1. Address
2. Telephone and Facsimile numbers
3. Contractor's License Type and Number
4. Contractor's DIR Number
5. Contact Person
6. Portion of Work to be Performed
7. Subcontractor Bid Proposal
8. Contract Amount

5.4 The list shall be accompanied by proof of all required bonds to be carried by subcontractors.

5.4.1 If the Contractor elects to enter into any subcontract for any section of the work, the Contractor assumes all responsibility for ascertaining that the sub-contractor for the work is competent, solvent and thoroughly acquainted with all conditions of the work and has included all materials and appurtenances in connection therewith.

5.4.2 It shall be the responsibility of the Contractor to notify its Subcontractors of all portions of specifications or plans that the Contractor intends to include as part of the subcontract.

5.4.3 The Contractor shall insert the following language into all of its contracts with its subcontractors: "[Subcontractor's name] hereby warrants that it has reviewed all portions of [contractor's name]'s contract with the County, including all scheduling requirements. Such Contract Documents are hereby incorporated into this Agreement, and subcontractor shall be as responsible for carrying out the provisions thereof which relate to its scope of work as if it had contracted directly with the County."

5.4.4 The Contractor shall be responsible to its subcontractors for damages justifiably incurred by the subcontractors, including delay damages, except those which are caused by the action or inaction of that subcontractor or those with whom that subcontractor has contracted. The Contractor shall be responsible to the County for the acts and omissions of all employees, agents and all other persons performing any of the work on behalf of the Contractor or any subcontractor.

5.5 Communication Procedures.

5.5.1 The Contractor shall attend a mandatory Pre-Construction Conference, during which the County's Representative, Design Team, and Project Inspector shall review the Project reporting procedures and other requirements.

5.5.2 The Contractor shall meet weekly with the County's Representative, Design Team, and Project Inspector to review the project status. The Contractor shall provide copies of its superintendent's daily logs for the previous week, current project schedules and logs of outstanding submittals, requests for information, and requests for change orders (which shall include respective dates of submittal and required responses and shall designate the party whose response is pending).

5.5.3 The Project Manager will prepare minutes of the weekly construction meetings describing all agreements and commitments made (including who made them and when the commitments are to be fulfilled) and shall endeavor to distribute a copy to each required attendee, whether its representative attended or not, within three (3) days. Attendees will have two (2) days after receipt of the minutes to advise the Design Team of any difference in understanding of what occurred at the meeting.

5.5.4 When the Contractor sends correspondence regarding samples, submittals, or shop drawings, Contractor shall send them to the Project Manager who will forward them onto the appropriate party(ies).

5.6 The Contractor shall supervise and direct the work, using its best skill and attention. It shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Project under the Contract Documents.

5.7 Timing of Design Team Review.

5.7.1 The Contractor shall provide a revised and updated Priority Schedule with each RFI and submittal. The Priority Schedule shall include a listing of pending requests, including the most current request, ranked in order of priority.

5.7.2 The Project Manager shall endeavor to respect the Contractor's requested order of priorities. The total response time is subject to the complexity of the RFIs and submittals, the number of RFIs or submittals submitted concurrently and any re-prioritization by the Contractor.

5.7.3 The County will not be responsible for the costs of delays related to Contractor's failure to submit RFIs, submittals, or requests for substitution in sufficient time to receive a response prior to commencement of the related work.

5.8 Shop Drawings, Product Data, Samples and Similar Submittals.

5.8.1 Shop Drawings are drawings, diagrams, illustrations, schedules, and other data that is specifically prepared by the Contractor or a subcontractor, sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the work.

5.8.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the work.

5.8.3 Samples are physical examples, which illustrate materials, equipment or workmanship, and establish standards by which the work will be judged.

5.8.4 Shop drawings, product data, samples and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the work for which submittals are required the way the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents.

5.8.5 All submittals shall be forwarded to the Project Manager within thirty (30) days of issuance of the Notice to Proceed if not requested earlier in the scope of work or supplementary conditions document. Contractor must make any request for extension of this time period within this time for any incomplete submittal. Any such request must include a schedule reflecting the anticipated submission, which incorporates adequate time for review and procurement, so as not to impede progress of the Project.

5.8.6 The Contractor shall perform no portion of the work requiring submittal and review of shop drawings, product data, samples or similar submittals until the respective submittal has been approved by the Project Manager. All such work shall be in accordance with approved submittals. In the event Contractor makes substitutions in materials, equipment, or designs without approval of the County and Design Team, the Contractor shall remove the improper material and install the correct material and restore the area as if the unapproved substitution had never occurred.

5.8.7 By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor thereby represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the work, Schedule, and Contract Documents.

5.8.8 Samples which are of value after testing will remain the property of the Contractor.

5.8.9 All requests for substitution shall be submitted the Project Manager no fewer than ten (10) days prior to the bid date. The Contractor shall clearly identify any request for substitution and provide sufficient product data to facilitate review by the Design Team. No substitutions will be considered for any board-approved County standard items.

5.9 Requests for Information.

5.9.1 The Contractor shall review any request for information prior to submission to the Project Manager to ensure that the information requested in such RFI is not already provided in the Contract Documents. RFIs shall contain information regarding any potential cost or schedule impacts. RFIs shall come only from the Contractor and not from any subcontractor.

5.10 Whenever the Contractor arranges to work at night, or at any time when work is not usually in progress, or to vary the period during which work is carried out each day, it shall obtain advance approval from the County. Such work shall be done without extra compensation to the Contractor, and such additional inspection costs shall be chargeable to the Contractor providing such work is not performed at the request of the County to meet an earlier completion time than that established in the Agreement.

5.11 The Contractor shall maintain at the site for the County one stamped copy of all drawings, specifications, addenda, approved shop drawings, change orders, and other modifications, in good order and marked to record all changes made during construction, which shall be available to the County's Representative, Design Team, and Project Inspector. The drawings, marked to record all changes made during construction, shall be delivered to the County upon completion of the Project.

5.12 Review of the Contractor's submittals shall not:

1. relieve the Contractor of any of the Contractor's obligations;
2. constitute approval of safety precautions, construction means, methods, techniques or procedures;

3. relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has informed the Project Manager in writing of such deviation at the time of submission and the Project Manager has given written approval of such deviation; or

4. Indicate approval of an assembly of which the item is a component.

5.13 Temporary Office and Site Conditions.

5.13.1 The Contractor shall obtain County Approval for any space or area used for temporary facilities and staging requirements.

5.13.2 The Contractor shall obtain permits for, install and maintain in safe condition whatever scaffolds, hoisting equipment, barricades, walkways, or other temporary structures that may be required to accomplish the work or pursuant to State or local regulations. Such structures shall be adequate for the intended use and capable of safely accepting all loads that may be imposed upon them. They shall be installed and maintained in accordance with all applicable federal, state and local codes and regulations.

5.14 Portable chemical toilets or water closets and urinals shall be provided by the Contractor for the use of its employees, trade contractors, subcontractors and their employees; and in no case shall the permanent plumbing fixtures of buildings on the site be used for such purpose.

5.14.1 The Contractor shall promptly remove all such temporary facilities when they are no longer needed for the work or on completion of the project and shall make any necessary repairs caused by such use and removal.

5.14.2 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with any materials or equipment.

5.14.3 The Contractor will provide, at its expense, water and utilities, excluding telephone, including all connections and related charges.

5.14.4 The Contractor shall provide and maintain any and all facilities that may be required for dewatering in order that work may proceed on the project. If it is necessary for dewatering to occur continually, the Contractor shall have on hand whatever spare parts or equipment that may be required to avoid interruption of service.

5.14.5 The Contractor shall submit written request to the County for any utility shut downs no fewer than five (5) days prior to any utility (including, but not limited to, water, electricity, gas, and sewer) being disconnected or turned off, and shall inform the County of the anticipated duration of the unavailability of such utility.

5.15 Contractor's Safety Program.

5.15.1 Each Contractor who will perform work at the site shall prepare and submit to the County for general review a safety program, as required by the Contract Documents and all other governing laws and ordinances. The safety program, in addition to normal regulatory and statutory requirements of a safety program, will address the additional requirements to provide for the safety of anyone using the school site, to separate the construction area from the remaining school property, and to prohibit the use of school facilities by Contractor's employees unless specifically permitted otherwise.

5.15.2 The County, the Project Manager, the Design Team, and their representatives shall not be responsible for Contractor's implementation of or compliance with its safety programs, or for initiating, maintaining, monitoring or supervising the implementation of such programs or the procedures and precaution associated therewith, or for the coordination of any of the above with others at the site.

5.16 The Contractor shall perform all the work required by the Contract Documents and furnish all labor, materials, plant, equipment, tools and appurtenances necessary to perform said work and complete it within the time specified. The Contractor shall at all times perform the work of this Contract in a competent and workmanlike manner and, if not specifically stated, accomplish the work according to the best standards of construction practice.

5.17 Contractor shall do all cutting, fitting, or patching of its work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors as shown, or reasonably implied by, the Contract Plans and Specifications for the completed structure, and shall restore finishes to the satisfaction of the Project Manager. Any cost caused by defective or ill-timed work shall be borne by the party responsible therefore.

5.18 The Contractor shall cooperate and coordinate with technical inspection and testing required of other contractors.

5.19 The Contractor shall submit Verified Reports as defined in Sections 4-336 and 4-343(c), Group 1, Chapter 4, Part I, Title 24, and California Code of Regulations.

5.20 Instructions and Manuals.

5.20.1 Prior to Final Completion of the Project, the Contractor shall compile manufacturers' operations and maintenance manuals, warranties and guarantees, and certificates, and index into two (2) bound copies and one electronic copy in an organized manner. This information shall then be submitted to the Project Manager for approval within seven (7) days of Substantial Completion.

5.20.2 The Contractor shall instruct the County's personnel in the operation and maintenance of the more complex equipment incorporated into the Project prior to final acceptance of the Project.

5.20.3 Receipt of complete instructions and manuals by the Design Team is a condition precedent to release of payments by the County to the Contractor.

5.20.4 All manufacturers' application/installation instructions shall be given to the Project Manager at least ten (10) days prior to first material application or installation of the item.

5.21 The Contractor shall maintain at the work site a separate complete set of contract drawings which will be used solely for the purpose of recording changes made in any portion of the work during the course of construction, regardless of the reason for the change. As changes occur, there will be included or marked on this record set on a daily basis. Actual locations to scale shall be identified on the drawings for all runs of mechanical and electrical work, including all site utilities, etc., installed underground, in walls, floors, and furred spaces, or otherwise concealed. Deviations from the drawings shall be shown in detail. All main runs, whether piping, conduit, ductwork, drain lines, etc., shall be located in addition by dimension and elevation. Progress payments shall be withheld until such time as the record set is brought up to date.

5.22 The Contractor shall not unnecessarily interfere with use of any roadway, walkway or other facility for vehicular or pedestrian traffic at the Project site, by any party entitled to use it. Wherever such interference becomes necessary for the proper and convenient performance of the work and no satisfactory detour route exists, the Contractor shall, before beginning the interference, provide a satisfactory detour, temporary bridge, or other proper facility for traffic to pass around or over the interference, shall maintain it in satisfactory condition as long as the interference continues and shall coordinate and obtain the approval of the authority having jurisdiction over the affected right of way or property all without extra payment unless otherwise expressly stipulated in the Contract Documents.

5.23 Project Completion.

5.23.1 When the work to be performed under this Contract is completed to the point that the County can take Beneficial Occupancy, the Contractor shall notify the Project Manager in writing. The Contractor, Project Manager, Design Team, Project Inspector and subcontractor representatives shall thereafter inspect the work. As a result of this inspection, the Design Team will prepare a list of items that are incomplete or not installed according to the Contract Documents (the "punch list"). Failure to include items on this list does not relieve the Contractor from fulfilling all requirements of the Contract.

5.23.2 After receipt of the “punch list” the Contractor shall have seven (7) days to make good, correct or otherwise properly address all items. If it is not feasible to complete all items within the stipulated time the Contractor shall immediately submit in writing a request for time extension including an explanation for such request. Should the Contractor not complete all items within the allotted time the County reserves the right to perform the work per section Article 11 of the Agreement.

5.23.3 On completion of all items on the punch list, verified by a final inspection, and all other Contract requirements, the County will issue a Notice of Acceptance to the Contractor and file a Notice of Completion with the County Recorder.

5.23.4 If, through no fault of the County, more than one inspection is required to determine whether the punch list has been completed, the Contractor will be back charged for the costs of the County’s representatives’ time, at the rate of Seven Hundred Fifty Dollars ($750) per additional inspection.

5.23.5 Final cleaning, such as sweeping, dusting, vacuuming, dry and wet mopping, polishing, sealing, waxing and other finish operations normally required on newly installed work shall be taken to indicate the required finished conditions of the various new and existing surfaces at the time of acceptance. At the time of acceptance, all marks, stains, fingerprints, dust, dirt, splattered paint and blemishes resulting from the various operations shall be removed in all areas of the Project. Stair treads and risers shall be wet-mopped. Glass, new and existing, shall be left clean and polished both inside and outside. Plumbing fixtures and light fixtures shall be washed clean. Hardware and other unpainted metals shall be cleaned and all building papers and other temporary protections shall be removed throughout the building, or portion of the building where Contractor was involved. Finally, the exterior of the buildings shall be pressure-washed prior to Beneficial Occupancy and the play field, courts, streets and planting spaces shall be clean and in good order. Such measures shall be taken to the satisfaction of the Project Manager.

5.23.6 Prior to Final Completion of the Project, the Contractor shall submit one set of as-built drawings on a clean set of plans for the Project Manager review and Design Team approval. This information shall then be submitted to the Project Manager for approval within twenty-eight (28) days of substantial completion.

5.24 The Contractor and subcontractors shall investigate and become aware of the amount of time required for the manufacture and delivery of all equipment and materials required to perform the work under this Contract. No extension of time or damages shall be granted due to failure to order said equipment and materials sufficiently before their incorporation into the work so as to avoid delay to the Project.

5.25 The Contractor and subcontractors shall provide and maintain sufficient labor, materials, and equipment to ensure a rate of construction progress that will complete the Project within the time specified and according to the schedule of work. If, in the County's reasonable discretion, the Contractor and/or its subcontractors are not prosecuting the work at a sufficient rate of progress to meet the Project schedule, the County may direct the Contractor to (1) provide additional labor, materials or equipment; (2) work additional hours, holidays or weekends; and/or (3) contract with a Subcontractor without additional cost to the County until the work is progressing in a manner satisfactory to the County. Failure to prosecute the work in a timely manner and according to the Project schedule shall be a material breach of Contract and is cause for termination of the Contract pursuant to Article 10 of the Agreement between the parties.

5.26 If any person or subcontractor employed by the Contractor appears to the County to be incompetent, he shall be discharged immediately upon the request of the County, and such subcontractor or person shall not again be employed on the Project.

5.27 Contractor shall pay all sales, consumer, use and other similar taxes required by law and shall secure and pay for all permits, fees and licenses necessary for the execution of the Project.

5.28 The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by Contractor's operations. At the completion of the Project, Contractor shall remove all Contractor's waste materials and rubbish from and about the Project as well as Contractor's tools, construction equipment, machinery and surplus materials. If the Contractor fails to clean up, the County may do so and charge the cost to the Contractor.

Article 6 SEPARATE CONTRACTS.

6.1 County's Right to Award Separate Contracts.

6.1.1 The County reserves the right to award other contracts in connection with other portions of the Project under these or similar conditions.

6.1.2 When separate contracts are awarded for different portions of the Project, "the Contractor" in the Contract Documents in each case shall be the contractor who signs each separate contract.

6.2 Mutual Responsibility of Contractors.

6.2.1 The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work and shall properly connect and coordinate Contractor's work with theirs.

6.2.2 If Contractor's work depends for proper execution or results upon the work of any other separate contractor, the Contractor shall inspect and promptly report to the Project Manager any patent discrepancies or defects in such other work that render it unsuitable

for such proper execution and results. Failure of the Contractor to inspect and report such shall constitute acceptance of the other contractor's work as fit and proper to receive work.

6.2.3 If, through acts of negligence on the part of this Contractor, any other contractor or subcontractor shall suffer loss or damage to the work, this Contractor shall make a reasonable effort to settle with such other contractor and subcontractor. If such other contractor or subcontractor shall assert any claim against the County, the Project Manager, or Design Team, on account of any damage alleged to have been so sustained, the County, the Project Manager, or Design Team shall notify this Contractor which shall defend such proceedings at its own expense and indemnify and save harmless the County, Project Manager, and Design Team from any such claim.

6.3 Cutting & Patching Under Separate Contracts.

6.3.1 The Contractor shall do all cutting, fitting, or patching of work that may be required to fit it to receive or be received by the work of other contractors shown upon, or reasonably implied by, the Contract Documents. The Contractor shall not endanger any work of any other contractors by cutting, excavating or otherwise altering any work and shall not cut or alter the work of any other contractor except with the written consent of the Project Manager and Design Team.

6.3.2 Any costs caused by defective or ill-timed work shall be borne by the party responsible therefore.

Article 7 PERFORMANCE AND PAYMENT BONDS.

7.1 In order to ensure that any Change Order work will be as fully bonded as work envisioned under the original Contract Documents, the Contractor shall provide, within five (5) days of the Execution Date of the Agreement, written proof, satisfactory to the County, that (1) it has pre-reserved bonding capacity in the amount of One Hundred Fifteen Percent (115%) of the Contract amount; or (2) its bonding company will bond any Change Order work which may be added to the Contract.

7.2 During the period covered by the Contract, if any of the sureties upon the bonds shall become insolvent or unable, in the opinion of the County, to pay promptly the amount of such bonds to the extent to which surety might be liable, the Contractor, within ten (10) days after notice given by the County to the Contractor, shall provide supplemental bonds or otherwise substitute another and sufficient surety approved by the County in place of the surety becoming insolvent or unable to pay. If the Contractor fails within such ten (10) day period to substitute another and sufficient surety, the Contractor shall, if the County so elects, be deemed to be in material breach of the Agreement and to be in default with respect to the payment bond, and the County, in addition to any and all other remedies, may terminate the Contract or bring any proper suit or other proceedings against the Contractor and the sureties or any of them, or may deduct from any monies then due or which thereafter may become due the Contractor under the Contract, the amount for which the surety, insolvent or unable to pay as aforesaid, shall have justified on the bonds, and the monies so deducted shall be held by the County as collateral security for the performance of the conditions of the bonds.

7.3 Corporate sureties on these bonds and on bonds accompanying bids must be admitted surety insurers as defined in California Code of Civil Procedure section 995.120(a), legally authorized to engage in the business of furnishing surety bonds in the State of California.

All sureties and bond forms must be satisfactory to the County. Bond forms are furnished herewith.

Article 8 PAYMENTS AND COMPLETION.

8.1 Before the first application for payment, the Contractor shall submit to the Project Manager a schedule of values of the various portions of the Project, including quantities aggregating the total Contract Sum set forth in Article 5 of the Agreement, divided so as to facilitate payments to subcontractors, prepared in such form as specified, supported by such substantiating data as the Project Manager may require. Each item in the schedule of values shall include its proper share of overhead and profit. The schedule, when approved by the Project Manager and Design Team, shall be used as a basis for the Contractor's applications for payment under the terms of the Agreement. Should any scope of work be later deleted in its entirety by Change Order, the value of that work shall be as stated in the schedule of values.

8.2 Progress Schedules.

8.2.1 Contractor shall, prior to commencing construction and with each application for payment, submit to the Project Manager a Critical Path Method (CPM) schedule for the remainder of the Project showing anticipated beginning and ending dates for all critical path activities and the logical connection between and among such activities. Any changes in logic on subsequent schedules must be noted.

8.2.2 If Contractor wishes to construct the Project in a shorter period of time than that stated in Article 4 of the Agreement, any difference between the Contractor's desired performance period and the stipulated performance period shall be incorporated into the schedule as float.

8.2.3 Either party responsible for an event or condition which delays the Project shall be entitled to take advantage of any remaining float in the Contractor's Progress Schedule.

8.2.4 Submission of schedules pursuant to this paragraph is a condition precedent to payment. Even if Contractor does not submit a Progress Payment Request, it must submit all other documents which are required to be submitted with the Request at the designated time.

8.3 Releases.

8.3.1 The Contractor shall submit the following with each specified application for payment.

8.3.1.1 Progress Payment. Contractor shall submit the following documents in support of all applications for a progress payment:

- Application for Payment on the standard AIA Form. (Each Application for Payment shall be consistent with previous applications and payments as certified by the Design Team and shall include any the signatures of the Project Manager and Project Inspector.)
- A conditional waiver and release upon progress payment from the General Contractor.
- An unconditional waiver and release upon progress payment from the General Contractor and, when requested, the General Contractor must supply an unconditional waiver and release for each subcontractor.
- Schedule of Values.

- Certified Payroll for the General Contractor and all Subcontractors MUST be submitted as required under section 16461 of Title 8 of the California Code of Regulations and as may be required by any additional County and Project-specific requirements, which the County will inform Contractor of. As required under section 16461(b) of Title 8 of the California Code of Regulations, certified payroll for state funded projects shall be submitted to the Department of Industrial Relation's Compliance Monitoring Unit at least monthly. The County and/or the Owner's Representative will detail in writing any additional submittal requirements and such additional requirements shall be deemed incorporated herein by reference. Certified Payroll cannot be more than two weeks in arrears for each payment application submitted. At the end of the Project ALL certified payroll must be submitted before Final Retention is released. Contractor will cooperate with any efforts by the Compliance Monitoring Unit to confirm the accuracy of payroll records submitted by Contractor and will include in its contracts with subcontractors a requirement that such subcontractors will likewise cooperate.

Note: The Contractor understands and agrees that it is required to retain copies of all certified payroll records for this Project for a minimum of 3 years after project completion and the Contractor will include in its contracts with all subcontractors a requirement that they retain certified payroll records for this Project for a minimum of three years after project completion.

8.3.1.2. Final Progress Payment. Contractor will submit the following in support of an application for Final Progress Payment:

- All of the above documents listed as required under Section 8.3.1.1., above, for a "Progress Payment".
- A Conditional waiver and release upon FINAL progress payment from Contractor and each subcontractor.

8.3.1.3. Retention Payment. A Notice of Completion (NOC) will be filed after the County approves the Project as complete. Retention may be released, at a minimum, 31 days after filing of the NOC with the County Recorder.

- All of the above documents listed above under Section 8.3.1.1. as required for a "Progress Payment." (Note: Payment application MUST note "Final Retention")
- If an Escrow Account has been set up, a letter to the Escrow holder, requesting release of funds, MUST accompany this application.
- An Unconditional waiver and release upon FINAL progress payment from the Contractor and release of liens evidenced by an Affidavit of Release of Liens (see below).

<u>The following Notarized Affidavits MUST be submitted with the Final Retention Payment Request</u>

- Contractor's Affidavit of Release of Liens.
- Contractor's Affidavit of Payment of Debts and Claims.
- Consent of Surety Company to Final Payment
- Affidavit from the General Contractor certifying that during ALL payroll periods for ALL personal employed by Contractor under this project have been paid the

specified prevailing rate as per diem wages and any amounts due pursuant to Section 1813 of the California Labor Code

8.3.2 An Affidavit, signed by each subcontractor, under penalty of perjury, that the subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees on this public works project and any amounts due pursuant to Section 1813 (LC1775 (b)(4))

8.3.3 If the Contractor is unable to comply with paragraph 8.3 for an individual subcontractor due to a dispute about the subcontractor's quality of work or scope of work, the Contractor shall submit a statement to the Project Manager stating such, in lieu of that Waiver and Release.

8.4 Payments Withheld.

8.4.1 The Project Manager, Design Team, or County may also decline any applications for payment or, because of subsequently discovered evidence or subsequent inspections, may nullify the whole or any part of any certificate of payment previously issued to such extent as may be necessary, in its opinion to protect the County from loss because of, but not limited to:

1. defective work not remedied;
2. reasonable doubt that the Project can be completed for the unpaid balance of the Contract Sum;
3. reasonable indication that the Project will not be completed within the contract time;
4. unsatisfactory prosecution of the work by the Contractor;
5. Contractor's failure to pay subcontractors or materialmen;
6. damage to another contractor;
7. failure to provide waivers, schedules, labor compliance and other required documentation; or
8. Breach of any provision of the Contract Documents.

8.4.2 When any of the factors listed in Article 8.4 of these General Conditions resulting in withholding of payment is satisfactorily addressed by the Contractor, payment shall be made for amounts withheld because of them.

8.4.3 The granting of any progress payment or payments by the County or the receipt thereof by the Contractor, shall not constitute acceptance of the work or of any portion thereof, and shall in no way lessen the liability of the Contractor to replace unsatisfactory work or material.

8.4.4 It is mutually understood and agreed that when under any provision of this Agreement the County shall charge any sums of money against the Contractor, the amount of such charge shall be deducted and retained by the County from the amount of the next succeeding progress estimate, or from any other monies due or that may become due the Contractor on account of the Agreement. If on completion or termination of the Agreement such monies due the Contractor are found insufficient to cover the County's charges against it, the County shall have the right to recover the balance from the Contractor or its sureties.

8.5 Completion and Final Payment. Upon receipt of written notice that the Project is ready for final inspection and acceptance, and upon receipt of a final application for payment, less

retention, the Project Manager, Project Inspector, and Design Team will promptly make such inspection. When the Project Manager finds the Project acceptable under the Contract Documents and the Agreement fully performed, the Project Manager will process the Contractor's final pay application and include a statement indicating that to the best of its knowledge, information, and belief, and on the basis of observations and inspections, the Project has been completed in accordance with the terms and conditions of the Contract Documents and that it recommends payment of the remainder of the Agreement balance.

Article 9 PROTECTION OF PERSONS AND PROPERTY.

9.1 Until Substantial Completion of the Project, the Contractor shall have the charge and care of all work, complete or incomplete, permanent or temporary, and of the materials to be used therein, including materials for which it has received partial payment.

9.2 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury, or loss to the following until the work is accepted by the County:

1. all employees of the Contractor, subcontractors of every tier, and their respective agents, officers, employees or representatives on the Project and all other persons who may be affected thereby;

2. all the work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Contractor, its subcontractors, sub-subcontractors or their officers, agents or employees; and

3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

9.3 If the Contractor encounters any facilities or utilities not shown on the drawing or reasonably inferable therefrom, it shall promptly notify the Project Manager, and it shall do no further work which may cause damage to same.

9.4 If it is determined that some action needs to be taken regarding facilities not shown, the Contractor will be given directives on what action to take, and any additional cost to the Contractor incurred thereby will be addressed through Change Order.

9.5 The Contractor shall obtain permits for, install and maintain in safe condition all barricades, walkways, fences, railings, and whatever other safeguards that may be necessary to protect persons and property from damage as a result of the construction under this Agreement.

9.6 Contractor shall not endanger any Project Work by cutting, excavating, or otherwise altering the Work and shall not cut or alter the work of any other Contractor except with the written consent of the Project Manager and the Design Team, nor overload any new or existing structures by the placing or storage of materials, equipment, or other items thereon. If necessary, Contractor shall provide calculations proving the safety in so doing.

9.7 If it is necessary to work at night, or where daylight is obscured, the Contractor shall provide and maintain lighting of adequate level to properly prosecute the work and to permit thorough inspection of same.

9.8 Contractor shall take extraordinary care to prevent fires and keep all flammable materials and oily rags in tightly closed metal containers. Contractor shall exercise particular care when welding or cutting, and with regard to the disposition of waste materials, the nature and quantity of which might create or increase a fire hazard.

9.9 The Contractor and each subcontractor of every tier shall supply to their respective employees and, where site is occupied, to the County, copies of Material Safety Data Sheets for hazardous substances that may be used in the course of the work, together with notice of actual hazardous substances to which employees may be exposed while performing work and appropriate protective measures.

9.10 Contractor shall secure the site, as well as all doors and windows thereon, prior to leaving the site each work Day. If Contractor fails to do so, the County may secure the site, doors, and windows itself, and may back charge Contractor for its associated costs.

9.11 When the Contractor's superintendent is not on site, the County may take all necessary steps to affect required emergency work and may back charge Contractor for the costs of such work.

9.12 Unless caused by the County's willful act or sole negligence, the Contractor shall rebuild, repair, restore, and make good all injuries, losses, or damages to any portion of the work or the materials occasioned by any cause before its Final Completion and acceptance and shall bear the expense thereof. Should improper work of any trade be covered by another and damage or defects result, the whole work affected shall be made good to the satisfaction of the Project Manager, Design Team and the County without expense to the County.

9.13 Upon commencement of work and until Substantial Completion, Contractor assumes all risk of loss or damage to the Project arising from any cause save the sole negligence of the County.

Article 10 CHANGE ORDERS.

10.1 In addition to any statement governing change orders elsewhere in the Contract Documents, the Contractor and the County agree that changes in the Agreement or in the Project to be done under the Agreement shall become effective only when written in the form of supplemental agreement or change order and approved and signed by the Project Manager, the Design Team, and the Contractor and approved by the County and the County Building Department as applicable.

10.2 All Contractors are warned against acting on verbal instructions. If verbal instructions are necessary for expediting the work and are accepted by the Contractor, it shall then be the responsibility of the Contactor to obtain written instructions of the work involved conforming to the verbal instructions from the Project Manager issuing such verbal instructions. No work will be accepted by the County that differs from the Plans and Specifications that has not been approved pursuant to the required written approvals.

10.3 The Contractor shall not be entitled to any adjustment of the Contract Sum or Contract Time for extra work, without prior written approval or directive from the Design Team and/or the Project Manager. Failure to agree on an adjustment of the Contract Sum or Contract Time shall not excuse the Contractor from proceeding with the execution of the work as changed. If there is no agreement on cost, a construction change directive may be issued approving or directing that the work be compensated on a Force Account basis.

10.4 It is specifically agreed that the County shall have the right to direct any alterations, deviations, reductions, or additions to the Contract Documents and the amount of the cost thereof shall be added to or deducted from the amount of Contract Sum by fair and reasonable valuations.

10.5 If the Contractor wishes to make a claim for an increase in the Contract Sum, it shall submit a complete itemized estimate to the County written within seven (7) days after the occurrence of the event giving rise to such claim for increase. This Request for Change Order shall be given by the Contractor before proceeding to execute the work, except in an emergency endangering life or property. Failure to present such claim within the stipulated timeframe constitutes a waiver of such claim. Any change in the Contract Sum resulting from such claim shall be authorized by written Change Order.

10.6 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be assumed by inspection, shall be accompanied by a complete itemization of costs including labor, materials and subcontracts. Labor and materials shall be itemized in a manner deemed acceptable by the Project Manager. Where major cost items are subcontracts, they shall be itemized also with backup documentation.

10.7 In determining the cost of any additive change order, Contractor agrees that the percentage markup for all overhead and profit shall be calculated as follows:

10.7.1 If the Contractor performs the work with its own forces, its percentage markup for overhead and profit shall not exceed fifteen percent (15%) of its hard costs.

10.7.2 If the Contractor performs the work through a subcontractor that is not owned or controlled by it, its percentage markup shall not exceed five percent (5%) of its subcontractor's hard costs for such work.

10.7.3 If the Contractor performs the work through a subcontractor that is not owned or controlled by it, subcontractor's percentage markup shall not exceed ten percent (10%) of its subcontractor's hard costs for such work.

10.7.4 The total percentage markup on any change order shall not exceed fifteen percent (15%) of the actual cost of such work.

10.7.5 The above percentage markups for overhead and profit (including that for work performed by subcontractors) are understood to include Contractor's and subcontractor's site supervision costs, home office overhead, profit margin, insurance, general conditions, small tools, consumables, and all other factors. The actual cost of additional bond capacity, not to exceed two percent (2%) of the increased value of the Contract, shall be added to change orders.

10.8 Direct Cost of Materials: For all materials purchased by the Contractor and used in this specific Work, it shall receive the actual cost of such materials including freight charges, as shown by original receipted invoices for materials and freight.

10.8.1 If the actual costs, in the opinion of the Project Manager and/or Design Team, are excessive, or if the Contractor does not furnish satisfactory evidence of the cost of such materials from the actual supplier thereof, then the cost of such materials shall be deemed to be the lowest current wholesale price at which such materials are available in the quantities concerned delivered to the job site.

10.9 Direct Labor Costs: For all craft labor and foremen engaged in the specific operation, the Contractor shall receive the wage prevailing and paid on the project for each and every hour that said labor and foremen are actually engaged in such work, an amount equal to the Contractor's cost of Workmen's Compensation Insurance, Social Security taxes, Public Liability and Property Damage Insurance, and any and all fringe benefit costs required by prevailing wage agreement.

10.10 Direct Equipment Costs: For any machine, apparatus, or equipment which shall be deemed necessary or desirable to use, the Contractor shall be allowed a reasonable rental price, which shall be approved in writing before commencing such work, for each and every hour that said machinery, apparatus, or equipment is in use on such work.

10.10.1 Rental rates shall be deemed to include the cost of fuel, oil, lubrication, supplies, brooms or brushes, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, bonds and all incidentals.

10.10.2 A reasonable rental price for non-rented equipment will be the rental rates listed for such equipment in the California Department of Transportation publication entitled Labor Surcharge and Equipment Rental Rates (hereinafter "State Rental Rates"), which is in effect on the date upon which the work is accomplished. If it is deemed necessary to use equipment not listed in said publication, a suitable rental rate for such equipment shall be established by the Project Manager. The Contractor may furnish any cost data which might assist the Project Manager in the establishment of such rental rate.

10.10.3 A reasonable rental price for rented equipment shall be based on the actual and reasonable hourly rate shown on the rental agency invoice or agreement for the time used on force account work. If a minimum equipment rental amount is required by the local equipment rental agency, the actual amount charged will be paid to the Contractor. Approval for payment of rental equipment will be based on Contractor's paid vouchers approved by the Project Manager and Design Team. If the Contractor does not furnish satisfactory evidence of the cost of the use of such equipment, the cost then shall be determined by the Project Manager and Design Team as the lesser of (a) the rental rates listed for the equipment in the State Rental Rates, or (b) the rental rates for such equipment prevailing in the locality from local equipment rental agencies.

10.10.4 Individual pieces of tools or equipment not listed in said publication and having a replacement value of $500.00 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore.

10.10.5 Time for the rental period of equipment already on site shall be based on the time the equipment is in operation on the subject work being performed. Moving time, loading and transporting costs will not be paid for if the equipment is used at the site of the subject work for other than such subject work, unless in the determination of the Project Manager and Design Team, the payment would cover costs that the Contractor would not otherwise have incurred.

10.10.6 Time for the rental period for equipment not already on the site shall begin at the time the equipment is unloaded at the site, shall include each day that the Contractor reasonably has the equipment at the site, excluding Saturdays, Sundays, and legal holidays unless the equipment is used to perform the subject work on such days, and shall terminate at the earlier of the end of the day on which the work for which the equipment is reasonably required to be present is completed and the end of the day on which the Project Manager and/or Design Team directs the Contractor to discontinue the use of such equipment. When hourly rates are listed in the State Rental Rates, Contractor shall be paid a minimum

of four (4) hours. When daily rates are listed in the State Rental Rates, Contractor shall be paid (i) 1/2 day if the equipment is not used, and (ii) one day if the equipment is used.

10.10.7 Contractor shall be entitled to no payment for any cost associated with any temporary or permanent equipment breakdown, including without limitation costs of transportation for repair purposes or costs of repair and replacement parts. Contractor, however, shall be entitled to payment for time of actual use of any equipment substituted for equipment subject to breakdown, and for moving the substitute equipment. In computing the time to be paid for equipment, the Project Manager and/or Design Team shall not count any period of delay caused by equipment breakdown, and to the extent feasible, shall merge into a single period the time of use before breakdown and the time of use thereafter of the repaired equipment or any substitute equipment.

10.11 The value of any work resulting from a change order shall be determined in one or more of the following ways:

10.11.1 By Contractor's estimate with a detailed breakdown showing labor, materials profit and overhead. Such estimates shall be promptly provided upon receipt of a change request and in no case more than ten (10) days after the change is issued.

10.11.2 By unit price stated in the Contract or subsequently agreed upon;

10.11.3 By cost and the percentage allowed by this Contract or by cost and a fixed fee.

10.12 If none of the above methods mentioned in section 10.11 of these General Conditions is agreed upon, the Contractor, provided it received a written order to proceed from the Project Manager, shall proceed with the work. The cost of such work shall then be determined by the County. In such case, the Contractor shall keep and present in such form as the Project Manager and/or Design Team may prescribe, an itemized accounting together with appropriate supporting data as may be required by the Project Manager or Design Team.

10.13 If the Contractor disagrees as to the amount to be paid for the work performed pursuant to the Change Order, the Contractor shall give to the County written notice of its disagreement, the basis therefore, and all supporting documentation within ten (10) days after delivery to the Contractor of the Project Manager's determination of cost. Such notice of disagreement does not excuse performance by the Contractor of all obligations under the Contract Documents and the Contractor shall proceed with the work. Payments shall be made to the Contractor based on the County's or Design Team's determination of cost. Failure to present such notice of disagreement constitutes a waiver by the Contractor of any entitlement to additional cost above the amount determined by the Project Manager and/or Design Team.

10.14 Force Account. If it is impossible, because of the nature of the work, or for any other reason, to fix an increase in price in advance, the Change Order may fix a maximum price and time extension period, which shall not under any circumstances be exceeded.

10.14.1 Subject to such limitation, such alteration, modification or extra shall be paid for at the actual necessary cost as determined by the sum of the following items 1 to 5, inclusive:

1. Labor, computed at prevailing wage rates, plus related tax(es);

2. Material, including sales taxes and other taxes pertaining to materials;

3. Necessary plant and equipment rental;

4. Overhead and profit computed as indicated under 10.2; and

5. The proportionate cost of premiums on bonds, computed as indicated under section 10.7.5 of these General Provisions, of the total Items 1 to 4, inclusive.

10.14.2 At the end of each day, the Contractor and the Project Manager shall compare records of extra work which is compensated on a force account basis. Said reports shall become the basis of payment for the work performed, but shall not preclude subsequent adjustment based on a later audit by the County.

10.14.2.1 The daily force account work reports shall be on forms satisfactory to the Project Manager and Design Team, and itemize the materials, state the direct cost of labor, state equipment used or on site and its direct cost. Separate daily force account work reports shall be submitted for Contractor and each subcontractor for each separate item of force account work.

10.14.2.2 The daily force account work reports shall show names or identifications, classifications or workers, the hourly rate of pay and hours worked, and the size, type and identification number of equipment, whether the equipment is rented, the time the equipment is on-site and hours the equipment was operated.

10.14.2.3 Material charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily force account work reports, or if not available, they shall be submitted with subsequent daily force account work reports or as soon thereafter as may be practicable. Should said vendor's invoices not be submitted within 50 days after the date of delivery of the material or within 15 days after completion of the work under this Agreement, whichever occurs first, the County reserves the right to establish the cost of such materials at the lowest current wholesale prices at which said materials are available in the quantities concerned delivered to the work on the date of delivery.

10.14.2.4 Rented equipment charges shall be substantiated by valid copies of lessor’s invoices. Such invoices shall be submitted with the daily force account work reports, or if not available, they shall be submitted with subsequent daily force account work reports or as soon thereafter as may be practicable Should a leaser's invoice not be submitted within 60 days after the last day of use on the job site of rented equipment which would be covered by such invoices, or within 15 days after completion of the work of the contract, whichever occurs first, the County reserves the right to establish the cost of use of the rented equipment as the lesser of (a) rental rates listed for the equipment in the State Rental Rates, and (b) the rental rates for such equipment prevailing in the locality.

10.14.3 The Contractor's cost records pertaining to work paid for on a force account basis shall be open to inspection and/or audit by representatives of the County during the life of the contract and for a period of three years after the date of acceptance thereof, and the Contractor shall retain such records for that period. Where payment for materials or labor is based on the cost thereof to forces other than the Contractor, the Contractor shall make every reasonable effort to ensure that the cost records of such other forces will be on the same terms and conditions as the cost records of the Contractor. If an audit is to be commenced more than 60 days after the acceptance date of the contract, the Contractor will be given a reasonable notice of time when such audit is to begin

10.15 Contractor shall provide the Project Manager and Design Team with all information requested to substantiate the cost of the change order and to inform the Project Manager and Design Team whether the work will be done by the Contractor or a subcontractor.

10.16 The Contractor shall submit with the proposed change order its request for time extension (if any), and include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the Project. In the event of an agreed upon extension of time, the Contractor shall not be subject to any claim for liquidated damages for this period of time, but the Contractor shall have no claim for any compensation for any such delay other than that set forth in the change order itself.

10.17 If the Contractor believes it is entitled to a change order for work it is being required to perform, or is entitled to an extension of time greater than that agreed to by the County, and the County refuses to issue a change order or include the requested extension of time in the change order, Contractor must, at least twenty-four (24) hours prior to commencing the disputed work, inform the County of the reason for the dispute and the amount of the requested change order. No change order will later be approved, or compensation made, for work performed without such prior notice to the County.

10.18 No change or modification by Change Order shall release or exonerate any surety upon any guarantee or bond given in connection with the Contract Documents.

10.19 All Change Orders must comply with the procedures and obtain the approvals required by Title 24 of the California Code of Regulations, section 4-338.

Article 11 DELAYS AND TIME EXTENSIONS.

11.1 The date of completion of Project or designated portion thereof is the date certified by the Design Team when construction is complete and in accordance with the Contract Documents.

11.2 If the Contractor seeks an extension of time, it must present the request to the County within five (5) calendar days of the commencement of the act or occurrence of the event causing the delay that gives rise to the need for extension. The Contractor's failure to provide notice of such a request within the stipulated timeframe constitutes a waiver of such claim.

11.3 Requests for extensions of time must:

11.3.1.1 include a revised schedule, as described in paragraph **8.2.1**, showing the effect of the delaying event; and

11.3.1.2 document all damages incurred or to be incurred by the Contractor as a result of such delay.

11.3.2 In order to document damages, the Contractor and its subcontractors must provide or make available all of its correspondence, bid-related documents, accounting records, superintendent's records, payroll documents, and other pertinent data relating to the Project.

11.4 The Contractor may be granted a time extension if it encounters an Excusable Delay of the work. For purposes of the Agreement and these General Conditions, an “Excusable Delay” is defined as a delay which occurs due to causes completely beyond the control of the

Contractor and which it could not have avoided by the exercise of reasonable care, prudence, foresight and diligence.

11.4.1 Excusable Delays: Excusable Delays are any acts of the public enemy, act of God, fire, strike, lockout or commandeering of materials, products, plants, or facilities by the Government, acts of another Contractor in the performance of another contract with the County, action or inaction on the part of the County Building Department, priority of a governmental agency for materials or equipment, flood, violent wind storm, epidemic, quarantine restriction, or freight embargo. The financial inability of the Contractor or any subcontractor and default of any subcontractor, without limitation, shall not be deemed conditions beyond the Contractor's control and are therefore not Excusable Delays. The Contractor will not be granted time extensions for weather conditions. Excusable Delays shall be grounds for an extension of time, measured in length by the amount of delay to the Project actually suffered by Contractor as a result thereof, but shall not be grounds for any increase in compensation to the Contractor, whether for home, office, general or administrative expenses, field expenses, increased costs of materials or labor, or any other thing.

11.4.2 Compensable Delay: Compensable Delays are, for purposes any delay of the completion of the work beyond the expiration date of the Contract Time caused by the gross negligence or willful acts of the County, Project Manager, or Design Team, and which delay is unreasonable under the circumstances involved, and not within the contemplation of the parties. A Compensable Delay may entitle the Contractor to an extension of the Contract Time and/or increase in the Contract Sum. Except as provided herein, the Contractor shall have no claim for damage or compensation for any delay, interruption, hindrance, or disruption.

11.4.3 Inexcusable Delay: Inexcusable Delays are any delays of the completion of the Project beyond the expiration of the Contract Time resulting from causes other than those listed above. An Inexcusable Delay shall not entitle the Contractor to an extension of the Contract Time or an adjustment of the Contract Sum.

11.5 The Contractor may make a Claim for an extension of the Contract Time, for an Excusable Delay or a Compensable Delay, subject to the following:

11.5.1 If an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract Time shall be the number of days from the commencement of the first delay to the cessation of the delay which ends last.

11.5.2 If an Inexcusable Delay occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract Time shall be the number of days, if any, by which the Excusable Delay or the Compensable Delay exceeds the Inexcusable Delay.

11.5.3 If an Inexcusable Delay occurs concurrently with both an Excusable Delay and a Compensable Delay, the maximum extension in the Contract Time shall be the number of days determined pursuant to Subparagraph (a) exceeds the number of days of the Inexcusable Delay.

11.5.4 For a Compensable Delay, the Contractor shall only be entitled to an adjustment in the Contract Sum in an amount equal to the actual additional labor costs, material costs, and unavoidable equipment costs incurred by the Contractor as a result of the Compensable Delay, plus the actual additional wages or salary and fringe benefits and payroll taxes of supervisory and administrative personnel necessary and directly employed at the Project site for the supervision of the work during the period of Compensable Delay. Except as

provided herein, the Contractor shall have no claim for damage or compensation for any delay, interruption, hindrance, or disruption. There shall be no Compensable Delay unless the event or occurrence giving rise to the Compensable Delay extends the actual completion of the Project past the Contract Time.

11.6 Regardless of the cause of a delay the Contractor may not maintain any claim or cause of action against the County for damages incurred or claimed to be incurred as a result of Contractor's failure or inability to complete its work on the Project in a shorter period than established in this Agreement, the parties stipulating to such period as a reasonable time within which to perform the work on the Project.

11.7 Compliance with this Article is a condition precedent to the County's duty to pay for damages incurred by the Contractor as a result of delays.

Article 12 DISPUTES.

12.1 If a dispute arises between the County and the Contractor as to an interpretation of any of the specifications or Contract Documents or as to the quality or sufficiency of materials or workmanship, the decision of the County shall for the time being prevail, and the Contractor, without delaying the job, shall proceed with all work to be performed under the Contract as directed by the County without prejudice to a final determination of the dispute.

12.2 All claims against the County must be filed by the Contractor in writing. The Contractor must include all documents necessary to substantiate that claim.

12.3 The Contractor shall not be entitled to the payment of any additional compensation for any act or failure to act on the part of the County or its representatives, including failure or refusal to issue a change order, or for the happening of any event, thing, occurrence, or other cause, unless it shall have given the County due written notice of potential claim, in the manner described in paragraphs 11.2 and 12.4.

12.4 The written notice of potential claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible, and the amount of the potential claim. The said notice as above required must be given to the County prior to the time that the Contractor performs the work giving rise to the potential claim for additional compensation, if based on an act or failure to act by the County, and in all other cases, within five (5) days after the happening of the event, thing, occurrence, or other cause, giving rise to the potential claim. Notwithstanding this paragraph, if another provision of these General Conditions specifies that a notice of claim must be given to the County in a shorter period of time, that shorter time period shall prevail.

12.5 In resolving all claims, whatever the amount of the claim, the parties shall proceed pursuant to the terms of California Public Contract Code section 20104, *et seq*.

Article 13 WARRANTY OF SUPPLIES, EQUIPMENT AND RELATED SERVICES.

13.1 In addition to warranties called for elsewhere in these specifications, Contractor shall warranty all work and materials, for a minimum period of at least two (2) years after recordation of Notice of Completion, against defective material or faulty workmanship that may arise within that period.

13.2 Additionally, the Contractor agrees to repair or replace, to the satisfaction of the County, any and all such work that may prove defective in workmanship or materials within that

period, ordinary wear and tear and unusual abuse or neglect excepted, together with any other work which may be damaged or displaced in so doing. If the Contractor fails to comply with the above-mentioned conditions within five (5) calendar days after being notified in writing, the County may have the defects repaired and made good at the Contractor's expense and the Contractor will pay the costs and charges incurred by the County as a result, including the costs for additional services of the County's Project Manager, Design Teams, engineers, and other representatives, immediately upon demand. Any and all warranties and guarantees offered by manufacturers of equipment used or installed in the Project shall also be extended to the County.

13.3 Notwithstanding inspection and acceptance by the Design Team of all supplies, equipment and related services furnished under the Agreement, the Contractor warrants that:

1. All supplies, equipment and related services under the Agreement will be free from defects in material or workmanship and will comply with the specifications of the Agreement; and

2. All aspects of the shipment of the supplies and equipment related to the Agreement will conform to the specifications of the Agreement.

13.4 Within a reasonable time, the County may either:

1. By written notice, require the prompt correction or replacement of any supplies, equipment or related services that are defective, or that are not shipped in accordance with the specifications of the Agreement, or that otherwise do not conform to the Agreement; or

2. Retain such defective, improperly shipped, or otherwise nonconforming supplies, equipment and related services; whereupon the contract sum shall be reduced by an amount that is equitable under the circumstances and the Contractor shall promptly make appropriate repayment.

13.5 When correction or replacement is required, the County may return such supplies, equipment and related services. Transportation charges and risk of loss or damage for such quantities returned while in transit shall be borne by the Contractor.

13.6 If the Contractor fails to correct or replace the nonconforming supplies, equipment or related services within ten (10) days (or such longer period if so specified by the County in writing) after receipt of notice specifying such failure, the County may, by contract or otherwise, correct or replace them with supplies, equipment and related services of similar quality, at the expense of the Contractor. If the Contractor fails to furnish timely disposition instructions, the County may dispose of the defective, improperly shipped or otherwise nonconforming supplies, equipment and related services in a reasonable manner. In such case, the County is entitled to reimbursement for the costs related to disposition from the Contractor and/or from any proceeds generated by the disposition of such supplies, equipment and related expenses.

13.7 Any replacement supplies, equipment or related services furnished by the Contractor to remedy a defect or nonconformity under the warranty shall also be covered by the terms of the warranty.

13.8 The Contractor shall indicate the total period of the warranty after the supplies, equipment and related services are placed into service. Any defects shall be promptly corrected by the Contractor to the satisfaction of the County and without expense to the County.

13.9 Warranty of Title. The Contractor warrants that title to all work, materials or equipment included in a request for payment shall pass over to the County whether or not they are installed or incorporated in the Project, free from any claims, liens or encumbrances, when such payment is made to the Contractor. It further warrants that no such work, materials or equipment have been purchased for work under the Agreement subject to an agreement by which an interest therein or an encumbrance thereon is retained by the seller or supplier. Notwithstanding this provision, the Contractor retains the responsibility for full replacement of any portion of the Project which is damaged or destroyed prior to the Notice of Completion, as specified elsewhere in this Agreement.

13.10 The rights and remedies included in the warranty are in addition to and do not limit the County's rights under any other clause of the Contract Documents.

Article 14 TRENCHING.

14.1 The Contractor shall take reasonable precautions and make reasonable efforts to detect and protect electrical utilities and appurtenances, including hand digging and use of underground detection instruments and services. Contractor will be required to, at its own cost, promptly and satisfactorily repair damages, which could otherwise have been avoided.

14.2 The Contractor shall comply with Government Code section 4216, *et seq*., relating to subsurface installations and the Regional Notification Center System.

14.3 If the Agreement involves the excavation of any trench five (5) feet or more in depth, the Contractor shall submit in advance of such excavation, for approval of the Project Manager, Design Team, and County, a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any such trench.

14.4 Contractor shall promptly, and before the following conditions are disturbed, notify the Project Manager and Design Team, in writing, of any:

1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the California Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

2. Subsurface or latent physical conditions at the site differing from those indicated, or

3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Agreement.

14.5 If any condition described in paragraphs 14.3 is discovered, the County shall promptly investigate the conditions, and if it finds that the conditions differ materially from the conditions described in the bid package, or do involve hazardous waste, and cause a material decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Project, it may issue a change order to the Contractor or contract with another to perform work necessitated by such condition.

14.6 In the event that a dispute arises between the County and the Contractor regarding whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Project, the Contractor shall not be excused from any scheduled completion date provided for in the Agreement, but shall proceed with all work to be performed under the Agreement. The Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between contracting parties.

Article 15 Not Used

Article 16 TOXIC SUBSTANCES CONTROL ACT.

The Design Team, in accordance with 40 CFR, Part 763, EPA Final Rule under Section 203 of Title II of the Toxic Substances Control Act (TSCA), 15, U.S.C. 2641 - 2654, must submit a statement to the County verifying that no asbestos containing building material (ACBM) was specified as a building(s) material, and to the best of its knowledge no ACBM was used as a building material in the building(s). The signed statement shall be submitted prior to Design Team's making recommendation to the Board that the building(s) be accepted.

Article 17 INSPECTIONS.

17.1 The County will provide a representative and Project Inspector (PI) to assist the Design Team in providing competent and adequate inspection during all normal working periods. No work shall be performed except under the inspection of a PI.

17.2 The Project Inspector:

1. shall personally examine items used in the Project for compliance with the Contract Documents and technical instructions from the Design Team;
2. shall report to the Design Team any related work to be installed prior to final approval of shop drawings by the Design Team.
3. shall inspect all materials to determine whether they comply with the Contract Documents and are in a good and acceptable condition;
4. shall monitor materials to determine whether those accepted are the materials that are installed;
5. shall be responsible for monitoring time and material work, by accounting for materials used and logging actual time the Contractor worked on the task;
6. shall supervise on-site testing and ensure that all required tests are performed by a competent testing laboratory; and
7. shall ensure that the Contractor's payment requests accurately reflect progress on the Project and all work completed in compliance with plans and specifications.

17.3 The PI shall recommend to the Design Team to cause the removal and replacement of rejected material and to recommend deduction of the cost thereof from any monies due or to become due the Contractor.

17.4 The PI shall not do any of the following: authorize any deviations from the Contract Documents; advise on, or issue directions relative to, any aspect of the building technique

or sequence unless a specific technique or sequence is called for in the Contract Specifications; or approve shop drawings or samples.

17.5 Notwithstanding the foregoing, the Contractor may not rely upon the PI to perform any function for which it would otherwise be responsible. For example, that the PI is expected to attempt to anticipate unacceptable construction practices and to relay such concerns to the Contractor does not remove any responsibility from the Contractor to perform such functions itself.

17.6 When specific inspection is required, the Contractor shall inform the Design Team, County's Representative of the schedule of such work.

17.7 Consistent with requirements of Title 21 and Title 24, Part 1, of the California Code of Regulations, test samples or specimens of material for testing shall be taken by the Design Team, the Project inspector or a representative of the testing agency. In no case shall the Contractor or the Contractor's inspector take the sample. The Design Team shall forward one copy of all test reports to the County. Testing and inspection shall be paid by the County. Retesting and inspection costs shall be reimbursed to the County by the Contractor.

17.8 Uncovering of Work.

17.8.1 If any work is covered contrary to the request of the County representative or Design Team, it shall be uncovered for observation and replaced, at the Contractor's expense.

17.8.2 If any other work has been covered which the Design Team has not specifically requested to observe prior to being covered, the Design Team may request to see such work and it shall be uncovered by the Contractor. If such work was performed in accordance with the Contract Documents, the cost of uncovering the replacement shall, by appropriate change order, be charged to the County. If such work was not performed in accordance with the Contract Documents, the Contractor shall pay such costs.

17.9 Correction of Work.

17.9.1 The Contractor shall promptly correct all work rejected by the County/Design Team as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected work, including the cost for additional services of the County's representatives thereby made necessary.

17.9.2 The Contractor shall bear the cost of making good all work of separate contractors that is destroyed or damaged by removal or correction.

17.10 Final Inspections. The Contractor will be allowed two (2) inspections by the County, the Project Inspector or the County's representatives at the close of the Project to determine completion. The first inspection will be a pre-final inspection. The second inspection, if required, will be the final inspection. All items listed on the pre-final list and any other items required by the Contract Documents and brought to the attention of the Contractor a minimum of five (5) working days before the final inspection shall be completed prior to the final inspection. Any visits to the Project by the County or the County's representative to confirm the completeness of the Project after the final inspection will be charged to the Contractor at the County and the County's representative's normal hourly rates and deducted from the contract sum.

17.11 If work is performed on Saturdays, Sundays, holidays, or after regular work hours during the week, the Contractor shall reimburse the County for all inspection costs incurred during such hours.

Article 18 AUDITING PROCEDURES.

18.1 Upon written notice to Contractor, the County shall have the right to audit all records and documents of any nature whatsoever under the custody or control of the Contractor or Contractor's agents, subcontractors, or representatives, which relate to the Project. Upon the County's request, Contractor shall make these records available to the County, the County's auditors or other representatives appointed by the County.

18.2 The Contractor agrees to comply with the provisions of Sections 1776 and 1812 of the California Labor Code, included, but not limited to the requirement that the Contractor and each subcontractor of every tier shall keep or cause to be kept an accurate record showing the names, addresses, social security numbers, work classifications, activity code for the work provided, straight time and overtime hours worked each day and week of all workmen employed by it in connection with the execution of this Contract or any subcontract thereunder and showing the actual wages paid to each of such workers. These records shall be certified under penalty of perjury as stated in Section 1776 of the California Labor Code and shall be made available for inspection by the Chief of the Division of Labor Standards Enforcement of the State Department of Industrial Law Enforcement of the State Department of Industrial Relations, his deputies and agents.

18.3 Contractor shall ensure that all subcontractors maintain appropriate records relating to the Project. Contractor agrees to furnish records of any subcontractors or other agents of Contractor to the County upon request. If the County requests records relating to a subcontractor or other agent's involvement in the Project, such requests shall be processed through the Contractor. A Contractor's failure to abide by the provisions of the Article shall be deemed a material breach of the contract and, upon the County's election, may be considered a default.

Article 19 MISCELLANEOUS.

19.1 All practices, materials, and workmanship shall conform to all provisions of law applicable to public works projects, including but not limited to: The County of San Mateo Building Regulations and County Ordinances; the California Code of Regulations, Titles 19, 21, and 24; Public Contract Code Sections 4100-14; Government Code Section 4215; Labor Code Sections 1720-35, 1770-81, 1810-15, 1860, and 3700; the National Electric Code; the Uniform Plumbing Code; the Uniform Mechanical Code; and all other applicable laws and regulations, each of which are incorporated into this Agreement by reference. Further, all work and materials shall be in full accordance with the most current rules and regulations of the Fire Marshal and the Division of Industrial Safety. Such laws and regulations shall be considered a part of theses specifications as if set forth herein in full and all work hereunder shall be executed in accordance therewith. Nothing in these plans or specifications is to be construed to permit work not conforming to all requirements of law. The Contractor shall keep a copy of Titles 19, 21, and 24 of the California Code of Regulations on the job at all times.

19.2 The Contractor may not assign or delegate all or any portion of this Contract without the written consent of the County and no such consent shall be given which would relieve the Contractor or its surety of their responsibilities under the Contract. The Contractor may assign monies due it under the Contract to banks, trust companies or other financial institutions provided written notice thereof is promptly delivered to the County. Assignment

of monies earned by the Contractor shall be subject to the same retention as other payments made to it, and shall also be subject to any prior liens for labor, services, materials, equipment or other appliances supplied for the performance of Work under this Contract.

19.3 AS-BUILT DRAWINGS: The Contractor and all Subcontractors shall maintain on the work site a separate complete set of contract drawings which will be used solely for the purpose of recording changes made in any portion of the work during the course of construction, regardless of the reason for the change. As changes occur, there will be included or marked on this record set on a daily basis if necessary to keep them up to date at all times. Actual locations to scale shall be identified on the drawings for all runs of mechanical and electrical work, including all site utilities installed underground, in walls, floors, and furred spaces, or otherwise concealed. Deviations from the drawings shall be shown in detail. All main runs, whether piping, conduit, duct work, drain lines, etc., shall be located in addition by dimension and elevation. Progress payments may be delayed or withheld until such time as the record set is brought up to date to the satisfaction of the Design Team. The Contractor shall verify that all changes in the work are included in the "AS-BUILT" drawings and deliver the complete set thereof to the Design Team for review and approval within thirty (15) calendar days after County's substantial completion. County's acceptance and approval of the "AS-BUILT" drawings are a necessary condition precedent to the release of the final retention.

END OF SECTION

00630
GUARANTEE FORM

County of San Mateo Parks Department

Quarry Park Pump Track Project

We hereby guarantee that the _____work performed for the County of San Mateo ("County") for Quarry Park Pump Track Project has been performed in accordance with the Drawings and Specifications and that the work, as installed, will fulfill the requirements of the Guarantee included in the Specifications. We agree to repair or replace all of our work, together with adjacent work which may be displaced by so doing, that may be proven to be defective in its workmanship or materials within a period of Two (2) year(s) from date of recordation of Notice of Completion for the above-named project by the County, without any expense whatsoever to the said County, ordinary wear and tear and unusual abuse or neglect excepted.

Further, we agree that the guarantee period for corrected defective work shall continue for a duration equivalent to the original guarantee period.

In the event of our failure to comply with the above-mentioned conditions within seven (7) days after being notified in writing by the County, we collectively or separately do hereby authorize the County to proceed to have said defects repaired and made good at our expense and we will honor and pay the costs and charges therefrom upon demand.

Date: _____ Signed:_____
(Subcontractor) (Supplier)

Date: _____ Signed:_____
(Contractor)

Date: _____ Signed:_____
(Trade Contractor Countersignature if applicable)

Local Representative to be contacted for services:

Name: _____ Phone No. _____

Address: _____

00700
SCOPE OF WORK

Following is a general summary of the scope of work. It is in no way to limit the scope of work as indicated in the Plans and Specifications.

1. All work as indicated on the plans and specifications.
2. All off-haul of spoils and debris and lawful disposal.
3. Pump Track grading must be performed by a pre-qualified Contractor.
4. All work necessary for a complete and functional Pump Track.
5. All site furnishings, signage, and installations.
6. All temporary facilities, erosion control, Wildlife Exclusionary Fencing, and equipment to accommodate work and workers.
7. Monitoring and maintenance of erosion control measures and Wildlife Exclusionary Fencing.
8. Compliance with Costal Commission permitting requirements and inspection coordination.
9. All dewatering, tarping, tilling, etc. as necessary to accommodate project schedule at no additional costs.
10. Project Closeout documents.

00800
SPECIAL PROVISIONS

1.1 CONSTRUCTION MILESTONE SCHEDULE

The time for completion of all Work is within **60 calendar days** of the date of the Notice to Proceed which shall be in accordance with the General Conditions and established by the Geotechnical Engineer based on soil conditions. In accordance with the Costal Permit, work cannot start prior to April 15th. However, the soil conditions and weather may not allow for work to start on this date. Included in this duration are all weather-related delays once site is dry enough to start work. As indicated in section 00700 - Scope of Work, Contractor is responsible to provide all necessary dewatering, additional tilling, dewatering, tarping, as necessary to implement this project on schedule.

Time for completion of milestones is as set forth in the below Construction Milestone Schedule. Any extensions of time for completion of milestones are governed by the same terms and restrictions as applicable to extensions of the Contract Time referenced in the General Conditions.

Schedule of Work to accommodate the following milestone requirements:

Bid Date	February 16, 2022
Anticipated Issuance of Notice of Intent to Award	February 22, 2022
BOS Approval of Construction Agreement	March 1, 2022
Anticipated Notice to Proceed (NTP) with Submittals and Procurement	March 2, 2022
Anticipated Notice to Proceed (NTP) with Site Work	April 15, 2022
Mobilization and Start of Construction	April 15, 2022
Complete all Punch list Items and Closeout Documents	June 14, 2022
End of 90-Day Landscape Maintenance Period	Sept. 12, 2022

1.2 COUNTY ALLOWANCE

County allowance listed on the bid form is to be used only for approved change orders. County allowance shall be a line item in the Schedule of Values. Any unused allowance shall be returned to the County.

1.3 MAINTENANCE TRAINING

Contractor to provide on-site pump track maintenance training for County personnel. Time and date of the training will be coordinated prior to completion of the project.

SECTION 01 21 00

ALLOWANCES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Non-specified work.

1.2 RELATED SECTIONS

1.3 ALLOWANCES

A. Included in the Bid Form and Contract are two Allowances:

1. General Allowance of Fifty Thousand Dollars ($50,000) for Unforeseen Conditions and any County requested changes.

B. No Allowances can be utilized without written approval by the County.

C. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding and equipment rental in accordance with the General Conditions can be included in Proposed Change Order (PCO).

D. Funds will be drawn from Allowance only with County approval evidenced by an approved PCO.

E. At Contract closeout, funds remaining in Allowance will be credited to County by Change Order.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF DOCUMENT

SECTION 01 72 00
CONDITIONS OF APPROVAL

PART 1 - GENERAL

1.01 CONDITIONS OF APPROVAL

A. The approval applies only to the proposal as described in this report and materials submitted for review and approval by the planning commission on July 14, 2021. The community development director may approve minor revisions or modifications to the project if they are found to be consistent with the intent of and in substantial conformance with this approval. The contractor shall comply with all conditions of approval requirements, as outlined below:

B. GENERAL AVOIDANCE MEASURES

1. Site grading and trail development activities shall be restricted between May 1 and December 31. Site grading during these dryer months will reduce the possibility of soil erosion and sediments flowing into natural habitats.

2. Install temporary silt fencing along the perimeter of environmentally sensitive habitat areas (ESHAS) where land disturbing activities will occur to protect potential ESHAS.

3. Solid materials, including wood, masonry/rock, glass, paper, or other materials shall not be stored or placed in any required buffer zone to the extent practicable. Solid waste materials should be properly disposed of off-site. Fluid materials, including concrete, wash water, fuels, lubricants, or other fluid materials used during construction shall not be disposed of on-site and should be stored or confined as necessary to prevent spillage into natural habitats. If a spill of such materials occurs, the area shall be cleaned, and contaminated materials disposed of properly. The affected area shall be restored to its natural condition.

C. SPECIAL-STATUS AND NON-SPECIAL-STATUS NESTING BIRDS

1. If project activities are conducted during the nesting season (February 15 – August 31), a pre-construction nesting bird survey, performed by a qualified biologist, shall be performed no more than 14 days prior to initial ground disturbance to avoid impacting active nests, eggs, and/or young.

2. If the survey identifies any active nest, an exclusion buffer shall be established for protection of the nest and young. A qualified biologist shall establish a buffer appropriate for the species and location of the nest if it is necessary. The buffer shall be maintained until all young have fledged.

3. Impacts to nesting birds can be avoided if construction activities are initiated outside of the nesting season (September 1 – January 31). During this time period, no pre-construction bird surveys are recommended.

D. CALIFORNIA RED-LEGGED FROG AND SAN FRANCISCO GARTER SNAKE

1. All ground disturbance activities shall be restricted to the dry season (April 15 through October 15) or when suitable habitats have dried in order to reduce the potential for CRLF and SFGS to occur within non-ponded habitats of the study area.

2. A qualified biologist shall survey the work site immediately before the onset of vegetation clearing or ground disturbance activities to verify if species are present and all habitats are dry. If CRLF are found and do not move out of the work area on their own, the USFWS shall be contacted to determine if relocation is appropriate.

3. In making this determination, the USFWS will consider if an appropriate relocation site exists. If the USFWS approves moving animals, a USFWS-approved biologist will be allowed sufficient time to move them from the work site before work activities begin. Any SFGS shall be allowed to leave the work area on their own and shall be monitored as practical by the biologist to ensure they do not reenter the work area.

4. Prior to the start of ground-disturbing activities, all construction personnel shall receive training on listed species and their habitats by a qualified biologist. The importance of these species and their habitat will be described to all employees as well as the minimization and avoidance measures that are to be implemented as part of the project. An educational brochure containing color photographs of all listed species in the work area will be distributed to all employees working within the study area. The original list of employees who attend the training sessions will be maintained by the contractor and be made available for review by the USFWS and the CDFW upon request.

5. The contractor shall designate a person or employee to monitor on-site compliance with all minimization measures. The on-site monitor(s) will be on-site daily for the duration of work, including vegetation removal, grading, and clean-up activities.

6. Any vehicles and equipment associated with work-activities shall be parked or staged only within a designated staging area at the end of each workday or when not in use in order to minimize habitat disturbance or water quality degradation.

7. Wildlife exclusion fencing shall be erected and maintained around the perimeter of the limit of work area, including the project construction staging areas and access routes, to prevent SFGS and CRLF from entering the site overnight.

8. Vehicle access points shall have a temporary silt fence gate, which is opened to allow construction vehicle access while the contractor's trained personnel are present. At night the seal on the temporary gate should be augmented by sandbags to prevent species from entering the area beneath the gate. Installation of fencing will be performed under the supervision of a USFWS-approved biologist.

9. No work shall occur within 48 hours of a rain event (over 0.25-inch in a 24-hour period). Following a rain event, a qualified biologist will resurvey the work area immediately before reinitiating ground disturbance activities to verify if species are present. If CRLF or SFGS are observed, then the steps previously described for the initial pre-construction survey shall be followed.

   Plastic monofilament netting (erosion control matting), rolled erosion control materials, or similar material shall not be used at the study area because CRLF, ESHAS and other species may become entangled or trapped in it. Any erosion control materials used should be made of tightly woven fiber netting or similar material to ensure that the CRLF and SFGS are not trapped. This limitation shall be communicated to the contractor prior to the start of work.

10. No trash shall be deposited on the site during construction activities. All trash shall be placed in trash receptacles with secure lids, stored in vehicles, and removed nightly from the study area.

11. Refueling or maintenance of equipment shall be conducted at least 50 feet from any wetlands, waters or designated ESHAS.

12. California red-legged frog and SFGS may take refuge in cavity-like or den-like structures such as pipes and may enter stored pipes and become trapped. Therefore, all construction pipes, culverts, or similar materials, which are stored at the site for one or more nights, will be either securely capped or thoroughly inspected by the on-site monitor and/or the construction foreman/manager before the pipe is used or moved in any way. It is also recommended these materials are stored within the staging areas either in developed areas or within wildlife exclusion fencing.

13. The on-site monitor and/or construction foreman/manager shall ensure that all excavated steep-walled holes or trenches more than one foot deep are completely covered at the close of each working day by covering holes with plywood or similar materials and covering the edges of those materials with dirt to prevent access by wildlife. Alternatively, holes may be augmented with one or more escape ramps constructed of earth fill or wooden planks. Any ramps installed should be approved by the on-site biologist. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals by the on-site biologist and/or construction foreman/manager.

14. If at any time a trapped CRLF or SFGS is discovered by the on-site biologist or anyone else, work in the immediate area should cease as soon as it is safe to do so, and the animal shall be allowed to passively leave the work area on its own.

Steps outlined above shall be followed if the animal does not or cannot leave the area on its own.

E. MONARCH BUTTERFLY

1. If possible, project work should be scheduled to occur between September and October.

2. If the project will remove or trim trees during the winter roost season (October 1 through march 15), then a pre-construction survey for roosting monarch butterflies should be conducted within 7 days of tree removal or trimming activities.

3. If monarch butterflies are detected roosting in trees to be removed or trimmed, then consultation with CDFW may be required to determine how and when to proceed with activities and if additional mitigation measures are required.

4. If tree removal or trimming is conducted march 16 through September 31, then no preconstruction surveys for roosting monarch butterflies are necessary.

F. DISCOVERY OF HUMAN REMAINS

1. If at any time during site preparation, excavation, or other ground disturbance associated with the proposed project, human remains are discovered, the construction contractor shall immediately cease and desist from all further site excavation and notify the county planning department. The planning department shall notify the sheriff-coroner. If the coroner determines the remains are Native American, the coroner will contact the Native American heritage commission. The Native American heritage commission will identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent makes recommendations regarding the treatment of the remains with appropriate dignity. Disturbance shall not resume until the significance of the human remains is determined and appropriate mitigations to preserve the resource on the site are established.

PART 2 - MATERIALS

NOT APPLICABLE

PART 3 - EXECUTION

NOT APPLICABLE

END OF SECTION 01 72 00

SECTION 12 93 00

SITE FURNISHINGS AND ACCESSORIES

PART 1 - GENERAL

1.01 SUMMARY

A. The General Conditions and all other Contract Documents for this project are complementary and applicable to this Section of the Specifications.

B. Work Included: Furnish all labor, materials, equipment and services necessary to provide and construct, repair, or install the site elements, complete in place, as shown and specified, including, but not limited to:

1. Bike Maintenance Station
2. Picnic Tables
3. Mountain Top 2'-0" Peak Bike Ramp
4. 1'-0" High Balance Beam Bike Ramp
5. Triple Function Wildlife Exclusion Fencing

C. Related Work:

1. Section 32 13 16: Site Concrete Work

1.02 SUBMITTALS

A. Submit catalog cuts, and manufacturer's literature, as well as color samples of all manufactured items in this section to the County Construction Manager for approval before installation.

1.03 GUARANTEE

A. At completion of project, Contractor shall provide County Construction Manager with written guarantee from each manufacturer identifying the nature of warranty for each product component.

B. Contractor shall provide County Construction Manager with two (2) bound maintenance manuals identifying each piece of equipment on manufacturer's recommended maintenance program including, but not limited to, daily, weekly, and monthly check lists.

C. Contractor shall provide an additional two year installation warranty in addition to the manufacturer's standard warranty period. Refer to the project general conditions for additional warranty requirements.

PART 2 - PRODUCTS

2.01 MANUFACTURED ITEMS

1. Bike Maintenance Station: Fixit with air kit bike pump accessory, Avail: Dero (888)337-6729.

2. Standard Picnic Table: Model #100S, Available: Outdoor Creations, Inc. (530)365-6106
3. Accessible Picnic Table: Model #100S2E Available: Outdoor Creations, Inc. (530)365-6106
4. Mountain Top 2'-0" Peak. Available from Progressive Bike Ramps (PBR) or approved equal. (855)727-7267.
5. 1'-0" High Balance Beam: Available from Progressive Bike Ramps (PBR) or approved equal. (855)727-7267.
6. Triple Function Wildlife Exclusion Fence System: Available Ertec Environmental Systems or approved equal (866)521-0724

2.02 MISCELLANEOUS MATERIALS

A. All other materials for site elements shall be as specified on the plans and these specifications.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Examination: Verify that conditions are satisfactory for installation of each item of site elements. If unsatisfactory conditions exist, do not begin installation until such conditions have been corrected.

B. Bike Maintenance Station: Install products in conformance with the manufacturer's recommendations and approved shop drawings, and as indicated.
   1. Install products square, plumb, level, accurately aligned, and securely anchored with in-ground footing per manufacturer specifications.
   2. Completion: Completed installation shall be securely anchored, and free from defects and damage in material and finish.

C. Picnic Tables
   1. Install directly onto finish grade, at the locations indicated on the plans.

D. Bike Ramps
   1. Install directly onto finish surface of pump track using earth anchors provided by the manufacturer, and installed per manufacturer specifications, at the location indication on the plans.

E. Triple Function Wildlife Exclusion Fence System
   1. Install per plans and manufacturer specifications.

END OF SECTION 12 93 00

SECTION 31 10 00
CLEARING & GRUBBING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. The General Conditions of the Contract, including General and Special Provisions and General Requirements apply to the work in this section.

1.02 DESCRIPTION

A. Work Included: Furnish all labor, materials, equipment, facilities, transportation and services to complete all clearing and demolition and related work as shown on the drawings and/or specified herein.

1. Clearing and Grubbing
2. Removal and Disposal of Miscellaneous Construction Items and Debris, and off-haul of spoils.

PART 2 - MATERIALS

2.01 EQUIPMENT

A. Equipment shall be suitable for the work to be done and shall be in first-class condition. Equipment operators and workmen to be skilled in operations and to be supervised by a competent superintendent.

PART 3 - EXECUTION

3.01 GENERAL

A. Clear and grub meadow areas as shown on Plans or as specified herein. Grubbing shall include clearing the entire root systems of all plants, weeds, and grasses.

B. Dust Control: At all times during the operations, prevent the formation of an airborne dust nuisance by watering and/or treating the site of the work in such a manner that will confine dust particles to the immediate area of the work.

C. Debris:

1. Remove debris as it accumulates, except as otherwise specified. Do not store or permit debris to accumulate on the site. If contractor fails to remove excess debris promptly, the County reserves the right to cause same to be removed at Contractor's expense.

2. Materials requiring removal and demolition shall become the property of the contractor and shall be removed completely from site, unless noted otherwise on plans, and shall be disposed of at an approved site outside the County limits.

3. If unforeseen items are encountered during clearing and demolition work, the Contractor shall notify the County Construction Manager prior to removal or demolition.

END OF SECTION 31 10 00

SECTION 32 91 19
EARTHWORK AND GRADING

PART 1 - GENERAL

The provisions of the Standard Specifications for Public Works Construction (SSWC) 2021 edition apply except as modified herein. Available through *Building News Publications*, Telephone #: (714) 517-0970, bnibooks.com.

1.01 SCOPE OF WORK

A. Rough grading including over excavation and compaction.
   1. Finish grading of the site.

B. Excavation and backfill for all footings and compaction.
   1. Stockpiling and placing topsoil, if required.
   2. Soil compaction as required.
   3. Protective measures.
   4. Dust and noise abatement.
   5. Obtaining construction water.
   6. Off-Haul of spoils.

1.02 WATER

A. Contractor shall make arrangements with the local Water Department to obtain construction water.

1.03 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and Divisions 1 Specifications Sections, apply to this section.

B. Related Work:
   1. Section 32 91 19: Pump Track Grading

PART 2 - EXECUTION

2.01 CUT AND FILL

A. Contractor shall export all excess site soil as needed. Exporting shall include excavation, removing, hauling, and disposing of soil in a legal manner off site. Contractor shall pay all fees and charges to remove export soil. Pump track features may not be constructed with onsite excavated soil.

2.02 ROUGH GRADING

A. The site shall be graded to the Limit of Work (LOW) and elevations shown on the drawings with such allowances as may be required for the construction of the pump track, and other intended site improvements. Functional use and appearance shall be the governing factor for rough grading tolerance as determined by the county construction manager.

2.03 UNSUITABLE MATERIALS

A. All unsuitable materials including but not limited to unsuitable soils, large rocks or boulders, broken concrete/asphalt and other deleterious material shall be removed from the site by the Contractor.

2.04 FILL

A. Fill shall be placed in level layers not to exceed six inches in depth and mechanically compacted using optimum amount of moisture to achieve a 95% minimum degree of compaction.

2.05 EXCAVATION

A. The Contractor shall make all necessary excavation for footings, as required.

B. Bottom of excavations shall be level, free from loose material and brought to the indicated or required levels in undisturbed earth. All excavations shall be kept free from standing water. The Contractor shall do all pumping or draining that may be necessary in carrying on the work.

C. Should excavations for footings, through error, be excavated to a greater depth than indicated or required, such additional depth shall be filled with concrete, as specified for footings, at the Contractor's expense. Excavations that have been dug wider than required shall be formed to conform with plans and specifications. Filling with concrete can only be accepted with the approval of the County Representative.

2.06 FINISH GRADING

A. Finish grades shall slope to drain without water pockets or irregularities and shall conform to the intent of all plans and sections - after thorough settlement and compaction of the soil. Finish grades shall be of uniform slope and grade between points of fixed elevations or elevation controls and from such points to established grades. Tolerance for finish grading is 1/10 foot, plus or minus, adjacent to fixed elevations or gradients. At all other areas, functional use and appearance shall be the governing factor.

2.07 BACKFILLING

A. Select site material shall be used for backfill and shall be free from large stones and clods. Material shall be approved by the Geotechnical Engineer.

B. Backfill shall be deposited in layers of 6" thickness.

C. Layers of backfill shall be moistened with water, the amount to be rigidly controlled to insure optimum moisture conditions for the type of fill material used. Excess water causing saturated earth beneath footings will not be permitted.

D. Backfill shall be compacted by suitable means to 95% density.

E. All trenches for other work shall be backfilled in accordance with this section, and will be tested by the geotechnical engineer of record.

2.08 PROTECTIVE MEASURES

A. All excavations shall be protected and guarded against danger of life, limb and property.

B. Existing improvements and trees within or adjacent to contract limits or areas of activity shall be properly protected.

2.09 DUST AND NOISE ABATEMENT

A. During the entire period of construction, site areas shall be kept sprinkled.

END OF SECTION 32 91 19

SECTION 32 13 16
SITE CONCRETE

PART 1 - GENERAL

1.01 SCOPE

A. Provide:
   1. Concrete footings for all chain link fencing and amenities, as required.

1.02 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and Divisions 1 Specifications Sections, apply to this section.

B. Related Work:
   1. Section 32 91 19: Earthwork & Grading
   2. Section 31 10 00: Clearing & Grubbing
   3. Section 32 31 13: Chain link Fences and Gates

1.03 QUALITY ASSURANCE

A. Materials and methods of construction shall comply with the following standards:
   1. American Society of Testing and Materials, (ASTM).
   2. American Concrete Institute, (ACI).
   3. California Building Code (CBC)
   4. State Standard Specifications, California Department of Transportation.
   5. American National Standards Institute, (ANSI).
   6. Bay Area Air Quality Management District, Sandblasting Guidelines.

B. Installer Qualifications: An experienced installer who has completed concrete work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

C. Source Limitations: Obtain each type of cement of the same brand from the same manufacturer's plant, each aggregate from one source and each admixture from the same manufacturer.

1.04 SUBMITTALS

A. Submit concrete mix designs to County's Representative. Obtain approval before placing concrete.

B. Product data:

1. Submit complete materials list of items proposed for the work. Identify materials source.

1.05 DELIVERY, STORAGE AND HANDLING

A. Work notification: Notify County Representative at least 24 hours prior to installation of concrete.

B. Establish and maintain required lines and grade elevations. The top of all concrete footings shall slope to drain with no ponding of water.

C. Do not install concrete work over wet, saturated, muddy, or frozen subgrade.

D. Do not install concrete when air temperature is below 40 degrees F. Use of calcium chloride, salt, or any other admixture to prevent concrete from freezing is prohibited.

E. When temperatures is between 85 and 90 degrees F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when temperatures is above 90 degrees F, reduce mixing and delivery to 60 minutes.

F. Protect adjacent work.

G. Provide temporary barricades and warning lights as required for protection of project work and public safety.

PART 2 - PRODUCTS

2.01 CONCRETE MATERIALS

A. Portland Cement: ASTM C150, Type 1, natural color, unless otherwise noted.

B. Aggregate: Provide ASTM C33 normal weight aggregates, 3/4" maximum size, clean, uncoated crushed stone or gravel coarse aggregate free of materials which cause staining or rust spots; fine aggregate shall be clean natural sand.

C. Water: Clean, fresh, and potable.

2.02 CONCRETE MIXES

A. Provide Class A ready-mixed concrete. Batch mixing at site is acceptable.

1. For all other site concrete: Use Portland Cement Concrete containing not less than 564 pounds of Portland Cement per cubic yard, with a compressive strength of not less than 3000 p.s.i. at 28 days.

B. Indicate water added to mix at job site on each delivery ticket. Show quantity of water added. Site water tempered mixes exceeding specified slump range will be rejected as not complying with specification requirements.

C. Retempering of concrete will not be permitted.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Concrete footing placement:
   1. Install per detail.

3.02 TOLERANCES

A. Comply with ACI 117, “Specifications for Tolerances for Concrete Construction and Materials”

3.03 CLEANING

A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, debris, and equipment. Repair damage resulting from concrete operations.

B. Clean fence posts and fence material of all Cementous debris.

C. No washing trucks allowed on site.

END OF SECTION 32 13 16

SECTION 32 31 13

CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. The scope of work outlined in this Section includes the following items of work, as detailed in these Contract Specifications, as shown on the Contract Drawings or reasonably implied therefrom and is not limited to the following items:

1. Chain Link Fencing, including posts, rails, and fittings
2. Gates and Hardware

B. References:

1. CLFMI – Chain Link Fence Manufacturer's Institute, "Product Manual", 10015 Old Columbia Road, Suite B-215, Columbia, MD.

1.02 RELATED REQUIREMENTS

A. The General and Supplementary Conditions and General Requirements apply to the work herein specified.

B. These Contract Specifications are part of the Contract Drawings and shall include all labor, materials, equipment, reasonable incidentals, and services necessary for the execution of the Work installed complete in place.

C. Refer to all other sections, determine the extent and character of related work, and coordinate all work to produce a complete, properly constructed product.

1.03 RELATED SECTIONS:

A. Section 31 20 00 Earthwork and Grading

B. Section 32 13 16 Site Concrete

1.04 QUALITY CONTROL AND ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work in this section.

B. Shop Assembly: Preassemble items in shop to greatest possible extent to minimize field slicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordination of installation.

1.05 SUBMITTALS

A. All submittal data shall be forwarded in a single package to the County's Representative in accordance with the project general requirements.

B. Product data: Material descriptions, construction details, Component profiles and finishes for the following:
   1. Fence and gate posts, rails, and fittings.
   2. Chain link fabric, reinforcements, and attachments.
   3. Gates and Hardware.
   4. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;

1.06 PROJECT CONDITIONS

A. Existing Utilities: Do not interrupt utilities serving facilities occupied by County or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
   1. Notify County's representative not less than [two] 2 days in advance of proposed utility interruptions.
   2. Do not proceed with utility interruptions without County's written permission

B. Field Measurements: Verify layout information for chain link fences and gates shown in Drawings in relation to property survey and existing structures. If discrepancies occur, notify County's Representative.

1.07 DELIVERY, STORAGE AND HANDLING

A. Product Delivery Requirements, Storage and Handling Requirements – Comply with requirements outlined in the general conditions.

1.08 GUARANTEE

A. Provide one (2) year written guarantee against rust materials and workmanship.

PART 2 - PRODUCTS

2.01 MATERIALS

A. General
   1. Materials shall conform to ASTM F1083 and ASTM A392 ferrous metals, zinc coated, and detailed specifications forming the various parts thereto; and other requirements specified herein. Zinc-coat metal members (including fabric, gates, posts, rails, hardware and other ferrous metal items) after fabrication shall be reasonably free of excessive roughness, blisters and sal-ammoniac spots.

B. Chain Link Fence
   1. Height: Shown on drawings.

2. All posts, rails, and appurtenances shall be hot dipped zinc coated steel, 1.2 oz per square foot, per ASTM specifications A53, A123, or A153, whichever is applicable. Powdercoat green
3. Top Rail: Required, fitted with suitable expansion sleeves and means for securing rail to each gate, corner, and/or end post. Top rail shall be 1 5/8" O.D. standard pipe 2.27 lbs. per foot of section or 1'5/8" x 1'1/4" roll form section with minimum bending strength of 192 pounds. Rails to have a two (2) ounce zinc coating PSF of surface. Powdercoat green
4. Bottom Rail: Required, fitted with suitable expansion sleeves and means for securing rail to each gate, corner, and/or end post. Powdercoat green
5. Chain Link Fabric: 9 gauge, 1 ¾" mesh.
   a. Fabric shall be zinc coated steel wire, coated with 1.8 ounces of zinc per square foot conforming to requirements in ASTM A 392. The material shall receive a PVC or Polyolefin Elastomer coating, thermally fused to 9 gauge zinc coated steel core wire per ASTM-F668 Class 2B. Core wire tensile strength 80,000 psi minimum. Fabric shall be knuckled at top and bottom.

      PVC Color: Green
6. Line Post: shall be 1-7/8" O.D. standard pipe with minimum 201 pound bending strength perpendicular to fence lines.
7. End, Corner, and Pull Posts: Shall be 2-3/8" O.D. with Zinc coating to be 1.8 ounces PSF surface.
8. Gate Post: Shall be 2-7/8" O.D. Zinc coating to be 1.8 ounces PSF surface.
9. Gate frames shall be 1.90" O.D. pipe. Gates shall have positive type latching devices with provisions for padlocking; and drive gates shall have a center plunger rod, catch, and semi-automatic outer catches. No pin type hinges.
10. Pipe posts shall have tops which exclude moisture.
11. End, corner, pull, and gate posts shall have braces with same material as top rail and trussed to line posts with 3/8" rods and tighteners.
12. Hinges: Galvanized pressed steel or malleable iron to suit gate size, non lift-off type, offset to permit 180 degree gate opening. Provide 1 pair of hinges for each leaf of each gate.
13. All gate hinges and parts are to be heavy duty such that they cannot be twisted to gain entry.
14. Keeper: Provide keeper, which automatically engages the gate leaf and holds it in the open position until it is manually released, for all gate leaves.
15. Latch Assembly for Single Gates: Forked type to permit operation from either side of gate, with padlock eye as integral part of latch/hasp. All gate hinges and parts are to be heavy duty such that they cannot be twisted to gain entry.
16. Latch Assembly for Double Gates: Provide center drop-rod type latch assembly to permit operation from either side of gate. Provide padlock eye as integral part of the latch assembly requiring one padlock for locking both gate leaves.
17. County standard pad lacks to be provided by Parks.
18. Post Footings: Shall be concrete foundation of 1-2-4 mix. Footing diameter and depth per detail.

2.02 TOLERANCE

A. Standard mill tolerances will apply. Installation shall be by experienced fence erectors, on lines and grades furnished by the County. All material will be tested for meeting of specifications for design, strength, shape, weight, and coating. Mill certificates confirming compliance with the herein described components will be submitted for approval upon request.

2.03 FABRICATION

A. According to Manufacturer's Details and Specifications.

PART 3 - EXECUTION

3.01 INSTALLATION

A. GENERAL - Related Work

1. Neatly excavate post holes per fencing post and footing chart requirements listed above. Holes shall be clean and free from loose dirt and water before placing posts and concrete.
2. Hand trim grade at fence lines as necessary to lower high spots away from bottom edge of fabric.
3. Paving or other surfaces receiving posts shall be neatly cut prior to drilling post holes. Upon completion of post setting and concrete work at said locations, earth disturbed shall be backfilled and compacted to 95% density and the cut paving or other surfacing shall be neatly repaired to the original condition.

3.02 CHAIN LINK INSTALLATION

A. Posts shall be set plumb on all sides and with tops uniformly aligned. Set posts, post sleeves and strikes in round concrete footings in grade as shown or required. Concrete shall be thoroughly compacted by rodding as placed; bevel tops and finish smooth.

B. Post:

1. Terminal Post: Locate terminal end, corner, and gate posts per ASTM 567 and terminal pull posts at changes in horizontal or vertical alignment changes of fifteen (15) degrees or more.
2. Line Posts: Install for all intermediate locations between end, corner and gate posts. Uniformly space at a maximum of 8' center to center, measured parallel to grade, spaced equally.
3. Corner Posts: Install at points where a change in alignment is 300 or greater. Where an alignment change occurs adjacent to a gate opening, use gate post in lieu of corner post.
4. End Posts: Install at each terminal end of individual runs of fencing, except adjacent to gates.
5. Gate Posts: Install each side of each gate opening.

C. Tension Wire: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Pull wire taut, without sags. Fasten fabric to tension wire with

0.120-inch diameter hog rings of same material and finish fabric wire, spaced a maximum of 24 inches O.C. Install tension wire before stretching fabric.

1. Top Tension Wire: Install tension wire through post cap loops.
2. Bottom Tension Wire: Install tension wire within 6 inches of bottom fabric and tie to each post with not less than same gage and type wire.

D. Top Rail: Install according to ASTM F 567, maintain plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended by fencing manufacturer.

E. Bottom Rail: Install, spanning between posts, using fittings and accessories.

F. Chain Link Fabric: Apply fabric to inside of enclosing framework. Leave a minimum clearance of 1 inch, maximum 1-3/4 inch between finish grade and surface and bottom selvage, unless otherwise directed by County's Representative. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released and displays no sagging or buckling.

G. Tie Wires: 9 gauge at 12" on center at posts, 24" on rails. Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.

H. Maximum Spacing: Tie fabric to line posts 12 inches O.C. and to braces 24 inches O.C.

I. Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.03 GATE INSTALLATION

A. Install gates according to manufacturer's written instructions, with all required hardware, level, plumb and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust gate and hardware to operate smoothly, easily, and quietly, free from 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.

3.04 CLEAN-UP

A. Remove from the site all debris resulting from the work of this section.

END OF SECTION 32 31 13

SECTION 32 91 19
PUMP TRACK GRADING

PART 1 - GENERAL

1.01 SUMMARY

A. Clearing and grubbing operations as specified in Section 31 10 00, and Mass Earthwork and Grading as specified in Section31 20 00 to be completed per these plans and specifications and the project general conditions.

B. Pump Track improvements including: all rough and fine grading of pump track riding features and the finish grading require qualification as described herein (Not required for clearing, grubbing and mass grading of site):

1. Contractors bidding the Pump Track features as described herein shall have satisfactorily completed the installation of three (3 minimum number) similar projects in accordance with the project plans and written specifications. Qualifying projects must include Pump Track or Skate Park projects with specific terrain of comparable size, type and layout built within the last six (6) years.

2. Only Pump Track or Skate Park projects where the Contractor bidding the "specialty work" has performed all of the same work as described herein shall be considered as acceptable projects to evidence credible experience and qualifications of the bidding Contractor.

3. The Pump Track Specialty Contractor shall provide references for three (3) qualifying projects including location of qualifying projects, size, owner, budget, and owners contact information.

C. Related Requirements

1. Section 31 10 00, Clearing & Grubbing

2. Section 31 20 00, Earthwork & grading

3. Section 32 92 13, Hydroseeding

D. Written dimensions are to take precedence over scaled dimensions. Notify County construction manager of any discrepancies found in the field before moving forward. Failure to gain clarification from Pump Track Designer before moving forward will render contractor responsible for all costs associated with correcting installed work to the satisfaction of the Pump Track Designer.

1.02 REQUIRED INSPECTION POINTS

A. During the course of construction, approval of Pump Track Designer shall be required:

Approval Required On:	Prior to:
1. Clearing and grubbing layout/staking	Clearing and grubbing
2. Site mass grading layout/staking	Mass grading of site
3. Rough grading	Layout of Pump Tracks and Skills Trail
4. Layout/staking of Pump Tracks/Skills Trail	Layout of riding features (berms, rollers, built features, etc.)
5. Layout/staking of riding features	Rough Grading of riding features
6. Rough Grading of riding features	Finish grading of riding features
7. Finish Grading of riding features	Final acceptance

B. In the event the Contractor continues operations without receiving the above approvals, the inspector may, at his/her discretion, require the Contractor to return all construction status to the previous approval point. There shall be no additional payment for any removal or reconstruction required under this section.

1.03 SUBMITTALS

A. Description: The purpose of this section is to define the submittals required for this project. Should one of these requirements be found elsewhere in the specifications or on the plans and not be listed herein below, it shall still be the Contractor's responsibility to provide said submittals.

B. The Contractor's superintendent shall retain a copy of approved submittals at the work site at all times for the Pump Track designers use and review. The submittals shall be kept in a binder and cataloged for ease of reference. In addition, pursuant to the Standard Specifications, the contractor shall at all times have on the work site an approved and signed set of bid document plans and specifications, issued revisions and authorized change orders available for the Pump Track designers use and review. Unless stated otherwise, it is intended that any specified material items shall be deemed to include the term “or approved equal”.

C. Submittals Required On:
   1. Imported soil tags.
   2. Import soil samples
   3. Import Soil analysis
   4. SoilTac Cut Sheet.

D. Upon receipt of the "Notice to Proceed", the Contractor shall coordinate with product manufacturers specified herein to ensure that all materials will be available and to insure that all materials will arrive at the job site within the time limit for completion of the project. Contractor shall not order any materials until submittals have been approved by the county construction manager, as outlined in the project general conditions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. The Contractor shall be responsible for meeting the finish grades and building the riding features (rollers, berms, etc.) as shown on the plans. The Contractor shall provide the source and a material analysis of the import soil for review and approval by the County construction manager prior to delivery to the site.

B. Fill Materials

Soil Specification: Soil mixtures generated from on-site excavations are not suitable for reuse as fill for the pump track. Imported fill soil shall be free of organic material, debris, clods, rock, etc. and free of trash, chemicals, paints, and any other toxic substances. Imported fill soil for fine grading operations shall consist of a well graded and compacted mix with a clay content of 30 – 40% by weight, sand content no less than 35% by weight, silt content of no more than 35% by weight, and no particles larger than sand size (1/16 in). Imported fill soil shall be medium plastic with a 15-30 PI as defined by the ASTM Plasticity Index.

1. Soil Analysis: A soil sample is required along with a complete soil analysis report from Soil and Plant Laboratory, Inc., 352 Mathew Street, Santa Clara, CA 95050, (408) 727-0330 or approved equal – both shall be reviewed and approved by the Pump Track Designer prior to delivery to the project site or use. Imported fill soil samples shall be collected in a 1-gallon zip log bag from several locations and represent a composite of the overall quantity of soil being tested. One sample shall be sent to the professional soil analysis laboratory (per their instructions) and one sample shall be provided to the Owner's Representative.
2. Quantity: Contractor is responsible for verifying import fill quantities for all grading and fill operations related to construction of the park.
3. Compacted Fill: On-site fill, backfill, and scarified subgrades shall be moisture conditioned to within 3% of the optimum moisture content. Properly moisture conditioned and cured on-site materials shall be placed in loose horizontal lifts of 8 inches thick or less, and uniformly compacted to at least 95% relative compaction.

C. Soil Stabilizer: SoilTac (or approved equal), Avail: Soilworks, (800) 545-5420.

2.02 PRE-FABRICATED RIDING FEATURES

A. Refer to Section 12 93 00: Site Furnishings and Accessories

PART 3 - EXECUTION

3.01 DESCRIPTION

A. Work under this item shall include:

1. Grading to achieve rough and finish grades for all Pump Track dirt riding features and the finish grading and installation of pre-fabricated riding features as shown on the design plans.
2. Furnish and place approved import soil as necessary to meet grades for Pump Tracks and Skills Trail, dirt riding features as shown on the design plans.
3. Installation of drainage features.

3.02 GENERAL

A. Exact locations, distances, dimensions, elevations, etc. shall be governed by actual field conditions and verified by the Contractor.

B. Excavated material shall become the property of the Contractor, and shall be off-hauled and lawfully disposed of.

C. The contractor shall notify the County Construction Manager immediately after identifying a grade conflict. The Contractor shall not be eligible for additional compensation for minor design changes other than those that cause a significant change in quantities.

3.03 LAYOUT OF IMPROVEMENTS

A. Construction Staking

1. The Contractor shall be responsible for all survey work and shall be responsible for replacing points lost or damaged during the course of construction. The Pump Track Design shall provide the Contractor with electronic AutoCAD copies of the Pump Track for the purpose of layout and surveying.
2. The Contractor shall be responsible for the accuracy of all layout work. Equipment operators and workers are to be skilled in grading operations and are to be supervised by a competent superintendent who is familiar with the nature of the work, these provisions, and all permit conditions. All grading, sub-grading, and finished grading areas shall be controlled by such intermediate grade stakes and lines as may be necessary to obtain the slopes and levels required by the finished grade elevations shown on the plans.
3. All bench marks, monuments and other reference points shall be carefully protected and maintained at no increased cost and, if disturbed or destroyed, shall be replaced as directed by the Engineer at Contractor expense.
4. Exact locations, distances, dimensions, elevations, etc. shall be governed by actual field conditions and verified by the Contractor.
5. Staking of pump track layout shall be reviewed and approved by the County construction manager after mass grading is complete and prior to starting fine grading activities.
6. The location of riding features (berms, rollers, prefabricated features, etc.) as depicted in the design plans shall be considered approximate and requiring field fit (e.g. heights, lengths, widths, spacing between features) with oversight from the Pump Track Designer. Staking shall be reviewed and approved by the Pump Track Designer prior to starting construction and fine grading activities. The Contractor shall not be eligible for additional compensation for field fit design changes.

3.04 CONSTRUCTION METHODS

A. Prior to grading, the site shall be cleared of all obstructions and deleterious materials. Debris and materials arising from clearing and removal operation shall be properly disposed of off-site. Surface vegetation in the location of the Pump Tracks shall be stripped and removed. Soil material containing more than 2% organic matter by weight shall be considered organic. Contractor shall plan to strip to a depth of 2 inches, actual stripping depths may be less.

B. Native soil shall be cleared and grubbed of native vegetation prior to placing imported fill on native materials. Prior to the placement of riding features (rollers, berms, etc.) and/or fill material, the soil shall be scarified to a minimum depth of 8-12 inches, moisture-conditioned, and re-compacted to a minimum 95% relative compaction based on ASTM D1557-00 Test Procedure to achieve optimal uniform compaction. In areas where there is existing topography and natural hill slope, features shall be excavated out of cleared and grubbed native soil and moisture-conditioned and compacted in place to the relative compaction mentioned above. Imported approved fill for riding features shall be placed and water conditioned in lifts not exceeding 8 inches in thickness (before compaction).

C. No abrupt changes in slope or contour will be accepted. Contractor shall take special care to feather or taper graded areas to match grade at edge of existing landscape.

D. Prior to the placement of any fill material for riding features (rollers, berms, etc.) construction, the Contractor shall layout (stake, chalk, flag, etc.) the location of each bike park feature in order of riding direction as shown on the plans. Layout of riding features must be approved by the Pump Track Designer before feature construction. After approval of the layout, riding features shall be constructed or installed in the sequence of riding direction as shown on the plans.

E. The Contractor shall be responsible for verifying actual location, shape and size of Pump Track riding features and gaining approval from the pump Track Designer prior to construction.

F. The Pump Track Designer shall approve finish grades prior to removal of earth moving equipment from project site.

G. Contractor shall be responsible to prevent use of Pump Track features (rollers, berms, rollers, etc.) while the project is under construction.

H. All pump track features shall be stabilized with Soiltac in accordance with the Manufactures Specifications.

END OF SECTION 32 91 19

SECTION 32 92 13
HYDROSEEDING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SCOPE

A. Furnish and place hydroseeding and related work, including organic materials, seed fiber, stabilizing emulsion and all other materials shown on drawings and as specified herein.

B. Related Work Described Elsewhere:
   1. Section 31 10 00 – Clearing & Grubbing
   2. Section 32 91 19 – Earthwork and Grading

1.03 QUALITY CONTROL

A. Reviews: The Contractor shall specifically request a review by Landscape Architect of finish grade to receive hydroseeding, and site inspection of seed, and fiber prior to starting work Certificates shall be submitted to Landscape Architect prior to review; see following.

B. Nomenclature: Plant botanical names conform to “Standardized Plant Names”, second edition.

C. Schedule: Hydroseeding schedule shall be submitted to the County Representative within fourteen (14) days of the signed contract.

D. Hydroseeding limits: Shall be confirmed with the Landscape Architect prior to seeding.

1.04 SUBMITTALS

A. All submittal data shall be forwarded in a single package to the County Representative within 15 days of award of contract.

B. Furnish 6 copies of manufacturer’s literature for the following items:
   1. Seed Mix
   2. Stabilizing Agent
   3. Cellulose Fiber

C. Samples
   1. Submit 1 ounce sample of certified seed mix.

D. Certificates of Compliance, receipts and/or delivery tickets for the following:
   1. Grass Seed Mix
      a. Seed: Contractor shall furnish the Landscape Architect with seed supplier's certificate guaranteeing statement of composition, mixture and percentage or purity or germination of each variety, weight and origin for all seed within five days after award of contract.
   2. Cellulose Fiber
      a. Cellulose Fiber for hydroseeding shall be certified for laboratory and field testing of the product and that the product meets and has been tested for all requirements specified herein. Weight of fiber material specified and shipped shall refer only to air dry weight, containing no more than 10 percent (by weight) water.

E. Hydroseed Work Sheets: Prior to the slurry preparation the operator shall supply the Owner a worksheet and checklist showing the amount of materials to be added to each dump of the seeder and the number of dumps needed to complete this job with the seeder size to be used.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Seed shall be the mix specified on the plans and meet the following additional conditions:
   1. Seed shall be pre-mixed and packaged by a commercial seed supplier, tagged and labeled in accordance with California Agricultural Code.
   2. Inert matter shall not exceed 5.0% nor weed content 0.5%, with no noxious weeds.

B. Stabilizing Agent (soil binder): Stabilizer shall be a biodegradable tacifier, non-toxic to plant or animal life, such as sentinel or M-binder.

C. Cellulose Fiber: Fiber shall be colored with a non-toxic, water soluble green dye to provide the proper visual gauge for metering of material over ground surfaces and shall be produced from natural or recycled (pulp) fiber, such as wood chips, similar wood materials, or newsprint, chip board, corrugated cardboard, or a combination of these processed materials.
   1. Fiber shall be of such a character that upon addition and agitation in slurry tanks with seed, water and other additives, fibers become uniformly suspended to form homogeneous slurry.
   2. When hydraulically sprayed on the ground, fiber shall form a blotter-like groundcover impregnated uniformly with seed which allows absorption of moisture and rainfall percolation into underlying soil.
   3. Materials that inhibit germination or growth shall not be present in the mixture.

D. Water: Not required, hydroseed is non-irrigated.

2.02 HYDRAULIC EQUIPMENT

A. Use a commercial-type hydroseeder with a built-in agitation system and an operating capacity sufficient to agitate, suspend and homogeneously mix slurry of fiber mulch, seed, soil binder, flexible growth medium and water. Use distribution lines large enough to provide even distribution of the slurry over the ground surface to be seeded. Pump must be capable of exerting up to 150 psi at the nozzle and the slurry tank have a minimum capacity of 1,000 gallons when operating and be mounted on a traveling unit to place the slurry tank and spray nozzles within sufficient proximity to the areas to be seeded in order to provide uniform distribution without waste.

B. Equipment for irrigation shall be available if deemed necessary for establishment of hydroseed.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Prior to all work in this section, verify grades and carefully inspect the installed work of all other trades. The Contractor shall verify that hydroseed areas are adequately graded for seed application and free of deleterious material and weeds and complete to the point where the installation may properly commence. In the event of discrepancy, immediately notify the Landscape Architect. Do not proceed with this installation in areas of discrepancies until all such discrepancies have been fully resolved.

B. The Contractor shall obtain approval of hydroseed area preparation from the Landscape Architect prior to application.

C. After approval of scarified finished grades, uniformly apply 2 inches of water within a 48-hour period to promote weed growth. Allow weeds to germinate a minimum of 14 days after application of water and then kill with a systemic herbicide that will not affect the subsequent germination of hydroseed mix. Provide temporary irrigation equipment required to apply the water.

D. Install trees, shrubs and groundcover to be planted in hydroseeded area, prior to hydroseeding.

3.02 APPLICATION OF HYDROSEED

A. The hydroseed erosion control materials shall be mixed uniformly and applied in the following proportions to all areas indicated on the Drawings:

Seed mix per plan	
Cellulose Fiber	1800 lbs./acre
R/Binder	60 lbs./acre

B. Mixing: Care shall be taken that the slurry preparation takes place on the site of the work. The slurry preparation should begin by adding water to the tank when the engine is at half throttle. When the water level has reached the height of the agitator shaft, good recirculation shall be established and seed shall be added. Wood pulp mulch shall then

be added. The wood pulp mulch shall only be added to the mixture after the seed and when the tank is at least one-third filled with water. The engine throttle shall be opened to full speed when the tank is half filled with water. All the wood pulp mulch shall be added by the time the tank is two-thirds to three-fourths full. Spraying shall commence immediately when the tank is full. The operator shall spray the area with a uniform, visible coat by using the green color of the wood pulp as a guide.

C. Application:

1. Timing:
   a. Hydroseed materials shall not be applied during windy or rainy weather or when soil temperature is below 40 degrees F.
2. Operators of hydromulching equipment shall be thoroughly experienced in this type of application. Apply specified slurry mix in a sweeping motion to form a uniform mat at specified rate.
3. Keep hydromulch within areas designated and keep from contact with other plant materials.
4. Slurry mixture which has not been applied within 4 hours of mixing shall not be used and shall be removed from the site.
5. After application, the Contractor shall not operate any equipment or allow pedestrians in the covered area.
6. Protect all adjacent hardscape and planting from over spray.

3.03 MAINTENANCE

A. Any area which has not produced a healthy, established stand of grasses after a period of 90 days from the date of seeding shall be reseeded and refertilized at the original rates of application. The Contractor shall be responsible for all seeded areas until an acceptable stand of hydroseed material has been achieved.

3.04 CLEAN-UP

A. Immediately after application thoroughly wash off any plant material, planting areas, paved areas, or architectural features not intended to receive slurry mix. Keep all areas of work clean, neat and orderly at all times. Keep all paved and planting areas clean during planting and maintenance operations. Clean up and remove all deleterious materials and debris from the entire work area prior to Final Acceptance or the satisfaction of the Landscape Architect.

3.05 INSPECTIONS

A. Make written request for inspection prior to seeding and after areas have been seeded and planting operation completed.

B. Submit requests for inspections to Landscape Architect at least 72 hours prior to anticipated inspection date.

END OF SECTION 32 92 13

COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: July 14, 2021

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of a Coastal Development Permit to construct a "pump track" for bicyclists at Quarry Park facility in the unincorporated El Granada area of San Mateo County. This project is appealable to the California Coastal Commission.

County File Number: PLN 2021-00096
(San Mateo County Parks Department)

PROPOSAL

In 2017, the County Parks Department initiated the planning process to create a master plan for the Quarry Park facility in the hills above the community of El Granada. Early on in the process, a pump track was identified as a desirable use for the area, and the Quarry Park meadow was subsequently identified as a compatible location for the pump track. After extensive community outreach, the County's design team finalized a preferred concept for the pump track and submitted it to the Planning Department for a Coastal Development Permit.

The pump track will be constructed entirely out of compacted earth, sourced from native soils onsite to the extent feasible, and will consist of a sequence of banked turns and rollers to allow riders to traverse the track without pedaling. In addition to dirt trails, the pump track will feature several skills components that will be made out of stones, wood and metal, as well as a bike fixit station, picnic tables, and perimeter gates and fencing to match the existing fencing and gates at Quarry Park. The footprint of the proposed track will be approximately 42,000 sq. ft. (0.96 ac). Grading to construct the track is estimated at approximately 800 cubic yards, but no cut or fill will be greater than two feet in height. The project site is relatively flat and vegetation within the footprint area consists primarily of non-native annual grasses. No trees are proposed for removal as part of this project.

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit, County File Number PLN 2021-00096, by adopting the required findings and conditions of approval contained in Attachment A.

SUMMARY

Staff has completed a review of the proposed project and all submitted documents and reports in order to determine the project's conformity to applicable General Plan and Local Coastal Program policies. Potential impacts to special status species were identified. Conditions of approval to mitigate these potential impacts have been include in Attachment A of this report. For the purposes of compliance with the California Environmental Quality Act (CEQA), the project qualifies for a Categorical Exemption, specifically Category Four (Minor Alterations of Land). Planning staff has reviewed the project and concluded that the project, as conditioned, complies with the County's General Plan and Local Coastal Program.

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: July 14, 2021

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of a Coastal Development Permit, pursuant to Section 6328.4 of the County Zoning Regulations, to construct a "pump track" for bicyclists at Quarry Park facility in the unincorporated El Granada area of San Mateo County. This project is appealable to the California Coastal Commission.

County File Number: PLN 2021-00096
(San Mateo County Parks Department)

PROPOSAL

In 2017, the County Parks Department initiated the planning process to create a master plan for the Quarry Park facility in the hills above the community of El Granada. Early on in the process, a pump track was identified as a desirable use for the area, and the Quarry Park meadow was subsequently identified as a compatible location for the pump track. After extensive community outreach, the County's design team finalized a preferred concept for the pump track and submitted it to the Planning Department for a Coastal Development Permit.

The pump track will be constructed entirely out of compacted earth, sourced from native soils onsite to the extent feasible, and will consist of a sequence of banked turns and rollers to allow riders to traverse the track without pedaling. In addition to dirt trails, the pump track will feature several skills components that will be made out of stones, wood and metal, as well as a bike fixit station, picnic tables, and perimeter gates and fencing to match the existing fencing and gates at Quarry Park. The pump track will be separated into three separate skill levels including a perimeter skills trail, a beginner track, and an intermediate track in order to provide a range of experiences for riders, and clear signage will be provided to ensure the pump track rules and expectations are understood by all users. The footprint of the proposed track will be approximately 42,000 sq. ft. (0.96 ac). Grading to construct the track is estimated at approximately 800 cubic yards, but no cut or fill will be greater than two feet in height. The project site is relatively flat and vegetation within the footprint area consists primarily of non-native annual grasses. No trees are proposed for removal as part of this project.

RECOMMENDATION

Approve the Coastal Development Permit, County File Number PLN 2021-00096, by adopting the required findings and conditions of approval contained in Attachment A.

BACKGROUND

Report Prepared By: Michael Schaller, Senior Planner

Applicant: Gates + Associates (Dylan Buterbaugh, representative)

Owner: San Mateo County Parks Department

Location: Quarry Park, El Granada

APN(s): 047-340-020

Existing Zoning: Resource Management – Coastal Zone (RM-CZ)

General Plan Designation: Open Space (Rural)

Existing Land Use: The larger Project Parcel is part of the Quarry Park community park in the hills on the east side of El Granada. The area in which the pump track is proposed is an existing open meadow area adjacent to the parking lot near the entrance to the park.

Flood Zone: Zone X (Areas of Minimal Flood Hazard), FEMA Community Panel 06081C-0140E, Effective Date: October 16, 2012.

Environmental Evaluation: Categorically exempt, pursuant to the California Environmental Quality Act (CEQA), Section 15304, Class 4, relating to the minor alteration in the condition of land.

Setting: The area where the pump track is proposed is an open meadow area dominated by non-native annual grassland vegetation. Primary plant species include slender oat, Italian ryegrass, rip gut brome, and bristly ox-tongue with few native species. Surrounding the meadow to the north, east and west lies a dense stand of non-native eucalyptus forest. To the south lies the entry road and parking area for the park. The meadow area where the track is proposed has a gentle slope of just under 3 percent. Approximately 200 feet to the west of the proposed track lies an intermittent stream channel. Vegetation around this stream channel is dominated by eucalyptus trees.

DISCUSSION

A. KEY ISSUES

1. Conformance with the County General Plan

The County's Local Coastal Program (LCP) is a subset of the County General Plan, and the two documents are internally consistent. The following analysis of the project's consistency with the LCP, which is more specific than the General Plan with regard to issues raised by this project, therefore also addresses, by extension, the project's consistency with the County's General Plan.

2. Conformance with the Local Coastal Program

a. Locating and Planning New Development

Policy 1.8 (*Land Uses and Development Densities in Rural Areas - Amount of Development Allowed for Visitor-Serving, Commercial Recreation, and Public Recreation Uses*) this policy requires the use of density credits as a means of regulating the amount of development allowed on rural parcels. The project site lies on the "rural" side of the LCP designated urban/rural boundary map. Specifically, this policy requires one density credit for the first 945 gallons, or fraction thereof, of average daily water use during the two months of highest water use in a year. It further ties the amount of development allowed per density credit to the uses enumerated in Table 1.5 of the Local Coastal Program. The closest category of use listed in that table would be Outdoor Sports Facility. However, all of the subcategories within that listing involve water use – drinking fountains, toilets, and irrigated landscape. In this instance the track will be "paved" (using Soiltac) and no irrigated landscaping (which would require regular watering) is being proposed. No bathrooms or water fountains are proposed. Upon completion, the project will not consume water. Therefore, the proposed public recreational use does not consume a density credit.

Policy 1.35 (*All New Land Use Development and Activities Shall Protect Coastal Water Quality*) the project plans include construction phase erosion control plans and a permanent storm water control plan that have been reviewed and approved by the Department's Stormwater Review section as complying with the County's Regional Stormwater Permit.

b. Sensitive Habitats Component

Policy 7.1 (*Definition of Sensitive Habitats*) this policy defines sensitive habitats as any area in which plant or animal life or their habitats are either rare or especially valuable, and includes endangered species habitat, intermittent streams, and lakes and ponds. As discussed in the Project Setting section, there is an intermittent stream channel approximately 200 feet to the west of the project site. The applicant has had a Biological Resource Assessment prepared for the Quarry Park property (Attachment D). The Assessment described this stream channel as follows:

"The unnamed USGS dashed blue-line intermittent stream trending north-south in the western portion of the Study Area had obvious signs of scouring and debris deposition within the streambed and an unvegetated gravel bed. This unnamed stream had widths varying from 5 to 7 feet with flowing water (at the time of the assessment). Dominant vegetation associated with the stream is comprised of blue gum eucalyptus, red elderberry, and poison oak."

The Assessment did not identify any other Sensitive Habitat Areas in the area surrounding the project site.

Policy 7.5 (*Permit Conditions*) this policy requires, as part of the development review process, that the applicant demonstrate that there will be no significant impact on sensitive habitats or species. This is achieved by submission of a biological report outlining what resources exist at the project location and how the project may impact those resources. As discussed above, the applicant has prepared a Biological Resource Assessment of the Quarry Park property. The Assessment identified the several plant species, such as San Mateo Tree Lupine, which have the potential to occur on the larger Quarry Park property. However, these species are generally associated with northern coastal scrub habitat, which occurs in other parts of the park and are not usually associated with open grassland habitats. Moreover, this grassland meadow area where the track is proposed has a history of active use for hiking, picnicking, and other pedestrian uses.

Four special status wildlife species were also identified as having a high potential to occur on or within the Quarry Park property, though their chances of occurring in the immediate project area are limited due to the lack of suitable habitat. The Assessment identified:

San Francisco Dusky-footed Woodrat - Woodrat nests were observed in various forested habitats (e.g., riparian, willow and blue gum) throughout the Study Area. The Assessment determined that if construction activities were to occur within such habitats, then protection measures would be required. As stated previously, all work associated with the project will occur in the open grassland meadow area. No work is proposed to occur within any of the forested areas of the property.

Special-Status and Non-Special-Status Nesting Birds - Special-status bird species with potential to nest within the Study Area include white-tailed kite, olive-sided flycatcher, and Allen's hummingbird. In addition, most common native bird species are also protected by the Migratory Bird Treaty Act (MBTA) during the nesting season. The following avoidance and minimization measures are recommended by the Assessment to avoid impacts to special-status bird species. These measures include pre-construction surveys and exclusion zones around identified nests. These recommended measures have been included as Conditions of Approval No. 5 and 6.

California Red-legged Frog - California Red-Legged Frog (CRLF) and San Francisco Garter Snake (SFGS) are both likely to inhabit upper Arroyo de en Medio within Quarry Park. The Arroyo is nearly a mile away from the project site and on the other side of the ridge that dominates Quarry Park. California Red-Legged Frog may also inhabit ponds and streams throughout the rest of the Quarry Park Study Area, but SFGS is unlikely in areas outside of Arroyo de en Medio because of the absence of preferred habitat components. As discussed previously, there is an intermittent stream approximately 200 feet to the west of the project site. While not ideal habitat for the CRLF, it still potentially could occur within the riparian corridor associated with this intermittent stream. The Assessment has recommended a number of standard protection measures to avoid impacting the California Red-Legged Frog. These recommended measures have been included as Conditions of Approval Nos. 8 - 21.

Monarch Butterfly - Monarch butterfly has potential to roost in the Eucalyptus groves throughout the Study Area during the winter. However, the proposed project will not remove or trim any of the adjacent Eucalyptus trees. It is not anticipated that the project will have an impact upon roosting Monarch butterfly colonies if any are present during the time of construction. However, out of an abundance of caution, the recommended protection measures from the Biological Resources Assessment have been included as Conditions of Approval Nos. 22 - 25.

Policy 7.11 (*Establishment of Buffer Zones (for Riparian Corridors)*) on both sides of riparian corridors, from the "limit of riparian vegetation" extend buffer zones 50 feet outward for perennial streams and 30 feet outward for intermittent streams. As mentioned previously, there is an intermittent stream (with associated riparian vegetation) approximately 200 feet west of the project site. The most westerly edge of the proposed work area is approximately 60 feet away from the "limits of riparian vegetation" for this stream, well outside the required buffer zone.

c. Visual Resources Component

Policy 8.5 (*Location of Development)* this policy requires that development be located on a portion of a parcel where it is least visible from State and County Scenic Roads, is least likely to significantly impact views from public viewpoints, and best preserves the visual and open space qualities of the parcel overall. The project location is within the boundaries of the Cabrillo Highway County Scenic Corridor. However, the project site is not visible from Cabrillo Highway due to distance and intervening urban development. The project site will be visible from the surrounding parkland (a public viewing point). However, the project will not create structures taller than 3.5 feet tall. The tallest proposed track feature will be three feet above grade. The wood fencing that will surround the completed track is proposed at 3.5 feet in height. No solid walled structures that could block views are proposed. While the proposed track will convert a portion of the park's open meadow area to a more intensive public recreational use, the large majority of the park will be left as undeveloped open space. Constructing the proposed track at this location as opposed to other open meadow areas within Quarry Park best preserves the overall visual resources of the El Granada area.

Policy 8.17 – (*Alteration of Landforms; Roads and Grading)* this policy requires that development be located and designed to conform with, rather than change, landforms. The alteration of landforms as a consequence of grading, cutting, excavating, filling or other development shall be minimized. As stated previously and in the project description, the amount of grading is relatively minor in comparison to the footprint of the project. No cuts greater than two feet in height are proposed while fill areas will not exceed three feet in height. No significant terraforming of the project area is proposed.

Policy 8.19 – (*Colors and Materials)* this policy requires new development to employ colors and materials which blend, rather than contrast, with the surrounding physical conditions of the site and prohibits highly reflective surfaces and colors except those of solar

energy devices. The proposed track will employ natural earth tone colors, with no shiny or reflective surfaces proposed.

d. Hazards Component

Policy 9.5 (*Designation of High-Risk Fire Areas*) the project site lies within a designated High-Risk Fire area as delineated by Cal-Fire. However, no habitable structures are proposed as part of this project, nor will a significant number of flammable materials be placed on the site. The project is not in conflict with the hazards policies of Chapter Nine.

e. Recreation/Visitor-Serving Facilities Component

Policy 11.8 (*Rural Areas*) this policy permits public recreation facilities to locate outside of rural service centers when they require a location surrounded by open land and do not require new structures which obstruct or detract from existing views. Public recreational uses are, by definition, restricted to land that is owned by the public in some form. Such is the case with the subject project. The open space area surrounding the proposed bike track will provide a buffer from adjacent residential uses. This buffer space combined with intervening vegetation will help reduce potential noise impacts upon adjacent residences to a less than significant level. Additionally, there is existing parking and bathroom facilities nearby that will help address use of the park by users who do not live in the immediate area. As discussed previously, the track will not obstruct views from the surrounding park land.

Policy 11.12 (*Sensitive Habitats*) this policy permits recreation facilities to locate on lands adjacent to sensitive habitats only when (1) there is adequate distance or separation by barriers, (2) the habitat is not threatened, and (3) there will not be substantial impacts on habitat, topography, and water resources. As discussed above, there is an intermittent stream with associated habitat approximately 200 feet west of the project site. No construction activities will occur within the buffer zone for this riparian area nor is there any reason to believe that normal use of the track by area residents will threaten or impact surrounding habitat.

3. Compliance with RM-CZ Zoning Regulations

The Coastal Act of 1976 requires that the County's Local Coastal Program (LCP) include zoning ordinances, zoning district maps and any other actions necessary to implement the requirements of the Coastal Act in San Mateo County. To that end, all projects, including government projects, must show

compliance with not only the LCP, but with the applicable zoning regulations.

Section 6905 - *Permitted Uses*. Within the RM-CZ district, Public Recreation is a permitted use.

Section 6908b - *Minimum Yards*. In the absence of more restrictive provisions within this ordinance, the minimum yards required in the RM-CZ District shall be as follows:

	Required	Proposed
Front Yard	50 feet	Approx. 500 feet
Side Yard	20 feet	Approx. 250 feet
Rear Yard	20 feet	1000+feet

Section 6912.2 - *Site Design Criteria*.

a. *All roads, buildings and other structural improvements or land coverage shall be located, sited and designed to fit the natural topography and shall minimize grading and modification of existing land forms and natural characteristics.*

   As discussed previously, the project is located in an area of Quarry Park with a relatively low slope, thus reducing the amount of grading necessary to construct the track. Construction of the track will require approximately 369 cubic yards of cut and 425 cubic yards of fill to construct. The deepest cut face will be approximately 1.5 feet in depth at the north end of the track area.

b. *All development shall be sited and designed to minimize the impacts of noise, light, glare and odors on adjacent properties and the community-at-large.*

   The applicant is proposing to construct the track at the northerly end of the open meadow area within Quarry Park. This location was chosen to take advantage of existing vegetation and spacing in order to provide screening of the track from adjacent residences. There will be no lighting of the track nor shiny surfaces that would generate glare. No odor generating uses are proposed as part of the track.

c. *The development shall employ colors and materials which blend in with, rather than contrast with, the surrounding soil and vegetative cover of the site. In grassland, or grassland/forest areas, all exterior materials shall be of the same earth and vegetative tones as the*

predominant colors of the site (as determined by on-site inspections). Highly reflective surfaces and colors are discouraged.

The track surface will be composed of packed earth sourced from on-site. Fencing around the track will be wood, split rail fencing. Other amenities at the site, such as picnic tables and bike repair equipment will either utilize wood materials or be painted in non-reflective earth tones. No reflective or non-earth tone colors will be employed.

4. Compliance with the County Grading Ordinance

Section 9284 (*Exemptions*) of the County Grading Regulations exempts work conducted in any County street, land, or right of way when the work is for a public facility, public utility or other public purposes, or is controlled by other permits. The purpose of the proposed grading is to construct a public recreation facility, where the discretionary approval is controlled by a Coastal Development Permit. Therefore, the proposed grading activities are exempt.

B. ENVIRONMENTAL REVIEW

Categorically exempt, pursuant to the California Environmental Quality Act (CEQA), Section 15304, Class 4, relating to the minor alteration in the condition of land.

C. REVIEWING AGENCIES

California Coastal Commission
SMC Building Department – Geotechnical Review Section
SMC Building Department – Drainage Review Section
MidCoast Community Council

ATTACHMENTS

A) Recommended Findings and Conditions of Approval
B) Location Map
C) Project Plans
D) Biological Resources Assessment - San Mateo County Quarry Park Master Plan Project

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Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2021-00096 Hearing Date: July 14, 2021

Prepared By: Michael Schaller
Senior Planner

For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That the project is categorically exempt, pursuant to the California Environmental Quality Act (CEQA), Section 15304, Class 4, relating to the minor alteration in the condition of land.

Regarding the Coastal Development Permit, Find:

2. That the project, as described in the application and accompanying materials required by Zoning Regulations Section 6328.7 and as conditioned in accordance with Section 6328.14, conforms with the plans, policies, requirements and standards of the San Mateo County Local Coastal Program with regards to the protection of biotic and visual resources.

3. That the project conforms to the specific findings required by policies of the San Mateo County Local Coastal Program as discussed in Section A(2) of this Staff Report. Protection measures will be implemented to prevent any impact to biological resources, including the San Francisco Garter Snake and California Red-Legged Frog.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The approval applies only to the proposal as described in this report and materials submitted for review and approval by the Planning Commission on July 14, 2021. The Community Development Director may approve minor revisions or modifications to the project if they are found to be consistent with the intent of and in substantial conformance with this approval.

General Avoidance Measures

2. Site grading and trail development activities shall be restricted between May 1 and December 31. Site grading during these dryer months will reduce the possibility of soil erosion and sediments flowing into natural habitats.

3. Install temporary silt fencing along the perimeter of Environmentally Sensitive Habitat Areas (ESHAs) where land disturbing activities will occur to protect potential ESHAs.

4. Solid materials, including wood, masonry/rock, glass, paper, or other materials shall not be stored or placed in any required buffer zone to the extent practicable. Solid waste materials should be properly disposed of off-site. Fluid materials, including concrete, wash water, fuels, lubricants, or other fluid materials used during construction shall not be disposed of on-site and should be stored or confined as necessary to prevent spillage into natural habitats. If a spill of such materials occurs, the area shall be cleaned, and contaminated materials disposed of properly. The affected area shall be restored to its natural condition.

Special-Status and Non-Special-Status Nesting Birds

5. If project activities are conducted during the nesting season (February 15 – August 31), a pre-construction nesting bird survey, performed by a qualified biologist, shall be performed no more than 14 days prior to initial ground disturbance to avoid impacting active nests, eggs, and/or young.

6. If the survey identifies any active nest, an exclusion buffer shall be established for protection of the nest and young. A qualified biologist shall establish a buffer appropriate for the species and location of the nest if it is necessary. The buffer shall be maintained until all young have fledged.

7. Impacts to nesting birds can be avoided if construction activities are initiated outside of the nesting season (September 1 – January 31). During this time period, no pre-construction bird surveys are recommended.

California Red-Legged Frog and San Francisco Garter Snake

8. All ground disturbance activities shall be restricted to the dry season (April 15 through October 15) or when suitable habitats have dried in order to reduce the potential for CRLF and SFGS to occur within non-ponded habitats of the Study Area.

9. A qualified biologist shall survey the work site immediately before the onset of vegetation clearing or ground disturbance activities to verify if species are present and all habitats are dry. If CRLF are found and do not move out of the work area on their own, the USFWS shall be contacted to determine if relocation is

appropriate. In making this determination, the USFWS will consider if an appropriate relocation site exists. If the USFWS approves moving animals, a USFWS-approved biologist will be allowed sufficient time to move them from the work site before work activities begin. Any SFGS shall be allowed to leave the work area on their own and shall be monitored as practical by the biologist to ensure they do not reenter the work area.

10. Prior to the start of ground-disturbing activities, all construction personnel shall receive training on listed species and their habitats by a qualified biologist. The importance of these species and their habitat will be described to all employees as well as the minimization and avoidance measures that are to be implemented as part of the project. An educational brochure containing color photographs of all listed species in the work area will be distributed to all employees working within the Study Area. The original list of employees who attend the training sessions will be maintained by the contractor and be made available for review by the USFWS and the CDFW upon request.

11. The contractor shall designate a person or employee to monitor on-site compliance with all minimization measures. The on-site monitor(s) will be on-site daily for the duration of work, including vegetation removal, grading, and clean-up activities.

12. Any vehicles and equipment associated with work-activities shall be parked or staged only within a designated staging area at the end of each workday or when not in use in order to minimize habitat disturbance or water quality degradation.

13. Wildlife exclusion fencing shall be erected and maintained around the perimeter of the Limit of Work area, including the project construction staging areas and access routes, to prevent SFGS and CRLF from entering the site overnight.

14. Vehicle access points shall have a temporary silt fence gate, which is opened to allow construction vehicle access while the contractor's trained personnel are present. At night the seal on the temporary gate should be augmented by sandbags to prevent species from entering the area beneath the gate. Installation of fencing will be performed under the supervision of a USFWS-approved biologist.

15. No work shall occur within 48 hours of a rain event (over 0.25-inch in a 24-hour period). Following a rain event, a qualified biologist will resurvey the work area immediately before reinitiating ground disturbance activities to verify if species are present. If CRLF or SFGS are observed, then the steps previously described for the initial pre-construction survey shall be followed.

16. Plastic monofilament netting (erosion control matting), rolled erosion control materials, or similar material shall not be used at the Study Area because CRLF, SFGS, and other species may become entangled or trapped in it. Any erosion control materials used should be made of tightly woven fiber netting or similar

material to ensure that the CRLF and SFGS are not trapped. This limitation shall be communicated to the contractor prior to the start of work.

17. No trash shall be deposited on the site during construction activities. All trash shall be placed in trash receptacles with secure lids, stored in vehicles, and removed nightly from the Study Area.

18. Refueling or maintenance of equipment shall be conducted at least 50 feet from any wetlands, waters or designated ESHAs.

19. California Red-Legged Frog and SFGS may take refuge in cavity-like or den-like structures such as pipes and may enter stored pipes and become trapped. Therefore, all construction pipes, culverts, or similar materials, which are stored at the site for one or more nights, will be either securely capped or thoroughly inspected by the on-site monitor and/or the construction foreman/manager before the pipe is used or moved in any way. It is also recommended these materials are stored within the staging areas either in developed areas or within wildlife exclusion fencing.

20. The on-site monitor and/or construction foreman/manager shall ensure that all excavated steep-walled holes or trenches more than one foot deep are completely covered at the close of each working day by covering holes with plywood or similar materials and covering the edges of those materials with dirt to prevent access by wildlife. Alternatively, holes may be augmented with one or more escape ramps constructed of earth fill or wooden planks. Any ramps installed should be approved by the on-site biologist. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals by the on-site biologist and/or construction foreman/manager.

21. If at any time a trapped CRLF or SFGS is discovered by the on-site biologist or anyone else, work in the immediate area should cease as soon as it is safe to do so, and the animal shall be allowed to passively leave the work area on its own. Steps outlined above shall be followed if the animal does not or cannot leave the area on its own.

Monarch Butterfly

22. If possible, project work should be scheduled to occur between September and October.

23. If the Project will remove or trim trees during the winter roost season (October 1 through March 15), then a pre-construction survey for roosting monarch butterflies should be conducted within 7 days of tree removal or trimming activities.

24. If monarch butterflies are detected roosting in trees to be removed or trimmed, then consultation with CDFW may be required to determine how and when to proceed with activities and if additional mitigation measures are required.

25. If tree removal or trimming is conducted March 16 through September 31, then no preconstruction surveys for roosting monarch butterflies are necessary.

Discovery of Human Remains

26. If at any time during site preparation, excavation, or other ground disturbance associated with the proposed project, human remains are discovered, the construction contractor shall immediately cease and desist from all further site excavation and notify the County Planning Department. The Planning Department shall notify the sheriff-coroner. If the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission. The Native American Heritage Commission will identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent makes recommendations regarding the treatment of the remains with appropriate dignity. Disturbance shall not resume until the significance of the human remains is determined and appropriate mitigations to preserve the resource on the site are established.

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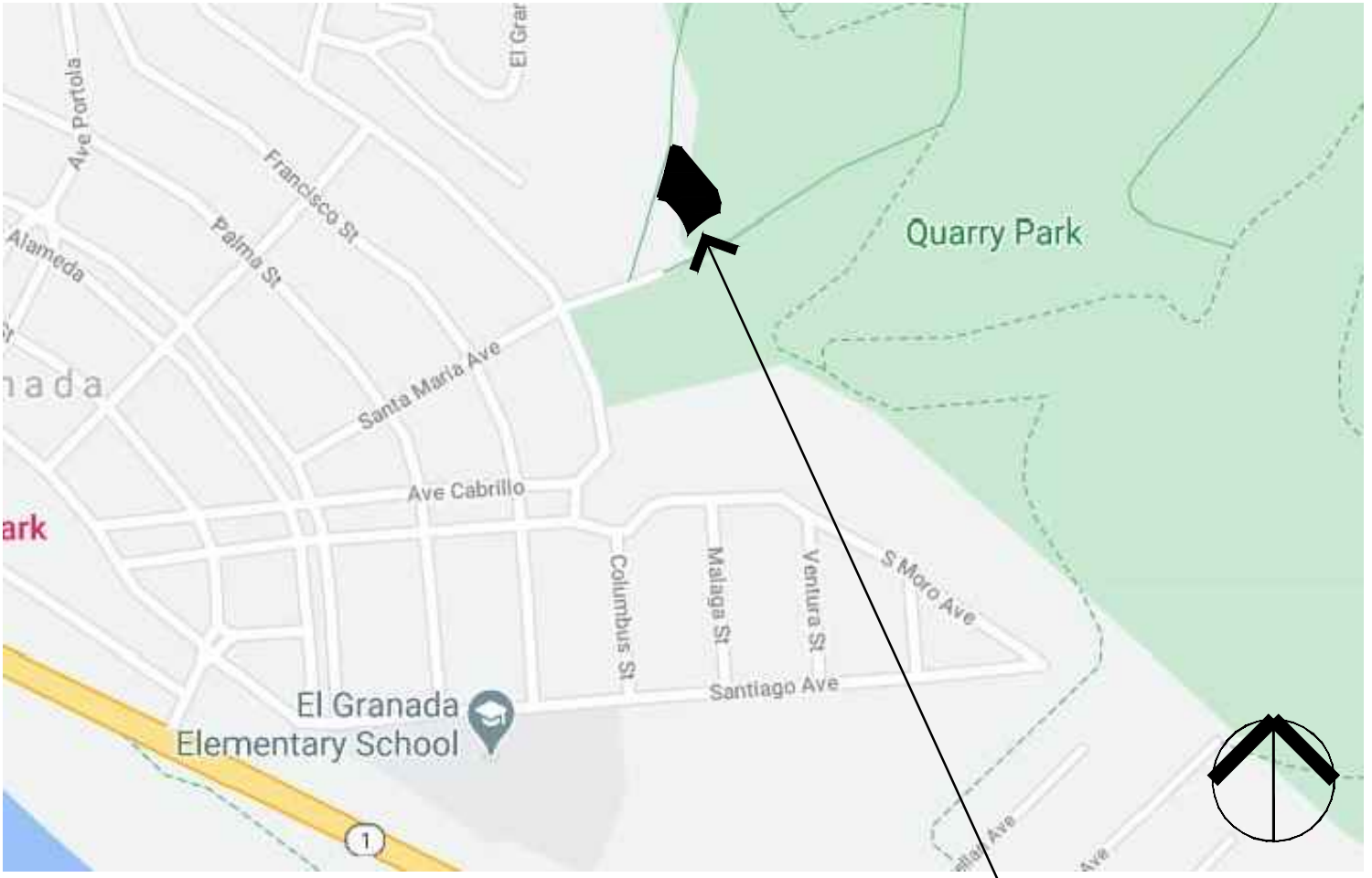
County of San Mateo - Planning and Building Department

ATTACHMENT B



PROJECT SITE

County of San Mateo - Planning and Building Department

ATTACHMENT C

QUARRY PARK PUMP TRACK

SAN MATEO COUNTY, CALIFORNIA

PROJECT DIRECTORY

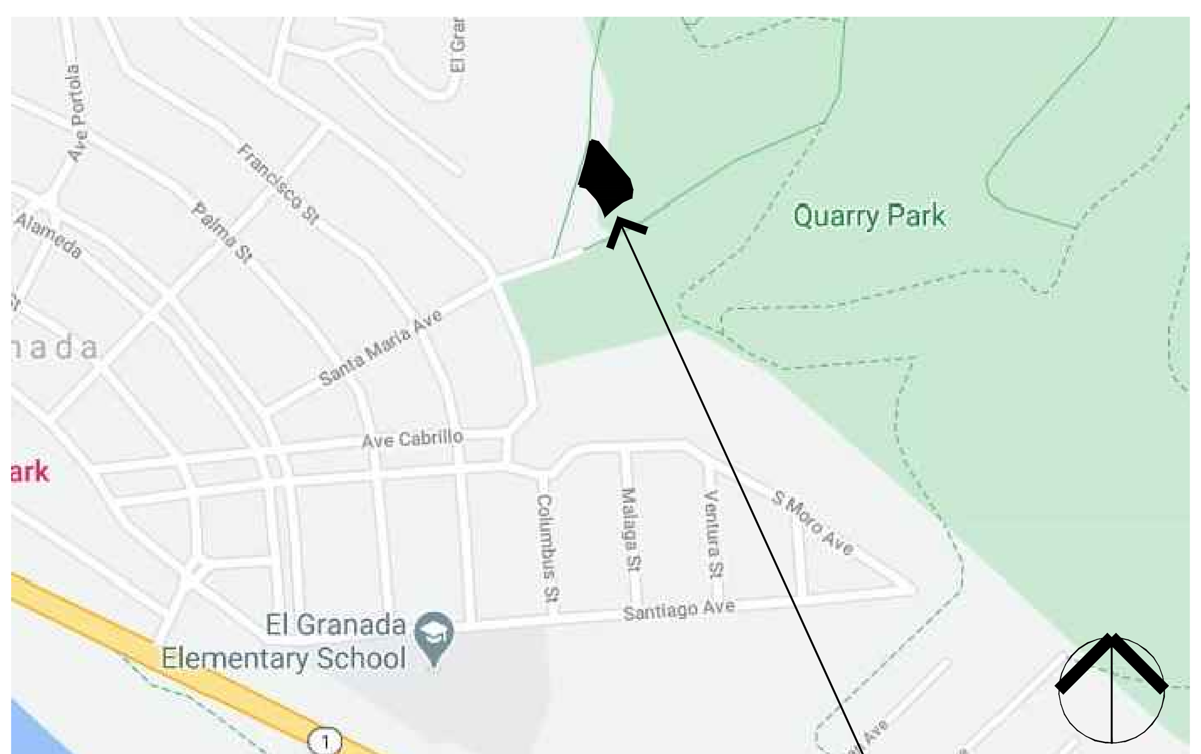
LANDSCAPE ARCHITECT
GATES + ASSOCIATES
2671 CROW CANYON ROAD
SAN RAMON, CA 94583
PH: (925) 736-8176
CONTACT: DYLAN BUTERBAUGH

PUMP TRACK DESIGNER
WORMHOUDT INC.
849 ALMAR AVE. C-280
SANTA CRUZ, CA 95060
PH: 831.426.8424
CONTACT: ZACH WORMHOUDT

SHEET LIST

Sheet Number	Sheet Title
L0.1	GENERAL NOTES & LEGENDS
L1.0	EXISTING CONDITIONS & DEMOLITION PLAN
L2.0	EROSION CONTROL PLAN
L2.1	EROSION CONTROL PLAN
L3.0	SITE GRADING PLAN
L4.0	SITE AMENITIES PLAN
L5.0	CONSTRUCTION DETAILS
L5.1	EROSION CONTROL DETAILS
PT3.0	PUMP TRACK GRADING PLAN
PT3.1	PUMP TRACK CONSTRUCTION PLAN
PT3.2	PUMP TRACK LAYOUT PLAN
PT3.3	PUMP TRACK MATERIALS PLAN
PT4.0	PUMP TRACK DETAILS
PT4.1	PUMP TRACK DETAILS
PT4.2	PUMP TRACK DETAILS
PT4.3	PUMP TRACK DETAILS
PT4.4	PUMP TRACK DETAILS

LOCATION MAP



PROJECT SITE

GENERAL NOTES

1. THE CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE 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. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD COUNTY AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXEMPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF ENGINEER.
2. ALL APPLICABLE REQUIREMENTS OF THE CALIFORNIA CONSTRUCTION AND GENERAL INDUSTRY SAFETY ERRORS, THE OCCUPATIONAL SAFETY AND HEALTH ACT AND THE CONSTRUCTION SAFETY ACT SHALL BE MET.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PERMITS NECESSARY TO PERFORM THE WORK SHOWN IN THESE PLANS FROM THE APPROPRIATE AGENCIES.
4. THE CONTRACTOR SHALL TAKE EFFECTIVE ACTION TO PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM THEIR FAILURE TO DO SO.
5. THE CONTRACTOR MUST PROVIDE FOR SAFE ACCESSIBLE INGRESS AND EGRESS FOR ADJACENT PROPERTY OWNERS AND EVA THROUGHOUT THE PERIOD OF CONSTRUCTION . TEMPORARY THROUGH ACCESS FOR THE GENERAL PUBLIC DUE TO CONSTRUCTION STAGING OR LIMITATIONS MUST BE FULLY REVIEWED AND APPROVED BY THE COUNTY PRIOR TO IMPLEMENTATION. ALL ACCESS MUST BE SAFE, SECURED, SIGNED, AND ACCESSIBLE PER THE APPROVED SITE ACCESS PLAN SUBMITTED BY THE CONTRACTOR AND REQUIRED BY THE COUNTY.
6. THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR POLICE, FIRE, AMBULANCE, AND THOSE AGENCIES RESPONSIBLE FOR MAINTENANCE OF UTILITIES IN THE VICINITY OF JOB SITE.
7. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING GROUND ELEVATIONS, PIPE INVERTS, AND OVERALL TOPOGRAPHY OF THE SITE, AS WELL AS, ALL SITE DIMENSIONS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY ENGINEER IN WRITING OF ANY DIFFERENCES IN TOPOGRAPHY OR SITE DIMENSION THAT DIFFER FROM THOSE SHOWN ON THE PLANS. ALL PUMPTRACK STRUCTURE GRADING, COMPACTION, AND EARTHWORK SHALL COMPLY WITH THE RECOMMENDATIONS AND REQUIREMENTS OF THE GEOTECHNICAL REPORT.
9. ALL EXISTING 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 NOTIFY UTILITY COMPANIES AT LEAST THREE (3) WORKING DAYS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. CALL UNDERGROUND SERVICE ALERT (U.S.A.), AT 800-227-2600. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED AND MERGED IN THE CONTRACT UNIT PRICE.
10. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION MUST BE COMPLETELY RESTORED TO THE SATISFACTION OF THE CITY ENGINEER OR UTILITY AGENCY REPRESENTATIVE, AT THE CONTRACTOR'S SOLE EXPENSE.
11. ANY RELOCATION OF PUBLIC UTILITIES SHALL BE CONDUCTED IN ACCORDANCE WITH ANY AND ALL REQUIREMENTS OF THE UTILITY COMPANY REPRESENTATIVE INCLUDING FEES, BONDS, PERMITS AND WORKING CONDITIONS, ETC. THIS WORK SHALL BE DONE AT NO EXPENSE TO THE UTILITY COMPANY. THE OWNER SHALL PAY THE COST OF ALL SUCH RELOCATION WORK INCLUDING FEES, BONDS, PERMITS, ETC
12. IF ARCHEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING, TRENCHING OR OTHER EXCAVATION, EARTHWORK 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. 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, IS NEITHER SPECIFIED NOR RECOMMENDED. ANY PARTY INSTALLING OR USING ANY PARTY SUCH MATERIALS OR EQUIPMENT SHALL BE SOLELY RESPONSIBLE FOR ALL INJURIES, DAMAGES, OR LIABILITIES OF ANY KIND, CAUSED BY THE USE OF SUCH MATERIALS OR EQUIPMENT.
14. THE CONTRACTOR MUST MEET AND IMPLEMENT ALL NPDES, SWPPP, AND EROSION CONTROL 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 GATES & ASSOCIATES AT (925) 736-8176 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.

LAYOUT NOTES

1. CONTRACTOR SHALL VERIFY ALL UTILITIES, GRADES, EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. ALL DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION.
2. ALL WRITTEN DIMENSIONS SUPERCEDE ALL SCALED DISTANCES AND DIMENSIONS.
3. ANY EXTRA CONSTRUCTION STAKING NECESSITATED SOLELY BY THE CONTRACTOR'S NEGLIGENCE WILL BE CHARGED TO THE CONTRACTOR ON A TIME AND EXPENSES BASIS AND PAID FOR BY THE CONTRACTOR.
4. ALL TYPICAL DETAILS SHALL APPLY UNLESS NOTED OTHERWISE.
5. CONCRETE FOOTINGS INSTALLED FOR ALL SITE FURNISHINGS SHALL BE HELD BELOW GRADE.
6. ALL EXISTING ITEMS TO REMAIN SHALL BE PROTECTED AS REQUIRED. ANY DAMAGED ITEMS SHALL BE FULLY REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE FULL SATISFACTION OF THE OWNER.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH OPERATIONS.
8. ALL QUANTITIES AND PAY ITEMS ARE AND WILL BE BASED ON HORIZONTAL MEASUREMENTS.
9. ALL PATTERNS, LINE TYPES, AND SYMBOLS SHOWN WITHIN THE PLAN SET REFERENCE THE LAYOUT LEGEND AND ARE PART OF THE SCOPE OF WORK. CALLOUTS ARE SHOWN FOR CLARIFICATION OF WORK, BUT DO NOT INDICATE EVERY AND ALL INSTANCES OF SUCH WORK. THE CONTRACTOR SHALL REQUEST CLARIFICATION TO ANY ITEMS (INCLUDING BUT NOT LIMITED TO PAVING, WALLS, FINISHES, COLORS, FENCING, FOUNTAINS, POTS, AND SITE FURNITURE) NOT CLEARLY IDENTIFIED TO BE PART OF THE SCOPE OF WORK PRIOR TO BID.
10. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK AND MATERIALS OF THE CONTRACT DOCUMENTS INCLUDING ALL WORK AND MATERIALS PROVIDED BY SUBCONTRACTORS. ALL QUALIFICATIONS OF THE CONTRACT DOCUMENTS INCLUDING ALL SPECIFIC EXCLUSIONS OF ANY WORK, DETAILS, MATERIALS, AND INCIDENTALS SHALL BE CONFIRMED AND ACCEPTED IN WRITING BY THE CONTRACTOR AND OWNER UPON FINALIZATION OF BIDS AND CONTRACT. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ALL QUALIFICATIONS AND NOTIFICATIONS.

GRADING NOTES

1. EXISTING GRADES ARE BASED ON PROJECT SURVEY. CONTRACTOR SHALL VERIFY EXISTING GRADES FOR ACCURACY PRIOR TO THE START OF GRADING, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD CONFLICTS ARISE AND REDIRECT WORK TO AVOID DELAY. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL SURVEYING, STAKING, AND LAYOUT. BIKE PARK DESIGNER SHALL PROVIDE CONTRACTOR WITH LAYOUT PLAN DRAWING DWG FILE.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THE CONTRACT DOCUMENTS SHALL BE DEEMED TO BE APPROXIMATIONS ONLY. ALL DISCREPANCIES BETWEEN WHAT IS SHOWN AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
3. THE CONTRACTOR SHALL CONTACT UNDER GROUND SERVICE ALERT (USA) AT (800) 227-2600 PRIOR TO ANY DEMOLITION OR EXCAVATION. UPON COMPLETION OF USA MARKING OPERATIONS, CONTRACTOR SHALL RECORD ALL UTILITY MARKINGS ON A SEPARATE SET OF DRAWINGS. THIS SET SHALL BE KEPT ON-SITE FOR REFERENCE FOR DURATION OF CONTRACT.
4. EXPORTATION AND IMPORTATION OF SOIL, WHICH MAY BE NECESSARY TO MEET THE GRADES SHOWN ON THIS PLAN, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PART OF THIS CONTRACT. ALL EXCESS SOIL SHALL BE REMOVED FROM THE SITE AS PART OF THIS CONTRACT.
5. PROPOSED GRADES SHALL MEET EXISTING GRADES WITH A SMOOTH AND CONTINUOUS TRANSITION SO AS TO AVOID TRAPPING WATER. CONTRACTOR SHALL NOTIFY OWNER REPRESENTATIVE IF PUDDLING IS SUSPECTED AND REDIRECT WORK SO AS TO AVOID DELAY WHILE AWAITING RESPONSE.
6. ALL EXISTING DRAINAGE STRUCTURES, BOXES, UTILITY VAULTS ETC. SHALL BE BROUGHT TO FINAL FINISH GRADE PRIOR TO FINAL SURFACE TREATMENT.
7. CONTRACTOR IS RESPONSIBLE FOR VERIFYING IMPORT FILL QUANTITIES FOR ALL GRADING AND FILL OPERATIONS RELATED TO CONSTRUCTION OF THE PUMP TRACK.
8. CONTRACTOR SHALL LAY OUT ALL RIDING FEATURES. BIKE PARK DESIGNER MUST REVIEW AND APPROVE LAYOUT PRIOR TO CONSTRUCTION.
9. ALL RIDING FEATURES SHALL BE CONSTRUCTED OR INSTALLED PER THE INDICATED RIDE ORDER.
10. PROJECT STAGING AREA MUST BE WITHIN PROJECT LIMIT OF WORK LINE (CONSTRUCTION FENCE). CONTRACTOR WILL SUBMIT PROJECT ACCESS AND STAGING PLAN WITHIN 5 WORKING DAYS OF NOTICE TO PROCEED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT FOR REPAIRING AND REPLACING AT THE CONTRACTORS OWN EXPENSE ALL DAMAGES CAUSED BY HIS/HER OPERATIONS INCLUDING, BUT NOT LIMITED TO: STRUCTURES, LUMINARIES, PLANT LIFE, ETC... LIKEWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY AND ALL DAMAGES OCCURRING BY THEIR OPERATIONS, ON ADJACENT PROPERTIES AND ANYWHERE OUTSIDE THE CONTRACT LIMIT LINES. REPAIR AND REPLACEMENT OF DAMAGED ITEMS IS AT THE SOLE DISCRETION OF THE COUNTY. THE DAMAGED ITEMS WILL BE RESTORED TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF THE COUNTY.

PLANTING NOTES

HYDROSEED

1. ALL DISTURBED AREAS IN AND AROUND PUMP TRACK IMPROVEMENTS SHALL HAVE NON-IRRIGATED HYDROSEED PLACED.
2. ALL HYDROSEED SHALL BE FULLY ROOTED AND ESTABLISHED PRIOR TO OCTOBER 15TH.

ABBREVIATIONS

@	AT	N/A	NOT APPLICABLE
ALT.	ALTERNATE	NIC	NOT IN CONTRACT
BETW.	BETWEEN	NO.	NUMBER
BOT.	BOTTOM	NTS	NOT TO SCALE
CONT.	CONTINUOUS	O.C.	ON CENTER
CP	CONTROL POINT	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
CTRL	CONTROL	(R)	RELOCATED
(E), EXIST	EXISTING	RAD	RADIUS
E.W.	EACH WAY	S	SLOPE
EA	EACH	SP	SPACING
EL	ELEVATION	SD	STORM DRAIN
EQ	EQUAL	TBD	TO BE DETERMINED
ES	EQUAL SPACES	THK.	THICK
EX	EXISTING	T.P.	TANGENT POINT
FG	FINISH GRADE	TYP.	TYPICAL
FS	FINISH SURFACE	UNO	UNLESS OTHERWISE NOTED
FL	FLOW LINE	VERT.	VERTICAL
(G), GRD	GROUND	W/	WITH
HORIZ	HORIZONTAL		
HP	HIGH POINT		
HT	HEIGHT		
I.D.	INNER DIAMETER		
O.D.	OUTER DIAMETER		
LF	LINEAR FOOT		
MFR	MANUFACTURER		
MAX.	MAXIMUM		
MIN.	MINIMUM		
(N)	NEW		

X — DETAIL NUMBER
XX — SHEET NUMBER

LAYOUT LEGEND

PICNIC TABLE (COUNTY STANDARD)
MFR: BELSON
MODEL: PMB-6WR
COLOR: REDWOOD
FINISH: BLACK ENAMEL FRAME
PHONE: (800) 323-5664

BIKE MAINTENANCE STATION (6 / L6.1)
(COUNTY STANDARD)
MFR: DERO
MODEL: FIXIT W/ AIR PUMP KIT
COLOR: GREEN
FINISH: POWDER COAT
INSTALL PER MFR SPECS

DOUBLE GATE (COUNTY STANDARD) (2 / L6.1)
MFR: VIDAXL
MODEL: 141202
SIZE: 66.9" X 35.4" (W X H)

INSTALLATION HARDWARE AND GATE CATCH PROVIDED BY MFR

42" HT SPLIT RAIL FENCE (1 / L6.1)
COUNTY STANDARD

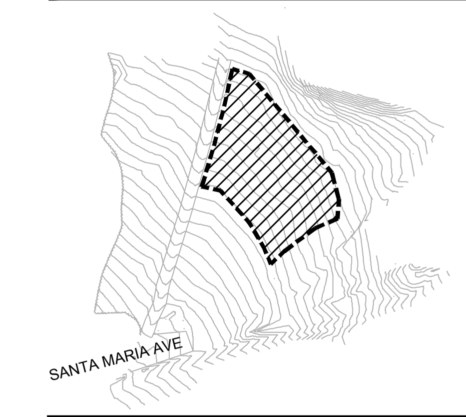
PUMP TRACK OPERATIONAL SIGNAGE (4 / L6.1)

PUMP TRACK ADVISORY SIGNAGE (5 / L6.1)

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
2671 CROW CANYON RD. SAN RAMON, CA 94583
T 925.736.8176 www.dgates.com

QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA



ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

PROJECT NUMBER:	5603
DRAWN:	DB
CHECK:	CG
DATE:	03/15/2021
SCALE:	NTS

0
0" ½" 1" 2"

GENERAL NOTES & LEGENDS

L0.1

PATH: P:\SAN MATEO COUNTY\QUARRY PARK PUMP TRACK (P####)\ACAD\SHEETS_DG-C.DWG
PLOT DATE: 3/15/2021 1:58 AM

DEMOLITION NOTES:

1. ACTUAL CONDITIONS AT THE SITE MAY VARY SUBSTANTIALLY FROM THAT SHOWN ON THESE PLANS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY county INSPECTOR OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND EXISTING CONDITIONS SHOWN ON THESE PLANS.

2. THE LIMITS OF DEMOLITION ARE APPROXIMATELY AS SHOWN ON THIS DEMOLITION PLAN. THE EXACT LIMIT SHALL BE DETERMINED IN THE FIELD BY THE county'S INSPECTOR AND WILL BE DETERMINED BY THE LIMITS OF THE NEW IMPROVEMENTS TO BE CONSTRUCTED. ALL EXISTING IMPROVEMENTS WITHIN LIMITS OF DEMOLITION WILL BE REMOVED UNLESS OTHERWISE NOTED.

3. SURFACE MOUNTED, GALVANIZED, TEMPORARY METAL CHAIN LINK CONSTRUCTION FENCING SHALL BE MIN. 6' HIGH, 11 $\frac{1}{2}$ TO 9 GAUGE, 2 $\frac{1}{4}$" TO 2" MESH SIZE, AND SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE PROJECT, AND BE REMOVED IMMEDIATELY AFTER PROJECT ACCEPTANCE. TEMPORARY CONSTRUCTION SIGNAGE SHALL CONFORM TO COUNTY REQUIREMENTS, SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE PROJECT, AND BE REMOVED IMMEDIATELY AFTER PROJECT ACCEPTANCE.

4. CONTRACTOR SHALL PROVIDE PARKING LOT ACCESS AND PEDESTRIAN ACCESS FOR ADJACENT RESIDENTS FOR THE DURATION OF THE PROJECT. CONTRACTOR TO SUBMIT THE FOLLOWING PLANS TO COUNTY INSPECTOR FOR APPROVAL PRIOR TO BEGINNING ANY WORK. WORK SHALL NOT START WITHOUT county APPROVED PLANS:

   A. CONSTRUCTION FENCING PLAN
   B. CONSTRUCTION SIGNAGE PLAN
   C. WORK STAGING PLAN
   D. PEDESTRIAN SAFETY PLAN

5. EXISTING SITE DRAINAGE STRUCTURES AND GRADING TO REMAIN AND BE PROTECTED. CONTRACTOR TO PROTECT ALL SUBSURFACE PIPING AND UTILITIES AT ALL TIMES.

6. CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION WORK.

7. ANY DAMAGE TO THE SURROUNDING ROAD OR ASPHALT PATH DUE TO CONSTRUCTION SHALL BE REPAIRED TO PRE EXISTING CONDITIONS TO THE SATISFACTION OF THE COUNTY AND AT NO ADDITIONAL COST.

8. CLEARING AND GRUBBING: ON ALL AREAS WHERE GRADING, EXCAVATION, AND FILL ARE TO BE DONE, ALL TIMBER, BRUSH, STUMPS, ROOTS, RUBBISH, AND ORGANIC MATERIALS SHALL BE REMOVED. STUMP HOLES SHALL BE FILLED WITH COMPACTED FILL SOIL.

9. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED. ANY DAMAGE TO EXISTING GRASS OR VEGETATION OUTSIDE THE CONSTRUCTION LIMITS AND STAGING AREAS SHALL BE REPLACED TO MATCH PRE EXISTING CONDITIONS AND TO THE SATISFACTION OF THE COUNTY.

10. PROTECT ALL EXISTING UTILITY STRUCTURES, PLANTERS, LANDSCAPING, BUILDINGS AND FENCES, DURING CLEAR AND GRUB.

11. CONTRACTOR SHALL NOTIFY COUNTY IMMEDIATELY IF CONFLICTS EXIST.

12. ALL EXISTING UTILITIES MAY NOT BE SHOWN. CONTRACTOR TO FIELD VERIFY LOCATION AND EXISTENCE OF ALL UTILITIES PRIOR TO DEMOLITION. CONTRACTOR TO COORDINATE WITH COUNTY PRIOR TO DISTURBANCE OF ANY UTILITY TO DETERMINE ITS CURRENT OR FUTURE USE.

DEMOLITION LEGEND

(1) CLEAR & GRUB (E) MEADOW VEGETATION WITHIN LIMIT OF WORK

PROTECTION LEGEND

(E) EUCALYPTUS TREES TO REMAIN, ALL CONSTRUCTION ACTIVITIES TO OCCUR OUTSIDE OF TREE DRIP LINE.

A (E) MEADOW TO REMAIN, PROTECT IN PLACE, TYP.

B EXISTING GRAVEL PATH TO REMAIN, PROTECT IN PLACE, TYP.

C EXISTING FENCING TO REMAIN, PROTECT IN PLACE

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LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
CHRISTOPHER GASE · No. 5053
06/30/2022
Renewal Date
LA.
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	DB
CHECK:	CG
DATE:	03/15/2021
SCALE:	1"=20'-0"

0 10' 20' 40'
0" 3/4" 1" 2"

EXISTING CONDITIONS & DEMOLITION PLAN

L1.0

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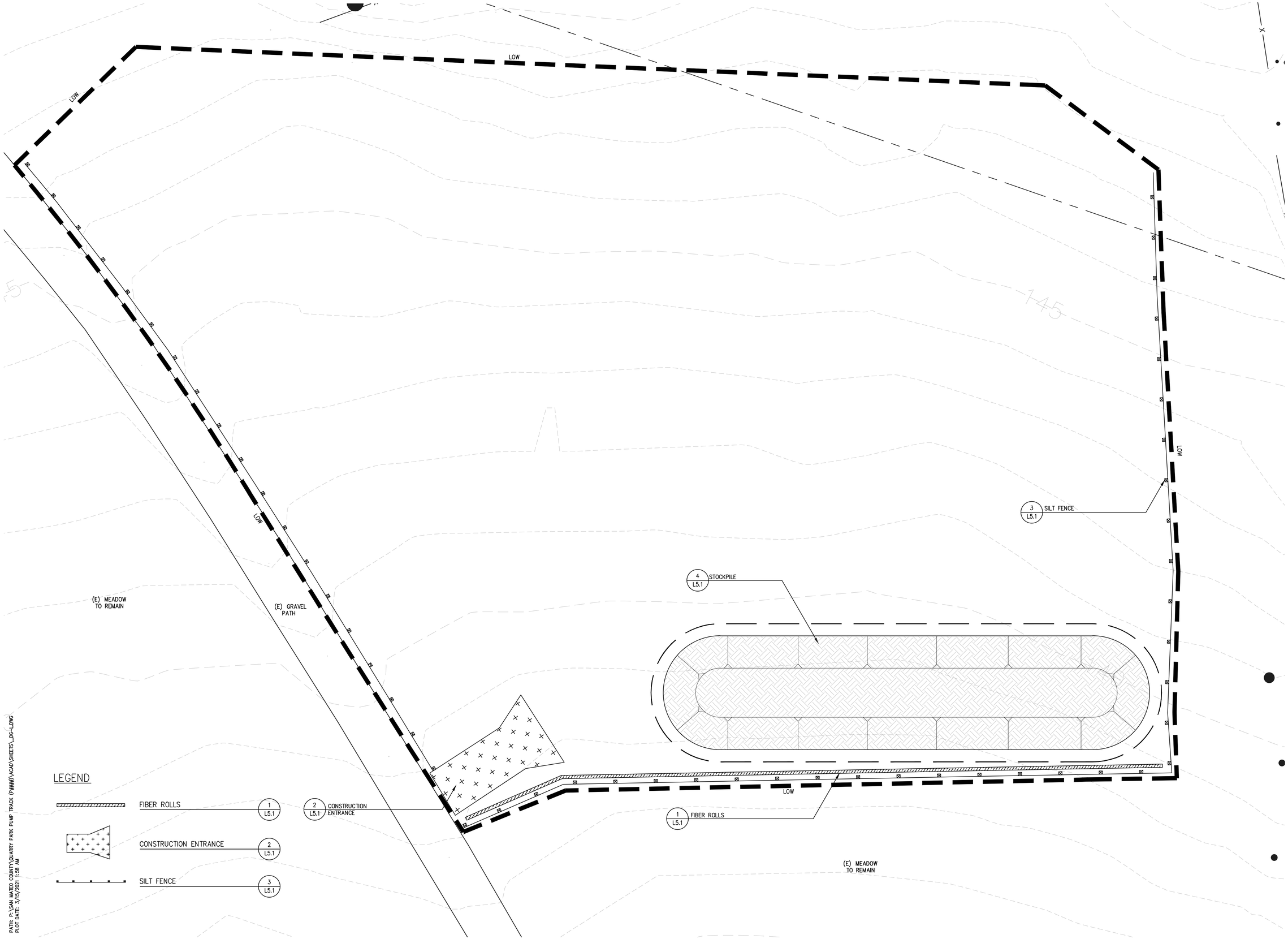

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PLOT DATE: 3/15/2021 1:58 AM

GATES +ASSOCIATES
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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

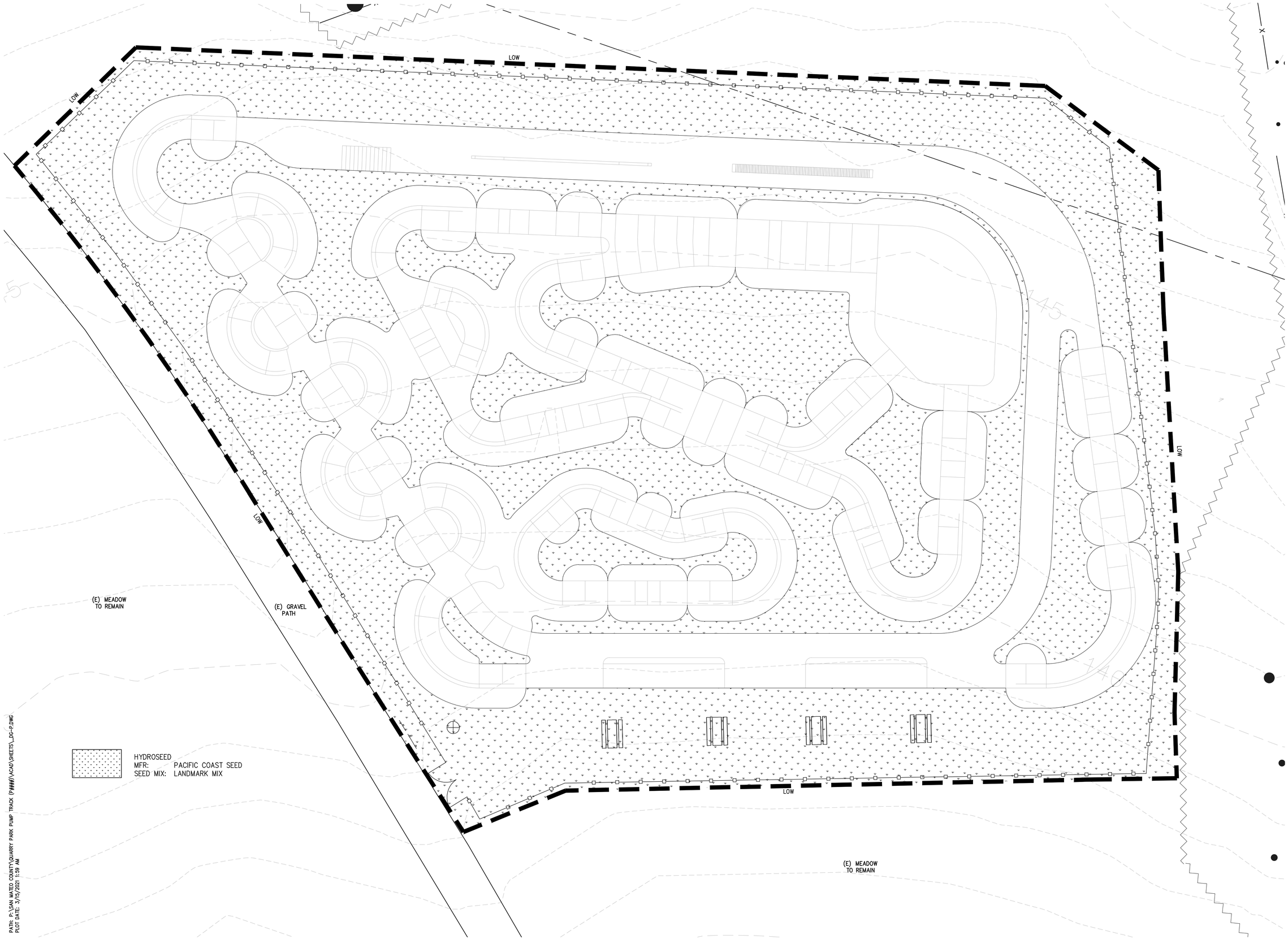
REGISTERED LANDSCAPE ARCHITECT
LICENSE NO. 5053
06/30/2022
LA.
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	DB
CHECK:	CG
DATE:	03/15/2021
SCALE:	1"=20'-0"

0 10' 20' 40'

EROSION CONTROL PLAN

L2.0



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PLOT DATE: 3/15/2021 1:59 AM

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+ASSOCIATES
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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

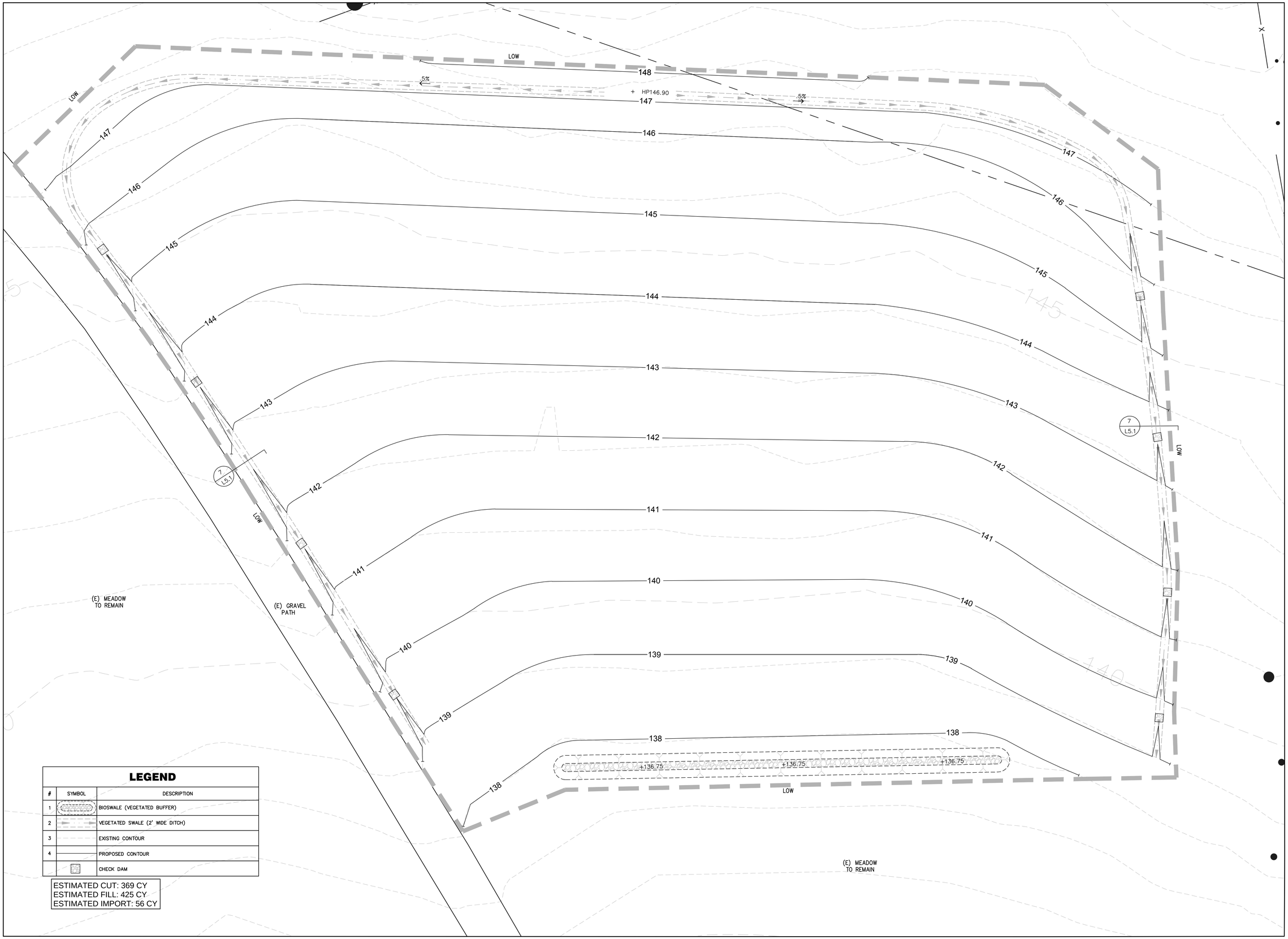
REGISTERED LANDSCAPE ARCHITECT
CHRIS GATES · No. 4593
06/30/2022
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	DB
CHECK:	CG
DATE:	03/15/2021
SCALE:	1"=20'-0"

0 10' 20' 40'
0" 6" 1' 2'

EROSION CONTROL PLAN

L2.1



LEGEND

#	SYMBOL	DESCRIPTION
1		BIOSWALE (VEGETATED BUFFER)
2		VEGETATED SWALE (2' WIDE DITCH)
3		EXISTING CONTOUR
4		PROPOSED CONTOUR
		CHECK DAM

ESTIMATED CUT: 369 CY
ESTIMATED FILL: 425 CY
ESTIMATED IMPORT: 56 CY

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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

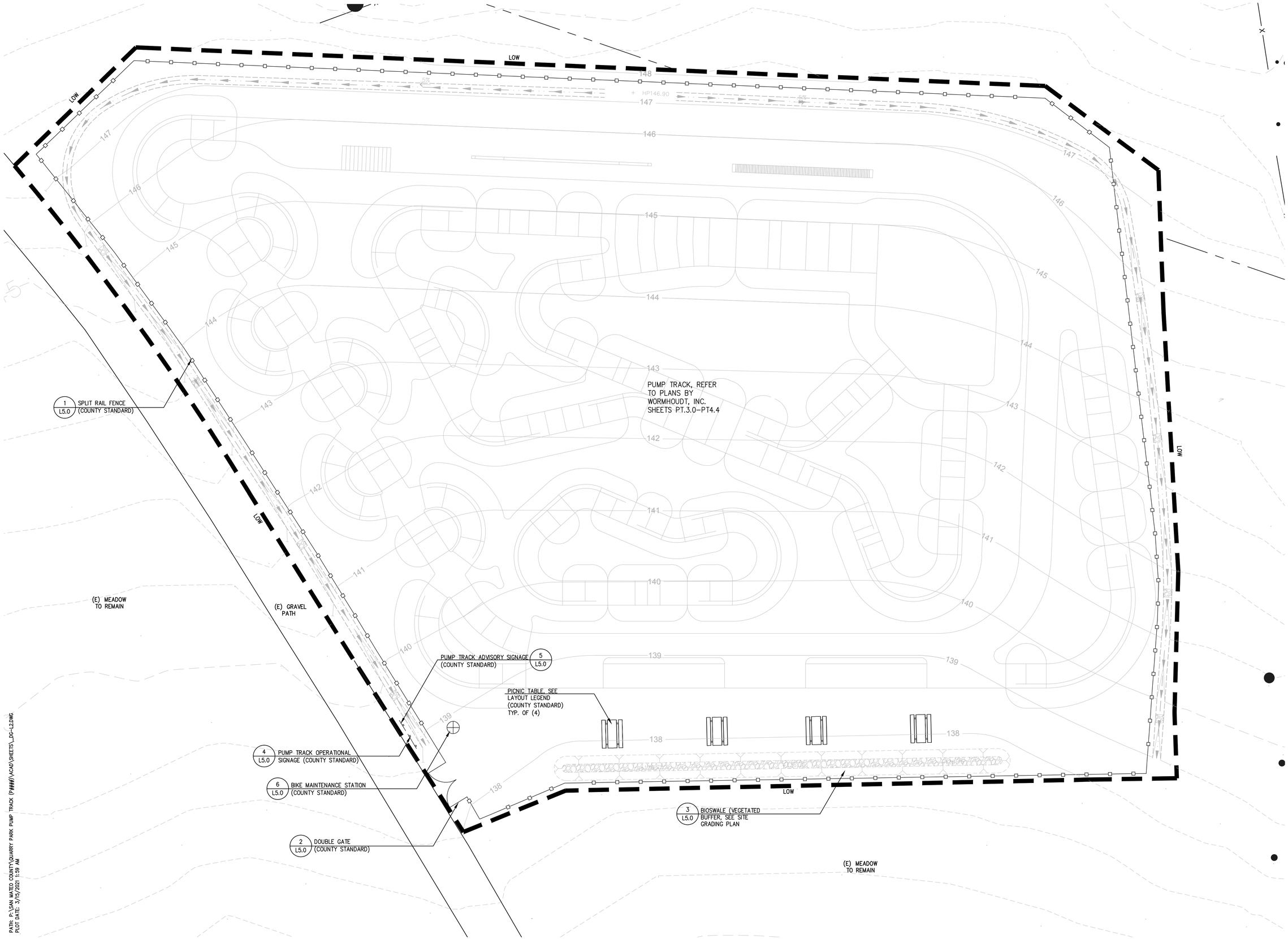
REGISTERED LANDSCAPE ARCHITECT
CARL CASE · No. 5603
06/30/2022
Renewal Date
LA
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	DB
CHECK:	CG
DATE:	03/15/2021
SCALE:	1"=10'-0"

0 5' 10' 20'
0" ½" 1" 2"

SITE GRADING PLAN

L3.0



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PLOT DATE: 3/15/2021 1:59 AM

GATES +ASSOCIATES
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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
CHRIS GAGE · No. 6067
06/30/2022
REGISTRATION DATE
L.A.
STATE OF CALIFORNIA

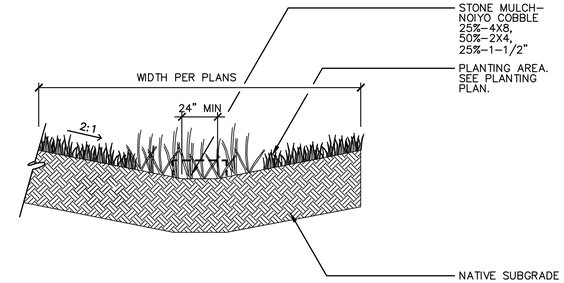
PROJECT NUMBER:	5603
DRAWN:	DB
CHECK:	CG
DATE:	03/15/2021
SCALE:	1"=10'-0"

0 5' 10' 20'
0" 6" 1' 2'

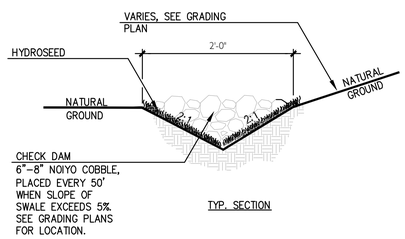
SITE AMENITIES PLAN

L4.0

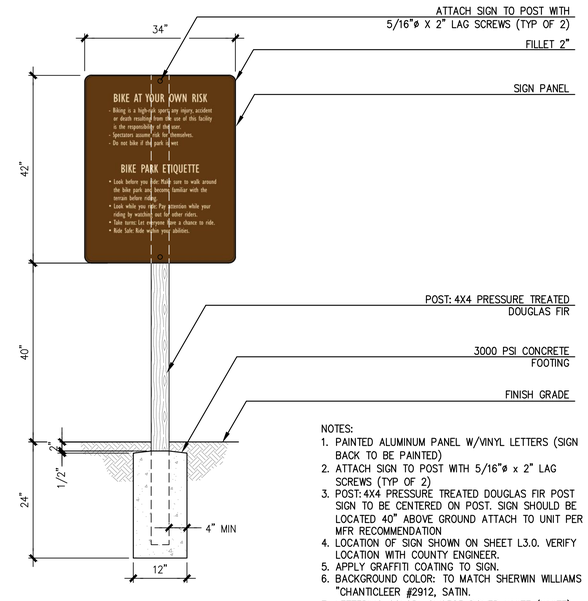
NOTES:
1. BASE OF SWALES ARE TO BE GRADED FLAT AT A 2' MINIMUM WIDTH, TYPICAL. HOWEVER, IN AREAS WHERE 8' TOTAL WIDTH CANNOT BE ACHIEVED, THE BASE OF THE SWALE MAY BE REDUCED TO A 1' MINIMUM WIDTH.
2. ALL SWALE AREAS ARE TO BE MULCHED W/ NOIYO COBBLE



3 BIOSWALE (VEGETATED BUFFER)
SCALE: 1/2" = 1'–0"

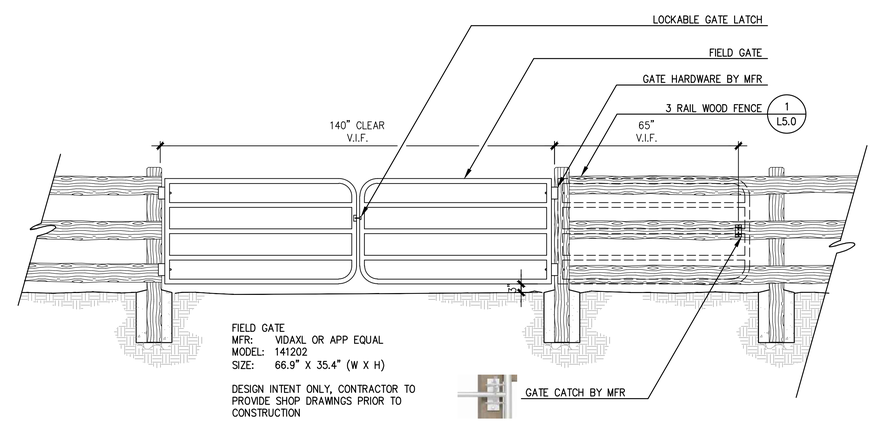


7 VEGETATED SWALE (2' WIDE DITCH)
SCALE: 1" = 1"

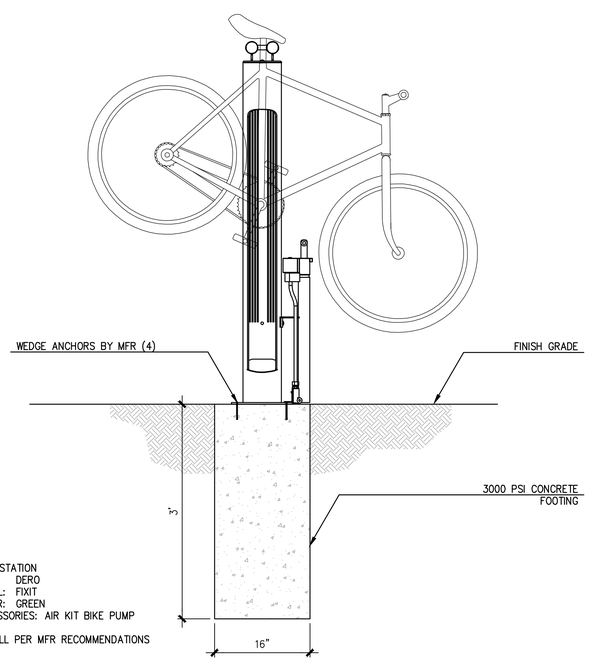


NOTES:
1. PAINTED ALUMINUM PANEL W/VINYL LETTERS (SIGN BACK TO BE PAINTED)
2. ATTACH SIGN TO POST WITH 5/16"ø x 2" LAG SCREWS (TYP OF 2)
3. POST: 4X4 PRESSURE TREATED DOUGLAS FIR POST SIGN TO BE CENTERED ON POST. SIGN SHOULD BE LOCATED 40" ABOVE GROUND ATTACH TO UNIT PER MFR RECOMMENDATION
4. LOCATION OF SIGN SHOWN ON SHEET L3.0. VERIFY LOCATION WITH COUNTY ENGINEER.
5. APPLY GRAFFITI COATING TO SIGN.
6. BACKGROUND COLOR: TO MATCH SHERWIN WILLIAMS "CHANTICLEER #2912, SATIN.
7. LETTERING COLOR: SW6385 DOVER WHITE (WHITE)

5 PUMP TRACK ADVISORY SIGNAGE
SCALE: 3/4" = 1'–0"



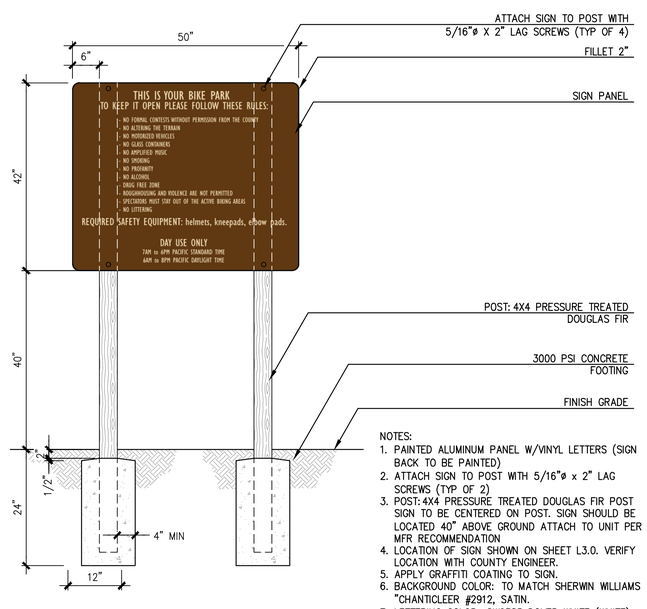
2 DOUBLE GATE (COUNTY STANDARD)
SCALE: 1/2" = 1'–0"



FIXIT STATION
MFR: DERO
MODEL: FIXIT
COLOR: GREEN
ACCESSORIES: AIR KIT BIKE PUMP

INSTALL PER MFR RECOMMENDATIONS

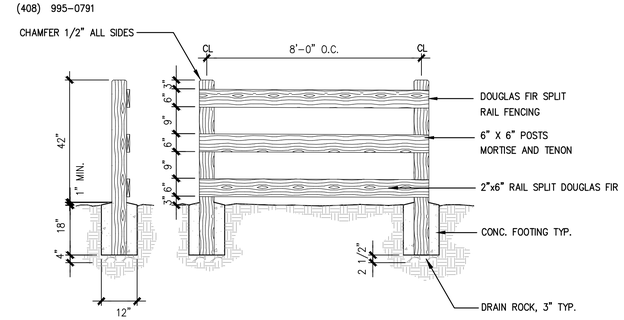
6 BIKE MAINTENANCE STATION
SCALE: 1" = 1'–0"



NOTES:
1. PAINTED ALUMINUM PANEL W/VINYL LETTERS (SIGN BACK TO BE PAINTED)
2. ATTACH SIGN TO POST WITH 5/16"ø x 2" LAG SCREWS (TYP OF 2)
3. POST: 4X4 PRESSURE TREATED DOUGLAS FIR POST SIGN TO BE CENTERED ON POST. SIGN SHOULD BE LOCATED 40" ABOVE GROUND ATTACH TO UNIT PER MFR RECOMMENDATION
4. LOCATION OF SIGN SHOWN ON SHEET L3.0. VERIFY LOCATION WITH COUNTY ENGINEER.
5. APPLY GRAFFITI COATING TO SIGN.
6. BACKGROUND COLOR: TO MATCH SHERWIN WILLIAMS "CHANTICLEER #2912, SATIN.
7. LETTERING COLOR: SW6385 DOVER WHITE (WHITE)

4 PUMP TRACK OPERATIONAL SIGNAGE
SCALE: 3/4" = 1'–0"

FENCING AVAILABLE FROM COASTAL LUMBER:
(408) 995–0791



1 3 RAIL WOOD FENCE (COUNTY STANDARD)
SCALE: 1/2" = 1'–0"

GATES
+ASSOCIATES
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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
CARLY GATES · No. 5603
06/30/2022
Renewal Date
L.A.
STATE OF CALIFORNIA

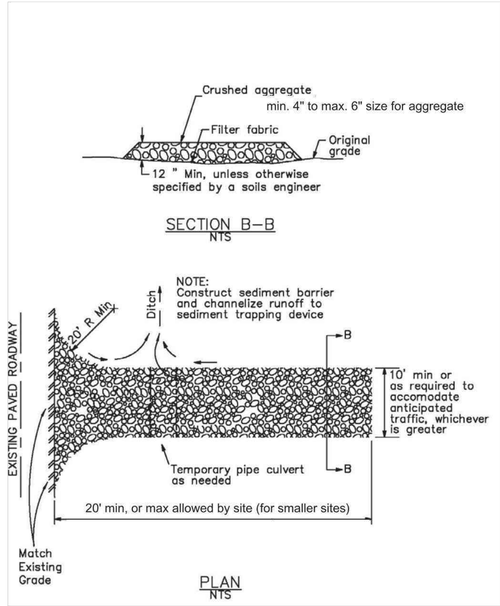
PROJECT NUMBER:	5603
DRAWN:	DB
CHECK:	CG
DATE:	03/15/2021
SCALE:	PER DETAIL

0 ½" 1" 2"

CONSTRUCTION DETAILS

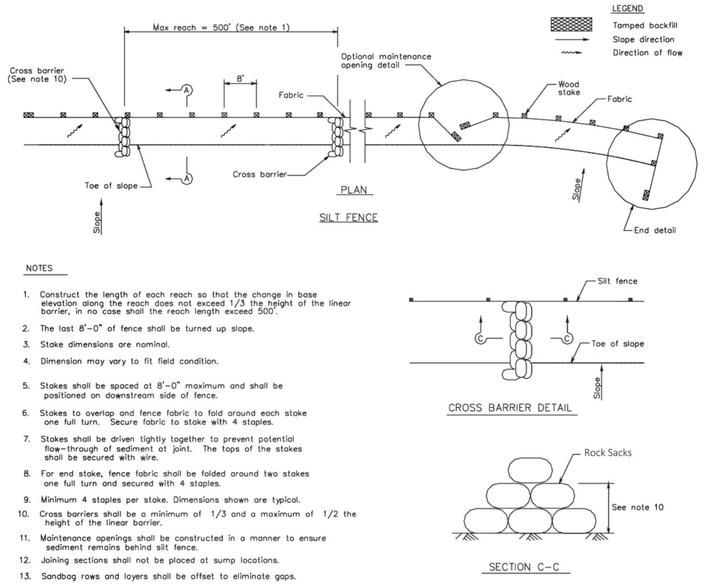
L5.0

PATH: P:\SAN MATEO COUNTY\QUARRY PARK PUMP TRACK (P####)\CAD\SHEETS_DG-D.DWG
PLOT DATE: 3/15/2021 1:59 AM



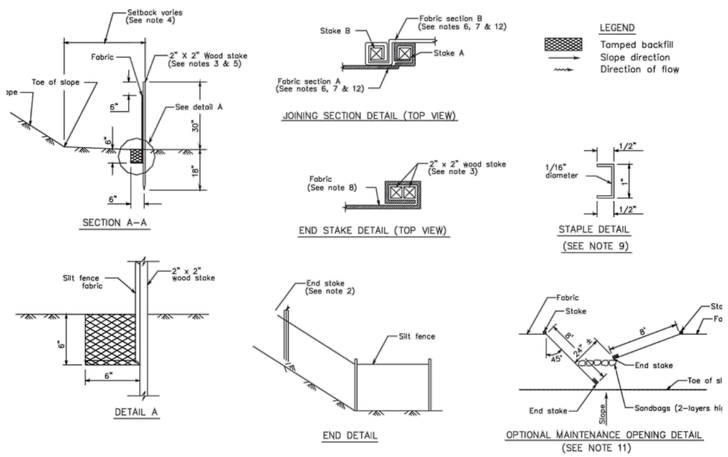
2 CONSTRUCTION ENTRANCE

NTS



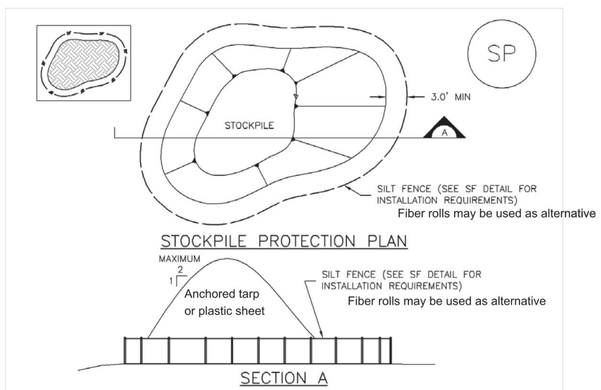
NOTES

1. Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the linear barrier, in no case shall the reach length exceed 500'.
2. The last 8'–0" of fence shall be turned up slope.
3. Stake dimensions are nominal.
4. Dimension may vary to fit field condition.
5. Stakes shall be spaced at 8'–0" maximum and shall be positioned on downstream side of fence.
6. Stakes to overlap and fence fabric to fold around each stake one full turn. Secure fabric to stake with 4 staples.
7. Stakes shall be driven tightly together to prevent potential flow–through of sediment at joint. The tops of the stakes shall be secured with wire.
8. For end stake, fence fabric shall be folded around two stakes one full turn and secured with 4 staples.
9. Minimum 4 staples per stake. Dimensions shown are typical.
10. Cross barriers shall be a minimum of 1/3 and a maximum of 1/2 the height of the linear barrier.
11. Maintenance openings shall be constructed in a manner to ensure sediment remains behind silt fence.
12. Joining sections shall not be placed at sump locations.
13. Sandbag rows and layers shall be offset to eliminate gaps.



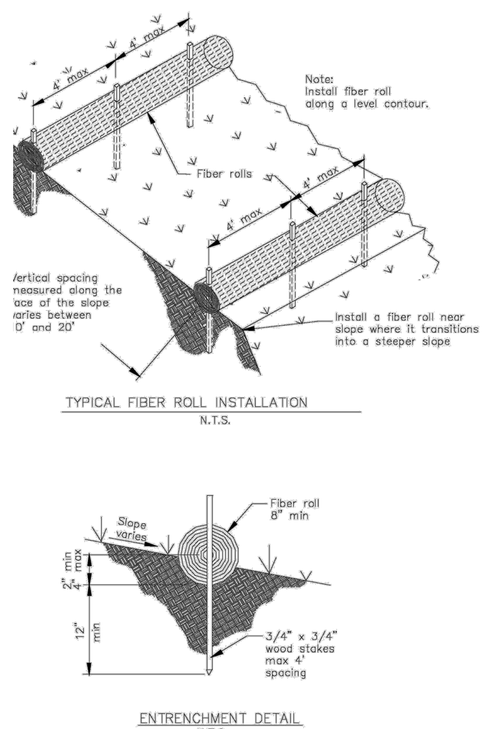
3 SILT FENCE

NTS



4 STOCKPILE

NTS



1 FIBER ROLLS

NTS

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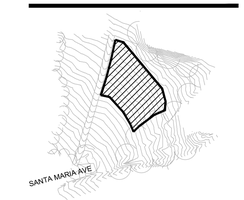
QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA



ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
CHRIS GATES
No. 4372
06/30/2022
Renewal Date
LA
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	DB
CHECK:	CG
DATE:	03/15/2021
SCALE:	PER DETAIL

0 0" 1/2" 1" 2"

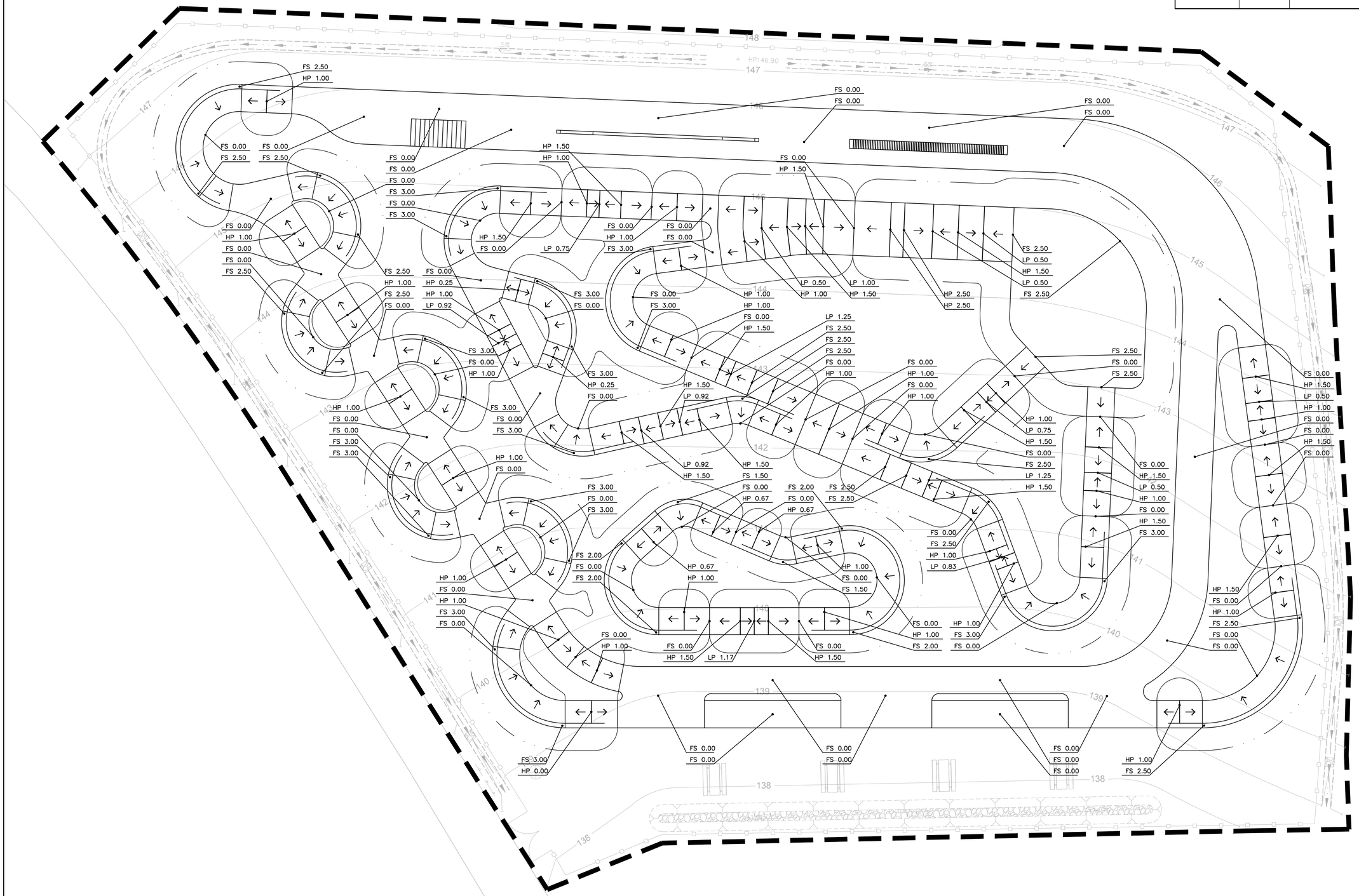
EROSION CONTROL DETAILS

L5.1

PATH: P:\SAN MATEO COUNTY\QUARRY PARK PUMP TRACK (P####)\ACAD\SHEETS_DG-D.DWG
PLOT DATE: 3/15/2021 1:59 AM

LEGEND

SYMBOL	DETAIL	DESCRIPTION
←	NA	GRADE DIRECTION - DOWN.



DATUM: 0.00 = IS BASED ON FINISH MASS SITE GRADES IMMEDIATELY BELOW EACH RIDE FEATURE

0'-0" 10'-0" 30'-0"

SCALE: 1" = 10'-0"

GATES +ASSOCIATES
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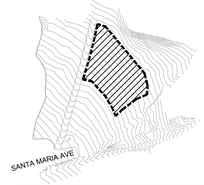
QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA



ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
Z. A. WORMHOUDT
No. 4809
Exp. 10/31/22
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	KM
CHECK:	ZW
DATE:	03/15/2021
SCALE:	

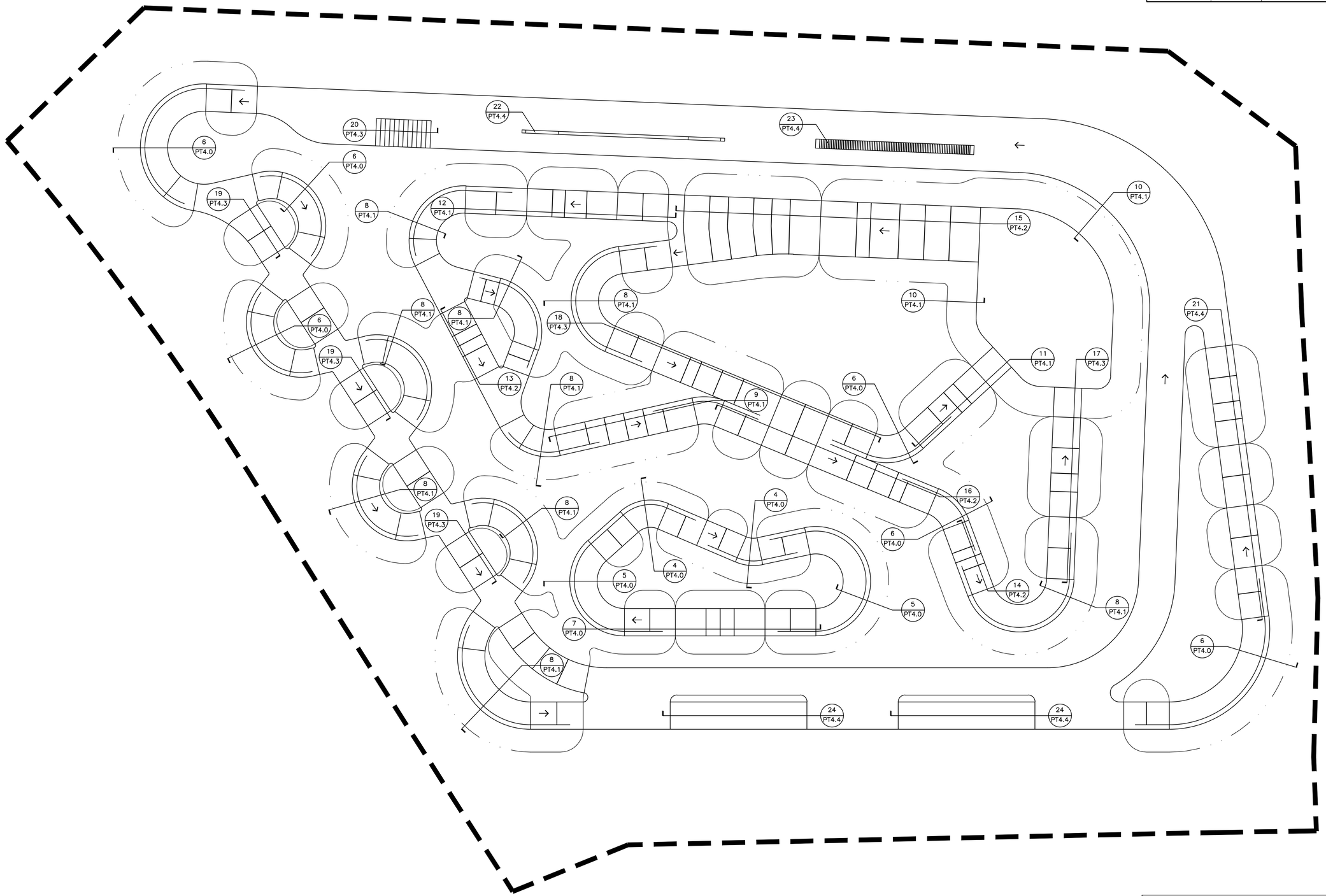
0 0' 1/2' 1' 2'

PUMP TRACK GRADING PLAN

PT-3.0

LEGEND

SYMBOL	DETAIL	DESCRIPTION
←	NA	RIDE DIRECTION.



0'-0" 10'-0" 30'-0"

SCALE: 1" = 10'-0"

GATES +ASSOCIATES
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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
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NOT FOR CONSTRUCTION

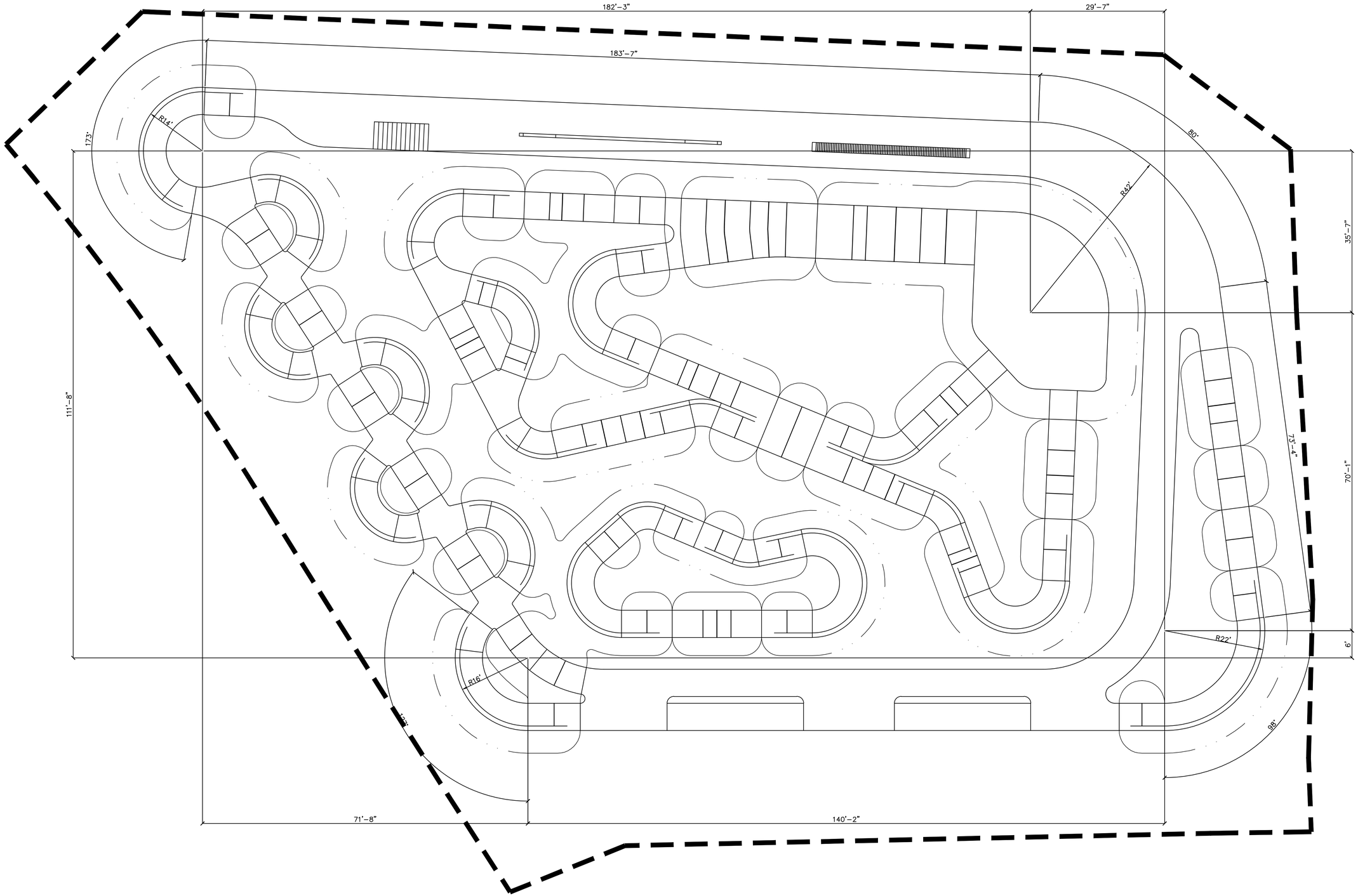
REGISTERED LANDSCAPE ARCHITECT
Z. A. WORMHOUDT
No. 4809
Exp. 10/31/22
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	KM
CHECK:	ZW
DATE:	03/15/2021
SCALE:	

0 0" ½" 1" 2"

PUMP TRACK CONSTRUCTION PLAN

PT-3.1



0'-0" 10'-0" 30'-0"

SCALE: 1" = 10'-0"

GATES +ASSOCIATES

LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN

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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
Z. A. WORMHOUDT
No. 4805
Exp. 10/31/22
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	KM
CHECK:	ZW
DATE:	03/15/2021
SCALE:	

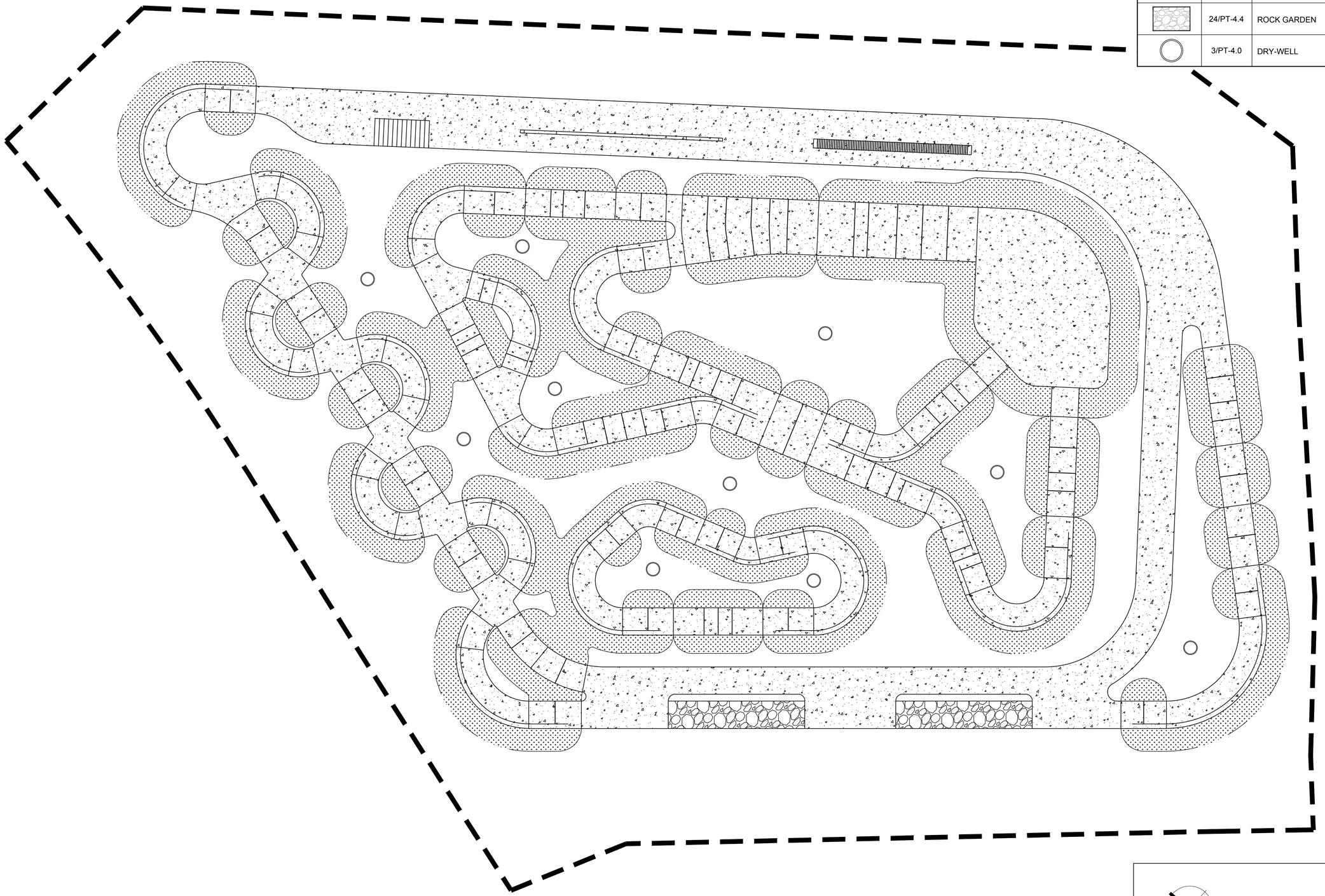
0 1/2" 1/2" 1" 2"

PUMP TRACK LAYOUT PLAN

PT-3.2

LEGEND

SYMBOL	DETAIL	DESCRIPTION
	1/PT-4.0 2/PT-4.0	RIDE SURFACE FINISH GRADE
	1/PT-4.0 2/PT-4.0	NON-RIDE RETURN TO GRADE FINISH SURFACE
	24/PT-4.4	ROCK GARDEN
	3/PT-4.0	DRY-WELL



0'-0" 10'-0" 30'-0"

SCALE: 1" = 10'-0"

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

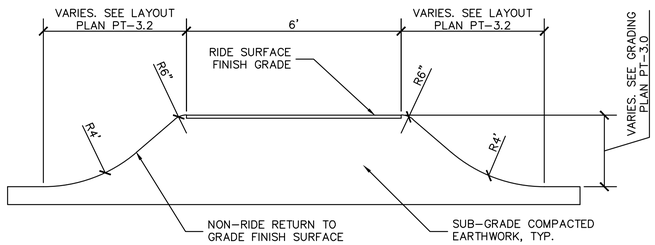
REGISTERED LANDSCAPE ARCHITECT
Z. A. WORMHOUDT
No. 4604
Exp. 10/31/22
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	KM
CHECK:	ZW
DATE:	03/15/2021
SCALE:	

0 1" ½" 1" 2"

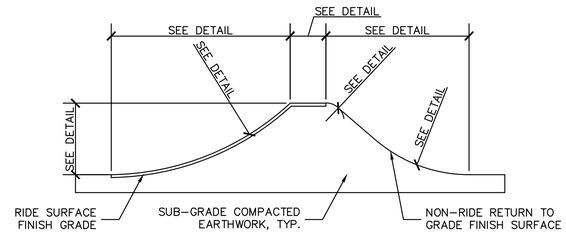
PUMP TRACK MATERIALS PLAN

PT-3.3



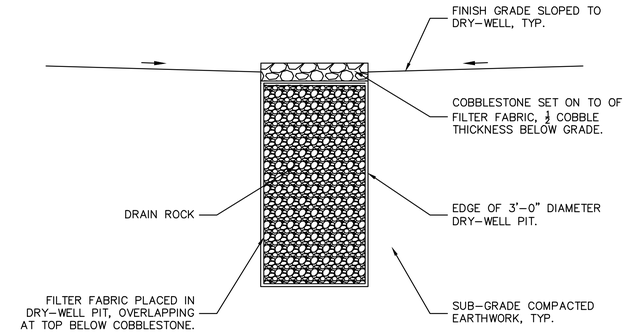
NOTE:
1. DOUBLE LINE REPRESENTS RIDE SURFACE FINISH GRADE.
2. ALL PUMPTRACK FEATURE SURFACES SHALL BE STABILIZED WITH SOILTAC PER MANUFACTURER SPECIFICATIONS.

TYPICAL RIDE LANE SECTION 1/2"=1'-0" (1)

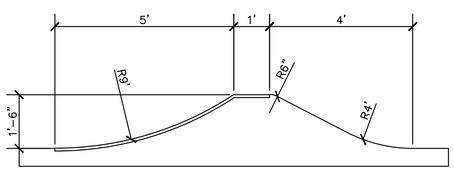


NOTE:
1. DOUBLE LINE REPRESENTS RIDE SURFACE FINISH GRADE.
2. ALL PUMPTRACK FEATURE SURFACES SHALL BE STABILIZED WITH SOILTAC PER MANUFACTURER SPECIFICATIONS.

TYPICAL RIDE FEATURE SECTION 1/2"=1'-0" (2)

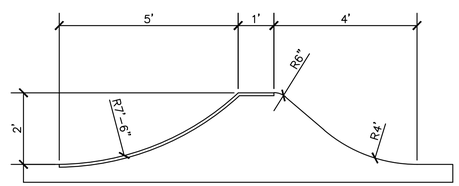


DRY-WELL 1/2"=1'-0" (3)



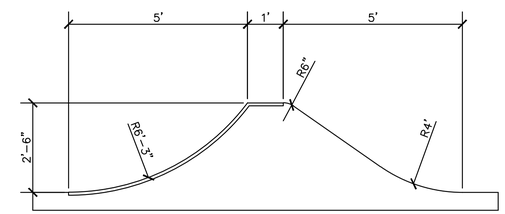
NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

1'-6" PUMPTRACK BERN 1/2"=1'-0" (4)



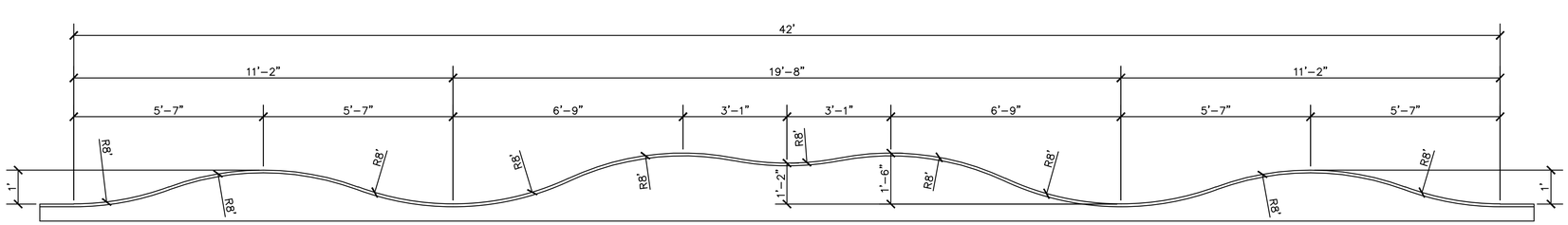
NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

2'-0" PUMPTRACK BERN 1/2"=1'-0" (5)



NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

2'-6" PUMPTRACK BERN 1/2"=1'-0" (6)



NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

KID TRACK 42'-0" RHYTHM LANE 1/2"=1'-0" (7)

GATES +ASSOCIATES
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LAND PLANNING · URBAN DESIGN
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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

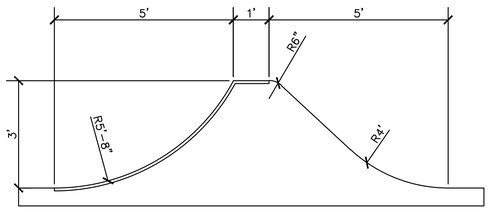
REGISTERED LANDSCAPE ARCHITECT
Z. A. WORMHOUDT
No. 4804
Exp. 10/31/22
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	KM
CHECK:	ZW
DATE:	03/15/2021
SCALE:	

0 ½" ½" 1" 2"

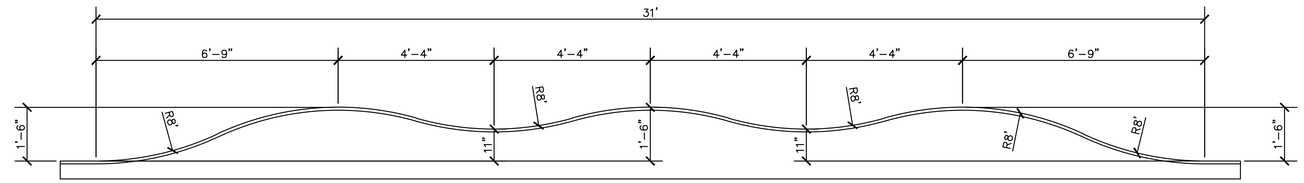
PUMPTRACK DETAILS

PT-4.0



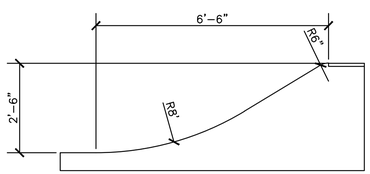
NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

3'-0" PUMPTRACK BERN 1/2"=1'-0" (8)



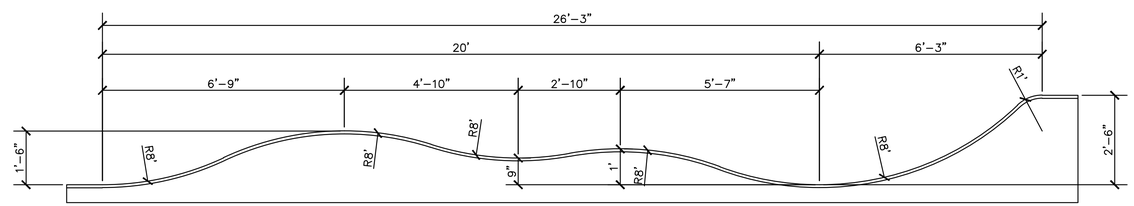
NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

MAIN TRACK 31'-0" RHYTHM LANE 1/2"=1'-0" (9)



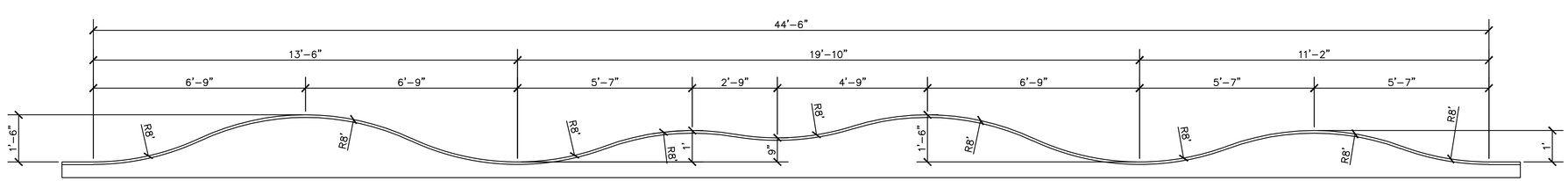
NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

MAIN TRACK START MOUND 1/2"=1'-0" (10)



NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

MAIN TRACK 26'-3" RHYTHM LANE 1/2"=1'-0" (11)



NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

MAIN TRACK 44'-6" RHYTHM LANE 1/2"=1'-0" (12)

GATES +ASSOCIATES
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LAND PLANNING · URBAN DESIGN
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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

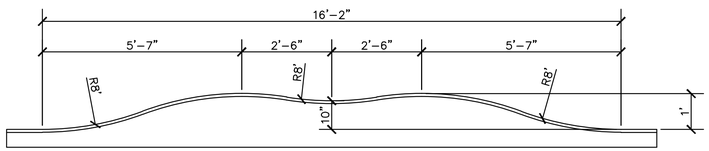
REGISTERED LANDSCAPE ARCHITECT
Z. A. WORMHOUDT
No. 4804
Exp. 10/31/22
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	KM
CHECK:	ZW
DATE:	03/15/2021
SCALE:	

0 1/2" 1" 2"

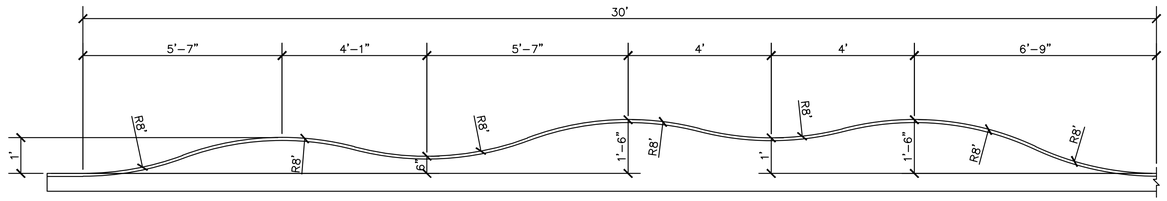
PUMPTRACK DETAILS

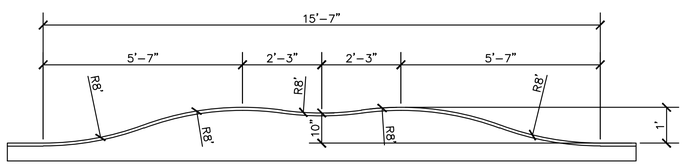
PT-4.1



NOTE:
1. SEE DETAIL 1/PT–4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT–4.0 FOR TYPICAL RIDE FEATURE SECTION.

MAIN TRACK 16'-2" BYPASS LANE 1/2"=1'–0" (13)





NOTE:
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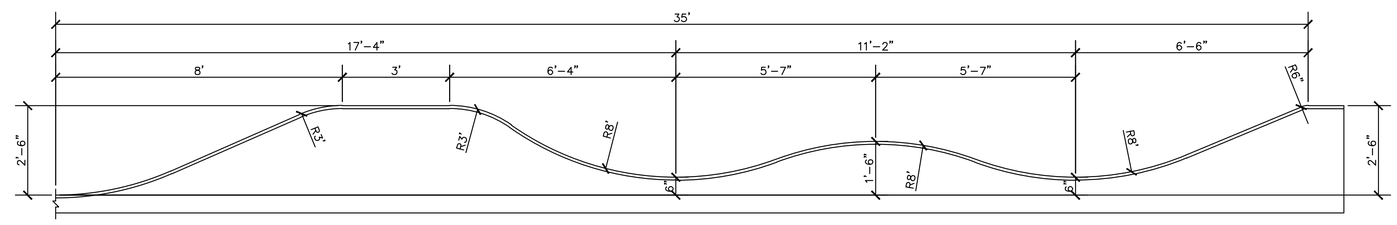

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2. SEE DETAIL 2/PT–4.0 FOR TYPICAL RIDE FEATURE SECTION.

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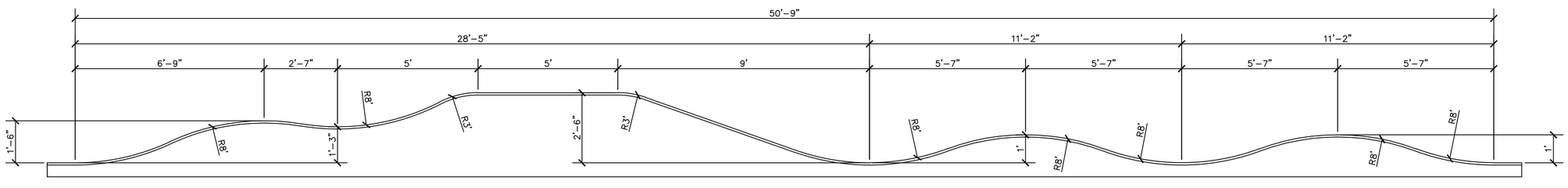

NOTE:
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2. SEE DETAIL 2/PT–4.0 FOR TYPICAL RIDE FEATURE SECTION.

MAIN TRACK 50'-9" RHYTHM LANE 1/2"=1'–0" (16)

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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

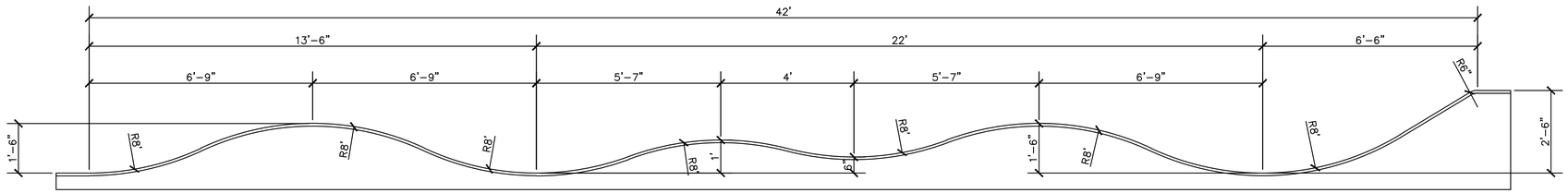
REGISTERED LANDSCAPE ARCHITECT
Z. A. WORMHOUDT
No. 4803
Exp. 10/31/22
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	KM
CHECK:	ZW
DATE:	03/15/2021
SCALE:	

0 1/8" 1/4" 1" 2"

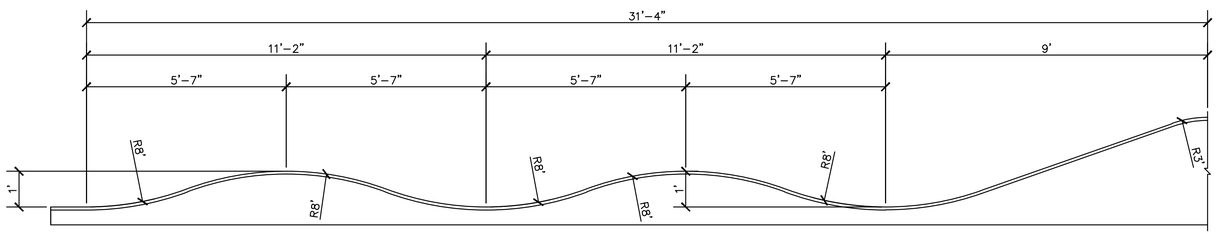
PUMPTRACK DETAILS

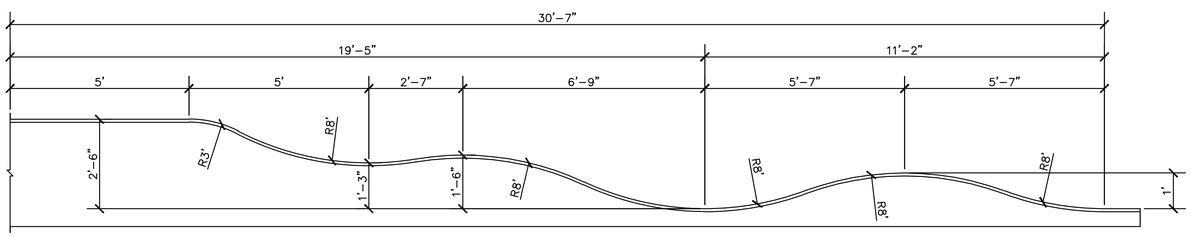
PT-4.2



NOTE:
1. SEE DETAIL 1/PT-4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

MAIN TRACK 42'-0" RHYTHM LANE 1/2"=1'-0" 17





NOTE:
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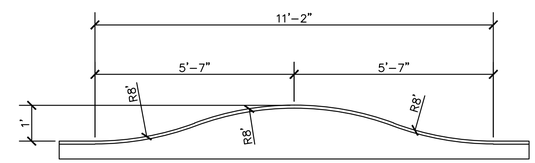
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

MAIN TRACK 61'-11" RHYTHM LANE 1/2"=1'-0" 18



NOTE:
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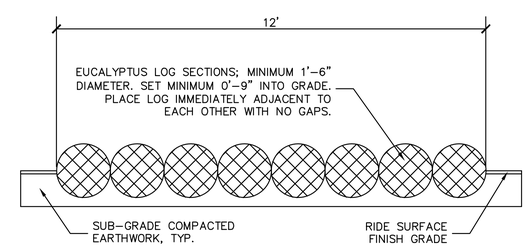
2. SEE DETAIL 2/PT-4.0 FOR TYPICAL RIDE FEATURE SECTION.

SKILLS TRAIL ROLLER 1/2"=1'-0" 19



SKILLS TRAIL LOG FEATURE 1/2"=1'-0" 20

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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

NOT FOR CONSTRUCTION

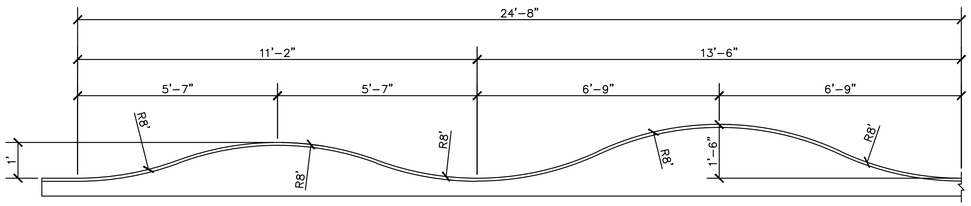
REGISTERED LANDSCAPE ARCHITECT
Z. A. WORMHOUDT
No. 4805
Exp. 10/31/22
STATE OF CALIFORNIA

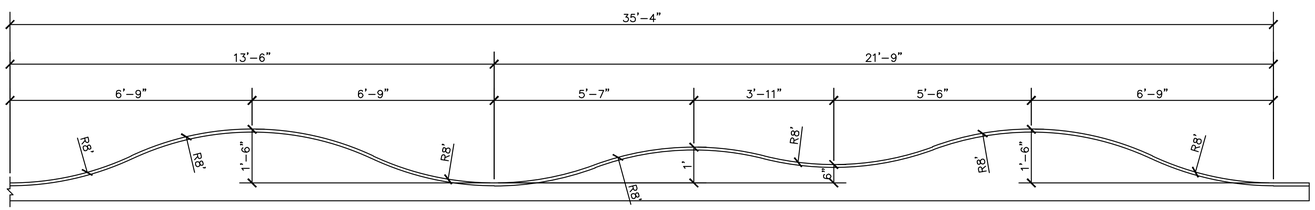
PROJECT NUMBER:	5603
DRAWN:	KM
CHECK:	ZW
DATE:	03/15/2021
SCALE:	

0 6" 12" 1' 2'

PUMPTRACK DETAILS

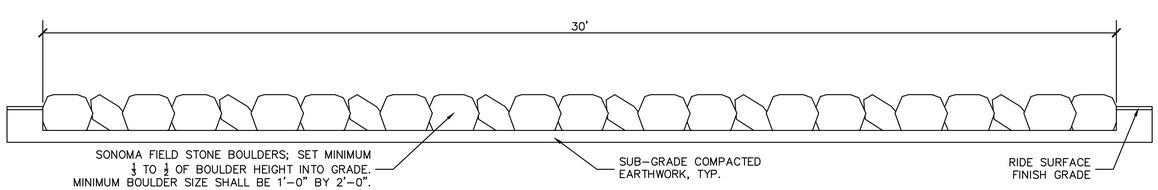
PT-4.3





NOTE:
1. SEE DETAIL 1/PT–4.0 FOR TYPICAL RIDE LANE SECTION.
2. SEE DETAIL 2/PT–4.0 FOR TYPICAL RIDE FEATURE SECTION.

SKILLS TRAIL 60'-0" RHYTHM LANE 1/2"=1'–0" (21)



SKILLS TRAIL ROCK GARDEN 1/2"=1'–0" (24)

NOTE:
1. MANUFACTURED BY PROGRESSIVE BIKE RAMPS OR PROVED EQUAL.
2. REFER TO LAYOUT PLAN PT–3.2 FOR DIMENSIONS.

PROGRESSIVE BIKE RAMPS 1'-0" HIGH BALANCE BEAM 1/2"=1'–0" (22)

NOTE:
1. MANUFACTURED BY PROGRESSIVE BIKE RAMPS OR PROVED EQUAL.
2. REFER TO LAYOUT PLAN PT–3.2 FOR DIMENSIONS.

PROGRESSIVE BIKE RAMPS MOUNTAIN TOP 2'-0" PEAK 1/2"=1'–0" (23)

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QUARRY PARK PUMP TRACK

SAN MATEO COUNTY
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	90% SUBMITTAL	03/15/2021

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REGISTERED LANDSCAPE ARCHITECT
Z. A. WORMHOUDT
No. 4805
Exp. 10/31/22
STATE OF CALIFORNIA

PROJECT NUMBER:	5603
DRAWN:	KM
CHECK:	ZW
DATE:	03/15/2021
SCALE:	

0
6" 12" 1' 2'

PUMPTRACK DETAILS

PT-4.4

County of San Mateo - Planning and Building Department

ATTACHMENT D

Biological Resources Assessment

SAN MATEO COUNTY QUARRY PARK MASTER PLAN PROJECT
EL GRANADA, SAN MATEO COUNTY, CALIFORNIA

Prepared for:

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San Mateo County Parks Department
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Prepared by:

Leslie Lazarotti
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Date:

May 2017

Project Number 26342

ENVIRONMENTAL CONSULTANTS

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Appendix B - Potential for Special-Status Plant and Wildlife Species to Occur in the Study Area

Appendix C - Study Area Photographs

LIST OF ACRONYMS AND ABBREVIATIONS

Cal-IPC	California Invasive Plant Council
CCC	California Coastal Commission
CCH	Consortium of California Herbaria
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
County	San Mateo County
CRLF	California red-legged frog
CWA	Clean Water Act
dBA	A-weighted decibels
EPA	U.S. Environmental Protection Agency
ESHA	Environmentally Sensitive Habitat Area
FAC	Facultative species (equal in wetland or non-wetlands)
FACW	Facultative wetland species (usually found in wetlands)
FE	Federal Endangered
FESA	Federal Endangered Species Act
LCP	Local Coastal Program
MBTA	Migratory Bird Treaty Act
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
OBL	Obligate wetland species (almost always found in wetlands)
OHWM	Ordinary High Water Mark
RWQCB	Regional Water Quality Control Board
SE	State Endangered
SFGS	San Francisco garter snake
SOC	Species of Concern
SSC	Species of Special Concern
TOB	Top of Bank
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group

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1.0 INTRODUCTION

On March 16 and 22, 2017, WRA, Inc. conducted a biological resource assessment of the 524.12-acre Quarry Park property (Study Area) for the Master Plan Project (Project) located in the unincorporated community of El Granada in San Mateo County, California (Figure 1). The Study Area is comprised to several parcels: Quarry Park, Wicklow, Mirada Surf East, and Mirada Surf West. While Quarry Park and Mirada Surf West contain public access features, Wicklow and Mirada Surf East have not been developed. A private, residential in-holding (O'Neill residence) lies within the northern section of the Study Area.

The purpose of the site visit and report is to identify, describe, and map any sensitive habitats, including riparian, wetland, and stream areas, or other Environmental Sensitive Habitat Areas (ESHAs); and "rare, threatened, or endangered" species, which may occur in the Study Area. WRA performed the biological resources assessment in accordance with the San Mateo County (County) Midcoast Local Coastal Program (LCP), including Sections 7.1-7.19. This assessment is based on site conditions observed on the date of the site visit, related information available at the time of the study, and from reviewing past reports completed on the Study Area or adjacent properties. This report also contains an evaluation of potential impacts to special-status species or ESHAs that may occur as a result of the proposed project and potential mitigation measures to compensate for those impacts.

1.1 Description of the Study Area

The Study Area rises from approximately 100 feet in elevation to a maximum elevation of 935 feet above sea level at the northern edge of the Study Area. Mirada Surf West is located adjacent to the Pacific Ocean while the eastern slope of the property drains into the Arroyo de en Medio watershed. The majority of the property is comprised of a series of unnamed drainages that discharge into the community of El Granada.

The Study Area is situated between the Santa Cruz mountain range and the Pacific Ocean. No past development or agriculture fields occurred within the Study Area; however, based on historic aerial imagery, southern portions of the Study Area are mowed regularly (Google Earth 2002-2015). The Study Area is situated in the coastal fog belt where fog is a source of hydrology in the summer and storms provide precipitation in the winter. Average maximum temperature peaks in September at 67 degrees Fahrenheit with average minimum temperature in January at 43 degrees Fahrenheit. Average annual precipitation is 26.98 inches, generally occurring in the from November through March.

The Study Area includes the following biological communities: beaches; Eucalyptus (*Eucalyptus globulus*) grove (non-native woodland); central coast riparian scrub dominated by arroyo willow (*Salix lasiolepis*); developed areas; Monterey cypress (*Hesperocyparis macrocarpa*) forest; non-native annual grasslands; non-wetland waters consistent of ephemeral, intermittent, and perennial streams; perennial ponds; northern coastal scrub; and potential seasonal wetlands. Residential neighborhoods, public open space, and schools surround the southeastern portion of the Study Area and undeveloped land occurs to the north, east, and in portions of the northwest.

Figure 1. Project Location

N
W E
S

San Mateo County Quarry Park
Master Plan
San Mateo County, California

0 0.5 1 2 Miles

wra
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Map Prepared Date: 3/20/2017
Map Prepared By: mrochelle
Base Source: National Geographic
Data Source(s): WRA

Path: L:\Acad 2000 Files\26000\26342\GIS\ArcMap\Location.mxd

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts.

2.1 Special-Status Species

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). These Acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern (SSC), and National Marine Fisheries Service (NMFS) Species of Concern (SOC), are species that face extirpation if current population and habitat trends continue. U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are also considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the California Environmental Quality Act (CEQA). In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under this legislation, destroying active nests, eggs, and young is illegal. Bat species designated as “High Priority” by the Western Bat Working Group (WBWG) qualify for legal protection under Section 15380(d) of the CEQA Guidelines. Species designated “High Priority” are defined as “imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats”.

Plant species included within the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (Inventory; CNPS 2017a) with California Rare Plant Rank (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under the CEQA. Some Rank 4 plant species meet the definitions of Section 1901 Chapter 10 of the Native Plant Protection Act or Sections 2062 and 2067 of the CFGC that outlines CESA. However, the CNPS and the CDFW strongly recommend that these species be fully considered during the preparation of environmental documentation related to the CEQA. This may be particularly appropriate for the type locality of a Rank 4 plant species, for populations at the periphery of a species range, or in areas where the taxon is especially uncommon or has sustained heavy losses, or from populations exhibiting unusual morphology or occurring on unusual substrates. A description of the CNPS Ranks is provided below in Table 1.

Table 1. Description of CNPS Ranks and Threat Codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 3	Plants about which more information is needed - A review list
Rank 4	Plants of limited distribution - A watch list
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

Critical Habitat

Critical habitat is a term defined and used in the FESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The FESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the FESA "jeopardy standard." However, areas that are currently unoccupied by the species but which are needed for the species' recovery, are protected by the prohibition against adverse modification of critical habitat.

2.2 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, and riparian habitat. These habitats are regulated under federal regulations (such as the Clean Water Act [CWA]), state regulations (such as the Porter-Cologne Act, the CDFW Streambed Alteration Program, and CEQA), or local ordinances or policies (such as City or County Tree Ordinances, Special Habitat Management Areas, applicable LCPs, and General Plan Elements). Mitigation measures for impacts to these communities are discussed in Section 5 of this report.

Waters of the United States

The U.S. Army Corps of Engineers (Corps) regulates "Waters of the United States" under Section 404 of the Clean Water Act. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S generally

requires an individual or nationwide permit from the Corps under Section 404 of the Clean Water Act.

Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404. "Waters of the State" are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact "Waters of the State," are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to "Waters of the State," the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of the State Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, "on, or pertaining to, the banks of a stream;" therefore, riparian vegetation is defined as, "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG ESD 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. The CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in its Natural Diversity Database (CNDDB). Sensitive plant communities are also identified by CDFW on their *List of California Natural Communities Recognized by the CNDDB*. Impacts to sensitive natural communities identified in local or regional plans, policies, regulations or by the CDFW or USFWS must be considered and evaluated under CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in City or County General Plans or ordinances.

The California Coastal Commission ESHA Definition

The California Coastal Commission defines an ESHA as follows:

> "*Environmentally sensitive habitat area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.* “

California Coastal Commission (CCC) Guidelines contain definitions for specific types of ESHAs, including: wetlands, estuaries, streams and rivers, lakes, open coastal waters and coastal waters, riparian habitats, other resource areas, and special-status species and their habitats. For the purposes of this report, WRA has taken into consideration any areas that may meet the definition of any ESHA defined by the CCC guidelines or the County LCP.

San Mateo County Local Coastal Program and Land Use Plan

The 2013 County LCP identified sensitive habitats to include: riparian corridors, wetlands, marine habitats, sand dunes, sea cliffs, and habitats supporting rare, endangered, and unique species. Further, the County LCP defines sensitive habitats as:

> *…any area which meets one of the following criteria: (1) habitats containing or supporting “rare and endangered” species as defined by the State Fish and Game Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tide lands and marshes, (4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes.*
>
> San Mateo LCP, Policy 7.1

Additionally, the County LCP defines Riparian Corridors as a sensitive habitat, where riparian corridors are defined as:

> *…the “limit of riparian vegetation” (i.e., a line determined by the association of plant and animal species normally found near streams, lakes and other bodies of freshwater: red alder, jaumea, pickleweed, big leaf maple, narrow-leaf cattail, arroyo willow, broadleaf cattail, horsetail, creek dogwood, black cottonwood, and*

box elder). Such a corridor must contain at least a 50% cover of some combination of the plants listed.

San Mateo LCP (2013), Policy 7.7

This County LCP further clarifies in Policy 7.8 that riparian corridors be established for all perennial and intermittent streams, lakes, and other bodies of freshwater in the Coastal Zone. The County LCP also requires in Policy 7.49 that any development within one-half mile of the coast mitigate against the destruction of any California strawberry (*Fragaria vesca*),

3.0 METHODS

On March 16 and 22, 2017, the Study Area was traversed on foot to determine (1) plant communities present within the Study Area, (2) if existing conditions provide suitable habitat for any special-status plant or wildlife species, and (3) if sensitive habitats including ESHA are present. All plant and wildlife species encountered were recorded, and are summarized in Appendix A. Plant nomenclature follows Baldwin et al. (2012), except where noted. For cases in which taxonomic discrepancies occur between Baldwin et al. and the CNPS Inventory of Rare Plants, precedence was given to the species classification used in the CNPS Inventory.

3.1 Biological Communities

Prior to the site visit, the *Soil Survey of San Mateo Area, California* (NRCS 2015) was examined to determine if any unique soil types that could support sensitive plant communities and/or aquatic features were present in the Study Area. Biological communities present in the Study Area were classified based on existing plant community descriptions described in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and *A Manual of California Vegetation* (Sawyer et al. 2009). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA, the County LCP, and other applicable laws and regulations.

3.1.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations and ordinances. These communities may provide suitable habitat for some special-status plant or wildlife species and are this is discussed in Section 4.2 below.

3.1.2 Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below.

Wetlands and Waters

The Study Area was surveyed at a reconnaissance level to determine if any wetlands and waters potentially subject to jurisdiction by the Corps, RWQCB, or CDFW were present. The assessment was based primarily on the presence of wetland plant indicators, but may also include any observed indicators of wetland hydrology as defined by the Corps Manual (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Corps 2008). Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status of obligate wetland (OBL), facultative wetland (FACW), or facultative (FAC) as given on the U.S. Department of Agriculture: National Wetland Plant List (Lichvar 2014). Evidence of wetland hydrology can include evidence such as visible inundation or saturation, surface sediment deposits, algal mats and drift lines, and oxidized root channels. Given that the site visits did not include a routine-level wetland delineation and was only reconnaissance level, soils were not examined in the field as part of this assessment.

Other Sensitive Biological Communities

The Study Area was evaluated for the presence of other sensitive biological communities, including riparian areas, sensitive plant communities recognized by CDFW, significant areas of native plants, and other ESHAs. These sensitive biological communities were mapped and are described in Section 4.1.2 below.

3.2 Special-Status Species

3.2.1 Literature Review

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database search. Database searches for known occurrences of special-status species focused on the Half Moon Bay and Montara Mountain 7.5-minute U.S. Geological Survey (USGS) quadrangles. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Study Area:

- CNDDB records (CDFW 2017)
- USFWS Information for Planning and Conservation Species (USFWS 2017a)
- CNPS Inventory records (CNPS 2017a)
- Consortium of California Herbaria (CCH 2017)
- California Department of Fish and Game publication “California’s Wildlife, Volumes I-III” (Zeiner et al. 1990)
- A Field Guide to Western Reptiles and Amphibians (Stebbins and McGinnis 2012)
- California Amphibian and Reptile Species of Special Concern (Thomson et al 2016)
- California Bird Species of Special Concern (Shuford and Gardali 2008)
- USFWS Critical Habitat Mapper (USFWS 2017b)
- Western Bat Working Group, species accounts (WBWG 2017)
- San Mateo County Local Coastal Program (County of San Mateo 1998, 2013)

3.2.2 Site Assessment

On March 16 and 22, 2017, WRA surveyed the Study Area to search for suitable habitats for species identified in the literature review as occurring in the vicinity. The potential for each special-status species to occur in the Study Area was then evaluated according to the following criteria:

- o No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

- o Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

- o Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

- o High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

- o Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.

The site assessment was intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity in order to determine its potential to occur in the Study Area. The site visit does not constitute protocol-level surveys and was not intended to determine the actual presence or absence of a species; however, if a special-status species was observed during the site visit, its presence was recorded and is discussed. Appendix B presents the evaluation of potential for occurrence of each special-status plant and wildlife species known to occur in the vicinity of the Study Area with their habitat requirements, potential for occurrence, and rationale for the classification based on criteria listed above. Recommendations for further surveys are made in Section 5.0 below for species with a moderate or high potential to occur in the Study Area.

4.0 RESULTS

The following sections present the results and discussion of the biological assessment within the Study Area.

4.1 Biological Communities

Non-sensitive biological communities in the Study Area include Eucalyptus grove, developed areas, Monterey cypress forest, non-native annual grassland, and northern coastal scrub. Seven ESHAs occur within the Study Area: beaches; central coast riparian scrub; ephemeral, intermittent, and perennial streams; perennial ponds; and potential seasonal wetlands (Figure 2). Photographs of biological communities within the Study Area are included in Appendix C. Descriptions for each

biological community are contained in the following sections. Acreage summations for biological communities are detailed in Table 2.

4.1.1 Non-Sensitive Biological Communities

The Study Area is dominated by biological communities considered non-sensitive under CEQA. These biological communities include Eucalyptus groves, developed areas (roadways and utility structures), Monterey cypress forests, non-native annual grasslands, and northern coastal scrub.

Eucalyptus Groves

Eucalyptus groves are known from the Coast Ranges and Central Valley, typically as planted woodlands and shelterbelts to buffer coastal winds and provide shade. These groves are not described in Holland (1986), but are included in Sawyer et al. (2009) describes Eucalyptus groves as *Eucalyptus globulus* Semi-Natural Woodland Stands. This vegetation alliance is dominated by one of several eucalyptus species (*Eucalyptus* spp.), which are not native to North America. Eucalyptus groves are frequently situated in rural and semi-urbanized settings, along streams, and coastal hills and prairies.

Within the Study Area, Eucalyptus grove is the dominant plant community present in the Study Area and occupies approximately 320.23 acres. The overstory is composed of Eucalyptus with the occasional Monterey pine (*Pinus radiata*) and Douglas fir (*Pseudotsuga menziesii*). As is typical of Eucalyptus groves because of allelopathic chemicals in fallen leaves and branches, the understory is low-growing and composed predominately of non-native, weedy species such as cape ivy (*Delairea odorata*), bur clover (*Medicago polymorpha*), bristly ox-tongue (*Helminthotheca* [*Picris*] *echioides*) with few native species such as red elderberry (*Sambucus racemosa* var. *racemosa*) and poison oak (*Toxicodendron diversilobum*). Within Eucalyptus grove within the Study Area, an extensive informal trail network exists consisting of dirt paths. Individual plants of California strawberry were observed scattered throughout the understory of the Eucalyptus grove within the Study Area at higher elevations.

Developed

The Study Area contains approximately 2.43 acres of developed areas composed of multiple-use paved trails and roadways. While an extensive informal trail network consisting of dirt pathways exists within the Eucalyptus grove, this was not mapped separately due to its extensive nature, pervious surfaces, and coverage by Eucalyptus overstory in most areas.

Table 2. Biological Communities within the Study Area

Biological Community[1]	Natural Community[3]	Acres/ Linear Feet
Non-Sensitive[4]		
Eucalyptus groves[2]	Eucalyptus groves (*Eucalyptus* [*globulus, camaldulensis*] Semi-Natural Woodland Alliance)	319.89 ac
Developed[2]	N/A	2.43 ac
Monterey cypress forest	Monterey cypress stands (*Callitropsis macrocarpa* Woodland Special Stands)	1.03 ac
Non-native [annual] grassland	Wild oats grassland (*Avena* [*barbata, fatua*] Herbaceous Stands)	44.31 ac
Northern coastal scrub	Coyote brush scrub (*Baccharis pilularis* Shrubland Alliance)	126.15 ac
Sensitive[4]		
Beaches[2] (ESHA)	N/A	1.92 ac
Central coast riparian scrub (ESHA)	Arroyo willow thickets (*Salix lasiolepis* Shrubland Alliance)	23.38 ac
Ephemeral, intermittent, and perennial streams[2] (ESHA)	N/A	0.54 ac/ 21,005 lf
Perennial Ponds[2] (ESHA)	N/A	1.49 ac
Potential seasonal wetland[2] (ESHA)	Western rush marshes (*Juncus patens* Provisional Herbaceous Alliance)	4.02 ac
	TOTAL	525.16 ac

[1]Holland (1986)
[2]Biological community not described in Holland (1986)
[3]Sawyer et al. (2009)
[4]Determination based on the *List of California Terrestrial Natural Communities* (CDFG 2010) and the *San Mateo County Local Coastal Program* (County 1998)

Monterey Cypress Forest

The southeastern portion of the Study Area contains a small stand of Monterey cypress forest, totaling 1.03 acre. Monterey cypress is native only to the Monterey peninsula where it grows on rocky, granitic soils of coastal headlands and bluffs subject to nearly constant onshore winds (Holland 1986). Only two natural stands have been documented, but Monterey cypress has been planted throughout coastal California for its capacity to serve as a windbreak and it has become naturalized. The California Invasive Plant Council (Cal-IPC) has rated Monterey cypress as “limited” for its ability to invade wildlands (Cal-IPC 2006).

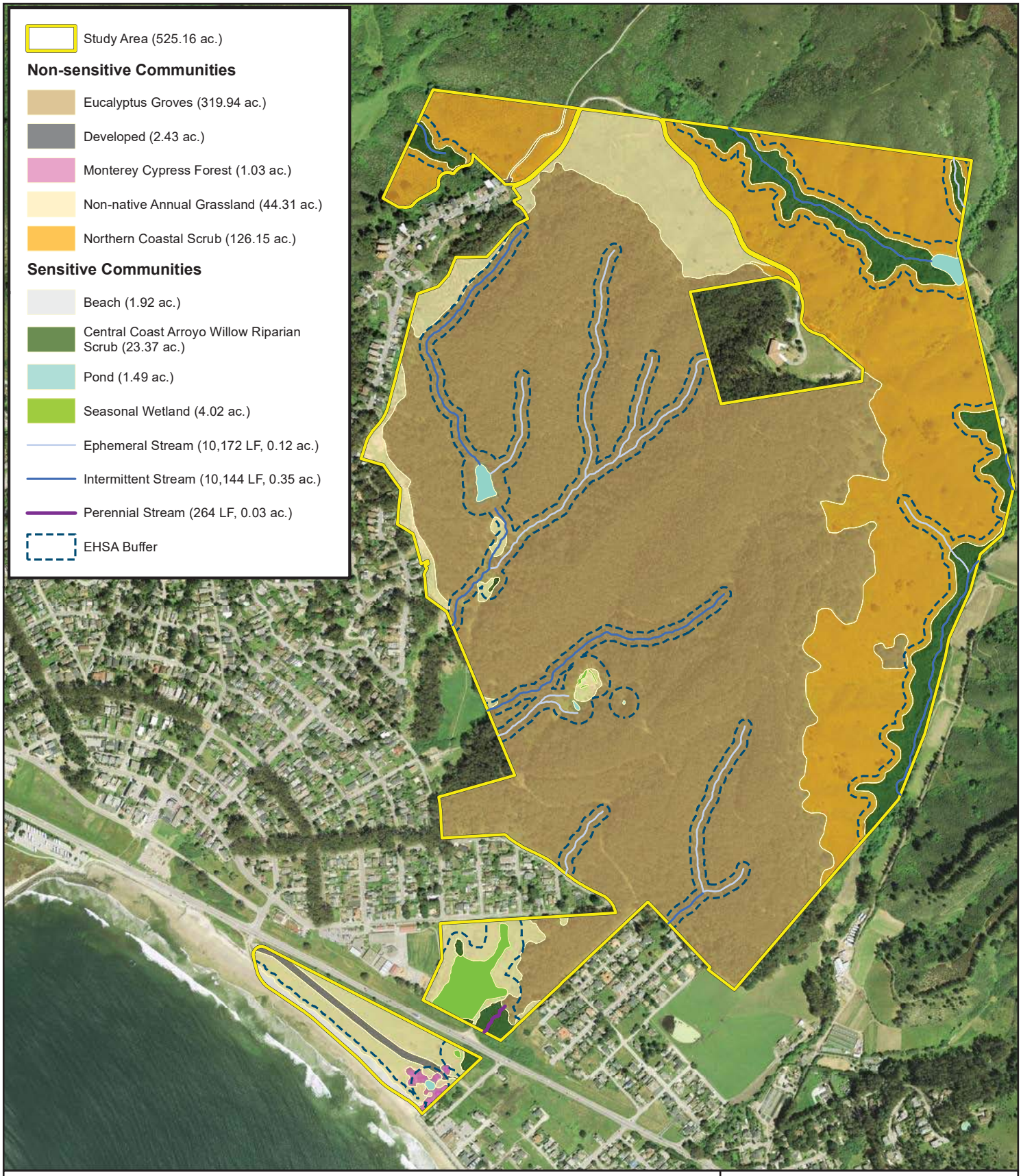

Figure X. Biological Communities

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ENVIRONMENTAL CONSULTANTS

San Mateo County Quarry Park Master Plan
San Mateo County, California

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Feet

Map Prepared Date: 5/11/2017
Map Prepared By: mrochelle
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\26000\26342\GIS\ArcMap\BioComm with ESHA.mxd

Sawyer (2009) has recognized this biological community as Monterey Cypress Stands (*Callitropsis macrocarpa* Woodland Special Stands), which are planted for wind protection and as ornamental trees near roadsides, driveways, and homesteads. Native stands of this alliance that occur on the Monterey peninsula are given G1 S1 status due to their rarity; however, stands outside of the native range are not ranked and naturalized stands extend from Humboldt County to Santa Barbara County (Sawyer et al. 2009).

In the Study Area, Monterey cypress forest occurs in association with the coastal trail area in the southern portion of the Study Area. The shrub layer is depauperate due to a dense canopy cover and leaf litter. A small perennial pond with facultative and obligate wetland plants occurs in the understory of this stand is described in more detail in Section 4.1.2 below.

Non-Native Annual Grassland

Approximately 44.31 acres of the Study Area contain non-native annual grassland habitat. Holland describes non-native grassland as a dense to sparse cover of non-native annual grasses with flowering culms 0.2-1-meter-high and often associated with numerous species of showy-flowered annual forbs. This community often occurs on fine-textured, usually clay soils, that are moist, or saturated during the winter rainy season and very dry during the summer and fall. Sawyer (2009) describes this community as wild oats grasslands (*Avena* [*barbata, fatua*] Semi-Natural Herbaceous Stands, no rarity ranking), which are dominated by the cool-season annual grass and occur in most habitats in California. Non-native grasslands typically contain elements of other non-native grasses.

In the Study Area, non-native annual grassland occupies flat, open areas and is dominated by slender oat (*Avena barbata*), Italian ryegrass (*Festuca perennis* [*Lolium multiflorum*]), ripgut brome (*Bromus diandrus*), and bristly ox-tongue with few native species.

Northern Coastal Scrub

Within the Study Area, relatively undisturbed northern coastal scrub occupies approximately 126.15 acres on mid- to high-slopes on north-facing aspects, predominantly underlain by rocky loam substrate. Holland (1986) describes northern coastal scrub as a community type having low shrubs with dense covering in scattered grassy openings on shallow, rocky soils. Sawyer (2009) describes this community as coyote brush scrub (*Baccharis pilularis* Shrubland Alliance), which is known from the outer Coast Ranges and Sierra Nevada Foothills from Del Norte County south to San Diego County. This vegetation community is typically located on river mouths, riparian areas, terraces, stabilized dunes, coastal bluffs, open hillsides, and ridgelines on all aspects underlain by variable substrate of sand to clay (Sawyer et al. 2009).

The tree layer is minimal in this community with isolated individuals of red alder (*Alnus rubra)* and individual blue gum trees. The dominant species in the shrub layer include coyote brush (*Baccharis pilularis* ssp. *consanguinea*), red elderberry, wax myrtle (*Morella californica*), thimbleberry (*Rubus parviflorus*), and blue blossom (*Ceanothus thyrsiflorus* var. *thyrsiflorus*), with coyote brush comprising greater than 50 percent relative cover in this stratum. The herbaceous layer is dominated by poison oak, soft chess (*Bromus hordeaceus*), dog-tail grass (*Cynosurus echinatus*), and Italian thistle (*Carduus pycnocephalus*). Individual plants of California strawberry were observed scattered within northern coastal scrub in the Study Area.

4.1.2 Environmentally Sensitive Habitat Areas (ESHAs)

The Study Area contains seven natural communities considered sensitive by the Corps, RWQCB, CDFW, CCC, and County LCP, and would therefore be considered sensitive under CEQA. These communities include beaches; central coast riparian scrub; ephemeral, intermittent, and perennial streams; perennial ponds; and potential seasonal wetlands.

Beaches

The Study Area includes approximately 1.92 acres of beaches. Beaches consist of barren, mobile sand accumulations whose size and shape are determined by abiotic factors such as wind, rather than by stabilizing vegetation. Sawyer et al. (2009) does not describe this community. The closest Holland association to beaches is active coastal dunes, which occur along the Pacific Ocean where sandy beaches are present and coastal headlands are absent. The CCC and County LCP regulate beaches and this community is therefore considered sensitive under CEQA.

Central Coast Riparian Scrub

Within the Study Area, approximately 23.38 acres of central coast riparian scrub occurs in the southern portion adjacent to a perennial blue-line stream, and in the north along Arroyo de en Medio and along Deer Creek. The canopy is dense and nearly impenetrable and is dominated by arroyo willow with occasional red alder trees. California blackberry (*Rubus ursinus*), stinging nettle (*Urtica dioica* ssp. *holosericea*), panicled bulrush (*Scirpus microcarpus*), and Pacific rush (*Juncus effusus*) comprise the intermittent shrub and herb layers.

Holland (1986) describes this central coast riparian scrub as occurring in areas of open to nearly impenetrable willow shrubs associated with a stream or mouth of streams, occurring near the coast in the South Coast Ranges. This community is described by Sawyer (2009) as arroyo willow thickets (*Salix lasiolepis* Shrubland Alliance, Rarity Ranking G4 S4), which occurs throughout much of California along streams, seeps and drainages. The canopy is dominated by arroyo willow, forming an open to continuous layer with a variable herbaceous layer. Soils are relatively fine-grained sand and gravel bars from alluvial deposition. Central coast riparian scrub is considered an ESHA within the Coastal Zone. The RWQCB, CDFW, CCC, and County LCP regulate riparian communities and this community is therefore considered sensitive under CEQA.

Ephemeral, Intermittent, and Perennial Streams

Streams are not described by Holland (1986) or Sawyer (2009). Approximately 0.54 acre (21,005 linear feet) of ephemeral, intermittent, and perennial streams were observed within the Study Area and are depicted on Figure 2.

Ephemeral Streams

Approximately 0.12 acre (10,513 linear feet) of ephemeral streams and 0.34 acre (9,803 linear feet) of intermittent streams occur within the Study Area. Ephemeral and intermittent streams contained obvious signs of bank scour and ranged in width from approximately 1 foot to 3 feet, respectively. Vegetation associated with these streams include blue gum with occasional plants species such as poison oak and thimbleberry and is similar to the vegetation present along perennial stream discussed below.

Intermittent Streams

Three intermittent USGS-dashed blue line streams exist within the eastern and western portions of the Study Area. The unnamed USGS dashed blue-line intermittent stream trending north-south in the western portion of the Study Area had obvious signs of scouring and debris deposition within the streambed and an unvegetated gravel bed. This unnamed stream had widths varying from 5 to 7 feet with flowing water. Dominant vegetation associated with the stream is comprised of species including blue gum, red elderberry, and poison oak.

The USGS dashed blue-line stream, named Arroyo de en Medio, occurs along the northern and eastern portions of the Study Area and was dominated by arroyo willow and red alder. The USGS dashed blue-line stream, named Deer Creek, occurs along the northwestern portion of the Study Area and had similar riparian species composition. Riparian habitat associated with streams is discussed below in more detail.

Perennial Streams

An unnamed perennial stream was observed within the southern portion of the Study Area, totaling approximately 0.08 acre (689 linear feet). The perennial stream was observed with flowing water and obvious signs of bank scour. The stream was approximately 14 inches deep and 3 to 5 feet wide. Vegetation associated with the perennial drainage was dominated by central coast riparian scrub, as described above, and the tree canopy was dominated by arroyo willow. Upstream portions of this perennial drainage are conveyed subsurface and subsurface flows likely include a local underground stormwater conveyance system from areas adjacent to the Study Area. Riparian habitat associated with this perennial stream is discussed below in more detail. The Corps, RWQCB, CCC and County LCP regulate non-wetland waters including ephemeral, perennial, and intermittent streams and this community is therefore considered sensitive under CEQA.

Ponds

Ponds occupy 1.49 acres of the Study Area. These features are located in-line with the unnamed perennial drainage located in the western portion of the Study Area or are directly connected to the Arroyo de en Medio stream channel and are the result of stream impoundments. In the western portion of the Study Area, blue gum groves surround a perennial pond while the vegetation around the perennial pond associated with Arroyo de en Medio includes central coast riparian scrub composed of arroyo willow and red alders. Although man-made, these features are potentially jurisdictional as an impoundment of potentially jurisdictional non-wetland waters (Arroyo de en Medio). Additionally, smaller seasonal ponds exist within Eucalyptus groves centrally and under Monterey cypress forest in the southern extent of the Study Area. The Corps, RWQCB, CCC, and County LCP regulate perennial ponds and thus, this community is therefore considered sensitive under CEQA.

Seasonal Wetland

Approximately 4.02 acres of potentially seasonal wetland habitat is present within the Study Area. As described by Holland (1986), potential seasonal wetlands are comprised of mostly perennial herbs, especially sedges and grasses, usually forming complete cover, growing throughout the year in areas with mild winters. This community type occurs scattered throughout California and is most common in mesic grasslands. Sawyer (2009) best describes potential seasonal wetlands within the Study Area as western rush marshes (*Juncus patens* Provisional Herbaceous Alliance, Rarity Ranking G4 S4), which occur on seasonally saturated soils on flats, depressions, or gentle slopes. Seasonal wetlands contain continuous to intermittent cover of western rush with commonly

associated facultative wetland plants such as Italian ryegrass, velvet grass (*Holcus lanatus*), willow-leaved dock (*Rumex crassus*), and subterraneum clover (*Trifolium subterraneum*).

In the Study Area, this biological community occurs as potential seasonal wetland depressions within the non-native annual grassland centrally located in a clearing within Eucalyptus grove and within the southern extent of the Study Area, as well as within a large potential seasonal wetland meadow north of Highway 1 and south of the Eucalyptus grove. The potential seasonal wetland depressions within the Eucalyptus groves were dominated by western rush (*Juncus patens*) with co-dominants including brown headed rush (*Juncus phaeocephalus* var. *phaeocephalus*), subterraneum clover, and buckhorn plantain (*Plantago coronopus*). For the potential seasonal wetland meadow in the southern portion of the Study Area, dominant species present include clustered field sedge (*Carex praegracilis*), western rush, and willow-leaved dock along with bristly ox-tongue and non-native grasses. An additional potential seasonal wetland depression was observed in the southeastern portion of the Study Area and is comprised predominately of willow-leaved dock and water pepper (*Persicaria hydropiperoides*) as well as species similar to the other potential wetlands. The Corps, RWQCB, CCC and County LCP regulate wetlands and this community is therefore considered sensitive under CEQA.

4.2 Special-Status Species

4.2.1 Plants

Based upon a review of the resources and databases given in Section 3.2.1, 45 special-status plant species have been documented in the vicinity of the Study Area, of which seven special-status species have a high or moderate potential to occur within the Study Area (Figure 3). The remaining species are unlikely or have no potential to occur due to lack of suitable habitat within the Study Area, such as serpentine soils, coniferous forests, woodlands, or high quality meadows and seeps.

Appendix B summarizes the potential for occurrence for each special-status plant species occurring in the Half Moon Bay and Montara Mountain USGS 7.5-minute quadrangles. Plants observed during the site visit are listed in Appendix A. No special-status species were observed during the site visits conducted on March 16 or 22, 2017; however, these did not constitute protocol-level rare plant surveys.

Special-status plant species that have a high or moderate potential to occur in the Study Area are discussed below and include:

- Bent-flowered fiddleneck (*Amsinckia lunaris*);
- Western leatherwood (*Dirca occidentalis*);
- Marin checker lily (*Fritillaria lanceolata* var. *tristulis*);
- Perennial goldfields (*Lasthenia californica* ssp. *macrantha*);
- San Mateo tree lupine (*Lupinus arboreus* var. *eximius*);
- Oregon polemonium (*Polemonium carneum*); and,
- Hickman's cinquefoil (*Potentilla hickmanii*).

<u>High Potential</u>

San Mateo tree lupine (*Lupinus arboreus* var. *eximius*), Rank 3.2. San Mateo tree lupine is a shrub in the pea family (Fabaceae). This species typically occurs in chaparral and coastal scrub habitats at elevations ranging from 300 to 1,800 feet (90 to 550 meters). It typically blooms between April and July and has been recorded in San Mateo and Sonoma counties. Observed associated species include California coffeeberry (*Frangula californica*), poison oak, and elderberry (*Sambucus* sp.), all of which were observed within the northern coastal scrub habitat within the Study Area.

An unknown, shrubby species of lupine was observed in the Study Area that has vegetative characteristics consistent with both San Mateo tree lupine and silver lupine (*Lupinus albifrons*), a common native species. The observed lupine shrubs were not flowering at the time of the March 2017 site visit and were therefore not identifiable to species. The shrubby lupine was observed along margins of the northern coastal scrub within the Study Area. Given the presence of coastal scrub vegetation, there is high potential that some of the shrubby lupines observed in the Study Area may be San Mateo tree lupine.

Moderate Potential

Bent-flowered fiddleneck (*Amsinckia lunaris*). Rank 1B.2. Bent-flowered fiddleneck is an annual forb in the forget-me-not family (Boraginaceae) that blooms from March to June. It typically occurs in open areas within cismontane woodland, valley and foothill grassland, and coastal bluff scrub habitat often underlain by clay substrate at elevations ranging from 10 to 1625 feet (CDFW 2017, CNPS 2017a, Jepson Flora Project 2017). Typical associated species include coast live oak, blue oak (*Quercus douglasii*), California juniper (*Juniperus californicus*), buck brush (*Ceanothus cuneatus*), poison oak, miniature lupine (*Lupinus bicolor*), foothill lotus (*Acmispon brachycarpus*), calf lotus (*A. wrangelianus*), fringe pod (*Thysanocarpus curvipes*), q-tips (*Micropus californicus*), cream cups (*Platystemon californicus*), slender tarweed (*Madia gracilis*), common yarrow (*Achillea millefolium*), goldenback fern (*Pentagramma triangularis*), one-sided bluegrass (*Poa secunda*), woolly sunflower (*Eriophyllum lanatum*), and slender wild oat (*Avena barbata*) (CDFW 2017).

The nearest documented occurrence of bent-flowered fiddleneck is from 2008, in grassland on the east side of Crystal Springs Reservoir (CDFW 2017). Bent-flowered fiddleneck has a moderate potential to occur in the northern coastal scrub community within the Study Area due to the presence of suitable substrate and open grassy areas.

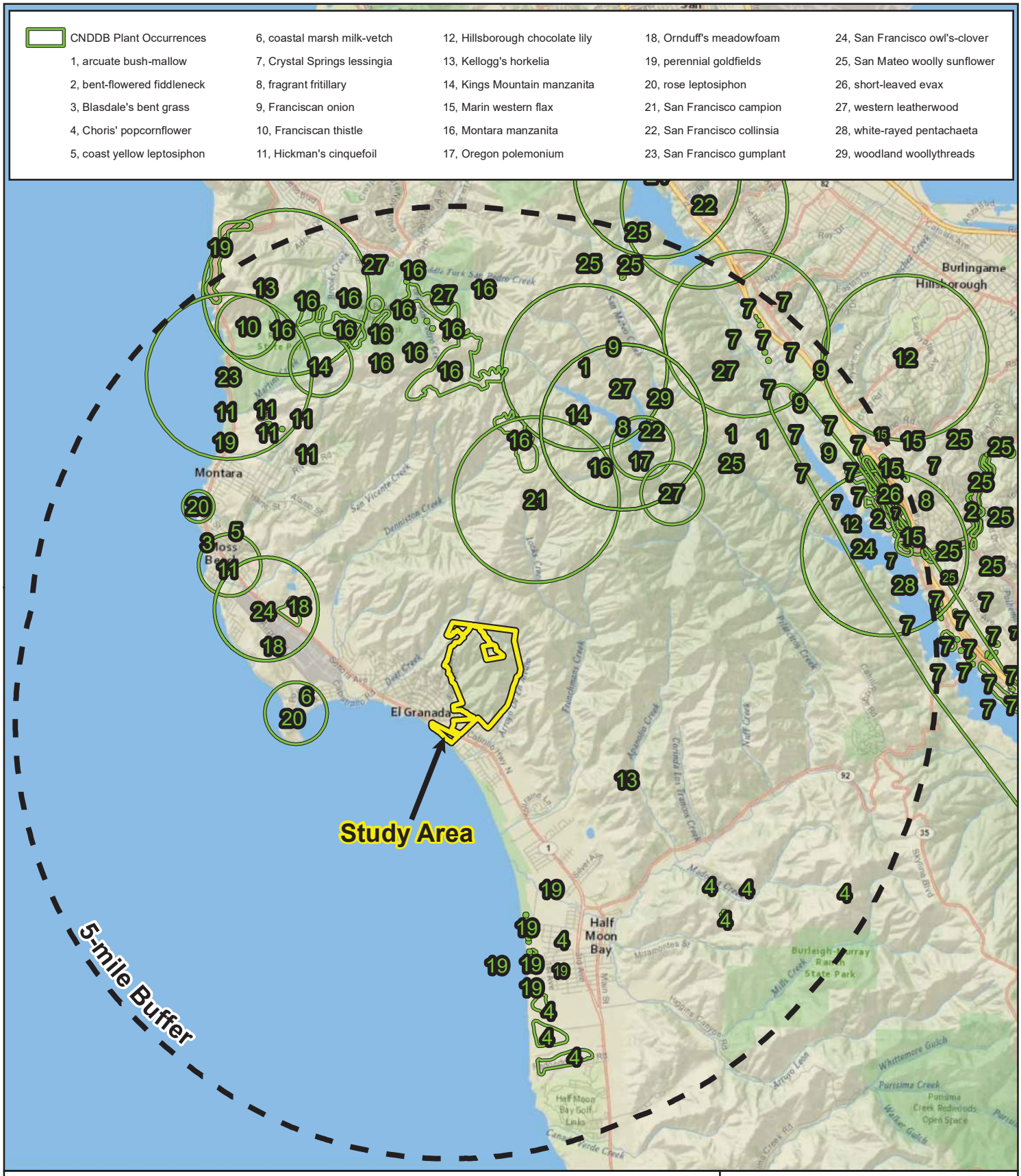

Figure X. Special-status Plants Documented within 5 Miles of the Study Area

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ENVIRONMENTAL CONSULTANTS

San Mateo County Quarry Park
Master Plan
San Mateo County, California

Map Prepared Date: 3/21/2017
Map Prepared By: mrochelle
Base Source: National Geographic
Data Source(s): CNDDB March 2017

Path: L:\Acad 2000 Files\26000\26342\GIS\ArcMap\CNDDB Plants.mxd

Western leatherwood (*Dirca occidentalis*), Rank 1B.2. Western leatherwood is a deciduous shrub in the Daphne family (Thymelaeaceae) that blooms from January to April, but is typically identifiable via vegetative structures into late spring and/or early summer. It typically occurs on brushy, mesic slopes in partial shade in broadleaf upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, North Coast coniferous forest, riparian forest, and riparian woodland habitat at elevations range from 165 to 1285 feet (CDFW 2017, CNPS 2017a, Jepson Flora Project 2017). Observed associated species include coast live oak, California bay (*Umbellularia californica*), Pacific madrone (*Arbutus menziesii*), California coffeeberry, poison oak, toyon (*Heteromeles arbutifolia*), California buckeye (*Aesculus californicus*), California hazelnut (*Corylus cornuta*), coyote brush, yerba buena (*Clinopodium douglasii*), sword fern (*Polystichum munitum*), Pacific sanicle (*Sanicula crassicaulis*), and Douglas iris (*Iris douglasiana*) (CDFW 2017).

The nearest occurrence is from 1975, in Douglas fir forest on San Francisco Public Utilities District property, approximately 3.5 miles east of the Study Area (CDFW 2017). Western leatherwood has a moderate potential to occur in the coyote brush scrub and riparian communities in the Study Area due to the presence of relatively undisturbed brushy and shaded slopes and associated species.

Marin checker lily (*Fritillaria lanceolata* var. *tristulis*), Rank 1B.1. Marin checker-lily is a perennial herb in the lily family (Liliaceae) that blooms from February to May. It typically occurs in coastal bluff scrub, coastal prairie, and coastal scrub habitats at elevations ranging from 50 to 500 feet (15 to 150 meters; CNPS 2017a). Observed associated species include coyote brush, soap plant (*Chlorogalum pomeridianum*), poison oak, strawberry (*Fragaria* sp.), plantain (*Plantago* sp.), ripgut brome, and filaree (*Erodium* sp.) (CCH 2017).

The nearest documented occurrence is located within the USGS Montara Mountain quad along Lower Crystal Springs Reservoir approximately 5.5 miles to the northeast of the Study Area, but the exact location and date of the observation are not listed (CNDDB 2017). Marin checker-lily has moderate potential to occur in the northern coastal scrub community due to of the presence of all associated species listed above and suitable openings in this habitat.

Perennial goldfields (*Lasthenia californica* ssp. *macrantha*). Rank 1B.2. Perennial goldfields are annual to perennial forbs in the sunflower family (Asteraceae) that bloom from January to November. It typically occurs on mesas, benches, and bluff faces in coastal bluff scrub, coastal dune, and coastal scrub at elevations from 15 to 1,690 (CDFW 2017, CNPS 2017). Observed associated species include coyote brush, poison oak, California blackberry, brownie thistle (*Cirsium quercetorum*), Douglas iris, sea lettuce (*Dudleya farinosa*), California buttercup (*Ranunculus californicus*), Pacific reed grass (*Calamagrostis nutkaensis*), Italian ryegrass, selfheal (*Prunella vulgaris*), English plantain (*Plantago lanceolata*), dwarf checkerbloom (*Sidalcea malviflora*), beach strawberry (*Fragaria chiloensis*), narrow-leaf mule's-ears (*Wyethia angustifolia*), coast angelica (*Angelica hendersonii*), soap plant, and coast coyote thistle (*Eryngium armatum*) (CDFW 2017).

The nearest documented occurrence of this species is from 2015 near Pescadero, and is located 18.4 miles southeast of the Study Area (CDFW 2017). Perennial goldfields have a moderate potential to occur in the coastal scrub community due to the presence of associated species such as coyote brush, poison oak, and California blackberry and suitable openings in this habitat.

Oregon polemonium (*Polemonium carneum*), Rank 2B.2. Oregon polemonium is a perennial herb in the family Polemoniaceae. It occurs in coastal prairie, coastal scrub, and lower montane

coniferous forest. Oregon polemonium is recorded from 0 to 1830 meters in elevation in Del Norte, Siskiyou, Humboldt, Sonoma, Marin, Alameda, San Francisco, and San Mateo counties. It blooms between April and September. Observed associated species include coyote brush, California sagebrush (*Artemisia californica*), blue-eyed grass (*Sisyrinchium* sp.), native grasses, and non-native annual grasses (CDFW 2017).

The nearest documented occurrence of this species is from 1916 near the Pilarcitos Dam, and is located 4 miles northeast of the Study Area (CDFW 2017). Oregon polemonium has a moderate potential to occur within the Study Area in northern coastal scrub because of the close proximity of the nearest occurrence and the presence of suitable northern coastal scrub habitat.

Hickman's cinquefoil *(Potentilla hickmanii)*, FE, SE, Rank 1B.2. Hickman's cinquefoil is a perennial herb in the family Rosaceae. It occurs in coastal bluff scrub, closed-cone coniferous forest, vernally mesic meadows and seeps, and freshwater marshes and swamps. It is recorded from 10 to 149 meters in elevation in Monterey, San Mateo, and Sonoma counties. It blooms between April and August. Observed associated species include native and non-native grasses including California oatgrass (*Danthonia californica*), silver hairgrass (*Aira caryophyllea*), little quaking grass (*Briza minor*) as well as English plantain (*Plantago lanceolata*), and rough cat's ear (*Hypochaeris radicata*) (CDFW 2017).

The nearest documented occurrence of this species is from 2008 over 4 miles northwest from the Study Area near Montara State Beach. Hickman's cinquefoil has a moderate potential to occur within the Study Area due to the presence of suitable northern coastal scrub habitat.

4.2.2 Wildlife

Based upon a review of the resources and databases given in Section 3.4.1, 57 special-status wildlife species have been documented in the vicinity of the Study Area. Appendix B summarizes the potential for each of these species to occur in the Study Area. Any wildlife species documented in the CNDDB within 5 miles of the Study Area are shown in Figure 4. Of the 57 special-status wildlife species documented in the vicinity of the Study Area, two are present in the Study Area and seven have a moderate or high potential to occur within the Study Area. The majority of species have no potential or are unlikely to occur due to a lack of suitable habitat components such as:

- offshore islands;
- marine waters;
- caves, mines or abandoned buildings;
- suitable cavity bearing trees; or,
- the Study Area is outside of the known range for the species.

Special-status plant species that have a high or moderate potential to occur in the Study Area are discussed below and include:

- San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*);
- White-tailed kite (*Elanus leucurus*);
- Allen's hummingbird (*Selasphorus sasin*);
- Olive-sided flycatcher (*Contopus cooperi)*;
- Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*);
- California red-legged frog (*Rana draytonii*);

- San Francisco garter snake (*Thamnophis sirtalis tetrataenia*); and,
- Monarch butterfly (*Danaus plexippus*).

Present

San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). CDFW Species of Special Concern. This subspecies of the dusky-footed woodrat occurs in the Coast Ranges between San Francisco Bay and the Salinas River (Matocq 2003). Occupied habitats are variable and include forest, woodland, riparian areas, and chaparral. Woodrats feed on woody plants, but will also consume fungi, grasses, flowers, and acorns. Foraging occurs on the ground and in bushes and trees. This species constructs robust stick houses/nests in areas with moderate cover and a well-developed understory containing woody debris. Breeding takes place from December to September. Individuals are active year-round and generally nocturnal.

While the species does not typically inhabit Eucalyptus groves, thick sections of willow scrub and riparian corridors are generally preferred habitats for the species. Nests constructed by this species were observed in these habitats. Because nests constructed by this species were observed in multiple locations throughout the Study Area, and suitable habitats are present in various locations, this species is considered present throughout the Study Area.

California red-legged frog (*Rana draytonii; CRLF*), Federal Threatened Species, CDFW Species of Special Concern. California red-legged frog (CRLF) is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late fall, red-legged frogs disperse away from their estivation sites to seek suitable breeding habitat. Aquatic and breeding habitat is characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between late November and late April. California red-legged frogs estivate (period of inactivity) during the dry months in small mammal burrows, moist leaf litter, incised stream channels, and large cracks in the bottom of dried ponds.

There are four physical and biological features that are considered to be essential for the conservation or survival of a species. The features for the CRLF include: aquatic breeding habitat; non-breeding aquatic habitat; upland habitat; and dispersal habitat (USFWS 2010a).

Aquatic breeding habitat consists of low-gradient fresh water bodies, including natural and manmade (e.g. stock) ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds. It does not include deep water habitat, such as lakes and reservoirs. Aquatic breeding habitat must hold water for a minimum of 20 weeks in most years. This is the average amount of time needed for egg, larvae, and tadpole development and metamorphosis so that juveniles can become capable of surviving in upland habitats (USFWS 2010a).

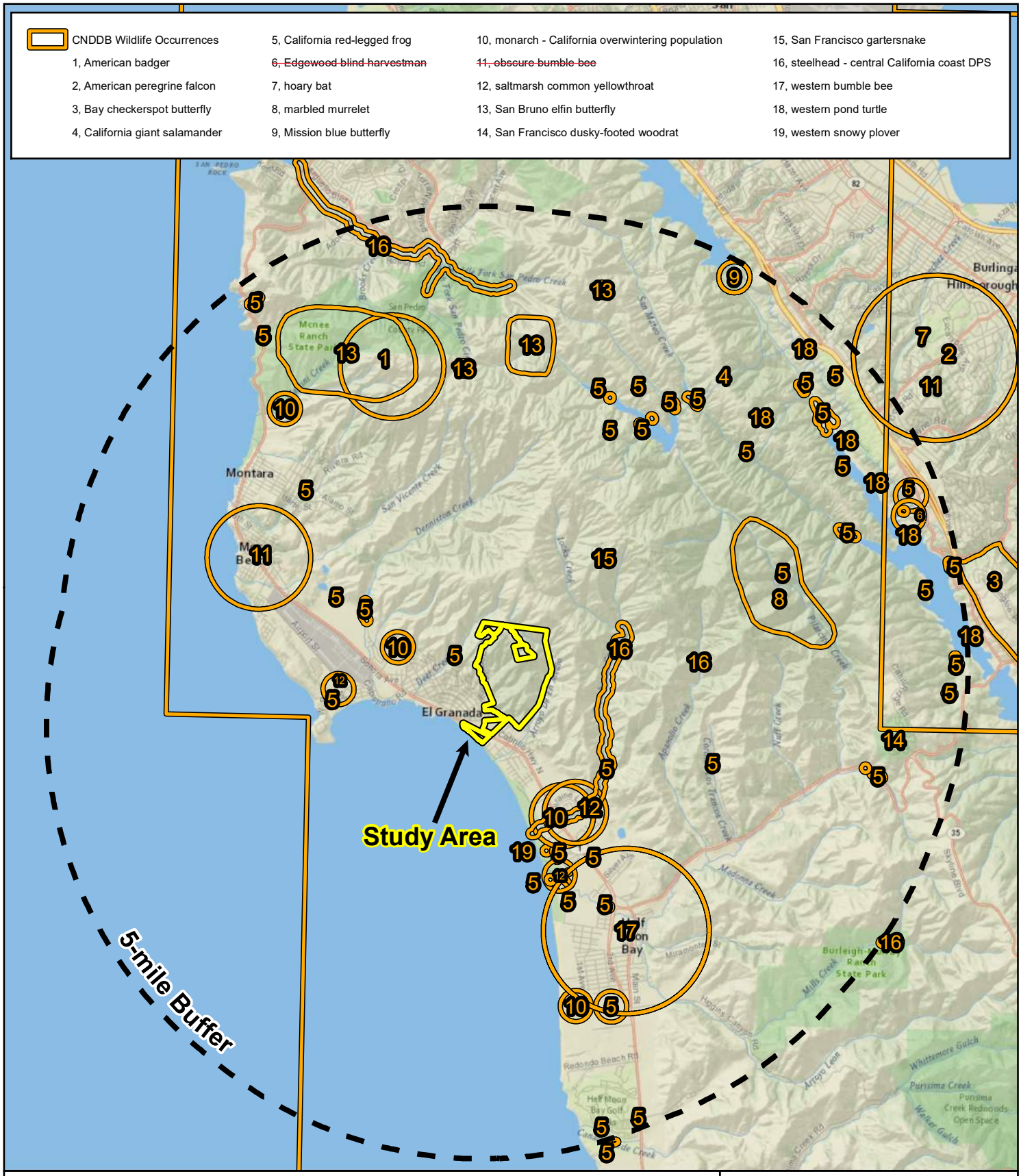

Figure X. Special-status Wildlife Documented within 5 Miles of the Study Area

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Miles

wra
ENVIRONMENTAL CONSULTANTS

San Mateo County Quarry Park
Master Plan
San Mateo County, California

Map Prepared Date: 3/20/2017
Map Prepared By: mrochelle
Base Source: National Geographic
Data Source(s): CNDDB March 2017

Path: L:\Acad 2000 Files\26000\26342\GIS\ArcMap\CNDDB Wildlife.mxd

Aquatic non-breeding habitat may or may not hold water long enough for this species to hatch and complete its aquatic life cycle, but it provides shelter, foraging, predator avoidance, and aquatic dispersal for juvenile and adult CRLF. These waterbodies include plunge pools within intermittent creeks; seeps; quiet water refugia during high water flows; and springs of sufficient flow to withstand the summer dry period. The CRLF can use large cracks in the bottom of dried ponds as refugia to maintain moisture and avoid heat and solar exposure (Alvarez 2004). Non-breeding aquatic features enable CRLF to survive drought periods, and disperse to other aquatic breeding habitat (USFWS 2010a).

Upland habitats include areas within 300 feet of aquatic and riparian habitat and are comprised of grasslands, woodlands, and/or vegetation that provide shelter, forage, and predator avoidance. These upland features provide breeding, non-breeding, feeding, and sheltering habitat for juvenile and adult frogs (e.g., shelter, shade, moisture, cooler temperatures, a prey base, foraging opportunities, and areas for predator avoidance). Upland habitat can include structural features such as boulders, rocks and organic debris (e.g. downed trees, logs), as well as small mammal burrows and moist leaf litter (USFWS 2010a).

Dispersal habitat includes accessible upland or riparian habitats between occupied locations within 0.7 mile of each other that allow for movement between these sites. Dispersal habitat includes various natural and altered habitats such as agricultural fields, which do not contain barriers to dispersal. Moderate- to high-density urban or industrial developments, large reservoirs, and heavily traveled roads without bridges or culverts are considered barriers to dispersal (USFWS 2010a). Although CRLF is highly aquatic, this species has been documented to make overland movements of several hundred meters and up to one mile during a winter-spring wet season in Northern California (Bulger et al. 2003, Fellers and Kleeman 2007) and 2,860 meters (1.8 miles) in the central California coast (Rathbun and Schneider 2001). Frogs traveling along water courses can exceeded these distances.

Within the Study Area, a number of ponds were observed which were of sufficient size and depth to support reproduction by the species. Smaller ponds, intermittent streams and wetlands are also present and may provide suitable non-breeding aquatic, as well as dispersal habitat for the species. Thick underbrush, moist leaf litter, and downed trees within the site may provide suitable upland habitat during various life stages. Additionally, this species has been observed in Deer Creek and Frenchman's Creek (CDFW 2017) in upper portions of the watershed. Although the lower portions of the Arroyo de en Medio are intermittent and do not provide optimal habitat for CRLF, the upper portion above the impoundment does provide suitable habitat and no barriers are present between nearby occurrences. Due to the presence of all of the physical and biological features required to sustain the species, and the documented presence within the surrounding landscape, the species is considered present within the Study Area.

<u>High Potential</u>

Allen's hummingbird (*Selasphorus sasin*). USFWS Bird of Conservation Concern. Allen's hummingbird, common in many portions of its range, is a summer resident along the majority of California's coast and a year-round resident in portions of coastal southern California and the Channel Islands. Breeding occurs in association with the coastal fog belt, and typical habitats used include coastal scrub, riparian, woodland and forest edges, and eucalyptus and cypress groves (Mitchell 2000). This species feeds on nectar, as well as insects and spiders.

There are a variety of suitable habitats for this species within the Study Area including northern coastal scrub and blue gum grove. Additionally, the Study Area is in close proximity to a variety of rich natural and landscaped foraging habitats. Therefore, Allen's hummingbird has a high potential to occur within the Study Area.

Moderate Potential

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates.

While grassland and foraging habitats are only present in small patches near the southeastern edges of the Study Area, farmlands just outside of the Study Area along Arroyo de en Medio and Deer Creek may provide adequate foraging opportunities to support the species. Additionally, tall trees throughout the Study Area may provide suitable structures to support nesting by the species. Due to the presence of suitable nesting substrates and the presence of suitable foraging grounds, this species has a moderate potential to occur.

Olive-sided flycatcher (*Contopus cooperi).* CDFW Species of Special Concern. USFWS Bird of Conservation Concern. This species if found within the coniferous forest biome, most often associated with forest openings, forest edges near natural openings (e.g. meadows, canyons, rivers) or human-made openings (e.g., harvest units), or open to semi-open forest stands (Altman 2000).

Although this species typically nests in more protected areas from the coastline, large blue gum trees throughout the Study Area may provide suitable nesting habitat. The habitat mosaic of northern coastal scrub, forests, and wetland vegetation in the Study Area is also suitable foraging habitat. Because of the presence of suitable nesting and foraging habitat, this species has a moderate potential to occur within the Study Area.

San Francisco (saltmarsh) common yellowthroat (*Geothlypis trichas sinuosa*), USFWS Bird of Conservation Concern, CDFW Species of Special Concern. This subspecies of the common yellowthroat is found in freshwater marshes, coastal swales, riparian thickets, brackish marshes, and saltwater marshes. Their breeding range extends from Tomales Bay in the north, Carquinez Strait to the east, and Santa Cruz County to the south. This species requires thick, continuous cover such as tall grasses, tule patches, or riparian vegetation down to the water surface for foraging and prefers willows for nesting (Gardali and Evans 2008).

Throughout most of the Study Area, the lack of dense ground cover makes the area unsuitable for nesting by the species. However, two small sections of willow thickets in the seasonal wetland habitat along Highway 1 at the southeastern edge of the Study Area may be suitable to support the species. This species can also use the adjacent grasslands to supplement foraging opportunities in this area. Therefore, while these thickets are small and bisected by Highway 1, they may potentially support nesting by the species.

San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*), Federal Endangered, State Endangered, CDFW Fully Protected. Historically, San Francisco garter snake (SFGS) occurred in scattered wetland areas on the San Francisco Peninsula. This species was historically documented from approximately the San Francisco County line south along the eastern and western bases of the Santa Cruz Mountains, at least to the Upper Crystal Springs Reservoir, and along the coast south to Año Nuevo Point, San Mateo County, and Waddell Creek, Santa Cruz County. The preferred habitat of SFGS is a densely vegetated pond near an open hillside where they can sun themselves, feed, and find cover in rodent burrows; however, considerably less ideal habitats can be successfully occupied (USFWS 2006).

There are two significant components to SFGS habitat: 1) ponds that support CRLF, American bullfrog (*Lithobates catesbeiana*), or the Pacific chorus frog (*Pseudacris regilla*) and 2) surrounding upland that supports Botta's pocket gopher (*Thomomys bottae*) and California meadow vole (*Microtus californicus*) (USFWS 2006). Ranid frogs are an obligate component of the SFGS's diet (USFWS 2006).

The Study Area is composed primarily of thick Eucalyptus groves. The heavy overstory of Eucalyptus groves throughout most of the Study Area makes ponds and other aquatic features in these areas less likely to support the species due to limited basking habitat. However, along upper Arroyo de en Medio above the impoundments, ponds containing CRLF (SFGS's primary food source), as well as exposed sunny slopes suitable for basking and heavily vegetated ponds or creeks are present. Together, such features are preferred habitat for SFGS. The species has also been documented to the north and south of the Study Area (CDFW 2017). While suitable habitat is limited to the areas along Arroyo de en Medio, the presence of this habitat and documented occurrences surrounding the Study Area make it likely that the species would be present. Therefore, this species has been evaluated to have a moderate potential to occur, especially along Arroyo de en Medio.

Monarch Butterfly (*Danaus plexippus*). CDFW Special Status Invertebrate. This large, showy butterfly is found throughout the United States, southern Canada, and Central America. It also occurs in parts of South America and other continents. In North America, this species spends spring and summer months breeding and foraging across much of its range. The monarch butterfly generally uses milkweed (*Asclepias spp*.) for both breeding and nectaring, although nectar may also be obtained from a variety of additional plant species. From August to October, monarchs will migrate thousands of miles to winter roost sites located along the California coast and central Mexico. At roost sites, monarchs will congregate in thousands or millions on a tree or group of trees (Opler et al. 2011). Western monarchs prefer overwintering habitat comprised of a relatively dense grove of trees with some understory, located near water and nectar sources and protected from the wind by topographic landforms or trees (Sakai and Calvert 1991). Winter roost sites are often on south, southwest, or west facing slopes which may provide more favorable temperature regimes and wind protection (Leong et al. 2004). Monarch butterflies typically arrive in mid-October to overwintering sites along the California coast and remain until late February or March (Jepsen et al. 2015).

This Study Area is primarily comprised of Eucalyptus groves, which is known to be used by the species for winter roosting. Additionally, the aspects typically favored are south and southwest facing slopes, which comprise the majority of the Study Area. Lastly, the area supports a variety of wild and landscaped (urban) plants to provide nectar, as well as ponds wetlands and seeps suitable for watering. Due to these factors, the species has a moderate potential to use the Study Area as winter roosting habitat.

San Francisco tree lupine moth (*Grapholita edwardsiana*). LCP. San Francisco tree lupine moth was proposed for federal threatened status in 1978, just prior to the authoring of the LCP. However, its status was never elevated and it is currently not a listed species. The species occurs only on sandy northern peninsula sites and is associated with its larval host plant, tree lupine (*Lupinus arboreus*). Little is known about the species' ecology; however, the initial concern that led to the proposal of federal threatened status in 1978 was largely due to the degradation and loss of the sandy dune system of the host plant, tree lupine (USFWS 1978). However, later research showed that the tree lupine host plants recovered well from habitat disturbance and in some instances may have expanded their initial range, presumably to the benefit of the San Francisco tree lupine moth (USFWS 1986). The grassland habitat in the Study Area may contain large numbers of tree lupines. Although little is known about the reproductive strategy, current numbers of this species, or where it occurs, San Francisco tree lupine moth was determined to have a moderate potential to occur in areas which tree lupine may be present.

Unlikely Potential

The following FESA and CESA-listed species are known to occur in the greater vicinity of the Study Area but have been determined to be unlikely to occur. Species that are discussed have been documented within 5-miles of the Study Area, though current habitat conditions are such that their presence is not supported. Despite the determination that these species are unlikely to be found within the Study Area, they are discussed for completeness.

San Bruno Elfin Butterfly (*Callophrys mossii bayensis*), Federal Endangered. San Bruno elfin butterfly inhabits coastal mountains near San Francisco Bay, in the fog belt of steep north-facing slopes that receive little direct sunlight. It lives near prolific growths of the larval food plant, broadleaf stonecrop (*Sedum spathulifolium*), which is a low-growing succulent associated with rocky outcrops (often in the shade) that occur on steep, mainly north-facing slopes in coastal scrub from 200 to 5,000 feet elevation (Black and Vaughan 2005a). The San Bruno elfin is restricted to a few small populations, the largest of which occurs on San Bruno Mountain. Its habitat has been diminished by quarrying, off-road recreation, and urban development (Black and Vaughan 2005a).

While several occurrences of this species have been recorded approximately 3.5 miles north of the Study Area (CDFW 2017), the aspect of the topography within the Study Area make it unlikely that the species will occur. This butterfly occurs only on north facing slopes that receive little direct sunlight, which moderates weather conditions (USFWS 2010b). All of the occurrences for this species in the area have been recorded on northern aspect slopes which maintain some level of shading throughout the day (CDFW 2017). These slopes provide favorable conditions for both the butterfly and its host plant. Slope aspects within the Study Area face almost entirely east, west or southward, with full exposure to offshore winds and higher levels of sunlight than the species typically tolerates. Additionally, the majority of the Study Area is comprised of Eucalyptus groves, which does not support the species or its host plants. Because the distribution of this species is fairly well know as well as being limited in range, and aspects of the Study Area are primarily east, west or south, which provides conditions unfavorable to the butterfly or its host plant, this species is unlikely to occur.

Mission Blue Butterfly (*Plebejus icarioides missionensis*), Federal Endangered. Mission blue butterfly persists in small populations in San Francisco, San Mateo, and Marin Counties. The majority of the remaining mission blues are found on San Bruno Mountain in San Mateo County. This species inhabits coastal grasslands in the fog belt of the coastal range from 690 to 1,180 feet in elevation. Three species of lupine serve as larval food plants: silver lupine, summer lupine (*L.*

formosus), and many-colored lupine (*L. variicolor*). Adults feed on hairy false goldenaster (*Heterotheca villosa*), bluedicks (*Dichelostemma capitatum*), and seaside buckwheat (*Eriogonum latifolium*) (Black and Vaughan 2005b).

This species is also only known to occur in northern San Mateo County (San Bruno Mountain, Sweeney Ridge, and Milagra Ridge), San Francisco County (Twin Peaks), and in Marin County, all of which are far from the Study Area (Wayne and Weiss 2009, USFWS 2010b). The nearest documented occurrence of this species is approximately 5-miles northwest of the Study Area near Crystal Springs Reservoir (CDFW 2017), and nearest known population is on Sweeney Ridge over 4 miles north. The maximum known travel distance of this species is 2,500 meters (about 1.5 miles) (USFWS 2010) and open patches of grassland are rare between the nearest known occupied habitat and the Study Area. This species primarily occurs in coastal grasslands along ridgelines and requires three species of lupine as host plants. Although grassland habitat and potential host plants are present, the distance from known populations and lack of connectivity through grassland patches reduces potential for mission blue butterfly to be present. Therefore, because the Study Area is not within the known distribution of the species, grassland habitat typical of this species is not present, and does not contain the elevation gradients or typical habitats used by this species, mission blue is unlikely to be present.

5.0 SUMMARY AND RECOMMENDATIONS

The following sections present recommendations for future studies and/or measures to avoid or reduce impacts to special-status species and sensitive habitats. Seven ESHAs occur within the Study Area:

- ephemeral streams potentially subject to the jurisdictional of the Corps, RWQCB, CDFW, CCC, and County LCP;
- intermittent streams potentially subject to the jurisdictional of the Corps, RWQCB, CDFW, CCC, and County LCP;
- perennial streams potentially subject to the jurisdictional of the Corps, RWQCB, CDFW, CCC, and County LCP;
- ponds potentially subject to the jurisdictional of the Corps, RWQCB, CDFW, CCC, and County LCP;
- seasonal wetlands potentially subject to the jurisdictional of the Corps, RWQCB, CDFW, CCC, and County LCP;
- central coast riparian scrub potentially subject to the jurisdiction of the CDFW, CCC, and County LCP; and,
- beaches potentially subject to the jurisdiction of the CCC and County LCP.

No special-status plant species were observed during the March 16 or 22, 2017 site visits; however, these did not constitute protocol-level rare plant surveys. Seven special-status plant species have been identified with moderate to high potential to occur within the Study Area. Two special-status wildlife species are present and seven have a moderate to high potential to occur within the Study Area. The following sections present recommendations for future studies and/or measures to avoid or reduce impacts to sensitive habitats and special-status wildlife with potential to occur in the Study Area.

5.1 Biological Communities

The CCC and County LCP generally prohibit land use or development that would have significant adverse impact on ESHAs. The County LCP defines specific criteria for allowable development areas in ESHAs, requires ESHA impacts to be minimized to the maximum extent feasible through siting and design, requires that mitigation measures implemented where impacts to ESHAs may occur. However, permitted uses allowed within ESHAs include the following: education and research, trails and scenic overlooks on public lands, and fish and wildlife management. As mentioned, ESHAs within the Study Area include central coast riparian scrub; ephemeral, intermittent, and perennial streams; perennial ponds; and potential seasonal wetlands.

5.1.1 Wetlands

Seasonal wetlands are subject to the jurisdiction to the Corps, RWQCB, CCC, and County LCP. Impacts directly to potential seasonal wetlands within the Study Area would require a Corps Section 404 Permit, a RWQCB Section 401 Water Quality Certification, and a coastal development permit (CDP) through the CCC and County. Further, work within buffers of potential seasonal wetlands may also require a CDP through the CCC and County.

A 100-foot minimum buffer is typically required surrounding wetlands (as well as ponds) by the County LCP code. However, specific permitted uses, including trails, are allowed within these buffer areas. As such, while trail development activities may occur within the 100-foot buffer surrounding a wetland, the following standards are recommended to minimize adverse effects (Section 7.17, San Mateo County LCP):

- All paths be elevated so as not to impede movement of water;
- All construction takes place during daytime hours;
- All outdoor lighting be kept at a distance away from the wetland sufficient not to affect the wildlife;
- Motorized machinery be kept to less than 45 dBA at the wetland boundary;
- All construction which alters wetland vegetation be required to replace vegetation;
- No herbicides be used in wetlands unless specifically approved by the county Agricultural commissioner and CDFW; and,
- All projects be reviewed by CDFW and RWQCB to determine appropriate mitigation measures.

5.1.2 Non-Wetland Waters

The Study Area contains non-wetland waters including ephemeral, intermittent, and perennial streams and perennial ponds, which are potentially subject to regulation by the following agencies: the Corps, the RWQCB, the CDFW, and the County LCP. Temporary and permanent impacts to federal-protected waters (below the ordinary high water mark [OHWM] of the stream or pond) in the Study Area will require a Corps Section 404 Permit, and a RWQCB Section 401 Water Quality Certification. Any work below top of bank (TOB) of a stream will require a Section 1602 Lake and Streambed Alteration Agreement from CDFW and a Section 401 Water Quality Certification from

the RWQCB. Additionally, work within established ESHA buffers of streams may require a CDP through the CCC and County.

Best management practices should be used to lessen potential impacts to sensitive habitats. This includes the use of silt fencing, wattles, and other appropriate stormwater pollution prevention measures. Permitting agencies may require a mitigation and monitoring plan to restore or replace temporary and permanent impacts to non-wetland waters.

5.1.3 Riparian Habitat

In addition to streams and lakes, the CDFW and RWQCB regulate riparian vegetation. Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW and Section 401 Water Quality Certification from the RWQCB. Both CDFW and RWQCB jurisdiction typically extends to the TOB or the outer edge of riparian vegetation, whichever is further from the stream.

Potential impacts to riparian vegetation could occur through riparian vegetation removal or project-related encroachment into riparian habitat. To ensure that potential impacts to riparian vegetation are avoided, exclusion and/or silt fencing should be placed around all riparian vegetation that will be preserved and this fencing shall remain in place for the duration of construction. If removal of riparian vegetation is proposed, mitigation for impacts may be required from both the CDFW and RWQCB.

5.1.4 General Avoidance Measures

Below, general avoidance measures to reduce potential impacts to sensitive habitats and specific performance criteria for ESHAs are described:

- Site grading and trail development activities should be restricted between approximately May 1 and December 31. Site grading during these dryer months will reduce the possibility of soil erosion and sediments flowing into natural habitats.

- Install temporary silt fencing along the perimeter of ESHAs where land disturbing activities will occur to protect potential ESHAs.

- Soil disturbance in the 100-foot buffer zone around the wetland areas (see Section 5.1.1) should be minimized as much as possible. This will reduce the impact to existing soils and vegetation that will remain as natural habitat within the buffer zone and reduce the potential for soil erosion. Perimeter erosion and sediment control measures (i.e. silt fencing, straw waddles) should be installed within the buffer zone area as an extra precaution to reduce the possibility of sediments entering the adjacent potential ESHAs.

- Solid materials, including wood, masonry/rock, glass, paper, or other materials should not be stored or placed in the 100-foot wetland buffer zone to the extent practicable. Solid waste materials should be properly disposed of off-site. Fluid materials, including concrete, wash water, fuels, lubricants, or other fluid materials used during construction should not be disposed of on-site and should be stored or confined as necessary to prevent spillage into natural habitats. If a spill of such materials occurs, the area should be cleaned and contaminated materials disposed of properly. The affected area should be restored to its natural condition.

5.2 Special-Status Plant Species

Of the 45 special-status plant species known to occur in the vicinity of the Study Area, seven were determined to have a high to moderate potential to occur in the Study Area. Prior to any project construction work, protocol-level rare plant surveys are recommended during appropriate blooming periods for species determined to have potential to occur including: bent-flowered fiddleneck, western leatherwood, Marin checker lily, perennial goldfields, San Mateo tree lupine, Oregon polemonium, and Hickman's cinquefoil. If the presence of any special-status plant species is confirmed during surveys, buffers may be required to ensure plant individuals are not impacted from project work. If complete avoidance to special-status species is infeasible, mitigation may be required by the Corps, CDFW, the CCC, and the County.

Additionally, while not considered a Federal, State, or CNPS-ranked special-status plant species, California strawberry was observed scattered throughout Eucalyptus grove, northern coastal scrub, and potential seasonal wetlands in the Study Area. Policy 7.49 of the County LCP requires that any development within one-half mile of the coast mitigate against the destruction of California strawberry through:

a) Prevent any development, trampling, or other destructive activity which would destroy the plant; or,
b) After determining specifically if the plants involved are of particular value, successfully transplant them or have them successfully transplanted to some other suitable site. Determination of the importance of the plants can only be made by a professional doing work in strawberry breeding.

5.3 Special-Status Wildlife Species

Of the 58 special-status wildlife species documented in the vicinity, two are present and seven were determined to have potential to occur within the Study Area. Most of the species found in the review of background literature occur in habitats not found in the Study Area. General recommendations for species or groups of similar species are listed below.

5.3.1 San Francisco Dusky-footed Woodrat

Woodrat nests were observed in various forested habitats (e.g. riparian, willow and blue gum) throughout the Study Area. If project activities are to occur within such habitats, the measures below are recommended to minimize impacts to San Francisco dusky-footed woodrat.

- Prior to working in forested or scrub habitats, a pre-construction survey within the work area is recommended to identify any existing San Francisco dusky-footed woodrat nests to be impacted.
- Woodrat houses that cannot be avoided should be dismantled by hand under the supervision of a biologist. If young are encountered during the dismantling process, the material should be placed back on the house and the house would then remain unmolested for three weeks in order to give the young enough time to mature and leave the house. After that time, the nest dismantling process may begin again. Nest material should be scattered to suitable adjacent areas (riparian, woodland, scrub) that will not be impacted.

5.3.2 Special-Status and Non-special-status Nesting Birds

Special-status bird species with potential to nest within the Study Area include white-tailed kite, olive-sided flycatcher, and Allen's hummingbird. In addition, most common native bird species are also protected by the Migratory Bird Treaty Act (MBTA) during the nesting season. The following avoidance and minimization measures are recommended to be incorporated to any proposed project within the Study Area to avoid impacts to special-status bird species and birds protected under the MBTA.

- If project activities are conducted during the nesting season (February 15 – August 31), a pre-construction nesting bird survey should be performed no more than 14 days prior to initial ground disturbance to avoid impacting active nests, eggs, and/or young.
- If the survey identifies any active nest, an exclusion buffer should be established for protection of the nest and young. The qualified biologist should establish a buffer appropriate for the species and location of the nest if it is necessary. The buffer should be maintained until all young have fledged. Buffer distance varies based on species and conditions at the site, but typically range between 25 up to 500 feet.
- Impacts to nesting birds can be avoided if potential activities are initiated outside of the nesting season (September 1 – January 31). During this time period, no pre-construction bird surveys are recommended.

5.3.3 CRLF and SFGS

California red-legged frog and SFGS are both likely to inhabit upper Arroyo de en Medio within the Study Area. CRLF may also inhabit ponds and streams throughout the rest of the Study Area, but SFGS is unlikely in areas outside of Arroyo de en Medio because of the absence of preferred habitat components. Because of the suitability of some habitats within the Study Area to support both species, and considering measures for both species are similar, recommendations for CRLF and SFGS are discussed below.

- All ground disturbance activities should be restricted to the dry season (April 15 through October 15) or when suitable habitats have dried in order to reduce the potential for CRLF and SFGS to occur within non-ponded habitats of the Study Area.
- A qualified biologist should survey the work site immediately before the onset of vegetation clearing or ground disturbance activities to verify if species are present and all habitats are dry. If CRLF are found and do not move out of the work area on their own, the USFWS should be contacted to determine if relocation is appropriate. In making this determination, the USFWS will consider if an appropriate relocation site exists. If the USFWS approves moving animals, a USFWS-approved biologist will be allowed sufficient time to move them from the work site before work activities begin. Any SFGS shall be allowed to leave the work area on their own, and shall be monitored as practical by the biologist to ensure they do not reenter the work area.
- Prior to the start of ground-disturbing activities, all construction personnel should receive training on listed species and their habitats by a qualified biologist. The importance of these species and their habitat will be described to all employees as well as the minimization and avoidance measures that are to be implemented as part of the project. An educational brochure containing color photographs of all listed species in the work area will be distributed to all employees working within the Study Area. The original list of employees who attend the training sessions will be maintained by the contractor and be made available for review by the USFWS and the CDFW upon request.

- The contractor shall designate a person or employee to monitor on-site compliance with all minimization measures. The on-site monitor(s) will be on-site daily for the duration of work, including vegetation removal, grading, and clean-up activities.
- Any vehicles and equipment associated with work-activities should be parked or staged only within a designated staging area at the end of each workday or when not in use in order to minimize habitat disturbance or water quality degradation.
- If appropriate, wildlife exclusion fencing should be erected and maintained around the perimeter of the Limit of Work area, including the project construction staging areas and access routes, to prevent SFGS and CRLF from entering the site overnight. Any wetland areas within the Limit of Work area should also be protected by silt fencing.
- Vehicle access points may have a temporary silt fence gate, which is opened to allow construction vehicle access while the contractor's trained personnel is present. At night the seal on the temporary gate should be augmented by sandbags to prevent species from entering the area beneath the gate. Installation of fencing will be performed under the supervision of a USFWS-approved biologist.
- No work should occur within 48 hours of a rain event (over 0.25 inch in a 24-hour period). Following a rain event, a qualified biologist will resurvey the work area immediately before reinitiating ground disturbance activities to verify if species are present. If CRLF or SFGS are observed, then the steps previously described for the initial pre-construction survey shall be followed.
- Plastic monofilament netting (erosion control matting), rolled erosion control materials, or similar material shall not be used at the Study Area because CRLF, SFGS, and other species may become entangled or trapped in it. Any erosion control materials used should be made of tightly woven fiber netting or similar material to ensure that the CRLF and SFGS are not trapped. This limitation should be communicated to the contractor prior to the start of work.
- No trash shall be deposited on the site during construction activities. All trash shall be placed in trash receptacles with secure lids, stored in vehicles, and removed nightly from the Study Area.
- Refueling or maintenance of equipment should be conducted at least 50 feet from any wetlands, waters or designated ESHAs.
- CRLF and SFGS may take refuge in cavity-like or den-like structures such as pipes and may enter stored pipes and become trapped. Therefore, all construction pipes, culverts, or similar materials, which are stored at the site for one or more nights, will be either securely capped or thoroughly inspected by the on-site monitor and/or the construction foreman/manager before the pipe is used or moved in any way. It is also recommended these materials are stored within the staging areas either in developed areas or within wildlife exclusion fencing.
- The on-site monitor and/or construction foreman/manager shall ensure that all excavated steep-walled holes or trenches more than one foot deep are completely covered at the close of each working day by covering holes with plywood or similar materials, and covering the edges of those materials with dirt to prevent access by wildlife. Alternatively, holes may be augmented with one or more escape ramps constructed of earth fill or wooden planks. Any ramps installed should be approved by the on-site biologist. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals by the on-site biologist and/or construction foreman/manager.
- If at any time a trapped CRLF or SFGS is discovered by the on-site biologist or anyone else, work in the immediate area should cease as soon as it is safe to do so, and the animal

shall be allowed to passively leave the work area on its own. Steps outlined above shall be followed if the animal does not, or cannot leave the area on its own.

5.3.4 Monarch Butterfly

Monarch butterfly has potential to roost in the Eucalyptus groves throughout the Study Area during the winter. Foraging habitat is also present in the Study Area. WRA recommends the following measures be implemented to avoid impacts to monarch butterfly winter-roost sites.

- Project work should be scheduled to occur between September and October.
- If the Project will remove or trim trees during the winter roost season (October 1 through March 15), then a pre-construction survey for roosting monarch butterflies should be conducted within 7 days of tree removal or trimming activities.
- If monarch butterflies are detected roosting in trees to be removed or trimmed, then consultation with CDFW may be required to determine how and when to proceed with activities and if additional mitigation measures are required.
- If tree removal or trimming is conducted March 16 through September 31, then no pre-construction surveys for roosting monarch butterflies are necessary.

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APPENDIX A

LIST OF OBSERVED PLANT AND ANIMAL SPECIES

Appendix A-1. Plant Species Observed within the Project Area.

Scientific Name	Common Name	Origin	Form	CAL-IPC Status
Acacia dealbata	Silver wattle	non-native (invasive)	tree, shrub	Moderate
Acacia melanoxylon	Blackwood acacia	non-native (invasive)	tree	Limited
Achillea millefolium	Yarrow	native	perennial herb	-
Allium triquetrum	White flowered onion	non-native (invasive)	perennial herb (bulb)	-
Alnus rubra	Red alder	native	tree, shrub	-
Anthoxanthum odoratum	Sweet vernal grass	non-native (invasive)	annual, perennial grass	Moderate
Artemisia californica	Coastal sage brush	native	shrub	-
Artemisia douglasiana	California mugwort	native	perennial herb	-
Athyrium filix-femina var. cyclosorum	Western lady fern	native	fern	-
Avena barbata	Slim oat	non-native (invasive)	annual, perennial grass	Moderate
Baccharis pilularis ssp. consanguinea	Coyote brush	native	shrub	-
Briza maxima	Rattlesnake grass	non-native (invasive)	annual grass	Limited
Bromus carinatus var. marginatus	Mountain brome	native	perennial grass	-
Bromus diandrus	Ripgut brome	non-native (invasive)	annual grass	Moderate
Cardamine californica	Bitter cress	native	perennial herb	-
Cardamine oligosperma	Idaho bittercress	native	annual, perennial herb	-
Carduus pycnocephalus ssp. pycnocephalus	Italian thistle	non-native (invasive)	annual herb	Moderate
Carex harfordii	Monterey sedge	native	perennial grasslike herb	-
Carex praegracilis	Field sedge	native	perennial grasslike herb	-
Ceanothus foliosus var. foliosus	Wavy leaved ceanothus	native	shrub	-
Ceanothus thyrsiflorus var. thyrsiflorus	Blue blossom	native	tree, shrub	-
Cerastium fontanum ssp. vulgare	Common chickweed	non-native	perennial herb	-
Chasmanthe floribunda	Chasmanthe	non-native	perennial herb	-
Chlorogalum pomeridianum var. pomeridianum	Common soaproot	native	perennial herb	-

Scientific Name	Common Name	Origin	Form	CAL-IPC Status
Cirsium vulgare	Bullthistle	non-native (invasive)	perennial herb	Moderate
Claytonia perfoliata ssp. perfoliata	Claytonia	native	annual herb	-
Clinopodium douglasii	Yerba buena	native	perennial herb	-
Conium maculatum	Poison hemlock	non-native (invasive)	perennial herb	Moderate
Cornus sericea ssp. sericea	Red osier dogwood	native	shrub	-
Cortaderia selloana	Pampas grass	non-native (invasive)	perennial grass	High
Cotoneaster pannosus	Woolly cotoneaster	non-native (invasive)	shrub	Moderate
Crassula ovata	Jade plant	non-native	annual herb	-
Crassula tillaea	Mediterranean pygmy weed	non-native	annual herb	-
Crocosmia ×crocosmiiflora	-	-	-	-
Cynosurus cristatus	Crested dogtail grass	non-native	perennial grass	-
Cyperus eragrostis	Tall cyperus	native	perennial grasslike herb	-
Delairea odorata	Cape ivy	non-native (invasive)	perennial herb	High
Echium candicans	Pride of madeira	non-native (invasive)	shrub	Limited
Ehrharta erecta	Upright veldt grass	non-native (invasive)	perennial grass	Moderate
Epilobium brachycarpum	Willow herb	native	annual herb	-
Erigeron canadensis	Canada horseweed	native	annual herb	-
Eriophyllum staechadifolium	Lizard tail	native	perennial herb	-
Erodium cicutarium	Coastal heron's bill	non-native (invasive)	annual herb	Limited
Eschscholzia californica	California poppy	native	annual, perennial herb	-
Eucalyptus globulus	Blue gum	non-native (invasive)	tree	Limited
Euphorbia lathyris	Gopher plant	non-native (invasive)	annual, perennial herb	-
Euphorbia peplus	Petty spurge	non-native	annual herb	-
Festuca arundinacea	Reed fescue	non-native (invasive)	perennial grass	Moderate
Festuca myuros	Rattail sixweeks grass	non-native (invasive)	annual grass	-
Festuca perennis	Italian rye grass	non-native	annual, perennial grass	-

Scientific Name	Common Name	Origin	Form	CAL-IPC Status
Foeniculum vulgare	Fennel	non-native (invasive)	perennial herb	High
Fragaria vesca	Wild strawberry	native	perennial herb	-
Frangula californica ssp. californica	California coffeeberry	native	shrub	-
Fumaria parviflora	Fine leaved fumitory	non-native	annual herb	-
Galium aparine	Cleavers	native	annual herb	-
Gamochaeta ustulata	Featherweed	native	perennial herb	-
Genista monspessulana	French broom	non-native (invasive)	shrub	High
Geranium dissectum	Wild geranium	non-native (invasive)	annual herb	Limited
Geranium molle	Crane's bill geranium	non-native (invasive)	annual, perennial herb	-
Hedera helix	English ivy	non-native (invasive)	vine, shrub	-
Helminthotheca echioides	Bristly ox-tongue	non-native (invasive)	annual, perennial herb	Limited
Heracleum maximum	Common cowparsnip	native	perennial herb	-
Hesperocyparis macrocarpa	Monterey cypress	native	tree	-
Hirschfeldia incana	Mustard	non-native (invasive)	perennial herb	Moderate
Holcus lanatus	Common velvetgrass	non-native (invasive)	perennial grass	Moderate
Holodiscus discolor var. discolor	Oceanspray	native	shrub	-
Hordeum murinum ssp. leporinum	Farmer's foxtail	non-native (invasive)	annual grass	Moderate
Hypochaeris radicata	Hairy cats ear	non-native (invasive)	perennial herb	Moderate
Juncus bufonius var. bufonius	Toad rush	native	annual grasslike herb	-
Juncus patens	Rush	native	perennial grasslike herb	-
Juncus phaeocephalus var. phaeocephalus	Brown headed rush	native	perennial grasslike herb	-
Lactuca serriola	Prickly lettuce	non-native (invasive)	annual herb	-
Lathyrus vestitus var. vestitus	Hillside pea	native	perennial herb	-
Leucanthemum maximum	Shasta daisy	non-native	annual, perennial herb	-
Linum bienne	Flax	non-native	annual herb	-
Lobularia maritima	Sweet alyssum	non-native (invasive)	perennial herb	Limited

Scientific Name	Common Name	Origin	Form	CAL-IPC Status
Lonicera involucrata var. ledebourii	Coast twinberry	native	shrub	-
Lotus corniculatus	Bird's foot trefoil	non-native (invasive)	perennial herb	-
Lupinus sp.	-	-	-	-
Luzula subsessilis	Pacific woodrush	native	perennial grasslike herb	-
Lysimachia arvensis	Scarlet pimpernel	non-native	annual herb	-
Lythrum hyssopifolia	Hyssop loosestrife	non-native	annual, perennial herb	-
Malva nicaeensis	Bull mallow	non-native	annual herb	-
Malva sylvestris	High mallow	non-native	perennial herb	-
Marah fabacea	California man-root	native	perennial herb, vine	-
Matricaria chamomilla	German chamomile	non-native	annual herb	-
Medicago polymorpha	California burclover	non-native (invasive)	annual herb	Limited
Melilotus albus	White sweetclover	non-native (invasive)	annual, biennial herb	-
Mimulus aurantiacus var. aurantiacus	Sticky monkeyflower	native	shrub	-
Morella californica	California wax myrtle	native	shrub	-
Myoporum laetum	Ngaio tree	non-native (invasive)	tree, shrub	Moderate
Oemleria cerasiformis	Oso berry	native	shrub	-
Oxalis pes-caprae	Bermuda buttercup	non-native (invasive)	perennial herb	Moderate
Parentucellia viscosa	Yellow parentucellia	non-native (invasive)	annual herb	Limited
Persicaria hydropiperoides	Water pepper	native	perennial herb	-
Phacelia californica	Rock phacelia	native	perennial herb	-
Phalaris aquatica	Harding grass	non-native (invasive)	perennial grass	Moderate
Pinus contorta ssp. contorta	Shore pine	native	tree	-
Pinus radiata	Monterey pine	native	tree	-
Plantago coronopus	Cut leaf plantain	non-native (invasive)	annual herb	-
Plantago lanceolata	Ribwort	non-native (invasive)	perennial herb	Limited
Poa annua	Annual blue grass	non-native	annual grass	-
Polystichum munitum	Western sword fern	native	fern	-

Scientific Name	Common Name	Origin	Form	CAL-IPC Status
Prosartes smithii	Largeflower fairybells	native	perennial herb	-
Prunella vulgaris var. lanceolata	Mountain selfheal	native	perennial herb	-
Pseudotsuga menziesii var. menziesii	Douglas fir	native	tree	-
Pteridium aquilinum var. pubescens	Western bracken fern	native	fern	-
Pyracantha angustifolia	Firethorn	non-native (invasive)	shrub	-
Raphanus sativus	Jointed charlock	non-native (invasive)	annual, biennial herb	Limited
Ribes menziesii var. menziesii	Canyon gooseberry	native	shrub	-
Ribes sanguineum var. sanguineum	Red flowering currant	native	shrub	-
Rubus armeniacus	Himalayan blackberry	non-native (invasive)	shrub	High
Rubus parviflorus	Thimbleberry	native	vine, shrub	-
Rubus ursinus	California blackberry	native	vine, shrub	-
Rumex acetosella	Sheep sorrel	non-native (invasive)	perennial herb	Moderate
Rumex crassus	Willow leaved dock	native	perennial herb	-
Salix laevigata	Polished willow	native	tree	-
Salix lasiolepis	Arroyo willow	native	tree, shrub	-
Sambucus racemosa var. racemosa	Red elderberry	native	shrub	-
Sanicula crassicaulis	Pacific sanicle	native	perennial herb	-
Scirpus microcarpus	Mountain bog bulrush	native	perennial grasslike herb	-
Scrophularia californica	California bee plant	native	perennial herb	-
Senecio minimus	Coastal burnweed	non-native (invasive)	annual, perennial herb	-
Senecio vulgaris	Common groundsel	non-native	annual herb	-
Sequoia sempervirens	Coast redwood	native	tree	-
Sidalcea malviflora ssp. malviflora	Checker mallow	native	perennial herb (rhizomatous)	-
Silene gallica	Common catchfly	non-native	annual herb	-
Silybum marianum	Milk thistle	non-native (invasive)	annual, perennial herb	Limited
Sisyrinchium bellum	Blue eyed grass	native	perennial herb	-

Scientific Name	Common Name	Origin	Form	CAL-IPC Status
Solanum furcatum	Forked nightshade	non-native	perennial herb, shrub	-
Solanum parishii	Parish's purple nightshade	native	shrub	-
Stachys rigida var. quercetorum	Rough hedgenettle	native	perennial herb	-
Symphoricarpos albus var. laevigatus	Snowberry	native	shrub	-
Symphyotrichum chilense	Pacific aster	native	perennial herb	-
Taraxacum officinale	Red seeded dandelion	non-native (invasive)	perennial herb	-
Thalictrum fendleri var. polycarpum	Torrey's meadow rue	native	perennial herb	-
Torilis arvensis	Field hedge parsley	non-native (invasive)	annual herb	Moderate
Toxicodendron diversilobum	Poison oak	native	vine, shrub	-
Toxicoscordion fremontii	Fremont's star lily	native	perennial herb	-
Trifolium angustifolium	Narrow leaved clover	non-native	annual herb	-
Trifolium hirtum	Rose clover	non-native (invasive)	annual herb	Limited
Trifolium repens	White clover	non-native	perennial herb	-
Trifolium subterraneum	Subterranean clover	non-native	annual herb	-
Trillium albidum	Giant white wakerobin	native	perennial herb	-
Tropaeolum majus	Garden nasturtium	non-native (invasive)	annual herb, vine	-
Urtica dioica	Stinging nettle	native	perennial herb	-
Vicia americana ssp. americana	American vetch	native	perennial herb, vine	-
Vicia sativa ssp. nigra	Smaller common vetch	non-native	annual herb, vine	-
Vinca major	Vinca	non-native (invasive)	perennial herb	Moderate
Zantedeschia aethiopica	Callalily	non-native (invasive)	perennial herb	Limited

Appendix A-2. Wildlife Species Observed in the Study Area.

Scientific Name	Common Name
Mammals	
Odocoileus hemionus columbianus	blacktailed deer
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat
Canis latrans	coyote
Amphibians	
Taricha torosa	California newt
Rana draytonii	California red-legged frog
Birds	
Fulica americana	American coot
Corvus brachyrhynchos	American crow
Calypte anna	Anna's hummingbird
Bucephala albeola	bufflehead
Aphelocoma californica	California scrub jay
Branta canadensis	Canada goose
Poecile rufescens	chestnut-backed chickadee
Junco hyemalis	dark-eyed junco
Spinus psaltria	lesser goldfinch
Anas platyrhynchos	mallard
Melospiza melodia	song sparrow
Cyanocitta stelleri	Steller's jay
Chamaea fasciata	wrentit

APPENDIX B

POTENTIAL FOR SPECIAL-STATUS PLANT AND WILDLIFE SPECIES TO OCCUR IN THE STUDY AREA

Appendix B. Potential for special-status plant and wildlife species to occur in the Study Area. List compiled from the California Natural Diversity Database (CDFW 2017), U.S. Fish and Wildlife Service Species Lists (2017), and California Native Plant Society Rare and Endangered Plant Inventory (CNPS 2017a) database searches for the San Mateo and Half Moon Bay USGS 7.5-minute quadrangles.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Plants				
Blasdale's bent grass *Agrostis blasdalei*	Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Elevation ranges from 20 to 490 feet (5 to 150 meters). Blooms May-Jul.	**Unlikely.** While northern coastal scrub within the Study Area has some grassy areas, no rocky areas with sparse vegetation exist that could support this species.	No further actions are recommended for this species.
Franciscan onion *Allium peninsulare* var. *franciscanum*	Rank 1B.2	Cismontane woodland, valley and foothill grassland/clay, volcanic, often serpentine. Elevation ranges from 170 to 980 feet (52 to 300 meters). Blooms (Apr), May-Jun.	**No Potential.** The Study Area does not contain clay, volcanic, or serpentine substrates.	No further actions are recommended for this species.
bent-flowered fiddleneck *Amsinckia lunaris*	Rank 1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. Elevation ranges from 10 to 1640 feet (3 to 500 meters). Blooms Mar-Jun.	**Moderate Potential.** While northern coastal scrub within the Study Area has some grassy areas, no rocky areas with sparse vegetation exist that could support this species.	Seasonally appropriate surveys are recommended for this species.
coast rockcress *Arabis blepharophylla*	Rank 4.3	Broad-leafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub/rocky. Elevation ranges from 10 to 3610 feet (3 to 1100 meters). Blooms Feb-May.	**Unlikely.** Rocky substrate is not present within the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Montara manzanita *Arctostaphylos montaraensis*	Rank 1B.2	Chaparral (maritime), coastal scrub. Elevation ranges from 260 to 1640 feet (80 to 500 meters). Blooms Jan-Mar.	**Unlikely.** Although the Study Area contains northern coastal scrub, this species typically occurs on granite and sandstone outcrops (Jepson Flora Project 2017), which are not present in Study Area. No *Arctostaphylos* species were observed in the Study Area.	No further actions are recommended for this species.
Kings Mountain manzanita *Arctostaphylos regismontana*	Rank 1B.2	Broad-leafed upland forest, chaparral, north coast coniferous forest/granitic or sandstone. Elevation ranges from 1000 to 2400 feet (305 to 730 meters). Blooms Jan-Apr.	**Unlikely.** This species is known to occur on granitic or sandstone outcrops (CDFW 2017), which are not present in the Study Area. No *Arctostaphylos* species were observed in the Study Area.	No further actions are recommended for this species.
ocean bluff milk-vetch *Astragalus nuttallii var. nuttallii*	Rank 4.2	Coastal bluff scrub, coastal dunes. Elevation ranges from 10 to 390 feet (3 to 120 meters). Blooms Jan-Nov.	**Unlikely.** While the Study Area contains coastal bluff scrub, the habitat is disturbed and likely does not represent typical habitat for the species. Additionally, the Study Area does not contain coastal dunes.	No further actions are recommended for this species.
coastal marsh milk-vetch *Astragalus pycnostachyus var. pycnostachyus*	Rank 1B.2	Coastal dunes (mesic), coastal scrub, marshes and swamps (coastal salt, streamsides). Elevation ranges from 0 to 100 feet (0 to 30 meters). Blooms Apr-Oct.	**Unlikely.** The Study Area does not contain coastal dunes or salt marshes.	No further actions are recommended for this species.
johnny-nip *Castilleja ambigua var. ambigua*	Rank 4.2	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pools margins. Elevation ranges from 0 to 1430 feet (0 to 435 meters). Blooms Mar-Aug.	**Unlikely**. While the Study Area contains coastal bluff scrub and coastal prairie, the habitat is disturbed and likely does not represent typical habitat for the species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
pappose tarplant *Centromadia parryi ssp. parryi*	Rank 1B.2	Chaparral, coastal prairie, meadows and seeps, marshes and swamps (coastal salt), valley and foothill grassland (vernally mesic)/often alkaline. Elevation ranges from 0 to 1380 feet (0 to 420 meters). Blooms May-Nov.	**Unlikely.** The Study Area does not contain chaparral, coastal prairie, meadows, and seeps with sufficient inundation dominated by perennial graminoids, marsh and swamp, or alkaline habitats.	No further actions are recommended for this species.
San Francisco Bay spineflower *Chorizanthe cuspidata var. cuspidata*	Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub/sandy. Elevation ranges from 10 to 710 feet (3 to 215 meters). Blooms Apr-Jul (Aug).	**Unlikely.** The Study Area does not contain highly sandy substrates, such as dunes.	No further actions are recommended for this species.
Franciscan thistle *Cirsium andrewsii*	Rank 1B.2	Broad-leafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub/mesic, sometimes serpentine. Elevation ranges from 0 to 490 feet (0 to 150 meters). Blooms Mar-Jul.	**Unlikely**. The Study Area does not contain serpentine substrates suitable to support this species.	No further actions are recommended for this species.
San Francisco collinsia *Collinsia multicolor*	Rank 1B.2	Closed-cone coniferous forest, coastal scrub/sometimes serpentine. Elevation ranges from 100 to 820 feet (30 to 250 meters). Blooms (Feb), Mar-May.	**Unlikely.** This species is known from serpentine or decomposed shale mixed with humus substrates (CDFW 2017), which are not present in the Study Area.	No further actions are recommended for this species.
clustered lady's-slipper *Cypripedium fasciculatum*	Rank 4.2	Lower montane coniferous forest, north coast coniferous forest/usually serpentine seeps and streambanks. Elevation ranges from 330 to 7990 feet (100 to 2435 meters). Blooms Mar-Aug.	**Unlikely.** The Study Area does not contain serpentine seeps or moist streambanks in coniferous forest.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
western leatherwood *Dirca occidentalis*	Rank 1B.2	Broad-leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland/mesic. Elevation ranges from 80 to 1390 feet (25 to 425 meters). Blooms Jan-Mar (Apr).	**Moderate Potential.** The Study Area contains potentially suitable riparian and northern coastal scrub habitats. Additionally, a known occurrence is within 3-miles of the Study Area.	Seasonally appropriate surveys are recommended for this species.
California bottle-brush grass *Elymus californicus*	Rank 4.3	Broad-leafed upland forest, cismontane woodland, north coast coniferous forest, riparian woodland. Elevation ranges from 50 to 1540 feet (15 to 470 meters). Blooms May-Aug (Nov).	**Unlikely.** The Study Area does not contain woodland, coniferous forest and is not underlain with sandy humic soil with known associated species.	No further actions are recommended for this species.
San Mateo woolly sunflower *Eriophyllum latilobum*	FE, SE, Rank 1B.1	Cismontane woodland (often serpentine, on road cuts). Elevation ranges from 150 to 490 feet (45 to 150 meters). Blooms May-Jun.	**Unlikely**. The Study Area does not contain woodland habitat or road cuts on serpentine.	No further actions are recommended for this species.
San Francisco wallflower *Erysimum franciscanum*	Rank 4.2	Chaparral, coastal dunes, coastal scrub, valley and foothill grassland/often serpentine or granitic, sometimes roadsides. Elevation ranges from 0 to 1800 feet (0 to 550 meters). Blooms Mar-Jun.	**Unlikely.** Although the Study Area contains northern coastal scrub and open, grassy areas, this species typically occurs in rocky, thin soils, loose sand, or serpentine substrate, none of which are present in the Study Area.	No further actions are recommended for this species.
Hillsborough chocolate lily *Fritillaria biflora var. ineziana*	Rank 1B.1	Cismontane woodland, valley and foothill grassland/serpentine. Elevation ranges from 490 to 490 feet (150 to 150 meters). Blooms Mar-Apr.	**No Potential.** The Study Area does not contain serpentine substrate.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Marin checker lily *Fritillaria lanceolata var. tristulis*	Rank 1B.1	Coastal bluff scrub, coastal prairie, coastal scrub. Elevation ranges from 50 to 490 feet (15 to 150 meters). Blooms Feb-May.	**Moderate Potential.** The Study Area contains potentially suitable open, grassy areas in the northern coastal scrub community.	Seasonally appropriate surveys are recommended for this species.
fragrant fritillary *Fritillaria liliacea*	Rank 1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland/often serpentine. Elevation ranges from 10 to 1350 feet (3 to 410 meters). Blooms Feb-Apr.	**Unlikely.** Although the Study Area contains open, scrubby areas, this species typically occurs on serpentine and/or heavy clay soils, which are not present in the Study Area.	No further actions are recommended for this species.
San Francisco gumplant *Grindelia hirsutula var. maritima*	Rank 3.2	Coastal bluff scrub, coastal scrub, valley and foothill grassland/sandy or serpentine. Elevation ranges from 50 to 1310 feet (15 to 400 meters). Blooms Jun-Sep.	**Unlikely.** The Study Area does not contain serpentine or highly sandy substrates, such as dunes.	No further actions are recommended for this species.
short-leaved evax *Hesperevax sparsiflora var. brevifolia*	Rank 1B.2	Coastal bluff scrub (sandy), coastal dunes, coastal prairie. Elevation ranges from 0 to 710 feet (0 to 215 meters). Blooms Mar-Jun.	**Unlikely**. While the Study Area contains coastal prairie and scrub, this species typically occurs on sandy soils, which are not present in the Study Area.	No further actions are recommended for this species.
Kellogg's horkelia *Horkelia cuneata var. sericea*	Rank 1B.1	Closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub/sandy or gravelly, openings. Elevation ranges from 30 to 660 feet (10 to 200 meters). Blooms Apr-Sep.	**Unlikely**. While the Study Area contains coastal prairie and scrub, this species typically occurs on sandy soils, which are not present in the Study Area.	No further actions are recommended for this species.
Point Reyes horkelia *Horkelia marinensis*	Rank 1B.2	Coastal dunes, coastal prairie, coastal scrub/sandy. Elevation ranges from 20 to 2480 feet (5 to 755 meters). Blooms May-Sep.	**Unlikely**. While the Study Area contains coastal prairie and scrub, this species typically occurs on sandy soils, which are not present in the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
coast iris *Iris longipetala*	Rank 4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps/mesic. Elevation ranges from 0 to 1970 feet (0 to 600 meters). Blooms Mar-May.	**Unlikely**. While the Study Area contains coastal prairie, this species typically occurs on heavy soils which is absent in the Study Area.	No further actions are recommended for this species.
perennial goldfields *Lasthenia californica ssp. macrantha*	Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. Elevation ranges from 20 to 1710 feet (5 to 520 meters). Blooms Jan-Nov.	**Moderate Potential.** The Study Area contains potentially suitable open, grassy areas in the northern coastal scrub community. Additionally, there are several occurrences within 5 miles of the Study Area.	Seasonally appropriate surveys are recommended for this species.
coast yellow leptosiphon *Leptosiphon croceus*	SC, Rank 1B.1	Coastal bluff scrub, coastal prairie. Elevation ranges from 30 to 490 feet (10 to 150 meters). Blooms Apr-May.	**Unlikely**. While the Study Area contains bluff scrub and coastal prairie, the Study Area is disturbed and lacks any known associated species.	No further actions are recommended for this species.
rose leptosiphon *Leptosiphon rosaceus*	Rank 1B.1	Coastal bluff scrub. Elevation ranges from 0 to 330 feet (0 to 100 meters). Blooms Apr-Jul.	**Unlikely**. While the Study Area contains bluff scrub and coastal prairie, the Study Area is disturbed and lacks any known associated species.	No further actions are recommended for this species.
Crystal Springs lessingia *Lessingia arachnoidea*	Rank 1B.2	Cismontane woodland, coastal scrub, valley, and foothill grassland/serpentine, often roadsides. Elevation ranges from 200 to 660 feet (60 to 200 meters). Blooms Jul-Oct.	**No Potential.** The Study Area does not contain serpentine substrate.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
woolly-headed lessingia *Lessingia hololeuca*	Rank 3	Broad-leafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland/clay, serpentine. Elevation ranges from 50 to 1000 feet (15 to 305 meters). Blooms Jun-Oct.	**No Potential.** The Study Area does not contain serpentine or clay substrate.	No further actions are recommended for this species.
Ornduff's meadowfoam *Limnanthes douglasii ssp. ornduffii*	Rank 1B.1	Meadows and seeps/agricultural fields. Elevation ranges from 30 to 70 feet (10 to 20 meters). Blooms Nov-May.	**Unlikely.** This highly restricted species is known only from current and former agricultural fields on the coastal terrace in El Granada. Although the Study Area has disturbed, seasonally wet areas, the historical and modern land management practices are substantially different from those used in agricultural fields.	No further actions are recommended for this species.
San Mateo tree lupine *Lupinus arboreus var. eximius*	Rank 3.2	Chaparral, coastal scrub. Elevation ranges from 300 to 1800 feet (90 to 550 meters). Blooms Apr-Jul.	**High Potential.** Scattered vegetative shrub lupines were observed along the perimeter of the northern coastal scrub. None of the shrubby lupines were blooming, and as a result, they could not be identified to species. San Mateo tree lupine has been observed nearby (pers. comm.) in similar habitat to what is present in the Study Area.	Seasonally appropriate surveys are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Indian Valley bush-mallow *Malacothamnus aboriginum*	Rank 1B.2	Chaparral, cismontane woodland/rocky, granitic, often in burned areas. Elevation ranges from 490 to 5580 feet (150 to 1700 meters). Blooms Apr-Oct.	**No Potential.** The Study Area does not contain rocky substrate or sandy bare soil (CDFW 2017).	No further actions are recommended for this species.
arcuate bush-mallow *Malacothamnus arcuatus*	Rank 1B.2	Chaparral, cismontane woodland. Elevation ranges from 50 to 1160 feet (15 to 355 meters). Blooms Apr-Sep.	**No Potential.** The Study Area does not contain chaparral or cismontane woodland habitats with gravelly alluvium substrate (CDFW 2017).	No further actions are recommended for this species.
Davidson's bush-mallow *Malacothamnus davidsonii*	Rank 1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland. Elevation ranges from 610 to 2810 feet (185 to 855 meters). Blooms Jun-Jan.	**Unlikely.** The Study Area does not contain sandy washes within chaparral, cismontane woodland, or riparian woodland habitats. Although the Study Area contains northern coastal scrub habitat, this species occurs in sandy washes (CDFW 2017), which are not present in the Study Area.	No further actions are recommended for this species.
Hall's bush-mallow *Malacothamnus hallii*	Rank 1B.2	Chaparral, coastal scrub. Elevation ranges from 30 to 2490 feet (10 to 760 meters). Blooms May-Sep (Oct).	**Unlikely.** This species typically occurs in open chaparral habitat, often on serpentine substrate, and this habitat and substrate are not present in the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
woodland woolythreads *Monolopia gracilens*	Rank 1B.2	Broad-leafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland/serpentine. Elevation ranges from 330 to 3940 feet (100 to 1200 meters). Blooms (Feb), Mar-Jul.	**Unlikely.** This species typically occurs on serpentine substrate and/or in chaparral habitat. There is a documented occurrence approximately 3 miles northeast of the Study Area (CDFW 2017), but the occurrence consists of two historical observations (from 1893 and 1946) with very limited location and habitat information. Mapped soils in the vicinity of that occurrence are primarily serpentine or acidic soils derived from sedimentary sources, and such substrate is not present in the Study Area.	No further actions are recommended for this species.
white-rayed pentachaeta *Pentachaeta bellidiflora*	FE, SE, Rank 1B.1	Cismontane woodland, valley and foothill grassland (often serpentine). Elevation ranges from 110 to 2030 feet (35 to 620 meters). Blooms Mar-May.	**Unlikely.** The Study Area does not contain cismontane woodland or grassland underlain by soils derived from serpentine bedrock.	No further actions are recommended for this species.
Choris' popcornflower *Plagiobothrys chorisianus var. chorisianus*	Rank 1B.2	Chaparral, coastal prairie, coastal scrub/mesic. Elevation ranges from 50 to 520 feet (15 to 160 meters). Blooms Mar-Jun.	**Unlikely.** The northern coastal scrub habitat in the Study Area is likely too dry to support this species, which prefers mesic conditions. Although this species is somewhat disturbance tolerant and can occur in seasonal wetlands, it typically occurs on acidic to moderately acid substrates derived from sandstone or shale, and the soil in the Study Area has neutral acidity and is derived from quartz diorite parent material (CSRL 2017).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Oregon polemonium *Polemonium carneum*	Rank 2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. Elevation ranges from 0 to 6000 feet (0 to 1830 meters). Blooms Apr-Sep.	**Moderate Potential.** The Study Area contains potentially suitable open areas, particularly in the northern coastal scrub areas.	Seasonally appropriate surveys are recommended for this species.
Hickman's cinquefoil *Potentilla hickmanii*	FE, SE, Rank 1B.1	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic), marshes and swamps (freshwater). Elevation ranges from 30 to 490 feet (10 to 149 meters). Blooms Apr-Aug.	**Moderate Potential**. The Study Area contains potentially suitable open areas, particularly in the northern coastal scrub areas.	Seasonally appropriate surveys are recommended for this species.
San Francisco campion *Silene verecunda ssp. verecunda*	Rank 1B.2	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, valley and foothill grassland/sandy. Elevation ranges from 100 to 2120 feet (30 to 645 meters). Blooms (Feb), Mar-Jun (Aug).	**Unlikely.** The Study Area does not contain mudstone, shale, or highly sandy substrates such as dunes. There is a CNDDB occurrence near the Study Area, but this occurrence is greater than 100 years old and has very vague locality information.	No further actions are recommended for this species.
San Francisco owl's-clover *Triphysaria floribunda*	Rank 1B.2	Coastal prairie, coastal scrub, valley and foothill grassland/usually serpentine. Elevation ranges from 30 to 520 feet (10 to 160 meters). Blooms Apr-Jun.	**Unlikely.** The Study Area does not contain serpentine substrates suitable to support this species.	No further actions are recommended for this species.
coastal triquetrella *Triquetrella californica*	Rank 1B.2	Coastal bluff scrub, coastal scrub/soil. Elevation ranges from 30 to 330 feet (10 to 100 meters).	**Unlikely.** While the Study Area is within 30 meters from the coast, this species grows on gravel or thin soil over outcrops, which is absent in the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Wildlife				
Mammals				
pallid bat *Antrozous pallidus*	SSC, WBWG	Occupies a variety of habitats at low elevation including grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rock crevices, tree hollows, mines, caves, and a variety of man-made structures for roosting.	**Unlikely.** The majority of trees within the Study Area are eucalyptus, and do not support the cavities, exfoliating bark, or leaf structure typically required by this species. No caves, rock outcrops, or abandoned buildings are present to support maternity or day roosting by this species.	No further actions are recommended for this species.
Townsend's big-eared bat *Corynorhinus townsendii*	SC, SSC, WBWG	This species is associated with a wide variety of habitats from deserts to mid-elevation mixed coniferous-deciduous forest. Females form maternity colonies in buildings, caves and mines and males roost singly or in small groups. Foraging occurs in open forest habitats where they glean moths from vegetation.	**Unlikely.** There are no known caves or large rock outcrops within the Study Area to support roosting by this species.	No further actions are recommended for this species.
hoary bat *Lasiurus cinereus*	WBWG	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Unlikely.** The majority of trees within the Study Area are eucalyptus or cypress, and do not support the cavities, exfoliating bark, or dense leaf structure typically required by this species.	No further actions are recommended for this species.
big free-tailed bat *Nyctinomops macrotis*	SSC, WBWG	Occurs rarely in low-lying arid areas. Requires high cliffs or rocky outcrops for roosting sites.	**No Potential.** The Study Area does not contain tall cliffs or large rocky outcrops that support the caves and crevices that are required by this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
fringed myotis *Myotis thysanodes*	WBWG	Associated with a wide variety of habitats including dry woodlands, desert scrub, mesic coniferous forest, grassland, and sage-grass steppes. Buildings, mines and large trees and snags are important day and night roosts.	**Unlikely.** The majority of trees within the Study Area are eucalyptus or cypress, and do not support the cavities, exfoliating bark, or leaf structure typically required by this species. No mesic conifer forest or dry desert scrub habitat is present to support the species.	No further actions are recommended for this species.
southern sea otter *Enhydra lutris nereis*	FT, CFP, MMC	Nearshore marine environments from about Año Nuevo, San Mateo County. To Point Sal, Santa Barbara County. Needs canopies of giant kelp and bull kelp for rafting and feeding. Prefers rocky substrates with abundant invertebrates.	**No Potential.** The Study Area does not contain any marine environments to support the species.	No further actions are recommended for this species.
salt-marsh harvest mouse *Reithrodontomys raviventris*	FE, SE, CFP	Found only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat. Do not burrow, build loosely organized nests. Require higher areas for flood escape.	**No Potential.** The Study Area does not contain any tidal salt marsh habitat required to support the species.	No further actions are recommended for this species.
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	**Unlikely.** The Study Area does not contain suitable grasslands with abundant burrowing mammals to support the species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	SSC	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Constructs nests of shredded grass, leaves, and other material. May be limited by availability of nest-building materials.	**Present.** Nests built by this species were observed during the site assessment.	See section 4.2.2 for further discussion concerning avoidance measures and recommendations concerning this species.
Birds				
American peregrine falcon *Falco peregrinus anatum*	FD, SD, CFP, BCC	Largely resident. Requires protected cliffs, ledges or tall manmade structures for nesting. Often associated with coasts, bays, marshes and other open expanses of water. Preys primarily upon waterbirds; forages widely.	**Unlikely**. No tall cliffs, or other man-made structures are present to support nesting by the species. Due to the close proximity to the Pacific Ocean, this species may be observed flying overhead while foraging.	No further actions are recommended for this species.
bald eagle *Haliaeetus leucocephalus*	FD, SE, CFP, BCC	Occurs year-round in California, but primarily a winter visitor. Nests in large trees in the vicinity of larger lakes, reservoirs and rivers. Wintering habitat somewhat more variable but usually features large concentrations of waterfowl or fish.	**Unlikely.** This species occasionally nests in the local area but typically only within the undeveloped lands surrounding Crystal Springs Reservoir approximately 5-miles inland.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
burrowing owl *Athene cunicularia*	SSC, BCC	Largely resident in the region. Found in grasslands and other open habitats with a sparse to absent shrub/tree canopy. Nests and roosts in old mammal burrows, typically those of ground squirrels. Preys upon insects, and also small mammals, reptiles and birds.	**No Potential.** This species requires flat expanses of low grass or bare ground. The scrub and forest which dominates most of the Study Area as well as the surrounding landscape does not provide suitable low vegetation used by this species.	No further actions are recommended for this species.
white-tailed kite *Elanus leucurus*	CFP	Yearlong resident of coastal and valley lowlands. Preys on small diurnal mammals and occasional birds, insects, reptiles, and amphibians.	**Moderate Potential**. This species typically requires grasslands or agricultural fields for foraging, neither of which is present within the Study Area. However, some suitable foraging areas are present along Arroyo De En Medio, and may support foraging as well as nesting by the species. Therefore, while these habitats are not entirely within the Study Area, the species may still occur due to the high numbers of potential nest trees.	See section 4.2.2 for further discussion concerning avoidance measures and recommendations concerning this species.
California black rail *Laterallus jamaicensis coturniculus*	ST, CFP, BCC	Occurs in tidal salt marsh with dense stands of pickleweed as well as freshwater to brackish marshes.	**No Potential.** The Study Area does not contain any tidal marsh habitat which is required by the species for nesting.	No further actions are recommended for this species.
Ridgeway's (=California) clapper rail *Rallus longirostris obsoletus*	FE, SE, CFP	Associated with tidal salt marsh and brackish marshes supporting emergent vegetation, upland refugia, and incised tidal channels.	**No Potential.** The Study Area does not contain any tidal marsh habitat which is required by the species for nesting.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
ashy storm-petrel *Oceanodroma homochroa*	SSC, BCC	Marine species; nests in rocky crevices on offshore islands and rocks from southern Mendocino County to northern Baja California. Forages over open ocean for invertebrates and larval fishes.	**No Potential.** The Study Area does not contain rocky offshore islands or other such substrates to support nesting by this species.	No further actions are recommended for this species.
black oystercatcher *Haematopus bachmani*	BCC	Year-round resident of rocky coast habitats along the Pacific coast. Also occurs on coastal and lower estuarine mud-flats. Forages primarily on intertidal invertebrates.	**No Potential.** The Study Area does not contain suitable rocky, estuarine or tidal flats to support nesting or foraging by the species.	No further actions are recommended for this species.
black skimmer *Rynchops niger*	SSC, BCC	Found primarily in southern California; South San Francisco Bay has a small resident population. Nests colonially on gravel bars, low islets, and sandy beaches	**No Potential.** The Study Area does not contain gravel bars, islets or other such substrates to support nesting by this species.	No further actions are recommended for this species.
California brown pelican *Pelecanus occidentalis californicus*	FD, SD, CFP	(Nesting colony) colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators.	**No Potential.** The Study Area does not contain coastal island habitat required to support nesting by the species.	No further actions are recommended for this species.
California least tern *Sterna antillarum browni*	FE, SE, CFP	Nests along the coast from San Francisco bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	**No Potential.** The Study Area does not contain suitable beaches, salt ponds, or alkali flats to support nesting of this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
double-crested cormorant *Phalacrocorax auritus*		(Rookery site) colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	**No Potential.** The Study Area does not contain offshore island habitat used for nesting by this species. The species may occasionally be seen flying over the Study Area when passing between foraging areas inland and along the coast.	No further actions are recommended for this species.
marbled murrelet *Brachyramphus marmoratus*	FT, SE	(Nesting) Feeds near shore; nests inland along the Pacific coast, from Eureka to Oregon border, and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland. Nests often built in Douglas fir or redwood stands containing platform-like branches.	**No Potential.** The Study Area does not contain suitable old growth redwood or fir forest to support nesting by the species. This species may be observed flying over the Study Area while flying inland to more suitable and isolated habitat.	No further actions are recommended for this species.
short-tailed albatross *Phoebastria albatrus*	FE, SSC	Highly pelagic; comes to land only when breeding. Nests on remote Pacific islands. A rare non-breeding visitor to the eastern Pacific.	**No Potential.** The Study Area does not contain island habitat to support nesting by the species.	No further actions are recommended for this species.
western snowy plover *Charadrius alexandrinus nivosus*	FT, SSC, BCC	Federal listing applies only to the Pacific coastal population. Found on sandy beaches, salt pond levees, and shores of large alkali lakes. Requires sandy, gravelly, or friable soils for nesting.	**No Potential.** The Study Area does not contain suitable beaches, salt ponds, or dunes to support nesting of this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Alameda song sparrow *Melospiza melodia pusillula*	SSC, BCC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits Salicornia marshes; nests low in Grindelia bushes (high enough to escape high tides) and in Salicornia.	**Unlikely.** The Study Area does not contain typical salt marsh habitat required by this species.	No further actions are recommended for this species.
Allen's hummingbird Selasphorus sasin	BCC	(Nesting) Inhabits mixed evergreen, riparian woodlands, eucalyptus and cypress groves, oak woodlands, and coastal scrub during breeding season. Nest in shrubs and trees with dense vegetation.	**High Potential.** Xeric coastal scrub habitat is prevalent throughout portions of the Study Area. Water and a habitat mosaic to support foraging are also present. The combination of these habitat components make the area suitable for nesting by the species.	See section 4.2.2 for further discussion concerning avoidance measures and recommendations concerning this species.
bank swallow *Riparia riparia*	ST	Summer resident in riparian and other lowland habitats near rivers, lakes and the ocean in northern California. Nests colonially in excavated burrows on vertical cliffs and bank cuts (natural and manmade) with fine-textured soils. Currently known to breed in Siskiyou, Shasta, and Lassen Cos., portions of the north coast, and along Sacramento River from Shasta Co. south to Yolo Co.	**No Potential.** The Study Area does not contain suitable cliff habitat to support nesting by the species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Bryant's savannah sparrow *Passerculus sandwichensis alaudinus*	SSC	Associated with the coastal fog belt, primarily between Humboldt and northern Monterey Counties. Occupies low tidally influenced habitats, adjacent to ruderal areas; often found where Pickleweed communities merge into grassland. Infrequently found in drier grasslands. Builds nests in taller grasses and rushes along roads, levees, and water conveyance canals.	**No Potential.** The Study Area does not contain typical tidally influenced habitats required by this species for nesting.	No further actions are recommended for this species.
Costa's hummingbird *Calypte costae*	BCC	Summer resident. Uses xeric habitats, especially California coastal scrub or sage scrub and dry open areas of chaparral in the coast ranges, and is occasionally found in oak savannah. Builds nest in shrub or tree living or dead, on branch, stem, or leaves, usually 1–2 m above ground.	**Unlikely Potential.** The Study Area occurs outside of the known range for this species and therefore there is unlikely potential for it to occur.	No further actions are recommended for this species.
grasshopper sparrow Ammodramus savannarum	SSC	Summer resident. Breeds in annual grasslands in lowlands and foothills, generally with low- to moderate-height grasses and scattered shrubs. Well-hidden nests are placed on the ground.	**Unlikely**. Suitable grasslands to support nesting and foraging by the species are largely absent from the Study Area. Additionally, this species has only rarely been observed in the vicinity of the Study Area (ebird 2017).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Lawrence's goldfinch *Spinus (= Carduelis) lawrencei*	BCC	Summer resident, primarily in southern California; generally uncommon and local. Also found in large open areas in Contra Costa and Alameda Counties. Typically found in arid open woodlands, including oak savannah. Breeding distribution is erratic from year to year.	**Unlikely.** This species has been rarely observed on the San Francisco Peninsula, with no sightings recorded in the local area surrounding the Study Area for at least 1.5 years (eBird 2017). Additionally, **t**ypical oak savannah habitat used for nesting by this species is not present.	No further actions are recommended for this species.
Nuttall's woodpecker *Picoides nuttallii*	BCC	Year-round resident in lowland woodlands throughout much of California west of the Sierra Nevada. Typical habitat is dominated by oaks; also occurs in riparian woodland. Nests in tree cavities.	**Unlikely.** The majority of the Study Area contains a eucalyptus forest, which does not support the complex cavities required for nesting by this species.	No further actions are recommended for this species.
oak titmouse *Baeolophus inornatus*	BCC	Occurs year-round in woodland and savannah habitats where oaks are present, as well as riparian areas. Nests in tree cavities.	**Unlikely.** The majority of the Study Area contains a eucalyptus forest, which does not support the complex cavities required for nesting by this species.	No further actions are recommended for this species.
olive-sided flycatcher *Contopus cooperi*	SSC, BCC	Summer resident. Typical breeding habitat is montane coniferous forests. At lower elevations, also occurs in wooded canyons and mixed forests and woodlands. Often associated with forest edges. Arboreal nest sites located well off the ground.	**Moderate Potential.** The Study Area contains a variety of edge habitats between eucalyptus forest and shrub. Additionally tall eucalyptus trees provide an abundance of high nesting habitat, preferred by the species.	See section 4.2.2 for further discussion concerning avoidance measures and recommendations concerning this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	SSC, BCC	Resident of San Francisco bay region fresh and salt-water marshes. Requires thick, continuous cover down to water surface for foraging, tall grasses, tule patches, willows for nesting.	**Moderate Potential.** Thick vegetation surrounding various aquatic features within the Study Area may support feeding and nesting by this species.	See section 4.2.2 for further discussion concerning avoidance measures and recommendations concerning this species.
tricolored blackbird *Agelaius tricolor*	SC, SSC, BCC, RP	Nearly endemic to California, where it is most numerous in the Central Valley and vicinity. Highly colonial, nesting in dense aggregations over or near freshwater in emergent growth or riparian thickets. Also uses flooded agricultural fields. Abundant insect prey near breeding areas essential.	**Unlikely.** The Study Area does not contain extensive marsh or large tule stands which can support nesting or foraging by a colony of this species.	No further actions are recommended for this species.
yellow warbler *Setophaga petechia*	SSC, BCC	Summer resident throughout much of California. Breeds in riparian vegetation close to water, including streams and wet meadows. Microhabitat used for nesting variable, but dense willow growth is typical. Occurs widely on migration.	**Unlikely.** Extremely dense riparian vegetation, preferred by the species is limited within the site. Adjacent streams may support some nesting by the species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Reptiles and Amphibians				
western pond turtle *Actinemys marmorata*	SSC	Occurs in perennial ponds, lakes, rivers and streams with suitable basking habitat (mud banks, mats of floating vegetation, partially submerged logs) and submerged shelter.	**Unlikely.** Ponds within the Study Area may provide suitable deep-water habitat to support the species, however heavy tree canopies prevent most areas from providing suitable basking sites to support the species. Additionally, dry, friable soils are required for nesting and are only present along Arroyo De En Medio where farming operations are likely to destroy any nests, preventing reproduction by the species.	No further actions are recommended for this species.
California giant salamander *Dicamptodon ensatus*	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent, or semi-permanent streams. Larvae usually remain aquatic for over a year.	**Unlikely.** Cold, deep perennial streams are mostly absent from the Study Area. Arroyo De En Medio and Deer Creek are impounded, and farmed up to the banks along its lower reaches. These practices raise temperatures and create unfavorable water conditions for the species.	No further actions are recommended for this species.
California red-legged frog *Rana aurora draytonii*	FT, SSC	Associated with quiet perennial to intermittent ponds, stream pools, and wetlands. Prefers shorelines with extensive vegetation. Documented to disperse through upland habitats after rains.	**Present.** This species has been observed and documented in most waterways and ponds in close proximity to the Study Area (CDFW 2017). Additionally this species has been observed in ponds along Arroyo De En Medio.	See section 4.2.2 for further discussion concerning avoidance measures and recommendations concerning this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE, SE, CFP, RP	Vicinity of freshwater marshes, ponds and slow moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	**Moderate Potential**. Ponds located within the Study Area along Arroyo De En Medio may have sufficient thermal exposure, food resources, and vegetative cover to support the species.	See section 4.2.2 for further discussion concerning avoidance measures and recommendations concerning this species.
Fish				
green sturgeon *Acipenser medirostris*	FT, SSC, NMFS	Anadromous. Spawns in the Sacramento and Klamath River systems. Lingering transients may be found throughout the San Francisco Bay Estuary, particularly juveniles.	**No Potential.** There are no suitable marine habitats within the Study Area to support this species. The Study Area is outside of the species known spawning habitat.	No further actions are recommended for this species.
Delta smelt *Hypomesus transpacificus*	FT, ST, RP	Endemic to the Sacramento-San Joaquin delta area; found in areas where salt and freshwater systems meet. It occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay.	**No Potential.** The Study Area is outside of the known range for this species.	No further actions are recommended for this species.
longfin smelt *Spirinchus thaleichthys*	ST, RP	Found in open waters of estuaries, mostly in the middle or bottom of the water column. This species prefers salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	**No Potential.** The Study Area is outside of the species known distribution.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
steelhead - central CA coast DPS *Oncorhynchus mykiss irideus*	FT	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**Unlikely**. Arroyo De En Medio and Deer Creek are currently impeded, or are too small to support anadromous fishes (Becker and Reining 2008). Therefore, the species is unlikely to be present.	No further actions are recommended for this species.
Coho salmon - central CA coast ESU *Oncorhynchus kisutch*	FE, SE	Federal listing includes populations between Punta Gorda and San Lorenzo River. State listing includes populations south of San Francisco Bay only. Occurs inland and in coastal marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	**Unlikely**. Arroyo De En Medio and Deer Creek are currently impeded, or are too small to support anadromous fishes (Becker and Reining 2008). Therefore, the species is unlikely to be present.	No further actions are recommended for this species.
Pacific lamprey *Entosphenus (=Lampetra) tridentatus*	SSC	Spawn between March and July in gravel-bottomed streams in riffle habitat. Larvae drift downstream to areas of low velocity and fine substrates and are relatively immobile in the stream substrates.	**Unlikely**. Arroyo De En Medio and Deer Creek are currently impeded, or are too small to support anadromous fishes (Becker and Reining 2008). Therefore, the species is unlikely to be present.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
tidewater goby *Eucyclogobius newberryi*	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	**No Potential.** There are no suitable lagoon habitats within the Study Area to support this species.	No further actions are recommended for this species.
Invertebrates				
San Bruno elfin butterfly *Incisalia (=Callophrys) mossii bayensis*	FE, RP	Limited to the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on in rocky outcrops and cliffs in coastal scrub habitat on steep, north-facing slopes within the fog belt. Species range is tied to the distribution of the larval host plant, Sedum spathulifolium.	**Unlikely.** The majority of the Study Area is comprised of southern aspect, eucalyptus forest which does not support the species or its host plant.	No further actions are recommended for this species.
mission blue butterfly *Icaricia icarioides missionensis*	FE, RP	Inhabits grasslands of the San Francisco peninsula. Three larval host plants: *Lupinus albifrons, L. variicolor*, and *L. formosus*, of which *L. albifrons* is favored.	**Unlikely.** Distribution of this species is not known to occur near the Study Area. Habitat conditions within the Study Area are generally unfavorable or unsupportive of the habitat features required by this species.	No further actions are recommended for this species.
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT, RP	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *O. purpurscens* are the secondary host plants.	**No Potential.** This species has been extirpated from the San Francisco Peninsula.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*	FE, RP	Restricted to the foggy, coastal dunes/hills of the Point Reyes peninsula; extirpated from coastal San Mateo County. Larval foodplant thought to be Viola adunca.	**No Potential.** This species has been extirpated from San Mateo County (USFWS 2017c).	No further actions are recommended for this species.
monarch butterfly *Danaus plexippus*	SSI	Winter roost sites located in wind-protected tree groves, with nectar and water sources nearby; sites are generally on or close to the coast.	**Moderate Potential.** The majority of the Study Area is comprised of eucalyptus groves, on slopes with a south or western aspect, which are preferred placements and orientation for winter roosting butterflies.	See section 4.2.2 for further discussion concerning avoidance measures and recommendations concerning this species.
Edgewood blind harvestman *Calicina minor*	SSI	Open grassland in areas of serpentine bedrock. Found on the underside of moist serpentine rocks near permanent springs. Originally collected at Crystal Springs Reservoir in San Mateo County, the species has not been collected there since the construction of Interstate 280. In spite of intensive phalangodid collecting in the Bay Area, the species is currently known only from Edgewood Park. Even where present, populations of this species are quite small.	**No Potential.** The Study Area is not within the limited known range of this species.	No further actions are recommended for this species.
incredible harvestman *Banksula incredula*	SSI	Known only from the north slope of San Bruno Mountain. Habitat is talus slopes with a dense chaparral canopy.	**No Potential.** The Study Area is not within the limited known range of this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS
western bumble bee *Bombus occidentalis*	SSI	Formerly common throughout much of western North America; populations from southern British Columbia to central California have nearly disappeared (Xerces 2017). Occurs in a wide variety of habitat types. Nests are constructed annually in pre-existing cavities, usually on the ground (e.g. mammal burrows). Many plant species are visited and pollinated.	**Unlikely**. The Study Area has no grassland to support typical burrowing mammals and the majority of the area is covered by forest, limiting the number of flowering plants and foraging opportunities for the species.	No further actions are recommended for this species.

*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
FD	Federal Delisted
RP	Sensitive species included in a USFWS Recovery Plan or Draft Recovery Plan
SE	State Endangered
ST	State Threatened
SD	State Delisted
NMFS	National Marine Fisheries Service - Species of Concern
SSC	California Department of Fish and Game (CDFG) Species of Special Concern
WBWG	Western Bat Working Group Priority Species
BCC	U.S. Fish & Wildlife Service (USFWS) Birds of Conservation Concern
CFP	CDFW Fully Protected Animal
MMC	Marine Mammal Commission - Species of Special Concern
SSI	CDFW Special Status Invertebrates
Rank 1B.1	California Native Plant Society (CNPS) Rank 1B.1: Plants rare, threatened, or endangered in California and elsewhere (seriously threatened in California)
Rank 1B.2	California Native Plant Society (CNPS) Rank 1B.2: Plants rare, threatened, or endangered in California and elsewhere (moderately threatened in California)
Rank 2B.1	California Native Plant Society (CNPS) Rank 2B.1: Plants rare, threatened, or endangered in California, but more common elsewhere (seriously threatened in California)
Rank 2B.2	California Native Plant Society (CNPS) Rank 2B.2: Plants rare, threatened, or endangered in California, but more common elsewhere (moderately threatened in California)
Rank 3	CRPR Rank 3: Plants about which CNPS needs more information (a review list)

Rank 3.2	CRPR Rank 3.2: Plants about which CNPS needs more information (a review list; moderately threatened in California)
Rank 4.2	California Rare Plant Rank 4.2: Plants of Limited Distribution - A Watch List (moderately threatened in California)
Rank 4.3	California Rare Plant Rank 4.3: Plants of Limited Distribution - A Watch List (not very threatened in California)

****Potential species occurrence definitions:**

Present. Species was observed on the site during site visits or has been recorded (i.e. CNDDB, other reports) on the site recently.

High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species has a low probability of being found on the site.

No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

APPENDIX C

STUDY AREA PHOTOGRAPHS

Photo 1. Photograph of large pond located within the eastern portion of the blue gum grove.

Photo 2. Photograph of a potential seasonal wetland located within non-native annual grassland at excavated clearing in the blue gum forest.

Photo 3. Photograph of the open non-native annual grassland in the historic quarry pit within the blue gum forest.

Photo 4. Photograph looking southeast towards pond (far background) located in the northeast portion of the Study Area and fed by Arroyo del en Medio. Northern coastal scrub seen in the foreground.

Photo 4. Photo looking northeast towards small pond located under Monterey cypress trees in southern portion of Study Area.

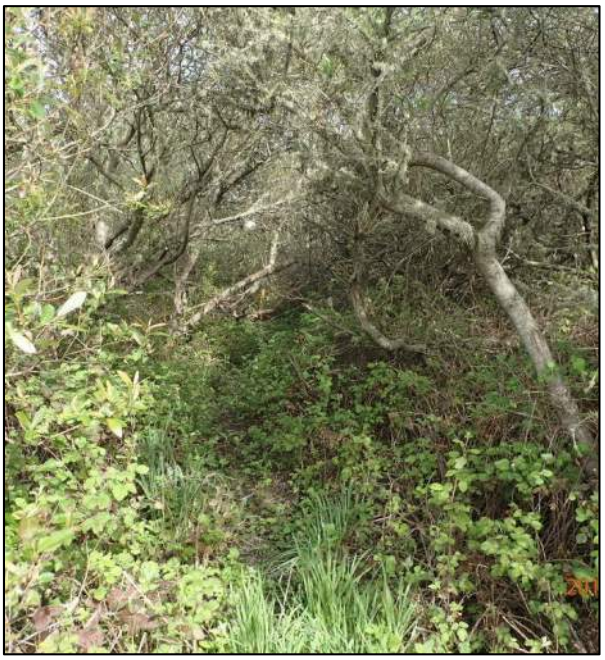

Photo 5. Photo of arroyo willow scrub located on each side of Highway 1.

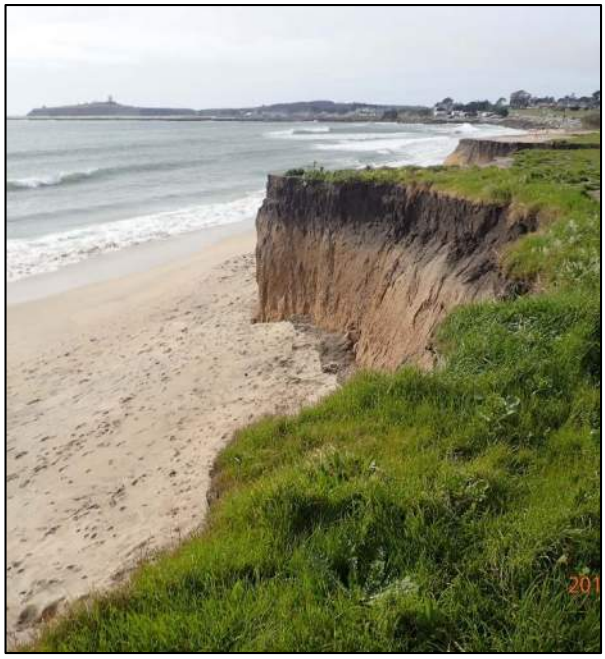

Photo 6. Photo looking northwest where non-native annual grassland transitions via sea cliffs to beaches.

Photo 7. Unidentifiable shrubby lupine species that has potential to be San Mateo tree lupine, observed adjacent to northern coastal scrub habitat.

Photo 7. Photo of a portion of the understory comprised predominately of cape ivy of the blue gum forest.

Photo 8. Photo looking north toward non-native annual grassland in southern extent of Study Area.

Photo 9. Photo of ephemeral stream within the blue gum grove.

Photo 10. Photo of woodland strawberry (*Fragaria vesca*) found in the understory of the blue gum groves.

Focused Engineering Geologic Investigation and Analysis for a Pump Track at Quarry Park

PWA Report No. 2110415201
June 2021

Task Order #2, County of San Mateo Agreement #: 39000-19-R076458B

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1 PROJECT LOCATION AND DESCRIPTION

Quarry Park is a 567-acre county park located to the east and adjacent to the unincorporated community of El Granada, on the Pacific coast side of San Mateo County, California. Quarry Park is located on the steep hillslopes and gentle foot slopes draining to Half Moon Bay and is mostly covered in dense eucalyptus forest. The project area (Site) is located within an unsectioned region of the USGS Montara Mountain 7.5-minute quadrangle, originally part of the Corral de Tierra (Map 1). The Cal Watershed HUC 12 is Denniston Creek-Frontal Pacific Ocean 180500060205. Access to the study area at the end of Santa Maria Avenue is located at 37.504340°N, 122.461860°W.

In March 2021, San Mateo County Parks Department (SMCPD) engaged Pacific Watershed Associates (PWA) to provide an initial geotechnical site and soils investigations for a new earthen bicycle pump track within Quarry Park. A pump track is a circuit of rollers, banked turns and features designed to be ridden completely by riders "pumping", i.e. generating momentum by up and down body movements, instead of pedaling or pushing. It is understood that San Mateo County and Gates + Associates have developed a preferred design concept that was presented to the Parks Commission in February 2021. The preferred concept pump track design is unpaved, having a natural earthen surface, and contains skills trail amenities such as rock gardens, bridge waves, teeter totters, and log piles. It is PWA's understanding that design surfaces are not planned to support structures for human habitation.

In April 2021, at the request of Nicholas Calderon, Parks Director, PWA geologists conducted a focused engineering geologic investigation to characterize the geology, geomorphology, shallow stratigraphic conditions, and engineering materials properties of site soils to inform the project design engineer/architect (Designer) of geologic constraints and risks to and resulting from construction of the new pump track. The summary results of geologic analyses and geotechnical investigations performed by PWA and presented in this memorandum are intended to inform the project Designer of geologic conditions within the proposed project area and provide recommendations to the project Designer for design consideration.

2 SITE TOPOGRAPHY AND GEOLOGIC CONDITIONS

The project area is located in the Coast Range geomorphic province of northern California, characterized by northwest trending mountains and valleys which generally mirror the dominant San Andreas Fault system and smaller, en eschelon fault systems including the nearby San Gregorio Fault Zone, which includes the Denniston Creek fault and Sea Cove fault (Pampeyan, 1994).

The Alquist-Priolo (AP) zoned San Andreas Fault Zone lies approximately 4.5 miles east of Quarry Park. The Pilarcitos Fault is located approximately 3 mi to the east and the San Gregorio Fault Zone is located approximately 1 mi offshore to the west (Jennings, 1994; Brabb, 1998). Pilarcitos Fault is Quaternary in age with an unspecified sense of movement and slip rate, whereas the San Gregorio Fault Zone is Holocene in age, classified as active, and exhibits dextral strike slip displacement as identified by geomorphic expression and offset of geologic and anthropic deposits (Bryant, 1999).

The distribution of mapped lithological units within the study area was compiled from GIS provided by the National Park Service Geologic Resources Inventory Program (NPS, 2009). Geology underlying the proposed pump track is mapped as Quaternary colluvial slope and ravine debris (Qsr) by Pompeyan, 1994 (Map 2). The Qsr unit is described as unconsolidated to moderately consolidated deposits of sand, silt, clay, and rock fragments accumulated by slow downslope movement of weathered rock debris and soil, and it has been mapped where deposits are more than 5 feet in thickness. Slope and ravine debris of Qsr are primarily found in the steeper, upper half portions of amphitheater shaped sub-basins within Quarry Park. The Qsr colluvial deposits are a result of shallow landslides, bioturbation, and soil creep geomorphic processes, and are comprised of unconsolidated deposits of weathered granitic rock and soil.

Soil types and characteristics underlying the project footprint are approximately 70% Denison and 30% Miramar soil units, primarily sandy loams and clay loams found on relatively flat terraces and gentle foot slope hillslope positions, as classified by the USDA Natural Resource Conservation Service (NRCS).

The proposed site for pump track construction is in an average 7% grade alluvial fan streamside setting between Santa Maria Creek and a tributary drainage (Map 2). The unnamed tributary stream to the south and east of the proposed site has a drainage basin area of approximately 90 acres. The unnamed tributary channel has little morphological expression in the vicinity of the pump track site due to the high infiltration rates of low gradient, deep alluvial fan soils and has been intentionally ditched many decades ago to the south of the proposed pump track site.

3 FIELD EXPLORATION

3.1 Summary

Field investigation of the site consisted of exploratory trenching, hand augering, and sampling of subsurface earth materials, as well as an evaluation of the unnamed stream channel exposures upstream and downstream of the project site. PWA contracted Hidden Creek Engineering, based in San Gregorio, to conduct trenching and sampling operations. Three test trench/pit locations were identified by PWA personnel based on the conceptual project design where the pump track will be constructed (Map 2, Table 1). All augering, test trench/pit excavations, and sampling performed for the purpose of investigating subsurface conditions and geotechnical materials properties was conducted on April 29, 2021. The test pits were backfilled and compacted with a sheep’s foot roller upon completion.

3.2 Test Pits and Sampling

Three exploratory pits (TP1 – TP3) were excavated by Hidden Creek Engineering in the approximate location of the proposed pump track site at the direction of PWA geologists (Map 2) to evaluate and characterize surficial and subsurface stratigraphy relevant to the construction of the new pump track. Soils observed in exploratory pits and bank exposures were textured, described, and classified according to the Unified Soil Classification System (USCS) in the field

Table 1. Summary of Test Pits, Quarry Park, San Mateo, California

Trench/Pit ID	Latitude[1]	Longitude[1]	Depth of Boring/Test Pit (ft)	Collected Samples	Depth to Groundwater (ft)
TP1	N37.504335	W122.461486	11.0	Grab sample at 2.4 – 3.6 ft; Shelby at 7.5 ft	Not encountered
TP2	N37.504090	W122.462149	8.0	Not sampled	Not encountered
TP3	N37.504547	W122.462079	6.3	Grab sample at 3.0 – 4.2 ft	Not encountered

[1]All geospatial data was collected from Google Earth.

using field classification method ASTM D2488-00 (Visual-Manual Procedure) and detailed stratigraphic logs were compiled (Appendix A). Testing of in situ soils was conducted using a hand penetrometer and handheld shear vane device to obtain field measurements of unconfined compressive strength and shear strength. In addition to the exploratory pits, a vertical boring was conducted from the bottom of TP1 by hand using a 3-in soil auger, to evaluate deeper stratigraphy and identify the depth to the water table.

Two select disturbed samples were collected from TP1 and TP3 for laboratory analyses to determine grain size distribution, soil type classification, and other soils engineering properties. A relatively undisturbed sample was obtained from TP1 using a 3 in thin-walled Shelby tube sampler (ASTM D1587) where soil grain size was small enough and the apparent density of soil was low enough to successfully collect samples with this method.

3.3 Soil Conditions

Soils were textured, described, and classified according to the USCS in the field using field classification method ASTM D2488-00 (Visual-Manual Procedure). Field texturing and classification of soils was refined by the results of laboratory testing of disturbed samples and a Shelby Tube sample. Finalized soil texturing and USCS classification are presented on the log of test pits (Appendix A) and complete laboratory testing results are provided in Appendix B. Subsurface stratigraphy was observed to be nearly entirely consistent between the test pits and confirms the site geology classification mapped by Pampeyan as Quaternary slope and ravine debris (Qsr).

3.3.1 Sandy Silt and Silty Sand A Horizon

All three test pits, TP1, TP2 and TP3, encountered *sandy silt* (ML) soil beneath the grassy ground surface and extending 6 to 9 inches below the ground surface (bgs). *Sandy silt* soils (ML) were generally very dark brown, dry, stiff in consistency, and contained roots from grassy vegetation. *Sandy silt* (ML) soil within the top 9 inches of the soil profile compose the A Horizon within the profile. Topsoil examined within the upper 6 inches of soil stratigraphy in TP2 contained relatively equal parts sand and fines and were classified as *silty sands* (SM-ML).

3.3.2 Clayey Sand Colluvial Deposits

All three test pit excavations encountered *clayey sand* (SC) soils directly underlying *sandy silt* (ML) and *silty sand* (SM-ML) topsoils. *Clayey Sand* (SC) soils extend from 0.5 ft to 11.0 ft bgs at TP1, from 0.5 ft to 8.0 ft bgs at TP2, and from 0.75 ft to 6.3 ft bgs at TP3 (Appendix A). *Clayey sand* soils were identified to be composed primarily of medium to fine sands with little to some fines and exhibited slight plasticity in moist conditions. *Clayey sand* soils exhibited weak to moderate cementation and soil moisture increased with depth. No bedding was observed in *clayey sand* soils, and we interpret these soils to have been deposited as colluvial soil derived from a combination of sheetwash and hillslope creep processes occurring on Montara Mountain granitics.

3.3.3 Groundwater Conditions

Groundwater was not encountered in any of the exploratory pits or borings. No evidence of groundwater inundation such as soil mottling or manganese staining was observed in subsurface soils. Groundwater is not expected to impact construction or the long-term stability of any constructed pump track fills.

4 FIELD AND LABORATORY TESTING AND RESULTS

Laboratory tests were performed on representative disturbed samples and the relatively undisturbed Shelby Tube sample taken from the test pits. Test results were used to provide thorough textural analysis for USCS soil type classification and establish material properties to inform the project Designer of geologic constraints and risks to and resulting from construction of the new pump track. Laboratory test results are included in Appendix B.

4.1 Textural Analysis

Three samples were analyzed in the laboratory using the Water Quality Control Board Method for textural analysis. This method was chosen because it can be easily used with smaller disturbed samples and determines clay from silt particles by percentage. Results of soil texturing, USCS classification, and material properties are presented in Table 2 and Appendixes A and B.

Table 2. Laboratory Test Results, Quarry Park Pump Track, San Mateo, California

Trench/pit ID	Sample Depth bgs(ft)	USCS Group	Textural Analysis			Moisture Density ASTM D2216		Atterberg Limits ASTM 4318		Standard Proctor ASTM 698	
			Gravel %	Sand %	Fines %	Dry Density (pcf)	Moisture Content (%)	Liquid Limit	Plasticity Index	Max Dry Density (pcf)	Optimum Moisture Content (%)
TP1	2.4 – 3.6	SC	0	72	28	-	-	-	-	-	-
TP3	3.0 – 4.2	SC	-	-	-	-	-	28.2	10.7	-	-
TP1-Tube	7.5 - 8.0	SC	-	-	-	108.0	15.9	-	-	115.2	14.3

4.2 Atterberg Limits Analysis

Atterberg Limits Analyses were performed on a representative soil sample collected from TP3 submitted to the laboratory to identify the liquid limit, plastic limit, and plasticity index. A liquid limit of 28.2 %, plastic limit of 17.5%, and plastic index of 10.7% were obtained from testing per ASTM D4318. This analysis plots the fines component of the tested soils above the "A" Line and in the *lean clay* (CL) classification for plasticity and limit characteristics.

4.3 Standard Proctor Analysis

Standard Proctor Analysis, ASTM D698, was performed on one representative disturbed soil sample from TP3 to identify maximum dry density and optimum moisture content values for compaction. A maximum dry density value of 115.2 pcf and an optimum moisture content value of 14.3 percent were obtained from testing and are consistent with typical ranges of *clayey sand* (SC) soils with plastic fines.

4.4 Laboratory Testing of Undisturbed (Drive Cylinder) Samples

An undisturbed sample was obtained from TP1 at a depth of 7.5 – 8.0 ft bgs using a Shelby tube (2.5 in diameter, 6 in long) directly push driven with the excavator bucket. Although *clayey sand* (SC) soils are texturally classified according to USCS as granular cohesionless sands, and not a fine-grained cohesive soil, the high percentage of fine sand and fines and apparent cohesion of the soil made undisturbed sampling of this soil unit for moisture density analysis desirable. Moisture density analysis (ASTM D2216 and D2937) testing performed on the relatively undisturbed sample identified the sample as having an in-place dry density of 100 pcf and 78.9 % saturation. Additional results of moisture density analyses are presented in Table 2 and in Appendix B.

5 GEOLOGIC HAZARDS

5.1 Expansive Soils Potential

As described in Section 4, subsurface soils consist of a relatively thin (0.5 to 0.75 ft thick) unit of *sandy silt* (ML) topsoil overlying *clayey sand* (SC) colluvial soils derived from deeply weathered granitic bedrock. As a result of the granular texture and low plasticity of soils encountered during site investigation and the results of Atterberg Limits tests, expansive soil conditions are not believed to be present at the site or impact the project. Additionally, based on analyses of site soils, no soils were encountered meeting the criteria for expansive soils identified in Section 1803.5.3 of the 2019 CBC.

5.2 Settlement

Immediate (elastic) settlement may occur in foundation soils due to pressure imposed by constructed pump track embankment fills. Potential immediate settlement of prepared subgrade soils was conservatively estimated by the Modified Hough method (AASHTO 2004 with 2006 Interims) using a combination of data obtained through site investigation, laboratory analysis, and published reference values. Immediate settlement of *clayey sand* (SC) foundation soils due

to construction of narrow earthen embankments of 10 ft in height or less is expected to be less than one inch.

5.3 Seismic Hazards

5.3.1 Ground Surface Rupture

The project site is located approximately 1.6 miles east northeast of the mapped trace of the Seal Cove Fault and 1.8 miles east southeast of the Denniston Creek Fault. Both faults are components of the San Gregorio Fault Zone. The project site is not located within an Alquist-Priolo Earthquake Fault Zone. No known active faults traverse the site. Based on the information available, the potential for surface fault rupture to occur at the project site within the service life of the project is considered negligible.

5.3.2 Ground Shaking

The project site is located within an active seismic area and could be affected by multiple seismic sources within the greater San Francisco Bay Area (Table 3). Moderate to high magnitude ground motions should be expected during the design life of the project. The United States Geologic Survey (USGS), California Geologic Survey (CGS), and Southern California Earthquake Center have worked collaboratively to publish the results of multiple studies to evaluate earthquake probabilities in California. These cooperative publications titled Uniform California Earthquake Rupture Forecast (UCERF) provide estimates of the magnitude, location, and likelihood of earthquake fault rupture throughout the state. According to Probabilistic ground motion estimates for the area surround the project site that are published by the CGS and based on mapping from the 2018 National Seismic Hazard Model for the conterminous United States, there is a 10% probability in the next 50 years that the area will be subjected to peak ground acceleration (PGA) on the order of 0.4 - 0.8g (Rukstales, K.S., 2019). While no structure is planned for design or construction, earthwork should be designed in accordance with the 2019 CBC, San Mateo County grading ordinance, and the recommendations of this report resulting from site specific investigations.

Table 3. Sources of Seismicity in the Vicinity of Quarry Park, San Mateo, California

Seismic Source	30-year probability of event with M>6.7[1]	Historic Magnitudes[2]
San Gregorio	0.10	7.4
San Andreas	0.21	7.9
Hayward	0.27	7.3
Calaveras	0.11	7.5
Mount Diablo	0.03	6.7

[1]USGS, 2003
[2]Site response during strong ground motion will depend on complex interactions between site specific conditions and nature of earth materials, topography, hydrologic conditions, and the distance to the earthquake source.

5.3.3 Liquifaction

Liquefaction is a process where loose wet soils temporarily lose bearing strength during a seismic event and behave like a liquid. Liquefaction can result in ground settlement or lateral spreading. Liquefaction susceptibility in the Montara Mountain 7.5-Minute Quadrangle was

evaluated by CGS in 2019 and resulted in the delineation of Earthquake Zones of Required Investigation (EZRI) for liquefaction hazard. The entire footprint of the proposed pump track falls within a CGS designated EZRI for liquefaction risk.

The proposed pump track is located on gently sloping colluvial soils in a streamside setting between Santa Maria Creek and a tributary drainage. No indication of groundwater was observed in shallow subsurface investigations and depth to the water table is identified by the NRCS as more than 80 inches bgs in both Denison and Mirimar soils groups.

Due to the site-specific setting and soils characteristics identified during our limited investigation, including freely but moderately consolidated *clayey sand* (SC) soils and deep depth to groundwater, we determine the project site to have a moderate susceptibility to liquefaction during a seismic event. The proposed project does not entail the design or construction of a structure for human occupancy and consideration of the effects of liquefaction on an engineered structure is not required. If structures for human habitation are proposed as accessories to the pump track, we recommend further geotechnical investigation to provide more comprehensive data regarding the in-place density and cyclic strength of foundation soils to inform the design professional.

5.3.4 Densification

Permanent settlement due to densification from seismically induced ground shaking can deform the ground surface and damage overlying structures. Dynamic densification may occur in very loose to loose-sands and silty sands above the water table. Due to the granular, low plasticity, free draining nature of site soils, and lack of groundwater inundation, *clayey sand* (SC) foundation soils are understood to have a low likelihood of significant or substantially damaging settlement due to seismic compression.

5.3.5 Lateral Spreading

Liquefaction-induced lateral spreading occurs through the lateral displacement of sloping ground due to pore pressure buildup or liquefaction in a shallow underlying deposit. Liquefaction-induced lateral spreading can occur on mild slopes (<5%) underlain by loose sands and a shallow water table. Foundation soils at the proposed pump track contain a significant proportion of low plasticity fines. Plastic fines within sand soils can inhibit the movement of coarse sand grains and create enough particle adhesion to prevent liquefaction. Due to the moderate potential for liquefaction associated with the site setting and subsurface soils, and without direct investigations to support further analysis of liquefaction potential, we understand lateral spreading to also have a moderate likelihood to affect the earthen embankments and other design features of the project. However, given the earthen construction and only daily occupancy level of the facility, consideration of the likelihood and effects of lateral spreading in pump track design is not required. The consequences of lateral spreading affecting the pump track are likely limited to discontinued use by the public until repairs to the track can be performed.

6 RECOMMENDATIONS

6.1 Site Preparation

Site preparation should begin with the removal of all trees, root balls, and the average 8” deep organic-rich, silty-sand A horizon surface soils within the limits of construction illustrated on the project design plans and as staked by the project Designer. All organic materials and unsuitable soils shall be removed from the limits of grading prior to construction and stored for future use in locations where it will not interfere with project grading activities. Inspection of the project site and approval by the Designer after removal of vegetation and unsuitable soils from the limits of grading should be required prior to construction.

Onsite *clayey sand* (SC) soils are suitable for use as subgrade materials in the construction of a pump track, provided that all unsuitable organic soil overburden is removed prior to subgrade preparation. Subgrade soils should be compacted to 95% maximum dry density (ASTM D698) in preparation to receive and support fill material in order to minimize post-construction settlement.

6.2 Construction Materials

Onsite *clayey sand* (SC) soils are not recommended for sole use in the construction of pump track embankments, berms or rollers. Although the onsite *clayey sand* (SC) soils could potentially be suitable for use in the core of constructed embankments, these soils would be subject to a high rate of mechanical erosion from track use due to the high sand content. Additionally, sourcing of fill material within the footprint of the pump track would result in depressions or areas of lower elevation which would not freely drain during storm events.

We recommend that the earthen features of the pump track, e.g.embankments, berms, and rollers, be constructed with imported earth materials, including the volume of material associated with the removal of the A horizon soils to reconstruct the original surface topography and drainage patterns. Imported soils used in construction of pump track fills and to backfill the A horizon should consist of a well graded and compacted mix with a clay content of 30 – 40% by weight, sand content no less than 35% by weight, silt content of no more than 35% by weight, and no particles larger than sand size (1/16 in).

6.3 Drainage

The existing ground surface at the proposed pump track location is generally approximating 7% in slope gradient, draining to the southwest. Construction of the pump track features using imported earth materials and creating only positive relief atop the existing ground surface will reduce the potential for ponding and facilitate drainage of stormwater from the pump track. We recommend that the Designer slope all constructed surfaces no less than 4%, to ensure that all embankment surfaces are free draining, and designed to drain earthen track structures generally to the south and southwest to minimize ponding. Given the moderately well drained nature of underlying soils, additional subsurface drainage infrastructure is not believed to be necessary if the original ground surface is reconstructed utilizing appropriately graded, sized and compacted imported fill materials prior to beginning construction of the pump track features.

7 CONCLUSIONS

This focused investigation documents PWA's investigation methods, geologic hazards, site materials properties, and design recommendations pertaining to the design and construction of a pump track at Quarry Park. Based on the focused site investigation performed by PWA engineering geologists, we consider the project site adequate for design and construction of the day-use pump track.

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9 CERTIFICATION AND LIMITATIONS

This report, entitled *Focused Engineering Geologic Investigation for a Pump Track at Quarry Park* was prepared by or under the direction of a licensed professional geologist at Pacific Watershed Associates Inc. (PWA), and all information herein is based on data and information collected by PWA staff. The subsurface investigation analyses for the project, as well as engineering design recommendations, were similarly conducted by, or under the responsible charge of, a California licensed Certified Engineering Geologist at PWA.

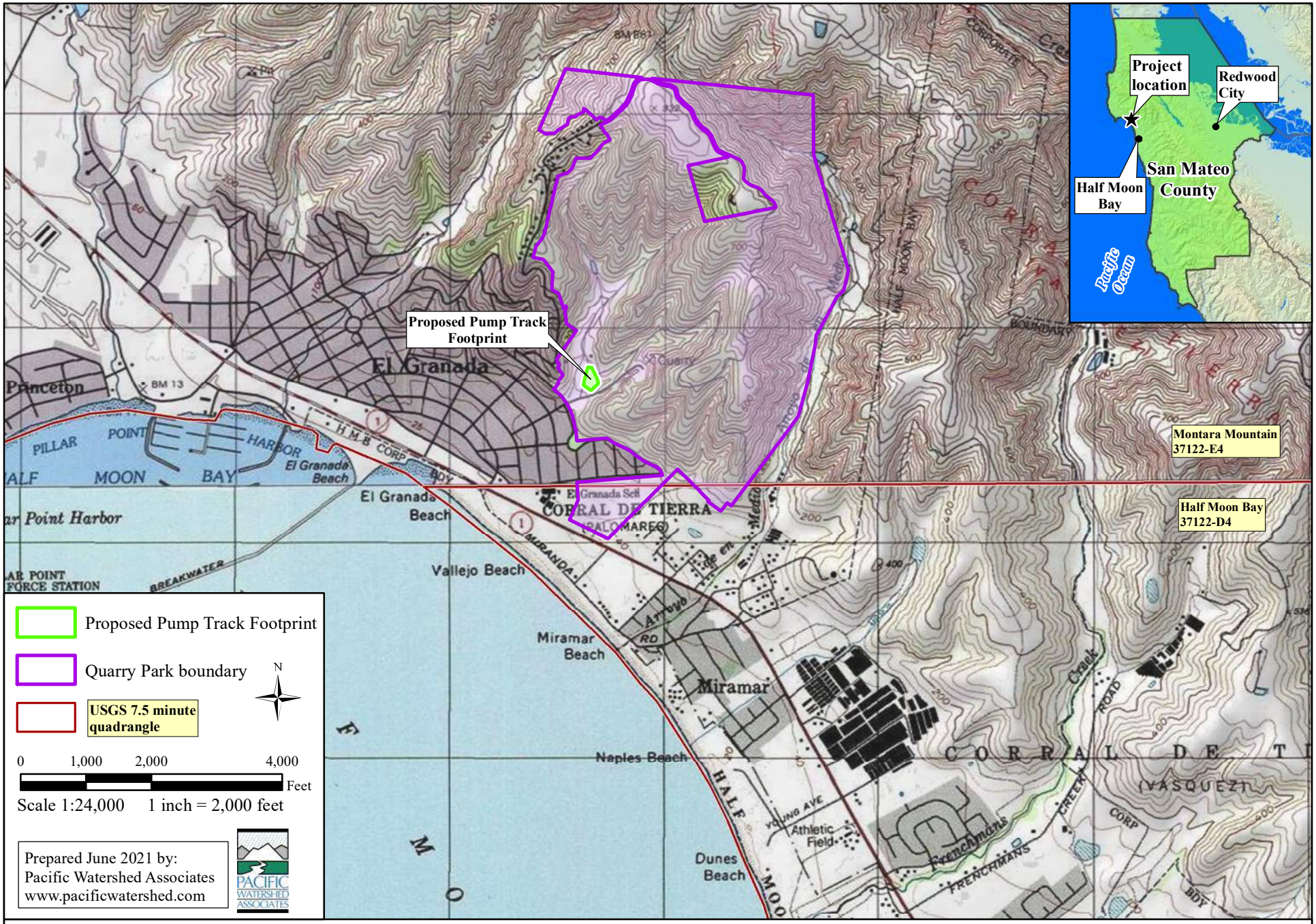
The interpretations and recommendations presented in this report are based on a study of inherently limited scope. Observations are qualitative, or semi-quantitative, and confined to surface expressions of limited extent and shallow borings of subsurface materials. Interpretations of problematic geologic and geomorphic constraints and erosion processes are based on the information available at the time of the study, and on the nature and distribution of existing features.

The recommendations contained in this report are professional opinions derived in accordance with current standards of professional practice and are valid as of the submittal date. No other warranty, expressed or implied, is made. PWA is not responsible for changes in the conditions of the property with the passage of time, whether due to natural processes or to the works of man or changing conditions on adjacent areas. Furthermore, to be consistent with existing conditions, information contained in this report should be re-evaluated after a period of no more than three years. It is the responsibility of the project engineer and project proponent to ensure that all recommendations in this report are reviewed and implemented according to the conditions existing at the time of construction. Also, PWA, including the licensed professionals, are not responsible for recommendations implemented outside of their professional oversight. Finally, PWA is not responsible for changes in applicable or appropriate standards beyond our control, such as those arising from changes in legislation or the broadening of knowledge, which may invalidate any of our findings.

Certified by:

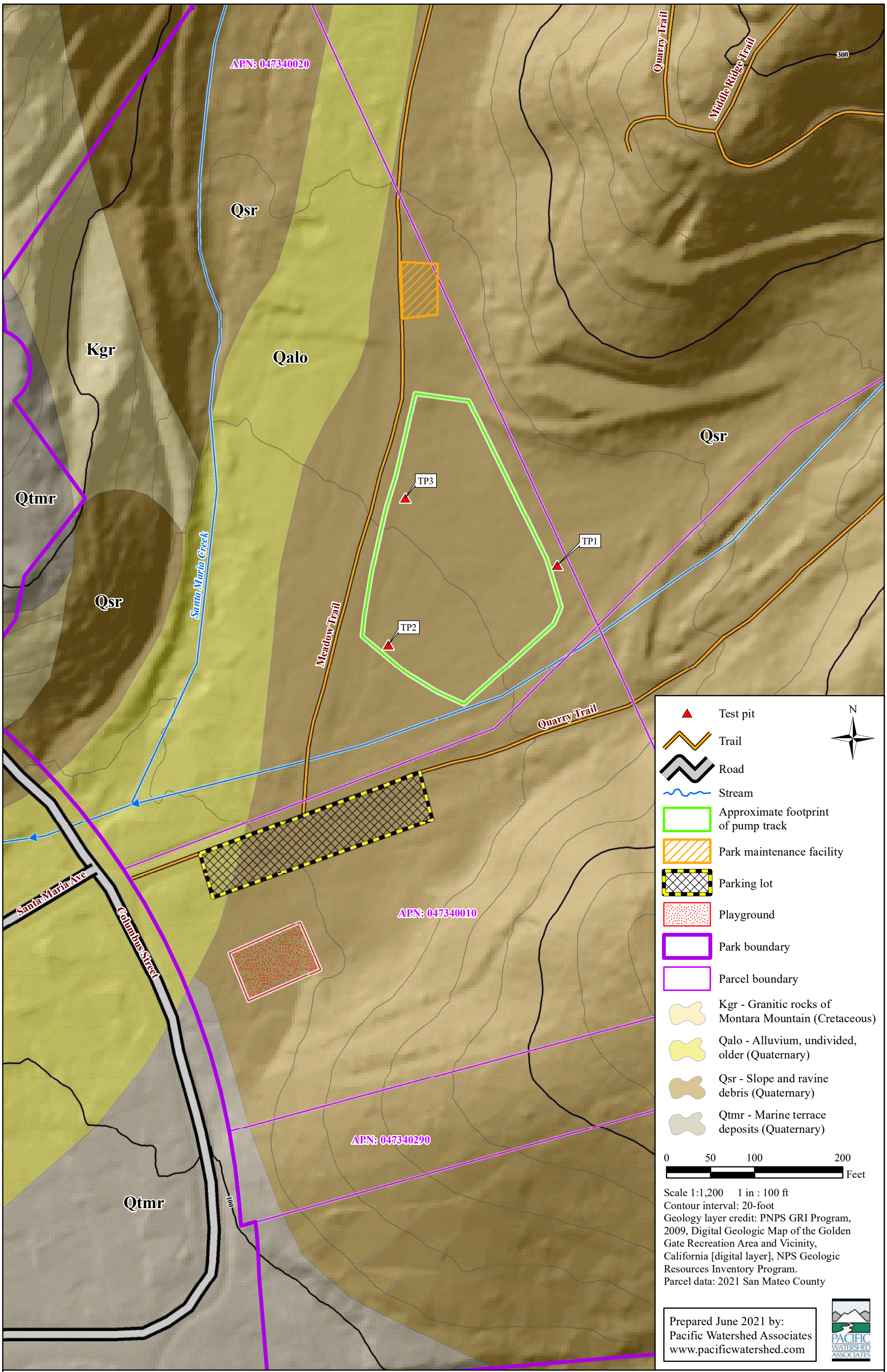
CERTIFIED ENGINEERING GEOLOGIST
COLIN HUGHES
No. 2717
STATE OF CALIFORNIA

Colin Hughes, CEG #2717
Certified Engineering Geologist
Pacific Watershed Associates Inc.



Map 1. Location Map for the Focused Engineering Geologic Investigation and Analysis for a Pump Track at Quarry Park, San Mateo County, California.

P:\GIS\10415 Quarry Park_San Mateo\104152 Quarry Park Pump Track Investigation Location Map.mxd



Map 2. Investigation Site Map for the Focused Engineering Geologic Investigation and Analysis for a Pump Track at Quarry Park, San Mateo County, California.

P:\GIS\10415 Quarry Park_San Mateo\104152 Quarry Park Pump Track Investigation Site Map.mxd

Appendix A

Stratigraphic Log of Test Pits

Focused Engineering Geologic Investigation and
Analysis for a Pump Track at Quarry Park
San Mateo County, California

Project Name QUARRY PARK PUMP TRACK | Project Number 104152

Boring No. TP-1 | Hole Size N/A | Date Drilled 4/29/2021

Excavation Method Mini Ex. | Logged By CRH/KS | Drilling Contractor Ken

USA Ticket Number X111700571-00X | GW Depth N/A | Client SMCP

Shear Strength (TSF)	Unconfined Compressive Strength (TSF)	Sampled Interval	Graphic Log	Depth (ft)	Field Classification Based on Unified Soil Classification System (modifier, color, moisture, density/consistency, grain size, other desc.)
	1.5				SANDY SILT (ML); stiff; 7.5 yr 2.5/2, very dark brown; dry; mostly fines; some sand, from medium to fine; A Horizon.
0.25	2.25	GRAB SAMPLE		1, 2, 3	CLAYEY SAND (SC); medium density; 7.5 yr 2.5/1, black; moist; 75% sand, from medium to fine, subrounded; 25% fines; few muscovite mica, few quartz grains up to 1/4"; moisture increases with depth, moderately consolidated colluvium.
0.22	1.7	SHELBY TUBE		4, 5, 6, 7	Base of Test Pit
				8	Hand auger boring to 11.0ft bgs.
				9, 10	CLAYEY SAND (SC); medium density; 7.5 yr 2.5/1, black; moist; 75% sand, from medium to fine, subrounded; 25% fines; few muscovite mica, few quartz grains up to 1/4"; moisture increases with depth, moderately consolidated colluvium.
				11	BOB @132"
				12	

Project Name QUARRY PARK PUMP TRACK | Project Number 104152

Boring No. TP-2 | Hole Size N/A | Date Drilled 4/29/2021

Excavation Method Mini Ex. | Logged By CRH/KS | Drilling Contractor Ken

USA Ticket Number X111700571-00X | GW Depth N/A | Client SMCP

Shear Strength (TSF)	Unconfined Compressive Strength (TSF)	Sampled Interval	Graphic Log	Depth (ft)	Field Classification Based on Unified Soil Classification System (modifier, color, moisture, density/consistency, grain size, other desc.)
	4.0				SILTY SAND (SM-ML); medium dense; 7.5 yr 4/1, dark grey; dry; mostly fines; some sand, from medium to fine; trace gold muscovite mica grains; A Horizon.
0.30	4.1			1, 2, 3, 4, 5, 6, 7	CLAYEY SAND (SC); medium dense to dense; 7.5 yr 3/1, very dark grey; moist; 65% sand, 35% fines; few muscovite mica 1/16" to 3/16"; slightly plastic; moisture increases with depth; moderately consolidated colluvium.
0.21	1.75			8	BOB @ 96"
				9, 10, 11, 12	

Project Name QUARRY PARK PUMP TRACK | Project Number 104152

Boring No. TP-3 | Hole Size N/A | Date Drilled 4/29/2021

Excavation Method Mini Ex. | Logged By CRH/KS | Drilling Contractor Ken

USA Ticket Number X111700571-00X | GW Depth N/A | Client SMCP

Shear Strength (TSF)	Unconfined Compressive Strength (TSF)	Sampled Interval	Graphic Log	Depth (ft)	Field Classification Based on Unified Soil Classification System (modifier, color, moisture, density/consistency, grain size, other desc.)
					SANDY SILT (ML); stiff; 7.5 yr 2.5/2, very dark brown; dry; mostly fines; some sand, from medium to fine; A Horizon.
	5.0			1	
				2	
		GRAB SAMPLE		3	CLAYEY SAND (SC); dense; 7.5 yr 3/2, dark brown; moist; 85%sand,15% fines; moderately consolidated colluvium.
0.32	3.10			4	
				5	
				6	BOB @ 76"
				7	
				8	
				9	
				10	
				11	
				12	

Appendix B

Laboratory Testing Results

Focused Engineering Geologic Investigation and
Analysis for a Pump Track at Quarry Park
San Mateo County, California

LACO
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Ukiah: 311 South Main Street · Ukiah, California 95482 · 707-462-0222 · FAX 707-462-0223
800-515-5054 · www.lacoassociates.com

SIEVE ANALYSIS WORKSHEET (ASTM C-136)

Project No.	7965.01	Material Desc.	DARK BROWN CLAYEY SAND	Tested By:	DLR	Date: 5/5/21
Client:	PACIFIC WATERSHED ASSOCIATES	Manufacturer	NATIVE	Checked By:		Date:
Sample ID:	21-020EK	Sample Location	TP1	Initial Weight:	1026.1 gm	% Difference < **0.3%**

	(37.5mm) Ret. 1 $^1/_2$	(37.5mm x 19mm) $1^1/_2$ x $^3/_4$	(19mm x 4.75mm) $^3/_4$ x #4	Pass (4.75mm) #4
Partial Weight (gm)			1026.1	367.9
% Used			100.00%	36.32%
Size of Sample (gm)			1026.1	1012.9

	Wt. Ret.	% Ret.	% Pass	Wt. Ret.	% Ret.	% Pass	Wt. Ret.	% Ret.	% Pass	Wt. Ret.	% Ret.	% Pass	**Sample Grading**	Specs.
(75mm) 3														
(62.5mm) 2 $^1/_2$														
(50mm) 2														
(37.5mm) 1 1/2														
(25mm) 1														
(19mm) 3/4														
(12.5mm) 1/2														
(9.5mm) 3/8							0.0 0.0	0.0	100.0				**100**	
(4.75mm) 4							13.2 13.2	1.3	98.7				**99**	
(2.38mm)8							60.6 73.8	7.2	92.8	22.0 22.0	6.0	94.0	**93**	
(1.19mm) 16							118.7 192.4	18.8	81.2	43.1 65.1	17.7	82.3	**81**	
(600µm) 30							142.3 334.8	32.6	67.4	51.7 116.8	31.7	68.3	**67**	
(300µm) 50							158.0 492.8	48.0	52.0	57.4 174.2	47.3	52.7	**52**	
(150µm) 100							148.7 641.5	62.5	37.5	54.0 228.2	62.0	38.0	**37**	
(75µm) 200							100.5 742.0	72.3	27.7	36.5 264.7	71.9	28.1	**28**	
Wash Wt.							284.1 1026.1	100.0	0	103.2 367.9	100.0	0	**0**	

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MOISTURE / DENSITY
ASTM D-2216 / 2937

PROJECT	104152 PUMP TRACK			SHEET	1/1
CLIENT	PACIFIC WATERSHED ASSOCIATES	JOB NO.	7965.01	LAB ID	21-020EK
LOCATION	TP1	TEST BY	DLR	DATE	5/4/21
SOIL TYPE	DARK BRN CLAYEY SAND	CHECKED BY		CHECK DATE	

SAMPLE LOCATION	TP-1				
DEPTH (ft)	---				
SOIL TYPE (USCS)	---				
WET SOIL+PAN+TUBE	979.6				
DRY SOIL + PAN + TUBE	900.9				
PAN + TUBE	405.6				
MOISTURE CONTENT (%)	15.9				
TUBE DIAMETER (cm)	6.00				
TOTAL TUBE LENGTH (cm)	15.9				
EMPTY TUBE LENGTH (cm)	6.3				
NET SPECIMEN LENGTH (cm)	9.6				
TARE WEIGHT OF TUBE (gm)	279.3				
NET WET SOIL + TUBE (gm)	823.2				
WET SOIL (gm)	543.9				
VOLUME OF WET SOIL (cf)	0.010				
WET DENSITY (pcf)	125.2				
DRY DENSITY (pcf)	108.0				
VOID RATIO	0.5				
% SATURATION	78.9				

ATTERBERG LIMITS
ASTM D-4318

PROJECT	104152 PUMP TRACK		JOB NO.	7965.01	SHEET
CLIENT	PACIFIC WATERSHED AFFILIATES		SAMPLE ID	21-020EK	1 of 1
LOCATION	TP3	TEST BY	DLR	DATE	5/6/2021
SOIL TYPE	CL	CHECKED BY		CHECK DATE	

	Point 1	Point 2	Point 3
Tare + Wet Soil (gm)	38.70	35.19	33.04
Tare + Dry Soil (gm)	32.48	29.41	27.46
Water (gm)	6.22	5.78	5.58
Tare (gm)	8.41	8.49	8.66
Dry Soil (gm)	24.07	20.92	18.80
Water Content (%)	**26%**	**28%**	**30%**
* Number of Blows	**34**	**28**	**18**

* Groove closure = 13mm

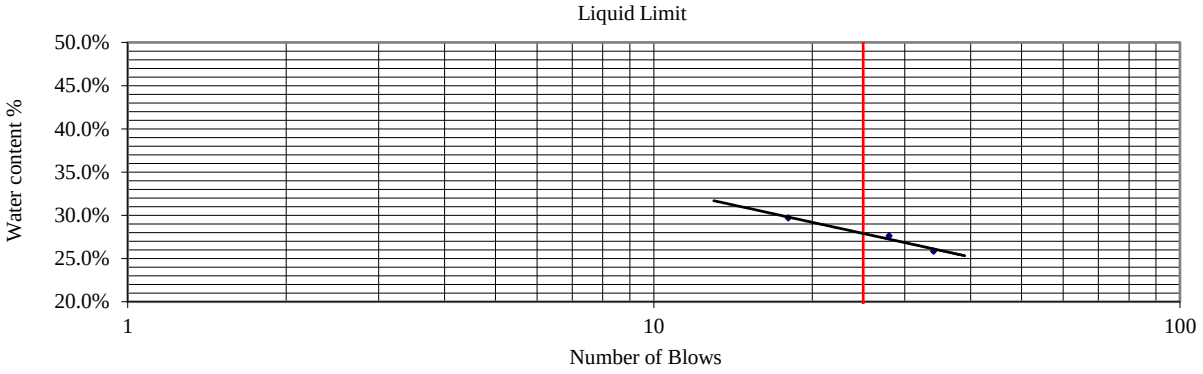
PLASTIC LIMIT

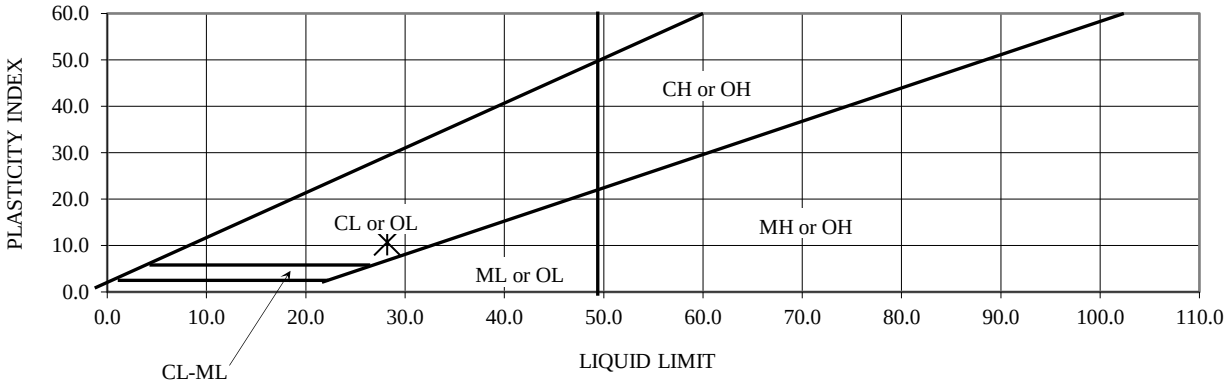
Run 1	Run 2	
15.16	15.67	
14.20	14.60	
0.96	1.07	
8.50	8.72	
5.70	5.88	
17%	**18%**	

LIQUID LIMIT = 28.2

PLASTIC LIMIT = 17.5

PLASTIC INDEX = 10.7





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Ukiah: 311 South Main Street · Ukiah, California 95482 · 707-462-0222 · FAX 707-462-0223
800-515-5054 · www.lacoassociates.com

	ASTM D698	Page 1	Project No. 7965.01
	Project 104152 PUMP TRACK	Tested By DLR	Date 5/5/21
	Location SAN MATEO	Checked By	Date
	Client PACIFIC WATERSHED ASSOCIATES	Sample ID: 21-020EK	

Material Type/ Description
DARK BROWN CLAYEY SAND

Material Source/ Sampled From
TP3

Sample Preparation

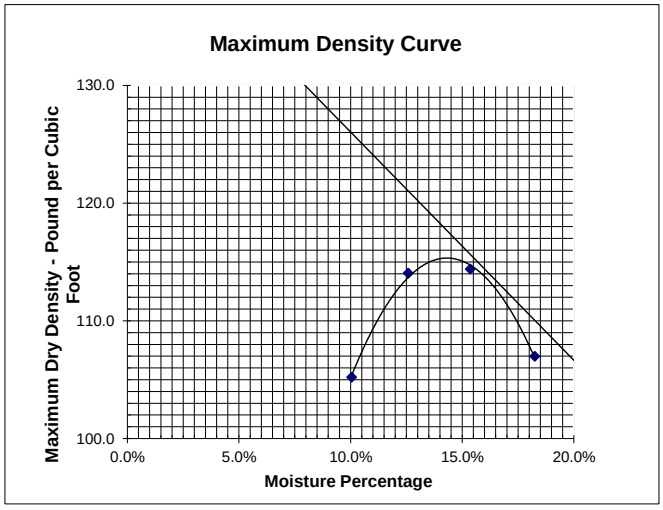
Total weight	49.8	lbs.	
> 3/8"	0.31	lbs.	0.6%
< 3/8"	49.49	lbs.	99.4%

Compaction Curve Work Sheet ASTM D698 (4" Mold) Manual Hammer Method B

	Description	#1	#2	#3	#4	#5
1)	Weight of mold & soil (lbs)	13.166	13.585	13.703	13.522	
2)	Weight of mold with base (lbs)	9.322	9.322	9.322	9.322	
3)	Weight of wet soil (lbs)	3.844	4.263	4.381	4.200	
4)	Wet density (pcf) = (3) / .0332	115.8	128.4	132.0	126.5	
5)	0.0332					

	Moisture Content		INSITU			
5)	Weight of wet soil + pan (gm)	1500.4	1772.5	1223.3	1366.5	
6)	Weight of dry soil + pan (gm)	1397.2	1617.4	1082.7	1198.6	
7)	Weight of pan (gm)	369.7	384.4	166.9	278.3	
8)	Weight of dry soil (gm) = (6) - (7)	1027.5	1233.0	915.8	920.3	
9)	Weight of moisture (gm) = (5) - (6)	103.2	155.1	140.6	167.9	
10)	% Moisture = (9) / (8) x 100	10.0%	12.6%	15.4%	18.2%	
11)	Dry density (pcf) = (4) / (1 +(10))	105.2	114.1	114.4	107.0	

Maximum Dry Density (pcf) = **115.2**

Optimum Moisture (%) = **14.3**

Rock Correction - Yes / **No**