

The Advisory Design Review (ADR) Group considers applications and matters affecting the design of buildings, structures, landscaping, and other site improvements in the Town of Ross. The ADR Group makes non-binding advisory recommendations regarding consistency of projects with the Design Review criteria and standards to the Town Planner and Town Council.

Agenda Item No. 4a.

Staff Report

Date: January 18, 2022

To: Advisory Design Review (ADR) Group

From: Matthew Weintraub, Planner

Subject: Corte Madera Creek Flood Risk Management Project

Recommendation

That the Advisory Design Review Group provide a formal recommendation to the Town Council regarding the merits of the project consistent with the Design Review criteria and standards of Ross Municipal Code (RMC) Section 18.41.100 (see **Attachment 1**).

Project Name:	Corte Madera Creek Flood Risk Management Project
Project Applicant:	Marin County Flood Control and Water Conservation District ("District")
Project Location:	Corte Madera Creek between Lagunitas Bridge and the Ross-Kentfield boundary
A.P.N.:	073-242-27; 073-242-06; 073-242-10; 073-242-13; 073-242-14; 073-242- 19; 073-273-39; 073-273-40; 073-273-49; 073-273-50; 073-273-51; 073- 273-52; 073-273-53; 073-273-54; 073-273-55; 073-273-56; 074-011-82
Zoning:	Civic (C-D); Floodway (F); Single Family Residence (R-1: B-10)
General Plan:	Open Space (OS); Medium Low Density (ML)
Flood Zone:	AE Floodway (Area subject to inundation by 1-percent-annual chance flood event)

Project Summary: The applicant is requesting approval of Design Review to make channel improvements consistent with Alternative 1 of the Final Environmental Impact Report (FEIR) for the Corte Madera Creek Flood Risk Management Project Phase 1, as recommended by the Ross Town Council on May 13, 2021, and as adopted by the Marin County Board of Supervisors on August 17, 2021. The project includes: remove the existing wood fish ladder; regrade, stabilize, and revegetate the creek bed and banks at existing constriction points; remove existing wood retaining walls; extend concrete wingwalls no higher than existing grade at tops of banks; and construct new fish resting pools within the channel.

Public Notice

Public Notices were mailed to property owners within 300 feet of the project site at least 10 days prior to the meeting date.

Project Description

The project site is Corte Madera Creek between Lagunitas Bridge and the Ross-Kentfield boundary. The project site includes the Lagunitas Bridge right-of-way and three parcels owned by the Town of Ross; nine parcels owned by the District; and portions of five privately owned residential parcels with existing or proposed easements serving the District.

Project information is included in the applicant's Written Project Description included as **Attachment 2**; Project Plans Visual Exhibit included as **Attachment 3**; and Project Plans ("Draft 60% Design Submittal") included as **Attachment 4**.

The proposed project is subject to the following permit approvals:

Design Review Permit is required pursuant to RMC Chapter 18.41 for the construction
of retaining walls greater than 48 inches in height and/or with a cumulative total length
of more than 100 linear feet; for an activity or project resulting in more than 50 cubic
yards of grading or filling; for construction, improvements, grading/filling or other site
work within 25 feet of a creek; and for redevelopment, rehabilitation, and/or renovation
of existing landscaping over 2,500 square feet, including new hardscape, retaining walls,
vegetation modifications, modification to topography, additional impervious surfaces,
alterations of drainage patterns, and other site modifications that could affect the visual
and/or physical character of the site and neighborhood.

Background

The applicant is requesting approval of Design Review to make channel improvements consistent with Alternative 1 of the Final Environmental Impact Report (FEIR) for the Corte Madera Creek Flood Risk Management Project Phase 1, as recommended by the Ross Town Council on May 13, 2021, and as adopted by the Marin County Board of Supervisors on August 17, 2021. More information and the FEIR can be found online at the District's Corte Madera Creek Flood Risk Management Project webpage: <u>https://www.marinwatersheds.org/resources/projects/corte-madera-creek-flood-risk-management-project</u>.

Discussion

The overall purpose of Design Review is to guide new development to preserve and enhance the special qualities of Ross and to sustain the beauty of the town's environment. Other specific purposes include: provide excellence of design consistent with the scale and quality of existing development; preserve and enhance the historical "small town," low-density character and identity that is unique to the Town of Ross; preserve lands which are unique environmental resources; enhance important community entryways, local travel corridors and the area in which the project is located; promote and implement the design goals, policies and criteria of the Ross general plan; discourage the development of individual buildings which dominate the townscape

or attract attention through color, mass or inappropriate architectural expression; preserve buildings and areas with historic or aesthetic value; upgrade the appearance, quality and condition of existing improvements in conjunction with new development or remodeling of a site; and preserve natural hydrology and drainage patterns and reduce stormwater runoff associated with development. The Design Review criteria and standards per Ross Municipal Code (RMC) Section 18.41.100 are included as **Attachment 1**.

Public Comment

The applicant's Public Outreach Summary is included as **Attachment 5**. No public comments were received prior to the finalization of this report.

Attachments

- 1. RMC Section 18.41.100, Design Review Criteria and Standards
- 2. Written Project Description
- 3. Project Plans Visual Exhibit
- 4. Project Plans ("Draft 60% Design Submittal")
- 5. Public Outreach Summary

ATTACHMENT 1

18.41.100 Design Review Criteria and Standards.

This section provides guidelines for development. Compliance is not mandatory but is strongly recommended. The Town Council may deny an application where there are substantial inconsistencies with one or more guidelines in a manner that is counter to any purpose of this ordinance.

(a) Preservation of Natural Areas and Existing Site Conditions.

(1) The existing landscape should be preserved in its natural state by keeping the removal of trees, vegetation, rocks and soil to a minimum. Development should minimize the amount of native vegetation clearing, grading, cutting and filling and maximize the retention and preservation of natural elevations, ridgelands and natural features, including lands too steep for development, geologically unstable areas, wooded canyons, areas containing significant native flora and fauna, rock outcroppings, view sites, watersheds and watercourses, considering zones of defensible space appropriate to prevent the spread of fire.

(2) Sites should be kept in harmony with the general appearance of neighboring landscape. All disturbed areas should be finished to a natural-appearing configuration and planted or seeded to prevent erosion.(3) Lot coverage and building footprints should be minimized where feasible, and development clustered, to minimize site disturbance area and preserve large areas of undisturbed space. Environmentally sensitive areas, such as areas along streams, forested areas, and steep slopes shall be a priority for preservation and open space.

(b) Relationship Between Structure and Site. There should be a balanced and harmonious relationship among structures on the site, between structures and the site itself, and between structures on the site and on neighboring properties. All new buildings or additions constructed on sloping land should be designed to relate to the natural land forms and step with the slope in order to minimize building mass, bulk and height and to integrate the structure with the site.

(c) Minimizing Bulk and Mass.

(1) New structures and additions should avoid monumental or excessively large size out of character with their setting or with other dwellings in the neighborhood. Buildings should be compatible with others in the neighborhood and not attract attention to themselves. When nonconforming floor area is proposed to be retained with site redevelopment, the Council may consider the volume and mass of the replacement floor area and limit the volume and mass where necessary to meet the intent of these standards.

(2) To avoid monotony or an impression of bulk, large expanses of any one material on a single plane should be avoided, and large single-plane retaining walls should be avoided. Vertical and horizontal elements should be used to add architectural variety and to break up building plans. The development of dwellings or dwelling groups should not create excessive mass, bulk or repetition of design features. (d) Materials and Colors.

(1) Buildings should use materials and colors that minimize visual impacts, blend with the existing land forms and vegetative cover, are compatible with structures in the neighborhood and do not attract attention to the structures. Colors and materials should be compatible with those in the surrounding area. High-quality building materials should be used.

(2) Natural materials such as wood and stone are preferred, and manufactured materials such as concrete, stucco or metal should be used in moderation to avoid visual conflicts with the natural setting of the structure.

(3) Soft and muted colors in the earthtone and woodtone range are preferred and generally should predominate.

(e) Drives, Parking and Circulation.

(1) Good access, circulation and off-street parking should be provided consistent with the natural features of the site. Walkways, driveways, curb cuts and off-street parking should allow smooth traffic flow and provide for safe ingress and egress to a site.

(2) Access ways and parking areas should be in scale with the design of buildings and

structures on the site. They should be sited to minimize physical impacts on adjacent properties related to noise, light and emissions and be visually compatible with development on the site and on neighboring properties. Off-street parking should be screened from view. The area devoted to driveways, parking pads and parking facilities should be minimized through careful site planning.

(3) Incorporate natural drainage ways and vegetated channels, rather than the standard concrete curb and gutter configuration to decrease flow velocity and allow for stormwater infiltration, percolation and absorption.

(f) Exterior Lighting. Exterior lighting should not create glare, hazard or annoyance to adjacent property owners or passersby. Lighting should be shielded and directed downward, with the location of lights coordinated with the approved landscape plan. Lamps should be low wattage and should be incandescent.

(g) Fences and Screening. Fences and walls should be designed and located to be architecturally compatible with the design of the building. They should be aesthetically attractive and not create a "walled-in" feeling or a harsh, solid expanse when viewed from adjacent vantage points. Front yard fences and walls should be set back sufficient distance from the property line to allow for installation of a landscape buffer to soften the visual appearance. Transparent front yard fences and gates over four feet tall may be permitted if the design and landscaping is compatible and consistent with the design, height and character of fences and landscaping in the neighborhood. Front yard vehicular gates should be transparent to let light and lines of sight through the gate.

Solid walls and fences over four feet in height are generally discouraged on property lines adjacent to a right-of-way but may be permitted for properties adjacent to Poplar Avenue and Sir Francis Drake Boulevard based on the quality of the design, materials, and landscaping proposed. Driveway gates should be automatic to encourage use of onsite parking. Pedestrian gates are encouraged for safety, egress, and to encourage multi-modal transportation and pedestrian-friendly neighborhood character.

(h) Views. Views of the hills and ridgelines from public streets and parks should be preserved where possible through appropriate siting of improvements and through selection of an appropriate building design including height, architectural style, roof pitch and number of stories.

(i) Natural Environment.

(1) The high-quality and fragile natural environment should be preserved and maintained through protecting scenic resources (ridgelands, hillsides, trees and tree groves), vegetation and wildlife habitat, creeks, drainageways threatened and endangered species habitat, open space and areas necessary to protect community health and safety.

(2) Development in upland areas shall maintain a setback from creeks or drainageways.

The setback shall be maximized to protect the natural resource value of riparian areas and to protect residents from geologic and other hazards.

(3) Development in low-lying areas shall maintain a setback from creeks or drainageways consistent with the existing development pattern and intensity in the area and on the site, the riparian value along the site, geologic stability, and the development alternatives available on the site. The setback should be maximized to protect the natural resource value of the riparian area and to protect residents from geologic and flood hazards.

(4) The filling and development of land areas within the one-hundred-year flood plain is discouraged. Modification of natural channels of creeks is discouraged. Any modification shall retain and protect creekside vegetation in its natural state as much as possible. Reseeding or replanting with native plants of the habitat and removal of broom and other aggressive exotic plants should occur as soon as possible if vegetation removal or soil disturbance occurs.

(5) Safe and adequate drainage capacity should be provided for all watercourses.

(j) Landscaping.

(1) Attractive, fire-resistant, native species are preferred. Landscaping should be integrated into the architectural scheme to accent and enhance the appearance of the

development. Trees on the site, along public or private streets and within twenty feet of common property lines, should be protected and preserved in site planning. Replacement trees should be provided for trees removed or affected by development. Native trees should be replaced with the same or similar species. Landscaping should include planting of additional street trees as necessary.

(2) Landscaping should include appropriate plantings to soften or screen the appearance of structures as seen from off-site locations and to screen architectural and mechanical elements such as foundations, retaining walls, condensers and transformers.

(3) Landscape plans should include appropriate plantings to repair, reseed and/or replant disturbed areas to prevent erosion.

(4) Landscape plans should create and maintain defensible spaces around buildings and structures as appropriate to prevent the spread of wildfire.

(5) Wherever possible, residential development should be designed to preserve, protect and restore native site vegetation and habitat. In addition, where possible and appropriate, invasive vegetation should be removed.

(k) Health and Safety. Project design should minimize the potential for loss of life, injury or damage to property due to natural and other hazards. New construction must, at a minimum, adhere to the fire safety standards in the Building and Fire Code and use measures such as fire-preventive site design, landscaping and building materials, and fire-suppression techniques and resources. Development on hillside areas should adhere to the wildland urban interface building standards in Chapter 7A of the California Building Code. New development in areas of geologic hazard must not be endangered by nor contribute to hazardous conditions on the site or on adjoining properties.

(I) Visual Focus.

(1) Where visibility exists from roadways and public vantage points, the primary residence should be the most prominent structure on a site. Accessory structures, including but not limited to garages, pool cabanas, accessory dwellings, parking pads, pools and tennis courts, should be sited to minimize their observed presence on the site, taking into consideration runoff impacts from driveways and impervious surfaces. Front yards and street side yards on corner lots should remain free of structures unless they can be sited where they will not visually detract from the public view of the residence.

(2) Accessory structures should generally be single-story units unless a clearly superior design results from a multilevel structure. Accessory structures should generally be small in floor area. The number of accessory structures should be minimized to avoid a feeling of overbuilding a site. Both the number and size of accessory structures may be regulated in order to minimize the overbuilding of existing lots and attain compliance with these criteria.

(m) Privacy. Building placement and window size and placement should be selected with consideration given to protecting the privacy of surrounding properties. Decks, balconies and other outdoor areas should be sited to minimize noise to protect the privacy and quietude of surrounding properties. Landscaping should be provided to protect privacy between properties. Where nonconformities are proposed to be retained, the proposed structures and landscaping should not impair the primary views or privacy of adjacent properties to a greater extent than the impairment created by the existing nonconforming structures.

(n) Consideration of Existing Nonconforming Situations. Proposed work should be evaluated in relationship to existing nonconforming situations, and where determined to be feasible and reasonable, consideration should be given to eliminating nonconforming situations.

(o) Relationship of Project to Entire Site.

(1) Development review should be a broad, overall site review, rather than with a narrow focus oriented only at the portion of the project specifically triggering design review. All information on site development submitted in support of an application constitutes the approved design review project and, once approved, may not be changed by current or future property owners without town approval.

(2) Proposed work should be viewed in relationship to existing on-site conditions Pre-existing site conditions should be brought into further compliance with the purpose and design criteria of this chapter as a condition of project approval whenever reasonable and feasible.

(p) Relationship to Development Standards in Zoning District. The town council may impose more restrictive development standards than the standards contained in the zoning district in which the project is located in order to meet these criteria. Where two or more contiguous parcels are merged into one legal parcel, the Town Council may consider the total floor area of the existing conforming and legal nonconforming structures and may reduce the permitted floor area to meet the purposes of these standards.

(q) Project Reducing Housing Stock. Projects reducing the number of housing units in the town, whether involving the demolition of a single unit with no replacement unit or the demolition of multiple units with fewer replacement units, are discouraged; nonetheless, such projects may be approved if the council makes findings that the project is consistent with the neighborhood and town character and that the project is consistent with the Ross general plan.

(r) Maximum Floor Area. Regardless of a residentially zoned parcel's lot area, a guideline maximum of ten thousand square feet of total floor area is recommended. Development above guideline floor area levels may be permitted if the town council finds that such development intensity is appropriate and consistent with this section, the Ross municipal Code and the Ross general plan. Factors which would support such a finding include, but are not limited to: excellence of design, site planning which

minimizes environmental impacts and compatibility with the character of the surrounding area.

(s) Setbacks. All development shall maintain a setback from creeks, waterways and drainageways. The setback shall be maximized to protect the natural resource value of riparian areas and to protect residents from geologic and other hazards. A minimum fifty-foot setback from the top of bank is recommended for all new buildings. At least twenty-five feet from the top of bank should be provided for all improvements, when feasible. The area along the top of bank of a creek or waterway should be maintained in a natural state or restored to a natural condition, when feasible.

(t) Low Impact Development for Stormwater Management. Development plans should strive to replicate natural, predevelopment hydrology. To the maximum extent possible, the post-development stormwater runoff rates from the site should be no greater than pre-project rates. Development should include plans to manage stormwater runoff to maintain the natural drainage patterns and infiltrate runoff to the maximum extent practical given the site's soil characteristics, slope, and other relevant factors. An applicant may be required to provide a full justification and demonstrate why the use of Low Impact Development (LID) design approaches is not possible before proposing to use conventional structural stormwater management measures which channel stormwater away from the development site.

(1) Maximize Permeability and Reduce Impervious Surfaces. Use permeable materials for driveways, parking areas, patios and paths. Reduce building footprints by using more than one floor level. Pre-existing impervious surfaces should be reduced. The width and length of streets, turnaround areas, and driveways should be limited as much as possible, while conforming with traffic and safety concerns and requirements. Common driveways are encouraged. Projects should include appropriate subsurface conditions and plan for future maintenance to maintain the infiltration performance.

(2) Disperse Runoff On Site. Use drainage as a design element and design the landscaping to function as part of the stormwater management system. Discharge runoff from downspouts to landscaped areas. Include vegetative and landscaping controls, such as vegetated depressions, bioretention areas, or rain gardens, to decrease the velocity of runoff and allow for stormwater infiltration on-site. Avoid connecting impervious areas directly to the storm drain system.

(3) Include Small-Scale Stormwater Controls and Storage Facilities. As appropriate based on the scale of the development, projects should incorporate small-scale controls to store stormwater runoff for reuse or slow release, including vegetated swales, rooftop gardens or "green roofs", catch-basins retro-fitted with below-grade storage culverts, rain barrels, cisterns and dry wells. Such facilities may be necessary to meet minimum stormwater peak flow management standards, such as the no net increase standard. Facilities should be designed to minimize mosquito production. (Ord. 653 (part), 2014; Ord. 641 (part), 2013; Ord. 619 (part), 2010; Ord. 611 (part), 2008; Ord. 575 (part), 2003; Ord. 555, 2000; Ord. 543-1 (part), 1998; Ord. 514 §1 (part), 1993).

ATTACHMENT 2

Detailed Project Description:

Town of Ross Portion of Corte Madera Creek Flood Risk Management Project

January 4, 2022

APN	Address	Notes
n/a	Lagunitas Road bridge	Public ROW
073-242-27	n/a	Owned by Town of Ross
		Left bank of creek downstream of Lag bridge
073-242-06	n/a	Owned by Town of Ross
		Right bank of creek downstream of Lag bridge
073-242-10	29 Sir Francis Drake Blvd	Privately owned by Sterling Sam
		New easement in process
		1,515 square feet of new permanent easement
		Bank stabilization with planted rock slope
073-242-19	27 Sir Francis Drake Blvd	Privately owned
		New easement in process
		337 square feet of new permanent easement
		Rock slope bank stabilization and sheet pile wall
073-242-13	23 Sir Francis Drake Blvd	Privately owned
		New easement in process
		681 square feet of new permanent easement
070.040.44		Bank stabilization with planted rock slope
073-242-14	21 Sir Francis Drake Blvd	Privately owned,
		Easement exists- no new permanent easement
		108 square feet of temporary right to enter for
		Construction
072 072 40	10 Sir Francia Droka Plud	Drivetely ewood Ecomposit eviete
073-273-40		Concrete channel
073-273-39	178	District owned fee title
073-273-49	n/a	Concrete channel
010-210-40	104	District owned fee title
073-273-50	n/a	Concrete channel
		District owned fee title
073-273-51	n/a	Concrete channel
		District owned fee title
073-273-52	n/a	Concrete channel
		District owned fee title
073-273-53	n/a	Concrete channel
		District owned fee title
073-273-54	n/a	Concrete channel
		District owned fee title
073-273-55	n/a	Concrete channel
		District owned fee title
073-273-56	n/a	Concrete channel
		District owned fee title
074-011-82	n/a	Concrete channel, downstream end of Town
		Town of Ross owned, District easement exists

Project Description

This Project, by the Marin County Flood Control and Water Conservation District (District), provides flood risk reduction to Town of Ross by removing the wooden fish ladder structure that

currently partially obstructs flow where the natural creek corridor transitions into the concrete channel reach. The wooden fish ladder structure, which is perpendicular to the flow of the creek is visible from the multiuse path between the Ross post office and Fredrick Allen Park. The project focuses channel flows and stabilizes the creek topography leading into the concrete channel and provides the environmental benefit of removing major obstructions to salmon and steelhead migration.

Work within Ross extends from underneath the Lagunitas Road Bridge continuing downstream to the Town boundary. In addition to removal wooden fish ladder and wooden bulkhead structure it includes a channel reshaping transition including concrete wing walls and a rock chute, bank protection and retaining walls.

The project extends downstream outside of Ross into Kentfield. These downstream elements include partial removal of the right bank concrete wall and restoration of the downstream end of the concrete channel, construction of raised floodwalls along the concrete channel, new larger fish resting pools within the concrete channel, a new maintenance access ramp and a new storm water pump station in the Granton Park neighborhood. All this work is being done in accordance with environmental permitting and regulatory agencies, and coordination with the College of Marin, Friends of Corte Madera Creek, Ross Valley Sanitary District and the Town of Ross. In part, because of its size and complexity, only the Town of Ross portions of the project are presented here. Complete project information can be found on the District's Corte Madera Creek Flood Risk Management Project webpage Corte Madera Creek Flood Risk Management Project | Marin Watershed Program (marinwatersheds.org). This project was approved by the District Board of Supervisors through the Environmental Impact Review (EIR) process and is the locally preferred alternative plan (Alternative 1). Alternative 1 does not contain any work within Fredrick Allen Park.

The project spans several parcels within the Town of Ross, most of which are public and designated for compatible public uses. No variances are requested. The project is subject to public design review because of its square footage and grading volumes. The project won't build retaining walls that extend above adjacent grade of the top of creek bank. The project is entirely within the creek, at or below the height of the public pedestrian path, and is comprised of four main project elements, outlined below.

Specific project elements within Ross:

1. <u>Remove wooden fish ladder and wooden bulkhead structure.</u> This project will remove an originally temporary and aging wooden Denil fish ladder located in the stream bed at the transition between the Army Corps Unit 4 (natural channel reach upstream of the existing concrete channel) and Unit 3 (concrete channel just downstream of the natural channel) where the channel changes from earthen creek to concrete channel. The fish ladder is ineffective for fish passage due to the dilapidated condition, lack of an entrance pool at the upstream limit of the concrete channel, and the narrow range of operating flows. The wooden bulkhead structure containing the fish ladder is perpendicular to the channel and partially blocks the flow of water. It will be removed down to the bed of the concrete channel walls.

- 2. <u>Transition element concrete wing walls and rock chute.</u> Following removal of the fish ladder, wooden bulkhead structure and wooden retaining walls the earthen creek reach immediately upstream from the concrete channel will be modified to provide a smoother hydraulic transition of flow from the natural channel reach into the concrete channel. The transition element will extend approximately 80 feet upstream from the existing concrete channel inlet and will involve grading the channel bed and banks. Two new concrete retaining 'wingwalls' will replace the existing wooden retaining walls extending upstream. One wall (CW-01) is a 94' long concrete retaining wall that extends upstream on the right bank (looking downstream), within the vegetated area along the multiuse path. At its upstream end, wall CW-01 begins at topographical elevation of 24' matching the existing top of bank height in the vegetated creek bank area on the creek side of the existing chain link fence and slopes down 2 feet over it's length to connect to and conform with the existing concrete channel wall height at topographical elevation 22'. Wall CW-02 extends upstream from the existing concrete channel wall on the opposite bank, the left bank (looking downstream). Wall CW-02 has a topographical elevation of 22' that is flat over the 64' length, matches the existing elevation for the top of the concrete channel and the top of the natural earthen stream bank and is not parallel to the channel but angled out from the end of the existing concrete channel wall toward the private property of 21 Sir Francis Drake to funnel water into the channel. Both walls (CW-01 and CW-02) do not extend vertically above the adjacent grade of the top of creek bank height on the land side. Rock slope protection and biotechnical bank stabilization (native riparian plants) will be installed at the foot of these new vertical concrete walls. The bed of the creek will be a natural rock chute with large hydraulically sized embedded boulders designed to stabilize and maintain the channel grade and to provide a diversity of flow paths with varying velocities which will improve fish passage for a variety of flow conditions.
- 3. Creek toe protection and retaining walls. Removing the fish ladder and wooden bulkhead structure necessitates additional channel modifications upstream to accommodate the change in the anticipated flow dynamics, and to create a smooth, stable transition from the natural channel where the existing streambed elevation is higher than the concrete channel section which is currently a lower elevation. These modifications include removing gravel to lower the creek bed 1-2 feet between the fish ladder and the Lagunitas Road Bridge. Approximately 115 feet of the natural channel between Lagunitas Road Bridge and the creek behind 25 Sir Francis Drake Blvd. will be widened along the right bank (looking downstream) to increase hydraulic conveyance capacity, and site-specific creek bank toe protection and bank stabilization will be installed. Creek toe protection includes buried boulders, rock slope, bioengineered stabilization using willows and other native plantings, and two new retaining walls. Retaining wall SW-01, constructed of metal sheet pile, is the longest retaining wall at 220 feet long. It is located at the foot of the existing privately owned retaining walls behind 23, 25, and 27 Sir Francis Drake Boulevard and is intended to protect the existing privately owned walls from the potential risk of undermining their foundations. The top elevation of SW-01 is topographical elevation 14' and tapers down to 10' near the finished bed grade at the downstream end. Therefore, when initially installed it will protrude roughly 1-2' out of the bed of the existing creek. Once the channel is regraded and adjusts to its new profile an additional foot or two will be exposed. Wall CW-03 is a concrete retaining wall 66' long beginning just behind the post office. It slopes down from

topographical elevation 24.5' to 14' and has an angle in it which also helps funnel high water toward the center of the channel. This wall, CW-03, is necessary to maximize the hydraulic capacity of the channel, while preserving the existing mature trees along the creek bank above the wall.

Since the 2021 EIR, the upstream end of the project has been revised to terminate beneath the Lagunitas Road bridge. A line of boulders buried perpendicular to the creek in the gravel beneath the bridge are now proposed. They will act as a grade control structure to assure that the channel bed will not erode any farther upstream. The embedded boulder grade control structure eliminates any potential upstream channel bed incision should the channel lower itself naturally to the elevation of the top of the proposed rock grade control structure. The structure also helps in directing flows to the center of the creek. The boulders are buried below the creek bed and will expose only if the creek experiences excessive scouring. In most cases, one will not be able to see the grade control structure in the creek.

These project elements involve removal of trees and vegetation to construct a new riparian floodplain and natural creek channel. The proposed project would adhere to mitigation ratios and tree replacement standards for both the regulatory agencies and the Town of Ross requirements and would involve planting riparian vegetation to enhance habitat along the creek. Disturbed areas would be revegetated and planted with new trees to maintain and enhance the landscape habitat along the creek.

4. <u>Fish resting pools in concrete channel.</u> The project will include constructing 16 new fish resting pool structures in the concrete channel, 5 of these pools are within the Town of Ross limits. The new fish pools consist of 1.5 to 3 feet deep cast-in-place concrete depressions in the bottom of the concrete channel that are spaced approximately 150 feet apart, providing more efficient resting locations for upstream migrating salmonids. Fish passage success is modeled to increase to 90 percent passage with the proposed resting pools. Fish passage success is currently less than 5 percent.

The project adheres to the purposes of the Town of Ross General Plan and Design Review by preserving natural areas and existing site conditions. It achieves the goal of flood risk reduction with the most minimal amount of vegetation clearing, grading, cutting and filling. It preserves the natural elevations all around the creek. It replants compatible, riparian, native vegetation and keeps the existing appearance of the landscape. Natural materials are used with living 'biotechnical' bank stabilization techniques.

The project transitions from the existing concrete channel, which has a more visible aesthetic with its vertical grey concrete walls. In order to match the existing walls where they touch, the concrete walls, which do not extend above the ground surface, are currently proposed as grey. The walls will also be designed to match the texture, patterning, and edge bevel of the existing downstream concrete walls. The sheetpile wall is low and embedded within the creek bed. The visible wall height above the creek bed will be dependent on how seasonal flow deposits/scours sediment year to year but is expected to be at an average of an exposed 4 feet in height from the stream bed. Constructed of steel, the wall will have a flat cap and epoxy coating that could be tinted to a soft or muted color or left uncoated for a rusty brown color as it weathers. The project would not impact scenic vistas or views. It is currently shrouded by vegetation and will

grow back to that condition. The current design could accommodate a public access feature such as an overlook at the top of the creek bank above the new transition structure, should the community decide this is desired in the future.

Collaborative Design Opportunities

The project is currently at a 60% level of design, thus the full details of the project have not yet been developed. The District plans to work closely with Town staff to collaborate on design features that suit the Town. Some of these opportunities include:

- 1. Visual aesthetics of the retaining walls
- 2. Landscaping along the bike path and within the project area
- 3. Potential changes to the existing chain link fence

Background

In 1971 opposition to the concrete channel being built by the US Army Corps of Engineers (USACE) and Marin County Flood Control District (District) halted its progression upstream in the Town of Ross. The fish ladder and wooden bulkhead that was left in place was not intended to be permanent and does not perform well for flood mitigation or fish migration. Following the 2005 flood, the District's local Flood Zone 9 Program passed a parcel-based stormwater fee to raise money for matching grants and flood mitigation projects. Removal of the Ross fish ladder was a high priority project to come out of the District's subsequent 2011 Capital Improvement Plan.

In 2019 the District separated its agreement with the USACE to redefine this project as a locally managed alternative free of the constraints at the federal congressional level.

In 2020 the District prepared an Environmental Impact Report that included the removal of the concrete channel and creek restoration through Fredrick Allen Park.

On August 17, 2021 the Corte Madera Creek Flood Risk Management Project, Phase 1 Environmental Impact Report (EIR) was approved by Flood District Board of Supervisors. Following comments received as part of the EIR process and from the Town of Ross directly, Alternative 1 was selected, which does not include the Fredrick Allen Park restoration component.

Construction for the project is funded by the State Department of Water Resources with a prop 1E grant. The grant funding expiration deadline drives the project schedule, to complete construction by the end of 2022. The timeline to secure entitlements and get to construction will benefit from an expedited schedule.

References

Final EIR Link:

Corte MVadera Creek Flood Risk Management Project | Marin Watershed Program (marinwatersheds.org)

Town of Ross DPW staff report May 13, 2021 12. allen park flood control options.pdf (townofross.org) Town of Ross letter to District indicating Alternative 1 preference, May 14, 2021 Ross CMC Project Phase 1 Letter.pdf (marinwatersheds.org)

Checklist

1. Site Plan

- a. <u>Vicinity Map</u>- Appendix A page 2.
- b. <u>Boundaries</u>- Parcel boundaries are shown on Appendix A existing conditions Plan Sheets CV111, CV121, CV122, demolition and tree removal plans CD111, CD121, and Sheets CI113, CI114, CI115, CI116, CI117. While most of the work is on parcels owned by the Town of Ross, the creek bank on portions of three private parcels need to be stabilized and thus will require easements. These are shown in Unit 4 Easements Figures 1-3. No lot line adjustments are proposed. The County real estate division is currently in process with the private property owners to acquire these easements for the bank stabilization improvements.
- c. <u>Structures</u>- No building or traditional structures are proposed. Four retaining walls are proposed within the Town limits, as well as planted rock slope protection and the addition of 5 fish resting pools within the bottom of the existing concrete channel. Layout of the retaining walls is shown on Sheet Cl117. Retaining wall top elevations and specific locations are shown on Sheets Cl115, Cl116, Cl117. Channel cross sections shown on Cl312, Cl512, and Cl513.
- d. <u>Roofs and Building Heights</u>- No roofs or buildings proposed.
- e. Lighting- No lighting or electrical work proposed in Ross.
- f. <u>Noise Generators</u>- No noise generation in Ross. The pump station on Laurel Avenue in Granton Park is 1000' from the Town boundary and not audible from Ross. Refer to Appendix F- Noise analysis from EIR.
- g. <u>Natural Features</u>- The relationship to the creek channel is shown, note the 'thalweg' refers to the low-flow channel within the gravel bed of the creek. Trees and protection zones are shown. See Sheets CI-118 and CI-119 Planting Plan for sizes and species names.
- h. <u>Topography</u>- Existing topography is shown on Sheets CV-111, CV121, CV122. Existing and proposed site contours are shown on sheets CI113, CI114, CI115, CI116, CI117
- i. <u>Parking and Access</u>- No proposed changes to nearby parking aside from temporary use of parking spots for construction access and staging. Access to the construction areas within the creek will be from a temporary access ramp above the transition structure at the multiuse path behind the Town of Ross post office.
- j. <u>On-site Water Provision</u>- No proposed water provision changes. Temporary irrigation for vegetation reestablishment to be worked out with the Town of Ross.

- k. <u>Associated Site Design Elements</u>- Affected fences and any disturbed multi-use path paving along the creek will be replaced in the same configuration and with the design elements and features as currently exist.
- 2. Grading Plan Existing and proposed site contours and grading limits are shown on Sheets CI113, CI114, CI115, CI116, CI117.

Total Grading Vo	Total Grading Volumes		
Total Cut	-1384		
Total Fill	1326		
Activity and Type of	Volume of Fill	Imp	
Material	(cubic yards)		
	Total Grading Vo Total Cut Total Fill Activity and Type of Material	Total Grading Volumes Total Cut -1384 Total Fill 1326 Activity and Type of Volume of Fill Material (cubic yards)	

Area

	Cut		
Fish Ladder Removal, Transition Element, and Unit 4 Streambed Grading	Remove fish ladder	-3	118 ft ² / 25 LF
Fish Ladder Removal, Transition Element, and Unit 4 Streambed Grading	Remove channel bed material and soils	-1192	27,338 ft ² / 790 LF

Fill				
Bank Stabilization	Install Planted Rock	621	5,166 ft ² / 736LF	
	Install vegetated soil lifts	116	1387 ft ² / 220 LF	
	Install double layer fabric	157	1335 ft ² / 220 LF	
	Concrete Wing Walls and retaining walls	41	215 ft ² / 157 LF	
Fish Ladder Transition Element, and Unit 4 Streambed Grading	Install engineered streambed material	236	1,596 ft ² / 63LF	

Fish Pools in Concrete Channel Cut/Fill					
	Remove concrete, soil, and material	-189	1550 #2		
FISH POOIS	Install concrete and base material	155	1550 112		

- **3. Drainage Plan** No changes to the layout of the local stormwater drainage system are proposed, however two components are added to the existing stormdrain system to prevent backwater impacts from increased water surface elevations in the channel. One of these is an in-line check valve to prevent backflow. The other is the retrofit of an existing stormdrain manhole to allow it to be bolted in place. These are shown in Sheets CI161 and CI162.
- 4. Utilities Plan No changes to utilities are proposed in Ross. The existing utilities including the sanitary sewer siphon pipeline under the creek are shown in Sheet Cl117. These two existing 24" diameter sewer lines cross under the creek 50' upstream of the top of the concrete channel. Boulders will be embedded in the bed of this rock chute which will also protect the existing sewer main pipes in place.

- 5. Site Boundary Survey See Appendix C-Record of Survey as well as the Easement Boundary Maps at the end of Appendix A.
- 6. Site Topography Survey Survey information (1-foot contours) is provided on Sheets CV-111, CV121, CV122. The existing and proposed 1' contours are shown on Sheets CI113, CI114, CI115, CI116, CI117.
- 7. Site Staking The concrete retaining wall adjacent to the bike path can be staked ahead of the public meeting to show its proximity to the fence and pavement. Other retaining walls and features cannot be seen from the public right of way and therefore do not warrant staking. Staking in the creek bed is also not feasible as it would be subject to washing away this winter.
- 8. Story Poles The retaining walls do not extend above the adjacent banks of the existing or proposed creek banks and therefore story poles are not an applicable tool to convey the grade changes.
- 9. Stormwater Control Plan Per the BASMAA Post Construction Manual, stormwater control requirements are triggered by the creation or replacement of more than 2,500 square feet of impervious surfaces. Planted rock slope channel treatments are pervious to infiltration, so the only impervious surfaces created as part of this project are the concrete retaining walls. At 1' wide and a total of 224' long, creating 224 square feet of new impervious area. Precipitation landing on the concrete walls will drain to the adjacent vegetated areas for infiltration.
- 10. Constraints Map Plan sheets of existing conditions (CV) and improvements (CI) show constraints such as sanitary sewer lines, and existing retaining walls. The closest building to the construction area is in the rear of 23 Sir Francis Drake Blvd at the top of the creek bank. In this reach of the creek, the trees will be left in place and the toe of the bank will be built up, effectively pulling the flowline of the creek away from the private residence towards the middle of the channel.
- 11. Project Information See project description at beginning of document.
- 12. Floor Plans- n/a
- **13. Demolition Plans** See the Civil Demolition Sheets CD111, CD121, CD122, CD131 indicating removal and disposal of the existing wooden fish ladder and bulkhead structure spanning the channel and removal of the existing wooden retaining walls in this location. Also relevant is the saw cutting, removal, and disposal of concrete from the bottom of the existing concrete channel to enlarge and install five new fish resting pools within the concrete channel inside Town of Ross limits.

14. Building Elevations – Proposed retaining wall top elevations and adjacent grades are shown on CI sheets and do not exceed the height of the existing natural earthen top of creek bank elevations.

- **15.** Cross Sections See Sheets CI117, CI311, and CI312.
- 16. Materials, Colors, and Details-

Appendix B- Visual Simulations- shows materials, colors and textures of the existing creek conditions in this reach. At this point in the design process, all materials are assumed to match existing. The three new concrete retaining walls would be untinted concrete to match the existing concrete channel walls and Lagunitas Bridge.

The new sheet pile wall would extend roughly 2-4 feet out of the channel bed located opposite the Ross Post Office. The Project Plans call for all exposed steel to be epoxy coated which could be tinted to an earth tone color.

At the project site, 4 and 6- foot chain link fence currently borders the multi-use path. In some places, such as directly above the fish ladder, it would be removed during construction and replaced to match the existing appearance. See Sheet CI-531.

17. Landscape /Revegetation Plan -

See Sheets CI- 118 and CI-119, Planting Plan. All replacement plants are native to Marin County. No plants will require permanent irrigation, however temporary irrigation will be needed for a few years until plants are established to ensure their survival. Municipal water from Town of Ross meters is located in utility boxes on either side of the creek bank. Existing trees and exclusion protection zones are in Appendix A, Sheets CI- 118 and CI-511.

18. Vegetation Management Plan –

All of the proposed plants are native to Marin County and are not considered fire-hazardous plants. According to the Fire Safe Marin plans several species are fire resistant.

Vegetation management along this reach of the creek is implemented by the Town of Ross Public Works, with permitting and financing support from the Flood Zone 9 flood fee budget. Management activities are employed to achieve three main goals:

1. Maintain channel flow capacity.

2. Reduce fire fuels and adhere to Fire Safe Marin recommendations for defensible space (at least one area is in Zone 1- within 30 feet of a structure).

3. Restore creek habitat by removing invasive nonnative plants and revegetating with native plants.

Vegetation management activities would not include ground-disturbing activities. These activities employ vegetation control methods such as cutting and removing invasive vegetation above the ground by hand or with loppers, hand saws, chainsaws, pole saws, weed eaters, and other hand tools. Removal of nonnative vegetation, tree removal, and thinning employ a mix of tools including chainsaws, loppers, hand saws, pole saws, hedge trimmers, and other hand tools.

19. Title Report-

Title information was collected and verified by the District as part of the Record of Survey (Appendix C). 13 of the 18 parcels that this project overlaps are publicly owned (District or Town of Ross). The County Public Works Real Estate Division is working on the three proposed

easements on private land so title information for those parcels will get a second verification as part of the easement acquisition process.

20. Neighborhood Outreach -

Appendix E, Summary of Public Outreach for Corte Madera Creek Flood Risk Management Project, includes neighborhood outreach over the last 18 months and specific to the project and EIR process since the split with the US Army Corps of Engineers. Communications with the three adjacent neighbors, from whom easements will be purchased, will follow standard Marin County Real Estate procedures and follow State and other applicable laws. The District and Ross should clarify expectations for other outreach going forward.

21. ADU n/a

22. Operational Characteristics –

The project will not change any adjacent operating characteristics except, by keeping more water in the channel, the project would reduce the incidence of flooding and road closures in Ross. At the inception of flooding in Ross, the multiuse path does not flood. This would continue to be the case and increase the storm size at which out of bank flows begin.

- A. No manual operation will be required as a part of the design of the project. How Town staff engage with the project area after construction will be at the discretion of the Town. Annual creek vegetation needs are assessed by the Town annually and might result in a few days of work by the Town, the Flood Control District, or their contractors as an approved Memorandum of Understanding Agreement is negotiated. The fish resting pools in the concrete channel are designed to be self-scouring so could result in a decrease in those maintenance activities. Currently gravels in the fish resting pools are manually dug out by the Flood Control District every year, however they probably fill in after the first big storm, and are then inaccessible due to water levels within the concrete channel.
- B. Hours of operation. n/a The outcome of the project will not open or close, it passively allows stormwater runoff to flow through Town behind the existing fence. No lights, noise, odors or traffic will be changed. Standard construction operating hours will be required of the Contractor from 8:00 am to 5:00 pm Monday through Friday, with the exception that the Contractor may request additional working hours which must be approved in writing by both the Flood District and the Town of Ross.
- **C**. Peak hours- n/a, No visitation.
- D. Special Events- n/a, No events
- E. Deliveries- n/a, No deliveries
- **F**. Noise levels- The project will only affect ambient creek-flow noise in the way it changes the hydraulics. By removing the hydraulic jump that occurs at high flows, it could reduce the roaring sound of the creek at certain flows. Otherwise, no expected impacts See Appendix F.
- **G**. Path of travel at the site- No permanent changes to the adjacent path are proposed. During construction the section of path behind the Ross Post Office and adjacent parking lots will

require a detour in order to accommodate the proposed access and staging area behind the Ross Post office and adjacent to the creek channel.

23 & 24. Property Deed and Property Status Information

See #19. Title information was collected and verified by the District as part of the Record of Survey (Appendix C).

25. Photo Simulations –

Most of the project elements will have limited visibility by the public because they are located below street/path level, down lower in the creek channel. Maps and figures showing grading, tree removal and a simulation of the fish ladder location are included as Appendix B- Visual Simulations.

26. Acoustical Survey –

A noise study was produced as part of the project EIR and is attached here as Appendix F. This focuses on the construction noise and includes the noise impacts from the discarded Fredrick Allen Park alternative, such as concrete channel removal which should be ignored. The acoustic survey methods and results including two noise survey locations in the Town of Ross are discussed on pages 3.9-7 through 3.9-9. The Granton Park pump station is 1000' feet from the Town boundary and inaudible from Ross therefore, there are no expected post-construction noise impacts.

	Tree ID	Type of Tree	Scientific Name	Trunk Dia (in)
1	185	White alder	Alnus rhombifolia	20.5
2	186	Arroyo willow	Salix lasiolepis	20
3	20489	White alder	Alnus rhombifolia	25
4	193	Boxelder	Acer negundo	19
5	194	Boxelder	Acer negundo	5
6	195	White alder	Alnus rhombifolia	19
7	196	White alder	Alnus rhombifolia	10
8	197	White alder	Alnus rhombifolia	8
9	207	Alder	Alnus rhombifolia	11
10	198	Arroyo willow	Salix lasiolepis	24
11	199	Arroyo willow	Salix lasiolepis	11.5

27. Arborist Report – Tree removal list. Tag numbers correspond to labels on sheet CD-111

28. Photometric Study – Photometric studies have not been done. No lighting is proposed, and the project, all in the creek channel, is not expected to be visible after the reestablishment of vegetation. The aesthetics section here

https://www.marinwatersheds.org/sites/default/files/2021-

07/CMC_FEIR_V2_3.1_Aesthetics.pdf includes photos of the area on pages 3.1-7 through 3.1-9

29. Preliminary Geotechnical Report- Appendix D

30. Hydrological Report- See Final EIR Hydrology and Water Quality section 3.8 Link:

CMC_FEIR_V2_3.9_Hydro_WQ.pdf (marinwatersheds.org)

- **31.** Biological Site Assessment- Final EIR Biological Resources section-CMC_FEIR_V2_3.3_Biological_Res.pdf (marinwatersheds.org)
- **32.** Archaeology Report- Final EIR section: CMC_FEIR_V2_3.14_Tribal_Cultural.pdf (marinwatersheds.org)
- **33.** Historical Resources Evaluation Report- n/a, Without any structures at the project site, there isn't a nexus to historical resources.
- **34. Traffic/Parking Study** n/a, Without any interpersonal contact or commercial services, the project would not change automobile or pedestrian traffic.
- **35. Construction Management Program** Access routes and staging areas are described in Appendix A, Sheet G-103. Construction management details are still in development.
 - **A**. Final plans are currently being developed.
 - B. Dust Reduction measures per BAAQMD
 - C. Erosion and Sediment Control Plan, SWPPP
 - D. Traffic Control Plan
 - E. Construction Related Parking Plan
 - F. Tree Protection Fencing
 - **G**. Construction Phasing

Table of Contents-

Appendix A Plans

Sheet (of	Drawing	
49)	Number	Description
2		Vicinity Map
3	G-002	Full Project Sheet Index
4	G-101	Overall Site Plan, Key Map
5	G-102	Survey Control Plan and Notes
6	G-103	Construction Access Routes and Staging Areas Plan
7	BB-101	Boring Location and Stationing
8	C-001	Civil Abbreviations, Symbols Legend, and Civil General Notes
Existing		
9	CV-111	Unit 4 Existing Site Plan
10	CV-121	Upstream Allen Park Existing Site Plan
11	CV-122	Mid Allen Park Existing Site Plan
12	CV-131	Downstream Allen Park Existing Site Plan
		Demolition
13	CD-111	Unit 4 Improvements- Demolition and Tree Removal Plan
14	CD-121	Upstream Allen Park Demolition (Fish Resting Pools Only)
15	CD-122	Mid Allen Park Demolition (Fish Resting Pools Only)
16	CD-131	Downstream Allen Park Demolition (Fish Resting Pools Only)
		Improvements
17	CI-111	Unit 4 Improvements Plan Overview and Profile

18	CI-112	Unit 4 Improvements Plan upstream from Lagunitas Bridge
		(no work upstream of bridge)
19	CI-113	Unit 4 Improvements Plan at Lagunitas Bridge
20	CI-114	Unit 4 Improvements Plan
21	CI-115	Unit 4 Improvements Plan
22	CI-116	Unit 4 Improvements Plan
23	CI-117	Unit 4 Improvements Plan at Fish Ladder
24	CI-118	Unit 4 Improvements Planting Plan- RLLA
25	CI-119	Unit 4 Improvements Planting Plan- RLLA
26	CI-311	Unit 4 Improvements- Sections 1
27	CI-312	Unit 4 Improvements- Sections 2
28	CI-511	Unit 4 Improvements- Details 1
29	CI-512	Unit 4 Improvements- Details 2
30	CI-513	Unit 4 Improvements- Details 3
31	CI-121	Upstream Allen Park Improvements (Fish Resting Pools Only)
32	CI-122	Mid Allen Park Improvements (Fish Resting Pools Only)
33	CI-131	Downstream Allen Park Improvements (Fish Resting Pools
		Only)
34	CI-531	Fence Details
35	CI-161	Interior Drainage Plan- Ross Common
36	CI-162	Interior Drainage Plan- Poplar
		Real Estate
37		Easement Figure 1
38		Easement Figure 2
39		Easement Figure 3
		Construction Management
40	Figure 1	Staging Area at Post Office
41	Memo	Possible Construction Schedule

Appendix B- Visual Simulations

Appendix C- Record of Survey

Appendix D- Geotechnical Investigation Report

Appendix E- Public Outreach Summary

Appendix F- Noise Analysis from Final EIR

ATTACHMENT 3

1	Appendix B Sheet Index
2	Project Site Map
3	Existing Conditions- Views from Public Right of Way
4	Existing Conditions- Within the Creek
5	Problem Statement & Solution
6	Demolition and Grading
7	Tree Removal
8	Four New Retaining Walls
9	Bank Stabilization
10	New Channel Cross Section
11	Fence / Gate Plan
12	Replanting Plan
13	New Fish Resting Pools in Concrete Channel
14	Property Line and Easements, Upstream
15	Property Line and Easements, Mid- reach
16	Property Line and Easements, Downstream
17	Construction Management and Staging

Vicinity Map, from EIR document



Source: (Tele Atlas North America, Inc., 2019; GHD, 2020; USGS, 2012; GHD, 2020; Prunuske Chatham, Inc., 2020; Golden Gate National Parks Conservancy, 2018)





Looking Upstream at Fish Ladder

Problem: This wall ("Fish Ladder") blocks flow.

Solution:

Remove wall and obstructions to flow Build transition with secure natural channel bed Protect existing creekbanks from lowered bed Replant





Project Element	Activity and Type of Material	Volume of Fill (cubic yards)	Impact Area	
Cut				
Fish Ladder Removal, Transition Element, and Unit 4 Streambed Grading	Remove fish ladder	-3	118 ft ² / 25 LF	
Fish Ladder Removal, Transition Element, and Unit 4 Streambed Grading	Remove channel bed material and soils	-1192	27,338 ft ² /790 LF	

Demolition	and	Grading	•
Demontion	anu	Glauing.	•

Remove Fish Ladder (1) Cut right bank back at two constriction points (2)

Lower creek bed gravels (3)

Tree removal (next slide)

	F:11				
Fill					
Bank Stabilization	Install Planted Rock	621	5,166 ft ² / 736LF		
	Install vegetated soil lifts	116	1387 ft ² / 220 LF		
	Install double layer fabric	157	1335 ft ² / 220 LF		
	Concrete Wing Walls and retaining walls	41	215 ft ² / 157 LF		
Fish Ladder Transition Element, and Unit 4 Streambed Grading	Install engineered streambed material	236	1,596 ft ² / 63LF		

Fish Pools in Concrete Channel Cut/Fill				
Fish Pools	Remove concrete, soil, and material	-189	1550 #2	
	Install concrete and base material	155	1550 112	



Remove Fish Ladder and wooden walls

6



A total of 11 trees are proposed to be removed

They all block the flow of water and grow where the ground will be excavated to increase channel capacity



	Tree ID	Type of Tree	Trunk Dia (in)		
1	185	White alder	20.5		
2	186	Arroyo willow	20		
3	188	Two petaled ash	12		
4	193	Boxelder	19		
5	194	Boxelder	5		
6	195	White alder	19		
7	196	White alder	10		
8	197	White alder	8		
9	198	Arroyo willow	24		
10	199	Arroyo willow	11.5		
11	207	Alder	11		



Looking Downstream to Fish Ladder narrows

Looking Downstream behind Post Office



Four New Retaining Walls

Three concrete walls (CW-01, 02, 03) on creek bank do not extend above top of bank. CW-01 and CW-02 are wingwall extensions of existing concrete channel walls.

CW-03 is on creek bank behind post office. Sits lower on the creek bank and slopes downstream.

SW-01 is a sheet pile wall at the foot of the existing retaining walls. It extends two feet above the current gravel bed but will allow the channel to scour deeper without undermining the existing walls.





Bank Stabilization

Rip rap planted with live willow stakes will be used to protect against erosion at the foot of retaining walls and eroding banks Vegetated soil lifts in erosion control fabric will be used higher on the banks where disturbed.

Example of new channel cross section

Upstream of fish ladder





Fences

120 feet of 4-foot black fence will be removed during construction to build one of the concrete walls.

No gates affected or proposed.



Current proposed plan replaces fence with 6-foot silver fence and shifts it toward the creek along the top of the new wall. This fence type matches the rest of the project downstream but could be matched to existing. The realignment leaves opportunities for a future parklet or other use.


<u>Replanting Plan</u> Native, riparian, fire-resistant species

Maple, Buckeye, Alder, Oak, Willow, Elderberry

Sedge, Rush, Currant, Coffeeberry





PLANTING CONTAINER LEGEND							
SCHEDULED SIZE	CONTAINER SIZE	CONTAINER DIMENSIONS					
SC	SUPERCELL	1.5" DIA. X 8.25" DEEP					
D16	DEE POT 16	2" DIA. X 7" DEEP					
D40	DEE POT 40	2.5" DIA. X 10" DEEP					
D60	DEE POT 60	2.5" DIA. X 14" DEEP					
TB4	TREE BAND 4	4" SQ. X 10" DEEP					
TP 4	TREE POT 4	4" SQ. X 14" DEEP					
LS	Live Stem	Live cuttings per specs.					



PLANTIN	G SCH	IEDULE			
TREES					
ID	Qty	Botanical Name	Common Name	Scheduled Size	Spacing
ACEMCP	12	Acer macrophyllum	Big Leaf Maple	TP4	25'0"
AES CAL	10	Aesculus californica	California Buckeye	TP4	15'0"
ALN RHO	40	Alnus rhombifolia (rubra)	White Alder	TP4	12'0"
QUE AGR	5	Quercus agrifolia	Coast Live Oak	D60	20'0"
QUE LOB	3	Quercus lobata	Valley Oak	D60	30'0"
SAL LAS-LS	198	Salix lasiolepis	Arroyo Willow	LS	15'0"
SAM NIG	9	Sambucus nigra ssp. caerulea	Blue Elderberry	TP4	12'0"
SHRUBS / P	ERENNI	ALS			
ID	Qty	Botanical Name	Common Name	Scheduled Size	Spacing
CYP ERA	29	Cyperus eragrostis	Tall Flatsedge	D16	2'6"
FRA CAL	42	Frangula californica ssp. californica	Coffeeberry	TB4	4'0''
JUN PAT	86	Juncus patens	Grey Rush	SC	2'0"
DIR CAN	7	Bib os sanas vinou um var alutinos um	Elowering Current	D 40	FIOT





New Fish Resting Pools in Concrete Channel

16 Total, 5 within Ross Leave existing pools in place.







Filename: N:USiSanta RosalProjects)111111188581 MCFC ON-CALL TECH SUPPORTI06-CADICMCFRMPICADIFigures/Property Lines/11188581 FIGURES - U4 PLs.dwg Plot Date: 4 November 2021 - 5:39 PM



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LEGEND:



PROPERTY LINE ADD EASEMENT LINE, PERMANENT ADD EASEMENT LINE, TEMPORARY CREEK HORIZONTAL CONTROL LINE







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Construction Management and Schedule

STAGING AREA AT TOWN OF ROSS POST OFFICE

SCALE 1" = 60'



Table 1 - Possible construction windows

Project Element	From	То	Applicable Permits
Corte Madera Creek dewatering	6/15/2022	10/15/2022	404, NMFS, CDFW, 401
Unit 4 in-stream construction	6/15/2022	10/15/2022	404, NMFS, CDFW, 401
Fish pools construction	6/15/2022	10/15/2022	404, NMFS, CDFW, 401
Access Ramp on District property	3/1/2022	12/31/2022	
Access Ramp at creek connection	6/15/2022	10/15/2022	404, NMFS, CDFW, 401
Granton Park pump station	3/1/2022	12/31/2022	
Floodwalls	3/1/2022	12/31/2022	
New storm drain outlets to the concrete channel	4/15/2022	10/15/2022	
Lower College of Marin in-stream construction	9/1/2022	10/15/2022	USFWS
Lower College of Marin overbank construction	9/1/2022	12/31/2022	USFWS

ATTACHMENT 4

Corte Madera Creek Flood Risk Management Project Draft 60% Design Submittal

Plan Sheets Specific to Town of Ross





Plot Date: 4 January 2022 - 2:26 PM Cad File No: N:USISanta Rosal/Projects1111/1188581 MCFC ON-CALL TECH SUPPORT/06-CADIFigures/FRMP COMPONENTS/11188581-FIGURE 1 with Ramp.dwg

GENERAL NOTES

1. GEN	ERAL	2.6
1.1.	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS.	:
1.2.	THE CONTRACTOR SHALL HAVE A SUPERINTENDENT OR REPRESENTATIVE ON SITE AT ALL TIMES DURING CONSTRUCTION.	
1.3.	THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLYING WITH ALL CONDITIONS CONTAINED IN PROJECT RELATED PERMITS AND IN OBTAINING ANY OTHER PERMITS THAT MAY BE REQUIRED.	:
1.4.	CONTRACTOR SHALL CONDUCT FIELD REVIEW AND VERIFY ALL LINES, LEVELS AND CONDITIONS PRIOR TO BEGINNING OF ANY WORK. SUBMIT TO FLOOD DISTRICT A LIST OF IDENTIFIED PROBLEM AREAS. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AND COORDINATE WITH PROJECT ENGINEER REGARDING THE RELOCATION OF EXISTING UTILITIES AS NEEDED.	
1.5.	ALL MATERIALS, REQUIRED FOR THE COMPLETE EXECUTION OF THE PROJECT, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.	2.
1.6.	CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.	:
1.7.	EXISTING FACILITIES INCLUDING, BUT NOT LIMITED TO FLOOD WALLS, BRIDGES, ROADS, WALLS, FENCES, UTILITIES AND STRUCTURES DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO MATCH ORIGINAL CONDITION AND TO THE SATISFACTION OF THE PROJECT ENGINEER WITHOUT ADDITIONAL COST TO THE GOVERNMENT.	3. 3.
2 CON	STRUCTION	
2.1.	HOURS OF WORK	
2.1.1.	THE CONTRACTOR SHALL CONDUCT ALL WORK BETWEEN THE HOURS OF 0700 AND 1600, MONDAY THROUGH FRIDAY, UNLESS AUTHORIZED BY THE PROJECT ENGINEER. CONTRACTOR AND CREW SHALL NOT ENTER SITE PRIOR TO 0630 AM OR LEAVE THE SITE AFTER 1830 PM, MONDAY THROUGH FRIDAY. NO EQUIPMENT ENGINES OR OTHER NOISE GENERATING ACTIVITIES SHALL BE STARTED PRIOR TO 0730 OR CONTINUE PAST 1800, MONDAY THROUGH FRIDAY. WEEKEND AND HOLIDAY WORK WILL ONLY BE CONDUCTED AFTER PRIOR AUTHORIZATION FROM THE PROJECT ENGINEER.	3.2
2.2.	HOURS FOR EQUIPMENT DELIVERY	
2.2.1.	EQUIPMENT DELIVERY, SUPPLY DELIVERY AND SERVICE/FUELING VEHICLES SHALL ONLY ENTER AND EXIT SITE WORK AREAS BY THE APPROVED ACCESS ROADS DURING NORMAL WORKING HOURS. EQUIPMENT DELIVERY, SUPPLY DELIVERY OR SERVICE/FUELING VEHICLES SHALL ONLY OCCUR BETWEEN 0800 AND 1600, MONDAY THROUGH FRIDAY.	4. 4.
2.3.	DAILY COMMUNICATIONS	4
2.3.1.	CONTRACTOR SHALL MAINTAIN FREQUENT COMMUNICATIONS, AT LEAST DAILY, WITH THE ON-SITE PROJECT ENGINEER OR HIS/HER AUTHORIZED REPRESENTATIVE TO DISCUSS DETAILS OF IMPLEMENTATION, ORDER OF WORK, METHODS OF MINIMIZING ENVIRONMENTAL IMPACTS AND OTHER RELEVANT COMPONENTS OF CONSTRUCTION. THERE WILL BE COMMUNICATION WITH THE ENVIRONMENTAL MONITOR AT LEAST ONCE PER WEEK EITHER IN A MEETING WITH THE PROJECT ENGINEER AND CONTRACTOR REPRESENTATIVE OR INDIRECTLY THROUGH THE PROJECT ENGINEER.	
2.4.	OFF-SITE TRAFFIC RESTRICTIONS AND SITE ACCESS	
2.4.1.	THE PROJECT ENGINEER WILL DOCUMENT DESIGNATED ROUTES AND ENTRY POINTS FOR ACCESS TO THE SITE BY PERSONNEL AND EQUIPMENT. NO OTHER ROUTE MAY BE USED WITHOUT PRIOR APPROVAL OF THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL NECESSARY SIGNS, BARRICADES, AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVEYANCE, AND SAFETY OF THE PUBLIC.	4.2
2.5.	CLEANING, TRASH, DEBRIS, AND STORAGE	
2.5.1.	THE SITE WILL BE KEPT FREE OF TRASH AT ALL TIMES. ALL ITEMS USED FOR CONSTRUCTION PURPOSES WILL BE REMOVED FROM THE SITE AT THE COMPLETION OF CONSTRUCTION.	
2.5.2.	STORAGE OF CONSTRUCTION MATERIAL AND EQUIPMENT ON STREETS WILL NOT BE PERMITTED.	
2.5.3.	CONSTRUCTION EQUIPMENT, TOOLS, ETC. SHALL NOT BE CLEANED OR RINSED INTO A STREET, GUTTER OR STORM DRAIN.	
2.5.4.	A CONTAINED AND COVERED AREA ON-SITE SHALL BE USED FOR STORAGE OF CEMENT BAGS, PAINTS, FLAMMABLE, OILS, FERTILIZERS, PESTICIDES, OR ANY OTHER MATERIALS THAT HAVE POTENTIAL FOR BEING DISCHARGED TO THE STORM DRAIN SYSTEM BY WIND OR IN THE EVENT OF A MATERIAL SPILL.	4.3
2.5.5.	ALL TEMPORARY ON-SITE CONSTRUCTION PILES SHALL BE SECURELY COVERED WITH A TARP OR OTHER DEVICE TO CONTAIN DEBRIS.	
2.5.6.	CONCRETE TRUCKS AND CONCRETE FINISHING OPERATIONS SHALL NOT DISCHARGE WASH WATER INTO THE STREET GUTTERS OR DRAINS.	
T		

UTILITY LOCATION

- LOCATIONS OF ALL EXISTING UTILITIES MAY NOT BE SHOWN OR AR 2.6.1. APPROXIMATE ONLY. THE CONTRACTOR SHALL USE EXTREME CAU WORKING NEAR THE UTILITIES. ANY AND ALL DAMAGE SHALL BE IN REPAIRED AND/OR RESTORED TO ITS ORIGINAL CONDITION BY THE HIS/HER EXPENSE. UTILITIES INCLUDE, BUT ARE NOT LIMITED TO E SEWER, WATER, LANDSCAPE IRRIGATION, AND COMMUNICATION.
- 2.6.2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY DEPTH AND HEIGHT. THE CONTRACTOR SHALL COOPERATE WITH TO EXPEDITE THE RELOCATION OR ADJUSTMENT OF THEIR UTILITIE INTERRUPTION OF SERVICE AND DUPLICATION OF WORK. THE COM EXERCISE CARE WHEN WORKING NEAR EXISTING UTILITIES AND SH RESPONSIBLE FOR ALL DAMAGE, BREAKS AND/OR LEAKS. IF DAMA CONTRACTOR SHALL REPAIR UTILITY AT NO ADDITIONAL EXPENSE GOVERNMENT.
- PROPOSED MODIFICATIONS TO PLANS OR SPECIFICATIONS
- 2.7.1. ANY DEVIATIONS FROM PLANS AND SPECIFICATIONS NEED TO BE PROJECT ENGINEER PRIOR TO IMPLEMENTATION. NO CHANGE IS A WITHOUT PROJECT ENGINEER APPROVAL.
- 2.7.2. SHOULD DISCREPANCIES EXIST BETWEEN ANY ACTUAL ELEVATION POSITIONS AND THESE PLANS, THE CONTRACTOR SHALL IMMEDIAT PROJECT ENGINEER.

PERMITTING

COMPLIANCE WITH REGULATORY PERMITS

- 3.1.1. THE CONTRACTOR SHALL COMPLETELY REVIEW, BE FAMILIAR WITH THE TERMS OF ALL PERMITS AND AGENCY APPROVALS FOR THIS P PROJECT ENGINEER WILL BE RESPONSIBLE FOR SECURING ALL PE WILL BE AVAILABLE FROM THE PROJECT ENGINEER AND WILL REM PROJECT SITE THROUGHOUT THE DURATION OF CONSTRUCTION.
- COMPLIANCE WITH COUNTY AND STATE PERMITS
- 3.1.1. THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURING ALL PER COMPLIANCE WITH ANY RELEVANT COUNTY OR STATE PERMITS NE PROPOSED CONSTRUCTION ACTIVITIES INCLUDING, BUT NOT LIMIT AND ENCROACHMENT PERMITS RELATED TO THE DELIVERY AND H CONSTRUCTION EQUIPMENT AND MATERIALS, AND TRAFFIC CONTR (TRAFFIC SAFETY PLAN). THE CONTRACTOR MUST FOLLOW ALL PE REQUIREMENTS FOR HAULING LARGE VEHICLES OR EQUIPMENT T SITE. IF A COUNTY, STATE, OR CITY ROAD IS USED FOR HEAVY EQU TRANSPORT OR WIDE LOADS, PERTINENT CLEARANCES MUST BE

ENVIRONMENTAL

AIR QUALITY AND CONSTRUCTION NOISE RESTRICTIONS

- 4.1.1. THE CONTRACTOR AT HIS/HER OWN EXPENSE SHALL KEEP THE PR SURROUNDING AREAS FREE FROM DUST NUISANCE. THE WORK SI CONFORMANCE WITH THE AIR POLLUTION STANDARDS AND REGUL STATE OF CALIFORNIA, DEPARTMENT OF HEALTH. THE STATE SHA SUPPLEMENTARY MEASURES IF REQUIRED.
- THE CONTRACTOR SHALL IMPLEMENT MEASURES TO REDUCE CON 4.1.2. INCLUDING: ENSURING THAT ALL CONSTRUCTION EQUIPMENT HAS DEVICES AT LEAST AS EFFECTIVE AS THOSE ORIGINALLY SUPPLIED MANUFACTURER AND THAT NO EQUIPMENT WITH AN UNMUFFLED E OPERATED; LIMITING CONSTRUCTION ACTIVITIES TO SPECIFIED TIM PROHIBITING UNNECESSARY WARMING UP, IDLING, OR ENGINE REV DIESEL POWERED EQUIPMENT OR VEHICLES.
- CONTAMINATION PREVENTION RESTRICTIONS
- THE CONTRACTOR SHALL TAKE PREVENTATIVE MEASURES TO AVC 4.2.1. LEAKS ON THE SITE FROM PETROLEUM PRODUCTS. THE CONTRAC PREPARE A SPILL PREVENTION AND RESPONSE PLAN THAT WILL BI THE PROJECT ENGINEER AND ENVIRONMENTAL MONITOR, AS WELI AGENCIES. THIS SHALL BE IMPLEMENTED AND ADHERED TO BY TH AT A MINIMUM, THIS PLAN SHALL REQUIRE THAT STAGING, STORAG REFUELING AREAS AND ANY EQUIPMENT REPAIR OR SIMILAR ACTIV WHEN EQUIPMENT IS AT LEAST 100-FEET FROM ANY WETLAND, DIT FENCED SENSITIVE AREA. REFUELING SHALL ONLY OCCUR IN AREA THE PROJECT ENGINEER OR ENVIRONMENTAL MONITOR. STAGING AREAS SHALL OCCUR ONLY IN DESIGNATED AREAS: ANY STAGING WETLANDS OR OTHER SENSITIVE HABITATS WILL REQUIRE PRIOR A THE PROJECT ENGINEER OR ENVIRONMENTAL MONITOR. PROTEC BE USED DURING REFUELING OR EQUIPMENT REPAIR. THE CONTR INSPECT AND FULLY CLEAN UP ANY SUCH LEAKS OR SPILLS THAT (SITE.
- CULTURAL RESOURCE RESTRICTIONS
- 4.3.1. IF ANY ITEMS OF POTENTIAL CULTURAL OR ARCHEOLOGICAL SIGNI ENCOUNTERED DURING EXCAVATION OPERATIONS, CONSTRUCTIO AREA SHALL BE HALTED IMMEDIATELY, AND THE CONTRACTOR SHA PROJECT ENGINEER.

No.	Issue	ie	Drawn	Approved	Date

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2.

Plotted By: James Pan

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AUTION WHEN			1	G- 001 G- 002	SHEET INDEX
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Y LOCATION.		$\begin{pmatrix} 1 \\ 1 \end{pmatrix}$ DETAIL INDICATOR	6	G- 601	CIVIL GEOT
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		X-301	13 14	CV 122 CV 131	FREDERICK A
ALLOWED		SHEET NUMBER ON WHICH SECTION	15	CV 132	FISH RESTING
		APPEARS	16 17	CV 133 CV 141	GRANTON PA
NS OR HORIZONTAL TELY NOTIFY THE			18 19	CV 151 CV 152	UNIT 2 FLOOD
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			23	CD 132	FISH RESTING
H AND ADHERE TO PROJECT. THE		DRAWING DESIGNATION	25 26	CD 133 CD 141	FISH RESTING
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RMITS AND			31	CI 114	UNIT 4 IMPRC
EEDED FOR THE		G GENERAL	32	CI 115 CI 116	UNIT 4 IMPRC
		BB GEOTECHNICAL	34 35	CI 117 CI 118	UNIT 4 IMPRC
ROL MEASURES ERTINENT		C CIVIL CV CIVIL EXISTING CONDITION	36	CI 311	UNIT 4 IMPRC
O THE PROJECT UIPMENT		CD CIVIL DEMOLITION	37 38	CI 312 CI 511	UNIT 4 IMPRC
OBTAINED.			39 40	CI 512 CI 513	UNIT 4 IMPRC
		S STRUCTURAL	41	CI 121	FREDERICK A
		E ELECTRICAL	42	CI 122 CI 131	FISH RESTING
			44 45	CI 132 CI 133	FISH RESTING
ROJECT AREA AND SHALL BE IN			46	CI 134	FISH RESTING
		0 GENERAL	47	CI 531 CI 532	GRANTON PA
		1 PLANS	49 50	CI 141 CI 142	GRANTON PA
NSTRUCTION NOISE		2 ELEVATIONS 3 SECTIONS	51 52	CI 341	GRANTON PA
SOUND-CONTROL D BY THE		4 LARGE SCALE VIEWS	53	CI 342 CI 541	GRANTON PA
EXHAUST IS MES' AND		5 DETAILS 6 SCHEDULE AND DIAGRAMS	54 55	CI 542 CI 543	GRANTON PA
EVVING OF GAS OR			56 57	CI 151	UNIT 2 FLOOD
			58	CI 153	UNIT 2 FLOOD
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OID ANY SPILLS OR CTOR SHALL			60	S- 002	
BE APPROVED BY			62	S- 112	UNIT 4 - STRU
HE CONTRACTOR.			63 64	S- 113 S- 114	UNIT 4 - CON
GE, AND IVITY TAKE PLACE			65 66	S- 115	UNIT 4 - STEE
TCH, POND, OR EAS APPROVED BY			67	S- 512	UNIT 4 - STRU
G AND STORAGE			68 69	S- 513 S- 131	FISH RESTING
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	SHEET INDEX				
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ALL SITE PLAN, KE	Y MAP	X	X		
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ERICK ALLEN PARI	K IMPROVEMENTS - PLAN STA. 364+00 TO 366+00 PLAN STA. 357+50 TO 364+00	x	X		
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	100	2216788.87	5974846.59	36.67	NGS DISK	113	2178220.38	5969698.26	22.03	CP 60D	126	2178484.99	5969581.63	19.45	SPK	139	2178978.89	5969110.28	11.81	SPK			
	101	2178292.96	5969913.06	27.82	FND MAG	114	2178147.90	5969764.45	23.37	CP MAG&WASH	127	2178637.37	5969456.10	20.78	SPK	140	2178937.62	5969094.48	23.52	CP MAG			
0	102	2178050.27	5970155.59	28.91	FND MAG	115	2177996.66	5969900.60	21.00	CP MAG&WASH	128	2178695.01	5969398.29	20.58	SPK	141	2176380.26	5971092.12	14.90	CP X ON CONC			
:9, EK -	103	2176754.23	5970193.16	13.19	MAG SHINER	116	2177682.09	5969827.38	15.89	CP 60D	129	2178542.83	5969587.57	14.36	SPK	142	2176542.02	5971105.44	14.28	CP X ON CONC			
	104	2176386.85	5970314.07	11.68	MAG SHINER	117	2177586.04	5969847.65	15.34	CP 60D	130	2178581.99	5969564.66	14.19	SPK	143	2175831.76	5971840.56	11.56	CP X ON CONC			
	105	2177607.26	5969951.39	15.23	CP 105	118	2177382.11	5969925.23	14.68	CP 60D	131	2178510.35	5969603.41	14.62	SPK	144	2176341.12	5971254.07	12.00	CP 60D			
	106	2177463.97	5970060.49	13.33	CP 106	119	2177195.78	5969997.74	14.07	MARIN CO CNTRL	132	2178432.22	5969655.39	12.79	SPK	145	2176274.18	5971388.22	11.45	CP 60D			
	107	2179299.44	5968656.53	26.76	CP X ON CONC	120	2177010.34	5970099.33	13.16	CP 60D	133	2178621.75	5969528.12	15.95	SPK	146	2176281.71	5971570.92	11.86	CP 60D			
	108	2178886.52	5969067.01	22.12	CP MAG&WASH	121	2176940.19	5970159.77	13.11	CP 60D	134	2178709.04	5969400.53	20.41	SPK	147	2176274.94	5971716.45	11.57	CP 60D			
	109	2178891.61	5969069.65	22.39	CP X ON CONC	122	2176856.63	5970348.01	16.55	CP MAG	135	2179337.54	5968853.92	15.33	SPK	148	2176228.85	5971810.87	11.48	CP 60D			
	110	2179342.73	5968790.86	29.30	CP MAG&WASH	123	2176656.27	5970471.70	15.68	CP MAG	136	2179415.66	5968770.64	15.33	SPK	149	2176192.33	5971845.77	11.50	CP 60D			
	111	2178790.26	5969230.69	22.45	CP 60D	124	2177234.09	5970356.35	10.40	MAG	137	2179199.10	5968968.39	12.80	SPK	150	2176091.24	5971901.24	11.22	CP MAG			
	112	2178537.53	5969467.92	22.00	CP MAG&WASH	125	2178574.14	5969514.08	20.50	SPK	138	2179075.00	5969031.01	12.39	SPK								
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		ABBREVIATIONS					
AB AC ACI ANSI APN APPROX ARCH ARV AWWA BF BFV BLDG	ANCHOR BOLT, AGGREGATE BASE ASPHALTIC CONCRETE AMERICAN CONCRETE INSTITUTE AMERICAN NATIONAL STANDARDS INSTITUTE ASSESSOR'S PARCEL NUMBER APPROXIMATE ARCHITECTURAL AIR RELEASE VALVE AMERICAN WATER WORKS ASSOCIATION BLIND FLANGE BUTTERFLY VALVE BUILDING	OC OD OF OFCI OG OZ PL POC PREFAB PRESS PROP PSF	ON CENTER OUTSIDE DIAMETER, OVERFLOW DRAIN OUTSIDE FACE, OVERFLOW OWNER FURNISHED - CONTRACTOR INSTALLED ORIGINAL GROUND OUNCE PROPERTY LINE POINT OF CONNECTION PREFABRICATED PRESSURE PROPERTY POUNDS PER SQUARE FOOT	AR CMC FA FR FW GP U2 U4			
BM BO BSW BV	BENCH MARK, BEAM BLOW OFF BACK OF SIDEWALK BALL VALVE	PS PSI PT PVC PVMT	PUMP STATION POUNDS PER SQUARE INCH POINT POLYVINYL CHLORIDE PLASTIC PAVEMENT				
C CA CB CI CIP CJ CLSM CMU CMCFRMP CO COMM COI	COMPACT COMPRESSED AIR CATCH BASIN CAST IRON CAST IRON PIPE CONSTRUCTION JOINT CONTROLLED LOW STRENGTH MATERIAL CONCRETE MASONRY UNIT CORTE MADERA CREEK FLOOD RISK MANAGEMENT PROJECT CLEANOUT COMMUNICATION COLUMN	R, RAD RC RCP RDCR REF REINF REQD RFCA ROW RW	RADIUS REINFORCED CONCRETE REINFORCED CONCRETE PIPE REDUCER REFER, REFERENCE REINFORCED, REINFORCING, REINFORCE REQUIRED RESTRAINED FLANGED COUPLING ADAPTER RIGHT OF WAY RAW WATER, RECLAIMED WATER, RECYCLED WATER				
CPLG CU FT CU IN CU YD CV DI DIA DW DWG E EA	COUPLING CUBIC FOOT CUBIC INCH CUBIC YARD CHECK VALVE DROP INLET, DUCTILE IRON DIAMETER DOMESTIC WATER DRAWING EAST EACH	S SCH SD SDDI SECT SIM SPEC SQ SQ FT SQ IN SS SST SSFM	SOUTH, SLOPE SCHEDULE STORM DRAIN STORM DRAIN DROP INLET SECTION SIMILAR SPECIFICATIONS SQUARE SQUARE SQUARE FOOT SQUARE INCH SANITARY SEWER STAINLESS STEEL SANITARY SEWER FORCEMAIN				
EL ELB, EL ELEC ENGR EQPT ESMT EXP JT FC FCA FDN FF FG	ELEVATION ELECTRIC, ELECTRICAL ENGINEER EQUIPMENT EASEMENT EXPANSION JOINT FLEXIBLE COUPLING, FACE OF CURB FLANGED COUPLING ADAPTER FOUNDATION FINISH FLOOR FINISH GRADE	STA STD STRUCT T TC TECH TEL TF TP TT TW TYP	STATION STANDARD STRUCTURE TANGENT TOP OF CURB TECHNICAL TELEPHONE TOP FACE TURNING POINT THRUST TIE TOP OF WALL TYPICAL				
FIG FL FOC FPVC FT FW	FIGURE FLOOR, FLOW LINE FACE OF CONCRETE FLEXIBLE POLYVINYL CHLORIDE FOOT OR FEET FIRE WATER	UBC UNK V VERT	UNIFORM BUILDING CODE UNKNOWN VENT, VOLT, VALVE VERTICAL				
GAL GALV GB GPM GSP GV	GALLON GALVANIZED GRADE BREAK GALLONS PER MINUTE GALVANIZED STEEL PIPE GATE VALVE	W W/ WS WSP WTR WWF	WATER, WEST WITH WATER METER WATER SURFACE, WATER STOP WELDED STEEL PIPE WATER WELDED WIRE FABRIC				
HDPE HORIZ HP	HIGH DENSITY POLYETHYLENE HORIZONTAL HORSEPOWER, HIGH POINT	XFMR YD	TRANSFORMER YARD				
ID IN INV JT KIP KW	INSTRUMENTATION & CONTROL INSIDE DIAMETER INCH INVERT JOINT , JOINT TRENCH THOUSAND POUNDS KILOWATT	& ወ ፍ ዊ (E) (N)	AND AT DEGREES FAHRENHEIT DIAMETER CENTER LINE PROPERTY LINE, PLATE EXISTING NEW				
L LB LF	LEFT, LENGTH POUNDS LINEAR FEET						
MAX MECH MGD MH MIN MISC MJ MSNRY	MAXIMUM MECHANICAL MANUFACTURER MILLION GALLONS PER DAY MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MASONRY						
N NIC NO NTS	NORTH NOT IN CONTRACT NUMBER, NUMBERING NOT TO SCALE						

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Date

PROJECT AREA LOCATION

ACCESS RAMP CORTE MADERA CREEK FREDERICK ALLAN PARK FISH RESTING POOLS FLOOD WALL GRANTON PARK PUMP STATION UNIT 2 UNIT 4

SYMBOLS LEGEND

NEW

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EP 13.88-

EXISTING

	ROCK SLOPE PROTECTION
	LAWN
	DECOMPOSED GRANITE
	CONCRETE SURFACE
•	BOLLARD
BENCH	BENCH
EP 13.88-	SPOT ELEVATION
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	DOWN GUY
Ŕ	STREETLIGHT
C	
E	ELECTRICAL HANDHOLE
	STORM DRAIN CATCH BASIN
• GV	GAS VALVE
S	STORM DRAIN MANHOLE
D	SANITARY SEWER MANHOLE
E	ELECTRICAL MANHOLE
*	FIRE HYDRANT
X≸	WATER VALVE
IRR	IRRIGATION HANDOLE
S.	STREET LIGHT HANDHOLE
^O 20" TREE	TREE TRUNK AND DIAMETER
	SURVEY CONTROL MONUMENT
	CURB AND GUTTER
	ASPHALT EDGE
	BUILDING FACE
X X	FENCE
<u> </u>	GUARD RAIL
	HAND RAIL
— — — -15- — — — —	MAJOR CONTOUR
	MINOR CONTOUR
OHT	
GHE	
IT	
G	NATURAL GAS UNDERGROUND (PG&E)
SSSS	SANITARY SEWER
	STREET LIGHT POWER UNDERGROUND
SDSD	STORM DRAIN UNDERGROUND
W	WATER LINE UNDERGROUND
NPW NPW	NON-POTABLE WATER LINE UNDERGROUND
	RETAINING WALL
	WATER EDGE
	COUNTY PARCEL LINE

## SHEET ANNOTATION

![](_page_50_Picture_12.jpeg)

![](_page_50_Picture_13.jpeg)

(1) KEYNOTE

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## **GENERAL SHEET NOTES**

- ABBREVIATIONS ON THIS SHEET APPLY ONLY TO THE CIVIL DRAWINGS, REFER TO OTHER DISCIPLINES FOR APPLICABLE SYMBOLS NOT PROVIDED HERE.
- THIS IS A STANDARD ABBREVIATION AND LEGEND SHEET, THEREFORE, SOME ABBREVIATIONS AND LEGEND SYMBOLS MAY APPEAR 2 ON THIS SHEET AND MAY NOT BE UTILIZED ON THIS PROJECT.
- 3. DO NOT SCALE DRAWINGS.

## **CIVIL GENERAL NOTES**

- 1. SITE SOILS AND GROUNDWATER MAY BE CONTAMINATED. MANAGE SOILS AND GROUNDWATER IN ACCORDANCE WITH APPROVED CONTRACTOR-PREPARED SITE SPECIFIC WORKPLAN.
- 2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 3. IN THE EVENT OF ANY CONFLICT OF INFORMATION SHOWN IN THESE PLANS, OR ANY CONFLICT BETWEEN THESE PLANS AND THE INTENT OF CONSISTENT AND FUNCTIONAL FACILITIES, OR SHOULD THERE BE ANY AMBIGUITIES, THE CONTRACTOR SHALL SO NOTIFY THE ENGINEER IN WRITING, UPON WHICH NOTICE THE ENGINEER SHALL RESOLVE THE CONFLICT OR CLARIFY THE AMBIGUITY BY THE ISSUANCE OF A WRITTEN ORDER, REVISED PLANS OR BOTH.
- 4. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT LEAST TWO WORKING DAYS IN ADVANCE OF ANY **EXCAVATION BY CALLING 811.**
- 5. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING FEATURES, INCLUDING BUT NOT LIMITED TO, SURVEY MONUMENTS, TREES, FOUNDATIONS, LANDSCAPING, LANDSCAPE IRRIGATION SYSTEM, FENCES, SIDEWALKS, BOLLARDS, OR SURFACE IMPROVEMENTS, OR TO ANY EXISTING BUILDINGS, DRAINAGE STRUCTURES, WATER STRUCTURES, SEWER CLEANOUTS, OR JUNCTION BOXES FOR UNDERGROUND ELECTRIC, TELEPHONE, OR CABLE TV, OR STORM SEWER, SANITARY SEWER, WATER LINE, AND UNDERGROUND UTILITIES, WHICH ARE TO REMAIN IN PLACE, AT NO ADDITIONAL COST TO THE OWNER. ANY DAMAGE TO ITEMS LISTED ABOVE SHALL BE RESTORED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- 6. EXISTING UTILITY LINES THAT ARE KNOWN ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTH OF EXISTING UTILITIES THAT MAY AFFECT PIPELINE VERTICAL AND HORIZONTAL ALIGNMENT PRIOR TO SUBMITTING SHOP DRAWINGS. CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING UTILITY LINE OR FACILITIES TO REMAIN IN PLACE, WHETHER OR NOT SUCH LINES OR FACILITIES ARE SHOWN ON THESE PLANS. NO WARRANTY IS GIVEN AS TO THE ACCURACY OF EXISTING UTILITY INFORMATION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE RESTORED OR REPLACED.
- 7. CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING TO COMPLETE THE GRADING TO THE LINES AND GRADES SHOWN.
- 8. CONTRACTOR SHALL RESTORE OR REPLACE ANY DAMAGED SURVEY MONUMENTS RESULTING FROM HIS OPERATION AND SHALL BEAR ALL COSTS OF SUCH REPLACEMENT, INCLUDING COST OF FILING A RECORD OF SURVEY WITH THE GOVERNING JURISDICTION. REPLACEMENT SHALL BE COMPLETED BY A LAND SURVEYOR REGISTERED BY THE STATE OF CALIFORNIA.
- 9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL NECESSARY UTILITY RELOCATIONS WITH THE APPROPRIATE UTILITY COMPANIES.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL PROPERTY LINES, EASEMENTS, AND STRUCTURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SATISFY ITSELF THAT ALL EXISTING PROPERTY LINES, EASEMENTS AND FEATURES, WHETHER SHOWN ON THESE DRAWINGS OR NOT, HAVE BEEN PROPERLY LOCATED.
- 11. IF ARCHAEOLOGIC MATERIALS ARE UNCOVERED DURING GRADING, TRENCHING OR OTHER EXCAVATION, EARTHWORK WITHIN 100 FEET OF THESE MATERIALS SHALL CEASE. IMMEDIATELY INFORM THE ENGINEER AND REQUEST DIRECTION.
- 12. CONTRACTOR SHALL KEEP TRAVEL LANES OF ALL STREETS FREE FROM DIRT AND DEBRIS DURING ALL PHASES OF CONSTRUCTION.
- 13. STORAGE OF EQUIPMENT AND MATERIALS IN LANDSCAPED AREAS WILL NOT BE PERMITTED.
- 14. ALL FITTINGS AND BENDS SHALL BE ANCHORED WITH THRUST BLOCKS OR RESTRAINED BY OTHER MEANS AS APPROVED BY THE ENGINEER.
- 15. CONTRACTOR IS ADVISED THAT EXISTING UTILITIES ARE PRESENT IN THE WORK AREA AND MAY CONFLICT WITH THE NEW DISTRIBUTION PIPING. CONTRACTOR IS TO SUPPORT AND PROTECT THESE UTILITIES DURING CONSTRUCTION. ANY REQUIRED OR SPECIAL CONSTRUCTION TECHNIQUES PERFORMED BY CONTRACTOR TO SUPPORT THE UTILITIES SHALL BE AT NO EXTRA COST TO THE CLIENT. COMPENSATION FOR THIS WORK SHALL BE INCLUDED IN THE BID PRICE. ANY DAMAGE TO THE OWNER'S OR OTHER UTILITIES CAUSED BY PROJECT OPERATIONS SHALL BE CONTRACTOR'S RESPONSIBILITY.
- 16. AN ENCROACHMENT PERMIT FROM THE CITY OR AGENCY HAVING JURISDICTION IS REQUIRED PRIOR TO ANY WORK WITHIN PUBLIC RIGHT-OF-WAY. ALL TRAFFIC CONTROL AND PAVEMENT REPLACEMENT WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT AND THE AGENCY INSPECTOR. A PERMIT FROM OSHA IS REQUIRED FOR ANY EXCAVATION EXCEEDING 5 FEET. FOLLOW ALL RESTRICTIONS OF THE REQUIRED PERMITS FROM OTHER AGENCIES.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER OFF-SITE DISPOSAL OF ALL REMOVED OR DEMOLISHED BITUMINOUS PAVEMENT, CONCRETE, REINFORCEMENT, AND SPOILS PER SPECIFICATIONS AND APPROVED CONTRACTOR-PREPARED SITE-SPECIFIC WORK PLAN.
- 18. THE CONTRACTOR SHALL MAINTAIN REASONABLE ACCESS TO ALL DRIVEWAYS DURING CONSTRUCTION.
- 19. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF MARINA'S PUBLIC WORKS STANDARD SPECIFICATIONS, ALL SIGNS SHALL BE APPROPRIATELY CONSTRUCTED WITH REFLECTIVE MATERIAL AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION TO PROVIDE PROPER VISIBILITY.
- 20. FOR CLARITY, EXISTING PAVEMENT MARKINGS ARE NOT SHOWN ON THE PLANS. ALL MARKINGS DAMAGED DUE TO CONSTRUCTION SHALL BE REPLACED PER CITY OF MARINA'S STANDARD SPECIFICATIONS. PATCHING OF DAMAGED MARKINGS WILL NOT BE ALLOWED.
- 21. THE CONTRACTOR SHALL COLLECT STORM WATER RUNOFF AND GROUNDWATER PER SPECIFICATIONS AND APPROVED CONTRACTOR-PREPARED SITE-SPECIFIC WORK PLAN.

	Client MA	RIN COUNTY FLOOD CONTROL AND WATER CONSERV	ATION DIS	TRICT
		RTE MADERA CREEK FLOOD RISK MANAGEM	ENT PRO	JECT
		IL ABBREVIATIONS, SYMBOLS LEGEND,		
2021	AN Project No.	ID CIVIL GENERAL NOTES		
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### SHEET GENERAL NOTES

- THE LOCATIONS AND SIZES OF BURIED AND OVERHEAD UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS, AND SHOULD BE CONSIDERED APPROXIMATE. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED EXCEPT WHERE POTHOLE LOCATING HAS BEEN PERFORMED - SEE SHEET G-601 FOR ADDITIONAL INFORMATION.
- 2. THE EXISTING UTILITIES STRUCTURES LOCATIONS AT SURFACE SHOWN ARE BASED ON GROUND SURVEY AND BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS. EXACT IDENTIFICATION OF THE UTILITY STRUCTURE IS NOT GUARANTEED.

	Client MA	RIN COUNTY FLOOD CONTROL AND WATER CONSERV	ATION DIS	TRICT
	Project CC	RTE MADERA CREEK FLOOD RISK MANAGEM	ENT PRC	<b>JECT</b>
	Title UN	IT 4 - EXISTING SITE PLAN		
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SHEET GENERAL NOTES
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OWNERS, AND SHOULD BE CONSIDERED APPROXIMATE. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED EXCEPT WHERE POTHOLE LOCATING HAS BEEN PERFORMED - SEE SHEET G-601 FOR ADDITIONAL INFORMATION.
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	Client MA	RIN COUNTY FLOOD CONTROL AND WATER CONSERV	ATION DIS	TRICT	
	Project CC	RTE MADERA CREEK FLOOD RISK MANAGEM	ENT PRC	)JECT	
	Title <b>FR</b>	EDERICK ALLEN PARK - EXISTING SITE PLA	N		
021	STATION 366+00 TO 370+00 Project No. 11188581				
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- --- ------CONTINUATION FOR V121 CORTE MADERA CREEK () SHEET SEL S A/V ATCH LINE K?  $\langle \rangle$ **S** FREDERICK ALLEN PARK - EXISTING SITE PLAN - STATION 362+00 TO 366+00 SCALE 1"=20'

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Plotted By: Pat Scheetz

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![](_page_53_Picture_6.jpeg)

### SHEET GENERAL NOTES

- THE LOCATIONS AND SIZES OF BURIED AND OVERHEAD UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS, AND SHOULD BE CONSIDERED APPROXIMATE. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED EXCEPT WHERE POTHOLE LOCATING HAS BEEN PERFORMED - SEE SHEET G-601 FOR ADDITIONAL INFORMATION.
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	Client MA	RIN COUNTY FLOOD CONTROL AND WATER CONSERV	ATION DIS	TRICT
	Project CC	RTE MADERA CREEK FLOOD RISK MANAGEM	<b>ENT PRC</b>	)JECT
	Title <b>FR</b>	EDERICK ALLEN PARK - EXISTING SITE PLA	N	
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![](_page_54_Figure_0.jpeg)

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FISH RESTING POOLS - EXISTING SITE PLAN - STATION 357+50 TO 360+50 SCALE 1" = 20'

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	SHEET GENERAL NOTES
1.	THE LOCATIONS AND SIZES OF BURIED AND OVERHEAD UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS, AND SHOULD BE CONSIDERED APPROXIMATE. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED EXCEPT WHERE POTHOLE LOCATING HAS BEEN PERFORMED - SEE SHEET G-601 FOR ADDITIONAL INFORMATION.
2.	THE EXISTING UTILITIES STRUCTURES LOCATIONS AT SURFACE SHOWN ARE BASED ON GROUND SURVEY AND BEST AVAILABLE INFORMATION FROM THE UTILITY OWNERS. EXACT IDENTIFICATION OF THE UTILITY STRUCTURE IS NOT GUARANTEED.

![](_page_54_Picture_11.jpeg)

![](_page_54_Picture_12.jpeg)

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	Client MA	RIN COUNTY FLOOD CONTROL AND WATER CONSERV	ATION DIS	TRICT
	Project CO	RTE MADERA CREEK FLOOD RISK MANAGEM	ENT PRC	JECT
	Title <b>FIS</b>	H RESTING POOLS - EXISTING SITE PLAN		
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		SHEET GENERAL NOTES	
	1.	CONTRACTOR SHALL CONFIRM ALL NECESSARY PERMITS AN OBTAINED PRIOR TO STARTING ANY WORK.	D APPROVALS ARE
	2.	CONTRACTOR SHALL COORDINATE WITH AGENCIES PRIOR TO DEMOLITION/CONSTRUCTION OPERATIONS.	) BEGINNING
	3.	VERIFY AND CHECK ALL DIMENSIONS AND DETAILS SHOWN O THE START OF CONSTRUCTION. ANY DISCREPANCY SHALL BE TO THE ATTENTION OF THE PROJECT ENGINEER FOR CLARIFI	N THE DRAWINGS PRIOR TO E IMMEDIATELY BROUGHT CATION.
	4.	THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND S COMPLETELY SHOWN ON THE PLANS. CONTRACTOR IS TO PE DETERMINE THE UNDERGROUND CONDITIONS OF THE SITE TO CONSTRUCTION ACTIVITIES.	TRUCTURES ARE NOT RFORM INVESTIGATION TO O SUPPORT THEIR
	5.	CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY ANY HISTORIC ITEMS ARE ENCOUNTERED.	THE PROJECT ENGINEER IF
	6.	7EXISTING UTILITIES SHALL REMAIN IN SERVICE AND IN PLACE OTHERWISE. INTERRUPTION OF SERVICE SHALL BE KEPT TO DONE AT THE CONTRACTOR'S EXPENSE AND ONLY WITH THE CONTRACTING OFFICER.	E UNLESS NOTED A MINIMUM AND SHALL BE APPROVAL OF
	7.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY S ANY EXCAVATION AS REQUIRED AND STABILIZING THE EXIST SAFE AND SECURE WORK ENVIRONMENT THAT WILL MINIMIZE SLIDING, CAVE-INS, SETTLEMENT, AND TO SUPPORT EXISTING POWER/TELEPHONE POLES, AND OTHER FACILITIES.	SHEETING AND BRACING NG GROUND TO PROVIDE A E THE POTENTIAL FOR S STRUCTURES,
	8.	RESTORE TO THEIR ORIGINAL CONDITION OR BETTER, ALL EX DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES INCLU EMBANKMENTS, DRIVEWAYS, CURBS, SIGNS, LANDSCAPING, S FENCES, ETC	LISTING IMPROVEMENTS JDING PAVEMENTS, STRUCTURES, UTILITIES,
	$\bigcirc$	SHEET KEYNOTES	
	1.	SAWCUT, REMOVE AND DISPOSE PORTION OF (E) CONCRETE ACCOMMODATE NEW FISH RESTING POOL CONSTRUCTION.	CHANNEL TO
	2.	SAWCUT, REMOVE AND DISPOSE (E) CONCRETE FISH RESTIN	G POOL.
	SHEE	T LEGEND	
		EXTENTS OF CLEAR AND GRUB	
		EXTENTS OF DEMOLISH AND REMOVE	
		DEMOLISH AND REMOVE OR ABANDON-IN-PLACE EXI	STING UTILITY LINE AS NOTED
	×	REMOVE TREE	
	ח	RAFT 60% DESIGN SI	ΙΒΜΙΤΤΔΙ
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	MADER	A CREEK FLOOD RISK MANAGEM	ENT PROJECT
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_ _ _ --+----CD121 SHEET CORTE MADERA CREEK Ш 365+00 -S ш FLOW -----L MATCH FREDERICK ALLAN PARK - DEMOLITION AND TREE REMOVAL PLAN - STATION 361+00 to 366+40 SCALE 1"=20'

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## SHEET GENERAL NOTES

- 1. CONTRACTOR SHALL CONFIRM ALL NECESSARY PERMITS AND APPROVALS ARE OBTAINED PRIOR TO STARTING ANY WORK.
- 2. CONTRACTOR SHALL COORDINATE WITH AGENCIES PRIOR TO BEGINNING DEMOLITION/CONSTRUCTION OPERATIONS.
- VERIFY AND CHECK ALL DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS PRIOR TO 3. THE START OF CONSTRUCTION. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER FOR CLARIFICATION.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES ARE NOT 4 COMPLETELY SHOWN ON THE PLANS. CONTRACTOR IS TO PERFORM INVESTIGATION TO DETERMINE THE UNDERGROUND CONDITIONS OF THE SITE TO SUPPORT THEIR CONSTRUCTION ACTIVITIES.
- 5. CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY THE PROJECT ENGINEER IF ANY HISTORIC ITEMS ARE ENCOUNTERED.
- 6. 7EXISTING UTILITIES SHALL REMAIN IN SERVICE AND IN PLACE UNLESS NOTED OTHERWISE. INTERRUPTION OF SERVICE SHALL BE KEPT TO A MINIMUM AND SHALL BE DONE AT THE CONTRACTOR'S EXPENSE AND ONLY WITH THE APPROVAL OF CONTRACTING OFFICER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY SHEETING AND BRACING ANY EXCAVATION AS REQUIRED AND STABILIZING THE EXISTING GROUND TO PROVIDE A SAFE AND SECURE WORK ENVIRONMENT THAT WILL MINIMIZE THE POTENTIAL FOR SLIDING, CAVE-INS, SETTLEMENT, AND TO SUPPORT EXISTING STRUCTURES, POWER/TELEPHONE POLES, AND OTHER FACILITIES.
- 8. RESTORE TO THEIR ORIGINAL CONDITION OR BETTER, ALL EXISTING IMPROVEMENTS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES INCLUDING PAVEMENTS, EMBANKMENTS, DRIVEWAYS, CURBS, SIGNS, LANDSCAPING, STRUCTURES, UTILITIES, FENCES, ETC..

### SHEET KEYNOTES

- 1. SAWCUT, REMOVE AND DISPOSE PORTION OF (E) CONCRETE CHANNEL TO ACCOMMODATE NEW FISH RESTING POOL CONSTRUCTION.
- 2. SAWCUT, REMOVE AND DISPOSE (E) CONCRETE FISH RESTING POOL.

## SHEET LEGEND

![](_page_57_Picture_21.jpeg)

EXTENTS OF CLEAR AND GRUB

EXTENTS OF DEMOLISH AND REMOVE

X

DEMOLISH AND REMOVE OR ABANDON-IN-PLACE EXISTING UTILITY LINE AS NOTED

REMOVE TREE

	Client MA	RIN COUNTY FLOOD CONTROL AND WATER CONSERV	ATION DIS	TRICT
	Project CC	RTE MADERA CREEK FLOOD RISK MANAGEM	ENT PRO	JECT
	Title <b>FR</b>	EDERICK ALLAN PARK - DEMOLITION AND 1	REE	
021	RE	MOVAL PLAN - STATION 361+00 TO 366+40		
	Project No.	11188381		
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![](_page_58_Figure_0.jpeg)

DEMOLITION	AND TREE R	EMOVAL PLA	AN - STATION 3	57+50 TO 360-
SCALE 1" = 20'				
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Plot Date: 30 June 2021 - 3:10 PM

Plotted By: Pat Scheetz

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		SHEET GENERAL NOTES		
	1.	CONTRACTOR SHALL CONFIRM ALL NECESSARY PERMITS AN OBTAINED PRIOR TO STARTING ANY WORK.	D APPROVALS A	RE
	2.	CONTRACTOR SHALL COORDINATE WITH AGENCIES PRIOR TO DEMOLITION/CONSTRUCTION OPERATIONS.	) BEGINNING	
	3.	VERIFY AND CHECK ALL DIMENSIONS AND DETAILS SHOWN O THE START OF CONSTRUCTION. ANY DISCREPANCY SHALL BE TO THE ATTENTION OF THE PROJECT ENGINEER FOR CLARIF	n the drawing Immediately f Cation.	is prior to Brought
	4.	THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND S COMPLETELY SHOWN ON THE PLANS. CONTRACTOR IS TO PE DETERMINE THE UNDERGROUND CONDITIONS OF THE SITE T CONSTRUCTION ACTIVITIES.	TRUCTURES AR RFORM INVESTI O SUPPORT THE	e not Gation to Ir
	5.	CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY ANY HISTORIC ITEMS ARE ENCOUNTERED.	THE PROJECT E	NGINEER IF
	6.	EXISTING UTILITIES SHALL REMAIN IN SERVICE AND IN PLACE OTHERWISE. INTERRUPTION OF SERVICE SHALL BE KEPT TO DONE AT THE CONTRACTOR'S EXPENSE AND ONLY WITH THE CONTRACTING OFFICER.	UNLESS NOTED A MINIMUM AND APPROVAL OF	SHALL BE
	7.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY S ANY EXCAVATION AS REQUIRED AND STABILIZING THE EXIST SAFE AND SECURE WORK ENVIRONMENT THAT WILL MINIMIZE SLIDING, CAVE-INS, SETTLEMENT, AND TO SUPPORT EXISTING POWER/TELEPHONE POLES, AND OTHER FACILITIES.	SHEETING AND E NG GROUND TO E THE POTENTIA S STRUCTURES,	3racing Provide a L for
	8.	RESTORE TO THEIR ORIGINAL CONDITION OR BETTER, ALL EX DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES INCLU EMBANKMENTS, DRIVEWAYS, CURBS, SIGNS, LANDSCAPING, S FENCES, ETC	(ISTING IMPROV JDING PAVEMEN STRUCTURES, U	ements Its, Tilities,
	$\bigcirc$	SHEET KEYNOTES		
	1.	SAWCUT, REMOVE AND DISPOSE PORTION OF (E) CONCRETE ACCOMMODATE NEW FISH RESTING POOL CONSTRUCTION.	CHANNEL TO	
	2.	SAWCUT, REMOVE AND DISPOSE (E) CONCRETE FISH RESTIN	g pool.	
	SHEE	TIEGEND		
		EXTENTS OF CLEAR AND GRUB		
		EXTENTS OF DEMOLISH AND REMOVE	STING UTILITY I	INE AS NOTED
	× ///	REMOVE TREE		
	ח			-тлі
Client MARIN CO		OD CONTROL AND WATER CONSERV		
Project CORTE N	ADER	A CREEK FLOOD RISK MANAGEM	ENT PRO	<b>)JECT</b>
Title FISH RES	STING	POOLS - DEMOLITION AND TRE	E REMO	VAL
Project No. 1118858	1 <b> </b>	<b>9</b> 4		
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![](_page_59_Figure_0.jpeg)

Plot Date: 3 November 2021 - 6:08 PM

Plotted By: Brian shedden

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SHEET GENERAL NOTES         1. FINAL GRADE CONTOURS ON CHANNEL BED CORRESPOND TO ESTIMATED NATURAL GRADE 0.39%. SLOPE (APPROX.) UPSTREAM FROM NEW 9.35' INVERT AT STA 370+38.         ar is one inch on ginal size sheet         1'         I'	SHEET GENERAL NOTES         1. FINAL GRADE CONTOURS ON CHANNEL BED CORRESPOND TO ESTIMATED NATURAL GRADE 0.39% SLOPE (APPROX.) UPSTREAM FROM NEW 9.35' INVERT AT STA 370-36.         Some inch on al al size sheet         1"       Drawn BS       Design Check         1"       Continue BS       Design Check         1"       Check Project         1"       Check Project       Project         1"       Check Project       Project         1"       Check Project       Project       Project         1"       Check Project       P						
1. FINAL GRADE CONTOURS ON CHANNEL BED CORRESPOND TO ESTIMATED NATURAL GRADE 0.39% SLOPE (APPROX.) UPSTREAM FROM NEW 9.35 INVERT AT STA 370+36.         ar is one inch on ginal size sheet         1'	1. FINAL GRADE CONTOURS ON CHANNEL BED CORRESPOND TO ESTIMATED NATURAL GRADE 0.39% SLOPE (APPROX.) UPSTREAM FROM NEW 9.35 INVERT AT STA 370-36.         some inch on al size sheet         1*         id uses and designs morporeded         id designs morporeded         id operson merces, is the	SHEET	GENERAL NOTES				
ar is one inch on iginal size sheet 1" Drawn BS Desig Drafting MS Desig Check MS Desig	s one inch on hal size sheet 1" ideas and designs incorporated at of professional service, is the basic constraints of the service is the ser	1. FINAL GRAU GRADE 0.39	E CONTOURS ON CHANNEL BED CORRESPOND TO ES SLOPE (APPROX.) UPSTREAM FROM NEW 9.35' INVE	;TIMATED NATURAL RT AT STA 370+36.			
iginal size sheet 1" Drafting MS Desig	al size sheet     1"       1"       ideas and designs incorporated at of professional service, is the         GHD Inc.       655 Montgomery Street Suite 1010         Drafting       RW   Design       Design				Drawn	RS	Design
	ideas and designs incorporated at of professional service, is the GHD Inc. 655 Montgomery Street Suite 1010 RW Date	Bar is one inch on original size sheet 1"		GHD	Drafting Check	MS	Design Design Check

	Project No.	11188581		
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San Rafael, CA 94901 **DESIGN** (510) 219-1064 Drawn Date Issue Approved

Plot Date: 3 November 2021 - 6:08 PM

Plotted By: Brian shedden

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			GHD Inc. 655 Montgomery Street SL	ite 1010	Project Manager	RW	Date	11/3/20		
				San Francisco California 94111 USA <b>T</b> 1 415 283 4970 <b>F</b> 1 415 283 4980 <b>W</b> www.ghd.com		This docu constructio constructio	ment shall not be used for n unless signed and sealed for n.	Scale	AS SHO	

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Plotted By: Brian shedden

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Plot Date: 3 November 2021 - 6:10 PM

Plotted By: Brian shedden

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![](_page_65_Figure_0.jpeg)

![](_page_66_Figure_0.jpeg)

Plotted By: Brian shedden

CONTAINER SIZE	CONTAINER DIMENSIONS			
SUPERCELL	1.5" DIA. X 8.25" DEEP			
DEE POT 16	2" DIA. X 7" DEEP			
DEE POT 40	2.5" DIA. X 10" DEEP			
DEE POT 60	2.5" DIA. X 14" DEEP			
TREE BAND 4	4" SQ. X 10" DEEP			
	4" SQ X 14" DEEP			
	CONTAINER SIZE SUPERCELL DEE POT 16 DEE POT 40 DEE POT 60 TREE BAND 4 TREE POT 4			

PLANTIN	G SCH	IEDULE		
TREES				
ID	Qty	Botanical Name	Common Name	Sc
ACE MCP	12	Acer macrophyllum	Big Leaf Maple	TP
AES CAL	10	Aesculus californica	California Buckeye	TP
ALN RHO	40	Alnus rhombifolia (rubra)	White Alder	TP
QUE AGR	5	Quercus agrifolia	Coast Live Oak	De
QUE LOB	3	Quercus lobata	Valley Oak	De
SAL LAS-LS	198	Salix lasiolepis	Arroyo Willow	LS
SAM NIG	9	Sambucus nigra ssp. caerulea	Blue Elderberry	TP
SHRUBS / P	ERENNI	ALS		
ID	Qty	Botanical Name	Common Name	Sc
CYP ERA	29	Cyperus eragrostis	Tall Flatsedge	D
FRA CAL	42	Frangula californica ssp. californica	Coffeeberry	TB
JUN PAT	86	Juncus patens	Grey Rush	SC
RIB SAN	7	Ribes sanguineum var glutinosum	Flowering Currant	D4
VINES/GRC		OVERS		
ID	Qty	Botanical Name	Common Name	Sc
SCHEDULE	NOTES:			
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roperty of GHD and shall not be reused in whole or in part or any other project without GHD's written authorization. 2021 GHD		gary@rothlamotte.con tel 415.451.821 fax 415.482.760	San Francisco California 94111 USA T 1 415 283 4970 F 1 415 283 4980 W www.ghd.com	This document shall not be used for construction unless signed and sealed for construction.	Scale	AS S

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cheduled Size	Spacing	Туре	WUCOL	Notes
4	25'0"	Trees	Moderate	Native understory tree
4	15'0''	Trees	Low	Native understory tree
4	12'0''	Trees	High	Native understory tree
60	20'0"	Trees	Low	Native understory tree
60	30'0''	Trees	Low	Native understory tree
	15'0"	Trees	Moderate	Native understory tree
4	12'0"	Trees	Low	Native understory tree
	Spacing	Type	WIICOL	Notos
<u>inequied size</u>		Boroppigk	Moderate Hic	
<u>л</u>	<u> </u>	Shrubs		Evergreen Shrub 36" o c
<u>+</u> ヽ	2'0"	Berenniak		Native Push for swales and streamsides
40	5'0"	Shrubs	Water Panae	$36^{\circ}$ o c in groupings of $3-7$
<u>+0</u>				
heduled Size	Spacina	Type	WILCOL	Notes
	Spacing			indies
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				TIES
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· F	Project COR		A CREFK FI (	OOD RISK MANAGEMENT PROJE
			MENTO DI	
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2021	Project No.	11188581			
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![](_page_69_Figure_0.jpeg)

Plot Date: 3 November 2021 - 6:12 PM

Plotted By: Brian shedden

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Project Manager <b>RW</b>	Date	11/3/2021	Project No.	11188581			
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![](_page_69_Figure_7.jpeg)

![](_page_69_Figure_8.jpeg)

## LOOKING DOWNSTREAM 5'

![](_page_70_Figure_0.jpeg)

Plot Date: 4 November 2021 - 6:47 PM

Plotted By: Brian shedden

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ONTAINER PLANTING	DETAIL H - LIVE STEM PLANT	ING		
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euse of Documents is document and the ideas and designs incorporated rein, as an instrument of professional service, is the operty of GHD and shall not be reused in whole or in part any other project without GHD's written authorization.	GHD Inc. 655 Montgomery Street Suite 1010 San Francisco California 94111 USA	Project Manager <b>RW</b> This document shall not be used for construction unless signed and evaluat for	Date 1	1/3/2
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	SHEET GENERAL NOTES	
	<ol> <li>ALL PLANTED ROCK TO HAVE VOID SPACES BET PIECES FILLED WITH NATIVE ALLUVIUM BACKFILL PLACEMENT OF ALLUVIUM BACKFILL DURING BU ROCK.</li> <li>PLACE NATIVE SOIL BACKFILL OR PLANTING SOIL MIXTURE IN MAXIMUM 8" HIGH LIFTS AND COMPA COMPACTION TO ACHIEVE TOTAL 12" VSL THICK</li> <li>MODIFY VSL DIMENSIONS AS NEEDED TO CONFO NATIVE SUBGRADE LIMITS AND AVOID DAMAGING SOIL WHERE APPLICABLE.</li> <li>SEED ALL FINISHED VSL FACE SLOPES WITH RIP ON FINISHED SOIL FACE PRIOR TO WRAPPING W EROSION CONTROL BLANKET AND ON EROSION PRIOR TO WRAPPING WITH TOP LAYER EROSION</li> </ol>	WEEN ROCK RIP-RAP L BY DRY GRAVITY ILT-UP PLACEMENT OF L OR AS COMBINED ACT TO 85% RELATIVE NESS. DRM TO IRREGULAR G TREE ROOTS IN NATIVE ARIAN SEED MIX PLACED ITH BOTTOM LAYER CONTROL BLANKET I CONTROL MAT.
	1.	
2' 4'		
À		
6" DIAM. SONOTUBE PERFORATED W/ 3/4" DIAM. HOLES SPACED ON 4" GRID PATTERN.		
.AN		
2' 1'		
<u> </u>		
Client MARIN CO Project CORTE I Title UNIT 4 I	UNTY FLOOD CONTROL AND WATER CONSER MADERA CREEK FLOOD RISK MANAGE MPROVEMENTS - DETAILS 1	VATION DISTRICT MENT PROJECT
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Plot Date: 3 November 2021 - 6:13 PM

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Issue Plotted By: Brian shedden

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Date

Drawn

Approved

DESIGN (510) 219-1064

				SHEET GENERAL NOTES	
				1.	
26			1 26		
24 24 FINISHED GR	ADE <u>NOTE:</u> CONTACT POINT BETWEEN ADJOINING ROCKS AT FG THIS SECTION		24		
22.0' 22 22 22 (VARIES 22' T	(E) NOV 2020 GROUND (GHD)	ABANDON WOOD RETAINING WALL THIS VICINITY	22		
	CONC	RETE RETAINING WALL, TYP.	18		
	(N) ROCK CHUTE & ESM		16		
$\begin{array}{c c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	TOE ELEV.: 11.0'	TOE ELEV.: 11.0'	14		
	7H:1V 5H:1V 5H:1V		10		
			8		
4 4	PLANTED ROCK BOTTOM OF PLANTED ROCK AND ESM MUST CONFOR		4		
2 2 0 0+53 2 0+00	(E) TOP OF SANITARY SIPHON CONCRETE ENCASE THIS VICINITY. SEE SEWER SIPHON ENCASEMENT PRO 0+10 0+20	MENT DFILE	42		
G UPSTREAM DI SCA	LE 1" = 5'	LOOKING UPSTREAM			
				ם	
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		$\Box$	SHEET KEYNOTES		
2		1.	CONSTRUCT (N) FISH RESTING POOL PER STRUCTURAL DRAV	/INGS.	
		2.	APPROXIMATE LOCATION OF (E) FISH RESTING POOL.		
S		3.	CONSTRUCT (N) CONCRETE CHANNEL BOTTOM WHERE EXIST WAS REMOVED. MATCH ELEVATIONS OF ADJACENT CHANNEL	ING FISH RESTIN	IG POOL
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	Client MARIN		LOOD CONTROL AND WATER CONSERV	ATION DIS	TRICT
	Project COR	TE MADER	A CREEK FLOOD RISK MANAGEM	ENT PRC	JECT
	STA1	FION 366+(	00 TO 369+70	-/ \  4	
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_ _ _ CI121 HEET TYP. **N** ー い で で CORTE MADERA CREEK 365+00-MATCH LINE FLOW _____ FREDERICK ALLEN PARK - IMPROVEMENTS PLAN - STATION 366+00 TO 369+70 SCALE 1"=20'

Plot Dat	e: 1 July 2021 - 7:25 AM

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Issue Plotted By: Pat Scheetz Drawn Date Approved

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### SHEET KEYNOTES $\langle \rangle$

- 1. CONSTRUCT (N) FISH RESTING POOL PER STRUCTURAL DRAWINGS.
- 2. APPROXIMATE LOCATION OF (E) FISH RESTING POOL.
- CONSTRUCT (N) CONCRETE CHANNEL BOTTOM WHERE EXISTING FISH RESTING POOL WAS REMOVED. MATCH ELEVATIONS OF ADJACENT CHANNEL.

PLAN NORTH



	Client MA	RIN COUNTY FLOOD CONTROL AND WATER CONSERV	ATION DIS	TRICT
	Project CC	RTE MADERA CREEK FLOOD RISK MANAGEM	ENT PRO	JECT
	Title <b>FR</b>	EDERICK ALLEN PARK - IMPROVEMENTS PL	.AN	
021	ST Project No.	ATION 364+00 TO 366+00 11188581		
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No.	Issue	Drawn	Approved	Date	fc ©

Plot Date: 10 July 2021 - 8:59 AM

Plotted By: Pat Scheetz

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$\bigcirc$	SHEET KEYNOTES
1.	CONSTRUCT (N) FISH RESTING POOL PER STRUCTURAL DRAWINGS.
2.	APPROXIMATE LOCATION OF (E) FISH RESTING POOL.
3.	CONSTRUCT (N) CONCRETE CHANNEL BOTTOM WHERE EXISTING FISH RESTING POO WAS REMOVED. MATCH ELEVATIONS OF ADJACENT CHANNEL.



STS	Client MA Project	RIN COUNTY FLOOD CONTROL AND WATER CONSERV	ATION DIST	
RW	Title FIS	H RESTING POOLS - IMPROVEMENTS PLAN		JECI
7/9/2021	<b>ST</b> Project No.	ATION 357+50 TO 364+00		
AS SHOWN	Original Size <b>ANSI D</b>	Sheet No. CI131	Sheet	of



Plot Date: 1 July 2021 - 2:46 PM

	FENCE DETAIL NOTES
1.	SEE STRUCTURAL DRAWINGS FOR ACCESS RAMP CONCRETE WALL DETAIL.
2.	BOTTOM RAIL: MAY BE ADDED FOR SECURITY. IT SHALL BE INSTALLED APPROXIMATELY 3-INCHES ABOVE FINISH GRADE (A MINIMUM OF 2-INCHES AND A MAXIMUM OF 4-INCHES). HARDWARE SHALL BE WELDED OR SHOT NAILED TO POSTS AND RAILS IN ORDER TO SECURE IN PLACE. ATTACH FABRIC TO NEW BOTTOM RAIL TO ELIMINATE POSSIBILITY OF PEELING UP FABRIC.
3.	FABRIC: ZINC OR ALUMINUM-COATED STEEL WIRE CHAIN LINK WITH MESH OPENINGS NOT LARGER THAN TWO INCHES PER SIDE AND A TWISTED AND BARBED SELVAGE AT TOP AND BOTTOM IN ACCORDANCE WITH THE SPECIFICATIONS. UTILIZE 6-GAUGE FOR BASE PERIMETER OR HEIGHTENED SECURITY ZONES AND 9-GAUGE FOR BASE INTERIOR OR WHEN JOINING AN EXISTING FENCE WHICH IS ALREADY 9-GAUGE.
4.	FABRIC TIES: ONLY 12-GAUGE STEEL TIES SHALL BE USED. COATING OR PLATING WILL BE ELECTROLYTICALLY COMPATIBLE WITH THE FENCE FABRIC TO INHIBIT CORROSION.
5.	REINFORCEMENT: TENSION WIRES SHALL BE INSTALLED AND INTERWOVEN (OR AFFIXED WITH FABRIC TIES) ALONG THE TOP AND BOTTOM OF THE FENCE FOR STABILIZATION OF THE FENCE FABRIC.
6.	FENCE HEIGHT: CHAIN LINK FABRIC SHALL BE 6-FOOT HIGH.
7.	GROUND CLEARANCE: BOTTOM OF THE FENCE FABRIC SHALL BE WITHIN TWO-INCHES OF FIRM SOIL.
8.	FENCE POSTS AND FOUNDATIONS: SHALL BE ASTM F1043 OR F1083 ROUND PIPE OR SQUARE TUBE AND SHALL BE GALVANIZED IN ACCORDANCE WITH THE SPECIFICATIONS. FENCE POST SPACING AND SIZE (DIAMETER) SHALL BE DETERMINED IN ACCORDANCE WITH CHAIN LINK FENCE MANUFACTURERS' INSTITUTE (WLG 2445). SPACING SHALL NOT EXCEED 10' 0' O C SIZE (DIAMETER) SHALL NOT BE LESS THAN THAT SPECIFIED

	Client MA Project CC	RIN COUNTY FLOOD CONTROL AND WATER CONSERV ORTE MADERA CREEK FLOOD RISK MANAGEM	ATION DIS ENT PRC	TRICT ) <b>JECT</b>
2021	Project No.	11188581		
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SCALE 1"=20'								0 20' 40'	
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					Reuse of Documents This document and the ideas and designs incorporated herein, as an instrument of professional service, is the		GHD Inc. 655 Montgomery Street Suite 1010	Project Manager <b>RW</b>	Date 10/15/2021
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		$\bigcirc$	SHEET KEYNOTES		
- SD		1.	INSTALL (N) INLINE CHECK VALVE PER DETAIL X ON SHEET CIS	531.	
		2.	REPLACE (E) MANHOLE COVER AND FRAME WITH (N) BOLTED- COVER AND FRAME.	DOWN PRESSI	JRE RATED
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	Client MARIN CC		LOOD CONTROL AND WATER CONSERV		STRICT
		VIADER	A CREEK FLOOD RISK MANAGEM INAGE - IMPROVEMENTS PLAN		UJECT
2021	ROSS C Project No. 1118858	OMMO	N SYSTEM		
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### INTERIOR DRAINAGE - IMPROVEMENTS PLAN - POPLAR AVE. SYSTEM

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							90% DE	SIGN SUBMITTAL
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			0 1"	LANDREW OULLING	GHD	Drafting Check PJS Design Check RW		NTS PLAN
			Reuse of Documents This document and the ideas and designs incorporated herein, as an instrument of professional service, is the		GHD Inc. 655 Montgomery Street Suite 1010	Project Manager RW Date 10/15/2021	POPLAR AVE. SYSTEM Project No. 11188581	
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PLAN NORTH

SHEET KEYNOTES

1. INSTALL (N) INLINE CHECK VALVE PER DETAIL X ON SHEET CI531.

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CTURAL SYMBOL LEGEND				ABBREVIATIONS		
	AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND	FN	FACE NAIL	SCHED/SCH	SCHEDULE
	۸D		FND		SEC	SECTION
CONCRETE IN SECTION	ABC	AGGREGATE BASE COURSE	FO FOM	FACE OF FACE OF MASONRY	SF	SUBARE FEET
	ABV	ABOVE	FOW	FACE OF WALL	SIM	SIMILAR
	AC	AGGREGATE COURSE	FRMG	FRAMING EAR SIDE	SP	SPACE/SPACES
	ADD'L	ADDITIONAL	FTG	FOOTING	SPEC	SPECIFICATIONS
	AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	FV	FIELD VERIFIED	SST	STAINLESS STEEL
EARTHIN SECTION	AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION	GA	GAUGE	STIFF	STANDARD
	ALT	ALTERNATE	GALV		STL	STEEL
	ALUM	ALUMINUM AMERICAN NATIONAL STANDARDS INSTITUTE	GR	GOVERNMENTFORNISHED	STRUCT	STRUCTURAL SYMMETRICAL
	APA	AMERICAN PLYWOOD ASSOCIATION	GRT	GROUT		
STEEL IN SECTION	ARCH	ARCHITECT/ARCHITECTURAL AMERICAN SOCIETY FOR TESTING AND MATERIALS	GSN GYP	GENERAL STRUCTURAL NOTES GYPSUM	I T/	TOP OF
	AWS	AMERICAN WELDING SOCIETY			T&B	TOP AND BOTTOM
	AWWA	AMERICAN WATER WORKS ASSOCIATION	HAS HD	HEADED ANCHOR STUDS HAND	ТВ тнк	TOP OF BAR THICK
	В	BOTTOM	HEF	HORIZONTAL EACH FACE	TOC	TOP OF CONCRETE
CONCRETE LAGGING IN SECTION	B/ BB	BOTTOM OF BOTTOM BARS	HIF	HORIZONTAL INSIDE FACE		
	BO	BOND	HM	HOLLOW METAL		
	BLDG	BUILDING	HOF		U/S	UNDER SIDE OF
ASPHALT IN SECTION	BM	BEAM	HP	HIGH POINT		WEIGHT
	BN	BOUNDARY NAIL	HSS	TUBE STEEL	UNO	
	BRG	BOTH SIDES	пі	пеюні	UDN UPR	UPPER
	BTWN	BETWEEN	IBC	INTERNATIONAL BUILDING CODE	UT	ULTRASONIC TESTING
	С	CHANNEL	ID IE	INSIDE DIAMETER THAT IS	VEF	VERTICAL EACH FACE
	C/C	CENTER TO CENTER	INFO	INFORMATION	VERT	VERTICAL
	CANT CAP	CANTILEVER		INTERIOR INTERMEDIATE	VIF	VERTICAL INSIDE FACE
	CBC	CALIFORNIA BUILDING CODE	INTERSECT	INTERSECTION	VOI	
			INV	INVERT	W/ W OR WE	WITH WIDE FLANCE (REAM)
	CI	CONTRACTOR INSTALLED	JST	JOIST	WGT	WEIGHT
	CJ	CONTRACTION/CONTROL JOINT	JT	JOINT	W/O	WITHOUT WORK POINT
	CLR	CLEAR	L	ANGLE	WP WS	WATERSTOP
	CLG		LBS	POUNDS	WT	TEE
	CMU	COLUMN	LG	LIVE LOAD	&	AND
	CONC	CONCRETE	LLH	LONG LEG HORIZONTAL	@	AT
	CONN	CONNECTION CONSTRUCTION	LLV LOC	LONG LEG VERTICAL LOCATION	Ø	DEGREE DIAMETER
	CONT	CONTINUOUS	LONGIT/LONGL	LONGITUDINAL	1	FEET
	COORD	COORDINATE CONCRETE REINFORCING STEEL INSTITUTE	LP LT	LOW POINT LEFT	#	INCHES NUMBER
	CTR/CTR'D	CENTER/CENTERED	LWR	LOWER	±	PLUS OR MINUS
	d	PENNY (NAIL SIZE)	MACH	MACHINE		
	DBL	DOUBLE	MAINT	MAINTENANCE		
	DEG DET	DEGREES DETAIL	MAS MAX	MASONRY MAXIMUM		
	DF	DOUGLAS FIR	MB	MACHINE BOLT		
	DIA	DIAMETER DIAGONAI	MC MCJT	CHANNEL MASONRY CONTROL JOINT		
	DIM	DIMENSION	MECH	MECHANICAL		
	DISCONT		MFR MHHW/	MANUFACTURER MEAN HIGHER HIGH WATER		
	DN	DOWN	MIN	MINIMUM		
	Do	DITTO	MISC MLLW/	MISCELLANEOUS		
	DWG	DRAWING	MNTG	MOUNTING		
	DWL	DOWEL	MO			
	(E)	EXISTING	MTL	METAL		
	ÊÁ	EACH	(NI)			
	EG	FOR EXAMPLE	(IN) NIC			
	EL/ELEV	ELEVATION	NO.	NUMBER		
	EN	EMBEDMENT EDGE NAIL	NOM	NOMINAL		
	ENGR	ENGINEER	NTS	NOT TO SCALE		
	EQ FQUIP	EQUAL EQUIPMENT	OC	ON CENTER		
	ETC	ET CETERA	OD	OUTSIDE DIAMETER		
	EW	ΕΑCΗ WAY ΕΔCΗ WAY ΕΔCΗ ΕΔCΕ	OF	OUTSIDE FACE OPENING		
	(E)/EXIST	EXISTING	OPP	OPPOSITE		
	EXP	EXPANSION	PEB			
		EXTENSION	PEMB	PRE ENGINEERED METAL BLDG		
	FD	FLOOR DRAIN	PL PL CS	PLATE PLACES		
	FG	FINISHED GRADE	PLYWD	PLYWOOD		
	FH	FULL HEIGHT	PNL			
	FL FL	FLOOR	PT	POINT, PRESSURE TREATED		
	FLG	FLANGE	PVMT	PAVEMENT		
			QTY	QUANTITY		
			R/R∆D	RADIUS		
			REF	REFERENCE		
			RF	ROOF		
			RM	ROOM		
	1					

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Drafting Check	PJS	Design Check	RW
Project Manager	RW	Date	7/9/20
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		STRUCTURAL GE
1.	GENERAL	
	1.1 DESIGN CRITERIA: 2019 CALIFORNIA B	BUILDING CODE (2019 CBC)
	1.2 DESIGN LOADS:	
	LATERAL EARTH PRESSURES: ACTIVE (DESIGN LOAD ON WA LATERAL PASSIVE RESISTANC	ALL): 50 PCF CE: 300 PCF
	SURCHARGE LOADING: SEISMIC: TRAFFIC:	12(H) PSF 200 PSF
	1.3 CONTRACTOR TO COORDINATE ALL S FABRICATION OR CONSTRUCTION.	TRUCTURAL DOCUMENTS WITH ALL OTHER DISCIPLINES AND REPORT ANY DISCREPANC
	1.4 CONTRACTOR TO COORDINATE ALL N	IEW WORK WITH EXISTING SITE CONDITIONS AND REPORT ANY DISCREPANCIES TO THE E
	1.5 UNLESS NOTED OTHERWISE, REFER AND LOCATIONS AND EXTENT OF S	TO DRAWINGS OTHER THAN STRUCTURAL FOR FINISHES, SLOPES, DEPRESSIONS, OPENI SUCH CONDITIONS.
	1.6 THE STRUCTURE HAS BEEN DESIGNE STRUCTURES STABILITY DURING C AND TEMPORARY BRACING.	D TO BE STABLE AND SELF SUPPORTING AFTER THE CONSTRUCTION IS COMPLETE. IT IS CONSTRUCTION. THIS RESPONSIBILITY ALSO INCLUDES BUT IS NOT LIMITED TO METHOD A
	1.7 DETAILS OR CONDITIONS NOT FULLY	DEVELOPED ON STRUCTURAL DOCUMENTS ARE SIMILAR TO DEVELOPED DETAILS.
	1.8 SEE CIVIL DRAWINGS FOR DRAINAGE	REQUIREMENTS.
	1.9 REFER TO GEOTECHNICAL REPORT F	OR SITE CONDITIONS, EXCAVATION, SHORING REQUIREMENTS, UNDERPINNING, BACKFILI
	1.10 ALL FOUNDATION PLANS TO BE COOI	RDINATED WITH GENERAL NOTES AND TYPICAL DETAILS AS APPLICABLE.
3.	SPECIAL INSPECTION 3.1 SPECIAL INSPECTION IN ACCORDANCE	E WITH THE 2019 CALIFORNIA BUILDING CODE CHAPTER 17 IS REQUIRED ON THE FOLLOW
3.	SPECIAL INSPECTION 3.1 SPECIAL INSPECTION IN ACCORDANCE CONCRETE REINFORCING STEEL	E WITH THE 2019 CALIFORNIA BUILDING CODE CHAPTER 17 IS REQUIRED ON THE FOLLOW
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3. 4.	SPECIAL INSPECTION 3.1 SPECIAL INSPECTION IN ACCORDANCE CONCRETE REINFORCING STEEL CONCRETE 4.1 ALL CONCRETE SHALL BE NORMAL W CEMENT AND SUPPLEMENTARY CE WATER-CEMENTITIOUS MATERIAL WEIGHT OF CEMENTITIOUS MATERIAL WEIGHT OF CEMENTITIOUS MATERIAL	E WITH THE 2019 CALIFORNIA BUILDING CODE CHAPTER 17 IS REQUIRED ON THE FOLLOW FEIGHT, WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. CONCRETE EMENTITIOUS MATERIALS. COARSE AGGREGATE SHALL BE 1-1/2 INCH MAXIMUM; AIR ENTF RATIO (BY WEIGHT) SHALL BE 0.45. FLY ASH CONTENT SHALL BE LIMITED TO A MINIMUM 1 MALS. ALL BE AS FOLLOWS:
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3.	<ul> <li>SPECIAL INSPECTION</li> <li>3.1 SPECIAL INSPECTION IN ACCORDANCE CONCRETE REINFORCING STEEL</li> <li>CONCRETE</li> <li>4.1 ALL CONCRETE SHALL BE NORMAL W CEMENT AND SUPPLEMENTARY CE WATER-CEMENTITIOUS MATERIAL WEIGHT OF CEMENTITIOUS MATERIAL</li> <li>4.2 CONCRETE REINFORCING COVER SH CONCRETE CAST AGAINST AND PERM CONCRETE CAST AGAINST AND PERM NO. 6 OR LARGER BARS</li></ul>	EWITH THE 2019 CALIFORNIA BUILDING CODE CHAPTER 17 IS REQUIRED ON THE FOLLOW REIGHT, WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. CONCRETE IMENTITIOUS MATERIALS. COARSE AGGREGATE SHALL BE 1-1/2 INCH MAXIMUM; AIR ENTF RATIO (BY WEIGHT) SHALL BE 0.45. FLY ASH CONTENT SHALL BE LIMITED TO A MINIMUM 1 IALS. ALL BE AS FOLLOWS: MANENTLY EXPOSED TO EARTH
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<ol> <li>4.</li> <li>5.</li> </ol>	SPECIAL INSPECTION         3.1 SPECIAL INSPECTION IN ACCORDANCE         CONCRETE         REINFORCING STEEL         CONCRETE         4.1 ALL CONCRETE SHALL BE NORMAL WE         CEMENT AND SUPPLEMENTARY CE         WATER-CEMENTITIOUS MATERIAL         WEIGHT OF CEMENTITIOUS MATERIAL         WEIGHT OF CEMENTITIOUS MATERIAL         CONCRETE REINFORCING COVER SH         CONCRETE CAST AGAINST AND PERM         CONCRETE NOT EXPOSED TO EARTH OR WE         NO. 6 OR LARGER BARS	EWITH THE 2019 CALIFORNIA BUILDING CODE CHAPTER 17 IS REQUIRED ON THE FOLLOW EIGHT, WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. CONCRETE MENTITIOUS MATERIALS. COARSE AGGREGATE SHALL BE 1-1/2 INCH MAXIMUM; AIR ENTF RATIO (BY WEIGHT) SHALL BE 0.45. FLY ASH CONTENT SHALL BE LIMITED TO A MINIMUM 1 HALS. ALL BE AS FOLLOWS: MANENTLY EXPOSED TO EARTH
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- 6.3 ALL STEEL SHAPES SHALL BE ASTM A572 GRADE 50 UNLESS OTHERWISE NOTED.
- 6.4 ALL PILES SHALL BE HP14X89 ASTM A992 OR ASTM A572 GRADE 50.
- 6.5 ALL ROUND HSS SHALL BE 5X0.312 ASTM A1085.
- 6.6 ALL EXPOSED STEEL SHALL BE COAL TAR EPOXY COATED.
- 6.7 ALL SPLICING OF MEMBERS SHALL BE AS SHOWN ON THE DRAWINGS. ANY SPLICING OF THE STEEL MEMBERS PROPOSED BY THE STEEL FABRICATOR SHALL BE SHOWN ON SHOP DRAWINGS AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION.
- 6.8 MINIMUM PLATE THICKNESS IS 3/8 UNLESS OTHERWISE NOTED. MINIMUM WELD IS 1/4 INCH UNLESS OTHERWISE NOTED.
- 6.9 ALL STEEL FABRICATION AND DETAILS TO COMPLY WITH MOST STRINGENT OF: AISC CODE, AWS CODE, AND THE 2019 CBC.

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### ENERAL NOTES

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NGS, CURBS, STAIRS, RAMPS, TRENCHES, EQUIPMENT

THE CONTRACTOR'S SOLE RESPONSIBILITY FOR THE AND SEQUENCE OF ERECTION, TEMPORARY SHORING

L BEHIND WALLS AND SUBDRAINAGE PREPARATIONS.

ACIFIC ENGINEERING GROUP, DATED FEB 17, 2021.

ING PORTIONS OF THE WORK:

SHALL BE A COMBINATION OF TYPE II OR V PORTLAND RAINMENT SHALL BE 4-1/2 TO 6-1/2 PERCENT. MAXIMUM 5 PERCENT AND MAXIMUM 25 PERCENT OF TOTAL

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S AND ANY EMBEDDED ITEMS AND DETERMINE PRIOR

EL BUILDINGS (LATEST EDITION AND SUPPLEMENTS).

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	SHEET GENERAL NOTES
1.	FOR NEW RETAINING WALL LOCATION AND ELEVATION, REFER TO CIVIL IMPROVEMENT DRAWINGS.

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### LEGEND:



PROPERTY LINE ADD EASEMENT LINE, PERMANENT ADD EASEMENT LINE, TEMPORARY CREEK HORIZONTAL CONTROL LINE







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### Memorandum

### December 21, 2021

То	Town of Ross		
Copy to	MCFCWCD		
From	Raymond Wong, Seth Stevens	Tel	+1 650 949 3507
Subject	CMCFRMP Construction Schedule	Project no.	11188581

The construction schedule for the Corte Madera Creek Flood Risk Management Project (CMCFRMP) will be established by the contractor(s) selected to construct the improvements. However, there is one main constraint that affects the allowable construction windows for the proposed improvements: the in-channel construction window is June 15 – October 15 in accordance with requirements to protect federally threatened steelhead trout and federally endangered coho salmon.

Based on this restriction, possible construction windows for each project element have been identified and are included in Table 1.

Table 1	- Possible	construction	windows

Project Element	From	То	Applicable Permits
Corte Madera Creek dewatering	6/15/2022	10/15/2022	404, NMFS, CDFW, 401
Unit 4 in-stream construction	6/15/2022	10/15/2022	404, NMFS, CDFW, 401
Fish pools construction	6/15/2022	10/15/2022	404, NMFS, CDFW, 401
Access Ramp on District property	3/1/2022	12/31/2022	
Access Ramp at creek connection	6/15/2022	10/15/2022	404, NMFS, CDFW, 401
Granton Park pump station	3/1/2022	12/31/2022	
Floodwalls	3/1/2022	12/31/2022	
New storm drain outlets to the concrete channel	4/15/2022	10/15/2022	
Lower College of Marin in-stream construction	9/1/2022	10/15/2022	USFWS
Lower College of Marin overbank construction	9/1/2022	12/31/2022	USFWS

In addition to the constraint noted above, there will be temporary construction easements within the Town of Ross that will have a duration of six months. It is anticipated that these easements will be granted from approximately 6/1/2022 to 12/1/2022.

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### **ATTACHMENT 5**

# Appendix E Summary of Public Outreach



### **MEMORANDUM**

Subject:	Summary of Public Outreach for Corte Madera Creek Flood Risk Management Project
From:	Panorama
To:	GHD
Date:	November 24, 2021

### Purpose

The purpose of this memo is to provide a summary of public outreach activities conducted by the Marin County Flood Control and Water Conservation District (District) in 2020 and 2021 for the Corte Madera Creek Flood Risk Management Project (project). The history of public engagement and outreach for the project extends back many years prior to the current project planning and public outreach phase. However, this memo specifically focuses on public outreach activities after the project transitioned to a locally-managed project.

### **Public Outreach Activities**

### **Public Meetings**

Table 1 below summarizes the dates of public meetings and hearings that were held by the District as well as meetings and workshops that were held by the Town of Ross, which provided opportunities for the public to comment on the project.

Meeting	Date
Pre-Scoping Public Outreach Meetings Led by District	June 25, 2020
	June 30, 2020
Town of Ross Council Meeting	July 9, 2020
Scoping Meeting for Environmental Impact Report	August 27, 2020
District Hearing on Draft EIR	March 2, 2021
Town of Ross Council meeting to discuss Draft EIR	March 11, 2021
Town of Ross Workshop and Council Meeting	April 15, 2021
Town of Ross Council Meeting – Decide Alternative 1 is Town Preferred Alternative	May 13, 2021
Town of Ross Council Meeting on Final EIR	August 12, 2021

### MEMORANDUM November 24, 2021

Page 2

Meeting		Date	
District Hearing on Final EIR and Project Approval	August 17, 2021		

### **Public Noticing and Information Dissemination**

The District mailed post cards to all residences within 600 feet of the project for the following:

- Notice of public meetings in June 2020
- EIR scoping and public scoping meeting
- Draft EIR release and public hearing
- Final EIR publication and public hearing

The District also published notices in Nextdoor and maintained a project website with information on the project and all public hearings.

Additional public noticing and information dissemination about the proposed project was conducted within Frederick Allen Park, including:

- Informational banners showing the proposed project were posted along the Corte Madera Creek fence within Frederick Allen Park on July 20, 2020
- Informational banners with links to the Draft EIR and survey questions were posted in Frederick Allen Park on February 2, 2021.
- The District surveyed the site and marked the limits of the proposed retention walls on the existing concrete wall with colored surveyor paint; the limits of the proposed restored channel and revised pathway were marked on the public pathway with colored chalk; and survey staking was placed in the vegetated grass areas.
- Storyboards with visual simulations were installed by the District at Frederick Allen Park ahead of the April 15th community workshop.
- Richard Simonitch led 2 site walks (one 4/14 and one 4/15) for the public to attend and ask questions, see on the ground what the extent of the impacts would be, and to look at the visual simulations of projected regrowth of vegetation in advance of the Town of Ross hearing on the project on April 15.