



CITY OF MORRO BAY PUBLIC WORKS ADVISORY BOARD (PWAB) AGENDA

The City of Morro Bay provides essential public services and infrastructure to maintain a safe, clean and healthy place for residents and visitors to live, work and play.

Regular Meeting Wednesday, May 20, 2020 – 5:30 P.M. Held Via Teleconference

ESTABLISH QUORUM AND CALL TO ORDER
MOMENT OF SILENCE
PLEDGE OF ALLEGIANCE
BOARD MEMBER'S ANNOUNCEMENTS & PRESENTATIONS

PUBLIC COMMENT

Pursuant to Section 3 of Executive Order N-29-20, issued by Governor Newsom on March 17, 2020, this Meeting will be conducted telephonically through Zoom and broadcast live on Cable Channel 20 and streamed on the City website (click [here](#) to view). Please be advised that pursuant to the Executive Order, and to ensure the health and safety of the public by limiting human contact that could spread the COVID-19 virus, the Veterans' Hall will not be open for the meeting.

Public Participation:

In order to prevent and mitigate the effects of the COVID-19 pandemic, and limit potential spread within the City of Morro Bay, in accordance with Executive Order N-29-20, the City will not make available a physical location from which members of the public may observe the meeting and offer public comment. Remote public participation is allowed in the following ways:

- Community members are encouraged to submit agenda correspondence in advance of the meeting via email to the Public Works' office at PWAB@morrobayca.gov prior to the meeting and will be published on the City website with a final update one hour prior to the meeting start time. Agenda correspondence received less than an hour before the meeting start time may not be posted until after the meeting.
- Members of the public may watch the meeting either on cable Channel 20 or as streamed on the City [website](#).
- Alternatively, members of the public may watch the meeting and speak during general Public Comment or on a specific agenda item by logging in to the Zoom webinar using the information provided below. Please use the "raise hand" feature to indicate your desire to provide public comment. Each speaker will be allowed three minutes to provide input.

Please click the link below to join the webinar:

- <https://us02web.zoom.us/j/82722747698?pwd=aWZpTzcwTHlRTk9xaTlmWVNWRFUQT09>
Password: 135692

- Or Telephone Attendee: (408) 638-0968 or (669) 900 6833 or (346) 248 7799; Webinar ID: 827 2274 7698; Password: 135692; Press * 9 to "Raise Hand" for Public Comment

A. CONSENT AGENDA

Unless an item is pulled for separate action by the Public Works Advisory Board, the following actions are approved without discussion. The public will also be provided an opportunity to comment on consent agenda items.

A-1 APPROVAL OF MINUTES FOR THE FEBRUARY 19, 2020 PUBLIC WORKS ADVISORY BOARD REGULAR MEETING

RECOMMENDATION: Approve as submitted.

B. BUSINESS ITEMS

B-1 DIRECTORS REPORT - INFORMATIONAL SUMMARY OF CURRENT PUBLIC WORKS ACTIVITIES

RECOMMENDATION: No action.

B-2 REVIEW OF POTENTIAL CHANGE ORDERS (PCO) FOR THE WATER RECLAMATION FACILITY

RECOMMENDATION: Staff recommends the Board provide input regarding the potential change orders for the Water Reclamation Facility (WRF).

B-3 REVIEW OF CONSTRUCTION WORK ZONE RESTRICTIONS DEVELOPED FOR THE CONVEYANCE FACILITIES COMPONENT OF THE WATER RECLAMATION FACILITY PROJECT

RECOMMENDATION: Staff recommends the Board provide input on the construction work restrictions that have been developed for construction of the Conveyance Facilities component of the Water Reclamation Facility (WRF) Project.

C. FUTURE AGENDA ITEMS

Pavement Management Plan Update - June

D. ADJOURNMENT

The next Regular Meeting will be held on **Wednesday, June 17, 2020 at 5:30 p.m.** via teleconference.

THIS AGENDA IS SUBJECT TO AMENDMENT UP TO 72 HOURS PRIOR TO THE DATE AND TIME SET FOR THE MEETING. PLEASE REFER TO THE AGENDA POSTED AT THE PUBLIC WORKS DEPARTMENT, 955 SHASTA AVENUE, FOR ANY REVISIONS OR CALL THE DEPARTMENT AT 772-6261 FOR FURTHER INFORMATION.

MATERIALS RELATED TO AN ITEM ON THIS AGENDA SUBMITTED TO THE PUBLIC WORKS ADVISORY BOARD AFTER DISTRIBUTION OF THE AGENDA PACKET ARE AVAILABLE FOR PUBLIC INSPECTION UPON REQUEST BY CALLING THE PUBLIC WORKS OFFICE AT 805-772-6261.

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN A CITY MEETING, PLEASE CONTACT THE CITY CLERK'S OFFICE AT LEAST 24 HOURS PRIOR TO THE MEETING TO INSURE REASONABLE ARRANGEMENTS CAN BE MADE TO PROVIDE ACCESSIBILITY TO THE MEETING.

PRESENT: Ric Deschler Chair
Janith Goldman Vice Chair
John Erwin Board Member
Torrey Byles Board Member
Chris Erlendson Board Member
Mike Whitlock Board Member
Doug Rogers Board Member

STAFF: Rob Livick Public Works Director
Janeen Burlingame Management Analyst
Damaris Hanson Environmental Program Manager
Joe Mueller Utilities Division Manager
Mike Wilcox Maintenance Superintendent
Amy Mills Office Assistant

ESTABLISH QUORUM, CALL TO ORDER

The meeting was called to order at 5:30 p.m. A quorum was present.

ANNOUNCEMENTS – Ric Deschler introduced new Board Members Mike Whitlock and Doug Rogers. He also mentioned the city-wide yard sale will take place April 2nd- April 5th, 2020.

PRESENTATIONS – City Councilmember Jeff Heller presented the Public Works Advisory Board Handbook to the board members.

PUBLIC COMMENT

<https://youtu.be/8TF3VERodSE?t=1734>

The public comment period was opened, and seeing none, the public comment period was closed.

A. CONSENT AGENDA

<https://youtu.be/8TF3VERodSE?t=1749>

A-1 Approval of Minutes for the January 15, 2020 Public Works Advisory Board Regular Meeting

MOTION: Torrey Byles moved to approve Item A-1. The motion was seconded by John Erwin and carried 7-0-0 unanimously.

B. BUSINESS ITEMS

B-1 Directors Report

<https://youtu.be/8TF3VERodSE?t=1791>

Rob Livick presented the Directors Report.

Discussion, comments and questions amongst Board members and staff.

The public comment period was opened, and seeing none, the public comments period was closed.

Discussion, comments and questions continued amongst Board members and staff.

FUTURE AGENDA ITEMS

Rob Livick stated the main topic for next month will be the proposed change orders on the WRF Project and in April, the Pavement Management Plan and treatment plan for the various streets. Also, the Work Plan review will also have to be scheduled.

ADJOURNMENT

The meeting adjourned at 7:12 P.M.

Recorded by:

Amy Mills
Office Assistant



AGENDA NO: B-1

MEETING DATE: May 20, 2020

MEMORANDUM

TO: Public Works Advisory Board
CC: City Manager
DATE: May 14, 2020
FROM: Jennifer Callaway - Interim Public Works Director

SUBJECT: Director's Report / Information Items

Please contact the individual staff members prior to the meeting for more detailed information.

Notify Me: Sign up for Notify Me on the City's Website www.morrobayca.gov/notifyme to be notified by email when Council, Board's and Commission's agendas and minutes are posted on the website.

Service Requests: Citizens can report a concern to the City for predetermined issues without the need to phone the City during business hours (for example: reporting a pothole) by using a feature on the City's website, Service Requests www.morrobayca.gov/905/Service-Requests, or the mobile App (available on both Android and IOS operating systems).

Staff can also add Service Requests for someone over the phone or in the office if they do not have access to a computer. Each category in Service Requests is assigned to the appropriate staff member to handle so citizens don't have to figure out what department to contact for an issue they need to report on.

CONSOLIDATED MAINTENANCE COMPLETED SERVICE REQUESTS AND WORK ORDERS 2/20/2020 TO 5/8/2020

Staff Contact: Mike Wilcox

Service Requests Completed		Work Orders Completed	
Banner Install or Remove Request	1	Facilities	
Custodial Request	2	Appliance Repair	0
Graffiti	1	Bldg. Envelope Other	0
Maintenance Request	11	Core Duties	4
Other - Street Lights	0	Electrical	0
Pavement Replace or Repair	2	Facilities Other	5
Pothole/Sinkhole	7	Flooring	4
Safety Issue	1	General Maintenance	3
Street Cleaning/Sweeping	2	HVAC	0
Storm Drain Issue	1	Landscaping	3
Tree Fallen Across Road	1	Painting	1
Tree Pruning/Trimming	4	Plumbing	3
Tree Removal Request	1	Roof & Gutter	0
Tree Replace	1	Weed Abatement	1
Service Request Total	34	Fleet	
		Body Work	3
		Cooling System	1
		Electrical System	3
		Engine Other	1
		Engine Service	5
		Fuel System	2
		Mower repair	0
		Oil Change Lube	9
		Shop Inspection	2
		Smog Inspection	0
		Steering & Suspension	0
		Tire Work	0
		Vehicle Inspection	4
		Furniture	
		Install	0
		Irrigation Systems	
		Inspect	1
		Repair	0
		Replace	0
		Landscape Areas	
		Other	3
		Parking Lots	
		Grading	1
		Street Trees	
		Hazard Reduction	3
		Install	3
		Parks	
		Concrete Work	0
		Electrical	0
		Graffiti Removal	1
		Irrigation Inspection	1
		Irrigation Repair	4
		Maintenance	10
		Mowing	1
		Other	2
		Painting	1
		Playground Maintenance	1
		Plumbing	2
		Weed Abatement	1
		Restrooms and Trash	
		Graffiti Removal	0
		Maintenance	2
		Remove	0
		Repair	1
		ROW-Sidewalks-Paths	
		Clean Clear Debris	1
		Graffiti Removal	1
		Other	1
		Replace	1
		Weed Abatement	1
		Streets	
		ADA Work	0
		Berm Repair	2
		CMA Patch	10
		Dig Out	3
		Grinding	1
		HMA Patch	4
		Inspect	0
		Remove Sign	0
		Repair	1
		Replace Sign	1
		Right of Way Obstruction	4
		Striping/Painting	3
		Sweeping/Cleaning	1
		Street Dig Out	0
		USA Request	0
		Weed Abatement	3
		Work Order Total	130



CONSOLIDATED MAINTENANCE PROJECT PICTURES

Staff Contact: Mike Wilcox

- Staff has refreshed the crosswalks along the Embarcadero from the power plant entrance to the Olive Street Stairs with pre-formed thermoplastic stripes.



Staff has taken advantage of the shutdown to refinish all hardwood floors, tile floors, and resilient flooring in public facilities.

CONSOLIDATED
MAINTENANCE FACILITIES
Staff Contact: Mike Wilcox



Keep Your Distance. Slow the spread.

Protect yourself and others from virus spread by keeping a 6 foot distance from other people.

Thank you for doing your part to help slow the spread of COVID-19 by practicing social distancing to put space between yourself and others, as well as continuing to practice healthy habits like washing your hands for at least 20 seconds and staying home if you're sick.

TRANSIT

Staff Contact: Janeen Burlingame

Since the COVID-19 pandemic began, the City has been operating its regular Transit service schedule and has not experienced any decreases to service hours or days. Transit has not experienced any driver loss due to illness, caring for family members, or request for time off for being in a higher risk category for infection. Ridership began declining in late February and early March as riders began self-quarantining. Since the Shelter at Home order took effect on 3/19/20, ridership has decreased by 68%.

Morro Bay Transit is following the Centers for Disease Control's (CDC) best practices and recommendations to prevent the spread of COVID-19. Frequency of interior vehicle cleaning and disinfection of high touch areas and seating has increased. Drivers have been wearing protective equipment including masks and gloves.

Rider notices have been placed in the buses to provide guidance regarding stopping the spread of germs, social distancing, and staying home if sick.

On 3/23/20, Transit began providing free bus service during the time the Shelter at Home order is in effect to continue providing lifeline transport services for those in need that may have been economically impacted by the COVID-19 pandemic as well as to minimize contact between bus operators and riders at the farebox area when entering the vehicle since our buses don't have rear entrances to board passengers.

In early April, Transit began blocking off the first row of seating behind the driver to provide additional distancing between the drivers and riders. On 4/15/20, blocked additional seating and began limiting the number of passengers riding on the vehicle at the same time to maintain proper distancing.



TROLLEY

Staff Contact: Janeen Burlingame

Given the uncertainty with what level of tourism may occur this summer due to the impacts from COVID-19, Trolley service will be scaled back this season. Normally, the seasonal Trolley service would begin Memorial Day weekend. With the Shelter at Home order still in effect through much of May and the uncertainty of tourism, business, and State Park conditions once it's lifted, it was decided to not start the 2020 Trolley season until the new fiscal year. Service will be focused on higher ridership days and hours and routes will be reduced from 3 to 1 with service focused on high volume ridership locations.

The first day of the season would be July 4 (pending the Governor's and County's progress with reopening of the State and SLO county region).

As with Transit, the Trolley will follow the Centers for Disease Control's (CDC) best practices and recommendations to prevent the spread of COVID-19. Frequency of interior vehicle cleaning and disinfection of high touch areas and seating will be increased from previous year's cleaning schedule. Drivers will wear protective equipment including masks and gloves.

WATER – OPERATIONS

Staff Contacts: Joe Mueller
Damaris Hanson

Operations and Maintenance April 2020:

Distribution

- Exercised 7 mainline water valves throughout the city.
- Responded to two after-hour callouts:
 - Vashon booster station alarm, opened Ironwood valve to send more water to Blanca tanks.
 - Kings tank west valve adjustment during tank cleaning project.
- Responded to four potential water leaks, located and repaired as needed. All leaks and corrective action taken is logged and tracked through the CityWorks, Asset Management/Work Order/Permitting, software and database.
- Performed 20 water service turn-offs and 48 water service turn-ons.
- Replaced four water meters throughout town.
- Located and marked 48 Underground Service Alerts.
- Investigated 29 distribution issues ranging from meter re-reads, meter high reads, pressure issues, and water quality concerns.
- Replaced water pressure tanks at well sites: High School well #1 and Flippos well.
- Repaired hit fire hydrant at Pecho and Kern, and at Beachcomber & Mindoro.
- Replaced damaged distribution pipe at 196 Panay Street.
- Installed new cooling fans on Opto-22 distribution system monitoring equipment.
- Drained Kings tank West and Blanca tanks #3 & #4 into distribution system for Superior Tank to complete cleaning, inspection, disinfection and comprehensive report.

Submitted reports to the State, [electronically](#): No Violations

- April 2020 Monthly Monitoring Report
- April 2020 Monthly Water Rights Extraction report
- April 2020 Monthly Water Conservation report



Panay Street distribution line repair



Treatment

- Continued decommissioning old desalination equipment from RO building.
- Performed a clean in place (CIP) backwash of the reverse osmosis (RO) membranes with caustic soda.



Backflow installation at well site



Decommissioning of desalination equipment

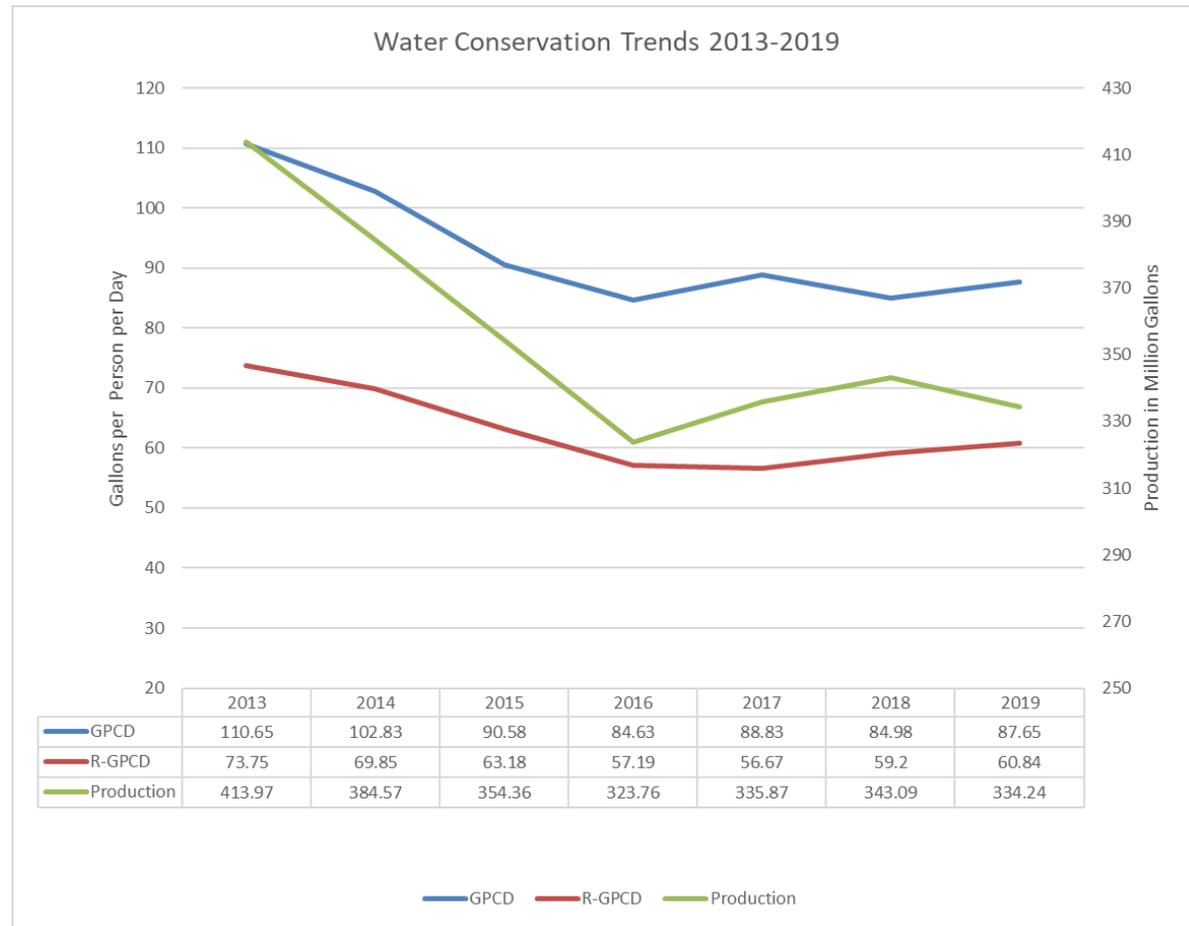
WATER – CONSERVATION

Staff Contact: Damaris Hanson

Annual Summary

Water conservation trends show water usage and production has continued to decrease in the last several years.

Currently due to COVID -19 stay-at-home order, the Residential water usage has increased by approximately 10% compared to Commercial water usage, which has decreased by approximately 39% when comparing March and April 2019 to March and April 2020



Please remember to make water conservation a way of life!

City water conservation rebates available; Cash for grass, rain barrel, irrigation retrofit, SMART irrigation controller, toilet retrofit and Energy star washing machine. State rebates now available for removing grass, add replacing a toilet that flushed more than 1.6 gallons per flush (\$100).

WASTEWATER – COLLECTIONS

Staff Contacts: Joe Mueller

John Gunderlock

Operations and Maintenance April 2020:

- Hydro cleaned approximately 10,303 feet of city main line.
- Video inspected (CCTV) 8,706 feet of gravity main line.
- Respond to an SSO (Sewer System Overflow) near the boat ramp, cleared blockage in the main line and cleaned up the spill.
- Received and completed 1 service requests to investigate possible partial line blockages.
- Performed fats, oils, and grease source control inspections.
- Tested lift station generators, alarms and performed monthly maintenance.
- Performed Lift Station #1 maintenance: removed, de-ragged, and reset pump tolerances.
- Sampled pH levels from Mission Linen.
- Inspected three laterals tie-in connections that were installed or replaced onto gravity main lines.
- Dukes Root control finished with yearly root treatment throughout the collections system.
- Raised 2 Manhole lids to street grade and replaced the lids with a sealing style manhole lid to help reduce inflow from water runoff.



Manhole Ring Raising



SSO near boat ramp



Lift Station #1



WASTEWATER – TREATMENT

Staff Contacts: Joe Mueller
John Gunderlock

Operation & Maintenance April 2020

- Flow for the month of April averaged 1.128 Million Gallons per Day (MGD) and totaled 33.828 million gallons.
- 1.6 inches of precipitation was recorded in the month of April.
- Responded to one after hour callouts in April for plant chlorine adjustments.
- San Luis Powerhouse performed the quarterly emergency generator inspection.
- Rebuilt driveline on influent pump #1.
- Adjust less flow to biofilter #2 and more flow to biofilter #1 and re-time.
- Installed new vac/pressure relief pop-offs on all three digesters.
- Replaced new chlorine area sump pump and cleaned check valve.
- Changed v-belts and serviced plant air compressors.
- Hydro-jetted sludge drying bed decant drain lines #1 and #2.
- Completed and submitted the Laboratory Quality Assurance WP Study 303.
- Adjusted water to biofilter pump packing glands.
- Cleaned intake diffuser and replaced tubing on Influent composite sampler.
- Pumped out roof drain and hatch on digester #3 floating cover.
- Sprayed weeds throughout the facility.
- Updated utilities safety training matrix.
- Sampled secondary effluent for Bromide and Electrical Conductivity for Water Reclamation Facility design parameters.
- Operations staff reviewed and made comments on the 90 percent Water Reclamation Facility Plans.
- Updated Utilities Fire Prevention Emergency Evacuation Program.
- Drove solar drying beds with front-end loader to speed up drying time.
- Flushed digester #3 j-box due to random plugging.



Replaced digester gas safety pop-offs



Replaced composite sampler pump

Utilities Staff attended the following training:

- In-house briefings to address Covid-19 social distancing and safety precautions
- Review of the Utilities Fire Prevention Emergency Evacuation Program

Submitted reports to the State, [electronically](#):

- March 2020 Monthly Discharge-Monitoring Report (eDMR)
- March 2020 Monthly Self-Monitoring Report (eSMR)
- First Quarter Receiving Waters Report (eSMR)
- First Quarter Effluent Bacteria Report (eSMR)



Boiler service and leak repair



Clean and inspection of digester spark arrestors

ENGINEERING/CAPITAL PROJECTS

Staff Contact: Rob Livick

Highway 41/Main/Highway 1 – No Change

- Project construction is still financially constrained
- Contract completed with GHD formerly Omni-Means to complete Pre-Design and Design Work
- Working with City's funding partners the San Luis Obispo Council of Governments (SLOCOG) & Caltrans on funding and design options

Pavement Management

- FY 19/20 program includes a complete Plan revision to incorporate sealing techniques not anticipated with 2011 Pavement Management Plan, and reevaluate the cost benefit of asphalt pavement overlay
- Pavement site inspections and measurements completed. PEI is recommending a stop gap project to repair failures on arterial and collector streets.
- No work will take place in FY19/20 due to budgetary concerns with Measure Q.

Water System Improvements – Nutmeg Pressure Zone Fire Flow Improvements

- Addressed in the OneWater – Water System Capital Improvement Plan
- City Council approved a contract with Cannon Corp for planning and design service
- This phase of the project will bring the project to 30-percent design, complete the CEQA determination and permitting through the County and City; and property acquisition.

Collection System Repairs – Beachcomber, Main Street and Atascadero Road Sewer Main R/R

- Addressed in the OneWater – Wastewater Collection System Capital Improvement Plan
- City Council approved a contract with Cannon Corp for design services
- Design to be complete Spring 2021
- Construction proposed for Summer/Fall 2021

Misc. Small CIPs

- North Point Parking Lot: Project canceled due lack of funds available in the assessment district accumulation.
- Boat Rinse Off WQ/Tidelands Pocket Park: Contracting for "flatwork". City Crews expected to perform approx. 40% - 50% of work including demo and grading.
- Bocce Ball/Greenhouse on Shasta and Dunes: "Volunteer in conjunction with City Staff. On hold until after COVID restrictions.

Cloisters Landscaping Improvements – Concept Plan

- Concept plan approved by City Council on October 22
- City Council appropriated funding from the Assessment District to complete the first phase of landscape improvements.

Sequoia Storm Drain Repair/Replacement

- A "sink hole" developed due to wear to the existing storm drain
- In house design is underway for the repair

Laurel Easement Storm Drain Repair

- 1950's vintage CMP storm drain leaking and caused erosion and exposed sewer main
- In house design is underway for the repair

Operating and Capital Improvement Program is online at:

http://www.morro-bay.ca.us/DocumentCenter/View/13514/Adopted-FY-2019_20-Operating-and-Capital--Budget

ENGINEERING/DEVELOPMENT REVIEW

Staff Contact: Rob Livick

Staff is working on the following projects:

- Power Plant Battery Energy Storage System (BESS) Project: Withdrawn by applicant
- 405 Atascadero, 35-unit multi-family low income housing: Planning Review
- 535 Atascadero, Parcel Map (MB 15-0103) with Public Improvements: In Plan check and Map Check
- Paula/Ironwood two lot subdivision - Map Check
- Harborview Hotel/Commercial: Planning Review
- Hotel Development – NW corner Atascadero Road West and Highway 1: Planning Review
- Sonic Restaurant – Main and Highway 41: Plan check – Waiting for resubmittal from applicant (Permit Extension Granted)
- Rose's Landing Upstairs Hotel - Plan check
- US Coast Guard Addition: In Plan check
- Morro Bay Landing: Finished Construction
- Three Stacks and a Rock Brewery at Former Aquarium Building: In Plan check
- Residential remodels and construction: ~35 Projects in various stages of review
- Encroachment Permits Issued: 41 in February- April

WASTEWATER – NEW WRF

Staff Contact: Rob Livick

- Update being presented in this Agenda
- Work continues in accordance with City Council direction.
- Additional Information at www.morrobaywrf.com and www.morrobayca.gov



AGENDA NO: B-2

MEETING DATE: May 20, 2020

Staff Report

TO: Public Works Advisory Board

DATE: May 14, 2020

FROM: Eric Casares, PE – WRF Program Manager
Rob Livick, PE/PLS –City Engineer

SUBJECT: Review of Potential Change Orders for the Water Reclamation Facility

RECOMMENDATION

PWAB to provide input regarding the potential change orders for the Water Reclamation Facility (WRF).

ALTERNATIVES

A total of twenty-six (26) Potential Change Orders (PCOs) are being proposed for modification of the current WRF scope of work.

FISCAL IMPACT

The total cost for the twenty-six (26) PCOs is \$5,992,217. If all the PCOs are approved, the guaranteed maximum price for the WRF facility component of the overall project would increase from \$68,934,508 to \$74,926,725. This total cost for the PCOs exceeds the planned contingency for the WRF included in the original \$126 million baseline budget by \$1,451,000. Acceptance of all the PCOs would result in an increase in the overall WRF Project budget from \$126 million to \$130.6 million. This new amount of \$130.6 million maintains a total project contingency of \$4.2 million (with \$1.45 million designated for the WRF facility component of the project). Despite the overall increase in the estimated total cost of the WRF project, it will not impact the existing water and sewer rates for Morro Bay residents and businesses.

In order to evaluate the impacts of the updated project budget and the cost of money as a result of reduced interest rates on the Project, the City's financial consultant, Bartle Wells Associates (BWA) developed a comparison of debt service payments developed in 2018 as part of the original Rate Study, an analysis performed in October 2019 following the City being placed on the 2019 fundable projects list by the Clean Water State Revolving Fund (CWSRF), and an analysis performed in May 2020 that reflects the new budget and the actual interest rate included in the executed loan agreement with the Water Infrastructure Financing and Innovation Act (WIFIA) program. The results are presented in the table below:

Prepared By: RL

Dept Review:

City Manager Review: SC

City Attorney Review: JWP

Scenario	2018 Rate Study	2019 Financial Plan Update	2020 Debt Service Projections
Project Budget	\$126,000,000	\$125,882,000	\$130,596,000
Debt Proceeds	\$95,175,000	\$97,000,000	\$101,714,000
Total Debt Service Cost	\$179,945,000	\$132,660,000	\$128,138,000
Present Value of Total Debt Service Payments⁽¹⁾	\$107,738,000	\$81,698,000	\$74,622,000
Maximum Annual Debt Service Payment	\$5,293,000	\$4,422,000	\$3,993,000
Notes: (1) Present value is shown in current dollars and assumes a 3-percent discount rate.			

BACKGROUND

At the October 23, 2018 City Council meeting, a contract was awarded to the Filanc/Black & Veatch Team (DB team) in the amount of \$67,234,512. The contract is structured as a guaranteed maximum price (GMP). Therefore, the DB team committed to delivering the specific project defined in the contract for a cost not to exceed \$67,234,512. The contract award was the culmination of a year-long competitive procurement that began with the advertisement of a request for qualifications (RFQ) on October 27, 2017. The scope of work (i.e., Exhibit B) included in the contract is the same as the scope of work included in the DB team's original proposal received by the City on May 08, 2018.

The DB team is responsible for design of the WRF facility (and not the other two components of the overall project – conveyance and injection well systems). Per the DB agreement, the design has progressed and been presented to the City over the course of the following design deliverables:

- Basis of Design Report/30 Percent Submittal
- 60 Percent Design Submittal
- 90 Percent Design Submittal

Since the agreement was executed, the DB team has been advancing the design concept that was included in their proposal. This refinement is captured in the Draft Basis of Design Report (BDR) and 30 Percent Design Submittal, 60 Percent Design Submittal, and 90 Percent Design Submittal.

The DB team, City staff, and Program Manager have been working closely to refine the WRF scope of work to reflect a facility that best fits the City's current and long-term operational needs. In addition to weekly status updates, the following design internal working meetings or workshops¹ have been held since November 2018:

Meeting	Date	Topics
Workshop No. 1	November 28, 2018 November 29, 2018	<ul style="list-style-type: none"> • Permitting • Process design criteria • Electrical design criteria • Instrumentation design criteria
Workshop No. 2	December 19, 2018	<ul style="list-style-type: none"> • Permitting

		<ul style="list-style-type: none"> • Partnering • Process design criteria • Architectural review
Workshop No. 3	December 20, 2018	<ul style="list-style-type: none"> • Coordination with Conveyance Facilities Project • Process design criteria
Workshop No. 4	January 10, 2019	<ul style="list-style-type: none"> • Permitting • Control descriptions
Workshop No. 5	March 12, 2019	<ul style="list-style-type: none"> • Permitting • PCO review
Workshop No. 6	March 28, 2019	<ul style="list-style-type: none"> • PCO review
Workshop No. 7	May 08, 2019	<ul style="list-style-type: none"> • Design review • Equipment procurement
Workshop No. 8	May 29, 2019	<ul style="list-style-type: none"> • Permitting • Equipment procurement
Workshop No. 9	August 12, 2019	<ul style="list-style-type: none"> • Design review (60 Percent) • Equipment procurement
Workshop No. 10	September 12, 2019	<ul style="list-style-type: none"> • Design review
Workshop No. 11	February 19, 2020	<ul style="list-style-type: none"> • Design review (Yard Piping) • PCO review • Permitting
Workshop No. 12	April 23, 2020	<ul style="list-style-type: none"> • Design review (90 Percent)

At this time, the City has identified a total of twenty six (26) PCOs that include a cost impact to the WRF for consideration by PWAB for recommendations to the City Council. The table below summarizes the PCOs currently being considered. Approval of the PCO's would increase the GMP.

PCO No.	Description	Cost Impact (Increase/Decrease)	Final PCO Cost	Primary Rationale
16	Modify Outfall Pump Station	Increase	\$367,632	Reliability and Redundancy
19	Reduce Size of the Product Water Tank	Decrease	\$(129,681)	Construction Cost Savings
32	Sulfuric Acid System	Increase	\$315,652	Changing Conditions
37	PLC/SCADA Software Uniformity (MBR, RO, and Headworks Only)	Increase	\$201,577	Long-Term O&M Cost Savings
39	NTP Delay	Increase	\$1,220,532	Biological Opinion
40	Headworks Valve Automation	Increase	\$249,946	Reliability and Redundancy
41	Perimeter Barbed Wire Fence	Increase	\$79,935	Changing Conditions
42	UV/AOP System Modifications	Decrease	\$(33,481)	Construction Cost Savings
44	Tank Access Improvements	Increase	\$210,327	Operator Safety
45	Maintenance Ceiling Revisions and Automated Roll-Up Door	Increase	\$21,009	Improved Operations
46	Curbed Washdown	Increase	\$76,250	Reliability and

PCO No.	Description	Cost Impact (Increase/Decrease)	Final PCO Cost	Primary Rationale
	Areas			Redundancy
47	Changes to Furnishings and Residential Equipment	Increase	\$85,194	Improved Operations
50	Revisions to Water/Sewer Supply Storage Sheds	Increase	\$13,142	Improved Operations
52	Analyzer Relocation and Enclosures	Increase	\$76,555	Improved Operations
55	Notice of Dispute - PG&E Temporary Power	Increase	\$13,163	Changing Conditions
56	Impacts of Water Quality Changes	Increase	\$282,420	Changing Conditions
57	Soil Lateral Earth Pressure	Increase	\$116,329	Changing Conditions
58	Permanent Exclusion Fencing	Increase	\$855,991	Biological Opinion
59	Increased Escalation Costs	Increase	\$1,232,677	Biological Opinion
61	PCO Design Impacts	Increase	\$158,172	Changing Conditions
62	Conduit Alternative Design	Decrease	\$(268,400)	Construction Cost Savings
64	Reduce Performance Period	Decrease	\$(35,450)	Construction Cost Savings
66	Caltrans Intersection Improvements	Decrease	\$(21,893)	Construction Cost Savings
67	BNR System Modifications	Increase	\$742,405	Improved Operations
68	SAFE Equalization Settle Tank Drain Piping	Increase	\$62,215	Improved Operations
69	Third Party Inspection and Testing	Increase	\$100,000	Changing Conditions
Total			\$5,992,217	

The above listed PCOs are represented in the 90 Percent Design Submittal and will be discussed as part of the presentation that will be presented at the May 20, 2020 PWAB meeting.

The primary rationale for the need for each PCO can be attributed to the following:

- Biological Opinion – Resulting from the Section consultation with United States Fish and Wildlife Services (USFWS) over the California Red Legged Frog (CRLF). The process delayed the start of construction by nearly 5 months, which resulted in delay and escalation costs as the City projected the start date in the contract with BV/F to be late October 2019, when in fact the project could not start until March based upon USFWS consultation. Further, the Biological Opinion from USFWS required a permanent wildlife exclusion fence to keep the CRLF out of the site.
- Changing Conditions – These are primarily related to expenses that were discovered through the review of the project and changing water quality that were unknown at the time the contract

- was executed.
- Improved Operations – These will help improve the overall efficiency of the project and reduce operational costs once the project becomes operational.
 - Reliability and Redundancy – These improvements will help ensure the project continues to operate in the event of mechanical failures.
 - Operator Safety – Refinements made to provide greater safety features for operations and maintenance staff.
 - Long-Term O&M Cost Savings
 - Construction Cost Savings

A summary of the value of each of these primary rationale categories is included in the table below.

Primary Rationale	Value
Biological Opinion	\$3,309,201
Changing Conditions	\$1,065,670
Improved Operations	\$1,000,520
Reliability and Redundancy	\$693,828
Operator Safety	\$210,327
Long-Term O&M Cost Savings	\$201,577
Construction Cost Savings	\$(488,905)
Total	\$5,992,217

ATTACHMENT

1. [Summary of PCOs](#)
2. [90 Percent Design Drawings](#)
3. [90 Percent Design Specifications](#)
4. Meeting Presentation

Item B-2 Public Works Advisory Board

Water Reclamation Facility Potential Change Orders

May 20, 2020

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Recommendations

- Provide input regarding the potential change orders (PCOs)

Status Update

Current expenditures and revised budget

Project Element	Actual Expenditures to Date	Remaining Expenditures	Total Project Budget
General Program	\$9,154,000	\$3,810,000	\$12,964,000
WRF	\$8,159,000	\$63,696,000	\$71,856,000
Conveyance Facilities	\$1,807,000	\$28,181,000	\$29,989,000
Recycled Water Facilities	\$388,000	\$5,137,000	\$5,526,000
Contingency		\$10,263,000 ⁽¹⁾	\$10,264,000
Total	\$19,508,000	\$111,087,000	\$130,599,000

Notes:

(1) If all PCOs are approved by City Council (\$6.0 million), the remaining contingency would be \$4.2 million with \$1.5 million remaining for the WRF component of the Project.

Impacts of revised budget on total cost

Scenario	2018 Rate Study	2019 Financial Plan Update	2020 Debt Service Projections
Project Budget	\$126,000,000	\$125,882,000	\$130,596,000
Debt Proceeds	\$95,175,000	\$97,000,000	\$101,714,000
Total Debt Service Cost	\$179,945,000	\$132,660,000	\$128,138,000
Present Value of Total Debt Service Payments⁽¹⁾	\$107,738,000	\$81,698,000	\$74,622,000
Maximum Annual Debt Service Payment	\$5,293,000	\$4,422,000	\$3,993,000

Notes:

(1) Present value is shown in current dollars and assumes a 3-percent discount rate.

Potential Change Orders

What is a PCO?

Suggested change to the WRF identified

Determination of material change in DB scope

Development of raw order of magnitude (ROM) cost

Decision made to move forward

Development of Draft PCO

Review of Draft PCO by Program Manager

Discussion of Comments

Development of Final PCO and Negotiation

Summary of proposed PCOs

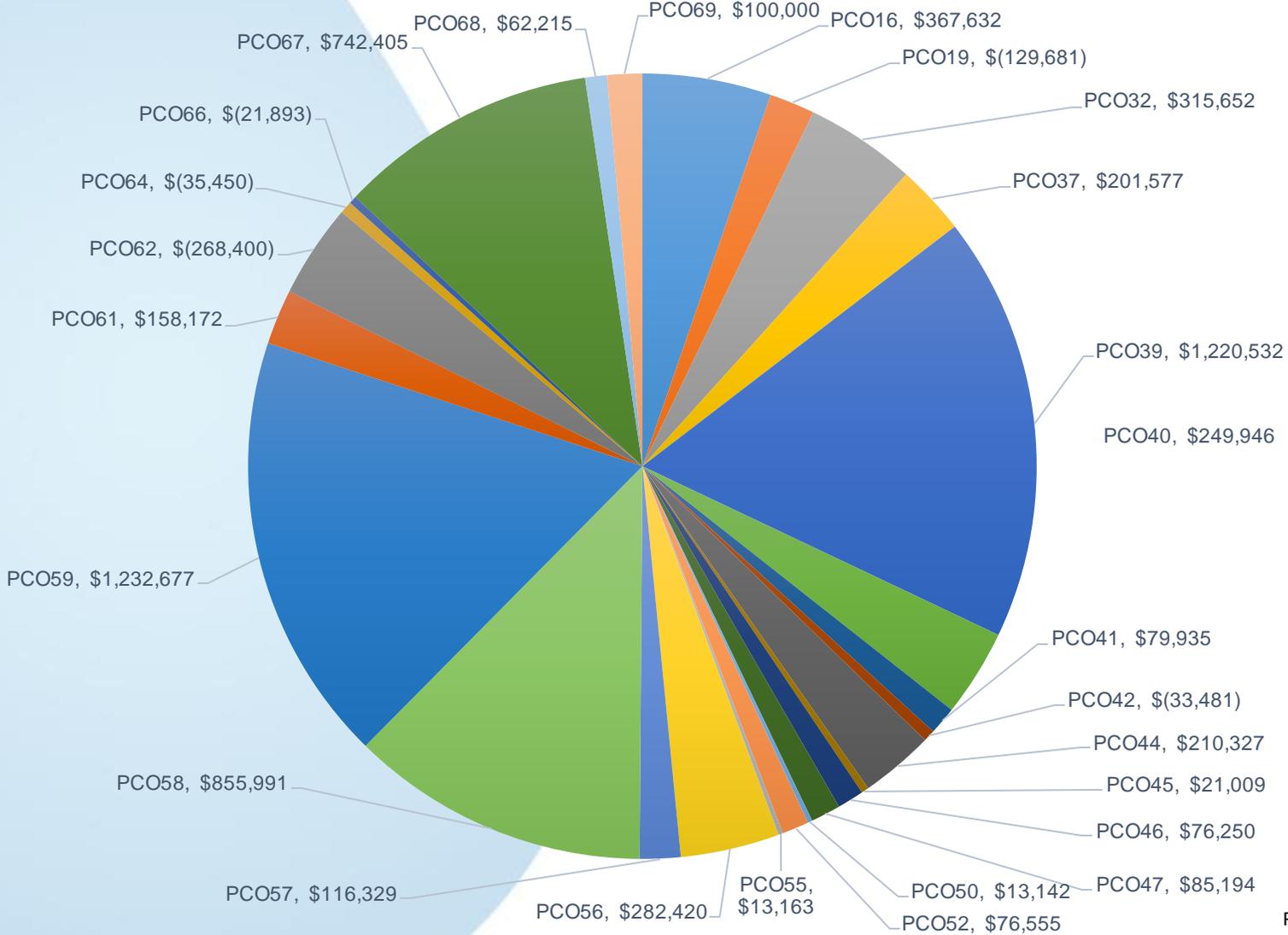
- Total 26 PCOs being considered
- Total cost impact of \$5,992,217
 - Cost increase = \$6,481,123
 - Cost savings = \$(488,905)
- Adoption of the PCOs would exceed the remaining contingency for the WRF component of the Project (\$4,541,338)

PCOs will result in an increase in the total Project Budget

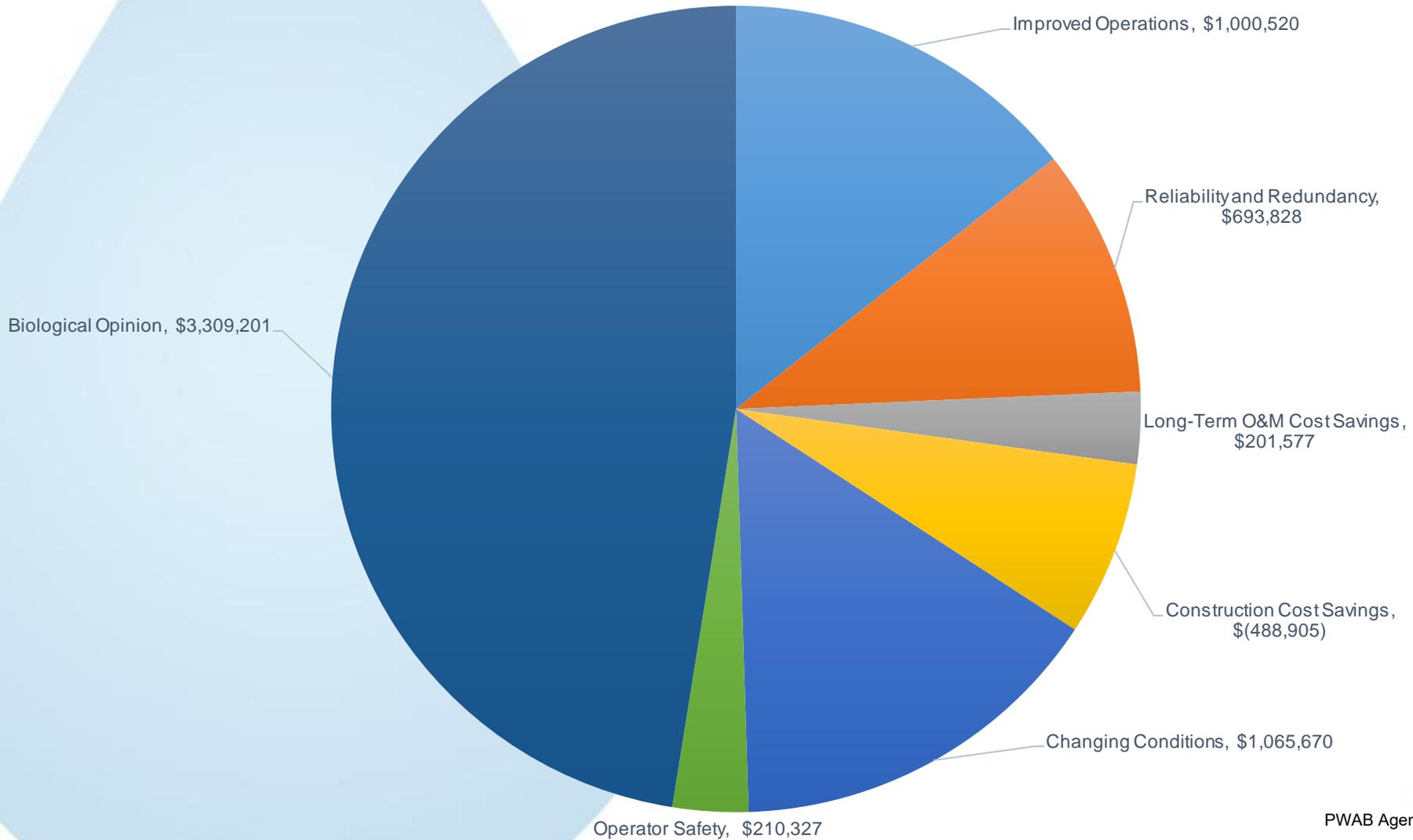
Impacts on WRF contingency

DB Contract	Amendment Value	GMP	Contingency	Contingency Revision
Original Agreement	\$0	\$67,234,512	\$6,241,333	\$0
Amendment No. 1	\$1,636,059	\$68,870,571	\$4,605,274	\$0
Amendment No. 2	\$63,937	\$68,934,508	\$4,541,338	\$0
Amendment No. 3	\$5,992,217	\$74,926,725	\$(1,450,879)	\$2,900,000
Total			\$1,449,121	

Breakdown of cost increases



Cost increase categories



Biological Opinion

Biological opinion

- Initiated formal consultation with USFWS in December 2019 for the California Red Legged Frog
- Project financial impacts
 - Delay issuing the construction Notice to Proceed
 - Implementation of avoidance measures (temporary and permanent exclusion fencing)



PCO 039 – NTP Delay

- Contract anticipated delay up to 1 year (October 23, 2019)
- NTP delayed until March 20, 2020
- Cost negotiated with the DB team:
 - Original = \$1,487,368
 - Final = \$1,220,532

Cost = \$1,220,532

PCO 059 – Increased Escalation Costs

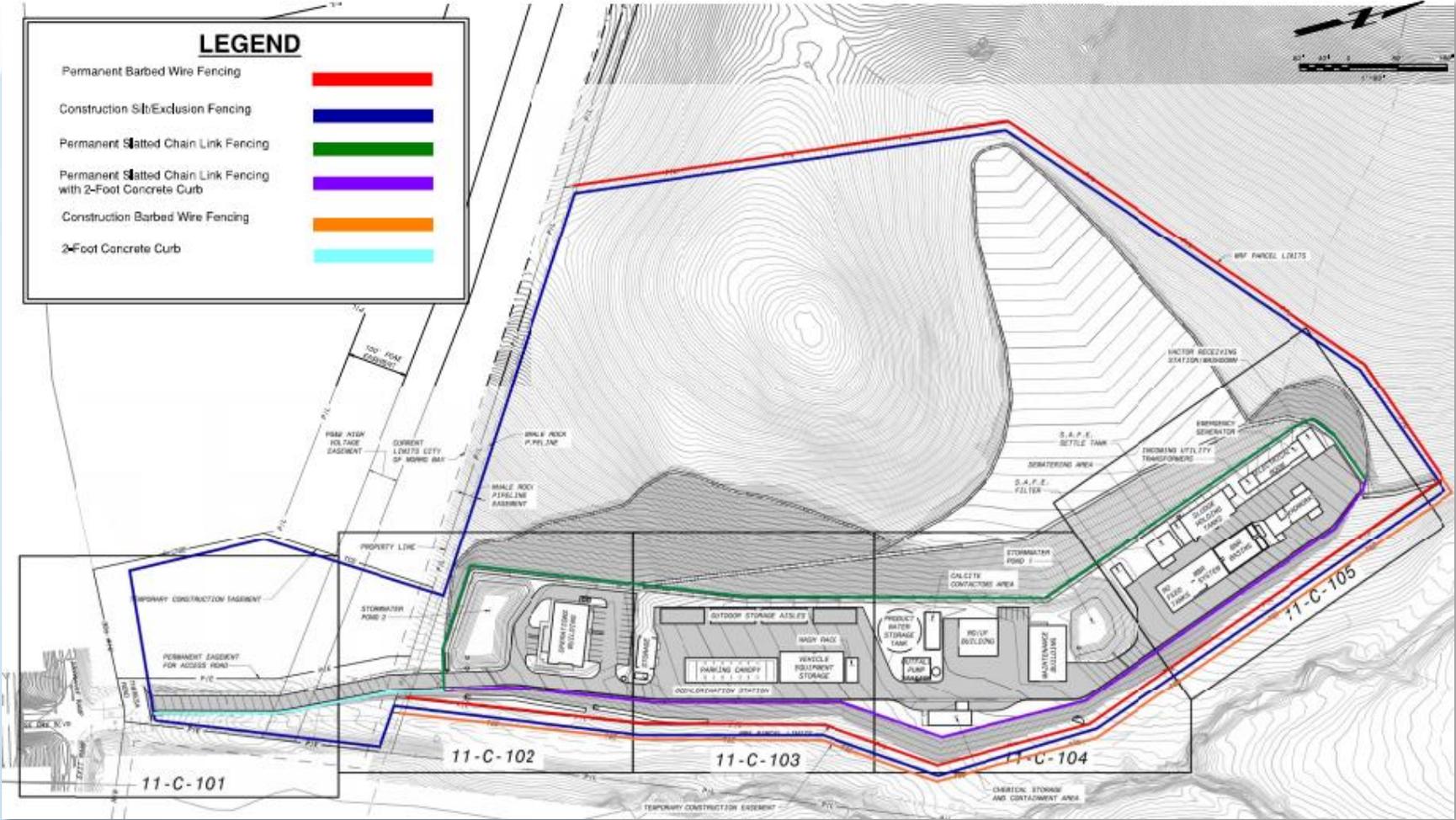
- Additional escalation calculated by the DB team from October 22, 2019 to March 20, 2020
- Escalation calculated based on specific Black & Veatch indices
 - Approach vetted by the Program Manager
 - Resulting increase less than if ENR was used

Cost = \$1,232,677

6.16 Compensable Cost Escalation

6.16.1 After the award of this Design-Build Agreement, the construction start date is anticipated to be delayed for up to twelve months until financing is approved. The Design/Build Entity will not be compensated for increases in pricing within that delay, unless the Engineering News-Record (ENR) Construction Cost Index (CCI) for San Francisco, CA exceeds 3.0% annual average for that twelve months.

PCO 058 – Permanent Exclusion Fencing

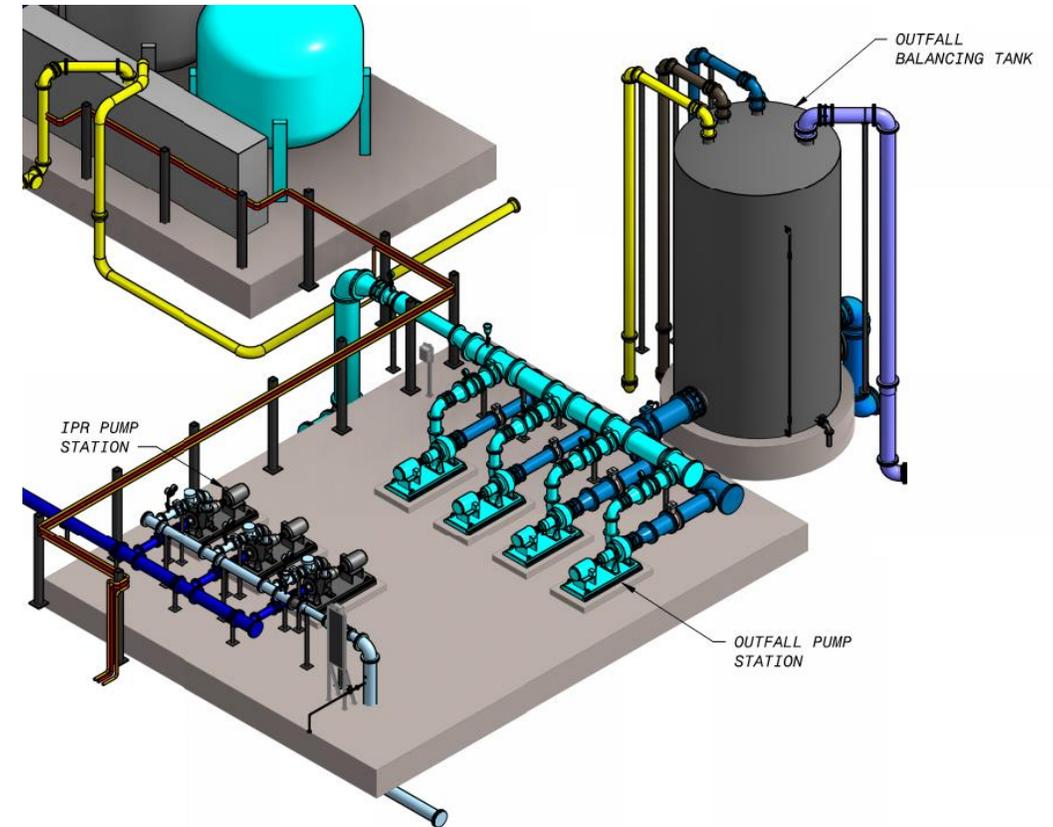


Reliability and Redundancy

PCO 016 – Outfall Pump Station Modification

- Design criteria
 - RFP: 7.17 mgd
 - Revised: 8.14 mgd
- Original design assumed purified water production during peak wet weather events
- Final design also needed to be coordinated with the Conveyance Facilities design

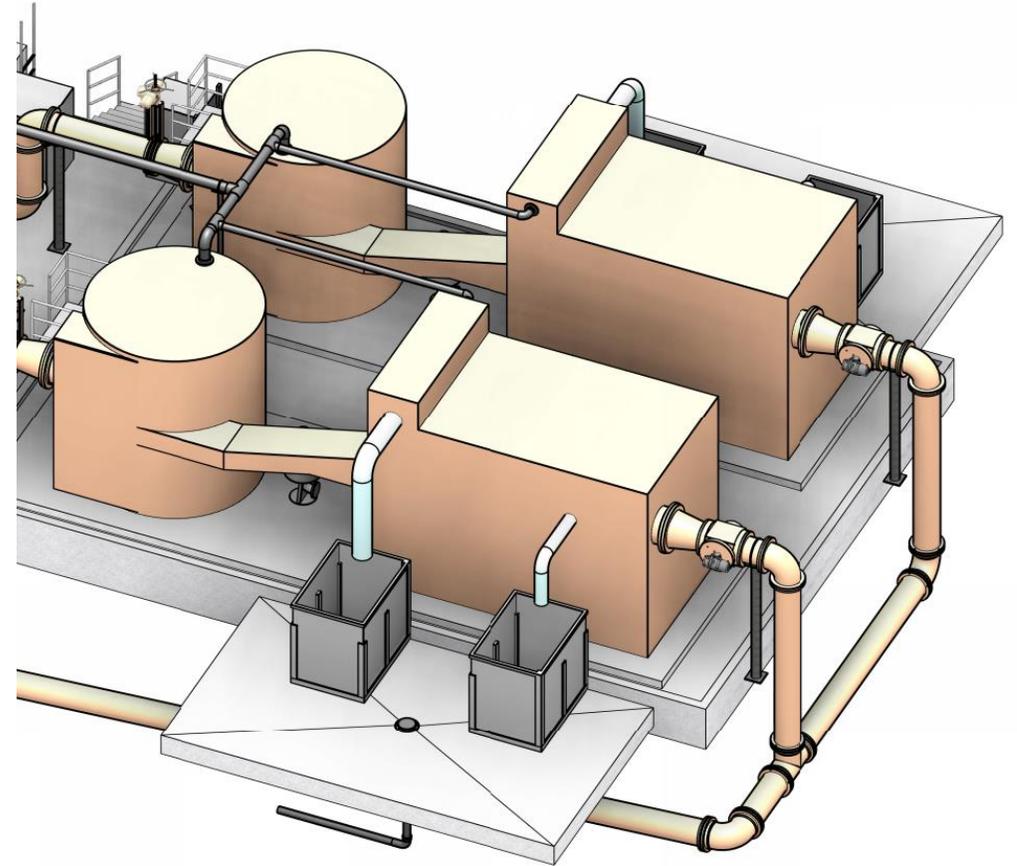
Cost = \$367,632



PCO 040 – Headworks Valve Automation

- Facility is not manned continuously
- Automated valves allows for better unattended operation
- Provides protection against localized overflows

Cost = \$249,946

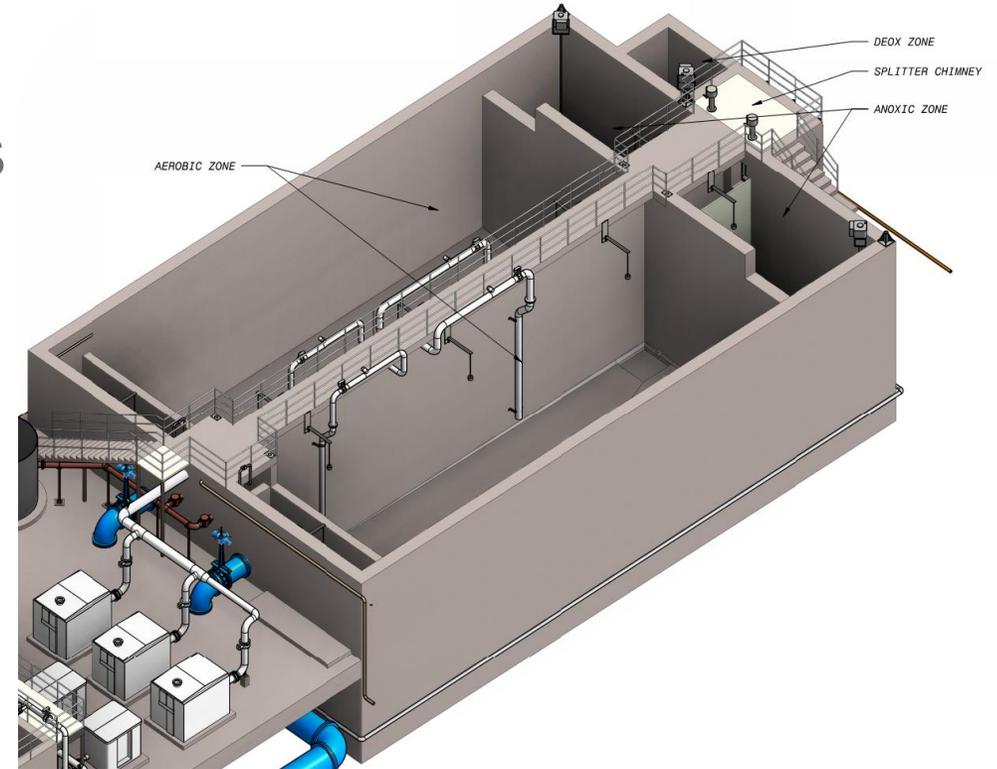


Improved Operations

PCO 067 – BNR System Modifications

- Alternative process control proposed by DB team to save capital and O&M costs
- Decision to change to a more conventional approach
- Necessary modifications
 - Larger blowers
 - Larger air piping
 - Additional fine bubble diffusers
 - Ammonia chemical feed system

Cost = \$742,405

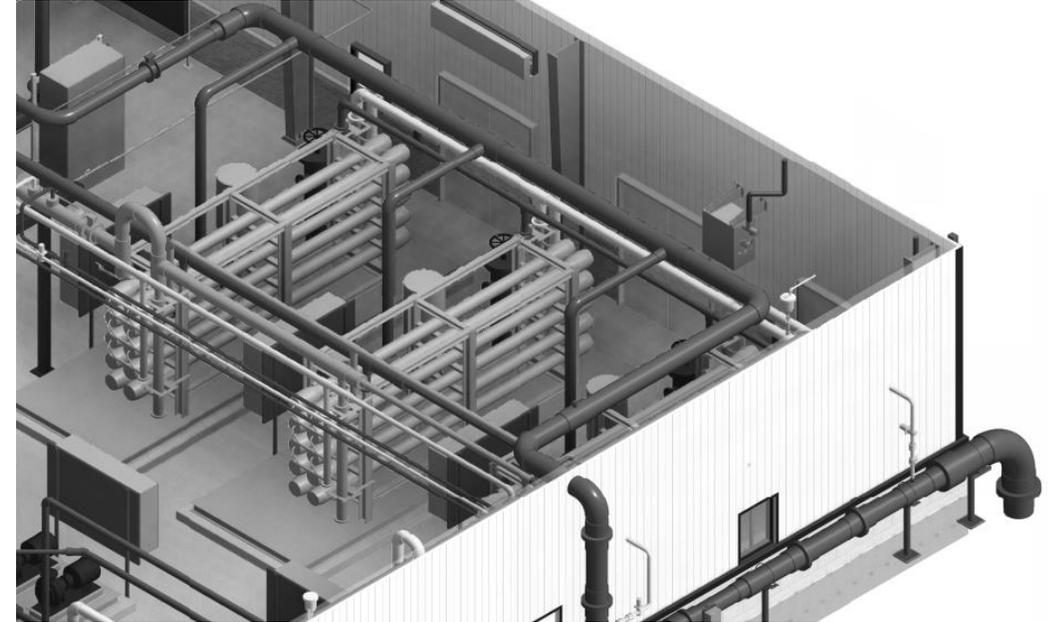


Changing Conditions

PCO 056 – Impacts of Water Quality Changes

- Significant, additional analysis required to investigate bromate impacts on UV-AOP system
- Revisions made to the RO system
 - Material upgrade from 316 to Duplex stainless steel
 - Increase feed and interstage pump sizes

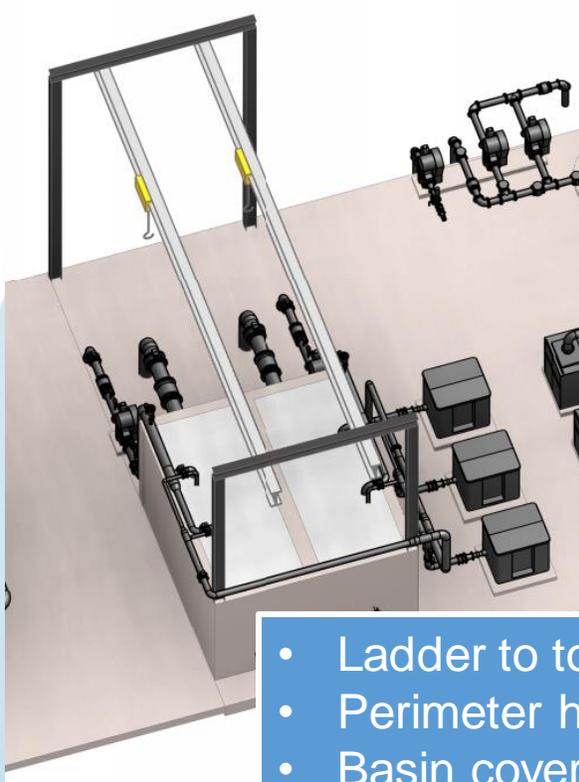
Cost = \$282,420



Operator Safety

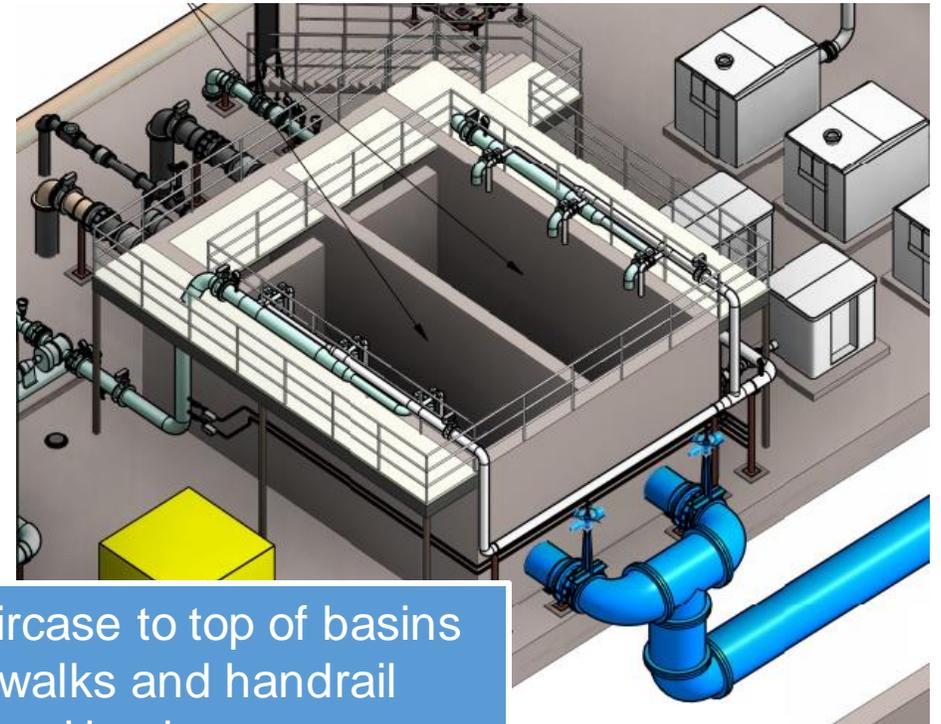
PCO 044 – Tank Access Improvements

- Access improvements to MBR basins, SAFE System, and BNR basins



- Ladder to top of basins
- Perimeter handrail
- Basin covers

Cost = \$210,327



- Staircase to top of basins
- Catwalks and handrail around basins
- Basin covers

Questions and Discussion

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AGENDA NO: B-3

MEETING DATE: May 20, 2020

Staff Report

TO: Public Works Advisory Board

DATE: May 14, 2020

FROM: Eric Casares, PE – WRF Program Manager
Paul Amico, PE – WRF Deputy Program Manager (Conveyance Facilities)
Sarah Rossetto – WRF Public Outreach Lead
Rob Livick, PE/PLS – City Engineer

SUBJECT: Review of Construction Work Restrictions Developed for the Conveyance Facilities Component of the Water Reclamation Facility Project

RECOMMENDATION

PWAB to provide input on the construction work restrictions that have been developed for construction of the Conveyance Facilities component of the Water Reclamation Facility (WRF) Project

ALTERNATIVES

No alternatives are being presented.

FISCAL IMPACT

There is no fiscal impact to the WRF Project budget.

BACKGROUND

On November 06, 2017, the City selected Water Works Engineers, LLC (WWE) to provide Engineering Design Services for the new WRF Lift Station and Offsite Pipelines Project (i.e., Conveyance Facilities Project). WWE's engineering design services for the Conveyance Facilities Project include:

- Review and verification of the preliminary design criteria presented in the Draft WRF Master Plan
- Development of a Site Alternatives Study to finalize selection of the lift station site
- Preparation of a Concept Design Report (30-percent)
- Preparation of draft construction documents including plans, specifications and cost opinions at the 60 percent, 90 percent, and 100 percent completion milestones
- Preparation of final construction documents including plans, specifications and cost opinions

WWE's first major deliverable, the Draft Concept Design Report, was completed in late 2018 and was presented to the Water Reclamation Facility Citizen's Advisory Committee (WRFCAC) on December 17, 2018. The key objective of the Concept Design Report was identifying, developing, assessing, and recommending the following:

- Siting, design criteria, and project constraints for the WRF lift station(s)
- Alignment, design criteria, and project constraints for the offsite pipelines (sewer force mains, brine/effluent line, and communication conduit), as well as the IPR line

Prepared By: RL

Dept Review:

City Manager Review: SC

City Attorney Review: _____

WWE's alignment analysis began with five (5) working alignment which included:

- West Alignment
- East Alignment
- Embarcadero Alignment
- Hills Alignment (Little Morro Creek)
- Hills Alignment (Radcliff St)

The preliminary assessment began with identifying fatal flaws for each alignment option. As a result of the initial analysis, the following alignment options were not fatal flawed and were carried forward into the next phase of analysis. Both of these alignments utilize public right-of-way through the community from the existing wastewater treatment plant (WWTP) to the South Bay Boulevard WRF site. These included:

- West Alignment
- Embarcadero Alignment

Based on a comparison of non-cost factors, the Embarcadero and West alignments were generally comparable, but the West alignment was approximately \$2.5 to 3.0 million less costly than the Embarcadero alignment. WWE's recommendation was to move forward with the design of the West alignment. A similar presentation as the one given to WRFAC was made to the City Council on January 22, 2019. A follow-up presentation was made to City Council on February 13, 2019 so they could take formal action on the selection of the West alignment.

Beginning with the WRFAC meeting and the presentation of the fatal flaws associated with the various alignment alternatives east of Highway 1, members of the public voiced their concerns about the impacts of construction along Main Street and Quintana Boulevard. City staff and the WRF Program Manager committed to working with local residents and business owners to understand their concerns and develop constraints that would be put on the contractor to minimize these impacts.

Since February 2019, the WRF Program Manager has made contact with about 80 businesses along the pipeline alignment, including one-on-one meetings and pop-ins to drop-off project information. The purpose of the one-on-one meetings was to give businesses a status update and gather business access and operations information that helped inform the development of construction work restrictions and traffic handling requirements. In addition, two meetings have been held with the Chamber of Commerce and Chamber member businesses to discuss traffic handling approaches.

Important information gathered includes parking information, driveway access and off-street circulation, large delivery/pick up vehicle scheduling, hours of operation and peak business times, types of customer traffic (appointments and walk-ins, vehicle and pedestrian) and point of contact verification. Information gathered from the business outreach was compiled by the WRF Program Manager who worked with WWE to incorporate the construction work restrictions and traffic handling requirements into the design. The WRF Program Manager's public outreach work has culminated in the development of a series of alignment maps (attached) that summarizes the information that has been gathered. An overview presentation (attached) was also developed to visually communicate the traffic handling planning and work restriction information.

ATTACHMENT

1. [Work Zone 1 Map](#)
2. [Work Zone 2 Map](#)
3. [Work Zone 3, 4, 5, and 6 Map](#)
4. [Work Zone 7, 8, 9, and 10 Map](#)
5. [Work Zone 11, 12, 13, and 14 Map](#)
6. Meeting Presentation

Item B-3 Public Works Advisory Board

Conveyance Facilities

Traffic Control and Construction Outreach

May 20, 2020

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WRF Pipelines Next Steps

- Construction Bid Advertisement: Late April 2020
- Contract Award: July 2020
- Anticipated Notice to Proceed: August 2020
- Meet the Contractor: September 2020
- Anticipated Construction Start: October 2020
- Anticipated Construction Completion: April 2022

What We've Heard

- Access is a must
- Several businesses
 - Have large truck deliveries and/or one ingress/egress
 - Require vehicle access (car repair shops)
- Atascadero Road – busy during summer (RV parks/motels); busy during school year with school traffic
- Quintana Road – busiest time of year is holiday season
- Request for night work
- Request for claim process

Traffic Control: What We Expect

- One lane will be maintained for emergency access and local business traffic
- Business access will be maintained at all times; construction across driveways will be done outside of business hours (mornings or until 10 p.m.)
- Atascadero Road will likely be constructed starting in October 2020 (after summer peak traffic)
- No construction will be allowed on Main Street and Quintana Road from Nov. 1 to Jan. 15

Helpful Definitions

- Soft road closure

The limits of a construction zone where local traffic will be let in with the use of flaggers

Sign will say “Road Closed to Thru Traffic”

- Hard road closure

The limits of a construction zone where no traffic can pass the barricade without contractor giving access

Barricades will extend the entire road width and a flagger will control entry into the work zone

- Local traffic

Traffic (business, residential or emergency) requiring access within the work zone

- Through traffic

Traffic passing through with no intention of visiting an address within the work zone

Work Zone 1

Atascadero Road



 **WORK ZONE 1**
Atascadero Road

- Two-way traffic maintained
- Business access maintained

Estimated duration: 5-6 weeks

 **Pump Station**

 **Pipelines**

Main Street



Work Zone 2

Quintana Road

 **WORK ZONE 2**
Main Street from unnamed road to Quintana Road

- Two-way traffic maintained
- Business access maintained
- Driveway crossings and Quintana Way intersection will be constructed outside business hours and before 10 p.m.

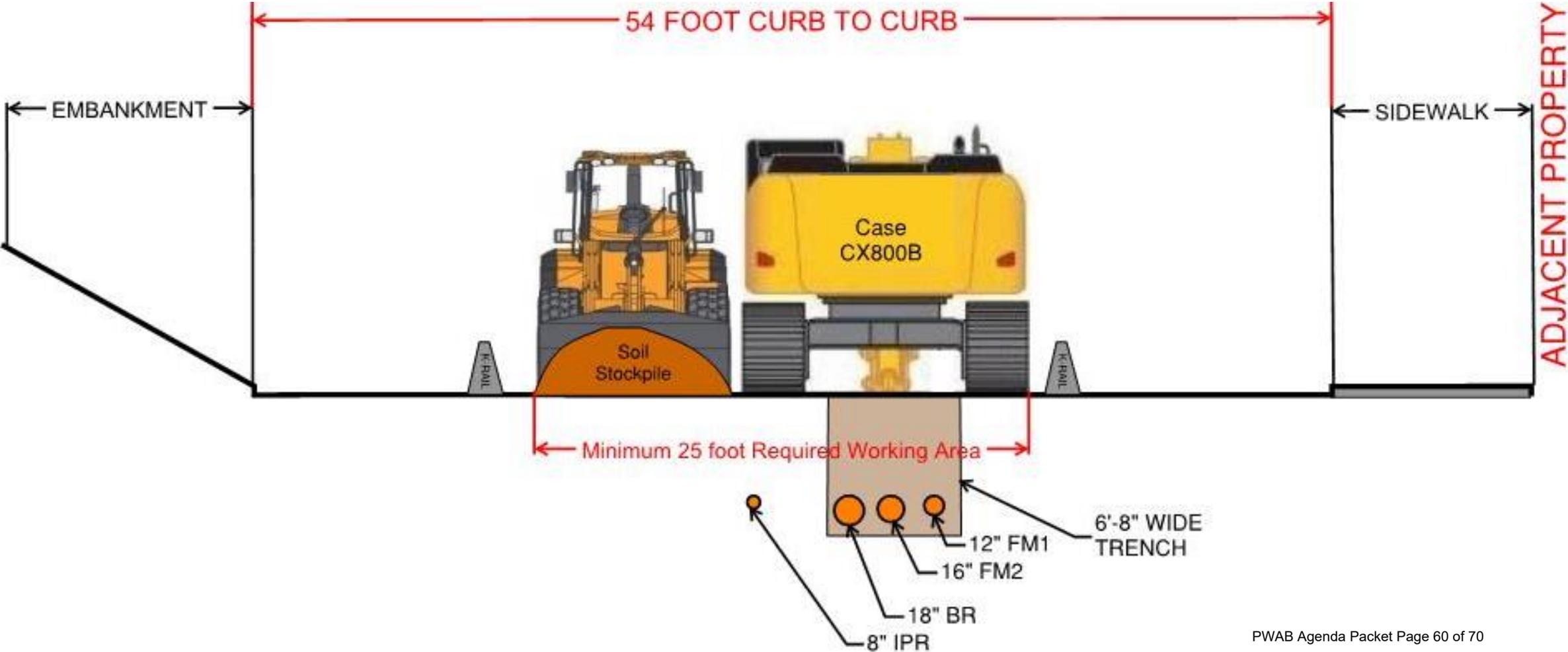
Estimated duration: 5-6 weeks

 **Pump Station**

 **Open During Construction**

 **Pipelines**

Work Zone Configuration Near Lemos



Work Zone 3

Work Zone 4

Work Zone 5

Work Zone 6

Main Street

Quintana Road

Kennedy Way



Morro Bay Boulevard

Shasta Street

Harbor Street



**WORK ZONES 3, 4, 5 AND 6
 Quintana to Roundabout**

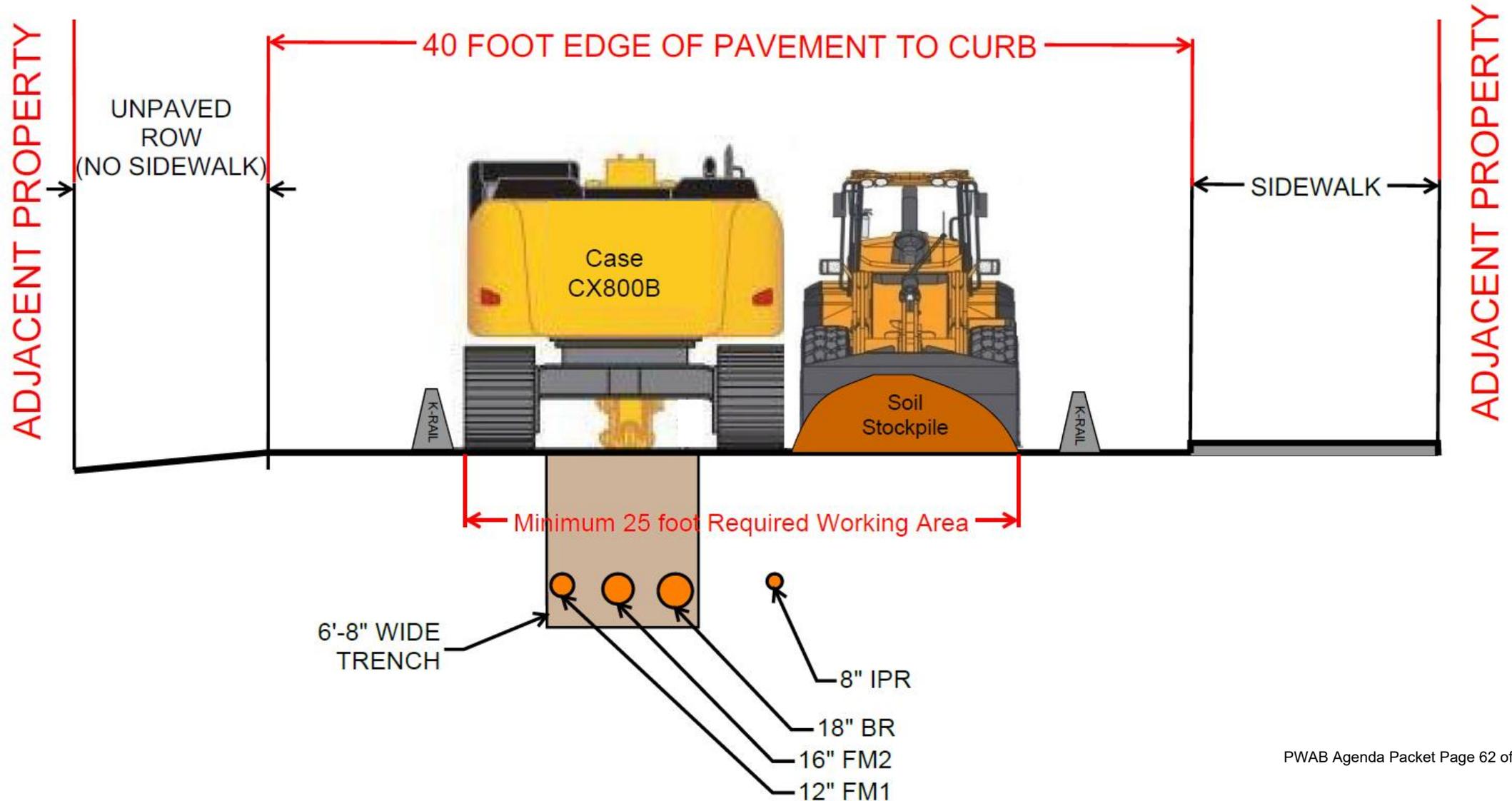
- One-way local traffic maintained
- Traffic controlled by flaggers
- Through traffic will be detoured via Main Street and Dunes Street/Kennedy Way or via Kennedy Way, Shasta Street and Morro Bay Boulevard
- Business access maintained
- Driveway crossings will be constructed outside business hours and before 10 p.m.

Estimated duration: 18-22 weeks

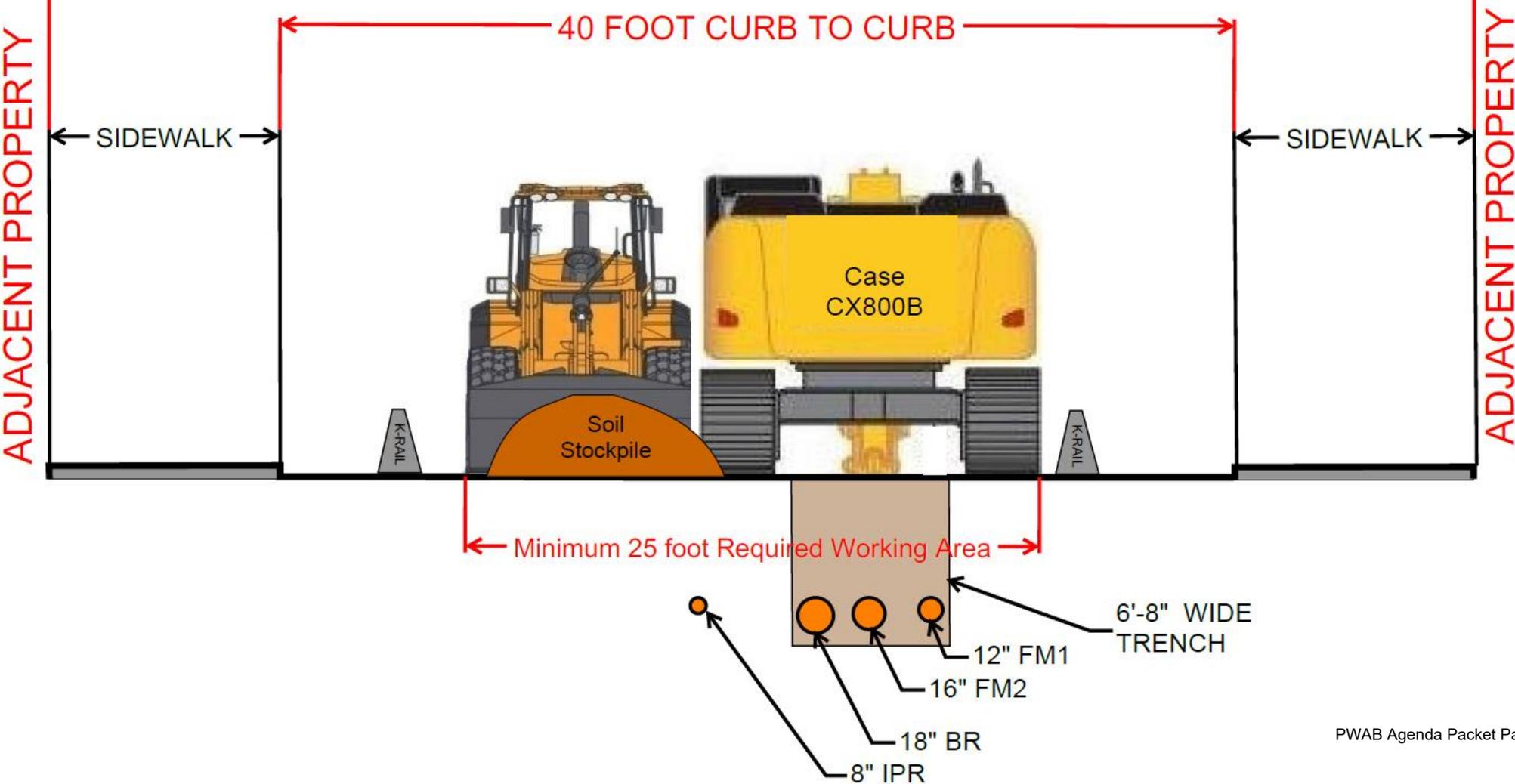
Open During Construction

Pipelines

Work Zone Configuration Near McDonald's



Work Zone Configuration Near Urgent Care



 Open During Construction
 Pipelines



WORK ZONES 7, 8, 9 AND 10

Roundabout to South Bay Boulevard

- Roundabout and all businesses will remain accessible
- Traffic controlled by flaggers
- Intersection of Butte Avenue and Las Tunas: intersection will be closed but Quintana Road will be open to two-way traffic; local traffic will be detoured via Kings Avenue and Balboa Street to Butte Avenue
- Las Tunas to La Loma Avenue: One-way westbound traffic will be maintained; local traffic will be detoured on Allesandro Street; through traffic will be detoured to Highway 1
- Driveway crossings will be constructed outside business hours and before 10 p.m.

Estimated duration: 13-17 weeks



Work Zone 7

Quintana Road

Work Zone 8

Butte Avenue

Balboa Avenue

Work Zone 9

Allesandro Street

Kings Avenue

Work Zone 10

Bella Vista Drive

La Loma Avenue





WORK ZONES 11, 12,
13 AND 14

La Loma Avenue to South Bay Boulevard

- One-way access will be maintained for the church and mortuary either from South Bay Boulevard or Morro Bay Boulevard depending where active construction is occurring
- Between La Loma Avenue and South Bay Boulevard, through traffic on Highway 1 traffic will be detoured to Morro Bay Boulevard
- The configuration of work zones 13 and 14, including Highway 1 ramp closures, will be permitted through the California Department of Transportation (Caltrans)
- Access to Bayside Care Center and Casa De Flores will be maintained at all times during construction

Estimated duration: 16-20 weeks

 WRF

 Pipelines



Construction Outreach: What You Can Expect

Notifications

- Direct mailings
- Doorhangers/fliers
- Traffic advisories (media)
- Traffic app coordination (Waze/Google Maps)
- E-blasts
- Website updates
- Signage

Meetings and Field Visits

- One-on-one meetings/business visits
- Group meetings (example: Chamber)
- Availability sessions
- Community meetings

Construction Outreach: What You Can Expect

Block-by-Block Traffic Control and Notifications

- One-on-one meetings/business visits
- Doorhanger/flier notification by contractor (one week in advance)
- Doorhanger/flier notification by contractor (24 hours in advance)
- Street resurfacing notice

How We Can Support Businesses

- Collaborate with Chamber develop a “war chest guide”
- Develop signage (and clearly define detour routes)
- Provide information for Chamber and business marketing materials (newsletters, websites, etc.)
- Provide information for employee communications (bulletin boards, newsletters, etc.)
- Discuss creative solutions before AND during construction

Construction Outreach Commitments

- Finding creative solutions to solving issues
- Partnering with the contractor to make sure they understand community needs
- Communicating proactively and clearly about what to expect
- Balancing access, safety and construction efficiency

Contact Channels

wrfinfo@morrobayca.gov

877-MORROBAYH2O (877-667-7622)

morrobaywrf.com



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