



A G E N D A

CITY OF SEASIDE

CITY COUNCIL/SUCCESSOR

AGENCY TO THE

REDEVELOPMENT AGENCY

REGULAR MEETING

440 HARCOURT AVE (COUNCIL CHAMBER)

Thursday, July 20, 2023

5:00 PM

NOTICE: *The City Council will hold its public meetings in person, with a virtual option for public participation based on availability. The City of Seaside utilizes Zoom tele-conferencing technology for virtual public participation; however, we make no representation or warranty of any kind, regarding the adequacy, reliability, or availability of the use of this platform in this manner. Participation by members of public through this means is at their own risk.*

VIRTUAL PUBLIC PARTICIPATION INSTRUCTIONS

- 1.** To view this meeting: Please click on the following link to the City of Seaside YouTube Channel: <https://www.youtube.com/c/CityofSeasideCalifornia>
- 2.** To participate in this meeting: Using the Zoom application on your smart phone, laptop, tablet or desktop and click on this link: <https://ci-seaside-ca-us.zoom.us/j/81936832059>
WEBINAR ID: 819 3683 2059
- 3.** To participate by phone: Please call (669) 900-9128
Enter the meeting ID 819 3683 2059 when prompted. There is no participate code – press the pound sign # after the recording prompts you.
- 4.** To make public comment, the following options are available:

Before the Meeting via Email: Written comments can be emailed to CityClerk@ci.seaside.ca.us Include the following subject line: "Public Comment Item #____" (insert the agenda item number relevant to your comment). Written comments must be received by 2:00 p.m. on the day of the meeting.

During the Meeting via Oral Comments: When the Chair calls for public comment, attendees can queue to speak with the "Raise Hand" feature. On the Zoom application, click the "Raise Hand" button. On the phone, press *9.

IN PERSON PARTICIPATION INSTRUCTIONS

Members of the public participating in person and wishing to address the City Council may approach the podium when the Chair calls for public comment.

1. CALL TO ORDER

2. ROLL CALL – ESTABLISHMENT OF QUORUM

Ian N. Oglesby	Mayor/Chair
David R. Pacheco	Mayor Pro Tem/Vice Chair
Alexis Garcia-Arrazola	Council/Agency Member
Rita Burks	Council/Agency Member
Alex Miller	Council/Agency Member

3. INVOCATION AND PLEDGE OF ALLEGIANCE

4. REVIEW OF AGENDA

If there are any items that arose after the 72-hour posting deadline, this is the point in the meeting where a vote may be taken to add the item to the agenda. (A 2/3-majority vote is required).

5. PUBLIC COMMENT

Members of the public wishing to address the City Council on matters within the jurisdiction of the City of Seaside, but not on this agenda, may do so during the Public Comment period for up to three (3) minutes. Public Comments for "Presentations" on this agenda are also taken at this time; comments on specific agenda items are heard under that item. For the public record, please state your name.

6. PUBLIC AGENCY COMMUNICATIONS

This is a time specifically set aside for representatives of public agencies to make brief comments of general interest to the City Council and the community.

7. PRESENTATIONS

**A. UPCOMING CITYWIDE EVENTS & COMMUNITY ANNOUNCEMENTS
(RECREATION SUPERVISOR, KEE HYON HIGGINS)**

8. CONSENT AGENDA

A. APPROVE MINUTES FROM JULY 6, 2023

RECOMMENDATION: Approve minutes as presented in the agenda packet.

B. APPROVE AND FILE CITY CHECKS

RECOMMENDATION: Approve and file the accounts payable and wired payments made during the period of January 28, 2023 through March 10, 2023, including the payroll and benefits checks, direct deposits, and wired payments related to the pay

period ending February 3, 2023, February 17, 2023 and March 3, 2023. Total Accounts Payable and Payroll for the above referenced period is \$6,746,036.23.

C. APPROVE AND FILE SUCCESSOR AGENCY CHECKS

RECOMMENDATION: Approve and file the accounts payable and wired payments made during the period of January 28, 2023 through March 10, 2023 including the payroll and benefits checks, direct deposits and wired payments related to the pay period ending February 3, 2023, February 17, 2023, and March 3, 2023. Total Accounts Payable and Payroll for the above referenced period is \$2,175.71.

D. APPROVE MAYOR'S YOUTH FUND CONTRIBUTION REQUEST FROM THE VILLAGE PROJECT/THE MAE C. JOHNSON EDUCATION & CULTURAL ENRICHMENT ACADEMY FOR COST ASSOCIATED WITH A THREE-DAY "SUSTAINABLE ADVENTURES: EXPLORING NATIONAL PARKS" CAMPING TRIP FOR YOUTH

RECOMMENDATION: Approve a request from the Village Project for a donation of \$3,000.00 from the Mayor's Youth Fund for the costs associated with their Mae C. Johnson Education & Cultural Enrichment Academy.

E. ADOPT A RESOLUTION AUTHORIZING A ONE-YEAR MAINTENANCE SERVICES AGREEMENT FOR CITY PARKS WITH HOPE SERVICES IN AN AMOUNT NOT TO EXCEED \$137,046.00

RECOMMENDATION: Adopt a resolution authorizing the City Manager to execute an agreement with HOPE Services to assist with maintenance in City parks and public areas for an amount not to exceed \$137,046.00.

F. ADOPT A RESOLUTION APPROVING \$51,500.00 FOR THE PURCHASE OF A TURF SWEEPER FROM EKA FOR USE BY THE MAINTENANCE AND UTILITIES DIVISION

RECOMMENDATION: Adopt a resolution approving \$51,500.00 from the General Fund for the purchase of a turf sweeper and authorize the City Manager to execute a purchase agreement with EKA for an amount not to exceed \$51,500.00 for the turf sweeper, and direct the Finance Department to incorporate these changes in the fiscal year 2023/2024 budget.

9. BUSINESS ITEMS

A. ADOPT A RESOLUTION APPROVING A GRANT APPLICATION FOR REGIONAL SURFACE TRANSPORTATION PROGRAM GRANT FUNDS ADMINISTERED THROUGH THE TRANSPORTATION AGENCY FOR MONTEREY COUNTY FOR THE COE AVENUE AND GENERAL JIM MOORE BOULEVARD AND SEASIDE MIDDLE SCHOOL INTERSECTION IMPROVEMENTS PROJECT

RECOMMENDATION: Adopt resolution approving the grant application to obtain Regional Surface Transportation Program funds administered by the Transportation Agency for Monterey County (TAMC) for the design of the Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements

Project.

B. ADOPT A RESOLUTION APPROVING THE PLANS AND SPECIFICATIONS FOR THE CITY HALL AND LIBRARY PARKING LOT REPAVING PROJECT, APPROPRIATING \$73,785.00 FROM THE GENERAL FUND TO THE PROJECT, AND AWARDING A CONSTRUCTION CONTRACT TO MONTEREY PENINSULA ENGINEERING, INC. FOR AN AMOUNT NOT TO EXCEED \$519,365.00 AND TOTAL CONSTRUCTION COST INCLUDING CONTINGENCY OF \$597,270.00

RECOMMENDATION: Adopt a resolution approving the plans and specifications for the City Hall and Library Parking Lot Repaving Project; appropriating \$73,785.00 from the General Fund to the project; awarding a construction contract to Monterey Peninsula Engineering, Inc. for an amount not to exceed \$519,365.00; establishing a 15% construction contingency for a total construction amount not to exceed of \$597,270.00.

10. COUNCIL MEMBER REQUESTS

A. NEW COUNCIL MEMBER REQUESTS

1. Discuss and consider that if an application to paint a curb is approved based on public benefit and safety, the fee will be refunded if the City Council approves the request as per public benefit and safety to residents and community. If the Council denies the application, it will remain with the City. (Pacheco)
2. Discuss and consider that if the application is approved by the City Council for purposes of public benefit and safety, there will be no fee assessed to the applicant for the painting of the red curb. (Pacheco)
3. Discuss traffic mitigation Monterey Road. (Miller)

B. FOLLOW UP ON PREVIOUS REQUESTS

1. Lobbyist RFP
2. Canadian geese waste solutions

11. CITY ATTORNEY, CITY MANAGER, CITY COUNCIL AND MAYOR COMMENTS AND REPORTS ON COMMITTEE ASSIGNMENTS

This is a time specifically set aside for members of the City Council, the City Manager and City Attorney to make brief comments of general interest to the community and report on committee assignments.

12. CLOSED SESSION

Pursuant to Government Code Section 54956 et seq., the City Council and Successor Agency to Redevelopment Agency may adjourn to a Closed Session to consider specific matters dealing with litigation, certain personnel matters, property negotiations or to confer with the City Attorney. Public comments on these items are taken after being read by the City Attorney. For the public record, please state your name.

A. CONFERENCE WITH LEGAL COUNSEL PURSUANT TO GOVERNMENT CODE 54956.9- POTENTIAL LITIGATION (2 MATTERS)

13. ADJOURNMENT

Next Regularly Scheduled Meeting:
AUGUST 3, 2023
5:00 PM

The City of Seaside is committed to providing accessible facilities and accommodating people with disabilities in all of its services programs and activities. If special considerations are needed by any person to fully participate in this meeting, contact the City Clerk at 899-6707 no fewer than two business days prior to the meeting to allow reasonable arrangements. Agendas are posted at:
<http://www.ci.seaside.ca.us/129/City-Council-Committee-Agendas>

Agenda-related writings or documents provided during public meetings are available for public inspection during the meeting or from the office of the City Clerk. This agenda is posted in compliance with California Governor Newsom's Executive Orders N-29-20 and N-33-20.



DRAFT MINUTES

CITY OF SEASIDE
CITY COUNCIL/ SUCCESSOR
AGENCY TO THE
REDEVELOPMENT AGENCY

REGULAR MEETING
440 HARCOURT AVE
Thursday, July 6, 2023
5:00 PM

1. CALL TO ORDER

Mayor/Chair Oglesby called the meeting to order at 5:00 p.m.

2. ROLL CALL – ESTABLISHMENT OF QUORUM

PRESENT: Burks, Garcia-Arrazola, Miller, Oglesby, Pacheco
ABSENT: None

3. INVOCATION AND PLEDGE OF ALLEGIANCE

Moment of silence held in place of invocation. The Pledge of Allegiance was led by Council/Agency Member Miller.

4. REVIEW OF AGENDA

No changes.

5. PUBLIC COMMENT

Mescal St. Resident, Shelley, Christine Hoyer, Bobby Maxwell, Linda Cunningham, Pastor Ronald Britt, Alvin Edwards, Chandra LeBouf, Rachel Christofferson, Ray Riordan

6. PUBLIC AGENCY COMMUNICATIONS

Alvin Edwards, Director, Division 1 – Monterey Peninsula Water Management District reported that the rates are increasing this month. AquaFresh injection season is complete. Along with M1W, Seaside has 3,000 acre feet of water stored underground.

7. PRESENTATIONS

A. CITYWIDE EVENTS AND COMMUNITY ANNOUNCEMENTS (RECREATION DIRECTOR, DAN MEEWIS)

Director Meewis provided a presentation and reviewed the following upcoming events and responded to questions from the Council:

- Seaside Certified Farmers Market – Every Thursday – Laguna Grande Park 3-7pm
- City's Teen Center and Seaside's Classic Car Club presents Youth Summer Jam – July 8 – Seaside Teen Center 1-4pm

- Sunday Blues in the Park 2023 – July 9, July 16, July 23, July 30, August 6 – Laguna Grande Park 1-4:30pm
- Monterey Peninsula Obon Festival – July 9 – Monterey Peninsula Buddhist Temple 12-5pm
- Free Webinar: Organics Recycling on the Monterey Peninsula – July 13 at 6pm
- Kick Vape Away Kickball Tournament – July 16 – Cutino Park 12-3pm
- Country Western Dance – July 20 – Oldemeyer Center 12:30-3pm
- Hot Cars & Cool Nights –July 28, August 25, September 29 – Broadway Ave 4-8pm
- Porsche Monterey Classic – August 14 – Porsche Monterey (1781 Del Monte) 4-8pm
- Consours d’Lemons – August 19 – Seaside City Hall
- Concorso Italiano – August 19 - Bayonet & Blackhorse Golf Course 10am-3pm
- Exotics on Broadway – August 19 – Broadway Ave 1-6pm
- CalFresh information
- Family & Community Support Program – (831) 899-6852
- Friends of Seaside Parks Association Park Clean Ups – July 8, July 15, July 22, July 29
- Monterey Bay F.C. Home Games –July 8, July 15, July 29

Follow us on social media: facebook.com/SeasideCA, Instagram: @cityofseaside, Twitter: @City_of_Seaside

B. PRESENTATION OF APRIL AND MAY 2023 HOUSES OF THE MONTH (NEIGHBORHOOD IMPROVEMENT COMMISSIONER, RAY RIORDAN)

NIC Commissioner Mr. Riordan provided the April and May 2023 House of the Month. The Mayor awarded plaques to April’s winner, Rachel Christofferson at 1542 Waring Street, and May’s winner, Dianne Nielson at 1296 Lowell St. There were no questions from the Council.

C. SEASIDE POLICE AND FIRE "CHAMP" YOUTH CADET PROGRAM (FIRE CHIEF MARY GUTIERREZ AND POLICE COMMANDER JUSTIN PASCONE)

Chief Gutierrez and Commander Pascone provided the presentation and answered questions from the Council.

8. CONSENT AGENDA

On motion by Council Member Miller and second by Council Member Garcia-Arrazola and carried by the following vote, the City Council/Successor Agency moved to approve the Consent Agenda as presented.

RESULT: 5-0-0-0

AYES: Burks, Garcia-Arrazola, Miller, Oglesby, Pacheco

NOES: None

ABSTAIN: None

ABSENT: None

A. APPROVE MINUTES FROM JUNE 15, 2023

ACTION: Approved

B. APPROVE AND FILE CITY CHECKS

ACTION: Approved

C. APPROVE AND FILE SUCCESSOR AGENCY CHECKS

ACTION: Approved

**D. APPROVE PROCLAMATION RECOGNIZING JULY AS BEBE MOORE
CAMPBELL NATIONAL MINORITY MENTAL HEALTH AWARENESS MONTH**

ACTION: Approved

**E. APPROVE PROCLAMATION RECOGNIZING JULY 28, 2023, NATIONAL
BUFFALO SOLDIERS DAY**

ACTION: Approved

**F. APPROVE A FEE WAIVER REQUEST FROM PAJARO VALLEY OHLONE
COUNCIL FOR THEIR "RED DRESS DAY - HONORING INDIGENOUS
WOMEN" EVENT ON MAY 04, 2024**

ACTION: Approved

**G. APPROVE A FEE WAIVER FROM CALIFORNIA STATE UNIVERSITY
MONTEREY BAY'S DEPARTMENT OF SOCIAL WORK FOR THE USE OF
THE LAGUNA GRANDE HALL AND KITCHEN FOR THEIR MASTER OF
SOCIAL WORK, NEW STUDENT ORIENTATION ON AUGUST 21, 2023**

ACTION: Approved

**H. APPROVE ENVIRONMENTAL SERVICES COOPERATIVE AGREEMENT
(ESCA) QUARTERLY REPORT**

ACTION: Approved

**I. APPROVE APPOINTMENTS TO THE ENVIRONMENTAL COMMISSION,
COMMUNITY SAFETY ADVISORY COMMISSION AND THE COMMISSION
ON JOBS, OPPORTUNITIES, AND BUSINESSES IN SEASIDE**

ACTION: Approved & Appointed Parvaneh Keivanfar to the Environmental Commission, Gerald Daniel to the Commission on Jobs, Opportunities & Businesses in Seaside, and Kalyn Foliaki to the Community Safety Advisory Commission.

**J. APPROVE A REQUEST FROM BLACK LEADERS AND ALLIES
COLLABORATIVE FOR SPONSORSHIP IN THE AMOUNT OF FIFTEEN**

HUNDRED DOLLARS (\$1,500.00), AND USE THE CITY LOGO ON PROMOTIONAL MATERIALS FOR THE MONTEREY COUNTY RACE RELATIONS SUMMIT MEETING ON JULY 14, 2023 TO BE HELD AT EMBASSY SUITES HOTEL IN SEASIDE

ACTION: Approved

- K. ADOPT A RESOLUTION AUTHORIZING A CONTRACTOR SERVICES AGREEMENT WITH CALIFORNIA PREMIER RESTORATION FOR ON-CALL PROPERTY CLEAN-UP SERVICES FOR AN AMOUNT NOT TO EXCEED \$75,000.00 AND TOTAL PROJECT COST, INCLUDING A 10% CONGINGENCY OF \$82,500.00**

ACTION: Adopted Reso #23-108

- L. ADOPT A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE CONTRACT AMENDMENT #3 TO INCREASE THE PROFESSIONAL SERVICES CONTRACT BY AN AMOUNT NOT TO EXCEED \$100,000.00 WITH KIMLEY-HORN TO PROVIDE ADDITIONAL CAMPUS TOWN PROJECT MANAGEMENT SERVICES FOR A CUMULATIVE CONTRACT AMOUNT NOT TO EXCEED \$555,200.00 TO BE REIMBURSED BY DEVELOPER OR PAID FOR OUT OF THE FORT ORD REUSE AUTHORITY DEMOLITION BONDS**

ACTION: Adopted Reso #23-109

- M. ADOPT A RESOLUTION CLARIFYING REGULATIONS RELATED TO THE ALLOCATION OF WATER FOR ACCESSORY DWELLING UNITS**

ACTION: Adopted Reso #23-110

- N. ADOPT A RESOLUTION AUTHORIZING THE MAYORS OF SEASIDE AND OAXACA DE JUAREZ MEXICO TO ENTER INTO AN AGREEMENT TO APPROVE THE CITY OF SEASIDE DONATION OF SURPLUS SEASIDE FIRE AND POLICE EQUIPMENT TO OAXACA DE JUAREZ FIRE DEPARTMENT, AND HAVE A MUTUAL EXCHANGE OF TRAINING**

ACTION: Adopted Reso #23-111

9. BUSINESS ITEMS

- A. ADOPT A RESOLUTION APPROVING THE NORTH FREMONT STREET SIDEWALK GAP CLOSURE PROJECT MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM**

Recreation Director Dan Meewis provided the presentation and responded to questions from Council. There were no public comments.

On motion by Council Member Garcia-Arrazola and second by Mayor Pro Tem/Vice Chair Pacheco and carried by the following vote, the City Council/Successor Agency moved to adopt a resolution approving the North Fremont Street Sidewalk Gap Closure Project Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program.

RESULT: 5-0-0-0

AYES: Burks, Garcia-Arrazola, Miller, Oglesby, Pacheco

NOES: None

ABSTAIN: None

ABSENT: None

ACTION: Adopted Reso #23-112

10. COUNCIL MEMBER REQUESTS

A. NEW COUNCIL MEMBER REQUESTS

1. Application fee for the red and blue curves to be refunded if the city council approves the request based on public safety and public benefit. (Pacheco)
2. Requesting fees associated with the paintings of the red and blue curves be waived if it is approved by the mayor and city council based on public benefit and safety. (Pacheco)
3. Discussion about mitigating traffic on Monterey Road (Miller)

B. FOLLOW UP ON PREVIOUS REQUESTS

City Manager Fontes provided the Council with an update on the lobbyist RFP and a request to raise the Monterey Bay Football Club flag at City Hall.

11. CITY ATTORNEY, CITY MANAGER, CITY COUNCIL AND MAYOR COMMENTS AND REPORTS ON COMMITTEE ASSIGNMENTS

Reports provided.

12. CLOSED SESSION

City Attorney Damon read the closed session items and did not anticipate a read out. There were no comments from the public on closed session items.

A. CONFERENCE WITH REAL PROPERTY NEGOTIATORS PURSUANT TO GOVERNMENT CODE 54956.8

Property: The Property Commonly Referred to as Campus Town (Property bounded by Highway 1/1st Avenue, 7th Avenue, Lightfighter/Colonel Durham Street, and Gigling)

Agency Negotiators: City Manager, et. al.

Negotiating Parties: Danny Bakewell Jr., et. al. and City of Seaside

Under Negotiation: Purchase and Sale Agreement Terms

B. CONFERENCE WITH REAL PROPERTY NEGOTIATORS PURSUANT TO GOVERNMENT CODE 54956.8

Property: A portion of APN 031-151-055 located to the east of General Jim Moore Blvd./Generally South of Lightfighter commonly referred to as the Presidio of Monterey Fire Station

Agency Negotiators: City Manager, et. al.

Negotiating Parties: US Army and City of Seaside

Under Negotiation: price, terms of payment or both

C. CONFERENCE WITH LEGAL COUNSEL PURSUANT TO GOVERNMENT CODE 54956.9- POTENTIAL LITIGATION (2 MATTERS)

Potential Litigation (2 Matters)

Upon return from closed session, City Attorney Damon did not have any announcements to report.

13. ADJOURNMENT

With no further business, the meeting adjourned at 7:35 p.m.

Respectfully submitted,

Dominique L. Davis, City Clerk

Ian N. Oglesby, Mayor



CITY OF SEASIDE STAFF REPORT

Item No.: 8.B.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Loreene Bermudez-Onate, Accountant II

DATE: July 20, 2023

SUBJECT: APPROVE AND FILE CITY CHECKS

RECOMMENDATION

Approve and file the accounts payable and wired payments made during the period of January 28, 2023 through March 10, 2023, including the payroll and benefits checks, direct deposits, and wired payments related to the pay period ending February 3, 2023, February 17, 2023 and March 3, 2023. Total Accounts Payable and Payroll for the above referenced period is \$6,746,036.23.

BACKGROUND

In accordance with Government Code Section 37208, at each City Council meeting, the Council is provided a listing of the payroll and general checks issued since the last report so that the checks can be inspected and confirmed. Each purchase has been reviewed and approved by the department making the purchase at the time of procurement. The invoices have been reviewed by the Finance Department prior to payment to ensure that they conform to the approved budget.

Therefore, in accordance with Government Code Section 37208, the above referenced and linked list of checks conforms to the approved budget and has been paid. These checks are submitted to the City Council for inspection and confirmation.

A description of the checks and wires exceeding \$10,000.00 are as follows:

- \$57,711.29 to Action Council of Monterey County for Prof. services for the Community Social Services Grant for the periods of October - December 2022.
- \$13,731.34 to BFS Landscape Architects for Prof. services for Lincoln Cunningham Park design for the periods of 1/30/23-2/26/23.
- \$15,509.79 to California-American Water for Water consumption for multiple City

of Seaside service addresses. Billing period of 12/20/2022-1/24/2023. Service addresses include city buildings, parks, fire hydrants, irrigation stations, and city affordable housing.

- \$53,278.52 to City of Monterey for IGSA Fiscal Year 2019-2020 ICRP True-Up/Rate Adjustment OMC Maintenance.
- \$14,744.63 to City of Salinas for Fire Department Personnel course held on the period of 10/31/22-11/04/22.
- \$25,000.00 to Community Partnership for Youth for Community social services grant reimbursement request for the period 01/01/23-03/31/23.
- \$184,227.00 to County of Monterey for Payment for FY2022/23 Quarter 4 - Dispatch Services.
- \$20,662.50 to Ellis Investigations Law Corporation for Professional services for the periods of February-March 2023.
- \$40,260.91 to Enterprise FM Trust for Monthly payment for (13) leased City vehicles.
- \$46,756.80 to Fermin M. Gonzales for Broadway Walk of Fame concrete plaques design, materials, and installation.
- \$33,695.50 to Harris & Associates, Inc. for SCSD professional services for Fremont, Broadway, & Ortiz project during September 2022; Pavement Rehabilitation Services for the periods of August & September 2022.
- \$44,320.96 to Hinderliter, de Llamas & Associates for Prof. contract/audit services for the period of Quarter 3-2022.
- \$61,127.04 to Hope Services for Maintenance services for the periods of July 2022-January 2023.
- \$21,816.51 to Huntington Public Capital Corp. for Quarterly lease contract payment for Vactor and Patch Trucks for the period of 2/8/23-5/7/23.
- \$10,677.08 to Huntington Public Capital Corp. for Lease contract payment for the Energy Project at City Hall, City Library, and Fire Department locations.
- \$42,513.46 to Kimley-Horn and Associates, Inc. for Professional services for the Broadway Streets Corridor project through September 30, 2022.
- \$64,712.57 to Kimley-Horn and Associates, Inc. for Professional services for the Broadway Streets Corridor project through October 31, 2022.
- \$225,676.77 to Kimley-Horn and Associates, Inc. for Professional services for the Broadway Streets Corridor project through January 31, 2023; Campust Town services for the periods of March 2022-January 2023; Professional engineering support services for the periods of October-November 2022.
- \$13,949.00 to Monterey Bay Division, LLC for Membership dues for calendar year 2023.
- \$29,207.78 to Marina Coast Water District for Recycled water meter services for the period of December 2022.
- \$14,932.17 to Monterey Co. Convention & Visitor's Bureau for TID (Tourism Improvement District) remittance for the reporting period of December 2022 for the 13 Seaside motels/hotels.
- \$14,047.11 to Monterey Co. Convention & Visitor's Bureau for TID (Tourism

Improvement District) remittance for the reporting period of January 2023 for the 13 Seaside motels/hotels.

- \$78,437.00 to Monterey One Water for Monterey Regional Stormwater Management Program for Fiscal Year 2022-2023.
- \$255,032.25 to Monterey Peninsula Engineering for Prof. services for Noche Buena/Mingo Sotrm Drain Improvements project for the periods of December 2022 & January 2023.
- \$36,123.07 to Monterey Peninsula Water Mgmt District for Seaside Basin Watermaster services for the periods of April 2022-December 2022.
- \$61,472.43 to PG&E for Collective accts for street lights, highway lighting, park lights and city office buildings. Service for the period of 12/22/22-1/24/23.
- \$68,407.89 to PG&E for Collective accts for street lights, highway lighting, park lights and city office buildings. Service for the statement period of March 2023.
- \$16,557.75 to RRM Design Group for Professional architectural and engineering services for the Fire Station 2 project through January 20, 2023.
- \$20,279.14 to RRM Design Group for Professional architectural and engineering services for the Fire Station 2 project through February 28, 2023.
- \$32,325.00 to Schaaf & Wheeler, Consulting Civil Engineer for Professional engineering support services for the period of January 2023; Watermaster Plan project services for the period of January 2023.
- \$10,287.19 to Sturdy Oil Company for 2,660 gallons of regular gas (ethanol) delivered to the public works department on 1/24/2023.
- \$18,885.36 to The Sohagi Law Group for Professional legal services for Petrovich Development & KB Bakewell Venture for the period of December 2022.
- \$10,346.83 to The Sohagi Law Group for Professional legal services for Petrovich Development & KB Bakewell Venture for the period of January 2023.
- \$60,848.36 to U.S. Bank-Calcard for City of Seaside purchase card transactions for the billing period of December 2022.
- \$54,058.56 to U.S. Bank-Calcard for City of Seaside purchase card transactions for the billing period of January 2023.
- \$11,072.50 to Vista Environmental Consulting, Inc. for Campus Town Hazardous Materials for the period of 6/24/22-8/31/22.
- \$16,000.00 to Voler Strategic Advisors, Inc. for Strategic Communications Support services for the periods of January-February 2023.
- \$49,206.33 to Wallace Group for November & December 2022 services for Fire Station Upgrades; November 2022 services for Ellis Park Improvements; December 2022 services for Campus Town Water Augmentation Study; September 2022 services for Del Monte Manor Park Sewer Upgrades.
- \$10,858.99 to Wallace Group for October 2022 & January 2023 services for Fremont, Broadway & Ortiz Sewer Upgrade Improvements; January 2023 services for Campus Town Water Augmentation Study; October 2022 & January 2023 services for Camps Town Plan Check.
- \$16,963.80 to Whitson Engineers for January 2023 services for Ellis Park Improvements; November 2022 services for Cutino Park Improvements.

- \$20,200.20 to Whitson Engineers for September 2022, December 2022 & January 2023 services for City Hall, Library & Police Department parking lot improvement; September 2022, October 2022 & December 2022 services for Del Monte Manor LID Project; January 2023 services for Cutino Park Improvements.

The Net Payroll and Payroll benefits total was \$3,596,658.37.

The remaining checks, totaling \$1,253,456.48, include payments to vendors for operating expenditures.

The check report is available on the City's website here:
<https://www.ci.seaside.ca.us/194/Check-Draft-Register>

FISCAL IMPACT

There are no additional fiscal impacts.

ATTACHMENTS

None

Reviewed for Submission to the City Council by:


Jaime M. Fontes, City Manager



CITY OF SEASIDE STAFF REPORT

Item No.: 8.C.

TO: Successor Agency to the Redevelopment Agency of the City of Seaside

FROM: Jaime M. Fontes, City Manager

BY: Loreene Bermudez-Onate, Accountant II

DATE: July 20, 2023

SUBJECT: APPROVE AND FILE SUCCESSOR AGENCY CHECKS

RECOMMENDATION

Approve and file the accounts payable and wired payments made during the period of January 28, 2023 through March 10, 2023 including the payroll and benefits checks, direct deposits and wired payments related to the pay period ending February 3, 2023, February 17, 2023, and March 3, 2023. Total Accounts Payable and Payroll for the above referenced period is \$2,175.71.

BACKGROUND

In accordance with Government Code Section 37208, at each City Council meeting the Council is provided a listing of the payroll and general checks issued since the last report so that it can inspect and confirm these checks. Each purchase has been reviewed and approved by the department making the purchase at the time of procurement. The invoice has been reviewed by the Finance Department prior to payment to ensure that it conforms to the approved budget.

Therefore, in accordance with Government Code Section 37208, the above referenced, and linked list of checks conforms to the approved budget and has been paid. These checks are submitted to the City Council for inspection and confirmation.

A description of the checks and wires exceeding \$10,000 are as follows:

- No checks exceeded \$10,000.

The Checks report is available on the City's website here:
<https://www.ci.seaside.ca.us/194/Check-Draft-Register>

FISCAL IMPACT

There are no additional fiscal impacts.

ATTACHMENTS

None



CITY OF SEASIDE STAFF REPORT

Item No.: 8.D.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Dan Meewis, Recreation Director

DATE: July 20, 2023

SUBJECT: APPROVE MAYOR'S YOUTH FUND CONTRIBUTION REQUEST FROM THE VILLAGE PROJECT/THE MAE C. JOHNSON EDUCATION & CULTURAL ENRICHMENT ACADEMY FOR COST ASSOCIATED WITH A THREE-DAY "SUSTAINABLE ADVENTURES: EXPLORING NATIONAL PARKS" CAMPING TRIP FOR YOUTH

RECOMMENDATION

Approve a request from the Village Project for a donation of \$3,000.00 from the Mayor's Youth Fund for the costs associated with their Mae C. Johnson Education & Cultural Enrichment Academy.

BACKGROUND

On behalf of the Mae C. Johnson Education & Cultural Enrichment Academy, the Village Project is requesting a \$3,000.00 donation from the Mayor's Youth Fund to help cover the costs associated with a three-day "Sustainable Adventures: Exploring National Parks" camping trip for their youth.

The Mae C. Johnson Education & Cultural Enrichment Academy will be having a six-week program for at-risk youth. The children will be engaged in daily art activities and have one-on-one reading time to improve their reading skills. During the program, the children will have the opportunity to participate in the Sustainable Adventures: Exploring National Parks program. This program is a three-day camping trip designed to educate children about the importance of sustainability, conservation, and the preservation of national parks. This immersive program aims to install a love for nature while teaching children the need to protect our environment for future generations. During the camping trip, children will engage in a range of educational activities and experiences that promote an understanding of sustainability. Children will learn about

the significance of national parks, their biodiversity, and the need to conserve these precious ecosystems.

The Mae C. Johnson Education & Cultural Enrichment Academy is sponsored by the Village Project and the funds distributed to the Mae C. Johnson Education & Cultural Enrichment Academy will be handled through The Village Project. Based on the information provided, staff has determined that the application meets the requirements of the Mayor's Youth Fund Policy. The Village Project received their last donation at the July 21, 2022 City Council meeting. They submitted their 2022 Mayor's Youth Fund Closing Report within the 60 day time frame.

FISCAL IMPACT

This request would be funded by a donation from the Green Waste Recovery's donation to the Mayor's Youth Fund. The current balance is the Mayor's Youth Fund account (601-2106) is \$29,349.43. If the City Council approves this request, the balance will decrease to \$26,349.43. This is for fiscal year 2023/24.

In the event that all of the funds in the Mayor's Youth Fund become exhausted, staff will keep a file of all applications. Once Green Waste issues the next round of funding, all applications on file will be processed at the next available City Council meeting.

ATTACHMENTS

1. MYF Village Project- The Mae C. Johnson Education & Cultural Enrichment Academy - 2023
2. MYF Village Project- W9 2023
3. MYF Village Project- 501(c)(3)
4. MYF Closing Report - Village Project- The Mae C. Johnson Education & Cultural Enrichment Academy - 2022

Reviewed for Submission to the City Council by:


Jaime M. Fontes, City Manager

Terry Navarro - Online Form Submittal: Mayor Youth's Contribution Request

From: <noreply@civicplus.com>
To: <cityclerk@ci.seaside.ca.us>, <dmeewis@ci.seaside.ca.us>, <tnavarro@ci.s...
Date: 6/26/2023 10:50 AM
Subject: Online Form Submittal: Mayor Youth's Contribution Request

Mayor Youth's Contribution Request

Purpose

The Mayor's Youth Fund was created to provide supplemental financial assistance to students and non-profit groups that provide services to improve the lives of young people living in the City of Seaside. A policy has been developed to standardize the evaluation of contribution requests and ensure that the funds are used appropriately to serve the City's youth.

Eligible Applications

Contributions will only be made to, or on behalf of, students or organized groups, such as schools and non-profit organizations based in Seaside and/or serving a majority of Seaside residents (50%) that are 18 years old or younger or enrolled in high school. Faith based organizations may apply for contributions from the Mayor's Youth Fund if the funding is not used to support religious activities such as: Religious instruction, Sunday School, and Worship. In addition, activities funded by the Mayor's Youth Fund must be open to all persons without regard to their religious affiliation.

Submittal of Contribution Requests

In order to request a contribution, the following information must be provided in writing:

- Name of the organization, person(s) benefiting, proposed use of the funds, total amount needed or fundraising goal.*
- Description of other methods being used to raise funds and/or other contributors.*
- An explanation of how the group, activity, or event will benefit Seaside youth.*
- Written description of how the use of the funds will be specifically used for youth group activities/events and has a nexus to the goals related to recycle, cleanup, and "green" sustainability to ensure a healthy environment.*

- *How this request will provide a municipal benefit (ie., benefit the community).*
- *Proof of non-profit organization status (not a taxpayer's I.D number) and a current W-9 form.*

Evaluation Process & Criteria

Contributions can only be made if approved by the City Council. Funding requests will be evaluated based on their consistency with this policy, including the following criteria.

- *Scholastic, athletic, music, environmental and art activities will be considered for funding based on the quality of the proposed activity.*
- *Evidence of activities/events related to "reduce, reuse and recycle" to ensure a healthy environment.*
- *Contributions requests will be accepted from individuals and can be made to an organization on behalf of an individual member or student.*
- *Contributions are only paid to organizations, such as non-profit groups and schools.*
- *Contributions are intended to fund actual costs related to an event or activity. (Please see "Payment Process" information provided in the following area.)*
- *Contributions from the Mayor's Youth Fund are not intended to be the sole source of funds for an organization or program and will only be made to supplement other fundraising activities.*

- *How this request will provide a municipal benefit (ie., benefit the community).*

Contribution Limits

In order to equitably distribute funds available in the Mayor's Youth Fund, the following contribution guidelines have been developed, although all contributions are subject to the discretion of the City Council. In addition, funding will be limited to one contribution per year (every 12 months).

- *Individuals - 25% of the total cost of the activity (not to exceed \$1,000)*

- Groups up to 20 people - up to \$1,500

- Groups of 21 or more people - up to \$3,000

Payment Process

If a contribution is approved by the City Council, payment will be made to the authorized organization or directly to the vendor selected by the authorized organization after submittal of a receipt or the presentation of actual invoices. No funding can go directly to an individual. This process is required in order to provide documentation required to meet municipal auditing standards.

Funding Requirements

Funding is limited to one contribution per year (every 12 months). The Mayor's Youth Fund Closing Report Form must be submitted to staff at least 60 days upon completion of the event, activity or program. Applicants that do not furnish the form may not apply for funds for the following year. A representative from the organization is required to be at the Council meeting for their application to be heard. If no representative is present then the agenda item will be postponed to another City Council meeting upon notification by the applicant. Incomplete applications will not be forwarded for Council consideration; applications not answering the question related to reduce, reuse or recycle are considered incomplete.

Individual Requests

Please attach an itemized list of all expenses. Amount of donation may not exceed 25% of the total cost of the activity and not exceed \$1,000. Applications that are incomplete will be returned.

Name of Organization	The Village Project The Mae C Johnson Education & Cultural Enrichment Acad.
Name	Jamelle Jones
Email Address	Jamelle@villageprojectinc.org
Address	1069 broadway ave. Suite 201
City	Seaside
State	Ca
Zip Code	93955
Phone Number	8313929253 or 8313921500
Additional Phone Number	Field not completed.
Percentage of Residents or Students of Seaside	97%

Number of Participants 58

Ages of Participants 5-16

Criteria

Applicants must meet at least one of the following criteria to be eligible for funding. Please select one or more from the following list:

Environmental

Are you funding a reward for one of these activities? No

Description of event, activity or program funding pertains to: Sustainable Adventures: Exploring National Parks is a three-day camping trip designed to educate kids about the importance of sustainability, conservation, and the preservation of national parks. This immersive program aims to instill a love for nature while teaching children about the need to protect our environment for future generations.

During the camping trip, kids will engage in a range of educational activities and experiences that promote an understanding of sustainability. The program will cover various topics, including:

National Park Preservation: Children will learn about the significance of national parks, their biodiversity, and the need to conserve these precious ecosystems.

Environmental Conservation: Kids will participate in hands-on activities to understand the importance of reducing waste, recycling, and practicing responsible resource consumption.

Sustainable Practices: The program will teach children about sustainable practices, such as Leave No Trace principles, to minimize their impact on the environment while enjoying outdoor activities.

Wildlife Protection: Kids will learn about local flora and fauna, including endangered species, and how their actions can contribute to their conservation.

Outdoor Skills: Participants will acquire essential outdoor skills, such as setting up tents, cooking over a campfire, and navigating nature trails, fostering self-reliance and an appreciation for the wilderness.

Teamwork and Collaboration: Children will engage in group activities and teamwork exercises, encouraging cooperation and social interaction while emphasizing the importance of collective efforts in sustainability.

Throughout the camping trip, knowledgeable guides and environmental educators will lead interactive workshops, nature walks, and discussions to enhance the learning experience. The program will also include storytelling sessions, campfire gatherings, and stargazing, fostering a sense of wonder and appreciation for the natural world.

Attach Additional Information as Necessary *Field not completed.*

Description of how the funds will be specifically used for youth groups activities/events and has a nexus to the goals of recycling, cleanup and "green" sustainability to insure a healthy environment:

Funding:

The Sustainable Adventures: Exploring National Parks program will require funding to cover various aspects, including:

Transportation: Funds will be allocated to arrange transportation to and from the national park or camping site for the participating children and accompanying staff members.

Accommodation: The budget will cover the cost of campground reservations, tents, sleeping bags, and other necessary camping equipment.

Educational Materials: Funds will be used to develop educational materials, handouts, activity sheets, and visual aids to facilitate learning throughout the program.

Expert Guides and Educators: The program will hire experienced guides and environmental educators who will lead educational sessions and provide valuable insights into sustainability and conservation.

Meals and Refreshments: The budget will account for nutritious meals and snacks to be provided during the camping trip, focusing on locally sourced, sustainable food options.

Miscellaneous Expenses: This includes costs associated with permits, insurance, first aid supplies, and any additional materials needed for the smooth execution of the program.

What other fundraising activities are you participating in to fund your event, program or activity and what other funding sources will supplement your request?

To secure the necessary funding, the program organizers will seek sponsorships, grants, and donations from community organizations, local businesses, and individuals passionate about environmental conservation. The aim is to provide children with an unforgettable experience while fostering a sense of responsibility and stewardship for the environment.

Total Amount Requested: 3-5k

Electronic Signature Agreement I agree.

Electronic Signature Jamelle Jones

Date 6/26/2023

Email not displaying correctly? [View it in your browser.](#)

Request for Taxpayer Identification Number and Certification

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the
requester. Do not
send to the IRS.

Print or type.
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

Village Project Inc.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC

☒ C Corporation

☐ S Corporation

☐ Partnership

☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ►

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ►

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

1069 Broadway Ave. Suite 201

6 City, state, and ZIP code

Seaside, CA 93955

7 List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

____ - ____ - ____

or

Employer identification number

61-1562515

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign
Here

Signature of
U.S. person ►

Date ►

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

• Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

SEP 09 2008

Date:

THE VILLAGE PROJECT INC
C/O MEL MASON
1069 BROADWAY AVE
SEASIDE, CA 93955

Employer Identification Number:
61-1562515
DLN:
17053190321048
Contact Person:
KIM NGUYEN ID# 31525
Contact Telephone Number:
(877) 829-5500
Accounting Period Ending:
June 30
Public Charity Status:
170(b)(1)(A)(vi)
Form 990 Required:
Yes
Effective Date of Exemption:
May 14, 2008
Contribution Deductibility:
Yes
Advance Ruling Ending Date:
June 30, 2012
Addendum Applies:
No

Dear Applicant:

We are pleased to inform you that upon review of your application for tax exempt status we have determined that you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code. Contributions to you are deductible under section 170 of the Code. You are also qualified to receive tax deductible bequests, devises, transfers or gifts under section 2055, 2106 or 2522 of the Code. Because this letter could help resolve any questions regarding your exempt status, you should keep it in your permanent records.

Organizations exempt under section 501(c)(3) of the Code are further classified as either public charities or private foundations. During your advance ruling period, you will be treated as a public charity. Your advance ruling period begins with the effective date of your exemption and ends with advance ruling ending date shown in the heading of the letter.

Shortly before the end of your advance ruling period, we will send you Form 8734, Support Schedule for Advance Ruling Period. You will have 90 days after the end of your advance ruling period to return the completed form. We will then notify you, in writing, about your public charity status.

Please see enclosed Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, for some helpful information about your responsibilities as an exempt organization.

Letter 1045 (DO/CG)

THE VILLAGE PROJECT INC

We have sent a copy of this letter to your representative as indicated in your power of attorney.

Sincerely,



Robert Choi
Director, Exempt Organizations
Rulings and Agreements

Enclosures: Publication 4221-PC
Statute Extension

Letter 1045 (DO/CG)

Part X Public Charity Status (Continued)

- e 509(a)(4)—an organization organized and operated exclusively for testing for public safety. ☐
- f 509(a)(1) and 170(b)(1)(A)(iv)—an organization operated for the benefit of a college or university that is owned or operated by a governmental unit. ☐
- g 509(a)(1) and 170(b)(1)(A)(vi)—an organization that receives a substantial part of its financial support in the form of contributions from publicly supported organizations, from a governmental unit, or from the general public. ☒
- h 509(a)(2)—an organization that normally receives not more than one-third of its financial support from gross investment income and receives more than one-third of its financial support from contributions, membership fees, and gross receipts from activities related to its exempt functions (subject to certain exceptions). ☐
- i A publicly supported organization, but unsure if it is described in 5g or 5h. The organization would like the IRS to decide the correct status. ☐

6 If you checked box g, h, or i in question 5 above, you must request either an **advance** or a **definitive ruling** by selecting one of the boxes below. Refer to the instructions to determine which type of ruling you are eligible to receive.

- a **Request for Advance Ruling:** By checking this box and signing the consent, pursuant to section 6501(c)(4) of the Code you request an advance ruling and agree to extend the statute of limitations on the assessment of excise tax under section 4940 of the Code. The tax will apply only if you do not establish public support status at the end of the 5-year advance ruling period. The assessment period will be extended for the 5 advance ruling years to 8 years, 4 months, and 15 days beyond the end of the first year. You have the right to refuse or limit the extension to a mutually agreed-upon period of time or issue(s). Publication 1035, *Extending the Tax Assessment Period*, provides a more detailed explanation of your rights and the consequences of the choices you make. You may obtain Publication 1035 free of charge from the IRS web site at www.irs.gov or by calling toll-free 1-800-829-3676. Signing this consent will not deprive you of any appeal rights to which you would otherwise be entitled. If you decide not to extend the statute of limitations, you are not eligible for an advance ruling. ☒

Consent Fixing Period of Limitations Upon Assessment of Tax Under Section 4940 of the Internal Revenue Code

For Organization

Mel Mason
(Signature of Officer, Director, Trustee, or other authorized official)

MEL MASON
(Type or print name of signer)

CLINICAL DIRECTOR
(Type or print title or authority of signer)

6-30-08
(Date)

For IRS Use Only

Robert Clac
(Signature of IRS Director, Exempt Organizations)

SEP 09 2008

(Date)

- b **Request for Definitive Ruling:** Check this box if you have completed one tax year of at least 8 full months and you are requesting a definitive ruling. To confirm your public support status, answer line 6b(i) if you checked box g in line 5 above. Answer line 6b(ii) if you checked box h in line 5 above. If you checked box i in line 5 above, answer both lines 6b(i) and (ii). ☐

- (i) (a) Enter 2% of line 8, column (e) on Part IX-A. Statement of Revenues and Expenses. ☐
- (b) Attach a list showing the name and amount contributed by each person, company, or organization whose gifts totaled more than the 2% amount. If the answer is "None," check this box. ☐
- (ii) (a) For each year amounts are included on lines 1, 2, and 9 of Part IX-A. Statement of Revenues and Expenses, attach a list showing the name of and amount received from each **disqualified person**. If the answer is "None," check this box. ☐
- (b) For each year amounts are included on line 9 of Part IX-A. Statement of Revenues and Expenses, attach a list showing the name of and amount received from each payer, other than a disqualified person, whose payments were more than the larger of (1) 1% of line 10, Part IX-A. Statement of Revenues and Expenses, or (2) \$5,000. If the answer is "None," check this box. ☐

- 7 Did you receive any unusual grants during any of the years shown on Part IX-A. Statement of Revenues and Expenses? If "Yes," attach a list including the name of the contributor, the date and amount of the grant, a brief description of the grant, and explain why it is unusual. ☐ Yes ☒ No



State of California
Secretary of State

I, DEBRA BOWEN, Secretary of State of the State of California, hereby certify:

That the attached transcript of 9 page(s) has been compared with the record on file in this office, of which it purports to be a copy, and that it is full, true and correct.



IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this day of

MAY 14 2008

Debra Bowen

DEBRA BOWEN
Secretary of State

State of California
Secretary of State

CERTIFICATE OF STATUS

ENTITY NAME:

THE VILLAGE PROJECT, INC.

FILE NUMBER: C3100002
FORMATION DATE: 05/14/2008
TYPE: DOMESTIC NONPROFIT CORPORATION
JURISDICTION: CALIFORNIA
STATUS: ACTIVE (GOOD STANDING)

I, DEBRA BOWEN, Secretary of State of the State of California,
hereby certify:

The records of this office indicate the entity is authorized to
exercise all of its powers, rights and privileges in the State of
California.

No information is available from this office regarding the financial
condition, business activities or practices of the entity.



IN WITNESS WHEREOF, I execute this certificate
and affix the Great Seal of the State of
California this day of March 12, 2012.

Debra Bowen

DEBRA BOWEN
Secretary of State

MAYOR'S YOUTH FUND CLOSING REPORT *

Date Mayor's Youth Fund was approved by council: July 21, 2022

Name of Organization: The Village Project, Inc.

Contact: 831-392-9253

Address: 1069 Broadway Ave Seaside, CA 93955

Email/Phone: Village@Villageprojectinc.org Jamelle@Villageprojectinc.org

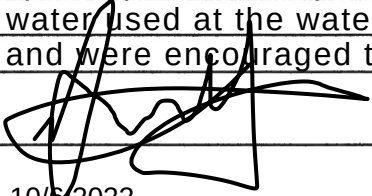
Amount of Donation Received: \$3000

What Items were purchased with Mayor's Youth Fund Donation:

Admission tickets for the Morgan Hill Aquatics Center & Discovery Bus (Transportation)

Please describe the activities and the date the group/individual participated in related to reduce, reuse and recycle? Please provide written description, brief City Council presentation, and/or photos.

Our group participated in recycling water presentation where they learned about the recycling water used at the water parks. They also learned about the plastic waste epidemic and were encouraged to use reusable water bottles.

Signature:  _____

Date: 10/6/2022

***This form is due 60 days upon receipt of funding by the applicant. Organizations that do not comply within the 60 day time period may not apply for funding for the following year.**



CITY OF SEASIDE STAFF REPORT

Item No.: 8.E.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Nisha Patel, Public Works Director/City Engineer
Dave Fortune, Maintenance and Utilities Superintendent

DATE: July 20, 2023

**SUBJECT: ADOPT A RESOLUTION AUTHORIZING A ONE-YEAR
MAINTENANCE SERVICES AGREEMENT FOR CITY PARKS WITH
HOPE SERVICES IN AN AMOUNT NOT TO EXCEED \$137,046.00**

RECOMMENDATION

Adopt a resolution authorizing the City Manager to execute an agreement with HOPE Services to assist with maintenance in City parks and public areas for an amount not to exceed \$137,046.00.

BACKGROUND

HOPE Services (HOPE) is a local non-profit organization engaged in the training of persons with disabilities to enter the mainstream workforce. Since 2001, Hope Services has provided the City with public works maintenance assistance and has proven to be an invaluable asset. In turn, the City has provided experience and opportunities for persons with disabilities. HOPE maintains the City parks by removing trash, abating graffiti, opening, closing and cleaning restrooms and provides additional litter control on Coe Avenue, General Jim Moore Blvd., Monterey Road and alleyways.

There are twenty-three (23) parks and other public areas in the City that have benefited from the successful partnership with HOPE. It has allowed the City Parks staff to concentrate on beautification projects and maintenance and repair of the irrigation system and has reduced staff overtime.

The attached contract provides for four (4) workers and one (1) supervisor by HOPE to provide maintenance/cleanup tasks in and around public facilities. The HOPE crew is scheduled to work six and a half hours (6.5 hrs) per day from 8:30 a.m. to 3:30 p.m.

with a half hour lunch break, Monday through Friday. The work performed by HOPE is under the direction of the City Maintenance and Utilities Superintendent. The core objective required to be performed by the Hope crew is the cleaning of litter at each park once a week. HOPE's supervisor is also responsible for tracking the amount of litter removed by the clean-up of parks as part of the required documentation for the city's Storm Water Management Program.

Staff recommends the City Council authorize the City Manager to execute a one-year Maintenance Services Agreement with HOPE Services for an amount not to exceed \$137,046.00.

FISCAL IMPACT

The HOPE fees are distributed from the following fund sources: Stormwater Fund (271) and Parks (100). Based on the time provided for each aspect of the work provided, each of these funds will be charged accordingly for a total agreement amount not to exceed \$137,046.00.

ATTACHMENTS

1. Resolution
 2. Agreement
-

Reviewed for Submission to the City Council by:

A handwritten signature in blue ink, reading "Jaime M. Fontes", is written over a horizontal line. Below the line, the name "Jaime M. Fontes, City Manager" is printed in black text.

Jaime M. Fontes, City Manager

RESOLUTION NO. 23-XX

A RESOLUTION OF THE CITY OF SEASIDE CITY COUNCIL

AUTHORIZING A MAINTENANCE SERVICE AGREEMENT WITH HOPE SERVICES

WHEREAS, HOPE Services is a local non-profit organization engaged in the training of persons with disabilities to enter the mainstream workforce; and

WHEREAS, the City of Seaside has maintained a successful partnership with HOPE Services for over twenty years; and

WHEREAS, HOPE Services would provide maintenance/clean-up tasks at each park location and public areas on a weekly basis, opening closing and cleaning the restrooms in addition to tracking the amount of litter removed by the clean-up of parks as part of the required documentation for the City Storm Water Management Program; and

WHEREAS, these services performed by Hope Services have reduced staff overtime and have allowed city staff to concentrate on beautification projects and maintenance and repair of the irrigation systems; and

WHEREAS, HOPE Services and the City have agreed to a one-year contract.

NOW, THEREFORE BE IT RESOLVED, that the City Council of the City of Seaside authorizes the City Manager to execute a maintenance service agreement with HOPE Services to perform park and public maintenance services for an amount not to exceed \$137,046.00.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Seaside, State of California, duly held on the 20th day of July 2023, by the following votes:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

Ian N. Oglesby, Mayor

ATTEST:

Dominique L. Davis, City Clerk

City of Seaside

**RESTATED AND AMENDED MAINTENANCE SERVICE AGREEMENT
OPTION YEAR EXTENSION 2023-2024**

This Maintenance Services Agreement (“Agreement”) made the date last written below, is by and between the City of Seaside, a municipal corporation (“City”) and HOPE Services, a corporation (“HOPE”).

RECITALS

- A. HOPE is engaged in the training of persons with disabilities to enter the mainstream workforce.
- B. HOPE has offered to provide certain maintenance services to the City for a fee and the City desires to engage HOPE to provide such services to the City, all on the terms and conditions hereinafter set forth.

NOW, THEREFORE, the parties agree as follows:

AGREEMENT

- 1. Provisions of Services. HOPE agrees to perform certain maintenance tasks for the City that will generally consist of, but not limited to, trash and litter removal, cleaning and light maintenance of landscaping, streets, parks and other public areas.
- 2. Amount of Services. HOPE shall provide a work crew consisting of four maintenance workers and one supervisor to accomplish the assigned tasks referred to in paragraph 1, during the hours of 8:30 a.m. to 3:30 p.m. on Monday through Friday with .5 hour daily lunch break each week during the term of this Agreement (6.5 hour work day).
- 3. Holiday Schedule. The following holiday schedule in which HOPE Services and the City observe shall not be obligated to perform any services:

Independence Day	Tuesday	July 4, 2023
Labor Day	Monday	September 4, 2023
Thanksgiving Day	Thursday	November 23, 2023
Day after Thanksgiving	Friday	November 24, 2023
Christmas Eve	Monday	December 25, 2023
Christmas Holiday	Tuesday	December 26, 2023
New Year’s Day	Monday	January 1, 2024
Martin Luther King Day	Monday	January 15, 2024
President’s Day	Monday	February 19, 2024
Memorial Day	Monday	May 27, 2024
Juneteenth	Wednesday	June 19, 2024

4. Payment to HOPE. The City shall pay consultant on a time and materials basis an amount not to exceed **ONE HUNDRED THIRTY SEVEN THOUSAND AND FORTY SIX dollars (\$137,046.00)** for the services described in paragraph 2. Any additional services provided by HOPE at the request of the City shall be billed by HOPE to the City on an hourly basis at \$91.50 (July 1, 2023-June 30, 2024). HOPE will bill the customer monthly; invoices are due and payable upon receipt. HOPE will prepare and submit a list to the Public Works Division of the necessary supplies, equipment, etc. needed for the work assignments specified by the City. City will provide transportation during the workday. After review and approval of the proposed supplies, etc. the City will purchase or reimburse HOPE for those approved supplies, equipment, etc.
5. Term of Agreement. The term of this Agreement shall commence on July 1, 2023 and terminate June 30, 2024; provided however, that either party may terminate this Agreement at any time on thirty day written notice to the other party.
6. Supervision of Work. HOPE shall accomplish the maintenance tasks assigned to it by the City in a safe, skillful, workmanlike and lawful manner. All members of the work crew shall dress appropriately for the task at hand at all times while working in the City. The supervisor of the work crew referred to in paragraph 2 will supervise the work crew at all times while the work crew is performing maintenance tasks in the City. City shall have no right or obligation to direct the specific methods used by HOPE or its employees to accomplish a particular maintenance task.
7. Indemnification. HOPE shall indemnify, defend, and hold City harmless from and against any and all losses, claims, demands, damages, expenses or judgements arising from any willful or negligent act, error or omission of HOPE or its employees except for any loss, claim, demand, damage, expense or judgement arising from the sole negligence or intentional act of City or its employee.
8. Insurance. Without limiting HOPE's duty to indemnify, HOPE shall maintain in effect throughout the term of this Agreement a policy or policies of insurance covering all of its operations (including public liability coverage, property damage coverage and professional malpractice) with the following minimum limits of liability:

A. **COMMERCIAL GENERAL LIABILITY INSURANCE:**

Commercial General Liability, including but not limited to, premises, personal injuries, products and completed operations, with a combined single limit of not less than \$1,000,000.00 property damage; and

1. Bodily injury \$1,000,000.00 per occurrence and \$1,000,000.00 and aggregate and \$1,000,000.00 property damage; and

2. A combined single limit of not less than \$1,000,000.00 per occurrence.

B. AUTOMOBILE LIABILITY INSURANCE:

Comprehensive automotive liability covering all motor vehicles including owned, leased, non-owned, and hired vehicles, used in providing services under this agreement, with a combined single limit of not less than \$1,000,000.00 per occurrence.

1. Bodily injury \$1,000,000.00 per occurrence and \$1,000,000.00 and aggregate and \$1,000,000.00 property damage; and

2. A combined single limit of not less than \$1,000,000.00 per occurrence.

C. WORKER'S COMPENSATION INSURANCE:

Workers' compensation insurance in accordance with California Labor Code section 3700 and with a minimum of \$100,000.00 per occurrence for employer's liability.

9. Relationship of Parties. Nothing in this Agreement or otherwise shall create any partnership or joint venture between HOPE and the City. The parties to this agreement are independent contractors and shall maintain that relationship throughout the term of this Agreement. Nothing in this Agreement or the performance of this Agreement shall create an employer/employee relationship between any individual and the City.
10. Notices. All notices and demands shall be given in writing either by personal services or by registered or certified mail return receipt requested, postage and fees prepaid when delivered by the United States Post Office, or by facsimile transmission with a confirmation copy delivered by mail as aforesaid. Notice shall be considered given on the date received by personal service or transmitted by facsimile, or the date appearing on the return receipt, but if the receipt is not returned, within three (3) days after being mailed. Notice shall be addressed as shown below for each party, except that, if any party gives notice of a change of name or address, notices to that party shall thereafter be given as shown in that notice.

"HOPE"

Community Employment Manager
HOPE Services
546 Brunken Avenue
Salinas, Ca 93901
Tel: (831) 758-0973
Fax: (831) 758-0252

"CITY"

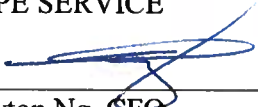
City Manager
City of Seaside
440 Harcourt Avenue
Seaside, Ca. 93955
Tel: (831) 899-6700
Fax: (831) 899-6207

11. Time. Time is of the essence of this Agreement.

12. Amendment of Contract. This Agreement may be amended or modified at any time with respect to any provision by a written instrument executed by City and HOPE.
13. Captions. The captions heading the various paragraphs of this Agreement are for convenience and shall not be considered to limit, expand, or define the contents of the respective paragraphs.

Date: 07/05/23

HOPE SERVICE



Clayton Ng, CFO

Date: _____

CITY OF SEASIDE

Jaime M. Fontes, City Manager



Hope Services Contingent Staffing Service Agreement

Agreement # Seaside 23

Hope Contacts

Accounts Receivable: Dixie Lim, dlim@hopeservices.org

30 Las Colinas Lane, San José, CA 95119

Hope Primary Contact for Project

Name: Norma Garcia

Phone: 831- 758-0973

Cell: 831- 794-0243

E-Mail: ngarcia@hopeservices.org

Program Manger

Name: Greg Dinsmore

Phone: 831- 758-0973

Cell: 831- 901-4130

E-Mail: gdinsmore@hopeservices.org

Part 1 - Company Identification

Company: City of Seaside

Primary Contact:

Name: Dave Fortune

Phone: 831-899-6700

Cell:

E-Mail: DFortune@ci.seaside.ca.us

Address: 440 Harcourt Avenue

City: Seaside

Zip: 93955

Part 2 - Work Dates, Hours and Billing Rate

This agreement is for (check one): ☐ One or more individuals ☒ Group with Hope Supervisor

The work is (check one): ☐ Temporary, less than 1 month ☒ Long term as agreed

Start Date: 7/1/23

Contract Review Date: 6/30/24 (no more than 1 year after start date)

Work Hours: 8:30am – 3:30pm (6.5 hours per day with Unpaid lunch at .5 hours per day)

Work Days: Monday thru Friday # of Workers: 4

Billing Rate: \$91.50 per hour for group of 4 plus Hope supervisor

(Any hours over 8 in a day or 40 in a week will be billed at 1 ½ times)

Holidays: The following days are holidays that Hope observes and shall not be obligated to perform services.

Independence Day	7/4/23	Christmas Holiday	12/26/23
Labor Day	9/4/23	New Year's Day	1/1/24
Thanksgiving Day	11/23/23	Martin Luther King Day	1/15/24
Day after Thanksgiving	11/24/23	Presidents' Day	2/19/24
Christmas Eve	12/25/23	Memorial Day	5/27/24

Part 3 - Specific Job Duties

Duties to be performed in designated streets, parks and public areas:

- Trash and litter removal
- Cleaning
- Light maintenance of landscaping

Other tasks as approved by City and Hope supervisors

Part 4 - To Be Provided By

Hope and the Company will provide supplies and services as follows:

Company	Hope
Integration of workers into the work place	Training support
Supplies or materials not provided by Hope Services	Payroll burden incl. benefits, insurance, payroll administration
Typical training for the positions	Other disability related training and consulting
	Qualified workers
	Equipment necessary to complete the job

	Continuous Safety Training of Group
--	-------------------------------------

Part 5 - Additional Supplies/Costs (if any) Will be Paid For or Provided By:

Company and to be negotiated as needed.

Part 6 - Payroll and Billing

Hope pay periods are the 1st – 15th and 16th to the last day of each month. The worker(s) is responsible for reporting hours worked to Hope by fax or e-mail using the form provided by Hope and will submit hours to Hope weekly and/or by the 15th and last day of each month. In accordance with Department of Labor standards, overtime will be calculated at one and one half times the regular rate for any hours over 8 in one day and also for any hours worked over 40 in one week.

Hope will bill Company on the 15th and the last day of each month. Invoices are due and payable on receipt. Payment in full for invoices shall be made to Hope within thirty (30) days from invoice date. Invoices that are more than seven (7) days past due are subject to a late charge of one percent (1 %) per month on the amount of the past due balance. Late charges shall be calculated using the U.S. Method, therefore interest will not be compounded on the past due balance. If the Client's account is past due and Hope has notified Client verbally or in writing of the past due balance, Hope may, upon 30 days' notice, immediately cease providing any and all further Services without any liability to Client for interruption of pending work.

Implementation of this agreement is contingent on signing of this agreement by both the Company and Hope representatives.

Part 7 - Confidentiality

By signing this contract, you agree in accordance with California Welfare and Institutions Code Sections 5328 through 5330, to regard as confidential all information received directly or indirectly concerning any Hope client employed by you. Confidentiality extends to photos and you agree to request a written photo release for any photos displayed showing any Hope client.

Hope agrees that Hope staff will not disclose confidential business information to any party regarding the Company's practices, products or procedures.

Part 8 - Labor Law and Accommodations

All State and Federal Labor laws apply to all employees covered by this contract. On request, Hope will provide consultation relating to disability-related issues, application of labor law to employees with disabilities, and on accommodating persons with disabilities in the workplace.

Part 9 - Liability and Worker's Compensation Coverage

Hope assumes liability for clients and staff and is insured by the Berkshire Hathaway Homestate Insurance Company # **HOWC320215**. . Certificates of insurance are available upon request. In the event of an emergency or life threatening injury, please call the local emergency services to provide care for any staff provided by Hope. Follow up by informing your Hope representatives as soon as possible. In the case of non-life threatening injury or illness, please contact your Hope representatives as soon as you become aware of the incident.

Part 10 - Approval (required for implementation)

When signed, this agreement will be held valid for a minimum of 90 days (unless temporary as noted in Part 2 above); either party may request renegotiation of the agreement with a 30-day notice.

HES XXX-XXX

Hope Staffing Agreement

Page 2 of 2

Company or Representative

Date

Hope CE Manager

Date

HES XXX-XXX



CITY OF SEASIDE STAFF REPORT

Item No.: 8.F.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Nisha Patel, Public Works Director/City Engineer
Dave Fortune, Maintenance and Utilities Superintendent

DATE: July 20, 2023

**SUBJECT: ADOPT A RESOLUTION APPROVING \$51,500.00 FOR THE
PURCHASE OF A TURF SWEEPER FROM EKA FOR USE BY THE
MAINTENANCE AND UTILITIES DIVISION**

RECOMMENDATION

Adopt a resolution approving \$51,500.00 from the General Fund for the purchase of a turf sweeper and authorize the City Manager to execute a purchase agreement with EKA for an amount not to exceed \$51,500.00 for the turf sweeper, and direct the Finance Department to incorporate these changes in the fiscal year 2023/2024 budget.

BACKGROUND

The purpose of this item is for the City Council to consider approving \$51,500.00 from the General Fund Balance for the purchase of a turf sweeper for use within the Maintenance and Utilities Division.

The Maintenance and Utilities Division is requesting to purchase a turf sweeper from EKA so that maintenance staff can clean up goose poop from the lawns at Laguna Grande Park and City Hall. The current 1985 turf sweeper, which is in need of replacement, is used to sweep the turf before events such as Blues in the Park and the Farmers Market just to name a few.

The City solicited a proposal to purchase the turf sweeper from EKA, a registered firm with GSA (Contract #GS-07f-085CA), a federal procurement system of which the City of Seaside is also a registered party. The prices shown include set up and delivery to the city. All applicable fees and taxes will be paid by the city to the State.

FISCAL IMPACT

If the City Council approves the purchase of the turf sweeper, the fiscal impact will be \$51,500.00 from the General Fund to the subconsultant work account (100-8430-2073).

ATTACHMENTS

1. Proposal
 2. Resolution
-

Reviewed for Submission to the City Council by:



Jaime M. Fontes, City Manager

EKA

P.O. Box 932 • Grayson, GA 30017-0018

770.498.9316 • 866.498.9316 • 770.498.9318 (fax)

EKA**Sales.com**

Customer Quote

EKA Quote #	Date	Quote valid until:
12080	6/26/2023	7/26/2023

Name / Address	
CITY OF SEASIDE, CA Adam Vick AVick@ci.seaside.ca.us>	
Solicitation number	CUST REQUEST

Delivery Address

EKA Quote Contact	Contract Number	Payment Terms	F.O.B. terms	Dealer
cindy@ekasales.com	SEE BELOW	NET 30 DAYS	DEST	

Item / Description	Qty	Price Each	Total
#48-500AF SMITHCO SWEEP STAR 48H FINGER REEL: Riding Self-Propelled Sweeper 48" Sweeping Width - FINGER REEL; Hydraulic drive w/ 18 hp, 2-Cylinder gasoline engine. Debris Hopper: Capacity - 1.75 cu.yd., Construction - 14 gauge steel formed panels, Dump - Hydraulic raise/lower debris hopper to dump height to 65" for easy disposal of debris.	1	48,646.70	48,646.70
#48-501 Hopper Dust Shield (Accessory Option for Smithco Sweep Star 48)	1	1,112.34	1,112.34
SETUP/INSTALLATION	1	1,667.37	1,667.37
QUOTED PRICE/TERMS ARE EQUAL TO GSA #GS-07F-085CA AND AFNAF CONTRACT #F41999-17-D-0011. NOTE: EKA DOES NOT COLLECT/PAY ANY STATE/LOCAL TAXES. ANY TAXES DUE IS THE CUSTOMERS RESPONSIBILITY TO PAY DIRECT TO THE APPROPRIATE AGENCY.			

Earle Kinlaw & Associates, Inc. [dba] EKA
 DUNS: 075949644 SAM Unique Entity ID:DKRAJNL462K6
 TIN:58-1328598 Cage Code:2Y851.
 We appreciate the opportunity to serve your government business needs.

Total **\$51,426.41**

RESOLUTION NO. 23-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SEASIDE

AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT IN THE AMOUNT OF \$51,500.00 FOR PURCHASE OF A NEW TURF SWEEPER FOR THE MAINTENANCE AND UTILITIES DIVISION

WHEREAS, the Maintenance and Utilities Division is an essential function department for the City of Seaside that requires reliable equipment to function; and

WHEREAS, the existing turf sweeper is 35 years old; and

WHEREAS, the City is a registered party of GSA, a program of the federal procurement system; and

WHEREAS, Chapter 3.04.110 of the Seaside Municipal Code permits the use of cooperative procurement agreements; and

WHEREAS, the City received a proposal from EKA, a registered contractor with GSA, to purchase a turf sweeper; and

WHEREAS, EKA's proposal is in the amount of \$51,500.00; and

NOW, THEREFORE BE IT RESOLVED, that the City Council of the City of Seaside adopt a resolution authorizing the City Manager to execute a contract with EKA for the purchase of a turf sweeper for an amount not to exceed \$51,500.00; and

NOW BE IT FURTHER RESOLVED, that the City Council of the City of Seaside directs the Finance Director to appropriate the funding from the General Fund to the subconsultant work account (100-8430-2073) and incorporate the change in the fiscal year 2023/2024 Budget

PASSED AND ADOPTED at a regular meeting of the City of Seaside City Council duly held on the 20th day of July 2023 by the following vote:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCIL MEMBERS:
ABSENT:	COUNCIL MEMBERS:
ABSTAIN:	COUNCIL MEMBERS:

Ian N. Oglesby, Mayor

ATTEST:

Dominique L. Davis, City Clerk



CITY OF SEASIDE STAFF REPORT

Item No.: 9.A.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Nisha Patel, Public Works Director/City Engineer
Leslie Llantero, Assistant Engineer

DATE: July 20, 2023

**SUBJECT: ADOPT A RESOLUTION APPROVING A GRANT APPLICATION
FOR REGIONAL SURFACE TRANSPORTATION PROGRAM GRANT
FUNDS ADMINISTERED THROUGH THE TRANSPORTATION
AGENCY FOR MONTEREY COUNTY FOR THE COE AVENUE AND
GENERAL JIM MOORE BOULEVARD AND SEASIDE MIDDLE
SCHOOL INTERSECTION IMPROVEMENTS PROJECT**

RECOMMENDATION

Adopt resolution approving the grant application to obtain Regional Surface Transportation Program funds administered by the Transportation Agency for Monterey County (TAMC) for the design of the Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements Project.

BACKGROUND

The Coe Avenue and General Jim Moore Boulevard Intersection Improvements Project (Project) is an approved project in the Capital Improvement Program for fiscal year 2023/2024. The Project will upgrade two all-way stop controlled intersections, reduce the overall street width of General Jim Moore Boulevard, create safe passage for both pedestrians and bicycle riders on the adjacent multiuse path, and mitigate the amount of and severity of collisions.

In 2021, the intersections were evaluated as part of the Intersection Control Evaluation (ICE) study which provides a holistic approach to the consideration and evaluation of intersection control alternatives. Both Coe Avenue at General Jim Moore Boulevard and Seaside Middle School entrance at Coe Avenue intersections were evaluated based upon life cycle costs, performance measures such as safety, delay, operations and maintenance, and initial capital costs. The study compared roundabouts to the existing

all-way stop controlled intersections and determined that roundabouts will improve the intersections with regards to traffic and pedestrian safety and drastically reduce vehicle delays. In addition, the Seaside Marina Safe Walking and Biking to School Complete Streets Plan (Plan), approved by City Council, identified specific improvements around Seaside Middle School as important safe routes to school connections. These improvements include installing roundabouts along Coe Avenue at General Jim Moore Blvd and Paralta Avenue, providing easier access for cyclists and pedestrians from Paralta Avenue, and creating separate bike lanes or trails. Consistent with the Plan, the Project will address the top community-identified safety concerns and barriers to children walking and biking to schools in the Project area; safety of intersections and crossing; and speed of traffic and amount of traffic.

The Regional Surface Transportation Program (RSTP) grant application was prepared by Kimley-Horn and Associates and submitted to TAMC by the June 1, 2023 deadline. The grant application is requesting \$955,000 for environmental review, public outreach, and design. The total Project cost is estimated at \$4,379,000.00. Construction funding is estimated to cost \$3,376,000. There is no required funding match. If the City is awarded grant funds from TAMC, staff will move forward with applications for construction funding from other grant funding sources, such as the Active Transportation Program, AB 2766 Motor Vehicle Emission Reduction Grant, and the Safe Streets for All Grant Program. Through a consultant, the City is preparing a Local Roadway Safety Plan, scheduled to be completed by this year, which allows the City to be eligible to apply for other funding opportunities as mentioned above.

The City Administrative Policy (Policy) indicates that grant applications equal to or in excess of \$10,000.00 are required to be approved by the City Council. The Policy requires that the City Council adopt a resolution approving the filing of the application, certifying the project is consistent with the General Plan, certifying the applicant has sufficient funds available to operate and maintain the project, and appointing the City Manager as agent for the project.

The Project is consistent with the City General Plan. The goals in the General Plan which the Project satisfies include developing and maintaining a City circulation system that promotes safety and satisfies demand, and promotes the use of multi-modal transportation, including bicycle and pedestrian integration into the City's circulation system. Once constructed, the operation and maintenance of the roundabouts is approximately \$2,000.00 per year, which would be funded through the Street Maintenance Account.

Staff recommends adopting a resolution approving the Regional Surface Transportation Program grant application for the Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements Project.

FISCAL IMPACT

The City would only move forward with the design of the Project if grant funds are awarded from TAMC.

ATTACHMENTS

1. Resolution
 2. TAMC RSTP Application
 3. TAMC RSTP Appendix
-

Reviewed for Submission to the City Council by:


Jaime M. Fontes, City Manager

RESOLUTION NO. 23-xx

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SEASIDE

**APPROVING APPLICATION OF REGIONAL SURFACE TRANSPORTATION
PROGRAM GRANT FUNDS FOR THE COE AVENUE AND GENERAL JIM MOORE
BOULEVARD AND SEASIDE MIDDLE SCHOOL INTERSECTION IMPROVEMENTS
PROJECT**

WHEREAS, the Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements Project (Project) is adopted in the fiscal year 2023/2024 Capital Improvement Program (CIP) annual budget; and

WHEREAS, the Project will upgrade two all way stop controlled intersections, reduce the overall street width of General Jim Moore Boulevard, create safe passage for both pedestrians and bicycle riders on the adjacent multiuse path, and mitigate the amount of and severity of collisions; and

WHEREAS, in 2021, the intersections were evaluated as part of the Intersection Control Evaluation (ICE) study which determined that roundabouts would improve the intersections with regards to traffic and pedestrian safety and drastically reduce vehicle delay; and

WHEREAS, the Project is consistent with the Seaside Marina Safe Walking and Biking to School Complete Streets Plan approved by the City Council on June 16, 2020; and

WHEREAS, the goals in the General Plan which the Project satisfy include developing and maintaining a City circulation system that promotes safety and satisfies demand, and promotes the use of multi-modal transportation, including bicycle and pedestrian integration into the City's circulation system; and

WHEREAS, the Regional Surface Transportation Program (RSTP) grant application, with no match funds required, was prepared by Kimley-Horn and Associates, Inc. and submitted to TAMC by the June 1, 2023 deadline; and

WHEREAS, the total project cost estimate is \$4,379,000.00 and the grant application request is for \$955,000.00 for environmental review, public outreach, and design.

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Seaside hereby authorizes the Regional Surface Transportation Program Grant Application for the Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements Project and authorizes staff to submit to the Transportation Agency for Monterey County.

PASSED AND ADOPTED at a regular City Council of the City of Seaside duly held on the 20th day of July, 2023 by the following vote:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCIL MEMBERS:
ABSENT:	COUNCIL MEMBERS:
ABSTAIN:	COUNCIL MEMBERS:

Ian N. Oglesby, Mayor

ATTEST:

Dominique L. Davis, City Clerk

Grant Application Materials

Regional Surface Transportation Program Competitive Grants

Applications due: June 1, 2023 – 12:00 PM via email to janneke@tamcmonterey.org



Transportation Agency for Monterey County

55B Plaza Circle

Salinas, California 93901

Purpose & Principles

The Regional Surface Transportation Program (RSTP) was established by California State Statute utilizing Surface Transportation Program Funds that are identified in Section 133 of Title 23 of the United States Code. The Transportation Agency for Monterey County (TAMC) distributes these funds to local agencies as part of its responsibilities as the Regional Transportation Planning Agency for Monterey County.

The purpose of the program is to provide funding to local jurisdictions for a wide variety of transportation planning and improvement projects, such as the research, planning, construction, improvement, maintenance, and operation of public streets and highways (and their related public facilities for non-motorized traffic), including the mitigation of their environmental effects. A full listing of eligible projects can be found in the Transportation Agency for Monterey County's Guidelines & Policies for the Administration of Regional Surface Transportation Program Funds.

In establishing the Regional Surface Transportation Program Competitive Grants program, the Transportation Agency is seeking to fund projects that advance the goals of the Transportation Agency Board. These include funding and delivering projects of regional significance that improve safety, provide maintenance for existing facilities, or support the development of a multimodal transportation network utilizing the principles of Complete Streets. Fair geographic balance in distributing the funds and the cost effectiveness of the proposed projects in meeting the program's goals are also taken into consideration when awarding grant funds.

Instructions

- (1) You must complete an application form for each project. All projects must submit an application, even if it has previously applied and received RSTP funding.
- (2) If your agency submits more than one project application, you must identify your highest priority project.
- (3) You are responsible for completing all sections of the application form and attaching any relevant information. Your project application will only be scored based on the information that is provided in your application. Additional information will not be accepted after the deadline.
- (4) Your project must pass the "Screening Criteria" section of this application form in order to qualify for funding.
- (5) You should refer to the included RSTP Scoring Criteria when preparing the relevant section of your application. You are responsible for providing complete and accurate information in order to receive the highest points possible.

- (6) The deadline for applications is June 1, 2023 by 12:00 PM. All applications must be received by TAMC on this date. No postmarks or faxes will be accepted. No application forms or additional information will be accepted after this date.
- (7) For each application, you must submit one electronic PDF document. If you are submitting supplemental information, it must all be compiled into one PDF document.

Screening Criteria

To qualify for RSTP funding, you must state how your project meets all of the following criteria:

- A. Your project must be implemented within a 3-year timeframe. Please specify if your project will meet this deadline. Please note that after three years, your project will lose the funding if it has not yet been completed.

The proposed project will be implemented within 3 years: X

- B. Your project must be consistent with a minimum of one of the local or regional plans listed below. Please check off the applicable plans:

Local General Plan:	<u> </u>
Capital Improvement Program (CIP):	<u> X </u>
Safe Routes to Schools Plan (SRTS):	<u> X </u>
Active Transportation Plan:	<u> </u>
Short Range Transit Plan (SRTP):	<u> </u>
MST Service Improvement Plan:	<u> </u>
Regional Transportation Plan (RTP):	<u> </u>
Approved Transportation Impact Study:	<u> </u>
Other (please specify):	<u> </u>

- C. For intersection projects that increase capacity or make changes to the control type, the California Department of Transportation Intersection Control Evaluation (ICE) must be completed or a commitment to completing the evaluation prior to receiving RSTP funds. Information can be found at: <https://dot.ca.gov/programs/traffic-operations/intersection-evaluation-control>.

An ICE has been completed (include with grant application): X

An ICE will be completed prior to receiving grant funds:

- D. For all projects, a pre-construction Before Study in alignment with stated project benefits must be completed or a commitment to complete as part of the project implementation. A sample Before-and-After Study can be found in Appendix D.

A pre-construction Before Study has been completed (include with grant application):

A pre-construction Before Study will be completed as part of the project implementation (include in project completion report): X

Section A: Project Information & Regional Significance

Project Title	Sponsor / Lead Agency
Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements	City of Seaside
Contact Person	Contact Information (address, phone, email)
Leslie Llantero	440 Harcourt Avenue Seaside, CA 93955 831.899.6832 LLlantero@ci.seaside.ca.us
Project Description (include Average Daily Traffic data – vehicle, bike & pedestrian, or transit passengers)	
The Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements project would improve pedestrian, bicycle, and vehicular facilities along Coe Avenue including buffered bicycle lanes, roundabouts, non-contiguous sidewalks/multiuse path, crosswalk enhancements including an RRFB across Coe Ave to Seaside Middle School, and ADA ramp enhancements (see Appendix A – Project Map & Layout Plan). The site includes a major intersection at Coe Avenue and General Jim Moore, as well as the entrance to Seaside Middle School on Coe Avenue, approximately 280 feet west of General Jim Moore Blvd, at Paralta Avenue. The request for this RSTP grant is to fund the Environmental and Design phases of the project, and the City will pursue construction funding once the design is close to completion. City of Seaside staff have witnessed an eleven-minute delay on General Jim Moore Boulevard in the peak morning commute for the southbound direction; this congestion is exacerbated by the amount of school drop-offs. General Jim Moore Boulevard is also an alternative route to Highway 1 for access to Seaside, Del Rey Oaks and Monterey. Peak hour video counts of pedestrians and bicycles were taken by IDAX Data Solutions on May 30, 2019 on Coe Avenue at General Jim Moore Blvd from 7:00 AM to 8:45 AM, and from 2:00 PM to 3:45 PM (see Appendix D – NDS Traffic Counts and Intersection Volume Summaries). The study found that there are approximately 4 bicycle riders and 3 pedestrians during the AM peak hour, and 16 bicycle riders and 5 pedestrians during the PM peak hour. A second study was completed on Tuesday, December 03, 2019. Peak hour video counts of vehicles, pedestrians, and bicycles were taken by National Data Services (NDS) from 7:00 AM to 9:00 AM, and from 4:00 PM to 6:00 PM. AM peak hour counts results are 2,152 vehicles, 2 bicycle riders, and 2 pedestrians; PM peak hour counts are 1,670 vehicles, 15 bicycle riders, and 5 pedestrians. Based on the results from both studies, the ADT values were estimated to be 160 bicycle riders and 50 pedestrians. The vehicle ADT value were calculated for the Major (North-South) and Minor (East-West) legs of the intersection: 19,340 vehicles and 8,580 vehicles, respectively. During the 2019/2020 school year there were 827 students enrolled at Seaside Middle School, many of whom utilize the intersection at Coe and Paralta to get to school. Coe Avenue is also currently a designated bicycle route in the project area. Peak hour video	

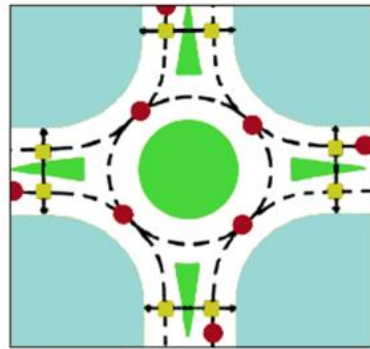
counts of pedestrians and bicycles were taken by IDAX Data Solutions on May 30, 2019 on Coe Avenue at Paralta Avenue from 7:00 AM to 8:45 AM, and from 2:00 PM to 3:45 PM. The study found that there are approximately 5 bicycle riders and 392 pedestrians during the AM peak hour, and 12 bicycle riders and 421 pedestrians during the PM peak hour. A second study was completed on Tuesday, December 03, 2019. Peak hour video counts of vehicles, pedestrians, and bicycles were taken by National Data Services (NDS) from 7:00 AM to 9:00 AM, and from 4:00 PM to 6:00 PM. AM peak hour counts results are 938 vehicles, 3 bicycle riders, and 303 pedestrians; PM peak hour counts are 362 vehicles, 1 bicycle rider, and 76 pedestrians. Based on the results from both studies, the ADT values were estimated to be 120 bicycle riders and 4,210 pedestrians. The vehicle ADT value were calculated for the Major (East-West) and Minor (North-South) legs of the intersection: 8,600 vehicles and 5,520 vehicles, respectively.

Is there a history of collisions or safety issues in the project area (pedestrian, bicycle, motorist) and how does the project address the issue?

While the Transportation Injury Mapping System (TIMS) records between 2017-2022 do not indicate any injury collisions, this may be attributed to the current lack of cyclist and pedestrian activity to and from the school. According to the Seaside and Marina Safe Walking and Biking to School: Complete Streets Plan, about 14% of students utilize active transportation and parents cite Safety of Intersections and Crossings and Speed of Traffic Along Route as major concerns for allowing their children to commute this way. This project will address both of these concerns in order to promote more active transportation users and create a better sense of safety for users of all ages and abilities.

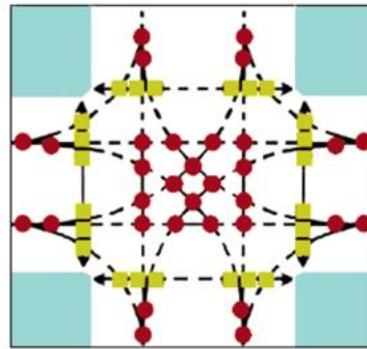
Roundabouts reduce vehicle speed as vehicles approach the intersection, thereby also reducing the amount of vehicle to vehicle collisions and vehicle to pedestrian and cyclist conflicts. Furthermore, roundabouts mitigate crash severity by greatly reducing head-on and T-bone collisions. Given the amount of pedestrians, many of which are middle school attendees, at the Coe/Paralta intersection and the large amount of vehicular traffic at General Jim Moore/Coe, both intersections would clearly benefit from the vast reduction in conflict points as provided by a roundabout:

Roundabout



● 8 Vehicle conflicts
■ 8 Pedestrian conflicts

Intersection



● 32 Vehicle conflicts
■ 24 Pedestrian conflicts

A roundabout is ideal not only to address the traffic congestion at Paralta, specifically, it is also an ideal intersection treatment for school children. This is of particular importance as the Coe/Paralta intersection is the only north-south crossing that connects the majority of residences to Seaside Middle School (see Appendix C – Excerpts from Seaside and Marina Safe Walking and Biking to School: Complete Streets Plan). The crossing distances will be significantly shorter than existing and pedestrians only have to watch for traffic in one direction at a time. Drivers are also more likely to be looking in the direction of pedestrians, instead of up at signals or left while turning right. Overall pedestrians are 50-90% less likely to be involved in an injury crash at a roundabout than at a signalized intersection. At the Paralta and Coe intersection the predicted number of injury and fatalities for a signalized intersection is 0.6 / life cycle, whereas for a roundabout it is 0.25 / life cycle; this results in less than half the loss of life amount. The roundabout at the Paralta intersection would result in slightly more property-damage-only collisions, however the severity of crashes would be greatly reduced.

Based on the ADT's the intersection at General Jim Moore Boulevard and Coe Avenue has substantially more vehicle and bike traffic, and these users would also greatly benefit from the installation of a roundabout. Motorists are typically 60-80% less likely to be involved in an injury crash at a roundabout than at a signalized intersection, and cyclists are usually 10-30% less likely. At the General Jim Moore and Coe intersection the predicted number of injury and fatalities for a signalized intersection is 1.8 / life cycle, whereas for a roundabout it is 1.6 / life cycle. The roundabout at the General Jim Moore intersection would result in 8 incidents of property-damage-only collisions as compared to 6 incidents at a traffic signal; once again these instances of collisions are minor, especially when compared to the cost of injury and fatality collisions.

Project Benefits (attach additional information if needed)

The Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements project will upgrade two all way stop controlled intersections, reduce the overall street width of General Jim Moore, create safe passage for both pedestrians and bicycle riders on the adjacent multiuse path, and mitigate the amount and severity of collisions. When polled with a take home survey asking about children walking and biking to school, parents rated their top three concerns as: distance from home (81%), safety at intersections and crossings (57%), and speed of traffic along route (54%) (see Appendix C – Excerpts from Seaside and Marina Safe Walking and Biking to School: Complete Streets Plan). While the roundabouts will not change the distance from residences to the school, it will greatly reduce the speed of vehicle along the route and provide enhanced pedestrian crossings.

While students would be the primary beneficiaries of the improvements, the project would also increase general pedestrian and bicycle use of these streets. Currently General Jim Moore has two travel lanes in each direction, along with left and right turn lanes, making the total street width at the intersection approximately 96' to 106'. Northbound cyclists intending on turning left onto Coe Avenue must exit the designate bike lane to enter the right turn pocket and cross three travel lanes, or, along with pedestrians, they can use the 90'+ crosswalk. With the installation of a roundabout, however, bikes will travel with the slowed vehicles, rather than attempting to ride in front or beside quickly turning vehicles. Less capable or experienced riders will have the option to ride on the multiuse path. This project will enhance alternative modes of transportation by utilizing improvements that will slow down travel speeds, improving the comfort and safety of those traveling along or across the roadway.

It is expected that these improvements will transform the area into an active transportation friendly environment with a unified bicycle and pedestrian network. Based on the current roadway conditions and proposed improvements, it is expected that pedestrians and bicycling activity will double in the area following the project.

One of the major concerns for both intersection is that of delay; with school start and end times coalescing with commuter hours, drivers often experience intersection wait time upwards of ten minutes. With a traffic signal, an upgrade from the current all way stop condition, the traffic delays at General Jim Moore are 30 sec / vehicle and 34 sec / vehicle during the AM and PM peak hours, respectively. After the installation of a roundabout, however, these delay times would be reduced to 15 sec / vehicle and 19 sec / vehicle. Similarly, if the Coe/Paralta were upgraded to a signal the delay times would run at 8 sec / vehicle during the AM peak hour and 14 sec / vehicle during the PM peak hour. Roundabout delay times for the AM and PM peak hours would be 4 sec / vehicle and 8 sec / vehicle, respectively. Public comments on the project also illuminated city staff to the amount of illegal U-turns and lane crossing that happens during these peak hours. A roundabout would not only alleviate traffic wait times, it would also increase compliance with local traffic laws. The installation of the Coe Avenue and General Jim Moore Double Roundabout project would

alleviate traffic congestion dramatically ultimately leading to a reduction in the societal cost associated with lost person-hours and increasing livability in the region.

Though Eucalyptus Road (east leg of General Jim Moore intersection) is currently closed off to through traffic, future development is expected to generate additional traffic in the next 10 years. A roundabout at the General Jim Moore and Coe intersection would upgrade the deficient, existing infrastructure to accommodate future development as specified in the City of Seaside's General Plan with less anticipated cost, delay, and collisions than a traffic signal. It is clear the intersections at both General Jim Moore and Paralta along Coe Avenue need to be upgraded due to safety risks, traffic delays, expected future development, and poorly functioning infrastructure; it would most benefit the City of Seaside to do so with a roundabout.

Describe how your project links regional origin / destinations or serves regional travel

Implementation of the Project will alleviate the traffic congestions for commuters who elect to use General Jim Moore Blvd to reach Seaside proper, Ryan Ranch business park via South Boundary Road, commercial businesses in Del Rey Oaks via 68, Cal State University Monterey Bay (CSUMB) in Marina and the Department of Defense and military services.

The project incorporates Monterey-Salinas Transit (MST) Bus Routes 74 and 12 and will integrate well with Seaside's plans for development east of General Jim Moore which will include a mix of parks, recreation, employment, retail and services, and housing. MST operates their bus rapid transit along the General Jim Moore and Coe Avenue corridors, connecting low-income residents to job centers in Seaside, Monterey, Marina and Salinas. Both of the existing MST stops in the project area will be protected in place. The future SURF! Busway that will provide bus rapid transit service on a dedicated right-of-way will provide affordable transit access between Seaside, Marina and Salinas.

Describe how your project benefits disadvantaged communities

Seaside is the second-largest city in Monterey County, with a population of 32,085 in 2021. It is also a demographically young city, with 25% of its population under the age of 18. Seaside is the most ethnically diverse city in Monterey County: 43% of residents are Hispanic/Latino, 32% are white, 10% are Asian, and 7% are African American. According to census data, the majority of Seaside residents drive alone to work. Five percent of residents walk or bike to work, and 4% take public transportation. According to the Seaside & Marina Safe Walking & Biking to School: Complete Streets Plan, "Seaside residents grapple with high living costs, and each city houses disadvantaged populations as defined by the Health Disadvantaged Index and the CalEnviroScreen 3.0. One in seven Seaside residents lives in a disadvantaged neighborhood: one where 60% of households live in poverty, 17% of households lack access to a car, and 53% of people have no high school education."

Seaside residents grapple with high living costs and houses disadvantaged populations as defined by the Health Places Index and the CalEnviroScreen 4.0. One in seven Seaside residents lives in a disadvantaged neighborhood: one where nearly 60% of households live in poverty, 11.8% of households lack access to a car, and 91% of people over the age of 25 have no high school education.

Seaside residents also have health struggles that could be helped by increased walking and bicycling especially for children and the African American community. In 2018, nearly half of all 5th graders in Seaside were overweight or obese. The City's African American community is the largest in Monterey County, and disproportionately affected by heart disease, diabetes, and obesity. To address these serious health issues, the residents of Seaside need more places in the city where they can feel safe and comfortable walking and bicycling and they need community-based education and encouragement programming to help them incorporate active transportation in their daily lives.

The project includes two census tracts: Tract 141.07 to the north and Tract 139 to the south. According to CalEnviroScreen 4.0 census tract 141.07 has a higher percentage of poverty than 55% of others in California and a housing burden more than 64% of others in California, while Tract 139 has a higher percentage of poverty than 52% of others in California and a housing burden more than 88% of others in California. The people who live in this neighborhood face many barriers to overcoming poverty including linguistic isolation, limited or no access to an automobile and less than 38% of adults over the age of 25 have a Bachelor's education. This project will provide these residents direct access to the services and programs needed to cope with their current situations and improve their lives and the lives of future generations. This project will provide direct access from the disadvantaged neighborhoods to schools, housing, community and county services, and after school programs.

The City adopted the Seaside & Marina Safe Walking & Biking to School: Complete Streets Plan in February 2020 (Appendix C). The Plan identifies specific improvements around Seaside Middle School as important safe routes to school connections; these improvements include installing roundabouts along Coe Avenue at General Jim Moore and Paralta Avenue, providing easier access for cyclists and pedestrians from Paralta Ave, and creating a separated bike lane or trail. Consistent with the Plan, the Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements project will address the top community-identified safety concerns and barriers to children walking and biking to schools in the project area: safety of intersections and crossings; speed of traffic and amount of traffic.

Seaside Middle School is a middle school which has recently changed to serve 7th and 8th graders, with an enrollment of 475 students, 85% of whom were eligible for Free and Reduced Price Meals (2021-22 California Longitudinal Pupil Achievement Data System (CALPADS) Fall 1). During the outreach and data collection effort for the Seaside & Marina Safe Walking & Biking to School: Complete Streets Plan in 2019/20, Seaside Middle School served 827 6th-8th graders, 89% of whom were eligible for Free and Reduced Price Meals.

Twenty-five percent of students attending this middle school live within 1 mile of the Project, and a vast majority live within a 1-2 mile radius. Approximately 14% of students utilize active transportation to get to/from school (Appendix C).

Seaside residents also have health struggles that could be helped by increased walking and bicycling especially for children and African American communities. In 2018, nearly half of all 5th graders in Seaside were overweight or obese. The City's African American community is the largest in Monterey County, and disproportionately affected by heart disease, diabetes, and obesity. To address these serious health issues, the residents of Seaside need more places in the city where they can feel safe and comfortable walking and bicycling and they need community-based education and encouragement programming to help them incorporate active transportation in their daily lives.

Describe how your projects addresses the needs of people with disabilities

While vehicle traffic is expected to remain similar to existing conditions, pedestrian and bicycle traffic is expected to increase as greater accessibility has been provided by the installation of a multiuse path, enhanced crosswalks with pedestrian refuge islands, and traffic calming measures.

Curb extensions will increase visibility and space for pedestrian queues. Medians have been provided for those who previously felt they could not cross such large distances; this provides a safer location for them to queue when waiting to cross. The two-stage crossing is beneficial for people with vision impairments as it decreases the distance of the crosswalk.

Crossing a 52 to 106-foot wide road using faded standard crosswalks next to motorized traffic traveling at +35mph, creates a high-stress environment not suitable for youth, senior and/or disabled users. Sight distance and visibility at both intersections with Coe Avenue will be improved by installing high-visibility crosswalks. The primary north-south connection across Coe Avenue to Seaside Middle School will be further enhanced by installing an Rectangular Rapid Flashing Beacon (RRFB). Sight distance will also be improved as the proposed multiuse trail will provide a minimum 10-foot wide paved path with 5-foot landscaped buffers. Reduced crossing distance in turn reduce pedestrians' exposure to motorized traffic. Sight distance and visibility issues at the intersections with residential street routes used by parents and their children to get to school will be improved by closing sidewalk gaps and installing enhanced crosswalks and updated curb ramps to correct ADA deficiencies. These countermeasures will allow people with disabilities to walk or bike uninterrupted between home and school with a much greater sense of safety and ease of use.

Section A Scoring Categories	Points
A1) Traffic volume in the corridor	1-5
1 point = 1 - 5,000 ADT;	
2 points = 5,001 - 10,000 ADT	
4 points = 10,001 - 20,000 ADT	
5 points = 20,001+ ADT	
A2) Project will mitigate safety hazards	0-5
A3) Regional Significance	0-5
0-5 points based on how well the project serves travelers from other areas or more than one jurisdiction.	
A4) Benefits to Disadvantaged Communities	0-5
0-5 points based on how well the project serves disadvantaged communities. Can serve disadvantaged communities by being either within a disadvantaged community or on a route commonly used by disadvantaged communities.	
A5) Benefits to people with disabilities	0-5
0-5 points based on how well the project will serve people with disabilities.	
Subtotal (max.)	25

Section B: Complete Streets

The Monterey Bay Area Complete Streets Program is a policy tool that helps local jurisdictions improve their transportation networks by making streets safe and accessible for everyone. The Monterey Bay Area Complete Streets Guidebook is a comprehensive resource designed to assist jurisdictions in developing complete streets projects. For reference, the guidebook is accessible online at:

<https://www.tamcmonterey.org/complete-streets>

Fill out the Complete Streets Checklist on the following pages and include with your application.

Complete Streets Checklist

Existing Conditions

Function Classification: Local Collector Arterial

Complete Streets Design Type: (refer to Chapter 4 of the Complete Streets Guidebook)

 Main Street Avenue Boulevard Parkway

 Local/Subdivision Street Rural Road

ROW Width: GJM – 140 ft Coe – 122 ft feet

Roadway Width: GJM – 96 to 106 ft Coe – 52 to 68 feet

Number of lanes N/B: 2/0 S/B: 2/2

2-Way Center Turn Lane: Yes No

Sidewalk Width: 4 ft – 8 ft feet

Landscaping: Yes No

Parking: Yes No

Shoulder Width: _____ feet

Bike Lane Width: 4.5 - 6 feet

Signalized Intersection Yes No

Pavement Condition: Good GJM PCI - 96 Coe PCI - 86 PCI

Posted Speed Limit: GJM – 40 MPH Coe – 25 to 35 mph

Traffic Volume: GJM : 19,340 (North-South) | 8,580 (East-West) AADT

Coe/Paralta: 25,280 (North-South) | 8,685 (East-West) AADT

Transit Route/Stops: Yes No

Truck Route: Yes No

Based on the matrix linked below*, indicate the existing bicycle level of traffic stress:

 LTS 1 LTS 2 LTS 3 LTS 4

* <https://www.boston.gov/sites/default/files/file/2020/12/BLTS%20Table.pdf>

Note: The methodology and analysis used to develop the Bicycle Level of Traffic Stress table linked above is an adaptation to fit Boston's context from the Mineta Transportation Institute's report "Low-Stress Bicycling and Network Connectivity" and NACTO's "Urban Bikeway Design Guide".

For more information about All Ages & Abilities Facilities, see page 4 at the following link:
https://nacto.org/wp-content/uploads/2017/12/NACTO_Designing-for-All-Ages-Abilities.pdf.

Future Conditions

There are planned transportation and land use projects that could affect circulation in the project area ☒ Yes ☐ No

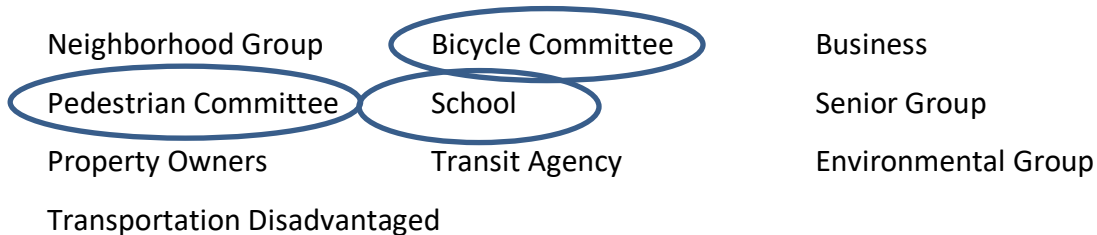
If so, please list the project(s): Future development east of General Jim Moore Blvd and south of Coe Avenue more specifically called Seaside East. One of the General Plan Goals is to create a complete community in Seaside East with a mix of parks, recreation, employment, retail and services, and housing. Specifically, the eventual build-out of the area.

The planned projects are anticipated to increase travel demand in the following modes: (Circle all that apply)



Stakeholder Outreach

Which stakeholder groups provided input on the project scope and design?



Describe how the outreach was conducted in one paragraph or less:

As part of the Seaside & Marina Safe Walking & Biking to School: Complete Streets Plan (Appendix C), Seaside Middle parents were asked to complete a bilingual paper survey about their attitudes toward walking and biking to school in August of 2018, and 188 surveys were received. The survey asked parents to select the most important factors in their decisions whether to allow their children to walk or bike to school. The top five issues for parents whose children do not currently walk or bike to school were distance from home, safety at intersections and crossings, speed of traffic, time, and concerns about violence or crime.

Opportunities & Challenges

Transportation Network Deficiencies (circle all that apply)

Lacking or insufficient facilities	☒ Bicycle	☐ Pedestrian	☐ Transit
Lacking or insufficient network connectivity	☒ Bicycle	☒ Pedestrian	☒ Transit
Insufficient accommodations for seniors	☒ Bicycle	☒ Pedestrian	☐ Transit
Insufficient accommodations for the disabled	☒ Bicycle	☒ Pedestrian	☐ Transit
Insufficient accommodations for students/youth	☒ Bicycle	☒ Pedestrian	☒ Transit

The project will implement the following Complete Streets elements (check all that apply):

- ☐ Road Diet (road width > 56'; AADT < 20,000; bike/pedestrian supportive land use; safety)
- ☒ Traffic Calming
- ☒ Roundabout
- ☐ Transit-Oriented Development
- ☐ Neighborhood Shared Street
- ☐ Pedestrian Place
- ☐ Transit / Bicycle / Pedestrian Prioritization at intersections

Based on the matrix linked below*, indicate the anticipated bicycle level of traffic stress after the proposed improvements are constructed:

LTS 1 ☒ LTS 2 LTS 3 LTS 4

* <https://www.boston.gov/sites/default/files/file/2020/12/BLTS%20Table.pdf>

Note: The methodology and analysis used to develop the Bicycle Level of Traffic Stress table linked above is an adaptation to fit Boston's context from the Mineta Transportation Institute's

report “Low-Stress Bicycling and Network Connectivity” and NACTO’s “Urban Bikeway Design Guide”.

For more information about All Ages & Abilities Facilities, see page 4 at the following link:
https://nacto.org/wp-content/uploads/2017/12/NACTO_Designing-for-All-Ages-Abilities.pdf.

Check here if this project is a pedestrian enhancement project only _____

Which Complete Streets design features are included in this project? (Circle all that apply)

Pedestrian Design

Minimize Driveways

Sidewalk/Path

Landscaping/Parking Buffer

ADA Access

Street Trees

Crossing Treatments

Traffic Calming

Wayfinding Signs

Audible Countdown

Other (describe below)

Bicycle Design

Bicycle Lanes

Shared-Lane Marking

Multiuse Path

Wayfinding Signs

Bicycle Parking

Bicycle Detection

Bicycle Box

Color-Treated Bike Lanes

Floating Bike Lanes

Transit Design

Priority Bus Lane

Bus Bulb/Pull-Outs

Shelter

Real Time Bus Arrival Info

ITS / Signal Priority

Transit (15 min headway)

Wi-Fi Service

Stop/Station Amenities

Project Trade-Offs

The recommended complete streets cross section and/or design is supportable ☒ Yes ☐ No

If not, explain why: (circle all that apply)

Lack of ROW

Existing structures

Environmental features

Insufficient funding

Other: _____

Alternative designs have been considered

☒ Yes

☐ No

What refinements to the cross section were needed and why?

As part of the ICE study, the roundabout alternative was compared to the existing condition and compared to an upgraded traffic signal. The signal alternatives left much less room for landscaping and sidewalk upgrades.

Removed/partially removed zones for:

Pedestrians

Bicyclists

Landscaping

Vehicles

Considered alternative routes/locations for:

☒ Pedestrians

☒ Bicyclists

☒ Landscaping

☒ Vehicles

Is this a maintenance project?

☐ Yes

☒ No

What types of destinations does the project connect transportation disadvantaged communities to? (Circle all that apply)

☒ Transit

☒ Schools

Senior Housing

☒ Affordable Housing

Parks

Community Center

Library

Does the project close a gap in the network for:

☒ Bicycle

☐ Pedestrian

☐ Transit

Exceptions

The project is exempt from accommodating certain users

N/A

Cost of accommodation is excessively disproportionate to the need or probably use

There is documented absence of current and future need

Other: _____

Section B Scoring Categories	Points
B1) Stakeholder outreach was conducted on the project scope and design	0-5
B2) The project is expected to reduce bicycle level of traffic stress	0-5
B3) The project incorporates one of the following Complete Street Treatments	0-5
Road Diet	
Traffic Calming	
Roundabout	
Transit-Oriented Development / Transit Corridor	
Neighborhood Shared Street	
Pedestrian Place	
Transit/Bicycle/Pedestrian Prioritization at Intersections	
B4) Project improves bicycle, pedestrian, or transit design features	0 or 2.5
B5) This is a maintenance project with Complete Streets enhancements	0 or 2.5
B6) Improve access and/or close a gap for transportation disadvantaged communities	0 or 5
Subtotal (max.)	25

Section C: Project Readiness & Cost Effectiveness

Provide a schedule of when the project components (e.g. design, construction) will be started and completed. Attach supporting documentation and additional information as needed. List all costs associated with the project. The RSTP money requested would be granted for a three-year time frame. Indicate whether matching funds are secured or unsecured under Fund Status.

Total RSTP funding request: \$ 955,000

Total Other funding: \$ 3,376,000

Total Project Cost: \$ 4,379,000

Phase	Start Date (M/YY)	End Date (M/YY)	Funding (\$1,000s)				Fund Source	Funds Secured (Y/N)
			Prior	FY23/24	FY24/25	FY25/26		
Conceptual Design & ICE Study	02/2020	06/2020	\$48				RSTP FS	Y
Environmental Review & Outreach	9/2023	02/2024		\$205			RSTP	N
Design: <u>100</u> % Complete	9/2023	12/2024			\$750		RSTP	N
Right of Way								N/A

Construction	4/2025	10/2026			\$1,688	\$1,688	ATP Cycle 7 or other Grant funds	N
Operating						\$2/year	General Fund	Y
Maintenance						\$2/year	General Fund	Y
Other:								

For all projects, a benefit / cost analysis must be completed and submitted with the application demonstrating the positive financial benefits of the project. You can use one of the established models developed by Caltrans or you may use your own model approved by TAMC staff.

<https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/data-analytics-services/transportation-economics>

Benefit / Cost Ratio Result:

The Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements will provide an \$11,177,152 cost benefit compared to the existing conditions.

Both the Coe/Paralta and Coe/General Jim Moore intersections were evaluated in the City of Seaside ICE study. The existing intersection control as well one or two alternative controls were

evaluated at each intersection. The individual intersection benefit and cost amounts were combined to create a Total Intersection B/C Ratio as compared to the existing condition.

Four performance measures were evaluated at each intersection for signal and roundabout control; each of these measures is assigned a monetary value and used in the B/C Ratio calculation.

- Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.
- Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.
- O&M measures the common annualized costs associated with operating and maintaining the intersection.
- Initial Capital Costs (ICC) includes the funds needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.

	Added Benefits	Added Costs	B/C
Coe Ave at Paralta Ave	\$ 2,158,540	\$ 567,308	3.80
Coe Ave at General Jim Moore	\$ 12,347,447	\$ 2,761,527	4.47
TOTAL	\$ 14,505,987	\$ 3,328,835	8.27

A B/C Ratio greater than 1.00 indicates that the proposed intersection control alternative provides a better return on investment when compared to the existing intersection control type, in this case the project benefits significantly outweigh the costs. See Appendix B – Project Specific ICE Evaluations and Appendix F – Full City of Seaside ICE Study.

Section C Scoring Categories	Points
C1) Project is ready to bid within:	0-5
1 points = Three years	
3 points = Two years	
5 points = One year	
C2) Request for funding will fully fund the project	0-5
0 points = Funding plan does not fully-fund project	
3 points = Funding plan is fully-funded, less than 50% non-RSTP funds secured	
5 points = Funding plan is fully-funded, more than 50% non-RSTP funds secured	
7 points = Funding plan is fully-funded, more than 75% non-RSTP funds secured	
10 points = Funding plan is fully-funded, 100% non-RSTP funds secured	
C3) Project has already started and/or has completed the following phase(s):	0-10
5 points = Environmental Review	
5 points = Plans, Specifications, and Estimates	
1 point = 30% complete	
2 points = 60% complete	
4 points = 90% complete	
5 points = 100% complete	
C4) Benefit / cost ratio	0-5
0 point = <1	
5 points = >1	
Subtotal (max.)	25

Section D: Prior Project Delivery Performance

Jurisdictions applying for RSTP Competitive Grant funds should be fully utilizing all available RSTP Fair Share funds. The jurisdiction's ability and commitment to deliver the proposed project within the three-year timely-use of funds programming cycle, as well as past performance on competitively awarded projects, is also critically important to ensure grant funds are not reserved for projects that do not move forward.

What is your jurisdiction's RSTP Fair Share unprogrammed balance?	\$201,345
If your jurisdiction has unprogrammed Regional Surface Transportation Program Fair Share funds, how are you proposing to fully-utilize those funds?	
The City of Seaside recently received funds from the Fair Share program; these funds are anticipated to be used for street striping per the City's FY 23/24 Capital Improvement Program Draft Budget.	
If your jurisdiction has previously received Regional Surface Transportation Program Competitive funds, discuss your track record with delivering those projects within the 3-year program cycle and any challenges encountered with project delivery.	
In the 2020 RSTP Competitive Cycle, \$600,000 was awarded for the Broadway Avenue Complete Street Corridor Project for the PA&ED phase. The PS&ED portion of the project is substantially complete and billing will be finalized by August 2023. CTC approved the Request for Funding Allocation for the PS&E portion of the project at the May meeting, and the project is proceeding on schedule.	
The City plans to approach the Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements project in a similar way to the Broadway CSC project	

by first securing funds for Environmental, Outreach, and Design, then securing funds for construction through additional funding sources.

The City of Seaside received \$4,050,000 in grant funds from RSTP Competitive Grant Funds and 2% TDA Grant funds for the West Broadway Urban Village Infrastructure Improvement Project in 2015. The funds were used for design, design support during construction, construction management, and project management. The City received funding for the construction from a federal ATP grant of \$3.694M. The project was substantially complete in 2018, however due to punch list items and federal reporting requirements, the project was completely closed out December 2019.

Does this request for grant funding cover a cost overrun? (Yes or No)

No

If yes, please explain the issue related to the cost overrun.

Section D Scoring Categories	Points
D1) The jurisdiction is maximizing the use of RSTP Fair Share	0 or 10
D2) The jurisdiction has delivered previously-awarded competitive projects on time	0-10
D3) This funding request does not fund a cost-overflow	0 or 5
Subtotal (max.)	25

***City of Seaside - Coe Avenue and General Jim Moore Boulevard and
Seaside Middle School Intersection Improvements RSTP Grant***

Attachments: **Appendix A** – Project Map & Layout Plan

Appendix B – Project Specific ICE Evaluations

Appendix C – Excerpts from Seaside and Marina Safe Walking and Biking to School:
Complete Streets Plan

Appendix D – NDS Traffic Counts and Intersection Volume Summaries

Appendix E – Growth Rate Memo

Appendix F – Full City of Seaside ICE Study

Appendix A

Project Map & Layout Plan



Project Vicinity

0 10 20 Mi
0 10 20 Km

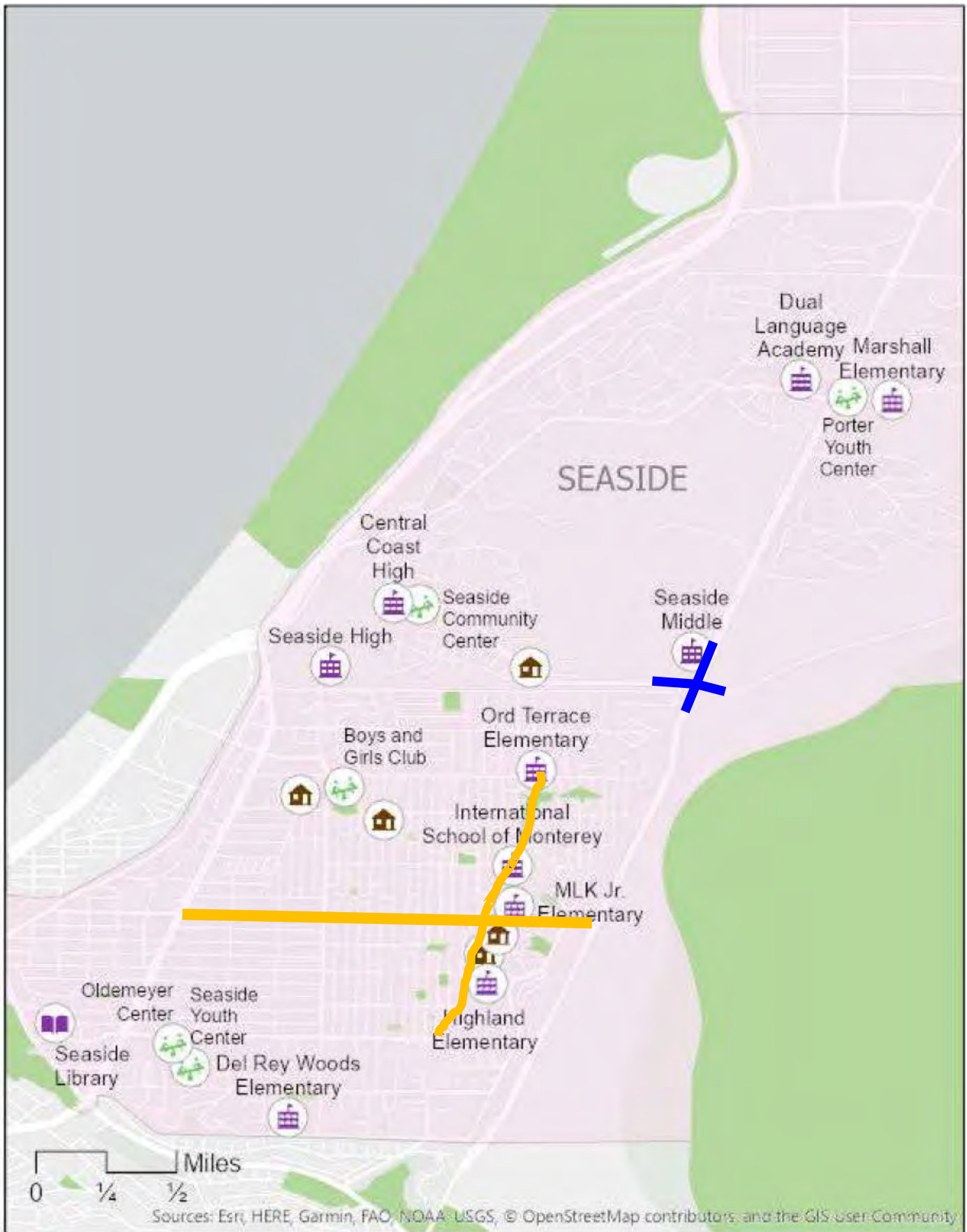
APPROXIMATE SCALE OF MAP

Monterey County

Area of map

CALIFORNIA

PACIFIC OCEAN



- Broadway Ave Complete Street Corridor Project Area**
- Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements Project Area**



CITY OF SEASIDE
DEPARTMENT OF PUBLIC WORKS

COE AVENUE AND GENERAL JIM MOORE BOULEVARD AND SEASIDE MIDDLE SCHOOL
INTERSECTION IMPROVEMENTS

MAY
2023

Appendix B

Project Specific ICE Evaluations

City of Seaside Intersection Control Evaluation Study Overall Intersection Summary

Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Closed)

INTERSECTION CONTROL ALTERNATIVES

The three intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Traffic Signal
3. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Coe Ave at Paralta Ave is currently stop controlled. Design constraints at the intersection include:

- | | |
|--|---|
| 1. Bus Stop | 5. Single family residential |
| 2. Proximity to GJM Blvd | 6. Intersection pinch point/Existing gate |
| 3. Steep slope and grass-lined channel | 7. Water utilities facility |
| 4. Seaside Middle School | 8. Driveway |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.1	Coe Ave at Paralta Ave (Gate Closed)		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

INTERSECTION LIFE CYCLE COST CALCULATIONS

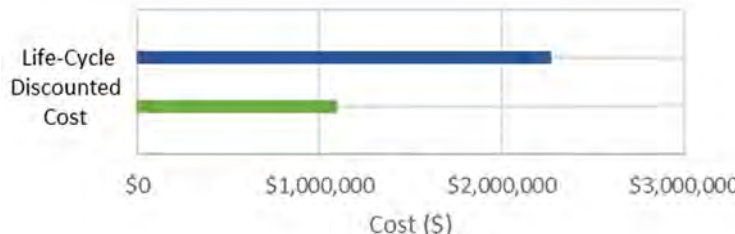
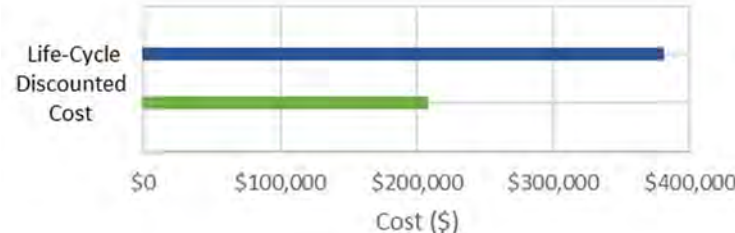
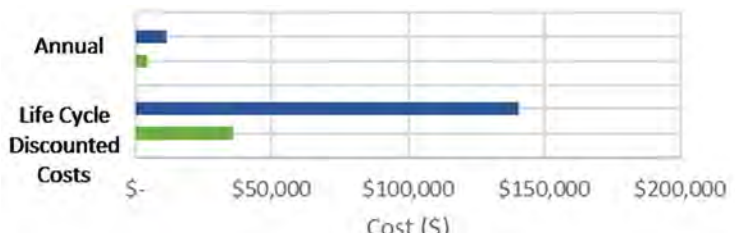
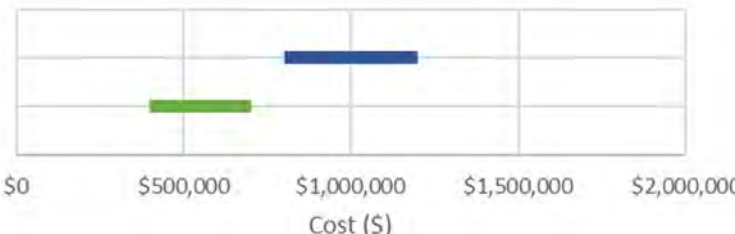
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (AWSC)	Signal	Roundabout	
Annual Cost of Collisions	\$49,194	\$158,990	\$75,394	
Discounted Life Cycle Cost of Collisions	\$690,154	\$2,230,498	\$1,057,720	
Delay				
	Existing (AWSC)	Signal	Roundabout	
Annual Quantity (hours)	11465	1293	698	
Annual Cost	\$ 133,974	\$ 17,085	\$ 9,243	
Total Discounted Life Cycle Cost	\$ 2,947,428	\$ 375,864	\$ 203,351	
O&M				
	Existing (AWSC)	Signal	Roundabout	
Annual O&M Costs	520	9,220	1,920	
Discounted Life Cycle O&M Costs	\$ 7,295	\$ 129,349	\$ 26,936	
Discounted Pavement Rehab Costs	\$ 8,418	\$ 10,750	\$ 10,750	
Total O&M Costs	\$ 15,713	\$ 140,099	\$ 37,686	
Initial Capital				
	Existing (AWSC)	Signal	Roundabout	
High Approximation	\$0	\$1,200,000	\$700,000	
Low Approximation	\$0	\$800,000	\$400,000	
Life Cycle Benefit Cost Ratio				
	Total Benefits (B)			
	Existing (AWSC)	Signal	Roundabout	
Safety	\$ -	\$ (1,540,344)	\$ (367,566)	
Delay	\$ -	\$ 2,571,565	\$ 2,744,077	
Total Benefits	\$ -	\$ 1,031,220	\$ 2,376,512	
	Total Costs (C)			
	Existing (AWSC)	Signal	Roundabout	
O&M	\$ -	\$ 124,386	\$ 21,973	
Budget	\$ -	\$ 1,000,000	\$ 550,000	
Total Costs	\$ -	\$ 1,124,386	\$ 571,973	
B/C Ratio Compared to Existing	NA*	0.92*	4.15	
*The roundabout has a B/C ratio greater than 1.0 which means it is preferred over the existing AWSC. The signal has a B/C ratio less than 1.0; however, the operations for the existing AWSC fail in the future and will require an improvement. The rest of this section will compare the proposed roundabout and traffic signal.				

City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation						
Benefits								
Safety Safety measures the societal cost associated with the predicted number and severity of collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Safety - Life-Cycle Discounted Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~2,200,000</td></tr><tr><td>Roundabout</td><td>~1,200,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~2,200,000	Roundabout	~1,200,000
Control Type	Cost (\$)							
Signal	~2,200,000							
Roundabout	~1,200,000							
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Delay - Life-Cycle Discounted Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~380,000</td></tr><tr><td>Roundabout</td><td>~220,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~380,000	Roundabout	~220,000
Control Type	Cost (\$)							
Signal	~380,000							
Roundabout	~220,000							
Costs								
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance - Life Cycle Discounted Costs</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~140,000</td></tr><tr><td>Roundabout</td><td>~70,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~140,000	Roundabout	~70,000
Control Type	Cost (\$)							
Signal	~140,000							
Roundabout	~70,000							
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~1,100,000</td></tr><tr><td>Roundabout</td><td>~600,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~1,100,000	Roundabout	~600,000
Control Type	Cost (\$)							
Signal	~1,100,000							
Roundabout	~600,000							

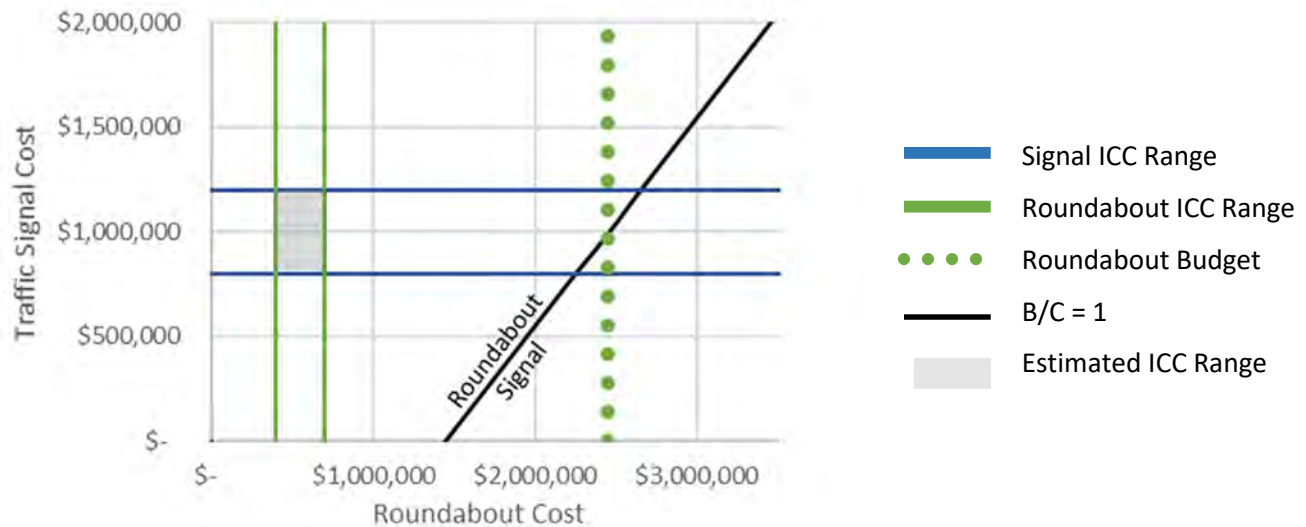
City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,200,000	\$ 400,000	\$ (800,000)			\$ (904,746)	NA-R
Low	\$ 800,000	\$ 700,000	\$ (100,000)	\$ (104,746)	\$ 1,345,291	\$ (204,746)	NA-R
Roundabout Budget	\$ 1,000,000	\$ 2,450,037	\$ 1,450,037			\$ 1,345,291	1.00

The high B/C target is calculated assuming the high-end of the signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the signal ICC and the high-end of the roundabout ICC.

Note that NA-R means the additional ICC of a roundabout is less than the ICC of the signal plus the added operations and Maintenance (O&M), and the roundabout provides greater benefits of the traditional improvements, a B/C ratio is negative, and the roundabout is preferred.



The table above summarizes the B/C analysis for Coe Avenue at Paralta Avenue (Gate Closed). The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is the is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

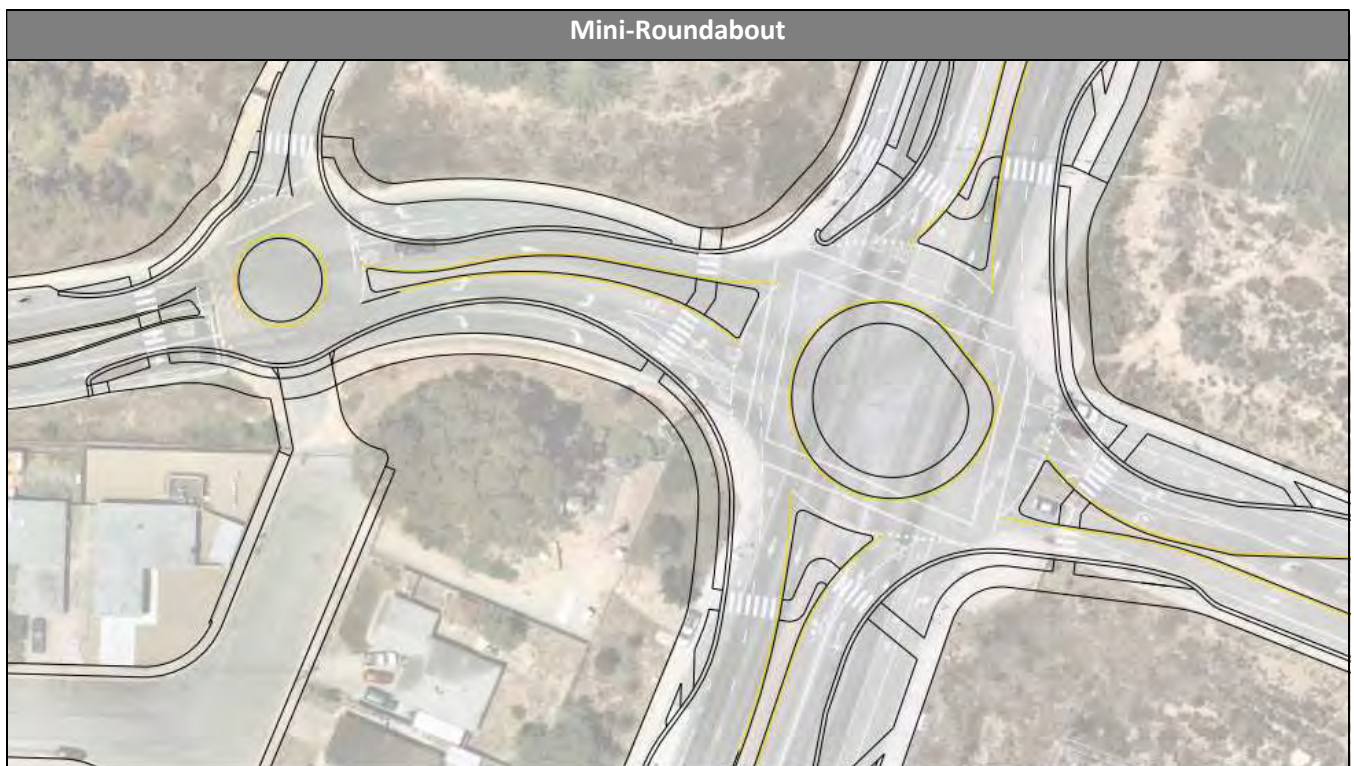
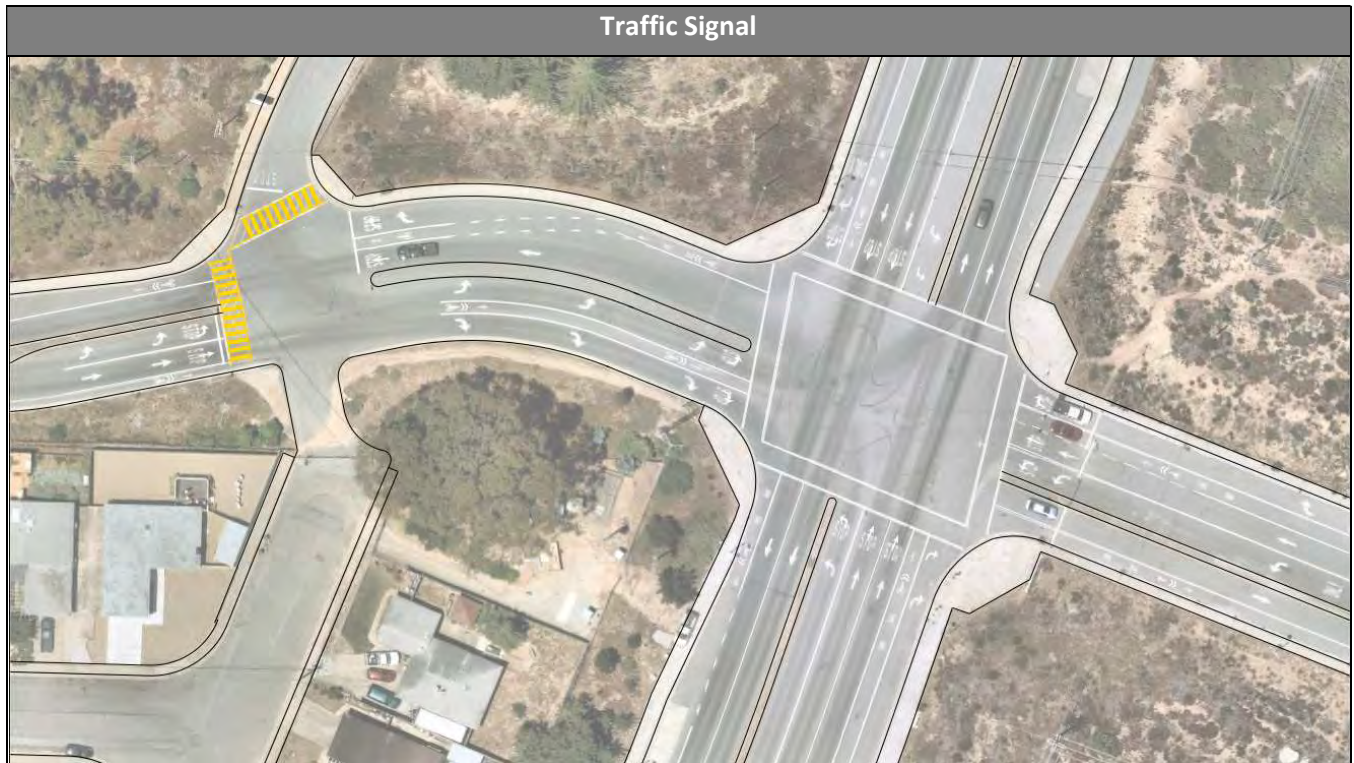
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is roundabout control.



City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

INTERSECTION CONTROL CONCEPT LAYOUTS



City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

INTERSECTION 1.1 – COE AVENUE AT PARALTA AVENUE (GATE OPEN)

INTERSECTION CONTROL ALTERNATIVES

The three intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Traffic Signal
3. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Coe Ave at Paralta Ave is currently stop controlled. Design constraints at the intersection include:

- | | |
|--|---|
| 1. Bus Stop | 5. Single family residential |
| 2. Proximity to GJM Blvd | 6. Intersection pinch point/Existing gate |
| 3. Steep slope and grass-lined channel | 7. Water utilities facility |
| 4. Seaside Middle School | 8. Driveway |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.1	Coe Ave at Paralta Ave (Gate Open)		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

INTERSECTION LIFE CYCLE COST CALCULATIONS

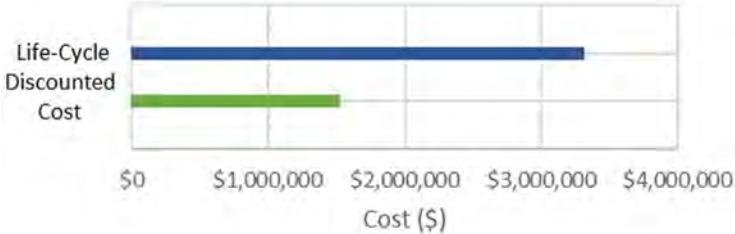
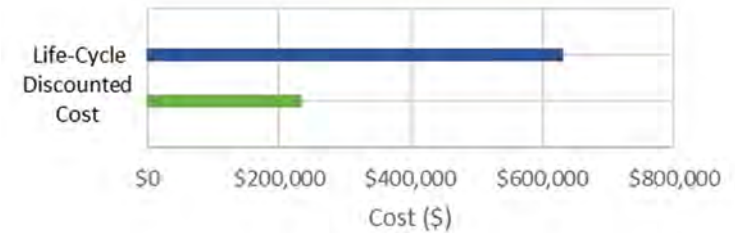
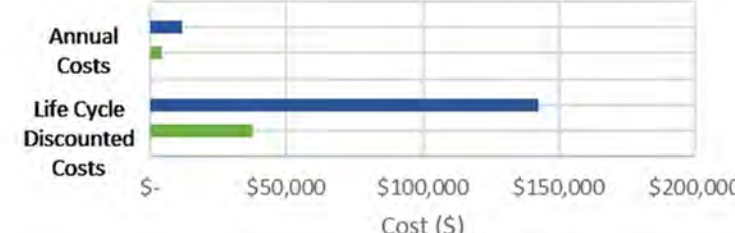
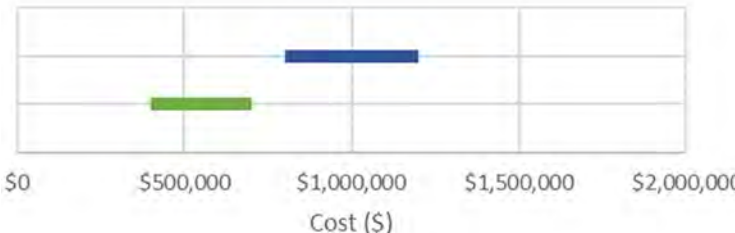
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (AWSC)		Signal	Roundabout
Annual Cost of Collisions	\$ 50,118	\$	233,222	\$ 105,097
Discounted Life Cycle Cost of Collisions	\$ 703,118	\$	3,271,902	\$ 1,474,427
Delay				
	Existing (AWSC)		Signal	Roundabout
Annual Quantity (hours)	12,166		2,136	768
Annual Cost	\$ 143,363	\$	28,243	\$ 10,188
Total Discounted Life Cycle Cost	\$ 3,153,980	\$	621,343	\$ 224,131
O&M				
	Existing (AWSC)		Signal	Roundabout
Annual O&M Costs	520		9,220	1,920
Discounted Life Cycle O&M Costs	\$ 7,295	\$	129,349	\$ 26,936
Discounted Pavement Rehab Costs	\$ 10,750	\$	10,750	\$ 8,418
Total O&M Costs	\$ 18,046	\$	140,099	\$ 35,354
Initial Capital				
	Existing (AWSC)		Signal	Roundabout
High Approximation	\$ 0	\$	1,200,000	\$ 700,000
Low Approximation	\$ 0	\$	800,000	\$ 400,000
Life Cycle Benefit-Cost Ratio				
Total Benefits (B)				
	Existing (AWSC)		Signal	Roundabout
Safety	\$ -	\$	(2,568,784)	\$ (771,309)
Delay	\$ -	\$	2,532,637	\$ 2,929,849
Total Benefits	\$ -	\$	(36,147)	\$ 2,158,540
Total Costs (C)				
	Existing (AWSC)		Signal	Roundabout
O&M	\$ -	\$	122,054	\$ 17,308
Budget	\$ -	\$	1,000,000	\$ 550,000
Total Costs	\$ -	\$	1,122,054	\$ 567,308
B/C Ratio Compared to Existing	NA*		NA-S*	3.80
*The roundabout has a B/C ratio greater than 1.0 which means it is preferred over the existing AWSC. The signal provides less benefits than the existing AWSC, which makes it NA-S (existing is preferred); however, the operations for the existing AWSC fail in the future and will require an improvement. The rest of this section will compare the proposed roundabout and traffic signal.				

City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents. Signal Roundabout		 <table><caption>Life-Cycle Discounted Cost (Safety)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$3,200,000</td></tr><tr><td>Roundabout</td><td>~\$1,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$3,200,000	Roundabout	~\$1,500,000			
Control Type	Cost (\$)										
Signal	~\$3,200,000										
Roundabout	~\$1,500,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Signal Roundabout		 <table><caption>Life-Cycle Discounted Cost (Delay)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$650,000</td></tr><tr><td>Roundabout</td><td>~\$250,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$650,000	Roundabout	~\$250,000			
Control Type	Cost (\$)										
Signal	~\$650,000										
Roundabout	~\$250,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection. Signal Roundabout		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Control Type</th><th>Annual Costs (\$)</th><th>Life Cycle Discounted Costs (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td><td>~\$145,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$75,000</td></tr></tbody></table>	Control Type	Annual Costs (\$)	Life Cycle Discounted Costs (\$)	Signal	~\$10,000	~\$145,000	Roundabout	~\$5,000	~\$75,000
Control Type	Annual Costs (\$)	Life Cycle Discounted Costs (\$)									
Signal	~\$10,000	~\$145,000									
Roundabout	~\$5,000	~\$75,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control. Signal Roundabout		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$1,100,000</td></tr><tr><td>Roundabout</td><td>~\$600,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$1,100,000	Roundabout	~\$600,000			
Control Type	Cost (\$)										
Signal	~\$1,100,000										
Roundabout	~\$600,000										

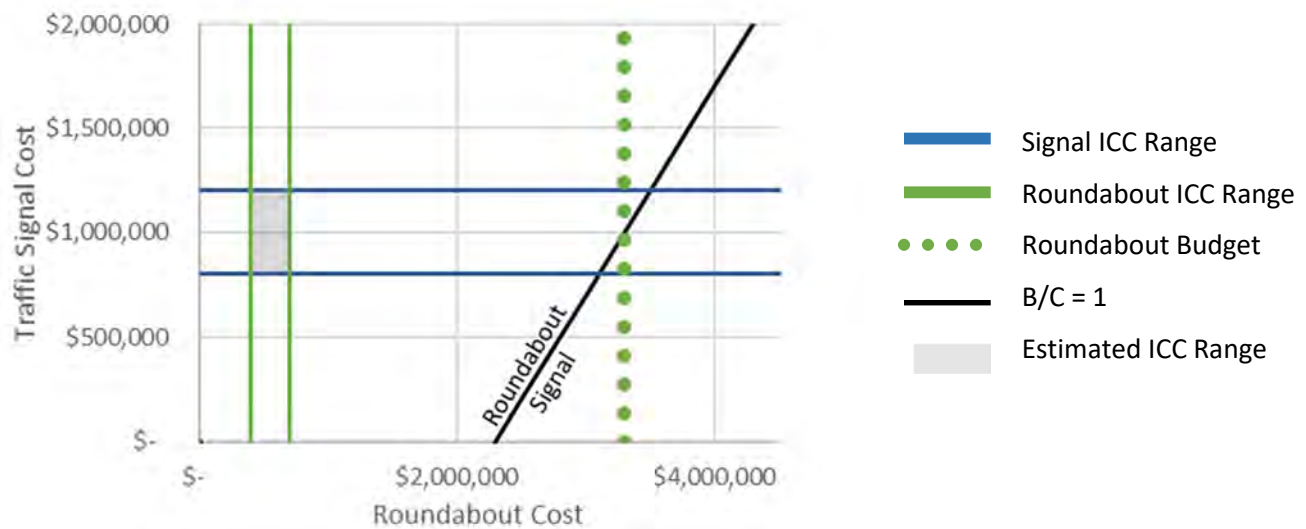
City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,200,000	\$ 400,000	\$ (800,000)			\$ (904,746)	NA-R
Low	\$ 800,000	\$ 700,000	\$ (100,000)	\$ (104,746)	\$ 2,194,687	\$ (204,746)	NA-R
Roundabout Budget	\$ 1,000,000	\$ 3,299,433	\$ 2,299,433			\$ 2,194,687	1.00

The high B/C target is calculated assuming the high-end of the signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the signal ICC and the high-end of the roundabout ICC.

Note that NA-R means the additional ICC of a roundabout is less than the ICC of the signal plus the added operations and Maintenance (O&M), and the roundabout provides greater benefits of the traditional improvements, a B/C ratio is negative, and the roundabout is preferred.



The table above summarizes the B/C analysis for Coe Avenue at Paralta Avenue (Gate Open). The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is the is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

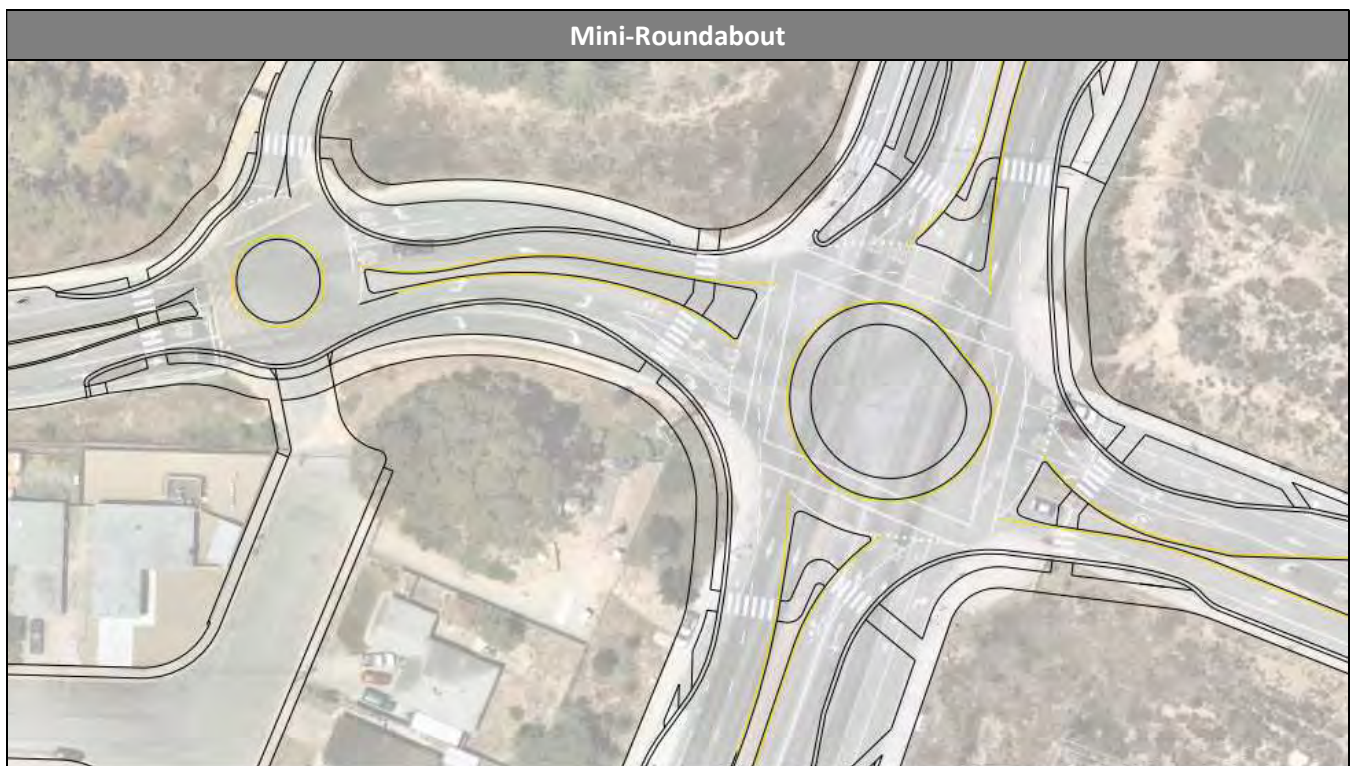
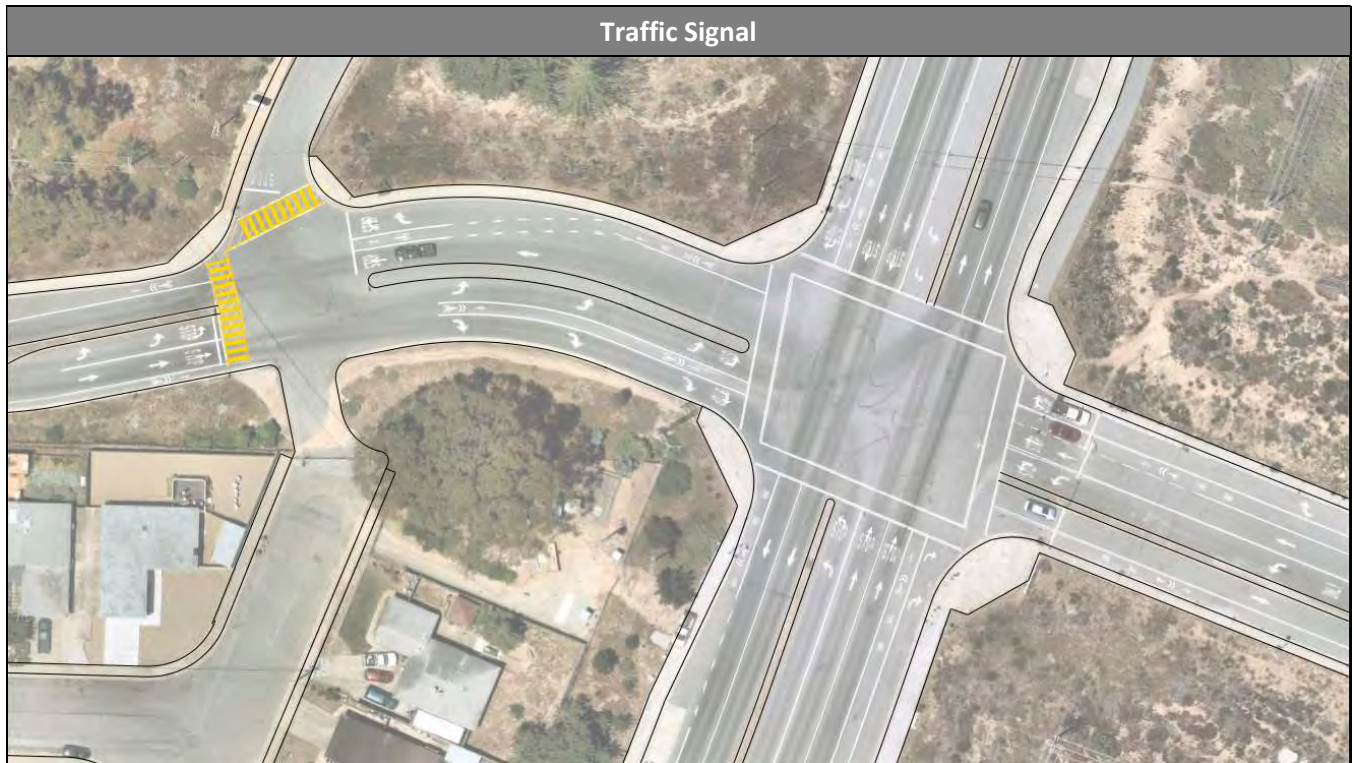
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is roundabout control.



City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

INTERSECTION CONTROL CONCEPT LAYOUTS



City of Seaside Intersection Control Evaluation Study
Intersection 1.2 – Coe Avenue at General Jim Moore Boulevard

INTERSECTION 1.2 – COE AVENUE AT GENERAL JIM MOORE BOULEVARD

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Traffic Signal
3. Multi-lane Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Coe Ave at General Jim Moore Blvd is currently controlled by signals. Design constraints at the intersection include:

1. Proximity to Paralta Ave
2. Steep grade
3. Water utilities facility
4. Seaside Middle School
5. Telephone pole



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.2	Coe Ave at GJM Blvd		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 1.2 – Coe Avenue at General Jim Moore Boulevard

INTERSECTION LIFE CYCLE COST CALCULATIONS

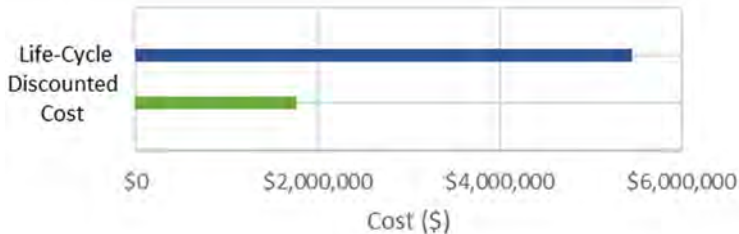
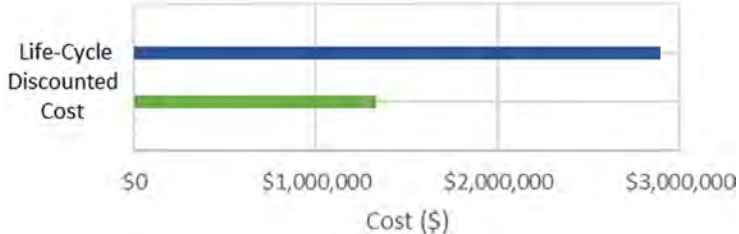
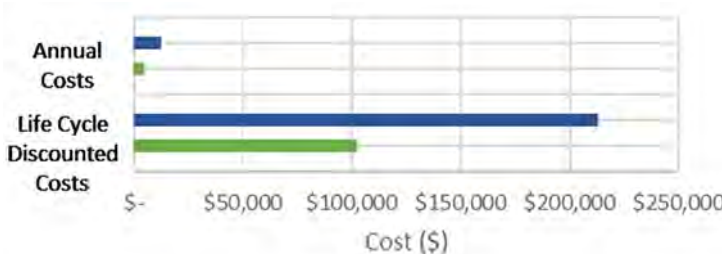
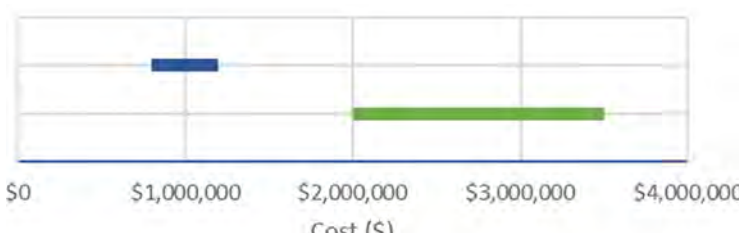
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (AWSC)	Signal	Roundabout	
Annual Cost of Collisions	\$ 136,942	\$ 383,835	\$ 120,828	
Discounted Life Cycle Cost of Collisions	\$ 1,921,182	\$ 5,384,886	\$ 1,695,115	
Delay				
	Existing (AWSC)	Signal	Roundabout	
Annual Quantity (hours)	52564	10400	4843	
Annual Cost	\$ 609,740	\$ 129,777	\$ 58,768	
Total Discounted Life Cycle Cost	\$ 13,414,274	\$ 2,855,089	\$ 1,292,895	
O&M				
	Existing (AWSC)	Signal	Roundabout	
Annual O&M Costs	520	9,220	1,920	
Discounted Life Cycle O&M Costs	\$ 7,295	\$ 129,349	\$ 26,936	
Discounted Pavement Rehab Costs	\$ 80,628	\$ 80,628	\$ 72,515	
Total O&M Costs	\$ 87,924	\$ 209,977	\$ 99,451	
Initial Capital				
	Existing (AWSC)	Signal	Roundabout	
High Approximation	\$ 0	\$ 1,200,000	\$ 3,500,000	
Low Approximation	\$ 0	\$ 800,000	\$ 2,000,000	
Life Cycle Benefit-Cost Ratio				
	Total Benefits (B)			
	Existing (AWSC)	Signal	Roundabout	
Safety	\$ -	\$ (3,463,704)	\$ 226,068	
Delay	\$ -	\$ 10,559,185	\$ 12,121,379	
Total Benefits	\$ -	\$ 7,095,481	\$ 12,347,447	
	Total Costs (C)			
	Existing (AWSC)	Signal	Roundabout	
O&M	\$ -	\$ 122,054	\$ 11,527	
Budget	\$ -	\$ 1,000,000	\$ 2,750,000	
Total Costs	\$ -	\$ 1,122,054	\$ 2,761,527	
B/C Ratio Compared to Existing	NA	6.32	4.47	
Both the roundabout and traffic signal have a B/C ratio greater than 1.0 which means they are preferred over the existing AWSC. The rest of this section will compare the proposed roundabout and traffic signal.				

City of Seaside Intersection Control Evaluation Study
Intersection 1.2 – Coe Avenue at General Jim Moore Boulevard

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

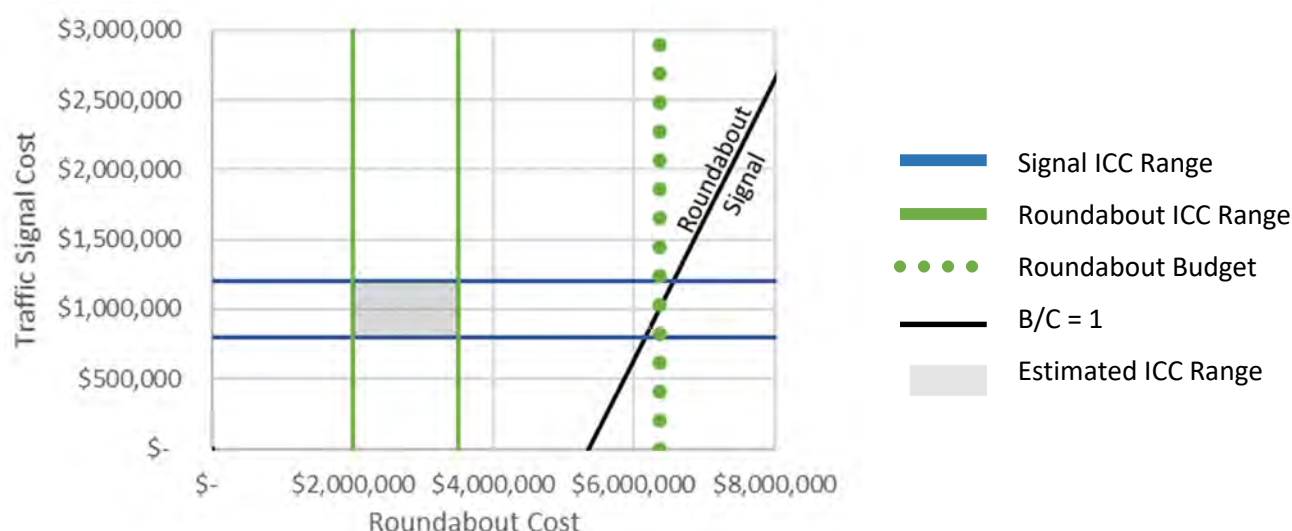
Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Safety Life-Cycle Discounted Costs</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$5,500,000</td></tr><tr><td>Roundabout</td><td>~\$1,800,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$5,500,000	Roundabout	~\$1,800,000			
Control Type	Cost (\$)										
Signal	~\$5,500,000										
Roundabout	~\$1,800,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Delay Life-Cycle Discounted Costs</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$2,800,000</td></tr><tr><td>Roundabout</td><td>~\$1,200,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$2,800,000	Roundabout	~\$1,200,000			
Control Type	Cost (\$)										
Signal	~\$2,800,000										
Roundabout	~\$1,200,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Control Type</th><th>Annual Costs (\$)</th><th>Life Cycle Discounted Costs (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td><td>~\$220,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$100,000</td></tr></tbody></table>	Control Type	Annual Costs (\$)	Life Cycle Discounted Costs (\$)	Signal	~\$10,000	~\$220,000	Roundabout	~\$5,000	~\$100,000
Control Type	Annual Costs (\$)	Life Cycle Discounted Costs (\$)									
Signal	~\$10,000	~\$220,000									
Roundabout	~\$5,000	~\$100,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Costs</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$1,000,000</td></tr><tr><td>Roundabout</td><td>~\$3,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$1,000,000	Roundabout	~\$3,500,000			
Control Type	Cost (\$)										
Signal	~\$1,000,000										
Roundabout	~\$3,500,000										

City of Seaside Intersection Control Evaluation Study
Intersection 1.2 – Coe Avenue at General Jim Moore Boulevard

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,200,000	\$ 2,000,000	\$ 800,000			\$ 689,879	7.61
Low	\$ 800,000	\$ 3,500,000	\$ 2,700,000	\$ (110,121)	\$ 5,251,965	\$ 2,589,879	2.03
Roundabout Budget	\$ 1,000,000	\$ 6,362,086	\$ 5,362,086			\$ 5,251,965	1.00

The high B/C target is calculated assuming the high-end of the signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the signal ICC and the high-end of the roundabout ICC.



The table above summarizes the B/C analysis for Coe Avenue at General Jim Moore Boulevard. The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

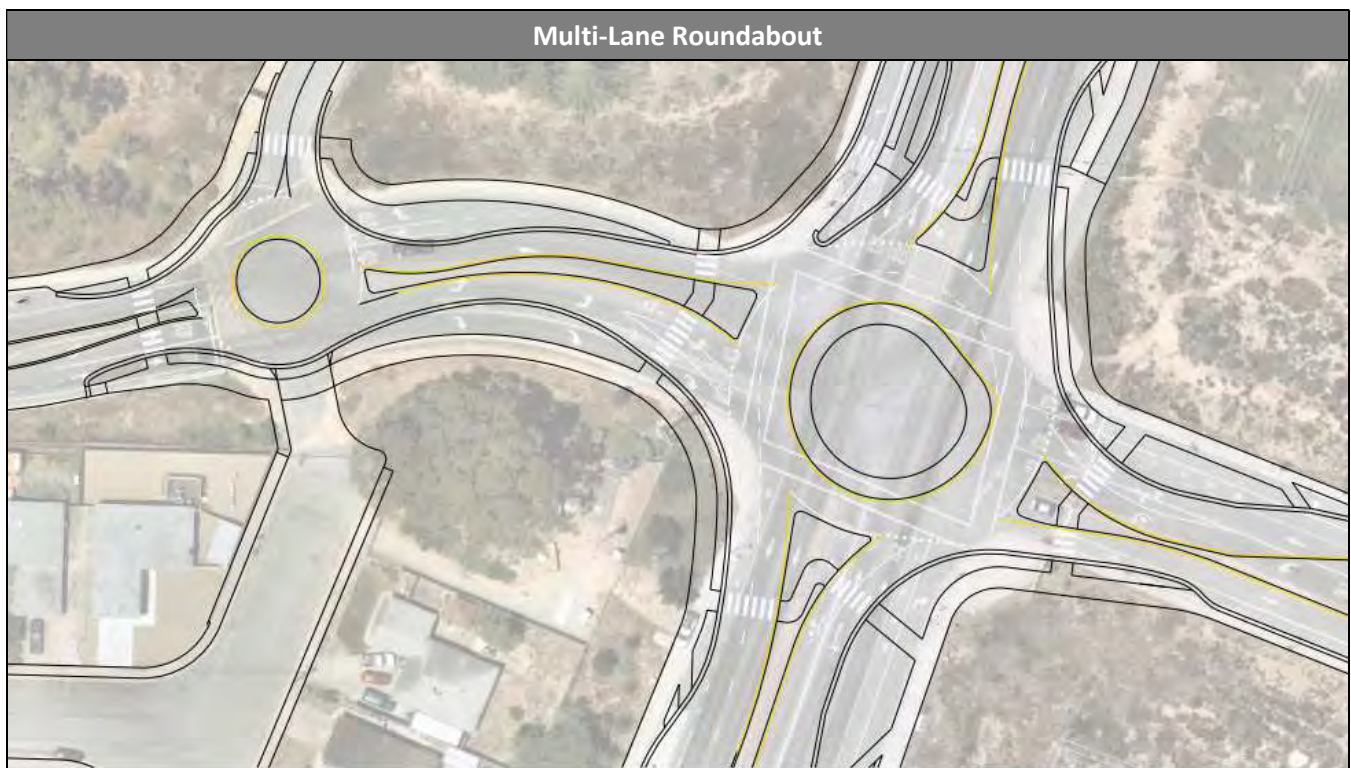
PREFERRED INTERSECTION ALTERNATIVE

Both a traffic signal and a roundabout are preferred to the existing AWSC based on the B/C ratios. A roundabout is preferred over a traffic signal with a B/C range of 2.03 to 7.61.



City of Seaside Intersection Control Evaluation Study
Intersection 1.2 – Coe Avenue at General Jim Moore Boulevard

INTERSECTION CONTROL CONCEPT LAYOUTS



Appendix C

Excerpts from Seaside and Marina Safe Walking and Biking to School: Complete Streets Plan



Seaside & Marina Safe Walking & Biking to School: Complete Streets Plan

Funding provided by:



In partnership with:



Plan Goals

The Cities of Seaside and Marina have set the following goals to reduce collisions and increase cycling and walking trips by implementing projects and programs from the Complete Streets Plan.

City of Seaside:

- The majority of students arrive at school via active transportation or carpooling.
- Severe injuries and fatal collisions for bicyclists and pedestrians are eliminated.

City of Marina:

- 50% of students arrive at school via active transportation or carpooling.
- Severe injuries and fatal collisions for bicyclists and pedestrians are eliminated.

Recommended Projects & Prioritization

This Plan includes 206 infrastructure recommendations for city roadways and school district properties. Recommendations for each school site were developed on the basis of community input on the challenges of walking, bicycling, and driving to school, and observations from walk audits that were held at each site.

Projects are listed as short, medium, or long term according to the estimated time span for implementation. These estimates are based on the cost and complexity of each project.

Implementation & Funding

The projects in this Plan will be implemented over time as funding becomes available. Leveraging local funds with additional grant funding will be critical for implementation. There is also the opportunity for the Cities of Seaside and Marina to implement bicycle and pedestrian improvements as part of their street and road improvements.

There are three main funding sources the Cities of Seaside and Marina can use to implement the active transportation improvements in this Plan: Measure X funds in the Pedestrian and Bike Safety and Mobility category, State Active Transportation Program funds, and California Senate Bill 1 funds.

Chapter 1: Introduction

The Seaside and Marina Safe Walking & Biking to School: Complete Streets Plan provides recommendations for improving safety at the 15 public schools of the Monterey Peninsula Unified School District located in the cities of Seaside and Marina. The Plan includes a prioritized list of infrastructure improvements and program recommendations to encourage more active transportation trips to school and improve the safety of children who are walking and biking.

What are Complete Streets?

Complete streets are roadways designed to safely and comfortably accommodate all users, including drivers, bicyclists, pedestrians, and transit riders. Complete streets also accommodate users of all ages and abilities and expand transportation options by making all modes of travel convenient and safe. This framework can be used to improve the options for students and families traveling to and from school.

Benefits of Safe Routes to Schools

The simple act of traveling to school can have a tremendous positive impact on the health of individuals and communities. Seaside and Marina face challenges with traffic around schools, youth obesity rates, and collisions involving youths who are walking or bicycling. More carpooling and active transportation trips will provide the following benefits:

- **Healthier students:** Walking or riding a bike, scooter, or skateboard to school is good exercise, improves fitness, and has been demonstrated to improve academic performance.
- **Safer Students:** Shifting trips to carpooling, walking, and biking reduces traffic congestion, increases safety, and improves air quality around schools.
- **Lower transportation costs:** Carpooling, walking, and biking provide a low- or no-cost alternative to driving alone. Driving a newer sedan costs an average of \$8,849 annually.¹
- **Cleaner Air and Environment:** Transportation is the largest source of greenhouse gas emissions in California.² Shifting car trips to walking and biking helps our planet.



Complete Streets

1. AAA Newsroom: <https://newsroom.aaa.com/auto/your-driving-costs/>.

2. California Air Resources Board: <https://ww2.arb.ca.gov/ghg-inventory-data>.

The Six E's

This Plan's recommendations are grouped into the Six E's of Safe Routes to Schools, as defined by the Safe Routes Partnership. The Six E's are a nationally recognized framework for increasing walking and biking to schools.

- **Engineering:** creating physical improvements to streets and neighborhoods that improve traffic flow near schools and make walking and biking safer, more comfortable, and more convenient.
- **Education:** providing students and families with the skills to get to school safely and informing them on the wide range of transportation choices.
- **Encouragement:** using events, activities, and programs to raise awareness and build support for safe and healthy transportation such as walking and biking.
- **Enforcement:** partnering with local law enforcement to deter unsafe behaviors and encourage safe traffic speeds and behaviors.
- **Evaluation:** assessing which approaches to Safe Routes to Schools are more or less successful.
- **Equity:** ensuring that Safe Routes to School initiatives benefit everyone, with particular attention to low-income students, students of color, students with disabilities, and other transportation disadvantaged populations.

Mode-Shift and Collision-Reduction Goals

The Cities of Seaside and Marina have set the following **goals to reduce bicycle and pedestrian collisions** and increase the number of students who bike, walk, or carpool to school by implementing these recommendations.

City of Seaside

- **The majority of students arrive at school via active transportation or carpooling.**
- **Severe injuries and fatal collisions are eliminated for bicyclists and pedestrians.**

City of Marina

- 50% of students arrive at school via active transportation or carpooling.
- Severe injuries and fatal collisions are eliminated for bicyclists and pedestrians.



The Six E's:

1. Engineering
2. Education
3. Encouragement
4. Enforcement
5. Evaluation
6. Equity



Community Participation Process

Input from the community was the basis of this Plan's recommendations. The following methods were used to learn from school communities and surrounding neighborhoods about their biggest barriers to active transportation. Feedback was then used to develop the list of recommendations.

Community Meetings

Two community meetings covering all Seaside and Marina schools were held in fall 2018 at Martin Luther King Jr.

Elementary in Seaside and Crumpton Elementary in Marina. Parents, school and district staff, elected officials, and City staff participated to learn about barriers to biking and walking, traffic safety issues around schools, and ideas for future projects. Bilingual outreach materials were used to promote the meetings, and Spanish translation was offered at each meeting. Dinner and childcare were provided using local funds to let parents and guardians attend and participate in the meetings.

School Walk Audits

Following the community meetings, "walk audits" were held at each of the 15 schools to observe conditions during the morning drop-off period. School principals, parents, community members, and City staff observed the existing infrastructure around the schools, traffic circulation patterns, and the behavior of pedestrians, bicyclists, and drivers. Following the audit, the group came together to report their observations, record any barriers to safe walking and cycling, and start the discussion of possible infrastructure improvements.

Parent Surveys

Bilingual paper surveys from the National Center for Safe Routes to School were distributed to parents at each school. These surveys collected data on how students get to school now, how far they live from school, and the barriers that prevent parents from allowing their children to walk or bike. Full survey results can be found in Appendix 2.



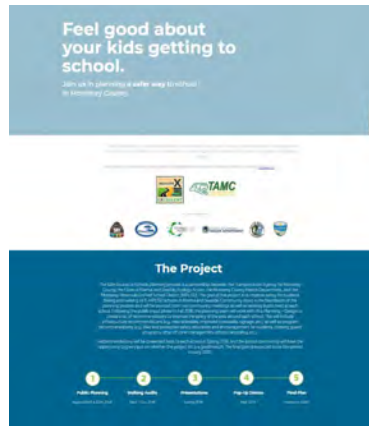
School Walk Audits

Student Travel Mode Surveys

Teachers at each school were asked to conduct student travel mode surveys developed by the National Center for Safe Routes to Schools. These surveys ask students to report how they got to school over a two-day period. Full survey results can be found in Appendix 2.

Online Forum

A bilingual project website was created to explain the planning process, promote the community meetings and school audits, and solicit public comments.



Parent Meetings

Following the development of recommendations for each school, Public Works, Monterey County Health Department, and Ecology Action staff attended parent meetings to share the recommendations and get feedback from parents and school staff. Where appropriate, presentations were given in Spanish.

Pop-Up Demonstrations

Recommendations for Broadway Avenue in Seaside and Carmel Avenue in Marina were installed on a temporary basis in spring 2019. The goal of the demonstrations was to learn how the recommendations worked in practice and to get feedback from the community on whether the changes should be made permanent. More information on the pop-up demonstrations can be found in Chapter 7.



Chapter 2: Existing Conditions

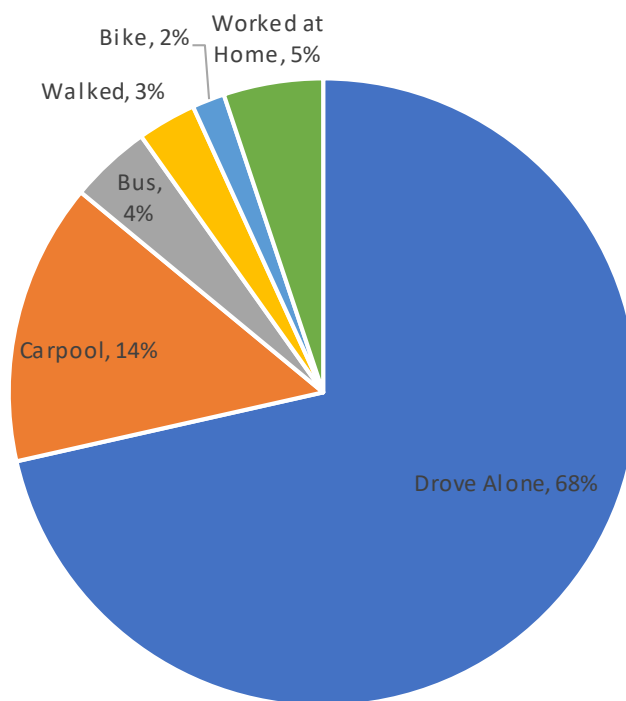
This chapter describes existing conditions in the cities of Seaside and Marina, including transportation mode split characteristics, school locations, and collision data. This chapter also describes the Plan's consistency with other local and regional planning documents and current projects and programs related to Safe Routes to Schools.

Community Profile: City of Seaside

Seaside is the second-largest city in Monterey County, with a population of 34,165 in 2017.³ It is also a demographically young city, with 25% of its population under the age of 18. Seaside is the most ethnically diverse city in Monterey County: 42% of residents are Hispanic/Latino, 31% are white, 10% are Asian, and 7% are African American.⁴

According to census data, the majority of Seaside residents drive alone to work. Five percent of residents walk or bike to work, and 4% take public transportation.⁵

Mode Share for Work Trips City of Seaside 2013-2017



3. California Department of Finance, 2017.

4. Census American Community Survey 2013-2017 Demographics and Housing Estimates, Table S0501.

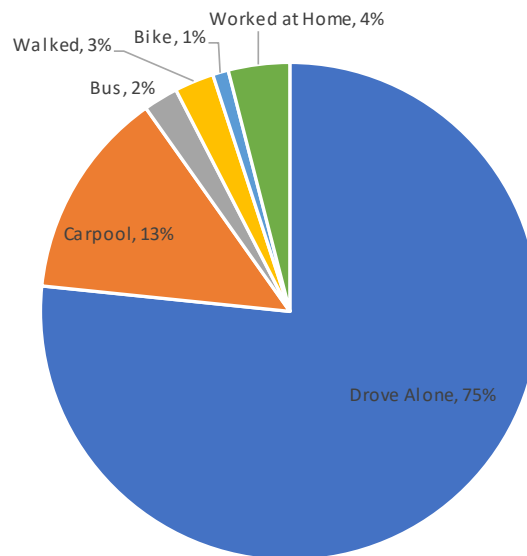
5. Census American Community Survey 2013-2017 Commuting Characteristics by Sex, Table S0801.

Community Profile: City of Marina

The city of Marina is located to the north of Seaside and had a population of 21,528 in 2017.³ It has a smaller percentage of people under 18 (21.4%) than Monterey County as a whole but a larger percentage of older residents, with 14% being 65 or over. Marina is also ethnically diverse: 28% of residents are Hispanic/Latino, 36% are white, 18% are Asian, and 7% are African American.⁴

Marina has a higher rate of driving alone to work than Monterey County. Carpooling rates are slightly higher, and rates of biking, walking, and transit use are identical to countywide rates.⁵

Mode Share for Work Trips City of Marina



Disadvantaged Communities

Investments in active transportation are particularly important for disadvantaged communities, which tend to have higher rates of walking and bicycling. Of the approximately 7,500 students who attend the 15 schools covered in this Plan, 64% are eligible for Free or Reduced Price Meals, which is an indicator of low-income households.⁶

Seaside and Marina residents grapple with high living costs, and each city houses disadvantaged populations as defined by the Health Disadvantaged Index and the CalEnviroScreen 3.0. One in seven Seaside residents lives in a disadvantaged neighborhood: one where 60% of households live in poverty, 17% of households lack access to a car, and 53% of people have no high school education. One in ten Marina residents lives in a disadvantaged neighborhood, where 53% of households live in poverty, 16% lack access to a car, and nearly 30% have no high school education.⁷

3. California Department of Finance, 2017.

4. Census American Community Survey 2013-2017 Demographics and Housing Estimates, Table S0501.

5. Census American Community Survey 2013-2017 Commuting Characteristics by Sex, Table S0801.

6. California Department of Education: <https://www.cde.ca.gov/ds/sd/sd/filessp.asp>.

7. California Health Disadvantaged Index: <http://phasocal.org/ca-hdi/>.

School Locations

This Plan includes all 15 public K–12 schools within the cities of Seaside and Marina. The map below shows school locations along with key destinations like parks, libraries, community centers, and high-density housing developments as defined by the Seaside and Marina general plans.



Seaside and Marina Safe Routes to Schools Plan - School Locations

Legend

- Schools
- Community Centers
- High Density Housing
- Libraries
- City Limits
- Parks



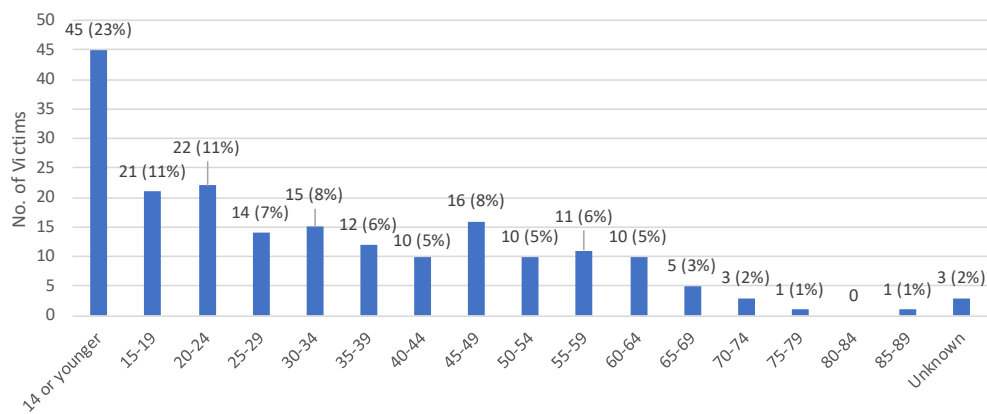
Data provided by Monterey County, TAMC.
Terrain data by ESRI, NOAA.
Map produced November 2019 by Ecology Action.

Collision Data

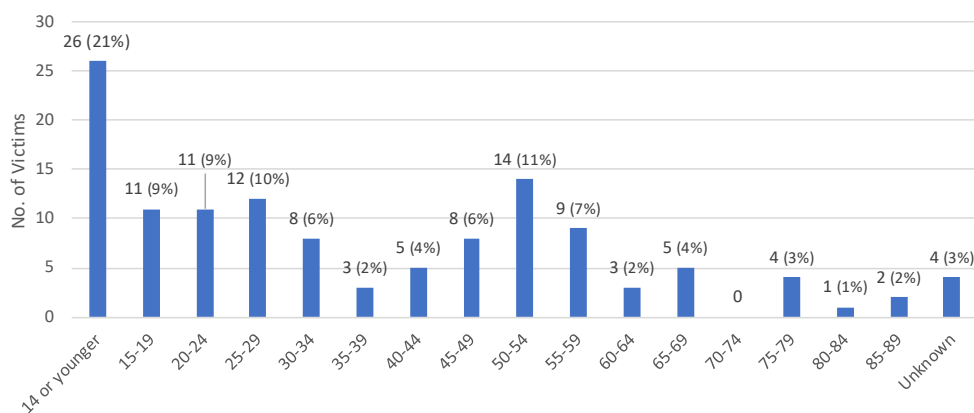
Bicyclists and pedestrians are disproportionately involved in collisions in Seaside and Marina. Between 2013 and 2017, walking and bicycling accounted for 5% of trips to work in Seaside and 4% of work trips in Marina.⁵ During the same time period, bicyclists and pedestrians were involved in 18% of the collisions in Seaside and 14% of those in Marina.⁸

Youths are also disproportionately involved in bicycle and pedestrian collisions. As shown in the graphs below, 34% of victims in bicycle and pedestrian collisions in Seaside are 19 or younger, and 23% are 14 or younger. In Marina, 30% of victims in bicycle and pedestrian collisions are under 19, and 21% are 14 or younger.⁸

City of Seaside: Victims of Bicycle/Pedestrian Collisions by Age, 2007-2017



City of Marina: Victims of Bicycle/Pedestrian Collisions by Age, 2007-2017



Source: Transportation Injury Mapping System (TIMS), Safe Transportation Research and Education Center, University of California, Berkeley. 2019

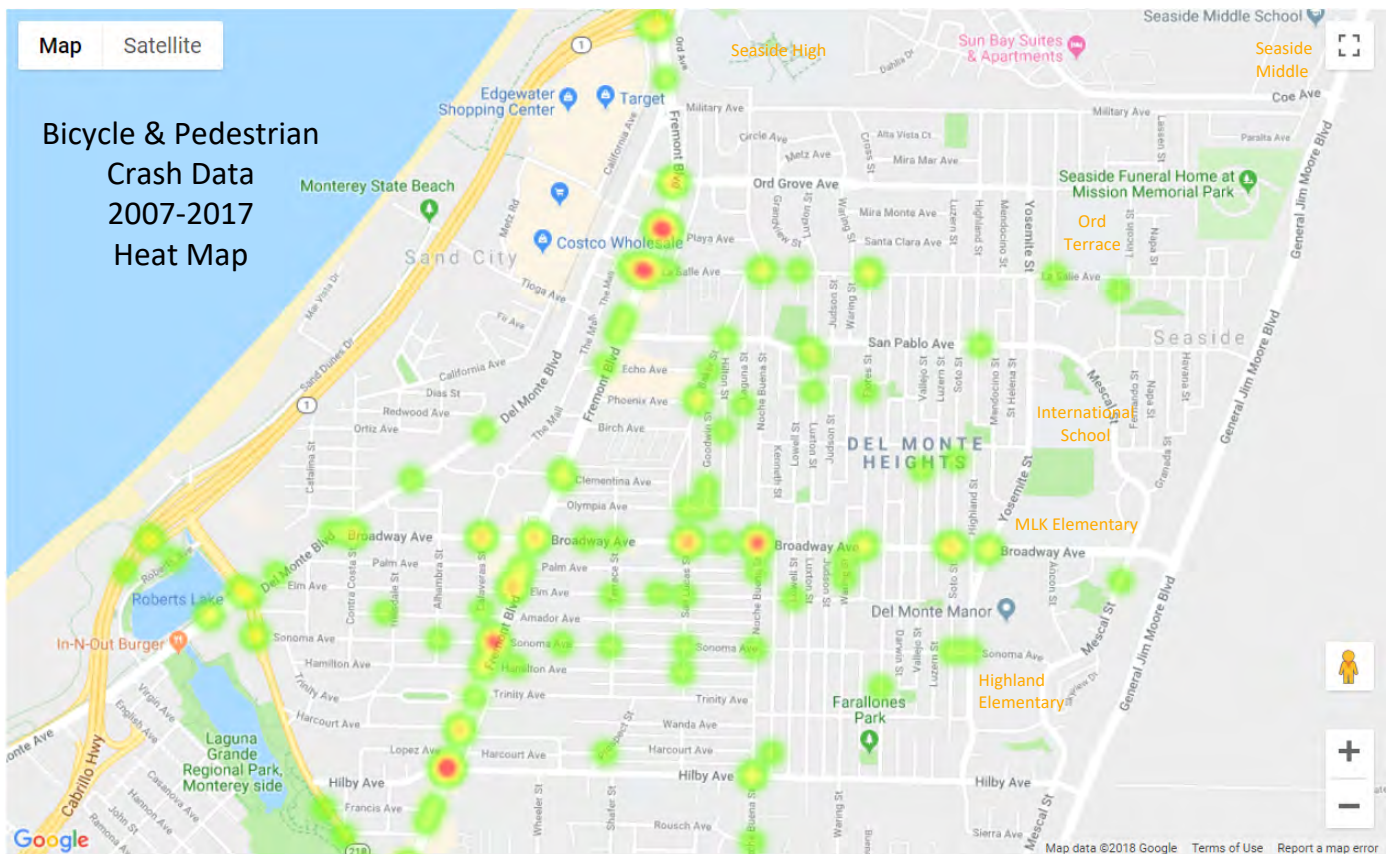
5. Census American Community Survey 2013-2017 Commuting Characteristics by Sex, Table S0801.

8. Transportation Injury Mapping System (TIMS), Safe Transportation Research and Education Center, University of California, Berkeley. 2019.

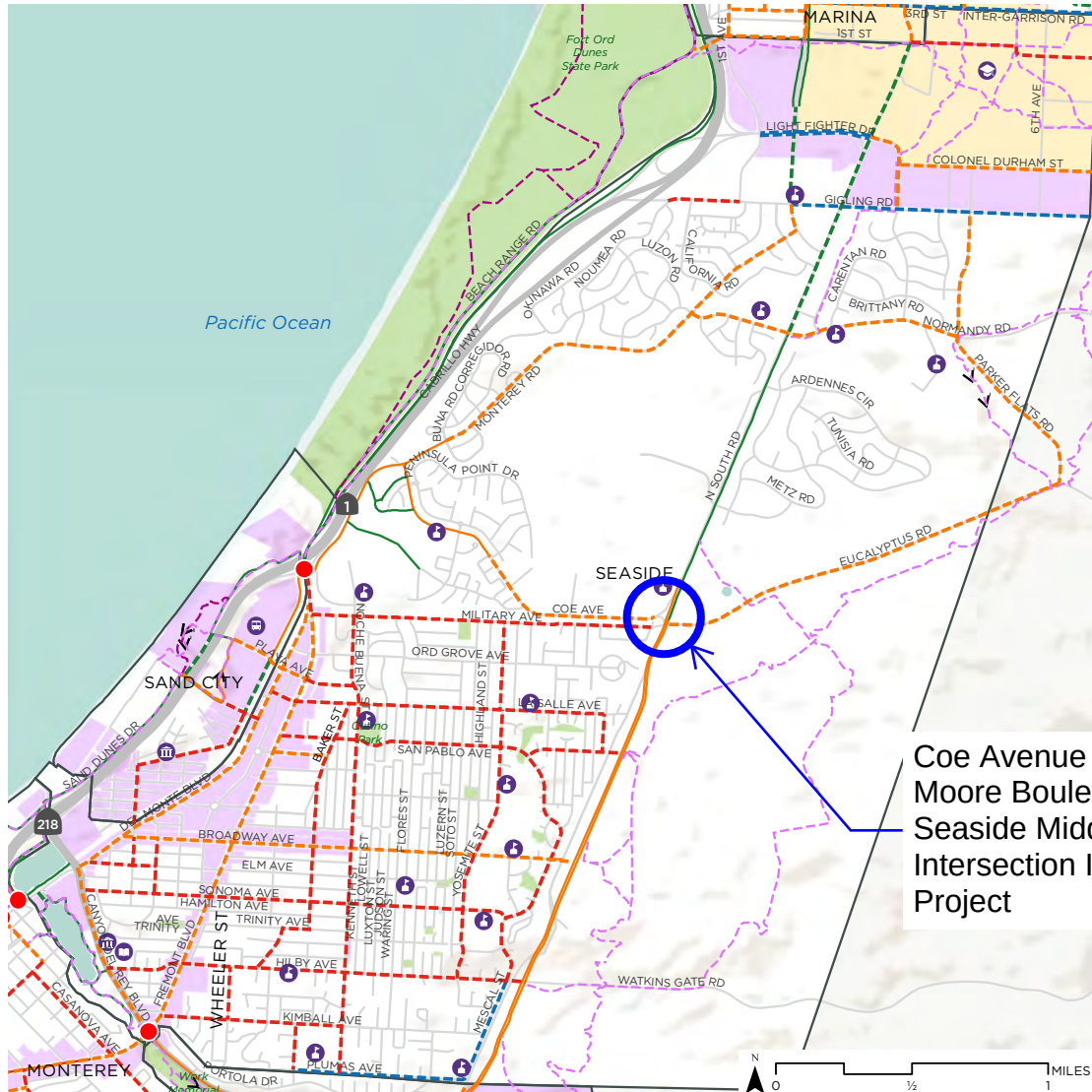
The following maps show all bicyclist and pedestrian injury and fatality collisions in the cities of Seaside and Marina from 2007 to 2017. Not surprisingly, major corridors and intersections are the sites of most collisions in both cities. In Seaside, Fremont Boulevard and Broadway Avenue have high collision rates, particularly the intersections of Fremont Boulevard with Hilby Avenue, La Salle Avenue, and Playa Avenue.

In Marina, Del Monte Boulevard, Reservation Road, and Carmel Avenue have high collision rates. The intersections of Del Monte Boulevard and Palm Avenue, Carmel and California Avenues, and Del Monte Boulevard and Reservation Road are hotspots for bicycle and pedestrian collisions.

City of Seaside: Bicycle & Pedestrian Collision Heat Map



Source: Transportation Injury Mapping System (TIMS), Safe Transportation Research and Education Center, University of California, Berkeley, 2019.



Coe Avenue and General Jim Moore Boulevard and Seaside Middle School Intersection Improvements Project

Seaside and Sand City Monterey County Active Transportation Plan

Existing Bikeways	Proposed Pedestrian Improvements	Proposed Bikeway Improvements
Class I Shared Use Path	Intersection	Class I Shared Use Path
Class II Bike Lane		Class II Bike Lane
Class III Bike Route		Class III Bike Route
Points of Interest	Land Use	Class IV Protected Bike Lane
K-12 School	Park/Open Space	Fort Ord Rec Trail and Greenway
College/University	Cal State Monterey Bay	Monterey Bay Sanctuary Scenic Trail
City Hall	Commercial Area	
Transit Center	City Boundary	
Public Library		
		Uphill bikeway (Slope > 4%)



Data provided by Monterey County TAMC. Terrain data by ESRI, NOAA. Map produced October 2017 by Alta Planning + Design.



Note: The following bicycle facilities have been installed since the completion of the ATP:

- Coe Avenue: Class II bike lanes from Monterey Road to General Jim Moore Boulevard.
- Del Monte Boulevard: Class II bike lanes from Canyon Del Rey Boulevard to Broadway Avenue.
- Broadway Avenue: Class II bike lanes from Del Monte Boulevard to Fremont Boulevard.
- Broadway Avenue: Class III bike route from Fremont Boulevard to General Jim Moore Boulevard.

City of Seaside General Plan

The Complete Streets Plan is consistent with the policies of the City of Seaside 2003 General Plan Circulation Element, including the following.

- Policy C-1.5: Use traffic-calming methods within residential and mixed-use areas where necessary to create a pedestrian-friendly circulation system.
- Policy C-1.6: Apply creative approaches to increase safety and reduce congestion in areas with unique problems, such as neighborhoods with narrow, one-way streets, areas around schools, neighborhoods with non-essential alleys, and businesses with drive-through access; and other special situations.
- Policy C-2.2: Support programs that help reduce congestion and encourage alternative modes of transportation.
- Policy C-3.4: Support alternative modes of transportation that encourage physical activity, such as biking and walking.¹²

The Complete Streets Plan supports the above goals by identifying projects that are designed to reduce traffic speeds, improve safety, and provide new or improved bicycle and pedestrian connections between schools and other destinations, thereby encouraging more active transportation trips and fewer vehicle trips.

The City of Seaside is currently updating its General Plan, and the draft General Plan Mobility Element was also reviewed to ensure consistency with the Complete Streets Plan. The Complete Streets Plan reiterates the recommendation from the draft Mobility Element to reduce Broadway Avenue from four travel lanes to two between Del Monte Boulevard and General Jim Moore Boulevard.¹³

City of Marina General Plan

The Complete Streets Plan is consistent with the policies of the City of Marina 2000 General Plan Community Infrastructure Element, including:

- 5. The City of Marina shall ensure that walking and bicycling routes are integral parts of street design and form a safe and preferred transportation network.
- 7. The City of Marina shall coordinate with surrounding jurisdictions and agencies, such as TAMC, Caltrans, California Department of Parks and Recreation, Monterey Peninsula Regional Parks District, CSUMB, AMBAG, FORA, BLM, City of Seaside, and Monterey County to pursue projects that develop new pedestrian and bicycle routes and that improve and maintain existing pedestrian and bicycle routes. New routes shall be linked to existing routes wherever possible. The city shall coordinate with these entities to apply for regional funds.
- 8. Link existing and future areas of the City with an integrated system of roads, transit, footpaths, and bikeways that connects neighborhoods, commercial areas, schools, parks, and other major community-serving destinations.

12. Seaside General Plan: <https://www.ci.seaside.ca.us/DocumentCenter/View/357/Circulation-Element-PDF?bidId=>.

13. Seaside General Plan Update: <http://seaside2040.com/>.

Chapter 3: School-Level Recommendations and Profiles

The school-level infrastructure recommendations listed in this chapter are the core of the Complete Streets Plan. They were designed to address the specific challenges at each school site, with the goal of increasing the safety of families walking and biking and encouraging more active transportation trips to school. This chapter includes information on the current conditions at each school, observations from the walking audit, and the list of infrastructure recommendations. School-specific non-infrastructure recommendations are also listed under each school's profile, and citywide non-infrastructure recommendations are listed in chapter 5. Schools are organized by city and alphabetically, with Seaside schools listed first.

Infrastructure Treatment Options

Treatments that are recommended frequently in the Plan are described below. These treatments are designed to improve safety for people walking and biking and to reduce traffic speeds.



High-Visibility Crosswalk

Crosswalks marked with a continental pattern have been found to be significantly more visible to drivers than basic crosswalks consisting of two transverse lines. High-visibility crosswalks have also been found to make drivers more likely to yield to pedestrians.



Raised Crosswalk

A raised crosswalk is a higher section of pavement with a marked crosswalk. It is placed across streets to encourage drivers to slow down and to make pedestrians more visible to drivers. Raised crosswalks usually have sloped ramps leading and following a flat walking section to let cars drive over them.



Offset Crosswalk

An offset crosswalk is one with a center median that acts as both a pedestrian safety island and a means of directing pedestrians to look toward oncoming traffic before crossing the second half of the street.

Source: FHWA Traffic Calming ePrimer



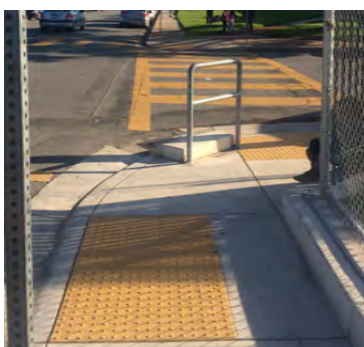
Rectangular Rapid Flash Beacons (RRFBs)

RRFBs are user-actuated flashing lights that supplement warning signs at unsignalized intersections or mid-block crosswalks. They are designed to alert drivers to pedestrians and bicyclists who are waiting to cross the street.



Curb Extensions

Curb extensions narrow the roadway, reduce the pedestrian crossing distance, and make pedestrians more visible to drivers by providing an extension of the sidewalk area into the parking lane.



Curb Ramps

Curb ramps provide access between the sidewalk and the street for people with disabilities, children on bicycles, and people pushing strollers. Curb ramps must include warnings that are detectable by people with vision impairments.



Centerline Diverters

Centerline diverters are raised barriers that are placed in the center of the roadway to prevent U-turns.



Compact Roundabout

Compact roundabouts are small roundabouts installed on neighborhood streets. They can slow traffic on local and collector streets and calm traffic for pedestrians.



Leading Pedestrian Interval

A leading pedestrian interval gives pedestrians the opportunity to cross an intersection a few seconds before drivers are given a green light. This head start makes pedestrians more visible to drivers who are making a left turn.



Buffered Bike Lanes

Buffered bike lanes have a striped buffer that provides more space between the bicycle lane and the vehicle lane.



Class IV Separated Bikeway

A separated bikeway is a bicycle facility that is physically separated from the vehicle lanes by plastic bollards, planters, curbs, or parked cars. These facilities provide more safety and comfort for bicyclists by separating them from vehicle traffic.



Safe Routes to School Corridors and Connectors

Key routes to school in Seaside and Marina have been identified as Safe Routes to Schools corridors and connectors. Corridors are direct routes to schools and are higher priority for improvements, and connectors are routes through the city that link to the corridors. The recommendation for these roadways is to study options for improvements that would reduce traffic speeds and volumes, create safe and convenient crossings for people walking and biking, and raise the visibility of students walking and biking. Wayfinding would be included to direct students to Safe Routes to Schools corridors and to let drivers know to expect pedestrians and bicyclists.

City of Seaside

Seaside Middle

Seaside Middle is located at the northeastern end of the main residential area of Seaside and draws students from throughout the city (see map below).

Grade Levels

6–8

Number of students

827

Students residing within one mile of school

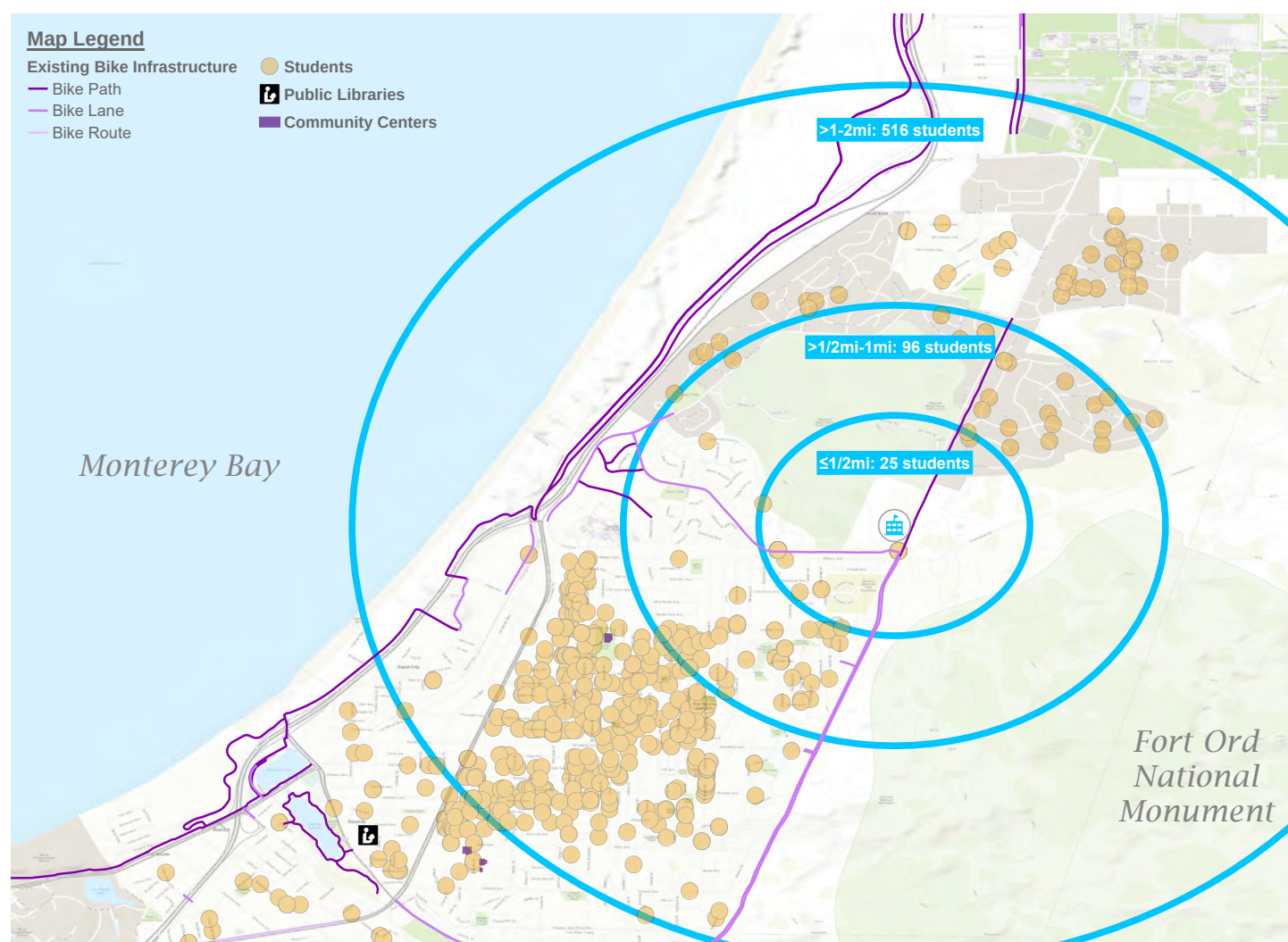
25.2%

Students qualifying for free or reduced-price meals

89.4%

Students using active transportation

14%

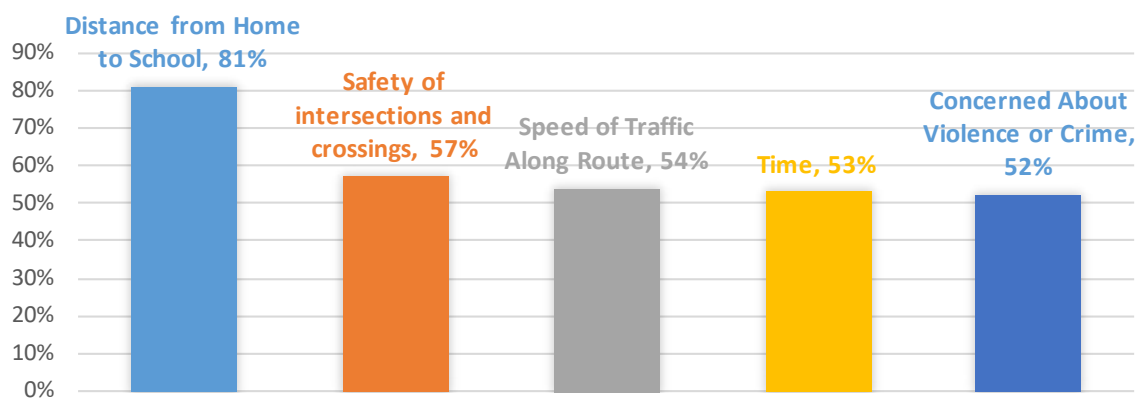


Parent Survey

Seaside Middle parents were asked to complete a bilingual paper survey about their attitudes toward walking and biking to school in August of 2018, and 188 surveys were received. The full survey report is in Appendix 2.

The survey asked parents to select the most important factors in their decisions whether to allow their children to walk or bike to school. The top five issues for parents whose children do not currently walk or bike to school are listed in the graph below.

TOP FIVE ISSUES FOR SEASIDE MIDDLE PARENTS



Current Infrastructure Conditions

Motorist Conditions

- Seaside Middle is located on Coe Avenue and is physically separated from the main residential areas of Seaside. The two options for accessing Seaside Middle School by car are General Jim Moore Boulevard from the east and Coe Avenue/Monterey Road from the west. This configuration leads to heavy school drop-off traffic on Coe Avenue and at the intersection of Coe Avenue and General Jim Moore Boulevard.
- The school drop-off loop is heavily congested before and after school.
- School drop-off also takes place on Military Avenue and Peralta Avenue. There is a gate that blocks vehicle traffic at the end of Peralta Avenue, which connects to the residential areas of Seaside. This area is congested before and after school.
- There is a second school driveway on the west side of campus that is designated for bus drop-off only.

Pedestrian Conditions

- There is continuous sidewalk on the north side of Coe Avenue, and on Military Avenue, Peralta Avenue, and other residential roadways south of the school. There is continuous sidewalk on both sides of General Jim Moore Boulevard near the school.
- There are yellow high-visibility crosswalks across both school driveway entrances and across Coe Avenue at Peralta Avenue.
- Most students live south of the school, and most pedestrians walk to the school through the gate on Peralta Avenue. The crosswalk on Coe Avenue at Peralta Avenue is heavily used by pedestrians.
- There are transverse crosswalks at the intersection of Coe Avenue and General Jim Moore Boulevard.
- There are several informal dirt paths between Coe Avenue and the school that students use to get to school.

Bicycling Conditions

- There are Class II bike lanes on Coe Avenue between General Jim Moore Boulevard and Monterey Road.
- There are Class II bike lanes on General Jim Moore Boulevard between the Seaside city limits and Coe Avenue, and a Class I multi-use path on the east side of General Jim Moore Boulevard between Coe Avenue and Normandy Road.



Recommended Infrastructure Improvements around Seaside Middle

The following table lists recommendations for Seaside Middle, and the following map shows their locations in relation to the school.

Location	Issue	Recommendation	Timeframe
South side of school between drop-off driveway and Coe Avenue (approximately 350 feet north of Coe Avenue)	Students use dirt paths to reach campus.	Upgrade informal pathway to Class I multi-use facility.	Medium
School parking lot	Missing curb ramps. Signage does not meet current standards.	Upgrade crosswalk to yellow high-visibility raised crosswalk. Install ADA-compliant curb ramps. Update speed hump sign to be MUTCD-compliant.	Medium
School campus	Current drop-off loop very congested and inefficient.	Create new roadway adjacent to school buildings to connect school driveway with bus drop-off area and add new drop-off area adjacent to school buildings. Restrict current drop-off loop to bus drop-off and staff parking.	Long
Coe Avenue at General Jim Moore Boulevard	Intersection is inefficient and congested before school.	Study options to install roundabout.	Medium
Coe Avenue at Peralta Avenue	Intersection is inefficient, with drivers unable to cross due to constant stream of pedestrians.	Consider a roundabout. Use crossing guard to control the flow of pedestrian and vehicle traffic.	Long
Coe Avenue at Peralta Avenue	Bollard blocks bicycle and pedestrian access.	Remove bollard to allow for easier bike and pedestrian access.	Short
Coe Avenue between Dahlia Drive and General Jim Moore Boulevard	Cars encroaching in eastbound bike lane as they wait to enter school.	Remove bike lane from south side of road. Install two-way separated bikeway on north side of road.	Long
Military Avenue at western leg of Peralta Avenue	Substantial drop-off traffic on Military Avenue and Peralta Avenue. Conditions are chaotic. Forcing traffic to run in only one direction would make drop-off movements more consistent.	Install diverters to prevent eastbound traffic on Military Avenue east of Peralta Avenue.	Medium
Peralta Avenue at Coe Avenue	Drivers drop students off in dead-end portion of Peralta Avenue, which creates hazardous conditions.	Block Peralta Avenue north of Military Avenue. Install landscaped trail that allows for emergency access to Coe Avenue.	Medium
—	—	See citywide recommendations for Military Avenue.	—

Seaside Middle School SRTS Recommendations Map



Recommendations

- 1 South side of school between drop-off driveway and Coe Avenue (approximately 350 feet north of Coe Avenue):
Upgrade informal pathway to Class I facility.
- 2 School parking lot:
Upgrade crosswalk to yellow high-visibility raised crosswalk. Install ADA-compliant curb ramps. Update speed hump sign to be MUTCD-compliant.
- 3 School campus:
Create new roadway adjacent to school buildings to connect school driveway with bus drop-off area, with new drop-off area adjacent to school buildings. Restrict current drop-off loop to bus drop-off and staff parking.
- 4 Coe Avenue at Peralta Avenue:
Consider roundabout.
- 5 Coe Avenue at Peralta Avenue:
Remove bollard to allow for easier bike/pedestrian access.
- 6 Coe Avenue between Dahlia Drive and General Jim Moore Boulevard:
Remove bike lane from south side of road. Install two-way separated bikeway on north side of road.
- 7 Military Avenue at western leg of Peralta Avenue:
Install diverters to prevent eastbound traffic on Military Avenue east of Peralta Avenue.
- 8 Peralta at Coe Avenue:
Block Peralta Avenue north of Military Avenue. Install landscaped trail that allows for emergency access to Coe Avenue.
- 9 Coe Avenue at General Jim Moore Boulevard:
Study options to install roundabout.



Chapter 4: Citywide Recommendations

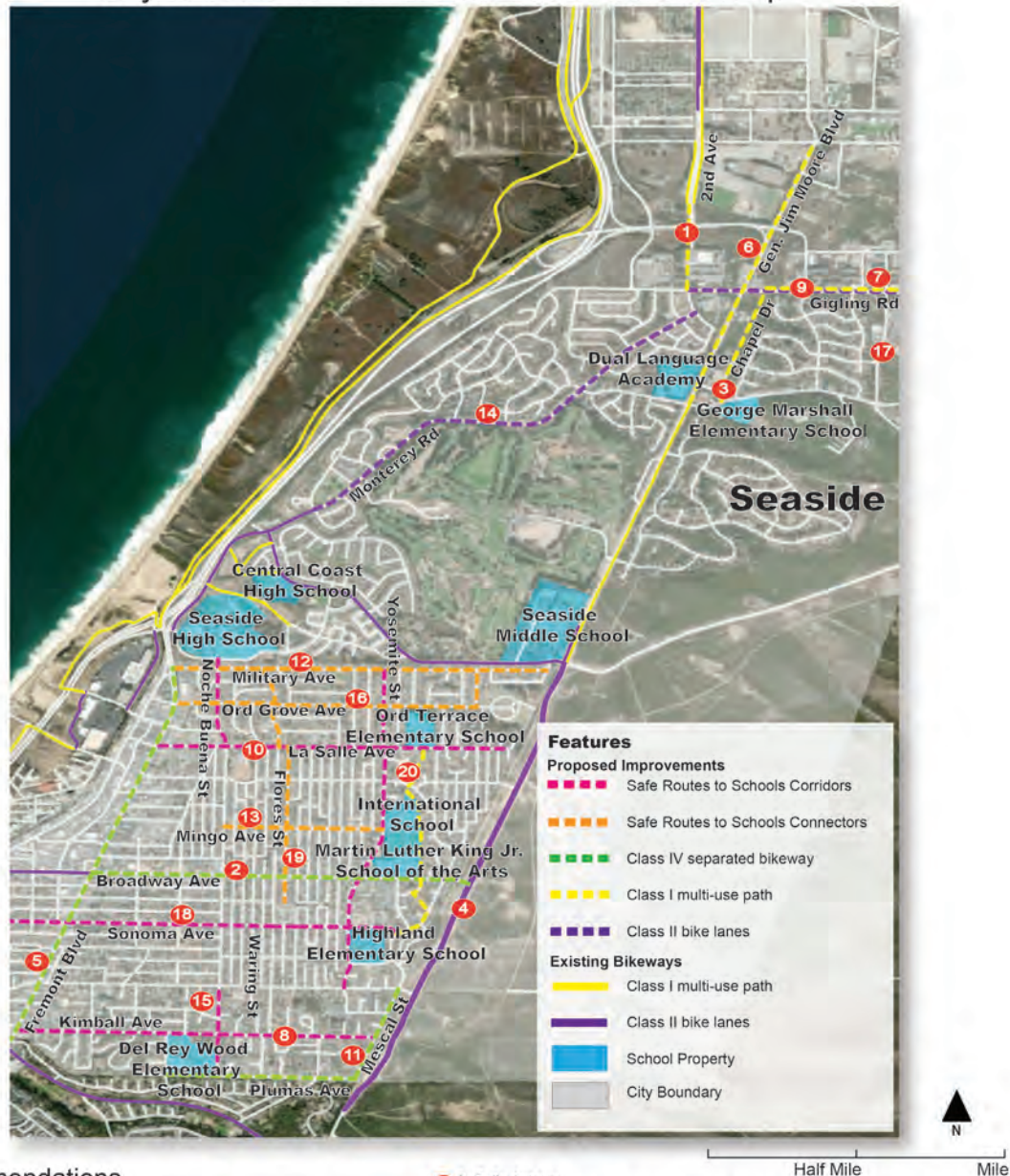
The infrastructure recommendations in this Plan are broken into two categories: citywide recommendations, which serve multiple schools or address larger corridor-wide issues, and school-specific recommendations, which address the area immediately around each school. Citywide recommendations can be found below, and school-specific recommendations are given in chapter 3.

Seaside Citywide Recommendations

Location	Recommendation	Timeframe
2nd Avenue between Gigling Road and existing Class I path just north of Lightfighter Drive	Install Class I shared-use path.	Medium
All schools	Install secure bike parking.	Short
All schools	Where feasible, reduce speed limit around schools.	Medium
All schools	Conduct comprehensive school signage inventory and install missing signage. Upgrade stop signs near schools to flashing stop signs. Ensure that sign placement maintains ADA access on sidewalks.	Medium
All schools	Review ADA accessibility guidelines and construct accessible paths between public right-of-way and school entrances where needed.	Long
All schools	Install RRFBs at all uncontrolled crosswalks near schools. Add curb extensions or center medians at all offset crosswalks.	Medium
Broadway Avenue/Obama Way east of Fremont Boulevard	Road diet to install protected bikeways or buffered bike lanes. Install protected bikeway on north side of Broadway between Yosemite and Mescal. Study feasibility of Safe Routes to Schools corridor treatments, especially near school.	Long
Chapel Drive between Normandy Road and Gigling Road	Construct FORTAG major spur trail in utility right-of-way adjacent to Chapel Drive. Consider fire station project in final design.	Long
East Seaside between Highland Elementary and Ord Terrace Elementary	Explore feasibility of pathway connecting Highland Elementary and Ord Terrace Elementary on city parks, school property, and public roadways.	Medium
Fremont Boulevard between Military Avenue and Canyon Del Rey Boulevard	Study options for enhanced bike facility. If not feasible, install Class II bike lanes and a buffer where possible.	Long
General Jim Moore Boulevard between Divarty Street and Normandy Road	Install Class I shared-use path.	Long
Gigling Road between 6th Division Road and 7th Avenue	Install Class II bike lanes between 6th Division Road and General Jim Moore, and Class IV bike facility on south side of Gigling Road between General Jim Moore and 7th Avenue.	Medium

Gigling Road between General Jim Moore and 7th Avenue	Install trail crossing over Gigling Road at terminus of FORTAG trail. Construct meandering trail on north side of Gigling Road, per Campus Town development plans.	Long
Kimball Avenue between Fremont Boulevard and Mescal Street	Study feasibility of Safe Routes to Schools corridor treatments, especially near school.	Medium
LaSalle Avenue	Study feasibility of Safe Routes to Schools corridor treatments, especially near school.	Medium
Mescal Street/Plumas Avenue between Hilby Avenue and Tweed Street	Install separated bikeway. Install sidewalks to close sidewalk gaps.	Long
Military Avenue	Study feasibility of Safe Routes to Schools connector treatments, especially near school.	Medium
Mingo Avenue between Noche Buena and Yosemite	Study feasibility of Safe Routes to Schools connector treatments, especially near school.	Medium
Monterey Road between Buna Road and 6th Division Road	Install Class II bike lanes.	Long
Noche Buena Street near Seaside High and Del Rey Woods Elementary	Study feasibility of Safe Routes to Schools corridor treatments near schools.	Medium
Ord Grove Avenue and Hacienda Street	Study feasibility of Safe Routes to Schools connector treatments, especially near school.	Medium
Parker Flats Cut Off Road between Gigling Road and Normandy Road.	Study traffic volumes and consider removing center line and installing advisory bike lanes.	Medium
Sonoma Avenue from Mescal Street to Canyon Del Rey Boulevard	Study feasibility of Safe Routes to Schools corridor treatments, especially near school.	Medium
Waring Street and Flores Street between Plumas Avenue and Military Avenue	Study feasibility of Safe Routes to Schools connector treatments, especially near school.	Medium
Yosemite Street between Military Avenue and Hilby Avenue	Study feasibility of Safe Routes to Schools corridor treatments, especially near school. Explore converting Yosemite Street to one-way between Mingo Avenue and La Salle Avenue.	Medium

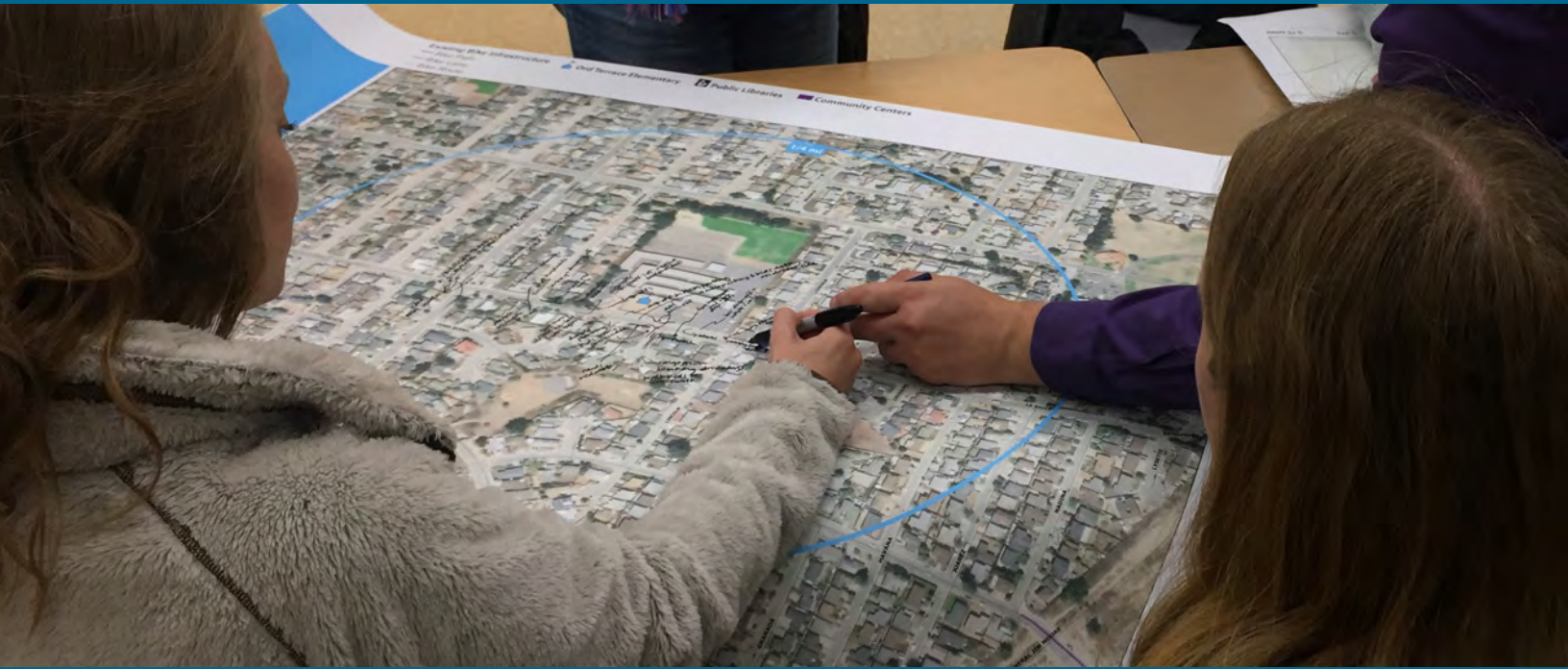
City of Seaside SRTS Recommendations Map



Recommendations

- 1** 2nd Avenue between Gigling Road and existing Class I path just north of Lightfighter Drive:
Install Class I shared-use path.
- 2** Broadway Avenue/Obama Way east of Fremont Boulevard:
Road diet to install protected bikeways or buffered bike lanes. Install protected bikeway on north side of Broadway between Yosemite and Mescal. Study feasibility of Safe Routes to Schools Corridor treatments, especially near school.
- 3** Chapel Drive between Normandy Road and Gigling Road:
Construct FORTAG major spur trail in utility right of way adjacent to Chapel Drive. Consider possible fire station project in final design.
- 4** East Seaside between Highland Elementary and Ord Terrace Elementary:
Explore feasibility of pathway connecting Highland Elementary and Ord Terrace Elementary on City parks, school property and public roadways.
- 5** Fremont Boulevard between Military Avenue and Canyon Del Rey Boulevard:
Study options for enhanced bike facility. If not feasible, install Class II bike lanes and a buffer where possible.
- 6** General Jim Moore Boulevard between Divarty Street and Normandy Road:
Install Class I shared-use path.
- 7** Gigling Road between 6th Division Road and 7th Avenue:
Install Class II bike lanes between 6th Division Road and General Jim Moore, and Class IV bike facility on south side of Gigling Road between General Jim Moore and 7th Avenue.
- 8** Kimball Avenue between Fremont Boulevard and Mescal Street:
Study feasibility of Safe Routes to Schools Corridor treatments, especially near school.
- 9** Gigling Road between General Jim Moore and 7th Avenue:
Install trail crossing at Gigling Road at terminus of FORTAG trail. Construct meandering trail on north side of Gigling Road, per Campus Town development plans.
- 10** LaSalle Avenue:
Study feasibility of Safe Routes to Schools Corridor treatments, especially near school.
- 11** Mescal Street/Plumas Avenue between Hilby Avenue and Tweed Street:
Install separated bikeway. Install sidewalks to close sidewalk gaps.
- 12** Military Avenue:
Study feasibility of Safe Routes to Schools Connector treatments, especially near school.
- 13** Mingo Avenue between Noche Buena and Yosemite:
Study feasibility of Safe Routes to Schools Connector treatments, especially near school.
- 14** Monterey Road between Buna Road and 6th Division Road:
Install Class II bike lanes.
- 15** Noche Buena Street near Seaside High and Del Rey Woods Elementary:
Study feasibility of Safe Routes to Schools Corridor treatments near schools.
- 16** Ord Grove Avenue + Hacienda Street:
Study feasibility of Safe Routes to Schools Connector treatments, especially near school.
- 17** Parker Flats Cut Off Road between Gigling Road and Normandy Road:
Study traffic volumes and consider removing center line and installing advisory bike lanes.
- 18** Sonoma Avenue from Mescal to Canyon Del Rey:
Study feasibility of Safe Routes to Schools Corridor treatments, especially near school.
- 19** Waring Street + Flores Street between Plumas Avenue and Military Avenue:
Study feasibility of Safe Routes to Schools Connector treatments, especially near school.
- 20** Yosemite Street between Military Avenue and Hilby Avenue:
Study feasibility of Safe Routes to Schools Corridor treatments, especially near school. Explore converting Yosemite to 1-way between Mingo and La Salle.





Appendices

Parent Survey Reports - Seaside Middle School

Parent Survey Report: One School in One Data Collection Period

School Name: Seaside Middle

Set ID: 18081

School Group: CTPG2018_MPUUSD

Month and Year Collected: November 2018

School Enrollment: 0

Date Report Generated: 07/02/2019

% Range of Students Involved in SRTS: Don't Know

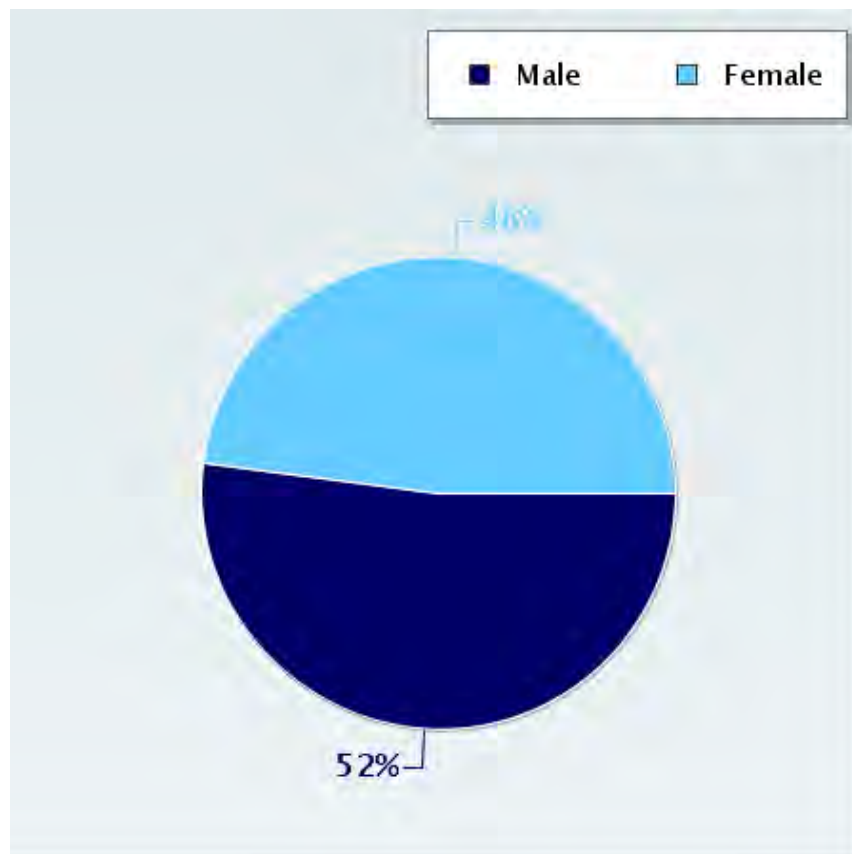
Tags: Middle School

Number of Questionnaires Distributed: 0

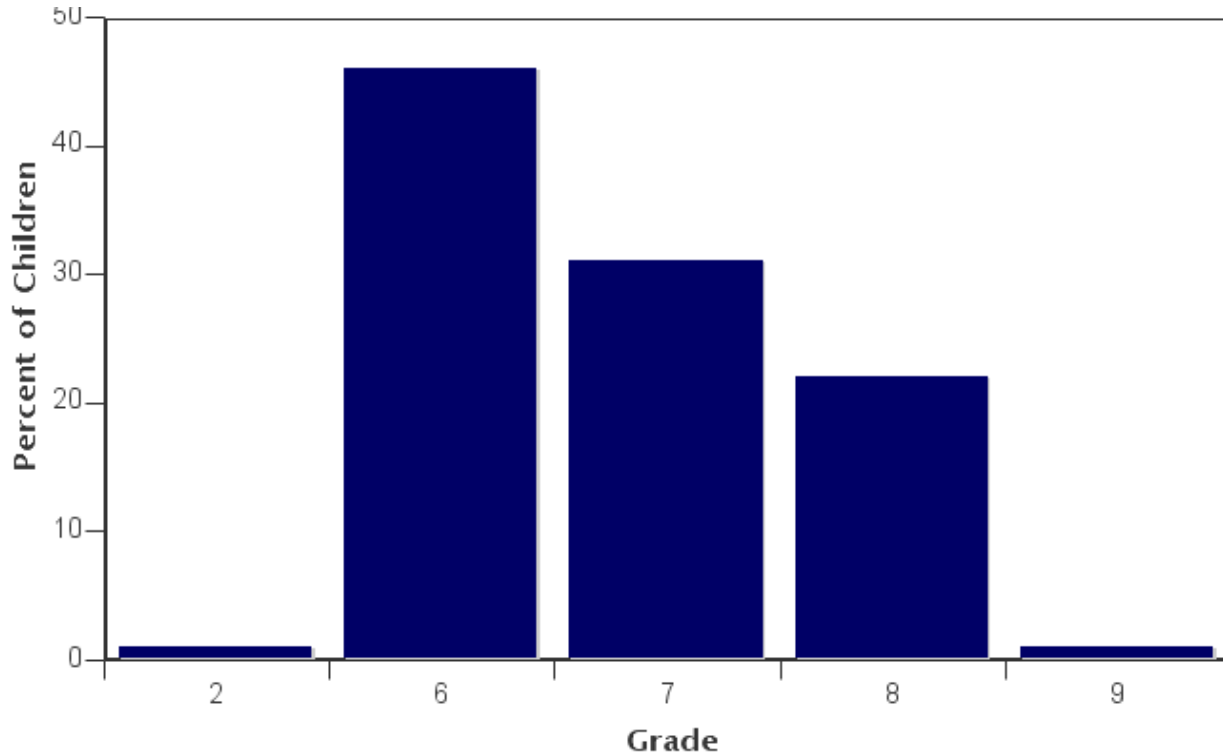
**Number of Questionnaires
Analyzed for Report:** 188

This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

Sex of children for parents that provided information



Grade levels of children represented in survey



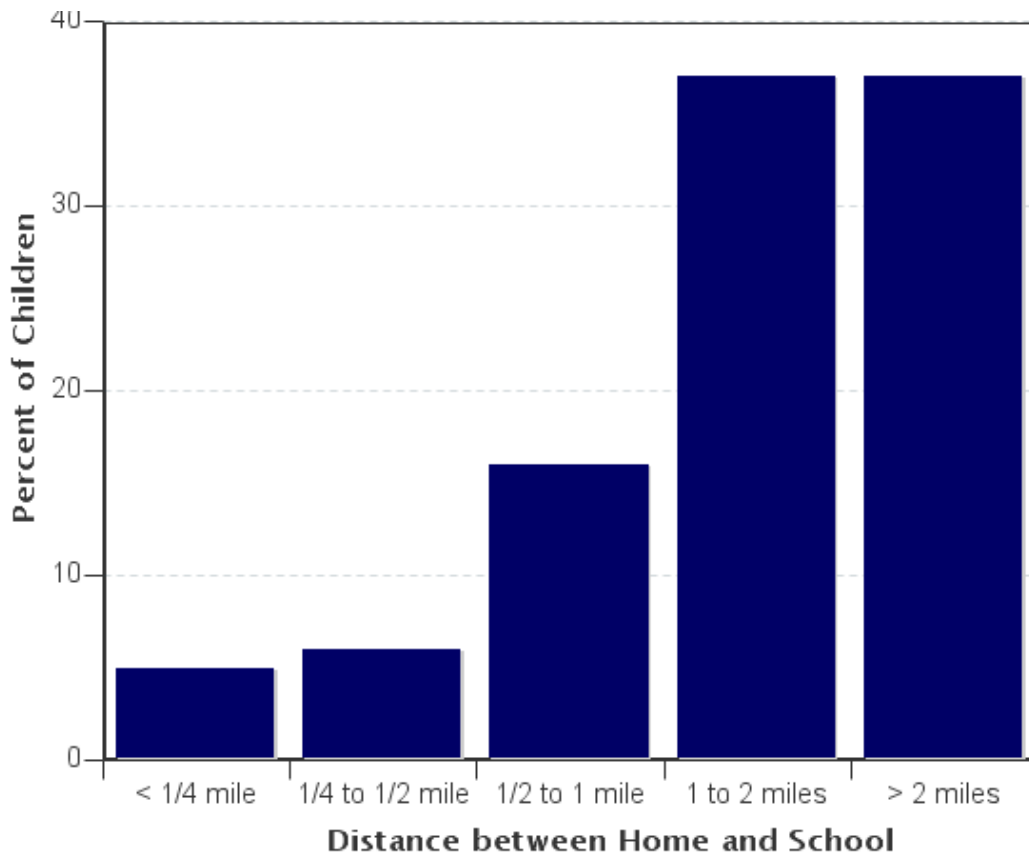
Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
2	1	1%
6	82	46%
7	56	31%
8	39	22%
9	1	1%

No response: 0

Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school



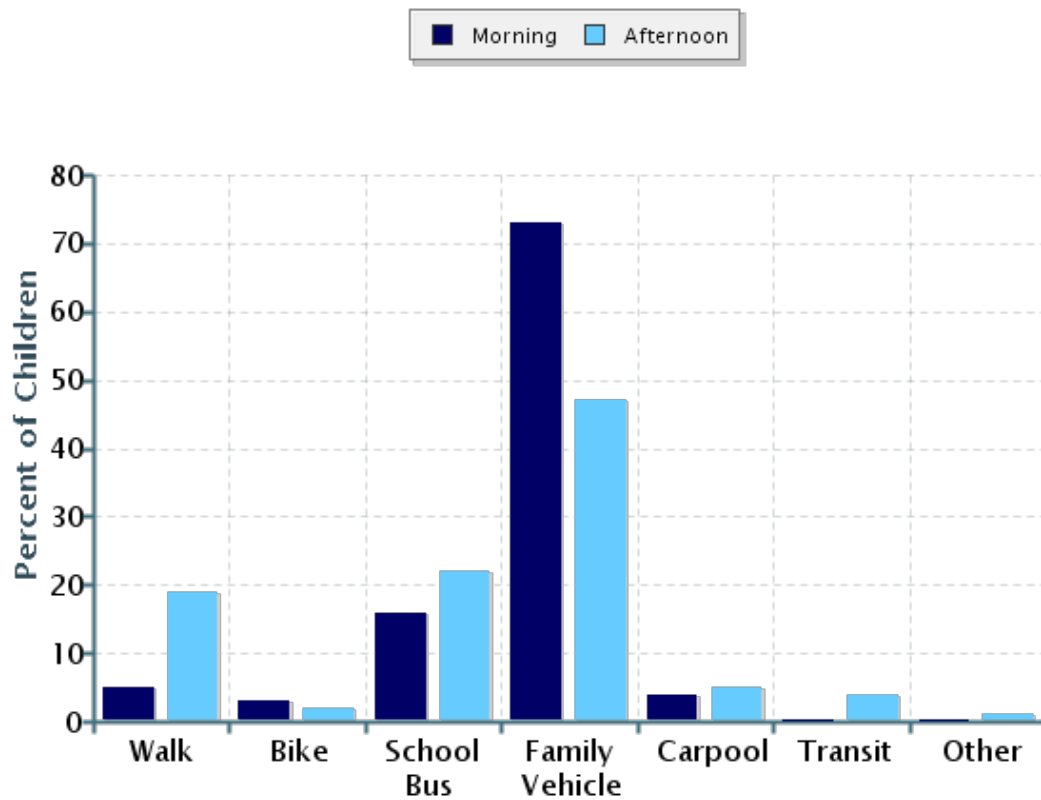
Parent estimate of distance from child's home to school

Distance between home and school	Number of children	Percent
Less than 1/4 mile	7	5%
1/4 mile up to 1/2 mile	8	6%
1/2 mile up to 1 mile	23	16%
1 mile up to 2 miles	52	37%
More than 2 miles	52	37%

Don't know or No response: 46

Percentages may not total 100% due to rounding.

Typical mode of arrival at and departure from school



Typical mode of arrival at and departure from school

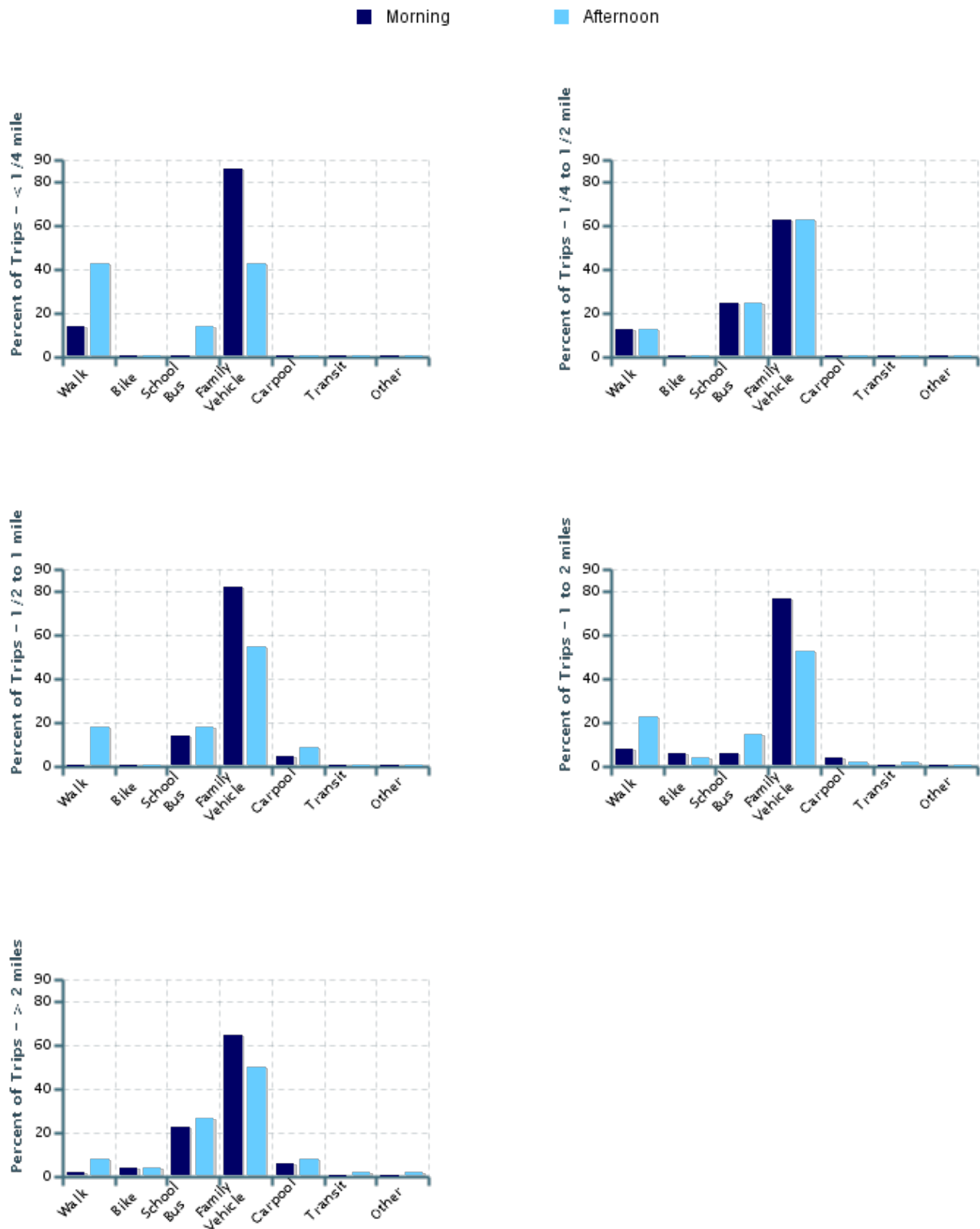
Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	186	5%	3%	16%	73%	4%	0%	0%
Afternoon	180	19%	2%	22%	47%	5%	4%	0.6%

No Response Morning: 2

No Response Afternoon: 8

Percentages may not total 100% due to rounding.

Typical mode of school arrival and departure by distance child lives from school



Typical mode of school arrival and departure by distance child lives from school

School Arrival

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	7	14%	0%	0%	86%	0%	0%	0%
1/4 mile up to 1/2 mile	8	13%	0%	25%	63%	0%	0%	0%
1/2 mile up to 1 mile	22	0%	0%	14%	82%	5%	0%	0%
1 mile up to 2 miles	52	8%	6%	6%	77%	4%	0%	0%
More than 2 miles	52	2%	4%	23%	65%	6%	0%	0%

Don't know or No response: 47

Percentages may not total 100% due to rounding.

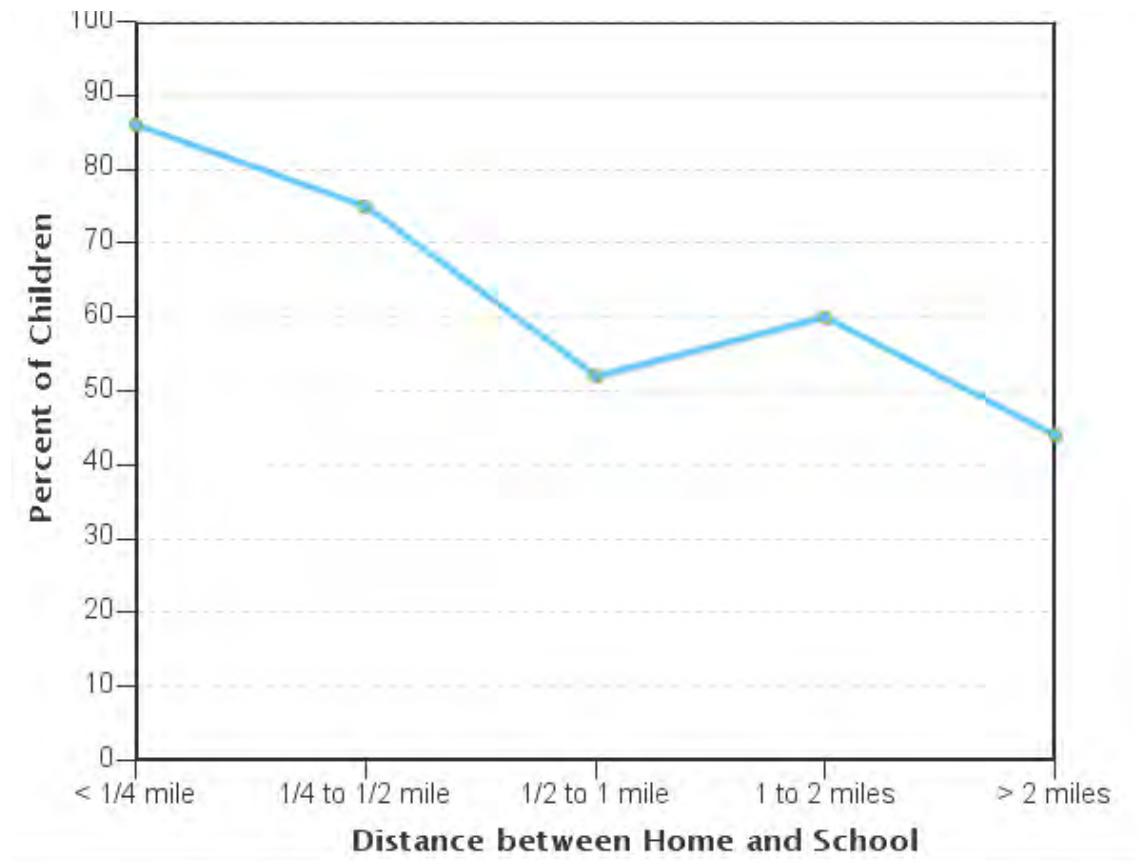
School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	7	43%	0%	14%	43%	0%	0%	0%
1/4 mile up to 1/2 mile	8	13%	0%	25%	63%	0%	0%	0%
1/2 mile up to 1 mile	22	18%	0%	18%	55%	9%	0%	0%
1 mile up to 2 miles	47	23%	4%	15%	53%	2%	2%	0%
More than 2 miles	52	8%	4%	27%	50%	8%	2%	2%

Don't know or No response: 52

Percentages may not total 100% due to rounding.

Percent of children who have asked for permission to walk or bike to/from school by distance they live from school



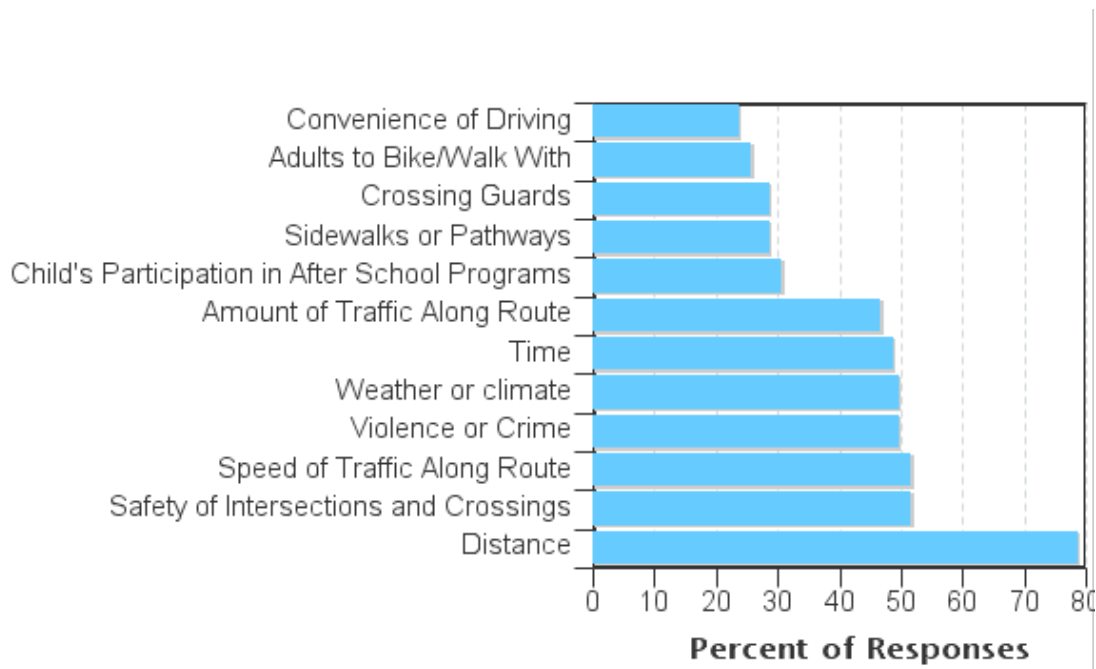
Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	78	86%	75%	52%	60%	44%
No	64	14%	25%	48%	40%	56%

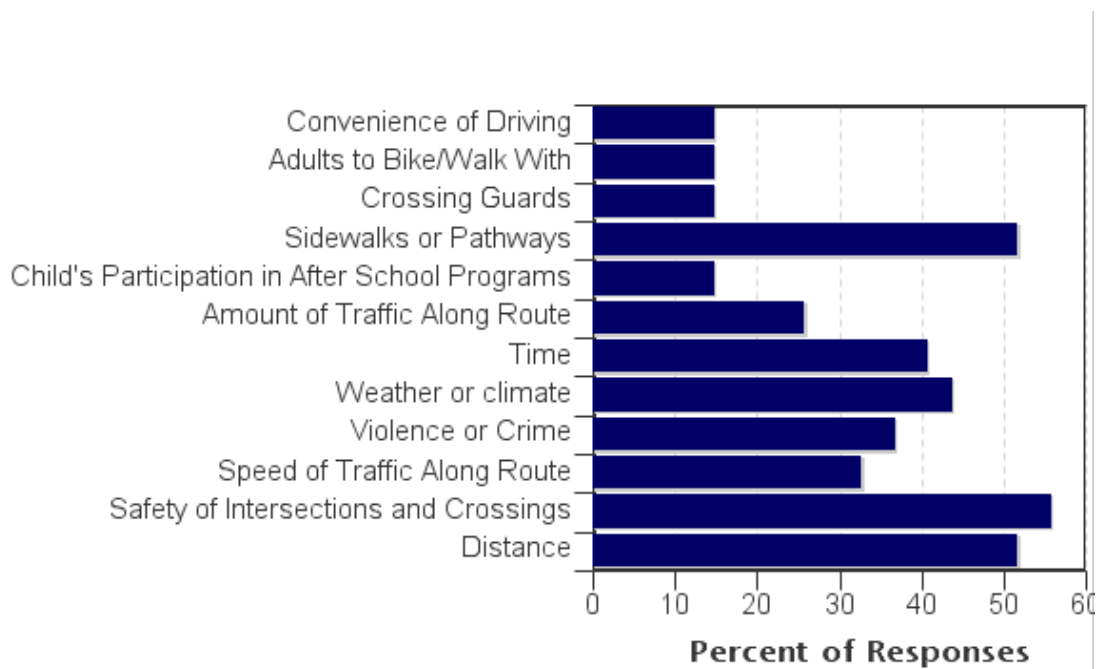
Don't know or No response: 46

Percentages may not total 100% due to rounding.

Issues reported to affect the decision to not allow a child to walk or bike to/from school by
parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by
parents of children who already walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by
parents of children who already walk or bike to/from school

Issue	Child does not walk/bike to school	Child walks/bikes to school
Distance	79%	52%
Safety of Intersections and Crossings	52%	56%
Speed of Traffic Along Route	52%	33%
Violence or Crime	50%	37%
Weather or climate	50%	44%
Time	49%	41%
Amount of Traffic Along Route	47%	26%
Child's Participation in After School Programs	31%	15%
Sidewalks or Pathways	29%	52%
Crossing Guards	29%	15%
Adults to Bike/Walk With	26%	15%
Convenience of Driving	24%	15%
Number of Respondents per Category	123	27

No response: 38

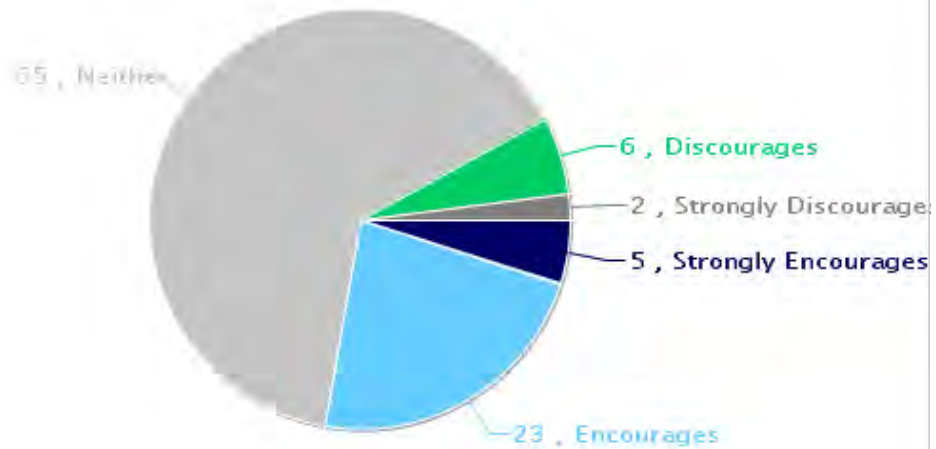
Note:

--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.

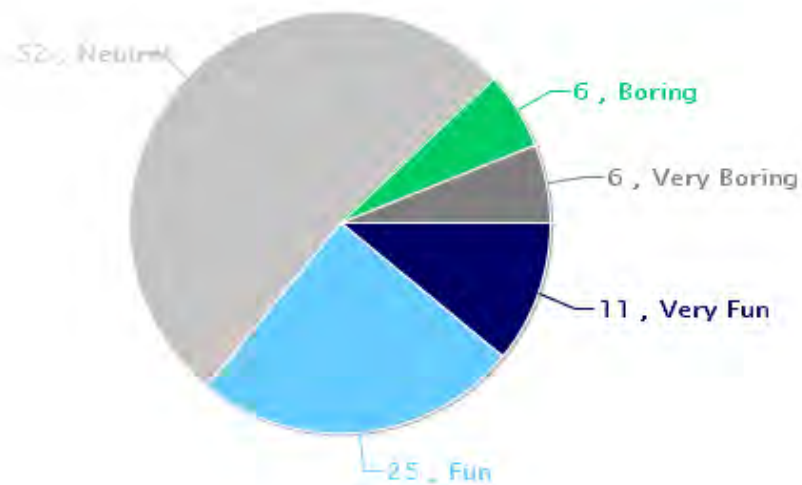
--Each column may sum to > 100% because respondent could select more than issue

--The calculation used to determine the percentage for each issue is based on the 'Number of Respondents per Category' within the respective columns (Child does not walk/bike to school and Child walks/bikes to school.) If comparing percentages between the two columns, please pay particular attention to each column's number of respondents because the two numbers can differ dramatically.

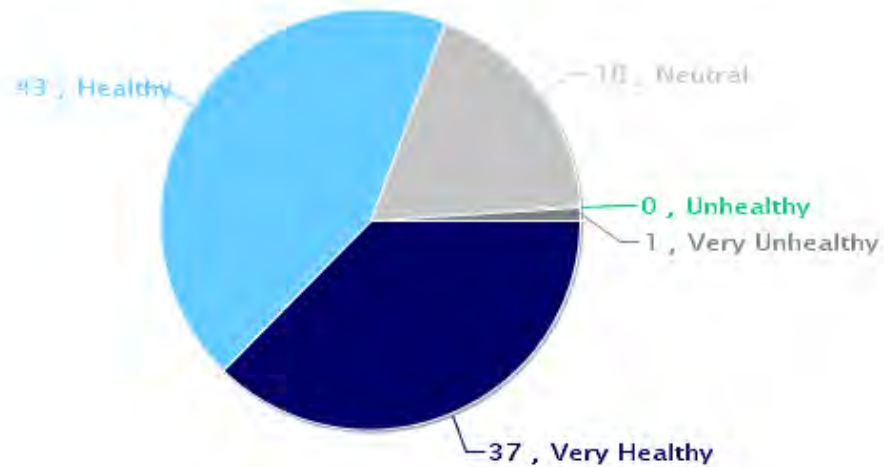
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



Parents' opinions about how much fun walking and biking to/from school is for their child



Parents' opinions about how healthy walking and biking to/from school is for their child



Comments Section

SurveyID	Comment
1646150	propongo el caminar por que es muy bueno pero mi hija no por que vivo muy retirado de la escuela.
1669102	I left 12 and 13 blank because I don't have the knowledge to answer
1644805	En lo personal no me siento segura que mis hijos cominen, por la inseguridad en las calles para los niños.
1660067	School is too far for an 11 year old to walk alone at 7am. Walking would take 40+ minutes each way.
1645098	My child doesn't own a bike.
1669072	I would not allow my son to walk because there are many dangers out on the streets in present day and my son is only 11 years old. Our home is also far from the school. And I am a mom who has become distrustful - perhaps I am overprotective.
1646112	We are a family of 5, 4 kids and 1 adult.
1661208	I don't know why the highest grade level completed affects the outcome of the survey :/
1659407	Child refuses to walk/bike - lazy
1669089	I believe that my child is too young for walking/biking by herself, and I have no other adults to go with her.
1646166	In my opinion it's a good idea to walk from school to home because kids can have the opportunity to practice walking as an exercise.
1660861	Traffic, walking, biking would all be safer with a traffic signal at Coe Ave and Gen Jim Moore.
1645119	Me gustaría que pudieron mi niño ir a la escuela en bicicleta en grupos para tener mas cuidado en supervisión de un adulto.
1659406	Traffic, walking, biking would all be safer with a traffic signal at COE Ave and Gen. Jim Moore.
1669086	School is really far from our home and the bus stop is at an unsafe place - a lot of drugs and homeless folks around there and it is a lonely zone (not many others around for safety).
1669107	The speed limit on Gen Jim Moore Rd is posted at 40 mph. Parents taking and picking up their kids go usually 50-60 mph. They have caused me to not let my child walk/bike to Seaside Middle School.
1660862	Child refuses to walk/bike - very lazy
1669108	I am not against children walking to school but if adults can take them and pick them up that would be preferable. For the safety of my children and all others.
1646176	Mis hijas no vienen en bicicleta porque vivimos asta Monterrey y también porque muchas personas no respetan las senales de transito y da un poco de miedo. pero síes muy sano acer ejersio.
1659513	Sorry questions 10 and 11 are unclear to me for how to answer, but I don't like to let my son walk or bike to school, it is unsafe.
1659258	Thank you for this survey and for your concern for our kids' safety.

Student Tally Reports - Seaside Middle School

Student Travel Tally Report: One School in One Data Collection Period

School Name: Seaside Middle

Set ID: 27377

School Group: CTPG2018_MPUSD

Month and Year Collected: November 2018

School Enrollment: 0

Date Report Generated: 07/09/2019

% of Students reached by SRTS activities:

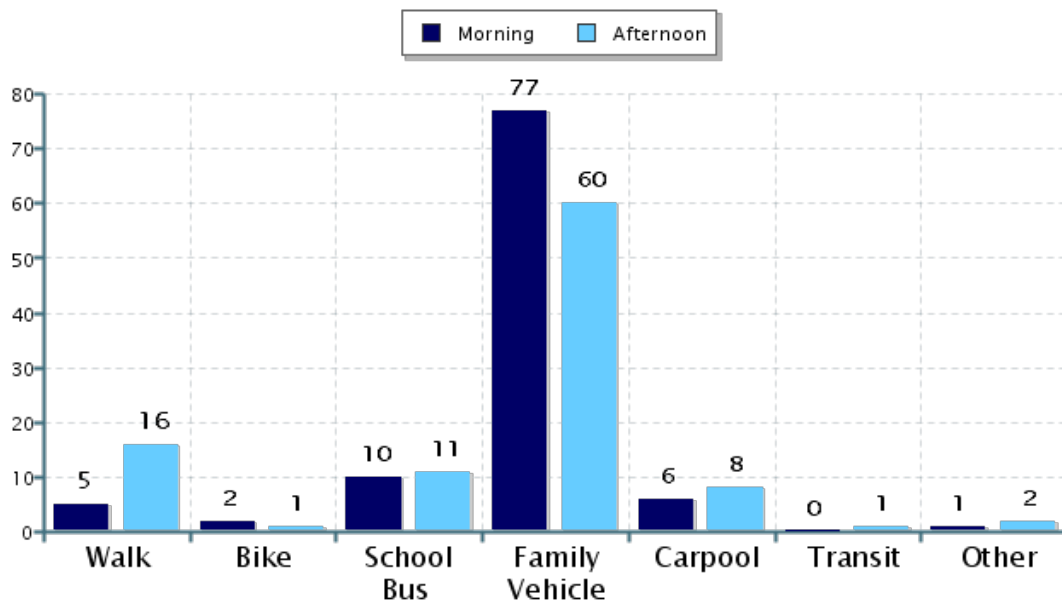
Tags: Middle School

Number of Classrooms

Included in Report: 6

This report contains information from your school's classrooms about students' trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

Morning and Afternoon Travel Mode Comparison



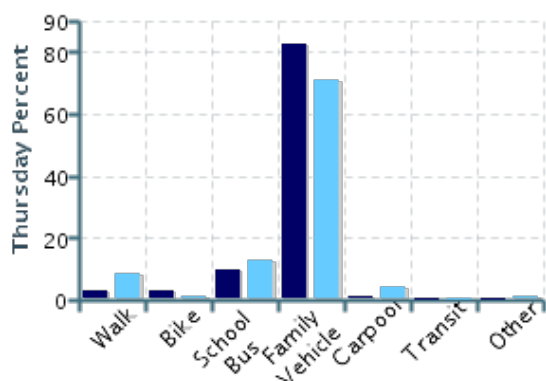
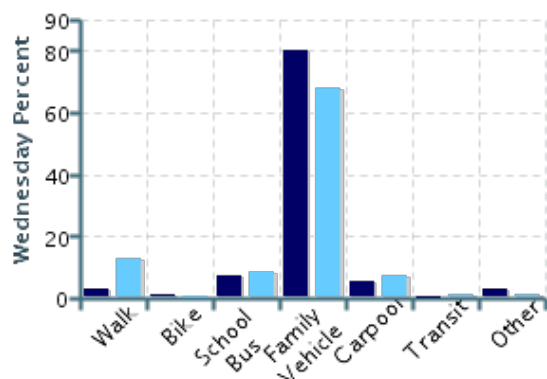
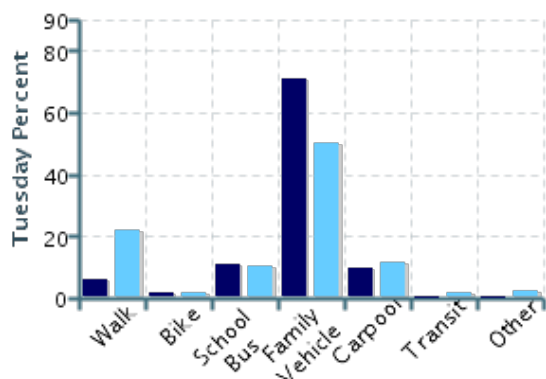
Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	266	5%	2%	10%	77%	6%	0%	0.8%
Afternoon	260	16%	1%	11%	60%	8%	1%	2%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

■ Morning ■ Afternoon

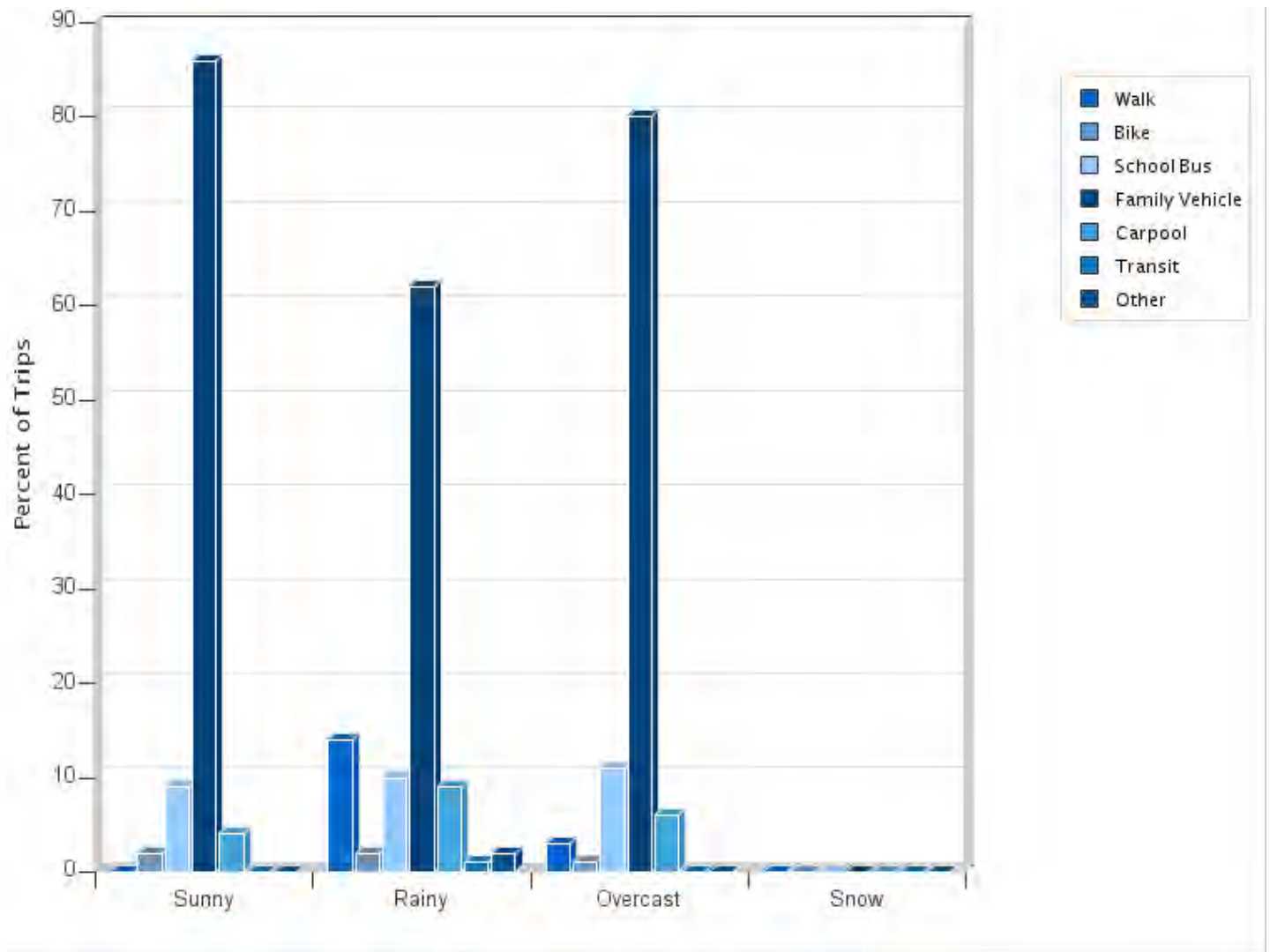


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	125	6%	2%	11%	71%	10%	0%	0%
Tuesday PM	122	22%	2%	11%	50%	11%	2%	2%
Wednesday AM	71	3%	1%	7%	80%	6%	0%	3%
Wednesday PM	69	13%	0%	9%	68%	7%	1%	1%
Thursday AM	70	3%	3%	10%	83%	1%	0%	0%
Thursday PM	69	9%	1%	13%	71%	4%	0%	1%

Percentages may not total 100% due to rounding.

Travel Mode by Weather Conditions



Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	57	0%	2%	9%	86%	4%	0%	0%
Rainy	317	14%	2%	10%	62%	9%	0.9%	2%
Overcast	145	3%	0.7%	11%	80%	6%	0%	0%
Snow	0	0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.

Public Comments - Seaside Middle School Data

LOCATION	PROBLEM	SOLUTION	COMMENT	MEETING COMMENT	AUDIT COMMENT
Coe at Gen. Jim Moore			No one used crosswalk		X
Coe Ave	speeding			x	
Coe Ave	Cars driving in bike lane	Class 1 2-way bike path on north side of street?			X
Coe Ave	School sign hidden by tree branches				X
Coe Ave	No streetlights, dark in the winter for kids				
Coe Ave at school stop sign	Some dropoff happening here				
Coe Ave near golf course	Used to walk in dirt on side of Coe Ave.			x	
Coe EB	Cars backed up pretty far on Coe. Some cars crossing the double yellow to make left turn into school. Takes everyone a long time to get through the stop sign @ school entrance	Extended left turn pocket? Crossing guard to control pedestrian flow?			X
Crosswalk from Peralta to school	Kids run across for palatero				X
Crosswalk from Peralta to school	Main ped access to school	Ped crossing control? Intermittant ped crossing makes car travel through intersection very slow.			X
Crosswalk from Peralta to school	Cars entering crosswalk while kids are still crossing				X
East side of Gen. Jim			Future development will affect traffic on Gen. Jim		X
Eastside Parkway			A lot more traffic through streets all go to 4 schools. How will it impact Seaside? Note: Eastside Parkway is very far out, review growth plans	x	
Eucalyptus	Not great to bike. Fast cars no bike lane			x	
Eucalytus Rd	New housing will carry lots more traffic from Salinas		Future East-West parkway?	x	
Gen Jim			Kids biking on sidewalk		X
Gen Jim at Coe		Roundabout?			X
Gen Jim south of Coe	U-turns and parent parking in bike lane				X
Gen. Jim Moore	Bring kids down Gen. Jim Moore. Room for pedestrians		Note: We think this means that Gen. Jim is safer route, but not main route for many students	x	
General			Bus takes some kids from farther away	x	
General Jim Moore			Bike lane with lots of traffic	x	

General Jim Moore at Coe	Congestion	Roundabout to keep cars moving		x	
Military	very steep 2 lanes		kids bike and walk on Military	x	
Military at Hacienda			Better drop-off location. 30-45 minutes to get out and in	x	
Military at Peralta	Lots of school dropoff here. U-turns, parent cars parked, kids running across intersection, resident driveways blocked		Very few ways for people who live south of Coe to get to school entrance - closest access point is San Pablo to Gen. Jim. It makes sense that parents are dropping off on Military		X
Military Ave	Neighborhood street dropoff of kids to avoid Coe			x	
Military Ave	Speeding in WB direction				X
Military Ave	No curb ramps, broken sidewalk				X
Military, Peralta, etc.	Too much traffic on neighborhood streets		Get cars off side streets	x	
Note: We think this is about the crosswalk across Coe into school	Lights - across way to the school - for the safety of the children			x	
Note: We think this is about the crosswalk across Coe into school - kids coming from Military	Kids that walk through the fence; all end up crossing			x	
Ord Grove			Less steep, steady climb	x	
Ord Grove at Lassen	No crosswalk busy street			x	
Ord Grove to Hacienda			Best bike route	x	
Park Ave			dead end at cemetery	x	
Peralta at Military	No stop sign				X
San Pablo Ave			Commute alternative #1 - cut-through traffic	x	
School driveway on Coe, west of main dropoff area			Currently used for bus dropoff. Could this be additional parent dropoff? How to make sure buses don't get stuck in traffic? There is currently a dirt turnaround that could be improved.		X
School parking lot			Staff stationed in front of school is very helpful		X
School parking lot	2 lanes of dropoff - kids running across path of traffic				X
School parking lot	Some parents use staff parking for dropoff, kids run across dropoff lanes	Make crosswalk in parking lot more visible			X
Seaside Middle main entrance	Lots of traffic. Need crosswalk with lights to advise drivers that kids are crossing		Open another entrance to school to reduce traffic	x	
SW corner of Gen Jim/Coe	Kids dropped off here (bus dropoff?)			x	

Public Comments - Citywide (General Comments)

LOCATION	PROBLEM	SOLUTION	COMMENT
Dirt trail adjacent to Gen. Jim	Could be used		
Citywide		Bike racks at all schools	
		Density of students by Fremont - maybe another school is needed?	
General	We need public restrooms + drinking fountains at locations along walking/bike routes and at destinations.		
General	Notice: no community centers?		
Fort Ord near Marshal			Need more schools if developed
General	Could fiber internet be included? Don't think many Seaside/Marina schools have		
General	Where are the fields? Why are they in such poor condition in all of Seaside/Marina?		
General	Are the parks and trails connected to schools? Why not?		
Parks	The string of parks (Havana-Soliz, Lincoln-Cunningham, Stewart) would make a safe and scenic route for walking - if parks are maintained		
General		Warning signs about traffic rules	

Email	Seaside Middle + all Marina schools		"The few times I've made the mistake of driving General Jim to Canyon Del Rey, the Seaside Middle School intersection backup has drivers in the bike lane or even one wheel up on the sidewalk trying to shortcut around the wait. Having said that, I realize that in my mind the primary contributor to bike danger for me and for kids going to school in Marina is the "droppers." Parents driving their kids to Crumpton, Marina Vista, and Los Arboles. Hurried, distracted drivers, many on the phone. Doors opening into the roadway. Double-parkers. Jay-walkers and Jay-runners. It's pretty nuts, and I try to route around it. If my kid was riding to any of those locations, I'd tell him to ride on the sidewalk, no matter what others think about that. What will happen when they open upper Carmel when they build-out Sea Haven? There's no budget for bussing any more, and a we've become a fearful culture where the media generated perception of the risk (abduction etc.) is way out of line with actual statistics. That has to be part of the solution. Get the kids out of those cars. Group ride, group walk. Something different. How can we incentivize that? What is the carrot, what is the stick? Someone on Nextdoor mentioned the need for cross-walks to get to Patton Parkway. Crosswalk, yes. Plus we need to bring back that stop sign. A three-way stop at the new California intersect. Probably in the plans I'd guess."
Email	Seaside High + Marina High		"Seaside High School - Has no yellow "school zone" signs on noche buena, military or ord grove - Cross Walks at Noche Buena/Military and Noche Buena/Ord Grove are not painted to correlate with appropriate flow of pedestrian/student traffic walking to school. - Military and Noche Buena - extremely dangerous. The stop sign is ran a lot going down Military. Noche Buena Traffic is not looking at Military traffic they are heading to the high school. - I am happy to personally show you the concerns. I have seen kids almost hit, my personal kids have almost been hit and I have known of multiple car accidents on Military and Noche Buena. - Ord Ave exit at freeway (California/hwy 1/fremont). - no side walk - no school zone - kids crossing to fast food - fire road dangerous - stairs lead to softball field then nowhere - no lights - this is an attractive nuisance area - Marina High School - Sidewalks from Imjim - not pleasant or safe for students - Imjim - crossing from 2nd street: path to walk to high school. An experience - would any adult want to try or do on a daily basis 7:30am and/or 4pm. multiple concerns - safety, signs, painted school zone/speed limit signs and painted crossing lines, lighting etc."
Email - Terry Siegrist, City of Marina Recreation	Crumpton		"My comments in my absence today regarding the walking audit at Crumpton this morning: - Concerns have been raised regarding street parking back up during drop off and pick up times. - The back up at the drop off and pick up area in front of the school during morning and afterschool pick up. - The limited parking and traffic going in and out of the parking lot area. - Access to the MST bus stop. Crumpton is the starting point for the city afterschool daily walking pick up to the community center just an info item as that walking route as been requested to be considered in each school audit. Lastly in the loss of funding for the SRO this year all school related traffic safety issues are going unchecked and the regular morning and afterschool revolving traffic monitoring at all the Marina schools sites has been eliminated due to the absence of the funding for the SRO."

Appendix D

Traffic Counts and Intersection Volume Summaries

INT-1.1: Coe Avenue at Paralta Avenue - Gate Closed

3/9/2020

3/3/2020

Scenario 1 - Existing Year (2019)																
AM 2019	NB				WB				SB				EB			
																
Vehicles	1	0	0	1	0	1	76	247	0	229	0	16	0	60	306	1
PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians	13				1				6				283			
Bicycles	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0

PM 2019	NB				WB				SB				EB			
	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷
Vehicles	0	0	0	0	0	0	120	44	0	86	0	21	0	11	80	0
PHF	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians	21				0				3				52			
Bicycles	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

NOTE: Minimum PHF used in operations analysis is =0.70

Scenario 2 - Design Year (2030)																
AM 2030	NB				WB				SB				EB			
																
Vehicles	1	0	0	1	0	1	80	261	0	229	0	16	0	63	323	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians	13				1				6				283			
Bicycles	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0

PM 2030	NB				WB				SB				EB			
	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷
Vehicles	0	0	0	0	0	0	127	46	0	86	0	21	0	12	85	0
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians	21				0				3				52			
Bicycles	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Source:

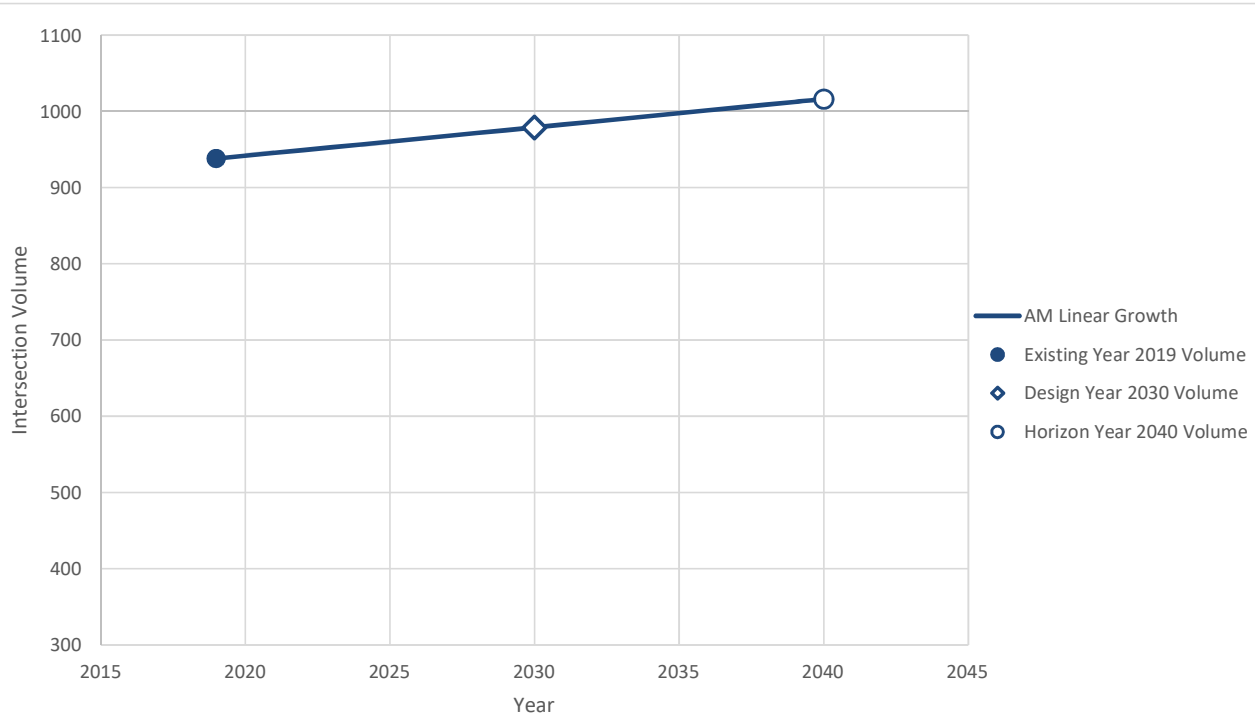
Scenario 3 - Horizon Year (2040)																
AM 2040	NB				WB				SB				EB			
																
Vehicles	1	0	0	1	0	1	85	275	0	229	0	16	0	67	341	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians	13				1				6				283			
Bicycles	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0

PM 2040	NB				WB				SB				EB			
	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷
Vehicles	0	0	0	0	0	0	134	49	0	86	0	21	0	12	89	0
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians	21				0				3				52			
Bicycles	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

INT-1.1: Coe Avenue at Paralta Avenue - Gate Closed

3/9/2020

AM Scenario	AM																Total
	NB				WB				SB				EB				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Existing 2019	1	0	0	1	0	1	76	247	0	229	0	16	0	60	306	1	938
Year 2030 (Linear)	1	0	0	1	0	1	81	262	0	229	0	16	0	64	324	1	979
Horizon Year 2040	1	0	0	1	0	1	85	275	0	229	0	16	0	67	341	1	1016



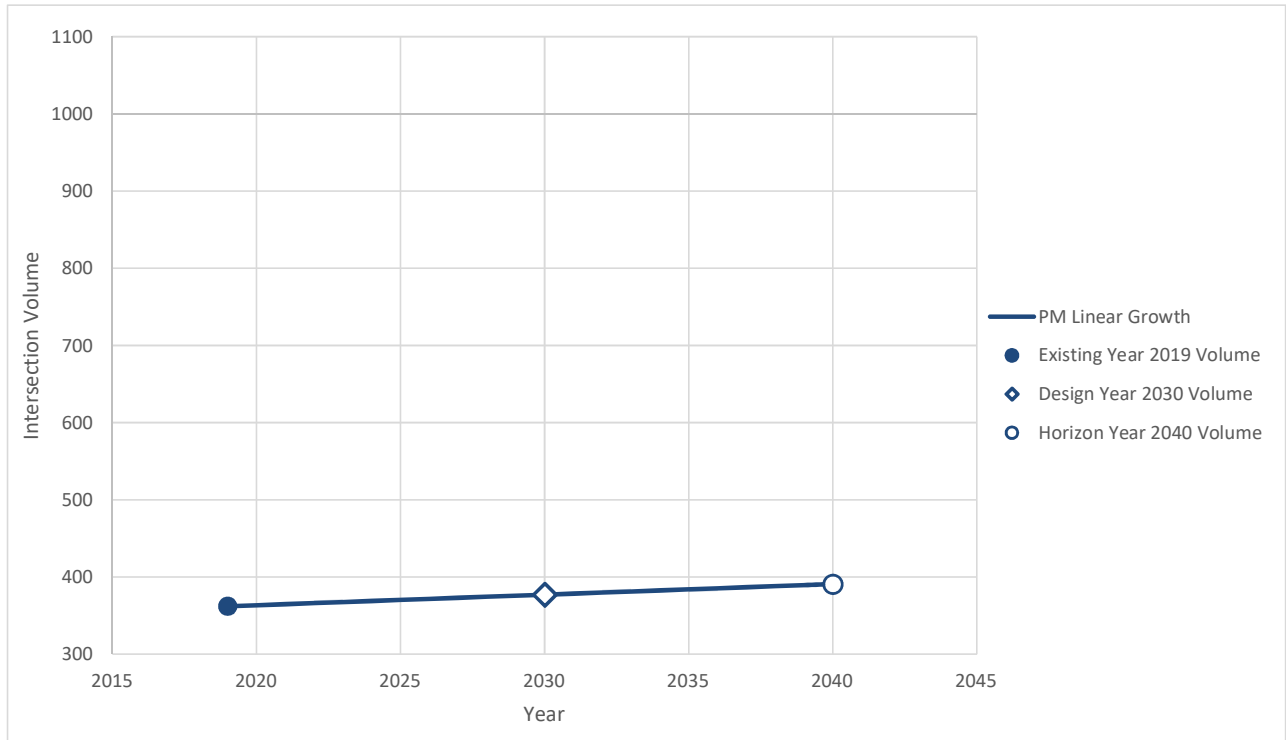
Start End No. of Years = Scenario	2019 2040 21 AM	CALCULATED ANNUAL GROWTH RATE Year 2019 to Year 2040 AM Linear Growth Curve																Total
		NB				WB				SB				EB				
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
RTDM ADT 2015		0				592				0				570				1162
RTDM ADT 2040		0				884				0				846				1730
Calculated Linear Growth		0.000%				1.973%				0.000%				1.937%				2.33%
Linear Growth		0.00%	0.00%	0.00%	0.00%	1.97%	1.97%	1.97%	1.97%	0.00%	0.00%	0.00%	0.00%	1.937%	1.937%	1.937%	1.937%	1.44%
Existing 2019		1	0	0	1	0	1	76	247	0	229	0	16	0	60	306	1	938
Horizon Year 2040		1	0	0	1	0	1	107	349	0	229	0	16	0	84	430	1	1221
Difference		0	0	0	0	0	0	31	102	0	0	0	0	0	24	124	0	283
% Increase		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	41.43%	41.43%	0.00%	0.0%	0.0%	0.0%	0.00%	40.67%	40.67%	0.00%	30.14%

Start End No. of Years = Scenario	2019 2040 21	AM	LINEAR ANNUAL GROWTH RATE LIMITED TO 0.54%: Year 2019 to 2040																Total
			AM Linear Growth Curve																
			NB				WB				SB				EB				
U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R				
Linear Growth	0.000%	0.000%	0.000%	0.000%	0.540%	0.540%	0.540%	0.540%	0.000%	0.000%	0.000%	0.000%	0.540%	0.540%	0.540%	0.540%	0.397%		
Maximum Linear Growth Rate:																	0.54%		
Existing 2019	1	0	0	1	0	1	76	247	0	229	0	16	0	60	306	1	938		
Horizon Year 2040	1	0	0	1	0	1	85	275	0	229	0	16	0	67	341	1	1016		
Difference	0	0	0	0	0	0	9	28	0	0	0	0	0	7	35	0	78		
% Increase	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.34%	11.34%	0.00%	0.00%	0.00%	0.00%	0.00%	11.34%	11.34%	0.00%	8.33%		

INT-1.1: Coe Avenue at Paralta Avenue - Gate Closed

3/9/2020

PM Scenario	PM																Total
	NB				WB				SB				EB				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Existing 2019	0	0	0	0	0	0	120	44	0	86	0	21	0	11	80	0	362
Year 2030 (Linear)	0	0	0	0	0	0	127	47	0	86	0	21	0	12	85	0	377
Horizon Year 2040	0	0	0	0	0	0	134	49	0	86	0	21	0	12	89	0	391



Start	2019	PM	CALCULATED ANNUAL GROWTH RATE Year 2019 to Year 2040																Total
End	2040		PM Linear Growth Curve																
No. of Years =	21		NB				WB				SB				EB				
Scenario			U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
RTDM ADT 2015		0				592				0				570				1162	
RTDM ADT 2040		0				884				0				846				1730	
Calculated Linear Growth		0.000%				1.973%				0.000%				1.937%				2.33%	
Linear Growth		0.00%	0.00%	0.00%	0.00%	1.97%	1.97%	1.97%	1.97%	0.00%	0.00%	0.00%	0.00%	1.937%	1.937%	1.937%	1.937%	1.38%	
Existing 2019		0	0	0	0	0	0	120	44	0	86	0	21	0	11	80	0	362	
Horizon Year 2040		0	0	0	0	0	0	170	62	0	86	0	21	0	15	113	0	467	
Difference		0	0	0	0	0	0	50	18	0	0	0	0	0	4	33	0	105	
% Increase		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	41.43%	41.43%	0.00%	0.0%	0.0%	0.0%	0.00%	40.67%	40.67%	0.00%	29.00%	

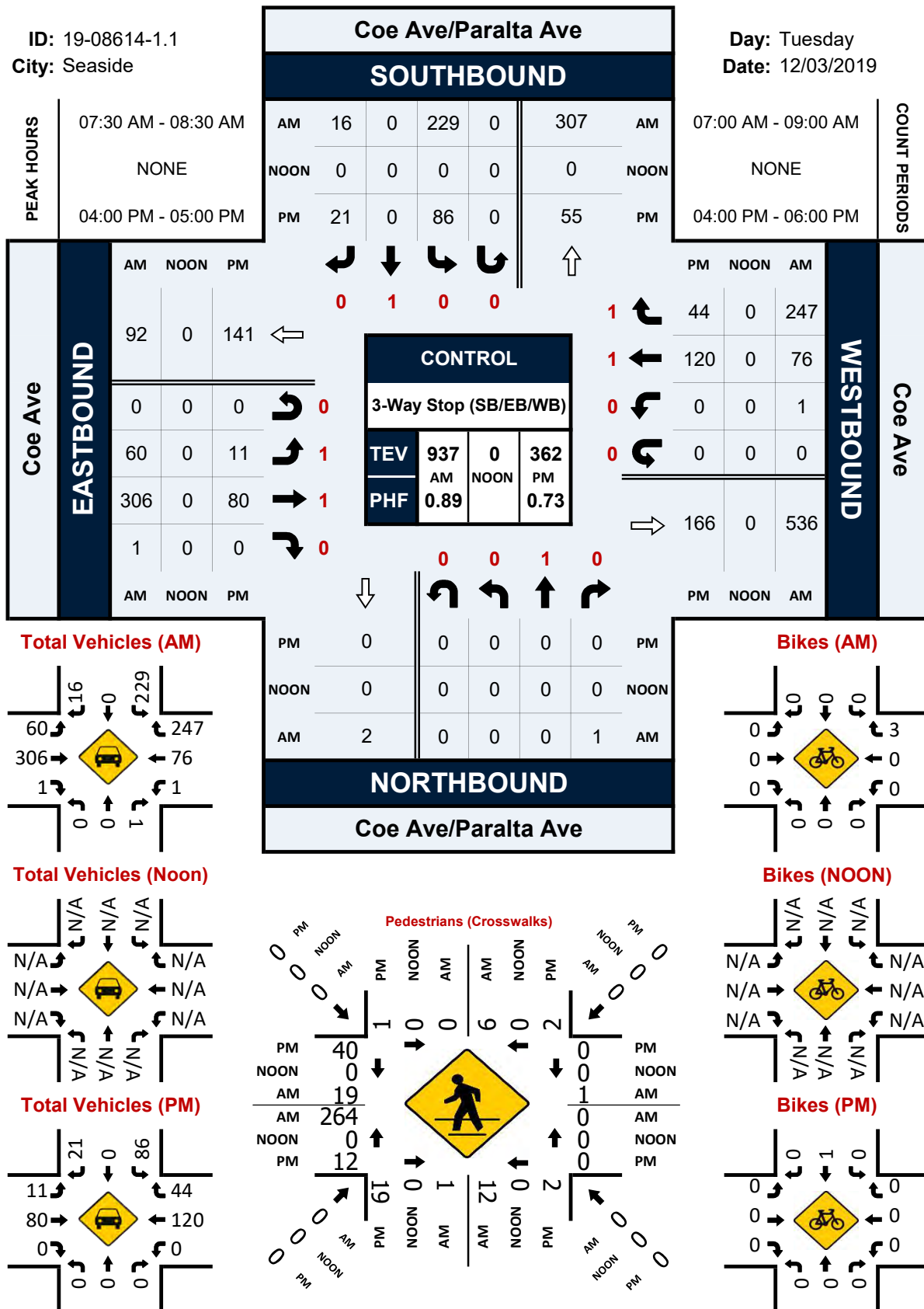
Start End No. of Years = Scenario	2019 2040 21 PM	LINEAR ANNUAL GROWTH RATE LIMITED TO 0.54%: Year 2019 to 2040																Total
		PM Linear Growth Curve																
		NB				WB				SB				EB				
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Linear Growth		0.000%	0.000%	0.000%	0.000%	0.540%	0.540%	0.540%	0.540%	0.000%	0.000%	0.000%	0.000%	0.540%	0.540%	0.540%	0.540%	0.380%
Maximum Linear Growth Rate: 0.54%																		
Existing 2019		0	0	0	0	0	0	120	44	0	86	0	21	0	11	80	0	362
Horizon Year 2040		0	0	0	0	0	0	134	49	0	86	0	21	0	12	89	0	391
Difference		0	0	0	0	0	0	14	5	0	0	0	0	0	1	9	0	29
% Increase		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.34%	11.34%	0.00%	0.00%	0.00%	0.00%	0.00%	11.34%	11.34%	0.00%	7.99%

Coe Ave/Paralta Ave & Coe Ave

Peak Hour Turning Movement Count

ID: 19-08614-1.1
City: Seaside

Day: Tuesday
Date: 12/03/2019



INT-1.2: General Jim Moore Blvd @ Coe Ave

3/18/2020

Scenario 1 - Existing Year (2019)																
AM 2019	NB				WB				SB				EB			
																
Vehicles	11	215	375	0	0	0	0	0	2	0	906	121	0	95	0	427
PHF	0.87	0.87	0.87	0.87					0.91	0.91	0.91	0.91	0.97	0.97	0.97	0.97
Truck %	0.5%	0.5%	0.5%	0.5%					1.6%	1.6%	1.6%	1.6%	1.1%	1.1%	1.1%	1.1%
Pedestrians									1				1			
Bicycles											1		0	0	0	1

PM 2019	NB				WB				SB				EB			
	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷
Vehicles	2	156	978	0	0	0	0	0	0	0	283	88	0	50	0	113
PHF	0.90	0.90	0.90	0.90					0.91	0.91	0.91	0.91	0.95	0.95	0.95	0.95
Truck %	0.3%	0.3%	0.3%	0.3%					1.3%	1.3%	1.3%	1.3%	0.6%	0.6%	0.6%	0.6%
Pedestrians			2				5				1				7	
Bicycles	0	2	1	0					0	0	2	0	0	0	0	0

NOTE: Minimum PHF used in operations analysis is =0.70

Scenario 2 - Design Year (2030)																
AM 2030	NB				WB				SB				EB			
																
Vehicles	6	221	408	241	0	271	3	57	1	11	956	121	0	95	3	427
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians	0				0				1				1			
Bicycles	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1

PM 2030	NB				WB				SB				EB			
	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷
Vehicles	1	162	672	213	0	228	3	10	0	62	319	90	0	50	3	113
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians			2				5				1				7	
Bicycles	0	2	1	0	0	0	0	0	0	0	2	0	0	0	0	0

Source:

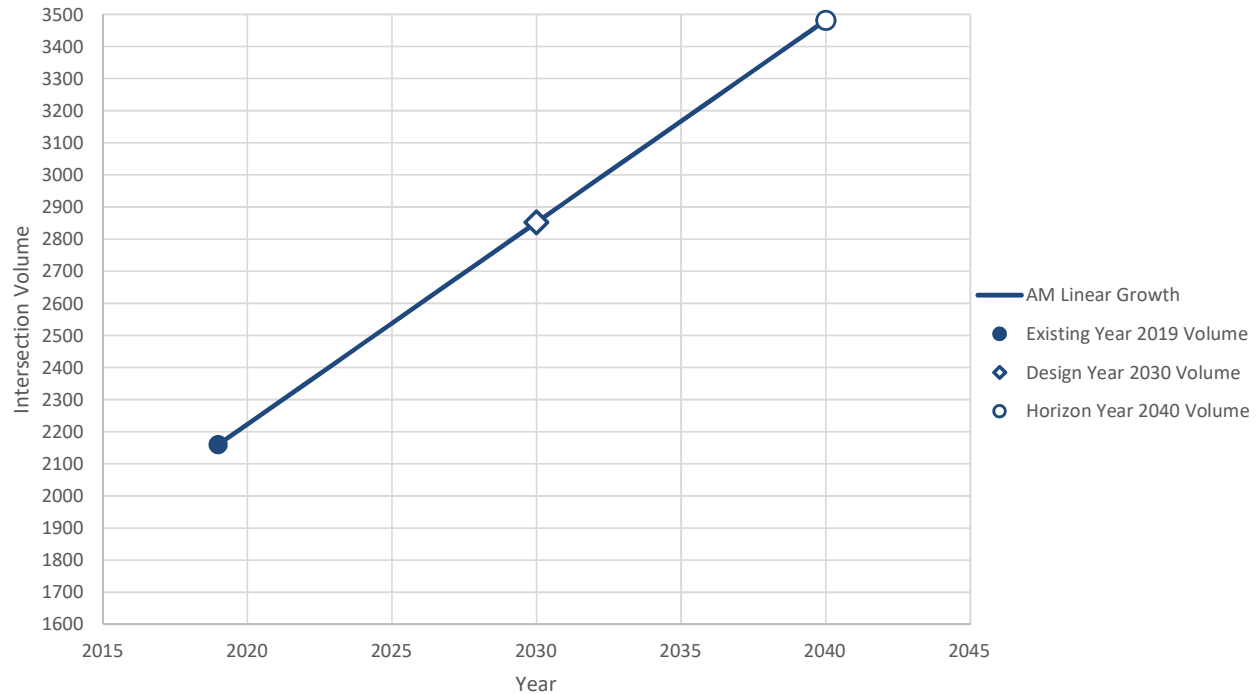
Scenario 3 - Horizon Year (2040)																
AM 2040	NB				WB				SB				EB			
																
Vehicles	0	226	441	482	0	541	5	113	0	21	1005	121	0	95	5	427
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians	0				0				1				1			
Bicycles	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1

PM 2040	NB				WB				SB				EB			
	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷	↶	↷	↑	↷
Vehicles	0	167	365	426	0	456	5	20	0	124	354	92	0	50	5	113
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Truck %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Pedestrians			2				0				1				7	
Bicycles	0	2	1	0	0	0	0	0	0	0	2	0	0	0	0	0

INT-1.2: General Jim Moore Blvd @ Coe Ave

3/10/2020

AM Scenario	AM																Total
	NB				WB				SB				EB				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Existing 2019	11	215	375	0	0	0	0	0	2	0	906	121	0	95	0	427	2152
Year 2030 (Linear)	5	221	410	253	0	284	3	60	1	11	958	121	0	95	3	427	2852
Horizon Year 2040	0	226	441	482	0	541	5	113	0	21	1005	121	0	95	5	427	3482

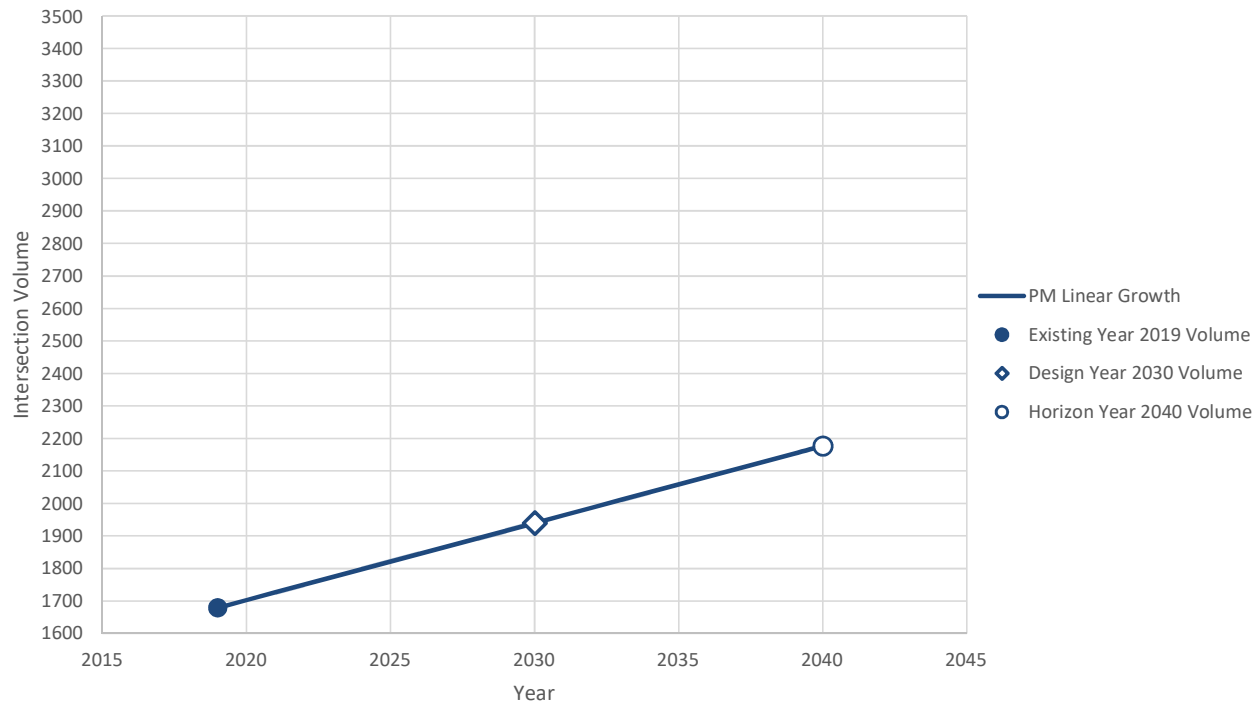


Start	2019	AM	CALCULATED ANNUAL GROWTH RATE Year 2019 to Year 2040																Total
End	2040		AM Linear Growth Curve																
No. of Years =	21		NB				WB				SB				EB				
Scenario			U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Existing 2019		11	215	375	0	0	0	0	0	2	0	906	121	0	95	0	427	2152	
Horizon Year 2040		0	226	441	482	0	541	5	113	0	21	1005	121	0	95	5	427	3482	
Difference		-11	11	66	482	0	541	5	113	-2	21	99	0	0	0	5	0	1330	
% Increase		0.00%	5.12%	17.60%	482.0%	0.00%	541.0%	5.00%	113.0%	0.00%	21.00%	10.93%	0.00%	0.00%	0.00%	5.00%	0.00%	61.80%	
Linear Growth		-4.76%	0.24%	0.84%	2290%	-4.76%	2571%	1000%	533.3%	-4.76%	95.24%	0.52%	0.00%	-4.76%	0.00%	19.05%	0.00%	2.94%	

INT-1.2: General Jim Moore Blvd @ Coe Ave

3/10/2020

PM Scenario	PM																Total
	NB				WB				SB				EB				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Existing 2019	2	156	978	0	0	0	0	0	0	0	283	88	0	50	0	113	1670
Year 2030 (Linear)	1	162	657	224	0	239	3	11	0	65	320	90	0	50	3	113	1940
Horizon Year 2040	0	167	365	426	0	456	5	20	0	124	354	92	0	50	5	113	2177



Start	2019	PM	CALCULATED ANNUAL GROWTH RATE Year 2019 to Year 2040																Total
End	2040		PM Linear Growth Curve																
No. of Years =	21		NB				WB				SB				EB				
Scenario			U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Existing 2019		2	156	978	0	0	0	0	0	0	0	283	88	0	50	0	113	1670	
Horizon Year 2040		0	167	365	426	0	456	5	20	0	124	354	92	0	50	5	113	2177	
Difference		-2	11	-613	426	0	456	5	20	0	124	71	4	0	0	5	0	507	
% Increase		0.00%	7.05%	-62.7%	426.0%	0.00%	456.0%	5.00%	20.0%	0.00%	124.0%	25.09%	4.55%	0.00%	0.00%	5.00%	0.00%	30.36%	
Linear Growth		-4.76%	0.34%	-2.98%	2024%	-4.76%	2167%	1000%	90.5%	-4.76%	585.7%	1.19%	0.22%	-4.76%	0.00%	19.05%	0.00%	1.45%	

Appendix E

Growth Rate Memo

Memorandum

To: Misty Bradshaw, P.E.
City of Seaside

From: Sean Houck, P.E.
Kimley-Horn & Associates

Re: City of Seaside Intersection Control Evaluations Studies
Growth Rates: Broadway Corridor

Date: March 16, 2020

Linear per annum growth rates were developed for the eighteen project intersections using the Regional Travel Demand Model (RTDM) created by the Association of Monterey Bay Area Governance (AMBAG). The growth rates from the model range from -0.71% to 6.72% per annum. The AMBAG 2018 Regional Growth Forecast provides anticipated growth rates for the City of Seaside between the years 2015 and 2040 based on historical growth data. The employment, housing, and population growth rates are summarized in **Table 1**. We recommend using the average city growth rate of 0.54% as the maximum growth rate for minor streets, and using the employment growth rate of 0.68% as the maximum growth rate for major arterials.

Table 1: AMBAG Report Growth Rates

AMBAG 2018 Regional Growth Forecast	
Employment Growth Rate	0.68%
Housing Growth Rate	0.52%
Population Growth Rate	0.42%
Average	0.54%

The RTDM Model shows significant growth on the Broadway Corridor when analyzed as a four-lane road. One of the proposed improvements on the Broadway corridor is a road diet, reducing it from a four-lane to a two-lane road. The model results vary significantly when the Broadway Corridor is changed from four-lane road to a two-lane road. **Table 2** summarizes the RTDM Model and AMBAG Report growth rates for the Broadway Corridor. We recommend using the highest city growth rate of 0.68% as the maximum linear growth rate for the Broadway Corridor.

Table 2: Summary of RTDM Model Growth Rates Along Broadway Corridor

Intersection	RTDM Model Growth Rates Along Broadway						AMBAG 2018 Regional Growth Forecast			
	4-lane Corridor			2-lane Corridor			Employment GR		Average GR	
	WB	EB	2040 V/C	WB	EB	2040 V/C	GR	2040 V/C	GR	2040 V/C
Broadway at Fremont	3.16%	2.30%	2.082	0.86%	0.79%	1.550	0.68%	1.522	0.54%	1.500
Broadway at Noche Buena	4.01%	3.84%	1.443	1.27%	1.72%	0.949	0.68%	0.866	0.54%	0.823
Broadway at Yosemite	5.77%	3.01%	1.367	1.17%	0.93%	0.746	0.68%	0.665	0.54%	0.644
Broadway at General Jim Moore	-	3.39%	1.520	-	0.82%	1.545	0.68%	1.215	0.54%	1.184
Average	4.31%	3.13%		1.10%	1.07%					

The following two TIA's were used to determine the future volumes for the General Jim Moore and Lightfighter intersections, respectively:

- California Central Coast Veteran's Cemetery (CCCVC) by Kimley-Horn
 - o General Jim Moore Blvd at Coe Ave
- Campus Town Specific Plan TIA by FEHR & PEERS
 - o Lightfighter Drive at 1st Ave
 - o Lightfighter Drive at 2nd Ave

The future volumes provided in the Campus Town TIA were directly used at the Coe intersection, and used to balance the San Pablo Ave, Broadway Ave, and Hilby Ave intersections along General Jim Moore Blvd. The RTDM Model was used as a base at the those three intersections. The projected future volumes from all southbound movements at Coe Ave were used to balance the southbound entering movements at San Pablo Ave, and the northbound entering movements at Coe Ave were used to balance the northbound exiting volumes at San Pablo Ave. The turning movements to and from the side streets were grown at their respective, capped model growth rates to remain consistent with the rest of the analysis.

Similarly, the future volumes provided in the CCCVC TIA were directly used at the 1st and 2nd Ave intersections, and used to balance the SR1 Ramp intersection along Lightfighter Drive. The growth rates used for the Lightfighter intersections from the CCCVC TIA result in the need for a triple lane roundabout at 1st Ave and 2nd Ave by the year 2040. Because the CCCVC TIA values were significantly higher than the RTDM Model, we recommend taking a phased build-out approach by designing for a two-lane roundabout and allowing room for expansion if future traffic growth necessitates.

A summary of the volume growth rates and sources for each intersection is provided in **Table 3**.

Table 3: Summary of Growth Rates Used for All Intersections

Int	North-South Arterial (Major/Minor)	East-West Arterial (Major/Minor)	Growth Rate Source		Growth Rate			
			North-South Arterial	East-West Arterial	NB	WB	SB	EB
1.1	Paralta Ave	<u>Coe Ave</u>	Model, Capped at average City growth of 0.54%		0.00%	0.54%	0.00%	0.54%
1.2	<u>General Jim Moore Blvd</u>	Coe Ave	Near year and future year volumes from TIA, no growth rates used		-	-	-	-
1.3	<u>General Jim Moore Blvd</u>	<u>Broadway Ave</u>	Volumes determined from TIA volumes at Int. 1.2	Model, Capped at Employment Growth Rate of 0.68%	-	-	-	0.68%
1.4	Yosemite St	La Salle Ave	Model, Capped at average City growth of 0.54%		0.00%	0.54%	0.00%	0.54%
1.5	Yosemite St	Sonoma Ave	Model, Capped at average City growth of 0.54%		0.54%	0.54%	0.54%	0.54%
1.6	<u>Fremont Blvd</u>	<u>Broadway Ave</u>	Model, Capped at Employment Growth Rate of 0.68%		0.36%	0.68%	0.00%	0.68%
2.1	Noche Buena St	Ord Grove Ave	Model, Capped at average City growth of 0.54%		0.00%	0.54%	0.00%	0.54%
2.2	Noche Buena St	La Salle Ave	Model, Capped at average City growth of 0.54%		0.00%	0.46%	0.10%	0.30%
2.3	<u>Fremont Blvd</u>	La Salle Ave	Model, Capped at Employment Growth Rate of 0.68%	Model, Capped at average City growth of 0.54%	0.00%	0.00%	0.00%	0.40%
2.4	Noche Buena St	<u>Broadway Ave</u>	Model, Capped at Employment Growth Rate of 0.68%		0.01%	0.68%	0.00%	0.68%
2.5	Yosemite St	<u>Broadway Ave</u>	Model, Capped at Employment Growth Rate of 0.68%		0.68%	0.68%	0.68%	0.68%
2.6	Noche Buena St	Military Ave	Model, Capped at average City growth of 0.54%		0.00%	0.00%	0.00%	0.00%
2.7a	First Ave	Lightfighter Dr	Near year and future year volumes from TIA, no growth rates used		-	-	-	-
2.7b	SR 1 Ramps	Lightfighter Dr	Balanced using TIA and near year volumes		-	-	-	-
2.8	Second Ave	Lightfighter Dr	Near year and future year volumes from TIA, no growth rates used		-	-	-	-
2.9	Yosemite St	San Pablo Ave	Model, Capped at average City growth of 0.54%		0.54%	0.54%	0.54%	0.00%
2.10	<u>General Jim Moore Blvd</u>	San Pablo Ave	Volumes determined from TIA volumes at Int. 1.2	Model, Capped at average City growth of 0.54%	-	-	-	0.54%
2.11	<u>General Jim Moore Blvd</u>	Hilby Ave	Volumes determined from TIA volumes at Int. 1.2	Model, Capped at average City growth of 0.54%	-	-	-	0.54%

Assumptions:

1. Lightfighter Corridor Volumes per the CCCVC TIA.
2. General Jim Moore Boulevard Volumes balanced between the AMBAG Model Growth rates, the Campus Town TIA, and the Broadway Road Diet.
3. Fremont Boulevard Volumes per the AMBAG Model.

Appendix F

Full City of Seaside ICE Study



City of Seaside ICE Study

Phase 1 Intersection Control Evaluation

March 26, 2021

Prepared by Kimley-Horn & Associates

EXECUTIVE SUMMARY

The purpose of conducting an Intersection Control Evaluation (ICE) is to provide a holistic approach to the consideration and evaluation of intersection control alternatives. This ICE seeks to evaluate impacts to all intersection users (e.g., pedestrian, bicycle, auto, transit) to identify the most effective and comprehensive access alternatives.

This document will provide:

- An objective assessment and evaluation of traffic control strategies and options
- Data driven engineering analysis of intersection Operations and Safety
- Qualitative driven analysis of location-specific benefits and restrictions
- A benefit-cost comparison of intersection control alternatives

GOALS AND OBJECTIVES

The City of Seaside, through this study, has developed a Citywide Intersection Control Evaluation of high priority intersections to evaluate the benefit of roundabouts or other alternative control devices to traditional signalized intersections. The ICE will serve as a decision-making process and framework to evaluate intersection control alternatives using a performance-based approach to engineering and investment decisions.

Overall, the purpose of the Citywide Intersection Control Evaluation is to:

- Provide consistent documentation that improves transparency of transportation investment decisions
- Implementation of safer, more balanced, and cost-effective solutions
- Emphasis on objective performance measures for consistent comparisons
- Assess the benefit/cost of making intersection control improvements at high priority intersections
- Identify effective intersection control strategies and alternative treatments, strategies, and configurations for particular conditions
- Prioritize intersection improvements based on calculated benefit/cost ratio
- Emphasize context, key performance outcomes, cost-effectiveness, and sustainability instead of the historical reliance on intersection control warrants
- Promote and mainstream the consideration of innovative access strategies that are proven but under-utilized, such as a roundabout

City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

OVERALL INTERSECTION SUMMARY

INTERSECTION CONTROL ALTERNATIVE SUMMARY

Eighteen intersections were evaluated in the City of Seaside Intersection Control Evaluation Study. The existing intersection control as well one or two alternative controls were evaluated at each intersection. The legend (right) displays the symbols used throughout this report to represent the existing and proposed control types. The Intersection Control Alternative Summary table (below) is a summary of the alternatives evaluated and resulting recommendations for each intersection.

Legend		
Control Type	Existing	Proposed
Stop Sign		N/A
Traffic Signal		
Rounabout	N/A	

Intersection Control Alternative Summary					
Intersection		Existing Control	Evaluated Alternatives		Recommendation
INT 1.1	Coe Ave at Paralta Ave (Gate Closed)				
INT 1.1	Coe Ave at Paralta Ave (Gate Open)				
INT 1.2	Coe Ave at GJM Blvd				
INT 1.3	Broadway Ave at GJM Blvd				 
INT 1.4	La Salle Ave at Yosemite St				
INT 1.5	Sonoma Ave at Yosemite St				
INT 1.6	Broadway Ave at Fremont Blvd				 
INT 2.1	Ord Grove at Noche Buena St				
INT 2.2	La Salle Ave at Noche Buena St				
INT 2.3	La Salle Ave at Fremont Blvd				 
INT 2.4	Broadway Ave at Noche Buena St				
INT 2.5	Broadway Ave at Yosemite St				
INT 2.6	Military Ave at Noche Buena St				
INT 2.7a	Lightfighter Dr at First Ave				 
INT 2.7b	Lightfighter Dr at SR-1 NB Ramps	RAMPS			

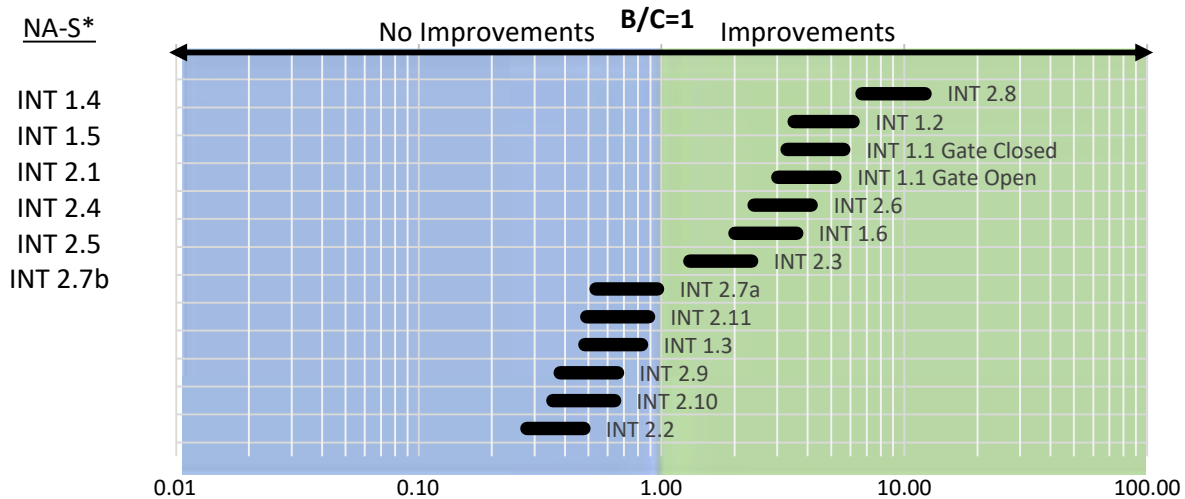
City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

Intersection		Existing Control	Evaluated Alternatives		Recommendation
INT 2.8	Lightfighter Dr at Second Ave				
INT 2.9	Mescal St a Yosemite St				
INT 2.10	San Pablo Ave at GJM Blvd				
INT 2.11	Hilby Ave at GJM Blvd				

BENEFIT-COST RATIO SUMMARY

As an initial screening, the existing intersection control types for each intersection were compared to a respective, preferred alternative. Below is a chart that depicts the Benefit-Cost (B/C) range for the preferred alternative (Improvements) as compared to the existing (No Improvements). B/C ranges in the blue section are less than 1.0, meaning the existing conditions provide a better return on investment (ROI) than the preferred improvements. B/C ranges in the green section are greater than 1.0, meaning the preferred improvements would provide a better ROI than the existing conditions. Note that the chart is in logarithmic scale.

Benefit-Cost Ratio Summary Chart



B/C = 1.0: A B/C Ratio of 1.0 is a neutral rating. This indicates that the ROI for a proposed intersection control type is equal to the existing intersection control type.

B/C < 1.0: A B/C Ratio less than 1.0 indicates that the existing intersection control will provide a better ROI when compared to the proposed intersection improvement.

B/C > 1.0: A B/C Ratio greater than 1.0 indicates that the proposed intersection control alternative provides a better ROI when compared to the existing intersection control type.

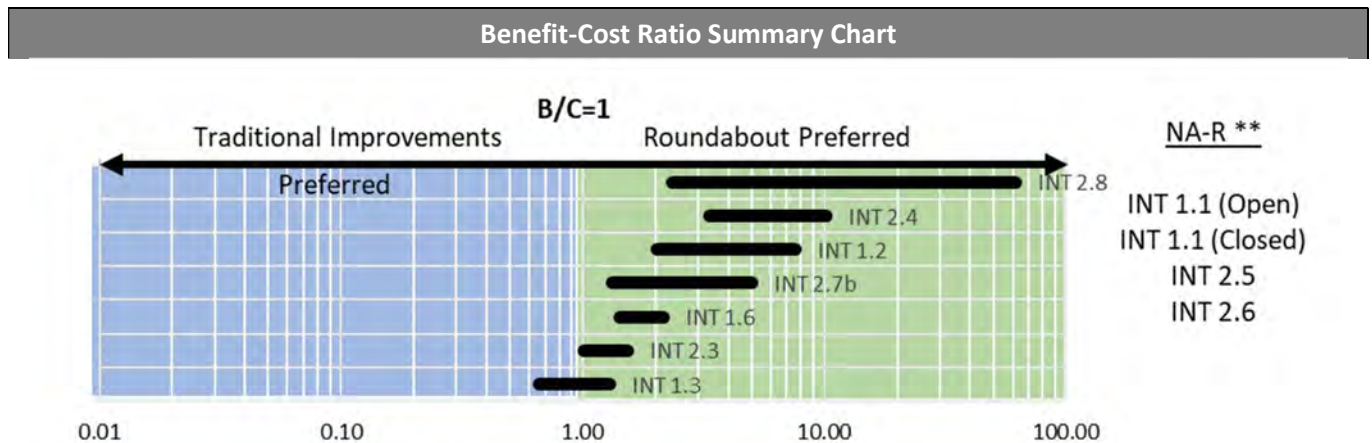
***NA-S:** Existing Stop-Control/Existing Signal Preferred. When the absolute value of the total safety and delay costs for the existing control is less than that of a proposed alternative, the resulting B/C ratio is negative, and the existing conditions is preferred.

City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

SECONDARY BENEFIT-COST RATIO SUMMARY

A secondary screening was completed for the intersections that had a B/C range greater than 1.0 and/or intersections where the city of Seaside are considering improvements. For example, the existing conditions at INT 2.5 (Broadway Avenue at Yosemite Street) are acceptable based on LOS (level of service), however a road diet is being considered along Broadway Avenue. In this case, a single-lane roundabout and a signal that will conform to the new cross section are compared in the secondary benefit-cost ratio summary. Similarly, the current conditions at INT 2.7b (on/off ramps at US 1/Lightfighter Avenue interchange) are acceptable, however the city of Seaside is considering adding a ramp terminal at the interchange. Because a ramp terminal is being considered, a roundabout and a signal are compared in the secondary benefit-cost ratio summary.

The bars in the graph below depict ranges of estimated B/C ratios of a proposed roundabout to a proposed traditional improvement (new traffic signal or signal improvements). Two intersections compared a proposed roundabout to the existing signalized conditions (1.6 and 2.3). INT 1.6 (Broadway Avenue at Fremont Boulevard) is currently signalized but does not meet LOS thresholds. To meet LOS thresholds, INT 1.6 would require additional lanes but there is not enough available space to add lanes. INT 2.3 (La Salle Avenue at Fremont Boulevard) is currently signalized and meets LOS thresholds; therefore, the existing configuration is adequate and will not require any improvements.



B/C = 1.0: A B/C Ratio of 1.0 is a neutral rating. This indicates that the ROI for a proposed roundabout is equal to the ROI for the proposed traditional improvements.

B/C < 1.0: A B/C Ratio less than 1.0 indicates that the proposed traditional improvements will provide a better ROI when compared to the proposed roundabout.

B/C > 1.0: A B/C Ratio greater than 1.0 indicates that the proposed roundabout provides a greater ROI when compared to the proposed traditional improvements.

****NA-R:** Roundabout Preferred. When the additional initial capital cost of a roundabout is less than the initial capital cost of the traditional improvements plus the added operations and Maintenance (O&M), and the roundabout provides greater benefits of the traditional improvements, a B/C ratio is negative, and the roundabout is preferred.

ROUNDAOBT BUDGET SUMMARY

The Intersection Improvement Budget is the budget to construct roundabout improvements while remaining cost effective compared to an alternative traditional intersection control. The Intersection Improvement Budget is determined by comparing the benefit and cost performance measures for an assumed B/C = 1.0.

City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

Roundabout Budget

$$= \sum \text{Benefits of a Roundabout} - (\text{Added O\&M cost of a Roundabout}) \\ + (\text{Initial Capital cost of Traditional Improvements})$$

Below is a summary of the Roundabout Budget for each intersection:



Legend

City of Seaside Intersection Control Evaluation Study

Overall Intersection Summary

Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Closed)

INTERSECTION CONTROL ALTERNATIVES

The three intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Traffic Signal
3. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Coe Ave at Paralta Ave is currently stop controlled. Design constraints at the intersection include:

- | | |
|--|---|
| 1. Bus Stop | 5. Single family residential |
| 2. Proximity to GJM Blvd | 6. Intersection pinch point/Existing gate |
| 3. Steep slope and grass-lined channel | 7. Water utilities facility |
| 4. Seaside Middle School | 8. Driveway |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.1	Coe Ave at Paralta Ave (Gate Closed)		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

INTERSECTION LIFE CYCLE COST CALCULATIONS

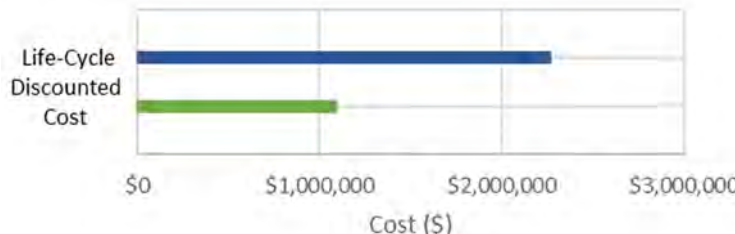
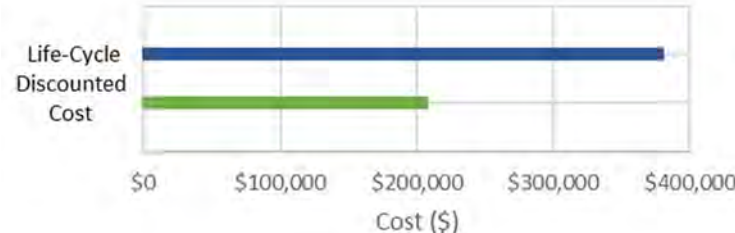
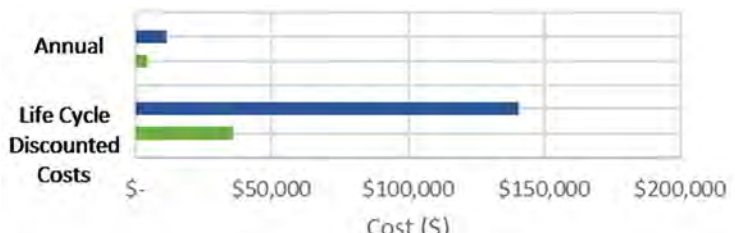
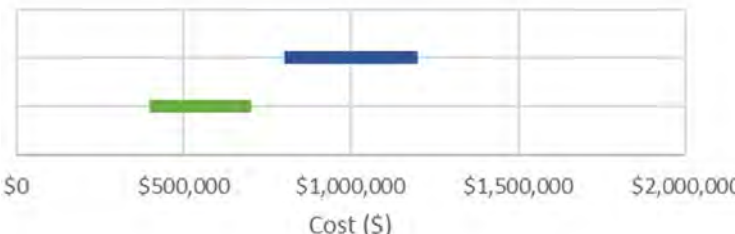
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (AWSC)	Signal	Roundabout	
Annual Cost of Collisions	\$49,194	\$158,990	\$75,394	
Discounted Life Cycle Cost of Collisions	\$690,154	\$2,230,498	\$1,057,720	
Delay				
	Existing (AWSC)	Signal	Roundabout	
Annual Quantity (hours)	11465	1293	698	
Annual Cost	\$ 133,974	\$ 17,085	\$ 9,243	
Total Discounted Life Cycle Cost	\$ 2,947,428	\$ 375,864	\$ 203,351	
O&M				
	Existing (AWSC)	Signal	Roundabout	
Annual O&M Costs	520	9,220	1,920	
Discounted Life Cycle O&M Costs	\$ 7,295	\$ 129,349	\$ 26,936	
Discounted Pavement Rehab Costs	\$ 8,418	\$ 10,750	\$ 10,750	
Total O&M Costs	\$ 15,713	\$ 140,099	\$ 37,686	
Initial Capital				
	Existing (AWSC)	Signal	Roundabout	
High Approximation	\$0	\$1,200,000	\$700,000	
Low Approximation	\$0	\$800,000	\$400,000	
Life Cycle Benefit Cost Ratio				
	Total Benefits (B)			
	Existing (AWSC)	Signal	Roundabout	
Safety	\$ -	\$ (1,540,344)	\$ (367,566)	
Delay	\$ -	\$ 2,571,565	\$ 2,744,077	
Total Benefits	\$ -	\$ 1,031,220	\$ 2,376,512	
	Total Costs (C)			
	Existing (AWSC)	Signal	Roundabout	
O&M	\$ -	\$ 124,386	\$ 21,973	
Budget	\$ -	\$ 1,000,000	\$ 550,000	
Total Costs	\$ -	\$ 1,124,386	\$ 571,973	
B/C Ratio Compared to Existing	NA*	0.92*	4.15	
*The roundabout has a B/C ratio greater than 1.0 which means it is preferred over the existing AWSC. The signal has a B/C ratio less than 1.0; however, the operations for the existing AWSC fail in the future and will require an improvement. The rest of this section will compare the proposed roundabout and traffic signal.				

City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Life-Cycle Discounted Cost (Safety)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~2,200,000</td></tr><tr><td>Roundabout</td><td>~1,200,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~2,200,000	Roundabout	~1,200,000			
Control Type	Cost (\$)										
Signal	~2,200,000										
Roundabout	~1,200,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Life-Cycle Discounted Cost (Delay)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~380,000</td></tr><tr><td>Roundabout</td><td>~220,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~380,000	Roundabout	~220,000			
Control Type	Cost (\$)										
Signal	~380,000										
Roundabout	~220,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Control Type</th><th>Annual Cost (\$)</th><th>Life Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td><td>~\$140,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$70,000</td></tr></tbody></table>	Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)	Signal	~\$10,000	~\$140,000	Roundabout	~\$5,000	~\$70,000
Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)									
Signal	~\$10,000	~\$140,000									
Roundabout	~\$5,000	~\$70,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~1,100,000</td></tr><tr><td>Roundabout</td><td>~600,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~1,100,000	Roundabout	~600,000			
Control Type	Cost (\$)										
Signal	~1,100,000										
Roundabout	~600,000										

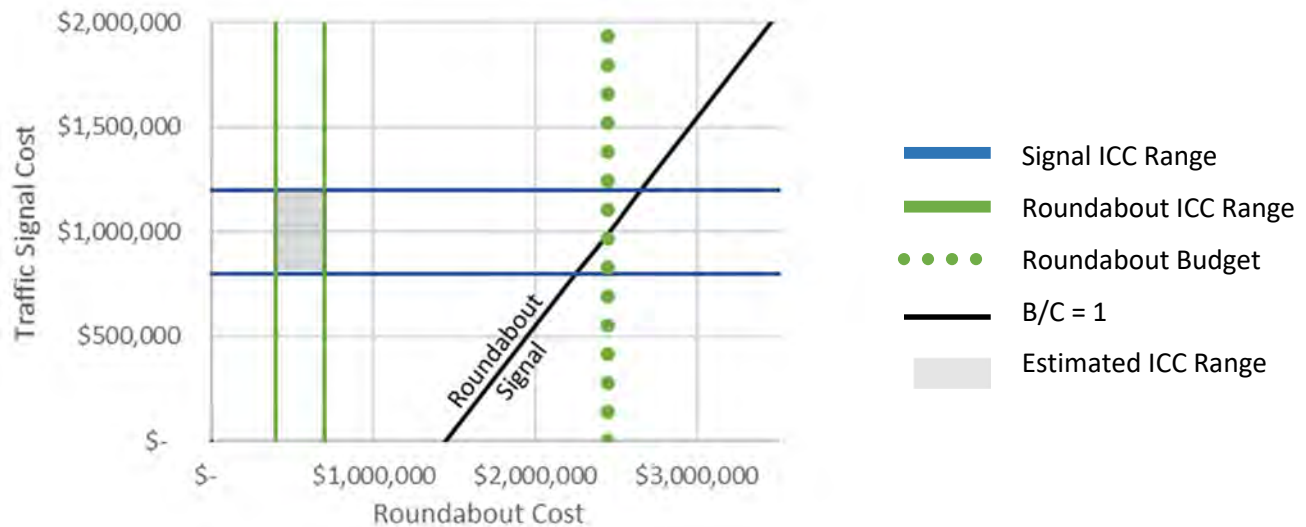
City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,200,000	\$ 400,000	\$ (800,000)			\$ (904,746)	NA-R
Low	\$ 800,000	\$ 700,000	\$ (100,000)	\$ (104,746)	\$ 1,345,291	\$ (204,746)	NA-R
Roundabout Budget	\$ 1,000,000	\$ 2,450,037	\$ 1,450,037			\$ 1,345,291	1.00

The high B/C target is calculated assuming the high-end of the signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the signal ICC and the high-end of the roundabout ICC.

Note that NA-R means the additional ICC of a roundabout is less than the ICC of the signal plus the added operations and Maintenance (O&M), and the roundabout provides greater benefits of the traditional improvements, a B/C ratio is negative, and the roundabout is preferred.



The table above summarizes the B/C analysis for Coe Avenue at Paralta Avenue (Gate Closed). The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is the is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

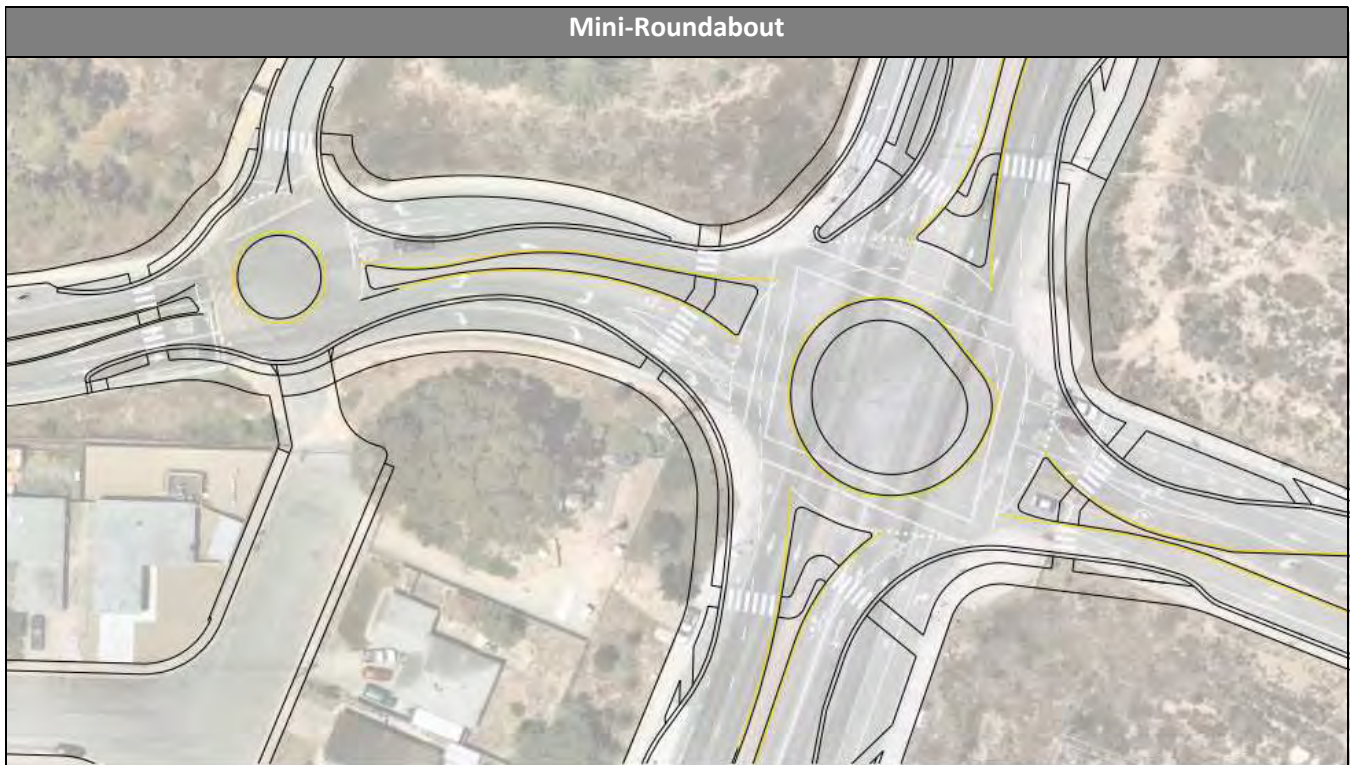
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is roundabout control.



City of Seaside Intersection Control Evaluation Study
Overall Intersection Summary

INTERSECTION CONTROL CONCEPT LAYOUTS



City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

INTERSECTION 1.1 – COE AVENUE AT PARALTA AVENUE (GATE OPEN)

INTERSECTION CONTROL ALTERNATIVES

The three intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Traffic Signal
3. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Coe Ave at Paralta Ave is currently stop controlled. Design constraints at the intersection include:

- | | |
|--|---|
| 1. Bus Stop | 5. Single family residential |
| 2. Proximity to GJM Blvd | 6. Intersection pinch point/Existing gate |
| 3. Steep slope and grass-lined channel | 7. Water utilities facility |
| 4. Seaside Middle School | 8. Driveway |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.1	Coe Ave at Paralta Ave (Gate Open)		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

INTERSECTION LIFE CYCLE COST CALCULATIONS

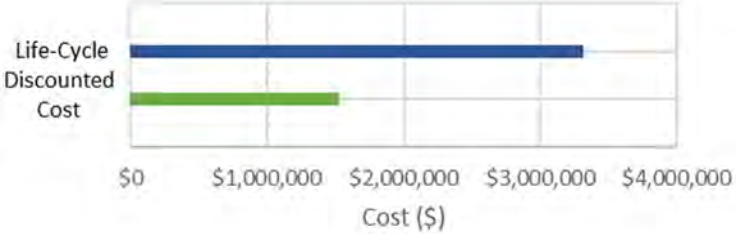
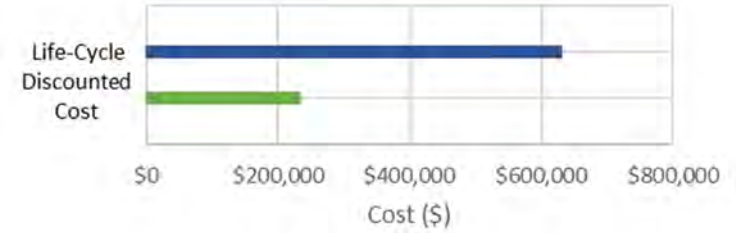
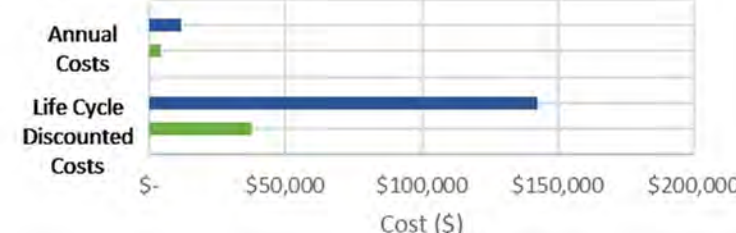
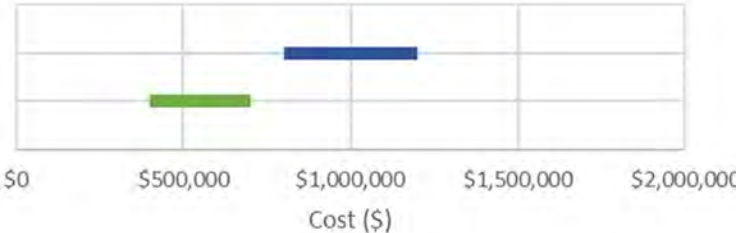
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (AWSC)		Signal	Roundabout
Annual Cost of Collisions	\$ 50,118	\$	233,222	\$ 105,097
Discounted Life Cycle Cost of Collisions	\$ 703,118	\$	3,271,902	\$ 1,474,427
Delay				
	Existing (AWSC)		Signal	Roundabout
Annual Quantity (hours)	12,166		2,136	768
Annual Cost	\$ 143,363	\$	28,243	\$ 10,188
Total Discounted Life Cycle Cost	\$ 3,153,980	\$	621,343	\$ 224,131
O&M				
	Existing (AWSC)		Signal	Roundabout
Annual O&M Costs	520		9,220	1,920
Discounted Life Cycle O&M Costs	\$ 7,295	\$	129,349	\$ 26,936
Discounted Pavement Rehab Costs	\$ 10,750	\$	10,750	\$ 8,418
Total O&M Costs	\$ 18,046	\$	140,099	\$ 35,354
Initial Capital				
	Existing (AWSC)		Signal	Roundabout
High Approximation	\$ 0	\$	1,200,000	\$ 700,000
Low Approximation	\$ 0	\$	800,000	\$ 400,000
Life Cycle Benefit-Cost Ratio				
Total Benefits (B)				
	Existing (AWSC)		Signal	Roundabout
Safety	\$ -	\$	(2,568,784)	\$ (771,309)
Delay	\$ -	\$	2,532,637	\$ 2,929,849
Total Benefits	\$ -	\$	(36,147)	\$ 2,158,540
Total Costs (C)				
	Existing (AWSC)		Signal	Roundabout
O&M	\$ -	\$	122,054	\$ 17,308
Budget	\$ -	\$	1,000,000	\$ 550,000
Total Costs	\$ -	\$	1,122,054	\$ 567,308
B/C Ratio Compared to Existing	NA*		NA-S*	3.80
*The roundabout has a B/C ratio greater than 1.0 which means it is preferred over the existing AWSC. The signal provides less benefits than the existing AWSC, which makes it NA-S (existing is preferred); however, the operations for the existing AWSC fail in the future and will require an improvement. The rest of this section will compare the proposed roundabout and traffic signal.				

City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation
Benefits		
Safety Safety measures the societal cost associated with the predicted number and severity of collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 Life-Cycle Discounted Cost Cost (\$)
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 Life-Cycle Discounted Cost Cost (\$)
Costs		
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 Annual Costs Life Cycle Discounted Costs Cost (\$)
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 Cost (\$)

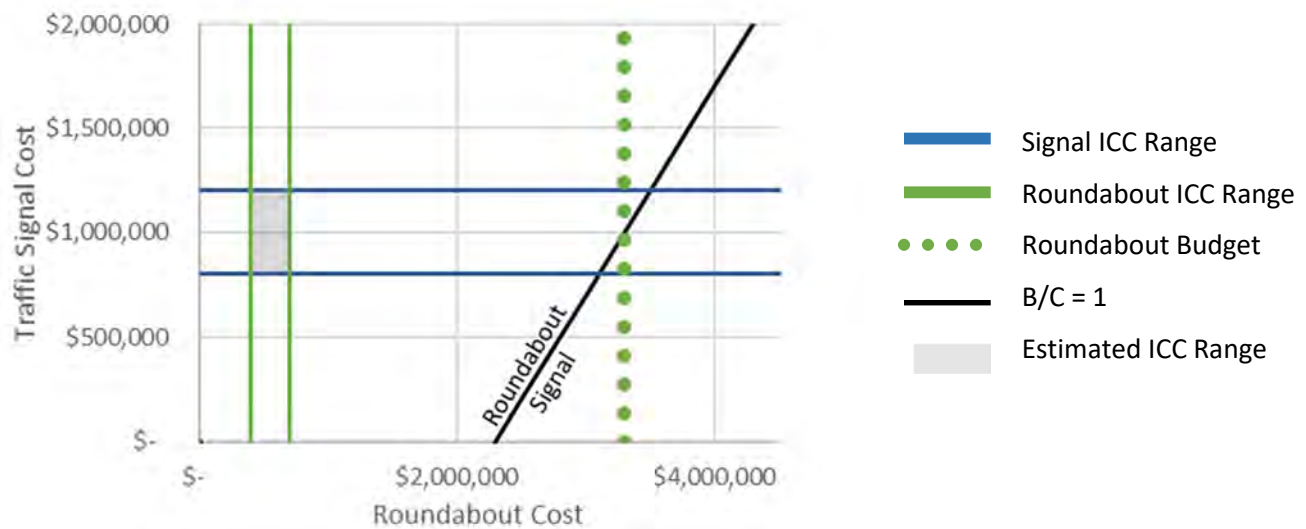
City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,200,000	\$ 400,000	\$ (800,000)			\$ (904,746)	NA-R
Low	\$ 800,000	\$ 700,000	\$ (100,000)	\$ (104,746)	\$ 2,194,687	\$ (204,746)	NA-R
Roundabout Budget	\$ 1,000,000	\$ 3,299,433	\$ 2,299,433			\$ 2,194,687	1.00

The high B/C target is calculated assuming the high-end of the signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the signal ICC and the high-end of the roundabout ICC.

Note that NA-R means the additional ICC of a roundabout is less than the ICC of the signal plus the added operations and Maintenance (O&M), and the roundabout provides greater benefits of the traditional improvements, a B/C ratio is negative, and the roundabout is preferred.



The table above summarizes the B/C analysis for Coe Avenue at Paralta Avenue (Gate Open). The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is the is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

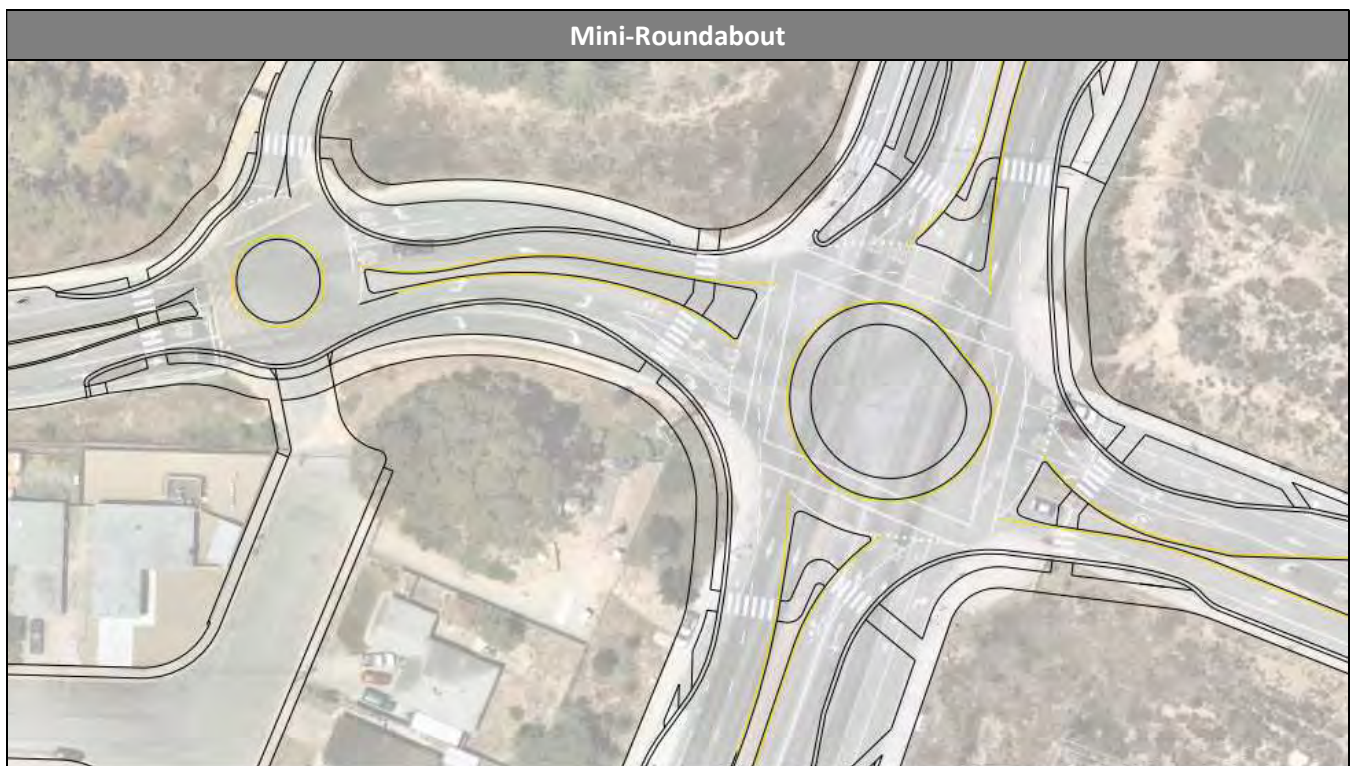
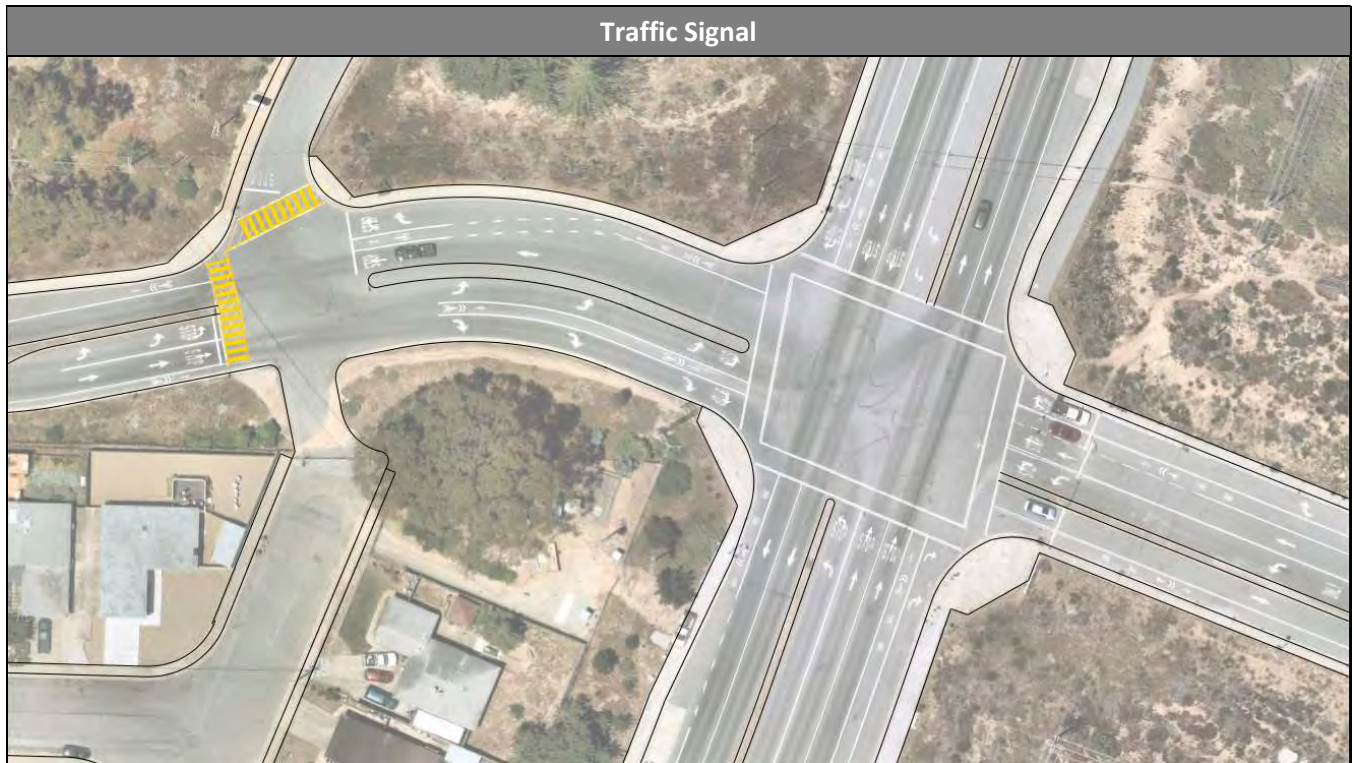
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is roundabout control.



City of Seaside Intersection Control Evaluation Study
Intersection 1.1 – Coe Avenue at Paralta Avenue (Gate Open)

INTERSECTION CONTROL CONCEPT LAYOUTS



City of Seaside Intersection Control Evaluation Study
Intersection 1.2 – Coe Avenue at General Jim Moore Boulevard

INTERSECTION 1.2 – COE AVENUE AT GENERAL JIM MOORE BOULEVARD

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Traffic Signal
3. Multi-lane Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Coe Ave at General Jim Moore Blvd is currently controlled by signals. Design constraints at the intersection include:

1. Proximity to Paralta Ave
2. Steep grade
3. Water utilities facility
4. Seaside Middle School
5. Telephone pole



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.2	Coe Ave at GJM Blvd		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 1.2 – Coe Avenue at General Jim Moore Boulevard

INTERSECTION LIFE CYCLE COST CALCULATIONS

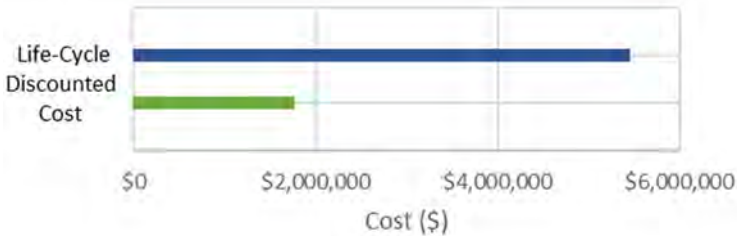
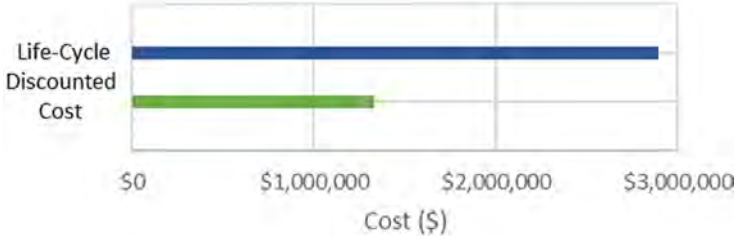
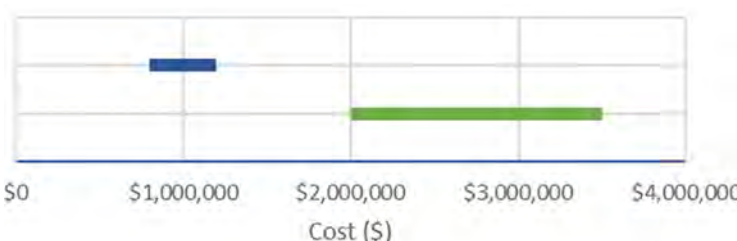
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (AWSC)	Signal	Roundabout	
Annual Cost of Collisions	\$ 136,942	\$ 383,835	\$ 120,828	
Discounted Life Cycle Cost of Collisions	\$ 1,921,182	\$ 5,384,886	\$ 1,695,115	
Delay				
	Existing (AWSC)	Signal	Roundabout	
Annual Quantity (hours)	52564	10400	4843	
Annual Cost	\$ 609,740	\$ 129,777	\$ 58,768	
Total Discounted Life Cycle Cost	\$ 13,414,274	\$ 2,855,089	\$ 1,292,895	
O&M				
	Existing (AWSC)	Signal	Roundabout	
Annual O&M Costs	520	9,220	1,920	
Discounted Life Cycle O&M Costs	\$ 7,295	\$ 129,349	\$ 26,936	
Discounted Pavement Rehab Costs	\$ 80,628	\$ 80,628	\$ 72,515	
Total O&M Costs	\$ 87,924	\$ 209,977	\$ 99,451	
Initial Capital				
	Existing (AWSC)	Signal	Roundabout	
High Approximation	\$ 0	\$ 1,200,000	\$ 3,500,000	
Low Approximation	\$ 0	\$ 800,000	\$ 2,000,000	
Life Cycle Benefit-Cost Ratio				
	Total Benefits (B)			
	Existing (AWSC)	Signal	Roundabout	
Safety	\$ -	\$ (3,463,704)	\$ 226,068	
Delay	\$ -	\$ 10,559,185	\$ 12,121,379	
Total Benefits	\$ -	\$ 7,095,481	\$ 12,347,447	
	Total Costs (C)			
	Existing (AWSC)	Signal	Roundabout	
O&M	\$ -	\$ 122,054	\$ 11,527	
Budget	\$ -	\$ 1,000,000	\$ 2,750,000	
Total Costs	\$ -	\$ 1,122,054	\$ 2,761,527	
B/C Ratio Compared to Existing	NA	6.32	4.47	
Both the roundabout and traffic signal have a B/C ratio greater than 1.0 which means they are preferred over the existing AWSC. The rest of this section will compare the proposed roundabout and traffic signal.				

City of Seaside Intersection Control Evaluation Study
Intersection 1.2 – Coe Avenue at General Jim Moore Boulevard

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

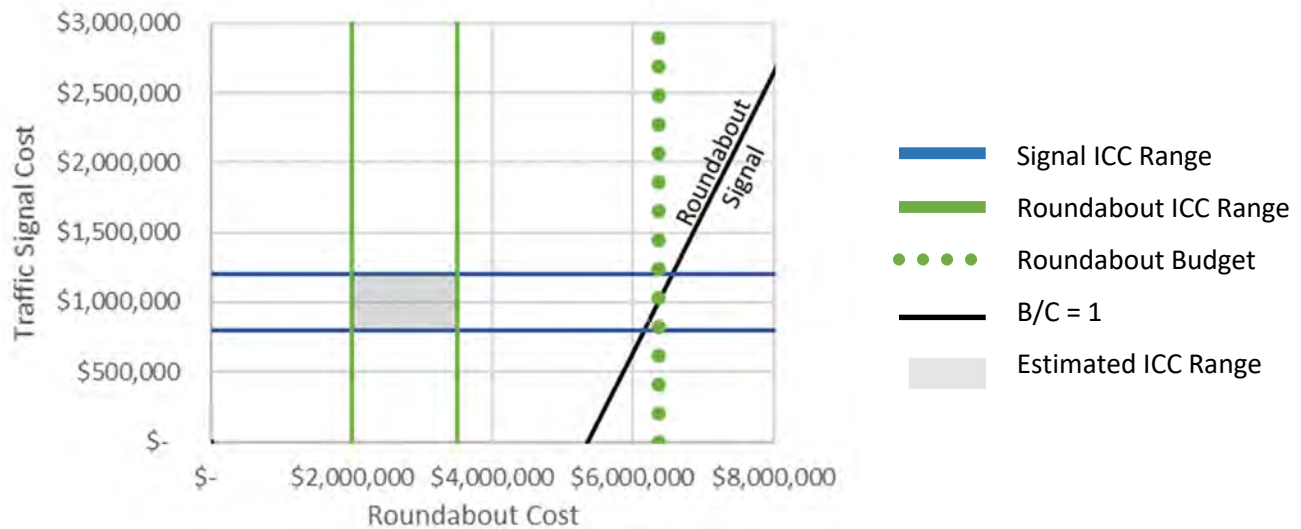
Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><thead><tr><th>Control Type</th><th>Life-Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$5,500,000</td></tr><tr><td>Roundabout</td><td>~\$1,800,000</td></tr></tbody></table>	Control Type	Life-Cycle Discounted Cost (\$)	Signal	~\$5,500,000	Roundabout	~\$1,800,000			
Control Type	Life-Cycle Discounted Cost (\$)										
Signal	~\$5,500,000										
Roundabout	~\$1,800,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><thead><tr><th>Control Type</th><th>Life-Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$2,800,000</td></tr><tr><td>Roundabout</td><td>~\$1,200,000</td></tr></tbody></table>	Control Type	Life-Cycle Discounted Cost (\$)	Signal	~\$2,800,000	Roundabout	~\$1,200,000			
Control Type	Life-Cycle Discounted Cost (\$)										
Signal	~\$2,800,000										
Roundabout	~\$1,200,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><thead><tr><th>Control Type</th><th>Annual Costs (\$)</th><th>Life Cycle Discounted Costs (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td><td>~\$220,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$100,000</td></tr></tbody></table>	Control Type	Annual Costs (\$)	Life Cycle Discounted Costs (\$)	Signal	~\$10,000	~\$220,000	Roundabout	~\$5,000	~\$100,000
Control Type	Annual Costs (\$)	Life Cycle Discounted Costs (\$)									
Signal	~\$10,000	~\$220,000									
Roundabout	~\$5,000	~\$100,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><thead><tr><th>Control Type</th><th>Initial Capital Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$1,000,000</td></tr><tr><td>Roundabout</td><td>~\$3,500,000</td></tr></tbody></table>	Control Type	Initial Capital Cost (\$)	Signal	~\$1,000,000	Roundabout	~\$3,500,000			
Control Type	Initial Capital Cost (\$)										
Signal	~\$1,000,000										
Roundabout	~\$3,500,000										

City of Seaside Intersection Control Evaluation Study
Intersection 1.2 – Coe Avenue at General Jim Moore Boulevard

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,200,000	\$ 2,000,000	\$ 800,000			\$ 689,879	7.61
Low	\$ 800,000	\$ 3,500,000	\$ 2,700,000	\$ (110,121)	\$ 5,251,965	\$ 2,589,879	2.03
Roundabout Budget	\$ 1,000,000	\$ 6,362,086	\$ 5,362,086			\$ 5,251,965	1.00

The high B/C target is calculated assuming the high-end of the signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the signal ICC and the high-end of the roundabout ICC.



The table above summarizes the B/C analysis for Coe Avenue at General Jim Moore Boulevard. The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is the is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

PREFERRED INTERSECTION ALTERNATIVE

Both a traffic signal and a roundabout are preferred to the existing AWSC based on the B/C ratios. A roundabout is preferred over a traffic signal with a B/C range of 2.03 to 7.61.



INTERSECTION 1.3 – BROADWAY AVENUE AT GENERAL JIM MOORE BOULEVARD

INTERSECTION CONTROL ALTERNATIVES

The three intersection control types analyzed include:

1. Existing Signal
2. Signal with additional EBR lane
3. Multi-lane Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Broadway Ave at General Jim Moore Blvd is currently controlled by signals. Design constraints at the intersection include:

1. Steep uphill grade



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.3	Broadway Ave at GJM Blvd		
	Urban Environment Focus		
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs		
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 1.3 – Broadway Avenue at General Jim Moore Boulevard

INTERSECTION LIFE CYCLE COST CALCULATIONS

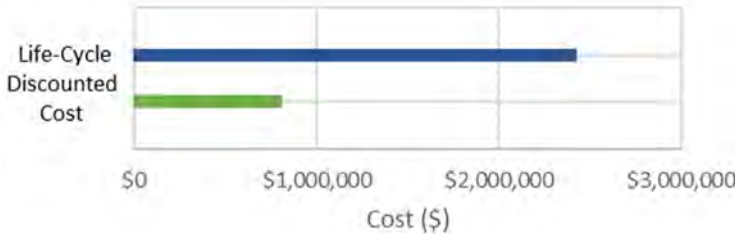
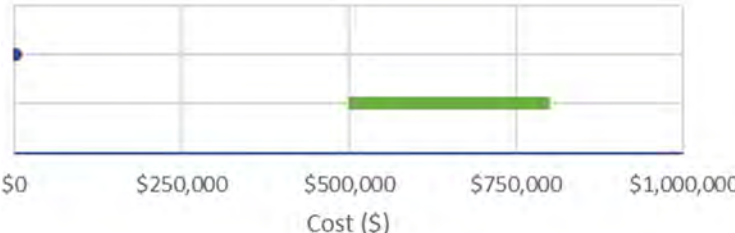
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (Signal)	Proposed Signal	Roundabout	
Annual Cost of Collisions	\$ 170,534	\$ 166,408	\$ 55,099	
Discounted Life Cycle Cost of Collisions	\$ 2,392,446	\$ 2,334,570	\$ 772,989	
Delay				
	Existing (Signal)	Proposed Signal	Roundabout	
Annual Quantity (hours)	5,682	5,819	5,319	
Annual Cost	\$ 70,036	\$ 71,254	\$ 64,308	
Total Discounted Life Cycle Cost	\$ 1,540,790	\$ 1,567,599	\$ 1,414,770	
O&M				
	Existing (Signal)	Proposed Signal	Roundabout	
Annual O&M Costs	9,220	9,220	1,920	
Discounted Life Cycle O&M Costs	\$ 129,349	\$ 129,349	\$ 26,936	
Discounted Pavement Rehab Costs	\$ 80,628	\$ 80,628	\$ 72,515	
Total O&M Costs	\$ 209,977	\$ 209,977	\$ 99,451	
Initial Capital				
	Existing (Signal)	Proposed Signal	Roundabout	
High Approximation	\$ 0	\$ 200,000	\$ 3,500,000	
Low Approximation	\$ 0	\$ 100,000	\$ 2,000,000	
Life Cycle Benefit-Cost Ratio				
	Total Benefits (B)			
	Existing (Signal)	Proposed Signal	Roundabout	
Safety	\$ -	\$ 57,876	\$ 1,619,457	
Delay	\$ -	\$ (26,809)	\$ 126,020	
Total Benefits	\$ -	\$ 31,067	\$ 1,745,477	
	Total Costs (C)			
	Existing (Signal)	Proposed Signal	Roundabout	
O&M	\$ -	\$ -	\$ (110,526)	
Budget	\$ -	\$ 150,000	\$ 2,750,000	
Total Costs	\$ -	\$ 150,000	\$ 2,639,474	
B/C Ratio Compared to Existing	NA*	0.21	0.66*	
*Neither the proposed roundabout nor signal have a B/C ratio greater than 1.0 which means the existing signal is the preferred control. Operations for the existing control are acceptable in the future. The rest of this section will compare the existing signal and the proposed roundabout.				

City of Seaside Intersection Control Evaluation Study
Intersection 1.3 – Broadway Avenue at General Jim Moore Boulevard

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

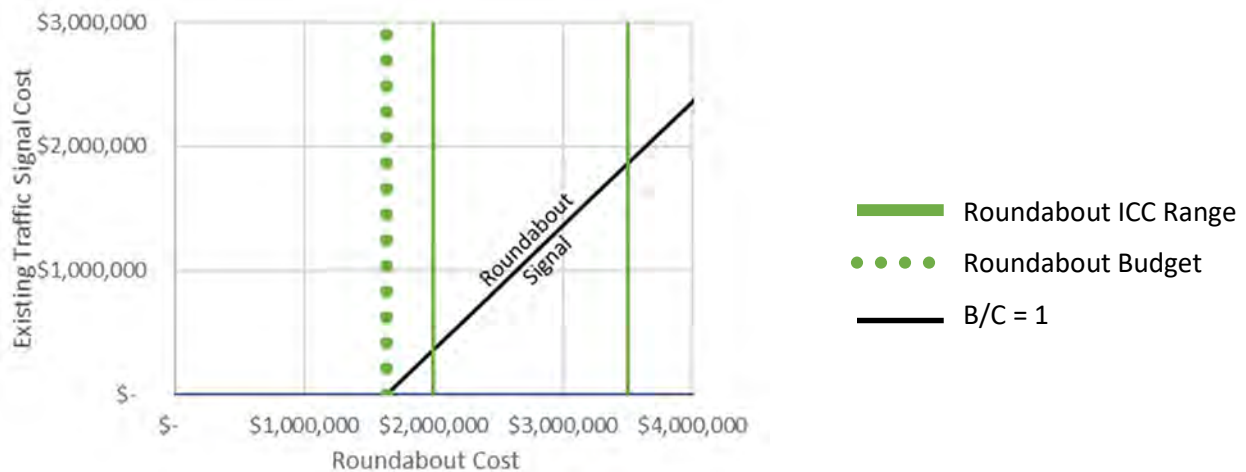
Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Life-Cycle Discounted Cost (Safety)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$2,200,000</td></tr><tr><td>Roundabout</td><td>~\$800,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$2,200,000	Roundabout	~\$800,000			
Control Type	Cost (\$)										
Signal	~\$2,200,000										
Roundabout	~\$800,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Life-Cycle Discounted Cost (Delay)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$1,600,000</td></tr><tr><td>Roundabout</td><td>~\$1,400,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$1,600,000	Roundabout	~\$1,400,000			
Control Type	Cost (\$)										
Signal	~\$1,600,000										
Roundabout	~\$1,400,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Control Type</th><th>Annual Costs (\$)</th><th>Life Cycle Discounted Costs (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td><td>~\$210,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$100,000</td></tr></tbody></table>	Control Type	Annual Costs (\$)	Life Cycle Discounted Costs (\$)	Signal	~\$10,000	~\$210,000	Roundabout	~\$5,000	~\$100,000
Control Type	Annual Costs (\$)	Life Cycle Discounted Costs (\$)									
Signal	~\$10,000	~\$210,000									
Roundabout	~\$5,000	~\$100,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td></tr><tr><td>Roundabout</td><td>~\$750,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$10,000	Roundabout	~\$750,000			
Control Type	Cost (\$)										
Signal	~\$10,000										
Roundabout	~\$750,000										

City of Seaside Intersection Control Evaluation Study
Intersection 1.3 – Broadway Avenue at General Jim Moore Boulevard

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 2,000,000	\$ 2,000,000	\$ 110,526	\$ 1,745,477	\$ 2,110,526	0.83
Low	\$ -	\$ 3,500,000	\$ 3,500,000			\$ 3,610,526	0.48
Roundabout Budget	\$ -	\$ 1,634,951	\$ 1,634,951			\$ 1,745,477	1.00

The high B/C target is calculated assuming the high-end of the existing traffic signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the traffic existing signal initial capital costs and the high-end of the roundabout initial capital costs.



The table above summarizes the B/C analysis for Broadway Avenue at General Jim Moore Boulevard. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing signal has the greater ROI.

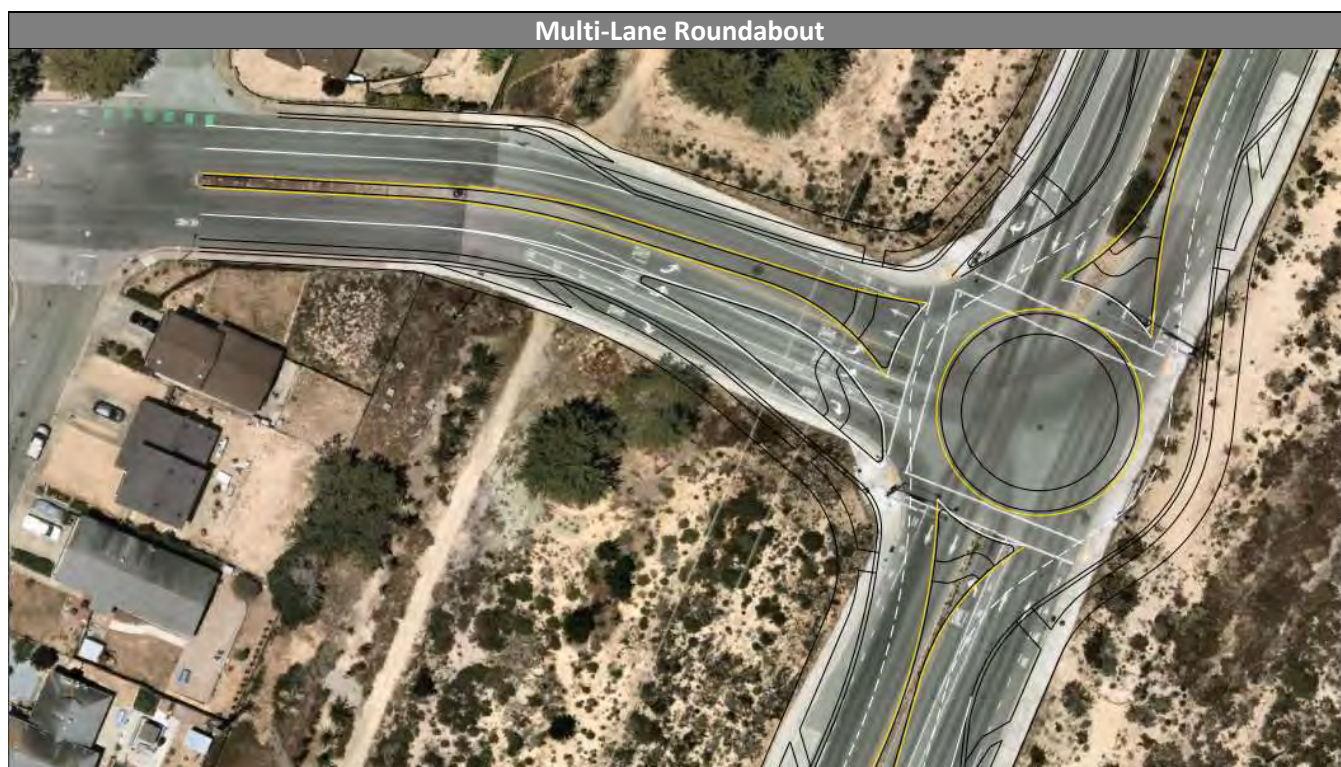


PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio is the existing traffic signal. A road diet along Broadway Avenue consisting of roundabouts at several intersections is being proposed. If roundabouts are constructed along Broadway Avenue a roundabout should also be considered at this intersection to maintain continuity.

City of Seaside Intersection Control Evaluation Study
Intersection 1.3 – Broadway Avenue at General Jim Moore Boulevard

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 1.4 – LA SALLE AVENUE AT YOSEMITE STREET

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Mini Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

La Salle Ave at Yosemite St is currently controlled by signals. Design constraints at the intersection include:

1. Offset intersection
2. Single family residential
3. Ord Terrace Elementary School
4. Driveway



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.4	La Salle Ave at Yosemite St		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses		X
	Minimize ROW Acquisition to Limit Initial Costs	X	X
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 1.4 – La Salle Avenue at Yosemite Street

INTERSECTION LIFE CYCLE COST CALCULATIONS

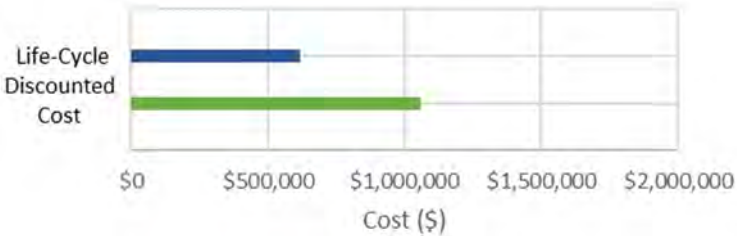
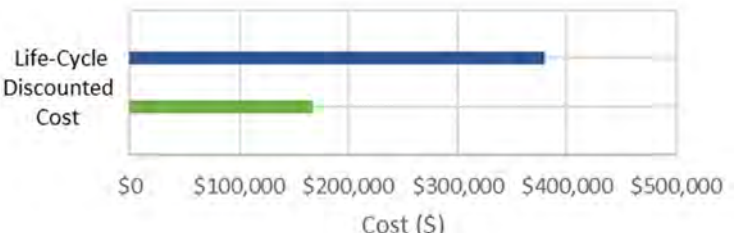
Operations under the existing control meet the LOS threshold and signal warrants are not met at La Salle Avenue at Yosemite Street. The rest of this section will compare the existing AWSC and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)			
Safety			
	Existing (AWSC)	Roundabout	
Annual Cost of Collisions	\$ 42,440	\$	73,835
Discounted Life Cycle Cost of Collisions	\$ 595,392	\$	1,035,847
Delay			
	Existing (AWSC)	Roundabout	
Annual Quantity (hours)	1,267		548
Annual Cost	\$ 16,993	\$	7,335
Total Discounted Life Cycle Cost	\$ 373,852	\$	161,364
O&M			
	Existing (AWSC)	Roundabout	
Annual O&M Costs	520		1,920
Discounted Life Cycle O&M Costs	\$ 7,295	\$	26,936
Discounted Pavement Rehab Costs	\$ 10,750	\$	8,418
Total O&M Costs	\$ 18,046	\$	35,354
Initial Capital			
	Existing (AWSC)	Roundabout	
High Approximation	\$ 0	\$	800,000
Low Approximation	\$ 0	\$	500,000

City of Seaside Intersection Control Evaluation Study
Intersection 1.4 – La Salle Avenue at Yosemite Street

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for stop control and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation						
Benefits								
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Safety: Life-Cycle Discounted Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$1,000,000</td></tr><tr><td>Stop Control</td><td>~\$600,000</td></tr></tbody></table>	Control Type	Cost (\$)	Roundabout	~\$1,000,000	Stop Control	~\$600,000
Control Type	Cost (\$)							
Roundabout	~\$1,000,000							
Stop Control	~\$600,000							
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Delay: Life-Cycle Discounted Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$180,000</td></tr><tr><td>Stop Control</td><td>~\$380,000</td></tr></tbody></table>	Control Type	Cost (\$)	Roundabout	~\$180,000	Stop Control	~\$380,000
Control Type	Cost (\$)							
Roundabout	~\$180,000							
Stop Control	~\$380,000							
Costs								
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance: Life Cycle Discounted Costs</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$45,000</td></tr><tr><td>Stop Control</td><td>~\$35,000</td></tr></tbody></table>	Control Type	Cost (\$)	Roundabout	~\$45,000	Stop Control	~\$35,000
Control Type	Cost (\$)							
Roundabout	~\$45,000							
Stop Control	~\$35,000							
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$750,000</td></tr><tr><td>Stop Control</td><td>~\$10,000</td></tr></tbody></table>	Control Type	Cost (\$)	Roundabout	~\$750,000	Stop Control	~\$10,000
Control Type	Cost (\$)							
Roundabout	~\$750,000							
Stop Control	~\$10,000							

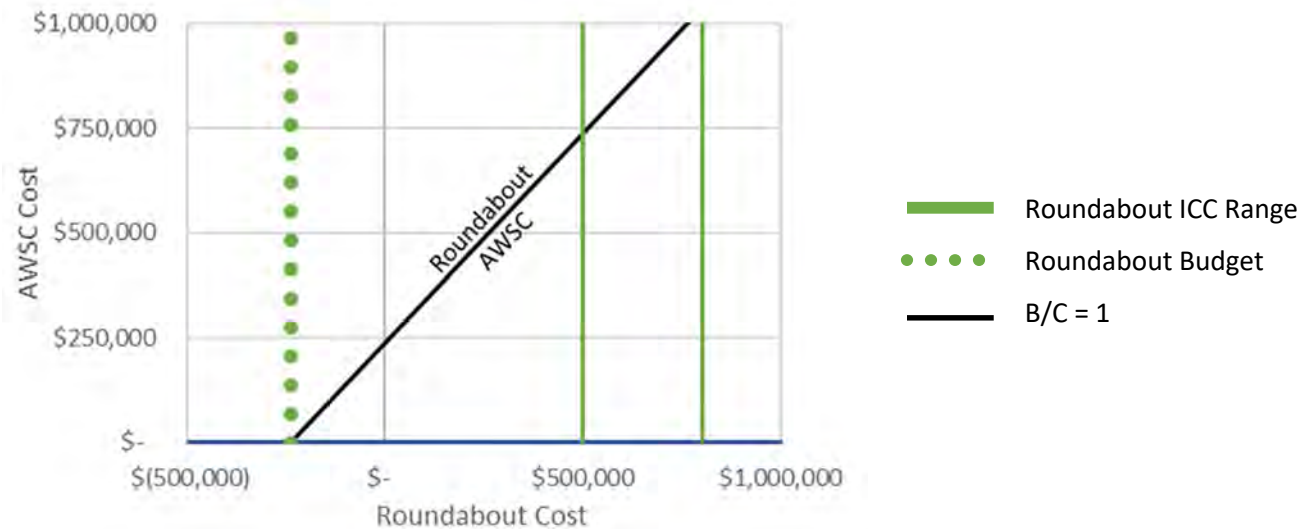
City of Seaside Intersection Control Evaluation Study
Intersection 1.4 – La Salle Avenue at Yosemite Street

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	AWSC (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 500,000	\$ 500,000	\$ 10,615	\$ (227,966)	\$ 510,615	NA-S
Low	\$ -	\$ 800,000	\$ 800,000			\$ 810,615	NA-S
Roundabout Budget	\$ -	\$ (238,581)	\$ (238,581)			\$ (227,966)	1.00

The high B/C target is calculated assuming the high-end of the existing AWSC ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the existing AWSC ICC and the high-end of the roundabout ICC.

Note that NA-S means the absolute value of the total safety and delay costs for the existing AWSC is less than that of a roundabout, the resulting B/C ratio is negative, and the existing conditions control is preferred.



The table above summarizes the B/C analysis for La Salle Avenue at Yosemite Street. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing AWSC has the greater ROI.

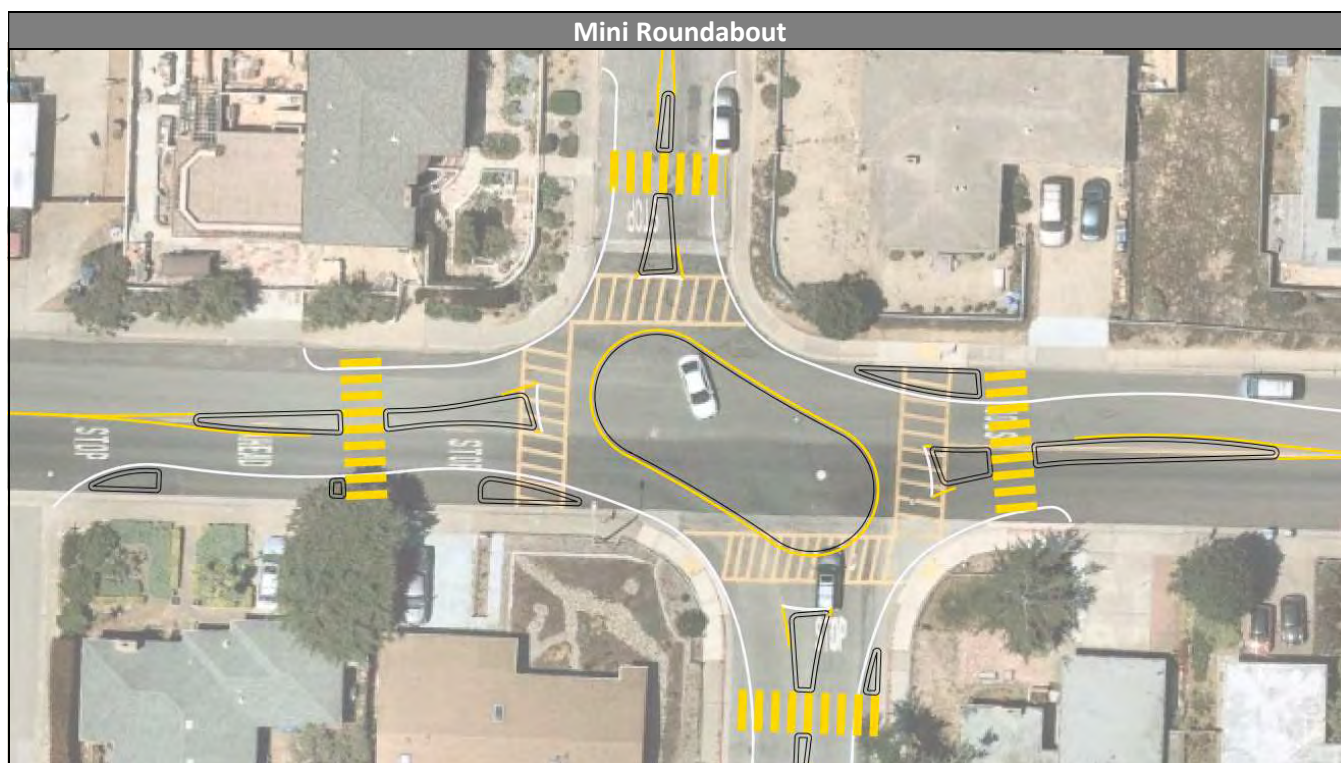
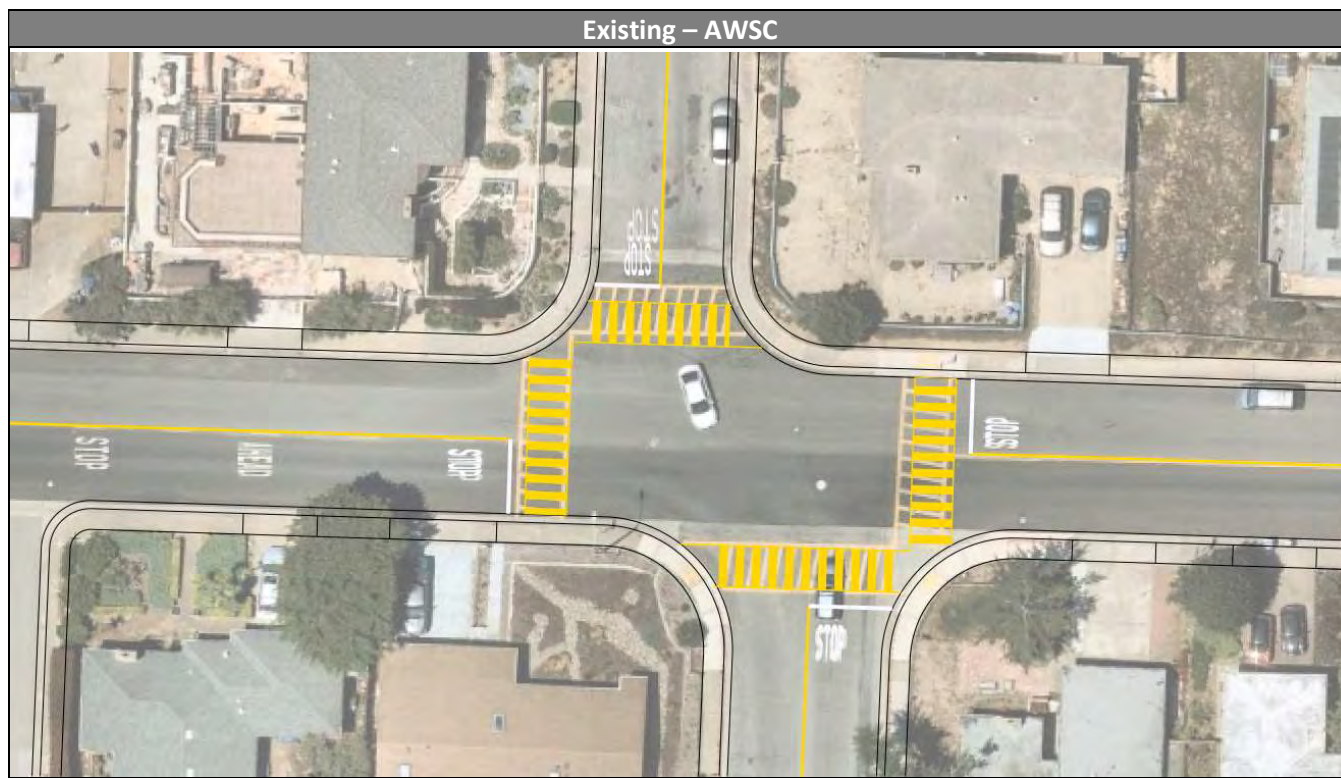
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is all-way stop control.



City of Seaside Intersection Control Evaluation Study
Intersection 1.4 – La Salle Avenue at Yosemite Street

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 1.5 – SONOMA AVENUE AT YOSEMITE STREET

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Sonoma Ave at Yosemite St is currently controlled by signals. Design constraints at the intersection include:

- | | |
|-------------------------------|---------------------------|
| 1. Highland Elementary School | 4. Multi-family residence |
| 2. Single family residential | 5. Driveway |
| 3. Bus Stop | |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.5	Sonoma Ave at Yosemite St		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses		X
	Minimize ROW Acquisition to Limit Initial Costs	X	X
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 1.5 – Sonoma Avenue at Yosemite Street

INTERSECTION LIFE CYCLE COST CALCULATIONS

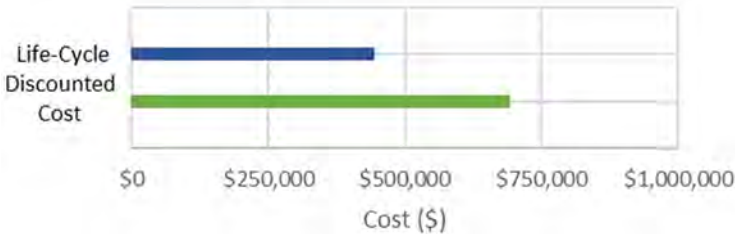
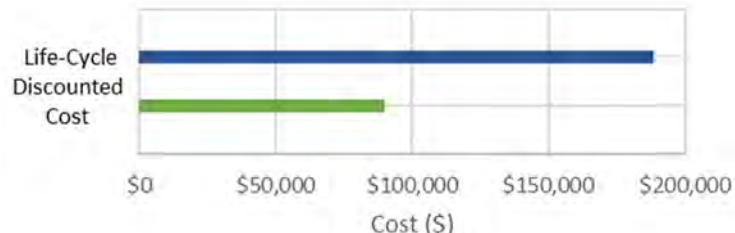
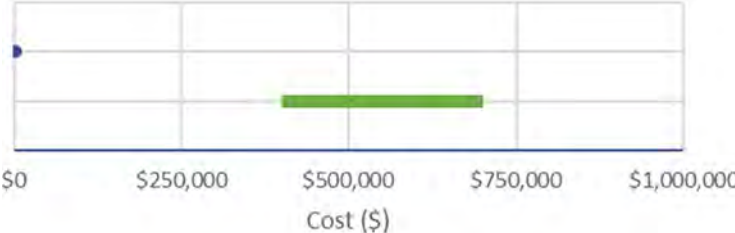
Operations under the existing control meet the LOS threshold and signal warrants are not met at Sonoma Avenue at Yosemite Street. The rest of this section will compare the existing AWSC and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)			
Safety			
	Existing (AWSC)	Roundabout	
Annual Cost of Collisions	\$ 30,850	\$	48,615
Discounted Life Cycle Cost of Collisions	\$ 432,805	\$	682,033
Delay			
	Existing (AWSC)	Roundabout	
Annual Quantity (hours)	636		299
Annual Cost	\$ 8,456	\$	3,973
Total Discounted Life Cycle Cost	\$ 186,038	\$	87,400
O&M			
	Existing (AWSC)	Roundabout	
Annual O&M Costs	520		1,920
Discounted Life Cycle O&M Costs	\$ 7,295	\$	26,936
Discounted Pavement Rehab Costs	\$ 10,750	\$	8,418
Total O&M Costs	\$ 18,046	\$	35,354
Initial Capital			
	Existing (AWSC)	Roundabout	
High Approximation	\$ 0	\$	700,000
Low Approximation	\$ 0	\$	400,000

City of Seaside Intersection Control Evaluation Study
Intersection 1.5 – Sonoma Avenue at Yosemite Street

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for stop control and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation						
Benefits								
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Safety: Life-Cycle Discounted Cost (\$)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$700,000</td></tr><tr><td>Stop Control</td><td>~\$450,000</td></tr></tbody></table>	Control Type	Cost (\$)	Roundabout	~\$700,000	Stop Control	~\$450,000
Control Type	Cost (\$)							
Roundabout	~\$700,000							
Stop Control	~\$450,000							
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Delay: Life-Cycle Discounted Cost (\$)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$90,000</td></tr><tr><td>Stop Control</td><td>~\$190,000</td></tr></tbody></table>	Control Type	Cost (\$)	Roundabout	~\$90,000	Stop Control	~\$190,000
Control Type	Cost (\$)							
Roundabout	~\$90,000							
Stop Control	~\$190,000							
Costs								
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance: Life Cycle Discounted Costs (\$)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$35,000</td></tr><tr><td>Stop Control</td><td>~\$18,000</td></tr></tbody></table>	Control Type	Cost (\$)	Roundabout	~\$35,000	Stop Control	~\$18,000
Control Type	Cost (\$)							
Roundabout	~\$35,000							
Stop Control	~\$18,000							
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost (\$)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$700,000</td></tr><tr><td>Stop Control</td><td>~\$10,000</td></tr></tbody></table>	Control Type	Cost (\$)	Roundabout	~\$700,000	Stop Control	~\$10,000
Control Type	Cost (\$)							
Roundabout	~\$700,000							
Stop Control	~\$10,000							

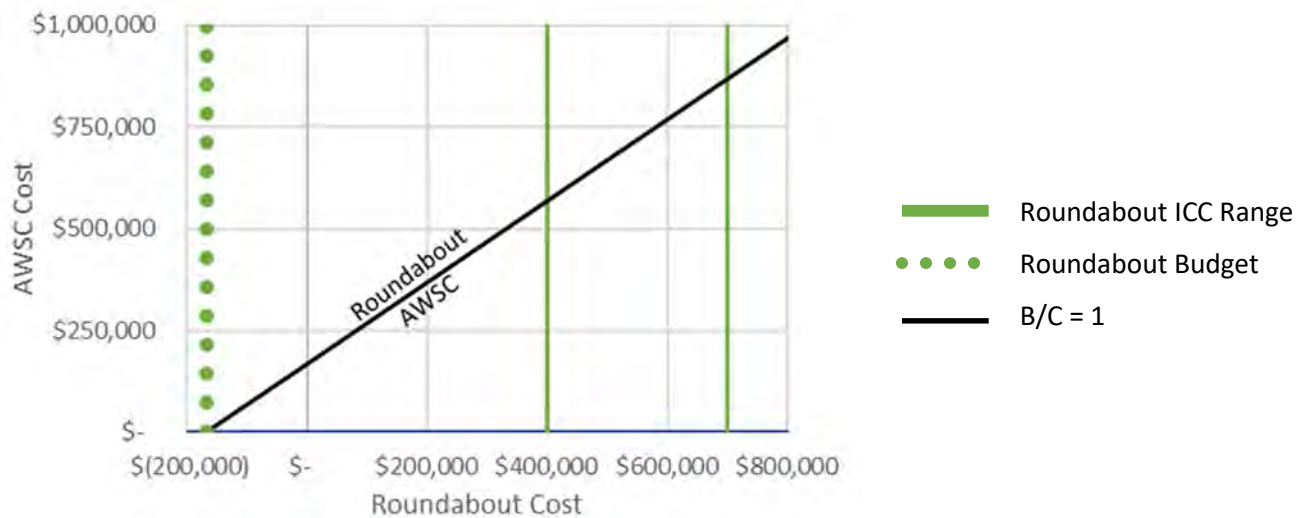
City of Seaside Intersection Control Evaluation Study
Intersection 1.5 – Sonoma Avenue at Yosemite Street

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	AWSC (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 400,000	\$ 400,000			\$ 417,308	NA-S
Low	\$ -	\$ 700,000	\$ 700,000	\$ 17,308	\$ (150,590)	\$ 717,308	NA-S
Roundabout Budget	\$ -	\$ (167,898)	\$ (167,898)			\$ (150,590)	1.00

The high B/C target is calculated assuming the high-end of the existing AWSC ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the existing AWSC ICC and the high-end of the roundabout ICC.

Note that NA-S means the absolute value of the total safety and delay costs for the existing AWSC is less than that of a roundabout, the resulting B/C ratio is negative, and the existing conditions control is preferred.



The table above summarizes the B/C analysis for Sonoma Avenue at Yosemite Street. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing AWSC has the greater ROI.

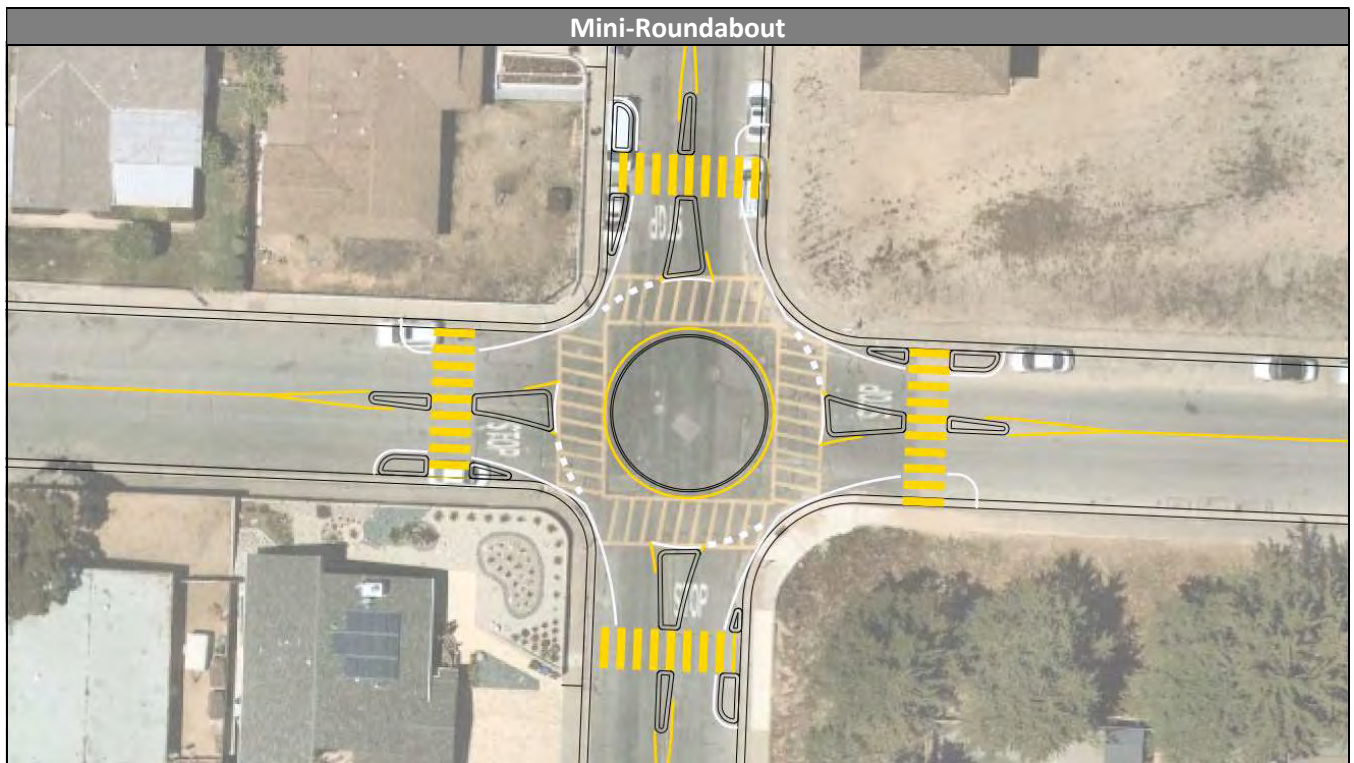
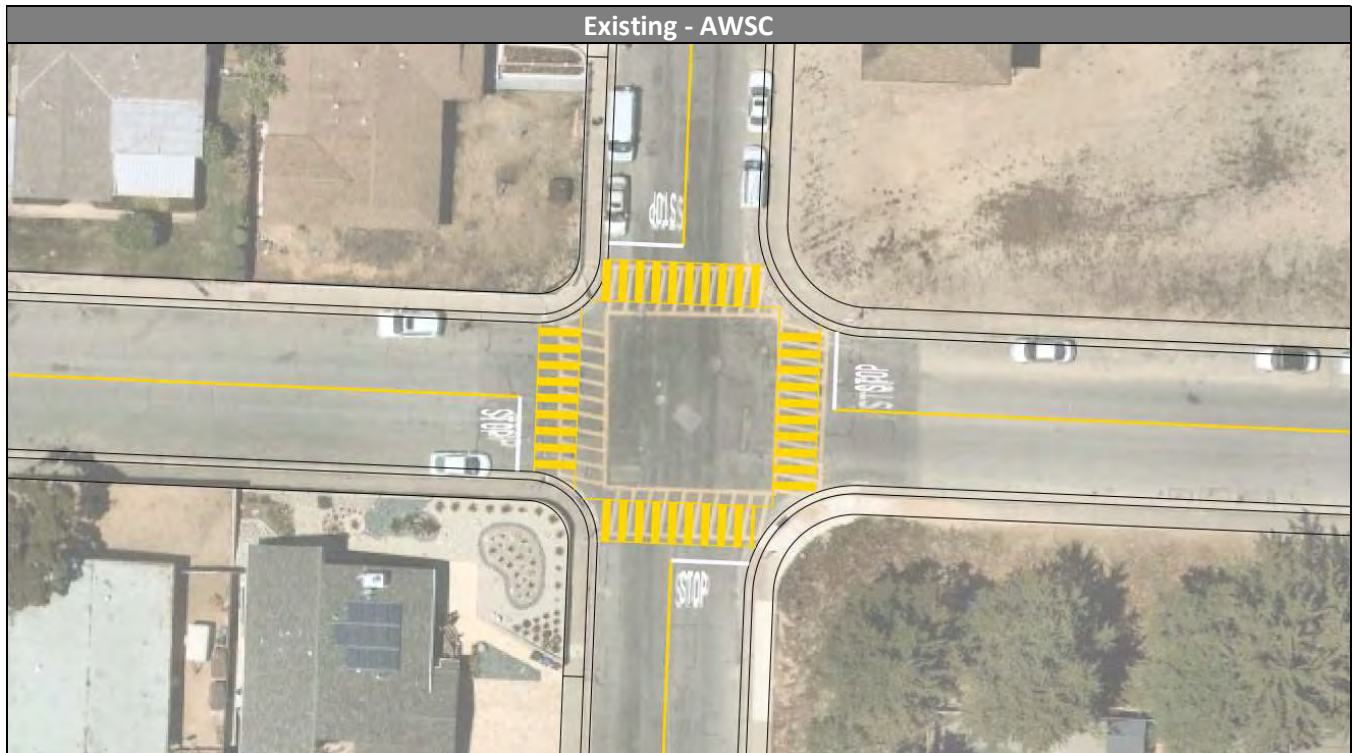
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is the existing all-way stop control.



City of Seaside Intersection Control Evaluation Study
Intersection 1.5 – Sonoma Avenue at Yosemite Street

INTERSECTION CONTROL CONCEPT LAYOUTS



INT 1.6 – BROADWAY AVE AT FREMONT BLVD

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing Signal
2. Multi-lane Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Broadway Ave at Fremont Blvd is currently controlled by signals. Design constraints at the intersection include:

- | | |
|------------------|----------------------------------|
| 1. Gas Station | 5. Retail Store |
| 2. Bus Stop | 6. Proximity to Santa Barbara St |
| 3. Grocery Store | 7. Skewed Intersection Geometry |
| 4. Restaurant | 8. Driveways |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 1.6	Broadway Ave at Fremont Blvd		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses		X
	Minimize ROW Acquisition to Limit Initial Costs		
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
INT 1.6 – Broadway Ave at Fremont Blvd

INTERSECTION LIFE CYCLE COST CALCULATIONS

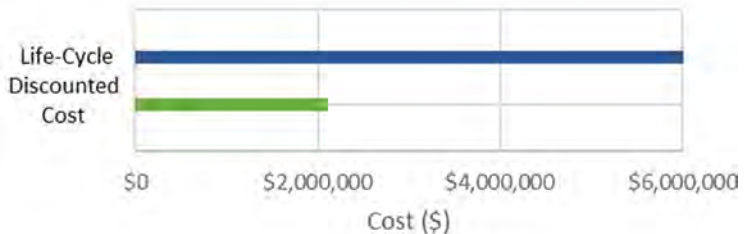
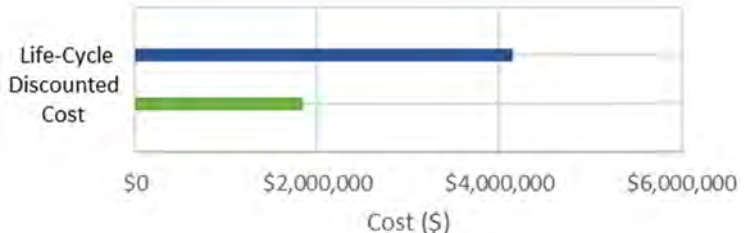
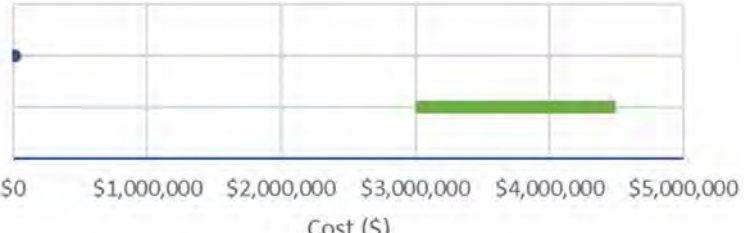
The current configuration does not provide enough capacity to meet the LOS threshold. To meet the LOS threshold an additional NB thru lane and WB left lane would need to be installed. Large amount of right-of-way would need to be acquired to construct the proposed signal. Due to no available room to add additional lanes and unforeseeable right-of-way acquisition costs the rest of this section will compare the existing signal and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)			
Safety			
	Existing (Signal)	Signal (Add. Lanes)	Roundabout
Annual Cost of Collisions	\$ 424,613	\$ 465,433	\$ 145,601
Discounted Life Cycle Cost of Collisions	\$ 5,956,959	\$ 6,529,639	\$ 2,042,657
Delay			
	Existing (Signal)	Signal (Add. Lanes)	Roundabout
Annual Quantity (hours)	14,472	11,478	6,274
Annual Cost	\$ 185,245	\$ 150,068	\$ 80,576
Total Discounted Life Cycle Cost	\$ 4,075,388	\$ 3,301,500	\$ 1,772,676
O&M			
	Existing (Signal)	Signal (Add. Lanes)	Roundabout
Annual O&M Costs	9,220	9,220	1,920
Discounted Life Cycle O&M Costs	\$ 129,349	\$ 129,349	\$ 26,936
Discounted Pavement Rehab Costs	\$ 65,923	\$ 638,942	\$ 56,034
Total O&M Costs	\$ 195,271	\$ 768,291	\$ 82,970
Initial Capital			
	Existing (Signal)	Signal (Add. Lanes)	Roundabout
High Approximation	\$ -	\$ -	\$ 4,000,000
Low Approximation	\$ -	\$ -	\$ 2,500,000

City of Seaside Intersection Control Evaluation Study
INT 1.6 – Broadway Ave at Fremont Blvd

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Life-Cycle Discounted Cost (Safety)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$5,500,000</td></tr><tr><td>Roundabout</td><td>~\$2,200,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$5,500,000	Roundabout	~\$2,200,000			
Control Type	Cost (\$)										
Signal	~\$5,500,000										
Roundabout	~\$2,200,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Life-Cycle Discounted Cost (Delay)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$4,200,000</td></tr><tr><td>Roundabout</td><td>~\$2,000,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$4,200,000	Roundabout	~\$2,000,000			
Control Type	Cost (\$)										
Signal	~\$4,200,000										
Roundabout	~\$2,000,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Control Type</th><th>Annual Cost (\$)</th><th>Life Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td><td>~\$200,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$100,000</td></tr></tbody></table>	Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)	Signal	~\$10,000	~\$200,000	Roundabout	~\$5,000	~\$100,000
Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)									
Signal	~\$10,000	~\$200,000									
Roundabout	~\$5,000	~\$100,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$50,000</td></tr><tr><td>Roundabout</td><td>~\$4,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$50,000	Roundabout	~\$4,500,000			
Control Type	Cost (\$)										
Signal	~\$50,000										
Roundabout	~\$4,500,000										

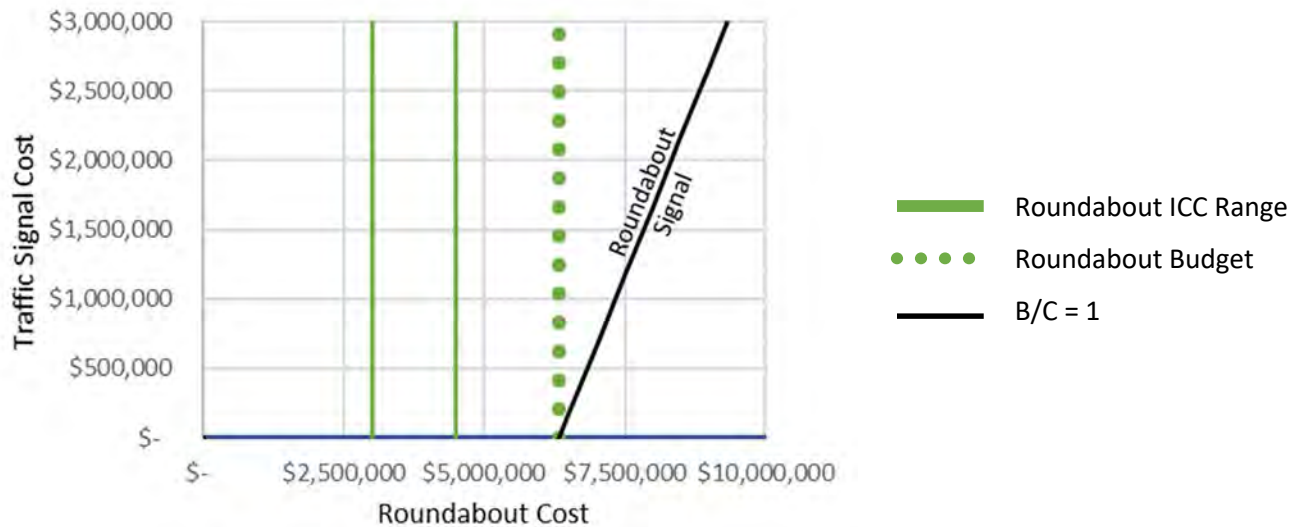
City of Seaside Intersection Control Evaluation Study
INT 1.6 – Broadway Ave at Fremont Blvd

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 3,000,000	\$ 3,000,000			\$ 2,887,699	2.15*
Low	\$ -	\$ 4,500,000	\$ 4,500,000	\$ (112,301)	\$ 6,217,014	\$ 4,387,699	1.42*
Roundabout Budget	\$ -	\$ 6,329,315	\$ 6,329,315			\$ 6,217,014	1.00

*The proposed roundabout will require right-of-way acquisition to be constructed.

The high B/C target is calculated assuming the high-end of the existing traffic signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the existing traffic signal ICC and the high-end of the roundabout ICC.



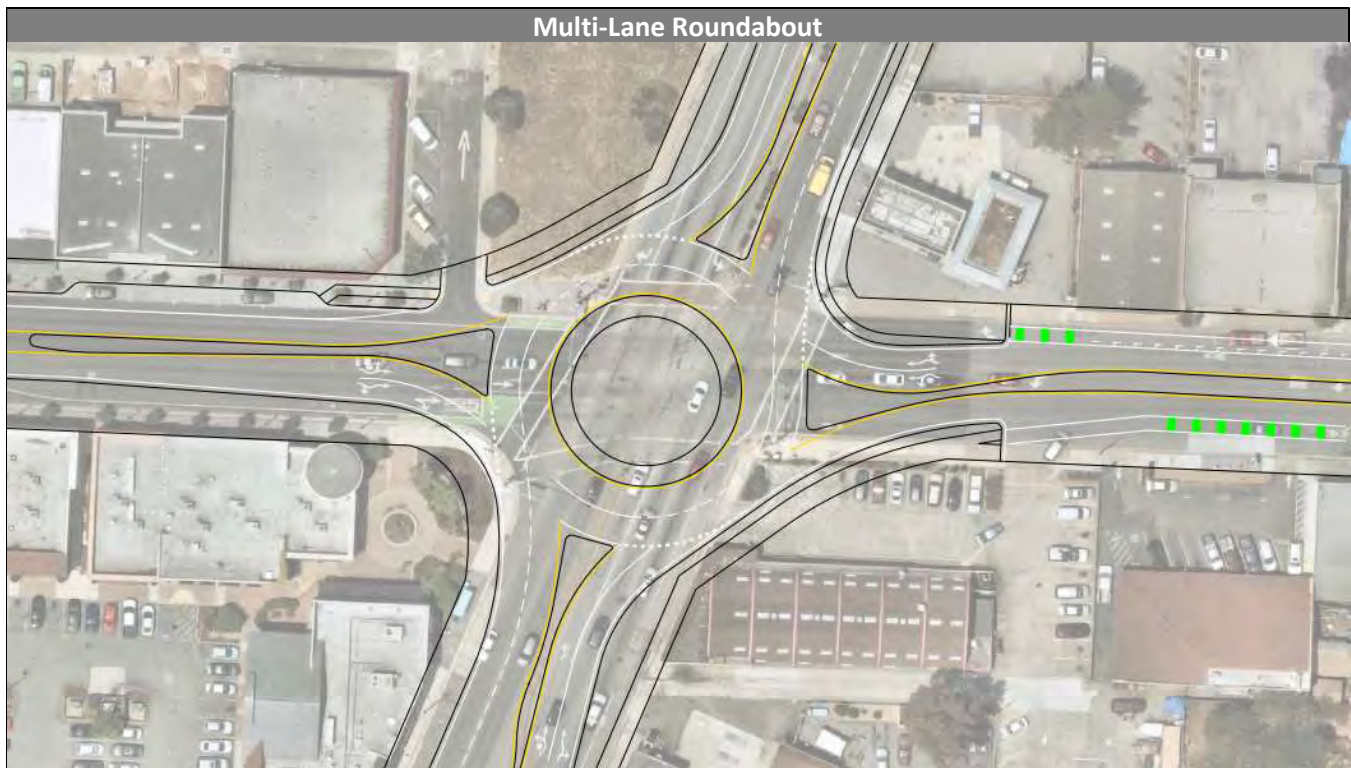
The table above summarizes the B/C analysis for Broadway Avenue at Fremont Boulevard. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing signal has the greater ROI.



PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is roundabout control, however due to the necessity of right-of-way acquisition, the existing signal may provide a greater return on investment. While additional costs for right-of-way was included in the ICC based on current parcel values, right-of-way costs are uncertain and can significantly drive up the cost of construction. There is also a grocery store in the south-east corner of this intersection that will potentially lose several parking spaces. Further refinement of the roundabout concept could reduce right-of-way impacts but will not eliminate them.

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.1 – ORD GROVE AVENUE AT NOCHE BUENA STREET

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

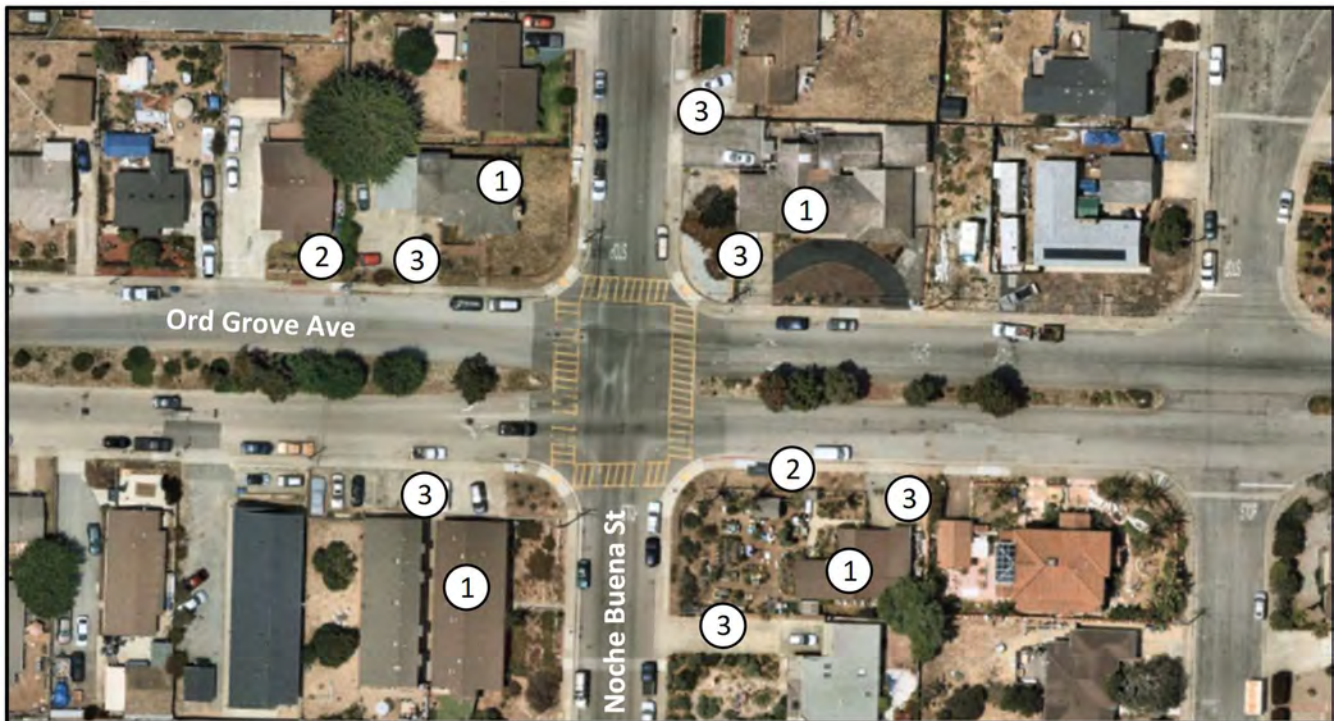
1. Existing AWSC (All-Way Stop-Control)
2. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Ord Grove Ave at Noche Buena St is currently controlled by signals. Design constraints at the intersection include:

1. Single family residential
2. Bus stop
3. Driveway



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.1	Ord Grove at Noche Buena St		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses		X
	Minimize ROW Acquisition to Limit Initial Costs	X	X
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.1 – Ord Grove Avenue at Noche Buena Street

INTERSECTION LIFE CYCLE COST CALCULATIONS

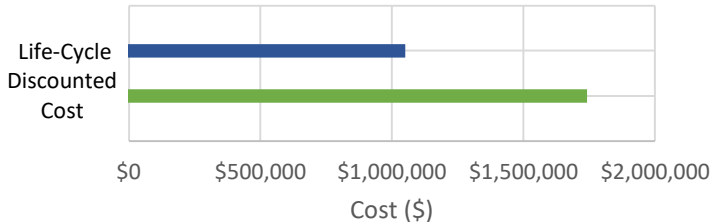
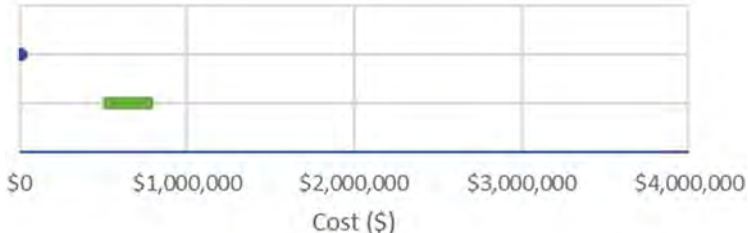
Operations under the existing control meet the LOS threshold and signal warrants are not met at Ord Grove Avenue at Noche Buena Street. The rest of this section will compare the existing AWSC and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)			
Safety			
	Existing (AWSC)	Roundabout	
Annual Cost of Collisions	\$ 73,037	\$	122,375
Discounted Life Cycle Cost of Collisions	\$ 1,024,647	\$	1,716,822
Delay			
	Existing (AWSC)	Roundabout	
Annual Quantity (hours)	2,335		1,059
Annual Cost	\$ 31,142	\$	14,077
Total Discounted Life Cycle Cost	\$ 685,116	\$	309,693
O&M			
	Existing (AWSC)	Roundabout	
Annual O&M Costs	520		1,920
Discounted Life Cycle O&M Costs	\$ 7,295	\$	26,936
Discounted Pavement Rehab Costs	\$ 10,750	\$	8,418
Total O&M Costs	\$ 18,046	\$	35,354
Initial Capital			
	Existing (AWSC)	Roundabout	
High Approximation	\$ 0	\$	800,000
Low Approximation	\$ 0	\$	500,000

City of Seaside Intersection Control Evaluation Study
Intersection 2.1 – Ord Grove Avenue at Noche Buena Street

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for stop control and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Safety: Life-Cycle Discounted Cost</caption><tr><th>Control Type</th><th>Cost (\$)</th></tr><tr><td>Roundabout</td><td>~\$1,750,000</td></tr><tr><td>Stop Control</td><td>~\$1,050,000</td></tr></table>	Control Type	Cost (\$)	Roundabout	~\$1,750,000	Stop Control	~\$1,050,000			
Control Type	Cost (\$)										
Roundabout	~\$1,750,000										
Stop Control	~\$1,050,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Delay: Life-Cycle Discounted Cost</caption><tr><th>Control Type</th><th>Cost (\$)</th></tr><tr><td>Roundabout</td><td>~\$320,000</td></tr><tr><td>Stop Control</td><td>~\$680,000</td></tr></table>	Control Type	Cost (\$)	Roundabout	~\$320,000	Stop Control	~\$680,000			
Control Type	Cost (\$)										
Roundabout	~\$320,000										
Stop Control	~\$680,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance: Annual and Life Cycle Discounted Costs</caption><tr><th>Control Type</th><th>Annual Cost (\$)</th><th>Life Cycle Discounted Cost (\$)</th></tr><tr><td>Roundabout</td><td>~\$1,000</td><td>~\$38,000</td></tr><tr><td>Stop Control</td><td>~\$1,000</td><td>~\$35,000</td></tr></table>	Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)	Roundabout	~\$1,000	~\$38,000	Stop Control	~\$1,000	~\$35,000
Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)									
Roundabout	~\$1,000	~\$38,000									
Stop Control	~\$1,000	~\$35,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><tr><th>Control Type</th><th>Cost (\$)</th></tr><tr><td>Roundabout</td><td>~\$800,000</td></tr><tr><td>Stop Control</td><td>~\$100,000</td></tr></table>	Control Type	Cost (\$)	Roundabout	~\$800,000	Stop Control	~\$100,000			
Control Type	Cost (\$)										
Roundabout	~\$800,000										
Stop Control	~\$100,000										

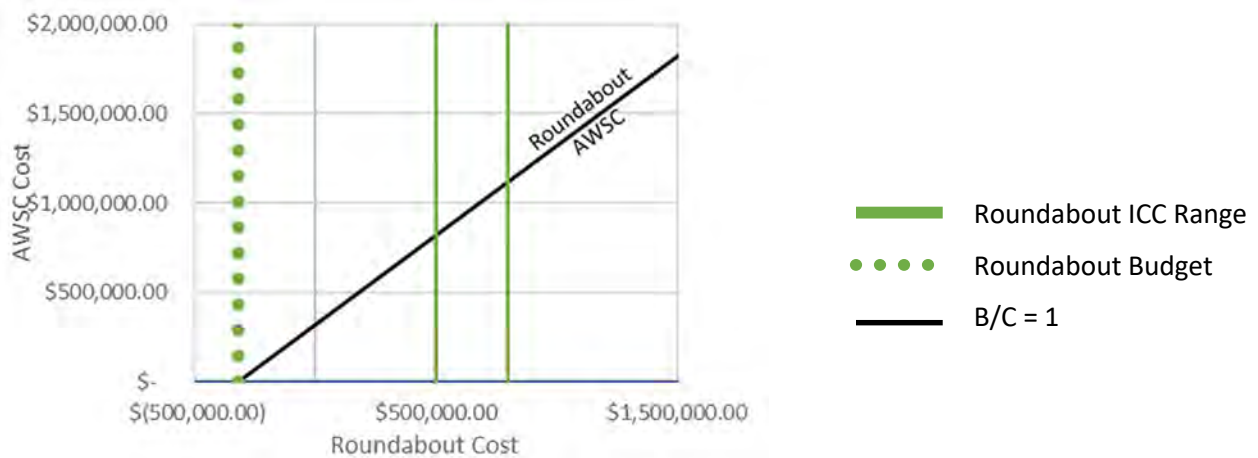
City of Seaside Intersection Control Evaluation Study
Intersection 2.1 – Ord Grove Avenue at Noche Buena Street

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	AWSC (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 500,000	\$ 500,000			\$ 502,501	NA-S
Low	\$ -	\$ 800,000	\$ 800,000	\$ 2,501	\$ (316,751)	\$ 802,501	NA-S
Roundabout Budget	\$ -	\$ (319,252)	\$ (319,252)			\$ (316,751)	1.00

The high B/C target is calculated assuming the high-end of the existing AWSC ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the existing AWSC ICC and the high-end of the roundabout ICC.

Note that NA-S means the absolute value of the total safety and delay costs for the existing AWSC is less than that of a roundabout, the resulting B/C ratio is negative, and the existing conditions control is preferred.



The table above summarizes the B/C analysis for Ord Grove Avenue at Noche Buena Street. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing AWSC has the greater ROI.

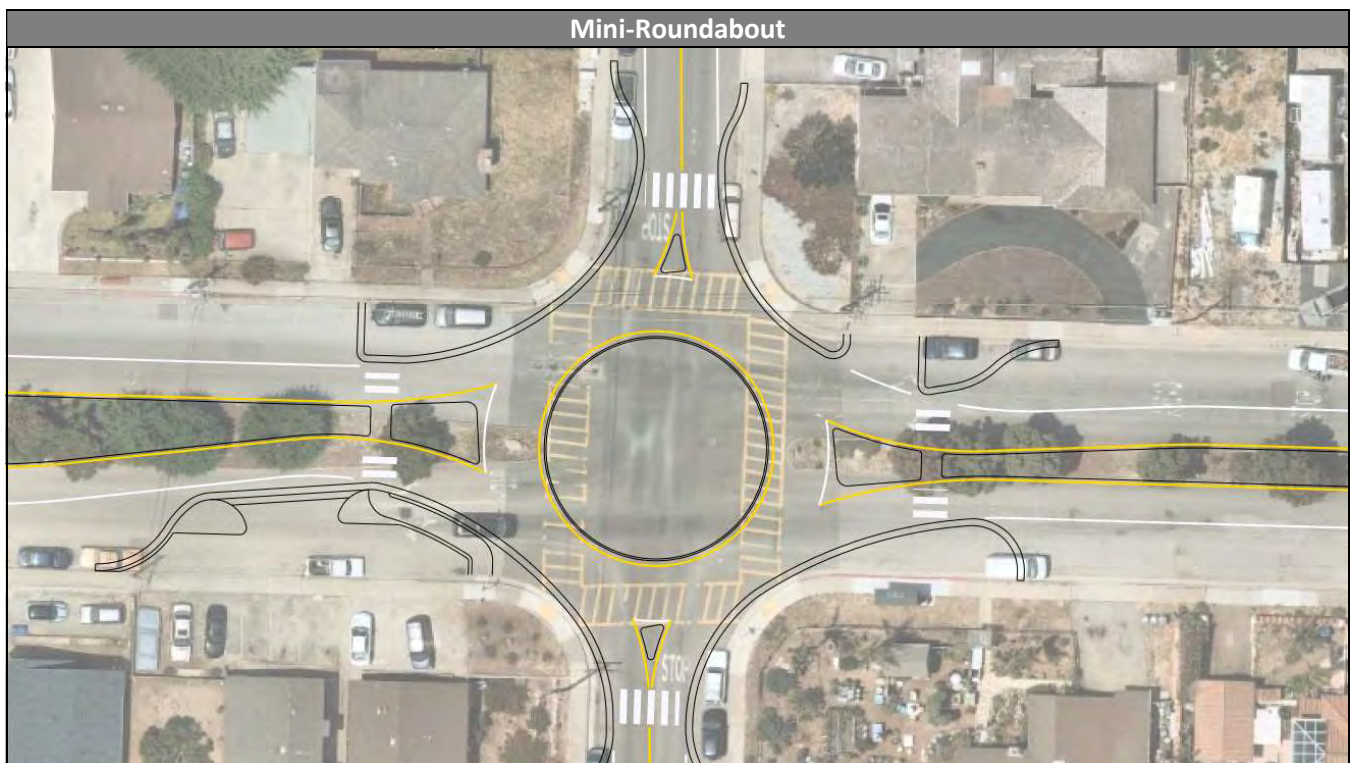
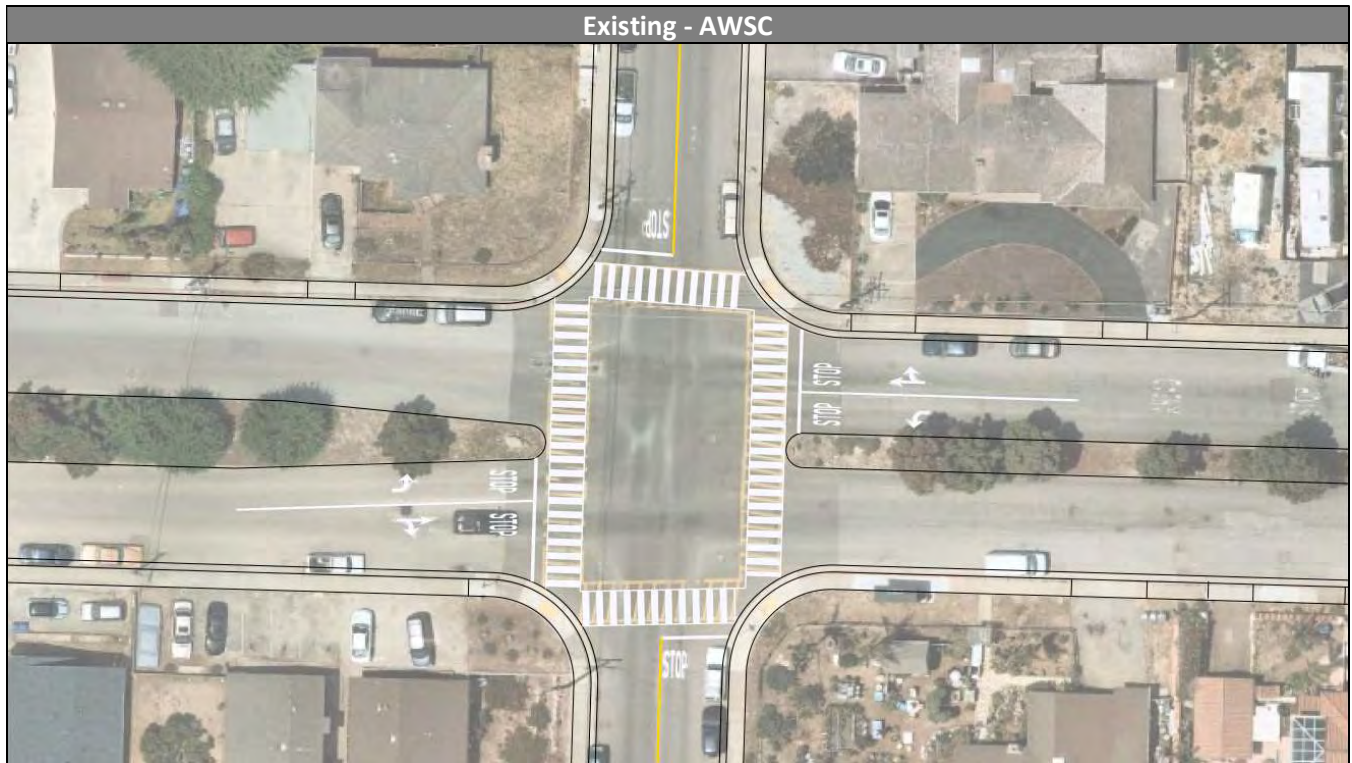
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is all-way stop control.



City of Seaside Intersection Control Evaluation Study
Intersection 2.1 – Ord Grove Avenue at Noche Buena Street

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.2 – LA SALLE AVENUE AT NOCHE BUENA STREET

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

La Salle Ave at Noche Buena St is currently controlled by signals. Design constraints at the intersection include:

- | | |
|------------------------------|------------------------------------|
| 1. Single family residential | 4. Boys and Girls Club of Monterey |
| 2. Driveway | 5. Preschool |
| 3. Bus stop | 6. Adult school |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.2	La Salle Ave at Noche Buena St		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses		X
	Minimize ROW Acquisition to Limit Initial Costs	X	X
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.2 – La Salle Avenue at Noche Buena Street

INTERSECTION LIFE CYCLE COST CALCULATIONS

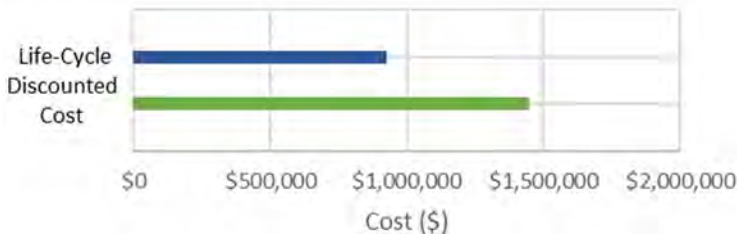
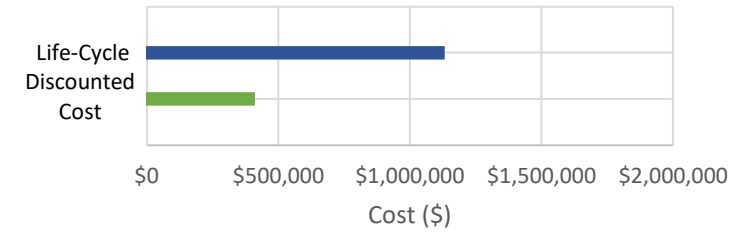
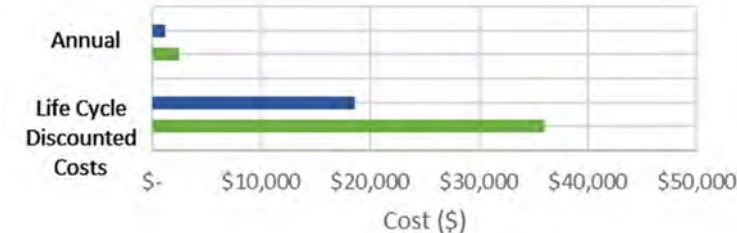
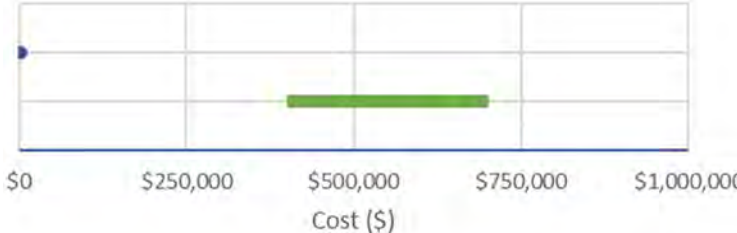
Operations under the existing control meet the LOS threshold and signal warrants are not met at La Salle Avenue at Noche Buena Street. The rest of this section will compare the existing AWSC and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)			
Safety			
	Existing (AWSC)	Roundabout	
Annual Cost of Collisions	\$ 64,191	\$	101,343
Discounted Life Cycle Cost of Collisions	\$ 900,539	\$	1,421,760
Delay			
	Existing (AWSC)	Roundabout	
Annual Quantity (hours)	3,796		1,319
Annual Cost	\$ 50,286	\$	17,515
Total Discounted Life Cycle Cost	\$ 1,106,290	\$	385,326
O&M			
	Existing (AWSC)	Roundabout	
Annual O&M Costs	520		1,920
Discounted Life Cycle O&M Costs	\$ 7,295	\$	26,936
Discounted Pavement Rehab Costs	\$ 10,750	\$	8,418
Total O&M Costs	\$ 18,046	\$	35,354
Initial Capital			
	Existing (AWSC)	Roundabout	
High Approximation	\$ 0	\$	700,000
Low Approximation	\$ 0	\$	400,000

City of Seaside Intersection Control Evaluation Study
Intersection 2.2 – La Salle Avenue at Noche Buena Street

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for stop control and roundabout control. The table below summarizes the performance measures considered in this study.

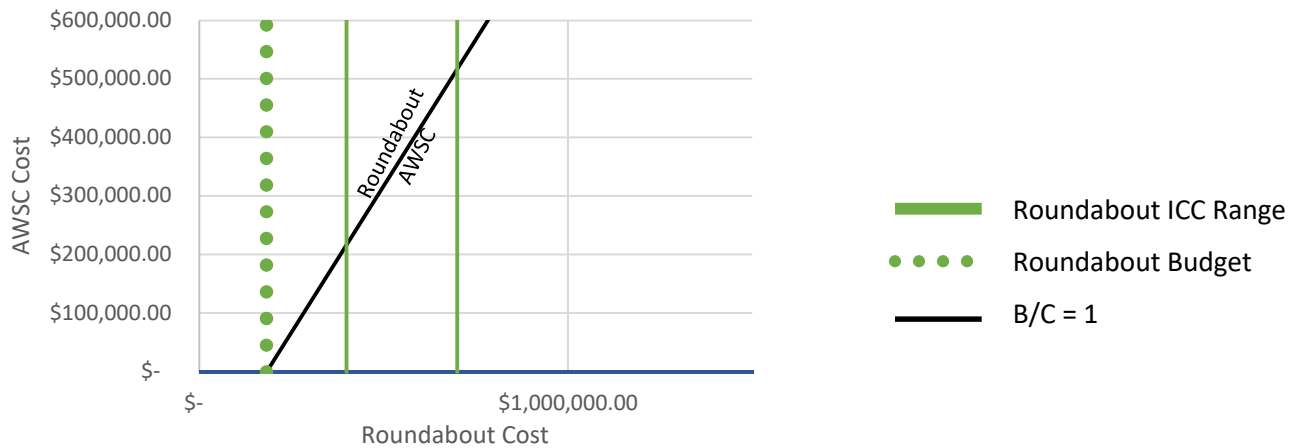
Performance Measure	Preferred Alt.	Visual Representation						
Benefits								
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Safety Performance Measure Data</caption><thead><tr><th>Control Type</th><th>Life-Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$1,500,000</td></tr><tr><td>Stop Control</td><td>~\$1,000,000</td></tr></tbody></table>	Control Type	Life-Cycle Discounted Cost (\$)	Roundabout	~\$1,500,000	Stop Control	~\$1,000,000
Control Type	Life-Cycle Discounted Cost (\$)							
Roundabout	~\$1,500,000							
Stop Control	~\$1,000,000							
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Delay Performance Measure Data</caption><thead><tr><th>Control Type</th><th>Life-Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$400,000</td></tr><tr><td>Stop Control</td><td>~\$1,200,000</td></tr></tbody></table>	Control Type	Life-Cycle Discounted Cost (\$)	Roundabout	~\$400,000	Stop Control	~\$1,200,000
Control Type	Life-Cycle Discounted Cost (\$)							
Roundabout	~\$400,000							
Stop Control	~\$1,200,000							
Costs								
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Performance Measure Data</caption><thead><tr><th>Control Type</th><th>Life Cycle Discounted Costs (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$35,000</td></tr><tr><td>Stop Control</td><td>~\$20,000</td></tr></tbody></table>	Control Type	Life Cycle Discounted Costs (\$)	Roundabout	~\$35,000	Stop Control	~\$20,000
Control Type	Life Cycle Discounted Costs (\$)							
Roundabout	~\$35,000							
Stop Control	~\$20,000							
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost Performance Measure Data</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Roundabout</td><td>~\$450,000</td></tr><tr><td>Stop Control</td><td>~\$10,000</td></tr></tbody></table>	Control Type	Cost (\$)	Roundabout	~\$450,000	Stop Control	~\$10,000
Control Type	Cost (\$)							
Roundabout	~\$450,000							
Stop Control	~\$10,000							

City of Seaside Intersection Control Evaluation Study
Intersection 2.2 – La Salle Avenue at Noche Buena Street

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	AWSC (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 400,000	\$ 400,000			\$ 417,308	0.48
Low	\$ -	\$ 700,000	\$ 700,000	\$ 17,308	\$ 199,743	\$ 717,308	0.28
Roundabout Budget	\$ -	\$ 182,435	\$ 182,435			\$ 199,743	1.00

The high B/C target is calculated assuming the high-end of the existing AWSC ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the existing AWSC ICC and the high-end of the roundabout ICC.



The table above summarizes the B/C analysis for La Salle Avenue at Noche Buena Street. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing AWSC has the greater ROI.

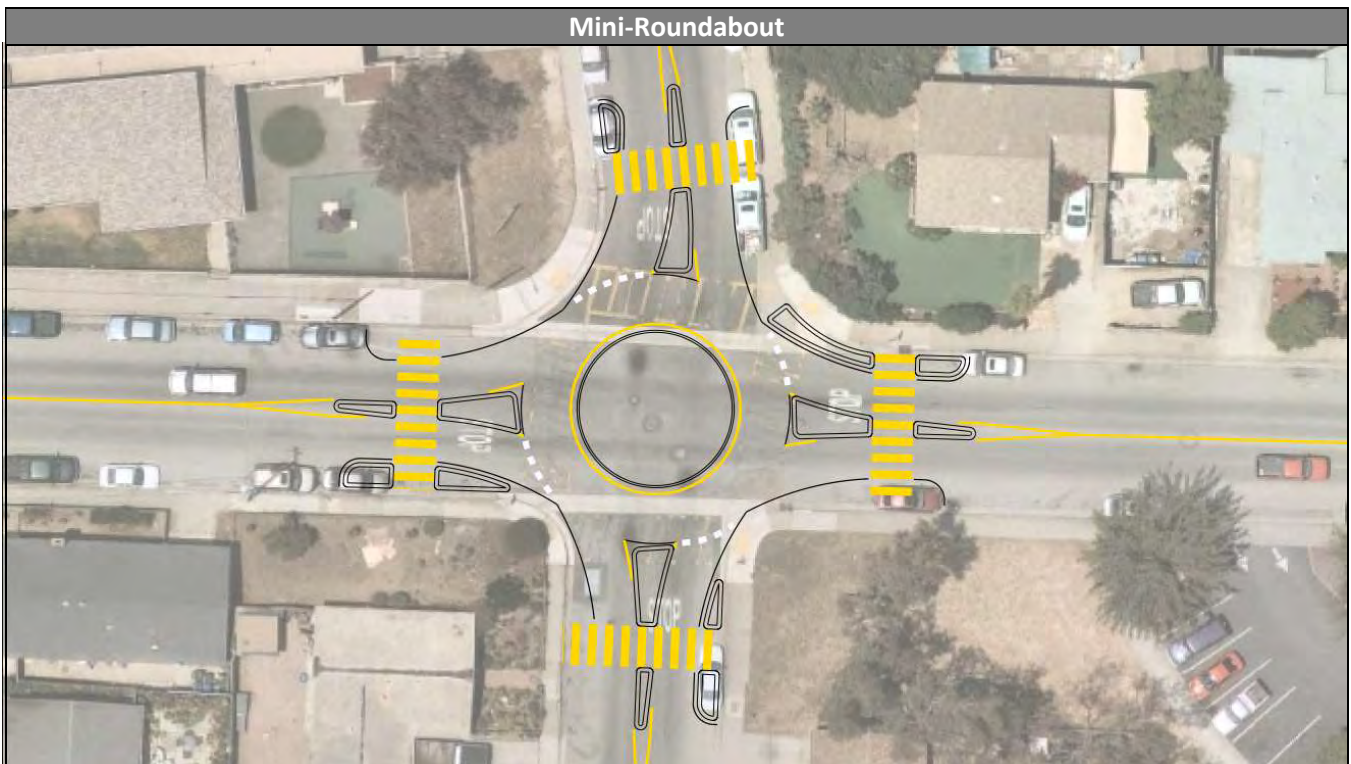
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is all-way stop control.



City of Seaside Intersection Control Evaluation Study
Intersection 2.2 – La Salle Avenue at Noche Buena Street

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.3 – LA SALLE AVENUE AT FREMONT BOULEVARD

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing Signal
2. Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

La Salle Ave at Fremont Blvd is currently controlled by signals. Design constraints at the intersection include:

- | | |
|---------------------------------|--------------------|
| 1. Skewed intersection geometry | 4. Shopping center |
| 2. Driveway | 5. Restaurant |
| 3. Gas station | 6. Hotel |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.3	La Salle Ave at Fremont Blvd		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses		X
	Minimize ROW Acquisition to Limit Initial Costs	X	
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.3 – La Salle Avenue at Fremont Boulevard

INTERSECTION LIFE CYCLE COST CALCULATIONS

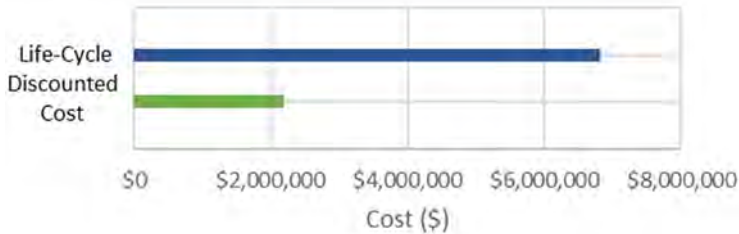
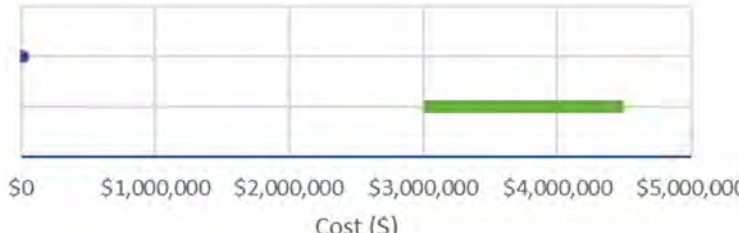
Operations under the existing signal meet the LOS threshold. The rest of this section will compare the existing signal and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)		
Safety		
	Existing (Signal)	Roundabout
Annual Cost of Collisions	\$ 479,188	\$ 149,641
Discounted Life Cycle Cost of Collisions	\$ 6,722,607	\$ 2,099,340
Delay		
	Existing (Signal)	Roundabout
Annual Quantity (hours)	3,727	4,409
Annual Cost	\$ 49,699	\$ 58,537
Total Discounted Life Cycle Cost	\$ 1,093,370	\$ 1,287,811
O&M		
	Existing (Signal)	Roundabout
Annual O&M Costs	9,220	1,920
Discounted Life Cycle O&M Costs	\$ 129,349	\$ 26,936
Discounted Pavement Rehab Costs	\$ 50,710	\$ 43,103
Total O&M Costs	\$ 180,059	\$ 70,039
Initial Capital		
	Existing (Signal)	Roundabout
High Approximation	\$ 0	\$ 4,500,000
Low Approximation	\$ 0	\$ 3,000,000

City of Seaside Intersection Control Evaluation Study
Intersection 2.3 – La Salle Avenue at Fremont Boulevard

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Life-Cycle Discounted Cost (Safety)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$6,800,000</td></tr><tr><td>Roundabout</td><td>~\$2,200,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$6,800,000	Roundabout	~\$2,200,000			
Control Type	Cost (\$)										
Signal	~\$6,800,000										
Roundabout	~\$2,200,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Life-Cycle Discounted Cost (Delay)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$1,100,000</td></tr><tr><td>Roundabout</td><td>~\$1,300,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$1,100,000	Roundabout	~\$1,300,000			
Control Type	Cost (\$)										
Signal	~\$1,100,000										
Roundabout	~\$1,300,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Control Type</th><th>Annual Cost (\$)</th><th>Life Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td><td>~\$210,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$110,000</td></tr></tbody></table>	Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)	Signal	~\$10,000	~\$210,000	Roundabout	~\$5,000	~\$110,000
Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)									
Signal	~\$10,000	~\$210,000									
Roundabout	~\$5,000	~\$110,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$50,000</td></tr><tr><td>Roundabout</td><td>~\$4,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$50,000	Roundabout	~\$4,500,000			
Control Type	Cost (\$)										
Signal	~\$50,000										
Roundabout	~\$4,500,000										

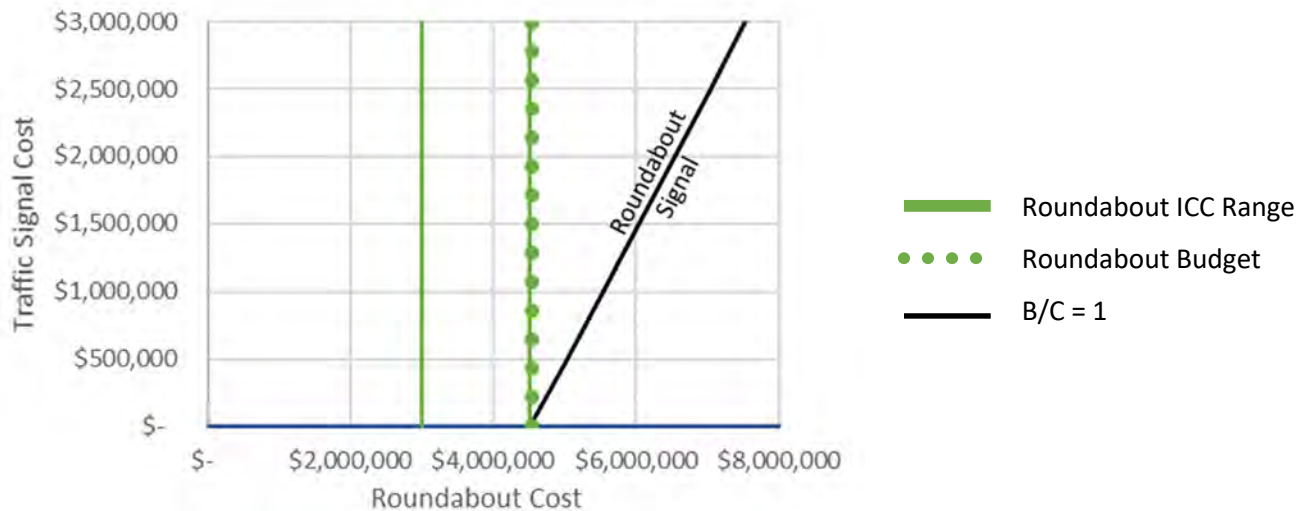
City of Seaside Intersection Control Evaluation Study
Intersection 2.3 – La Salle Avenue at Fremont Boulevard

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 3,000,000	\$ 3,000,000			\$ 2,889,879	1.53*
Low	\$ -	\$ 4,500,000	\$ 4,500,000	\$ (110,121)	\$ 4,428,826	\$ 4,389,879	1.01*
Roundabout Budget	\$ -	\$ 4,538,946	\$ 4,538,946			\$ 4,428,826	1.00

*The proposed roundabout will require right-of-way acquisition to be constructed.

The high B/C target is calculated assuming the high-end of the existing traffic signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the existing traffic signal ICC and the high-end of the roundabout ICC.



The table above summarizes the B/C analysis for La Salle Avenue at Fremont Boulevard. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing signal has the greater ROI.

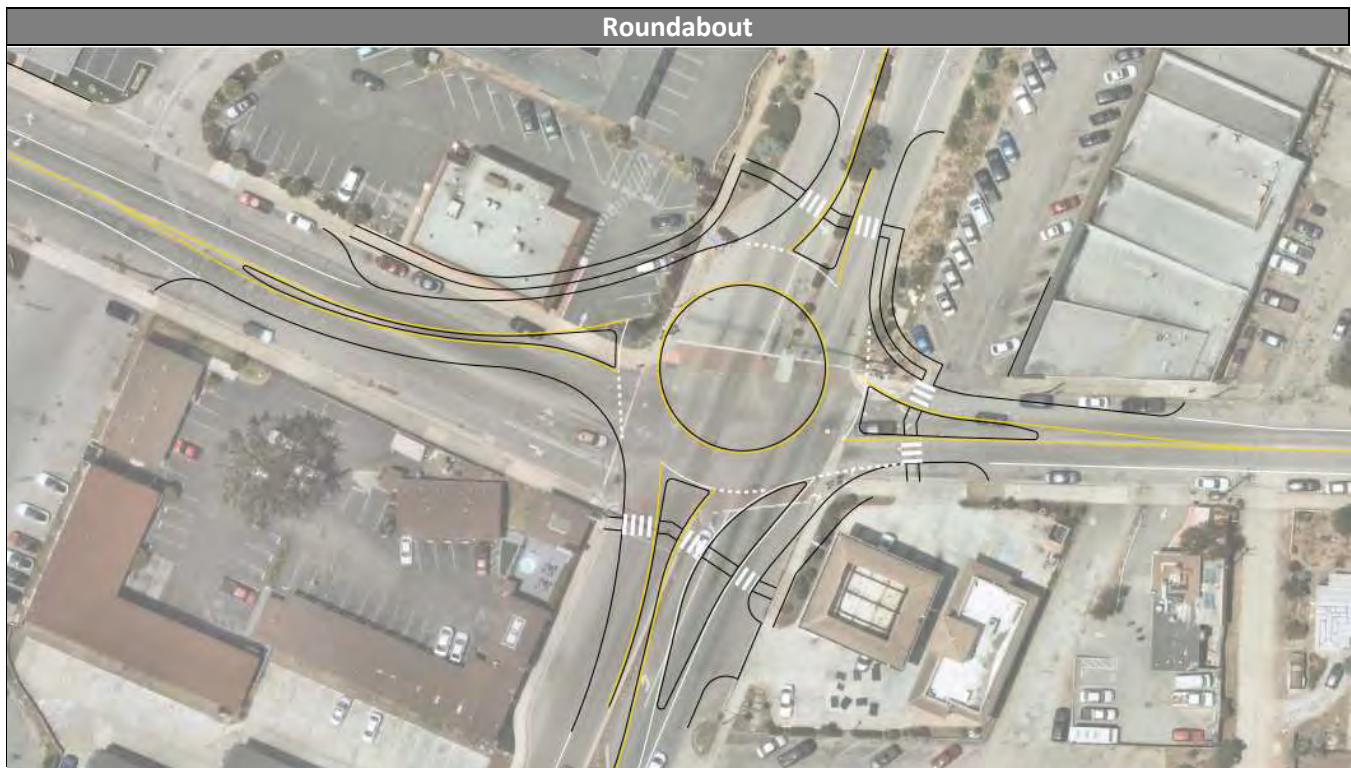
PREFERRED INTERSECTION ALTERNATIVE



The preferred alternative based on B/C ratio for this intersection is roundabout control, however, due to the necessity of right-of-way acquisition, the existing signal may provide a greater return on investment. While additional costs for right-of-way acquisition were included in the ICC, right-of-way costs are uncertain and can significantly drive up the cost of the construction. There is also a restaurant in the north-west corner of the intersection that is a significant constraint for the roundabout and would be impacted by the design. Further refinement of the roundabout concept could reduce right-of-way impacts but will not eliminate them. Because of the relatively low B/C ratio and the uncertainty of ROW acquisition costs both alternative are viable.

City of Seaside Intersection Control Evaluation Study
Intersection 2.3 – La Salle Avenue at Fremont Boulevard

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.4 – BROADWAY AVENUE AT NOCHE BUENA STREET

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing Signal
2. Proposed Traffic Signal
3. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Broadway Ave at Noche Buena St is currently controlled by signals. Design constraints at the intersection include:

- | | |
|------------------------------------|-----------------|
| 1. Place of Worship | 5. Liquor Store |
| 2. Monterey County Social Services | 6. Preschool |
| 3. Driveway | 7. Bus stop |
| 4. Proximity to Kenneth St | |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

City of Seaside Intersection Control Evaluation Study
Intersection 2.4 – Broadway Avenue at Noche Buena Street

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.4	Broadway Ave at Noche Buena St		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses		X
	Minimize ROW Acquisition to Limit Initial Costs	X	X
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.4 – Broadway Avenue at Noche Buena Street

INTERSECTION LIFE CYCLE COST CALCULATIONS

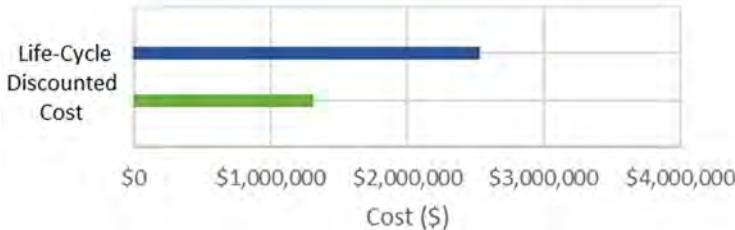
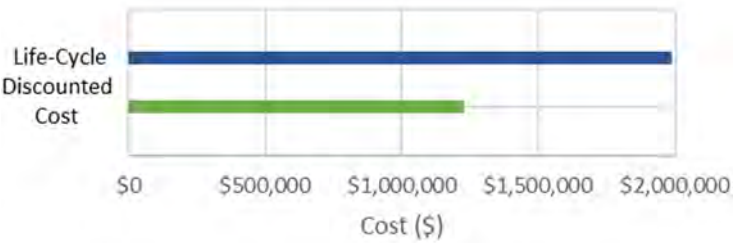
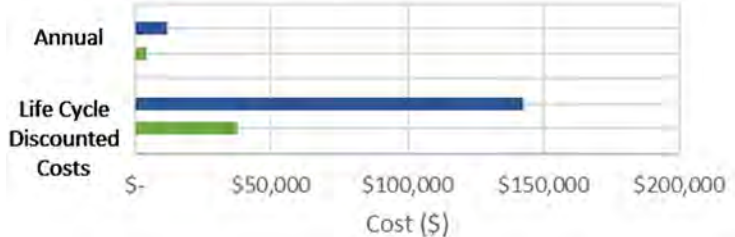
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)			
Safety			
	Existing (Signal)	Proposed Signal	Roundabout
Annual Cost of Collisions	\$ 191,705	\$ 176,933	\$ 89,964
Discounted Life Cycle Cost of Collisions	\$ 2,689,457	\$ 2,482,224	\$ 1,262,124
Delay			
	Existing (Signal)	Proposed Signal	Roundabout
Annual Quantity (hours)	3,991	6,851	4131.10023
Annual Cost	\$ 52,956	\$ 89,197	\$ 54,775
Total Discounted Life Cycle Cost	\$ 1,165,028	\$ 1,962,332	\$ 1,205,050
O&M			
	Existing (Signal)	Proposed Signal	Roundabout
Annual O&M Costs	9,220	9,220	1,920
Discounted Life Cycle O&M Costs	\$ 129,349	\$ 129,349	\$ 26,936
Discounted Pavement Rehab Costs	\$ 25,862	\$ 25,862	\$ 21,983
Total O&M Costs	\$ 155,211	\$ 155,211	\$ 48,919
Initial Capital			
	Existing (Signal)	Proposed Signal	Roundabout
High Approximation	\$ -	\$ 200,000	\$ 800,000
Low Approximation	\$ -	\$ 100,000	\$ 500,000
Life Cycle Benefit-Cost Ratio			
	Existing (Signal)	Total Benefits (B) Proposed Signal	Roundabout
Safety	\$ -	\$ 207,233	\$ 1,427,332
Delay	\$ -	\$ (797,303)	\$ (40,022)
Total Benefits	\$ -	\$ (590,070)	\$ 1,387,311
	Existing (Signal)	Total Costs (C) Proposed Signal	Roundabout
O&M	\$ -	\$ -	\$ (106,292)
Budget	\$ -	\$ 200,000	\$ 800,000
Total Costs	\$ -	\$ 200,000	\$ 693,708
B/C Ratio Compared to Existing	NA*	NA-S*	2.00
The proposed signal provides less benefits than the existing AWSC, which makes it NA-S (existing signal is preferred). The proposed roundabout is preferred over the existing signal. A road diet is being considered along Broadway Avenue and the existing configuration will not conform. Both the proposed signal and roundabout will conform to the road diet. The rest of this section will compare the proposed roundabout and traffic signal.			

City of Seaside Intersection Control Evaluation Study
Intersection 2.4 – Broadway Avenue at Noche Buena Street

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

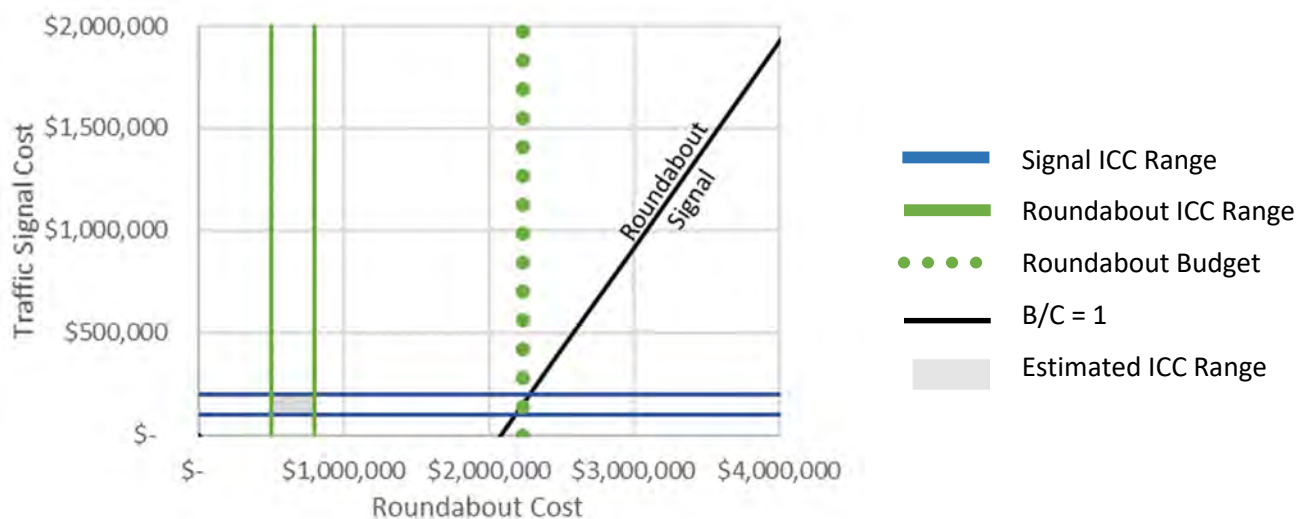
Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Life-Cycle Discounted Cost (Safety)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$2,500,000</td></tr><tr><td>Roundabout</td><td>~\$1,200,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$2,500,000	Roundabout	~\$1,200,000			
Control Type	Cost (\$)										
Signal	~\$2,500,000										
Roundabout	~\$1,200,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Life-Cycle Discounted Cost (Delay)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$2,000,000</td></tr><tr><td>Roundabout</td><td>~\$1,200,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$2,000,000	Roundabout	~\$1,200,000			
Control Type	Cost (\$)										
Signal	~\$2,000,000										
Roundabout	~\$1,200,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Control Type</th><th>Annual Cost (\$)</th><th>Life Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td><td>~\$150,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$40,000</td></tr></tbody></table>	Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)	Signal	~\$10,000	~\$150,000	Roundabout	~\$5,000	~\$40,000
Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)									
Signal	~\$10,000	~\$150,000									
Roundabout	~\$5,000	~\$40,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$200,000</td></tr><tr><td>Roundabout</td><td>~\$750,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$200,000	Roundabout	~\$750,000			
Control Type	Cost (\$)										
Signal	~\$200,000										
Roundabout	~\$750,000										

City of Seaside Intersection Control Evaluation Study
Intersection 2.4 – Broadway Avenue at Noche Buena Street

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 200,000	\$ 500,000	\$ 300,000	\$ (106,292)	\$ 1,977,381	\$ 193,708	10.21
Low	\$ 100,000	\$ 800,000	\$ 700,000			\$ 593,708	3.33
Roundabout Budget	\$ 150,000	\$ 2,233,673	\$ 2,083,673			\$ 1,977,381	1.00

The high B/C target is calculated assuming the high-end of the traffic signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the traffic signal ICC and the high-end of the roundabout ICC.



The table above summarizes the B/C analysis for Broadway Avenue at Noche Buena Street. The initial capital cost (ICC) ranges for the roundabout and proposed signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and proposed signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the proposed signal has the greater ROI. The roundabout budget is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

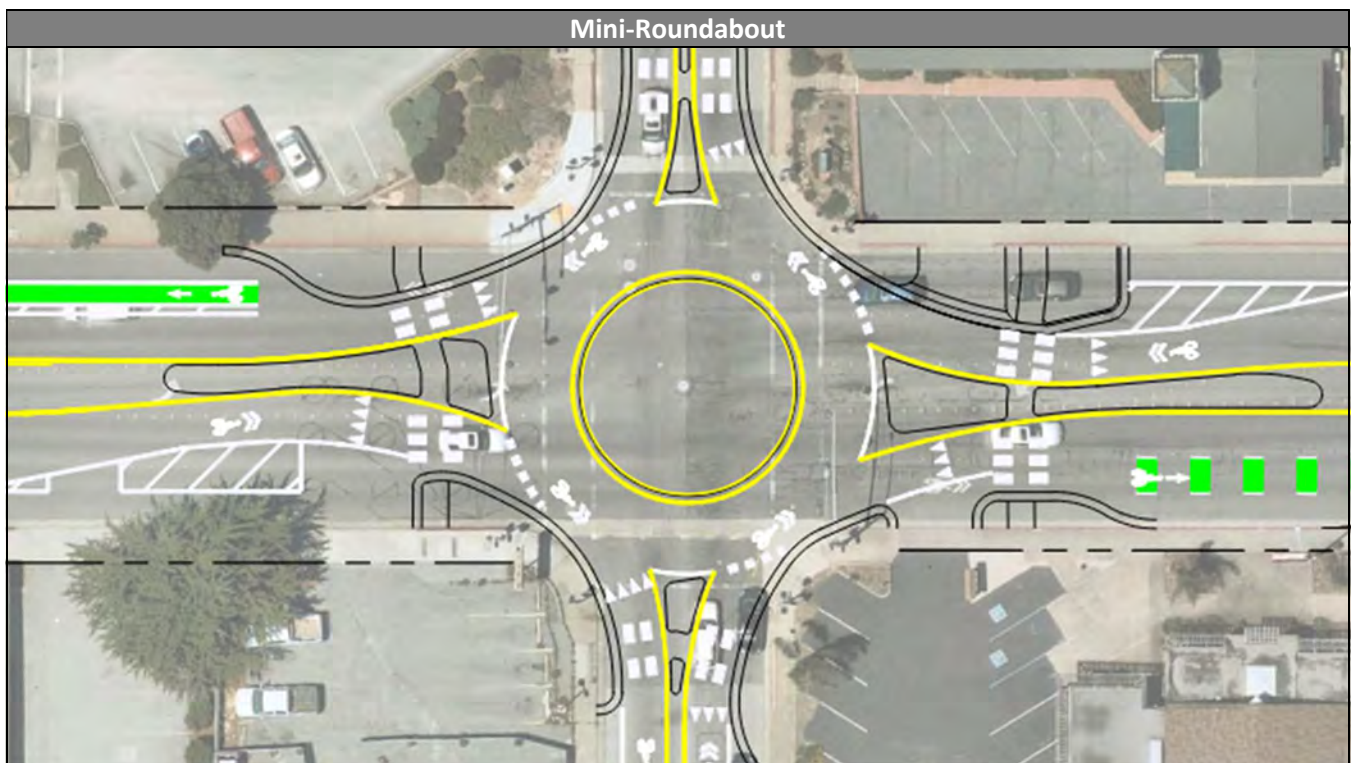
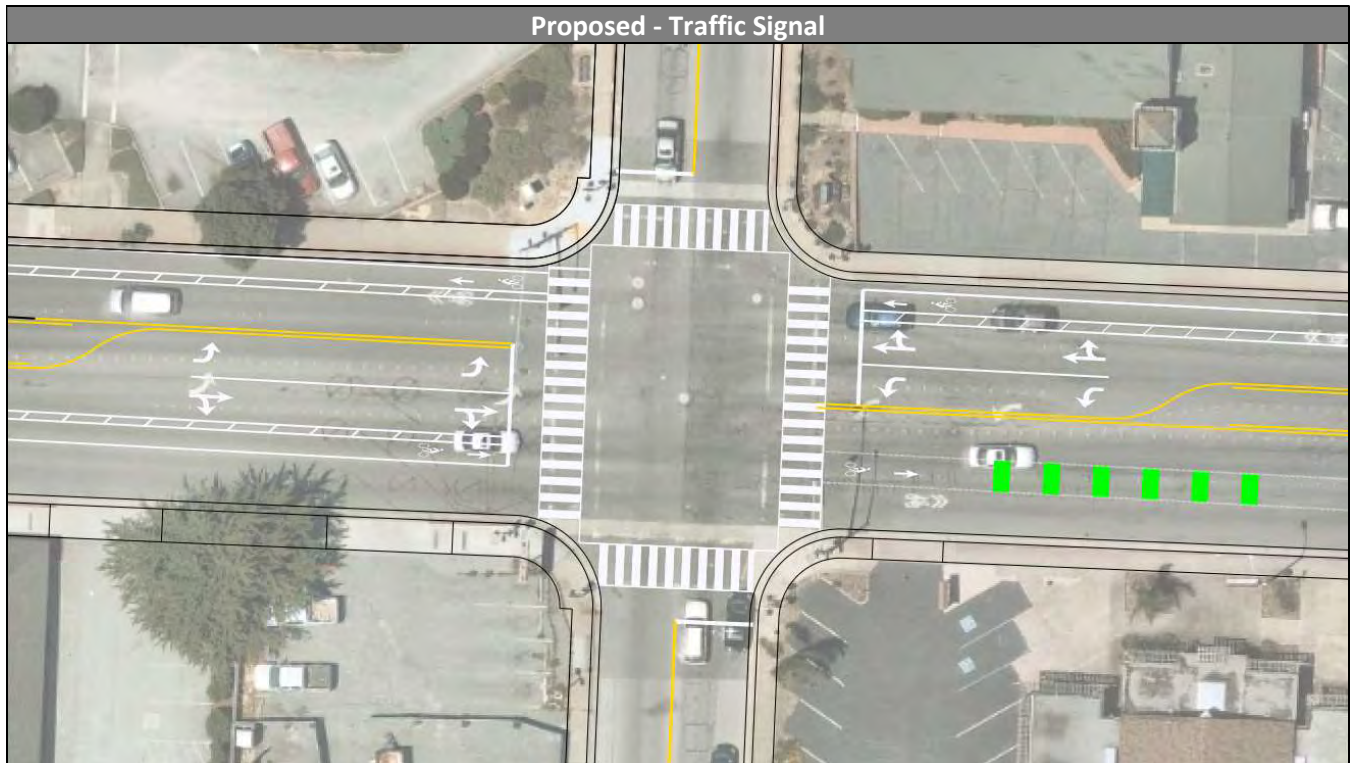
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is roundabout control.



City of Seaside Intersection Control Evaluation Study
Intersection 2.4 – Broadway Avenue at Noche Buena Street

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.5 – BROADWAY AVENUE AT YOSEMITE STREET

INTERSECTION CONTROL ALTERNATIVES

The three intersection control types analyzed include:

1. Existing AWSC (All-Way Stop-Control)
2. Traffic Signal
3. Mini Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Broadway Ave at Yosemite St is currently controlled by signals. Design constraints at the intersection include:

- | | |
|---------------------------------|-----------------------------|
| 1. Skewed intersection geometry | 5. Proximity to Highland St |
| 2. Fire Department | 6. Bus stop |
| 3. King Middle School | 7. Driveway |
| 4. Place of Worship | 8. Single family residence |



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.5	Broadway Ave at Yosemite St		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	X
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.5 – Broadway Avenue at Yosemite Street

INTERSECTION LIFE CYCLE COST CALCULATIONS

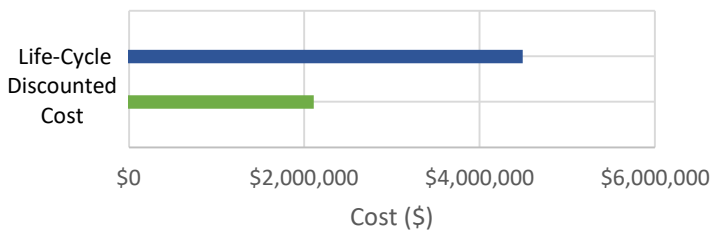
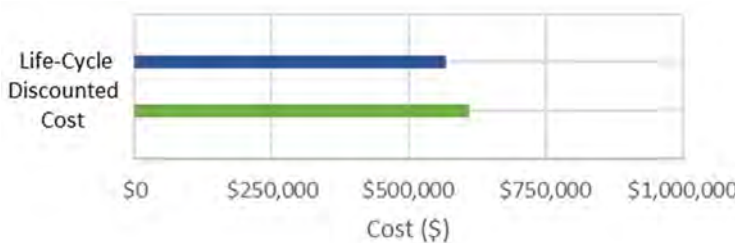
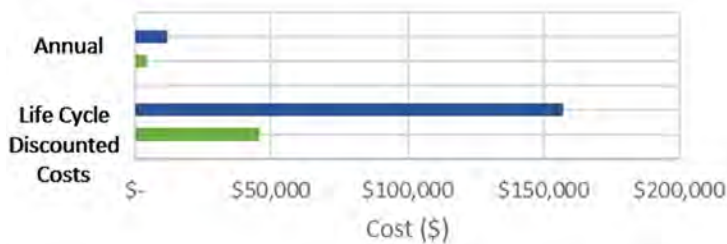
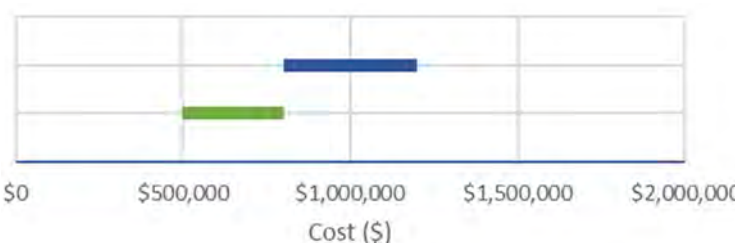
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (AWSC)	Signal	Roundabout	
Annual Cost of Collisions	\$ 86,891	\$ 314,811	\$ 144,820	
Discounted Life Cycle Cost of Collisions	\$ 1,219,005	\$ 4,416,533	\$ 2,031,697	
Delay				
	Existing (AWSC)	Signal	Roundabout	
Annual Quantity (hours)	4,393	1,913	2,047	
Annual Cost	\$ 57,987	\$ 25,321	\$ 27,058	
Total Discounted Life Cycle Cost	\$ 1,275,718	\$ 557,062	\$ 595,280	
O&M				
	Existing (AWSC)	Signal	Roundabout	
Annual O&M Costs	\$ 1000	\$ 9,220	\$ 1,920	
Discounted Life Cycle O&M Costs	\$ 14,029	\$ 129,349	\$ 26,936	
Discounted Pavement Rehab Costs	\$ 230,019	\$ 230,019	\$ 150,608	
Total O&M Costs	\$ 244,048	\$ 359,368	\$ 177,544	
Initial Capital				
	Existing (AWSC)	Signal	Roundabout	
High Approximation	\$ 0	\$ 1,200,000	\$ 800,000	
Low Approximation	\$ 0	\$ 800,000	\$ 500,000	
Life Cycle Benefit-Cost Ratio				
		Total Benefits (B)		
	Existing (AWSC)	Signal	Roundabout	
Safety	\$ -	\$ (3,197,529)	\$ (812,693)	
Delay	\$ -	\$ 718,657	\$ 680,438	
Total Benefits	\$ -	\$ (2,478,872)	\$ (132,254)	
		Total Costs (C)		
	Existing (AWSC)	Signal	Roundabout	
O&M	\$ -	\$ 115,320	\$ (66,504)	
Budget	\$ -	\$ 1,200,000	\$ 800,000	
Total Costs	\$ -	\$ 1,315,320	\$ 733,496	
B/C Ratio Compared to Existing	NA	NA-S*	NA-S*	
*Both the proposed roundabout and signal provide less benefits than the existing AWSC, which makes them NA-S (existing is preferred); however, a road diet is being considered along Broadway Avenue and the existing configuration will not conform. Both the proposed signal and roundabout have a singular entry lane on all legs to conform to the road diet. The rest of this section will compare the proposed roundabout and traffic signal.				

City of Seaside Intersection Control Evaluation Study
Intersection 2.5 – Broadway Avenue at Yosemite Street

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

Performance Measure	Preferred Alt.	Visual Representation													
Benefits															
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expense than Property Damage Only accidents. Signal Roundabout		 <table><caption>Life-Cycle Discounted Cost (Safety)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$4,500,000</td></tr><tr><td>Roundabout</td><td>~\$2,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$4,500,000	Roundabout	~\$2,500,000							
Control Type	Cost (\$)														
Signal	~\$4,500,000														
Roundabout	~\$2,500,000														
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Signal Roundabout		 <table><caption>Life-Cycle Discounted Cost (Delay)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$600,000</td></tr><tr><td>Roundabout</td><td>~\$650,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$600,000	Roundabout	~\$650,000							
Control Type	Cost (\$)														
Signal	~\$600,000														
Roundabout	~\$650,000														
Costs															
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection. Signal Roundabout		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Measure</th><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td rowspan="2">Annual</td><td>Signal</td><td>~\$10,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td></tr><tr><td rowspan="2">Life Cycle Discounted Costs</td><td>Signal</td><td>~\$160,000</td></tr><tr><td>Roundabout</td><td>~\$50,000</td></tr></tbody></table>	Measure	Control Type	Cost (\$)	Annual	Signal	~\$10,000	Roundabout	~\$5,000	Life Cycle Discounted Costs	Signal	~\$160,000	Roundabout	~\$50,000
Measure	Control Type	Cost (\$)													
Annual	Signal	~\$10,000													
	Roundabout	~\$5,000													
Life Cycle Discounted Costs	Signal	~\$160,000													
	Roundabout	~\$50,000													
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control. Signal Roundabout		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$1,200,000</td></tr><tr><td>Roundabout</td><td>~\$750,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$1,200,000	Roundabout	~\$750,000							
Control Type	Cost (\$)														
Signal	~\$1,200,000														
Roundabout	~\$750,000														

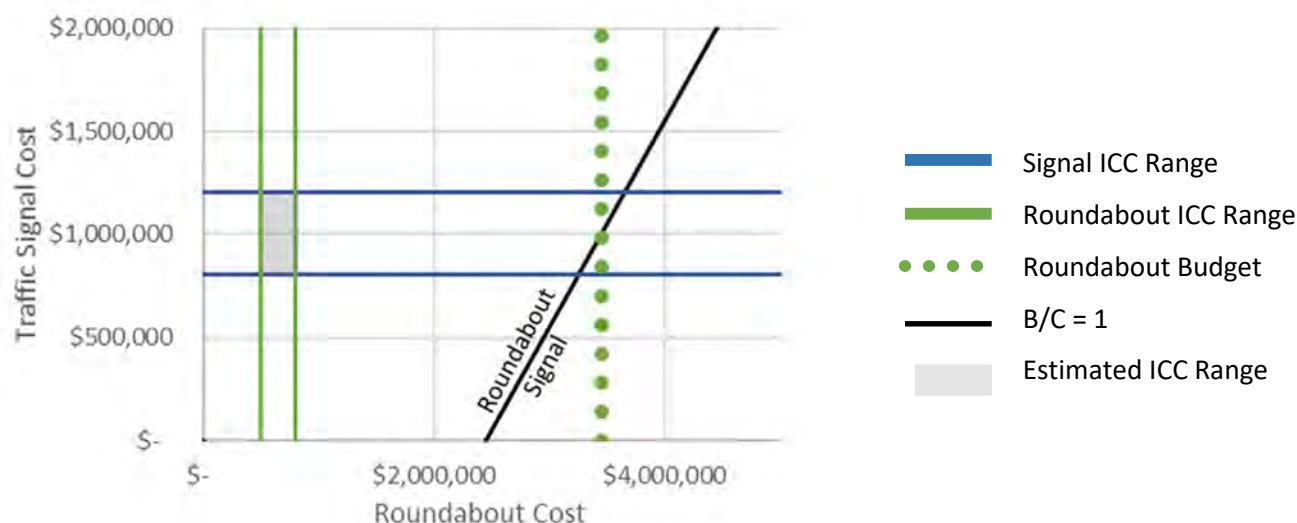
City of Seaside Intersection Control Evaluation Study
Intersection 2.5 – Broadway Avenue at Yosemite Street

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,200,000	\$ 500,000	\$ (700,000)	\$ (111,439)	\$ 2,343,930	\$ (811,439)	NA-R
Low	\$ 800,000	\$ 800,000	\$ -			\$ (111,439)	NA-R
Roundabout Budget	\$ 1,000,000	\$ 3,455,369	\$ 2,455,369			\$ 2,343,930	1.00

The high B/C target is calculated assuming the high-end of the signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the signal ICC and the high-end of the roundabout ICC.

Note that NA-R means the additional ICC of a roundabout is less than the ICC of the signal plus the added operations and Maintenance (O&M), and the roundabout provides greater benefits of the traditional improvements, a B/C ratio is negative, and the roundabout is preferred.



The table above summarizes the B/C analysis for Broadway Avenue at Yosemite. The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is the is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

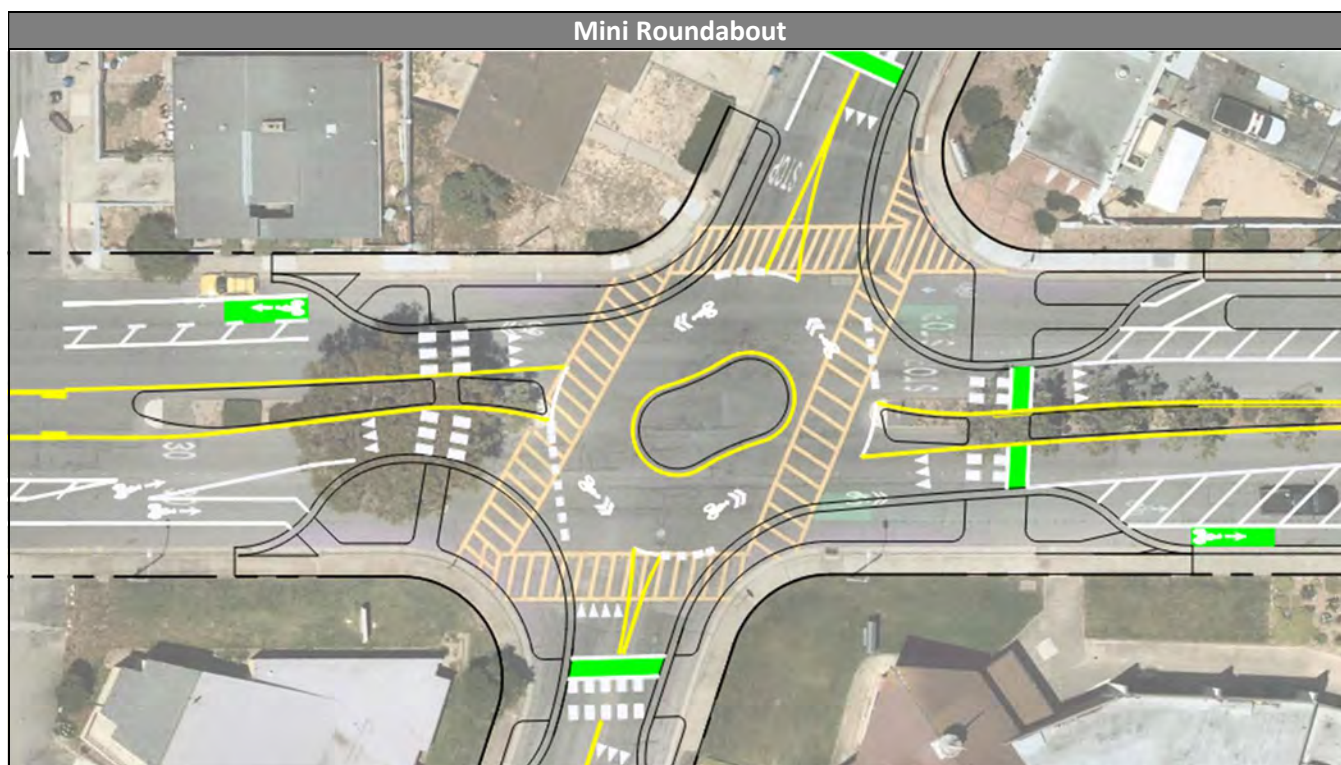
PREFERRED INTERSECTION ALTERNATIVE



While the existing stop-controlled is preferred for the current intersection configuration, a roundabout is preferred when a road diet is considered.

City of Seaside Intersection Control Evaluation Study
Intersection 2.5 – Broadway Avenue at Yosemite Street

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.6 – MILITARY AVENUE AT NOCHE BUENA STREET

INTERSECTION CONTROL ALTERNATIVES

The three intersection control types analyzed include:

1. Existing TWSC (two-way stop-control)
2. Traffic Signal
3. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Military Ave at Noche Buena St is currently controlled by stop signs on Military Ave. Design constraints at the intersection include:

1. Single family residence
2. Driveway
3. Seaside High School



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of the alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.6	Military Ave at Noche Buena St		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	X
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.6 – Military Avenue at Noche Buena Street

INTERSECTION LIFE CYCLE COST CALCULATIONS

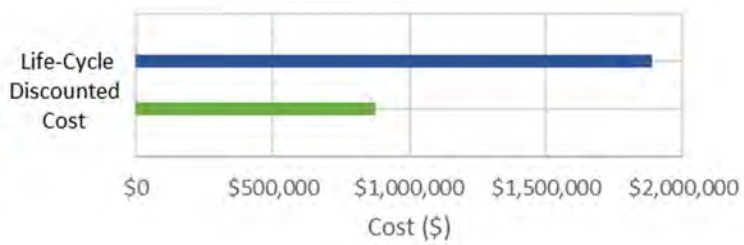
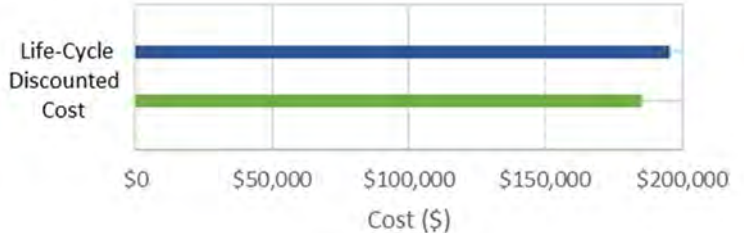
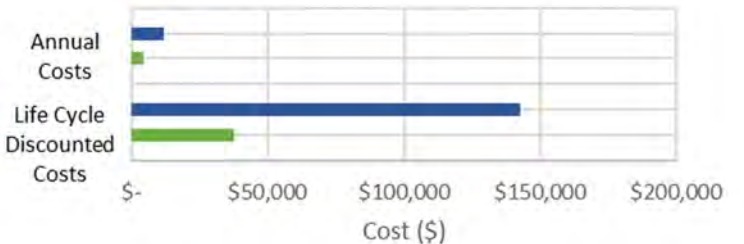
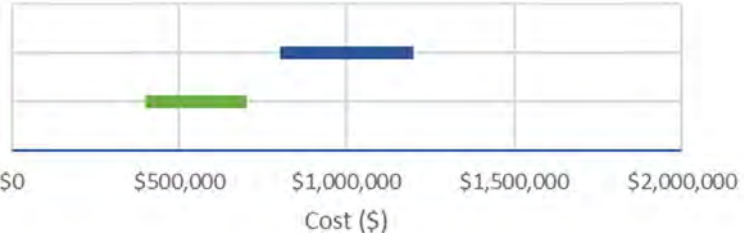
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (TWSC)	Signal	Roundabout	
Annual Cost of Collisions	\$ 143,140	\$ 133,396	\$ 50,162	
Discounted Life Cycle Cost of Collisions	\$ 2,008,139	\$ 1,871,436	\$ 703,733	
Delay				
	Existing (TWSC)	Signal	Roundabout	
Annual Quantity (hours)	2,413	650	612	
Annual Cost	\$ 35,279	\$ 8,779	\$ 8,300	
Total Discounted Life Cycle Cost	\$ 776,131	\$ 193,137	\$ 182,601	
O&M				
	Existing (TWSC)	Signal	Roundabout	
Annual O&M Costs	520	9,220	1,920	
Discounted Life Cycle O&M Costs	\$ 7,295	\$ 129,349	\$ 26,936	
Discounted Pavement Rehab Costs	\$ 10,750	\$ 10,750	\$ 8,418	
Total O&M Costs	\$ 18,046	\$ 140,099	\$ 35,354	
Initial Capital				
	Existing (TWSC)	Signal	Roundabout	
High Approximation	\$ 0	\$ 1,200,000	\$ 700,000	
Low Approximation	\$ 0	\$ 800,000	\$ 400,000	
Life Cycle Benefit-Cost Ratio				
		Total Benefits (B)		
	Existing (TWSC)	Signal	Roundabout	
Safety	\$ -	\$ 117,448	\$ 1,130,913	
Delay	\$ -	\$ 582,993	\$ 593,530	
Total Benefits	\$ -	\$ 700,442	\$ 1,724,443	
		Total Costs (C)		
	Existing (TWSC)	Signal	Roundabout	
O&M	\$ -	\$ 122,054	\$ 17,308	
Budget	\$ -	\$ 1,000,000	\$ 550,000	
Total Costs	\$ -	\$ 1,122,054	\$ 567,308	
B/C Ratio Compared to Existing	NA*	0.62*	3.04	
*The roundabout has a B/C ratio greater than 1.0 which means it is preferred over the existing TWSC. The signal has a B/C ratio less than 1.0; however, since the delay on the side street fails during the AM peak hour, the TWSC will not be considered in the phase two analysis. The rest of this section will compare the proposed roundabout and traffic signal.				

City of Seaside Intersection Control Evaluation Study
Intersection 2.6 – Military Avenue at Noche Buena Street

PERFORMANCE MEASURE SUMMARY

The following table summarizes performance measures used to calculate the B/C ratio.

Performance Measure	Preferred Alternative	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Life-Cycle Discounted Cost (Benefits)</caption><tr><th>Alternative</th><th>Cost (\$)</th></tr><tr><td>Signal</td><td>~1,800,000</td></tr><tr><td>Roundabout</td><td>~800,000</td></tr></table>	Alternative	Cost (\$)	Signal	~1,800,000	Roundabout	~800,000			
Alternative	Cost (\$)										
Signal	~1,800,000										
Roundabout	~800,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Life-Cycle Discounted Cost (Delay)</caption><tr><th>Alternative</th><th>Cost (\$)</th></tr><tr><td>Signal</td><td>~190,000</td></tr><tr><td>Roundabout</td><td>~180,000</td></tr></table>	Alternative	Cost (\$)	Signal	~190,000	Roundabout	~180,000			
Alternative	Cost (\$)										
Signal	~190,000										
Roundabout	~180,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><tr><th>Alternative</th><th>Annual Costs (\$)</th><th>Life Cycle Discounted Costs (\$)</th></tr><tr><td>Signal</td><td>~10,000</td><td>~140,000</td></tr><tr><td>Roundabout</td><td>~5,000</td><td>~40,000</td></tr></table>	Alternative	Annual Costs (\$)	Life Cycle Discounted Costs (\$)	Signal	~10,000	~140,000	Roundabout	~5,000	~40,000
Alternative	Annual Costs (\$)	Life Cycle Discounted Costs (\$)									
Signal	~10,000	~140,000									
Roundabout	~5,000	~40,000									
Initial Capital Cost Measures the initial capital costs needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><tr><th>Alternative</th><th>Cost (\$)</th></tr><tr><td>Signal</td><td>~1,100,000</td></tr><tr><td>Roundabout</td><td>~600,000</td></tr></table>	Alternative	Cost (\$)	Signal	~1,100,000	Roundabout	~600,000			
Alternative	Cost (\$)										
Signal	~1,100,000										
Roundabout	~600,000										

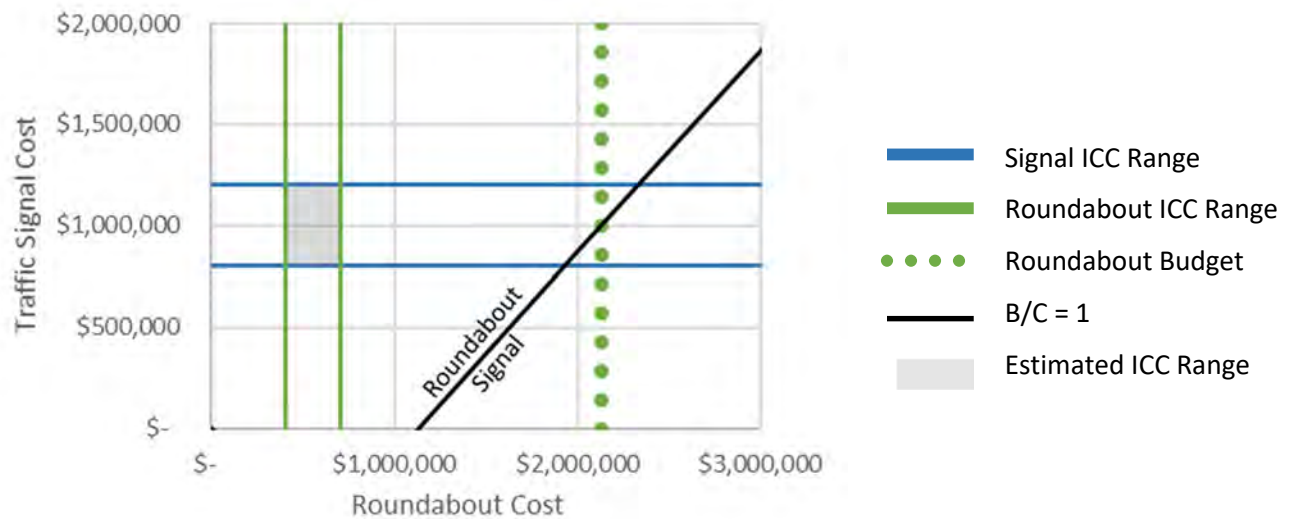
City of Seaside Intersection Control Evaluation Study
Intersection 2.6 – Military Avenue at Noche Buena Street

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,200,000	\$ 400,000	\$ (800,000)			\$ (904,746)	NA-R
Low	\$ 800,000	\$ 700,000	\$ (100,000)	\$ (104,746)	\$ 1,024,001	\$ (204,746)	NA-R
Roundabout Budget	\$ 1,000,000	\$ 2,128,747	\$ 1,128,747			\$ 1,024,001	1.00

The high B/C target is calculated assuming the high-end of the signal ICC and the low-end of the roundabout ICC.

The low B/C target is calculated assuming the low-end of the signal ICC and the high-end of the roundabout ICC.

Note that NA-R means the additional ICC of a roundabout is less than the ICC of the signal plus the added operations and Maintenance (O&M), and the roundabout provides greater benefits of the traditional improvements, a B/C ratio is negative, and the roundabout is preferred.



The table above summarizes the B/C analysis for Military Avenue at Noche Buena Street. The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is the is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

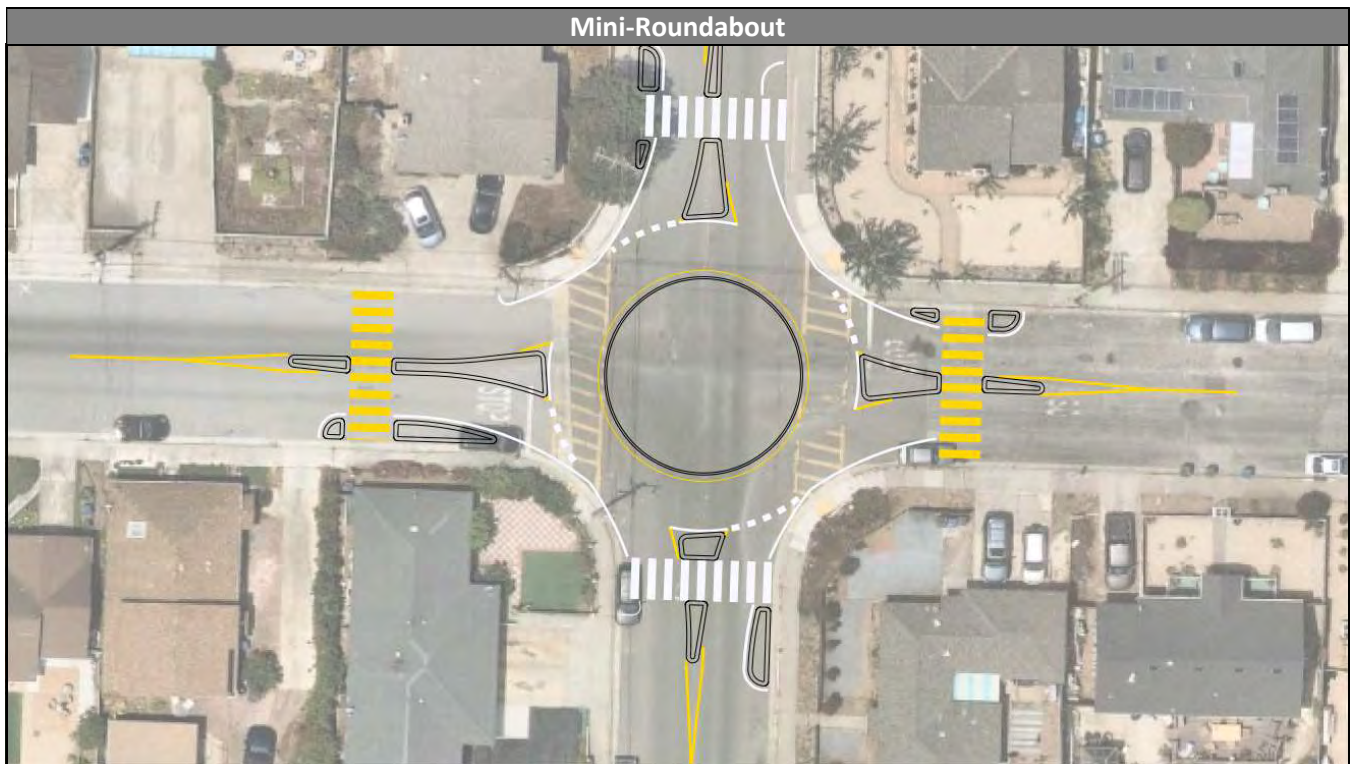
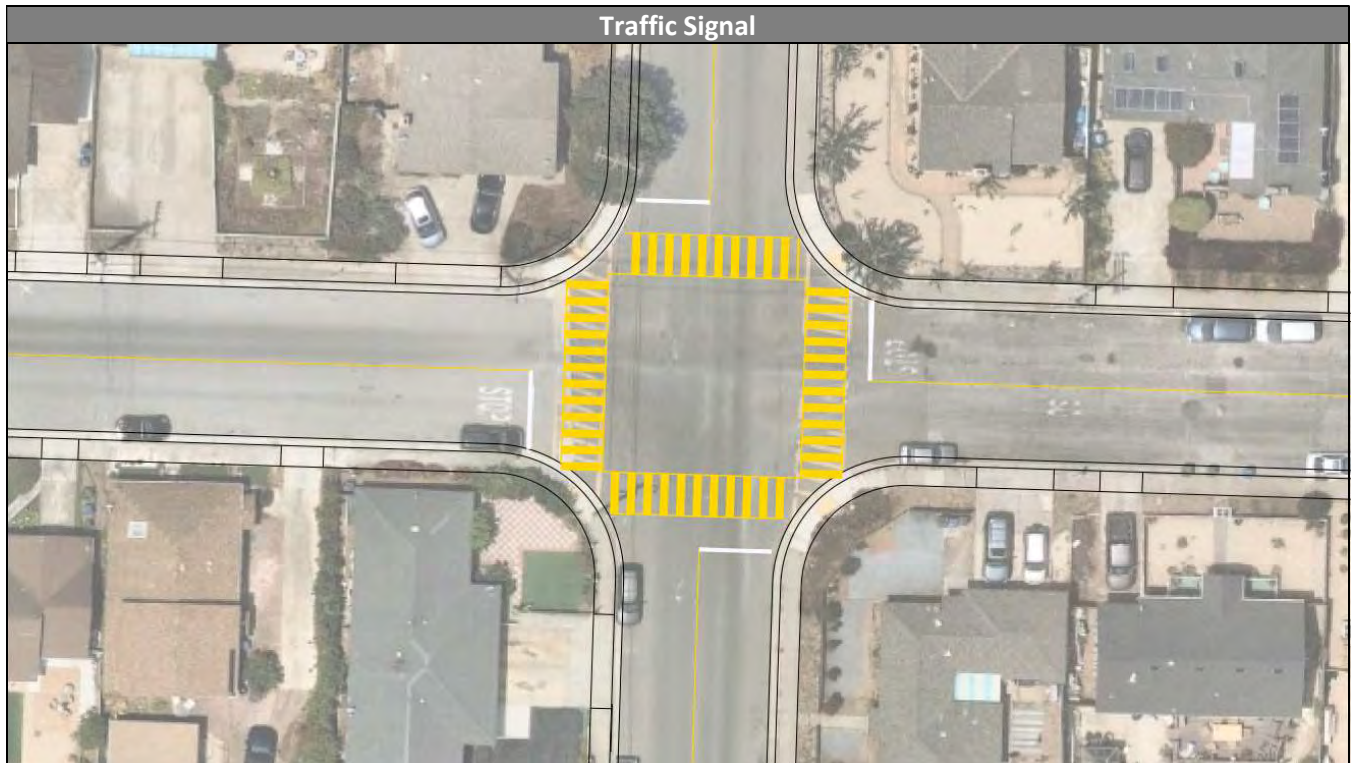
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is roundabout control.



City of Seaside Intersection Control Evaluation Study
Intersection 2.6 – Military Avenue at Noche Buena Street

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.7A – LIGHTFIGHTER DRIVE AT FIRST AVENUE

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing Signal
2. Multi-lane Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Lightfighter Dr at First Ave is currently controlled by signals. Design constraints at the intersection include:

1. SR-1 NB on-ramp
2. SR-1 NB off-ramp
3. One-Way traffic
4. Ord Community Commissary



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.7a	Lightfighter Dr at First Ave		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians		
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.7a – Lightfighter Drive at First Avenue

INTERSECTION LIFE CYCLE COST CALCULATIONS

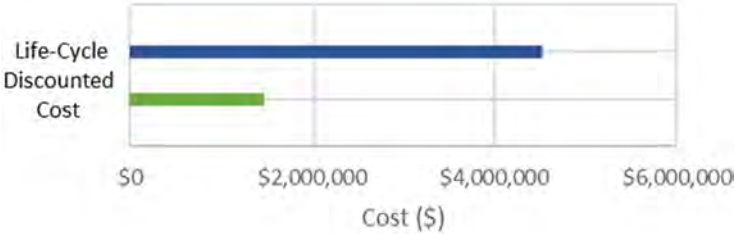
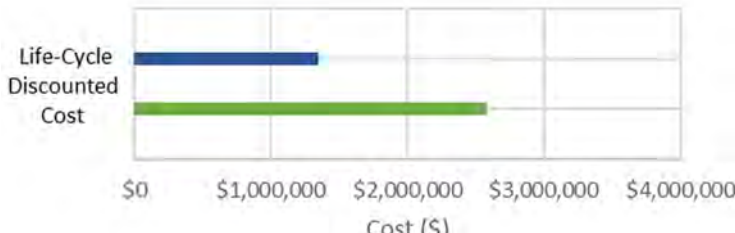
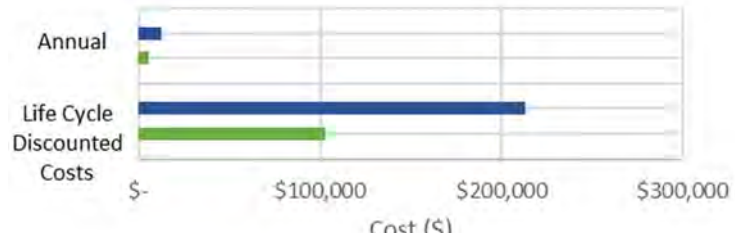
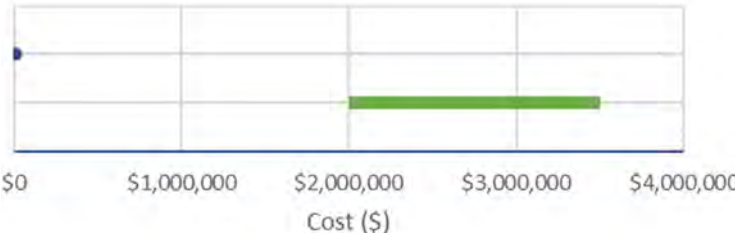
Signal improvements were not needed at Lightfighter Drive and First Avenue. The rest of this section will compare the existing signal and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)			
Safety			
	Existing (Signal)	Roundabout	
Annual Cost of Collisions	\$ 317,001	\$	99,970
Discounted Life Cycle Cost of Collisions	\$ 4,447,254	\$	1,402,497
Delay			
	Existing (Signal)	Roundabout	
Annual Quantity (hours)	4,909		9,689
Annual Cost	\$ 59,202	\$	114,909
Total Discounted Life Cycle Cost	\$ 1,302,454	\$	2,527,990
O&M			
	Existing (Signal)	Roundabout	
Annual O&M Costs	9,220		1,920
Discounted Life Cycle O&M Costs	\$ 129,349	\$	26,936
Discounted Pavement Rehab Costs	\$ 80,324	\$	72,718
Total O&M Costs	\$ 209,673	\$	99,654
Initial Capital			
	Existing (Signal)	Roundabout	
High Approximation	\$ 0	\$	3,500,000
Low Approximation	\$ 0	\$	2,000,000

City of Seaside Intersection Control Evaluation Study
Intersection 2.7a – Lightfighter Drive at First Avenue

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

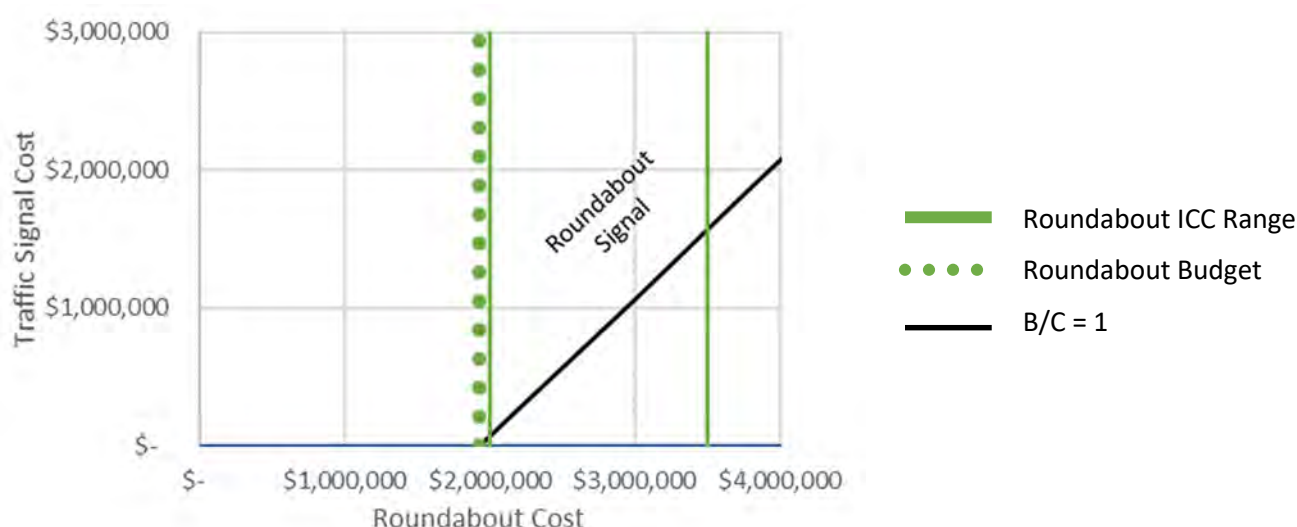
Performance Measure	Preferred Alt.	Visual Representation						
Benefits								
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Safety Life-Cycle Discounted Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$4,500,000</td></tr><tr><td>Roundabout</td><td>~\$1,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$4,500,000	Roundabout	~\$1,500,000
Control Type	Cost (\$)							
Signal	~\$4,500,000							
Roundabout	~\$1,500,000							
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Delay Life-Cycle Discounted Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$1,200,000</td></tr><tr><td>Roundabout</td><td>~\$2,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$1,200,000	Roundabout	~\$2,500,000
Control Type	Cost (\$)							
Signal	~\$1,200,000							
Roundabout	~\$2,500,000							
Costs								
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Life Cycle Discounted Costs</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$210,000</td></tr><tr><td>Roundabout</td><td>~\$100,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$210,000	Roundabout	~\$100,000
Control Type	Cost (\$)							
Signal	~\$210,000							
Roundabout	~\$100,000							
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$0</td></tr><tr><td>Roundabout</td><td>~\$3,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$0	Roundabout	~\$3,500,000
Control Type	Cost (\$)							
Signal	~\$0							
Roundabout	~\$3,500,000							

City of Seaside Intersection Control Evaluation Study
Intersection 2.7a – Lightfighter Drive at First Avenue

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 2,000,000	\$ 2,000,000			\$ 1,889,981	0.54
Low	\$ -	\$ 3,500,000	\$ 3,500,000	\$ (110,019)	\$ 1,022,880	\$ 3,389,981	0.30
Roundabout Budget	\$ -	\$ 1,132,900	\$ 1,132,900			\$ 1,022,880	1.00

The high B/C target is calculated assuming the high-end of the existing traffic signal initial capital costs and the low-end of the roundabout initial capital costs.

The low B/C target is calculated assuming the low-end of the existing traffic signal initial capital costs and the high-end of the roundabout initial capital costs.



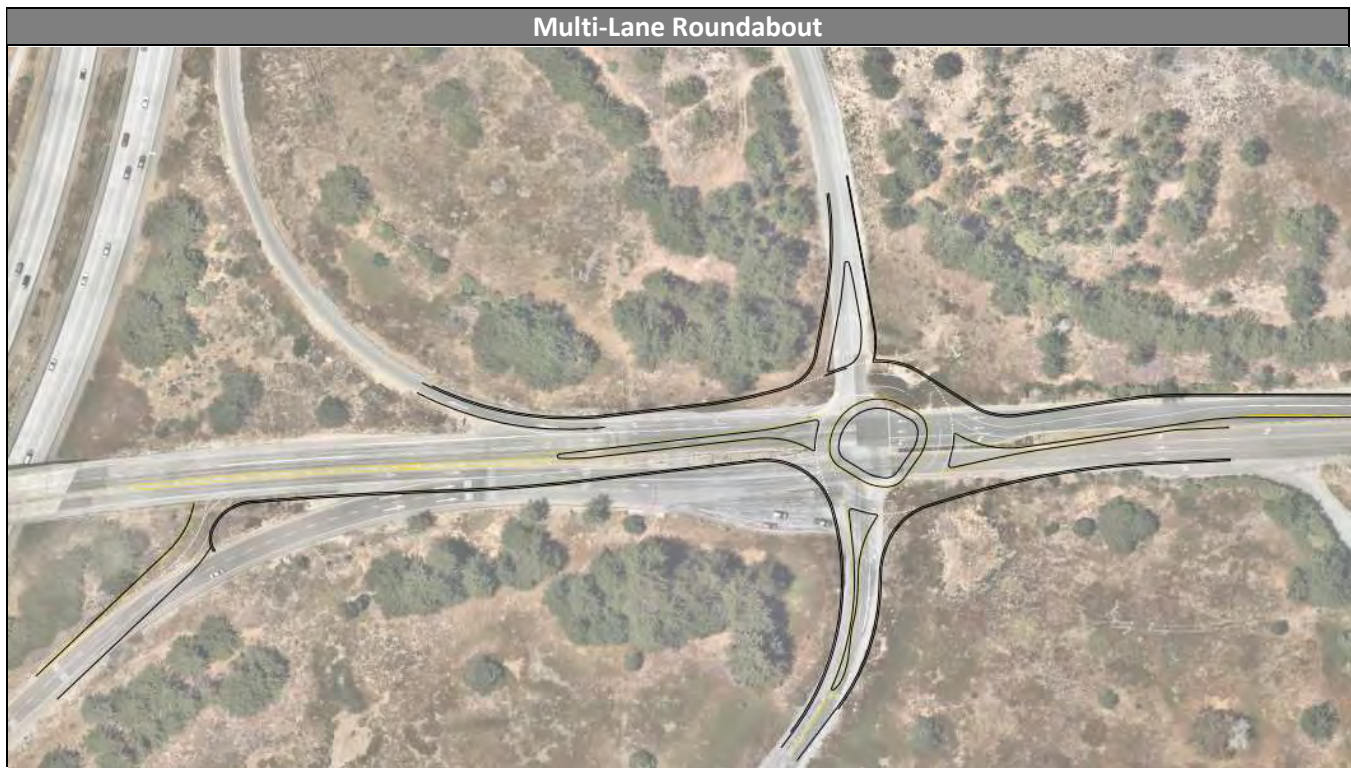
The table above summarizes the B/C analysis for Lightfighter Drive at First Avenue. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing signal has the greater ROI.



PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on the B/C ratio for this intersection is the existing traffic signal; however, a roundabout should be installed if a roundabout were to be constructed at either of its adjacent intersections (refer to page 88 for the roundabout corridor layout along Lightfighter Drive). This is because INT 2.7a's adjacent intersections are both roundabout-preferred: INT 2.7b (Lightfighter Drive at SR-1 On/Off Ramps) and INT 2.8 (Lightfighter Drive at Second Avenue). If roundabouts were to be constructed at INT 2.7b and 2.8, a roundabout at INT 2.7a should also be constructed to keep continuity through the corridor. A signalized intersection in between two roundabouts would have negative effects on the roundabout: queues from the signal will back up into the roundabouts and the signal will cause a platooning. The roundabout in the layout is designed for one-way traffic but can be altered to allow two-way traffic on First Ave north of the intersection.

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.7B – LIGHTFIGHTER DRIVE AT SR-1 NORTHBOUND RAMPS

INTERSECTION CONTROL ALTERNATIVES

The three control types analyzed include:

1. Existing Ramps
2. Traffic Signal
3. Multi-lane Roundabout

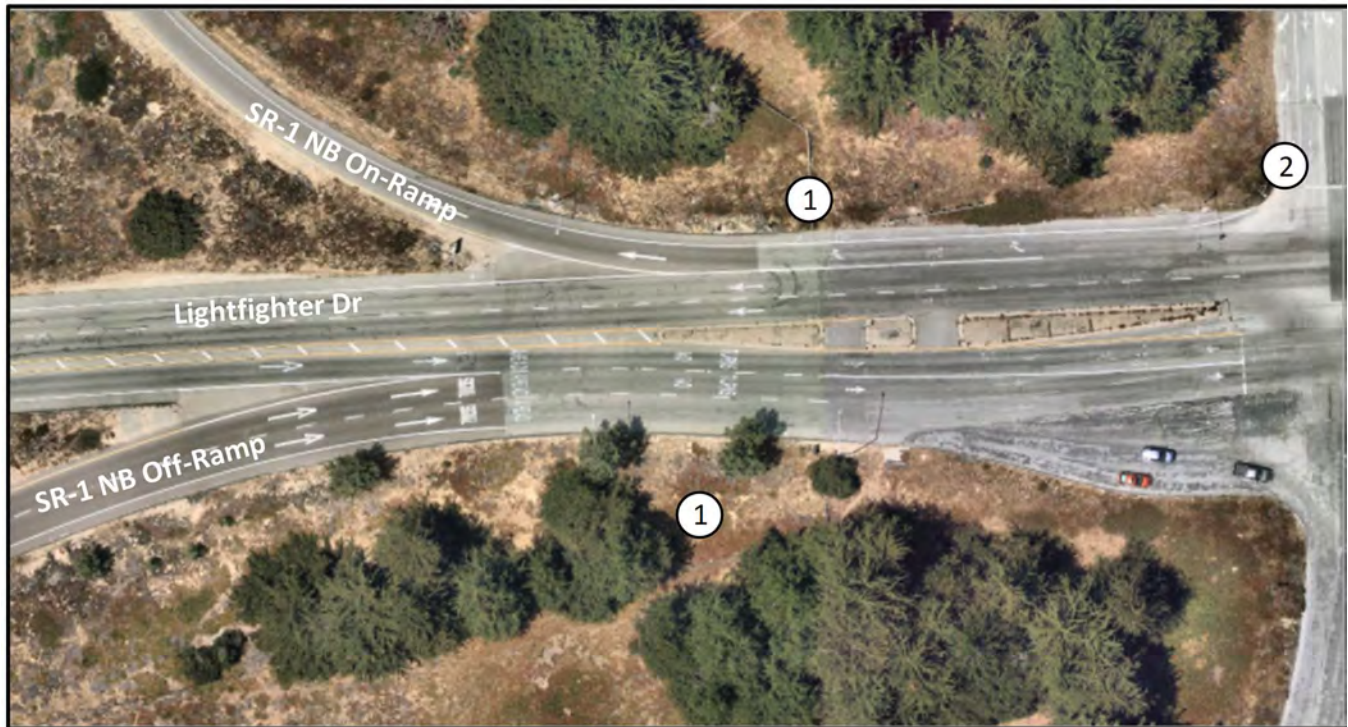
RAMPS



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Lightfighter Dr at SR-1 Northbound Ramps is currently controlled by signals. Design constraints at the intersection include:

1. Right-of-way encroachment
2. Proximity to First Ave



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.7b	Lightfighter Dr at SR-1 NB Ramps		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians		
	Design for Bicyclists		
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.7b – Lightfighter Drive at SR-1 Northbound Ramps

INTERSECTION LIFE CYCLE COST CALCULATIONS

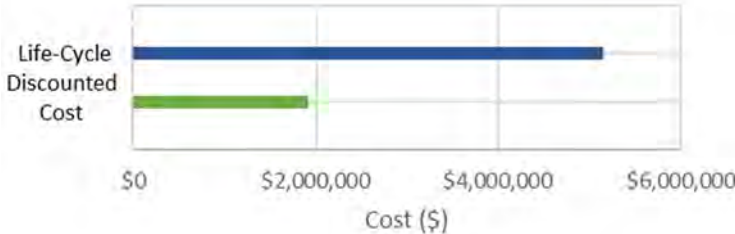
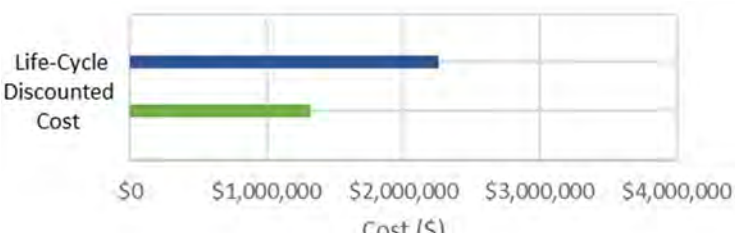
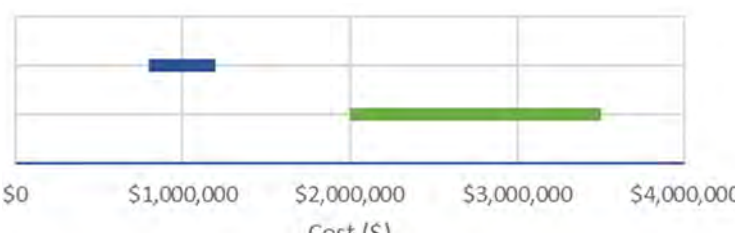
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (Ramps)	Signal	Roundabout	
Annual Cost of Collisions	\$ 173,894	\$ 362,732	\$ 66,133	
Discounted Life Cycle Cost of Collisions	\$ 2,439,589	\$ 5,088,830	\$ 927,785	
Delay				
	Existing (Ramps)	Signal	Roundabout	
Annual Quantity (hours)	\$ -	\$ 8,425	\$ 4,931	
Annual Cost	\$ -	\$ 100,490	\$ 57,941	
Total Discounted Life Cycle Cost	\$ -	\$ 2,210,782	\$ 1,274,706	
O&M				
	Existing (Ramps)	Signal	Roundabout	
Annual O&M Costs	\$ 1,920	\$ 9,220	\$ 1,920	
Discounted Life Cycle O&M Costs	\$ 26,936	\$ 129,349	\$ 26,936	
Discounted Pavement Rehab Costs	\$ 54,766	\$ 66,531	\$ 56,551	
Total O&M Costs	\$ 81,702	\$ 195,880	\$ 83,487	
Initial Capital				
	Existing (Ramps)	Signal	Roundabout	
High Approximation	\$ 0	\$ 1,200,000	\$ 3,500,000	
Low Approximation	\$ 0	\$ 800,000	\$ 2,000,000	
Life Cycle Benefit-Cost Ratio				
		Total Benefits (B)		
	Existing (Ramps)	Signal	Roundabout	
Safety	-	\$ (2,649,241)	\$ 1,511,804	
Delay	-	\$ (2,210,782)	\$ (1,274,706)	
Total Benefits	-	\$ (4,860,023)	\$ 237,098	
		Total Costs (C)		
	Existing (Ramps)	Signal	Roundabout	
O&M	\$ -	\$ 114,178	\$ 1,785	
Budget	\$ -	\$ 1,000,000	\$ 2,750,000	
Total Costs	\$ -	\$ 1,114,178	\$ 2,751,785	
B/C Ratio Compared to Existing	NA	NA-S*	0.09*	
*Neither the proposed roundabout nor signal have a B/C ratio greater than 1.0 which means the existing signal is the preferred control. Operations for the existing control are acceptable in the future; however, a ramp terminal is being considered at the interchange. The rest of this section will compare the proposed signal and roundabout to determine which control would be best for a ramp terminal.				

City of Seaside Intersection Control Evaluation Study
Intersection 2.7b – Lightfighter Drive at SR-1 Northbound Ramps

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

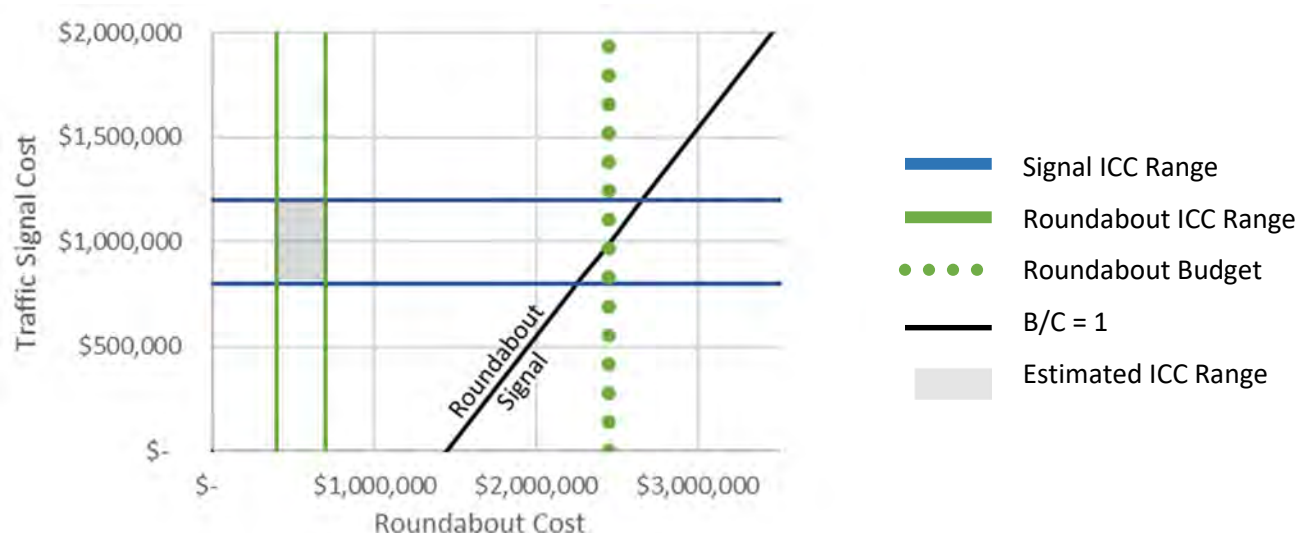
Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Life-Cycle Discounted Costs (Safety)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~5,000,000</td></tr><tr><td>Roundabout</td><td>~2,000,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~5,000,000	Roundabout	~2,000,000			
Control Type	Cost (\$)										
Signal	~5,000,000										
Roundabout	~2,000,000										
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 <table><caption>Life-Cycle Discounted Costs (Delay)</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~2,500,000</td></tr><tr><td>Roundabout</td><td>~1,200,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~2,500,000	Roundabout	~1,200,000			
Control Type	Cost (\$)										
Signal	~2,500,000										
Roundabout	~1,200,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Control Type</th><th>Annual Cost (\$)</th><th>Life Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$10,000</td><td>~\$220,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$100,000</td></tr></tbody></table>	Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)	Signal	~\$10,000	~\$220,000	Roundabout	~\$5,000	~\$100,000
Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)									
Signal	~\$10,000	~\$220,000									
Roundabout	~\$5,000	~\$100,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Costs</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$1,000,000</td></tr><tr><td>Roundabout</td><td>~\$3,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~\$1,000,000	Roundabout	~\$3,500,000			
Control Type	Cost (\$)										
Signal	~\$1,000,000										
Roundabout	~\$3,500,000										

City of Seaside Intersection Control Evaluation Study
Intersection 2.7b – Lightfighter Drive at SR-1 Northbound Ramps

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,200,000	\$ 2,000,000	\$ 800,000	\$ (110,121)	\$ 4,177,799	\$ 689,879	6.06
Low	\$ 800,000	\$ 3,500,000	\$ 2,700,000			\$ 2,589,879	1.61
Roundabout Budget	\$ 1,000,000	\$ 5,287,920	\$ 4,287,920			\$ 4,177,799	1.00

The high B/C target is calculated assuming the high-end of the traffic signal initial capital costs and the low-end of the roundabout initial capital costs.

The low B/C target is calculated assuming the low-end of the traffic signal initial capital costs and the high-end of the roundabout initial capital costs.



The table above summarizes the B/C analysis for Lightfighter Drive at the SR-1 Ramps. The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is the is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

PREFERRED INTERSECTION ALTERNATIVE

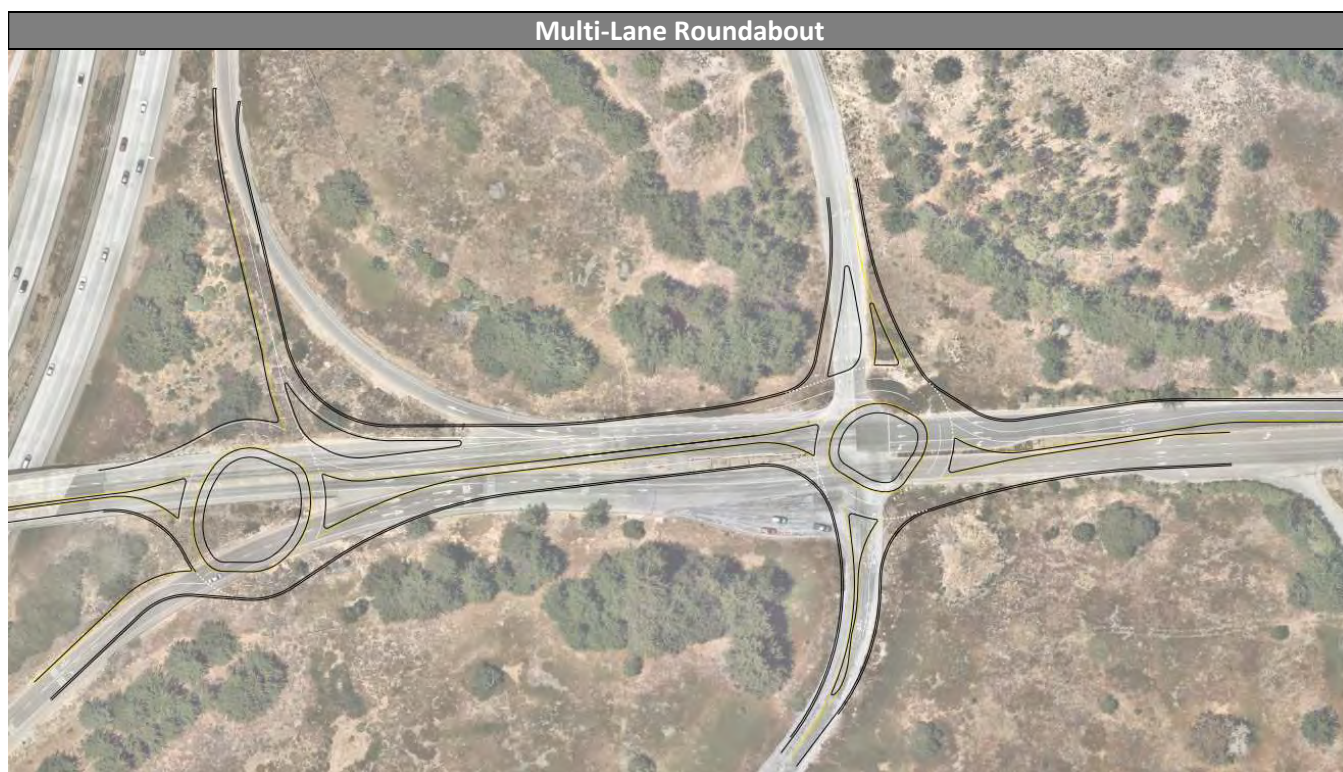
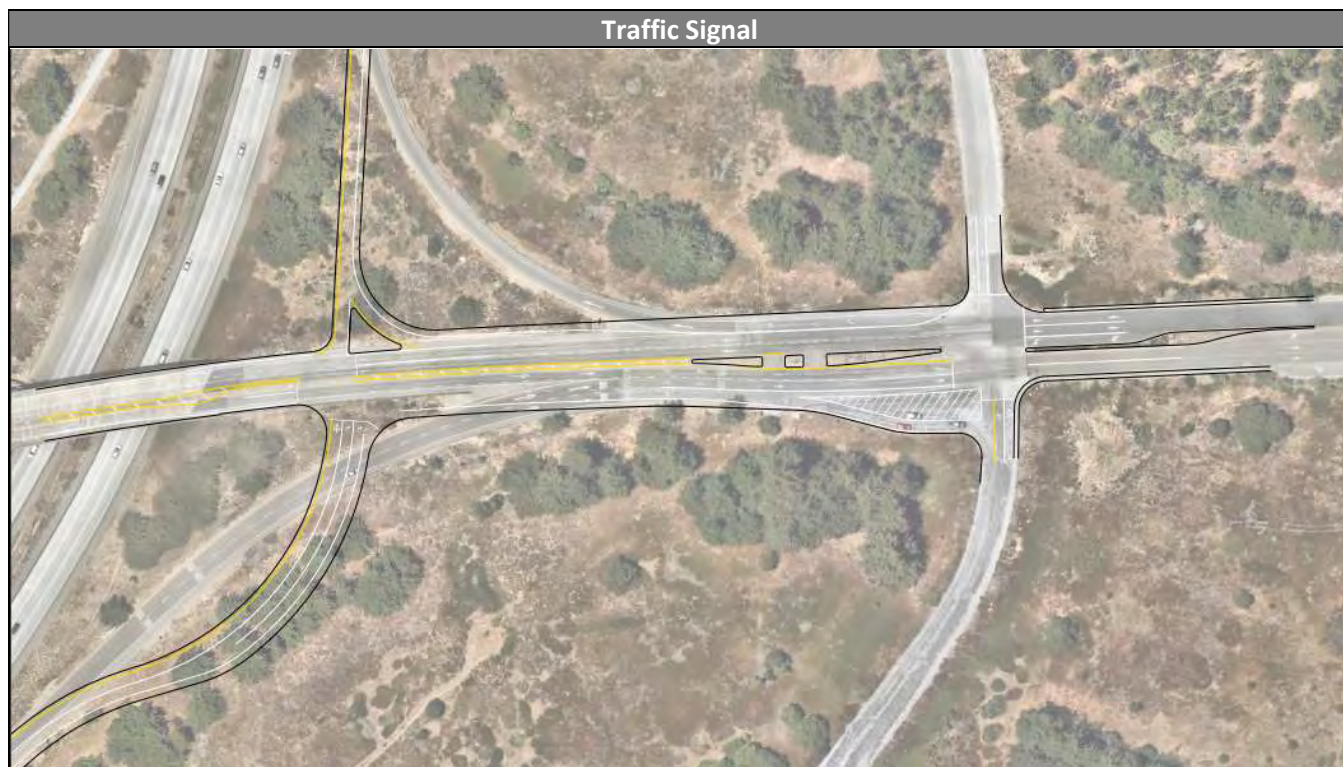
RAMPS



The existing ramps is the preferred control because both the proposed traffic signal and roundabout have B/C ratios less than 1.0 when compared to the existing conditions. If the intersection were to have a ramp terminal, a roundabout would be the preferred option. If roundabouts are constructed at INT 2.8 (Lightfighter Drive at Second Avenue) and INT 2.7a (Lightfighter Drive at First Avenue) then a roundabout should also be constructed at INT 2.7b to keep continuity throughout the corridor (refer to page 88 for the roundabout corridor layout along Lightfighter Drive).

City of Seaside Intersection Control Evaluation Study
Intersection 2.7b – Lightfighter Drive at SR-1 Northbound Ramps

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.8 – LIGHTFIGHTER DRIVE AT SECOND AVENUE

INTERSECTION CONTROL ALTERNATIVES

The three intersection control types analyzed include:

1. Existing Signal
2. Proposed Signal Improvements
3. Multi-lane Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Lightfighter Dr at Second Ave is currently controlled by signals. Design constraints at the intersection include:

1. Driveway
2. Parking Lot



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.8	Lightfighter Dr at Second Ave		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs		
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.8 – Lightfighter Drive at Second Avenue

INTERSECTION LIFE CYCLE COST CALCULATIONS

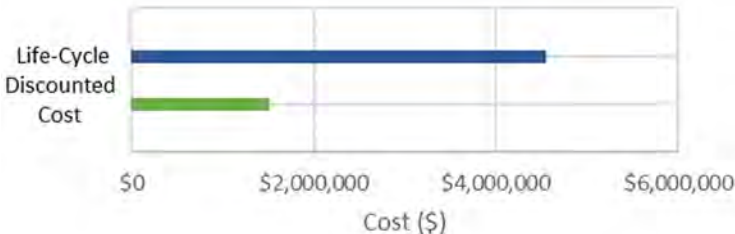
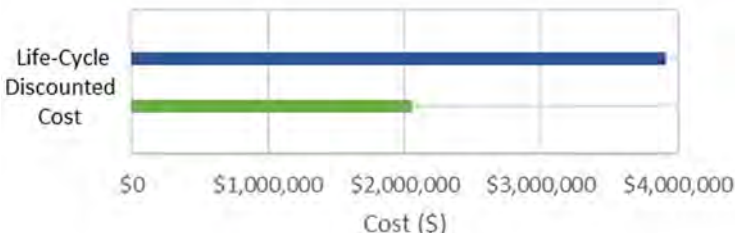
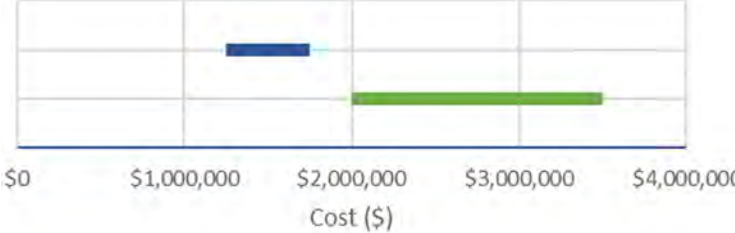
The first-stage B/C analysis compares proposed improvements to the existing conditions. If the B/C Ratio is greater than 1.0, the proposed improvements have a greater return on investment than the existing control.

Performance Measure Life Cycle Cost (Net Present Value)				
Safety				
	Existing (Signal)	Signal (Add. Lanes)	Roundabout	
Annual Cost of Collisions	\$ 310,530	\$ 319,620	\$ 102,649	
Discounted Life Cycle Cost of Collisions	\$ 4,356,472	\$ 4,484,001	\$ 1,440,077	
Delay				
	Existing (Signal)	Signal (Add. Lanes)	Roundabout	
Annual Quantity (hours)	83,624	14,361	27,037	
Annual Cost	\$ 969,626	\$ 175,815	\$ 313,394	
Total Discounted Life Cycle Cost	\$ 21,331,763	\$ 3,867,940	\$ 6,894,663	
O&M				
	Existing (Signal)	Signal (Add. Lanes)	Roundabout	
Annual O&M Costs	9,220	9,220	1,920	
Discounted Life Cycle O&M Costs	\$ 129,349	\$ 129,349	\$ 26,936	
Discounted Pavement Rehab Costs	\$ 722,917	\$ 722,917	\$ 654,459	
Total O&M Costs	\$ 852,266	\$ 852,266	\$ 681,395	
Initial Capital				
	Existing (Signal)	Signal (Add. Lanes)	Roundabout	
High Approximation	\$ 0	\$ 1,250,000	\$ 3,500,000	
Low Approximation	\$ 0	\$ 1,750,000	\$ 2,000,000	
Life Cycle Benefit-Cost Ratio				
	Total Benefits (B)			
	Existing (Signal)	Signal (Add. Lanes)	Roundabout	
Safety	\$ -	\$ (127,529)	\$ 2,916,395	
Delay	\$ -	\$ 17,463,823	\$ 19,324,724	
Total Benefits	\$ -	\$ 17,336,294	\$ 22,241,118	
	Total Costs (C)			
	Existing (Signal)	Signal (Add. Lanes)	Roundabout	
O&M	\$ -	\$ -	\$ (170,871)	
Budget	\$ -	\$ 1,750,000	\$ 3,500,000	
Total Costs	\$ -	\$ 1,750,000	\$ 3,329,129	
B/C Ratio Compared to Existing	NA	9.91	6.68	
Both the proposed roundabout and signal improvements have a B/C ratio greater than 1.0 which means they are preferred over the existing signal configuration. The rest of this section will compare the proposed roundabout and traffic signal improvements.				

City of Seaside Intersection Control Evaluation Study
Intersection 2.8 – Lightfighter Drive at Second Avenue

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

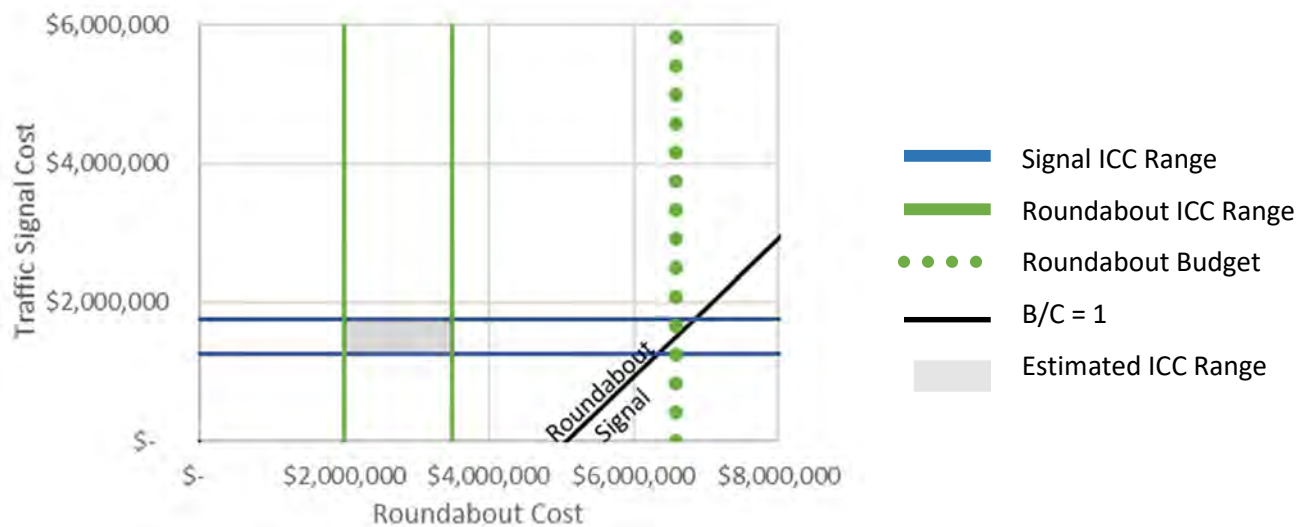
Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 <table><caption>Life-Cycle Discounted Cost (Safety)</caption><tr><th>Control Type</th><th>Cost (\$)</th></tr><tr><td>Signal</td><td>~\$4,500,000</td></tr><tr><td>Roundabout</td><td>~\$1,500,000</td></tr></table>	Control Type	Cost (\$)	Signal	~\$4,500,000	Roundabout	~\$1,500,000			
Control Type	Cost (\$)										
Signal	~\$4,500,000										
Roundabout	~\$1,500,000										
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Control Type	Cost (\$)										
Signal	~\$3,800,000										
Roundabout	~\$1,800,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><tr><th>Control Type</th><th>Annual Cost (\$)</th><th>Life Cycle Discounted Cost (\$)</th></tr><tr><td>Signal</td><td>~\$10,000</td><td>~\$210,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td><td>~\$100,000</td></tr></table>	Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)	Signal	~\$10,000	~\$210,000	Roundabout	~\$5,000	~\$100,000
Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)									
Signal	~\$10,000	~\$210,000									
Roundabout	~\$5,000	~\$100,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><tr><th>Control Type</th><th>Cost (\$)</th></tr><tr><td>Signal</td><td>~\$1,500,000</td></tr><tr><td>Roundabout</td><td>~\$3,500,000</td></tr></table>	Control Type	Cost (\$)	Signal	~\$1,500,000	Roundabout	~\$3,500,000			
Control Type	Cost (\$)										
Signal	~\$1,500,000										
Roundabout	~\$3,500,000										

City of Seaside Intersection Control Evaluation Study
Intersection 2.8 – Lightfighter Drive at Second Avenue

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ 1,750,000	\$ 2,000,000	\$ 250,000			\$ 79,129	61.99
Low	\$ 1,250,000	\$ 3,500,000	\$ 2,250,000	\$ (170,871)	\$ 4,904,825	\$ 2,079,129	2.36
Roundabout Budget	\$ 1,500,000	\$ 6,575,696	\$ 5,075,696			\$ 4,904,825	1.00

The high B/C target is calculated assuming the high-end of the traffic signal improvements initial capital costs and the low-end of the roundabout initial capital costs.

The low B/C target is calculated assuming the low-end of the traffic signal improvements initial capital costs and the high-end of the roundabout initial capital costs.



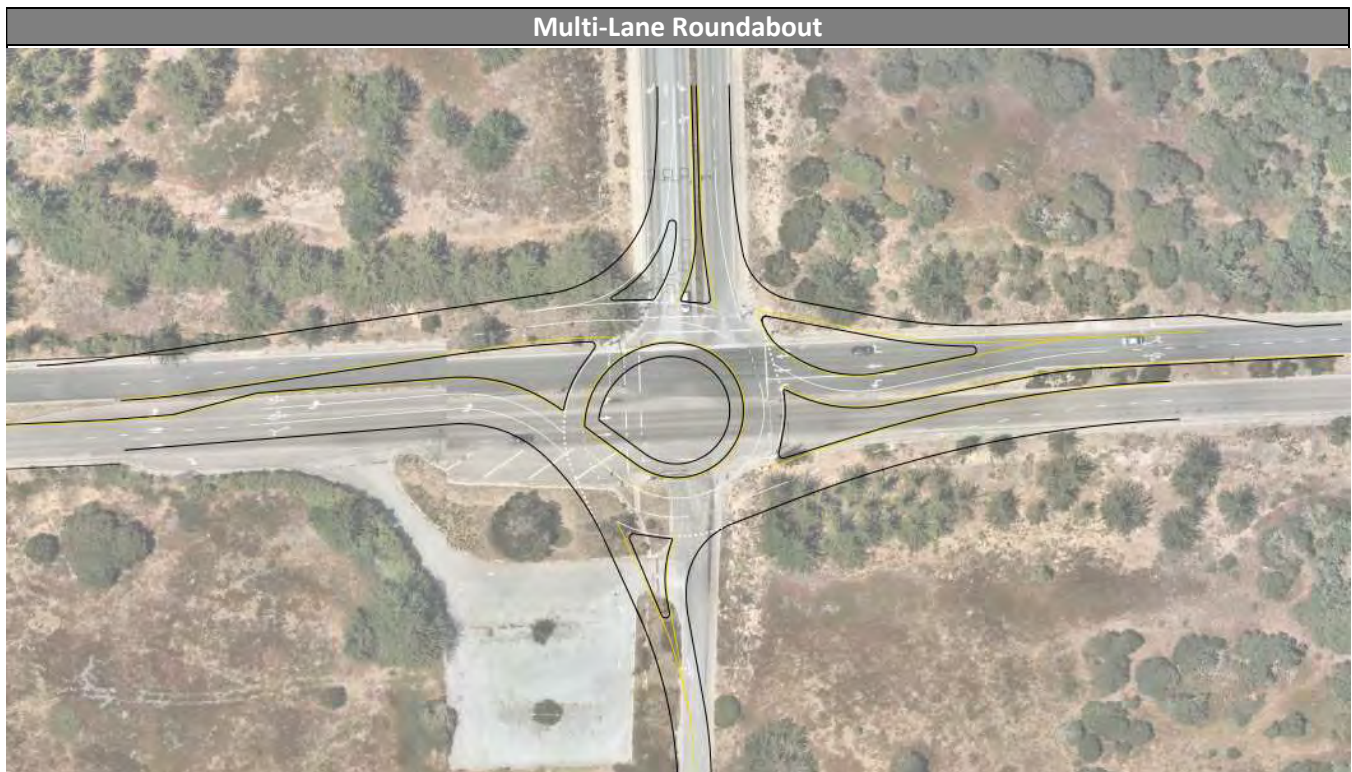
The table above summarizes the B/C analysis for Lightfighter Drive at Second Avenue. The initial capital cost (ICC) ranges for the roundabout and signal options are represented by the vertical and horizontal solid lines, respectively. The black diagonal line represents a neutral B/C ratio of 1.0. If a pair of roundabout and signal ICC costs (x and y values) are above the black diagonal line, then the B/C ratio is greater than 1.0 and the roundabout option has the greater ROI. If a pair of roundabout and signal ICC costs is below the black diagonal line, then the B/C ratio is less than 1.0 and the signal has the greater ROI. The roundabout budget is the is depicted with the green dotted line and represents how much can be spent on the roundabout ICC to achieve a neutral B/C equal to 1.0.

PREFERRED INTERSECTION ALTERNATIVE



Compared to the existing traffic signal, both the proposed traffic signal improvements and roundabout are preferred. The proposed roundabout would provide a greater return on investment over the proposed traffic signal improvements.

INTERSECTION CONTROL CONCEPT LAYOUTS



Lightfighter Drive Roundabout Corridor



INTERSECTION 2.9 – MESCAL STREET AT YOSEMITE STREET

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing All-Way Stop Control
2. Mini-Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Mescal St at Yosemite St is currently controlled by signals. Design constraints at the intersection include:

1. Single family residence
2. Driveway
3. Bus stop
4. Proximity to St. Helena St
5. Proximity to Seminole Ct



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.9	Mescal St a Yosemite St		
	Urban Environment Focus	X	X
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs	X	X
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.9 – Mescal Street at Yosemite Street

INTERSECTION LIFE CYCLE COST CALCULATIONS

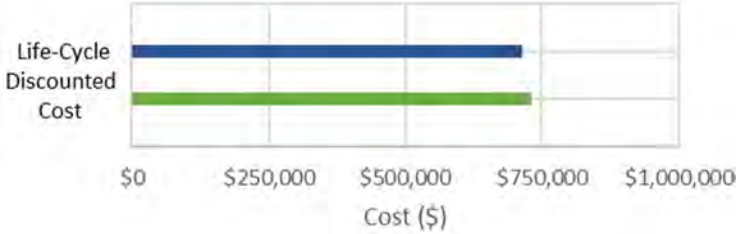
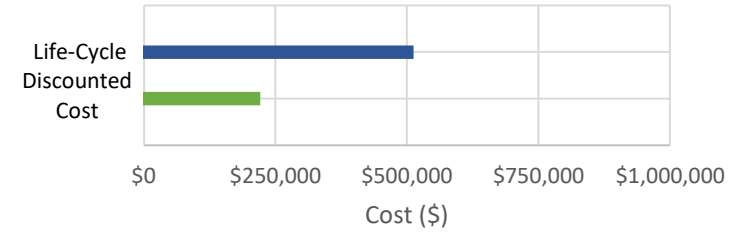
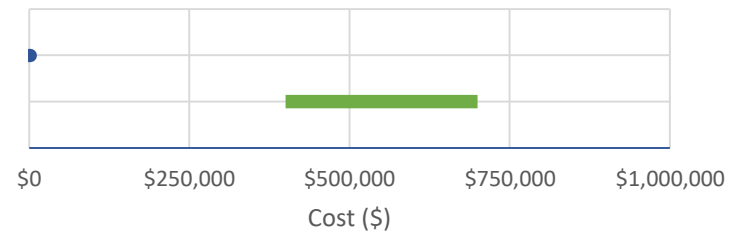
A traffic signal was not needed at Mescal Street at Yosemite Street. The rest of this section will compare the existing AWSC and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)			
Safety			
	Existing (AWSC)	Roundabout	
Annual Cost of Collisions	\$ 49,965	\$	51,182
Discounted Life Cycle Cost of Collisions	\$ 700,963	\$	718,035
Delay			
	Existing (AWSC)	Roundabout	
Annual Quantity (hours)	1,689		710
Annual Cost	\$ 22,720	\$	9,480
Total Discounted Life Cycle Cost	\$ 499,843	\$	208,562
O&M			
	Existing (AWSC)	Roundabout	
Annual O&M Costs	520		1,920
Discounted Life Cycle O&M Costs	\$ 7,295	\$	26,936
Discounted Pavement Rehab Costs	\$ 10,750	\$	8,418
Total O&M Costs	\$ 18,046	\$	35,354
Initial Capital			
	Existing (AWSC)	Roundabout	
High Approximation	\$ 0	\$	700,000
Low Approximation	\$ 0	\$	500,000

City of Seaside Intersection Control Evaluation Study
Intersection 2.9 – Mescal Street at Yosemite Street

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for stop control and roundabout control. The table below summarizes the performance measures considered in this study.

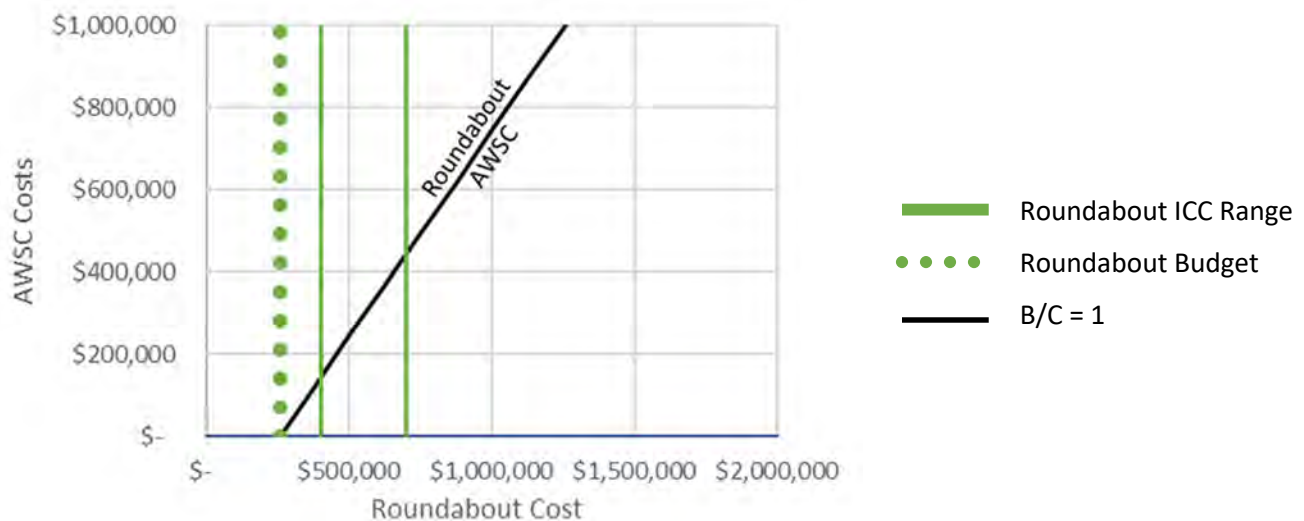
Performance Measure	Preferred Alt.	Visual Representation
Benefits		
Safety Safety measures the societal cost associated with the predicted number and severity of collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expensive than Property Damage Only accidents.		 Life-Cycle Discounted Cost Cost (\$)
Delay Delay measures the societal cost associated with the number of person-hours delayed in traffic. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters.		 Life-Cycle Discounted Cost Cost (\$)
Costs		
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 Annual Life Cycle Discounted Costs Cost (\$)
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 Cost (\$)

City of Seaside Intersection Control Evaluation Study
Intersection 2.9 – Mescal Street at Yosemite Street

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	AWSC (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 400,000	\$ 400,000	\$ 17,308	\$ 274,209	\$ 417,308	0.66
Low	\$ -	\$ 700,000	\$ 700,000			\$ 717,308	0.38
Roundabout Budget	\$ -	\$ 256,901	\$ 256,901			\$ 274,209	1.00

The high B/C target is calculated assuming the high-end of the existing AWSC initial capital costs and the low-end of the roundabout initial capital costs.

The low B/C target is calculated assuming the low-end of the existing AWSC initial capital costs and the high-end of the roundabout initial capital costs.



The table above summarizes the B/C analysis for Mescal Street at Yosemite Street. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing AWSC has the greater ROI.

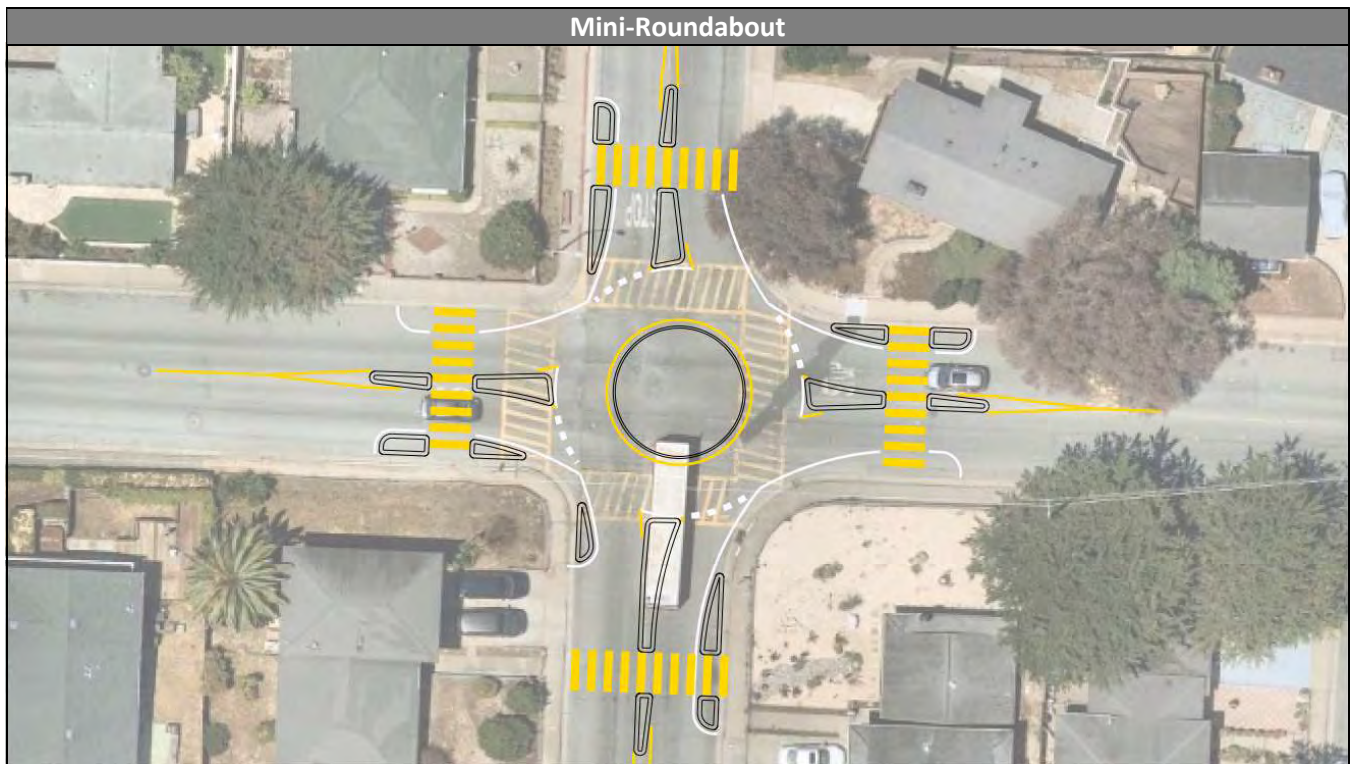
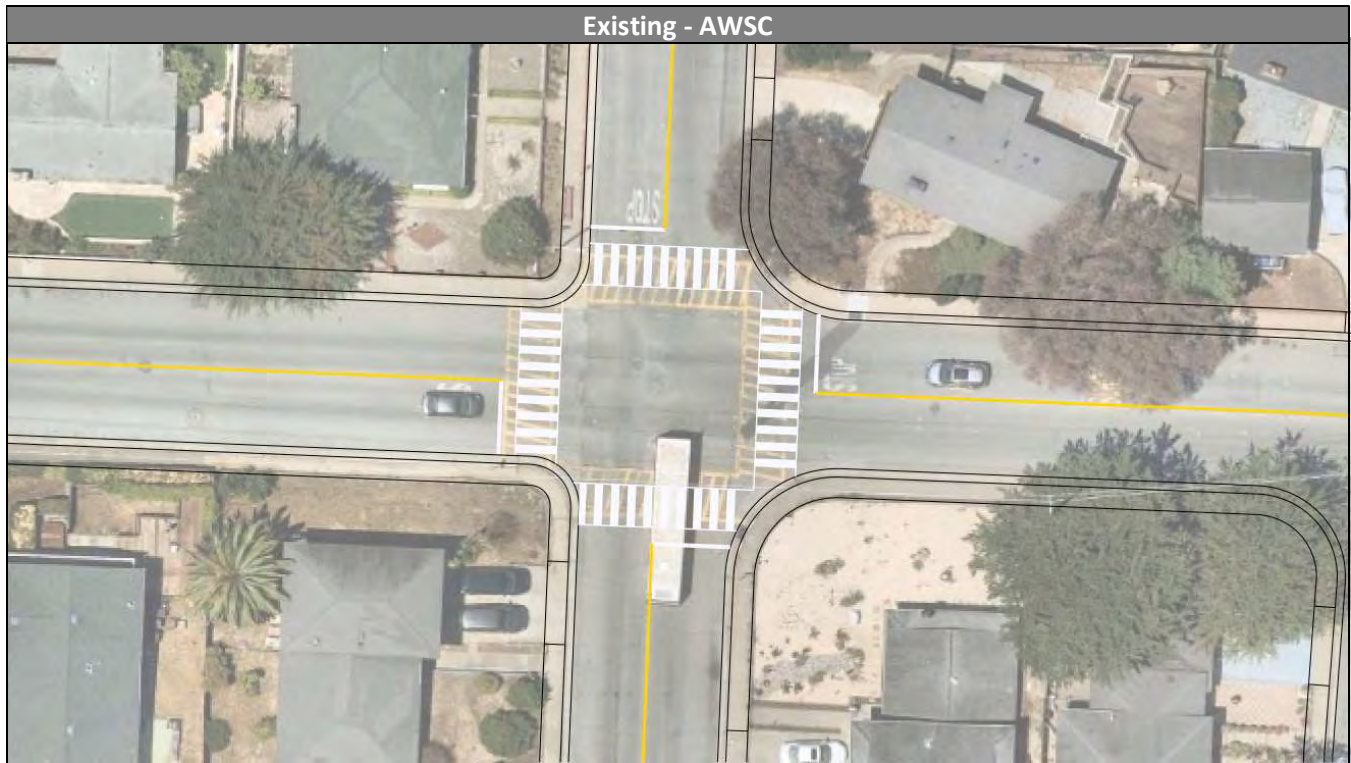
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is the existing AWSC.



City of Seaside Intersection Control Evaluation Study
Intersection 2.9 – Mescal Street at Yosemite Street

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.10 – SAN PABLO AVENUE AT GENERAL JIM MOORE BOULEVARD

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing Signal
2. Multi-lane Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

San Pablo Ave at General Jim Moore Blvd is currently controlled by signals. Design constraints at the intersection include:

1. Steep uphill grade
2. Proximity to Mescal St



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.10	San Pablo Ave at GJM Blvd		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs		
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.10 – San Pablo Avenue at General Jim Moore Boulevard

INTERSECTION LIFE CYCLE COST CALCULATIONS

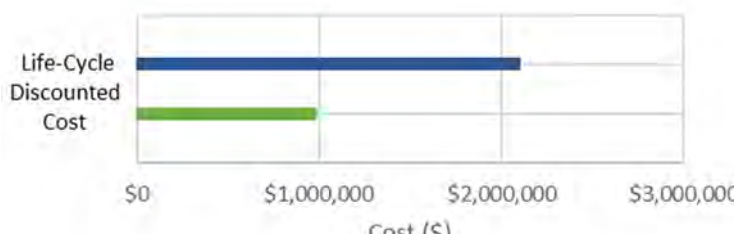
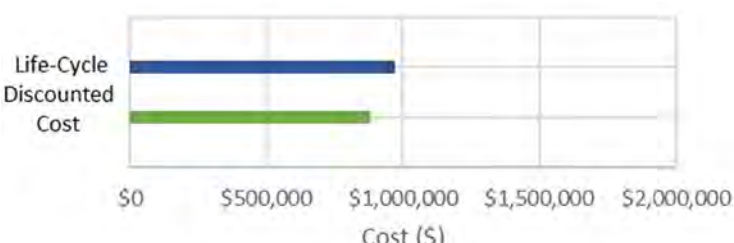
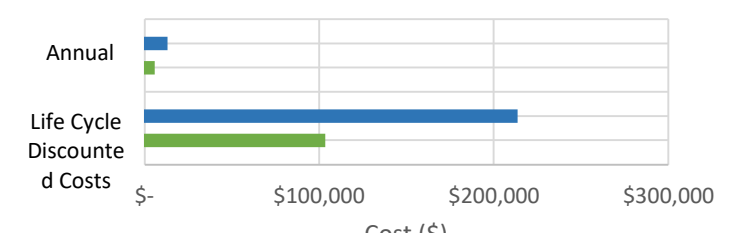
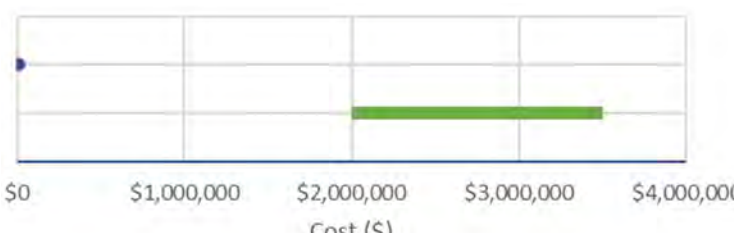
Signal improvements were not needed at San Pablo Avenue at General Jim Moore Boulevard. The rest of this section will compare the existing signal and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)		
Safety		
	Existing (Signal)	Roundabout
Annual Cost of Collisions	\$ 147,263	\$ 67,748
Discounted Life Cycle Cost of Collisions	\$ 2,065,978	\$ 950,448
Delay		
	Existing (Signal)	Roundabout
Annual Quantity (hours)	3,395	3,106
Annual Cost	\$ 43,104	\$ 38,890
Total Discounted Life Cycle Cost	\$ 948,293	\$ 855,569
O&M		
	Existing (Signal)	Roundabout
Annual O&M Costs	9,220	1,920
Discounted Life Cycle O&M Costs	\$ 129,349	\$ 26,936
Discounted Pavement Rehab Costs	\$ 80,426	\$ 72,718
Total O&M Costs	\$ 209,774	\$ 99,654
Initial Capital		
	Existing (Signal)	Roundabout
High Approximation	\$ 0	\$ 3,500,000
Low Approximation	\$ 0	\$ 2,000,000

City of Seaside Intersection Control Evaluation Study
Intersection 2.10 – San Pablo Avenue at General Jim Moore Boulevard

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

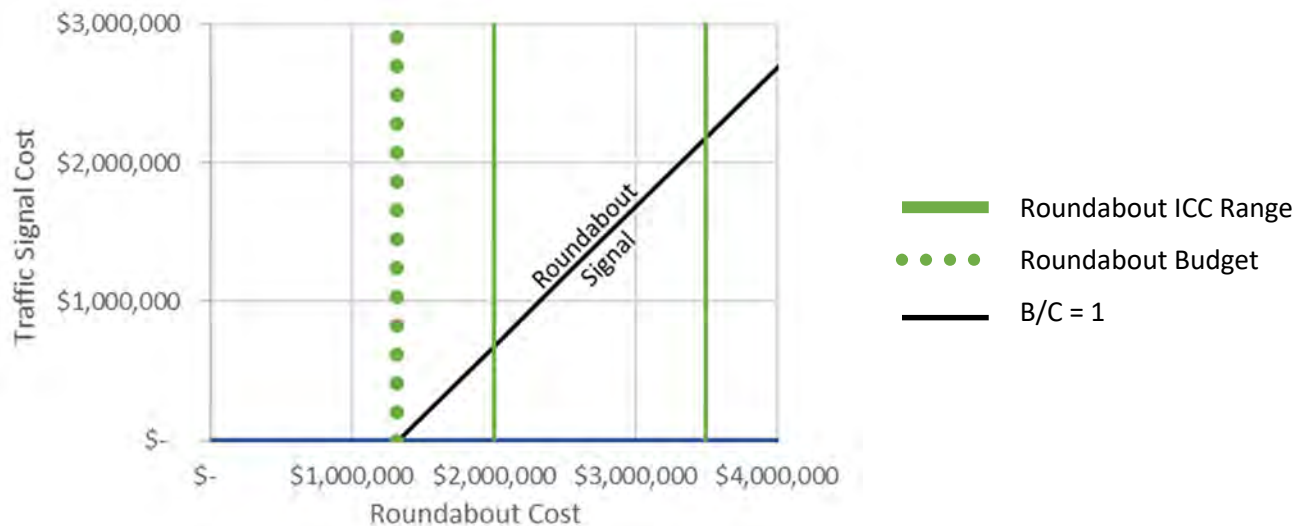
Performance Measure	Preferred Alt.	Visual Representation													
Benefits															
Safety Safety measures the societal cost associated with the predicted number and severity and collisions. Overall societal costs are based on Caltrans Vehicle Operation Cost Parameters. Injury and Fatality crashes are on average 700-1,000 times more expense than Property Damage Only accidents.		 <table><caption>Life-Cycle Discounted Cost (Safety)</caption><thead><tr><th>Alternative</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$2,100,000</td></tr><tr><td>Roundabout</td><td>~\$1,000,000</td></tr></tbody></table>	Alternative	Cost (\$)	Signal	~\$2,100,000	Roundabout	~\$1,000,000							
Alternative	Cost (\$)														
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Alternative	Cost (\$)														
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Costs															
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Measure</th><th>Alternative</th><th>Cost (\$)</th></tr></thead><tbody><tr><td rowspan="2">Annual</td><td>Signal</td><td>~\$10,000</td></tr><tr><td>Roundabout</td><td>~\$5,000</td></tr><tr><td rowspan="2">Life Cycle Discounted Costs</td><td>Signal</td><td>~\$210,000</td></tr><tr><td>Roundabout</td><td>~\$100,000</td></tr></tbody></table>	Measure	Alternative	Cost (\$)	Annual	Signal	~\$10,000	Roundabout	~\$5,000	Life Cycle Discounted Costs	Signal	~\$210,000	Roundabout	~\$100,000
Measure	Alternative	Cost (\$)													
Annual	Signal	~\$10,000													
	Roundabout	~\$5,000													
Life Cycle Discounted Costs	Signal	~\$210,000													
	Roundabout	~\$100,000													
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control. This graph (right) depicts the estimated range of Initial capital costs for the signal and roundabout alternatives as well as the roundabout budget.		 <table><caption>Initial Capital Costs</caption><thead><tr><th>Alternative</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~\$500,000</td></tr><tr><td>Roundabout</td><td>~\$2,500,000</td></tr></tbody></table>	Alternative	Cost (\$)	Signal	~\$500,000	Roundabout	~\$2,500,000							
Alternative	Cost (\$)														
Signal	~\$500,000														
Roundabout	~\$2,500,000														

City of Seaside Intersection Control Evaluation Study
Intersection 2.10 – San Pablo Avenue at General Jim Moore Boulevard

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 2,000,000	\$ 2,000,000	\$ (110,121)	\$ 1,208,254	\$ 1,889,879	0.64
Low	\$ -	\$ 3,500,000	\$ 3,500,000			\$ 3,389,879	0.36
Roundabout Budget	\$ -	\$ 1,318,375	\$ 1,318,375			\$ 1,208,254	1.00

The high B/C target is calculated assuming the high-end of the existing traffic signal initial capital costs and the low-end of the roundabout initial capital costs.

The low B/C target is calculated assuming the low-end of the existing traffic signal initial capital costs and the high-end of the roundabout initial capital costs.



The table above summarizes the B/C analysis for San Pablo Avenue at General Jim Moore Boulevard. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing signal has the greater ROI.

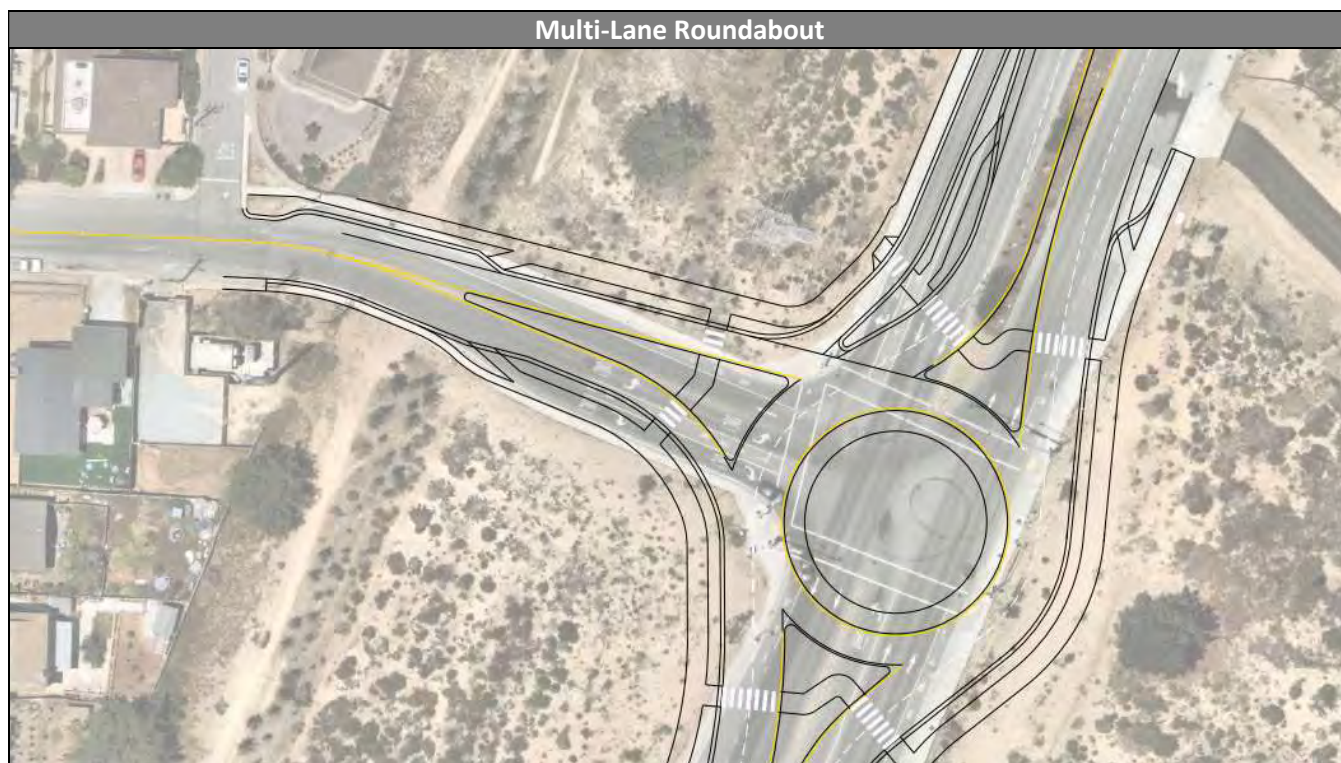
PREFERRED INTERSECTION ALTERNATIVE

The preferred alternative based on B/C ratio for this intersection is existing traffic signal control.



City of Seaside Intersection Control Evaluation Study
Intersection 2.10 – San Pablo Avenue at General Jim Moore Boulevard

INTERSECTION CONTROL CONCEPT LAYOUTS



INTERSECTION 2.11 – HILBY AVENUE AT GENERAL JIM MOORE BOULEVARD

INTERSECTION CONTROL ALTERNATIVES

The two intersection control types analyzed include:

1. Existing Signal
2. Multi-lane Roundabout



EXISTING CONDITIONS AND PROJECT CONSTRAINTS

Hilby Ave at General Jim Moore Blvd is currently controlled by signals. Design constraints at the intersection include:

1. Proximity to Mescal St
2. Bus stop



QUALITATIVE ASSESSMENT

The following table summarizes qualitative factors that were considered in the design of each alternative.

Qualitative Assessment		Existing Control Feasibility	Roundabout Control Feasibility
INT 2.11	Hilby Ave at GJM Blvd		
	Urban Environment Focus	N/A	N/A
	Design for Pedestrians	X	X
	Design for Bicyclists	X	X
	Slow Traffic Speeds to Benefit Local Businesses	N/A	N/A
	Minimize ROW Acquisition to Limit Initial Costs		
	Minimize Left-Turn Movements to Improve Safety		X

City of Seaside Intersection Control Evaluation Study
Intersection 2.11 – Hilby Avenue at General Jim Moore Boulevard

INTERSECTION LIFE CYCLE COST CALCULATIONS

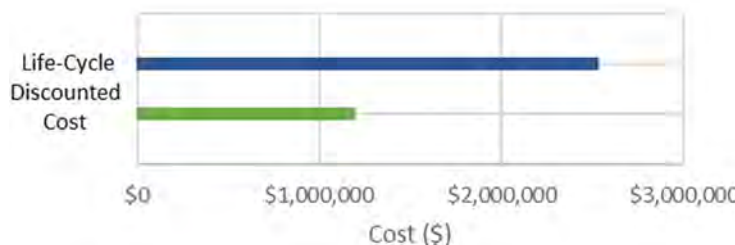
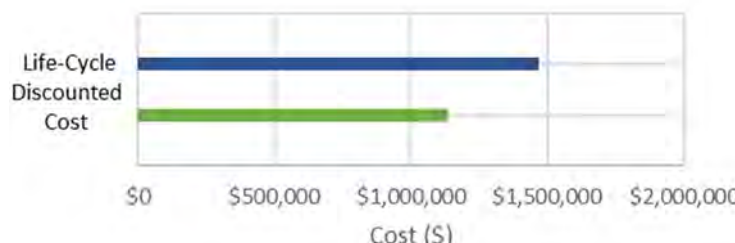
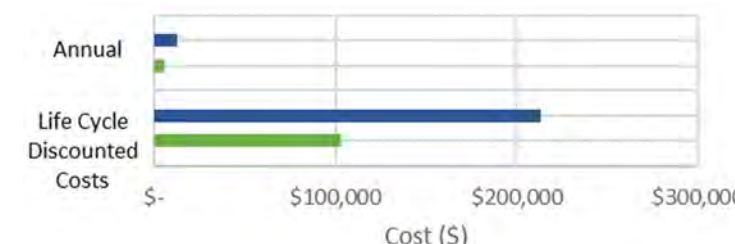
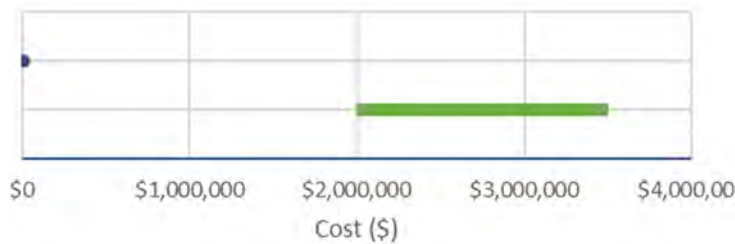
Signal improvements were not needed at Hilby Avenue at General Jim Moore Boulevard. The rest of this section will compare the existing signal and the proposed roundabout.

Performance Measure Life Cycle Cost (Net Present Value)			
Safety			
	Existing (Signal)	Roundabout	
Annual Cost of Collisions	\$ 177,975	\$	82,868
Discounted Life Cycle Cost of Collisions	\$ 2,496,841	\$	1,162,574
Delay			
	Existing (Signal)	Roundabout	
Annual Quantity (hours)	5,399		4,167
Annual Cost	\$ 65,595	\$	50,466
Total Discounted Life Cycle Cost	\$ 1,443,091	\$	1,110,245
O&M			
	Existing (Signal)	Roundabout	
Annual O&M Costs	9,220		1,920
Discounted Life Cycle O&M Costs	\$ 129,349	\$	26,936
Discounted Pavement Rehab Costs	\$ 80,426	\$	72,718
Total O&M Costs	\$ 209,774	\$	99,654
Initial Capital			
	Existing (Signal)	Roundabout	
High Approximation	\$ 0	\$	3,500,000
Low Approximation	\$ 0	\$	2,000,000

City of Seaside Intersection Control Evaluation Study
Intersection 2.11 – Hilby Avenue at General Jim Moore Boulevard

PERFORMANCE MEASURE SUMMARY

Four performance measures were evaluated at each intersection for signal and roundabout control. The table below summarizes the performance measures considered in this study.

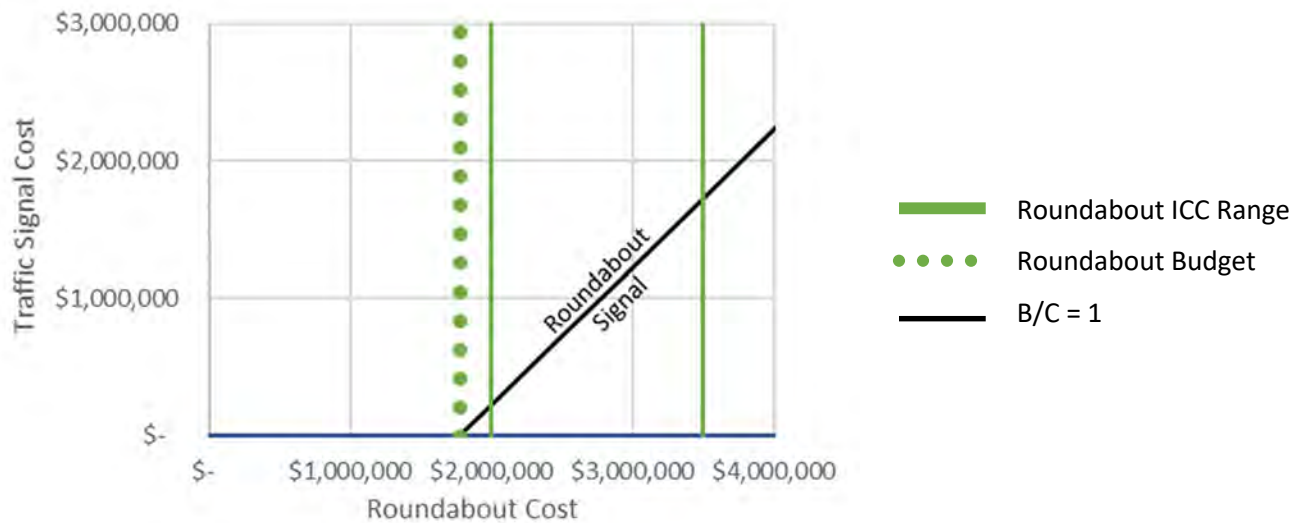
Performance Measure	Preferred Alt.	Visual Representation									
Benefits											
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Control Type	Cost (\$)										
Signal	~2,500,000										
Roundabout	~1,200,000										
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Control Type	Cost (\$)										
Signal	~1,500,000										
Roundabout	~1,000,000										
Costs											
Operations and Maintenance O&M measures the common annualized costs associated with operating and maintaining the intersection.		 <table><caption>Operations and Maintenance Costs</caption><thead><tr><th>Control Type</th><th>Annual Cost (\$)</th><th>Life Cycle Discounted Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~20,000</td><td>~220,000</td></tr><tr><td>Roundabout</td><td>~10,000</td><td>~100,000</td></tr></tbody></table>	Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)	Signal	~20,000	~220,000	Roundabout	~10,000	~100,000
Control Type	Annual Cost (\$)	Life Cycle Discounted Cost (\$)									
Signal	~20,000	~220,000									
Roundabout	~10,000	~100,000									
Initial Capital Cost Measures the Initial Capital Costs (ICC) needed to plan, design, obtain project approvals, acquire right-of-way, and construct the intersection control.		 <table><caption>Initial Capital Cost</caption><thead><tr><th>Control Type</th><th>Cost (\$)</th></tr></thead><tbody><tr><td>Signal</td><td>~200,000</td></tr><tr><td>Roundabout</td><td>~2,500,000</td></tr></tbody></table>	Control Type	Cost (\$)	Signal	~200,000	Roundabout	~2,500,000			
Control Type	Cost (\$)										
Signal	~200,000										
Roundabout	~2,500,000										

City of Seaside Intersection Control Evaluation Study
Intersection 2.11 – Hilby Avenue at General Jim Moore Boulevard

Benefit-Cost Ratio Calculations							
B/C Target	Capital Cost		Added Cost for Roundabout (c) = (b - a)	Project Constraints		Total Costs (f) = (c + d)	B/C (g) = (e / f)
	Traffic Signal (a)	Roundabout (b)		Added O&M Cost for Roundabout (d)	Total Benefits (e)		
High	\$ -	\$ 2,000,000	\$ 2,000,000	\$ (110,121)	\$ 1,529,797	\$ 1,889,879	0.81
Low	\$ -	\$ 3,500,000	\$ 3,500,000			\$ 3,389,879	0.45
Roundabout Budget	\$ -	\$ 1,639,918	\$ 1,639,918			\$ 1,529,797	1.00

The high B/C target is calculated assuming the high-end of the existing traffic signal initial capital costs and the low-end of the roundabout initial capital costs.

The low B/C target is calculated assuming the low-end of the existing traffic signal initial capital costs and the high-end of the roundabout initial capital costs.



The table above summarizes the B/C analysis for Hilby Avenue at General Jim Moore Boulevard. The initial capital cost (ICC) ranges for the roundabout are represented by the vertical solid lines. The black diagonal line represents a neutral B/C ratio of 1.0. The roundabout budget is depicted with the green dotted line. If the roundabout cost is less than the budget, the B/C is greater than 1.0 and the roundabout option has the greater ROI. If the roundabout cost is greater than the budget, the B/C is less than 1.0 and the existing signal has the greater ROI.

INTERSECTION CONTROL CONCEPT LAYOUTS

The preferred alternative based on B/C ratio for this intersection is existing traffic signal control.



City of Seaside Intersection Control Evaluation Study
Intersection 2.11 – Hilby Avenue at General Jim Moore Boulevard

INTERSECTION CONTROL CONCEPT LAYOUTS





CITY OF SEASIDE STAFF REPORT

Item No.: 9.B.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Nisha Patel, Public Works Director/City Engineer
Patrick Grogan, Associate Engineer

DATE: July 20, 2023

SUBJECT: **ADOPT A RESOLUTION APPROVING THE PLANS AND SPECIFICATIONS FOR THE CITY HALL AND LIBRARY PARKING LOT REPAVING PROJECT, APPROPRIATING \$73,785.00 FROM THE GENERAL FUND TO THE PROJECT, AND AWARDING A CONSTRUCTION CONTRACT TO MONTEREY PENINSULA ENGINEERING, INC. FOR AN AMOUNT NOT TO EXCEED \$519,365.00 AND TOTAL CONSTRUCTION COST INCLUDING CONTINGENCY OF \$597,270.00**

RECOMMENDATION

Adopt a resolution approving the plans and specifications for the City Hall and Library Parking Lot Repaving Project; appropriating \$73,785.00 from the General Fund to the project; awarding a construction contract to Monterey Peninsula Engineering, Inc. for an amount not to exceed \$519,365.00; establishing a 15% construction contingency for a total construction amount not to exceed of \$597,270.00.

BACKGROUND

The City Hall and Library Parking Lot Repaving Project is located at 440 Harcourt Avenue. The project was approved as part of the Fiscal Year 2022/23 CIP project list, and is being carried over to the Fiscal Year 2023/24 budget and CIP project list. The proposed improvements include the removal of existing asphalt paving, the abandonment of a damaged sanitary sewer line, the installation and rerouting of a new sanitary sewer line, new asphalt paving, the installation and/or repair of curbs, and new ADA paths of travel.

Design was completed and the project was released for construction bids on June 8, 2023. Bids were opened on June 29, 2023, and the City received bids from four

contractors. One bid was submitted after the 3:00 pm deadline, and was not considered.

Contractors	Bid
Coastal Paving	\$685,700.00
Monterey Peninsula Engineering, Inc.	\$519,365.00
Don Chapin, Inc.	\$644,660.00
Kraemer Engineering, Inc. (Bid is ineligible due to late submission)	\$541,785.00

Based upon an evaluation of bid documents received, Monterey Peninsula Engineering (MPE) was the lowest responsive and responsible bidder, with a bid of \$519,365.00. MPE has satisfactorily constructed projects with similar work as the City Hall and Library Parking Lot Repaving Project for the City. Staff recommends a construction contract for this project be awarded to MPE.

Construction on the project will be completed in two phases. Please see the last page of the Specifications (Attachment 4) for a figure of the phase delineation. Phase one of the project will encompass the repaving of the parking lot from City Hall to the second solar structure in front of the library, as well as the ADA path improvements to the parking lot in front of City Hall. Phase one will start on August 21, 2023, and achieve substantial completion, to include paving and striping, by September 20, 2023. During phase one, temporary ADA parking spaces and curb ramps will be provided, one located on Harcourt Avenue by the west parking lot entrance, and a second located at the second solar structure, in front of the library entrance. During phase one, parking will be available from the second solar structure to the back of the library, on Harcourt Avenue, and on Sutter Street.

Construction will then be stopped until September 25 to allow for the use of the parking lot for the Oaxaca by the Sea event on September 23. During the break, a portion of Sutter Street will be made available to the contractor to store equipment in preparation for phase two. Phase two of the project will involve the relocation of a sewer line, and the paving of the remainder of the parking lot, from the second solar structure to the back of the library. Phase two will commence on September 25, 2023, and continue until working days are completed. During phase two, parking will be available in the completed portion of the parking lot in front of City Hall.

ENVIRONMENTAL COMPLIANCE

Pursuant to preliminary review of the activities associated with this Council action in accordance with Section 15061 of the California Environmental Quality Act (CEQA) Guidelines, this project is Categorically Exempt (Class 1, Existing Facilities). The project repairs and performs minor upgrades to the existing parking lot and sanitary sewer utility, and involves negligible or no expansion of use.

FISCAL IMPACT

The proposed construction agreement with MPE is a not to exceed amount of \$519,365.00. An agreement contingency of 15%, or \$77,905.00;, is appropriate for a project of this scope of work.

The adopted fiscal year 2023/2024 budget for the City Hall and Library Parking Lot Repaving Project is \$555,000.00 (Account No. 344-8910-9552). The project also requires inspection services and design support during construction. Construction Management will be performed by Public Works staff. The design phase of the project has been completed. Based upon the services necessary for the project and the construction contingencies, an additional amount of \$73,785.00 from the General Fund is needed to complete the project, resulting in a revised project budget of \$628,785.00.

The portion of the construction cost attributed to the sewer line relocation is to be reimbursed by the Seaside County Sanitation District (SCSD). The bid items to be reimbursed by SCSD are items 20 through 26, and amount to a total of \$104,200.00 in MPE's proposal. The net cost for the City, after reimbursement, will be \$524,585.00.

ATTACHMENTS

1. Resolution
2. Agreement
3. Plan Set
4. Specifications

Reviewed for Submission to the City Council by:



Jaime M. Fontes, City Manager

RESOLUTION NO. 23-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SEASIDE

APPROVING THE PLANS AND SPECIFICATIONS FOR THE CITY HALL AND LIBRARY PARKING LOT REPAVING PROJECT, APPROPRIATING \$73,785.00 FROM THE GENERAL FUND TO THE PROJECT, AND AWARDING A CONSTRUCTION CONTRACT TO MONTEREY PENINSULA ENGINEERING FOR AN AMOUNT NOT TO EXCEED \$519,365.00 AND TOTAL PROJECT CONSTRUCTION COST INCLUDING CONTINGENCY OF \$597,270.00

WHEREAS, the City Hall and Library Parking Lot Repaving project (Project) is an approved City Capital Improvement Project identified in the fiscal year 2022-2023 annual budget; and

WHEREAS, Whitson Engineers completed design of the project in May 2023; and

WHEREAS, the proposed improvements include removal of existing asphalt paving, the abandonment of a damaged sanitary sewer line, the installation and rerouting of a new sanitary sewer line, new asphalt paving, the installation and/or repair of curbs, and new ADA paths of travel; and

WHEREAS, on June 8, 2023 the project was released for construction bids, and on June 29, 2023 four bids were received; and

WHEREAS, Monterey Peninsula Engineering was determined to have the lowest responsive and responsible bid in the amount of \$519,365.00; and

WHEREAS, an amount of \$77,905.00 contingency, approximately 15% of the contract value, should be authorized on an as required basis; and

WHEREAS, Monterey Peninsula Engineering has successfully completed similar projects for the City; and

WHEREAS, the City has determined that the project budget (Account No. 344-8910-9552) including construction contingency, design services, inspection services, and design support during construction, is \$628,785.00 requiring an additional \$73,785.00 to complete the project; and

WHEREAS, there is sufficient General Fund balance to fund the additional budget request; and

WHEREAS, the project is categorical exempt per Article 19, section 15301 of CEQA because the project will repairs and performs minor upgrades to the existing parking lot and sanitary sewer utility, and involves negligible or no expansion of use.

NOW THEREFORE BE IT RESOLVED, that the City Council of the City of Seaside approves the plans and specifications for the City Hall and Library Parking Lot Repaving Project dated May 2023; and

BE IT FURTHER RESOLVED, that the City Council of the City of Seaside approves a fiscal year 2023/2024 budget appropriation in the amount of \$73,785.00 from the General Fund to the City Hall and Library Parking Lot Repaving Project (344-8910-9552), such that the revised Project budget is \$628,785.00, and directs the Finance Director to make appropriate budget adjustments; and

BE IT FURTHER RESOLVED that the City Council of the City of Seaside authorizes the City Manager to execute a construction contract with Monterey Peninsula Engineering for an amount not to exceed \$519,365.00; and

BE IT FURTHER RESOLVED that the City Council of the City of Seaside authorizes the City Manager to execute up to an additional 15% contingency for written amendments, extensions, and change orders to the construction contract outlined above such that the full value may not exceed \$597,270.00.

PASSED AND ADOPTED at a regular City Council meeting of the City of Seaside duly held on the 20th day of July, 2023 by the following vote:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCIL MEMBERS:
ABSENT:	COUNCIL MEMBERS:
ABSTAIN:	COUNCIL MEMBERS:

Ian N. Oglesby, Mayor

ATTEST:

Dominique L. Davis, City Clerk

DOCUMENT 00 5200

AGREEMENT

THIS AGREEMENT, dated this [date] day of [Month], [2023], by and between [Name of Contractor] whose place of business is located at [Address of Contractor] ("Contractor"), and the City of Seaside/Seaside County Sanitation District ("Owner"), acting under and by virtue of the authority vested in Owner by the laws of the State of California.

WHEREAS, Owner, by its Resolution No. [insert number] adopted on the [date] day of [Month, Year] awarded to Contractor the following Contract:

**City Hall and Library Parking Lot Repaving
located at
440 Harcourt Ave, Seaside, CA 93955**

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and Owner agree as follows:

ARTICLE 1 - SCOPE OF WORK OF THE CONTRACT

1.01 Work of the Contract

- A. Contractor shall complete all Work specified in the Contract Documents, in accordance with the Specifications, Drawings, and all other terms and conditions of the Contract Documents (Work).

1.02 Price for Completion of the Work

- A. Owner shall pay Contractor the following Contract Sum <<Amount in Word (\$)>> for completion of Work in accordance with Contract Documents as set forth in Contractor's Bid, attached hereto.

ARTICLE 2 - COMMENCEMENT AND COMPLETION OF WORK

2.01 Commencement of Work

- A. Contractor shall commence Work on the date established in the Notice to Proceed.
- B. Owner reserves the right to modify or alter the Commencement Date.

2.02 Completion of Work

- A. Contractor shall achieve Substantial Completion of the entire Work within 54 Calendar Days from the Commencement Date, excluding September 21, 2023 through September 24, 2023, and 10 Calendar Days following substantial completion to achieve Final Completion.

ARTICLE 3 - PROJECT REPRESENTATIVES

3.01 Owner's Project Manager

- A. Owner has designated Patrick Grogan as its Project Manager to act as Owner's Representative in all matters relating to the Project.
- B. City Manager shall have final authority over all matters pertaining to the Contract Documents and shall have sole authority to modify the Contract Documents on behalf of Owner, to accept work, and to make decisions or actions binding on Owner, and shall have sole signature authority on behalf of Owner.
- C. Owner may assign all or part of the Project Manager's rights, responsibilities and duties to a Construction Manager, or other Owner Representative.

3.02 Engineer

- A. **Whitson Engineers** furnished the Plans and Specifications and shall have the rights assigned to Architect/Engineer in the Contract Documents.

ARTICLE 4 - LIQUIDATED DAMAGES FOR DELAY IN COMPLETION OF WORK

4.01 Liquidated Damage Amounts

- A. As liquidated damages for delay Contractor shall pay Owner **Three Thousand, Six Hundred dollars (\$3,600)** for each Calendar Day that expires after the time specified herein for Contractor to achieve Substantial Completion of the entire Work, until achieved.
- B. As liquidated damages for delay Contractor shall pay Owner **Five Hundred Dollars (\$500)** for each Day that expires after the time specified herein for Contractor to achieve Final Completion of the entire Work, until achieved.

4.02 Scope of Liquidated Damages

- A. Measures of liquidated damages shall apply cumulatively.
- B. Limitations and stipulations regarding liquidated damages are set forth in Document 00 7200 (General Conditions).

ARTICLE 5 - CONTRACT DOCUMENTS

- 5.01** Contract Documents consist of the following documents, including all changes, Addenda, and Modifications thereto:

These Specifications:

00 0101	Title Page
00 0110	Table of Contents
00 0115	List of Drawings, Tables and Schedules
00 1113	Notice Inviting Bids
00 2113	Instructions to Bidders
00 3132	Existing Conditions
00 4113	Bid Form
00 4313	Bond Accompanying Bid
00 4314	Bidder Registration Form
00 4330	Subcontractors List
00 4513	Statement of Qualifications
00 4519	Non-Collusion Affidavit
00 4546	Bidder Certifications
00 5100	Notice of Award
00 5200	Agreement
00 5500	Notice to Proceed
00 6113.13	Construction Performance Bond
00 6113.16	Construction Labor and Material Payment Bond
00 6290	Escrow Agreement for Security Deposits in Lieu of Retention
00 6325	Substitution Request Form
00 6530	Release of Claims
00 6536	Guaranty
00 7200	General Conditions
00 7316	Supplementary Conditions – Insurance and Indemnification
00 9113	Addenda
01 1100	Summary
01 2000	Measurement and Payment
01 2600	Modification Procedures
01 3119	Project Meetings

01 3230	Progress Schedules and Submittals
01 3300	Submittals
01 4100	Regulatory Requirements
01 4200	References and Definitions
01 7700	Contract Closeout
01 5723	Temporary Water Pollution Control
01 7123	Field Engineering
31 0001	Earthwork
31 1117	Demolition
31 2333	Trenching
32 1124	Aggregate Base Course
32 1217	Asphalt Concrete Paving
32 1314	Concrete Paving
33 0150.01	Temporary Bypass Pumping
33 0562	Polymer Concrete Manhole
33 3000	Sanitary Sewerage Utilities
33 4000	Storm Drainage Utilities

The Drawings titled "City Hall and Library Parking Lot Repaving" by Whitson Engineers

- 5.02** There are no Contract Documents other than those listed above. The Contract Documents may only be amended, modified or supplemented as provided in Document 00 7200 (General Conditions).

ARTICLE 6 - MISCELLANEOUS

- 6.01** Terms and abbreviations used in this Agreement are defined in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions) and will have the meaning indicated therein.
- 6.02** It is understood and agreed that in no instance are the persons signing this Agreement for or on behalf of Owner or acting as an employee, agent, or representative of Owner, liable on this Agreement or any of the Contract Documents, or upon any warranty of authority, or otherwise, and it is further understood and agreed that liability of Owner is limited and confined to such liability as authorized or imposed by the Contract Documents or applicable law.
- 6.03** In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, Contractor or Subcontractor offers and agrees to assign to the awarding body all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. §15) or under the Cartwright Act (Chapter 2 (commencing with §16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time Owner tenders final payment to Contractor, without further acknowledgment by the parties.
- 6.04** Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are deemed included in the Contract Documents and on file at Owner's Office, and shall be made available to any interested party on request. Pursuant to California Labor Code §§ 1860 and 1861, in accordance with the provisions of Section 3700 of the Labor Code, every contractor will be required to secure the payment of compensation to his/her employees. Contractor represents that it is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor shall comply with such provisions before commencing the performance of the Work of the Contract Documents.

- 6.05** During the term of this Agreement, Contractor warrants that it is currently registered with the Department of Industrial Relations and qualified to perform public work consistent with Labor Code section 1725.5. Contractor further warrants that any subcontractors who are subject to Public Contract code section 4104, are registered and qualified to perform public work consistent with Labor Code section 1725.5.
- 6.06** This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- 6.07** This Agreement and the Contract Documents shall be deemed to have been entered into in the County of Monterey, State of California, and governed in all respects by California law (excluding choice of law rules). The exclusive venue for all disputes or litigation hereunder shall be in the Superior Court for the County of Monterey. IN WITNESS WHEREOF the parties have executed this Agreement in quadruplicate the day and year first above written.

CONTRACTOR: [CONTRACTOR'S NAME]

OWNER: The City of Seaside

By: _____
(Signature)

By: _____
(Signature)

(Print Name)

(Print Name)

Its: _____
Title (If Corporation: Chairman, President
or Vice President)

(Title)

Attest: _____
City Clerk Signature

(Print Name)

END OF DOCUMENT

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DOCUMENT 00 4113**BID FORM**

TO CITY OF SEASIDE

THIS BID IS SUBMITTED BY:

Monterey Peninsula Engineering
 (Firm/Company Name)

Re: **City Hall and Library Parking Lot Repaving**, located at 440 Harcourt Ave, Seaside, CA 93955

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with the City of Seaside in the form included in the Contract Documents, Document 00 5200 (Agreement), to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Sum and within the Contract Time indicated in this Bid and in accordance with all other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Contract Documents, Document 00 1113 (Notice Inviting Bids), and Document 00 2113 (Instructions to Bidders), including, without limitation, those dealing with the disposition of Bid Security. This Bid will remain subject to acceptance for 90 Days after the day of Bid opening, unless there is a bid protest, then 120 days after the day of bid opening.
3. In submitting this Bid, Bidder represents that Bidder has examined all of the Contract Documents, performed all necessary Pre-Bid investigations, received the Pre-Bid conference minutes (if any), and received the following Addenda:

Addendum Number	Addendum Date	Signature of Bidder
Addendum #1	06/23/2023	

4. Based on the foregoing, Bidder proposes and agrees to fully perform the Work within the time stated and in strict accordance with the Contract Documents for the following sums of money listed in the following Schedule of Bid Prices:

SCHEDULE OF BID PRICES

All Bid items, including lump sums and unit prices, must be filled in completely. Bid items are described in Section 01 1100 (Summary of Work). Quote in figures only, unless words are specifically requested.

Base Bid

ITEM #	BID ITEM	EST. QTY.	UNIT	UNIT PRICE	TOTAL
1	Mobilization	1	LS	25,000	25,000
2	Storm Water Compliance	1	LS	7,500 -	7,500 -
3	Traffic Control	1	LS	8,800 -	8,800 -
4	Construction Staking	1	LS	8,500 -	8,500 -
5	Demolition	1	LS	55,000 -	55,000 -
6	Drain Inlet Apron	3	EA	2,000 -	6,000 -
7	Class 2 Aggregate Base	24	CY	360 -	8,640 -
8	Hot Mix Asphalt (Type A)	1,030	TON	216 -	222,480 -
9	Concrete Sidewalk and Curb Ramp	340	SF	22 -	7,480 -
10	Concrete Pedestrian Passage	470	SF	21 -	9,870 -
11	Concrete Vertical Curb	480	LF	56 -	26,880 -
12	6"-18" Concrete Retaining Curb	30	LF	150 -	4,500 -
13	Detectable Warning Surface	30	SF	36 -	1,080 -
14	Salvage and Reinstall Stacked Block Wall	1	LS	11,000	11,000 -
15	Wheel Stop	16	EA	170 -	2,720 -
16	Salvage and Reinstall Roadside Sign	1	EA	280 -	280 -
17	Replace Roadside Sign Panel on Existing Post	1	EA	335 -	335 -
18	Roadside Sign	2	EA	500 -	1,000 -
19	Pavement Markings	1	LS	3,600 -	3,600 -
20	Sewer Bypass	1	LS	1,500 -	1,500 -
21	Standard Manhole	1	EA	9,000 -	9,000 -
22	Shallow Manhole, Type 1	1	EA	9,000 -	9,000 -
23	Polymer Concrete Inside Drop Manhole	1	EA	10,000 -	10,000 -
24	8" PVC SDR 26 Sanitary Sewer Pipe	290	LF	180 -	52,200 -

ITEM #	BID ITEM	EST. QTY.	UNIT	UNIT PRICE	TOTAL
25	Storm Drain Crossing	1	LS	7,500-	7,500-
26	Plug and Abandon Existing 6" Sanitary Sewer Pipe	1	LS	15,000-	15,000-
27	Relocate Post Office Mailbox	1	EA	3,400-	3,400-
28	Record Drawings	1	LS	1,100-	1,100-
TOTAL					519,365
The TOTAL BASE BID AMOUNT described in words is:					
<u>five hundred nineteen thousand, three hundred</u> <u>sixty-five dollars</u> and _____/100 DOLLARS					

(F) – Final Pay item

(N) - Item not subject to unit price adjustments for quantities "less than 75 percent or greater than 125 percent of the estimated quantities bid" as outlined in Section 01 2000, 1.03.B "Unit Price Items".

5. Subcontractors for work included in all Bid items are listed on Document 00 4330 (Subcontractors List) submitted herewith.
6. The undersigned Bidder understands that Owner reserves the right to reject this Bid.
7. If written notice of the acceptance of this Bid, hereinafter referred to as Notice of Award, is mailed or delivered to the undersigned Bidder within the time described in Paragraph 2 of this Document 00 4113 or at any other time thereafter before it is withdrawn, the undersigned Bidder will execute and deliver the documents required by Document 00 2113 (Instructions to Bidders) within the times specified therein.
8. Notice of Award or request for additional information may be addressed to the undersigned Bidder at the address set forth below.
9. The undersigned Bidder herewith encloses cash, a cashier's check, or certified check of or on a responsible bank in the United States, or a corporate surety bond furnished by a surety authorized to do a surety business in the State of California, in form specified in Document 00 2113 (Instructions to Bidders), in the amount of ten percent (10%) of the Total Bid Price and made payable to the City of Seaside.
10. The undersigned Bidder agrees to commence Work under the Contract Documents on the date established in Document 00 7200 (General Conditions) and to complete all Work within the time specified in Document 00 5200 (Agreement).
11. The undersigned Bidder agrees that, in accordance with Document 00 7200 (General Conditions), liquidated damages for failure to complete all Work in the Contract within the time specified in Document 00 5200 (Agreement) shall be as set forth in Document 00 5200.
12. The names of all persons interested in the foregoing Bid as principals are:

IMPORTANT NOTICE:

If Bidder or other interested person is a corporation, give the legal name of corporation, state where incorporated, and names of president and secretary thereof; if a partnership, give name of the firm and names of all

June 2023

individual co-partners composing the firm; if Bidder or other interested person is an individual, give first and last names in full.

NAME OF BIDDER: Monterey Peninsula Engineering licensed in accordance with
an act for the registration of Contractors, and with license number: 972425, with
Expiration: 04/30/2024.

	See Attached Partnership Structure
(Place of Incorporation, if Applicable)	(Principal, Name/Title)
	(Principal, Name/Title)
	(Principal, Name/Title)

NOTE: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Business Address: 192 Healy Ave, Marina, CA. 93933

Contractor's Representative(s):

Peter J. Taormina
(Name/Title)

(Name/Title)

(Name/Title)

Officers Authorized to Sign Contracts	Paul Bruno, Manager
	(Name/Title)
	Peter J. Taormina, Manager
	(Name/Title)
	Jim Bruno, Manager
	(Name/Title)

Telephone Number(s):	831-384-4081
	(Area Code) (Number)
	(Area Code) (Number)

June 2023

Fax Number(s):

831-384-5078

(Area Code)

(Number)

(Area Code)

(Number)

Date of Bid:

06/29/2023

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



(Signature of Bidder)

Paul Bruno, Manager

Name / Title

END OF DOCUMENT



CITY OF SEASIDE

MONTEREY COUNTY, CALIFORNIA

CITY HALL AND LIBRARY

PARKING LOT REPAVING

SHEET INDEX	
1. TITLE SHEET	C0.1
2. CIVIL NOTES AND LEGENDS	C0.2
3. DEMOLITION PLAN	C1.1
4. CONSTRUCTION PLAN	C2.1
5. SEWER PLAN AND PROFILE	C2.2
6. EROSION & SEDIMENT CONTROL	C3.1
7. CIVIL DETAILS	C4.1
8. CIVIL DETAILS	C4.2
9. CIVIL DETAILS	C4.3
10. SEWER DETAILS	C4.4



UNDERGROUND SERVICE ALERT:

ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND FACILITIES NOT KNOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE OR THE PROPOSED CONSTRUCTION.

BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT 1-800-642-2444 OR 811.



PROJECT LOCATION MAP

SCALE: 1" = 5000'

EMERGENCY TELEPHONE NUMBERS	
POLICE/FIRE/AMBULANCE	911
MONTEREY COUNTY COMMUNICATIONS CENTER	831-394-6811
MONTEREY SALINAS TRANSIT	831-899-2555
PACIFIC GAS & ELECTRIC (PG&E)	800-743-5000
AT&T (TELEPHONE)	831-754-8026
SEASIDE MUNICIPAL WATER	831-899-6842
COMCAST (CABLE TELEVISION)	800-945-2288

SCOPE OF WORK

PARKING LOT REPAVING
REPAVE EXISTING CITY HALL AND LIBRARY PARKING LOTS AND ASSOCIATED IMPROVEMENTS INCLUDING CURB, GUTTER, SIDEWALK, CURB RAMPS, SIGNING AND STRIPING.

SEWER RELOCATION
CONSTRUCT AN 8" SEWER MAIN FROM SUTTER STREET TO HARCOURT AVENUE THROUGH THE CITY HALL AND LIBRARY PARKING LOT, AND ABANDON THE EXISTING 6" SEWER THAT IS NO LONGER TO BE USED.



Civil Engineering
Land Surveying
6 Harris Court
Monterey, California
831.649.5225
whitsonengineers.com

DATE	REVISIONS
	CITY OF SEASIDE PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION 440 HARCOURT AVE. SEASIDE, CA. 93955 (831)-899-6825
	SHEET TITLE: TITLE SHEET
	PROJECT TITLE: CITY HALL AND LIBRARY PARKING LOT REPAVING
	PROJECT NO. SHEET NO. C0.1 DWG FILE NO. 2071.27 CIVIL

APPROVED BY:		DATE:	6-7-23
NISHA PATEL, CITY ENGINEER			
EXPIRATION DATE:	6/30/2024	R.C.E. No.	72491

GENERAL

1. CONSTRUCTION CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB 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. CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL(S) HARMLESS FROM ANY AND ALL LIABILITY, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL(S).
2. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH:

A. ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, REGULATIONS, ORDINANCES, AND RULES, INCLUDING WITHOUT LIMITATION:

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIVE CODE (CAL-OSHA)

CALIFORNIA CODE 4216 – PROTECTION OF UNDERGROUND INFRASTRUCTURE

B. THE 2022 CALIFORNIA BUILDING STANDARDS CODE (CCR TITLE 24), WITH AMENDMENTS ADOPTED BY THE JURISDICTION HAVING AUTHORITY

C. CALIFORNIA EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

D. THE PROJECT PLANS AND SPECIFICATIONS

E. THE 2022 EDITION OF "STANDARD SPECIFICATIONS," STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS), AS AMENDED BY THE MOST CURRENT "REVISED STANDARD SPECIFICATIONS".

F. THE 2022 EDITION OF "STANDARD PLANS," STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS), AS AMENDED BY THE MOST CURRENT "REVISED STANDARD PLANS".
3. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL CURRENTLY APPLICABLE SAFETY LAWS OF ALL APPLICABLE JURISDICTIONAL BODIES. FOR INFORMATION REGARDING THIS PROVISION, THE CONTRACTOR IS DIRECTED TO CONTACT STATE OF CALIFORNIA, DIVISION OF OCCUPATIONAL SAFETY AND HEALTH, SALINAS, CALIFORNIA AT PHONE (831) 443-3050.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BARRICADES, SAFETY DEVICES AND CONTROL OF TRAFFIC WITHIN THE CONSTRUCTION AREA.
5. PROJECT IS LOCATED IN FEMA ZONE "X". FEMA FIRM PANEL: 06053C0327G.
6. CURB DIMENSIONS, RADII AND OFFSETS SHOWN ARE TO FACE OF CURB.
7. SIDEWALK WIDTHS SHOWN ARE MEASURED FROM BACK OF CURB TO BACK OF WALK OR FACE OF RETAINING CURB WHERE SHOWN.
8. WHERE CURB, GUTTER AND ATTACHED SIDEWALK ARE TO BE CONSTRUCTED, THEY SHALL BE POURED MONOLITHICALLY.
9. CONTRACTOR SHALL PROVIDE AND MAINTAIN 6' CHAIN LINK CONSTRUCTION FENCING AROUND THE WORK AREA TO PROHIBIT PUBLIC ENTRY DURING CONSTRUCTION.
10. CONTRACTOR SHALL FILE FOR AND OBTAIN A GRADING PERMIT FOR ON-SITE WORK AND AN ENCROACHMENT PERMIT FOR WORK WITHIN THE CITY RIGHT-OF-WAY.

EARTHWORK AND AREA OF DISTURBANCE

- C = 2 CY ±
F = 2 CY ±
EXPORT = 0 CY

ESTIMATED AREA OF SOIL DISTURBANCE = LESS THAN 0.1 ACRES
1. THE QUANTITIES PRESENTED ABOVE ARE ESTIMATES ONLY, BASED ON THE DIFFERENCE BETWEEN EXISTING GRADE AND SUBGRADE ELEVATIONS AND FINISHED GRADE AND SUBGRADE ELEVATIONS, AS SHOWN ON THE PLANS, AND ARE NOT ADJUSTED FOR CHANGES IN VOLUME DUE TO CHANGES IN SOIL DENSITY.
2. OVER-EXCAVATION IS NOT INCLUDED IN THE ABOVE ESTIMATE. CLEARING AND STRIPPING AND REMOVAL OF AC AND PCC PAVEMENTS ARE NOT INCLUDED IN THE ABOVE ESTIMATES. SITE SPOILS SUCH AS FROM UTILITY TRENCHING, FOUNDATIONS, ETC. ARE NOT INCLUDED IN ABOVE ESTIMATES.
3. THESE QUANTITIES SHALL BE USED FOR BONDING AND PERMIT PURPOSES ONLY. CONTRACTOR SHALL MAKE HIS/HER OWN SITE VISIT AND QUANTITY TAKE-OFFS AND SHALL BID ACCORDINGLY.
4. EARTHWORK VALUES SHOULD BE REEVALUATED DURING THE EARLY STAGES OF SITE GRADING. CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING FINAL EARTHWORK QUANTITIES TO HIS/HER SATISFACTION PRIOR TO START OF GRADING OPERATIONS.

SURVEY AND EXISTING CONDITIONS

1. TOPOGRAPHY WAS PREPARED BY WHITSON ENGINEERS IN AUGUST 2022.
2. BENCHMARK: BRASS DISK ON TOP OF CURB, CITY BENCHMARK "#27 RESET" AT THE CORNER OF CANYON DEL REY BOULEVARD AND HILBY AVENUE. ELEVATION = 25.66' (NAVD88)
3. THIS MAP PORTRAYS THE SITE AT THE TIME OF THE SURVEY AND DOES NOT SHOW SOILS OR GEOLOGIC INFORMATION, UNDERGROUND CONDITIONS, EASEMENTS, ZONING OR REGULATORY INFORMATION OR ANY OTHER ITEMS NOT SPECIFICALLY REQUESTED BY THE CLIENT.
4. BOUNDARY LOCATIONS SHOWN HEREON WERE DETERMINED WITH THE BENEFIT OF A FIELD SURVEY SUPPLEMENTED BY RECORD DATA. ALL BOUNDARY SHOWN IS FROM RECORD DATA. THIS TOPOGRAPHIC MAP DOES NOT CONSTITUTE A BOUNDARY SURVEY. AS A TITLE REPORT WAS NOT PROVIDED, THERE MAY BE EASEMENTS OR OTHER RIGHTS, RECORDED OR UNRECORDED, AFFECTING THE SUBJECT PROPERTY, WHICH ARE NOT SHOWN HEREON.
5. DISTANCES AND DIMENSIONS SHOWN ARE EXPRESSED IN FEET AND DECIMALS THEREOF, UNLESS OTHERWISE NOTED.
6. THE EXISTENCE, LOCATION AND ELEVATION OF ANY UNDERGROUND FACILITIES ARE SHOWN IN A GENERAL WAY ONLY. NOT ALL UTILITIES MAY BE SHOWN. UNDERGROUND UTILITY LOCATIONS, WHERE SHOWN, ARE BASED ON FIELD LOCATION OF OBSERVED UTILITIES AND SCHEMATICS OF UNDERGROUND UTILITIES PROVIDED BY THE UTILITY OWNERS.
7. THE EXISTENCE, LOCATION AND DEPTH OF ALL UTILITIES MUST BE VERIFIED BY POSITIVE LOCATION (POTHOLING) BY THE CONSTRUCTION CONTRACTOR PRIOR TO EXCAVATION OR ANY CONSTRUCTION WHICH MAY BE AFFECTED BY THE LOCATION OR ELEVATION OF THE UTILITY.
8. DIAMETERS OF TREES ARE SHOWN IN INCHES MEASURED AT BREAST HEIGHT. TREES SMALLER THAN 6" WERE NOT NECESSARILY LOCATED AS PART OF THIS SURVEY.
9. PROPOSED IMPROVEMENTS SHOWN TO MATCH OR JOIN EXISTING IMPROVEMENTS SHALL BE FIELD VERIFIED FOR EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER IN THE CASE OF ANY FIELD DISCREPANCY.
10. THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A CURRENT, COMPLETE, AND ACCURATE RECORD OF ALL DEVIATIONS FROM THE WORK PROPOSED IN THESE PLANS AND SPECIFICATIONS, AND A RECORD DRAWING SET SHALL BE PREPARED AND PROVIDED TO THE ENGINEER AT THE COMPLETION OF WORK. CHANGES SHALL NOT BE MADE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER.

LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		EASEMENT LINE
		SURVEY CONTROL POINT
		SURFACE CONTOUR
		FLOW LINE OR PONDING LIMITS
		PAVEMENT SAWCUT LINE
		GRADING LIMIT
		FENCE
		RETAINING WALL
		REMOVE EXISITING UTILITY
		UTILITY POINT OF CONNECTION
		STORM DRAIN
		STORM DRAIN INLET
		STORM DRAIN MANHOLE
		SANITARY SEWER
		SANITARY SEWER MANHOLE
		CLEANOUT
		WATER LINE
		WATER METER
		WATER VALVE
		FIRE HYDRANT
		GAS LINE
		GAS VALVE
		UNDERGROUND ELECTRICAL LINE
		ELECTRIOLIER
		SPOT GRADE
		REFERENCED EXISTING SPOT GRADE; VERIFY IN FIELD AND MATCH, U.O.N.
		SLOPE GRADE
		GRADE TO DRAIN. UNLESS OTHERWISE NOTED
		GRADED DEPRESSION
		DETAIL CALLOUT (DETAIL / PAGE)
		CROSS-SECTION CALLOUT

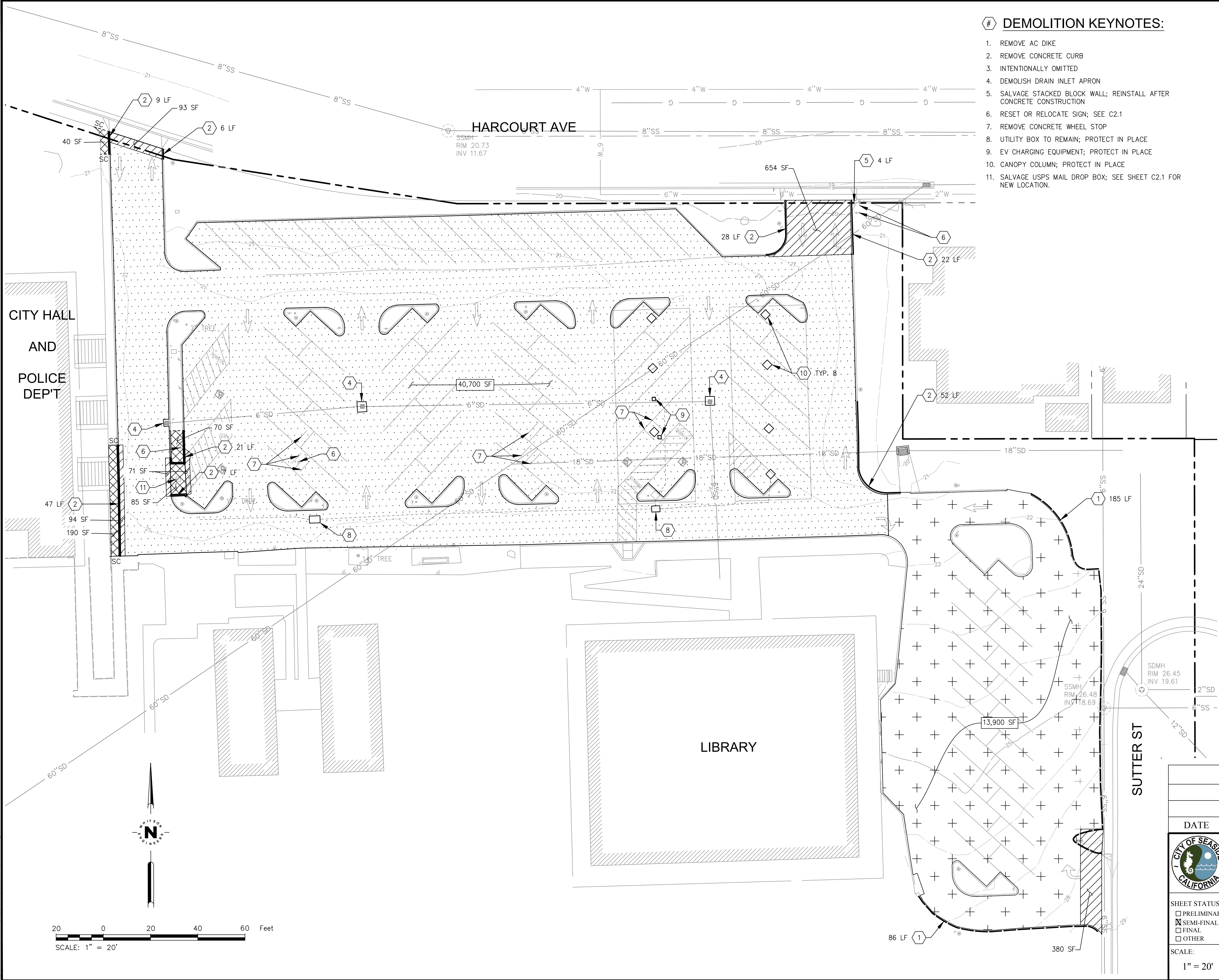
ABBREVIATIONS

±	PLUS OR MINUS; APPROX
⊙	AT
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AD	AREA DRAIN
APPROX	APPROXIMATE
ASB	AGGREGATE SUBBASE
BC	BEGIN CURVE
BVC	BEGIN VERT. CURVE
BS	BOTTOM OF STAIR
BW	BACK OF WALK
CB	CATCH BASIN
C&G	CURB AND GUTTER
CATV	CABLE TV
CGSW	CURB, GUTTER AND SIDEWALK
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
CONC	CONCRETE
CONST	CONSTRUCT
CONT	CONTINUOUS
DEMO	DEMOLISH AND DISPOSE OF
DI	DRAIN INLET
DIA	DIAMETER
DS	DOWNSPOUT
DWS	DETECTABLE WARNING SURFACE
(E)	EXISTING
EC	END CURVE
EG	EXISTING GRADE
ELEV	ELEVATION
EQ.	EQUAL
ETW	EDGE OF TRAVELED WAY
EW	EACH WAY
EX	EXISTING
FC	FACE OF CURB
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOWLINE
FR	FIRE RISER
FS	FINISHED SURFACE
GB	GRADE BREAK
GV	GTAE VALVE
GM	GAS METER
GRT	GRATE
HP	HIGH POINT
HORIZ.	HORIZONTAL
INV	INVERT
JP	JOINT UTILITY POLE
LF	LINEAR FEET
LFF	LOWER FINISH FLOOR
LT	LEFT
MATCH	MATCH EXISTING GRADE
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
OC	ON CENTER
OG	ORIGINAL GRADE
PIV	POST INDICATOR VALVE
POC	POINT OF CONNECTION
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
R.C.	RELATIVE COMPACTION
RCP	REINFORCED CONC PIPE
RT	RIGHT
RW	RECYCLED WATER
RWL	RAIN WATER LEADER
S.A.D.	SEE ARCHITECTURAL DRAWINGS
S.L.D.	SEE LANDSCAPE DRAWINGS
S.P.D.	SEE PLUMBING DRAWINGS
S.S.D.	SEE STRUCTURAL DRAWINGS
SD	STORM DRAIN
SS	SANITARY SEWER
SW	SIDEWALK
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TFC	TOP OF FLUSH CURB
TG	TOP OF GRATE
TOP	TOP OF PIPE
TS	TOP OF STAIR
TW	TOP OF WALL
TYP	TYPICAL
UFF	UPPER FINISH FLOOR
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UTILITY POLE
UNKN	UNKNOWN
VAR	VARIES
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W	WATER
WM	WATER METER
WV	WATER VALVE



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DATE	REVISIONS
	CITY OF SEASIDE PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION 440 HARCOURT AVE. SEASIDE, CA 93955 (831)-899-6825
SHEET STATUS: ☐ PRELIMINARY ☒ SEMI-FINAL ☐ FINAL ☐ OTHER	SHEET TITLE: CIVIL NOTES AND LEGENDS PROJECT TITLE: CITY HALL AND LIBRARY PARKING LOT REPAVING
SCALE: NONE	PROJECT NO. SHEET NO. C0.2 DWG FILE NO. 2071.27 CIVIL



DEMOLITION KEYNOTES:

1. REMOVE AC DIKE
2. REMOVE CONCRETE CURB
3. INTENTIONALLY OMITTED
4. DEMOLISH DRAIN INLET APRON
5. SALVAGE STACKED BLOCK WALL; REINSTALL AFTER CONCRETE CONSTRUCTION
6. RESET OR RELOCATE SIGN; SEE C2.1
7. REMOVE CONCRETE WHEEL STOP
8. UTILITY BOX TO REMAIN; PROTECT IN PLACE
9. EV CHARGING EQUIPMENT; PROTECT IN PLACE
10. CANOPY COLUMN; PROTECT IN PLACE
11. SALVAGE USPS MAIL DROP BOX; SEE SHEET C2.1 FOR NEW LOCATION.

DEMOLITION PLAN LEGEND

- SC --- SAWCUT LINE
- REMOVE ASPHALT CONCRETE (2" TO 3" THICK) AND AGGREGATE BASE
- REMOVE ASPHALT CONCRETE (2" TO 3" THICK) AND RE-GRADE EX. AB TO REMOVE EXISTING BUMPS / DIPS AS DIRECTED BY THE ENGINEER
- REMOVE CHIP SEAL AND RE-GRADE EX. AB TO REMOVE EXISTING BUMPS / DIPS AS DIRECTED BY THE ENGINEER
- REMOVE CONCRETE SIDEWALK

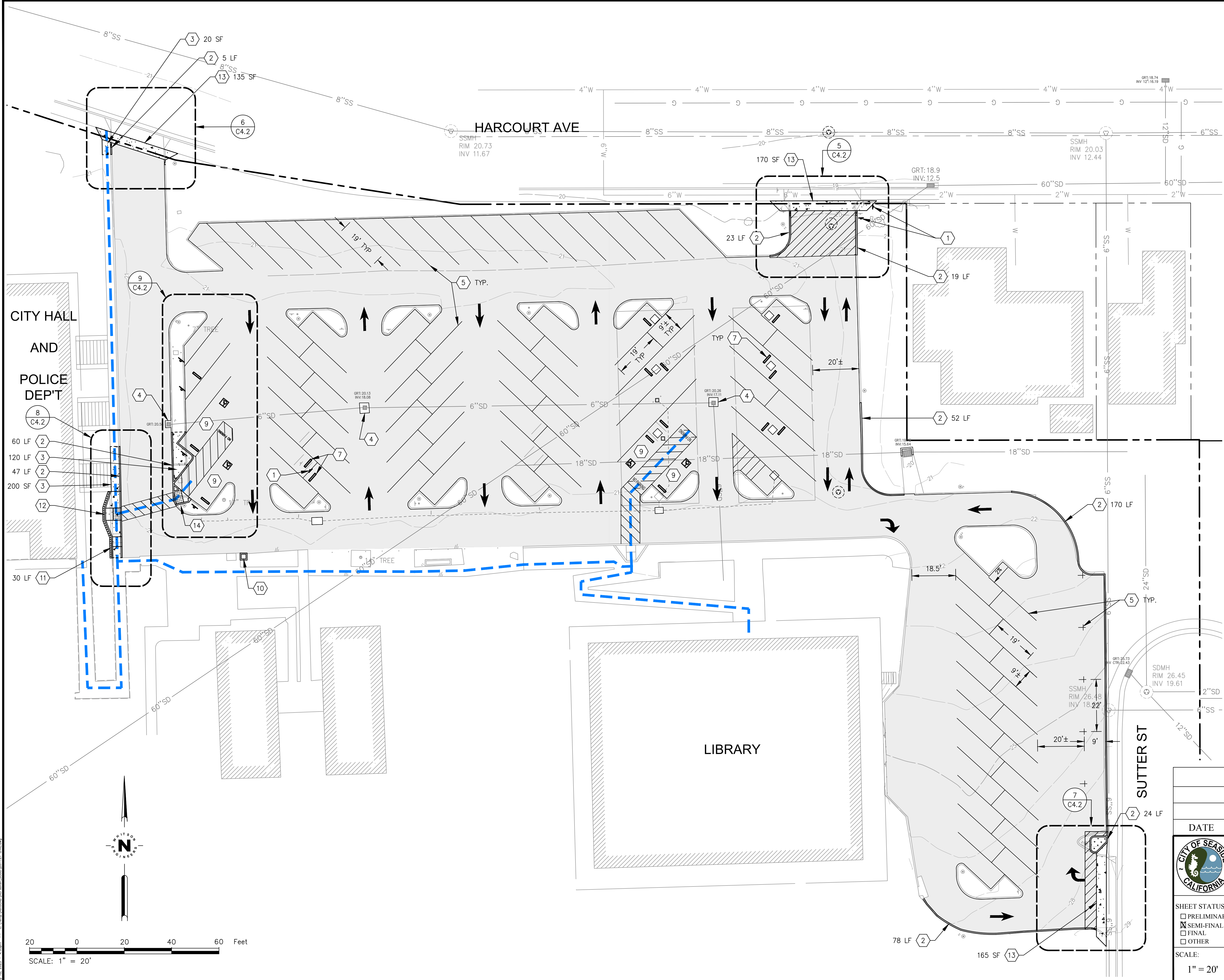
DEMOLITION PLAN NOTES

- SAWCUTTING**
1. MARK THE PLANNED SAWCUT LOCATIONS IN THE FIELD FOR REVIEW BY THE ENGINEER. THE ENGINEER MAY REVISE THE SAWCUT LIMITS BASED ON ACTUAL FIELD CONDITIONS, SUCH AS TO COINCIDE WITH EXISTING SIDEWALK JOINTS OR BASED ON EXISTING TRENCH PATCHES OR CRACKS IN AC PAVEMENT.
 2. SAWCUT THE FULL DEPTH OF AC PAVEMENTS, CURBS, GUTTERS AND SIDEWALKS.
 3. SAWCUT TO 1/4 THE DEPTH OF CONCRETE STREETS AND CROSS-GUTTERS.
 4. WHERE CONSTRUCTION OPERATIONS CAUSE DAMAGE BEYOND THE LIMITS OF THE SAWCUT LINE, THE DAMAGED AREA MUST BE REMOVED AND REPLACED TO A NEAT SAWCUT EDGE.
- ADJUSTMENTS**
5. ADJUST TO FINISHED GRADE ALL OTHER UTILITY COVERS AND BOXES WITHIN WORK AREA, UNLESS OTHERWISE NOTED.
- SALVAGED MATERIALS**
6. SALVAGE:
 - CATCH BASIN HOODS AND GRATES
 - STORM DRAIN AND SANITARY SEWER MANHOLE COVERS AND RIMS.
 - STREET MONUMENT COVERS AND FRAMES
 - CITY-OWNED SIGN PANELS
 - OTHER ITEMS AS SHOWN ON THE PLANS.
 11. PLACE SALVAGED MATERIALS AT A DESIGNATED LOCATION ON SITE AND NOTIFY THE ENGINEER THAT THEY ARE AVAILABLE FOR PICK-UP. PROVIDE TWO WORKING DAYS FOR THE CITY TO PICK UP SALVAGED MATERIALS. SALVAGED MATERIALS NOT PICKED UP BY THE CITY BECOME THE CONTRACTOR'S PROPERTY AND MUST BE REMOVED FROM THE SITE.



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SHEET STATUS: ☐ PRELIMINARY ☒ SEMI-FINAL ☐ FINAL ☐ OTHER		SHEET TITLE: DEMOLITION PLAN	PROJECT NO. C1.1
SCALE: 1" = 20'		PROJECT TITLE: CITY HALL AND LIBRARY PARKING LOT REPAVING	DWG FILE NO. 2071.27 CIVIL



LEGEND

- 3" HMA (1/2" TYPE A)
ON RE-COMPACTED EXISTING AB
- CONCRETE PAVING
- 3" HMA ON 6" CL 2 AB
- SAWCUT LINE
- ARROW PAVEMENT MARKING
- ACCESSIBLE PATH OF TRAVEL

CONSTRUCTION KEYNOTES:

- RESET OR RELOCATE EXISTING SIGN PANEL ON NEW POST AND FOUNDATION PER CALTRANS STANDARDS PLAN RS-5 ON SHEET C4.3.
- CONCRETE CURB PER DETAIL S-101 ON SHEET C4.1
- CONCRETE SIDEWALK PER DETAIL S-101 ON SHEET C4.1
- DRAIN INLET APRON PER DETAIL 4 ON SHEET C4.2
- RE-STRIPE PARKING LOT WITH 2-COAT PAINT PER DETAILS. MATCH EXISTING STRIPING LAYOUT.
- INTENTIONALLY OMITTED
- CONCRETE WHEEL STOP PER DETAIL 3 ON SHEET 4.2
- INTENTIONALLY OMITTED
- ACCESSIBLE PARKING PER STANDARD PLAN A90A/C4.1. MINIMUM STALL DIMENSIONS: 9'W x 19'L. FINISHED SLOPES WITHIN PARKING AND LOADING AREAS SHALL NOT EXCEED 2%.
- RELOCATED MAILBOX; CONSTRUCT 3'x3'x6" CONCRETE SLAB AT LOCATION DETERMINED BY THE ENGINEER AND BOLT MAILBOX TO SLAB PER POST OFFICE REQUIREMENTS.
- 6" TO 18" CONCRETE RETAINING CURB PER DETAIL 12 ON SHEET C4.2
- CONCRETE CURB RAMP CASE PER DETAIL A88A ON SHEET C4.3
- RETROFIT PEDESTRIAN PASSAGE PER DETAIL 1 ON SHEET C4.2.
- PASSAGEWAY WITH 36"-DEEP DWS. (FLUSH CURB PAID FOR AS CONCRETE CURB, AND CONCRETE UNDER DWS PAID FOR AS CONCRETE SIDEWALK.)



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DATE		REVISIONS	
CITY OF SEASIDE		CITY OF SEASIDE	
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION		PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION	
440 HARCOURT AVE. SEASIDE, CA 93955 (831)-899-6825		440 HARCOURT AVE. SEASIDE, CA 93955 (831)-899-6825	
SHEET STATUS:		PROJECT NO.	
☐ PRELIMINARY ☒ SEMI-FINAL ☐ FINAL ☐ OTHER		SHEET NO.	
SCALE:		C2.1	
1" = 20'		DWG FILE NO.	
		2071.27 CIVIL	

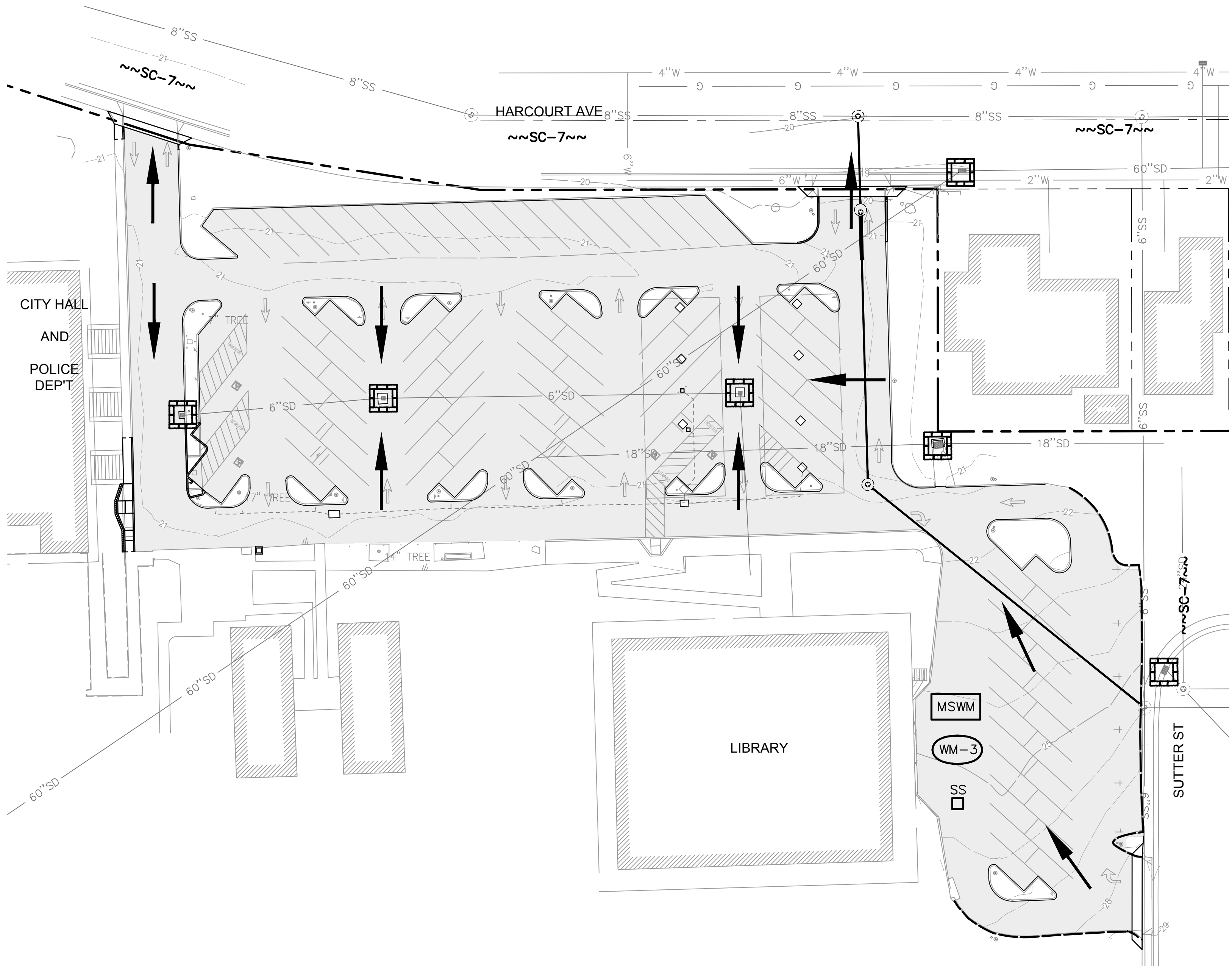
LEGEND

SYMBOL	CASQA BMP #	DESCRIPTION
~SC-7~	SC-7	LIMITS OF STREET SWEEPING
	SC-10	INLET PROTECTION
MSWM		MATERIAL STORAGE AND WASTE MANAGEMENT AREA
WM-3	WM-3	TEMPORARY STOCKPILES
SS	WM-9	SANITARY FACILITIES
	-	DIRECTION OF DRAINAGE

EROSION AND SEDIMENT CONTROL NOTES

BEST MANAGEMENT PRACTICES (BMPs) AT A MINIMUM, THE FOLLOWING BMPs ARE REQUIRED REGARDLESS OF WEATHER CONDITIONS, AND AS APPLICABLE TO THE PLANNED CONSTRUCTION ACTIVITIES. THE BELOW MEASURES MUST BE INCLUDED ON THE EROSION AND SEDIMENT CONTROL PLAN (ESCP) SUBMITTAL, AS APPLICABLE.

- A. **WET WEATHER MEASURES:** IF POSSIBLE, AVOID LAND-DISTURBING ACTIVITIES DURING THE WET WEATHER SEASON (OCTOBER 15 THROUGH APRIL 15). EXTRA BMP MATERIALS (INLET FILTERS, FIBER ROLLS, GRAVEL BAGS, MULCH/STRAW, PLASTIC COVERS, ETC.) MUST BE KEPT ON-SITE DURING THE RAINY SEASON FOR PRE-RAIN EVENT INSTALLATION.
- B. **EXISTING VEGETATION:** AVOID REMOVAL OF EXISTING VEGETATION WHEREVER POSSIBLE. INSTALL APPROPRIATE PROTECTIVE FENCING AND PERIMETER CONTROLS PRIOR TO WORK.
- C. **EROSION AND SEDIMENT CONTROL:** UTILIZE SLOPE AND SOIL STABILIZATION BMPs TO PREVENT SLOPE EROSION AND SOIL MOVEMENT ON-SITE AND OFF-SITE, WHERE APPLICABLE. NO SEDIMENT MAY LEAVE THE CONSTRUCTION SITE OR ENTER THE STORM DRAIN SYSTEM.
- D. **STOCKPILE MANAGEMENT:** 1.) CONTAIN AND COVER STOCKPILES IF THEY WILL BE INACTIVE FOR MORE THAN 14 CALENDAR DAYS. 2.) SECURELY COVER STOCKPILES AT THE END OF EVERY WORK DAY AND PRIOR TO RAIN EVENTS. STOCKPILES MUST REMAIN COVERED OVERNIGHT AND DURING RAIN EVENTS. 3.) NO STOCKPILED MATERIAL SHALL LEAVE THE SITE OR MOVE INTO STREET.
- E. **WASTE MANAGEMENT:** ALL CONSTRUCTION WASTE MUST BE CONTAINED AND SECURELY COVERED ON SITE, INCLUDING TRASH, PAINT, GROUT, CONCRETE, ETC. WASH OUT FACILITIES MUST BE CONTAINED, MAINTAINED AND THEIR CONTENTS DISPOSED OF PROPERLY.
- F. **VEHICLES AND EQUIPMENT:** ALL VEHICLES AND EQUIPMENT MUST BE MAINTAINED IN GOOD WORKING ORDER AND MUST NOT DISCHARGE OR TRACK DIRT, MUD, OIL, GREASE, OR FUEL OFF-SITE OR INTO THE STREET. INACTIVE VEHICLES AND EQUIPMENT MUST BE COVERED OR HAVE DRIP PANS.
- G. **DRAIN INLET PROTECTION & PERIMETER CONTROLS:** DRAINS INLETS THAT RECEIVE STORM WATER FROM THE WORK AREA AND CONTRACTOR'S STAGING AND STORAGE AREAS MUST BE PROTECTED FROM RECEIVING SEDIMENT AND DEBRIS. DRAIN INLET PROTECTION MUST NOT IMPEDING PUBLIC TRAFFIC OR SAFETY.
- H. **SWEEPING:** ALL IMPERVIOUS SURFACES (PAVEMENTS) SHALL BE PHYSICALLY SWEEP DAILY (NOT WASHED OR HOSED DOWN), AND MAINTAINED FREE OF SOIL AND DEBRIS.
- I. **DEWATERING:** NO DEWATERING IS ALLOWED UNLESS THE DISCHARGE IS A LISTED EXCEPTION TO THE DISCHARGE PROHIBITIONS FOUND IN CITY CODE CH. 31.5-12(C). ASBS DRAINAGES HAVE GREATER RESTRICTIONS. ANY PROPOSED DEWATERING MUST BE REVIEWED AND APPROVED BY THE ENGINEER.
- J. STORMWATER MIXED WITH NON-STORMWATER MUST BE MANAGED AS NON-STORM WATER.



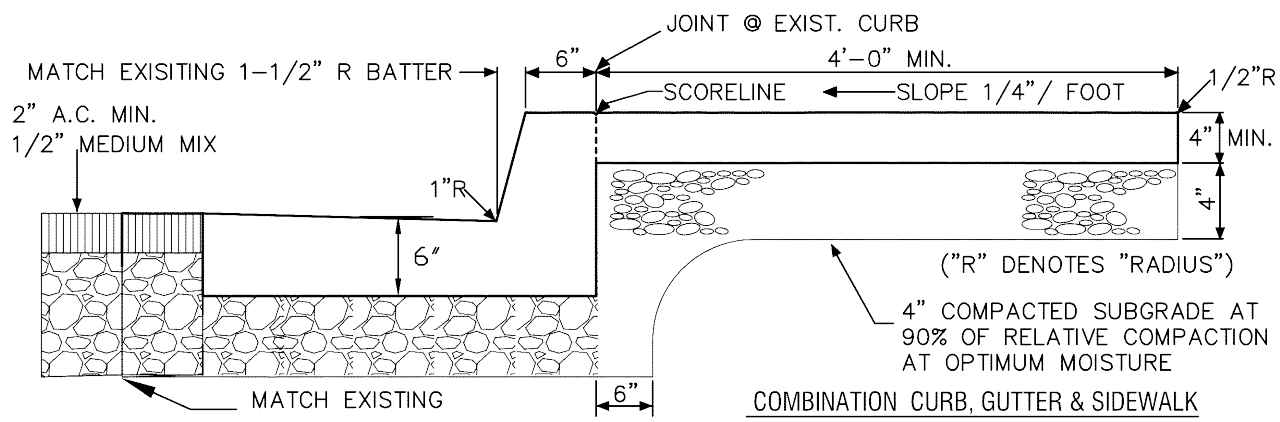
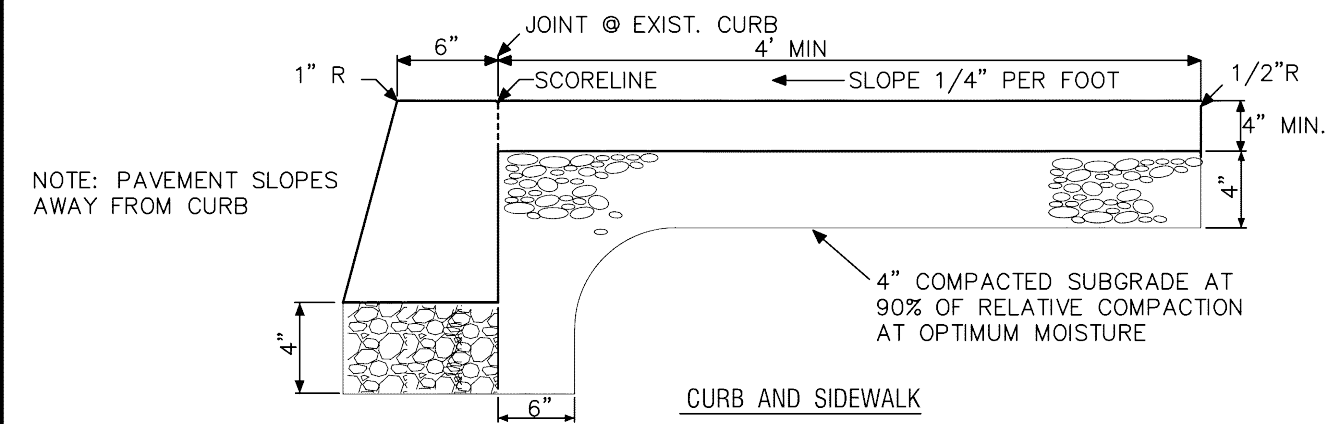
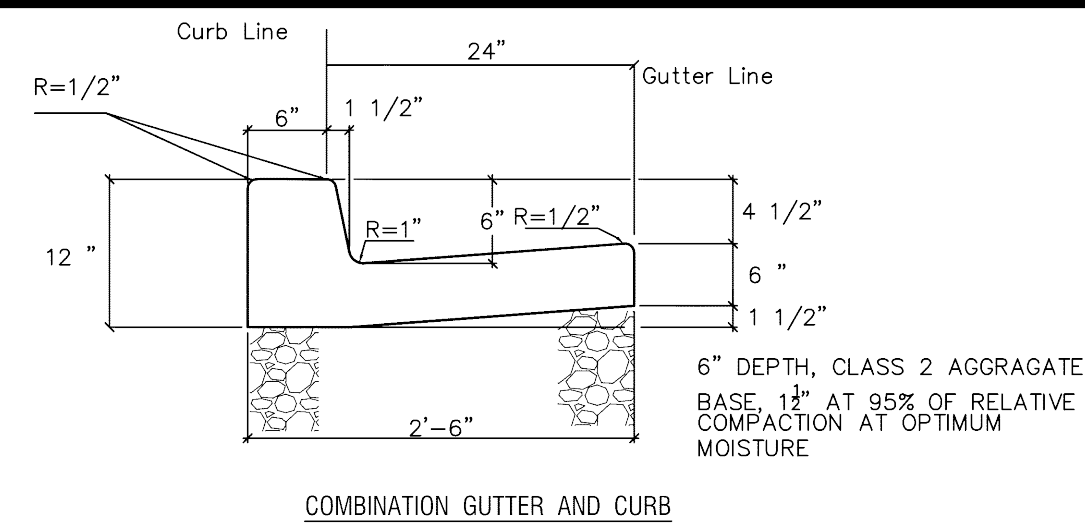
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DATE	REVISIONS	
	CITY OF SEASIDE PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION 440 HARCOURT AVE. SEASIDE, CA 93955 (831)-899-6825	
	SHEET TITLE: EROSION & SEDIMENT CONTROL	PROJECT NO.
	PROJECT TITLE: CITY HALL AND LIBRARY PARKING LOT REPAVING	SHEET NO. C3.1
	SCALE: 1" = 30'	DWG FILE NO. 2071.27 CIVIL

SHEET STATUS:
☐ PRELIMINARY
☒ SEMI-FINAL
☐ FINAL
☐ OTHER

30 0 30 60 90 Feet
SCALE: 1" = 30'





- | NOTES: | |
|---|---|
| 1. ALL WORK AND MATERIAL SHALL CONFORM TO CITY OF SEASIDE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS. | 5. CLASS 2 AGGREGATE BASE 1 1/2" DIAMETER 6" DEPTH, RELATIVE COMPACTION AT 95%. |
| 2. CONCRETE SHALL MEET 3,000 PSI IN 28-DAY REQUIREMENT. | 6. ALL CONCRETE SURFACES WHICH HAVE BEEN MARKED OR DEFAECED WILL NOT BE ACCEPTED. |
| 3. CONCRETE SHALL BE CLASS 3, OR BETTER, PER SECTION 90-10, STANDARD SPECIFICATIONS CALIFORNIA DEPARTMENT OF TRANSPORTATION. | 7. SURFACES SHALL BE BROOM FINISHED. BROOM SURFACE TRANSVERSELY TO LINE OF TRAFFIC. ADD WATER TO SURFACE AS NEEDED. |
| 4. WORK SHALL BE IN ACCORDANCE WITH SECTION 73, CONCRETE CURBS AND SIDEWALKS, STANDARD SPECIFICATIONS, CALIFORNIA DEPARTMENT OF TRANSPORTATION. | 8. EXPANSION JOINT/ SCORRELINE-- SEE DETAIL S-104. |
| | 9. CURB, GUTTER, SIDEWALK AND DRIVEWAY SHALL BE REMOVED TO THE FULL DEPTH AND LIMITS OF REMOVAL DETERMINED BY CITY INSPECTOR. |



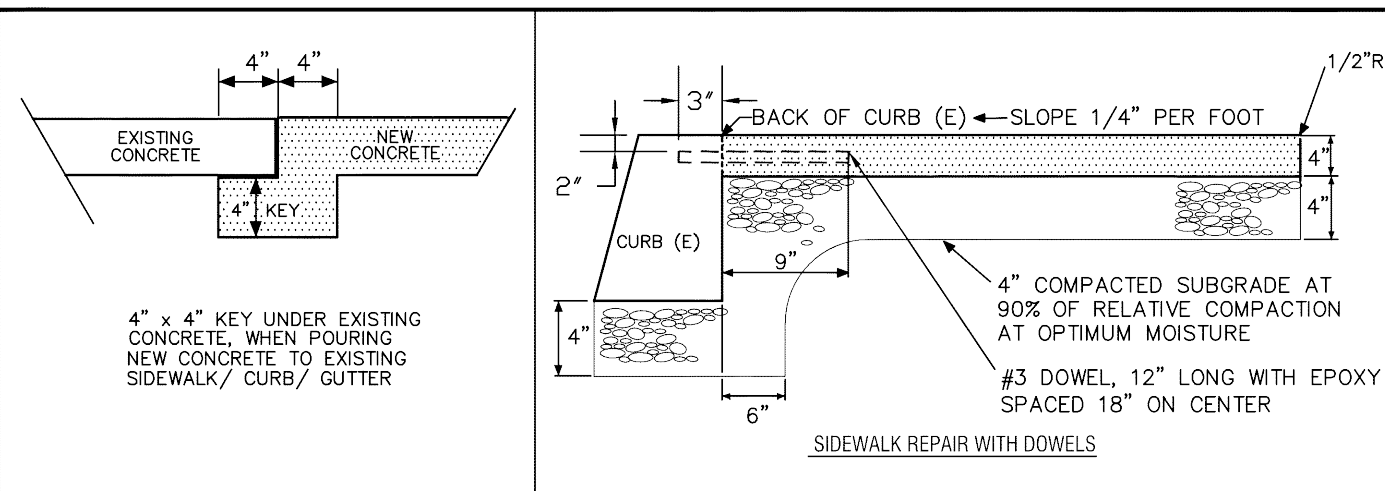
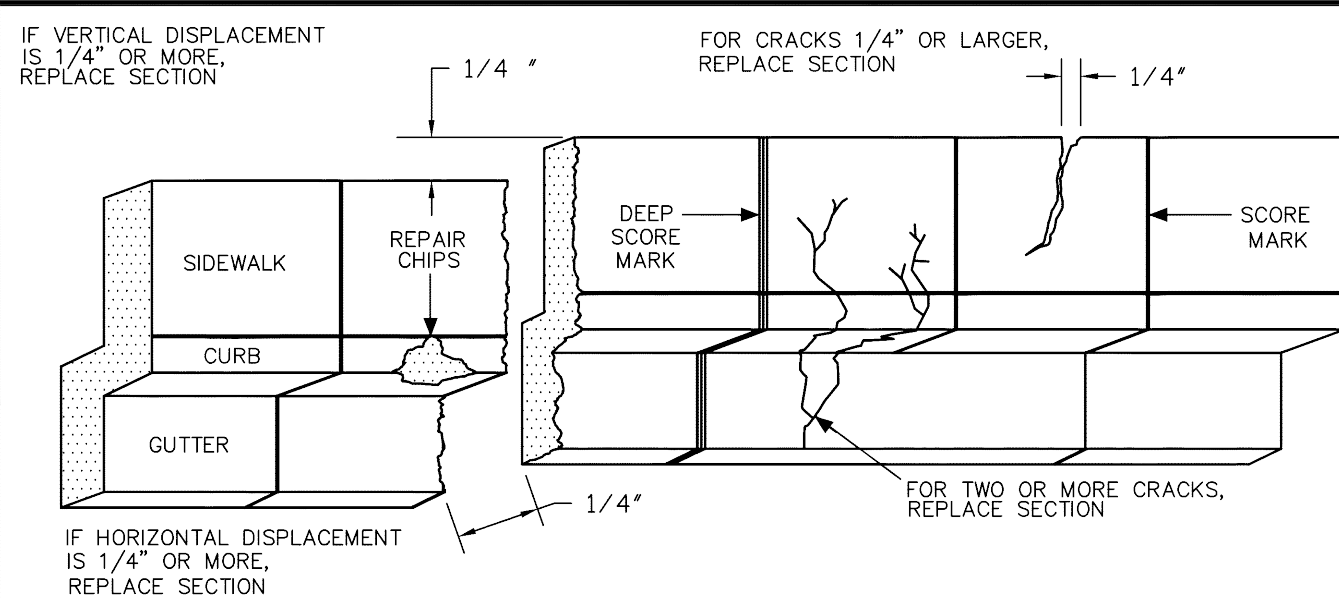
PUBLIC WORKS DEPARTMENT

Drawing File No. S-101

APPROVED: _____
TIMOTHY P. O'HALLORAN, CITY ENGINEER - RCE NO. 49501

STANDARD DRAWING FOR NEW CURB, GUTTER & SIDEWALK

CITY COUNCIL RESOLUTION NO:



- NOTES:
1. CONCRETE CURBS & WALKS WHICH ARE DEFECTIVE WITH CRACKING, DISPLACEMENT, SPALLING, OR EXCESSIVE HOUSYCOMING SHALL BE REPAIRED BY REMOVING AND REPLACING THE DEFECTIVE PORTIONS.
 2. SURFACE CHIPS MAY BE REPAIRED BY AN EPOXY METHOD WHICH WILL RESULT IN A HARD SURFACED, NEAT FINISH. REPAIRS AND COLOR MATCHING MUST MATCH ADJACENT CONCRETE.
 3. WHEN DEFECTIVE PORTIONS OF CURBS AND WALKS ARE REMOVED, THEY SHALL BE REMOVED IN SEGMENTS BETWEEN SCORE MARKS AND/OR EXPANSION JOINTS. REPLACEMENT CONCRETE SHALL BE FORMED AND FINISHED TO THE SAME STANDARDS REQUIRED FOR NEW WORK. THE EDGE OF THE EXISTING ASPHALT PAVING WILL NOT BE USED AS A CURB FORM.
 4. DRIVEWAY APRONS SHALL BE REPAIRED BY SAWING OUT THE DEFECTIVE PORTION BETWEEN SCORES OR JOINTS
 5. CRACKING OF CURBS, WALKS, AND DRIVEWAY APRONS WILL REQUIRE REMOVAL AND REPLACEMENT WHEN THE FOLLOWING SITUATIONS OCCUR:
 - A. WHEN ANY INDIVIDUAL CRACK IS 3/32" WIDE OR WIDER.
 - B. WHEN TWO OR MORE CRACKS OF ANY WIDTH OCCUR BETWEEN SCORE LINES AND/OR EXPANSION JOINTS.
 - C. WHERE ANY DISPLACEMENT HAS OCCURRED EITHER VERTICALLY OR HORIZONTALLY WHICH EXCEEDS 3/32".
 - D. LIMITS OF REMOVAL TO BE DETERMINED BY THE CITY INSPECTOR.
 6. INSTALL DOWELS IN BACK OF CURB WHENEVER REPLACING MORE THAN ONE SECTION OF SIDEWALK OR AS DIRECTED BY CITY INSPECTOR. USE EPOXY TO SECURE DOWELS.
 7. DOWELS SHALL BE #3, 12 INCH LONG, SPACE 18" ON CENTER. DOWELS SHALL CONFORM TO SECTION 52, 5.2 OF EPOXY SECTION 95, OF THE STANDARD SPECIFICATIONS, CALIFORNIA DEPARTMENT OF TRANSPORTATION.
 8. CONCRETE SHALL MEET 3,000 PSI COMPRESSIVE STRENGTH IN 28-DAY REQUIREMENT.
 9. CONCRETE SHALL BE CLASS 3 OR BETTER, PER SECTION 90-10, STANDARD SPECIFICATIONS, CALIFORNIA DEPARTMENT OF TRANSPORTATION.



PUBLIC WORKS DEPARTMENT

Drawing File No. S-102

APPROVED: _____
TIMOTHY P. O'HALLORAN, CITY ENGINEER - RCE NO. 49501

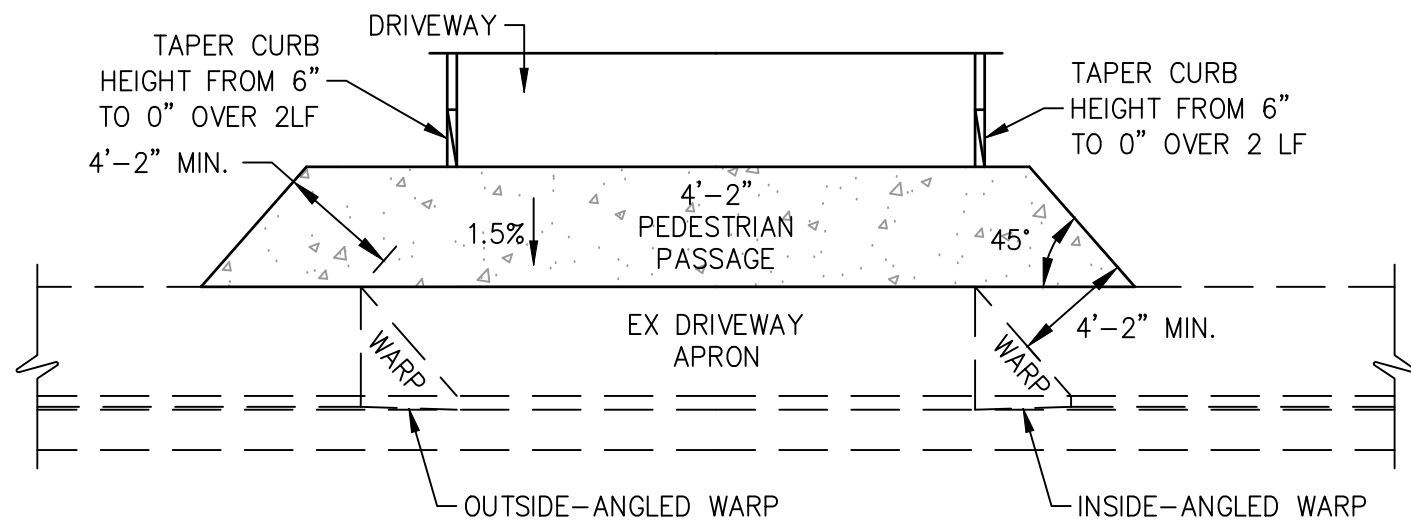
STANDARD DRAWING FOR
REPAIR OF CURB, GUTTER
& SIDEWALK

CITY COUNCIL RESOLUTION NO:

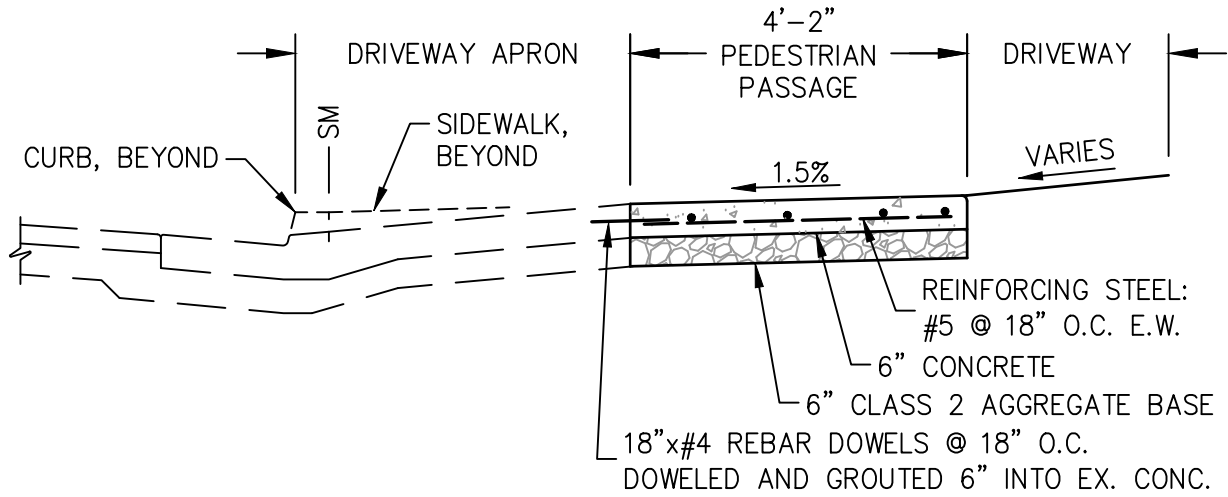


Civil Engineering
Land Surveying
6 Harris Court
Monterey, California
831.649.5225
whitsonengineers.com

DATE	REVISIONS		
 SHEET STATUS: ☐ PRELIMINARY ☒ SEMI-FINAL ☐ FINAL ☐ OTHER SCALE: NONE	CITY OF SEASIDE PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION 440 HARCOURT AVE. SEASIDE, CA. 93955 (831)-899-6825		
	SHEET TITLE:		PROJECT NO.
	CIVIL DETAILS		SHEET NO.
	PROJECT TITLE:		C4.1
CITY HALL AND LIBRARY PARKING LOT REPAVING		DWG FILE NO. 2071.27 CIVIL	



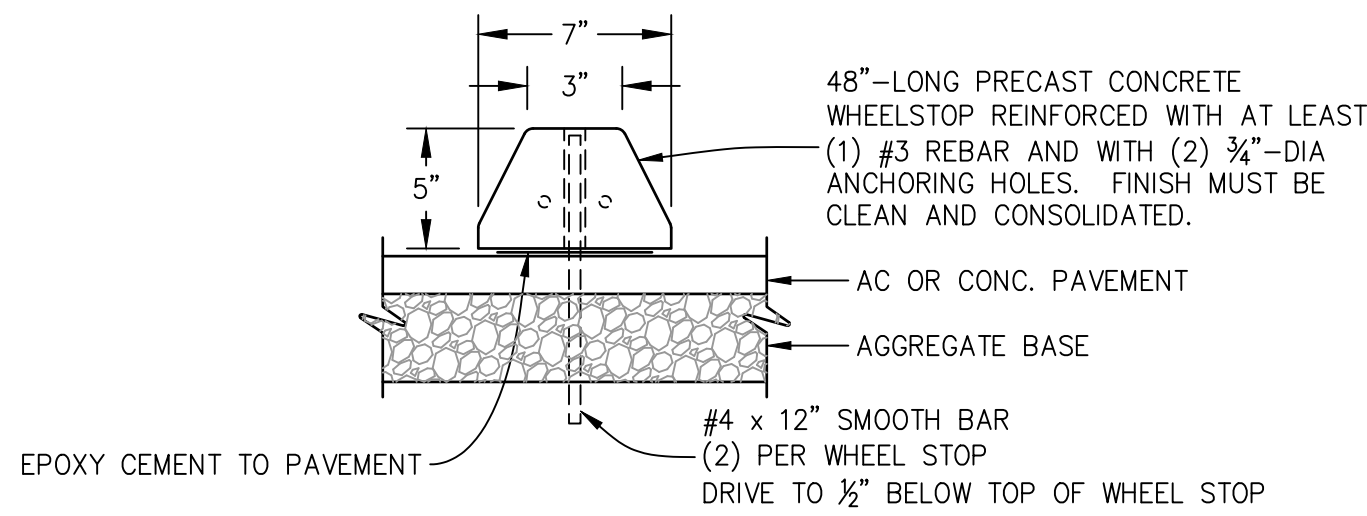
TYPICAL PLAN



TYPICAL CROSS-SECTION

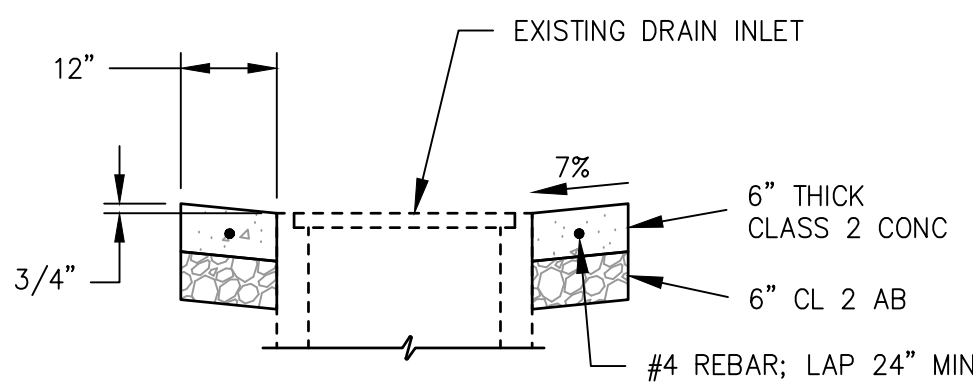
1 RETROFIT PEDESTRIAN PASSAGE

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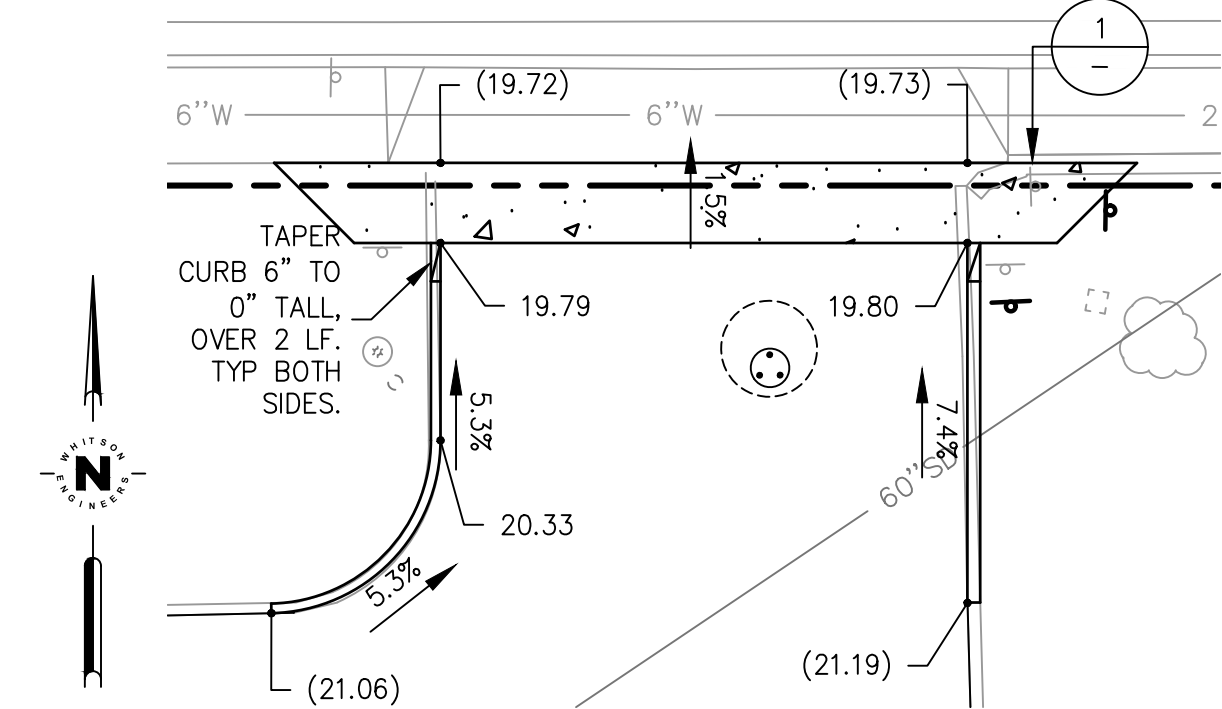
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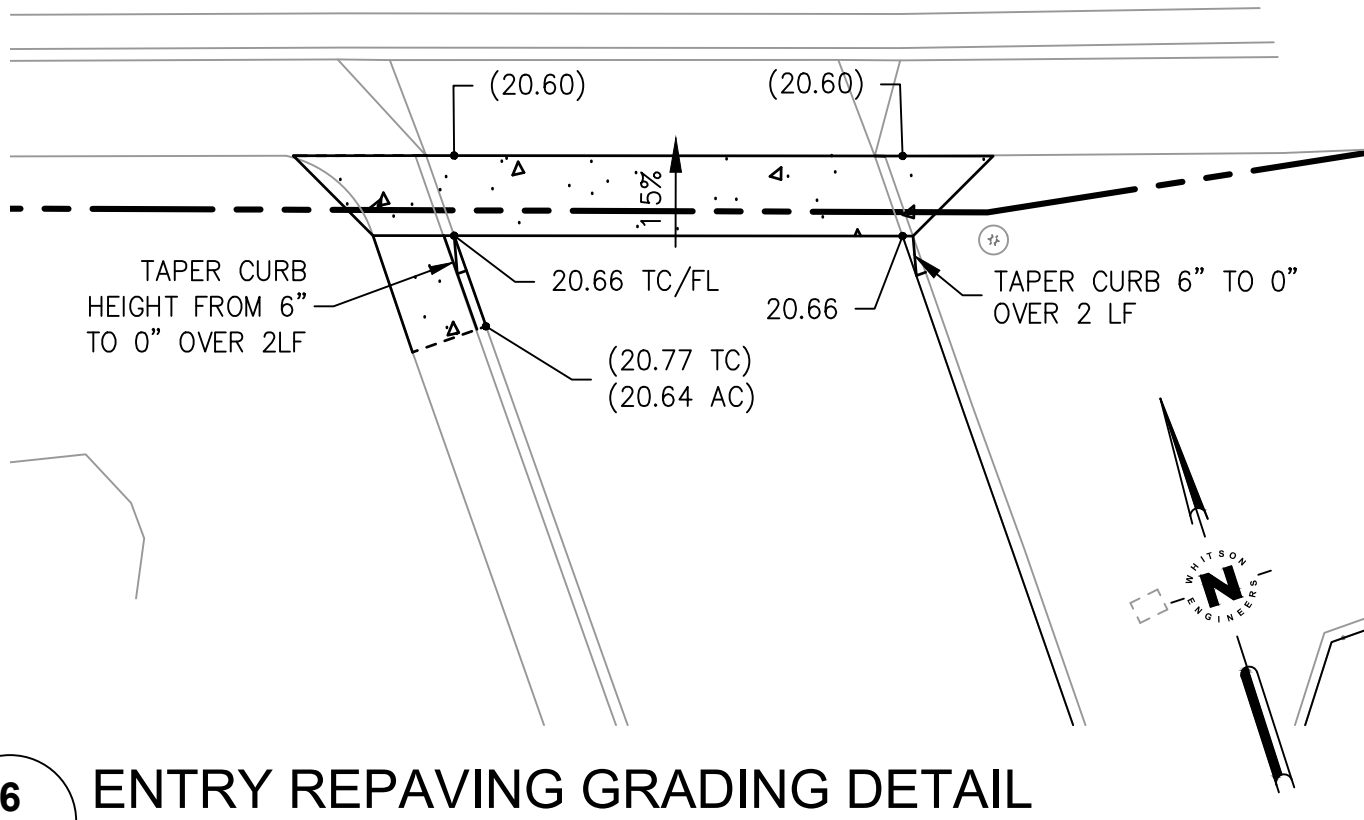
4 DRAIN INLET APRON

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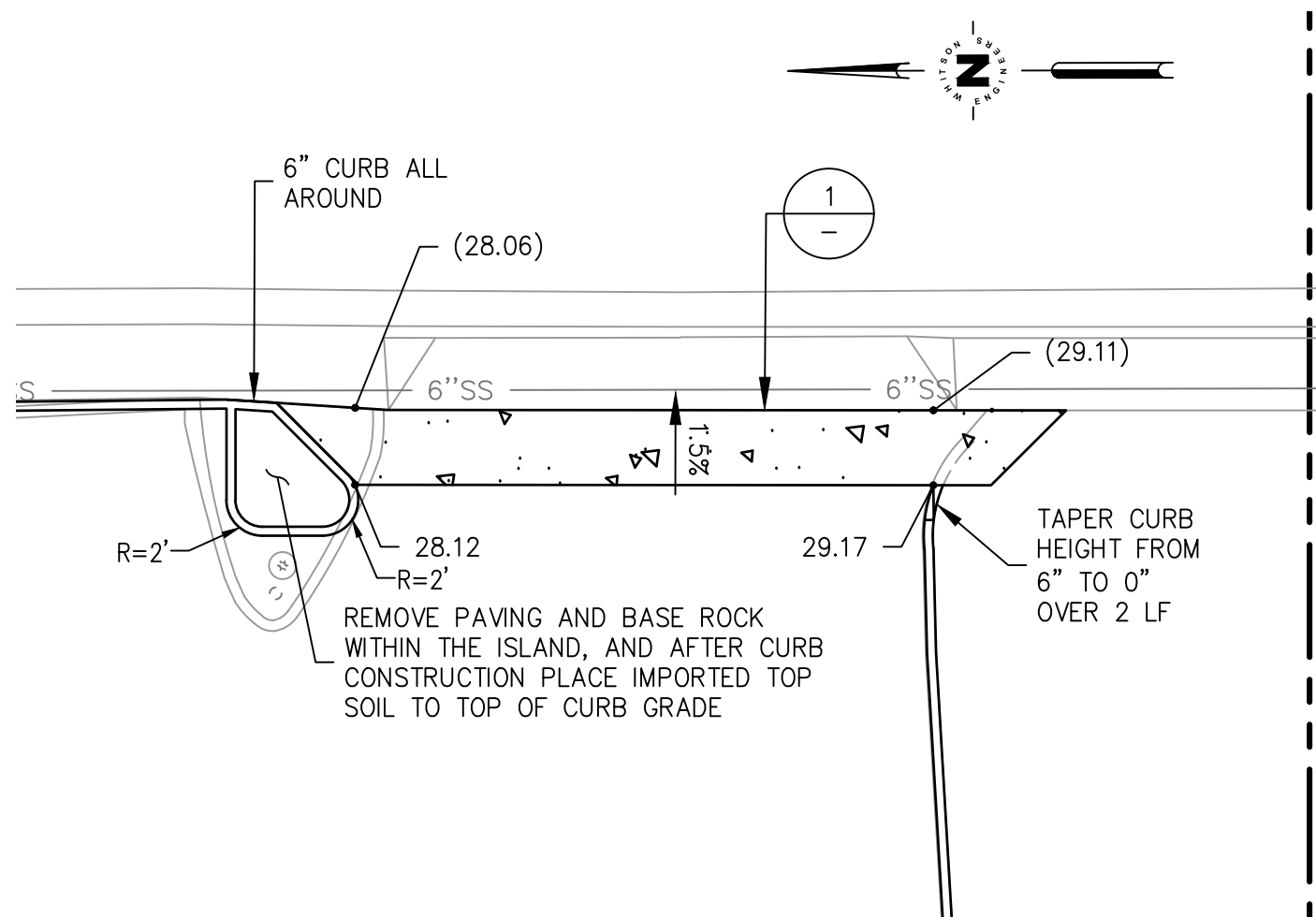
5 ENTRY REPAVING GRADING DETAIL

SCALE: 1" = 10'



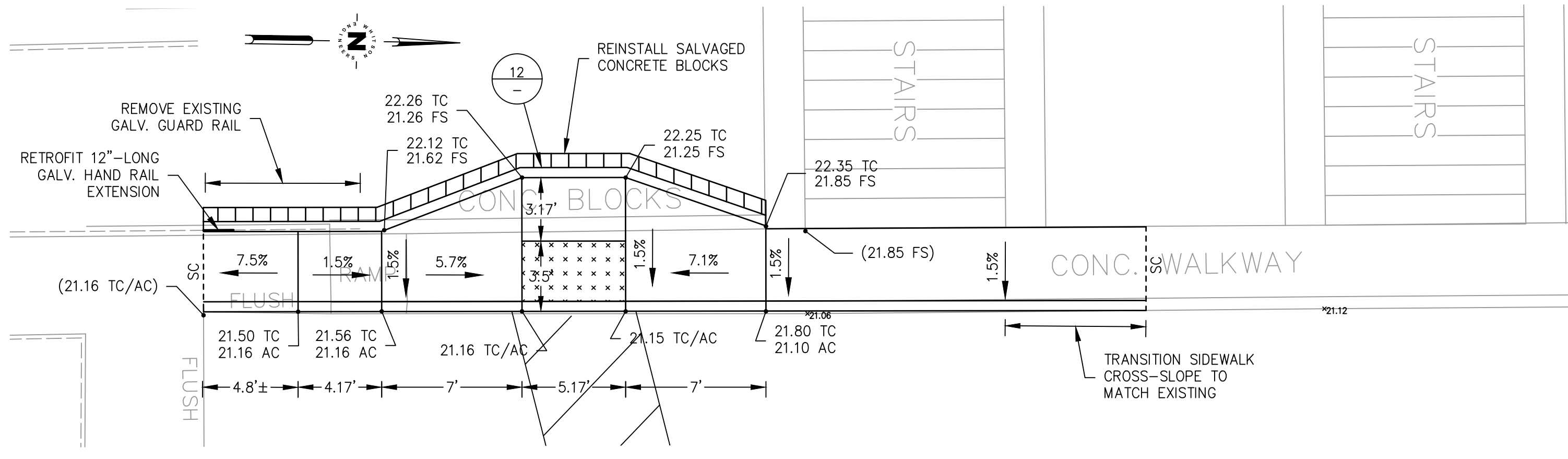
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SCALE: 1" = 10'



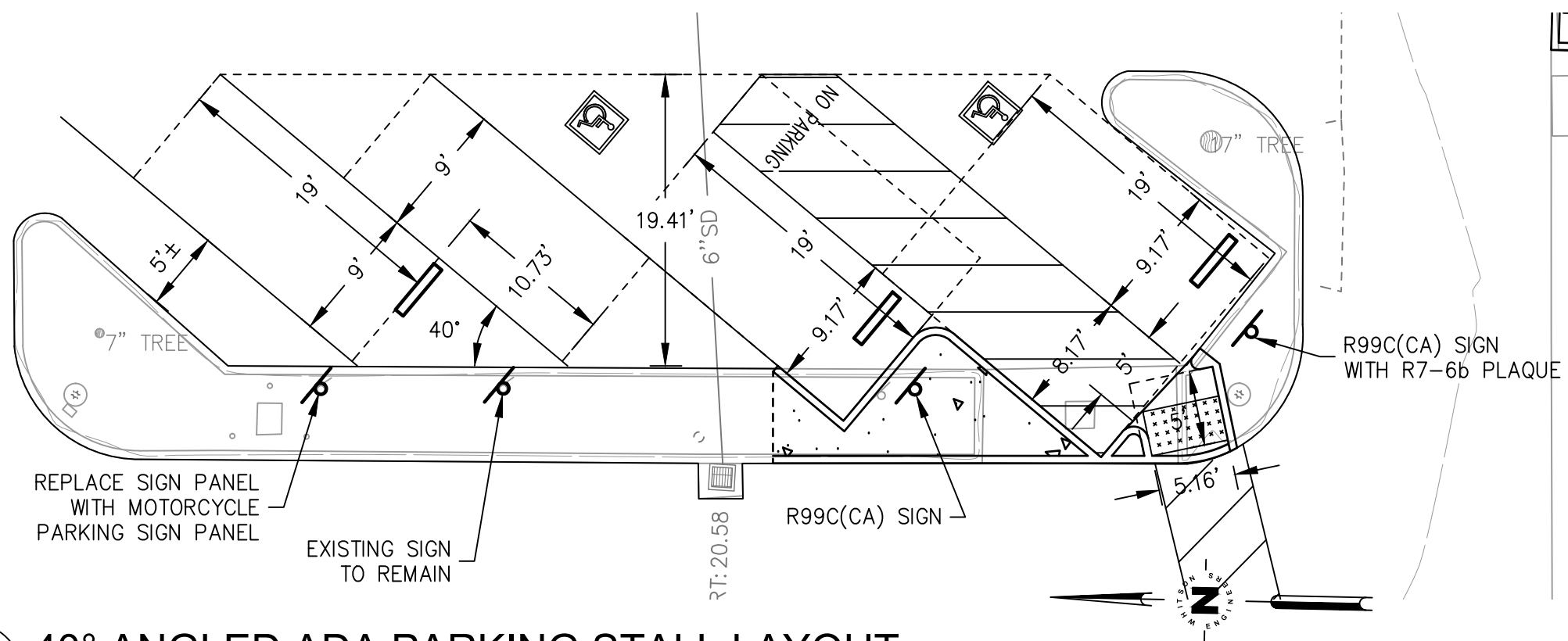
7 ENTRY REPAVING GRADING DETAIL

SCALE: 1" = 10'



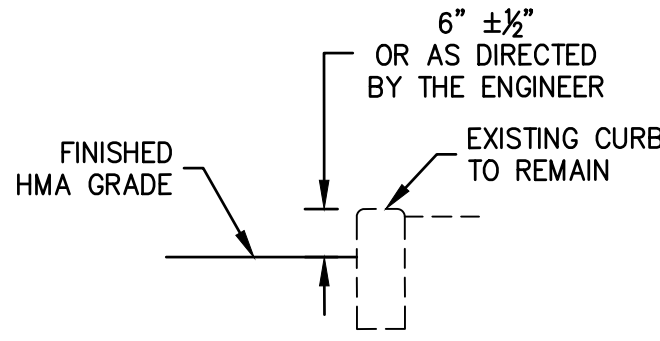
8 CURB RAMP GRADING DETAIL

SCALE: 1" = 5'



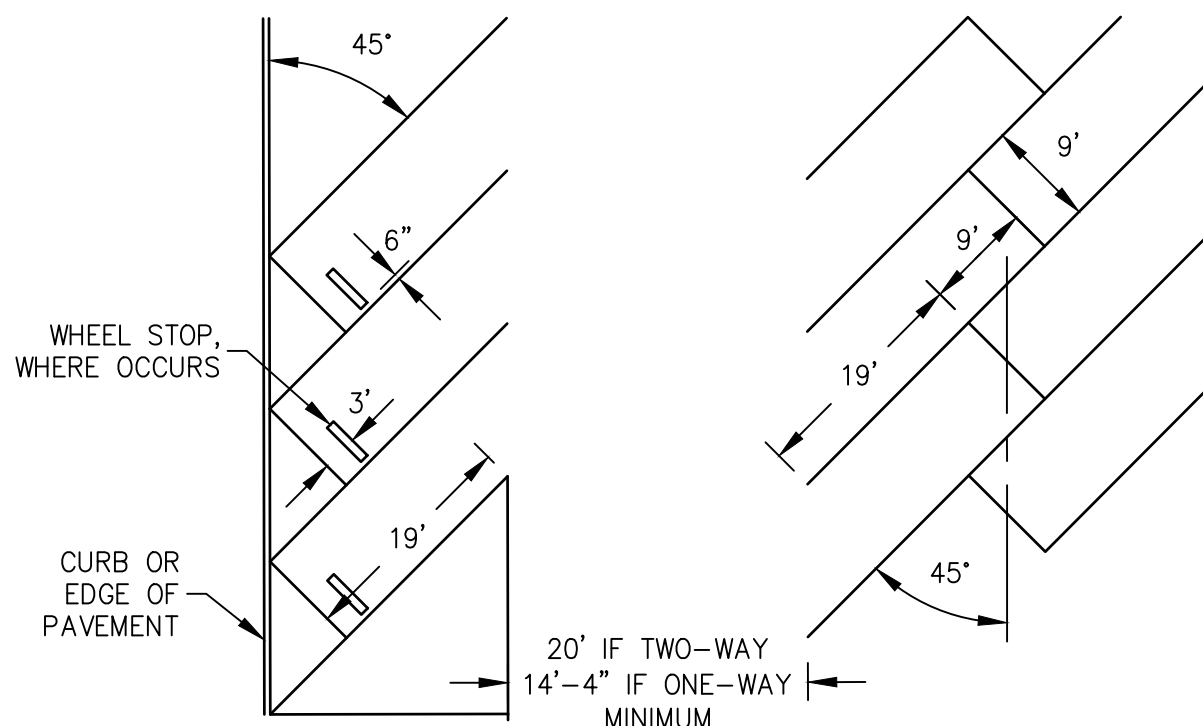
9 40° ANGLED ADA PARKING STALL LAYOUT

SCALE: 1" = 10'



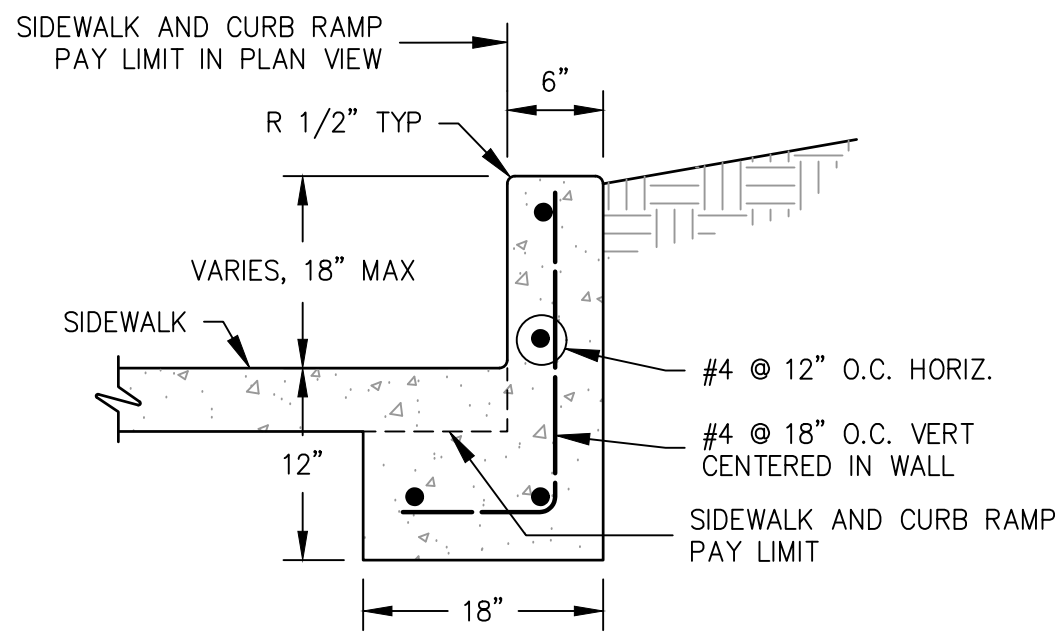
10 NEW PAVING GRADE AT CURB TO REMAIN

SCALE: NONE



11 ANGLED PARKING LAYOUT

SCALE: NONE



12 RETAINING CURB, 6" TO 18" TALL

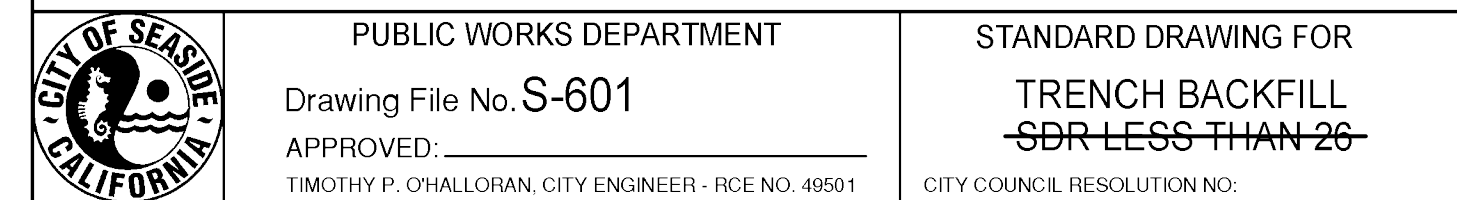
SCALE: NONE



Civil Engineering
Land Surveying
6 Harris Court
Monterey, California
831.649.5225
whitsonengineers.com

DATE		REVISIONS	
		CITY OF SEASIDE PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION 440 HARCOURT AVE. SEASIDE, CA 93955 (831)-899-6825	
		SHEET TITLE:	PROJECT NO.
		CIVIL DETAILS	
		PROJECT TITLE:	SHEET NO.
SHEET STATUS: ☐ PRELIMINARY ☒ SEMI-FINAL ☐ FINAL ☐ OTHER		CITY HALL AND LIBRARY PARKING LOT REPAVING	
SCALE: NONE		C4.2 DWG FILE NO. 2071.27 CIVIL	





DATE	REVISIONS	
 SHEET STATUS: ☐ PRELIMINARY ☒ SEMI-FINAL ☐ FINAL ☐ OTHER SCALE: NONE	CITY OF SEASIDE PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION 440 HARCOURT AVE. SEASIDE, CA. 93955 (831)-899-6825	
	SHEET TITLE:	PROJECT NO.
	PROJECT TITLE:	SHEET NO.
	SEWER DETAILS CITY HALL AND LIBRARY PARKING LOT REPAVING	
		C4.4 DWG FILE NO. 2071.27 CIVIL



ADDENDUM No.1
For the Construction of
City Hall and Library Parking Lot Repaving Project
June 23, 2023

Addendum No. 1 is being issued for revisions to the Request for Proposal for the City Hall Library Parking Lot Repaving Project

The clarifications and revisions declared in this addendum are an essential element to the Request for Proposal. All other requirements remain unchanged.

REVISIONS

Make the following revisions to Document 00 5200 Agreement

REMOVE Document 00 5200, section 6.07 and **REPLACE** with the text "This Agreement and the Contract Documents shall be deemed to have been entered into the County of Monterey, State of California, and governed in all respects by California law (excluding choice of law rules). The exclusive venue for all disputes or litigation hereunder shall be in the Superior Court for the County of Monterey. **IN WITNESS WHEREOF the parties have executed the Agreement the day and year first above written.**"

CLARIFICATIONS & QUESTIONS

- What is the engineer's estimate price?
 - **The engineer's estimate base bid is \$610,400.00.**
- Does the City have a plan holders list?
 - **The City does not have a plan holders list.**
- Please make note of the required scheduling and phase delineation in specification section 01 1100 General Requirements, 1.06, and in Appendix A.
- A storage area will be made available on Sutter Street from 9/20/23 to 9/25/23 for any construction equipment or materials, to be stored at the Contractor's own risk. All equipment must be removed from the parking lot during this time period. Contractor to provide fencing.
- A temporary ADA parking stall and curb ramp are to be constructed on Harcourt Avenue during Phase 1 of the project. See exhibit 1 of this addendum. The ADA parking stall is to be marked by a temporary sign or Type 1 or 2 Barricade, or similar, and delineated by fillable K-rail or similar traffic safety barrier. A temporary ADA ramp is to be provided for access onto the sidewalk. The temporary ADA ramp is to have "curb" or edge protection to prevent a user from rolling off of the side of the ramp.

Addendum #1

2023 – City Hall and Library Parking Lot Repaving Project

Page 2 of 2

If you are a bidder, you must acknowledge receiving this Addendum by completing Document 00 4113 of the bid form. Submit bids for this work with the understanding and full compensation of this addendum. If there are any questions regarding this addendum, please contact Patrick Grogan at pgrogan@ci.seaside.ca.us

Sincerely,



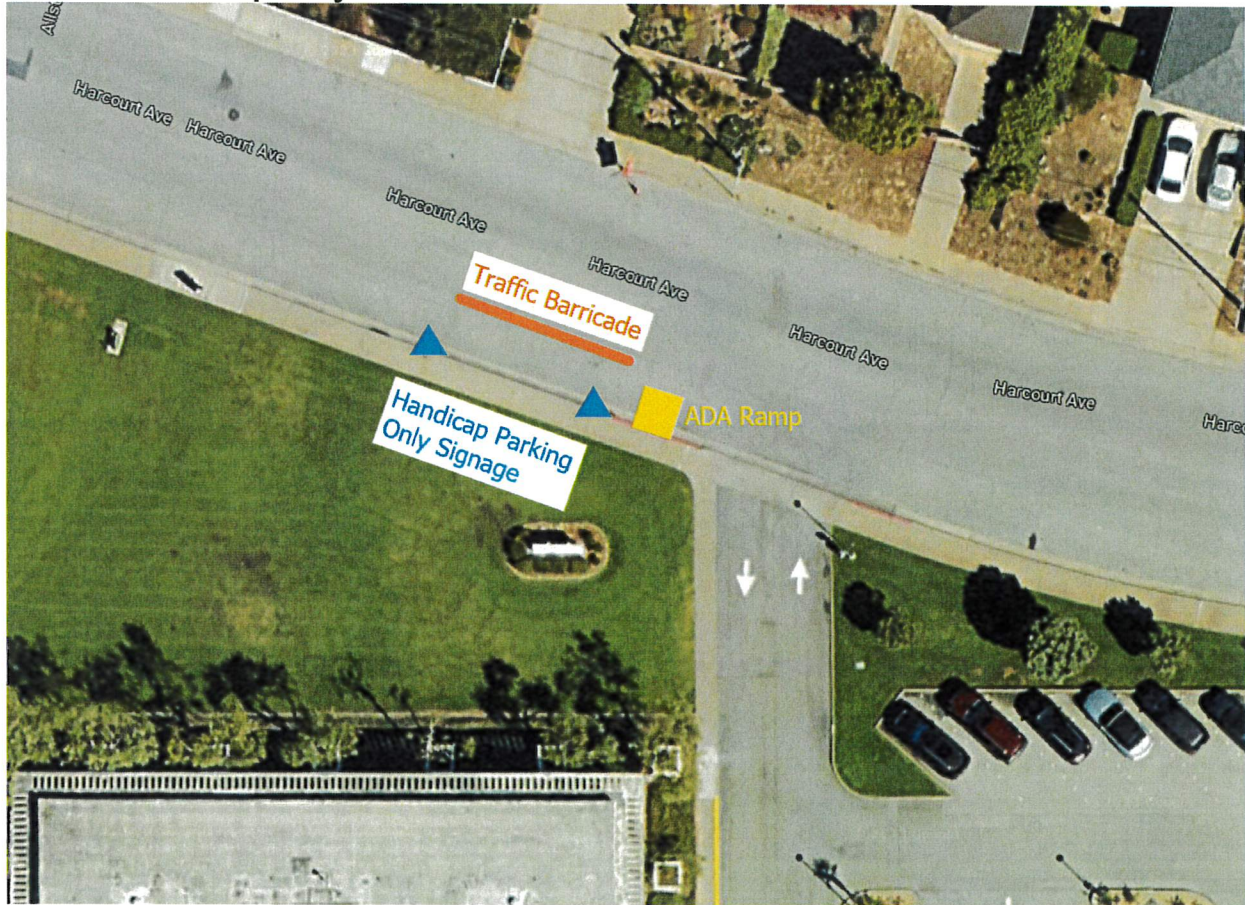
Nisha Patel

PW Director / City Engineer



ADDENDUM No.1 – Exhibit No.1
For the Construction of
City Hall and Library Parking Lot Repave Project
June 23, 2023

Location of Temporary ADA Accommodations



DOCUMENT 00 0101

PROJECT MANUAL

for

City Hall and Library Parking Lot Repaving

located at

440 Harcourt Ave, Seaside, CA 93955

**CITY OF SEASIDE
DEPARTMENT OF PUBLIC WORKS**



City of Seaside
440 Harcourt Ave.
Seaside, CA 93955

Approved by: Nisha Patel, P.E.
City Engineer / Public Works Director

Recommended by: Patrick Grogan
Associate Engineer

Advertisement Date: June 8, 2023

Bid Date: June 29, 2023 at 3:00 p.m.

DOCUMENT 00 0110**TABLE OF CONTENTS**

Division	Section	Title
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INTRODUCTORY INFORMATION

	00 0101	Title Page
	00 0110	Table of Contents
	00 0115	List of Drawings, Tables and Schedules

BIDDING REQUIREMENTS

	00 1113	Notice Inviting Bids
	00 2113	Instructions to Bidders
	00 3132	Existing Conditions

BID FORMS AND BID SUBMITTALS

	00 4113	Bid Form
	00 4313	Bond Accompanying Bid
	00 4314	Bidder Registration Form
	00 4330	Subcontractors List
	00 4513	Statement of Qualifications
	00 4519	Non-Collusion Affidavit
	00 4546	Bidder Certifications

CONTRACT FORMS

	00 5100	Notice of Award
	00 5200	Agreement
	00 5500	Notice to Proceed
	00 6113.13	Construction Performance Bond
	00 6113.16	Construction Labor and Material Payment Bond
	00 6290	Escrow Agreement for Security Deposits in Lieu of Retention
	00 6325	Substitution Request Form
	00 6530	Release of Claims
	00 6536	Guaranty

CONDITIONS OF THE CONTRACT

	00 7200	General Conditions
	00 7316	Supplementary Conditions – Insurance and Indemnification
	00 9113	Addenda

Division	Section	Title
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GENERAL REQUIREMENTS

01 1100	Summary
01 2000	Measurement and Payment
01 2600	Modification Procedures
01 3119	Project Meetings
01 3230	Progress Schedules and Submittals
01 3300	Submittals
01 4100	Regulatory Requirements
01 4200	References and Definitions
01 7700	Contract Closeout

TECHNICAL SPECIFICATIONS

01 5723	Temporary Water Pollution Control
01 7123	Field Engineering
31 0001	Earthwork
31 1117	Demolition
31 2333	Trenching
32 1124	Aggregate Base Course
32 1217	Asphalt Concrete Paving
32 1314	Concrete Paving
33 0150.01	Temporary Bypass Pumping
33 0562	Polymer Concrete Manhole
33 3000	Sanitary Sewerage Utilities
33 4000	Storm Drainage Utilities

APPENDICES

Appendix A	Phase Delineation
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END OF DOCUMENT

DOCUMENT 00 0115

LIST OF DRAWINGS, TABLES AND SCHEDULES

DRAWINGS

<u>Sheet Number</u>	<u>Description</u>
	CIVIL
C0.1	Title Sheet
C0.2	Civil Notes and Legends
C1.1	Demolition Plan
C2.1	Construction Plan
C2.2	Sewer Plan and Profile
C3.1	Erosion and Sediment Control
C4.1	Civil Details
C4.2	Civil Details
C4.3	Civil Details
C4.4	Sewer Details

END OF DOCUMENT

DOCUMENT 00 1113

NOTICE INVITING BIDS

ARTICLE 1 – INVITATION TO BID

- 1.01 Notice Inviting Bids:** Owner will receive sealed Bids at The Office of the City Clerk, City of Seaside City Hall, 440 Harcourt Ave., Seaside, California 93955, until **June 29, 2023 at 3:00 p.m.** for the following public work:

**CITY OF SEASIDE
City Hall and Library Parking Lot Repaving
located at
440 Harcourt Ave, Seaside, CA 93955**

- 1.02 Project Description:** The project includes demolition, earthwork, and repaving of existing city hall and library parking lots; abandonment of a section of existing sanitary sewer main; construction of a new section of sanitary sewer main; and modification of an existing storm drain. Associated work includes concrete curbs, gutters, sidewalks, and curb ramps, hot mix asphalt paving, signing and stripping.
- 1.03 Procurement of Bidding Documents:** Bidders may obtain Bidding Documents from the City's website at <https://www.ci.seaside.ca.us/Bids.aspx>
- 1.04 Instructions:** Bidders shall refer to Document 00 2113 (Instructions to Bidders) for required documents and items to be submitted in a sealed envelope for deposit at the Office of the City Clerk, City of Seaside City Hall, 440 Harcourt Ave., Seaside, California 93955, no later than the time and date set forth in Paragraph 1.01 above.
- 1.05 Optional Pre-Bid Site Conference:** Owner will provide opportunities for Pre-Bid Site Conference on **June 15, 2023 at 9:30 AM on site** at 440 Harcourt Avenue in Seaside, CA.
- 1.06 Bid Preparation Cost:** Bidders are solely responsible for the cost of preparing their Bids.
- 1.07 Reservation of Rights:** Owner specifically reserves the right, in its sole discretion, to reject any or all Bids, to re-bid, or to waive inconsequential defects in bidding not involving time, price or quality of the work. Owner may reject any and all Bids and waive any minor irregularities in the Bids.

ARTICLE 2 – LEGAL REQUIREMENTS

- 2.01 Required Contractor's License(s):** A California Class A General Engineering Contractors License is required of the prime contractor to bid this contract.
- 2.02 Lowest Bid Determination:** The determination of lowest bid shall be based upon:
Total base bid.
- 2.03 Prevailing Wage Laws:** The successful Bidder must comply with all prevailing wage laws applicable to the Project, and related requirements contained in the Contract Documents. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are on file at [\[http://www.dir.ca.gov/OPRL/PWD/index.htm\]](http://www.dir.ca.gov/OPRL/PWD/index.htm) and are deemed included in the Bidding Documents. Upon request, Owner will make available copies to

any interested party. Also, the successful Bidder shall post the applicable prevailing wage rates at the Site.

- 2.04 Contractor Registration Requirements:** No contractor or subcontractor may be listed on a bid proposal for a public works project or may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- 2.05 Notice of Compliance Monitoring:** This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

END OF DOCUMENT

DOCUMENT 00 2113**INSTRUCTIONS TO BIDDERS**

Bids are requested by Owner, for a general construction contract, or work described in general, as set forth in Document 00 1113 (Notice Inviting Bids), and the following additional terms.

ARTICLE 1 - PROCEDURES FOR SUBMISSION OF BIDS**1.01 Pre-Bid Conference and Site Visit**

- A. Owner will conduct optional Pre-Bid Site Visits at the dates, times and location indicated in Document 00 1113 (Notice Inviting Bids), to consider such matters as Bidders may request.
- B. The Site Visit may be the Bidders' only opportunity to investigate conditions at the Site. Other Pre-Bid Site Visits may be scheduled at Owner's sole discretion, depending on staff availability.

1.02 Required Pre-Bid Investigations

- A. Prior to submission of Bid, Bidder must conduct a careful examination of Bidding Documents and understand the nature, extent, and location of Work to be performed. Refer to Document 00 7200 (General Conditions) on required pre-bid investigations.
- B. Bidders may examine any available existing conditions information (e.g., record documents, specifications, studies, drawings of previous work), as well as applicable environmental assessment information (if any) regarding the Project, by giving Owner reasonable advanced notice. Owner will make copies available for a fee. A Bidder must give five (5) days advanced notice if copies are desired.

1.03 Registration

- A. Each bidder and any subcontractor listed in a bid proposal pursuant to California Public Contract Code Section 4104, must be currently registered with the Department of Industrial Relations and qualified to perform public work consistent with California Labor Code section 1725.5, except in limited circumstances as referenced in California Labor Code section 1771.1(a). No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

1.04 Bidder Questions and Answers

- A. Bidders must direct all questions about the meaning or intent of Bidding Documents to Owner in writing no later than the 10th day preceding the date set for the receipt of bids. No addenda will be issued to Bidders after the 5th day preceding the date set for the receipt of Bids. Interpretations or clarifications considered necessary by Owner in response to such questions will be issued by written Addenda and posted to the City's website. It is the Contractors responsibility to check the City's website for Addendums. Owner may not answer questions received less than ten Days prior to the date for opening Bids.
- B. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect, and Bidders shall not rely on oral statements.

1.05 Addenda

- A. Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner. Addenda shall be acknowledged by number in Document 00 4113 (Bid Form) and shall be part of the Contract Documents. A complete listing of Addenda may be secured from Owner.

ARTICLE 2 - RECEIPT OF BIDS:

2.01 Date and Time

- A. Sealed Bids will be received by the Owner until the date and time indicated in Document 00 1113 (Notice Inviting Bids). All Bid envelopes will be time-stamped to reflect their submittal time. Owner shall reject all Bids received after the specified time and will return such Bids to Bidders unopened. Bidders must submit Bids in accordance with this Document 00 2113.

2.02 Bid Submission:

- A. All bids shall be submitted on the prescribed bid forms.
- B. Bidders must submit their Bid in a sealed envelope.
- C. Bidders shall label their Bid envelope by "**Bid for Construction – City Hall and Library Parking Lot Repaving<<Bidder Name>>**".

2.03 Required Contents of Bid Submittals

- A. Document 00 4113 (Bid Form). Bidders must submit Bids on Document 00 4113 (Bid Form) in accordance with the provisions of Document 00 4113. Bidders must complete all Bid items and supply all information required by Bid documents and specifications.
- B. Document 00 4313 (Bond Accompanying Bid). Each Bid must be accompanied by the prescribed bid security in an amount equal to 10 percent of the total amount of the Bid, including the aggregate of all separate bid items and schedules covered by the Bid.
- C. Document 00 4314 (Bidder Registration and Experience Form). Bidders must submit Document 00 4314 (Bidder Registration and Experience Form), completed in accordance with the provisions of Document 00 4314.
- D. Document 00 4330 (Subcontractor List). Bidders must submit Document 00 4330 (Subcontractors List) completed in accordance with the provisions of Document 00 4330. The Subcontractors List must include the names of all subcontractors for those subcontractors who will perform any portion of work, including labor, rendering of service, or specially fabricating and installing a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of the total Bid amount. Any violation of this requirement may result in a Bid being deemed non-responsive and not being considered. The bidder shall install with his/her own work forces work amounting to not less than fifty percent (50%) of the total amount bid for this project and must submit a listing when requested of the actual subcontract amount to confirm compliance prior to award of the Bids.
- E. Document 00 4513 (Statement of Qualifications for Construction Work). Bidder must submit Document 00 4513 (Statement of Qualifications for Construction Work) in accordance with the provisions of Document 00 4513.
- F. Document 00 4519 (Non-Collusion Affidavit). Bidders must submit Document 00 4519 (Non-Collusion Affidavit) completed in accordance with the provisions of Document 00 4519.
- G. Document 00 4546 (Bidder Certifications). Bidders must submit Document 00 4546 (Bidder Certification) completed in accordance with the provisions of Document 00 4546.

ARTICLE 3 - BID OPENING AND EVALUATION

3.01 Determination of Apparent Low Bidder

- A. Owner will open each Bidders' Envelope at the time and place indicated in Document 00 1113 (Notice Inviting Bids), initially evaluate them for responsiveness, and determine an Apparent Low Bidder as specified herein.
- B. Apparent Low Bid will be determined solely on the total amount of all Bid items based on terms contained in Document 00 1113 (Notice Inviting Bids) and Document 00 4113 (Bid Form). All Bidders are required to submit Bids on all Bid items (including any alternates).
- C. If Apparent Low Bidder is determined to be non-responsive or non-responsible, then Owner may proceed to the next Apparent Low Bidder's Bid pursuant to any procedures determined in its reasonable discretion and proceed for all purposes as if this Apparent Low Bidder were the original Apparent Low Bidder.

3.02 Evaluation of Bids

- A. Bids must be full, complete, clearly written and using the required forms. Bidders shall make any change in the Bid by crossing out the original entry, entering and initialing the new entry. Bidder's failure to submit all required documents strictly as required entitles Owner at its sole discretion to reject the Bid as non-responsive. All Bidders must submit Bids containing each of the fully executed documents supplied in this Project Manual.
- B. In evaluating Bids, Owner will consider Bidders' qualifications, whether or not the Bids comply with the prescribed requirements, unit prices, and other data, as may be requested in Document 00 4113 (Bid Form) or prior to the Notice of Award.
- C. Owner may conduct reasonable investigations and reference checks of Bidder and other persons and organizations as Owner deems necessary to assist in the evaluation of any Bid and to establish Bidder's responsibility, qualifications, financial ability and ability to perform the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time. Submission of a Bid constitutes Bidder's consent to the foregoing.
- D. Owner shall have the right to consider information provided by sources other than Bidder. Owner shall also have the right to communicate directly with Bidder's surety regarding Bidder's bonds.
- E. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between written words and figures will be resolved in favor of the words.
- F. Bids shall be deemed to include the written responses of the Bidder to any questions or requests for information of Owner made as part of Bid evaluation process after submission of Bid.

3.03 Reservation of Rights

- A. Owner reserves the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional Bids, and to reject the Bid of any Bidder as non-responsive as a result of any error or omission in the Bid, or if Owner believes that it would not be in the best interest of Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. For purposes of this paragraph, an "unbalanced Bid" is one having nominal prices for some Bid items and enhanced prices for other Bid items.
- B. Owner may retain Bid securities and Bid bonds of other than the Apparent Low Bidder for a period of 90 Days after award or full execution of the Contract, whichever first occurs.
- C. Owner may reject any or all Bids and waive any informalities or minor irregularities in the Bids. Owner also reserves the right, in its discretion, to reject any or all Bids and to re-Bid the Project.

ARTICLE 4 - MANDATORY BID PROTEST PROCEDURES:

4.01 Submission of Written Bid Protest

- A. Any Bid protest in connection with the construction contract or work described in general in Document 00 1113 (Notice Inviting Bids) must be submitted in writing to City Clerk's Office, 440 Harcourt Avenue Seaside, CA 93955, before 3:30 P.M. of the fifth Business Day following opening of the Bidders' envelopes.
- B. The initial protest document must contain a complete statement of the basis for the protest.
- C. The protest must refer to the specific portion of the document that forms the basis for the protest.
- D. The protest must include the name, address, and telephone number of the person representing the protesting party.
- E. Only Bidders who the Owner otherwise determines are responsive and responsible are eligible to protest a Bid; protests from any other party will not be considered. In order to determine whether a protesting Bidder is responsive and responsible, Owner may evaluate all information contained in any protesting Bidder's Bid and conduct the same investigation and evaluation as Owner is entitled to take regarding an Apparent Low Bidder.
- F. The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.

4.02 Exclusive Remedy

- A. The procedure and time limits set forth in this paragraph are mandatory and are Bidder's sole and exclusive remedy in the event of Bid protest. Bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings. A Bidder may not rely on a protest submitted by another Bidder but must timely pursue its own protest.

ARTICLE 5 - AWARD AND EXECUTION OF CONTRACT

5.01 Notice of Award and Submittal of Executed Contract Documents

- A. If Contract is to be awarded, it will be awarded to the lowest responsible responsive Bidder. Owner will issue Document 00 5100 Notice of Award. Such Award, if made, will be made within ninety (90) days after the opening of the Bid Proposals.
- B. Successful Bidder must execute and submit to Owner the "Required Contract Documents and Proof of Insurance" set forth below, by 5:00 p.m. of the 10th Working Day following the Notice of Award.

5.02 Required Contract Documents and Proof of Insurance

- A. Document 00 5200 (Agreement), fully executed by successful Bidder. Submit signed copy and initials on each page.
- B. Document 00 6113.13 (Construction Performance Bond), fully executed by successful Bidder and surety, in the amount set forth in Document 00 6113.13. Submit one original.
- C. Document 00 6113.16 (Construction Labor and Material Payment Bond), fully executed by successful Bidder and surety, in the amount set forth in Document 00 6113.16. Submit one original.
- D. Document 00 6536 (Guaranty), fully executed by successful Bidder.
- E. Insurance certificates and endorsements required by Document 00 7316 (Supplementary Conditions—Insurance): Submit one original set.

5.03 Failure to Execute and Deliver Documents:

- A. If Bidder to whom Contract is awarded, within the period described in this Document 00 2113, fails or neglects to execute and deliver all required Contract Documents and file all required bonds, insurance certificates, and other documents, Owner may, in its sole discretion, rescind the award, recover on Bidder's surety bond, or deposit Bidder's cashier's check or certified check for collection, and retain the proceeds thereof as liquidated damages for Bidder's failure to enter into the Contract Documents. Bidder agrees that calculating the damages Owner may suffer as a result of Bidder's failure to execute and deliver all required Contract Documents would be extremely difficult and impractical and that the amount of Bidder's required Bid security shall be the agreed and presumed amount of Owner's damages.
- B. Upon such failure to timely deliver all required Contract Documents as set forth herein, Owner may determine the next Apparent Low Bidder and proceed accordingly. Such Award, if made, will be made within ninety(90) days after the opening of the Bid Proposals.

ARTICLE 6 - GENERAL CONDITIONS AND REQUIREMENTS

6.01 Modification of Commencement of Work:

- A. Owner expressly reserves the right to modify the date for the Commencement of Work under the Contract and to independently perform and complete work related to Project. Owner accepts no responsibility to Contractor for any delays attributed to its need to complete independent work at the Site.
- B. Owner shall have the right to communicate directly with Apparent Low Bidder's proposed performance bond surety, to confirm the performance bond. Owner may elect to extend the time to receive faithful performance and labor and material payment bonds.

6.02 Conformed Project Manual:

- A. Following Award of Contract, Owner may prepare a conformed Project Manual reflecting Addenda issued during bidding, which will, failing objection, constitute the approved Project Manual.

6.03 Bonds:

- A. The successful Bidder shall furnish to the Owner a Performance Bond ensuring the performance of the Work in accordance with the Contract Documents and a Payment Bond ensuring the payment of all obligations arising from the Work. Sureties and Bonds shall comply with the requirements in the General Conditions and Supplementary Conditions. Bonds shall be delivered to the Owner at the time and place the Contract Agreement is executed unless otherwise provided in the Contract Documents or otherwise approved in writing by the Owner. Bonds shall conform exactly to the forms included in Section 00 6113.13 and 00 6113.16 of the Contract Documents.
- B. Failure to execute the bonds within the time specified shall allow the Owner to consider that the Bidder has abandoned the Contract, in which case the check or bidder's bond accompanying the bid shall be the property of the Owner.
- C. The Performance and Payment Bond(s) may be either a single bond or a separate Performance Bond and a Separate Payment (labor and materials) Bond. If a single bond is used, it must be in the amount of two hundred percent (200%) of the Total Bid, and if separate Bonds are used, each must be for one hundred percent (100%) of the Total Bid. The Bond covering payment must comply with Section 3248 of the California Civil Code.
- D. All bonds and endorsements thereto to be submitted pursuant to the terms of the Contract Documents must be written and issued by a company having a minimum of an "A" rating and of adequate financial category as rated by the current edition of Best's Key Rating Guide as published by A. M. Best Company, Oldwick, New Jersey 08858..

6.04 Wage Rates:

- A. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California

Department of Industrial Relations, and are pursuant to Section 1773 of the Labor Code and can be found at <http://www.dir.ca.gov/dlsr/PWD/Northern.html>.

6.05 Notice of Compliance Monitoring:

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

6.06 Withdrawal of Bids:

- A. Bidders may withdraw their Bids at any time prior to the Bid opening time fixed in this Document 00 2113, only by written request for the withdrawal of Bid filed with Owner at **440 Harcourt Ave. Seaside, CA 93955**. Bidder or its duly authorized representative shall execute request to withdraw Bid.

6.07 Ineligible Contractors and Subcontractors:

- A. Owner shall not accept a Bid from a Bidder who is ineligible to bid or work on, or be awarded, a public works project pursuant to California Labor Code section 1777.1 or 1777.7. Bidders and the Contractor who is awarded the project contract shall not utilize, or allow work by, any subcontractor who is ineligible to bid or work on, or be awarded, a public works project pursuant to California Labor Code Section 1777.1 or 1777.7. (See California Public Contract Code Section 6109.) The California Division of Labor Standards Enforcement publishes a list of debarred contractors and subcontractors on the Internet at www.dir.ca.gov/DLSE/debar.html.

6.08 Substitutions:

- A. Bidders must base their Bids on products and systems specified in Contract Documents or listed by name in Addenda. Owner will consider substitution requests only for "or equal items." Bidders wanting to use "or equal" item(s) may submit Document 00 6325 (Substitution Request Form) no later than 20 Calendar Days after Notice of Award. As a limitation on Bidder's privilege to request substitution of "or equal" items, Owner has found that certain items are designated as Owner standards and certain items are designated to match existing items in use on a particular public improvement either completed or in the course of completion or are available from one source. As to such items, Owner will not permit substitution. Such items are described in the Bidding Documents as "No substitutions allowed".

6.09 Definitions:

- A. All abbreviations and definitions of terms used in this Document 00 2113 are set forth in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions).

END OF DOCUMENT

DOCUMENT 00 3132

EXISTING CONDITIONS

ARTICLE 1 - REPORTS AND INFORMATION ON EXISTING CONDITIONS

1.01 Inspection of Reports:

- A. Owner, its consultants, and prior contractors may have collected documents providing a general description of the Site and conditions of the Work. These documents may consist of geotechnical reports for and around the Site, contracts, contract specifications, tenant improvement contracts, as-built drawings, utility drawings, and information regarding Underground Facilities (collectively, "Existing Conditions Data".)
- B. Existing Conditions Data is for information only and does not describe labor, materials or equipment furnished by Contractor, but rather, information regarding conditions of the work. Such Existing Conditions Data is not a Contract Document.

ARTICLE 2 - USE OF EXISTING CONDITIONS DATA

2.01 Above-Ground Existing Conditions:

- A. Owner makes no warranty or representation of existing aboveground conditions, as-built conditions, or other aboveground actual conditions verifiable by reasonable independent investigation. These conditions are verifiable by Bidder by the performance of its own independent investigation that Bidder must perform prior to bidding and Bidder must not rely on the information supplied by Owner regarding existing conditions.
- B. Bidder represents and agrees that in submitting its Bid, it is not relying on any information regarding above-ground existing conditions supplied by Owner.

2.02 Underground Facilities:

- A. Information supplied regarding existing Underground Facilities at or contiguous to the Site is based on information furnished to Owner by others (e.g., the builders of such Underground Facilities or others).
- B. Owner assumes responsibility for only the general accuracy, completeness or thoroughness of information regarding Underground Facilities that are owned by Owner. This express assumption of responsibility applies only if Bidder has conducted the independent investigation required of it under Document 00 7200 (General Conditions) and discrepancies were not apparent. Bidder is solely responsible for any interpretation or conclusion drawn from this information.
- C. Owner is not responsible only for information regarding Underground Facilities owned by others.

ARTICLE 3 - INVESTIGATIONS

3.01 Required Investigations:

- A. Before submitting a Bid, each Bidder shall be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise, which may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of Contract Documents.
- B. Bidders shall advise Owner in writing during the Bid period of any questions, suppositions, inferences or deductions Bidders may have for Owner's review and response.
- C. Owner has provided time in the period prior to bidding for Bidder to perform these investigations.

3.02 Access to Site for Investigations:

- A. During the Pre-Bid Site Visit(s), Owner will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a Bid. Bidders must fill all holes and clean up and restore the Site to its former conditions upon completion of such explorations, investigations, tests, and studies. Such investigations may be performed only under the provisions of Document 00 2113 (Instructions to Bidders) and Document 00 7200 (General Conditions) including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such investigation work. Each Bidder shall supply all equipment required to perform any investigations as each Bidder deems necessary. Owner has the right to limit the number of pieces of machinery operating at one time due to safety concerns.

END OF DOCUMENT

DOCUMENT 00 4113**BID FORM**

TO CITY OF SEASIDE

THIS BID IS SUBMITTED BY:

 (Firm/Company Name)

Re: **City Hall and Library Parking Lot Repaving**, located at 440 Harcourt Ave, Seaside, CA 93955

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with the City of Seaside in the form included in the Contract Documents, Document 00 5200 (Agreement), to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Sum and within the Contract Time indicated in this Bid and in accordance with all other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Contract Documents, Document 00 1113 (Notice Inviting Bids), and Document 00 2113 (Instructions to Bidders), including, without limitation, those dealing with the disposition of Bid Security. This Bid will remain subject to acceptance for 90 Days after the day of Bid opening, unless there is a bid protest, then 120 days after the day of bid opening.
3. In submitting this Bid, Bidder represents that Bidder has examined all of the Contract Documents, performed all necessary Pre-Bid investigations, received the Pre-Bid conference minutes (if any), and received the following Addenda:

Addendum Number	Addendum Date	Signature of Bidder

4. Based on the foregoing, Bidder proposes and agrees to fully perform the Work within the time stated and in strict accordance with the Contract Documents for the following sums of money listed in the following Schedule of Bid Prices:

SCHEDULE OF BID PRICES

All Bid items, including lump sums and unit prices, must be filled in completely. Bid items are described in Section 01 1100 (Summary of Work). Quote in figures only, unless words are specifically requested.

Base Bid

ITEM #	BID ITEM	EST. QTY.	UNIT	UNIT PRICE	TOTAL
1	Mobilization	1	LS		
2	Storm Water Compliance	1	LS		
3	Traffic Control	1	LS		
4	Construction Staking	1	LS		
5	Demolition	1	LS		
6	Drain Inlet Apron	3	EA		
7	Class 2 Aggregate Base	24	CY		
8	Hot Mix Asphalt (Type A)	1,030	TON		
9	Concrete Sidewalk and Curb Ramp	340	SF		
10	Concrete Pedestrian Passage	470	SF		
11	Concrete Vertical Curb	480	LF		
12	6"-18" Concrete Retaining Curb	30	LF		
13	Detectable Warning Surface	30	SF		
14	Salvage and Reinstall Stacked Block Wall	1	LS		
15	Wheel Stop	16	EA		
16	Salvage and Reinstall Roadside Sign	1	EA		
17	Replace Roadside Sign Panel on Existing Post	1	EA		
18	Roadside Sign	2	EA		
19	Pavement Markings	1	LS		
20	Sewer Bypass	1	LS		
21	Standard Manhole	1	EA		
22	Shallow Manhole, Type 1	1	EA		
23	Polymer Concrete Inside Drop Manhole	1	EA		
24	8" PVC SDR 26 Sanitary Sewer Pipe	290	LF		

ITEM #	BID ITEM	EST. QTY.	UNIT	UNIT PRICE	TOTAL
25	Storm Drain Crossing	1	LS		
26	Plug and Abandon Existing 6" Sanitary Sewer Pipe	1	LS		
27	Relocate Post Office Mailbox	1	EA		
28	Record Drawings	1	LS		
TOTAL					
The TOTAL BASE BID AMOUNT described in words is:					

_____ and _____/100 DOLLARS					

(F) – Final Pay item

(N) - Item not subject to unit price adjustments for quantities “less than 75 percent or greater than 125 percent of the estimated quantities bid” as outlined in Section 01 2000, 1.03.B “Unit Price Items”.

5. Subcontractors for work included in all Bid items are listed on Document 00 4330 (Subcontractors List) submitted herewith.
6. The undersigned Bidder understands that Owner reserves the right to reject this Bid.
7. If written notice of the acceptance of this Bid, hereinafter referred to as Notice of Award, is mailed or delivered to the undersigned Bidder within the time described in Paragraph 2 of this Document 00 4113 or at any other time thereafter before it is withdrawn, the undersigned Bidder will execute and deliver the documents required by Document 00 2113 (Instructions to Bidders) within the times specified therein.
8. Notice of Award or request for additional information may be addressed to the undersigned Bidder at the address set forth below.
9. The undersigned Bidder herewith encloses cash, a cashier's check, or certified check of or on a responsible bank in the United States, or a corporate surety bond furnished by a surety authorized to do a surety business in the State of California, in form specified in Document 00 2113 (Instructions to Bidders), in the amount of ten percent (10%) of the Total Bid Price and made payable to the City of Seaside.
10. The undersigned Bidder agrees to commence Work under the Contract Documents on the date established in Document 00 7200 (General Conditions) and to complete all Work within the time specified in Document 00 5200 (Agreement).
11. The undersigned Bidder agrees that, in accordance with Document 00 7200 (General Conditions), liquidated damages for failure to complete all Work in the Contract within the time specified in Document 00 5200 (Agreement) shall be as set forth in Document 00 5200.
12. The names of all persons interested in the foregoing Bid as principals are:

IMPORTANT NOTICE:

If Bidder or other interested person is a corporation, give the legal name of corporation, state where incorporated, and names of president and secretary thereof; if a partnership, give name of the firm and names of all

individual co-partners composing the firm; if Bidder or other interested person is an individual, give first and last names in full.

NAME OF BIDDER: _____ licensed in accordance with an act for the registration of Contractors, and with license number: _____, with Expiration: _____.

_____	_____
(Place of Incorporation, if Applicable)	(Principal, Name/Title)

	(Principal, Name/Title)

	(Principal, Name/Title)

NOTE: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Business Address: _____

Contractor's Representative(s): _____
 (Name/Title)

 (Name/Title)

 (Name/Title)

Officers Authorized to Sign Contracts _____
 (Name/Title)

 (Name/Title)

 (Name/Title)

Telephone Number(s): _____
 (Area Code) (Number)

 (Area Code) (Number)

Fax Number(s):

(Area Code)

(Number)

(Area Code)

(Number)

Date of Bid:

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

(Signature of Bidder)

Name / Title

END OF DOCUMENT

DOCUMENT 00 4313

BOND ACCOMPANYING BID

KNOW ALL BY THESE PRESENTS:

That the undersigned

(Name of Contractor)

as Principal and the undersigned as Surety are held and firmly bound unto Owner, the City of Seaside, as obligee, in the penal sum of (Dollar Amount In Words)
Dollars (\$_____) lawful money of the United States of America being at least ten percent (10%) of the aggregate amount of said Principal's base Bid, for the payment of which, well and truly to be made, we bind ourselves, our successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal is submitting a Bid for City Hall and Library Parking Lot Repaving, located at 440 Harcourt Ave, Seaside, CA 93955.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Bid submitted by the said Principal be accepted and the Contract be awarded to said Principal and said Principal shall within the required periods enter into the Contract so awarded and provide the required Construction Performance Bond, Construction Labor and Material Payment Bond, insurance certificates, Guarantee, and all other endorsements, forms, and documents required under Document 00 2000 (Instructions to Bidders), then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument this _____ day of _____, 20____.
(Month)

(Corporate Seal)

By _____
Principal

Name /Title

By _____
Surety

Name /Title

(Corporate Seal)

By _____
Attorney in Fact

Name /Title

END OF DOCUMENT

DOCUMENT 00 4314

BIDDER REGISTRATION FORM

INSTRUCTIONS

In order to register to undertake work for Owner, Bidder must:

- 1) Fill out this registration form completely; do not leave blanks.
- 2) Provide certificates of insurance or a letter evidencing coverage complying with Document 00 4513 (Statement of Qualifications).

INDEPENDENT CONTRACTOR REGISTRATION

Contractor's License # _____

Date: _____ Fed I.D. # _____

Full Corporate Name of Company: _____

Street Address: _____

Mailing Address: _____

Phone: _____ Fax: _____

Name of Principal Contact: _____

Type of Business: _____ Sole Proprietor _____ Partnership
_____ Non-Profit 501(c)(3) _____ Corporation
_____ other (please explain: _____)

INSURANCE

Workers' Compensation:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

General Liability:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

Automobile Liability:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

All-risk Course of Construction (if applicable, as required by Document 00 7316 [Supplementary Conditions – Insurance]):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

Professional Liability (if applicable, as required by Document 00 7316 [Supplementary Conditions – Insurance]):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

**Pollution Legal Liability Insurance (if applicable, as required by Document 00 7316
[Supplementary Conditions – Insurance]):**

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

**BIDDER CERTIFIES, UNDER PENALTY OF PERJURY, THAT THE FOREGOING
INFORMATION IS CURRENT AND ACCURATE AND AUTHORIZES OWNER, AND ITS AGENTS AND
REPRESENTATIVES TO OBTAIN A CREDIT REPORT AND/OR VERIFY ANY OF THE ABOVE
INFORMATION.**

SIGNATURE

DATE

1. List Bidder's interstate Experience Modification Rate for the last three years.
[20__] ____ [20__] ____ [20__] ____
2. Use Bidder's last year's Cal/OSHA 200 log to fill in the following number of injuries and illnesses:
 - a. Number of lost workday cases _____
 - b. Number of medical treatment cases _____
 - c. Number of fatalities _____
3. Employee hours worked last year _____
4. State the name of Bidder's safety engineer/manager: _____

I CERTIFY, UNDER PENALTY OF PERJURY, THAT THE FOREGOING INFORMATION IS CURRENT AND ACCURATE AND I AUTHORIZE OWNER, AND ITS AGENTS AND REPRESENTATIVES TO OBTAIN A CREDIT REPORT AND/OR VERIFY ANY OF THE ABOVE INFORMATION.

Date _____

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DOCUMENT 00 43 30

SUBCONTRACTORS LIST

Bidder submits the following information as to the subcontractors Bidder intends to employ if awarded the Contract.

Full Name of Subcontractor and Address of Mill or Shop	Description of Work: Reference To Bid Items	Subcontractor's License No.	Public Works Contractor Registration NO.	Value of Work (\$)

(Bidder to attach additional sheets if necessary)

END OF DOCUMENT

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DOCUMENT 00 4513

STATEMENT OF QUALIFICATIONS FOR CONSTRUCTION WORK

ARTICLE 1 – GENERAL INFORMATION

1.01 Minimum Bidder Qualifications.

- A. Bidders must be duly licensed in accordance with the California Business & Professions Code and have a history of work performance sufficient to meet the requirements of a responsible bidder in the California Public Contract Code Section 1104.
- B. The prime contractor must possess either a “Class A – General Engineering” or the licenses described in Document 00 1113. This contractor must have a minimum five (5) years experience as a continuously operating entity engaged in the performance of similar work and successfully completed at least three (3) park improvements or ADA accessibility projects over the last five (5) years.
- C. Bidders must demonstrate successful experience with type of work of this Project, to include, within the past year, completed 1 park improvement project of a similar nature and complexity, with a contract dollar amount of at least 75% of the amount of Bidder’s Bid.

1.02 Measurement.

- A. Bidder’s compliance with the minimum qualification requirements will be measured by Bidder’s experience as an operating entity and also by the experience of the supervisory personnel who will have responsible charge of the various major components of the Work.
- B. If Bidder subcontracts portions of the Work, Owner, in its determination of whether the minimum qualification requirements have been met, may consider the qualifications of the Subcontractor’s supervisory personnel.
- C. The qualifications of the Key Personnel are to be submitted with the Statement of Qualifications (“SOQ”), by providing the information described in this Document 00 4513.

ARTICLE 2 – REQUIRED CONTENTS OF SOQ SUBMISSION

2.01 Transmittal Letter.

- A. The Transmittal Letter shall name the proposed prime contractor, its legal structure (i.e., corporation, partnership, limited partnership, joint venture). If a joint venture or partnership is proposed, Bidder shall identify partner and/or member of the joint venture and their roles and responsibilities.

2.02 Submittals:

- A. Completed Questionnaire. Bidder shall include a completed Statement of Qualification Questionnaire in the form attached to this Document 00 4513 as Attachment “A”.
- B. Surety Letter re: Capability to Provide Required Performance and Payment Bonds. Bidder shall include a letter from a surety duly licensed to do business in the State of California, having a financial rating from A.M. Best Company of A-, VII or better, that the surety has agreed to provide Bidder with the required performance and payment bonds in accordance with the requirements set forth in Documents 00 6113.13 (Construction Performance Bond) and 00 6113.16 (Construction Labor and material Payment bond), each in the penal sum of the Contractor’s bid when submitted. Owner shall have the right to verify with the surety that the surety, based upon the Bid prices, will issue the required bonds under the conditions stated.
- C. Insurer Letter re: Capability to Provide the Required Insurance. Bidder shall provide a letter from an insurance underwriter, having a financial rating reasonably acceptable to Owner, confirming that the insurer will provide Bidder the required coverages and amounts specified in the Contract Documents.

2.03 Format.

- A. The SOQ shall be clear and concise to enable management-oriented personnel to make a thorough evaluation and arrive at a sound determination as to whether the SOQ meet Owner’s requirement. To this end, the SOQ should be so specific, detailed and complete as to demonstrate clearly and

fully that the Bidder has a thorough understanding of and has demonstrated knowledge of the requirements to perform the Work (or applicable portion thereof).

- B. Any explanation requested by a Bidder regarding the meaning or interpretation of this Document 00 4513 must be requested in writing and with sufficient time allowed for a reply to reach Bidder before the submission of its SOQ. Oral explanations or instructions will not be binding. Any information provided to any prospective Bidder concerning this Document 00 4513 will be furnished to all prospective Bidders as an Addendum to the Bidding Documents.

STATEMENT OF QUALIFICATION QUESTIONNAIRE FOLLOWS ON NEXT PAGE

ATTACHMENT "A" – Statement of Qualification Questionnaire

Bidders shall complete the entire Statement of Qualification Questionnaire and submit it in accordance with Document 00 2000 (Instructions to Bidders) and Document 00 4513 (Statement of Qualifications). Failure to complete the questionnaire or inclusion of any false statement(s) shall be ground for immediate disqualification.

CONTACT INFORMATION

Company Name: _____

Owner of Company: _____

Contact Person: _____

Address: _____

Phone: _____ Fax: _____

Address: _____

Department of Industrial Relations (DIR) Registration No.: _____

PART A: GENERAL INFORMATION

1. Does Bidder possess a valid and current California Contractor's license for the work proposed? Yes ___ No ___
2. Does Bidder have a minimum of \$2,000,000 liability insurance coverage? Yes ___ No ___
3. Has Bidder's License been revoked at any time in the last five years? Yes ___ No ___
4. Has Bidder been "default terminated" by an Owner (other than for convenience), or has a Surety completed a contract for Bidder within the last five years? Yes ___ No ___
5. Has Bidder been convicted more than twice for failure to pay prevailing wages in the last three years? Yes ___ No ___

Bidder may be disqualified if any answer to questions 1 or 2 is No.

Bidder may be disqualified if any answer to questions 3, 4, or 5 is Yes.

**PART B: EXPERIENCE OF APPURTENANCE / RETROFIT CONTRACTOR
CLASS A LICENSURE**

The nature of this Project requires prior similar experience for the firm and the Key Personnel assigned. Summarize similar project experience below and provide the detailed project information requested:

List three projects of similar size and scope to the Work of the Contract, completed in the past five (5) years, and indicate who were the superintendent, project manager and scheduler. NOTE: this listing will be used to assess compliance with the stated minimum qualifications in Paragraph 1.01C.

Project Name	Construction Cost (\$)	Year Completed	Name of Project Superintendent	Name of Project Manager	Name of Project Scheduler

List Key Personnel that will be assigned to the Work of the current Project and their experience/training with the projects listed above:

Project Manager: _____

Project Superintendent: _____

Project Scheduler: _____

Recent Projects.

Provide information about three (3) of its most currently completed projects. Names and references must be current and verifiable. This listing will be used to assess compliance with the stated minimum qualifications in Paragraph 1.01C. If a separate sheet is used, it must contain all of the following information:

1. Project Name: _____
 Location: _____
 Owner: _____
 Owner Contact (name and phone): _____
 Architect/Engineer: _____
 Architect/Engineer Contact (name and phone number): _____
 Const. Mgr. or Project Mgr. (name and phone number): _____
 Description of Project, Scope of Work Performed: _____

 Total Construction Cost: _____
 Total Change Order Amount: _____
 Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.
 Original Scheduled Date of Completion: _____
 Time Extensions Granted (number of Days): _____
 Actual Date of Completion: _____
 Number of Stop Notices filed by Subcontractors or Suppliers: _____
2. Project Name: _____
 Location: _____
 Owner: _____
 Owner Contact (name and phone): _____
 Architect/Engineer: _____
 Architect/Engineer Contact (name and phone number): _____
 Const. Mgr. or Project Mgr. (name and phone number): _____
 Description of Project, Scope of Work Performed: _____

 Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of Days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

3. Project Name: _____

Location: _____

Owner: _____

Owner Contact (name and phone): _____

Architect/Engineer: _____

Architect/Engineer Contact (name and phone number): _____

Const. Mgr. or Project Mgr. (name and phone number): _____

Description of Project, Scope of Work Performed: _____

Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of Days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

Bidder hereby declares under penalty of perjury that all the information provided in this questionnaire is true and correct.

SIGNATURE

TITLE

END OF DOCUMENT

DOCUMENT 00 4519

NON-COLLUSION AFFIDAVIT

PUBLIC CONTRACT CODE §7106

NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

STATE OF CALIFORNIA)
) ss.
COUNTY OF _____)

_____, being first duly sworn,
(Name of Principal of Bidder)

deposes and says that he or she is _____
(Office of Affiant)

of _____, the party
(Name of Bidder)

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

Executed under penalty of perjury under the laws of the State of California:

(Name of Bidder)

(Signature of Principal)

(Name / Title of Principal)

Subscribed and sworn before me _____

This _____ day of _____, 20____

Notary Public of the State of _____

In and for the County of _____

My Commission expires _____ (Seal)

NOTE: If Bidder is a partnership or a joint venture, this affidavit must be signed and sworn to by every member of the partnership or venture.

NOTE: If Bidder [including any partner or venturer of a partnership or joint venture] is a corporation, this affidavit must be signed by the Chairman, President, or Vice President and by the Secretary, Assistant Secretary, Chief Financial Officer, or Assistant Treasurer.

NOTE: If Bidder's affidavit on this form is made outside the State of California, the official position of the person taking such affidavit shall be certified according to law.

END OF DOCUMENT

DOCUMENT 00 4546

BIDDER CERTIFICATIONS

TO BE EXECUTED BY ALL BIDDERS AND SUBMITTED WITH BID

The undersigned Bidder certifies to Owner as set forth in sections 1 through 6 below.

1. STATEMENT OF CONVICTIONS

By my signature hereunder, I hereby swear, under penalty of perjury, that no more than one final, unappealable finding of contempt of court by a Federal Court has been issued against Bidder within the past two years because of failure to comply with an order of a Federal Court or to comply with an order of the National Labor Relations Board.

2. CERTIFICATION OF WORKER'S COMPENSATION INSURANCE

By my signature hereunder, as the Contractor, I certify that I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract.

3. CERTIFICATION OF PREVAILING WAGE RATES AND RECORDS

By my signature hereunder, as the Contractor, I certify that I am aware of the provisions of Section 1773 of the California Labor Code, which requires the payment of prevailing wage on public projects. Also, that the Contractor and any subcontractors under the Contractor shall comply with California Labor Code §1776, regarding wage records, and with California Labor Code §1777.5, regarding the employment and training of apprentices. It is the Contractor's responsibility to ensure compliance by any and all subcontractors performing work under this Contract.

4. CERTIFICATION OF COMPLIANCE WITH PUBLIC WORKS CHAPTER OF LABOR CODE

By my signature hereunder, as the Contractor, I certify that I am aware of Sections 1777.1 and 1777.7 of the California Labor Code and Contractor and Subcontractors and am eligible to bid and work on public works projects. Contractor warrants that it is currently registered with the Department of Industrial Relations and qualified to perform public work consistent with Labor Code section 1725.5. Contractor further warrants that any subcontractors who are subject to Public Contract code section 4104, are registered and qualified to perform public work consistent with Labor Code section 1725.5. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. Bidder shall maintain a current DIR registration for the duration of the project.

5. CERTIFICATION OF NOTICE OF COMPLIANCE MONITORING

By my signature hereunder, as the Contractor, I certify that I am aware of Section 1771.4 of the California Labor Code and that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

6. CERTIFICATION OF ADEQUACY OF CONTRACT AMOUNT

By my signature hereunder, as the Contractor, pursuant to Labor Code Section 2810(a), I certify that, if awarded the Contract based on the undersigned's Bid, the Contract will include funds sufficient to allow the Contractor to comply with all applicable local, state, and federal laws or regulations governing the labor or services to be provided. I understand that Owner will be relying on this certification if it awards the Contract to the undersigned.

BIDDER:

(Name of Bidder)

Date: _____

By: _____
(Signature)

Name: _____
(Print Name)

Its: _____
(Title)

END OF DOCUMENT

DOCUMENT 00 5100

NOTICE OF AWARD

Dated _____

TO: _____

ADDRESS: _____

PROJECT NO.: _____

CONTRACT FOR: The City of Seaside

City Hall and Library Parking Lot Repaving

located at **440 Harcourt Ave, Seaside, CA 93955f**

The Contract Sum of your contract is _____
_____ Dollars (\$_____).

1. One (1) copy of the proposed Contract Documents listed below accompany this Notice of Award.
2. You must comply with the following conditions precedent by **5:00 p.m.** of the **10th Working Day** following the date of this Notice of Award:
 - a. Deliver to Owner one fully executed counterparts of Document 00 5200 (Agreement). The copy of Document 00 5200 (Agreement) must bear your original signature on the signature page and your initials on each page.
 - b. Deliver to Owner one originals of Document 00 6113.13 (Construction Performance Bond), executed by you and your surety.
 - c. Deliver to Owner one originals of Document 00 6113.16 (Construction Labor and Material Payment Bond), executed by you and your surety.
 - d. Deliver to Owner original set of the insurance certificates with endorsements required under Document 00 7316 (Supplementary Conditions – Insurance).
 - e. Deliver to Owner one original of Document 00 6536 (Guaranty), executed by you.f
3. Failure to comply with these conditions within the time specified will entitle Owner to consider your Bid abandoned, to annul this Notice of Award, and to declare your Bid security forfeited.
4. Within 21 Days after you comply with the conditions in Paragraph 2 of this Document 00 5100, Owner will return to you one fully signed copy of Document 00 5200 (Agreement).
5. Before you may start any Work at the Site, you must attend a preconstruction conference and receive a written Notice to Proceed from Owner. The preconstruction conference may be arranged through Patrick Grogan, Project Manager, (831) 899-6885. Questions regarding bonds and insurance and all other inquiries regarding the Project should be directed to Patrick Grogan, Project Manager.

6. Upon commencement of the Work, you and each of your Subcontractors shall certify and provide Owner copies of payroll records on forms provided by the Division of Labor Standards Enforcement, in accordance with California Labor Code §1776.

OWNER

BY: _____
Nisha Patel, Public Works Director/City Engineer

ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above notice of Award is hereby acknowledged by:

This day of _____, 2021

By: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 5200

AGREEMENT

THIS AGREEMENT, dated this [date] day of [Month], [2023], by and between [Name of Contractor] whose place of business is located at [Address of Contractor] ("Contractor"), and the City of Seaside/Seaside County Sanitation District ("Owner"), acting under and by virtue of the authority vested in Owner by the laws of the State of California.

WHEREAS, Owner, by its Resolution No. [insert number] adopted on the [date] day of [Month, Year] awarded to Contractor the following Contract:

**City Hall and Library Parking Lot Repaving
located at
440 Harcourt Ave, Seaside, CA 93955**

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and Owner agree as follows:

ARTICLE 1 - SCOPE OF WORK OF THE CONTRACT

1.01 Work of the Contract

- A. Contractor shall complete all Work specified in the Contract Documents, in accordance with the Specifications, Drawings, and all other terms and conditions of the Contract Documents (Work).

1.02 Price for Completion of the Work

- A. Owner shall pay Contractor the following Contract Sum <<Amount in Word (\$)>> for completion of Work in accordance with Contract Documents as set forth in Contractor's Bid, attached hereto.

ARTICLE 2 - COMMENCEMENT AND COMPLETION OF WORK

2.01 Commencement of Work

- A. Contractor shall commence Work on the date established in the Notice to Proceed.
- B. Owner reserves the right to modify or alter the Commencement Date.

2.02 Completion of Work

- A. Contractor shall achieve Substantial Completion of the entire Work within 54 Calendar Days from the Commencement Date, excluding September 21, 2023 through September 24, 2023, and 10 Calendar Days following substantial completion to achieve Final Completion.

ARTICLE 3 - PROJECT REPRESENTATIVES

3.01 Owner's Project Manager

- A. Owner has designated Patrick Grogan as its Project Manager to act as Owner's Representative in all matters relating to the Project.
- B. City Manager shall have final authority over all matters pertaining to the Contract Documents and shall have sole authority to modify the Contract Documents on behalf of Owner, to accept work, and to make decisions or actions binding on Owner, and shall have sole signature authority on behalf of Owner.
- C. Owner may assign all or part of the Project Manager's rights, responsibilities and duties to a Construction Manager, or other Owner Representative.

3.02 Engineer

- A. **Whitson Engineers** furnished the Plans and Specifications and shall have the rights assigned to Architect/Engineer in the Contract Documents.

ARTICLE 4 - LIQUIDATED DAMAGES FOR DELAY IN COMPLETION OF WORK

4.01 Liquidated Damage Amounts

- A. As liquidated damages for delay Contractor shall pay Owner **Three Thousand, Six Hundred dollars (\$3,600)** for each Calendar Day that expires after the time specified herein for Contractor to achieve Substantial Completion of the entire Work, until achieved.
- B. As liquidated damages for delay Contractor shall pay Owner **Five Hundred Dollars (\$500)** for each Day that expires after the time specified herein for Contractor to achieve Final Completion of the entire Work, until achieved.

4.02 Scope of Liquidated Damages

- A. Measures of liquidated damages shall apply cumulatively.
- B. Limitations and stipulations regarding liquidated damages are set forth in Document 00 7200 (General Conditions).

ARTICLE 5 - CONTRACT DOCUMENTS

- 5.01** Contract Documents consist of the following documents, including all changes, Addenda, and Modifications thereto:

These Specifications:

00 0101	Title Page
00 0110	Table of Contents
00 0115	List of Drawings, Tables and Schedules
00 1113	Notice Inviting Bids
00 2113	Instructions to Bidders
00 3132	Existing Conditions
00 4113	Bid Form
00 4313	Bond Accompanying Bid
00 4314	Bidder Registration Form
00 4330	Subcontractors List
00 4513	Statement of Qualifications
00 4519	Non-Collusion Affidavit
00 4546	Bidder Certifications
00 5100	Notice of Award
00 5200	Agreement
00 5500	Notice to Proceed
00 6113.13	Construction Performance Bond
00 6113.16	Construction Labor and Material Payment Bond
00 6290	Escrow Agreement for Security Deposits in Lieu of Retention
00 6325	Substitution Request Form
00 6530	Release of Claims
00 6536	Guaranty
00 7200	General Conditions
00 7316	Supplementary Conditions – Insurance and Indemnification
00 9113	Addenda
01 1100	Summary
01 2000	Measurement and Payment
01 2600	Modification Procedures
01 3119	Project Meetings

01 3230	Progress Schedules and Submittals
01 3300	Submittals
01 4100	Regulatory Requirements
01 4200	References and Definitions
01 7700	Contract Closeout
01 5723	Temporary Water Pollution Control
01 7123	Field Engineering
31 0001	Earthwork
31 1117	Demolition
31 2333	Trenching
32 1124	Aggregate Base Course
32 1217	Asphalt Concrete Paving
32 1314	Concrete Paving
33 0150.01	Temporary Bypass Pumping
33 0562	Polymer Concrete Manhole
33 3000	Sanitary Sewerage Utilities
33 4000	Storm Drainage Utilities

The Drawings titled "City Hall and Library Parking Lot Repaving" by Whitson Engineers

- 5.02** There are no Contract Documents other than those listed above. The Contract Documents may only be amended, modified or supplemented as provided in Document 00 7200 (General Conditions).

ARTICLE 6 - MISCELLANEOUS

- 6.01** Terms and abbreviations used in this Agreement are defined in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions) and will have the meaning indicated therein.
- 6.02** It is understood and agreed that in no instance are the persons signing this Agreement for or on behalf of Owner or acting as an employee, agent, or representative of Owner, liable on this Agreement or any of the Contract Documents, or upon any warranty of authority, or otherwise, and it is further understood and agreed that liability of Owner is limited and confined to such liability as authorized or imposed by the Contract Documents or applicable law.
- 6.03** In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, Contractor or Subcontractor offers and agrees to assign to the awarding body all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. §15) or under the Cartwright Act (Chapter 2 (commencing with §16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time Owner tenders final payment to Contractor, without further acknowledgment by the parties.
- 6.04** Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are deemed included in the Contract Documents and on file at Owner's Office, and shall be made available to any interested party on request. Pursuant to California Labor Code §§ 1860 and 1861, in accordance with the provisions of Section 3700 of the Labor Code, every contractor will be required to secure the payment of compensation to his/her employees. Contractor represents that it is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor shall comply with such provisions before commencing the performance of the Work of the Contract Documents.

- 6.05** During the term of this Agreement, Contractor warrants that it is currently registered with the Department of Industrial Relations and qualified to perform public work consistent with Labor Code section 1725.5. Contractor further warrants that any subcontractors who are subject to Public Contract code section 4104, are registered and qualified to perform public work consistent with Labor Code section 1725.5.
- 6.06** This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- 6.07** This Agreement and the Contract Documents shall be deemed to have been entered into in the County of Monterey, State of California, and governed in all respects by California law (excluding choice of law rules). The exclusive venue for all disputes or litigation hereunder shall be in the Superior Court for the County of Monterey. IN WITNESS WHEREOF the parties have executed this Agreement in quadruplicate the day and year first above written.

CONTRACTOR: [CONTRACTOR'S NAME]

OWNER: The City of Seaside

By: _____
(Signature)

By: _____
(Signature)

(Print Name)

(Print Name)

Its: _____
Title (If Corporation: Chairman, President
or Vice President)

(Title)

Attest: _____
City Clerk Signature

(Print Name)

END OF DOCUMENT

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DOCUMENT 00 5500

NOTICE TO PROCEED

Dated: _____, 202__

To: _____
(Contractor)

Address: _____

CONTRACT FOR: The City of Seaside, **City Hall and Library Parking Lot Repaving**, located at
440 Harcourt Ave, Seaside, CA 93955

AGREEMENT NO: AGXX-XX

PROJECT NO: XXXX

You are notified that the Contract Time under the above Contract will commence to run on _____ **[20__]**. On that date, you are to start performing your obligations with respect to Work at the Site under the Contract Documents. In accordance with Article 2 of Document 00 5200 (Agreement), the dates of Substantial Completion and Final Completion for the entire Work are _____, **[20__]** and _____, **[20__]**, respectively.

Before you may start any Work at the Site, you must:

1. Submit schedule
2. Submit certified Safety Program and related information
3. Submit copies of applicable permits
3. **[Other]**

OWNER

By: _____

Its: _____

END OF DOCUMENT

DOCUMENT 00 6113.13

CONSTRUCTION PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

- 1.01** THAT WHEREAS, City of Seaside (Owner"), a municipality incorporated under the laws of the State of California, has awarded to (Name of Contractor) as Principal, Contract Number _____, dated the ____ day of _____, 20____ (the "Contract"), titled _____ in the amount of \$ _____, which Contract is by this reference made a part hereof, for the work of the following Contract: **City Hall and Library Parking Lot Repaving**, located at 440 Harcourt Ave, Seaside, CA 93955.
- 1.02** AND WHEREAS, Principal is required to furnish a bond in connection with the Contract, guaranteeing the faithful performance thereof;
- 1.03** NOW, THEREFORE, we, the undersigned Principal and <<Name of Surety>> as Surety are held and firmly bound unto Owner in the sum of 100% OF THE CONTRACT PRICE to be paid to Owner or its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.
- 1.04** THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its heirs, executors, administrators, successors, or assigns approved by Owner, shall promptly and faithfully perform the covenants, conditions, and agreements of the Contract during the original term and any extensions thereof as may be granted by Owner, with or without notice to Surety, and during the period of any guarantees or warranties required under the Contract, and shall also promptly and faithfully perform all the covenants, conditions, and agreements of any alteration of the Contract made as therein provided, notice of which alterations to Surety being hereby waived, on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless Owner as stipulated in the Contract, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect.
- 1.05** No extension of time, change, alteration, modification, or addition to the Contract, or of the work required thereunder, or work or actions by Owner to mitigate the damages resulting from any breach in performance by Contractor, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.
- 1.06** Whenever Principal shall be and declared by Owner in default under the Contract, Surety shall promptly remedy the default, or shall promptly, and in no event later than thirty (30) days from notice:
- A. Undertake through its agents or independent contractors (but having qualifications and experience reasonably acceptable to Owner), to complete the Contract in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract, including without limitation, all obligations with respect to warranties, guarantees, indemnities, and the payment of liquidated damages; or
 - B. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and, upon determination by Owner of the lowest responsible bidder, arrange for a contract between such bidder and Owner and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Sum, and to pay and perform all obligations of Principal under the Contract, including, without limitation, all

obligations with respect to warranties, guarantees, and the payment of liquidated damages; but, in any event, Surety's total obligations hereunder shall not exceed the amount set forth in the third paragraph hereof. The term "balance of the Contract Sum," as used in this paragraph, shall mean the total amount payable by Owner to the Principal under the Contract and any amendments thereto, less the amount paid by Owner to Principal.

- 1.07** Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Contract, and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing Owner's rights against the others.
- 1.08** Surety may not use Contractor to complete the Contract absent Owner's Consent. Owner shall have the right in its sole discretion to continue the work of the Contract, as necessary following a default and/or termination, as necessary to prevent risks of personal injury, property damage or delay to the Project.
- 1.09** No right of action shall accrue on this bond to or for the use of any person or corporation other than Owner or its successors or assigns.
- 1.10** Surety shall join in any proceedings brought under the Contract upon Owner's demand and shall be bound by any judgment.
- 1.11** Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of _____, 20____.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)
 Signature: _____
 Name and Title: _____
 Address: _____

SURETY

Company: _____ (Corp. Seal)
 Signature: _____
 Name and Title: _____
 Address: _____

END OF DOCUMENT

DOCUMENT 00 6113.16

CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

- 1.01** THAT WHEREAS, City of Seaside ("Owner") has awarded to <<(Name of Contractor)>> _____ as Principal, Contract Number _____ dated the _____ day of _____, 20____ (the "Contract"), titled _____ in the amount of \$ _____, which Contract is by this reference made a part hereof, for the work of the following Contract:

**City Hall and Library Parking Lot Repaving
located at
440 Harcourt Ave, Seaside, CA 93955**

- 1.02** AND WHEREAS, Principal is required to furnish a bond in connection with the Contract to secure the payment of claims of laborers, mechanics, material suppliers, and other persons as provided by law;
- 1.03** NOW, THEREFORE, we, the undersigned Principal and (Name of Surety) _____, as Surety, are held and firmly bound unto Owner in the sum of 100% OF THE CONTRACT PRICE (\$ _____), for which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.
- 1.04** THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its executors, administrators, successors, or assigns approved by Owner, or its subcontractors shall fail to pay any of the persons named in California Civil Code §9100, or amounts due under the State of California Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the State of California Employment Development Department from the wages of employees of Principal and subcontractors pursuant to Section 13020 of the State of California Unemployment Insurance Code with respect to such work and labor, that Surety will pay for the same in an amount not exceeding the sum specified in this bond, plus reasonable attorneys' fees, otherwise the above obligation shall become and be null and void.
- 1.05** This bond shall inure to the benefit of any of the persons named in California Civil Code §9100, as to give a right of action to such persons or their assigns in any suit brought upon this bond. The intent of this bond is to comply with the California Mechanic's Lien Law.
- 1.06** Surety, for value received, hereby expressly agrees that no extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder, shall in any way affect the obligation of this bond; and it does hereby waive notice of any such extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder.
- 1.07** Surety's obligations hereunder are independent of the obligations of any other surety for the payment of claims of laborers, mechanics, material suppliers, and other persons in connection with Contract; and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing Owner's rights against the other.

1.08 Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this ____ day of _____, 20____.

CONTRACTOR AS PRINCIPAL

Company: (Corp. Seal)

Signature

Name

Title

Street Address

City, State, Zip Code

SURETY

Company: (Corp. Seal)

Signature

Name

Title

Street Address

City, State, Zip Code

END OF DOCUMENT

DOCUMENT 00 6290

ESCROW AGREEMENT FOR SECURITY DEPOSIT IN LIEU OF RETENTION

California Public Contract Code §22300

THIS ESCROW AGREEMENT ("Escrow Agreement") is made and entered into this ____ day of _____, 202__, by and between the City of Seaside, ("Owner"), whose address is 440 Harcourt Avenue, Seaside CA 93955, (Name of Contractor) _____ ("Contractor"), whose place of business is located at (Contractor's Address) _____, and [] Owner, as escrow agent OR [] (Name of Bank) _____, a state or federally chartered bank in the State of California, whose place of business is located at _____ ("Escrow Agent").

For the consideration hereinafter set forth, Owner, Contractor and Escrow Agent agree as follows:

1. Pursuant to California Public Contract Code §22300, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to Agreement Number _____ entered into between Owner and Contractor for the **City Hall and Library Parking Lot Repaving** located at **440 Harcourt Ave, Seaside, CA 93955** in the amount of \$ _____ dated _____, 202__ (the "Contract"). Alternatively, on written request of Contractor, Owner shall make payments of the retention earnings directly to Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, Escrow Agent shall notify Owner within ten Days of the deposit. The market value of the securities at the time of substitution shall be at least equal to the cash amount then required to be withheld as retention under terms of Contract between Owner and Contractor. Securities shall be held in name of _____, and shall designate Contractor as the beneficial owner.
2. Owner shall make progress payments to Contractor for those funds which otherwise would be withheld from progress payments pursuant to Contract provisions, provided that Escrow Agent holds securities in form and amount specified in Paragraph 1 of this Document 00 6290.
3. When Owner makes payment(s) of retention earned directly to Escrow Agent, Escrow Agent shall hold said payment(s) for the benefit of Contractor until the time that the escrow created under this Escrow Agreement is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when Owner pays Escrow Agent directly.
4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of Owner. Such expenses and payment terms shall be determined by Owner, Contractor, and Escrow Agent.
5. Interest earned on securities or money market accounts held in escrow and all interest earned on that interest shall be for sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to Owner.
6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from Owner to Escrow Agent that Owner consents to withdrawal of amount sought to be withdrawn by Contractor.
7. Owner shall have the right to draw upon the securities in event of default by Contractor. Upon seven Days written notice to Escrow Agent from Owner of the default, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by Owner.
8. Upon receipt of written notification from Owner certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees

and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

9. Escrow Agent shall rely on written notifications from Owner and Contractor pursuant to Paragraphs 5 through 8, inclusive, of this Document 00 6290 and Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of securities and interest as set forth.
10. Names of persons who are authorized to give written notice or to receive written notice on behalf of Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are set forth below. Either Owner or Contractor may change the names of the person they each authorize to give notice under this Escrow Agreement by providing written notice to the other of such change, along with an exemplar of the person's signature.

ON BEHALF OF OWNER:

ON BEHALF OF CONTRACTOR:

Title

Name

Signature

Address

City/State/Zip Code

Title

Name

Signature

Address

City/State/Zip Code

ON BEHALF OF ESCROW AGENT:

Title

Name

Signature

Address

City/State/Zip Code

IN WITNESS WHEREOF, the parties have executed this Escrow Agreement by their proper officers on the date first set forth above.

OWNER

CONTRACTOR

Title

Name

Signature

Title

Name

Signature

ATTEST

Signature

Print Name

City Clerk

ESCROW AGENT

Title

Print Name

Signature

REVIEWED AS TO FORM:

Counsel for Owner

Print Name

Date

At the time the Escrow Account is opened, Owner and Contractor shall deliver to Escrow Agent a fully executed counterpart of this Document 00 6290.

END OF DOCUMENT

DOCUMENT 00 6325

SUBSTITUTION REQUEST FORM

To: The City of Seaside, Owner

PROJECT:	Contractor:
Owner Project No:	

Substitution Request By:	Firm:
--------------------------	-------

Transmittal Record	Attn:	Firm:	Date Sent:	Date Rec'd:	Date Due:
Contractor to Owner					
Contractor to Architect					
Owner / Architect to Consultant					
Architect to Owner Representative					
Owner Representative to Contractor					

We hereby submit for your consideration the following product instead of the specified item for the Project:

Section / Drawing	Article	Specified Item
Proposed Substitution:		

We have (a) attached manufacturer's literature, including complete technical data and laboratory test results, if applicable, (b) attached an explanation of why proposed substitution is a true equivalent to specified item, (c) included complete information on changes to Contract Documents that the proposed substitution will require for its proper installation, and (d) filled in the blanks below:

Contractor to complete questions that follow and certifies to the accuracy of all answers:

A.	Does the substitution affect dimensions shown on Drawings? Yes ___ / No ___. If No, please explain proposed mitigation and why substitution is equivalent to originally specified item:
B.	Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution? Yes ___ / No ___. If No, please state reasons explain why substitution is equivalent to originally specified item:
C.	What effect does the substitution have on other trades? No effect: ___ / Some effect ___. If substitution will affect other trades, please explain the effect and why substitution is equivalent to originally specified item:
D.	Will substitution cause change to Project Schedule, or to critical delivery dates? Add? Shorten? If the substitution will add to schedule dates or affect critical activities, please explain why substitution is equivalent to originally specified item:
E.	Please describe differences between proposed substitution and specified item? Please explain and identify any and all differences, and please explain why substitution is equivalent to originally specified item:
F.	What is the Cost Differential to Contractor in original specified item and proposed substitution including all mark-ups? [If substitution requested during bid period, skip this question.]
G.	Are Manufacturer's guarantees for the proposed item the same as for item specified? Yes ____; No _____. If No, please explain why substitution is equivalent to originally specified item:

H.	Contractor accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution? Yes ___ / No ___. If No, please state reasons and explain why substitution is equivalent to originally specified item:
I.	Contractor states that the function, appearance and quality are equivalent or superior to the specified item? Yes ___ / No ___. If No, please explain why substitution is equivalent to originally specified item:

We certify that the function, appearance, and quality of the proposed substitution are equivalent or superior to those of the specified item, except as we may specifically state otherwise in this request.

Submitted by: _____ Signature: _____

Firm: _____ Date: _____

Address: _____ Phone/ Fax: _____

Remarks: _____

Consultant Response: ☐ Accepted ☐ Not Accepted ☐ Accepted As Noted ☐ Received Too Late	Owner Representative Response: ☐ Accepted ☐ Not Accepted ☐ Accepted As Noted ☐ Received Too Late
Remarks: _____ _____	Remarks: _____ _____
By: _____	By: _____

END OF DOCUMENT

DOCUMENT 00 6530

AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS
[Public Code § 7100]

THIS AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS ("Agreement and Release"), made and entered into this [date] day of [Month], [Year], by and between the City of Seaside/Seaside County Sanitation District ("Owner"), and [Name of Contractor] ("Contractor"), whose place of business is at [Address of Contractor].

RECITALS

- A. Owner and Contractor entered into Contract Number [AGxx-xxx] (the "Contract") for **City Hall and Library Parking Lot Repaving** located at **440 Harcourt Ave, Seaside, CA 93955**.
- B. The Work under the Contract has been completed.

AGREEMENT

NOW THEREFORE, it is mutually agreed between Owner and Contractor as follows:

1. Contractor will not be assessed liquidated damages except as detailed below:

Original Contract Sum	\$ _____
Modified Contract Sum	\$ _____
Payment to Date	\$ _____
Liquidated Damages	\$ _____
Payment Due to Contractor	\$ _____

2. Subject to the provisions of this Agreement and Release, Owner with forthwith pay to Contractor the sum of [\$ _____ dollars and _____ Cents (\$ _____)] under the Contract, less any amounts withheld under the Contract or represented by any Notice to Withhold Funds on file with Owner as of the date of such payment.
3. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against Owner arising from the Contract, except for the claims described in Paragraph 4 of this Document 00 6530. It is the intention of the parties in executing this Agreement and Release that this Agreement and Release shall be effective as a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against Owner, and all of its agents, employees, consultants, inspectors, representatives, assignees and transferees, except for the Disputed Claims set forth in Paragraph 4 of this Document 00 6530. Nothing in this Agreement and Release shall limit or modify Contractor's continuing obligations described in Paragraph 6 of this Document 00 6530.
4. The following claims submitted under Document 00 7200 (General Conditions), Article 12, are disputed (hereinafter, the "Disputed Claims") and are specifically excluded from the operation of this Agreement and Release.

[insert information in Chart Below, affix attachments if necessary]

Claim No.	Date Submitted	Description of Claim	Amount of Claim

5. Consistent with California Public Contract Code §710, Contractor hereby agrees that, in consideration of payment set forth in Paragraph 2 of this Document 00 6530, Contractor hereby releases and forever discharges Owner, and all of its agents, employees, consultants, inspectors, assignees and transferees from any and all liability, claims, demands, actions or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract.
6. Guarantees and warranties for the Work, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.
7. Contractor shall immediately defend, indemnify and hold harmless Owner, and of the Owner's representatives, Project Manager, and all of their agents, employees, consultants, inspectors, assignees and transferees, from any and all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities that may be asserted against them by any of Contractor's suppliers and/or Subcontractors of any tier and/or any suppliers to them for any and all labor, materials, supplies and equipment used, or contemplated to be used in the performance of the Contract, except for the Disputed Claims set forth in Paragraph 4 of this Document 00 6530.
8. Contractor hereby waives the provisions of California Civil Code §1542, which provide as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER, MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

9. The provisions of this Agreement and Release are contractual in nature and not mere recitals and shall be considered independent and severable, and if any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal or other law, ruling, or regulation, then such provision, or part thereof shall remain in force and effect only to the extent permitted by law, and the remaining provisions of this Agreement and Release shall also remain in full force and effect, and shall be enforceable.
10. Contractor represents and warrants that it is the true and lawful owner of all claims and other matters released pursuant to this Agreement and Release, and that it has full right, title and authority to enter into this instrument. Each party represents and warrants that it has been represented by counsel of its own choosing in connection with this Agreement and Release.
11. All rights of Owner shall survive completion of the Work or termination of the Contract, and execution of this Agreement and Release.

CONTRACTOR: [CONTRACTOR'S NAME]

By: _____
(Signature)

Its: _____

Title (If Corporation: Chairman, President
or Vice President)

OWNER: The City of Seaside

By: _____
(Signature)

(Print Name)

(Title)

By: _____
(Signature)

Its:

Title (If Corporation: Secretary, Assistant
Secretary, Chief Financial Officer or
Assistant Treasurer)

DOCUMENT 00 6536

GUARANTY

TO: The City of Seaside/Seaside County Sanitation District ("Owner"), for construction of **City Hall and Library Parking Lot Repaving**, located at 440 Harcourt Ave, Seaside, CA 93955.

The undersigned guarantees all construction performed on this Project and also guarantees all material and equipment incorporated therein in addition to submitting to Owner a Surety Bond in a sum equal to one hundred percent of the Contract price, prior to the date of recording the notice of completion.

Contractor hereby grants to Owner for a period of one year following the date of Final Acceptance of the Work completed, or such longer period specified in the Contract Documents, its unconditional warranty of the quality and adequacy of all of the Work including, without limitation, all labor, materials and equipment provided by Contractor and its Subcontractors of all tiers in connection with the Work.

Neither final payment nor use nor occupancy of the Work performed by the Contractor shall constitute an acceptance of Work not done in accordance with this Guaranty or relieve Contractor of liability in respect to any express warranties or responsibilities for faulty materials or workmanship. Contractor shall remedy any defects in the Work and pay for any damage resulting therefrom, which shall appear within two years, or longer if specified, from the date of Final Acceptance of the Work completed.

If within one year after the date of Final Acceptance of the Work completed, or such longer period of time as may be prescribed by laws or regulations, or by the terms of Contract Documents, any Work is found to be Defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions, correct such Defective Work. Contractor shall remove any Defective Work rejected by Owner and replace it with Work that is not Defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the Defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal and replacement. Where Contractor fails to correct Defective Work, or defects are discovered outside the correction period, Owner shall have all rights and remedies granted by law.

Inspection of the Work shall not relieve Contractor of any of its obligations under the Contract Documents. Even though equipment, materials, or Work required to be provided under the Contract Documents have been inspected, accepted, and estimated for payment, Contractor shall, at its own expense, replace or repair any such equipment, material, or Work found to be Defective or otherwise not to comply with the requirements of the Contract Documents up to the end of the guaranty period.

All abbreviations and definitions of terms used in this Agreement shall have the meanings set forth in the Contract Documents.

The foregoing Guaranty is in addition to any other warranties of Contractor contained in the Contract Documents, and not in lieu of, any and all other liability imposed on Contractor under the Contract Documents and at law with respect to Contractor's duties, obligations, and performance under the Contract Documents. In the event of any conflict or inconsistency between the terms of this Guaranty and any warranty or obligation of the Contractor under the Contract Documents or at law, such inconsistency or conflict shall be resolved in favor of the higher level of obligation of the Contractor.

Date: _____, 20____

Contractor's name

By: _____
Signature

Print Name

Title

Street Address

City, State, Zip code

END OF DOCUMENT

DOCUMENT 00 7316

SUPPLEMENTARY CONDITIONS – INSURANCE AND INDEMNIFICATION

ARTICLE 1 - INSURANCE

- 1.01** At or before the date specified in Document 00 2113 (Instructions to Bidders), Contractor shall furnish to the City of Seaside/Seaside County Sanitation District ("Owner") satisfactory proof that Contractor has taken out for the entire period covered by the Contract the following classes of insurance in the form and with limits and deductibles specified below, unless otherwise specified in Contract Documents:
- A. Comprehensive General Liability Insurance covering claims for personal injury, bodily injury and property damage arising out of the Work and in a form providing coverage not less than that of a Standard Commercial General Liability Insurance policy ("Occurrence Form"). Such insurance shall provide for all operations and include independent contractors, products liability, completed operations for one year after Final Completion and acceptance of the final payment for the Work, contractual liability, and coverage for explosion, collapse, and underground hazards. The limits of such insurance shall not be coverage of less than **[\$1,000,000]** each occurrence, **[\$2,000,000]** general aggregate limit, and **[\$2,000,000]** aggregate for products and completed operations. The policies shall be endorsed to provide Broad Form Property Damage Coverage.
 - B. Comprehensive Automobile Liability Insurance covering all owned, non-owned, and hired vehicles. Such insurance shall provide coverage not less than the standard Comprehensive Automobile Liability policy with limits not less than **[\$1,000,000]** each person Bodily Injury, **[\$1,000,000]** each occurrence Bodily Injury, and **[\$1,000,000]** each occurrence Property Damage.
 - C. All-Risk Course of Construction Insurance including damage to property owned by Owner, Contractor or third parties caused by fire. Insurance shall be in the amount of 100 percent of the completed value of the Work to be performed under this Contract. Deductible shall not exceed **[\$10,000.00]**. Each loss shall be borne by Contractor.
 - D. Workers' Compensation Insurance for all persons whom the Contractor may employ in carrying out Work contemplated under Contract Documents, in accordance with the Act of Legislature of State of California, known as "Workers' Compensation Insurance and Safety Act," approved May 26, 1913, and all acts amendatory or supplemental thereto, in the statutory amount.
- 1.02** All policies of insurance shall be placed with insurers acceptable to Owner. The insurance underwriter(s) for all insurance policies except Workers' Compensation shall have an A. M. Best Company rating of **[A-, VIII]** or better, unless otherwise specified in Contract Documents. Required minimum amounts of insurance may be increased should conditions of Work, in opinion of Owner, warrant such increase. Contractor shall increase required insurance amounts upon direction by Owner.
- 1.03** Required Endorsements: The policies required under Document 00 7200 (General Conditions) and this Document 00 7316 shall be endorsed as follows:
- A. Name Owner, its elected and/or appointed governing body and boards, employees, representatives, consultants, and agents, and Project Manager as additional insureds, but only with respect to liability arising out of the activities of the named insured.
 - B. Each such policy shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limit of the insurance company's liability required hereunder. Should any of the policies identified herein contain a "cross-suits" exclusion, such exclusion must not apply to any additional insureds.
 - C. Insurance shall be primary to Owner and no other insurance or self-insured retention carried or held by Owner shall be called upon to contribute to a loss covered by insurance for the named insured.
- 1.04** Certificates of insurance and endorsements shall have clearly typed thereon Owner Contract Number and title of Contract Documents. Written notice of cancellation, non-renewal, or reduction

in coverage of any policy shall be mailed to Owner (Attention: Owner Risk Manager / Purchasing Agent) at the address listed in Document 00 5200 (Agreement), 60 Days in advance of the effective date of the cancellation, non-renewal, or reduction in coverage. Written notice of cancellation for non-payment shall be mailed within 10 Days of cancellation. Contractor shall maintain insurance in full force and effect during entire period of performance of Contract Documents. Contractor shall keep insurance in force during warranty and guarantee periods, except that Contractor may discontinue All-Risk Course of Construction Insurance after Final Payment. At time of making application for extension of time, and during all periods exceeding the Contract Time resulting from any cause, Contractor shall submit evidence that insurance policies will be in effect during requested additional period of time. Upon Owner's request, Contractor shall submit to Owner, within 30 Days, copies of the actual insurance policies or renewals or replacements.

- 1.05 Contractor shall pay all insurance premiums, including any charges for required waivers of subrogation or the endorsement of additional insureds. If Contractor fails to maintain insurance, Owner may take out comparable insurance, and deduct and retain amount of premium from any sums due Contractor under Contract Documents.
- 1.06 If injury occurs to any employee of Contractor, Subcontractor or sub-subcontractor for which the employee, or the employee's dependents in the event of employee's death, is entitled to compensation from Owner under provisions of the Workers' Compensation Insurance and Safety Act, as amended, or for which compensation is claimed from Owner, Owner may retain out of sums due Contractor under Contract Documents, amount sufficient to cover such compensation, as fixed by the Act, as amended, until such compensation is paid, or until it is determined that no compensation is due. If Owner is compelled to pay compensation, Owner may, in its discretion, either deduct and retain from the Contract Sum the amount so paid, or require Contractor to reimburse Owner.
- 1.07 Nothing herein shall be construed as limiting in any way the extent to which Contractor or any Subcontractor may be held responsible for payment of damages resulting from their operations.
- 1.08 All Subcontractors shall maintain the same insurance required to be maintained by Contractor with respect to their portions of the Work unless otherwise indicated in Contract Documents, and Contractor shall cause the Subcontractors to furnish proof thereof to Owner within ten Days of Owner's request.
- 1.09 The following provisions apply to any licensed professional engaged by Contractor to perform portions of the Work ("Professional").
 - A. Each Professional shall maintain the following insurance, unless otherwise specified in Contract Documents:
 1. Professional Liability Insurance, insuring against professional errors and omissions arising from Professional's Work on the Project, in an amount not less than **[\$1,000,000]** combined single limit for each occurrence. If Professional cannot provide an occurrence policy, Professional shall provide insurance covering claims made as a result of performance of Work on this Project and shall maintain such insurance in effect for not less than two years following Final Completion of the Project.
 2. Professional shall satisfy all other provisions of this Document 00 7316 relating to that insurance, including without limitation providing required insurance certificates (containing the required endorsements) before commencing its Work on the Project.

ARTICLE 2 - RESPONSIBILITY OF CONTRACTOR AND INDEMNIFICATION

- 2.01 Owner and each of its officers, employees, consultants and agents including, but not limited to, the Board, Project Manager and each Owner's Representative, shall not be liable or accountable in any manner for loss or damage that may happen to any part of the Work; loss or damage to materials or other things used or employed in performing the Work; injury, sickness, disease, or death of any person; or damage to property resulting from any cause whatsoever except their sole

negligence, willful misconduct or active negligence, attributable to performance or character of the Work, and Contractor releases all of the foregoing persons and entities from any and all such claims.

- 2.02** To the furthest extent permitted by law (including without limitation California Civil Code §2782), Contractor shall assume defense of, and indemnify and hold harmless, Owner and each of its officers, employees, consultants and agents, including but not limited to the Board, Project Manager and each Owner's Representative, from claims, suits, actions, losses and liability of every kind, nature and description, including but not limited to claims and fines of regulatory agencies and attorney's fees and consultant's fees, directly or indirectly arising out of, connected with or resulting from performance of the Work, failure to perform the Work, or condition of the Work which is caused in whole or part by any act or omission of Contractor, Subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, resulting from any cause whatsoever except their sole negligence, willful misconduct or active negligence.
- 2.03** With respect to third-party claims against Contractor, Contractor waives any and all rights to any type of express or implied indemnity against Owner and each of its officers, employees, consultants and agents including, but not limited to Owner, the Board, Project Manager and each Owner's Representative. Owner shall provide timely notice to Contractor of any third-party claim relating to the Contract Documents, in accordance with Section 9201 of the California Public Contract Code.
- 2.04** Approval or purchase of any insurance contracts or policies shall in no way relieve from liability nor limit the liability of Contractor, its Subcontractors of any tier, or the officers or agents of any of them.
- 2.05** To the furthest extent permitted by law (including, without limitation, Civil Code §2782), the indemnities, releases of liability and limitations of liability, claims procedures, and limitations of remedy expressed throughout Contract Documents shall apply even in the event of breach of Contract, negligence (active or passive), fault or strict liability of the party(ies) indemnified, released, or limited in liability, and shall survive the termination, rescission, breach, abandonment, or completion of the Work or the terms of the Contract Documents. If Contractor fails to perform any of these defense or indemnity obligations, Owner may in its discretion back charge Contractor for Owner's costs and damages resulting therefrom and withhold such sums from progress payments or other Contract moneys which may become due.
- 2.06** The indemnities in the Contract Documents shall not apply to any indemnified party to the extent of its sole negligence or willful misconduct; nor shall they apply to Owner or other indemnified party to the extent of its active negligence.

END OF DOCUMENT

DOCUMENT 00 9113

ADDENDA

CONTRACT NUMBER xx-xx

CITY OF SEASIDE

City Hall and Library Parking Lot Repaving

LOCATED AT

440 Harcourt Ave, Seaside, CA 93955

[DOCUMENT TO BE COMPLETED AS ADDENDA DURING BID PERIOD]

[If a conformed copy is created, delete bracketed line above and replace with the following:]

The following Addenda were issued, modifying the Project Manual:

Addendum No. 1, issued on **[date]**

Addendum No. 2, issued on **[date]**

[continue as appropriate]

(Addenda have been incorporated into the conformed Project Manual.)

END OF DOCUMENT

DIVISION 1 GENERAL REQUIREMENTS**SECTION 01 1100****SUMMARY****PART 1 – GENERAL****1.01 SUMMARY**

A. Section includes Summary of Work and Work Restrictions including:

1. Work Covered by Contract Documents
2. Bid Items
3. Time of Completion / Liquidated Damages
4. Work Under Other Contracts
5. Work Sequence
6. Work Days and Hours
7. Shutdown for Discovery of Cultural Resources
8. Partial Occupancy/Utilization Requirements
9. Contractor Use of Site
10. Project Site Maintenance
11. Construction Staking and Monument Protection
12. Protection of Existing Structures and Underground Facilities
13. Permits
14. Actual Damages for Permit Violations
15. Protection of Existing Trees During Construction Activities
16. Construction Water
17. Conditions of Use
18. Contractor's Responsibilities

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. **Project Description:** The project includes demolition, earthwork, and repaving of existing city hall and library parking lots; abandonment of a section of existing sanitary sewer main; construction of a new section of sanitary sewer main; and modification of an existing storm drain. Associated work includes concrete curbs, gutters, sidewalks, and curb ramps, hot mix asphalt paving, signing and stripping.
- B. The Work of this Contract comprises construction of all the Work indicated, described in the Specifications, or otherwise required by the Contract Documents. Unless provided otherwise in the Contract Documents, all risk of loss to Work covered by Contract Documents shall rest with Contractor until Final Acceptance of the Work. Cost of maintenance of systems and equipment prior to Final Acceptance will be considered as included in prices Bid and no direct or additional payment will be made therefore.
- C. For all Bid items, furnish and install all Work, including connections to existing systems, indicated and described in Specifications and all other Contract Documents. Work and requirements applicable to each individual Bid item, or unit of Work, shall be deemed incorporated into the description of each Bid item (whether Lump Sum or Unit Price). Any Bid item may be deleted from the Work and Contract Sum, in total or in part, prior to or after award of Contract without compensation in any form or adjustment of other Bid items or prices therefore.
- D. Allowance Work shall be done as Change Orders and as specified in Section 01 2600 (Modification Procedures). Identify Allowance Items (See Document 00 4113 [Bid Form]) work on the Progress Schedules and on Applications for Payment. The Amount given on Document 00 4113 (Bid Form) under each Allowance Item is the sum of money set aside for each Allowance

Item. These amounts shall be included in the Contract Sum on the Bid Form. If the cost of Work done under any Allowance Item is less than the amount given on the Bid Form under that Allowance Item, the Contract Sum shall be reduced by the difference between the amount given in the Bid Form and the cost of Work actually done.

1.03 BID ITEMS

BASE BID

Bid Item 1 – Mobilization

Measurement and payment for this item shall be on a lump sum (LS) basis. The lump sum cost shall pay for all the costs of mobilization and demobilization for items awarded. The work shall include, but not be limited to, preparatory and cleanup work necessary for performance of the work in accordance with the Standard Specifications, Plans and Specifications, and as directed by the Engineer. This item also includes the movement of construction personnel, equipment, supplies and incidentals to and from the project site, and all other work and operations, which must be incurred prior to the beginning of and after the end of construction work. This item shall also include obtaining bonds, insurance policies, licenses, and permits required by the contract documents, project meetings, coordination and all related administrative costs for this Project. Partial payment of this bid item shall be based on percent of this item completed and shall be contingent upon the Contractor's furnishing and the City's acceptance of: 1) the schedule of values, 2) the construction schedule, 3) Traffic Control Plans, 4) Quality Control Plan, 5) all submittals and shop drawings, 6) electrician certifications, 7) subcontractor's Certificate of Good Faith Effort to hire local, and 8) fringe benefit summary statement. Also included in this bid item is maintaining the project site, regular cleanup and final cleanup, temporary fencing and staging area, if any.

Bid Item 2 – Storm Water Compliance

Measurement and payment for this item shall be on a lump sum (LS) basis. The work shall include, but not be limited to, the furnishing of all labor, materials, tools, equipment and incidentals necessary for the implementation of the requirements under "Environmental/Pollution Prevention Requirements" in accordance with the Plans and Specifications, and as directed by the Engineer and no additional compensation will be allowed therefor. This work also includes compliance with all applicable rules, regulations, ordinances and statutes. Also included is providing and installing BMPs, proper maintenance and inspection of all BMPs installed for the project, removal of BMPs, and clean up and proper disposal of any environmental pollutants due to construction related activities.

Bid Item 3 – Traffic Control

Measurement and payment for this item shall be on a lump sum (LS) basis. The work shall include, but not be limited to, preparing and obtaining approval of temporary traffic control plans, and providing temporary traffic control including temporary signs, barricades, fencing, detours, pedestrian detours, temporary paving, and all other temporary traffic control as may be required.

Bid Item 4 – Construction Staking

Measurement and payment for this item shall be on a lump sum (LS) basis. The work shall include, but not be limited to, construction staking and marking required to establish the lines and grades to construct the project. Also, included in this work item is referencing all necessary control points, setting benchmarks and performing all construction layout and reference staking necessary for the proper control and satisfactory completion of the project.

Bid Item 5 – Demolition

Measurement and payment for this item shall be on a lump sum (LS) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary to sawcut, demolish, and remove existing improvements as shown on the plans, including but not limited to pavements, structures, pipes, railings, and conduits, excepting only such sawcutting, demolition and disposal work which is specified to be paid for under another Bid Item.

Bid Item 6 – Drain Inlet Apron

Measurement and payment for this item shall be on a per each (EA) basis. The work shall include, but not be limited to furnishing all labor, materials, tools, equipment and incidentals necessary to furnish and install new drain inlet aprons, complete in place, in accordance with the plans and specifications, and as directed by the Engineer.

Bid Item 7 – Class 2 Aggregate Base (F)

Measurement and payment for this item shall be on a per cubic yard (CY) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment, and incidentals for the construction of class 2 aggregate base, including recompaction of existing subgrade, placing and compacting of Class 2 aggregate base rock, as shown on the plans and as directed by the Engineer.

Bid Item 8 – Hot Mix Asphalt Paving (Type A)

Measurement and payment for this item shall be on a per ton (TON) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment, and incidentals for the construction of hot mix asphalt pavement, including recompaction of existing aggregate base rock and constructing hot mix asphalt pavement, as shown on the plans and as directed by the Engineer.

Bid Item 9 – Concrete Sidewalk and Curb Ramp

Measurement and payment for this item shall be on a per square foot (SF) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for over-excavation and recompaction of subgrade; constructing concrete sidewalk and curb ramp per City Standard Drawing S-101; and dowelling into adjacent existing concrete as shown on the plans, and as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer.

Bid Item 10 – Concrete Pedestrian Passage

Measurement and payment for this item shall be on a per square foot (SF) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for over-excavation and recompaction of subgrade; constructing concrete pedestrian passage (other than city standard sidewalk); and dowelling into adjacent existing concrete as shown on the plans, and as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer.

Bid Item 11 – Concrete Vertical Curb

Measurement and payment for this item shall be on a per linear foot (LF) basis as measured at the face of curb. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for over-excavation and recompaction of subgrade; constructing concrete vertical curb; and dowelling into existing adjacent concrete as shown on the plans, and as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer.

Bid Item 12 – 6"-18" Concrete Retaining Curb

Measurement and payment for this item shall be on a per linear foot (LF) basis as measured at the face of curb. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for over-excavation and recompaction of subgrade; constructing concrete retaining curb; and dowelling into existing adjacent concrete as shown on the plans, and as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer.

Bid Item 13 – Detectable Warning Surface

Measurement and payment for this item shall be on a per square foot (SF) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for the installation of prefabricated wet-set type detectable warning surface (truncated domes) in freshly poured concrete, in accordance with the plans and specifications, and as directed by the Engineer. The concrete underlying the detectable warning surface is paid for separately under Concrete Pedestrian Pavement.

Bid Item 14 – Salvage and Reinstall Stacked Block Wall

Measurement and payment for this item shall be on a per lump sum (LS) basis as measured along the face of the wall. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for constructing a stacked block wall, including excavation and fill, concrete blocks, and accessories, as shown on the plans, and as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer.

Bid Item 15 – Wheel Stop

Measurement and payment for this item shall be on a per each (EA) basis. The work shall include, but not be limited to furnishing all labor, materials, tools, equipment and incidentals necessary to salvage and reinstall wheel stops, in accordance with the plans and specifications, and as directed by the Engineer.

Bid Item 16 – Salvage and Reinstall Roadside Sign

Measurement and payment for this item shall be on a per each (EA) basis. The work shall include, but not be limited to furnishing all labor, materials, tools, equipment and incidentals necessary to salvage and reinstall sign posts and panels, in accordance with the plans and specifications, and as directed by the Engineer. Each individual sign installation shall be considered one unit regardless of the number of posts or sign panels involved, and regardless of the number of times the sign must be reset due to staged construction.

Bid Item 17 – Replace Roadside Sign Panel on Existing Post

Measurement and payment for this item shall be on a per each (EA) basis. The work shall include, but not be limited to furnishing all labor, materials, tools, equipment and incidentals necessary to replace existing sign panel on existing post, in accordance with the plans and specifications, and as directed by the Engineer. Each individual sign installation shall be considered one unit regardless of the number of posts or sign panels involved, and regardless of the number of times the sign must be reset or replaced due to staged construction.

Bid Item 18 – Roadside Sign

Measurement and payment for this item shall be on a per each (EA) basis. The work shall include, but not be limited to furnishing all labor, materials, tools, equipment and incidentals necessary to install sign posts and panels, in accordance with the plans and specifications, and as directed by the Engineer. Each individual sign installation shall be considered one unit regardless of the number of posts or sign panels involved, and regardless of the number of times the sign must be reset due to staged construction.

Bid Item 19 – Pavement Markings

Measurement and payment for this item shall be on a lump sum (LS) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals involved in preparation of the surface to receive the pavement delineation (stripes, markings and raised pavement markers) and application of stripes, markings and raised pavement markers, in accordance with the plans and specifications, and as directed by the Engineer.

Bid Item 20 – Sewer Bypass

Measurement and payment for this item shall be on a lump sum (LS) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary to design and install a temporarily sewer bypass as required to complete the construction shown on the Plans, and remove the system when no longer needed, as shown on the plans, and as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer.

Bid Item 21 – Standard Manhole

Measurement and payment for this item shall be on a per each (EA) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for construction of standard sanitary sewer manhole, complete in place, in accordance with the plans and specifications, and as directed by the Engineer. This work also includes structure excavation and backfill, furnishing and installing precast members, miscellaneous metal, frames, grates, reinforcing steel, and connections to existing pipes.

Bid Item 22 – Shallow Manhole, Type 1

Measurement and payment for this item shall be on a per each (EA) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for construction of Type 1 shallow manhole, complete in place, in accordance with the plans and specifications, and as directed by the Engineer. This work also includes structure excavation and backfill, furnishing and installing precast members, miscellaneous metal, frames, grates, reinforcing steel, and connections to existing pipes.

Bid Item 23 – Polymer Concrete Inside Drop Manhole

Measurement and payment for this item shall be on a per each (EA) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for construction

of a polymer concrete inside drop manhole, complete in place, in accordance with the plans and specifications, and as directed by the Engineer. This work also includes structure excavation and backfill, furnishing and installing precast members, miscellaneous metal, frames, grates, reinforcing steel, and connections to existing pipes.

Bid Item 24 – 8" PVC SDR 26 Sanitary Sewer Pipe

Measurement and payment for this item shall be on a per linear foot (LF) basis as measured along the centerline of pipe. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment, and incidentals necessary for pipe trenching and bedding; installation of **8"-diameter** polyvinyl chloride SDR 26 sewer pipe; and backfill and compaction of the trench as shown on the plans, and as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer. Cement slurry backfill, where required, is included in this item.

Bid Item 25 – Storm Drain Crossing

Measurement and payment for this item shall be on a lump sum (LS) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary to construct the storm drain crossing as shown on the plans, and excluding only such work which is specified to be paid for under another Bid Item.

Bid Item 26 – Plug and Abandon Existing 6" Sanitary Sewer Pipe

Measurement and payment for this item shall be on a lump sum (LS) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary to plug and abandon the existing 6" sanitary sewer pipe as shown on the plans, and excluding only such work which is specified to be paid for under another Bid Item.

Bid Item 27 – Relocate Post Office Mailbox

Measurement and payment for this item shall be on a per each (EA) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals necessary for sawcutting existing edge of pavement to create a neat edge; pavement demolition and excavation; over-excavation and recompaction of subgrade; constructing mailbox concrete pad; dowelling into adjacent existing concrete where occurs; and relocating and attaching the existing mailbox onto the new pad as shown on the plans, and as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer.

Bid Item 28 – Record Drawings

Measurement and payment for this item shall be on a lump sum (LS) basis. The work shall include, but not be limited to, furnishing all labor, materials, tools, equipment and incidentals involved in preparation of record (as-built) drawings, in accordance with the plans and specifications, and as directed by the Engineer.

1.04 TIME OF COMPLETION AND LIQUIDATED DAMAGES

- A. Contractor shall achieve Substantial Completion of the entire Work within **54 Calendar Days** from the Commencement Date, excluding September 21, 2023 through September 24, 2023, and **10 Calendar Days** following substantial completion to achieve Final Completion.
- B. The Contractor shall pay to the Owner a sum of **Three Thousand, Six Hundred Dollars (\$3,600.00)** per day, for each calendar day that expires after the time specified herein for Contractor to achieve Substantial Completion of the entire Work, until achieved.
- C. The Contractor shall pay to the Owner the sum of **Five Hundred Dollars (\$500)** for each calendar day that expires after the time specified herein for Contractor to achieve Final Completion of the entire Work, until achieved.

1.05 WORK UNDER OTHER CONTRACTS

- A. The Owner does not anticipate any work under other contracts occurring at City Hall site simultaneously with this project.

1.06 WORK SEQUENCE

- A. Construct work in stages and at times to accommodate site operation requirements during the construction period; coordinate construction schedule and operations with Owner.

1. Phase 1: To encompass all improvements and work from the western extents of the project

area to a line bisecting the project, designated by the east edge of the drive isle most immediately in front of the library entrance. This portion of the work is to begin no earlier than August 21, 2023, and reach substantial completion, to include paving and striping, by September 20, 2023.

2. Phase 2: To encompass all improvements and work from the eastern extents of the project area to a line bisecting the project, designated by the east edge of the drive isle most immediately in front of the library entrance. This portion of the work is to begin no earlier than September 25, 2023.

B. The allowable working conditions stated below are requirements by the Owner. Any requested change must be approved by the Owner. The Contractor may request a change in the allowable working conditions by submitting a written request to the Owner with a minimum 48 hours notice.

1. All scheduling conditions included in permits issued by the affected agencies shall be followed.
2. All entrances to all buildings must remain open and accessible to the public during operating hours, and accessible to Owner and emergency services at all times, 24/7.
3. Staging and storage areas outside the work limits – such as within street right of way or the lawn south of the parking lot – must be requested in writing at least 48 hours in advance and approved by the owner at its sole discretion.
4. The Contractor shall coordinate all work with the City at (831) 899-6832.

1.07 WORK DAYS AND HOURS

- A. Work Days and hours: Monday-Friday inclusive, 8:00 a.m.-7:00 p.m. local time.
- B. Work at the Site on weekends or holidays is not permitted, unless the contractor requests otherwise from Owner in writing at least 48 hours in advance and Owner approves in its sole discretion.

1.08 SHUTDOWN FOR DISCOVERY OF CULTURAL RESOURCES

- A. If discovery is made of items of historical archaeological or paleontological interest, immediately cease all Work in the area of discovery. Archaeological indicators may include, but are not limited to, dwelling sites, locally darkened soils, stone implements or other artifacts, fragments of glass or ceramics, animal bones, human bones, and fossils. After cessation of excavation, immediately contact Owner. Do not resume Work until authorization is received from Owner. When resumed, excavation or other activities shall be as directed by Owner.

1.09 PARTIAL OCCUPANCY/UTILIZATION REQUIREMENTS

- A. Allow Owner to take possession of and use any completed or partially completed portion of the Work during the progress of the Work as soon as is possible without interference to the Work.
- B. Possession, use of Work, and placement and installation of equipment by Owner shall not in any way evidence the completion of the Work or any part of it.
- C. Contractor shall not be held responsible for damage to the occupied part of the Work resulting from Owner occupancy.
- D. Make available, in areas occupied, on a 24 hour per day and 7 day per week basis if required, any utility services, heating, and cooling in condition to be put in operation at the time of occupancy.
 1. Responsibility for operation and maintenance of said equipment shall remain with Contractor.
 2. Make, and Owner shall certify, an itemized list of each piece of equipment so operated with the date operation commences.
 3. Itemized list noted above shall be basis for commencement of warranty period for equipment.
 4. Owner shall pay for utility cost arising out of occupancy by Owner during construction.
- E. Use and occupancy by Owner prior to acceptance of Work does not relieve Contractor of its responsibility to maintain insurance and bonds required under the Contract until entire Work is completed and accepted by Owner.

- F. Prior to date of Final Acceptance of the Work by Owner, all necessary repairs or renewals in Work or part thereof so used, not due to ordinary wear and tear, but due to Defective materials or workmanship or to operations of Contractor, shall be made at expense of Contractor, as required in Document 00 7200 (General Conditions).
- G. Use by Owner of Work or part thereof as contemplated by this Section 01 1100 shall in no case be construed as constituting acceptance of Work or any part thereof. Such use shall neither relieve Contractor of any responsibilities under Contract, nor act as waiver by Owner of any of the conditions thereof.
- H. Owner may specify in the Contract Documents that portions of the Work, including electrical and mechanical systems or separate structures, shall be substantially completed on dates described in this Section 01 1100, if any, prior to Substantial Completion of all of the Work. Notify Owner in writing when Contractor considers any such part of the Work ready for its intended use and Substantially Complete and request Owner to issue a Certificate of Substantial Completion for that part of the Work.

1.10 CONTRACTOR USE OF SITE

- A. Confine operations at Site to areas permitted by Contract Documents, permits, ordinances, and laws. Do not unreasonably encumber Site with materials or equipment.
- B. Assume full responsibility for protection and safekeeping of products stored on premises. Move any stored products that interfere with operations of Owner or other contractor.
- C. Coordinate parking, storage, staging, and Work areas with Owner. Use of the work area is permitted only for the purposes necessary to perform the work. If practicable, dispose of construction debris concurrently with its removal. If stockpiling is necessary, dispose of stockpiles weekly. Owner will provide a storage area for Contractor's equipment and materials. Parking and storage will be confined to the areas designated for storage or otherwise approved by the Owner. Do not store construction materials in the drip line of any tree.
- D. Prior to commencement of Work or excavation, Contractor and Owner shall jointly survey the area adjacent to the Project area making permanent note and record of such existing damage such as cracks, sags or other similar damage. This record shall serve as a basis for determination of subsequent damage to structures, conditions or other existing improvements due to Contractor's operations. All parties making the survey shall sign the official record of existing damage. Cracks, sags or damage of any nature to the adjacent Project area, not noted in the original survey but subsequently noted, shall be reported immediately to Owner.
- E. The Contractor shall follow all city ordinances in force during the duration of this Contract.
- F. It is essential that the Contractor perform the Work with as little interference and disturbance as possible to the surrounding neighborhood.
- G. When suspect materials, outside the scope of Work, are encountered during the Work or restoration process, the Contractor shall immediately contact the Project Manager for evaluation and approval of the methods for dealing with the material.

1.11 PROJECT SITE MAINTENANCE

- A. Disposal of Material –
 - 1. Unless otherwise shown on the plans or specified herein, all excess materials and materials removed from existing improvements shall become the property of and be disposed by the Contractor. The Contractor shall be responsible for all costs associated with disposing all excess materials in a safe and legal manner. No material shall be placed on private or public property without prior approval from the Owner and the property owner. The Contractor shall not allow and refuse, excavated material, surplus concrete or mortar, or any associated washings, to be disposed upon paved streets, into manholes or into the Owner's storm drain system.
 - 2. Contractor shall establish a system for daily collection and disposal of waste materials from construction areas and elsewhere on the site. Contractor shall handle waste materials that are hazardous, dangerous, or unsanitary separately from inert waste by containerizing appropriately. Burning or burying of waste materials on site will not be permitted. No extra payment will be made for handling/disposal of hazardous material.

B. Cleanup and Dust Control –

1. At all times during construction, including weekends and holidays, and throughout all phases of construction, including work suspensions and until final acceptance of the project, the Contractor shall keep the work site clean and free from rubbish, debris, and prevent the formation of an airborne dust nuisance.
2. Materials and equipment shall be removed from the site as soon as they are no longer necessary. Upon completion of the work and before final inspection, the entire site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance. All cleanup costs shall be absorbed in the Contractor's bid.
3. The Contractor shall abate dust nuisance by cleaning, sweeping, and sprinkling with water, those excavated areas of dirt or other materials which are prone to causing dust, within both the project site and the storage or staging area. If required or directed by the Engineer, the Contractor shall provide an approved water truck of large capacity with spraying capability.
4. The Contractor shall be required to apply water for dust control immediately during construction efforts within one (1) hour after notification by the Engineer that an airborne nuisance exists. If dust control is not adequate in the opinion of the Engineer, the Engineer will have this work done by others and will deduct such cost from the total contract price.
5. All hauling trucks or other construction vehicles leaving the site shall be cleaned of mud or dirt clinging to the exterior body surfaces or wheel rims before travelling on public streets outside the work limits. All trucks coming to or leaving the site with materials or loose debris shall be loaded in a manner which will prevent the dropping of materials or debris on public streets. Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately at the Contractor's expense.
6. When construction operations cause dirt to be deposited on public streets, the Contractor shall immediately remove such material. Streets shall be cleaned by street sweeping, rather than flushing, so as to prevent material from entering the storm drain system.
7. Excess excavated material shall be removed from the site immediately. Sufficient material may remain for use as backfill if permitted by the specifications. Forms and form lumber shall be removed from the site as soon as practicable after stripping.
8. Failure of the Contractor to comply with the Engineer's cleanup orders may result in an order to suspend work until the condition is corrected. No additional compensation will be allowed as a result of such suspension.

C. Air Pollution Control: The Contractor shall not discharge smoke, dust or any other air contaminants into the atmosphere in such quantity as will violate the regulations of any legally constituted authority.

D. Noise Control: The Contractor shall make every reasonable effort to control noise generated as a result of construction to the satisfaction of the Engineer. Use of an air compressor, jackhammer or other loud, vibrating sound generating devices shall be limited to operations between the hours of 8:00 a.m. and 5:30 p.m. unless otherwise authorized by the Engineer. A sound barrier shall be used for any equipment required to run between 5:30 pm and 8:00 am. Sound barrier details shall be coordinated with and approved by the Owner.

E. Vermin Control: At the time of acceptance, structures entirely constructed under the contract shall be free of rodents, insects, vermin and pests. Necessary extermination work shall be arranged and paid for by the Contractor as part of the contract work within the contract time and shall be performed by a license exterminator in accordance with requirements of governing authorities. The Contractor shall be liable for injury to persons or property and responsible for the elimination of offensive orders resulting from extermination operations.

F. Sanitation: The Contractor shall provide and maintain enclosed toilets for the use of employees engaged in the work. These accommodations shall be maintained in a neat and sanitary condition. They shall also comply with all applicable laws, ordinances and regulations pertaining to the public health and sanitation of dwellings and camps.

G. Temporary Light and Power: The Contractor shall at his own expense furnish, install, maintain, and remove all temporary light and power, including piping, wiring, lamps, and other equipment, necessary for the work.

H. Storm Water Pollution Control

1. Storm Water Pollution Control work shall consist of following Best Management Practices (BMP) for storm water pollution prevention, submitting a Water Pollution Control Plan in compliance with the most current NPDES requirements, including the preparation of a Storm Water Pollution Prevention Plan (SWPPP) if warranted by the project type, size or risk level; and constructing those facilities which may be required to provide prevention, control, and abatement of water pollution.
2. In compliance with State and Federal regulations on construction storm water management and non-point source pollution control, no pollutants will be allowed to enter the storm drainage system. The Contractor shall be responsible for containing and removing any waste from the Contractor's construction operations using the appropriate BMP. The Contractor shall be responsible for cleaning catch basins of solid or liquid waste materials originating from the Contractor's operation before this material migrates further into the storm drain system.
3. Violation of this provision shall cause the Owner to issue a stop-work notice and take necessary action to require the Contractor to correct and comply with regulations. All costs related to the stop-work action and corrective work to come into compliance shall be fully borne by the Contractor.
4. All construction efforts shall be conducted in a manner which prevents the release of hazardous material or hazardous waste into the soil or groundwater and minimizes the discharge of pollutants into the storm drain system.

1.12 CONSTRUCTION STAKING AND MONUMENT PROTECTION

- A. Contractor shall provide its own survey staking. Provide Owner with Contractor's survey staking information in writing within 3 Business Days after it becomes available to Contractor.
- B. Contractor shall be responsible for laying out the Work, shall protect and preserve the established construction stakes and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Whenever Contractor knows or reasonably should know that any Work activity is likely to damage or destroy any construction stakes or property monuments or require relocation because of necessary changes in grades or locations, Contractor shall replace or repair construction stake or property monuments at Contractor's expense.

1.13 PROTECTION OF EXISTING STRUCTURES AND UNDERGROUND FACILITIES

- A. The Drawings may indicate existing above- and below-grade structures, drainage lines, storm drains, sewers, water lines, gas lines, electrical lines, hot water lines, and other similar items and Underground Facilities that are known to Owner. At least 2 Business Days, or as otherwise noted, prior to commencement of excavation, notify the owners of the following Underground Facilities:

1. Electric and Gas: PG&E Salinas District
Dispatcher: 1 (800) 743-5000
Engineering: 1 (800) 743-5000
2. Sewer lines: Seaside County Sanitation District
440 Harcourt Avenue, Seaside 93955
Phone: (831) 784-3574
3. Water lines: California American Water
511 Forest Lodge Road #100, Pacific Grove, CA
Phone: (831) 646-3287
4. Water lines: Seaside Municipal Water System
440 Harcourt Avenue, Seaside 93955
Phone: (831) 899-6841

- B. Where overhead service to a structure, known to receive service, does not exist, then underground service shall be assumed to exist.
- C. Attention is also directed to the existence of overhead power and telephone lines.
- D. Perform pot-holing by hand within 24 inches (in any direction) of the Underground Facilities. This may be done on an area-by-area basis but shall be accomplished at least 7 Days in advance of the date of construction within such area.
- E. In addition to reporting, if a utility is damaged, Contractor must take appropriate action as provided in Document 00 7200 (General Conditions).
- F. Additional compensation or extension of time on account of utilities not indicated or otherwise brought to Contractor's attention including reasonable action taken to protect or repair damage shall be determined as provided in Document 00 7200 (General Conditions).

1.14 PERMITS

- A. The Contractor shall, at the Contractor's expense, obtain all necessary permits and licenses for the construction of each part of the Public improvement, give all necessary notices, and pay all fees and taxes required by law. The Contractor shall obtain and maintain in effect a business license from the Owner until the Owner has accepted the Public Improvements in their entirety.
- B. Permits, agreements, or written authorizations that are known by Owner to apply to this Project are listed below:
 - 1. City Building Permit
 - 2. Cal/OSHA Permit. Obtain, as applicable, permit(s) as required by Cal/OSHA for the following:
 - a. Construction of trenches or excavations that are five feet or more in depth and into which a person is required to descend.
 - b. Construction or demolition of any building, structure, or scaffolding for falsework more than three stories high, or the equivalent height (36 feet).
 - c. Erection or dismantling of vertical shoring systems more than three stories high, or the equivalent height (36 feet).

The local Cal/OSHA district office is located at:

Foster City District Office
1065 East Hillsdale Blvd., Ste. 110
Foster City, CA 94404
(650) 573-3812

- C. All other permits that may be required, such as electrical, mechanical, fire prevention, irrigation, grading, slope protection, tree cutting, etc., have not been applied for and shall be obtained by Contractor. Applicable permit fees will be reimbursed to the extent specified in Document 00 7200 (General Conditions).

1.15 ACTUAL DAMAGES FOR PERMIT VIOLATIONS

- A. In addition to damages which are impracticable or extremely difficult to determine, for which liquidated damages will be assessed as described in Document 00 5200 (Agreement) and Document 00 7200 (General Conditions), Owner may incur actual damages, including fines imposed by any regulatory agency, where the violations result from Contractor's activities.
- B. Contractor shall be liable for and shall pay Owner the amount of any actual losses in addition to liquidated damages or other remedies provided by the Contract Documents.
- C. The amount of liquidated damages provided in Document 00 5200 (Agreement) and Document 00 7200 (General Conditions) is not intended to include, nor does the amount include, any damages incurred by Owner for reasons other than those listed in that paragraph. Any money due or to become due to Contractor may be retained by Owner to cover both the liquidated and the actual damages described above and, should such money not be sufficient to cover such damages, Owner shall have the right to recover the balance from Contractor or its sureties.

1.16 PROTECTION OF EXISTING TREES DURING CONSTRUCTION ACTIVITIES

- A. The Contractor shall protect all existing trees on the job site from construction activities, starting from within the drip lines of each tree. The Owner reserves the right to issue a stop-working notice if it is determined that the Contractor's negligence has caused damaged to existing trees.
- B. Care must be taken when digging near any existing tree to minimize harm to the tree. Excavation must be done by hand until below the root zone. If any roots 2" or grater in diameter are encountered, they must be protected from damage. If the work cannot proceed without damaging such roots, the Engineer must be notified at once.
- C. No storage of materials; disposal of paints, solvents or other noxious materials; no unnecessary operation of equipment or parked cars shall be allowed within the drop line of any trees.

1.17 CONSTRUCTION WATER

- A. Construction water is available from Owner through the use of hose bibs located on site.

1.18 CONDITIONS OF USE

- A. The Contractor shall assume full responsibility for the protection and safekeeping of project materials, tools, and equipment stored on premises. Any stored products interfering with Owner operations shall be moved by the Contractor at his/her expense. The Contractor shall obtain and pay for use of any additional storage or work area for operations.
- B. The Owner will require the following of the Contractor in addition to the requirements shown and described elsewhere in these documents:
 - 1. The Contractor shall hand carry written notification to property owners adjacent to the project area a minimum 7 days in advance of beginning construction. The Contractor shall submit a draft notification letter to the Owner during the pre-construction meeting.
 - 2. The Contractor shall designate a person to contact should a problem arise during non-working hours or days. The Owner shall be given that person's name, phone number, e-mail.

1.19 CONTRACTOR'S RESPONSIBILITIES

- A. Unless noted otherwise, the Contractor shall provide and pay for:
 - 1. Labor, supervision, materials, and equipment
 - 2. Tools, construction equipment and machinery
 - 3. Utilities required for construction.
 - 4. All other facilities and services necessary for proper execution and completion of work.
 - 5. Contractor must submit in their proposal acknowledgement of State and Federal laws and regulations regarding all facets of removing and disposing of coating which contains lead or asbestos found.
- B. Pay all required sales, consumer and use taxes.
- C. Conform to the requirements of all permits including, but not limited to any construction permits associated with the project.
- D. The Contractor acknowledges and is familiar with the existing site condition constraints, topographic features, and overall geographical locations of the project.
- E. Secure and pay for, as necessary proper execution and completion of the work, applicable permits and licenses.
- F. Comply with Codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities, which bear performance on the work.
- G. Promptly submit written notice to the Owner of observed variance of Contract documents from legal requirements.
- H. The Contractor shall be responsible for all costs associated with the containment and disposal of waste (hazardous / non-hazardous) that may result from execution of this project.
- I. The Contractor shall provide their own power, fuel, and power supplies.

PART 2 – PRODUCTS

2.01 PRODUCTS ORDERED IN ADVANCE

- A. As provided in Document 00 7200 (General Conditions) and Section 00 2113 (Measurement and Payment), and subject to all other provisions of the Contract Documents, Owner will pay for the following materials and equipment prior to incorporation into the Work:
1. None

PART 3 – EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 2000

MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes description of requirements and procedures for determining amount of Work performed and for obtaining payment for Work performed.

1.02 REFERENCES

- A. California Public Contract Code
- B. Code of Civil Procedures
- C. Government Code

1.03 COMPOSITION AND SCOPE OF CONTRACT SUM

A. Scope of Contract Sum

- 1. The Contract Sum for performance of the Work under Contract Documents, or under any Bid item, allowance, or Alternate, shall include full compensation for all Work required under the Contract Documents, including without limitation, all labor, materials, taxes, transport, handling, storage, supervision, administration, and all other items necessary for the satisfactory completion of the Work, whether or not expressly specified or indicated, incidental work and unexpected expenses, and all terms, conditions, requirements and limitations set forth in the Contract Documents.
- 2. Contract Sum may be expressed as lump sum, unit price, GMP, allowance, or combination thereof.

B. Unit Price items

- 1. Quantity of Work to be paid for under any item for which a unit price is fixed in Contract Documents shall be determined by Owner based on, so far as practicable, actual number of units satisfactorily completed, as determined by Owner and certified by Contractor, within prescribed or ordered limits, and no payment will be made for Work unsatisfactorily performed or done outside of limits.
- 2. Unit Prices shall apply to Work covered by unit prices so long as actual quantities performed on the Project are not less than 75 percent or greater than 125 percent of the estimated quantities bid or otherwise stated in the Contract Documents. If actual quantities exceed these parameters, then the unit price shall be adjusted by an amount to reflect the Contractor's incremental cost differential resulting from increased or decreased economies of scale.

C. Lump Sum Items

- 1. When estimated quantity for specific portion of Work is not indicated and/or Work is designated as lump sum, payment will be on a lump sum basis for Work satisfactorily completed in accordance with Contract Documents.
- 2. Payment for lump sum Work, or items of Work subject to a lump sum (e.g. without limitation, change order work), shall be made on the basis of satisfactory completion of such Work or work item, earned in progressive stages in accordance with the Contract Documents, up to but not exceeding the Contractor's percentage completion of the Work or item.
- 3. Lump sum items shall be paid based upon the approved Schedule of Values, which shall be used to measure progressive payments based upon satisfactory progress towards

completion of the item.

D. Allowance Items

1. Allowances: Allowance Work will be authorized by Owner in writing, following change order procedures to determine cost, supporting documentation and authorization to proceed. Unused allowance amounts at Contract completion shall reduce the Contract price accordingly.

1.04 PAYMENT PROCEDURES

A. Schedule of Values:

1. Within ten Days from issuance of Notice of Award and prior to the Contractor's first Application for Payment, Contractor shall submit a detailed breakdown of its Bid by scheduled Work items and/or activities, including coordination responsibilities and Project Record Documents responsibilities. Where more than one Subcontractor comprises the work of a Work item or activity, the Schedule of Values shall show a separate line item for each subcontract. Contractor shall furnish such breakdown of the total Contract Sum by assigning dollar values (cost estimates) to each applicable Progress Schedule network activity, which cumulative sum equals the total Contract Sum. This breakdown shall be referred to as the Schedule of Values.
2. Contractor's overhead, profit, insurance, cost of bonds (except to the extent expressly identified in a Bid item) and/or other financing, as well as "general conditions costs," (e.g., Site cleanup and maintenance, temporary roads and access, off-Site access roads, temporary power and lighting, security, and the like), shall be prorated through all activities so that the sum of all the Schedule of Values line items equals Contractor's total Contract Sum, less any allowances designated by Owner. Scheduling, record documents and quality assurance control shall be separate line items.
3. Owner will review the breakdown in conjunction with the Progress Schedule to ensure that the dollar amounts of this Schedule of Values are, in fact, reasonable cost allocations for the Work items listed. Upon favorable review by Owner, Owner will accept this Schedule of Values for use. Owner shall be the sole judge of fair market cost allocations.
4. Owner will reject any attempt to increase the cost of early activities, i.e., "front loading," resulting in a complete reallocation of moneys until such "front loading" is corrected. Repeated attempts at "front loading" may result in suspension or termination of the Work for default, or refusal to process progress payments until such time as the Schedule of Values is acceptable to Owner.

B. Contractor's Requests for Progress Payments

1. If requested by Contractor, progress payments will be made monthly, under the following conditions:
 - a. On or before the 25th Day of each month, Contractor shall submit to Owner one copy of an Application for Payment for the cost of the Work put in place during the period from the last Day of the previous month to the end of the current month, along with one copy of an updated Progress Schedule. Such Applications for Payment shall be for the expected total value of activities completed or partially completed, based upon Schedule of Values prices (or Bid item prices if unit price) of all labor and materials incorporated in the Work up until midnight of the last Day of that one month period, less the aggregate of previous payments. Accumulated retainage shall be shown as separate item in payment summary. Owner and Contractor will reconcile any differences in the field, based on the reconciled monthly report sheets. If Contractor is late submitting its Application for Payment, that Application may be processed at any time during the succeeding one-month period, resulting in processing of Contractor's Application for Payment being delayed for more than a Day for Day basis.
 - b. Except as otherwise provided in a labor compliance program applicable to the Work (if any) or as otherwise required by Owner, concurrently with each Application for Payment, Contractor shall submit to the Owner the Contractor's and its

Subcontractors' certified payroll records required to be maintained pursuant to Labor Code Section 1776 for all labor performed during pay periods ending during the period covered by the Application for Payment.

- c. No progress payment will be processed prior to Owner receiving all requested, acceptable schedule update information and certified payrolls, and in Owner's sole and absolute discretion, Owner may deny the entire Application for Payment for noncompliance.
- d. Each Application for Payment shall list each Change Order and Construction Change Directive ("CCD") executed prior to date of submission, including the Change Order/CCD Number, and a description of the Work activities, consistent with the descriptions of original Work activities. Contractor shall submit a monthly Change Order/CCD status log to Owner.
- e. If Owner requires substantiating data, Contractor shall submit information requested by Owner, with cover letter identifying Project, Application for Payment number and date, and detailed list of enclosures. Contractor shall submit one copy of substantiating data and cover letter for each copy of Application for Payment submitted.
- f. If Contractor fails or refuses to participate in monthly Work reconciliations or other construction progress evaluation with Owner, Contractor shall not receive current payment until Contractor has participated fully in providing construction progress information and schedule update information to Owner.

C. Owner's Review of Progress Payment Applications

- 1. Owner will review Contractor's Application for Payment following receipt and during the Progress Schedule and Billing Meeting. If adjustments need to be made to percent of completion of each activity, Owner will make appropriate notations and return to Contractor. Contractor shall revise and resubmit. All parties shall update percentage of completion values in the same manner, i.e., express value of an accumulated percentage of completion to date.
- 2. If Owner determines that portions of the Application for Payment are not proper or not due under the Contract Documents, then Owner may approve the other portions of the Application for Payment, and in the case of disputed items or Defective Work not remedied, may withhold up to 150 percent of the disputed amount from the progress payment.
- 3. Pursuant to California Public Contract Code §20104.50, if Owner fails to make any progress payment within 30 Days after receipt of an undisputed and properly submitted Application for Payment from Contractor, Owner shall pay interest to the Contractor equivalent to the legal rates set forth in subdivision (a) of Section 685.010 of the California Code of Civil Procedure. The 30-Day period shall be reduced by the number of Days by which Owner exceeds the seven-Day return requirement set forth herein.
- 4. As soon as practicable after approval of each Application for Payment for progress payments, Owner will pay to Contractor in manner provided by law, an amount equal to 95 percent (95%) of the amounts otherwise due as provided in the Contract Documents, or a lesser amount if so provided in Contract Documents and by law, provided that payments may at any time be withheld if, in judgment of Owner, Work is not proceeding in accordance with Contract, or Contractor is not complying with requirements of Contract, or to comply with stop notices or to offset liquidated damages accruing or expected. In Owner's sole discretion, if Contractor has failed to comply with either its Progress Schedule update or project record documents requirements, Owner may retain an additional 5% of any earned amounts until such requirements are satisfied.
- 5. Before any progress payment or final payment is due or made, Contractor shall submit satisfactory evidence that Contractor is not delinquent in payments to employees, Subcontractors, suppliers, or creditors for labor and materials incorporated into Work. This specifically includes, without limitation, conditional lien release forms for the current progress payment and unconditional release forms for past progress payments. This also includes copies of certified payroll from contractor and subcontractors for the current payment period.

D. Payment for Material and Equipment Not Yet Incorporated Into the Work

1. No payment shall be made for materials or equipment not yet incorporated into the Work, except as specified elsewhere in the Contract Documents or as may be agreed to by Owner in its sole discretion. Where Contractor requests payment on the basis of materials and equipment not incorporated in the Work, Contractor must satisfy the following conditions:
2. The materials and/or equipment shall be delivered and suitably stored at the Site or at another local location agreed to in writing, for example, a mutually acceptable bonded and insured warehouse.
3. Full title to the materials and/or equipment shall vest in Owner at the time of delivery to the Site, warehouse or other storage location. Obtain a negotiable warehouse receipt, endorsed over to Owner for materials and/or equipment stored in an off-site warehouse. No payment will be made until such endorsed receipts are delivered to Owner.
4. Stockpiled materials and/or equipment shall be available for Owner inspection, but Owner shall have no obligation to inspect them and its inspection or failure to inspect shall not relieve Contractor of any obligations under the Contract Documents. Materials and/or equipment shall be segregated and labeled or tagged to identify these specific Contract Documents.
5. After delivery of materials and/or equipment, if any inherent or acquired defects are discovered, defective materials and/or equipment shall be removed and replaced with suitable materials and/or equipment at Contractor's expense.
6. At Contractor's expense, insure the materials and/or equipment against theft, fire, flood, vandalism, and malicious mischief, as well as any other coverages required under the Contract Documents.
7. Contractor's Application for Payment shall be accompanied by a bill of sale, invoice or other documentation warranting that Owner has received the materials and equipment free and clear of all liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect Owner interest therein, all of which must be satisfactory to Owner. This documentation shall include, but not be limited to, conditional releases of mechanics' liens and stop notices from all those providing materials and equipment as to which the Application for Payment relates, as well as unconditional releases of the same from the same as to the previous Application for Payment for which they have not already been provided. Amounts previously paid for materials and equipment prior to incorporation into the Work shall be deducted from amounts otherwise due Contractor as they are incorporated.

1.05 FINAL PAYMENT**A. Final Payment**

1. As soon as practicable after all required Work is completed in accordance with Contract Documents, including punchlist, testing, record documents and Contractor maintenance after Final Acceptance, Contractor shall submit its Application for Final Payment.
2. Provided Contractor has met all conditions required for Final payment, Owner will pay to Contractor, in manner provided by law, unpaid balance of Contract Sum of Work (including, without limitation, retentions), or whole Contract Sum of Work if no progress payment has been made, determined in accordance with terms of Contract Documents, less sums as may be lawfully retained under any provisions of Contract Documents or by law.

B. Final Accounting

1. Prior progress payments and change orders shall be subject to audit and correction in the final payment.
2. Contractor and each assignee under an assignment in effect at time of final payment shall execute and deliver at time of final payment, and as a condition precedent to final payment, Document 00 6530 (Agreement and Release of Claims).

1.06 SUBSTITUTION OF SECURITIES

A. **Public Contract Code Section 22300.** In accordance with the provisions of Public Contract Code Section 22300, substitution of securities for any moneys withheld under Contract Documents to ensure performance is permitted under following conditions:

1. At request and expense of Contractor, securities listed in Section 16430 of the Government Code, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by Contractor and Owner which are equivalent to the amount withheld under retention provisions of Contract shall be deposited with Controller or with a state or federally chartered bank in California, as the escrow agent, who shall then pay such moneys to Contractor. Upon satisfactory completion of Contract, securities shall be returned to Contractor.
2. Alternatively, Contractor may request and Owner shall make payment of retentions earned directly to the escrow agent at the expense of Contractor. At the expense of Contractor, Contractor may direct the investment of the payments into securities and receive the interest earned on the investments upon the same terms provided for securities deposited by Contractor. Upon satisfactory completion of the work of the Contract Documents, Contractor shall receive from escrow agent all securities, interest, and payments received by the escrow agent from Owner. Contractor shall then pay to each Subcontractor, not later than 10 Days after receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount of retention withheld to insure the performance of Contractor.
3. Contractor shall be beneficial owner of securities substituted for moneys withheld and shall receive any interest thereon.
4. Contractor may enter into an escrow agreement, form included in Contract Documents, as authorized under Public Contract Code Section 22300, specifying amount of securities to be deposited, terms and conditions of conversion to cash in case of default of Contractor, and termination of escrow upon completion of Contract Documents.
5. Public Contract Code Section 22300, in effect on Bid Day, is hereby incorporated in full by this reference and shall supersede anything inconsistent therewith.

PART 2 – PRODUCTS – NOT USED**PART 3 – EXECUTION – NOT USED****END OF SECTION**

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 2600

MODIFICATION PROCEDURES

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes requirements that supplement the paragraphs of Document 00 7200 (General Conditions).
- B. Description of procedures for modifying the Contract Documents and determining costs for changes in contract amounts.

1.02 PROCEDURES FOR CONTRACTOR INITIATED CHANGE ORDER

- A. Contractor-Initiated Change Proposal Request (CPR) procedure:
 - 1. Contractor may initiate changes by submitting a Change Proposal Request ("CPR").
 - 2. Whenever Contractor elects or is entitled to submit a CPR, Contractor shall prepare and submit to Owner for consideration a CPR using the form included in this Project Manual. All CPRs must contain a complete breakdown of costs of credits, deducts and extras; itemizing materials, labor, taxes, Markup and any requested changes to Contract Time. All Subcontractor Work shall be so indicated. Individual entries on the CPR form shall include applicable Schedule of Values code, with all amounts determined as provided herein. After receipt of a CPR with a detailed breakdown, Owner will act promptly thereon.
 - 3. If Owner accepts a CPR, Owner will prepare a Change Order for Owner and Contractor signatures.
 - 4. If CPR is not acceptable to Owner because it does not agree with Contractor's proposed cost and/or time, Owner will provide comments thereto. Contractor will then, within seven (7) Days (except as otherwise provided herein), submit a revised CPR.
 - 5. When necessity to proceed with a change does not allow Owner sufficient time to conduct a proper check of a CPR (or revised CPR), Owner may issue a Change Directive (CD) as provided below.
- B. Contractor-Initiated Request for Information (RFI) Procedures, Requirements and Limitations:
 - 1. Contractor may submit RFI's for clarifications in Owner-prepared Contract Documents, which may result in the Contractor submitting a CPR.
 - 2. Whenever Contractor requires information regarding the Project or Owner-prepared Contract Documents, or receives a request for such information from a Subcontractor, Contractor may prepare and deliver an RFI to Owner. Contractor shall use RFI format provided on approval by Owner. Contractor shall not issue an RFI to Owner solely to clarify Contractor-prepared Construction Documents. Contractor must submit time critical RFIs at least 30 days before scheduled start date of the affected Work activity. Contractor shall reference each RFI to an activity of Progress Schedule and shall note time criticality of the RFI, indicating time within which a response is required. Contractor's failure to reference RFI to an activity on the Progress Schedule and note time criticality on the RFI shall constitute Contractor's waiver of any claim for time delay or interruption to the Work resulting from any delay in responding to the RFI.
 - 3. Contractor shall be responsible for its costs to implement and administer RFIs throughout the Contract duration. Regardless of the number of RFIs submitted, Contractor shall not be entitled to additional compensation for the effort required to submit the RFIs. Contractor shall be responsible for Owner's administrative costs for answering RFIs where the answer could reasonably be found by reviewing the Contract Documents, as determined by Owner; at Owner discretion, such costs may be deducted from progress payments or final payment.

4. Owner will respond within ten (10) days from receipt of RFI with a written response to Contractor. Contractor shall distribute response to all appropriate Subcontractors.
5. If Contractor is satisfied with the response and does not request a change in Contract Sum or Contract Time, then the response shall be executed without a change.
6. If Contractor believes the response is incomplete, Contractor shall issue another RFI (with the same RFI number with the letter "A" indicating it is a follow-up RFI) to Owner clarifying original RFI. Additionally, Owner may return RFI requesting additional information should original RFI be inadequate in describing condition.

C. Time Requirements:

1. If Contractor believes that an Owner response to an RFI, submittal or other Owner direction, results in change in Contract Sum or Contract Time, Contractor shall notify Owner with the issuance of a preliminary CPR within ten Days after receiving Owner's response or direction, and in no event after starting the disputed work or later than the time allowed under Article 12 of Document 00 7200 (General Conditions). If Contractor also requests a time extension, or has issued a notice of delay or otherwise requests a time extension with a CPR, then Contractor shall submit the TIE required herein concurrently with the CPR and in no event later than ten Days after providing the notice of delay.
2. If Contractor requires more time to accurately identify the required changes to the Contract Sum or Contract Time, Contractor may submit an updated and final CPR and TIE within 14 days of submitting the preliminary CPR.
3. If Owner agrees with Contractor's CPR and/or TIE, then Owner will prepare a Change Order for Owner and Contractor signatures. If Owner disagrees with Contractor, then Contractor may give notice of potential claim as provided in Article 12 of Document 00 7200 (General Conditions), and proceed thereunder.
4. Contractor must submit CPRs, notices of potential claim or Claims within the required time periods. Any failure to do so waives Contractor's right to submit a CPR or file a Claim.

D. Cost Estimate Information:

1. Contractor and subcontractors shall, upon Owner's request, permit inspection of the original unaltered cost estimates, subcontract agreements, purchase orders relating to the change, and documents substantiating all costs associated with its CPR or Claims arising from changes in the Work.

1.03 PROCEDURES FOR OWNER INITIATED CHANGE ORDERS

A. Owner Initiated Change Directives (CD):

1. Owner may, by Change Directive ("CD") or initially by Instruction Bulletin or by following the procedures for disputed work herein, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, with or without adjustment to Contract Sum or Contract Time.
2. If at any time Owner believes in good faith that a timely Change Order will not be agreed upon using the foregoing procedures, or at any other time, Owner may issue a CD with its recommended cost and/or time adjustment (if any). Upon receipt of CD, Contractor shall promptly proceed with the change of Work involved and respond to Owner within ten (10) Days.
3. Contractor's response must be any one of following:
 - a. Return CD signed, thereby accepting Owner response, including adjustment to time and cost (if any).
 - b. Submit a (revised if applicable) Cost Proposal with supporting documentation (if applicable, reference original Cost Proposal number followed by letter A, B, etc. for each revision), if Owner so requests.
 - c. Give notice of intent to submit a claim as described in Article 12 of Document 00 7200 (General Conditions), and submit its claim as provided therein.

4. If CPR or the CD provides for an adjustment to any Contract Sum, the adjustment shall be based on one of the following methods:
 - a. Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
 - b. Contractor to proceed on cost reimbursable (force account) basis while negotiating towards a firm price.
 - c. Cost to be determined in a manner agreed.
5. Change Directive signed by Contractor indicates the agreement of Contractor therewith, including adjustment in Contract Sum or the method for determining them. Such agreement shall be effective immediately and shall be finalized as a Change Order. Where Owner authorizes CD work on a time and materials basis up to a maximum amount, then Contractor shall promptly advise Owner upon reaching 75% of such maximum amount, otherwise Contractor shall accept fully the risk of completing the CD work without exceeding such maximum amount.
6. If Contractor does not respond promptly or disagrees with the method for adjustment (or non-adjustment) in the Contract Sum, the method and the adjustment shall be determined by Owner on the basis of the Contract Documents and the reasonable expenditures and savings of those performing the Work attributable to the change. If the parties still do not agree on the proper adjustment due to a Change Directive, Contractor may file a Claim per Article 12 of Document 00 7200 (General Conditions) and/or Owner may direct the changed work through a unilateral change order. Contractor shall keep and present an itemized accounting in a manner consistent with the SOV, together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this paragraph shall be limited to those provided herein.
7. Pending final determination of cost to Owner, Contractor may include amounts not in dispute in its Applications for Payment. The amount of credit to be allowed by Contractor to Owner for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by Owner. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for Markup shall be figured on the basis of net increase, if any, with respect to that change.

B. Owner Initiated Change Order (CO) or Request for Proposal (RFP):

1. Owner may initiate changes in the Work or Contract Time by issuing a Request for Proposal ("RFP") or Change Order ("CO") to Contractor.
2. Owner may issue an RFP to Contractor. Any RFP will detail all proposed changes in the Work and request a quotation of changes in Contract Sum and Contract Time from Contractor.
3. In response to an RFP, Contractor shall furnish a Change Proposal Request (CPR) within twenty-one (21) Business Days of Owner's RFP. Upon approval of CPR, Owner may issue a Change Directive directing Contractor to proceed with extra Work.
4. If the parties agree on price and time for the work, the Owner will issue a Contact Change Order. If the parties do not agree on the price or time for a CPR, Owner may either issue a CD or decide the issue per Article 12 of Document 00 7200 (General Conditions). Contractor shall perform the changed Work notwithstanding any claims or disagreements of any nature.

1.04 **PROCEDURES THAT APPLY TO CONTRACTOR- AND OWNER-INITIATED CHANGE ORDERS**

A. Adjustment of Schedules to Reflect Change Orders or CDs:

1. Contractor shall revise Schedule of Values and Application for Payment forms to record each authorized Change Order or CD as a separate line item and adjust the Contract Sum as shown thereon prior to the next monthly pay period.
2. Contractor shall revise the Progress Schedules prior to the next monthly pay period, to reflect CO or CD.

3. Contractor shall enter changes in Project Record Documents prior to the next monthly pay period.

B. Required Documentation for Adjustments to Contract Amounts:

1. For all changes and cost adjustments requested, Contractor shall provide documentation of change in Contract Amounts asserted, with sufficient data to allow evaluation of the proposal.
2. In all requests for compensation, cost proposals, estimates, claims and any other calculation of costs made under the Contract Documents, Contractor shall breakout and quantify costs of labor, equipment and materials identified herein, for Contractor and subcontractors of any tier.
3. Contractor shall, on request, provide additional data to support computations for:
 - a. Quantities of products, materials, labor and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Justification for any change in Contract Time and new Progress Schedule showing revision due, if any.
 - d. Credit for deletions from Contract, similarly documented.
4. Contractor shall support each claim or computation for additional cost, with additional information including:
 - a. Origin and date of claim or request for additional compensation.
 - b. Dates and times Work was performed and by whom.
 - c. Time records and wage rates paid.
 - d. Invoices and receipts for products, materials, equipment and subcontracts, similarly documented.
 - e. Credit for deletions from Contract, similarly documented.

C. Responses and Disputes:

1. For all responses for which the Contract Documents do not provide a specific time period, recipients shall respond within a reasonable time.
2. For all disputes arising from the procedures herein, Contractor shall follow Article 12 of Document 00 7200 (General Conditions).

1.05 COST DETERMINATION FOR CHANGES IN CONTRACT AMOUNTS

A. Calculation of Total Cost of Extra Work:

1. Total cost of changed Work, extra Work or of Work omitted shall be the sum of three components defined immediately below as: Component 1 (Direct Cost(s)); Component 2 (Markup); and, Component 3 (bonds, insurance, taxes)
2. Component 1: Direct Cost(s) of labor, equipment and materials, is calculated based upon actually incurred (or omitted) labor costs, material costs and equipment rental costs, as defined herein;
3. Component 2: Markup on such actually incurred Direct Costs, is applied in the percentages identified below; and
4. Component 3: Actual additional costs for any additionally required insurance, bonds, and/or taxes, defined herein, is calculated without Markup.

1.06 MEASUREMENT OF DIRECT COST OF CONSTRUCTION (COST COMPONENT NO. 1)

A. Composition of Component 1 (Direct Cost of Construction):

1. Component 1 has four subcomponents, also referred to as "LEMS":
 - a. Labor (Component 1A)
 - b. Equipment (Component 1B)
 - c. Materials (Component 1C)
 - d. Subcontractors (Component 1D)

B. Measurement of Cost of Labor (Component 1A):

1. Cost of Labor shall be calculated as: Cost of labor for workers (including forepersons when authorized by Owner) used in actual and direct performance of the subject work, whether employer is Contractor, Subcontractor or other forces, in the sum of the following:
 - a. Actual Wages: Actual wages paid shall include any employer payments to or on behalf of workers for health and welfare, pension, vacation, and similar purposes.
 - b. Labor surcharge: Payments imposed by local, county, state, and federal laws and ordinances, and other payments made to, or on behalf of, workers, other than actual wages as defined, such as worker's compensation insurance. Such labor surcharge shall not exceed generally accepted standards in the State for labor rates in effect on date upon which extra Work is accomplished.
 - c. Cost of labor shall include no other costs, fees or charges.
 2. Labor cost for operators of equipment owned and operated by Contractor or any Subcontractor, shall be no more than rates of such labor established by collective bargaining agreements for type of worker and location of Work, whether or not owner-operator (i.e., Contractor or Subcontractor) is actually covered by such an agreement.
 3. Cost of labor shall be recorded and documented in certified payroll records, maintained in the form customary and/or required in the State, delivered to Owner weekly.
- C. Measurement of Cost of Equipment (Component 1B):
1. Measurement of Component 1B (Cost of Equipment). Cost of Equipment shall be calculated as: Cost of Equipment used in actual and direct performance of the subject work, whether by Contractor, Subcontractor or other forces. Cost of Equipment shall be calculated as herein described.
 2. For rented equipment, cost will be based on actual rental invoices, appropriate for the use and duration of the work. Equipment used on extra Work shall be of proper size and type. If, however, equipment of unwarranted size or type and cost is used, cost of use of equipment shall be calculated at rental rate for equipment of proper size and type, as determined by Owner.
 3. Equipment rental cost for Contractor or Subcontractor-owned equipment, shall be determined by reference to, and not in excess of, the generally accepted standards in the State for equipment rental rates in effect on date upon which extra Work is accomplished. If there is no applicable rate for an item of equipment, then payment shall be made for Contractor- or Subcontractor-owned equipment at rental rate listed in the most recent edition of the CalTrans Standard Schedules and Specifications, and absent a rental rate therein, then the Association of Equipment Distributors (AED) book.
 4. In all cases, rental rates paid shall be deemed to cover cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.
 5. Unless otherwise specified, manufacturer's ratings, and manufacturer-approved modifications, shall be used to classify equipment for determination of applicable rental rates. Individual pieces of equipment or tools not listed in said publication and having a replacement value of \$100 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore as payment is included in payment for labor. Rental time will not be allowed while equipment is inoperative due to breakdowns.
 6. For equipment on Site, rental time to be paid for equipment shall be time equipment is in operation on extra Work being performed or on standby as approved by Owner. The following shall be used in computing rental time of equipment:
 - a. When hourly rates are listed, less than 30 minutes of operation shall be considered to be ½ hour of operation.
 - b. When daily rates are listed, less than four hours of operation shall be considered to be ½ Day of operation.
 - c. Rates shall correspond to actual rates paid by Contractor, i.e., if Contractor pays lower weekly or monthly rates, then same shall be charged to Owner.

7. For equipment that must be brought to Site to be used exclusively on extra Work, cost of transporting equipment to Site and its return to its original location shall be determined as follows:
 - a. Owner will pay for costs of loading and unloading equipment.
 - b. Cost of transporting equipment in low bed trailers shall not exceed hourly rates charged by established haulers.
 - c. Cost of transporting equipment shall not exceed applicable minimum established rates of California Public Utilities Commission or appropriate State Dept. of Transportation.
 - d. Owner will not make any payment for transporting and loading and unloading equipment if equipment is used on Work in any other way than upon extra Work.
 - e. Rental period may begin at time equipment is unloaded at Site of extra Work and terminate at end of the performance of the extra Work or Day on which Owner directs Contractor to discontinue use of equipment, whichever first occurs. Excluding Saturdays, Sundays, and Owner legal holidays, unless equipment is used to perform extra Work on such Days, rental time to be paid per Day shall be four hours for zero hours of operation, six hours for four hours of operation and eight hours for eight hours of operation, time being prorated between these parameters. Hours to be paid for equipment that is operated less than eight hours due to breakdowns, shall not exceed eight less number of hours equipment is inoperative due to breakdowns.
8. Employee vehicles are not part of Component 1A, rather, are included within Component 2 (Markup).
9. Equipment costs shall include no other costs, fees or charges.

D. Measurement of Cost of Material (Component 1C):

1. Cost of Material shall be calculated as herein described. Cost of such materials will be cost to purchaser (Contractor, Subcontractor or other forces) from supplier thereof, except as the following are applicable:
2. If cash or trade discount by actual supplier is offered or available to purchaser, it shall be credited to Owner notwithstanding fact that such discount may not have been taken.
3. For materials salvaged upon completion of Work, salvage value of materials shall be deducted from cost, less discounts, of materials.
4. If cost of a material is, in opinion of Owner, excessive, then cost of material shall be deemed to be lowest current wholesale price at which material is available in quantities concerned delivered to Site, less any discounts as provided in this Paragraph.
5. Material costs shall include no other costs, fees or charges.

E. Measurement of Cost of Subcontractors (Component 1D):

1. Where reimbursed or calculated per the terms of the Contract Documents, change order or Change Directive, cost of Subcontractors shall be calculated as amounts earned by Subcontractors procured in compliance with the Contract Documents and approved by the Owner, provided such subcontractor earned amounts meet the following requirements:
 - a. Such amounts are earned under the terms of the Subcontracts and the Work complies with the terms of the Contract Documents;
 - b. Such amounts are properly requested, documented and permitted under the terms of the subcontract(s) and the Contract Documents.
 - c. Total cost to Owner of Direct Costs of Construction (labor, equipment, materials), Markup, and costs of bonds, insurance and taxes, conform to contract limitations (i.e., totals paid by Owner do not exceed the 20% Markup limitation.).

1.07 MEASUREMENT AND PAYMENT OF MARK UP (COST COMPONENT 2)

A. Markup Percentages for Changed Work (Component 2):

1. Markup on Direct Cost of labor and materials for extra Work shall be 15%. Markup on Direct Cost of equipment for extra Work shall be 15%.

2. When extra Work is performed by Subcontractors, regardless of the number of tiers, total Markup on "Component 1" Direct Costs shall not exceed 20%. Contractor and its Subcontractors shall divide the 20% as they may agree.
 3. Under no circumstances shall the total Markup on any extra Work exceed twenty (20) percent, stated as a percent of the Direct Cost of labor, equipment and materials. This limitation shall apply regardless of the actual number of subcontract tiers.
 4. On proposals covering both increases and decreases in Contract Sum, Markup shall be allowed on the net increase only as determined above. When the net difference is a deletion, no percentage for Markup shall be allowed, but rather an appropriate percentage deduction shall be issued in the amount of the net difference.
- B. Measurement and Payment of Mark Up (Component 2):
1. Mark Up (Component 2) provides complete compensation to Contractor for:
 - a. All Contractor profit;
 - b. All Contractor home-office overhead;
 - c. All Contractor assumption of risk assigned to Contractor under the Contract Documents;
 - d. Subject to the qualifications below regarding self-performed work, all General Conditions and General Requirements.
 2. Profit. Compensation for profit included within Component 2 (Mark Up), includes without limitation: Fees of all types, nature and description; and Profit and margins of all types, nature and description.
 3. Home Office Expenses. Compensation for home office expenses included within Component 2 (Mark Up), includes without limitation: Salaries and other compensation of any type of Contractor's personnel (management, administrative and clerical), and all direct and indirect operating, travel, payroll, safety, storage, quality control, maintenance and overhead costs of any nature whatsoever, incurred by Contractor at any location other than the Project specific site office, including without limitation, Contractor's principal or branch offices; insurance premiums other than those for Project specific insurance directed by the Owner in a change order; all hardware, software, supplies and support personnel necessary or convenient for Contractor's capture, documentation and maintenance of its costs and cost accounting data and cost accounting and control systems and work progress reporting.
 4. Assumption of Risk. Compensation for Contractor's assumption of risk under the Contract Documents, included within Component 2 (Mark Up), includes without limitation loss, cost, damage, expense or liability resulting directly or indirectly from any of the following causes ("unallowable costs"), for Contractor and subcontractors of any tier: noncompliance with the Contract Documents, fault or negligence, defective or non-conforming Work, by Contractor or any Subcontractor or Vendor of any tier or anyone directly or indirectly employed by any of them, or for whose acts or omissions any of them are responsible or liable at law or under the Contract Documents; cost overruns of any type; costs in excess of any lump sum, not to exceed amount or GMP; costs resulting from bid or "buy out" errors, unallocated scope, or incomplete transfer of scope or contract terms to subcontractors; any costs incurred by Contractor relating to a Change in the Work without a Change Order or Change Directive in accordance with the Contract Documents; costs for work or materials for which no price is fixed in the Contract Documents, unless it is expressly specified that such work or material is to be paid for as extra work.
 5. General Conditions and Division 1 General Requirements. Compensation for Contractor's General Conditions and General Requirements Costs included within Component 2 (Mark Up), includes compensation to Contractor for: Contractor's direct costs, without overhead or profit, for salaries and related forms of compensation and employer's costs for labor and personnel costs, of Contractor's employees and subconsultant's employees (if any), while and only to the extent they are performing Work at the Project Site. Personnel and Work compensated by this Component include without limitation: All required Project management responsibilities; all on-site services; monthly reporting and scheduling; routine field inspection of Work; general superintendence; general administration and preparation of cost

proposals, schedule analysis, change orders and other supporting documentation as necessary; salaries of project superintendent, project engineers, project managers, safety manager, other manager, timekeeper, and secretaries; all cost estimates and updates thereto; development, validation and updates to the project schedule; surveying; estimating. Compensation for Contractor's General Requirements Costs included within Component 2 (Mark Up), compensates Contractor for its "General Requirements" Costs, including without limitation: all scheduling hardware, software, licenses, equipment, materials and supplies; purchase, lease or rental, build out, procurement, supporting equipment and maintenance of temporary on-Site facilities, Project field and office trailers and other temporary facilities, office equipment and supporting utilities; platforms, fencing, cleanup and jobsite security; temporary roads, parking areas, temporary security or safety fencing and barricades, etc.; all Contractor's motor vehicles used by any Contractor's personnel, and all costs thereof; all health and safety requirements, required by law or Owner procedures; all surveying; all protection of Work; handling and disposal fees; final cleanup; repair or maintenance; other incidental Work; all items, activities and function similar to any of those described above; all travel, entertainment, lodging, board and the like.

6. Personnel compensated by the Markup Component do not include workers of foreman level or below in the case of self-performed work; rather, such personnel shall be treated as a Direct Cost of Construction. Costs compensated by the Markup component do not include temporary measures specifically required by the changed work, not otherwise required or ongoing in the prosecution of the Work, that commence specifically to support the changed work and conclude with the completion of the changed work. Such costs shall be treated as Direct Costs of Construction. Examples of General Requirements costs that this component may not cover are the following: temporary barricades or fencing of specific areas required specifically for the changed work; cranes required specifically for the changed work; extra security required specifically for the changed work.

1.08 **MEASUREMENT AND PAYMENT OF BONDS INSURANCE TAXES (COMPONENT 3)**

- A. Measurement of Bonds, Insurance, Taxes (Component 3):
 1. Component 3 (Bonds, Insurance, Taxes) consists of the cost of bonds, insurance and taxes, also referred to as "BIT". All State sales and use taxes, applicable County and applicable City sales taxes, shall be included. Federal and Excise tax shall not be included.
 2. There is no mark up on BIT.

1.09 **EFFECT OF PAYMENT**

- A. Change Order Compensation is All Inclusive.
 1. Except as provided expressly below regarding changes that extend the Contract Time, payment of calculated cost of extra work constitutes full and complete compensation for costs or expense arising from the extra Work, and is intended to be all inclusive.
 2. Payment for Direct Cost of Construction (Component 1 or LEMS) is intended to be all-inclusive. Any costs or risks not delineated within cost of labor, equipment or materials herein, shall be deemed to be within the costs and risks encompassed by the applicable Markups and unallowable in any separate amount.
 3. Payment of Markup (Component 2) is intended to be all-inclusive. Contractor waives claims for any further or different payment of cost and risk items delineated herein, other than the allowable percentage markup on costs set forth in the Contract Documents; such separate, further or different cost or risk items shall be unallowable, waived and liquidated within the allowable percentage markup.
 4. Contractor shall recover no other costs or markups on extra work of any type, nature or description.
- B. Exception for Changes Extending the Contract Time.
 1. Where a change in the Work extends the Contract Time, Contractor may request and recover additional, actual direct costs, provided Contractor can demonstrate such additional costs are (i.) actually incurred performing the Work, (ii.) not compensated by the Markup allowed,

and (iii) directly result from the extended Contract Time. Contractor shall make such request and provide such documentation following all required procedures, documentation and time requirements in the Contract Documents, and subject to all contract limitations of liability. Contractor may not seek or recover such costs using formulas (e.g., Eichleay).

C. Limits of Liability / Accord and Satisfaction.

1. The foregoing limits of compensation apply in all cases of claims for changed Work, whether calculating Change Proposal Requests, Change Orders or CDs, or calculating claims and/or damages of all types, and applies even in the event of fault, negligence, strict liability, or tort claims of all kinds, including strict liability or negligence. Contractor may recover no other costs arising out of or connected with the performance of extra Work, of any nature.
2. Under no circumstances may Contractor claim or recover special, incidental or consequential damages against Owner, its representatives or agents, whether arising from breach of contract, negligence, strict liability or other tort or legal theory, unless specifically and expressly authorized in the Contract Documents.
3. No change in Work shall be considered a waiver of any other condition of Contract Documents. No claim shall be made for anticipated profit, for loss of profit, for damages, or for extra payment whatever, except as expressly provided for in Contract Documents.
4. Accord and Satisfaction: Every Change Order and accepted CD shall constitute a full accord and satisfaction, and release, of all Contractor (and if applicable, Subcontractor) claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay and any other type of claim. Contractor may elect to reserve its rights to disputed claims arising from or relating to the changed Work at the time it signs a Change Order or approves a CD, but must do so expressly in a writing delivered concurrently with the executed Change Order or approved CD, and must also submit a Claim for the reserved disputed items pursuant to Article 12 of Document 00 7200 (General Conditions) no later than thirty (30) days after Contractor's first written notice of its intent to reserve rights. Execution of any Change Order or CD shall constitute Contractor's representation of its agreement with this provision.

1.010 MISCELLANEOUS REQUIREMENTS

A. Owner-Furnished Materials.

1. Owner reserves right to furnish materials as it deems advisable, and Contractor shall have no claims for costs and Markup on such materials.

B. Records And Certification.

1. All charges shall be recorded daily and summarized in Change Proposal Request form attached hereto. Contractor or authorized representative shall complete and sign form each day. Contractor shall also provide with the form: the names and classifications of workers and hours worked by each; an itemization of all materials used; and a list by size type and identification number of equipment and hours operated.
2. Owner shall have the right to audit all records in possession of Contractor relating to activities covered by Contractor's claims for modification of Contract, including CD Work. This right shall be specifically enforceable, and any failure of Contractor to voluntarily comply shall be deemed an irrevocable waiver and release of all claims then pending that were or could have been subject to Article 12 of Document 00 7200 (General Conditions).

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

[COST PROPOSAL FORM FOLLOWS ON NEXT PAGE]

COST PROPOSAL (CP)

Owner **[Insert Project Name]**
 Contract Number _____

CP Number: _____
 Date: _____
 In Response To _____
 Bulletin #, etc.

To: **[Insert Name of Owner]**
 Attention: **[_____]**
[Insert Owner's Address]
 Phone: (____) ____ - ____
 Fax: (____) ____ - ____

From: **[Insert Contractor's Name/Address]**

This Cost Proposal is in response to the above-referenced _____ **[insert Bulletin, etc. as applicable]**.

Brief description of change(s): _____

ITEM DESCRIPTION	PRIME CONTRACTOR	SUB 1	SUB 2	SUB 3	SUB 4	TOTAL
MATERIAL						
LABOR						
EQUIPMENT						
Other (Specify) Extended Overhead						
TOTAL COST						
Subcontractor's Overhead & Profit 15 percent						
Contractor's Overhead & Profit 15 percent						
Overhead & Profit to Contractor for Subcontractor's Work 5 percent						
(percent of Total Cost above not including any Overhead & Profit – may not exceed 20%)						
GRAND TOTAL						
REQUESTED CHANGE IN CONTRACT TIME (DAYS) (Time Impact Evaluation Enclosed)						

By Contractor:

Signature:

Date:

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 3119

PROJECT MEETINGS

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes description of required project meetings.

1.02 PRECONSTRUCTION CONFERENCE

- A. Preconstruction Conference. Owner will call for and administer Preconstruction Conference at time and place to be announced (usually the week prior to start of Work at the Site). Contractor, all major Subcontractors, and major suppliers shall attend Preconstruction Conference. Agenda may include, but not be limited to, the following items:

1. Schedules
2. Personnel and vehicle permit procedures
3. Use of premises
4. Location of the Contractor's on-Site facilities
5. Security
6. Housekeeping
7. Submittal and RFI procedures
8. Inspection and testing procedures, on-Site and off-Site
9. Utility shutdown procedures
10. Control and reference point survey procedures
11. Injury and Illness Prevention Program
12. Contractor's Initial Progress Schedule
13. Contractor's Schedule of Values
14. Contractor's Schedule of Submittals
15. Jurisdictional agency requirements

- B. The Contractor shall deliver the following submittals at the preconstruction meeting:

1. Schedules
2. Water Pollution Control Plan (BMPs)
3. Safety Plan
4. Sample Resident Notification Letter
5. Any submittal requiring prompt review due to required lead times

1.03 WEEKLY PROJECT MEETINGS

- A. Owner will schedule and administer weekly progress meetings throughout duration of Work. Progress meetings will be held weekly unless otherwise directed by Owner. Meetings shall be held at Owner's Offices unless otherwise specified in Contract Documents.

1. Owner's Representative will prepare agenda and distribute it 4 Days in advance of meeting to the Contractor.
2. Participants with agenda items shall present them.
3. The Architect/Engineer and other responsible entities shall attend meetings unless otherwise specified in Contract Documents or provided by Owner.
4. Owner shall record and distribute the meeting minutes. Minutes shall be distributed by the Owner to the Contractor within 3 business days after the meeting. Contractor shall distribute the minutes to those affected by decisions made at meeting. Attendees shall have five business days to submit comments or additions to the minutes. Minutes shall constitute final

- memorialization of results of meeting.
5. Progress meetings shall be attended by Contractor's job superintendent, major Subcontractors and suppliers, Owner, and others as appropriate to agenda topics for each meeting.
 6. Agenda may contain the following items, as appropriate:
 - a. Review, revise as necessary, and approve previous meeting minutes
 - b. Review of Work progress since last meeting
 - c. Status of Construction Work Schedule, delivery schedules, adjustments
 - d. Submittal, RFI, and Change Order status
 - e. Review of the Contractor's safety program activities and results, including report on all serious injury and/or damage accidents
 - f. Other items affecting progress of Work

1.04 PROGRESS SCHEDULE AND BILLING MEETINGS

- A. A meeting will be held on approximately the 20th of each month to review the schedule update submittal and progress payment application.
- B. At this meeting, at a minimum, the following items will be reviewed:
 1. Percent complete of each activity;
 2. Time impact evaluations for Change Orders and Time Extension Request;
 3. Actual and anticipated activity sequence changes;
 4. Actual and anticipated duration changes; and
 5. Actual and anticipated Contractor delays.
- C. These meetings are considered a critical component of overall monthly schedule update submittal and Contractor shall have appropriate personnel attend. At a minimum, Contractor's General Superintendent and Scheduler shall attend these meetings.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 3230

PROGRESS SCHEDULES AND SUBMITTALS

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes description of requirements and procedures for submitting progress schedules and submittals.

1.02 CONTRACTOR TO SUBMIT PROGRESS SCHEDULES

- A. Contractor shall submit original (baseline) progress schedule before or at the pre-construction meeting for review by the Owner.
- B. Baseline Progress Schedule shall show Contractor's construction and procurement activities, including but not limited to, equipment procurement and delivery (Contractor and Owner supplied), activities with Subcontractors and suppliers, major submittal reviews, commissioning of systems, use of major equipment on site, and necessary interface with Owner and third parties required to complete the Work in a timely manner and in accordance with Contract Time.

1.03 SCHEDULE REQUIREMENTS.

- A. Unless Owner agrees in writing otherwise, progress schedule shall be on Microsoft Project or equivalent software, as Owner may specify, which Contractor shall prepare and supply to Owner, with all datapoint entries completed for start dates, necessary work activities, durations (not longer than 21 calendar days) and logic ties.
- B. Contractor's progress schedule may be in the form of a CPM (arrow) diagram or, if Owner agrees in writing, a bar chart. The hard copies of the schedule supplied to Owner shall indicate the critical path of the Work (in red) and shall show a logical progression of the Work through completion within Contract Time.
- C. Unless Owner agrees in writing otherwise, progress schedule shall also show early and late start and finish dates and total available float (float to the successor activity's late start date) for each activity. Owner has no obligation to accept an early completion schedule.

1.04 MONTHLY UPDATES

- A. Contractor's progress schedule shall be updated monthly to reflect actual progress. The schedule shall be subject to Owner's review and acceptance for use in monitoring Contractor's Work and evaluating Applications for Payment.
- B. Contractor shall supply Owner with an electronic copy of the updated progress schedule with each monthly payment application. Contractor shall provide Owner with two-week lookahead schedules weekly, showing in detail and activities and resources scheduled for the immediate two week period.

1.05 RECOVERY SCHEDULE

- A. Owner may request a recovery schedule should Contractor fall 21 or more Days behind any schedule Milestone, which schedule shall show Contractor's plan and resources committed to retain Contract completion dates.
- B. The recovery schedule shall show the intended critical path. If Owner requests, Contractor shall also:
 - 1. Secure and demonstrate appropriate Subcontractor and supplier consent to the recovery Schedule.
 - 2. Submit a narrative explaining trade flow and construction flow changes and man-hour loading assumptions for major Work activities and/or Subcontractors.

1.06 TIME IMPACT EVALUATION ("TIE") FOR CHANGE ORDERS, TIME EXTENSIONS AND DELAYS:

- A. When Contractor requests a time extension for any reason, Contractor shall submit a TIE that includes both a written narrative and a schedule diagram depicting how the changed Work or other impact affects other schedule activities. The schedule diagram shall show how Contractor proposes to incorporate the changed Work or other impact in the schedule and how it impacts the current Schedule update critical path or otherwise. Contractor is also responsible for requesting time extensions based on the TIE's impact on the critical path. The diagram shall be tied to the main sequence of scheduled activities to enable Owner to evaluate the impact of changed Work to the scheduled critical path.
- B. Contractor is responsible for all costs associated with the preparation of TIE's, and the process of incorporating TIE's into the current schedule update. Provide Owner with four copies of each TIE.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 3300

SUBMITTALS

PART 1 – PART 1 GENERAL

1.01 SUMMARY

- A. Section includes description of requirements and procedures for submittals. Please refer to the technical specifications and/or plans for any additional submittals not specifically mentioned in this section.

1.02 SCHEDULE OF SUBMITTALS

- A. Contractor shall prepare for Owner's review and acceptance prior to commencement of work on the Site, for purposes of contract administration, a schedule of submittals (also referred to as a submittal register) required to complete the Work, prepared by Contractor and accepted by Owner for contract administration. Schedule of submittals shall include, for each submittal: the specification or drawing reference requiring the submittal, if applicable; the material, item, or process for which the submittal is required; the submittal number and identifying title of the submittal; the Contractor's anticipated submission date and the approval need date.
- B. Contractor shall update monthly the schedule of submittals to reflect actual submission and acceptance dates for submittals. Review by Owner of schedule of submittals does not excuse Contractor of obligation to supply, schedule and coordinate all submittals required by the Contract Documents.
- C. Following is a list of anticipated submittals. Please refer to the technical specifications for any additional submittals not specifically mentioned in this section.
 - 1. Safety Plan
 - 2. Temporary Water Pollution Control Plan
 - 3. Spill Prevention Plan
 - 4. General Safety Requirements (See Section 09871)
 - 5. Product data, certifications, and shop drawings for all manufactured products
 - 6. Tests and certificates for all produced materials
 - 7. High-resolution digital drawings/images for custom sign graphics
 - 8. Mix designs for Portland cement concrete and asphalt concrete
 - 9. Record Drawings
 - 10. Calculations/Certifications for meeting Cal-OSHA Requirements

1.03 CONTRACTOR TO SUBMIT SHOP DRAWINGS, PRODUCT DATA AND SUBMITTALS.

- A. Contractor shall review for compliance with Contract Documents, approve and submit to Owner Shop Drawings, Product Data, Samples and similar submittals required by Contract Documents.
- B. Contractor shall schedule and submit concurrently submittals covering component items forming a system or items that are interrelated. Contractor shall include certifications to be submitted with the pertinent drawings at the same time.
- C. Contractor shall coordinate scheduling, sequencing, preparing and processing of all submittals with performance of work so that work will not be delayed by submittal processing.

- D. Submittals shall specifically identify any Work depicted that does not conform to the Contract Documents.

1.04 OWNER REVIEW OF SHOP DRAWINGS, PRODUCT DATA AND SUBMITTALS.

- A. After review by Owner of each Submittal, material will be returned to Contractor with actions defined as follows:
 - 1. NO EXCEPTIONS TAKEN - Accepted subject to its compatibility with general design concept of the Work, future Submittals and additional partial Submittals for any portions of the Work not covered in this Submittal. Does not constitute acceptance or deletion of specified or required items not shown on the Submittal.
 - 2. MAKE CORRECTIONS NOTED (NO RESUBMISSIONS REQUIRED) - Same as item 1 above, except that minor corrections as noted shall be made by Contractor.
 - 3. REVISE AS NOTED AND RESUBMIT - Rejected because of major inconsistencies or errors that shall be resolved or corrected by Contractor prior to subsequent review by Owner.
 - 4. REJECTED - RESUBMIT - Submitted material does not conform to Drawings and/or Specifications in major respect, i.e.: wrong size, model, capacity, or material.
- B. Favorable review will not constitute acceptance by Owner of any responsibility for the accuracy, coordination, or completeness of the Submittals. Accuracy, coordination, and completeness of Submittals shall be sole responsibility of Contractor, including responsibility to back-check comments, corrections, and modifications from Owner's review before fabrication. Contractor, Subcontractors, or suppliers may prepare Submittals, but Contractor shall ascertain that Submittals meet requirements of Contract Documents, while conforming to structural space and access conditions at point of installation. Owner's review will be only to assess if the items covered by the Submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as indicated by the Contract Documents. Favorable review of Submittal, method of Work, or information regarding materials and equipment Contractor proposes to furnish shall not relieve Contractor of responsibility for errors therein and shall not be regarded as assumption of risks or liability by Owner, or any officer or employee thereof, and Contractor shall have no claim under Contract Documents on account of failure or partial failure or inefficiency or insufficiency of any plan or method of Work or material and equipment so accepted. Favorable review shall be considered to mean merely that Owner has no objection to Contractor using, upon Contractor's own full responsibility, plan or method of Work proposed, or furnishing materials and equipment proposed.
- C. Unless otherwise specified, Owner's review will not extend to the means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- D. Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been favorably reviewed by the Owner; otherwise, any such Work is at Contractor's sole risk.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 4100

REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Regulatory requirements applicable to Contract Documents
2. Required provisions under Local Agency Disputes Act
3. Required references under federal law

1.02 GENERAL

A. Compliance with Laws

1. Conform to all applicable codes, laws, ordinances, rules and regulations, which shall have full force and effect as though printed in full in these Specifications. Codes, laws, ordinances, rules, regulations and ordinances (**Regulatory Requirements**) are not furnished to Contractor, because Contractor is assumed to be familiar with these requirements.
2. Any listing of Regulatory Requirements for hazardous waste abatement Work in the Contract Documents is supplied to Contractor as a courtesy and shall not limit Contractor's responsibility for complying with all applicable Regulatory Requirements having application to the Work. Where conflict among the Regulatory Requirements or with these Specifications occurs, the most stringent requirements shall be used.
3. Specific reference in the Specifications to codes and regulations or requirements of regulatory agencies shall mean the latest printed edition of each adopted by the regulatory agency in effect at the time of the opening of Bids, except as may be otherwise specifically stated in the Contract Documents.

B. Precedence

1. Where specified requirements differ from Regulatory Requirements, the more stringent requirements shall take precedence. Where Drawings or Specifications require or describe products or execution of better quality, higher standard or greater size than required by Regulatory Requirements, then Drawings and Specifications shall take precedence so long as such increase is legal. Where no requirements are identified on Drawings or in Specifications, comply with all Regulatory Requirements of governing authorities having jurisdiction.
2. Should any conditions develop not covered by the Contract Documents wherein the finished Work will not comply with current codes, a Change Order detailing and specifying the required Work shall be submitted to and approved by Owner before proceeding with the Work.

1.03 REGULATORY REQUIREMENTS

A. Applicable Codes

1. Codes that apply to Contract Documents include all Codes applicable to construction, including, but not limited to, the following:
 - a. 2022 California Building Standards Code as amended by applicable local ordinances for all construction work.
 - b. All State laws and City and County Ordinances, rules of the State or City or County Health Departments, rules of the National Board of Fire Underwriters and National

Fire Protection Associations, and local power company regulations for mechanical and electrical work.

B. Applicable Laws, Statutes, Ordinances, Rules, And Regulations

1. During prosecution of Work to be done under Contract Documents, Contractor shall comply with applicable laws, ordinances, rules and regulations, including, but not limited to, the following:
 - a. Federal:
 - 1) Americans With Disabilities Act of 1990
 - 2) 29 CFR, Section 1910.1001, Asbestos
 - 3) 40 CFR, Subpart M, National Emission Standards for Asbestos
 - 4) Executive Order 11246
 - 5) Federal Endangered Species Act
 - 6) Clean Water Act
 - b. State of California:
 - 1) California Code of Regulations, Titles 5, 8, 17, 19, 21, 22, 24 and 25
 - 2) California Public Contract Code
 - 3) California Health and Safety Code
 - 4) California Government Code
 - 5) California Labor Code
 - 6) California Civil Code
 - 7) California Code of Civil Procedure
 - 8) CPUC General Order 95, Rules for Overhead Electric Line Construction
 - 9) CPUC General Order 128, Rules for Construction of Underground Electric Supply and Communications Systems
 - 10) Cal/OSHA
 - 11) OSHA: Hazard Communications Standards
 - 12) California Endangered Species Act
 - 13) Water Code
 - 14) Fish and Game Code
 - c. State of California Agencies:
 - 1) State and Consumer Services Agency
 - 2) Office of the State Fire Marshall
 - 3) Office of Statewide Health Planning and Development
 - 4) Department of Fish and Game
 - 5) All Air Quality Management Districts with jurisdiction
 - 6) All Regional Water Quality Control Boards with jurisdiction
 - 7) Division of the State Architect (if having jurisdiction)
 - d. All Local Agencies with jurisdiction (cities, counties, fire departments)

C. Change Orders and Claims:

1. The California Public Contract Code, including but not limited to Section 7105(d)(2), and the California Government Code Section 930.2 et seq., apply to all contract procedures for changes, time extensions, change orders (time or compensation) and claims.
2. Any change, waiver, or omission to implement contract change order and claim procedures shall have no legal effect unless expressly permitted in a fully executed change order approved by Contractor and Owner and approved as to form by their respective legal counsel.

D. Required Provisions On Contract Claim Resolution

1. The California Public Contract Code specifies required provisions on resolving contract claims less than \$375,000, which are set forth below, and constitute a part of this Contract.

2. For the purposes of this section, "Claim" means a separate demand by Contractor of \$375,000 or less for (1) a time extension, (2) payment or money or damages arising from Work done by or on behalf of Contractor arising under the Contract Documents and payment of which is not otherwise expressly provided for or the Claimant is not otherwise entitled to, or (3) an amount the payment of which is disputed by Owner. In order to qualify as a Claim, the written demand must state that it is a Claim submitted under paragraph 12 of Document 00 7200 (General Conditions) and be submitted in compliance with all requirements of Document 00 7200 (General Conditions), paragraph 12. Separate Claims which total more than \$375,000 do not qualify as a "separate demand of \$375,000 or less," as referenced above, and are not subject to this section.
3. A voucher, invoice, payment application, or other routine or authorized form of request for payment is not a Claim for purposes of this section. If such request is disputed as to liability or amount, then the disputed portion of the submission may be converted to a Claim under this section by submitting a separate claim in compliance with Contract Documents claim submission requirements.
4. Caution. This section does not apply to tort claims and nothing in this section is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 and Chapter 2 of Part 3 of Division 3.6 of Title 1 of the California Government Code.
5. Procedure:
 - a. The Claim must be in writing, submitted in compliance with all requirements of Document 00 7200 (General Conditions), paragraph 12, including, but not limited to, the time prescribed by and including the documents necessary to substantiate the Claim, pursuant to Document 00 7200 (General Conditions), paragraph 12.3. Claims must be filed on or before the day of final payment. Nothing in this section is intended to extend the time limit or supersede notice requirements for the filing of claims as set forth in Document 00 7200 (General Conditions), paragraph 12 or elsewhere in the Contract Documents.
 - b. For Claims of fifty thousand dollars (\$50,000) or less, Owner shall respond in writing within forty-five (45) days of receipt of the Claim, or Owner may request in writing within thirty (30) days of receipt of the Claim, any additional documentation supporting the Claim or relating to any defenses or claims Owner may have against Claimant. If additional information is thereafter required, it shall be requested and provided in accordance with this section upon mutual agreement of Owner and Claimant. Owner's written response to the Claim, as further documented, shall be submitted to Claimant within fifteen (15) days after receipt of further documentation or within a period of time no greater than taken by Claimant in producing the additional information, whichever is greater.
 - c. For Claims over Fifty Thousand Dollars (\$50,000) and less than or equal to \$375,000: Owner shall respond in writing within sixty (60) days of receipt of the Claim, or Owner may request in writing within thirty (30) days of receipt of the Claim, any additional documentation supporting the Claim or relating to any defenses or claims Owner may have against Claimant. If additional information is thereafter required, it shall be requested and provided in accordance with this section, upon mutual agreement of Owner and Claimant; Owner's written response to the Claim, as further documented, shall be submitted to Claimant within thirty (30) days after receipt of further documentation or within a period of time no greater than taken by Claimant in producing the additional information, whichever is greater.
 - d. Meet and Confer: If Claimant disputes Owner's written response, or Owner fails to respond within the time prescribed above, Claimant shall notify Owner, in writing, either within fifteen (15) days of receipt of Owner's response or within fifteen (15) days of Owner's failure to timely respond, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon demand Owner will schedule a meet and confer conference within thirty (30) days for settlement of the dispute.

- e. Following the meet and confer conference, if the Claim or any portion remains in dispute, Claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the California Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time Claimant submits its written claim as set forth herein, until the time that Claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

E. Compliance With Americans With Disabilities Act

1. Contractor acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a Contractor, must be accessible to the disabled public. Contractor shall provide the services specified in the Contract Documents in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. Contractor agrees not to discriminate against disabled persons in the provision of services, benefits or activities provided under the Contract Documents and further agrees that any violation of this prohibition on the part of Contractor, its employees, agents or assigns shall constitute a material breach of the Contract Documents.

F. Compliance With IRCA

1. Contractor acknowledges that Contractor, and all subcontractors hired by Contractor to perform services under this Agreement, are aware of and understand the immigration Reform and Control Act ("IRCA"). Contractor is and shall remain in compliance with the IRCA and shall ensure that any subcontractors hired by Contractor to perform services under this Agreement are in compliance with the IRCA. In addition, Contractor agrees to indemnify, defend and hold harmless Owner, its agents, officers and employees, from any liability, damages or causes of action arising out of or relating to any claims that Contractor's employees, or employees of any subcontractor hired by Contractor, are not authorized to work in the United States for Contractor or its subcontractor and/or any other claims based upon alleged IRCA violations committed by Contractor or Contractor's subcontractors.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 4200

REFERENCES AND DEFINITIONS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Reference standards, abbreviations, symbols, and definitions used in Contract Documents.
2. Full titles are given in this Section for standards cited in other Sections of Specifications.

1.02 REFERENCE TO STANDARDS AND SPECIFICATIONS OF TECHNICAL SOCIETIES; REPORTING AND RESOLVING DISCREPANCIES

A. References

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code, or laws or regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated in the Contract Documents.
2. If during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such law or regulation applicable to the performance of the Work or of any such standard, specification, manual, or code or of any instruction of any supplier, Contractor shall report it in writing at once to Owner's Representative and Architect/Engineer, and Contractor shall not proceed with the Work affected thereby until consent to do so is given by Owner.

B. Precedence

1. Except as otherwise specifically stated in the Contract Documents or as may be provided by Change Order, CCD, or Supplemental Instruction, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. The provisions of any such standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. The provisions of any such laws or regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such law or regulation).
2. No provision of any such standard, specification, manual, code, or instruction shall be effective to change the duties and responsibilities of Owner, Owner's Representative, Architect/Engineer or Contractor, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents, nor shall it be effective to assign to Owner, Architect/Engineer, or any of their consultants, agents, representatives or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

C. Referenced Grades, Classes, and Types:

1. Where an alternative or optional grade, class, or type of product or execution is included in a reference but is not identified in Drawings or in Specifications, provide the highest, best, and greatest of the alternatives or options for the intended use and prevailing conditions.

D. Edition Date of References:

1. When an edition or effective date of a reference is not given, it shall be understood to be the current edition or latest revision published as of the date of opening Bids.
2. All amendments, changes, errata and supplements as of the effective date shall be included.

E. ASTM and ANSI References: Specifications and Standards of the American Society for Testing and Materials (ASTM) and the American National Standards Institute (ANSI) are identified in the Drawings and Specifications by abbreviation and number only and may not be further identified by title, date, revision, or amendment. It is presumed that Contractor is familiar with and has access to these nationally- and industry-recognized specifications and standards.**1.03 DEFINITIONS****A. Meaning of Words and Phrases**

Wherever any of the words or phrases defined below, or a pronoun used in place thereof, is used in any part of the Contract Documents, it shall have the meaning here set forth. Where abbreviations and symbols are used, such abbreviations and symbols shall be given their common meaning in the construction industry. In the Contract Documents, the neuter gender includes the feminine and masculine, and the singular number includes the plural.

While Owner has made an effort to identify all defined terms with initial caps, the following definitions shall apply regardless of case unless the context otherwise requires:

1. Addenda: Written or graphic instruments issued prior to the opening of Bids, which clarify, correct, or change the bidding requirements or the Contract Documents. Addenda shall not include the minutes of the Pre-Bid Conference and/or Site Visit.
2. Agreement (Document 00 5200): Agreement is the basic Contract Document that binds the parties to construction Work. Agreement defines relationships and obligations between Owner and Contractor and by reference incorporates Conditions of Contract, Drawings, and Specifications and contains Addenda and all Modifications subsequent to execution of Contract Documents.
3. Alternate: Work added to or deducted from the base Bid, if accepted by Owner.
4. Application for Payment: Written application for monthly or periodic progress or final payment made by Contractor complying with the Contract Documents.
5. Approved Equal: Approved in writing by Owner as being of equivalent quality, utility and appearance.
6. Architect/Engineer: If used elsewhere in the Contract Documents, "Architect/Engineer" shall mean a person (or that person's firm) holding a valid California State Architect's or Engineer's license representing the Owner in the administration of the Contract Documents. Architect/Engineer may be an employee of or an independent consultant to Owner. When Architect/Engineer is referred to within the Contract Documents and not an employee of Owner, Architect/Engineer shall be construed to include employees of Architect/Engineer and/or employees that Architect/Engineer supervises. When the designated Architect/Engineer is an employee of Owner, his or her authorized representatives on the Project will be included under the term Architect/Engineer. If Architect/Engineer is an employee of Owner, Architect/Engineer is the beneficiary of all Contractor obligations to Owner, including without limitation, all releases and indemnities. Architect/Engineer may also be referred to as Architect or Engineer.

7. Asbestos: Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by OSHA or Cal/OSHA.
8. Bid: The offer or proposal of the Bidder submitted on the prescribed form(s) setting forth the prices for the Work to be performed.
9. Bidder: One who submits a Bid.
10. Bidding Documents: All documents comprising the Project Manual (including all documents and Specification Sections listed in Document 00 0110 [Table of Contents]), including documents supplied for bidding purposes only and Contract Documents.
11. Board: The governing body of the Owner.
12. Business Day: Any Day other than Saturday, Sunday, and the following days that have been designated as holidays by Owner. If a holiday falls on a Saturday, the preceding Friday will be the holiday. If a holiday falls on a Sunday, the following Monday will be the holiday.
 - a. New Year's Day, January 1;
 - b. Martin Luther King Jr.'s Birthday, third Monday in January;
 - c. Presidents' Day, third Monday in February;
 - d. Cesar Chavez Birthday, March 31;
 - e. Memorial Day, last Monday in May;
 - f. Juneteenth, June 19;
 - g. Independence Day, July 4;
 - h. Labor Day, first Monday in September;
 - i. City Event Days, September 21 through September 24;
 - j. Veterans' Day, November 11;
 - k. Thanksgiving Day, as designated by the President;
 - l. The Day following Thanksgiving Day;
 - m. The Day preceding Christmas Day, December 24;
 - n. Christmas Day, December 25; and
 - o. Each day appointed by the Governor of California and formally recognized by the Governing Board as a day of mourning, thanksgiving, or special observance.
13. By Owner: Work that will be performed by Owner or its agents at the Owner's expense.
14. By Others: Work that is outside scope of Work to be performed by Contractor under this Contract, which will be performed by Owner, other contractors, or other means.
15. Change Order: A written instrument prepared by Owner and signed by Owner and Contractor, stating their agreement upon all of the following:
 - a. a change in the Work;
 - b. the amount of the adjustment in the Contract Sum, if any; and
 - c. the amount of the adjustment in the Contract Time, if any.
16. Code Inspector: A local or state agency responsible for the enforcement of applicable codes and regulations.
17. Concealed: Work not exposed to view in the finished Work, including within or behind various construction elements.
18. Construction Change Directive ("CCD"): A written order prepared and signed by Owner, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both.
19. Contract Amount: a change order price, line item price, Contract Sum, or other price assigned to a scope of work.
20. Contract Conditions or Conditions of the Contract: Consists of two parts: General Conditions and Supplementary Conditions.
 - a. General Conditions are general clauses that are common to the Owner Contracts, including Document 00 7200 (General Conditions).

- b. Supplementary Conditions modify or supplement General Conditions to meet specific requirements for Contract Documents, including Document 00 7201 (Supplementary Conditions).
- 21. Contract Documents and Contract: Contract Documents and Contract shall consist of the documents identified as the Contract Documents in Document 00 5200 (Agreement), plus all changes, Addenda, and modifications thereto.
- 22. Contract Modification: Either:
 - a. a written amendment to Contract signed by Contractor and Owner; or
 - b. a Change Order; or
 - c. a Construction Change Directive; or
 - d. a written directive for a minor change in the Work issued by Owner.
- 23. Contract Sum: The sum stated in the Agreement and, including authorized adjustments, the total amount payable by Owner to Contractor for performance of the Work and the Contract Documents. The Contract Sum is also sometimes referred to as the Contract Price or the Contract Amount.
- 24. Contract Time: The number or numbers of Days or the dates stated in the Agreement to achieve Substantial Completion of the Work or designated Milestones; and/or to achieve Final Completion of the Work so that it is ready for final payment and is accepted.
- 25. Contractor: The person or entity identified as such in the Agreement and referred to throughout the Contract Documents as if singular in number and neutral in gender. The term "Contractor" means the Contractor or its authorized representative.
- 26. Contractor's Employees: Persons engaged in execution of Work under Contract as direct employees of Contractor, as Subcontractors, or as employees of Subcontractors.
- 27. Day: One calendar day of 24 hours measured from midnight to the next midnight, unless the word "day" is specifically modified to the contrary.
- 28. Defective: An adjective which, when modifying the word "Work," refers to Work that is unsatisfactory or unsuited for the use intended, faulty, or deficient, that does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents (including but not limited to approval of Samples and "or equal" items), or has been damaged prior to final payment (unless responsibility for the protection thereof has been assumed by Owner). Unapproved substitutions are defective. Owner is the judge of whether Work is Defective.
- 29. Division of State Architect: A division of the State of California providing, design and construction oversight for K-12 schools and community colleges, and developing and maintaining accessibility standards and codes utilized in public and private buildings throughout the State of California.
- 30. Drawings: The graphic and pictorial portions of Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.
- 31. Equal: Equal in opinion of Owner. Burden of proof of equality is responsibility of Contractor.
- 32. Final Acceptance or Final Completion: Owner's acceptance of the Work as satisfactorily completed in accordance with Contract Documents. Requirements for Final Acceptance/Final Completion include, but are not limited to:
 - a. Final cleaning is completed.
 - b. All systems having been tested and accepted as having met requirements of Contract Documents.
 - c. All required instructions and training sessions having been given by Contractor.
 - d. All Project Record Documents having been submitted by Contractor, reviewed by Owner, and accepted by Owner.
 - e. All punch list Work, as directed by Owner, having been completed by Contractor.

- f. Generally all Work, except Contractor maintenance after Final Acceptance/Final Completion, having been completed to satisfaction of Owner.
33. Force Account: Work directed to be performed without prior agreement as to lump sum or unit price cost thereof, and which is to be billed at cost for labor, materials, equipment, taxes, and other costs, plus a specified percentage for overhead and profit.
34. Exposed: Work exposed to view in the finished Work, including behind louvers, grilles, registers and various other construction elements.
35. Furnish: Supply only, do not install.
36. Indicated: Shown or noted on the Drawings.
37. Install: Install or apply only, do not furnish.
38. Latent: Not apparent by reasonable inspection, including but not limited to, the inspections and research required as a condition to bidding under Document 00 7200 (General Conditions).
39. Law: Unless otherwise limited, all applicable laws including without limitation all federal, state, and local laws, statutes, standards, rules, regulations, ordinances, and judicial and administrative decisions.
40. Material: This word shall be construed to embrace machinery, manufactured articles, materials of construction (fabricated or otherwise), and any other classes of material to be furnished in connection with Contract, except where a more limited meaning is indicated by context.
41. Milestone: A principal event specified in Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all Work.
42. Modification: Same as Contract Modification.
43. Not in Contract or "NIC": Work that is outside the scope of Work to be performed by Contractor under Contract Documents.
44. Notice of Completion: Shall have the meaning provided in California Civil Code §3093, and any successor statute.
45. Off Site: Outside geographical location of the Project.
46. Owner: Owner is defined in Document 00 5200 (Agreement).
47. Owner-Furnished, Contractor Installed: Items furnished by Owner at its cost for installation by Contractor at its cost under Contract Documents.
48. Owner's Representative(s): See Document 00 5200 (Agreement).
49. Partial Utilization: Use by Owner of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all of the Work.
50. PCBs: Polychlorinated byphenyls.
51. Phase: A specified portion of the Work (if any) specifically identified as a Phase in Document 00 5200 (Agreement) or Document 01 1100 (Summary).
52. Product Data: That information (brochures, catalog sheets, manufacturer's cut sheets, etc.) supplied by vendors having technical and commercial characteristics of the supplied equipment or materials and accompanying commercial terms such as warranties, instructions, and manuals.
53. Progress Report: A periodic report submitted by Contractor to Owner with progress payment invoices accompanying progress schedule. See Document 00 7200 (General Conditions).
54. Project: Total construction of which Work performed under Contract Documents may be whole or part.
55. Project Manager: If used elsewhere in the Contract Documents, "Project Manager" shall mean a person representing the Owner in the administration of the Contract Documents. Project Manager may be an employee of or an independent consultant to Owner. When Project Manager is referred to within the Contract Documents and no Project Manager has

in fact been designated, then the matter shall be referred to Owner. The term Project Manager shall be construed to include employees of Project Manager and/or employees that Project Manager supervises. When the designated Project Manager is an employee of Owner, his or her authorized representatives on the Project will be included under the term Project Manager. If Project Manager is an employee of Owner Project Manager is the beneficiary of all Contractor obligations to Owner, including without limitation, all releases and indemnities.

56. Project Manual: Project Manual consists of Bidding Requirements, Agreement, Bonds, Certificates, Contract Conditions, Drawings, and Specifications.
57. Project Record Documents: All Project deliverables required under the Contract Documents, including without limitation, as built drawings; Installation, Operation, and Maintenance Manuals; and Machine Inventory Sheets.
58. Provide: Furnish and install.
59. Request for Information ("RFI"): A document prepared by Contractor requesting information regarding the Project or Contract Documents. The RFI system is also a means for Owner to submit Contract Document clarifications or supplements to Contractor.
60. Request for Proposals ("RFP"): A document issued by Owner to Contractor whereby Owner may initiate changes in the Work or Contract Time as provided in Contract Documents.
61. Request for Substitution ("RFS"): A document prepared by Contractor requesting substitution of materials as permitted and to the extent permitted in Contract Documents.
62. RFI-Reply: A document consisting of supplementary details, instructions, or information issued by Owner that clarifies or supplements Contract Documents, and with which Contractor shall comply. RFI-Replies do not constitute changes in Contract Sum or Contract Time except as otherwise agreed in writing by Owner. RFI-Replies will be issued through the RFI administrative system.
63. Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
64. Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
65. Shown: As indicated on Drawings.
66. Site: The particular geographical location of Work performed pursuant to the Contract Documents.
67. Specifications: The written portion of the Contract Documents consisting of requirements for materials, equipment, construction systems, standards, and workmanship for the Work; performance of related services.
68. Specified: As written in Specifications.
69. Subcontractor: A person or entity that has a direct contract with Contractor to perform a portion of the Work at the Site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and neutral in gender and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.
70. Substantial Completion: The Work (or a specified part thereof) has progressed to the point where, in the opinion of Owner as evidenced by a notice or certificate of Substantial Completion, the Work is sufficiently complete, in accordance with Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended, and unperformed or incomplete work elements are minor in nature; or if no such certificate is issued, when the Work (or specified part) is complete and ready for final payment as evidenced by written recommendation of Owner for final payment. The terms "Substantially

Complete” and “Substantially Completed” as applied to all or part of the Work refer to Substantial Completion thereof.

71. Supplemental Instruction: A written directive from Owner to Contractor ordering alterations or Modifications that do not result in change in Contract Sum or Contract Time, and do not substantially change Drawings or Specifications.
72. Testing and Special Inspection Agency: An independent entity engaged to inspect and/or test the workmanship, materials, or manner of construction of buildings or portions of buildings, to determine if such construction complies with the Contract Documents and applicable codes.
73. Underground Facilities: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities that have been installed underground to furnish any of the following services or materials: Electricity, gases, chemicals, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems, or water.
74. Unit Price Work: Shall be the portions of the Work for which a unit price is provided in Document 00 5200 (Agreement) or Section 01 1100 (Summary).
75. Work: The entire completed construction, or the various separately identifiable parts thereof, required to be furnished under the Contract Documents within the Contract Time. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents including everything shown in the Drawings and set forth in the Specifications. Wherever the word “work” is used, rather than the word “Work,” it shall be understood to have its ordinary and customary meaning.

B. Other Defined Terms

The following terms are not necessarily identified with initial caps; however they shall have the meaning set forth below:

1. Wherever words “as directed,” “as required,” “as permitted,” or words of like effect are used, it shall be understood that direction, requirements, or permission of Owner is intended. Words “sufficient,” “necessary,” “proper,” and the like shall mean sufficient, necessary, or proper in judgment of Owner. Words “approved,” “acceptable,” “satisfactory,” “favorably reviewed,” or words of like import, shall mean approved by, or acceptable to, or satisfactory to, or favorably reviewed by Owner.
2. Wherever the word “may” or “ought” is used, the action to which it refers is discretionary. Wherever the word “shall” or “will” is used, the action to which it refers is mandatory.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 7700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SUMMARY

A. Section describes requirements and procedures for:

1. Project cleaning
2. Testing of equipment and systems
3. Substantial Completion
4. Final Completion
5. Close Out
6. Warranties

1.02 SUBSTANTIAL COMPLETION

A. Removal of Temporary Construction Facilities and Project Cleaning.

1. Prior to Substantial Completion inspection: remove temporary materials, equipment, services, and construction; clean all areas affected by the Work; clean and repair damage caused by installation or use of temporary facilities; restore permanent facilities used during construction to specified condition.

B. Equipment and Systems.

1. Prior to Substantial Completion, Contractor shall start up, run for periods prescribed by Owner, operate, adjust and balance all manufactured equipment and Project systems, including but not limited to, mechanical, electrical, safety, fire, and controls.
2. Demonstrate that such equipment and systems conform to contract standards and manufacturer's guarantees. Where applicable, use testing protocols specified, and if the contract is silent, then consistent with manufacturer's recommendations and industry standards.

C. Procedure for Substantial Completion

1. When Contractor considers Work or designated portion of the Work as Substantially Complete, submit written notice to Owner, with list of items remaining to be completed or corrected and explanation of why such items do not prevent Owner's beneficial use and occupancy of the Work for its intended purposes. Within reasonable time, Owner will inspect to determine status of completion.
2. Should Owner determine that Work is not Substantially Complete, Owner will promptly notify Contractor in writing, listing all defects and omissions. Contractor shall remedy deficiencies and send a second written notice of Substantial Completion. Owner will reinspect the Work. If deficiencies previously noted are not corrected on reinspection, then pay the cost of the reinspection.
3. When Owner concurs that Work is Substantially Complete, Owner will issue a written notice or certificate of Substantial Completion, accompanied by Contractor's list of items to be completed or corrected as verified by Owner.
4. Manufactured units, equipment and systems that require startup must have been started up and before a notice or certificate of Substantial Completion will be issued.
5. A punch list examination will be performed upon Substantial Completion. One follow-up review of punch list items for each discipline will be provided. If further Site visits are required to review punch list items due to incompleteness of the Work by Contractor, Contractor will reimburse Owner for costs associated with these visits.

1.03 FINAL COMPLETION

A. Requirements

1. Final Completion occurs when Work meets requirements for Owner's Final Acceptance.

B. Procedure

1. When Contractor considers Work is Finally Complete, submit written certification that:
 - a. Contractor has inspected Work for compliance with Contract Documents, and all requirements for Final Acceptance have been met.
 - b. Except for Contractor maintenance after Final Acceptance, Work has been completed in accordance with Contract Documents and deficiencies listed with Certificate of Substantial Completion have been corrected. Equipment and systems have been tested in the presence of Owner, and are operative.
 - c. Project Record Documents are completed and turned over to Owner, and Work is complete and ready for final inspection.
2. In addition to submittals required by Contract Documents, provide submittals required by governing authorities and submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
3. Should Owner determine that Work is incomplete or Defective, Owner promptly will so notify Contractor, in writing, listing the incomplete or Defective items. Contractor shall promptly remedy the deficiencies and notify the Owner when it is ready for reinspection.

C. Final Adjustments of Accounts:

1. Submit a final statement of accounting to Owner, showing all adjustments to the Contract Sum and complete and execute Document 00 6530 (Agreement and Release of Claims).
2. If so required, Owner shall prepare a final Change Order for submittal to Contractor, showing adjustments to the Contract Sum that were not previously made into a Contract Modification.

D. Warranties

1. Execute Contractor's Submittals and assemble warranty documents, and Installation, Operation, and Maintenance Manuals, executed or supplied by Subcontractors, suppliers, and manufacturers. Provide table of contents and assemble in 8½ inches by 11 inches three-ring binder with durable plastic cover, appropriately separated and organized. Assemble in Specification Section order.
2. Submit material prior to final Application for Payment. For equipment put into use with Owner's permission during construction, submit within 14 Days after first operation. For items of Work delayed materially beyond Date of Substantial Completion, provide updated Submittal within 14 Days after acceptance, listing date of acceptance as start of warranty period.
3. Warranty Forms: Submit drafts to Owner for approval prior to execution. Forms shall not detract from or confuse requirements or interpretations of Contract Documents. Warranty shall be countersigned by manufacturers. Where specified, warranty shall be countersigned by Subcontractors and installers.
4. Rejection of Warranties: Owner reserves right to reject unsolicited and coincidental product warranties that detract from or confuse requirements or interpretations of Contract Documents.
5. Term of Warranties: For materials, equipment, systems, and workmanship, warranty period shall be two years minimum from date of Final Completion of entire Work except where:
 - a. Detailed Specifications for certain materials, equipment or systems require longer warranty periods.
 - b. Materials, equipment or systems are put into beneficial use of Owner prior to Final Completion as agreed to in writing by Owner.

E. Warranty of Title:

1. No material, supplies, or equipment for Work under Contract shall be purchased subject to any chattel mortgage, security agreement, or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver premises, together with improvements and appurtenances constructed or placed thereon by Contractor, to Owner free from any claim, liens, security interest, or charges, and further agrees that neither Contractor nor any person, firm, or corporation furnishing any materials or labor for any Work covered by Contract shall have right to lien upon premises or improvement or appurtenances thereon. Nothing contained in this paragraph, however, shall defeat or impair right of persons furnishing materials or labor under bond given by Contractor for their protection or any rights under law permitting persons to look to funds due Contractor in hands of Owner.
- F. **Turn-In.** Contract Documents will not be closed out and final payment will not be made until all keys issued to Contractor during prosecution of Work and letters from property owners, pursuant to Contract Documents, are turned in to Owner.
- G. **Release of Claims.** Contract Documents will not be closed out and final payment will not be due or made until Document 00 6530 (Agreement and Release of Claims) is completed and executed by Contractor and Owner.
- H. **Fire Inspection Coordination.** Coordinate fire inspection and secure sufficient notice to Owner to permit convenient scheduling (if applicable).
- I. **Building Inspection Coordination.** Coordinate with Owner a final inspection for the purpose of obtaining an occupancy certificate (if applicable).

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS**SECTION 01 57 23****TEMPORARY WATER POLLUTION CONTROL****PART 1 – GENERAL****1.1 SUMMARY**

- A. Work in this section includes furnishing all labor, equipment and materials necessary for the implementation of temporary Water Pollution Controls, including implementation, monitoring, and maintenance of Best Management Practices (BMPs).
- B. The anticipated area of disturbance for this project is less than one acre. If the area of disturbance will exceed one acre, the OWNER must obtain coverage under the State's Construction General Permit. The CONTRACTOR shall notify the ENGINEER in the event he anticipates the area of disturbance will exceed one acre. The CONTRACTOR shall not disturb more than one acre on the site, including staging, material lay-down, and equipment storage areas, if the OWNER has not gained coverage under the Permit
- C. Principal items of work include:
 - 1. Training employees and subcontractors in stormwater Best Management Practices (BMPs)
 - 2. Stormwater site inspections
 - 3. Reporting and recordkeeping
 - 4. Implementing and maintaining BMPs, and removing BMPs when no longer needed.
 - 5. Non-stormwater management and good housekeeping practices
 - 6. Final site cleanup

1.2 REFERENCES

- A. Standard Specifications, State of California, Department of Transportation (Caltrans), 2022 edition
- B. Standard Plans, State of California, Department of Transportation (Caltrans), 2022 edition
- C. Construction Site Best Management Practices Manual (BMP Manual), State of California, Department of Transportation (Caltrans)

1.3 QUALITY ASSURANCE

- A. CONTRACTOR's Water Pollution Control Manager (WPCM) is responsible for overseeing the implementation of Temporary Water Pollution Control (WPC) work on a day-to-day basis. The WPCM shall be an employee of the Contractor and shall be on site regularly.
- B. The WPCM shall educate, direct and enforce compliance with WPC requirements by all employees and subcontractors.
- C. All contractor employees, subcontractors, and heavy equipment operators shall attend a pre-construction WPC training session conducted by the Contractor's WPCM.

1.4 GENERAL PERFORMANCE REQUIREMENTS

- A. All storm water and non-storm water discharges shall be in compliance with all applicable federal, state, and local requirements.
- B. This Section outlines the contract minimum requirements, and does not relieve the Contractor of his responsibilities for protection of water quality in accordance with all federal, state, and local requirements.
- C. Additional BMPs shall be required if the BMPs which are utilized are not adequately protecting water quality.
- D. The Contractor shall update the Water Pollution Control Drawings to indicate current operations, equipment used, sequence of work, and other aspects of the project.
- E. Contractor is responsible for the performance of subcontractors. Contractor's WPCM shall inspect and monitor all subcontractors' work and storage areas for compliance with this Section.

1.5 FINES AND PENALTIES

- A. Contractor shall pay any fines and be liable for any other penalties that may be imposed by any federal, state, or local regulatory agency for non-compliance with any water quality requirement during the course of work.
- B. Contractor is responsible for implementing any and all BMP corrective measures, at his own expense, as may be directed by the regulatory agencies.

PART 2 – PRODUCTS**2.1 MATERIALS**

- A. Provide all temporary and permanent water pollution control measures, equipment and materials as required by this Section and the Construction Drawings.
- B. Materials shall conform to the Caltrans Standard Specifications and Caltrans Standard Plans including Standard Specifications sections:
 - 1. 13-4 Job Site Management
 - 2. 13-5 Temporary Soil Stabilization
 - 3. 13-6 Temporary Sediment Control
 - 4. 13-7 Temporary Tracking Control
 - 5. 13-8 Temporary Active Treatment System
 - 6. 13-9 Temporary Concrete Washouts
 - 7. 13-10 Temporary Linear Sediment Barriers
 - 8. 14-9 Air Quality
 - 9. 14-10 Solid Waste Disposal and Recycling
 - 10. 14-11 Hazardous Waste and Contamination

2.2 SUBMITTALS

- A. Provide documentation for WPCM, employee and subcontractor training, including pre-construction WPC training.

PART 3 – EXECUTION**3.1 MONITORING, INSPECTIONS AND REPORTING**

- A. Monitor the National Weather Service (NWS) forecast on a daily basis during the rainy season.

- B. Conduct inspections:
 - 1. Within 72 hours prior to predicted rain events to ensure that the site is prepared for the rain event
 - 2. Within 48 hours after a rain event to evaluate BMP performance and identify corrective actions
 - 3. Conduct daily inspections of adjoining public roadways, material storage areas, and vehicle and equipment areas.
- C. Implement identified corrective actions within 72 hours, unless a later date is authorized.
- D. Notify the OWNER of any site visits by or correspondence received from any federal, state, or local agency, which are related to activities under this Section.

3.2 BEST MANAGEMENT PRACTICES

- A. Implement Best Management Practices as required by Sections 13 and 14 of the Caltrans Standard Specifications.
- B. Work shall comply with the following Caltrans Standard Specifications Sections, as applicable:
 - 1. 13-4 Job Site Management
 - 2. 13-5 Temporary Soil Stabilization
 - 3. 13-6 Temporary Sediment Control
 - 4. 13-7 Temporary Tracking Control
 - 5. 13-8 Temporary Active Treatment System
 - 6. 13-9 Temporary Concrete Washouts
 - 7. 13-10 Temporary Linear Sediment Barriers
 - 8. 14-9 Air Quality
 - 9. 14-10 Solid Waste Disposal and Recycling
 - 10. 14-11 Hazardous Waste and Contamination
- C. Best Management Practices shall be implemented concurrent with the commencement of construction, shall be maintained throughout construction, and shall be removed when no longer required, when approved by the ENGINEER.

3.3 COMPLETION OF WORK

- A. Final site cleanup and stabilization shall be considered complete when all of the following have been achieved:
 - 1. The site will not pose any additional sediment discharge risk than it did prior to the commencement of construction activity;
 - 2. There is no potential for construction-related storm water pollutants to be discharged into site runoff;
 - 3. Final stabilization has been reached;
 - 4. Construction materials and wastes have been disposed of properly;
 - 5. Post-construction storm water management measures have been installed;
 - 6. All construction-related equipment, materials and any temporary BMPs no longer needed are removed from the site.

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 71 23

FIELD ENGINEERING

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Work in this section includes surveying and engineering services required for the execution of work.
- B. CONTRACTOR must:
 - 1. Provide SURVEYOR to perform construction staking as outlined herein
 - 2. Locate utilities by an appropriate combination of potholing and electronic detection
 - 3. Verify horizontal and vertical locations of all utility crossings and points of connection
 - 4. Verify horizontal and vertical elevations of existing improvements at match points
 - 5. Provide any engineering calculations and/or plans required for execution of CONTRACTOR'S construction methods
- C. Principal items of work include:
 - 1. Field location of existing on-site utility lines and improvements required for the execution of the work under this contract.
 - 2. Surveying and construction staking work required for the execution of the work under this contract.
 - 3. Civil, structural, or other professional engineering services required to execute Contractor's construction methods.

1.2 EXISTING DATA

- A. Review and verify the existing horizontal and vertical controls within two (2) weeks of Notice to Proceed, and prior to the start of work.
- B. Review all record documents provided by the OWNER within two (2) weeks of Notice to Proceed, and prior to the start of work,
- C. Site data given herein and on the Drawings are as exact as could be secured, but their absolute accuracy cannot be guaranteed. Exact locations, distances, elevations, etc., shall finally be governed by field conditions and the ENGINEER'S instructions.
- D. In the event there is any conflict between actual conditions and the Drawings, notify the ENGINEER immediately and do not proceed with the work until directed by the ENGINEER.

1.3 QUALIFICATIONS OF SURVEYOR

- A. California registered civil engineer or California licensed land surveyor, acceptable to OWNER

1.4 QUALIFICATIONS OF ENGINEER

- A. California registered engineer of the appropriate discipline, acceptable to OWNER.

1.5 SUBMITTALS

- A. Submit the name, address, and license number of the ENGINEER to the OWNER, if CONTRACTOR-provided.

PART 2 – PRODUCTS

2.1 NOT USED.

PART 3 – EXECUTION

3.1 PROTECTION OF SURVEY REFERENCE POINTS

- A. Locate and protect existing survey reference points prior to starting site work, and preserve all permanent reference points during construction.
- B. All stakes, boundary lines, corner markers, benchmarks survey markers, etc., which have been or may be established in any part of the site, must be carefully preserved and respected by the CONTRACTOR and must be restored at the CONTRACTOR's expense if lost or destroyed as a result of the CONTRACTOR's operations.

3.2 CONSTRUCTION STAKING

- A. Prior to the start of work, SURVEYOR shall review and verify the existing horizontal and vertical controls. Report any discrepancies to the ENGINEER.
- B. Establish and safeguard a minimum of two permanent benchmarks on the project site.
- C. SURVEYOR shall establish all necessary horizontal and vertical survey control lines and points on site prior to commencement of CONTRACTOR's work, as outlined below. These controls shall be maintained by the CONTRACTOR throughout the course of construction.
- D. The following survey stakes shall be provided by the CONTRACTOR-PROVIDED SURVEYOR for use in constructing the improvements as shown on the contract documents.
 - 1. Rough Grade Stakes for areas to be paved and play area to be excavated.
 - 2. Finish Grade Stakes for curbs, gutters, slabs, and sidewalk areas – Provided stakes at grade breaks and angle points, at beginning and end of horizontal and vertical curves, at maximum 25' spacing on curved alignments, at 50' spacing on tangent alignments, and as generally necessary for construction of the work.

3.3 RECORDS

- A. Maintain a complete, accurate log of all control and survey work as it progresses.
- B. Upon completion of final site improvements, prepare record (as-built) drawings including locations and elevations of all underground utilities, site drainage piping and structures, points of connection, manholes and drain inlets, and locations of utility stub outs.

END OF SECTION

DIVISION 31 EARTHWORK

SECTION 31 00 01

EARTHWORK

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes:
 - 1. Clearing
 - 2. Stripping
 - 3. Excavation
 - 4. Moisture conditioning and compaction
 - 5. Embankment

1.3 REFERENCES

- A. California Building Standards Code (CBSC), 2022 Edition
- B. California Code 4216 – Protection of Underground Infrastructure
- C. California Occupational Safety and Health Administrative Code
- D. Standard Specifications, State of California, Department of Transportation (Caltrans), 2018 Edition
- E. ASTM C136 – Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
- F. ASTM D1556 – Standard Test Method for Density of Soil in Place by the Sand - Cone Method.
- G. ASTM D1557 - Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
- H. ASTM D2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
- I. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- J. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
- K. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)

1.4 SUBMITTALS

- A. Submit samples of proposed imported engineered fill materials to the GEOTECHNICAL ENGINEER. Number and size of samples shall be as directed by the GEOTECHNICAL ENGINEER.
- B. Submit gradation and quality testing results for proposed imported engineered fill materials to the GEOTECHNICAL ENGINEER.
- C. Submit samples and test results at least two weeks prior to planned purchase/delivery.

- D. Existing on-site soils will be sampled and tested by the GEOTECHNICAL ENGINEER during construction.

1.5 DEFINITIONS

- A. Relative Compaction, or Percent Relative Compaction: Dry density expressed as a percentage of the maximum dry density at optimum moisture content obtained in accordance with ASTM D1557.
- B. Remove: Remove and dispose of off-site, in a legal manner.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. General Engineered Fill – Proposed fill material shall be of approved on-site soil supplemented by imported material, if necessary.
 - 1. On-site soil shall meet the following requirements:
 - a. Soil shall be free of organics, debris, and other deleterious materials, and recycled materials such as asphaltic concrete, concrete, brick, etc.
 - b. Soil shall not contain any rocks and clods over 2 inches in maximum dimension
 - 2. Imported soil shall meet the following requirements:
 - a. Soil shall be free of organic and deleterious materials, and recycled materials such as asphaltic concrete, concrete, brick, etc.
 - a. Soil shall not contain any rocks or clods over 2 inches in maximum dimension.
 - b. Soil shall be granular, having a plasticity index of less than 15, and not more than 20 percent by weight passing the #200 sieve.
 - c. Soil shall have sufficient binder to allow excavations to stand without caving.
 - d. The portion finer than the no. 200 sieve shall not contain any expansive clays.
- B. Controlled Density Fill – Slurry cement backfill conforming to the Standard Specifications.

PART 3 – EXECUTION

3.1 GENERAL

- A. All improvements shall be constructed in accordance with the California Building Standards Code, the Drawings, and these Specifications.
- B. Onsite grading and earthwork, site preparation, excavation, trenching and compaction shall be observed and tested by the GEOTECHNICAL ENGINEER. All grading and earthwork shall be done to the satisfaction of the GEOTECHNICAL ENGINEER.
- C. In the event that any unusual conditions are encountered during grading operations which are not covered by these Specifications, the GEOTECHNICAL ENGINEER shall be immediately notified such that additional recommendations may be made
- D. Provide dust control in accordance with all federal, state, and local requirements

3.2 PREPARATION

- A. Layout all work, establish grades, locate existing underground utilities, set markers and stakes, set up and maintain barricades and protection for utilities, benchmarks, paving, site features, and the public.
- B. Excavation for any purpose shall not remove lateral support from any foundation without first underpinning or protecting the foundation against settlement or lateral translation. The excavation outside the foundation shall be backfilled with soil that is free of organic material, construction debris, cobbles, and boulders or with a controlled low-strength material (CLSM). The backfill shall be placed in lifts and compacted in a manner that does not damage the foundation or the waterproofing or dampproofing material.

3.3 CLEARING AND STRIPPING

- A. Remove structures, pavements, and utilities as shown on the Drawings.
- B. Areas to be graded shall be cleared of all grass, brush, trees, rubbish, and debris. The cleared materials shall be removed from areas to be graded and shall be disposed of in areas designated by the Owner.
- C. Completely remove tree stumps and root balls in areas to receive pavements, structures, or engineered fill.
- D. Upper natural soils containing roots, deleterious materials, and excessive organics shall be stripped from all areas to be graded. This material shall not be reused as compacted fill and shall either be removed from the site or stockpiled for later use in landscape areas.
- E. Unanticipated buried subsurface objects encountered, or voids created during site preparation, shall be called to the attention of the geotechnical engineer.

3.4 EXCAVATION, MOISTURE CONDITIONING, AND RECOMPACTION

- A. Following clearing and stripping, subgrade shall be cut and finished true to line and grade, to present a smooth surface free from ruts, hummocks or other uneven features which would tend to prevent uniform compaction.
- B. The exposed subgrade shall then be scarified to a depth of 8 inches, moisture conditioned, and recompacted to at least 90% relative compaction.
 - 1. In vehicular traffic areas, recompact to 95% relative compaction.
- C. When the moisture content of the subgrade is below the desired moisture, water shall be added until the proper moisture content is achieved.
- D. When the moisture content of the subgrade is too high to permit the specified compaction to be achieved, the subgrade shall be aerated by blading, ripping, diking or other methods until the moisture content is satisfactory for compaction.

3.5 PLACING, SPREADING, AND COMPACTING FILL MATERIAL

- A. The geotechnical engineer shall inspect all surfaces to receive fill prior to the placement of fill.
- B. Fill shall be placed in horizontal layers not exceeding eight inches (8") in loose thickness (before compaction). Each layer shall be spread evenly and shall be thoroughly mixed during the spreading to promote uniformity of material in each layer.
- C. All re-compacted and engineered fill soils shall be compacted within 3 percent of the laboratory optimum moisture content for the soil.

1. When the moisture content of the fill material is below the proper moisture, water shall be added until the proper moisture content is achieved.
 2. When the moisture content of the fill material is too high to permit the specified degree of compaction to be achieved, the fill material shall be aerated by blading, ripping, or disking or other methods until the moisture content is satisfactory.
- D. After each layer has been placed, mixed, and spread evenly, it shall be thoroughly compacted to at least 90% relative compaction.
1. Compact the upper 12 inches of finished subgrade in vehicular traffic areas to at least 95% relative compaction.
- E. Compaction shall be undertaken with equipment capable of achieving the specified density and shall be accomplished while the fill material is at the required moisture content. Each layer shall be compacted over its entire area until the required density has been obtained.
- F. Fill slopes shall be compacted by slope rolling and trimming or shall be overfilled and trimmed back to planned grade.
- G. The filling operations shall be continued until the fills have been brought to the finished slopes and grades as shown on the Drawings.
- H. Fill slopes shall be no steeper than 3:1 (horizontal to vertical), unless shown otherwise in the Construction Documents.
- I. The completed fill shall be finished true to line and grade. Any depressions shall be filled and compacted and all loose material shall be removed.
- 3.6 SUBGRADE PREPARATION IN PAVEMENT AREAS:
- A. Pavement Areas are exterior areas which are not in the building subgrade preparation area and which will receive asphalt, concrete, or DG pavement or other flatwork, including parking lots, driveways, access roads, patios, equipment slabs, curbs, gutters, or sidewalks.
 - B. Subgrade preparation in pavement areas shall be as directed by the GEOTECHNICAL ENGINEER.
 1. Over-excavate to at least 12 inches below pavement subgrade or existing grade, whichever is lower.
 - C. Subgrade preparation shall extend at least 2 feet horizontally beyond the edge of pavement areas.
- 3.7 SURPLUS MATERIAL
- A. Surplus material shall become the property of the CONTRACTOR and shall be disposed of off the site in a legal manner.
- 3.8 TESTING AND OBSERVATION
- A. The GEOTECHNICAL ENGINEER will inspect all surfaces to receive fill prior to the placement of any fill.
 - B. The GEOTECHNICAL ENGINEER will make field density tests after compaction of each layer of fill or as determined necessary. Additional layers of fill shall not be spread until the field density tests indicate that the minimum specified density has been obtained.
 - C. Should the result of any compaction test fail to meet the minimum required density as specified in these Specifications, the deficiency shall be corrected to the satisfaction of the GEOTECHNICAL ENGINEER, at the contractor's expense. The expense of retesting such areas shall also be borne by the contractor.

END OF SECTION

DIVISION 31 EARTHWORK

SECTION 31 1117

DEMOLITION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 DESCRIPTION OF WORK

- A. Extent: Furnish all labor, material, equipment, tools, and incidentals necessary for Demolition work as shown on the Drawings and as specified in this Section. The work includes:
 - 1. Demolition of concrete walks and asphalt paving, including associated curbs, gutters, and aggregate base.
 - 2. Saw-cutting of existing concrete and asphalt as required.
 - 3. Site clearing and grubbing
- B. Related work includes but is not limited to:
 - 1. Earthwork and Grading

1.03 DEFINITIONS

- A. Topsoil: See Specification Section Earthwork and Grading.

1.04 SUBMITTALS

- A. Indicate on the project schedule submittal, proposed time for demolition work in this Section, including shut-off time and capping of any utility service.

1.05 QUALITY ASSURANCE

- A. Reviews: Prior to any site clearing or demolition work, prepare protection measures for review by the Owners Representative.

1.06 SITE CONDITIONS

- A. Occupancy: Paving areas and structures to be removed or demolished will be vacated and discontinued in use prior to the start of work.
- B. Explosives: Use of explosives for demolition work is not permitted.

- C. Traffic: Conduct demolition operations and the removal of debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Do not close or obstruct streets, walks, or other occupied facilities without permission from Owner.
- D. Protection: Ensure the safe passage of persons around the area of demolition. Conduct operations to prevent damage to adjacent buildings, structures, other facilities, and injury to persons. See Special Provisions for additional information regarding building access.
- E. Construction Fence: Contractor is required to fence site and provide an adequate level of safety and protection at all times during construction
- F. Protection of existing trees and vegetation to remain: Protect all trees and shrubs to remain.
- G. Damage: Promptly repair damages caused to adjacent facilities by demolition operations at no cost to Owner.

PART 2 - PRODUCTS

Not applicable.

PART 3 - EXECUTION

3.01 GENERAL

- A. Protect all trees and items to remain in place.
- B. Clearing and grubbing:
 - 1. Protection measures for trees to be preserved are to be in place and reviewed by the Owner's Representative prior to any clearing and grubbing.
 - 2. Clear and grub only areas as necessary to construct improvements shown on the Drawings.
 - 3. Use only hand methods for grubbing inside the drip line of trees indicated to be preserved, unless otherwise approved by the Owners Representative.
 - 4. Remove vegetation, improvements, and obstructions protruding through the ground surface and/or interfering with installation of new construction. Removal includes stumps and roots
 - 5. Remove all organic matter in unpaved areas to be replanted, to a sufficient depth to remove such material. Replanting includes areas with mulch-only applications. The depth of removal will vary with the type and density of vegetation across the project site and with the time of year.
 - 6. Remove all vegetation and grass before stripping existing topsoil.
 - 7. Strip existing topsoil from all unpaved areas to be improved with paving, structures, to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
 - 8. Remove all vegetation matter from collected existing topsoil and stockpile for re-use in proposed planting areas unless otherwise instructed by the Owner's Representative. See Specification Section Soil Preparation. Do not use stockpiled existing topsoil as structural fill and/or under proposed paving.

3.02 DEMOLITION

- A. Pollution Controls:
 - 1. Use water sprinkling, temporary enclosures, and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level.
 - 2. Comply with governing regulations pertaining to environmental protection. Do not use water when it may create hazardous or objectionable conditions such as flooding.
 - 3. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition operations, as directed by the Owner or governing authorities.
- B. General: Remove above and below grade pavements, curbing and other conditions necessary to permit new construction and other work as indicated on the Drawings. Removal of underground pipe or conduit interfering with construction is included under this Section.
- C. Damage: Return adjacent areas to condition existing prior to the start of the work.
- D. Saw-cutting: Saw-cut all asphalt and concrete to interface with new planting or paving areas. Concrete interfaces are to be saw-cut with a diamond tipped blade. Use the correct blade for the application as determined by the Blade Application Code for Diamond Saw Blades, 2004 edition, developed by the Masonry and Concrete Saw Manufacturers Institute.
- E. Salvaged Items: Deliver all items noted for salvage and not to be re-used on site to the Owner, unless directed otherwise by the Owners Representative.

3.04 REMOVAL OF PAVEMENTS AND STRUCTURES

- A. All existing pavement, structures, footings and base material within the limits of work not shown to be retained shall be removed and resulting voids shall be backfilled with engineered filled or controlled density fill.

3.05 SAWCUTTING

- A. Sawcutting shall be done so as to provide a straight, neat edge. Where construction operations cause damage beyond the limits of the sawcut line, the damaged area shall also be removed and replaced to a sawcut edge.
- B. Sawcut slurry shall be vacuumed and not be allowed to run into catch basins.
- C. Asphalt concrete pavement shall be sawcut at the locations indicated by the engineer and as shown on the plans. Sawcut lines shall be parallel or perpendicular to the adjacent curb line where possible. Sawcut shall be to a minimum depth of 2 inches.
- D. Curb and gutter shall be sawcut at the locations indicated by the engineer and as shown on the plans. Sawcut shall be to a minimum depth of 6 inches.

- E. Sidewalk shall be sawcut at the locations indicated by the engineer and as shown on the plans. Sawcut lines shall coincide with existing score marks or joints. Sawcut shall be to a minimum depth of 6 inches, or to a full depth, whichever is less.

3.06 UTILITY REMOVAL AND ABANDONMENT

- A. Pipes 4" and larger, vaults, risers, boxes, inlets, etc. Which are not to be retained in service shall be completely removed from within the work area. Pipes smaller than 4" may be abandoned in place by capping both ends of the pipe, unless otherwise noted.

3.07 CLEAN-UP

- A. Disposal Waste materials are defined as all materials generated by demolition or excavation that are not identified for salvage or re-use by the Owner. Dispose of waste materials legally off-site.

END OF SECTION

DIVISION 31 EARTHWORK

SECTION 31 23 33

TRENCHING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes:
 - 1. Trench excavation, shoring, and dewatering
 - 2. Pipe bedding, installation, and alignment
 - 3. Concrete encasement
 - 4. Warning tape and tracer wire
 - 5. Trench backfilling and compaction
 - 6. Surface restoration
 - 7. Record drawing requirement

1.2 RELATED SECTIONS

- A. Section 31 00 00 – Earthwork
- B. Division 33 – Utilities

1.3 REFERENCES

- A. California Building Standards Code (CBSC), 2022 Edition
- B. California Code 4216 – Protection of Underground Infrastructure
- C. California Occupational Safety and Health Administrative Code
- D. Standard Specifications, State of California, Department of Transportation (Caltrans), 2022 Edition
- E. ASTM C 136 – Standard Test Method for Sieve Analysis of Fine and Course Aggregates
- F. ASTM D1556 – Standard Test Method for Density of Soil in Place by the Sand - Cone Method
- G. ASTM D 1557 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
- H. ASTM D 2321 – Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
- I. ASTM D 2419 – Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
- J. ASTM D 2487 – Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- K. ASTM D 2922 – Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
- L. ASTM D 3017 – Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
- M. ASTM F 1668 – Standard Guide for Construction Procedures for Buried Plastic Pipe

1.4 SUBMITTALS

- A. Submit proposed foundation, bedding, and backfill materials to the GEOTECHNICAL ENGINEER at least 2 weeks prior to planned delivery or use.
- B. Submit manufacturer's cut sheets for all other materials to the ENGINEER
- C. Submit samples and test results at least two weeks prior to planned purchase/delivery.

1.5 DEFINITIONS

- A. Relative Compaction, R.C., or Percent Compaction: Dry density expressed as a percentage of the maximum dry density at optimum moisture content obtained in accordance with ASTM D1557.
- B. Remove: Demolish, remove and dispose of off-site in a legal manner.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Pipe: as specified for the utility being installed.
- B. Foundation, bedding and backfill materials shall be as noted on the Plans and as specified for the type of facility being installed.
- C. Concrete: Minor concrete conforming to Section 90 of the Caltrans Standard Specifications.
- D. Controlled density fill (CDF): 2-sack slurry cement backfill conforming to Section 19 of the Standard Specifications.
- E. Aggregate base: Class 2 aggregate base, ¾-inch maximum, conforming to Section 26 of the Standard Specifications.
- F. Clean Sand: Natural river or bank sand; free of silt, clay, loam, friable or soluble materials, or organic matter; maximum particle size and volume of ½" and 18% respectively, with minimum Sand Equivalent value of 30 per California Test 217 or ASTM D2419
- G. Select native material may be used for bedding and/or backfill only if approved by the GEOTECHNICAL ENGINEER.

2.2 ACCESSORIES

- A. Detection tape: Polyethylene plastic warning tape, minimum 3.5 mils thick, 6" wide, appropriately labeled and color coded.
- B. Tracer wire: Insulated No. 10 copper wire.
- C. Geotextile fabric: as shown on the Plans and as approved by the GEOTECHNICAL ENGINEER.

PART 3 – EXECUTION

3.1 GENERAL

- A. All improvements shall be constructed in accordance with the California Building Standards Code, the Geotechnical Report, the Drawings, and these Specifications.
- B. Onsite grading and earthwork, site preparation, excavation, trenching and compaction shall be observed and tested by the GEOTECHNICAL ENGINEER. All grading and earthwork shall be done to the satisfaction of the GEOTECHNICAL ENGINEER.

- C. In the event that any unusual conditions are encountered during grading operations which are not covered by the Geotechnical Report or these Specifications, the GEOTECHNICAL ENGINEER shall be immediately notified such that additional recommendations may be made.
- D. Where work is performed in public streets or rights of way, or on public utilities, perform the work in accordance with the requirements of the authority having jurisdiction and/or utility owner, if such requirements are more stringent than the requirements of this section.

3.2 SAFETY

- A. Work shall comply with all federal, state, and local safety requirements
- B. Except by permission of the OWNER, no trench shall remain open overnight.

3.3 PROTECTION

- A. Protect trees, shrubs, lawns, rock outcropping, and other landscape features to remaining as portion of final landscaping.
- B. Protect benchmarks, existing structures, fences, roads, sidewalks, paving, curbs and other improvements to remain.
- C. Locate and protect above and below grade utilities which are to remain.
- D. Document all pre-existing surface defects by photographic means prior to conducting trenching operations. Upon completion of construction, all surfaces showing non-documented settlement, spalls, gouges, cracks or other defects shall be repaired or replaced to the satisfaction of the ENGINEER.
- E. Return all surface improvements designated to remain, which are removed for excavation, to their original condition, except as required to comply with other portions of the contract.
- F. Utility trenches which are parallel to the side of a footing shall be placed so that the trench bottom does not extend below a plane sloping downward and away from the building/footing at an inclination of 2:1 (H:V) from the bottom outside edge of the footing.

3.4 POTHOLING

- A. Pothole utility lines in advance of construction to determine if adjustment in horizontal or vertical location of proposed pipeline is required. Submit drawing to ENGINEER showing located utility locations and elevations.
- B. If potholing indicates a conflict between existing and proposed facilities, notify the ENGINEER immediately. Do not perform work on systems which may be affected by the conflict until a resolution has been reached and you have been notified by the ENGINEER.
- C. The Contractor shall locate existing utilities, including water, sewer, storm drain, gas, electric, and telecommunications prior to performing trenching work or any excavation.
- D. The Contractor shall notify the ENGINEER a minimum of two weeks prior to planned utility location work. The ENGINEER may identify areas for underground utility location, other than those shown on the Plans.
- E. The precise locations and elevations of all utility crossings and points of connection must be verified by the Contractor prior to construction of systems which may be affected by the existing utility's location. Utilities shall be located by potholing where location and/or grade is critical.

3.5 EXCAVATION, BEDDING, PIPE PLACEMENT, AND BACKFILLING

- A. Trenching

1. Excavate to the lines and grades indicated on the Drawings. The OWNER reserves the right to make changes to lines, grades, and depths when required due to field conditions.
2. The excavation and the preparation of the trench shall be completed a sufficient distance in advance of pipe laying to prevent dislodged material from entering the pipe.
3. If the foundation soil is soft, wet, spongy or unstable, the trench shall be excavated to stable soil as determined by the Geotechnical Engineer, and the excavation backfilled with pipe bedding material.

B. Shoring

1. The sides of all excavations shall be laid back or supported in the manner set forth by CAL/OSHA.
2. Sheet piling and other shoring shall be withdrawn in such a manner as to prevent caving of the walls of excavations or damage to piping or other structures.
3. Whenever timber or other sheeting is driven to a depth below the elevations of the top of the pipe, that portion of the sheeting below the elevation of the top of the pipe shall not be disturbed or removed.

C. Dewatering

1. Remove all water which may accumulate in the excavation during progress of the work so that all work can be done under dry conditions. Trenches shall be kept free from water while the pipe or other structures are installed, while concrete is setting, and until backfill has progressed to a sufficient height to anchor the work against possible flotation or leakage.
2. Dewatering shall conform to the best management practices as outlined in the California Stormwater Quality Association's *Stormwater Best Management Practice Handbook: Construction*, latest edition.

D. Pipe bedding

1. Bedding shall be placed in such a manner that the pipe may be laid true to line and grade. When the pipe is bedded, it shall be brought into true alignment and secured.
2. Place and compact the initial backfill material to the pipe spring line in maximum 8" lifts. Carefully compact this material around and under the pipe.
3. Place and compact the initial backfill material to 12" above the top of the pipe in maximum 8" lifts. Carefully compact this material around and under the pipe.
4. Place and compact final trench backfill material in maximum 8" lifts to the final grade or subgrade elevation.
5. Bedding and backfill shall be compacted to at least 95% relative compaction in improved areas, and 90% in landscaped or unimproved areas.
6. Where cement slurry is utilized for pipe bedding, the pipe shall be set on precast mortar blocks or similar devices to allow for placement of required thickness of material under and around the pipe. The Contractor must take the necessary steps to avoid pipe flotation or mis-alignment.

E. Pipe Installation:

1. Pipe installation shall be in accordance with the manufacturer's instructions.
2. All pipe handling shall be done in a manner that will not damage the materials. Pipe shall be carried into position, not dragged, and shall be carefully lowered into the trench. Under no circumstances shall the pipe or accessories be dropped into the trench.
3. Before lowering into the trench, and while suspended, the pipe shall be inspected for defects. Any defective, damaged or unsound pipe shall be rejected and replaced with sound material. The interior of the pipe shall be clean and free of debris.

4. Joints shall be centered and tight. Cutting of pipe for inserting fittings or for pipe connections shall be done in a neat and skillful manner without damage to the pipe. Each joint shall be inspected to ensure it is properly made before backfilling is done.
 5. The pipe shall be laid true to line and grade. When completed, the pipe shall have a smooth and uniform invert. Care shall be taken to prevent any dirt or foreign matter from entering the open end of the pipe.
 6. Where piping is installed on curves, the maximum deflection of each joint shall be no more than 80% of the maximum deflection recommended by the pipe manufacturer.
- F. Trench Backfill and Compaction:
1. All backfill shall be placed in a manner to avoid rock pockets, voids, or other conditions that could lead to future settlement of the backfill.

3.6 TEMPORARY PIPE COVER

- A. Provide temporary backfill or other means as necessary to protect underground utilities from heavy construction loads.

3.7 CONTROLLED DENSITY FILL (CDF)

- A. Backfill trenches with CDF where trenches cross below footings, including perimeter footings. CDF plug shall be a minimum of 36" long, and shall extend a minimum of 12" beyond the edge of footing.
- B. Backfill trenches with CDF where pipes are "nested" in clusters where adequate compaction cannot be achieved between and around the pipes, and at all pipe connections, valves, utility vaults, etc. where adequate compaction cannot be achieved by mechanical means.
- C. Backfill other areas with CDF where indicated on the Drawings and as directed by GEOTECHNICAL ENGINEER.
- D. If pipe will be partly or entirely embedded in CDF, support and brace the pipe in a manner that will prevent movement or displacement of the pipe during testing and during placement and consolidation of the slurry backfill. Consolidate CDF under and around the pipe without displacing the pipe.

3.8 CONCRETE BACKFILL

- A. Place concrete backfill where indicated on the Drawings.
- B. If pipe will be partly or entirely embedded in concrete, support and brace the pipe in a manner that will prevent movement or displacement of the pipe during testing and during placement and consolidation of the concrete. Consolidate concrete under and around the pipe without displacing the pipe.

3.9 WARNING TAPE

- A. Provide warning tape for
 1. All exterior gas pipes
 2. All other pipes which are 2"-diameter and larger
- B. Install 12" above the pipe.

3.10 TRACER WIRE

- A. Tape continuous tracer wire on top of and along entire length of pipes and extend to the grade at each end of the utility pipe so locator equipment can be connected.

- B. Install tracer wire on:
 - 1. All exterior gas pipes
 - 2. All exterior nonmetallic pressure pipes 2½"-diameter and larger (water, recycled water, sewer force mains, and gas)

3.11 SURFACE RESTORATION

- A. Any pavement, curb, walk or any other surface or subsurface improvement removed or damaged during progress of the work, shall, before termination of the contract, be restored to its original condition whether or not such restoration is shown on the Drawings.
- B. The trench patch structural section shall be equivalent to the existing structural section, or 2½" Hot Mix Asphalt (Type A) on 8" Class 2 Aggregate Base, whichever is greater. Trench patch shall extend min 6" beyond trench wall ("tee cut").
- C. All street cuts shall be neatly sawcut on true line to 1½" minimum depth at a minimum of 6" beyond edge of trench wall.

END OF SECTION

DIVISION 32 EXTERIOR IMPROVEMENTS

SECTION 32 11 24

AGGREGATE BASE COURSE

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes:
 - 1. Class 2 aggregate base

1.3 REFERENCES

- A. Standard Specifications, State of California, Department of Transportation (Caltrans), 2022 edition.
- B. ASTM D1557 - Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³).
- C. ASTM D1556 - Standard Test Method for Density of Soil in Place by the Sand - Cone Method
- D. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
- E. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

1.4 SUBMITTALS

- A. Results of laboratory testing for gradation, R-value, Sand Equivalent, and Durability Index in accordance with Sections 25 and 26 of the Standard Specifications.
- B. Materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds, the specified requirements.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Class 2 Aggregate Base shall conform to Section 26 of the Standard Specifications.

PART 3 – EXECUTION

3.1 GENERAL

- A. Perform work in conformance with Section 26 of the Caltrans Standard Specifications.

3.2 PREPARATION

- A. Prepare subgrade as specified in Section 31 00 00.
- B. Sprinkle the subgrade regularly to moisten the surface and to prevent it from drying out and/or cracking prior to the placement of aggregate base.

3.3 INSTALLATION

- A. Deliver, handle, place and compact aggregate base per Sections 25 and 26 of the Standard Specifications.

- B. Compact aggregate subbase and aggregate base to at least 95 percent relative compaction as determined by ASTM D1557.

3.4 FIELD QUALITY CONTROL

- A. The GEOTECHNICAL ENGINEER will field test subgrade and aggregate base course compaction.

END OF SECTION

DIVISION 32 EXTERIOR IMPROVEMENTS

SECTION 32 12 17

ASPHALT CONCRETE PAVING

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes:
 - 1. Asphalt concrete paving (Hot Mix Asphalt).

1.2 RELATED REQUIREMENTS

- A. Section 32 11 23 – Aggregate Base Course.

1.3 REFERENCES

- A. Standard Specifications, State of California, Department of Transportation (Caltrans), 2022 edition.

1.4 SUBMITTALS

- A. Hot mix asphalt mix design prepared by a certified laboratory
- B. Materials certificates signed by material producer and Contractor

PART 2 – PRODUCTS

2.1 ASPHALT CONCRETE PAVEMENT (HOT MIX ASPHALT)

- A. HMA (Type A): in accordance with Section 39 of the Standard Specifications.
 - 1. Construction Process: Standard.
 - 2. Tack Coat: as required by the Standard Specifications
 - 3. Binder: PG64-10

PART 3 – EXECUTION

3.1 GENERAL

- A. Perform work in accordance with Section 39 of the Standard Specifications.
- B. Equipment, methods and tolerances used for spreading and compacting HMA shall comply with the requirements of Standard Specifications.
- C. Finish paving shall conform to slopes, lines and finish grades shown and noted on the Drawings and shall drain properly.
 - 1. Maintain line and profile shown on the Construction Drawings to tolerance of 1/4 inch plus/minus, in any 10 feet, non-cumulative.
 - 2. HMA surface shall be free from depressions exceeding 1/8 inch when measured with a 10 foot straight-edge.
- D. Surface shall be free of gouges, ridges and ruts, with a uniform and consistent finish.
- E. Where adjacent surfaces are intended to be flush, they shall conform smoothly at all points with no greater than 1/4 inch grade differential, and shall drain properly across the seam.

3.2 FIELD QUALITY CONTROL

- A. Field density and thickness testing of asphalt pavement will be performed by the GEOTECHNICAL ENGINEER.

- B. For accessible paths of travel and accessible parking areas, comply with California Building Code accessibility requirements regarding:
 - 1. Surface: slip resistant
 - 2. Changes in Level: 1/4 inch or less (vertical)
 - 3. Path of travel:
 - a. Clear Width: 4 feet minimum, unless otherwise noted
 - b. Running Slope: less than 1:20 (5%)
 - c. Cross-Slope: not greater than 1:48 (2%)
 - 1. Slope in Landings and Accessible Parking and Loading Areas: not greater than 1:48 (2%) in any direction
- C. Flood Test:
 - 1. Perform a flood test in areas which are sloped less than 3%. Where a seal coat is to be applied, perform flood test prior to application of seal coat.
 - 2. Where water ponds in excess of 1/8 inch deep or in an area greater than 2 feet in any direction, or where the drainage pattern does not conform to the intent of the Drawings, repair or replace HMA in a manner acceptable to the OWNER to provide proper drainage, at no cost to the OWNER.

3.3 PROTECTION

- A. Do not permit vehicular traffic on pavement until it has cooled to atmospheric temperature and hardened, but in no case less than 8 hours.
- B. Do not use completed paving surface for storage of construction vehicles or construction materials.
- C. Gouges, cracks, stains, or other surface defects or marks shall be corrected by the CONTRACTOR in a manner acceptable to the OWNER, at no cost to the OWNER.

END OF SECTION

DIVISION 32 EXTERIOR IMPROVEMENTS

SECTION 32 13 14

CONCRETE PAVING

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes exterior concrete paving including driveways, walkways, patios, curbs, and gutters.

1.2 RELATED REQUIREMENTS

- A. Section 32 11 24 – Aggregate Base Course

1.3 REFERENCES

- A. California Code of Regulations, Title 24, Part 2, California Building Code (CBC), 2022
- B. Standard Specifications, State of California, Department of Transportation (Caltrans), 2022 edition.

1.4 SUBMITTALS

- A. Concrete mix design and materials certificates:
 - 1. Aggregate (gradation and quality)
 - 2. Cementitious materials
 - 3. 28-day compressive strength
 - 4. Slump
 - 5. w/c Ratio
 - 6. Entrained Air
 - 7. Admixtures
 - 8. Curing compound
 - 9. Steel reinforcement and reinforcement accessories.
 - 10. Bonding agent or epoxy adhesive
- B. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance with the Contract Documents
- C. Manufacturers' current printed specifications and catalogue cut sheets for each type of manufactured product, including:
 - 1. Expansion joint filler, backer rod and bond breaker and/or zip strip.
 - 2. Integral color
 - 3. Applied finish materials
 - 4. Joint Sealant Color Sample
- D. Proposed joint pattern, if not indicated on or if different from the Drawings
- E. Sample chip of specified color indicating pigment number and required dosage rate.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.

- B. Installer Qualifications: Regularly engaged and specializing in concrete paving, with a minimum 5 years' experience
- C. Testing Agency Qualifications: An independent agency qualified according to ASTM C 1077 and ASTM E 329 for testing indicated, as documented according to ASTM E 548.
 - 1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-01 or an equivalent certification program

PART 2 – PRODUCTS

2.1 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces.
- B. Use flexible or curved forms for curves with a radius 100 feet or less.
- C. Use commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces

2.2 CONCRETE:

- 1. Concrete mix design shall conform to Section 90, "Concrete," of the Caltrans Standard Specifications.
- 2. Cementitious material: Portland cement, Type II, low alkali, with supplementary cementitious materials as defined in Section 90 of the Standard Specifications.
 - a. Pedestrian Paving, Curbs, and Gutters: provide at least 505 pounds per cubic yard cementitious materials.
- B. Admixtures: complying with Section 90, "Concrete" of the Caltrans Standard Specifications

2.3 STEEL REINFORCEMENT

- A. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets
- B. Deformed-Steel Welded Wire Reinforcement: ASTM A 497, flat sheet
- C. Epoxy-Coated Welded Wire Fabric: ASTM A 884, Class A, plain steel
- D. Reinforcing Bars: ASTM A615, grade 40 for #3 and smaller bars and grade 60 for #4 and larger bars
- E. Galvanized Reinforcing Bars: ASTM A 767, Class II zinc coated, hot-dip galvanized after fabrication and bending; with ASTM A 615, Grade 60 deformed bars.
- F. Epoxy-Coated Reinforcing Bars: ASTM A 775 or ASTM A 934; with ASTM A 615, Grade 60 deformed bars.
- G. Smooth Dowel Bars: Plain steel bars, ASTM A 615, Grade 60. Cut bars true to length with ends square and free of burrs, with half of the dowel length lubricated to prevent bonding with the concrete, and with polyethylene cap installed on lubricated end to prevent end bearing.
- H. Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete, and as follows:
 - 1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.

2.4 CURING MATERIALS

- A. Curing materials conforming to “Section 90, “Concrete” of the Caltrans Standard Specifications.

2.5 EXPANSION JOINT MATERIAL

- A. Premolded Joint Filler: ASTM D1751, non-extruding and bituminous type resilient filler, compatible with sealant and backer rod.
- B. Sealant Backer Rod:
 - 1. Type: Compressible polyethylene foam rod or other flexible, permanent, durable non-absorptive material as recommended by joint sealer manufacturer for compatibility with joint sealer.
- C. Expansion Joint Cap: Snap Cap by W.R. Meadows or similar.
- D. Joint Sealer
 - 1. Type: Multi-component modified polyurethane sealant conforming to Federal Specification TT-S-00227E, designed for exterior locations subject to foot traffic.
 - 2. Color: Submit Samples
- E. Bond Breaker: Polyethene tape as recommended by joint sealant manufacturer where bond to joint filler must be avoided for proper performance of joint sealer.

PART 3 – EXECUTION**3.1 GENERAL**

- A. Construct in accordance with the Standard Specifications.

3.2 EXAMINATION

- A. Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.
- B. Proof-roll prepared subbase surface below concrete pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding.
 - 1. Subbase with soft spots and areas of pumping or rutting exceeding depth of 1/4 inch shall be brought to the attention of the Geotechnical Engineer, who will provide recommendations for corrective action.
- C. Proceed with concrete pavement operations only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.

3.3 PREPARATION

- A. Remove loose material from compacted subbase surface immediately before placing concrete.
- B. Precautions to protect fresh concrete from developing plastic shrinkage cracks must be taken in advance of concrete placement when evaporation rate due to any combination of temperature, humidity, and wind velocity is expected to approach 0.2 lb./sq. ft./hr. as determined by Figure 2.1.5 of ACI 305.

3.4 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.

- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.5 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Install welded wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.
- E. Epoxy-Coated Reinforcement: Use epoxy-coated steel wire ties to fasten epoxy-coated reinforcement. Repair cut and damaged epoxy coatings with epoxy repair coating according to ASTM D 3963.

3.6 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
 - 1. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour unless pavement terminates at isolation joints.
 - 1. Continue steel reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
 - 2. Provide tie bars at sides of pavement strips where indicated.
- C. Isolation (Expansion) Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
 - 1. Locate expansion joints as shown on the Drawings, and at a minimum:
 - a. At the beginning and end of curves and at changes in direction
 - b. At re-entrant corners
 - c. At abutting walls, column penetrations, footings, or other structures
 - d. At approximately 20 feet on center each way in plaza areas, as necessary to limit area to a maximum of 400 square feet
 - e. At maximum intervals of 60 feet.
 - 2. Extend joint fillers full width and depth of joint.
 - 3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
 - 4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
 - 5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.

6. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least 1-1/4 inches, or one-fourth of the concrete thickness, whichever is greater.
 1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 3/8-inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover marks on concrete surfaces.
 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface, and before the pavement develops shrinkage cracks.
 3. Locate contraction joints as shown on the Drawings, and at a minimum:
 - a. At 10 feet on center maximum for curbs and cross gutters. Where concrete sidewalk occurs adjacent to curb, align curb and sidewalk joints.
 - b. At pavement plazas, approximately 4 feet on center each way, and as necessary to limit area to a maximum of 20 square feet.
 - c. At all re-entrant corners and at changes in direction.
 - d. To provide rectangles of not less than 12 nor more than 20 square feet in linear walkways
- E. Dowels: Install dowel bars and support assemblies at joints where indicated and at construction joints.
 1. Expansion joint dowels: Lubricate one-half of dowel length to prevent concrete bonding to one side of joint and install polyethylene end sleeve on the lubricated end to prevent end bearing of the dowel against the concrete.
- F. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to a 3/8-inch radius, unless otherwise shown on the Drawings. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.

3.7 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. Remove snow, ice, or frost from subbase surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten subbase to provide a uniform dampened condition at time concrete is placed.
- D. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- E. Do not add water to fresh concrete after testing.
- F. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- G. Consolidate concrete by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.

1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.
- H. Place concrete in two operations; strike off initial pour for entire width of placement and to the required depth below finish surface. Lay welded wire fabric or fabricated bar mats immediately in final position. Place top layer of concrete, strike off, and screed.
 1. Remove and replace concrete that has been placed for more than 15 minutes without being covered by top layer or use bonding agent if approved by Engineer.
- I. Screed pavement surfaces with a straightedge and strike off.
- J. Commence initial floating using bull floats or darbies to impart an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
- K. Slip-Form Pavers: When automatic machine placement is used, submit specific mix design and laboratory test results.
 1. Produce pavement to required thickness, lines, grades, finish, and jointing as required for formed pavement.
 2. Compact subbase and prepare subgrade of sufficient width to prevent displacement of paver machine during operations.
- L. Hot and Cold Weather Placement: Comply with ACI 306.1.

3.8 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
 1. Burlap Finish: Drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture.
 2. Medium-to-Fine-Textured Broom Finish: Draw a soft bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.
 3. All exterior walkway surfaces shall receive a slip-resistant finish at least equivalent to a medium broom finish.
 4. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch deep with a stiff-bristled broom, perpendicular to line of traffic.
- C. All exposed faces shall be finished. Faces of curbing at planter areas shall be finished to 6" below finish planter grade.

3.9 SPECIAL FINISHES

- A. See Landscape Drawings

3.10 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.

- C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E. Curing Methods: Cure concrete by the moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
 - 1. Moist Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
 - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 - 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

3.11 TOLERANCES

- A. Comply with tolerances of ACI 117 and as follows:
 - 1. Elevation: 1/4 inch
 - 2. Thickness: Plus 3/8 inch, minus 1/4 inch.
 - 3. Surface: Gap below 10-foot-long, unleveled straightedge not to exceed 1/4 inch.
 - 4. Lateral Alignment and Spacing of Tie Bars and Dowels: 1 inch.
 - 5. Vertical Alignment of Tie Bars and Dowels: 1/4 inch.
 - 6. Alignment of Tie-Bar End Relative to Line Perpendicular to Pavement Edge: 1/2 inch.
 - 7. Alignment of Dowel-Bar End Relative to Line Perpendicular to Pavement Edge: Length of dowel 1/4 inch per 12 inches.
 - 8. Joint Spacing: 3 inches.
 - 9. Contraction Joint Depth: Plus 1/4 inch, no minus.
 - 10. Joint Width: Plus 1/8 inch, no minus.
- B. Comply with California Title 24 accessibility requirements regarding:
 - 1. Surface: slip resistant
 - 2. Changes in Level: 1/4 inch or less (vertical)
 - 3. Clear Width: complying with the minimum clear width required for the various types of facilities being constructed.
 - 4. Running Slope, General: less than 1:20 (5%)
 - 5. Running Slope, Ramps and Curb Ramps: not greater than 1:12 (8.33%)
 - 6. Cross-Slope: not greater than 1:48 (2%)
 - 7. Slope in Landings: not greater than 1:48 (2%) in any direction

- C. Provide flood test of all gutters and paving. Where water ponds in excess of 1/8 inch deep or in an area greater than 2 feet in any direction, or where the drainage pattern does not conform to the intent of the Drawings, replace the gutter or pavement to the nearest joint to provide proper drainage, at no cost to the OWNER.

3.12 FIELD QUALITY CONTROL

- A. Testing Agency: a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
 - 1. Testing Frequency: Obtain at least 1 composite sample for each 100 cu. yd. or fraction thereof of each concrete mix placed each day.
 - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
 - 2. Slump: ASTM C 143; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mix. Perform additional tests when concrete consistency appears to change.
 - 3. Air Content: ASTM C 231, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
 - 4. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
 - 5. Compression Test Specimens: ASTM C 31; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
 - 6. Compressive-Strength Tests: ASTM C 39; test 1 specimen at 7 days and 2 specimens at 28 days.
 - a. A compressive-strength test shall be the average compressive strength from 2 specimens obtained from same composite sample and tested at 28 days.
- C. Strength of each concrete mix will be satisfactory if average of any 3 consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.
- D. Test results shall be reported in writing to Engineer, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- E. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but will not be used as sole basis for approval or rejection of concrete.
- F. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Engineer.
- G. Remove and replace concrete pavement where test results indicate that it does not comply with specified requirements.
- H. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.13 REPAIRS AND PROTECTION

- A. Remove and replace concrete pavement that is broken, damaged, or defective or that does not comply with requirements in this Section.
- B. Drill test cores where directed by Engineer, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
- C. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION

DIVISION 33 UTILITIES

SECTION 33 01 50.01

TEMPORARY SEWER BYPASS PUMPING

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Temporary bypass pumping for daily system shutdowns of sewer systems.
 - 2. Temporary bypass pumping for overnight or extended shutdowns of sewer systems.

1.2 REFERENCES

- A. Abbreviations and Acronyms
 - 1. SCSD Seaside County Sanitation District
 - 2. SSO Sanitary Sewer Overflow

1.3 DEFINITIONS

- A. Daily System Shutdowns: System gravity flows shall be restored daily before the end of regular work hours.
- B. Firm Capacity: The pumping capacity of a temporary bypass pumping system with the largest pump out of service.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination
 - 1. Coordinate temporary bypass pumping system testing with ENGINEER and SCSD. Provide a minimum of three business days' notice prior to system testing. ENGINEER or SCSD representative must observe testing for it to be accepted.
 - 2. Coordinate system shutdowns with ENGINEER and SCSD.
- B. Sequencing
 - 1. Operate temporary bypass pumping systems in accordance with the sequencing and phasing indicated on the Drawings.
- C. Scheduling
 - 1. The Project Schedule shall include the sequencing and coordination of maintaining wastewater flow during all phases of construction including but not limited to:
 - a. Sewer pump station upgrades and replacements
 - b. Drainage, cleaning, and replacement of sewer mains, manholes, and force mains
 - c. Trenchless rehabilitation of sewer and force mains
 - d. Inspection and testing of new or rehabilitated sewers
 - e. Connections to existing sewer mains and force mains

1.5 SUBMITTALS

- A. System test results and operation logs.

- B. Temporary Bypass Pumping Plan – For Daily System Shutdowns
1. Outline provisions and precautions to be taken to convey and maintain existing wastewater flows during construction.
 2. Ensure proper protection of existing facilities, the project area, and surrounding properties from damage due to the discharge of flows.
 3. Provide adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown. One standby pump for each size pump utilized shall be located at the mainline flow bypassing locations, ready for use in the event of primary pump failure. In this event, promptly repair or replace the failed equipment.
 4. Include the following as a minimum:
 - a. Manufacturer's product data for bypass pumps including sizes, capacities, power requirements, and number of each size to be on site including primary, secondary, and spare pumps.
 - b. Manufacturer's product data for bypass piping including make, material, material properties, diameter, thickness, pressure rating, and number to be on site.
 - c. Calculations to demonstrate sufficient pump capacity for potential flows.
 - d. Method of noise control for pumps, motors, and generators.
 - e. Location and method of connection to the existing sewer on each side of the bypass if not provided in the Contract Documents.
 - f. Number, size, material, and method of installation of suction and discharge piping, valves (isolation and air release), fittings, and other components for connection to the existing sewer system.
 - g. Sewer isolation or plugging method and types of plugs or valves and fittings.
 - h. Emergency plan for adverse weather and flooding for various phases of the Work.
 - i. Incidental items required to ensure proper protection of the facilities.
 - j. Traffic Control Plan where roads are impacted.
 - k. Plan to divert pedestrian access where sidewalks are impacted.
- C. Temporary Bypass Pumping Plan – For System Shutdowns Overnight or for Extended Periods
1. Prepare and submit a project- and site-specific detailed temporary bypass pumping plan that provides detailed descriptions and layout drawings of the proposed temporary bypass pumping system(s). Outline provisions and precautions to be taken by the Contractor to convey and maintain existing wastewater flows during construction.
 2. Ensure proper protection of existing facilities, the project area, and surrounding properties from damage due to the discharge of flows.
 3. Include the following as a minimum:
 - a. Size of pipeline or conveyance system to be bypassed.
 - b. Staging areas for pumps.
 - c. Manufacturer's product data for temporary bypass pump sizes, capacities, power requirements, and number of each size to be on site including primary, secondary, and spare pumps. Provide method of operation and control, and redundancy sufficient to prevent SSOs.
 - d. Provisions for standby power including generator size and location.
 - e. Provisions for stand-by lighting.

- f. Method of noise control for pumps, motors, or generators.
- g. Location and method of connection to the existing sewer on each side of the bypass if not provided in the Contract Documents.
- h. Size and location of manholes or access points for suction and discharge hose or piping.
- i. Plan indicating location of temporary bypass pumping pipe locations.
- j. Number, size, material, location, and method of installation of suction and discharge piping, valves (isolation and air release), fittings, and connections to the existing sewer system.
- k. For buried piping, typical sections showing suction and discharge pipe depth, embedment, select fill and special backfill.
- l. Thrust and restraint block sizes and locations. Provide details necessary to demonstrate the integrity of restraint of suction and discharge piping including piping and fittings associated with primary and secondary pumping units.
- m. Sewer isolation or plugging method and types of plugs or valves and fittings.
- n. Discharge plan including method of protecting discharge manholes or structures from erosion and other damage.
- o. Access plans to temporary bypass pumping locations indicated on the drawings.
- p. Heavy equipment required for installation of pumps, piping, valves, fittings, and other materials.
- q. Temporary pipe supports and anchoring.
- r. Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted).
- s. Calculations for selection of temporary bypass pumping pipe size.
- t. Schedule for installation, operation, maintenance, and removal of the temporary bypass pumping system(s).
- u. Emergency plan for adverse weather and flooding for various phases of the Work.
- v. Contractor's plan for providing continuous (24-hour) monitoring of the temporary bypass pumping operation as well as the monitoring persons' qualifications. Additionally, an auto-dialer alarm system shall be provided for loss of primary pump or high level at suction location.
- w. Plan for refueling pump sets on demand.
- x. Demonstration of compliance with the requirements and permit conditions specified in the Contract Documents.
- y. Incidental items necessary to insure proper protection of the facilities.

1.6 QUALITY ASSURANCE

- A. Demonstrate, or employ the services of a subcontractor, who can demonstrate that they specialize in the design and operation of temporary sewer bypass pumping systems.
- B. Comply with Cal-OSHA Standards, Underwriter Laboratories, and local requirements. The temporary bypass pumping system shall meet the requirements of codes and requirements of all regulatory agencies having jurisdiction.
- C. Materials and appurtenances shall be clearly, legibly, and appropriately marked for identification purposes. Marking shall include listing/approval stamp, label, or other marking indicating conformance with specified standards.
- D. Perform temporary bypass pumping system testing in accordance with Part 3.

PART 2 – PRODUCTS

2.1 TEMPORARY SEWER BYPASS PUMPING SYSTEMS FOR SYSTEM SHUTDOWNS EXTENDING OVERNIGHT

- A. Pumps shall be fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in the priming system. Pumps may be electric, or diesel powered. Diesel powered pumps shall include critical grade silencing when used in residential settings or areas where excessive noise levels would create a disturbance. Critical grade silencing is not required on redundant bypass pumping.

Silencing Grade	Expected Attenuation (dBA)
Industrial	15 to 20
Residential	20 to 25
Critical	25 to 32
Super Critical	30 to 38
Hospital	35 to 42
Hospital Plus	35 to 50
Extreme	40 to 55
Super Extreme	45 to 60

- B. Provide level detection equipment, alarms, drives, controls, fittings, valves, air release valves, fuel tanks, auxiliary fuel tanks, and other components for a reliable stand-alone system. Provide sufficient components for a redundant system.
- C. Include 100 percent on-line pumping redundancy. Include a redundant bypass pump, intake and discharge conduit, and other equipment necessary to provide continuous wastewater flow and prevent the backing up of sewage in the event of primary system failure.

2.2 PERFORMANCE REQUIREMENTS

- A. Design, install, operate, and maintain a temporary bypass pumping system to maintain continuous wastewater service. The Contractor shall be responsible for bypass pumping of wastewater as required to prevent backing up of sewage (except as approved by SCSD) and provide appropriate conditions for proper drainage, inspection, replacement, rehabilitation, testing or reconnections to existing sewers.
- B. Operators
- Provide on-site manual oversight by a responsible operator of temporary bypass pumping operations 24 hours per day, 7 days per week when the temporary bypass pumping systems are in operation.
 - The 24-hour monitoring operator shall be properly trained, experienced, and mechanically qualified so that they can quickly and effectively address potential emergency and non-emergency situations associated with the pumps and temporary bypass pumping system.
- C. Controls
- Pumps shall operate on redundant control systems and be equipped with an auto-dialer, cellular, or SCADA monitoring and control. Controls shall be set so that the systems do not surcharge and create an SSO.
- D. Operation Sequences
- Comply with operating sequences provided by the ENGINEER and SCSD.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Inspect Work area and verify that existing conditions match the conditions depicted on the Drawings. Notify ENGINEER immediately of any discrepancies.
- B. System Testing
 - 1. Perform leakage and pressure tests of the temporary bypass pumping discharge piping using clean water prior to operation. Pressure and leakage tests shall be conducted at 1.5 times the maximum working pressure, based on the approved Temporary Bypass Pumping Plan, for a period of two hours. No leakage is permitted during this test. Provide a leakage and pressure test report that documents start time and pressure, pressure at 15-minute intervals, stop time, end of test pressure, and amount of leakage. Report shall be signed by the Contractor's on-site superintendent and project manager, and the ENGINEER or SCSD representative.
 - 2. Demonstrate that the temporary bypass pumping system is in good working order and is sufficiently sized to successfully convey wastewater flows by operating the system in automatic mode for a period of 24 hours prior to beginning Work.
 - 3. Demonstrate alarms function as designed.
 - 4. Demonstrate back-up pumps and systems operate as designed.

3.2 PREPARATION

- A. Temporary bypass pumping operations shall not proceed until submittals have been approved.
- B. Do not interrupt sewer service without prior approval of SCSD.
- C. Locate existing utilities in proximity to the temporary bypass pumping system. Install temporary bypass pumping system components to minimize disturbance to existing utilities and in accordance with the Temporary Bypass Pumping System Plan. Costs associated with relocating existing utilities and obtaining approvals shall be borne by the Contractor.
- D. During temporary bypass pumping system operation, protect the existing sanitary sewer facilities from damage inflicted by any equipment. The Contractor shall be responsible for physical damage to the existing sanitary sewer facilities caused by human or mechanical failure.

3.3 INSTALLATION

- A. General
 - 1. Prevent damage to existing structures. Discharge piping to gravity sewer systems shall be designed in such a manner as to prevent discharge from contacting manhole walls or benching. Full discharge shall go into the downstream pipe in a manner to minimize turbulence. It may be necessary to remove manhole cones to provide sufficient space for the bypass piping. Contractor is responsible for any damage to manholes. Repair damaged manholes to preconstruction condition.
 - 2. Make connections to the existing sewer and construct temporary bypass pumping structures only at the access locations indicated on the Drawings.
 - 3. The new sewer may be used by the Contractor to convey the sanitary flows after the new sewer has passed inspection and testing. SCSD shall approve any temporary connections to the new sewer.

4. Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance of work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge and that prevents surcharging or causing other major disturbances downstream.
 5. When working inside a manhole or force main in the presence of sewer gases, combustible or oxygen-deficient atmospheres, and confined spaces, the Contractor shall exercise caution and comply with OSHA requirements.
 6. Installation of bypass pipelines is prohibited in wetland areas unless specifically indicated or allowed in the Contract Documents. The pipeline must be located off streets (except where streets are shut down and detours or lane shifts are provided) and sidewalks and on shoulders of the roads or within easements. When the bypass pipeline crosses local streets and private driveways, install temporary road ramps.
- B. Steel Pipe shall be installed in accordance with manufacturer recommendations. Locking pins shall be placed in couplings.
 - C. HDPE pipe shall be installed in accordance with AWWA M55 "PE Pipe – Design and Installation" and the "Handbook of Polyethylene Pipe" by the Plastics Pipe Institute. The pipe shall be joined by the butt fusion procedure outlined in ASTM F 2620 or PPI TR-33. Fusion joints shall be made in compliance with the pipe or fitting manufacturer's recommendations. Fusion joints shall be made by qualified fusion technicians per PPI TN-42.

3.4 OPERATION

- A. Maintain flows in the existing upstream pumps stations, sewer interceptors, and tributary collector and lateral lines at all times and under all weather conditions except for brief periods when mains and services are disconnected and reconnected. Take actions and precautions necessary to prevent discharge of wastewater during disconnection and reconnection of mains including performing those tasks during off peak hours or providing additional temporary bypass measures. Interruption of flows that result in the discharge of wastewater will not be permitted.
- B. Maintain sewer flow at the work area in a manner that will not cause surcharging of sewers or damage to sewers, and that will protect public and private property from damage and flooding.
- C. Anticipate severe weather conditions and increases in peak flows during rain events and design and plan for these accordingly.
- D. Immediately notify SCSD should a sanitary sewer overflow (SSO) occur. Take necessary action to clean up and disinfect the spillage to the satisfaction of SCSD and other governmental agencies with jurisdiction. If sewage is spilled onto public or private property, wash down, clean up, and disinfect the spillage to the satisfaction of the property owner, utility owner, and governmental regulatory agencies.
- E. Overflows from temporary bypass operations shall not be permitted to enter streams or bodies of water. The Contractor shall be solely responsible for paying fines imposed and legal actions taken by state and federal regulatory agencies if overflows occur as a result of the temporary bypass pumping operations. Reimburse SCSD for any damages, operational costs, fines, and other effects. Immediately remove and dispose of wastewater and waste material spilled during the temporary bypass pumping at his own expense.

- F. Make every effort to avoid causing unplanned service outages. SCSD will investigate service outages resulting from Contractor's operations. If the investigation determines that the Contractor could have avoided the service outage, then the outage shall result in disciplinary actions including but not limited to reimbursement to the SCSD for any damages, operational costs, fines, and other effects.
- G. Provide pipeline plugs, temporary suction piping, pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow of the sewer main can be safely diverted around the section of sewer designated for rehabilitation. Do not stop or impede the main flows without prior approval by SCSD.
- H. Temporary bypass pumping systems for system shutdowns extending overnight shall be operated 24 hours per day.
- I. Where portions of the Work require that tributary pump stations be taken out of service for prolonged periods, the Contractor shall construct a temporary bypass pumping system for those pump stations that discharge into either the existing piping downstream of the affected area, or to a neighboring gravity sewer (as identified by SCSD) that flows to an unaffected pump station.
- J. Temporary road ramps shall be used where necessary to maintain traffic flow in accordance with the Traffic Control Plan as required by Section 01 35 00, Special Procedures.
- K. Cease bypass pumping operations and return flows to the new or existing sewer when directed by SCSD.
- L. Contractor shall repair, at his own expense, any damage to public or private property caused by his operations.
- M. A copy of the SCSD approved Temporary Bypass Pumping Plan shall be available onsite at all times during temporary bypass pumping operations.

3.5 MONITORING

- A. Operators shall perform inspections of the temporary bypass pumping system and operation at a minimum of hourly intervals. Inspections shall include at a minimum:
 - 1. Observation of all components of the temporary bypass system, including all piping and appurtenances, to ensure the system is operating as specified and no leakage or damage is occurring.
 - 2. Observation of the suction and discharge locations of the temporary bypass pumping system, including upstream and downstream sewers, to ensure flow levels are as expected and no surcharging of the sewer or damage is occurring.
 - 3. Verification of adequate fuel supply.
- B. Inspections shall be documented in the operation log at the time that the inspection is performed.

3.6 PROTECTION

- A. Protect temporary bypass pumping systems from traffic in proximity to system components and vandalism. Repair or replace damaged components immediately.

3.7 MAINTENANCE

- A. Ensure that the temporary bypass pumping system is properly maintained in accordance with the Temporary Bypass Pumping Plan and manufacturer recommendations. There shall be no leakage from the temporary bypass pumping system.
- B. Sufficient spare parts for pumps and piping shall be kept on site to maintain operation of the redundant system. Immediately replace spare parts that are placed into service.

3.8 DISASSEMBLY AND REMOVAL

- A. When bypass operations are complete, bypass piping shall be flushed with fresh water and drained into the wastewater system prior to disassembly. Piping shall be disassembled in a manner to prevent an SSO.
- B. Upon completion of the bypass pumping operations, and after the receipt of written permission from SCSD, the Contractor shall disassemble and remove piping and restore property to pre-construction condition.

END OF SECTION

DIVISION 33 UTILITIES

SECTION 33 05 62

POLYMER CONCRETE MANHOLE

PART 1 – GENERAL

1.1 DESCRIPTION

- A. This section includes the materials, manufacture, and installation of precast polymer concrete manholes, bases, lids and appurtenances.

1.2 REFERENCES

- A. ASTM C 33 Standard Specification for Concrete Aggregates
- B. ASTM C 478 Standard Specification for Precast Reinforced Concrete Manhole Sections
- C. ASTM C 443 Standard Specification for Joints for Concrete Pipe and Manholes Using Rubber Gaskets
- D. ASTM C 497 Standard Test Methods for Concrete Pipe, Manhole Sections, or Tile
- E. ASTM C 579 Standard Test Methods for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic, Surfacing, and Polymer Concretes
- F. ASTM C 580 Standard Test Method for Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
- G. ASTM C 857 Standard Practice for Minimum Structural Design Loading for Underground Utility Structures
- H. ASTM C 923 Standard Specification for Resilient Connectors Between Reinforced Concrete Manholes Structures, Pipes, and Laterals
- I. ASTM C 990 Standard Specification for Joints for Concrete Pipe, Manholes and Precast Box Sections using Preformed Flexible Joint Sealants
- J. ASTM D 648 Test Method for Deflection Temperature of Plastics Under Flexural Load in Edgewise Position
- K. ASTM D 6783 Standard Specification for Polymer Concrete Pipe
- L. ASTM D 2584 Test Method for Ignition Loss of Cured Reinforced Resins
- M. ACI 350-06 Code Requirements for Environmental Engineering Concrete Structures & Commentary
- N. ACI 440.1R-15 Guide for the Design and Construction of Structural Concrete Reinforced with Fiber-Reinforced Polymer (FRP) Bars
- O. ACI 548.6R-96 Polymer Concrete-Structural Applications State-of-the-Art Report
- P. California Greenbook Standard Specifications for Public Works Construction Section 211-2

1.3 SUBMITTALS

- A. Submittals shall be made in accordance with Section 01 30 00, Contractor Submittals
- B. Submit manufacturer's data and details of following items for approval:
 - 1. Shop drawings of manhole sections, base units and construction details, reinforcement details, jointing methods, materials, and dimensions

2. Summary of criteria used in manhole design including, as minimum, material properties, loading criteria, and dimensions assumed. Include certification from manufacturer that polymer concrete manhole design meets or exceeds the load and strength requirements of ASTM C 478 and ASTM C 857.
 3. Frames, grates, rings, and covers
 4. Materials to be used in fabricating pipe drop connections
 5. Materials to be used for pipe connections
 6. Materials to be used for stubs and stub plugs, if required
 7. Proof of independent Chemical Resistance testing conducted in accordance with the Standard Specifications for Public Works Construction (California Greenbook) Section 211-2
- C. Submitted sealed drawings by a registered Professional Engineer.

PART 2 – PRODUCTS

2.1 POLYMER CONCRETE MANHOLES

- A. Provide precast polymer concrete manhole sections, monolithic base section and lid.
- B. Provide base riser section with monolithic floors, unless shown otherwise.
- C. Provide riser sections joined with bell and spigot / ship-lap design seamed with butyl mastic and or rubber gaskets (ASTM C 990) so that on assembly, manhole base, riser and top section make a continuous and uniform manhole structure.
- D. Construct riser sections for polymer concrete manholes from standard polymer concrete manhole sections of the diameter indicated on drawings. Use various lengths of polymer concrete manhole sections in combination to provide correct height with the fewest joints.
- E. Design wall sections for depth and loading conditions with wall thickness as designed by polymer concrete manufacturer.
- F. Provide tops to support AASHTO HS-20 or HL-93 or vehicle loading or loads as required and receiving cast iron frame covers or hatches, as indicated on drawings.
- G. Manholes shall be designed with sufficient bottom anchorage and side friction to resist buoyancy. Field cast floatation collars are acceptable.

2.2 DESIGN CRITERIA:

- A. Polymer Concrete Manhole risers, cones, flat lids, grade rings and manhole base sections shall be designed by manufacturer to meet the intent of ASTM C 478 with allowable compositional and sizing differences as designed by the polymer concrete manufacturer.
 1. AASHTO HS-20 or HL-93 design or as required loading applied to manhole cover and transition and base slabs
 2. Polymer manholes will be designed based upon live and dead load criteria in ASTM C 857 and ACI 350-06
 3. Unit soil weight of 120 pcf located above portions of manhole, including base slab projections
 4. Internal liquid pressure based on unit weight of 63 pcf
 5. Dead load of manhole sections fully supported by polymer concrete manhole base

2.3 DESIGN:

- A. Polymer Concrete Manhole risers, cones, flat lids, grade rings and manhole base sections shall be designed by manufacturer to meet loading requirements of ASTM C 478, ASTM C 857 and ACI 350-06 as modified for polymer concrete manhole design as follows:
 1. Polymer Concrete Mix Design shall consist of thermosetting resin, sand, and aggregate. No Portland cement shall be allowed as part of the mix design matrix.

2. All aggregate, sand and quartz powder shall meet the requirements of ASTM C 33, where applicable. All sand and aggregate shall be inert in an acidic environment
3. Reinforcement
 - a. Steel reinforcement per ASTM C 478, or
 - b. Acid resistant reinforcement (FRP Bar) in accordance with ACI 440.1R-06 as applicable for polymer concrete design
4. Thermosetting Resin
 - a. The resin content shall not be less than 7% of the weight of the sample as determined by test method D 2584.
 - b. Resin selection shall be suitable for applications in the corrosive conditions to which the polymer concrete manhole structures will be exposed.
 - c. Resin additives such as curing agents, pigments, dyes, fillers and thixotropic agents, when used, shall not be detrimental to the structural or corrosion resistance properties of the manhole.
5. Each polymer concrete manhole component shall be free of all defects, including indentations, cracks, foreign inclusions and resin starved areas that, due to their nature and degree or extent, detrimentally affect the strength and serviceability of the component part. Cosmetic defect shall not be cause for rejection. The nominal internal diameter of manhole components shall not vary more than 2%. Variations in height of two opposite sides of risers and cones shall not be more the 5/8 inch. The under run in height of a riser or cone shall not be more than ¼ in/ft of height with a maximum of ½ inch in any one section
6. Marking and Identification - Each manhole shall be marked with the following information - Manufacturer's name or trademark, Manufacturer's location and Production Date
7. Manhole joints shall be assembled with a bell/spigot or shiplap butyl mastic and/or gasketed joint so that on assembly, manhole base, riser and top section make a continuous and uniform manhole. Joint sealing surfaces shall be free of dents, gouges and other surface irregularities that would affect joint integrity
8. Minimum clearance between wall penetrations and joints shall be per manufacturer's design
9. Construct invert channels to provide smooth flow transition with minimal disruption of flow at pipe-manhole connections. Invert slope through manhole is as indicated on drawings. All precast base sections to be cast monolithically. Polymer bench and channel are to be constructed with all polymer concrete material. Extended ballast slab requirements for buoyancy concerns can be addressed with cementitious concrete material
10. Provide resilient pipe to manhole connectors conforming to requirements of ASTM C 923 or other options as available. All connectors are to be water tight. Install approved resilient connectors at each pipe entering and exiting manholes in accordance with manufacturer's instructions.

2.4 GROUTING

- A. All materials needed for grouting and patching will be a polyester mortar compound provided by the manufacturer or an approved equal by the manufacturer

2.5 MANUFACTURER

- A. Manufacturer of precast polymer concrete items shall employ manufacturing methods and material formulation in use for a minimum of five years. Submit manufacturer references with materials data.
- B. Manufacturers:

1. Armorock LLC, Boulder City, Nevada, www.armorock.com
2. U.S. Composite Pipe, a division of Thompson Pipe Group, Alvarado, Texas, www.uscompositепipe.com
3. iNTERpipe, Des Moines, Iowa, www.polymerpipe.com
4. Or approved equal

2.6 ACCESS HATCH

- A. Access hatch frames and covers shall be fabricated aluminum with stainless steel hardware, 2-leaf design with integral fall protection grating.
 1. Flygt Safe-Hatch
 2. Bilco JDAL-H20
 3. Or approved equal.
- B. Covers shall be fabricated with supports to resist deflection.
- C. All covers shall be hinged providing access to the entire vault. Covers shall have spring hydraulic assists.
- D. All covers shall be equipped with a hold-open mechanism with safety chains.
- E. All covers shall be equipped with a flush, locking device with locking eyes up.
- F. All covers must be H20 traffic rated for equipment or vehicle loading.

2.7 MANHOLE FRAMES AND COVERS

- A. Provide manhole frames and covers per Section 33 05 61.

2.8 CAST-IN-PLACE CONCRETE BASE

- A. Provide cast-in-place concrete base for cast-around manholes per Section 33 05 61. Provide ring-form to create top channel sized to receive manhole barrel.
- B. Cast-in-place bases shall be epoxy-coated per Section 09 90 00.

2.9 INSIDE DROP BOWL

- A. Provide inside drop bowl system at inlet pipe, as indicated on the drawings.
- B. Drop bowl system shall consist of drop bowl, drop pipe and stainless steel pipe brackets.
- C. System shall be Reliner as manufactured by Duran, Inc., or approved equal.
- D. Drop bowl may be field mounted or pre-mounted at casting facility.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. The installation of wet wells shall be in accordance with the project plans and specifications and the manufacturer's recommended practices.
- B. Handling: Properly rated slings and spreader bar shall be used for lifting. The type of rigging used shall be per the manufacturer's recommendation.
- C. Place the precast polymer concrete base and install all lateral pipes as shown on the plans into flexible connectors per flexible connector manufacturer's instructions.
- D. Place manhole section plumb and level, trim to correct elevations, as follows:
 1. All joint surfaces of precast sections and surface of manhole base shall be thoroughly inspected for damage and cleaned prior to setting precast sections. The sections shall be set in preformed plastic sealing gaskets.
- E. Jointing:

1. Sealing surfaces and joint components shall be inspected for damage and cleaned of all debris.
 2. Joint sealants shall be installed in accordance to the manufacturer's instructions. Handling of barrel sections after the sealant has been affixed shall be carefully controlled to avoid bumping the gasket and thus displacing it or contaminating it with dirt or other foreign material. Any gaskets so disturbed shall be removed and replaced if damaged and repositioned if displaced.
 3. Apply joint lubricant to elastomeric seals. Use only lubricants approved by the manufacturer.
 4. Care shall be taken to properly align the manhole section with the previously set section before it is lowered into position.
 5. Placement and compaction of surrounding backfill material shall be applied so as to provide sufficient and equal side pressure on the manhole.
- F. Before any work is started on adjusting or repairing a manhole, the channels in the base shall be covered with strips of wood and the entire base covered with a heavy piece of canvas. This cover shall be kept in place during all work. Upon completion of the WORK the wood strips and the canvas shall be removed from the manhole allowing no debris to fall or remain in the manhole.

3.2 COLD JOINT PIPE PENETRATIONS

- A. Where required, cold joint pipe penetrations shall be grouted using a corrosion resistant grout and a rubber water stop grout ring.

3.3 LEAKAGE TESTING

- A. Water tightness of wet well shall be tested in connection with tests of sanitary sewers and manholes, or at the time the manhole is completed and backfilled.
- B. Perform leakage test per the requirements of Section 33 05 05.33.

3.4 DEFECTIVE POLYMER CONCRETE AND REPAIRS

- A. Precast polymer concrete showing cracks, rock pockets, voids, spalls, or other defects that adversely affect the structural adequacy of the manhole shall be considered defective.
1. The Engineer shall be the arbiter as to whether polymer concrete is defective.
- B. Defective polymer concrete resulting from improper casting or curing shall be repaired or replaced at the plant prior to shipment.
1. All damaged polymer concrete surfaces shall be inspected and any pour joints, voids, rock pockets, tie holes, etc. shall be patched at one time.
- C. Damaged polymer concrete that results from transportation, handling, or storage after the piece has left the plant shall be repaired or replaced at no expense to the Owner, in accordance with the manufacturer's recommendations.

3.5 INSIDE DROP BOWL

- A. Installation shall be in accordance with manufacturer requirements.

END OF SECTION

DIVISION 33 UTILITIES
SECTION 33 30 00
SANITARY SEWERAGE UTILITIES

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes:
 - 1. Site domestic wastewater (sanitary sewage) pipe and fittings
 - 2. Manholes, cleanouts, flushing inlets, and other appurtenances

1.2 RELATED REQUIREMENTS

- A. Section 31 23 33 – Trenching
- B. Section 33 01 50.01 – Temporary Bypass Pumping
- C. Section 33 05 62 – Polymer Concrete Manhole
- D. California Building Standards Code (CBSC), 2022 Edition.

1.3 REFERENCES

- A. ASTM C 1244 – Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill
- B. ASTM D 2321 – Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
- C. ASTM D 3034 – Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings
- D. ASTM F 1417 – Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air

1.4 SUBMITTALS

- A. Submit testing results for the proposed bedding and backfill to the ENGINEER and GEOTECHNICAL ENGINEER at least 2 weeks prior to proposed use
- B. Submit samples of proposed bedding and backfill to the GEOTECHNICAL ENGINEER at least 2 weeks prior to proposed use.
- C. Submit manufacturer cut sheets for piping and appurtenances to the ENGINEER.

PART 2 – PRODUCTS

2.1 GENERAL

- A. Sewer system shall be constructed in accordance with ASTM D 2321, manufacturer recommendations, the Drawings, and these Specifications.

2.2 BEDDING AND BACKFILL

- A. Pipe bedding and initial backfill: Clean Sand in accordance with Section 31 23 33, or native material if approved by the GEOTECHNICAL ENGINEER.

- B. Final backfill: Clean Sand in accordance with Section 31 2333, or native material if approved by the GEOTECHNICAL ENGINEER.

2.3 PIPE

- A. Gravity sewer pipe, 4" through 8": PVC SDR 26 with rubber gasketed joints conforming to ASTM D 3034

2.4 MANHOLES

- A. Concrete manholes shall be precast units conforming to ASTM C 478 and the details shown on the plans.
- B. Precast unit joints shall be sealed with preformed butyl rubber joint sealant conforming to ASTM C-990.
- C. Pipe connections to concrete structures shall be fitted with a flexible, watertight elastomeric gasket conforming to ASTM C-923 (for PVC pipe).
- D. The flow line, whether precast or cast in place, shall be formed in the field to provide a smooth flow line with bench at the pipe spring line. The invert paving thickness in precast structures shall be at least 3" below the bottom of the lowest pipe.
- E. Manhole frames and covers shall be made of ductile iron conforming to ASTM A 536, Class 400, or cast iron conforming to ASTM A 48, Class 30. Casting shall be smooth, clean, and free from blisters, blowholes, and shrinkage. Castings shall be asphalt coated.
 - 1. Frames and covers shall be of the traffic type, designed for H-20 loading.
 - 2. Covers shall have the words "SANITARY SEWER" cast thereon.

2.5 CLEANOUTS

- A. Cleanout boxes: Christy G5 with cast iron cover, traffic rated. Cover to be marked "Sewer".
- B. Materials for cleanouts and flushing inlets shall be in accordance with the California Plumbing Code and the details on the Construction Drawings. Cleanout risers shall be of the same material and diameter as the sewer line.

2.6 ACCESSORIES

- A. Provide warning tape as specified in Section 31 2333 – Trenching

PART 3 – EXECUTION

3.1 GENERAL

- A. All work shall be in accordance with:
 - 1. The California Plumbing Code
 - 1. Product manufacturer's recommendations
 - 2. ASTM D 2421

3.2 MAINTAINING SANITARY SEWER SERVICE

- A. Maintain sanitary sewer service and conduct operations at times selected to minimize the duration and inconvenience of service interruption.
- B. At least 48 hours prior to the required cutting or abandoning of an existing sewer line, notify the water utility owner, and obtain approval of the schedule.

3.3 TRENCHING

- A. Perform trenching in accordance with Section 31 23 33.
- B. Provide warning tape in accordance with Section 31 23 33.

3.4 PIPE COVER

- A. Top of pipe to finished grade shall be 36 inches minimum for 4 inch and larger pipe, unless otherwise indicated on the Drawings or approved by the Engineer.
 - 1. Pipes 4" in diameter and larger which are located within paved areas and with less than 24" of cover measured from the top of pipe to the finished pavement grade shall be backfilled with minimum 2,500 psi concrete to at least 6" above the top of pipe.

3.5 PIPE TESTING

- A. Following placement and compaction of backfill, and prior to the placement of permanent pavement, sewer mains and laterals shall be cleaned, videoed, and tested with low pressure air to verify that the pipeline is free from obstructions (deflections, joint offsets, lateral pipe intrusions, etc.) and water-tight.
- B. All PVC main line pipe shall be tested for deflection, joint displacement, or other obstruction by passing a rigid mandrel through the pipe by hand. The mandrel shall be a full circle, solid cylinder, or a cylinder, approved by the District as to design and manufacture. The circular cross section of the mandrel shall have a diameter of at least 95 percent of the specified average inside pipe diameter of the pipe.
- C. Low pressure air testing shall be performed in accordance with ASTM F 1417.

3.6 MANHOLE INSTALLATION

- A. Manhole Base
 - 1. Manhole bases shall be poured in place against undisturbed soil with Class A concrete having 3/4-inch-maximum size aggregate and a slump of not greater than 2-inches. The manhole base shall be poured as one monolithic pour. A 12-inch thick base of 3/4-inch crushed rock shall be placed prior to the placement of concrete for all installations.
 - 2. Manhole Stub Placement: The manhole stubs and sewer main shall be set before the concrete is placed and shall be rechecked for alignment and grade before the concrete has set. The various sized inlets and outlets to the manhole shall be located as indicated on the plans and as detailed in the detail drawings.
 - 3. Channel Configuration: The invert of the manhole base shall be formed so as to provide smooth channels conforming in size and shape to the lower portions of the inlet and outlet pipes. The channel shall vary uniformly in size and shape from inlet to outlet, and a shelf shall be constructed higher than the pipe as indicated on the drawings. The manhole base shall extend 12-inches below the bottom of the lowest pipe.
 - 4. Curing Time Before Further Construction: Unless approved otherwise by the ENGINEER in advance, the bases shall set a minimum of 24 hours before the manhole construction is continued.
 - 5. Manhole Barrel Impression Ring shall be used to mold a groove into the base to match the manhole barrel.
- B. Pre-Cast Manhole Base
 - 1. Place 12-inch thick base of 3/4-inch crushed rock on undisturbed soil below pre-cast manhole base. Backfill and compact per Section 31 00 00.

- C. Manhole Construction.
 - 1. Stack barrels and cones as detailed on the Drawings.
 - 2. Provide grade rings to meet final rim elevation.
 - 3. The manhole frame shall be bolted to grade ring and secured with grout and cement mortar fillet.

3.7 MANHOLE TESTING

- A. Watertightness of manholes shall be tested by fill testing.
- B. Fill testing shall consist of plugging all pipe connections, filling the manhole with clean water and measuring the change in water surface over a 1-hour period. A change of more than ½ inch over 15 minutes shall be cause for rejection.

END OF SECTION

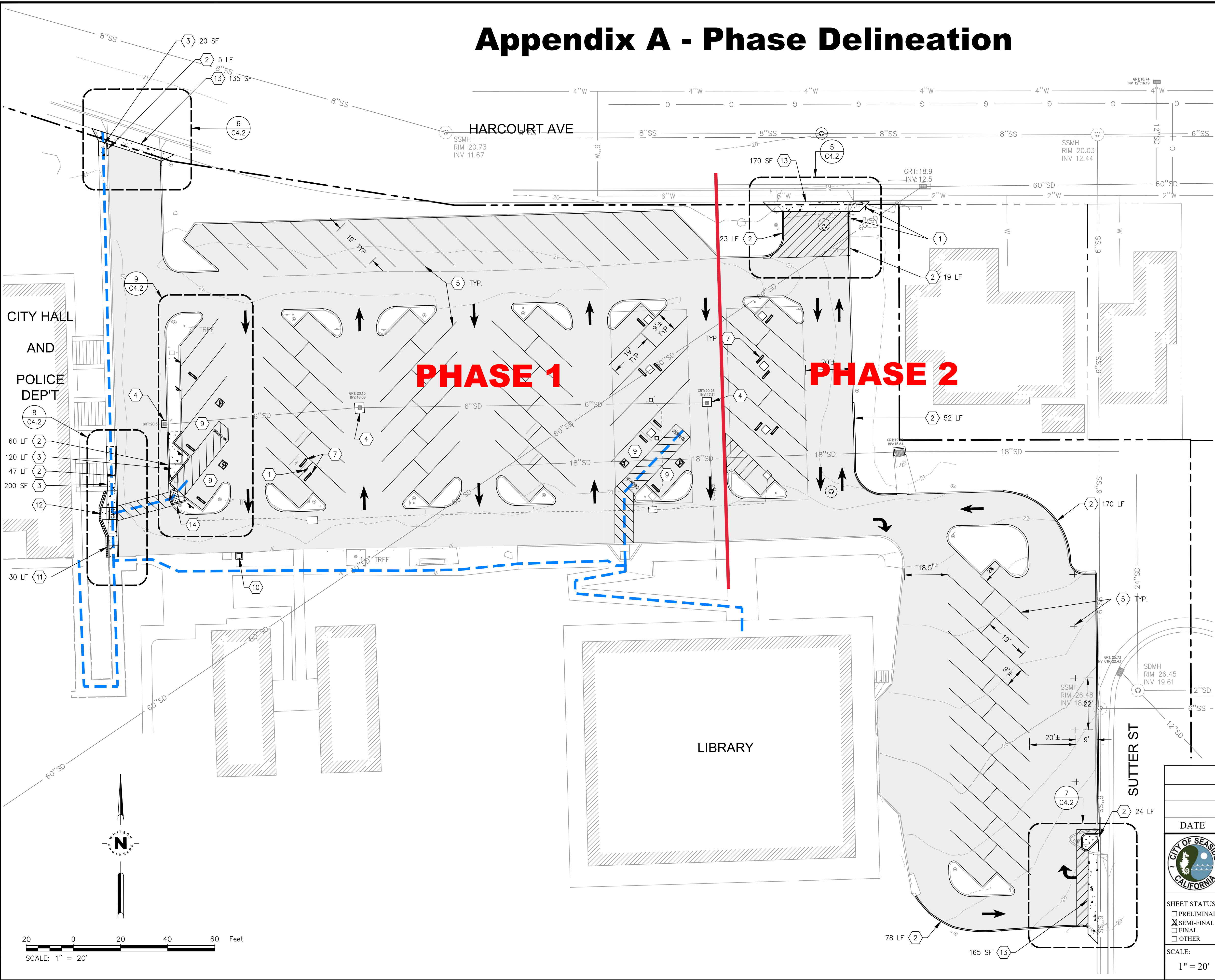
Appendix A - Phase Delineation

LEGEND

- 3" HMA (1/2" TYPE A)
ON RE-COMPACTED EXISTING AB
- CONCRETE PAVING
- 3" HMA ON 6" CL 2 AB
- SAWCUT LINE
- ARROW PAVEMENT MARKING
- ACCESSIBLE PATH OF TRAVEL

CONSTRUCTION KEYNOTES:

- RESET OR RELOCATE EXISTING SIGN PANEL ON NEW POST AND FOUNDATION PER CALTRANS STANDARDS PLAN RS-5 ON SHEET C4.3.
- CONCRETE CURB PER DETAIL S-101 ON SHEET C4.1
- CONCRETE SIDEWALK PER DETAIL S-101 ON SHEET C4.1
- DRAIN INLET APRON PER DETAIL 4 ON SHEET C4.2
- RE-STRIPE PARKING LOT WITH 2-COAT PAINT PER DETAILS. MATCH EXISTING STRIPING LAYOUT.
- INTENTIONALLY OMITTED
- CONCRETE WHEEL STOP PER DETAIL 3 ON SHEET 4.2
- INTENTIONALLY OMITTED
- ACCESSIBLE PARKING PER STANDARD PLAN A90A/C4.1. MINIMUM STALL DIMENSIONS: 9'W x 19'L. FINISHED SLOPES WITHIN PARKING AND LOADING AREAS SHALL NOT EXCEED 2%.
- RELOCATED MAILBOX; CONSTRUCT 3'x3'x6" CONCRETE SLAB AT LOCATION DETERMINED BY THE ENGINEER AND BOLT MAILBOX TO SLAB PER POST OFFICE REQUIREMENTS.
- 6" TO 18" CONCRETE RETAINING CURB PER DETAIL 12 ON SHEET C4.2
- CONCRETE CURB RAMP CASE PER DETAIL A88A ON SHEET C4.3
- RETROFIT PEDESTRIAN PASSAGE PER DETAIL 1 ON SHEET C4.2.
- PASSAGEWAY WITH 36"-DEEP DWS. (FLUSH CURB PAID FOR AS CONCRETE CURB, AND CONCRETE UNDER DWS PAID FOR AS CONCRETE SIDEWALK.)



Civil Engineering
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DATE		REVISIONS	
CITY OF SEASIDE PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION 440 HARCOURT AVE. SEASIDE, CA 93955 (831)-899-6825		CITY OF SEASIDE PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION 440 HARCOURT AVE. SEASIDE, CA 93955 (831)-899-6825	
SHEET STATUS: ☐ PRELIMINARY ☒ SEMI-FINAL ☐ FINAL ☐ OTHER		PROJECT TITLE: CITY HALL AND LIBRARY PARKING LOT REPAVING	
SCALE: 1" = 20'		PROJECT NO. SHEET NO. C2.1 DWG FILE NO. 2071.27 CIVIL	