
COMMUNITY OUTREACH PLUS ENGAGED MUNICIPAL STAFF EQUALS SUCCESSFUL PIPE BURSTING AT PEDRO POINT

BRIAN MARTINEZ, CITY OF PACIFICA

TAYLOR ALLEN, EKI ENVIRONMENT & WATER, INC.

LOUIS SUN, CITY OF PACIFICA

NELSON SCHLATER, EKI ENVIRONMENT & WATER, INC.

JEFFREY J. TARANTINO, FREYER & LAURETA, INC.

FEBRUARY 20, 2020

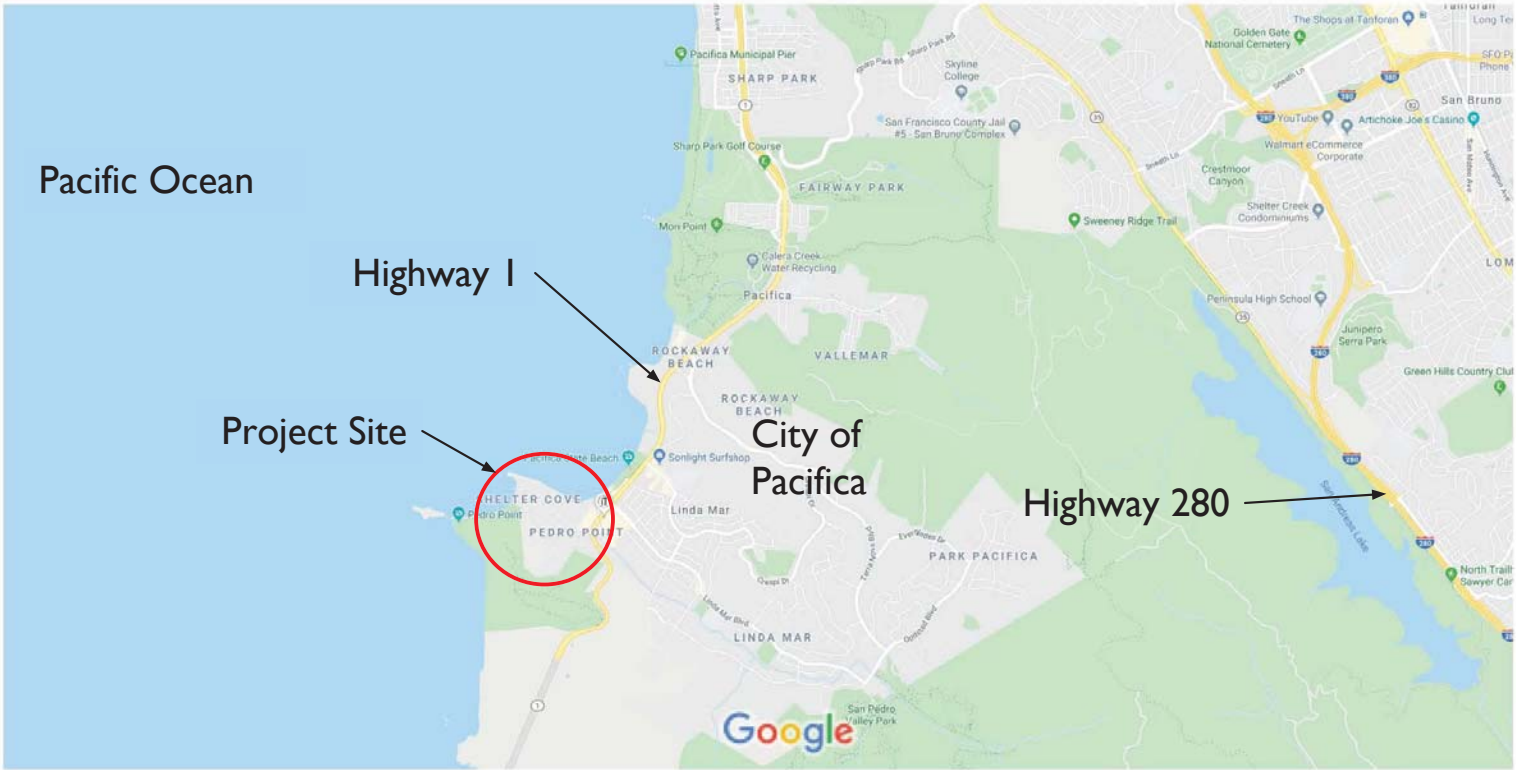


OVERVIEW

- Project Introduction
- Project Challenges
- City Engagement and Outreach through Each Phase of the Project
 - Design, Bidding, and Construction
- Private Lateral Replacement
- Project Success
- Summary

PROJECT INTRODUCTION

Google Maps



Map data ©2020 Google 2000 ft



eki

PEDRO POINT NEIGHBORHOOD



SANITARY SEWER SYSTEM

- ~16,000 LF
 - Existing:
 - 6" to 8" VCP
 - Replaced with:
 - 8" to 12" HDPE
 - 52 manholes
 - 31 lamp holes
- \$3.5M Construction Cost



PROJECT TEAM

- Owner: City of Pacifica
- Design Engineer: Freyer & Laureta, Inc.
- Project and Construction Manager: EKI Environment & Water, Inc.
- Contractor: Pacific Trenchless

PROJECT CHALLENGES

- ~50% sewer mains located in backyard easements
- Steep and narrow residential roads
- Existing sanitary sewer crosses natural gas and asbestos water main
- Private laterals
 - Owner by property owner
 - Large contributor to I&I



PROJECT CHALLENGES

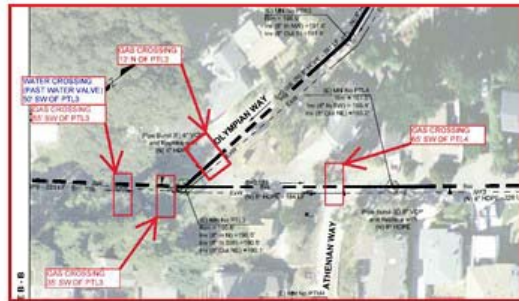


CONSTRUCTION METHOD

- Pipe bursting was chosen because:
 - City's previous positive experience;
 - Reducing roadway surface impacts; and
 - Higher anticipated pipe replacement installation rate compared to open trench.



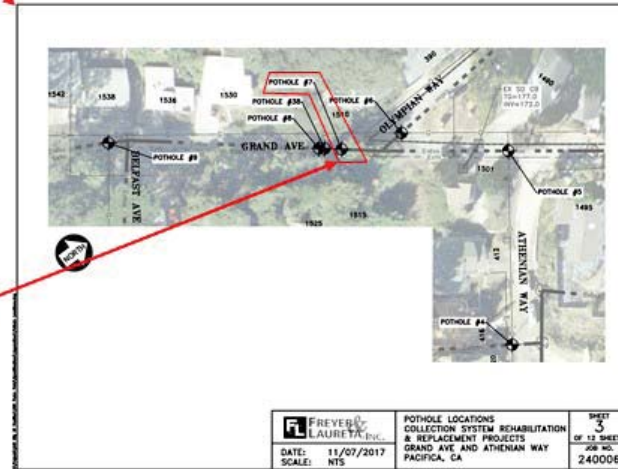
KEYS TO SUCCESS – DESIGN PHASE



Pothole Plan

PTL #	PTL Description	PTL Date	PTL Status	PTL Location	PTL Depth	PTL Diameter	PTL Material	PTL Notes
1001	Water Crossing	11/07/2017	Completed	30' SW of PTL	12"	12"	Concrete	Water crossing repair completed.
1002	Gas Crossing	11/07/2017	Completed	12' N of PTL	12"	12"	Concrete	Gas crossing repair completed.
1003	Gas Crossing	11/07/2017	Completed	40' SW of PTL	12"	12"	Concrete	Gas crossing repair completed.
1004	Gas Crossing	11/07/2017	Completed	10' SW of PTL	12"	12"	Concrete	Gas crossing repair completed.
1005	Pothole #1	11/07/2017	Completed	Grand Ave	12"	12"	Concrete	Pothole repair completed.
1006	Pothole #2	11/07/2017	Completed	Grand Ave	12"	12"	Concrete	Pothole repair completed.
1007	Pothole #3	11/07/2017	Completed	Grand Ave	12"	12"	Concrete	Pothole repair completed.
1008	Pothole #4	11/07/2017	Completed	Grand Ave	12"	12"	Concrete	Pothole repair completed.
1009	Pothole #5	11/07/2017	Completed	Grand Ave	12"	12"	Concrete	Pothole repair completed.
1010	Pothole #6	11/07/2017	Completed	Grand Ave	12"	12"	Concrete	Pothole repair completed.

Pothole Data



Pothole Results



KEYS TO SUCCESS – BIDDING PHASE

- Contractor Pre-Qualification
 - Construction experience
 - Safety program
 - OSHA citations
 - Experience Modification Rate
 - Total Recordable Incident Rate
- Mandatory Pre-Bid Walk
- First Public Outreach Meeting

City of Pacifica

STATEMENT OF PRE-QUALIFICATION
("SOPQ")

FOR

**COLLECTION SYSTEM REHABILITATION
AND REPLACEMENT PROJECTS – PEDRO
POINT (C031A)**

SOPQ SUBMITTAL DEADLINE:
2:00 PM, DECEMBER 12, 2017

SUBMIT TO:

CITY OF PACIFICA
ATTN: ALEX GARCIA, ASSISTANT ENGINEER of
Public Works – Wastewater
700 Coast Highway
Pacifica, CA 94044



KEYS TO SUCCESS – CONSTRUCTION

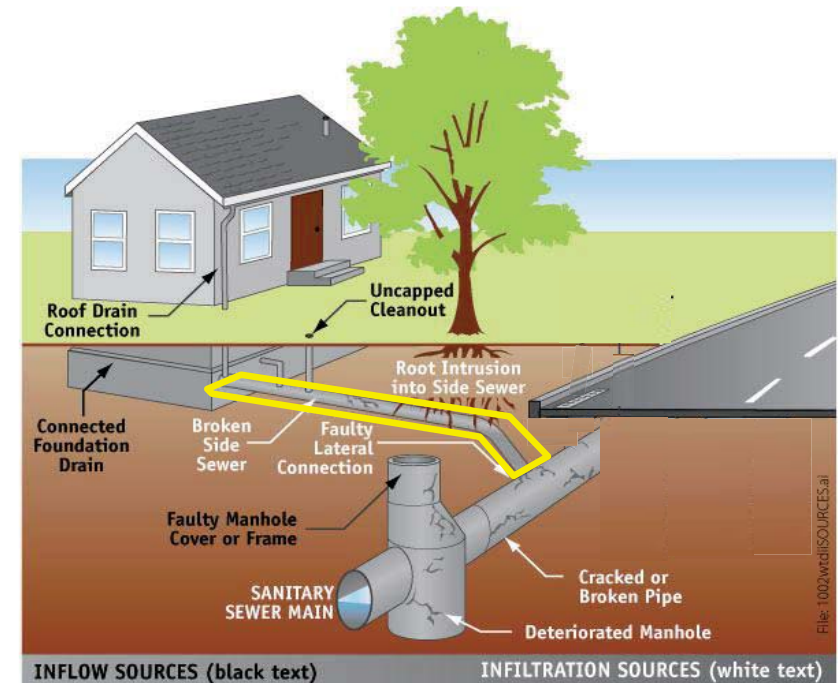
PHASE

- Biweekly Progress Meetings
- Posted Three-Week Lookahead on Website
 - Useful for private lateral replacement scheduling
- Second Public Outreach Meeting
- Private Lateral Replacement



KEYS TO SUCCESS – PRIVATE LATERAL

- Large portion of I&I due to damaged private laterals
- Residents own lateral up to the Main
- Project included reconnecting the private laterals to the Main
- City wanted to incentivize residents to replace private lateral



LATERAL COMPLIANCE CERTIFICATE

Implemented January 1, 2012

- Required for:
 - Transfer of property
 - Remodel or addition that costs \$50,000 or more
 - Adding any plumbing fixtures
 - Change in water service is requested (addition of a meter)
- Explained during Public Outreach Meetings

LATERAL GRANT PROGRAM

- Began July 1, 2008
- \$1,000 Grant
- Properties in need of an LCC for real estate transaction or major remodel are **not eligible**
- Properties within a City sponsored Sewer Replacement Project are **not eligible**
- Other incentives will be provided

Sewer Problems?



Attention: Pacifica Residents

City of Pacifica Sewer Lateral Replacement Program:
Notice of Availability of Free Inspections and
Grant Funding for Sewer Lateral Replacement



PRIVATE LATERALS – BID STRUCTURE



PRIVATE LATERALS – BID RESULTS

Bid Item No.	Bid Item	Est. Quan.	Unit	Unit Price	Bid Amount
PRIVATE LATERAL REPLACEMENT BID ITEMS (Separate Contract)					
34.	Private Lateral Replacement Minimum Base	20	EA	3,755	75,100
35.	Pipe Burst 4" Private Lateral and Replace with 4" HDPE	1000	LF	75	75,000
36.	Open Trench 4" Private Lateral and Replace with 4" HDPE (SDR17)	100	LF	225	22,500
37.	Cleanout	130	EA	555	72,150

- <42 LF = \$3,755
- >42 LF = unit pricing
- Typical plumber cost +\$6,000
- ~40% Cost Savings

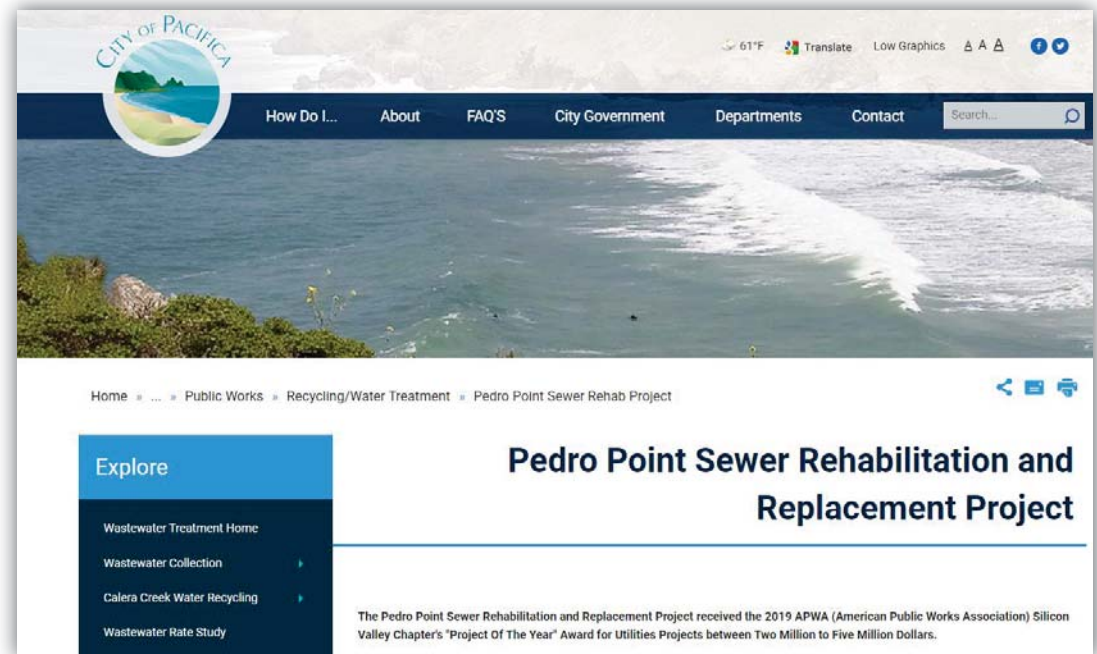


PRIVATE LATERAL REPLACEMENT

- Contract between Property Owner and Contractor
- Contractor information posted on website and flyers
- Three-Week Look Ahead allowed residents to be aware of contractor schedule
 - Ideally, residents would contact contractor prior to contractor beginning construction on their street

KEYS TO SUCCESS – PUBLIC OUTREACH

- Flyers sent via mail
- Two public Meetings
- Website updates
- Next Door and Connect with Pacifica



PROJECT SUCCESS

- System
 - 50 private laterals replaced
- Construction
 - Cost: Change Orders <3% of bid price
 - Disturbance: Minimal complaints from residents
- Operational
 - Reduced maintenance
 - Flow data (monitoring in progress)



SUMMARY

- Reasons for success:
 - Engaged and Knowledgeable Municipal Staff;
 - Maintenance Informed Pothole Program During Design;
 - Pre-qualified Contractor with experience bursting in streets and easements;
 - Significant Public Outreach through out all phases of the Project;
 - Problem Solving with City and Contractor during Construction Meetings; and
 - Overall approach resulted in minimal change orders.



QUESTIONS

