Town of Los Altos Hills
Sanitary Sewer Collection System Progress Report
Contract Year 2015

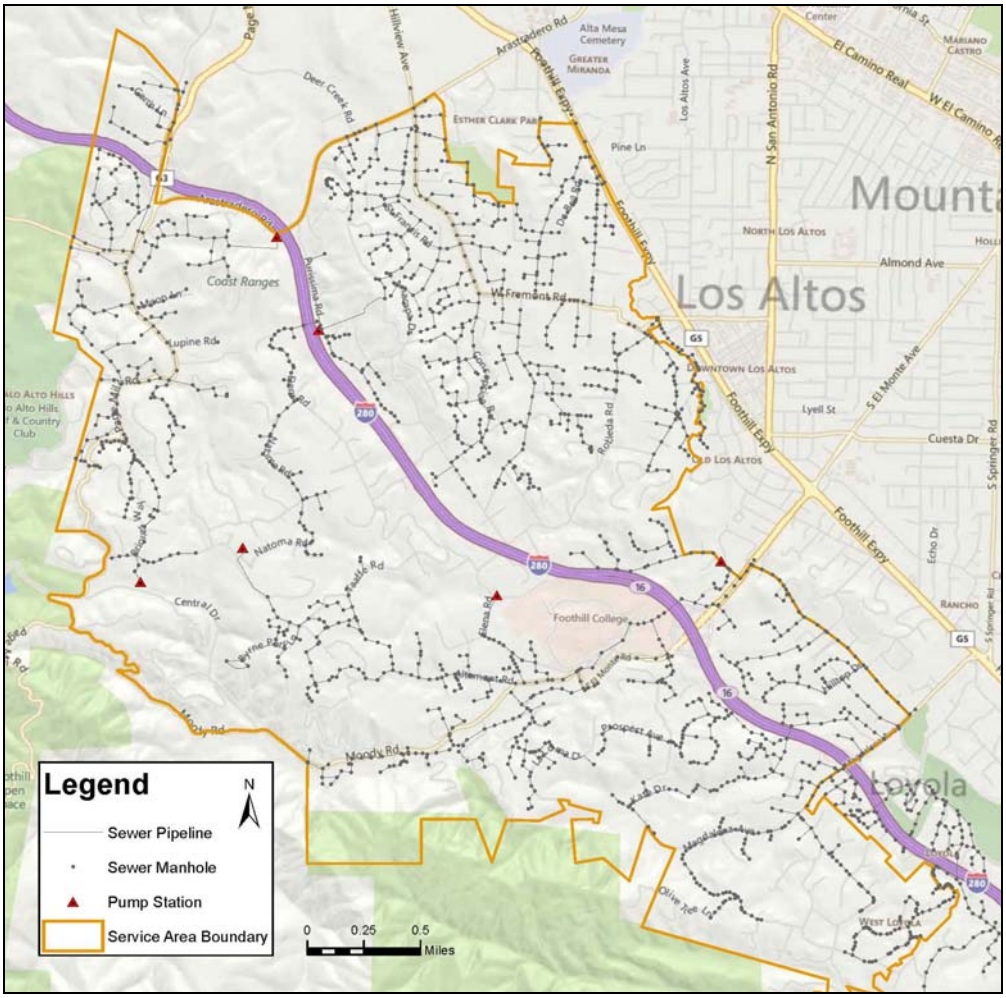
Reporting Month: July 2015
Report Date: September 15, 2015

I. INTRODUCTION

Figure 1 shows the Town of Los Altos Hills sewer system.

- Area served: 8.4 sq mi
- Miles of sewer pipelines: 56
- Number of residential parcels: 1,750
- Number of non-residential connections: 8

Figure 1. Town of Los Altos Hills Sewer System



II. PUBLIC WORKS DIRECTOR/CITY ENGINEER HIGHLIGHTS

a. SEWER SYSTEM MAINTENANCE HIGHLIGHTS

During the month of July 2015, the Town's sewer maintenance contractor, West Bay Sanitary District (West Bay), completed all contract tasks on schedule. No significant issues were noted during cleaning, CCTV inspection, or pump stations inspections. However, a category 3 SSO event (i.e., less than 1,000 gallons that does not reach a surface water or storm drain) occurred at a private lateral during this period caused by poor connection to the mainline and root intrusion.

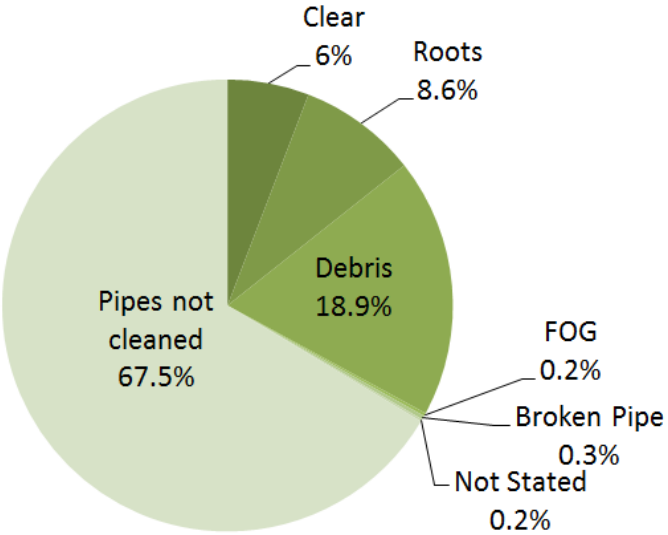
A summary of completed tasks is provided in the table below. More detailed information is provided later in this report, and is also shown in the attached maps.

Table 1. Summary of Completed Tasks (Contract Year Aug 2014 – July 2015)

Task	Month of July 2015	Contract Year to Date	Compare to Contract Goal
Sewer Cleaning • Biennial (24-month) and Annual (12-month) Schedule • High Frequency (< 12-month) • Other, Unscheduled Cleaning	• 0 miles • 0 miles • 0.7 miles	• 17 miles • 0.2 mile • 6.1 miles	103.7% of Goal
Pump Station • Preventive Maintenance • Unscheduled repairs	• 4X • 0	• 50X • 2X	96% of Goal
CCTV Inspection • Routine Schedule (30 mos) • Other Unscheduled CCTV	• 0.6 miles • 0.4 mile	• 11.3 miles • 3 miles	101.3% of Goal
SSO Response • No. of SSOs – Sewer Mains	• 1	• 7	N/A

Figure 2 shows contract year-to-date cleaning results for the Town's pipes. Since August 2014, 32.5% of the pipes within the Town's collection system have been cleaned. Based on the cleaning results, debris and roots have been the two main cleaning issues for pipes without a clear result. In comparison to the entire system, 18.9 percent had debris, 8.6 percent had roots, and 6 percent had clear results.

Figure 2. 2015 Cleaning Results as of July 31, 2015



Figures 3a and 3b show contract year-to-date CCTV inspection findings. As of July 2015, 19 percent of the Town's collection system has been inspected. Nineteen percent of the pipes in the system that have been inspected were determined to have National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) Structural Grade 3 defects or less. NASSCO PACP characterizes Structural Grade 3 defects as requiring action in 10 or more years. The remaining 0.7% represents inspected pipes that have Structural Grade 4 or 5 defects most of which are likely to require action within 5 to 10 years.

Figure 3a. 2015 CCTV Inspection Results as of July 31, 2015 (Structural)

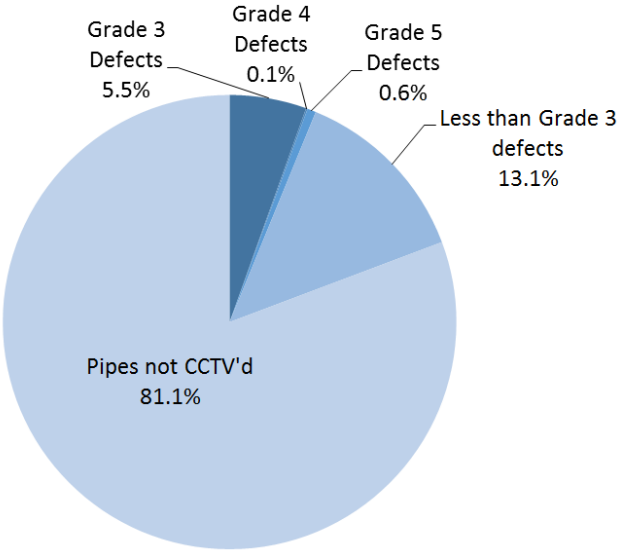
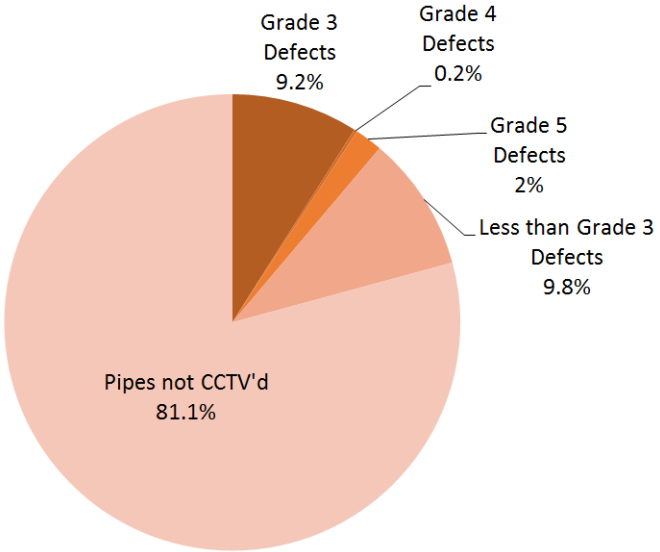


Figure 3b. 2015 CCTV Inspection Results as of July 31, 2015 (O&M)



Less than three percent of the pipes in the system that have been inspected have NASSCO PACP Operations and Maintenance (O&M) Grade 4 or 5 defects. These pipes have been or will be placed on the hot spot list until the O&M issues are resolved.

The remaining 81% of pipes in the system, once inspected, will provide results that would help determine future maintenance operations.

Table 2 on the following page shows SSOs to date by cause. Over the past 5 years, the predominant cause of SSOs has been roots. However, as indicated by the reduced number of SSOs in 2015, the use of chemical root control, combined with improved sewer maintenance methods in place by West Bay, have reduced root-related issues within the Town's sewer system.

Table 2. 2015 SSOs to Date, by Cause

Cause of SSOs	2015	2014	2013	2012	2011
Root Intrusion	2	16	9	10	18
Debris	0	1	2	0	1
Grease	0	0	0	0	0
Structural	0	1	0	1	1
Pump Station Failure	0	0	0	1	0
Other	1	0	1	2	1
Total SSOs/yr	**3**	**18**	**12**	**14**	**21**

Attachment I includes maps providing additional information on cleaning and CCTV inspection results.

b. Summary of Meetings Held during Reporting Month

There were no meetings held during this reporting month.

c. Computerized Maintenance Management System (CMMS) Updates

During the reporting month, aside from routine input of cleaning and CCTV inspection progress to date, there were no further changes made to the CMMS.

d. Geographic Information System (GIS) and Progress on Manhole Data Collection

During the reporting month, West Bay made no changes to the Town's sewer GIS maps. West Bay collected GIS map changes during work completed in the first year of the contract, and will incorporate these changes into the current maps by December 2015.

e. Maintenance Planning

During the reporting month, no issues were identified to warrant changes to the Town's cleaning or CCTV inspection program. West Bay will continue to clean basins that have the highest risk for maintenance-related SSOs, including Branch 5 and the remainder of Branch 2, as defined by the Town's GIS maps.

The Town, West Bay, and VWHA have discussed next steps related to the review and update of the cleaning, root control, and CCTV inspection programs. Updates on these efforts will be provided in future monthly reports as they occur.

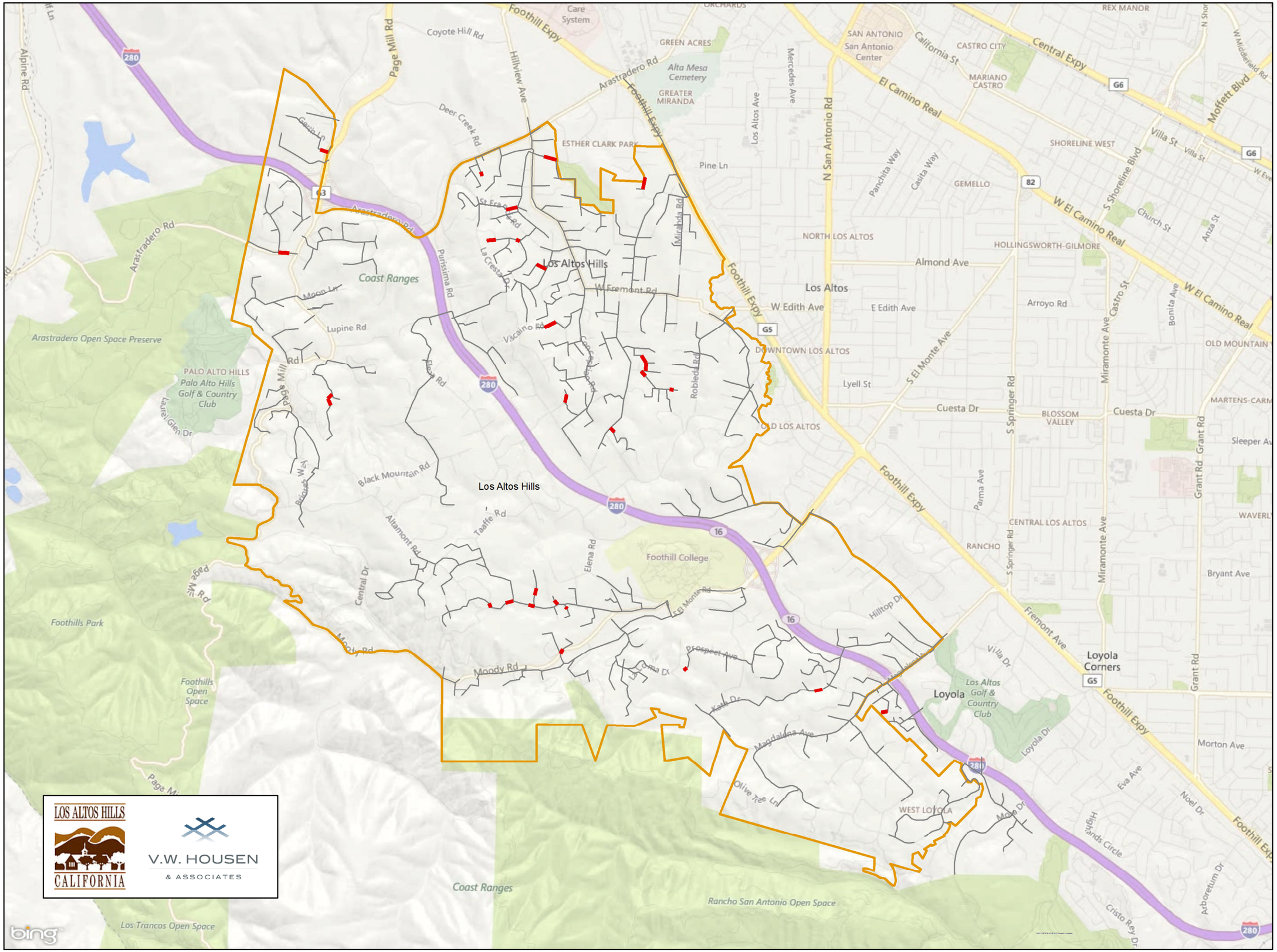
f. Other

This section provides updates on the Town's sewer system management activities that are completed in addition to operations, maintenance, and SSO response.

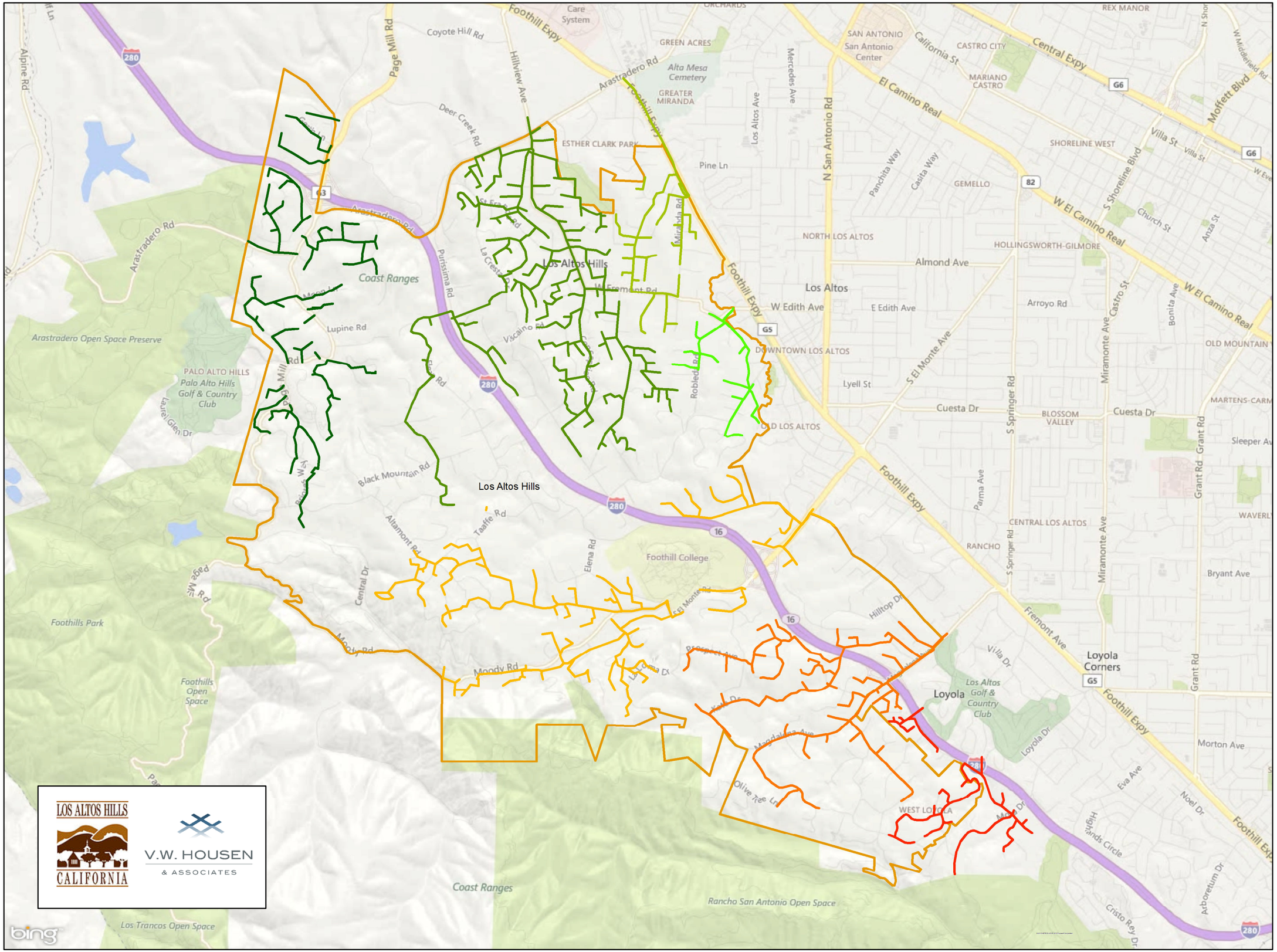
Staff Support Activities	Progress	Comments
2015 Sewer Capital Improvements • % Completion • Line replacement • Spot repairs	• 90% • 2,350 LF • 190 LF	• Substantial completion is anticipated by August 2015.
SSMP 3rd Party Review	• Town has entered into a contract with Humphrey Consulting for 3rd party review of the Town's SSMP. • Audit began on July 2015	• Expected completion date is December 2015
2016 Sewer CIP	• VWHA collecting data through July 31, 2015 for development of program	• The program will be developed using data collected through July 31, 2015 • A draft pipeline and pump station CIP will be provided to Town staff for discussion by December 2015.
2015-16 Hot Spot program	• VWHA reviewing current hot-spot cleaning program	• Recommendations for the ongoing program will be developed in collaboration with West Bay and included in the annual 2015-16 West Bay sewer maintenance program. • Preliminary results will be presented to Town staff for discussion by October 31, 2015.

Staff Support Activities	Progress	Comments
CCTV inspection program	• VWHA reviewing current CCTV inspection program	• Recommendations for ongoing program will be developed in collaboration with West Bay and included in the annual 2015-16 West Bay sewer maintenance program. • Preliminary results will be presented to Town staff for discussion by October 31, 2015.
Sanitary Sewer Master Plan • Manhole data collection	• Task have not been initiated	• Beginning of Fall 2015, WBSD will collect manhole rim elevations, as well as depth-to-invert measurements for all pipes entering/leaving each manhole that is identified as needed for development of the sewer hydraulic model.
• 2015-16 wet weather flow data	• Town has contracted with V&A Consulting to obtain system flow data	• If sufficient rainfall occurs and the required data is collected, Town staff will move forward with consultant procurement for the Sewer System Master Plan update.

Town of Los Altos Hills
Sanitary Sewer Collection System Map
Pipes Repaired and Rehabilitated (R&R) in 2015



Town of Los Altos Hills
Sanitary Sewer Collection System Map
Sewer Basins (Branches)



LOS ALTOS HILLS CALIFORNIA

V.W. HOUSEN & ASSOCIATES

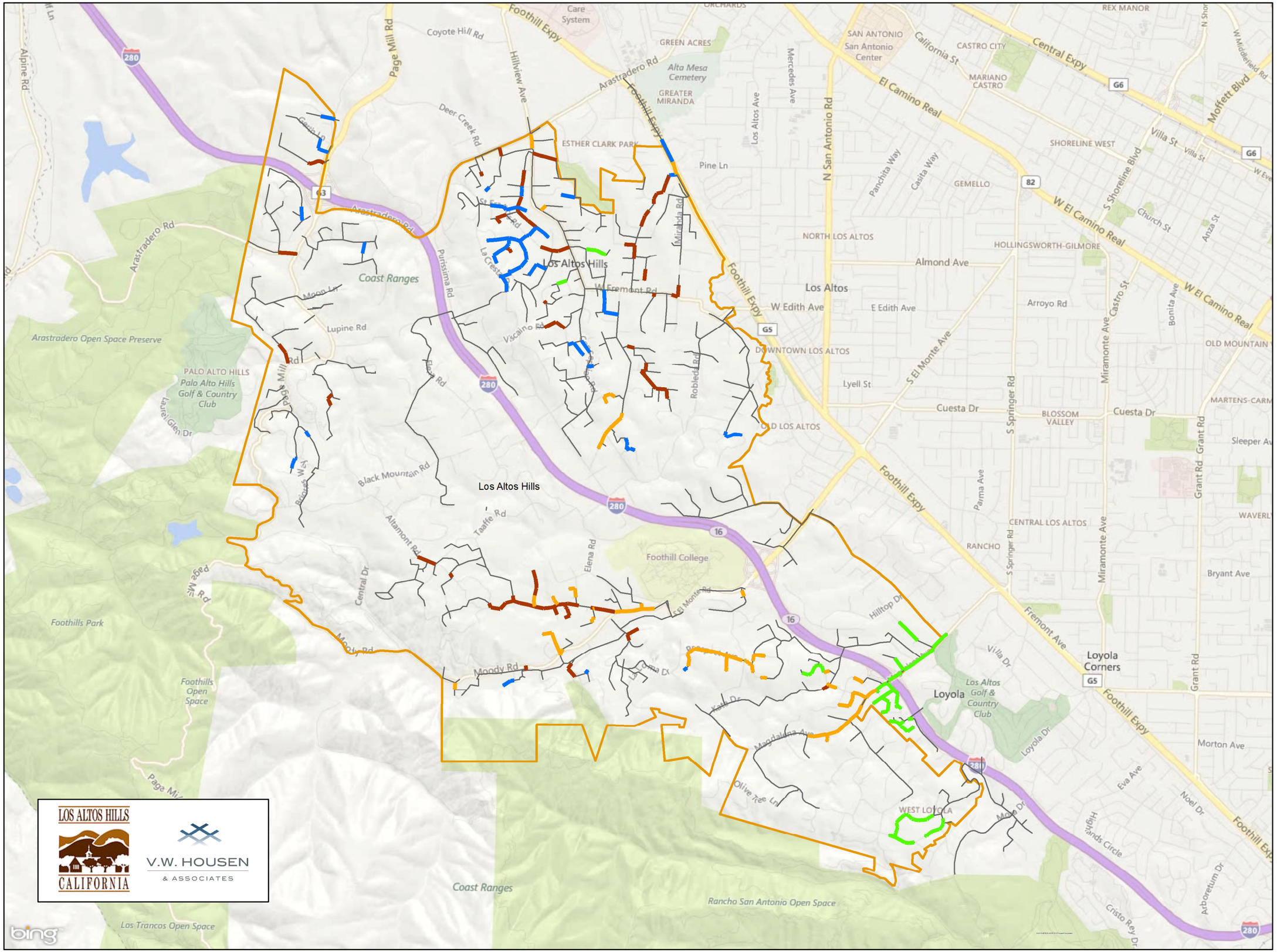
N

0 1,250 2,500 Feet

Legend

- Branch 1
- Branch 2
- Branch 3
- Branch 4
- Branch 5
- Branch 6
- Branch 7
- LAH Boundary

Town of Los Altos Hills
Sanitary Sewer Collection System Map
Pipes CCTV'd from Aug 2014 - Jul 2015


Los Altos Hills
Los Altos
Loyola
Loyola Corners
Foothill College
Coast Ranges
Arastradero Open Space Preserve
Foothills Park
Foothills Open Space
Los Trancos Open Space
Rancho San Antonio Open Space
Palo Alto Hills Golf & Country Club
Los Altos Golf & Country Club
Alta Mesa Cemetery
Foothill Expy
El Camino Real
W El Camino Real
Central Expy
Moffett Blvd
Page Mill Rd
Arastradero Rd
Purissima Rd
Black Mountain Rd
Moody Rd
Fremont Ave
Almond Ave
Arroyo Rd
Cuesta Dr
Lyell St
Bryant Ave
Morton Ave
Grant Rd
Miramonte Ave
N San Antonio Rd
S Springer Rd
Los Altos Ave
Mercedes Ave
Hillview Ave
Deer Creek Rd
Coyote Hill Rd
Alpine Rd
Lupine Rd
Taaffe Rd
Elena Rd
Altamont Rd
Central Dr
Hilltop Dr
Villa Dr
Loyola Dr
Eva Ave
Noel Dr
Arboretum Dr
Cristo Rey Dr
Highlands Circle
Olive Tree Ln
Magdalena Ave
Kaik Dr
Moon Ln
Laurel Glen Dr
Pine Ln
Panchita Way
Casita Way
Parma Ave
Vscaino Rd
Robleda Rd
Miranda Rd
W Fremont Rd
Lo Monte Rd
Grant Rd
Sleeper Av
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Anza St
Villa St
Bonita Ave
Castro St
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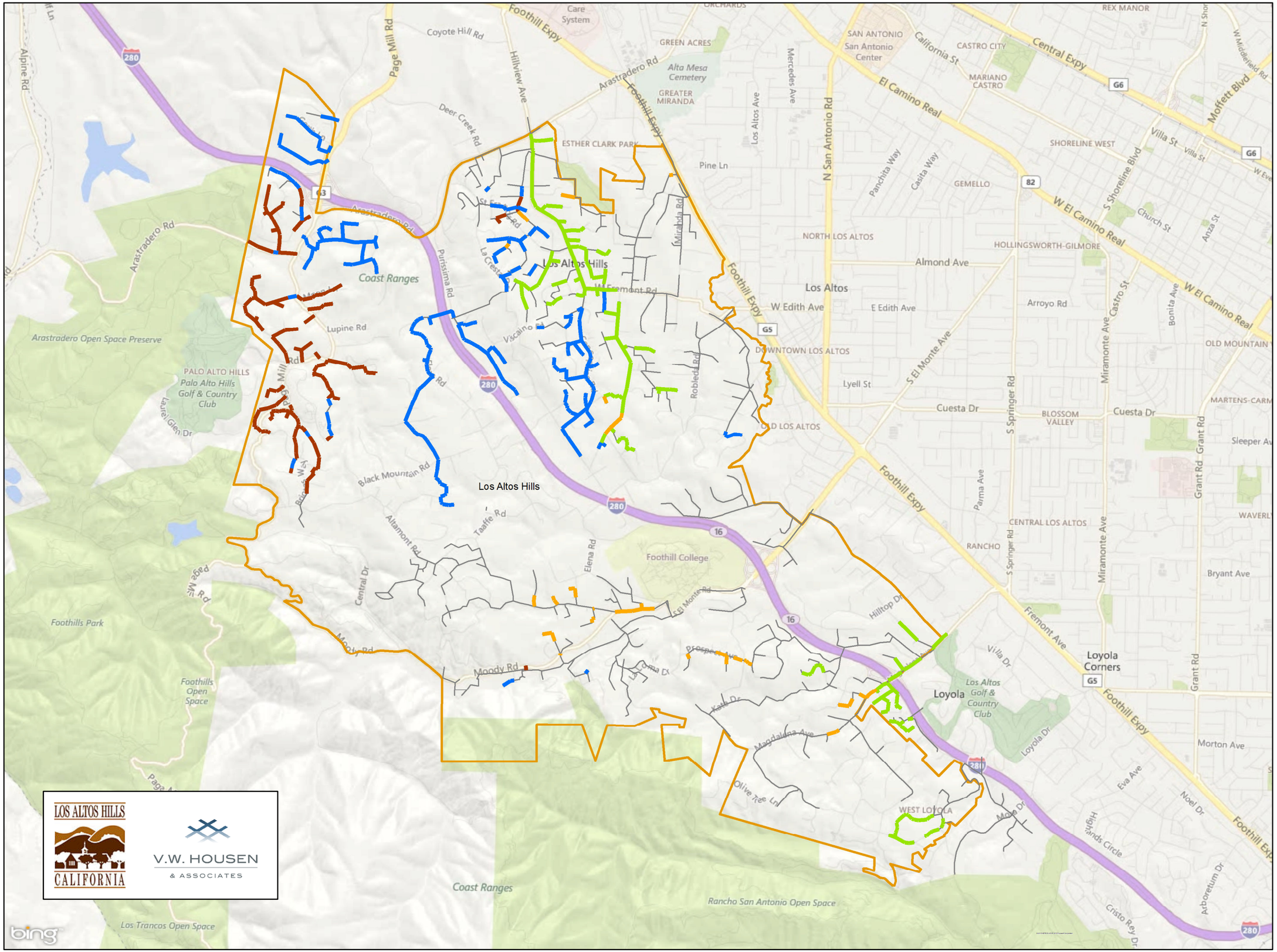
Sanitary Sewer Collection System Map
Pipes Cleaned from Aug 2014 - Jul 2015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