March 4, 2011

TO:

Nicholas Agbobu

Engineering, Budget, and Office Operations

FROM:

Robert Swartz

Field Operations

CONSOLIDATED SEWER MAINTENANCE DISTRICT CONDITION ASSESSMENT PROGRAM REPORT PROJECT Y0TV0506A

This memo is to inform you that as part of the Sewer Condition Assessment Program, the County of Los Angeles Department of Public Works Consolidated Sewer Maintenance District has completed the closed-circuit television (CCTV) inspection of 34,270 feet or approximately 2.0 percent of the sewer system within Unincorporated County maintained by the District's Central Yard.

The attached report outlines the structural and maintenance ratings of our system based on the Pipeline Assessment and Certification Program's rating methodology. Included in the report are the following:

- Condition Assessment Report
- Project Overview Map (Enclosure 1)
- Quick Maintenance Rating Report Priority List and Quick Maintenance Rating Map (Enclosure 2)
- High Water Levels List and Map (Enclosure 2)
- Quick Structural Rating Report Priority List and Quick Structural Rating Map (Enclosure 3)
- Infrastructure Inspection Reports for Grades 4 and 5 (Enclosure 4)
- CCTV Sewer Inspection Project Schedule (Enclosure 5)

The Condition Assessment Report will provide details regarding the maintenance and structural condition of our sewer mainlines. This information can be included in our agency's Sewer System Management Plan as a reference in Chapter 8.0 System Evaluation and Capacity Assurance Plan. The segments with critical maintenance issues have been cleaned and, in some instances, have been incorporated into our routine cleaning schedule for continued monitoring. In addition, the segments with severe structural defects have either been repaired or will be scheduled for repair as part of the ongoing Accumulative Capital Outlay Project.

EL:

 $S: 2_CCTV\ PROJECT\ FOLDERS\ Y0TV0506\ Projects\ Y0TV0506A\ 9-Final_Reports_by_JUR\ ZLAC\ Memo_0506A_ZLAC. doc\ Attach.$

bc: RS, FV, File (Y0TV0506A)

CONDITION ASSESSMENT REPORT COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS CONSOLIDATED SEWER MAINTENANCE DISTRICT

PROJECT NAME: Y0TV0506A PROJECT MGR: Fernando Villaluna
PROJECT DATE: 12/31/2005 CONTACT NO: (626) 300-3380
SUP. DISTRICT(s): 4 MAP PAGE(S): 2129 & 2130
Report By: Eric Liu Report Date: 02/22/2011

INTRODUCTION

As part of the Sewer Condition Assessment Program, the County of Los Angeles Department of Public Works Consolidated Sewer Maintenance District has completed the closed-circuit television (CCTV) inspection of 34,270 feet or approximately 2.0 percent of the Unincorporated Los Angeles County sewer system maintained by the District's Central Yard.

The Sewer Condition Assessment Program utilizes the Pipeline Assessment and Certification Program (PACP) Quick Rating methodology to rank the structural and maintenance condition of your system based on industry standards.

PROJECT AREA AND DESCRIPTION

Project Y0TV0506A included sewer lines located in the Unincorporated County of Los Angeles area and in the Cities of La Mirada and Santa Fe Springs. Enclosed for your reference is an overview map of the project area within the unincorporated County area (Enclosure 1).

DEFECT GRADE DESCRIPTION

The Quick Rating indicates the number of occurrences for the highest severity grade for each pipe segment for either maintenance or structural defects. A grade of 1 indicates that a pipe segment is in excellent condition with minor defects, while a grade of 5 indicates that a pipe segment may require immediate attention. A detailed breakdown of the five possible defect grades is as follows:

Grade	Description	Estimate time to Failure
1:	EXCELLENT: Minor Defects.	Unlikely in the foreseeable future
2:	GOOD: Defects that have not begun to deteriorate.	20 years or more
3:	FAIR: Moderate defects that will continue to deteriorate.	10 to 20 years
4:	POOR: Severe defects that will become grade 5 defects within the foreseeable future.	5 to 10 years
5:	IMMEDIATE ATTENTION: Defects requiring immediate attention.	Has failed or will likely fail within the next 5 years

MAINTENANCE REPORT

Our inspection revealed that approximately 97.9 percent of the system televised was free of blockages or restrictions that would impede sewer flows. However, the remaining 2.1 percent of the inspected pipe segments within the Unincorporated County of Los Angeles area had a PACP maintenance grade of 4 and 5 as indicated in the Quick Maintenance Rating Table shown below. The segment has been incorporated into our routine cleaning schedule with corrective action taken as noted on the Quick Maintenance Rating Report Priority List (Enclosure 2).

Also included on this list are deficiencies discovered inside lateral connections to the mainline. The District does not maintain lateral lines; it is the responsibility of the property owner to maintain their respective lateral lines to facilitate the flow of wastewater from their property to the mainline. A letter will be sent to the lateral owner notifying them of the maintenance issues discovered in their lateral. A sample lateral notice letter is provided in Enclosure 2 for your reference.

In addition, a color-coded map showing the quick maintenance rating for each pipe segment is provided in Enclosure 2.

QUICK MAINTENANCE RATING TABLE

DEFECT GRADE	PIPE LENGTH (FT)	PERCENT TOTAL INSPECTED PIPE LENGTH	NO. SEGMENTS
1: Excellent	527	1.5	2
2: Good	31,590	92.2	134
3: Fair	1,419	4.2	8
4: Poor	250	0.7	1
5: Immediate Attention	484	1.4	2
TOTAL	34,270	100.0	147

High Water Levels

Our inspection revealed that approximately 95.2 percent of the system televised has adequate capacity. However, the remaining 4.8 percent of the inspected segments included deficiencies associated with high water levels. Capacity of the sewer pipe can be determined by analyzing several PACP codes, including Water Level, Water Mark, and miscellaneous remarks of camera underwater or sags in the line. A sewer pipe can be considered at capacity when 50% of the diameter of sewer pipe is full of water. However, there are particular conditions in which the water level or water mark has reached 50% or greater due to heavy flows in adjoining pipes, a restriction due to debris in the sewer lines, or a sag in the line. Therefore, additional review of all pipe segments with such high water level concerns was conducted to determine capacity issues, if any. All sewer pipes where Water Level, Water Mark, and miscellaneous remarks of camera

underwater or sags in the line are at or above 50% capacity, have been outlined and analyzed on the High Water Level table in Enclosure 2. The nature of these high water level conditions is also summarized on this table.

Infiltration

Our inspection revealed that infiltration was not detected in any pipe segment in the unincorporated County area.

A map showing the sewer lines with high water levels is provided in Enclosure 2.

STRUCTURAL REPORT

Our inspection revealed that approximately 99.1 percent of the inspected pipe segments within the Unincorporated County of Los Angeles were free of severe structural defects. However, the remaining 0.9 percent of the inspected pipe segments had a PACP structural grade of 4 as indicated in the Quick Structural Rating Table shown below. The segment has been place on a priority list based on the severity and the need for action. Item 1 in the Quick Structural Rating Report Priority List (Enclosure 3) will be included in a lining project in the next 24 months as part of the ongoing Accumulative Capital Outlay Project. A color-coded map showing the Quick Structural Rating for each pipe segment is located in Enclosure 3. A copy of the actual inspection report for this segment is included in Enclosure 4.

QUICK STRUCTURAL RATING TABLE

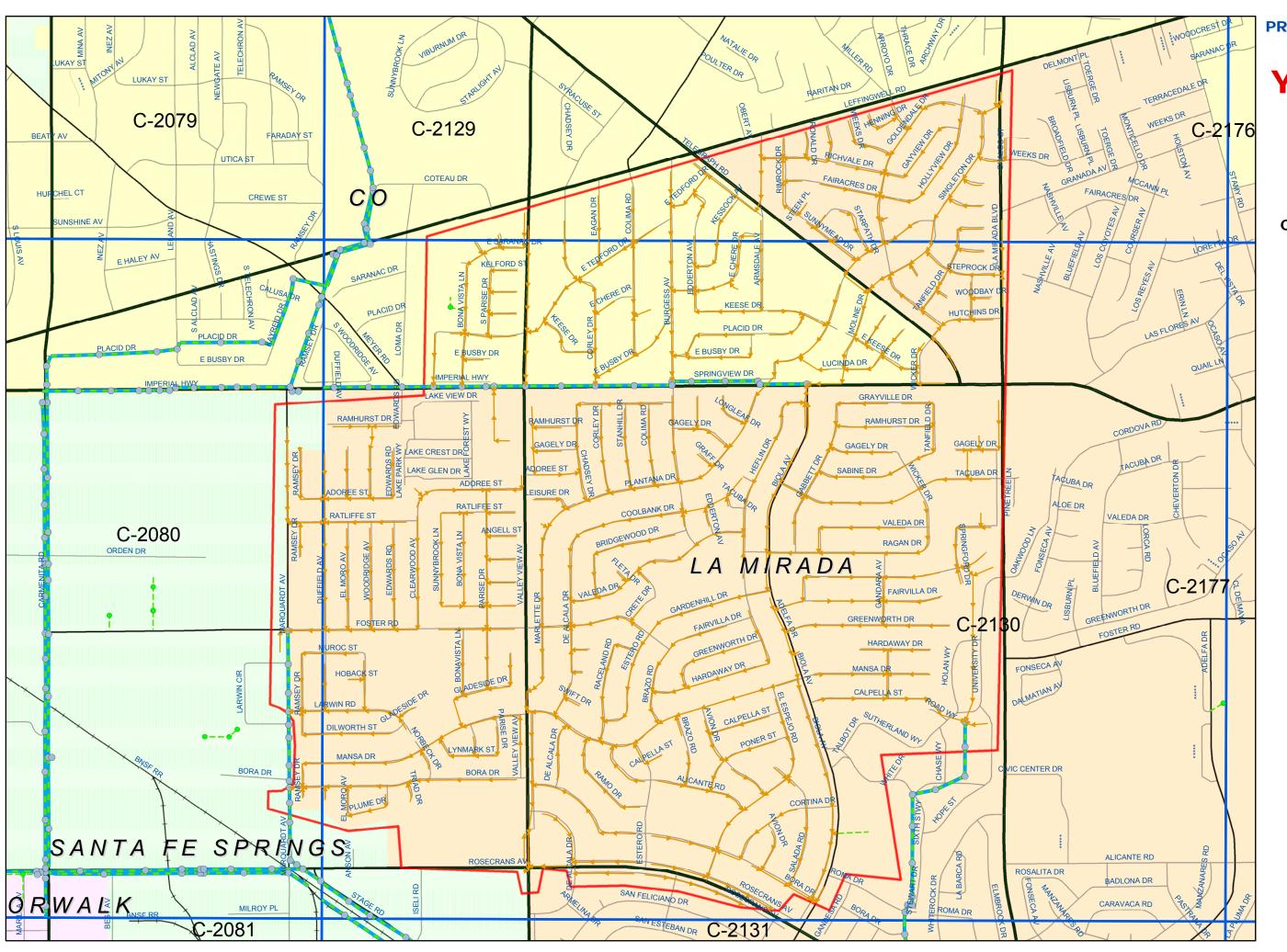
DEFECT GRADE	PIPE LENGTH (FT)	PERCENT TOTAL INSPECTED PIPE LENGTH	NO. SEGMENTS
1: Excellent	21,719	63.4	97
2: Good	2,451	7.1	12
3: Fair	9,790	28.6	37
4: Poor	310	0.9	1
5: Immediate Attention	0	0.0	0
TOTAL	34,270	100.0	147

FUTURE PROJECTS

The Sewer Condition Assessment Program will be performing future closed-circuit television (CCTV) inspection of the remaining sewer lines within the Unincorporated County of Los Angeles maintained by the Central Yard. For your reference, the CCTV Sewer Inspection project schedule is listed in Enclosure 5.

ENCLOSURE 1:

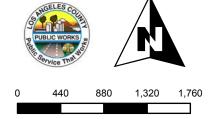
Project Overview Map



PROJECT OVERVIEW MAP

YOTVO506A

Cities of La Mirada, Santa Fe Springs & County Unincorporated



Legend

SMD Sanitary Sewers

→ SMD Sanitary Sewers

SMD Manholes

Other

Manhole Type

Standard

△ DROP

Shallow

Trap

⊗ Siphon

Maintained by Others:

Trunk Sewerlines

--- Non SMD Sanitary Sewers

Non SMD Maintained MH

SMD Operations Maps

Y0TV0506A

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APRIL 2010

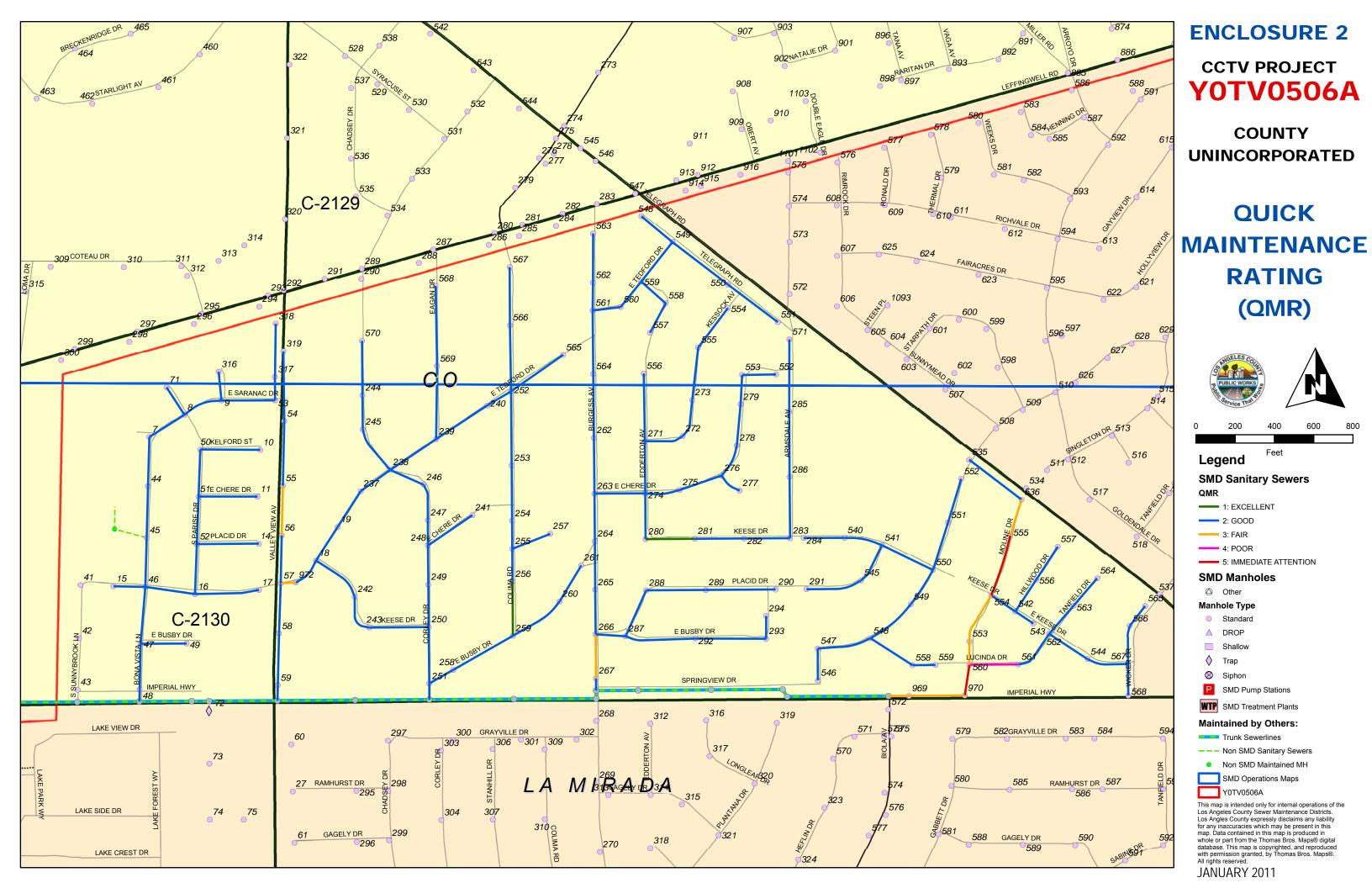
ENCLOSURE 2:

- Quick Maintenance Rating Report Priority List
- Quick Maintenance Rating Map
- High Water Levels
- High Water Levels Map
- Sample Lateral Notice Letter

ENCLOSURE 2 QUICK MAINTENANCE RATING REPORT PRIORITY LIST COUNTY UNINCORPORATED (Y0TV0506A)

as of 12/31/05

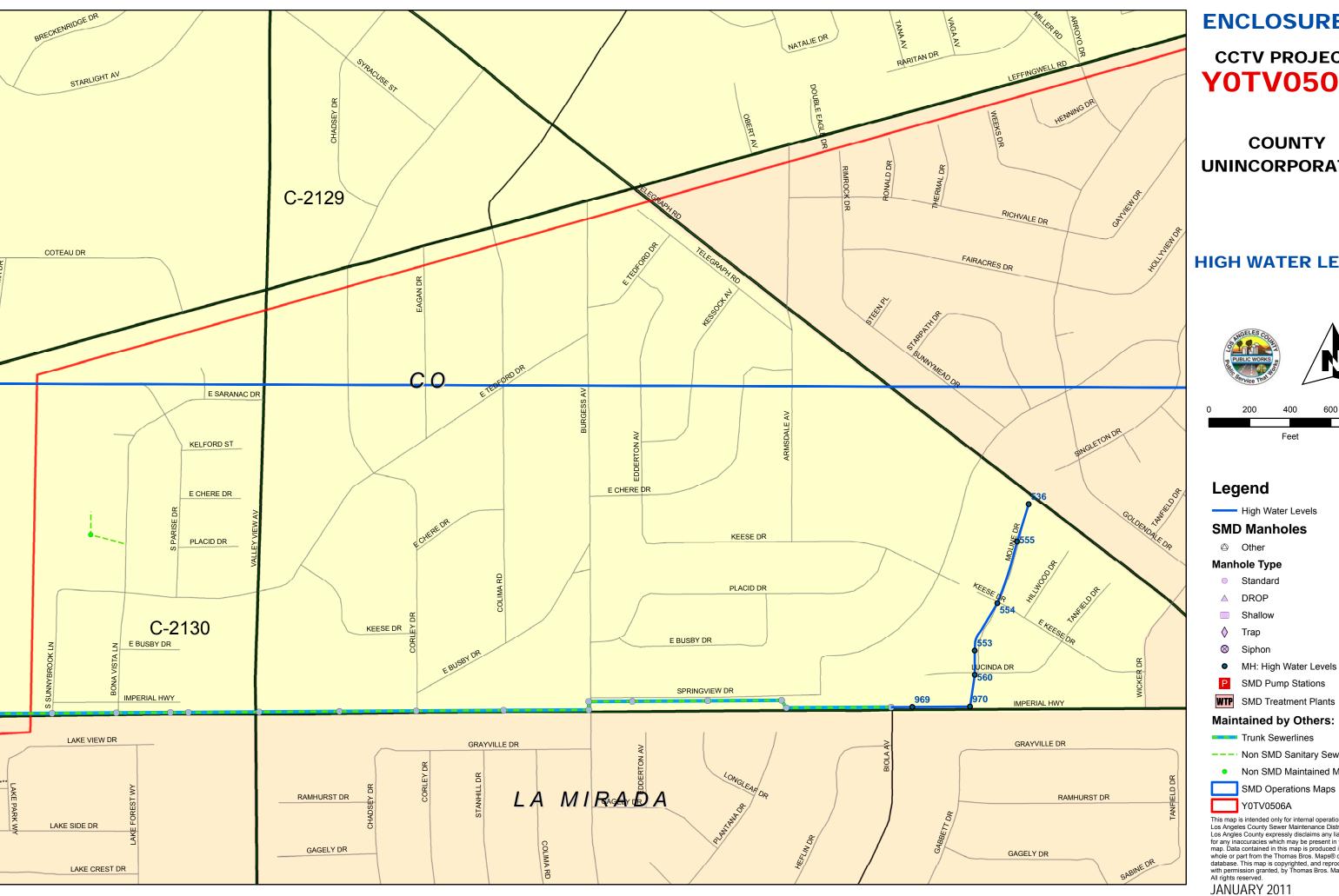
Item No.	QMR	Start MH	End MH	Street	Observation	Corrective Action Taken
1	5231	2130-0560	60 2130-0970 Easement by MOLINE and		Root; deposit attached grease; root ball	Hydrojet (10/08/09) Rodder (05/10/10) Letter to
				LUCINDA	lateral; high water mark	homeowner
2	5121	2130-0555	2130-0554	MOLINE DR	Debris; high water mark; water level	Hydrojet (02/05/10)
3	4122	2130-0561	2130-0560	LUCINDA DR	Deposit attached grease	Hydrojet (01/11/11)



ENCLOSURE 2 HIGH WATER LEVELS COUNTY UNINCORPORATED (Y0TV0506A)

as of 12/31/05

Item No.	QMR	START MH	END MH	STREET	OBSERVATION		SAG (ft)
1	5231	2130-0560	2130-0970	Easement by MOLINE and	High water mark; high water level	High water mark; high water level Water mark (50%); water level (40% - 50%): trunk line	
				LUCINDA			
2	5121	2130-0555	2130-0554	MOLINE DR	High water mark; high water level	Water mark (75%); water level (40% - 50%): trunk line	
3	3221	2130-0554	2130-0553	MOLINE DR	High water mark; sag	Water mark (50%); sag (40%): 50' - 180' : trunk line	130
4	3122	2130-0969	2130-TRNK	IMPERIAL HWY	High water mark	Water mark (50%)	
5	3121	2130-0970	2130-0969	IMPERIAL HWY	High water mark	Water mark (50% - 70%)	
6	3121	2130-0553	2130-0560	MOLINE DR	High water level	Manhole full of water: trunk line	
7	3121	2130-0536	2130-0555	MOLINE DR	High water mark; sag	Water mark (50%); sag (40%): 165' - 180' : trunk line	15

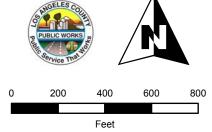


ENCLOSURE 2

CCTV PROJECT Y0TV0506A

COUNTY **UNINCORPORATED**

HIGH WATER LEVELS



--- Non SMD Sanitary Sewers

Non SMD Maintained MH

SMD Operations Maps

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COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE ALHAMBRA, CALIFORNIA 91803-1331 Telephone: (626) 458-5100 http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO: P.O. BOX 1460 ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE

REFER TO FILE:

SM-1

August 19, 2010

Current Property Owner 3476 Marengo Ave Altadena, CA 91001

Dear Property Owner:

SEWER LATERAL ROOT INTRUSION 3476 MARENGO AVE, ALTADENA, CALIFORNIA 91001

As the agency responsible for the maintenance of the sanitary sewer system in your area, the County of Los Angeles Consolidated Sewer Maintenance District (District) is providing you with this letter informing you that the sewer lateral serving the property located at 3476 Marengo Ave, Altadena, California 91001, requires maintenance and is in violation of **County Code 20.24.080 Maintenance of Sewer Laterals**, which states:

"All house laterals, industrial connection sewers, septic tank outlet connections to STEP system, and appurtenances thereto existing as of January 23, 1953, or thereafter constructed, shall be maintained by the owner of the property served in a safe and sanitary condition, and all devices or safeguards which are required by this Division 2 for the operation thereof shall be maintained in good working order."

Using closed-circuit television (CCTV) camera technology, the District recently televised the sanitary sewer mainline and discovered the presence of roots in your sewer lateral connection. The intrusion of the roots from your lateral may block the flow of sewage in the mainline sewer causing a sanitary sewer overflow upstream of your property.

Since the CCTV inspection, the sewer mainline has been cleaned and blockages from root growth have been removed; however, the root blockage in your sewer lateral is still present. As the property owner, you are responsible for the entire length of the sewer lateral, which includes the portion that extends beyond the property line into the public right of way. We request that you contact a qualified plumbing contractor to service

Current Property Owner August 19, 2010 Page 2

your sewer lateral within 90 days to remove roots and any other obstructions that may cause a sewage backup. Failure to do so may result in future overflows and subject you to civil prosecution, reimbursement costs, and fines up to \$1,000. Reference 20.24.160 Violation - Penalty; 20.24.170 Continued violations; 20.32.690 Reimbursement for repairs and maintenance following violations.

Prior to your plumbing contractor servicing your lateral, please notify the District's sewer maintenance yard in your area at (626) 446-5227 to arrange for authorization to access the downstream manhole.

During your lateral service, your plumbing contractor must protect the District's sewer mainlines from dislodged roots and other debris by utilizing catcher baskets at the manhole downstream from your lateral connection.

After your lateral has been serviced, please notify the District office, Mr. Fernando Villaluna, Sewer Maintenance Division, at (626) 300-3380 or fvillalun@dpw.lacounty.gov.

For your reference, we have enclosed photos of your lateral connection showing the presence of the root blockage. Also enclosed are some literature on ways of minimizing sewer overflows and damage to your home.

Thank you for helping the Department of Public Works keep the public's sewers clean and in good working order.

Very truly yours,

GAIL FARBER
Director of Public Works

JOHN T. WALKER
Assistant Deputy Director
Sewer Maintenance Division

PK:

Enc.

bc: JW, KL, RS, FV, RH, File (Lateral Notice), SPINDLE

3476 MARENGO AVE ALTADENA

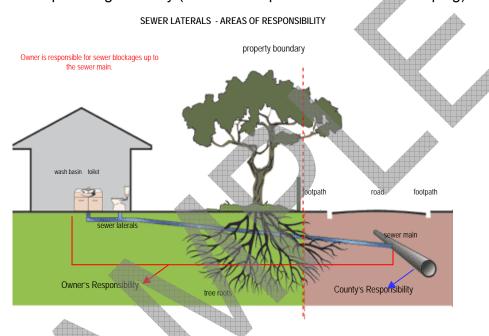
Roots at Lateral Connection





Minimizing Sewer Overflows and Damage to Your Home

The sewer system within the County of Los Angeles Consolidated Sewer Maintenance District (District) is comprised of a series of underground pipes. Many are publicly owned; however, the sewer laterals are entirely owned by the private property owner they serve. The laterals extend from the building to the mainline within the street (or within an easement at the rear of your home). The laterals are typically four inches in diameter while the District's mainline is typically at least eight inches in diameter. The private property owner is responsible for the entire length of the lateral, which includes that portion that may be located within the public right of way (under the asphalt and street landscaping).



Sewer backups can cause tremendous damage to the interior of a home. In order to minimize these, the District provides continual maintenance services for the public sewer mainlines.

Unfortunately, sewer laterals are often not maintained by private property owners until a disaster strikes. "Out of sight, out of mind" is a typical approach to sewer lateral maintenance and operation by many. It is our hope that we can provide you various means of addressing these issues and thus minimize your risk of an overflow entering your home.

The three methods we suggest are:

- 1. Maintain your lateral through proper cleaning, repair, and replacement
- 2. Do not place improper items into the sewer or make improper connections to the sewer
 - a. Keep rainwater out of the sewer lines as it overwhelms the capacity of the sewer lines and may cause sewer spills.
 - b. Do not pour fats, oils, and grease in your drains as these products harden and stick to the inside of the sewer pipes, which build up and may eventually cause a blockage in the sewer pipe.
- 3. Install a backflow preventer and cleanout in your sewer lateral.

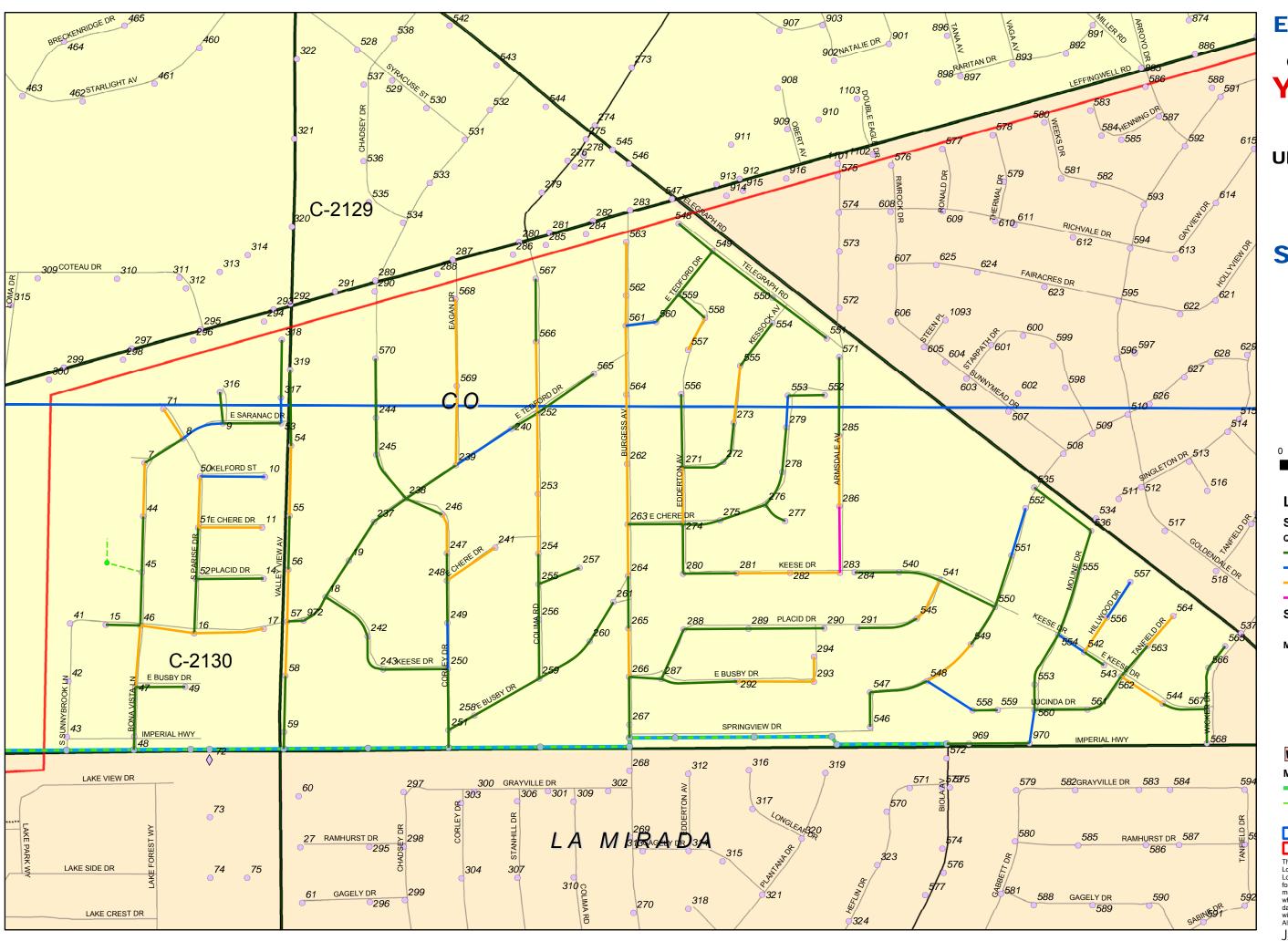
ENCLOSURE 3:

- Quick Structural Rating Report Priority List
- Quick Structural Rating Map

ENCLOSURE 3 QUICK STRUCTURAL RATING REPORT PRIORITY LIST COUNTY UNINCORPORATED (Y0TV0506A)

as of 12/31/2005

Item No.	QSR	Start MH	End MH	Street	Observation: Location	Proposed Corrective Method	Length of Repair (FT)
1	4136	2130-0286	2130-0283		Broken (lateral): 79'; broken: 14', 153', 318'; fractures: 242'	Lining: MH to MH	341'



ENCLOSURE 3

CCTV PROJECT Y0TV0506A

COUNTY UNINCORPORATED

QUICK STRUCTURAL RATING (QSR)





Legend

Feet

SMD Sanitary Sewers

1: EXCELLENT

_____ 2: GOOD

_____ 3: FAIR

4: POOR

SMD Manholes

Other

Manhole Type

Standard

△ DROP

Shallow

♦ Trap

Siphon

P SMD Pump Stations

WTP SMD Treatment Plants

Maintained by Others:

--- Non SMD Sanitary Sewers

Non SMD Maintained MH

SMD Operations Maps Y0TV0506A

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JANUARY 2011

ENCLOSURE 4:

Infrastructure Inspection Reports for Grades 4 and 5



MACKONE DEVELOPMENT, INC.

VCP Vitrifed Clay Pipe Pipe Length:

2244 BEVERLY BOULEVARD LOS ANGELES, CA 90057 Tel: (213) 252-9506, Fax: (213) 252-9527

Inspection report

Date:	P.O.#:	Weather:	Surveyed By:	section number:	PSR:
20051208	Y0TV0506A	1 Dry	J.ALEJOS	18	114275
Total Pipe Length:	Survey Customer:	System Owner:	Clean Date:	Pre-Cleaned:	Map Grid #:
310	LACDPW	ZLAC	12-8-05	J Jetting	2130

Material:

Street:	ARMSDALE AV	Flow Control:		Start MH:	2130-0286
City:	ZLAC	Year Renewed		End MH:	2130-0283
Location Code	e: B Main Highway - Suburban/Rural	Tape/Media #:	35	pipe length:	350.68 ft

Reason for inspection: F Routine Assessment Dia/Height: C 8/8

Use of Sewer: SS Sanitary

Drain. Area: 0283/2130-0286/2130

Lining Method: Category:

Remark::

1:726	position	observation	MPEG	photo	grad
2130-0286	0.00	Upstream Manhole, Survey Begins	00:00:24		
	0.00	Water Level, 10 of cross sectional area, from 05 to 07 o'clock	00:00:35		M 2
	0.00	Water Mark, 10 % of cross sectional area, from 05 to 07 o'clock	00:00:45		M
	16.98	Crack Multiple, from 04 to 10 o'clock, within 8 inch: YES	00:01:24	744a	S
	27.77	Tap Factory Made Active, at 02 o´clock, 6", within 8 inch: NO	00:01:48	745a	
	49.43	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: NO	00:02:19	746a	
	83.60	Tap Factory Made Active, at 02 o´clock, 6", within 8 inch: NO	00:03:09	747a	
	99.06	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: NO	00:03:40	748a	
	144.63 145.85	Crack Multiple, from 11 to 05 o'clock, within 8 inch: YES Tap Factory Made Active, at 02 o'clock, 6", within 8 inch: NO, Remark:	00:04:39 00:04:59	749a 750a	S
	151.54	GREASE Tap Factory Made Active, at 02 0 clock, 6 , within 8 inch: NO, Remark. Tap Factory Made Active, at 10 o clock, 6", within 8 inch: NO	00:04:59	750a 751a	
	159.27	Crack Multiple, from 03 to 05 o'clock, within 8 inch: YES	00:05:53	752a	S
	159.27	Crack Longitudinal, at 09 o´clock, within 8 inch: NO	00:06:08	753a	S
	162.53	Crack Multiple, from 08 to 03 o'clock, within 8 inch: YES	00:06:44	754a	S
	201.58	Tap Factory Made Capped, at 10 o´clock, 6", within 8 inch: NO	00:07:31	755a	
	207.38	Tap Factory Made Active, at 02 o´clock, 6", within 8 inch: NO	00:07:54	756a	
	249.79	Crack Multiple, from 09 to 12 o'clock, within 8 inch: YES	00:09:06	757a	S
	250.91	Tap Factory Made Active, at 10 o´clock, 6", within 8 inch: NO	00:00:17	758a	
	284.07	Crack Multiple, from 01 to 04 o'clock, within 8 inch: YES	00:01:16	759a	S
	285.08	Tap Factory Made Active, at 02 o´clock, 6", within 8 inch: NO	00:01:37	760a	



MACKONE DEVELOPMENT, INC.

2244 BEVERLY BOULEVARD LOS ANGELES, CA 90057 Tel: (213) 252-9506, Fax: (213) 252-9527

Inspection report

Date:	P.O.#:	Weather:	Surveyed By:	section number:	PSR:
20051208	Y0TV0506A	1 Dry	J.ALEJOS	18	114275
Total Pipe Length: 310	Survey Customer: LACDPW	System Owner: ZLAC	Clean Date: 12-8-05	Pre-Cleaned: J Jetting	Map Grid #: 2130

	1:726	position	observation	MPEG	photo	grade
		303.49	Tap Factory Made Active, at 10 o´clock, 6", within 8 inch: NO	00:02:14	761a	
		327.49	Fracture Multiple, from 07 to 09 o'clock, within 8 inch: YES	00:03:12	762a	S 4
	2130-0283	350.68	Slight Circular Cracks Throughout Reach 5 %	00:03:52		S 2
ı		350.68	Slight Longitudinal Cracks Throughout Reach 5%	00:04:02		S 2
		350.68	End of Segment	00:04:13		
		350.68	Materials Found, VCP	00:04:23		

ENCLOSURE 5:

CCTV Sewer Inspection Project Schedule

FUTURE PROJECTS

The Sewer Condition Assessment Program will be performing future closed-circuit television (CCTV) inspection of the remaining sewer lines within Unincorporated Central Yard according to the following schedule.

FISCAL YEAR	PROJECT NAME	LENGTH (FT)	PERCENTAGE OF SYSTEM	STATUS
2005-2006	Y0TV0506A	34,270	2.0	COMPLETE
2006-2007	Y0TV0607C	9,475	0.6	COMPLETE
2007-2008	Y0TV0708B	253,085	14.7	COMPLETE
2008-2009	Y0TV0809B	5,167	0.3	COMPLETE
2009-2010	Y0TV0910B	227,776	13.2	COMPLETE
2010-2011	Y0TV1011B	288,072	16.7	IN PROGRESS
2011-2012	Y0TV1112A	643,658	37.4	FUTURE
2012-2013	Y0TV1213D	16,239	0.9	FUTURE
2014-2015		183,013	10.6	FUTURE
2014-2015		61,341	3.6	FUTURE
TOTAL		1,722,096	100.0	