



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**

BOARD OF DIRECTORS

***WATER QUALITY AND WATER SERVICES
COMMITTEE MEETING AGENDA***

**Thursday, March 17, 2016
11:00 a.m.**

**5000 Overlook Avenue, SW
Washington, DC 20032**

- | | |
|--|----------------------------------|
| 11:00 a.m. I. Call to Order | Rachna Butani
Chairperson |
| 11:05 a.m. II. Water Quality Monitoring | Charles Kiely |
| Coliform Testing
LCR Compliance Testing | |
| 11:15 a.m. III. Fire Hydrant Upgrade Program | David Wall |
| Status Report of Public Fire Hydrants
Out of Service Fire Hydrant Map | |
| 11:30 a.m. IV. CIP Quarterly Update | Liliana Maldonado |
| 11:40 a.m. V. Small Diameter Water Main Program Update | Len Benson/Liliana Maldonado |
| 12:15 p.m. VI. Lead Program Update | Maureen Schmelling/Charles Kiely |

12:45 p.m. VII. Non-Joint Use

1. [WAS-9087-AA-AB - Orcom Solutions, LLC](#)
2. [WAS-10-023-AA-RE – Orcom Solutions, LLC](#)
3. [Contract No. 130170 - Ulliman Schutte Construction](#)
4. [Contract No. 130200 – Capitol Paving of D.C., Inc.](#)
5. [Contract No. 140010- Capitol Paving of D.C., Inc.](#)

1:00 p.m. VIII. Executive Session*

Adjournment

*The DC Water Board of Directors may go into executive session at this meeting pursuant to the District of Columbia Open Meetings Act of 2010, if such action is approved by a majority vote of the Board members who constitute a quorum to discuss: matters prohibited from public disclosure pursuant to a court order or law under D.C. Official Code § 2-575(b)(1); contract negotiations under D.C. Official Code § 2-575(b)(1); legal, confidential or privileged matters under D.C. Official Code § 2-575(b)(4); collective bargaining negotiations under D.C. Official Code § 2-575(b)(5); facility security under D.C. Official Code § 2-575(b)(8); disciplinary matters under D.C. Official Code § 2-575(b)(9); personnel matters under D.C. Official Code § 2-575(b)(10); proprietary matters under D.C. Official Code § 2-575(b)(11); decision in an adjudication action under D.C. Official Code § 2-575(b)(13); civil or criminal matters where disclosure to the public may harm the investigation under D.C. Official Code § 2-575(b)(14), and other matters provided in the Act.

Status Report of Public Fire Hydrants for DC Water Services Committee - March 4, 2016

	December Cmte. Report (Dec 04, 2015)	January Cmte. Report (Jan 11, 2016)	February Cmte. Report (Feb 04, 2016)	March Cmte. Report (Mar 04, 2016)
Public Fire Hydrants:	9,457	9,456	9,457	9,487
In Service:	9,397	9,405	9,403	9,419
Marked Out-of-Service (OOS)	60	51	54	68
OOS - defective requiring repair/replacement	48	31	35	49
% OOS requiring repair or replacement (DC Water goal is 1% or less OOS)	0.51%	0.33%	0.37%	0.52%
OOS - due to inaccessibility or temp construction work	12	20	19	19

Note: The number of public hydrants in the DC Water system fluctuates; this number fluctuates as hydrants are added and removed during development or construction activities as well as at the request of the Fire Dept.

Breakdown of Public Fire Hydrants Out-of-Service (OOS) as of March 4, 2016 68

Breakdown of Defective

	0-7 Days	8-14 Days	15-30 Days	31-60 Days	61-90 Days	91-120 Days	> 120 Days	Total
Hydrant Needs Repair/Investigation	7	2	7	2	0	0	6	24
Needs Valve Investigation for Low Flow/Pressure or Shut Test for Replacement	0	0	0	1	0	0	2	3
Needs Replacement	0	0	0	5	2	1	14	22

Defective 49 ←

Breakdown of Others

	0-7 Days	8-14 Days	15-30 Days	31-60 Days	61-90 Days	91-120 Days	> 120 Days	Total
Temporarily OOS as part of operations such as a main repair	0	0	0	0	3	1	1	5
Construction* - OOS	0	0	0	2	2	2	3	9
Obstructed Hydrant – OOS hydrant due to operation impeded by an obstruction.	0	0	0	0	0	0	5	5

Others 19 ←

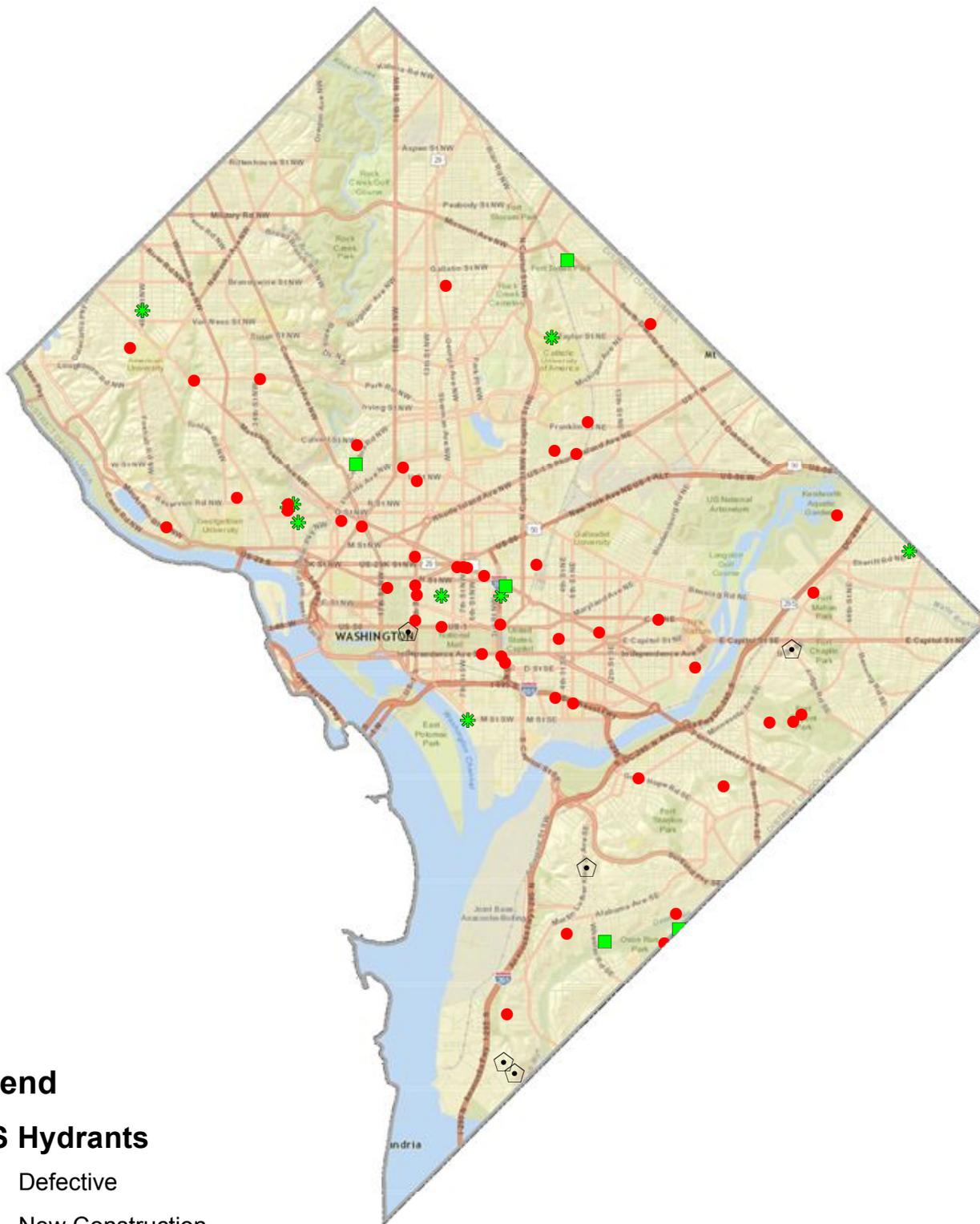
*Fire hydrants not accessible due to construction activities. Also includes new hydrants which have not yet been commissioned or old hydrants which will be abandoned as part of ongoing construction projects.

Status of Private Fire Hydrants-Based on FEMS Inspection Reporting

Private Hydrants:	1,318
• In Service:	1,188
• Out-of-Service (OOS):	130

Map of Public Out-of-Service Hydrants

Feb. 8, 2016



Legend

OOS Hydrants

- Defective
- * New Construction
- ⬠ Obstructed
- Temporary

District of Columbia Water and Sewer Authority

Capital Improvement Program Report



**FY-2016 1st Quarter
October 1st through December 31st, 2015**

**Board of Directors
Environmental Quality and Sewerage Services Committee**

**George S. Hawkins, General Manager
Leonard R. Benson, Chief Engineer**

February 2016

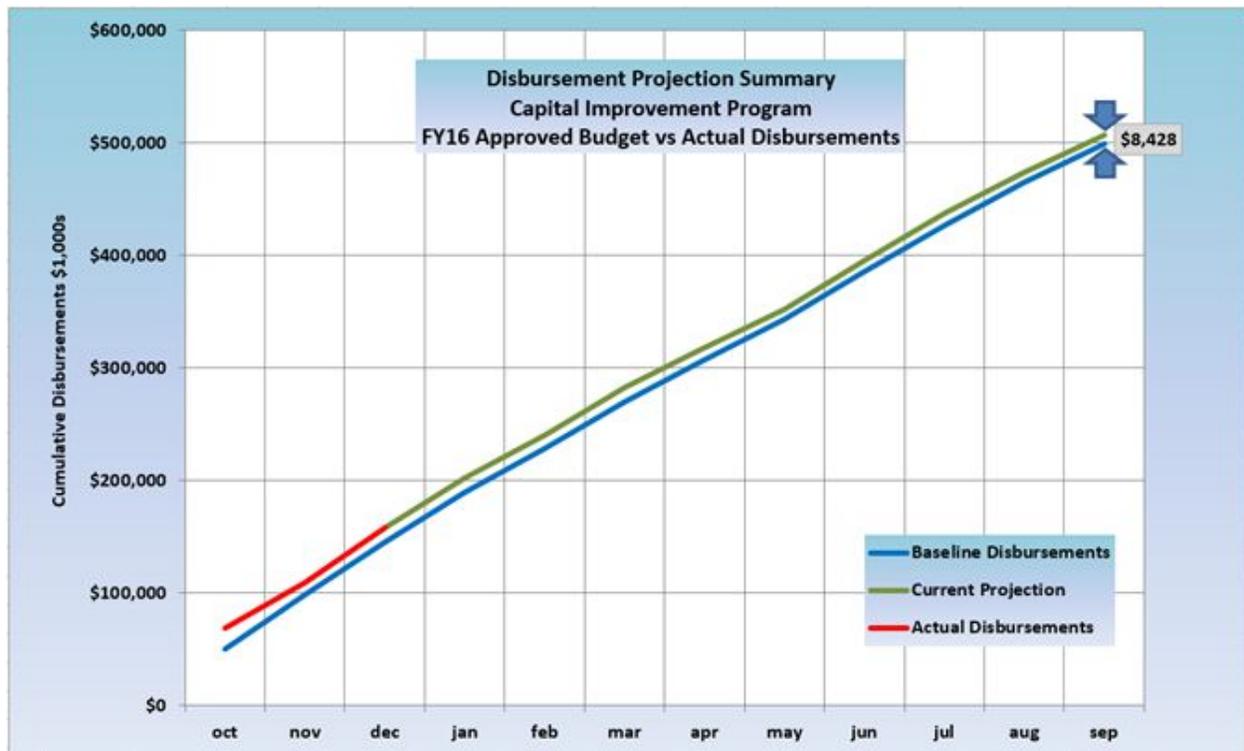


Capital Improvement Program Report 1st Quarter FY2016

CIP Disbursement Performance

Current projected program disbursements through the end of the fiscal year compared with the approved FY16 baseline are shown in the chart below:

Disbursement Summary



Current fiscal year 2016 CIP disbursements are \$507,405,000 through the end of December, which is 1.7% above the baseline disbursement projection of \$498,977,000.

Achieved disbursements within the service areas are as follows:

Non Process Facilities

Baseline Disbursements	\$9,330,000
Projected Disbursements	\$4,760,000 (\$4.6M below baseline projection)

Significant project variances are listed below:



Capital Improvement Program Report 1st Quarter FY2016

- *Non Process Facilities Program Area – (\$4.6M below baseline)*
 - The disbursements for Project HH – New Fleet Management Facility are \$4.7 million below baseline mainly due to ongoing coordination of the agreement between DC Water and the District of Columbia Government that has rescheduled the start of design and construction.

Wastewater Treatment Service Area

Baseline Disbursements \$168,638,000
 Projected Disbursements \$173,379,000 (\$4.7M above baseline projection)
 Significant project variances are listed below:

- *Enhanced Nitrogen Removal Facilities Program – (\$6.4M above baseline)*
 - The disbursements for Project BI – Enhance Nitrogen Removal (ENR) North are projected to be \$5.4M above baseline due to continuing favorable construction progress and for additional work due to unforeseen conditions relating to the rehabilitation of existing facilities.

CSO Service Area

Baseline Disbursements \$223,037,000
 Projected Disbursements \$226,639,000 (\$3.6M above baseline projection)
 There are no significant project variances for this service area.

Stormwater Service Area

Baseline Disbursements \$1,264,000
 Projected Disbursements \$2,129,000 (\$0.9M above baseline projection)
 There are no significant project variances for this service area.

Sanitary Sewer Service Area

Baseline Disbursements \$34,803,000
 Projected Disbursements \$36,917,000 (\$2.1M above baseline projection)
 There are no significant project variances for this service area.

Water Service Area

Baseline Disbursements \$61,906,000
 Projected Disbursements \$63,582,000 (\$1.7M above baseline projection)
 There are no significant project variances for this service area.



Capital Improvement Program Report 1st Quarter FY2016

Priority 1 Projects (Court Ordered, Stipulated Agreements, etc.)

All priority 1 projects are on schedule and within budget.

Large Contract Actions Anticipated – 6 Month Look-Ahead

Project	Name	Contract Type	Cost Range	Committee	BOD
CZ	Kennedy Center CSO 021	Construction	\$30M - \$35M	EQ&SS Feb	Mar
MA	Saint Elizabeth's Water Tank	Construction	\$15M - \$20M	WQ&WS Mar	Apr
CY	Div U - Advance Utility Relocations for NEBT	Construction	\$15M - \$20M	EQ&SS Mar	Apr
J3	National Arboretum Sewer Rehab	Construction	\$5M - \$10M	EQ&SS Apr	May
BV	Raw Wastewater Pumping Station No. 2	Construction	\$25M - \$35M	EQ&SS Apr	May
Various	Miscellaneous Facilities Upgrades 5	Construction	\$25M - \$35M	EQ&SS Apr	May
03	Small Diameter Watermain Rehab 11b	Construction	\$5M - \$10M	WQ&WS May	Jun
DE	Small Diameter Watermain Rehab 12a	Construction	\$5M - \$10M	WQ&WS Jun	Jul
IL	Creekbed Sewer Rehabilitation – Oregon Avenue	Construction	\$10M - \$15M	EQ&SS Jun	Jul
G1	Rehab of Sewers in Georgetown	Construction	\$5M - \$10M	EQ&SS Jun	Jul

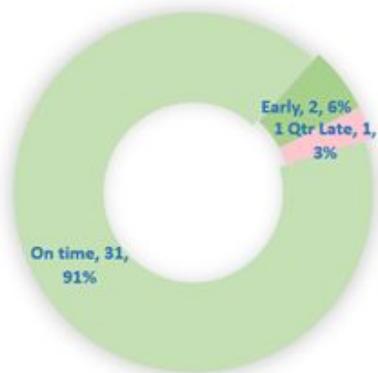


Capital Improvement Program Report 1st Quarter FY2016

Schedule - Key Performance Indicators, Capital Improvement Program

KPI Performance Through End Quarter 1

All KPIs

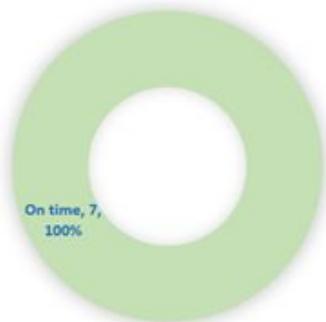


For the 1st Quarter, two of the Key Performance Indicators (KPIs) were achieved early and three were achieved on time; one of the remaining planned KPIs was not achieved, as follows:

1. The construction substantial completion for Potomac Sewer - Odor Remedy, due to delayed completion of HVAC and training of DC Water personnel, which are expected to be completed in the second quarter.

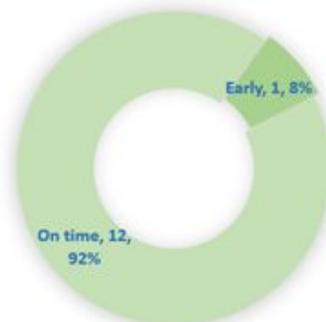
KPI Performance Through End Quarter 1

Design Start



KPI Performance Through End Quarter 1

Construction Start



KPI Performance Through End Quarter 1

Construction Substantial Completion





Capital Improvement Program Report 1st Quarter FY2016

FY2016 - KPI Report

DS	Design Start	Planned		On time	
CS	Construction Start	Early		1 Quarter Late	
CSC	Construction Substantial Completion			> 1 Quarter Late	
CO/PC	Consent Oder/Permit Compliance				

Qtr.	Project	Job Name	KPI Name	QUARTER				To Date
				1	2	3	4	
1	FA04	Ft. Stanton Reservoir No. 1 Upgrade	CSC					On time
1	N712	Potomac Sewer - Odor Remedy (VA Sites)	CSC					1 Qtr Late
1	O301	Small Dia Watermain Repl 11a	CS					On time
1	I802	Large Valve Replacements 12	CS					On time



Capital Improvement Program Report 1st Quarter FY2016

FY2016 - KPI Report

DS	Design Start	Planned		On time	
CS	Construction Start	Early		1 Quarter Late	
CSC	Construction Substantial Completion			> 1 Quarter Late	
CO/PC	Consent Oder/Permit Compliance				

Qtr.	Project	Job Name	KPI Name	QUARTER				To Date
				1	2	3	4	
2	CY19	Div A - Blue Plains Tunnel MPS Section	CSC					On time
2	F101	Small Diameter Water Main Rehab 13A	DS					On time
2	XA10	Biosolids Combined Heat and Power (CHP)	CSC					On time
2	FA06	Brentwood Reservoir Upgrade	CSC					On time
2	O103	Small Dia Watermain Repl 9b	CSC					On time
2	Q302	Pope Branch Stream Restoration and Sewer Replacement	CS					Early



Capital Improvement Program Report 1st Quarter FY2016

FY2016 - KPI Report

DS	Design Start	Planned		On time	
CS	Construction Start	Early		1 Quarter Late	
CSC	Construction Substantial Completion			> 1 Quarter Late	
CO/PC	Consent Oder/Permit Compliance				

Qtr.	Project	Job Name	KPI Name	QUARTER				To Date
				1	2	3	4	
3	AY01	Upgrades to Ft. Reno Pumping Station	CSC					On time
3	MA01	St. Elizabeth Water Tank	CS					On time
3	S503	Large Dia. Water Main Internal Repairs 3	CSC					Early
3	O302	Small Dia Watermain Repl 11b	CS					On time
3	F103	Small Diameter Water Main13C - C&L	DS					On time
3	F104	Small Diameter Water Main Repl 13D	DS					On time
3	CY31	Div U - Advance Utility Relocations for NEBT	CS					On time
3	C904	66" Low Service Steel Main at 8th Street NE & SE	DS					On time
3	JX01	Sanitary Sewer Rehabilitation 10	DS					On time



Capital Improvement Program Report 1st Quarter FY2016

FY2016 - KPI Report

DS	Design Start	Planned		On time	
CS	Construction Start	Early		1 Quarter Late	
CSC	Construction Substantial Completion			> 1 Quarter Late	
CO/PC	Consent Oder/Permit Compliance				

Qtr.	Project	Job Name	KPI Name	QUARTER				To Date
				1	2	3	4	
4	DE01	Small Diameter Water Main Repl 12A	CS					On time
4	DR02	Low Area Trunk Sewer - Rehabilitation	CS					On time
4	G101	Rehab of Sewers in Georgetown	CS					On time
4	G800	Small Local Sewer Rehab 2	CSC					On time
4	GA01	Small Local Sewer Rehab 4	CSC					On time
4	J306	National Arboretum Sewer Rehab	CS					On time
4	O101	Small Dia Watermain Repl 9a	CSC					On time
4	O201	Small Dia Watermain Repl 10a	CSC					On time
4	I801	Large Valve Replacements 11R	CSC					On time
4	O202	Small Dia Watermain Repl 10b	CSC					On time
4	BV01	RWWPS No. 2 Upgrades	CS					On time
4	IL10	Creekbed Sewer Rehab Rock Creek Oregon Avenue	CS					On time
4	IX01	Headworks HVAC Rehab	DS					On time
4	DS01	New Headquarters Building	CS					On time
4	FY02	Rehab of RCMI & Beach Dr Sewers Ph II (Lining)	DS					On time



Small Diameter Water Main (SDWM) Replacement and Rehabilitation Program Update

Presented to:

Water Quality and Water Services Committee

Chairperson: Rachna Butani

March 17, 2016



AGENDA

- Small Diameter Water Main (SDWM) Program Background
- Lessons Learned
- Proposed Solutions
- SDWM 10A & 10B Change Orders



AGENDA

- Small Diameter Water Main (SDWM) Program Background
- Lessons Learned
- Proposed Solutions
- SDWM 10A & 10B Change Orders

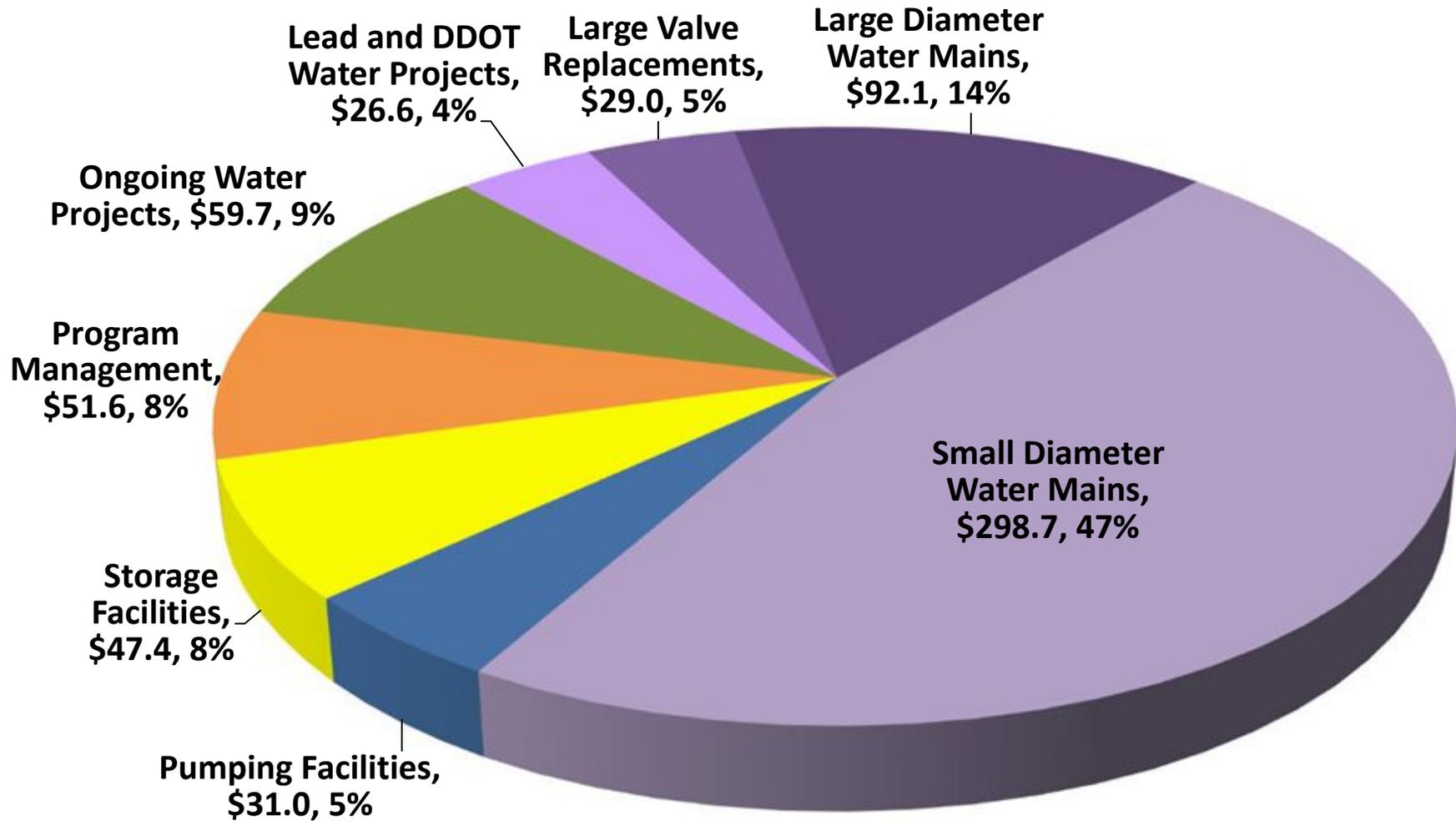


SDWM Program Background

Date	Milestone
June 2009	<ul style="list-style-type: none"> • First discussions with Retail Services Committee to increase replacement / rehab rate
2010	<ul style="list-style-type: none"> • Board approved increase in replacement / rehab rate • Goal was to increase SDWM from 1/3 percent to 1 percent over a 5-year period, i.e., by 2015 • 1 percent is approximately 11 miles of SDWM
2011	<ul style="list-style-type: none"> • Construction increase started
2015	<ul style="list-style-type: none"> • Goal – 11 miles • Goal exceeded – 16 miles



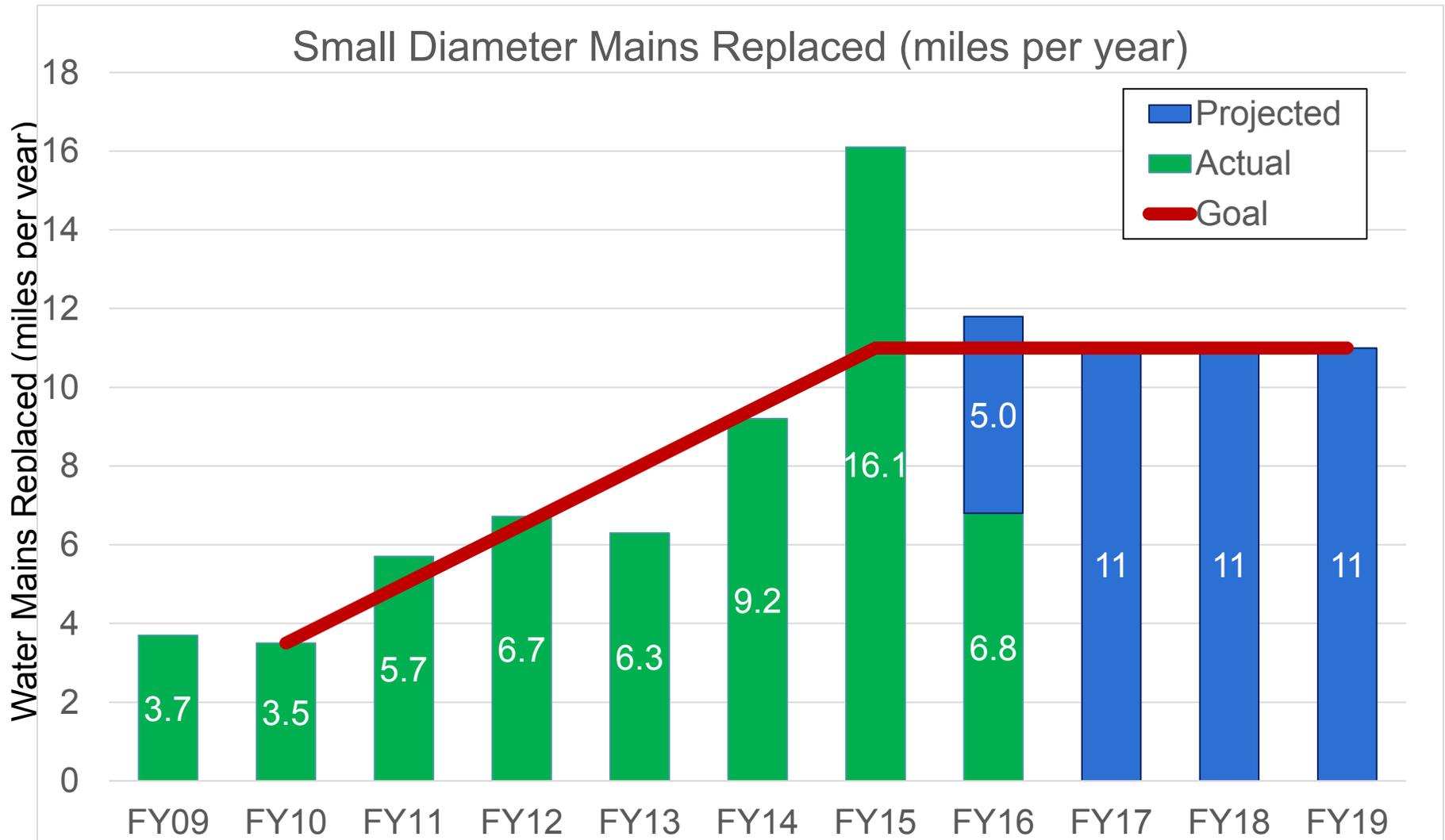
10-Year Water CIP



10 year, CIP Water Program – \$636,100,000



SDWM Replaced



* 1% is approx. 11 miles of SDWM

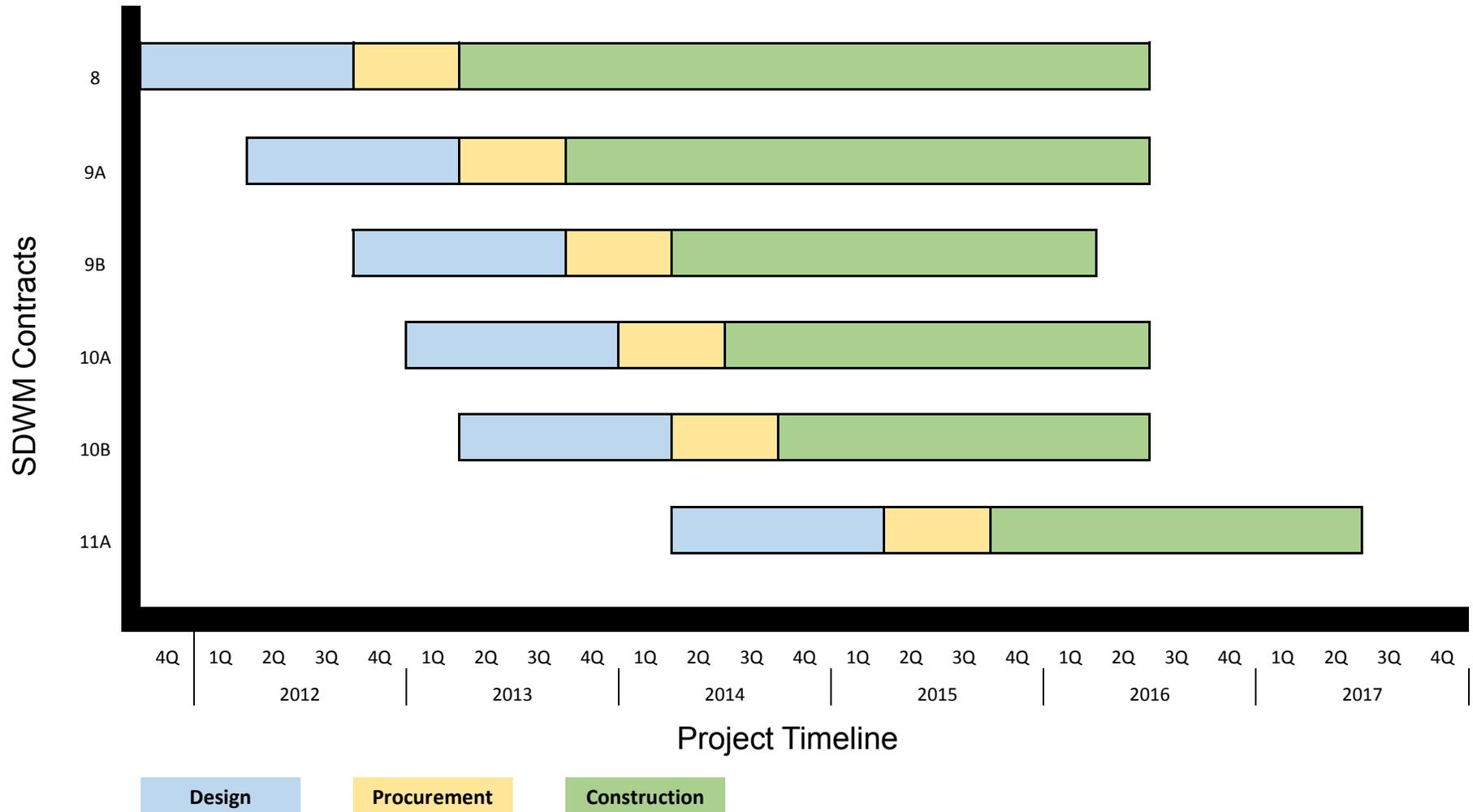


Program Background

Project	Original Contract (\$)	NTP	Percent Complete	Estimated Completion
8	\$16,654,450	Jun 2013	98	Jun 2016
9A	\$10,512,544	Nov 2013	95	Jul 2016
9B	\$6,956,349	Mar 2014	94	Mar 2016
10A	\$13,542,445	Aug 2014	92	Jun 2016
10B	\$10,190,671	Dec 2014	86	Jun 2016
11A	\$10,709,591	Oct 2015	4	May 2017



Project Timelines





AGENDA

- Small Diameter Water Main (SDWM) Program Background
- **Lessons Learned**
- Proposed Solutions
- SDWM 10A & 10B Change Orders



Program Lessons Learned

- Accurate *quantity takeoffs*
 - Copper pipes
 - Asphalt mill and overlay (M&O)
 - Borrow trench fill
 - Flexible asphalt pavement
 - PCC (concrete) base
- Significant DDOT *surface restoration* cost
- Detailed QA/QC process



Quantity Overruns (%)

Bid Items	Percent Increase in Quantity					Cause
	8	9A	9B	10A	10B	
Copper Pipe 2" (non lead)	37	0	0	81	109	Assumptions were overly optimistic
Asphalt M&O	81	0	0	82	106	Vagaries of DDOT's surface restoration standards
Borrow Trench Fill	0	34	117	74	117	DDOT field changes to DDOT surface restoration requirements
Flexible Asphalt Pavement	123	5,615	4,000	0	11,400	Vagaries of DDOT's surface restoration standards Unknown base course material
PCC Base	(29)	(18)	0	0	109	Unknown base course material



water is life

Significant DDOT Surface Restoration Cost

Project	Total Project Cost (\$)	Cost of Paving (\$)*	Cost of Paving (%)*
8	\$18,663,055	\$3,358,500	18
9A	\$11,005,629	\$4,228,484	38
9B	\$6,956,349	\$1,196,659	17
10A	\$15,496,445	\$3,345,811	22
10B	\$12,043,621	\$3,004,641	25

* Including road, curb, and sidewalk



Detailed QA/QC Process

- Work with DDOT to establish DDOT requirement and standards
- Ensure we follow DDOT standards in quantity takeoffs
 - Mill & overlay
 - Trench backfill
- Perform more detailed field investigations
 - Site walk with Designer, CM and DDOT staff
- Evaluate assumptions related to unknowns
 - Risk management



AGENDA

- Small Diameter Water Main (SDWM) Program Background
- Lessons Learned
- **Proposed Solutions**
- SDWM 10A & 10B Change Orders



Proposed Solutions

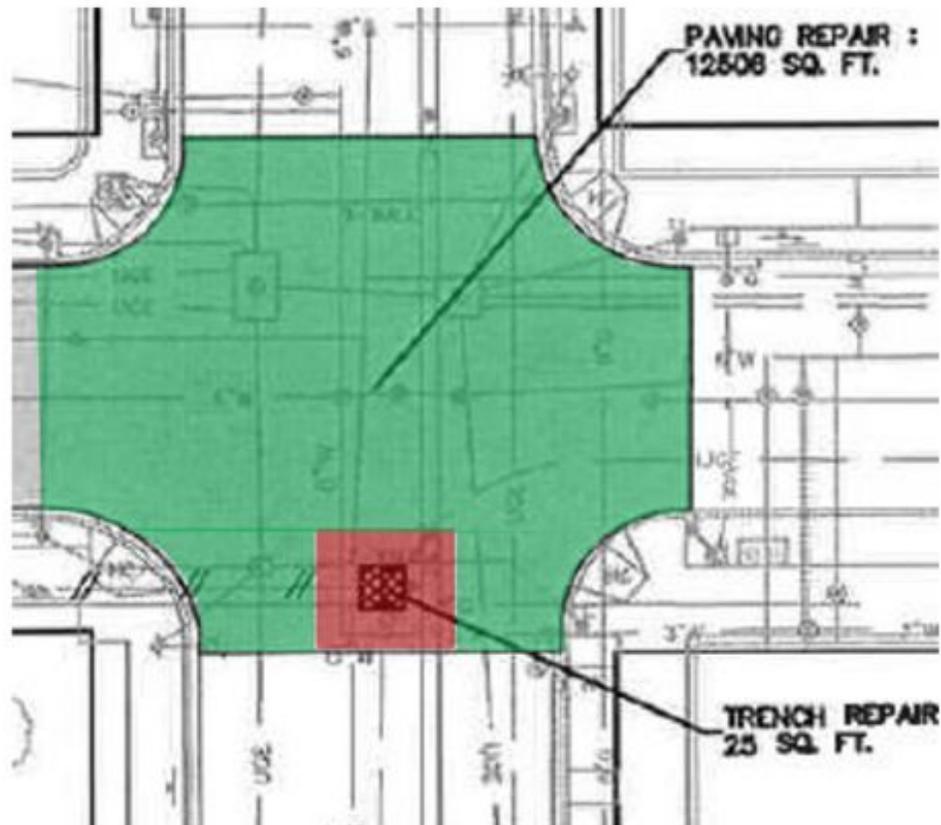
- Improve *quantity takeoffs*
- Account for significant *surface restoration* costs
- Coordinate field walks with DDOT to confirm *surface restoration*
- Perform detailed QA/QC process



Proposed Solutions

Overrun Item	Proposed Solution
Copper Pipe 2” (non lead)	<ul style="list-style-type: none"> • More detailed quantity takeoffs • Sheet by sheet tracking • More conservative assumptions regarding unknowns
Asphalt M&O	<ul style="list-style-type: none"> • M&O Plans • Field walks with DDOT to confirm M&O plans • Include M&O plans in permit applications • Uniformly follow DDOT published standards
Borrow Trench Fill	<ul style="list-style-type: none"> • Uniformly follow DDOT published standards • Uniformly follow maximum trench pay-width
Flexible Asphalt Pavement	<ul style="list-style-type: none"> • Uniformly follow maximum trench pay-width (plus 12”)
PCC Base	<ul style="list-style-type: none"> • Geotechnical borings • Use larger contingencies in bid items
General	<ul style="list-style-type: none"> • Use manual takeoff to verify electronic takeoff

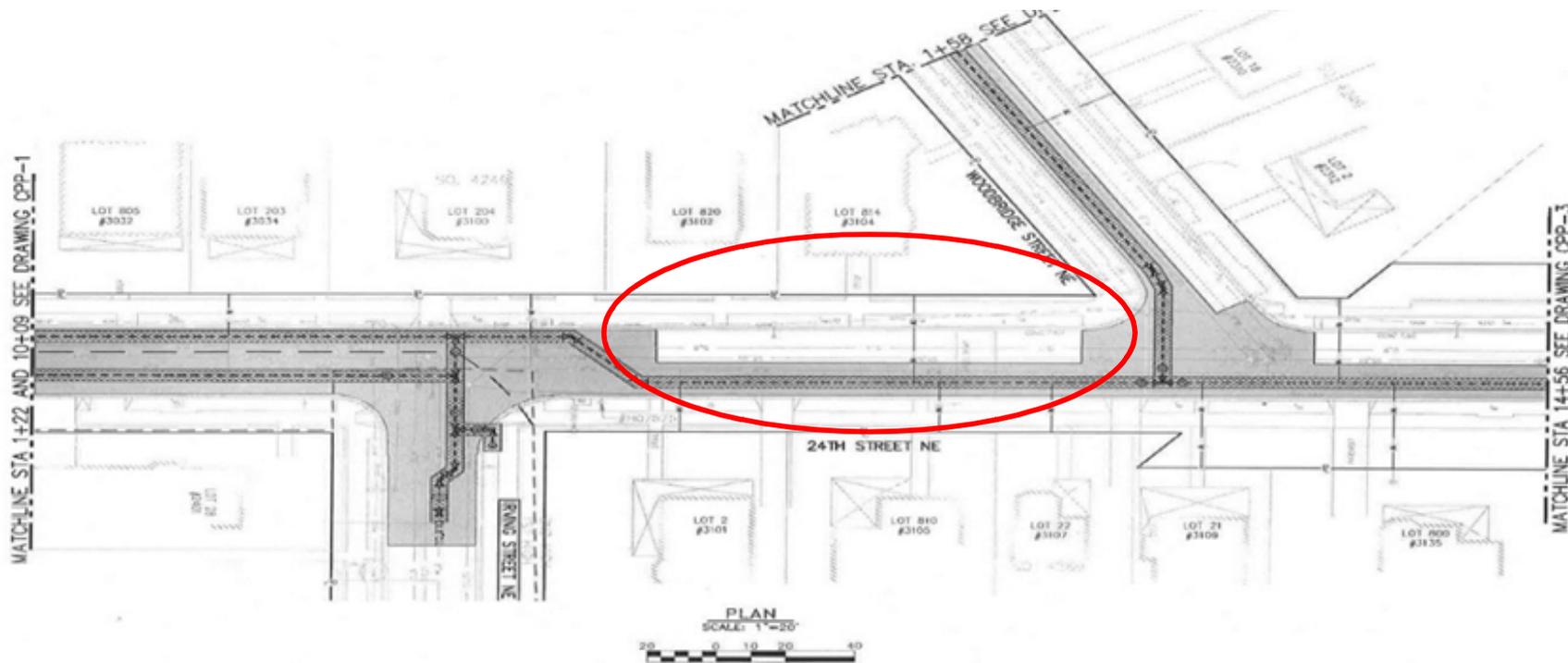
- New internal QA/QC Process: Use M&O Plans to verify takeoff quantities in Bid Docs





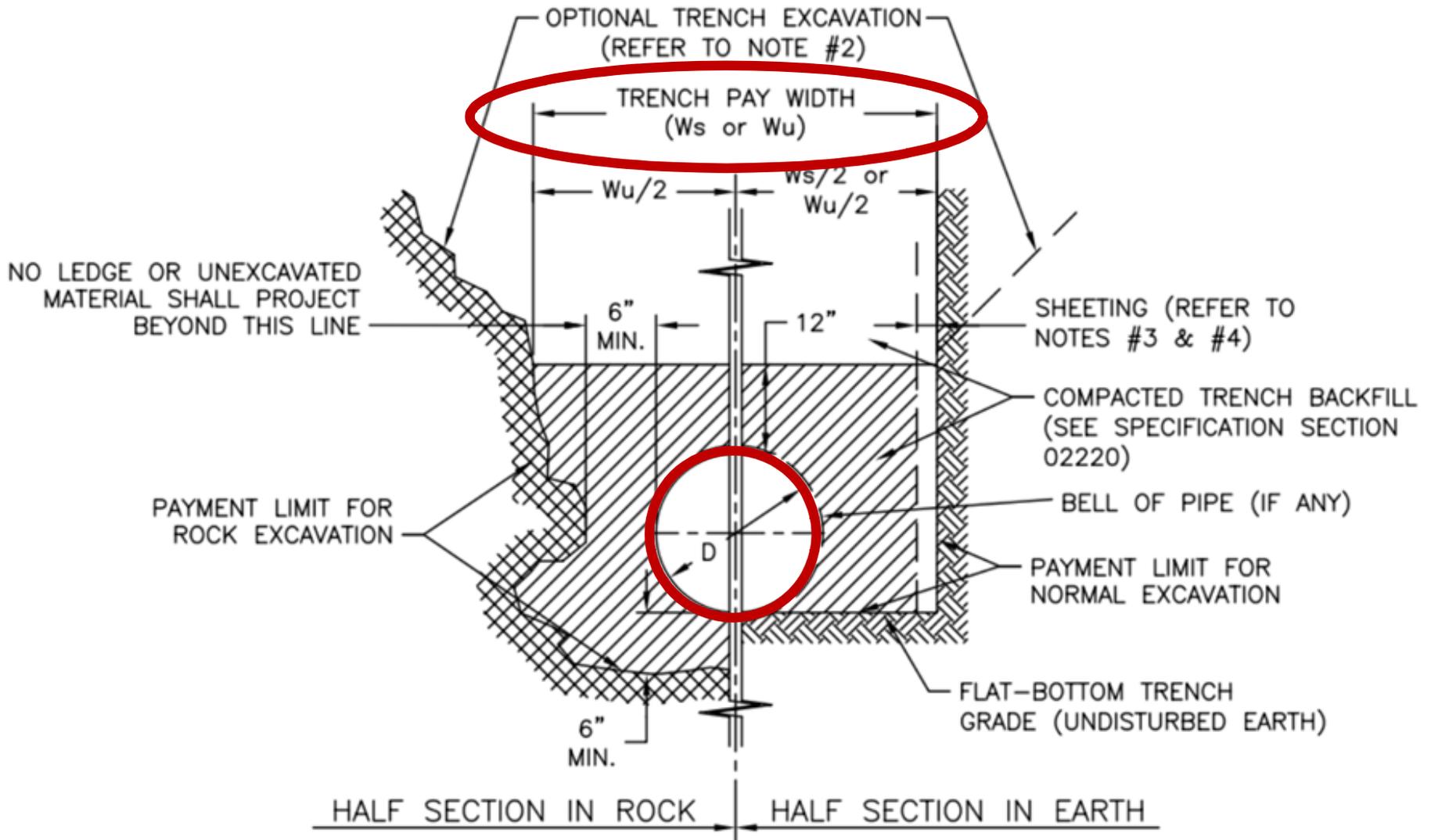
Proposed Solutions (cont'd)

- Postponed advertisement of SDWM11B, SDWM12A, Bloomingdale, and Spring Valley to resolve issue prior to bid solicitation



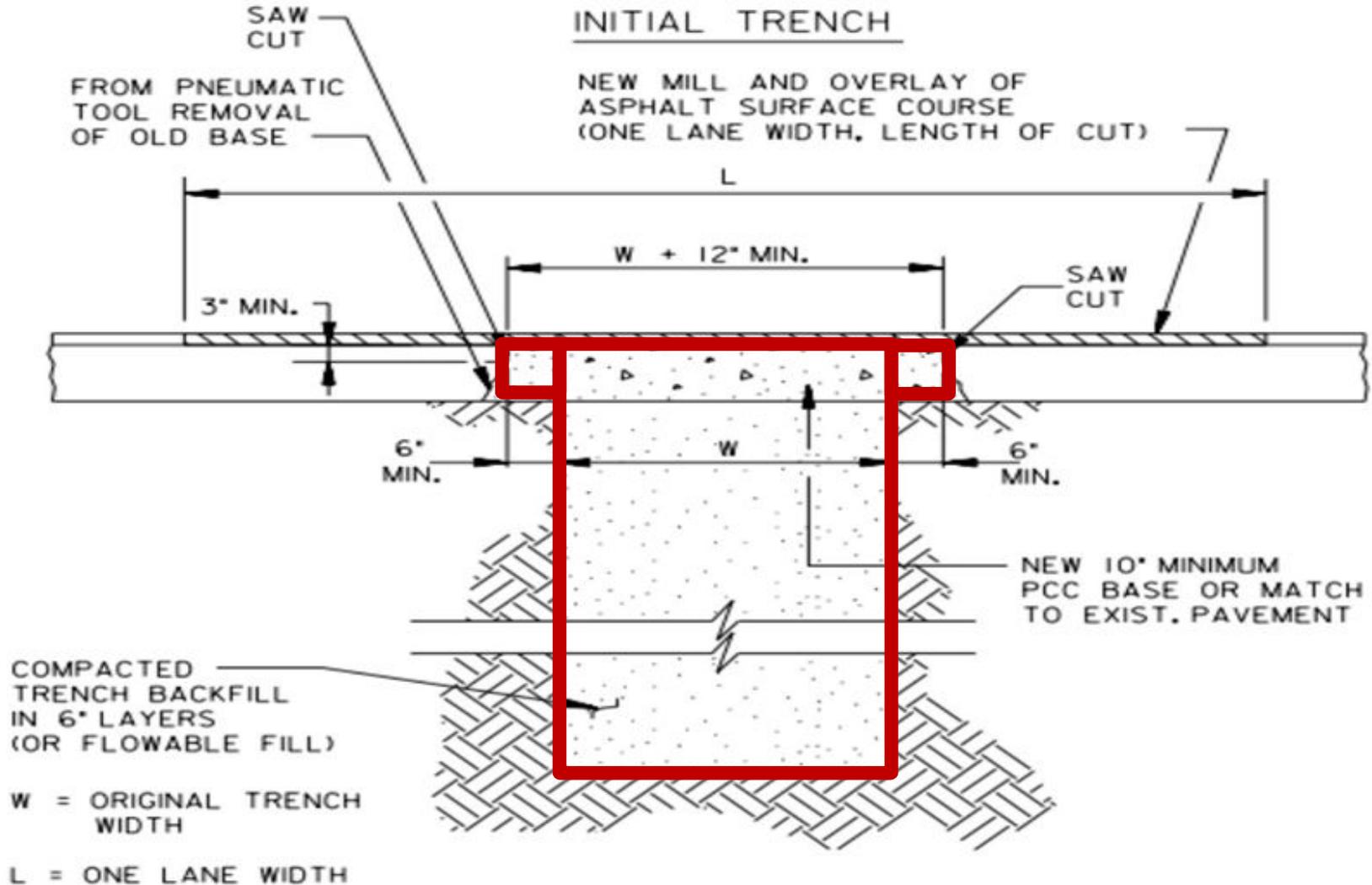


Max Trench Pay Width





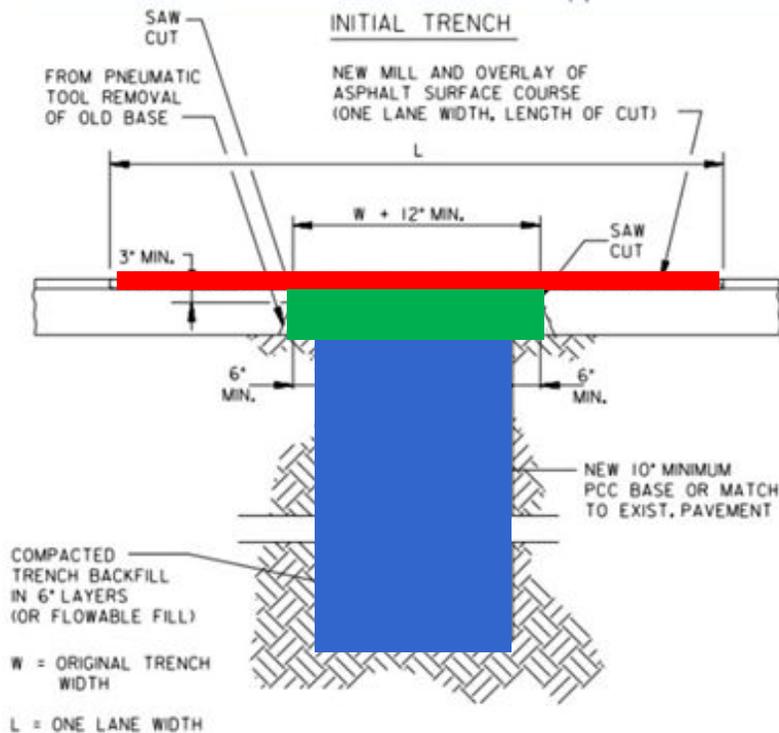
Max Trench Pay Width (plus 12")



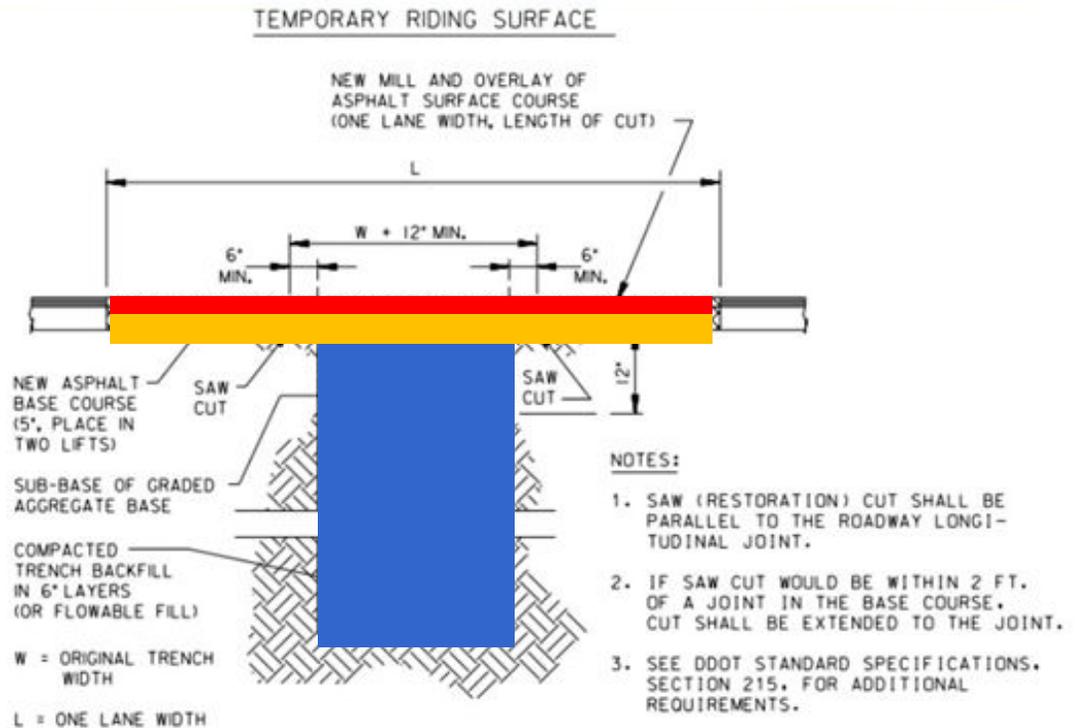
RESTORATION OF PCC BASE AND ASPHALT SURFACE



Proposed Solutions (cont'd)



RESTORATION OF PCC BASE AND ASPHALT SURFACE



RESTORATION OF FLEXIBLE PAVEMENT

- Use geotechnical borings to identify base course material
 - pro: Accuracy of estimates
 - con: Additional design cost
- Use larger contingent Item for unknown base course



AGENDA

- Small Diameter Water Main (SDWM) Program Background
- Lessons Learned
- Proposed Solutions
- **SDWM 10A & 10B Change Orders**



Construction Change Orders

Project	Original Contract (\$)	Change Order (\$)	Change Order (%)	Percent Complete (%)
8	\$16,654,450	\$885,998	5	98
9A	\$10,512,544	\$493,085	5	95
9B	\$6,956,349	\$428,000	6	94
10A	\$13,542,445	\$1,951,000	14	92
CO#1	\$1,951,000 *			
10B	\$10,190,671	\$1,852,950	18	86
CO#1	\$495,450			
CO# 2	\$1,357,500 *			

* Change orders listed above represent under estimation of quantities; i.e., DC Water would have had to pay for this work even if the specification and plans had been perfect
Unit price of material did not increase for the change order



SDWM 10A - CO No.1

Bid Items	Description	CO Qty	Unit Price	Total
12a	Copper Pipe 2" (Non-Lead)	18,400 LF	\$60	\$1,104,000
12b	Copper Pipe 2" (Lead public)	(1,500) LF	\$60	\$(93,000)
12c	Copper Pipe 2" (Lead private)	(1,500) LF	\$60	\$(93,000)
16	Asphalt mill and overlay	35,000 SY	\$23	\$805,000
27	Bus pad replacement	6 EA	\$12,000	\$72,000
28	Borrow trench backfill	5,200 CY	\$30	\$156,000
			Total	\$1,951,000



SDWM 10B - CO No.2

Bid Items	Description	CO Qty	Unit Price	Total
13	PCC Pavement	8,100 SY	\$95.00	\$769,500
14	Asphalt M&O	24,500 SY	\$24.00	\$588,000
			Total	\$1,357,500



Path Forward for Improvement

- Standardize estimating and measuring of *quantity takeoffs*
- Follow DDOT *surface restoration* standards uniformly
- Implement QA/QC process improvements



Questions/Discussion

Reducing the Lead in Water



Water Quality and Water
Services Committee

March 17, 2016

Sources of Lead

- ▶ Lead service lines (public and private)
- ▶ Galvanized iron service lines
- ▶ Galvanized iron pipe in home plumbing
- ▶ Lead solder
- ▶ Lead particles on aerators
- ▶ Brass installed prior to 2014
(EPA Lead-Free Act reduced allowable lead in brass from 8% to 0.25%)



How to Minimize Lead Release

- ▶ Remove sources
 - ▶ Lead service lines
 - ▶ Replace old fixtures (kitchen faucets, water fountains)
 - ▶ Replace kitchen faucet aerators and routinely clean
 - ▶ Galvanized iron service replacement
 - ▶ Galvanized iron pipe in home plumbing

- ▶ Continue to optimize water chemistry
 - ▶ Orthophosphate addition pH and control



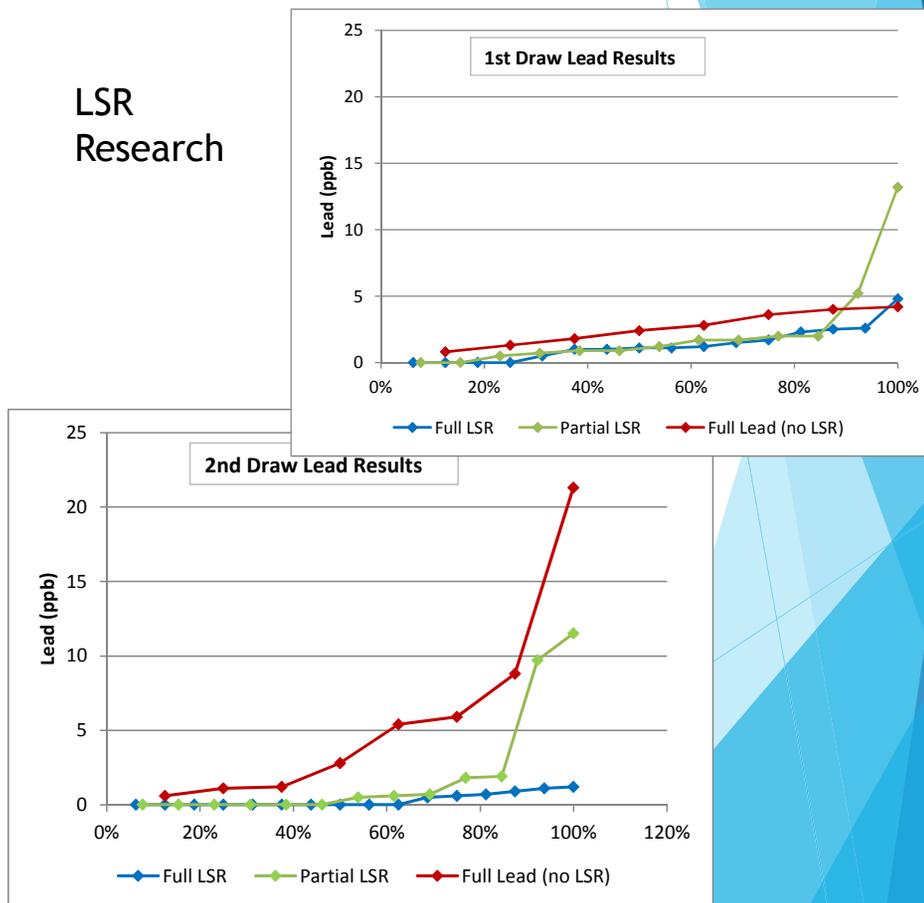
Chronology of Water Treatment, Corrosion Control and Regulatory Actions

- ▶ 2000 EPA Stage 1 DBPR Rule Compliance - The WA changed from free chlorine to chloramine to reduce disinfection byproducts (DBP)
EPA LCR Compliance - EPA designates Final OCCT as pH adjustment by lime addition (decides use of orthophosphate not worth additional drinking water and wastewater treatment costs)
- ▶ 2002-2004 Unexpected outcome was the lead pipe scales began softening and releasing lead
LCR Action Level Exceeded (Action Level is a corrosion standard)
EPA LCR mandates lead service line replacements - 7% per year
Most are partial LSRs as homeowners do not elect to replace the portion in private property
Increased sample collection from homes (continued to this day)
Public education required
- ▶ 2004 EPA issues Administrative Order to correct deficiencies identified in DCWASA's compliance program
Corrosion control improved with orthophosphate addition
- ▶ 2005 LCR compliance report did not exceed action level
- ▶ 2006 EPA issues Administrative Complaint for data management issues
- ▶ 2007 Administrative Penalty Order closes 2004 Administrative Order

History of Lead Service Line Replacements

- ▶ **2002-2005** EPA LCR mandated 7% lead service lines when above Action Level
 - ▶ OGC determines DC Water prohibited from requiring removal of private portion or using public money for private property work
- ▶ **2004-2008** The Board authorized lead service replacement program
 - ▶ Approximately 20% participation for full replacement
- ▶ **2009** Research data showed inconsistent changes in lead concentrations after partial LSRs
 - ▶ Resulted in management recommendation to discontinue the block LSR program
- ▶ **Today** Partial LSRs conducted only as part of main replacement project and emergency repairs

LSR Research



Lead Service Lines and Replacements

Service Line Inventory (Public Space Side Only)

Pipe Material	
Lead	12,302
Unknown	16,276
Galvanized Iron	79
Brass	9,925
Copper	81,949
Non-Lead	5,316
Other	83
Total	125,930

Lead Service Line Replacements (LSRs) Reported

Year	Partial	Full
FY03	373	9
FY04	1,745	108
FY05	3,210	963
FY06	3,312	848
FY07	3,430	465
FY08	2,442	706
FY09	411	71
FY10	236	82
FY11	137	46
FY12	164	53
FY13	187	36
FY14	127	161
FY15	307	158
FY16*	126	100
Total	16,207	3,806

Construction Projects

- ▶ Typical service line installation as part of a water main replacement project
- ▶ Work ongoing in both public and private space



Service Line Installations



Contractor using trenchless technology (mole) for installing service line



Typical service line tap



Post construction backfill of access pit

Customer Notifications for Construction

Customer requests LSR information



DC Water mails packet with cost and contract agreement



Blue booklet mailed 2-3 months before construction

The blue booklet cover features the DC Water logo and the text: "IMPORTANT CONSTRUCTION INFORMATION FOR RESIDENTS", "DC Water is Improving Water Infrastructure in Your Neighborhood", and "DCWATER.COM DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY George F. Winkler, Senior Manager".

The informational page includes the DC Water logo, contact information, and a table of contents:

IMPORTANT INFORMATION	1
BEFORE, DURING AND AFTER CONSTRUCTION	3-4
REPLACING LEAD SERVICE PIPE	5
LEAD AND YOUR HEALTH	6-7
LEAD AND YOUR HEALTH (Spanish version)	8
TIPS TO REDUCE LEAD IN DRINKING WATER	9

The page also includes a diagram titled "Understanding your property line and water service pipe" and a section on "Lead pipe replacement".

The packet cover features the DC Water logo and the text: "LEAD CAN BE A SIGNIFICANT RISK TO YOUR HEALTH, ESPECIALLY FOR PREGNANT WOMEN AND CHILDREN UNDER AGE SIX.", "During upcoming infrastructure improvements on your block, DC Water will replace your water service pipes in public space.", and "If we confirm you have a lead service pipe during construction:".

The table of contents is as follows:

REPLACING A LEAD SERVICE PIPE	1
LEAD, WATER AND YOUR HEALTH	2
BEFORE, DURING AND AFTER CONSTRUCTION	3-4
CONTRACT AGREEMENT TERMS AND PAYMENT OPTIONS	5
HANDLING LEAD DROUPLINE AFTER PIPE REPLACEMENT	6
TIPS TO REDUCE LEAD IN DRINKING WATER	7

The packet also includes sections for "additional questions?" and "concerns".



Lead Service Replacements Upon Customer Request

- ▶ DC Water will replace the public portion of the service line when homeowners replace the portion in private space through the home.
- ▶ Customers coordinate through DC Water
 - ▶ Explain the replacement process
 - ▶ Discuss excavation areas
 - ▶ Restoration that will be desired
- ▶ Provide filter and follow-up testing

Project Coordination and Customer Outreach

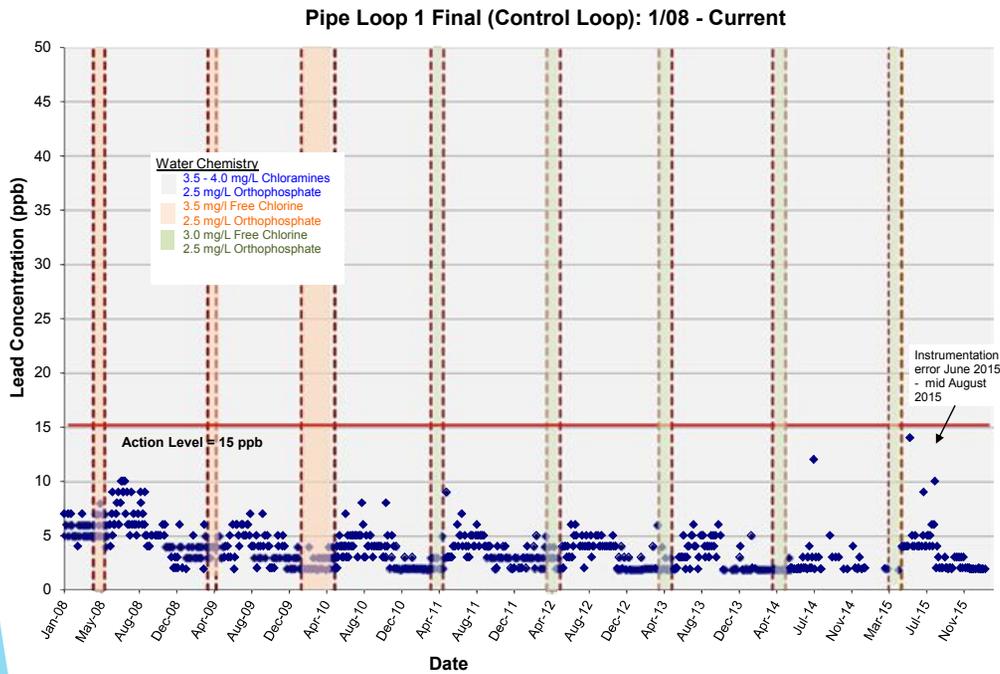
- ▶ Inspector provides name and affiliation (DC Water), and shows ID badge
- ▶ Highly important information shared
 - ▶ Type of work completed – full or partial LSR
 - ▶ Line flushed by contractor – 60 minutes
 - ▶ Door hanger – flushing and health information
 - ▶ Filter and replacement cartridges (6 total)
 - ▶ Notice of auto phone calls and post card reminders
 - ▶ Lead testing 4 ½ months after LSLR
- ▶ Record data – SAME DAY – to allow auto calls to customer
- ▶ Report all material type and replacement data on a weekly basis
 - * Note: If no one answers, the filter-kit and door hanger are left at premise



Water Quality Monitoring Efforts



Lead Pipe Loops at Ft Reno and WA

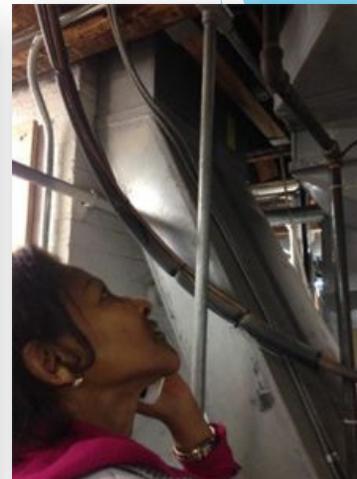


- ▶ Harvested lead service lines from District homes constructed in pipe loops
- ▶ Indicates if lead release changes due to water chemistry

Customer Requested Lead Tests

2014-2015 Customer-Request Data

Test kits mailed:	766
Test kits returned:	446
Return Rate:	58%
1st Draw 90th %ile (ppb)	3.0
2nd Draw 90th %ile (ppb)	3.6
Number of homes with 1st or 2nd Draw > 15 ppb	10

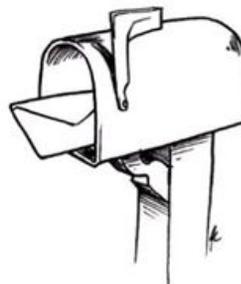


- DC Water Quality staff talk to every customer requesting lead test
 - Identify the service line material—explain program to replace service
 - Steps to minimize lead in water
 - Ask if they have any other questions about their drinking water

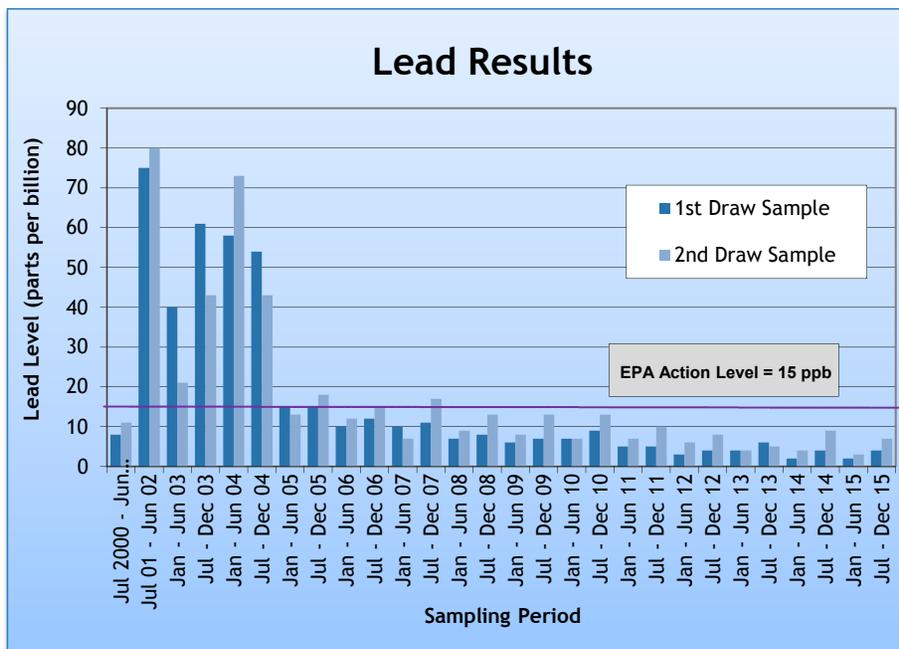
Post-LSR Lead Testing

	Partial-LSR	Full-LSR
Total Sent Out:	705	705
Total Returned:	56	144
Return Rate:	0.0794	0.2045
90th Percentile on 1 st Draw (ppb):	4.05	1.84
90th Percentile on 2nd Draw (ppb):	7.85	0.7
Number of homes with 1st or 2nd Draw > 15 ppb	3	2

- ▶ Mail sample kits 4 months after service line replacement
 - ▶ Mail postcard notifying the lead test will be coming
 - ▶ Mail letter with results describing need to filter water if a lead source remains

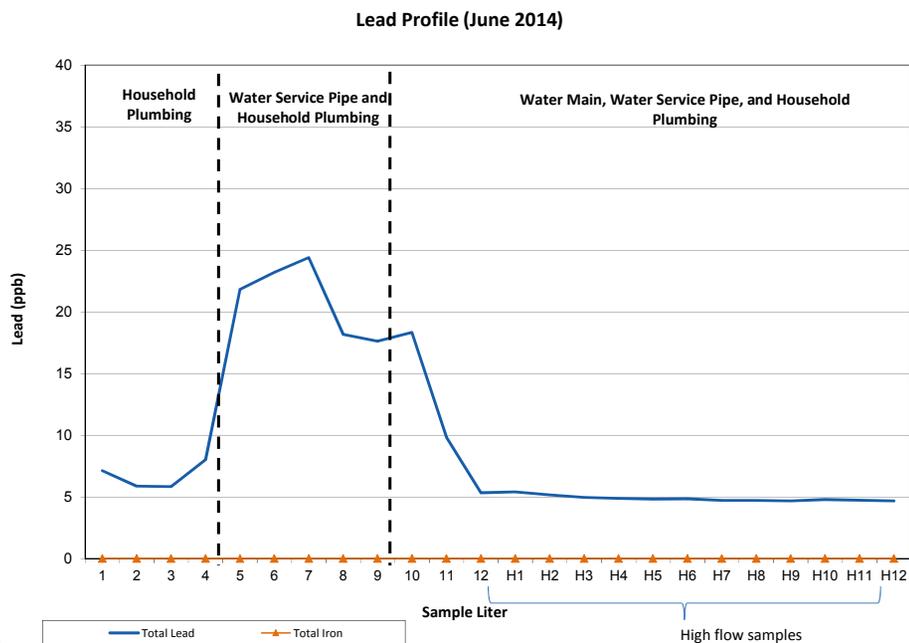


EPA Lead and Copper Rule Compliance Monitoring



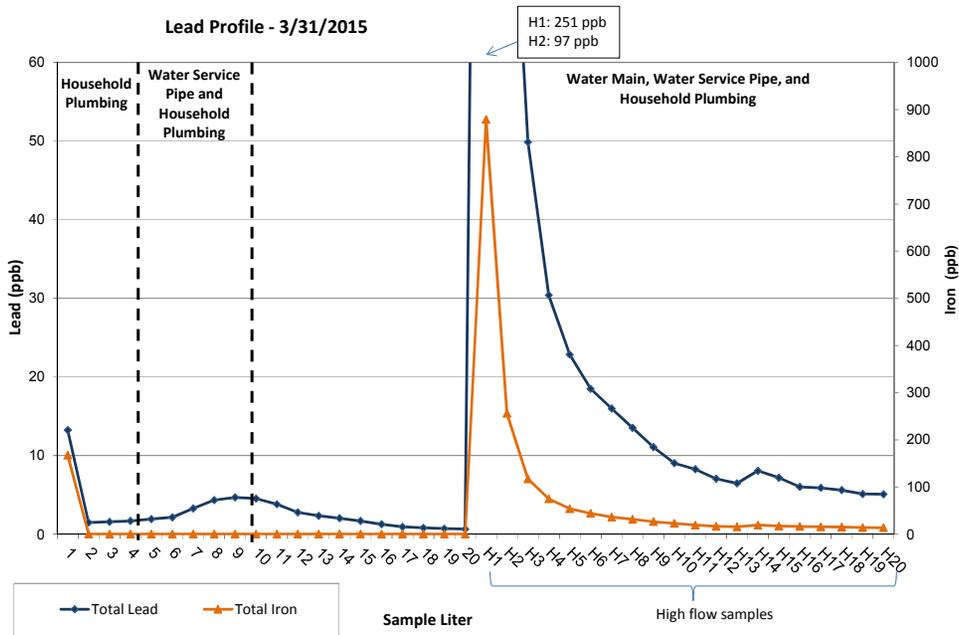
- ▶ Test water from at least 100 homes every 6 months
- ▶ Data posted to website
- ▶ *EPA Action Level applies to 1st Draw samples. 2nd Draw samples are voluntary

Lead Profiles—Studies Conducted in Homes



- ▶ Offered to all homes with a result of 15 ppb or greater.
- ▶ Collect consecutive samples to see lead release from each section of home plumbing and service line.
- ▶ Collect additional maximum flow samples to scour pipe for loose scales.

Lead Profiles (Cont'd)



▶ Iron and lead levels have similar trend that indicates particle build-up near faucet

Water Research Foundation Projects

Current

- ▶ Evaluation of Flushing to Reduce Lead Levels (WRF Project 4584)
- ▶ Evaluation of Lead Sampling Strategies (WRF 4569)

Past projects

- ▶ Galvanic Corrosion
- ▶ Contribution of Service Line and Plumbing fixtures
- ▶ Analysis of lead release from galvanized iron pipe



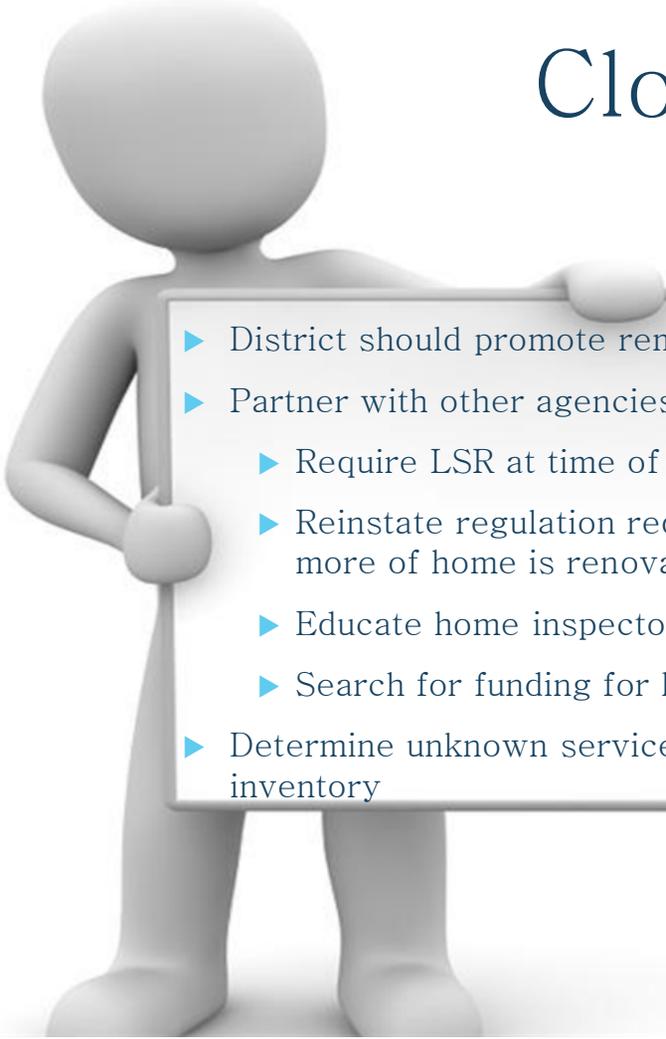
Test Homes of Children with Elevated Blood Lead Levels



- ▶ DC Water provides all lead results to DOEE and assists their investigation of homes of children with elevated blood lead levels.
- ▶ Children with blood lead levels of 8 ug/dL or higher: DOEE conducts site investigation which includes water testing of cold and hot water.
 - ▶ If the water samples have elevated lead, then DC Water follows with lead profile and plumbing survey.
- ▶ DC Water contacts customer and sends test kits to homes with children having blood lead levels of 5-8 ug/dL.



Closing Remarks

- 
- ▶ District should promote removal of all lead sources
 - ▶ Partner with other agencies to encourage LSRs
 - ▶ Require LSR at time of home sale
 - ▶ Reinstate regulation requiring LSR when 50% or more of home is renovated
 - ▶ Educate home inspectors
 - ▶ Search for funding for low income homes
 - ▶ Determine unknown service lines to improve material inventory

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

GOODS AND SERVICES CONTRACT MODIFICATION

**Customer Information System and Implementation Services
(Non-Joint Use)**

Approval to execute a contract modification for an additional twenty-four (24) month extension in the amount of \$3,234,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Orcom Solutions, LLC. 250 East Arapaho Road, Suite 100 P.O. Box 852757 Richardson, Texas 75085-2757	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$13,400,500.00
Original Contract Dates:	06-26-2000–06-25-2008
Contract Modification Values:	\$1,070,910.00
Contract Modification Dates:	02-23-2001–06-25-2008
Contract Modification Values:	\$12,953,400.00
Contract Modification Dates:	06-26-2008–06-25-2016
Contract Modification Value:	\$3,234,000.00
Contract Modification Date:	06-26-2016–06-25-2018

Purpose of the Contract:

To contract for integrated customer information system that allows DC Water the ability to offer superior customer service, maintain customer data and service customer accounts.

Original Contract Scope:

To provide Customer Information System and Implementation (E-CIS) services to ensure effective communication between DC Water and its customers.

Reason for Change:

DC Water issued a Request for Proposal (RFP) for a new Customer Information System (CIS). The services must continue until the new CIS vendor is selected. The RFP is under evaluation.

Spending Previous Year:

Cumulative Contract Value:	06-26-2000 to 06-25-2016: \$27,424,810.00
Cumulative Contract Spending:	06-26-2000 to 02-29-2016: \$24,169,432.40

Contractor's Past Performance:

The contractor's past performance has been satisfactory.

No LBE/ LSBE participation.

PROCUREMENT INFORMATION

Contract Type:	Firm Fixed	Award Based On:	Highest Ranking Score
Commodity:	Customer Information System	Contract Number:	WAS-9087-AA-AB
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

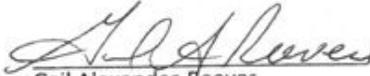
BUDGET INFORMATION

Funding:	Operating	Department:	Customer Care
Service Area:	DC Water wide	Department Head:	Lauren Preston

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$3,234,000.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County	0.00%	\$0.00
Other (PI)	0.00%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$3,234,000.00

 3/10/16
 Dan Bae Date
 Director of Procurement

 3/10/16
 Gail Alexander-Reeves Date
 Director of Budget

 3/9/16
 Charles Kiely Date
 Assistant General Manager,
 Customer Care & Operations

 George S. Hawkins Date
 General Manager

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

GOODS AND SERVICES CONTRACT MODIFICATION

**Bill Printing and Mailroom Operations
(Non-Joint Use)**

Approval to execute contract modification for an additional twenty-four(24) month extension in the amount of \$900,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME: Orcom Solutions, LLC. 250 E. Araphao Road, Suite 100 P.O. Box 852757 Richardson, Texas 75085-2757	SUBS: N/A	PARTICIPATION: N/A
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DESCRIPTION AND PURPOSE

Original Contract Value:	\$1,260,000.00
Original Contract Dates:	06-06-2010—06-08-2013
No. of Option Years in Contract:	2
Option Year 1 Value:	\$360,000.00
Option Year 1 Dates:	06-09-2013—06-08-2014
Option Year 2 Value:	\$380,000.00
Option Year 2 Dates:	06-09-2014—06-08-2015
Modification Value:	\$450,000.00
Modification Dates:	06-09-2015—06-08-2016
This Modification Value:	\$900,000.00
This Modification Dates:	06-09-2016—06-08-2018

Purpose of the Contract:

To contract for Bill Printing and Mailroom Operations services for the District of Columbia Water and Sewer Authority (DC Water) Department of Customer Care and Operations.

Original Contract Scope:

To provide for the printing and mailing of customer bills and other DC Water related publications or notices that are provided to DC Water's customers.

Reason for the Change:

DC Water issued a Request for Proposal (RFP) for a new Customer Information System (CIS). The mailroom function is part of the RFP that was issued. The RFP is currently under evaluation.

Spending Previous Year:

Cumulative Contract Value:	06-09-2010 to 06-08-2016: \$2,450,000.00
Cumulative Contract Spending:	06-09-2010 to 03-02-2016: \$1,329,705.41

Contractor's Past Performance:

The contractor's past performance has been satisfactory.

No LBE/LSBE participation.

PROCUREMENT INFORMATION

Contract Type:	Firm Fixed	Award Based On:	Single Proposer
Commodity:	Goods and Services	Contract Number:	WAS-10-023-AA-RE
Contractor Market:	Open Market with Preference Points for LBE and LSBE Participation		

BUDGET INFORMATION

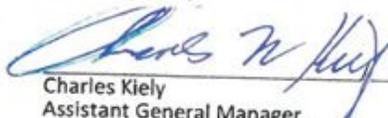
Funding:	Operating	Department:	Customer Care
Service Area:	DC Water wide	Department Head:	Lauren Preston

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$900,000.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County	0.00%	\$0.00
Other (PI)	0.00%	\$0.00
TOTAL ESTIMATED DOLLAR AMOUNT	100.00%	\$900,000.00


 Dan Bae
 Director of Procurement
 3/10/16
 Date


 Gail Alexander-Reeves
 Director of Budget
 3/10/16
 Date


 Charles Kiely
 Assistant General Manager,
 Customer Care and Operations
 3/9/16
 Date

 George S. Hawkins
 General Manager
 Date

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

CONSTRUCTION CONTRACT:

**Saint Elizabeths Water Tower and Large Diameter Transmission Mains
(Non-Joint Use)**

Approval to execute a construction contract for \$13,390,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Ulliman Schutte Construction Company, LLC 7615 Standish Place Rockville, MD	Apex Petroleum Corporation Upper Marlboro, MD MBE	0.1%
	Elite Hauling group, Inc Clinton, MD MBE	0.2%
	Hi-Mark Construction Group, Inc. Baltimore, MD MBE	31.8%
	CMMD Enterprises., Inc Springfield, VA WBE	0.2%
	IDEAL Electrical Supply Corporation Washington, DC WBE	5.9%

DESCRIPTION AND PURPOSE

Contract Value, Not-To-Exceed:	\$13,390,000.00
Contract Time:	720 Days (2 Years, 0 Months)
Anticipated Contract Start Date (NTP):	04-15-2016
Anticipated Contract Completion Date:	04-05-2018
Bid Opening Date:	02-10-2016
Bids Received:	4
Other Bids Received:	
Ulliman Schutte Construction Company LLC	\$ 13,390,000.00
W.M. Schlosser Company, Inc.	\$ 15,733,000.00
Fort Myer Construction Corp	\$ 16,790,873.00
Sagres Construction Corporation	\$ 18,757,584.00

Purpose of the Contract:

To build a 2.0 million gallon elevated water tower and approximately 4,000 feet of 24-inch transmission main to resolve an existing pressure deficiency in the historic Anacostia neighborhood, improve fire protection and also provide additional storage in the event of emergency.

Contract Scope:

- To construct 2.0 million gallon composite-style elevated water storage tower and approximately 4,000 feet of 24-inch ductile iron water transmission main and appurtenances.
- The contract also includes 12-foot wide paved access road construction and demolition of adjacent abandoned apartment building.

Federal Grant Status:

- Construction Contract is not eligible for Federal grant funding assistance.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Lowest responsive, responsible bidder
Commodity:	Construction	Contract Number:	130170
Contractor Market:	Open Market		

BUDGET INFORMATION

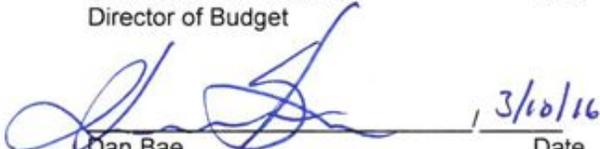
Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Water	Department Head:	Liliana Maldonado
Project:	MA		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$ 13,390,000.00
Federal Funds	0.00%	\$ 0.00
Washington Suburban Sanitary Commission	0.00%	\$ 0.00
Fairfax County	0.00%	\$ 0.00
Loudoun County & Potomac Interceptor	0.00%	\$ 0.00
Total Estimated Dollar Amount	100.00%	\$ 13,390,000.00


 Gail Alexander-Reeves
 Director of Budget

Date


 Dan Bae
 Director of Procurement

Date


 Leonard R. Benson
 Chief Engineer

Date

 George S. Hawkins
 General Manager

Date

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

**CONSTRUCTION CONTRACT CHANGE ORDER:
Small Diameter Water Main Replacement 10A
(Non-Joint Use)**

Approval to execute Change Order No.01 for \$1,951,000.00. The modification will exceed the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Capitol Paving of D.C., Inc. 2211 Channing St., NE Washington, DC 20018 (MBE)	Omni Excavators Inc. Washington DC	MBE 26.3%
	Fort Myer Construction Corp. Washington, DC	MBE 5.8%
	Acorn Supply Distribution Inc. White Marsh, MD	WBE 6.0%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$13,542,445.00
Value of this Change Order:	\$ 1,951,000.00
Cumulative CO Value, including this CO:	\$ 1,951,000.00
Current Contract Value, including this CO:	\$15,493,445.00
Original Contract Time:	550 Days (1 Year, 6 Months)
Time extension, this CO:	128 Days
Total CO contract time extension:	128 Days
Contract Start Date (NTP):	08-06-2014
Anticipated Contract Completion Date:	06-14-2016
Cumulative CO % of Original Contract:	14.4%
Contract completion %:	92.0%

Purpose of the Contract:

To replace water mains and associated appurtenances to improve water quality and performance of the distribution system.

Original Contract Scope:

- Replace approximately 5.4 miles of small-diameter water mains, fire hydrants and associated appurtenances.
- Replace copper water pipe of 2 inch and smaller and associated appurtenances in public and private space.
- Restoration of disturbed pavements and surfaces.

Current Change Order Scope:

An additional 18,400 linear feet of Copper Water Services, 35,000 square yards of Asphalt Mill & Overlay, 5,200 cubic yards of Borrow Trench Backfill and 6 Bus Pads Replacements are required to complete the contract work as quantities estimated during design did not take into account the full extent of the work required.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Lowest responsive, responsible bidder
Commodity:	Construction	Contract Number:	130200
Contractor Market:	Open Market		

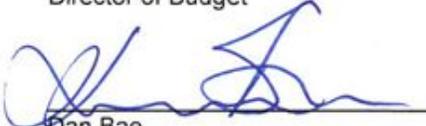
BUDGET INFORMATION

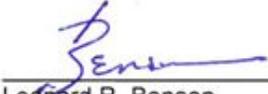
Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Water	Department Head:	Liliana Maldonado
Project:	O2		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$1,951,000.00
Federal Funds	0.00%	\$0.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County & Potomac Interceptor	0.00%	\$0.00
Total Estimated Dollar Amount	100.00%	\$1,951,000.00

 3/10/16
 Gail Alexander-Reeves Date
 Director of Budget

 3/10/16
 Dan Bae Date
 Director of Procurement

 3-8-16
 Leonard R. Benson Date
 Chief Engineer

_____/_____
 George S. Hawkins Date
 General Manager

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

ACTION REQUESTED

CONSTRUCTION CONTRACT CHANGE ORDER:

**Small Diameter Water Main Replacement 10b
(Non-Joint Use)**

Approval to execute Change Order No.02 for \$1,357,500.00. The modification will exceed the General Manager's approval authority.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	SUBS:	PARTICIPATION:
Capitol Paving of D.C., Inc. 2211 Channing St., NE Washington, DC 20018 (MBE)	Omni Excavators Inc. Washington DC	MBE 32.0%
	Fort Myer Construction Corp. Washington, DC	MBE 4.1%
	Acorn Supply Distribution Inc. White Marsh, MD	WBE 14.9%

DESCRIPTION AND PURPOSE

Original Contract Value:	\$ 10,190,671.00
Value of this Change Order:	\$ 1,357,500.00
Cumulative CO Value, including this CO:	\$ 1,852,950.00
Current Contract Value, including this CO:	\$ 12,043,621.00
Original Contract Time:	550 Days (1 Year, 6 Months)
Time extension, this CO:	0 Days
Total CO contract time extension:	0 Days
Contract Start Date (NTP):	12-16-2014
Anticipated Contract Completion Date:	06-17-2016
Cumulative CO % of Original Contract:	18.2%
Contract completion %	86.0%

Purpose of the Contract:

Replace water mains that have experienced failures, or have a history of low water pressure or water quality complaints.

Original Contract Scope:

- Approximately 5.0 miles of water mains and associated valves and appurtenances.
- Copper water services 2-inch and smaller in public and private space.
- Curb stop / curb stop box, meter box and penetration through building wall and connection to first fitting inside the building including installation of a shut-off valve and pressure reducing valve.
- Permanent pavement and surface restoration.

Current Change Order Scope:

An additional 8,100 square yards of Concrete Pavement and 24,500 square yards of Asphalt Surface Mill and Overlay are required to complete the contract work as quantities estimated during design did not take into account the full extent of the work required.

PROCUREMENT INFORMATION

Contract Type:	Fixed Price	Award Based On:	Lowest responsive, responsible bidder
Commodity:	Construction	Contract Number:	140010
Contractor Market:	Open Market		

BUDGET INFORMATION

Funding:	Capital	Department:	Engineering and Technical Services
Service Area:	Water	Department Head:	Liliana Maldonado
Project:	O2		

ESTIMATED USER SHARE INFORMATION

User	Share %	Dollar Amount
District of Columbia	100.00%	\$1,357,500.00
Federal Funds	0.00%	\$0.00
Washington Suburban Sanitary Commission	0.00%	\$0.00
Fairfax County	0.00%	\$0.00
Loudoun County & Potomac Interceptor	0.00%	\$0.00
Total Estimated Dollar Amount	100.00%	\$1,357,500.00


 Gail Alexander-Reeves
 Director of Budget
 Date 3/10/16


 Dan Bae
 Director of Procurement
 Date 3/10/16


 Leonard R. Benson
 Chief Engineer
 Date 3-9-16

 George S. Hawkins
 General Manager
 Date