

Water and Sewer Replacement/Relocation Community Meeting

Takoma Park

Takoma Park Community Center

Saturday, July 26, 2014 10:00 – 12:00 pm

Introductions



**Washington Suburban
Sanitary Commission**

- Hala Flores, P.E. – Unit Coordinator
- Paul Gray – Right of Way Manager
- John (Doug Sievers) – WSSC Arborist
- Joshua Arnett – Task Manager



- Darryl Braithwaite, City Public Works Director
- Ali Khalilian, P.E., City Engineer
- Todd Bolton, City Arborist

The Wilson T. Ballard Company

- Jeff Ziegenfuss, P.E. – Project Manager
- Jon Martin, P.E. – Assistant Project Manager
- Matt Dewese – Design Engineer

OVERVIEW



The project includes replacing/relocating approximately 2000 ft. of small diameter water main and 2000 ft. of small diameter sewer main. The purpose of the job is to replace failing pipes installed in the 1930's or earlier.

Why these mains need to be replaced.



A failed sewer pipe, behind 6705 and 6701 Eastern Avenue (Right).

A broken water main, prior to being shut down (Left).



Failing Water and Sewer Mains Are Known to Cause:

- Drinking Water Contamination
- Poor Water Pressure
- Geysers
- Sewage Back-up In Homes
- Cesspools at the surface
- Sinkholes
- Excessive Erosion



The current system does not provide adequate fire protection to much of the neighborhood.

North Section – Existing Conditions

From Walnut Avenue to Second Avenue



North Section – Affected Pipes

From Walnut Avenue to Second Avenue

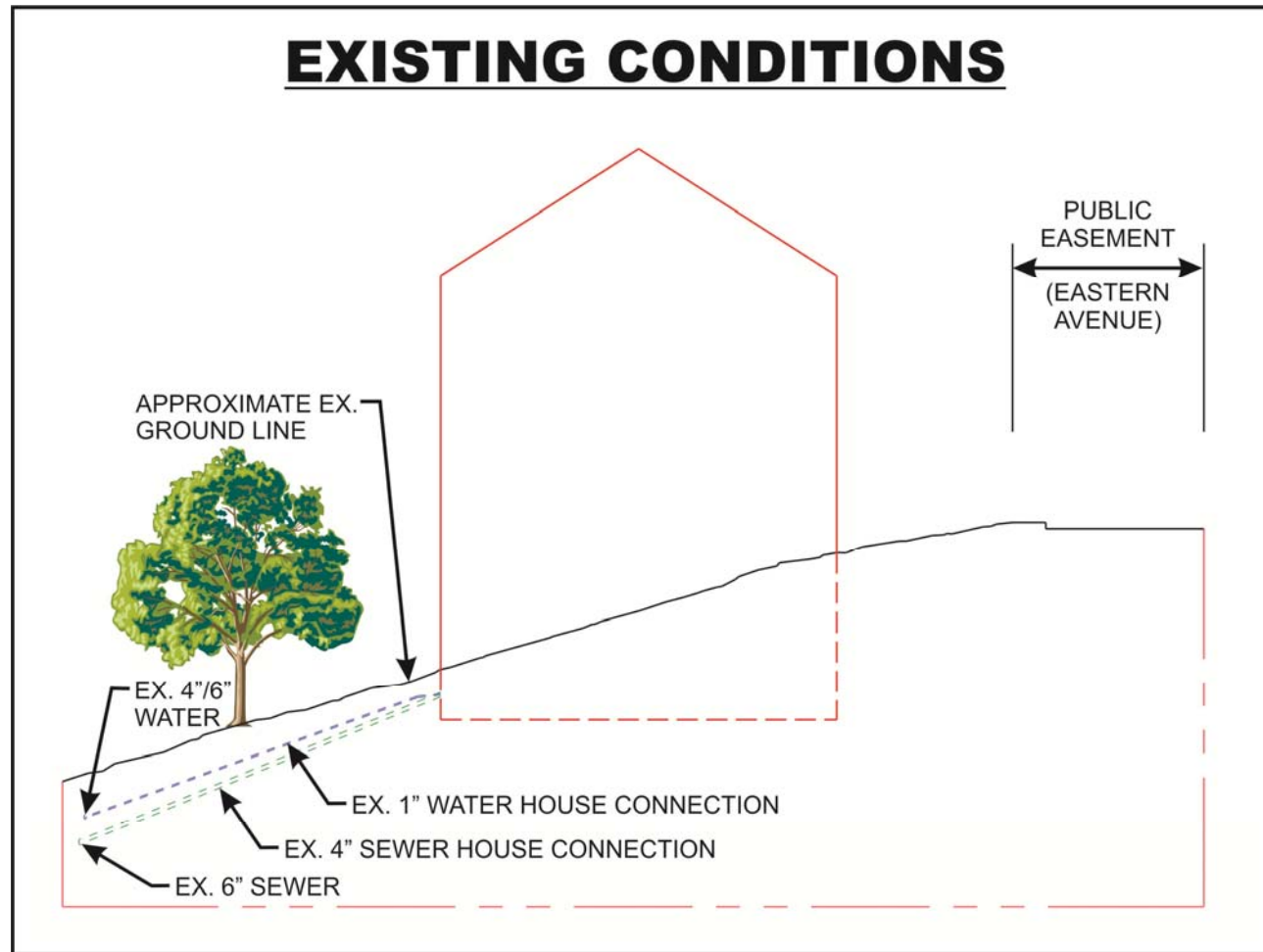


1300' Ex .Cast Iron Water Pipe and 1300' Ex .Terra Cotta Sewer Pipe

North Section – Existing Pipe Location



Typical Existing House Connections






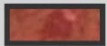
Investigated Alternate

As Previously Presented

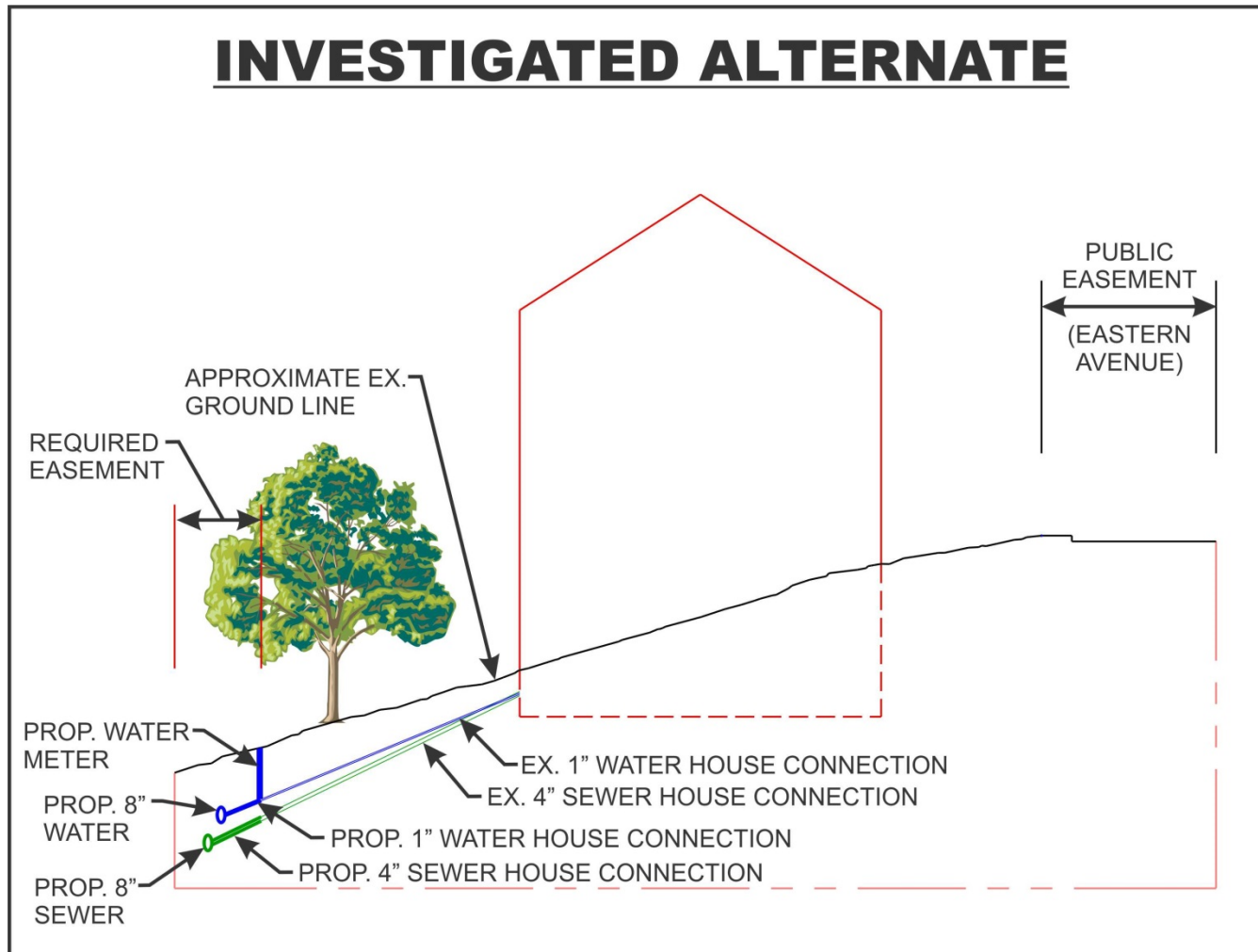


Key Points:

- Utilizes existing house connections
- Gravity fed sewer
- Will require cleared maintenance path (will interfere with backyard structures, tree roots, landscapes, etc.)
- Will require 20-30 ft easements
- Will require the city to issue at least one Tree Removal Permit
- Can not provide adequate fire protection

KEY	
	EX. WATER MAIN
	EX. SEWER MAIN
	PROP. FIRE HYDRANT
	PROP. LOCATION FOR NEW MAINS

Investigated Alternate – Typical House Connection



Investigated Alternate – Existing Obstructions



Large oak beyond Privacy Fence at 61 Walnut, Facing Southwest



Behind 6757 Eastern Ave. Facing Walnut Ave.

While WSSC prefers to avoid removing trees, in order for this option to be feasible, several trees would need to be removed including at least one of the rare 150+ year old oaks. There are other obstacles to be removed or relocated as well; including sheds, fences, ponds, etc. as shown in the next several slides.

Investigated Alternate – Existing Obstructions



Large Oak behind 6741 Eastern Ave.



Ponds at 6737 Eastern Ave.

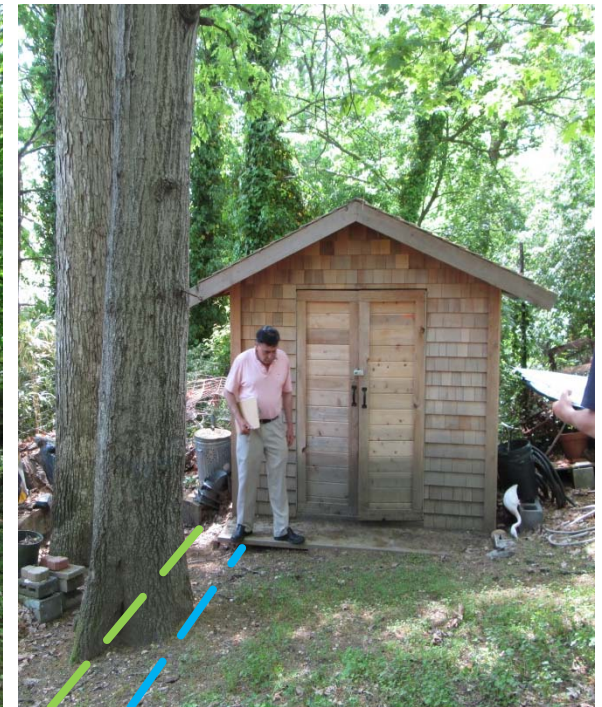
Investigated Alternate – Existing Obstructions



Driveway and Garage at 6733 Eastern Ave.



Oaks and Dip at 6717 Eastern Ave.



Oaks and Shed at 6713 Eastern Ave.

Investigated Alternate – Existing Obstructions



Oak at 6637 Eastern Ave. Facing Southeast



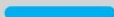


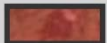
Garages, Driveways, Oak and Retaining wall
at 6617 & 6613 Eastern Ave

Preferred Alternate



Key Points:

- Minimal Environmental Disturbance
- Easier Construction/Maintenance
- Proper Fire Protection
- No Easements Required
- House Connections are updated

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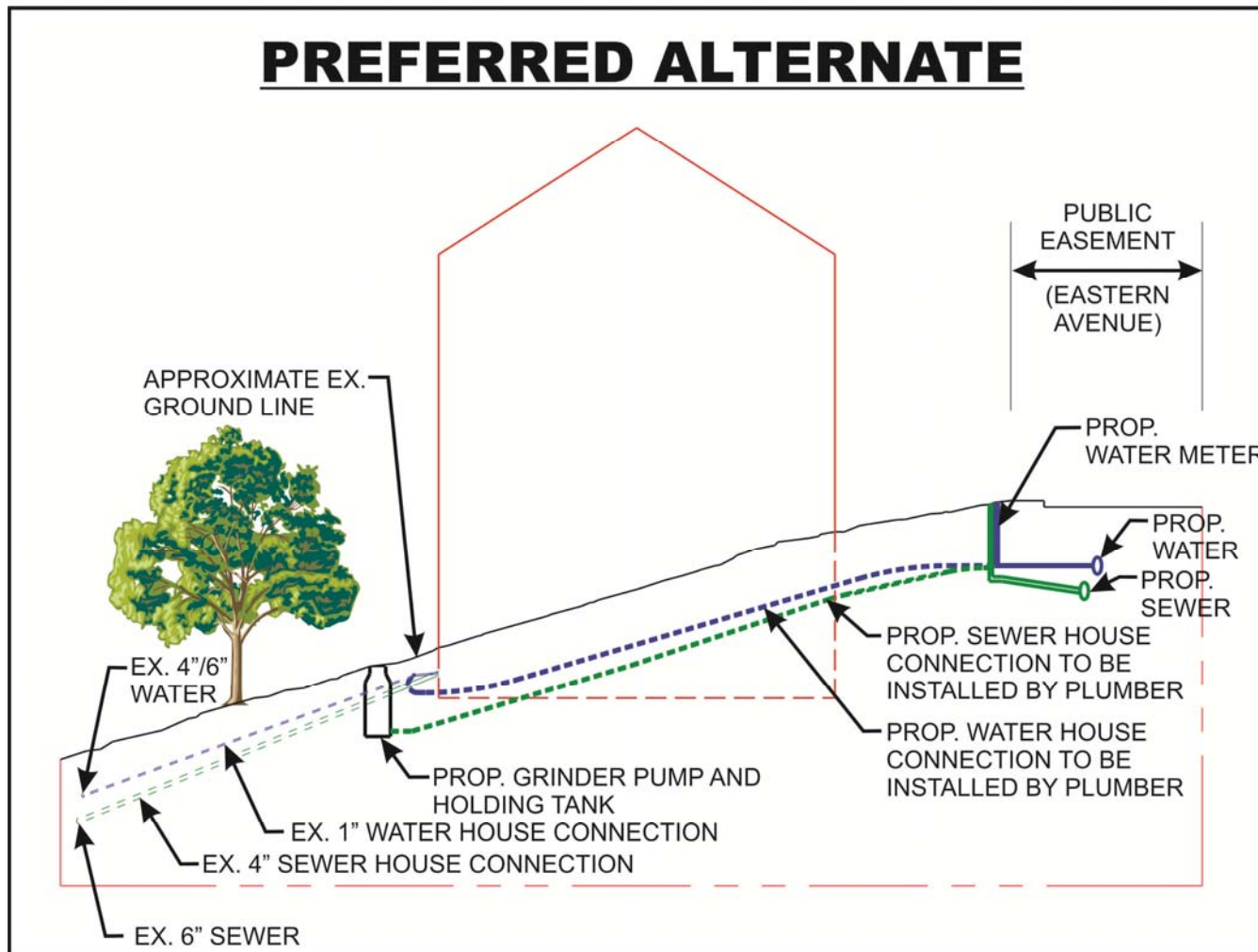
Preferred Alternate – Proposed Pipe Location



New mains to be 8" Ductile Iron Water Pipe, and 3" HDPE or PVC Pressure Sewer Pipe



Preferred Alternate— Typical House Connection



Grinder Pumps



- Holding Tank allows usage even during power outages
- Average Operation Cost of \$20 per year
- Quiet Operation
- Typically 8-10 years before service is required – Service costs roughly \$700

Proposed Lateral House Connections



6761 & 6757 Eastern Ave.



6753 & 6749 Eastern Ave.



6745 & 6741 Eastern Ave.



6737 & 6733 Eastern Ave.

Proposed Lateral House Connections



6729 & 6725 Eastern Ave.



6721 & 6717 Eastern Ave.



6713 & 6711 Eastern Ave.



6711 & 6705 Eastern Ave.

Proposed Lateral House Connections



6701 Eastern Ave.



6637 Eastern Ave.



6633 & 6631 Eastern Ave.



6631 & 6625 Eastern Ave.

Proposed Lateral House Connections



6621 & 6617 Eastern Ave.



6613 & 6609 Eastern Ave.



6603 & 6601 Eastern Ave.

Affected Houses

- 55 Walnut Ave
 - 57 Walnut Ave *
 - 6761 Eastern Ave
 - 6757 Eastern Ave
 - 6753 Eastern Ave
 - 6749 Eastern Ave
 - 6745 Eastern Ave
 - 6741 Eastern Ave
 - 6737 Eastern Ave
 - 6733 Eastern Ave
 - 6729 Eastern Ave
 - 6725 Eastern Ave
 - 6721 Eastern Ave
 - 6717 Eastern Ave
 - 6713 Eastern Ave
 - 6711 Eastern Ave
 - 6705 Eastern Ave
 - 6701 Eastern Ave
 - 6637 Eastern Ave
 - 6633 Eastern Ave
 - 6631 Eastern Ave
 - 6625 Eastern Ave
 - 6621 Eastern Ave
 - 6617 Eastern Ave
 - 6613 Eastern Ave
 - 6609 Eastern Ave
 - 6603 Eastern Ave
 - 6601 Eastern Ave
 - 6814 Westmoreland Ave *
 - 6802 Westmoreland Ave *
 - 6800 Westmoreland Ave *
 - 6710 Westmoreland Ave *
 - 6704 Westmoreland Ave *
 - 6702 Westmoreland Ave *
- Total: 34 Water, 27 Sewer**
- *Water Replacement Only

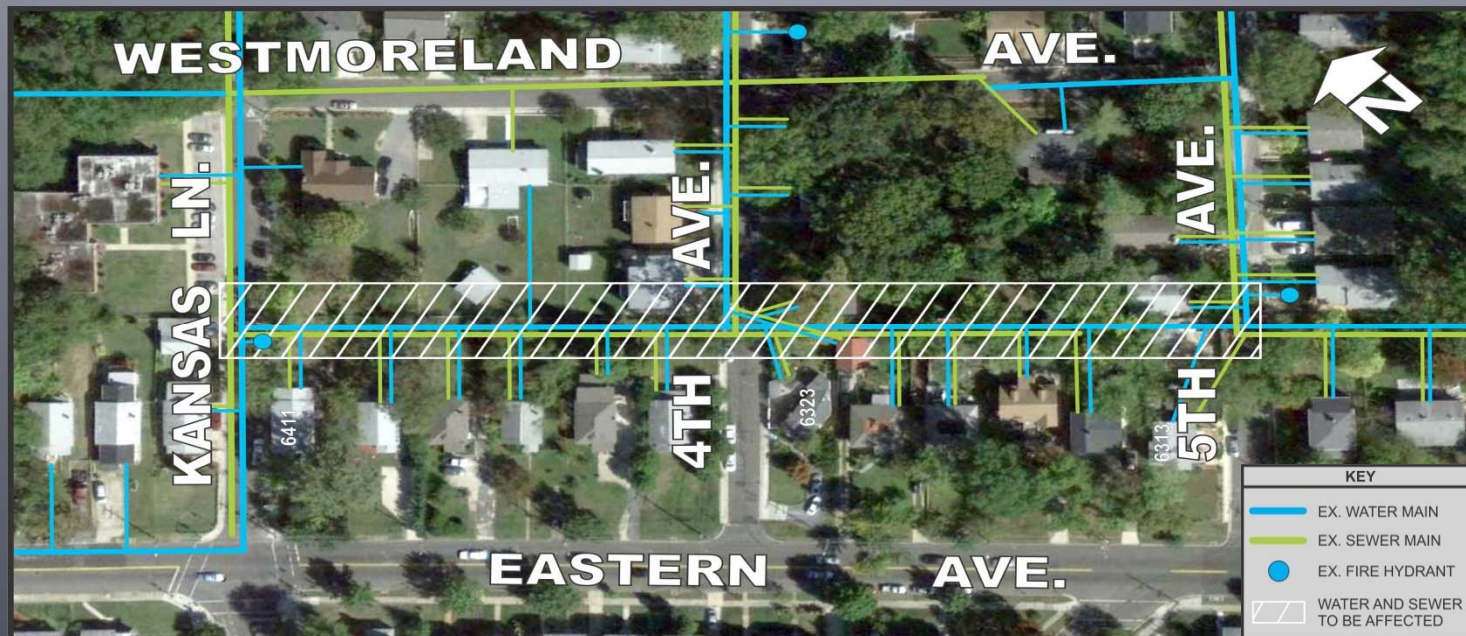
South Section – Existing Conditions

From Kansas Lane to Fifth Avenue



South Section – Affected Pipes

From Kansas Lane to Fifth Avenue



700' Ex .Cast Iron Water Pipe and 700' Ex .Terra Cotta Sewer Pipe




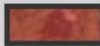
South Section – Existing Pipe Location



South Section – Proposed Pipe Location



- Key Points:
- Easier Maintenance
 - Less Expensive
 - No Easement Required
 - Shorter House Connections

KEY	
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South Section – Proposed Pipe Location



New Mains to be 8" Ductile Iron Water Pipe and 8" Ductile Iron Gravity Sewer Pipe

Affected Houses

- 6411 Eastern Ave
- 6409 Eastern Ave
- 6407 Eastern Ave
- 6405 Eastern Ave
- 6403 Eastern Ave
- 6401 Eastern Ave
- 6323 Eastern Ave
- 6321 Eastern Ave
- 6319 Eastern Ave
- 6317 Eastern Ave
- 6315 Eastern Ave
- 6313 Eastern Ave
- 6404 Westmoreland Ave *

Total: 13 Water, 12 Sewer

*Water Replacement Only

Our Recommendations

Pipeline Alignments With-in Public Easement in Front of the Houses are Recommended for the Following Reasons:

- **Environmentally Friendly** – While we would make saving the oaks our priority with any option, there would always be some impact to the environment, this option reduces that
- **Ease of Construction** – While all construction can have unforeseen problems, building in the road reduces those immensely
- **Ease of Maintenance** – It's preferable to have any maintenance crew working in the road, rather than trying to move equipment to the back yard, and disturbing customers lawns
- **Increased Fire Protection** – This method will allow us to install a fire hydrant every 400 feet per WSSC's standard practice
- **Construction Time** - We expect this to be the quickest construction, start to finish to limit the customer disturbance

Thank You

Questions