



# LEE'S SUMMIT MISSOURI

## NW Olive Street and NW Orchard Street Area Status Update October 4, 2021

Public Works Committee Asked for an update regarding the response to stormwater related complaints along 400 block of NW Olive Street and 100 block of NW Orchard Street. The general project area is highlighted below.

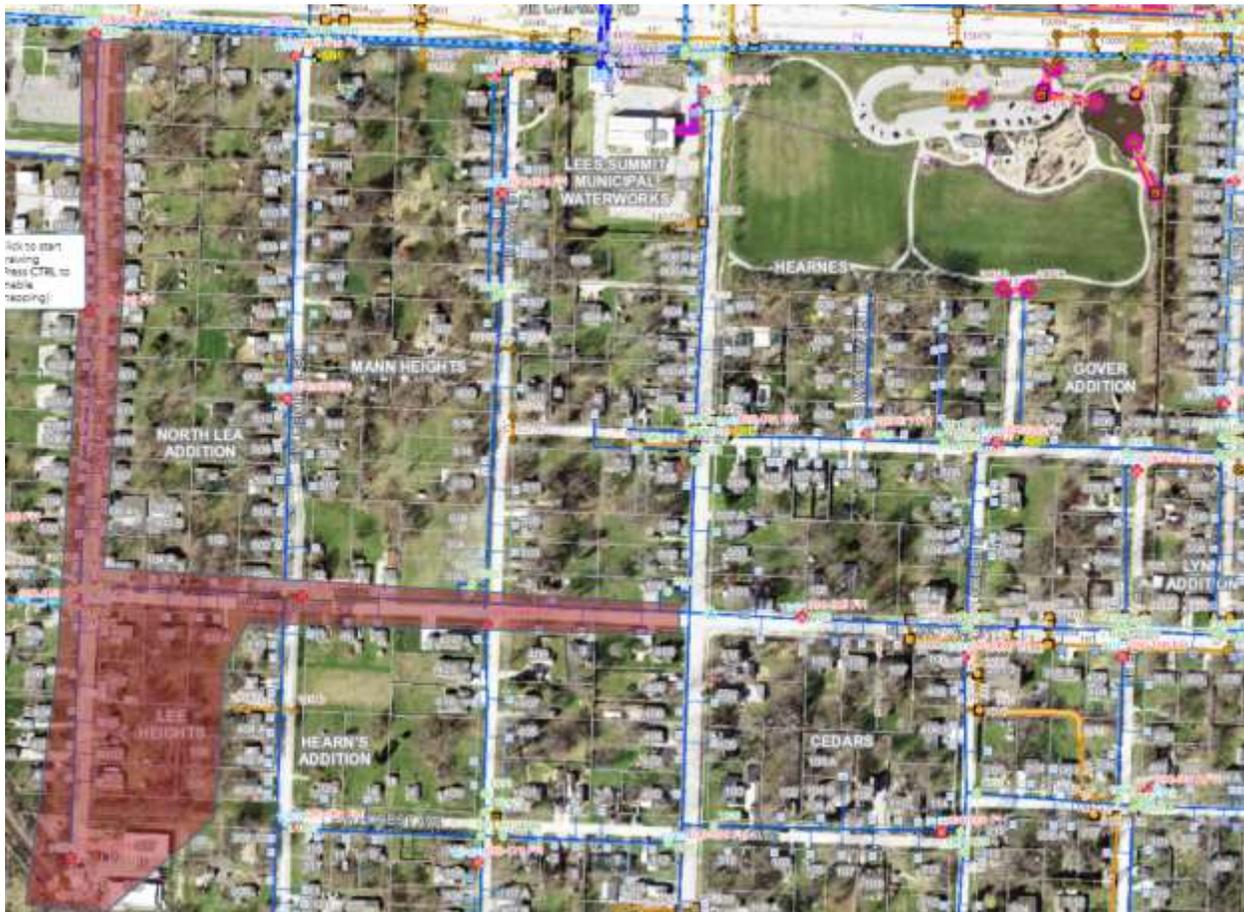


Figure 1: Aerial GIS image showing stormwater and water main infrastructure

### **Background**

The City has received several complaints and public comments related to both stormwater and street conditions in the area. A recent development project created numerous requests to improve NW Olive Street. Several residents have reported stormwater drainage issues, and one resident stated, in a formal written City report, that structural flooding had occurred.

Figure 1, shown above, indicates there is no underground stormwater infrastructure within the watershed that drains towards the 400 block of NW Olive. The area has met the criteria to fund a stormwater capital improvement project because of the written verification that at least one home has structural flooding, and the primary cause of that structural flooding was related to the lack of public infrastructure.

Olive and Orchard stormwater improvements was added to the list of 25 preceding projects funded as part of the stormwater capital improvements program. Seven projects have been completed, four are currently under construction, twelve are in design, and two are awaiting staff to initiate design. As those projects in design are completed, staff will become available to start the planning and design work for the Olive and Orchard mitigations.

NW Olive and Orchard are unimproved roads. Olive and Orchard are both classified as residential streets. However, they provide connection from the improved section of Orchard at Douglas Street to the traffic signal at Olive and Chipman. Both of these streets are identified as bike routes, but neither of these streets have sidewalks, nor curbs. The stormwater is conveyed through open ditches that tend to overflow toward the bottom of the watershed.

Last year, the City Council provided guidance to help City staff prioritize sidewalk gaps, as part of the sidewalk gap program, and created a residential street reconstruction program. Both of those programs were funded in the FY 2022-2026 Capital Improvement Plan adopted by Council. At that time, no specific projects were identified. Based on past guidance for the sidewalk program, roadway CIP projects should address gaps as part of the scope of work. The intent was to have City staff prepare a list of suggested residential street projects and sidewalk gaps for Public Works Committee to evaluate and prioritize based on previous guidance by December 2021. Project recommendations would then be incorporated into the process to update the CIP.

It should also be noted that the road improvements project for Douglas Street between downtown and Chipman Road were programmed in the CIP to start design in FY2023. This project would directly intersect with a potential street reconstruction project and could be designed concurrently.

### **Options to proceed**

#### **Interim Option:**

City staff can meet with property owners to review the stormwater issues and discuss possible activities the property owners could undertake privately to better manage stormwater on their property. City staff may be able to suggest general strategies to address the immediate structural flooding issues. This initial step has been very common, and included many of the locations currently in the Stormwater Capital Improvements Program.

#### **Stormwater only:**

City staff could proceed only with the stormwater improvements for Olive and Orchard. This work would be designed in 2022 and constructed in 2023, assuming easement acquisition and utilities are not in conflict with the work. The preliminary budget estimate for the stormwater improvements is about \$1.8 million.

*Complete street reconstruction:*

This option would reconstruct NW Orchard from Olive to Douglas and NW Olive from the south end to the traffic signal and Chipman Road. This work would be designed in 2022-23 and constructed in 2024. Work would include rebuilding the streets, adding curb, adding sidewalks, installing enclosed stormwater collection systems. If needed, Water Utilities would also be able to replace water mains concurrent with the road construction. The preliminary budget estimate for complete re-construction is about \$3.9 million. This option could bundle various funding sources together for this project. The Stormwater CIP Sales tax and the residential street reconstruction program are two possible candidates to fund this project. Usually, combining a small project with a similar, larger project reduces the overall cost of both.



# New Category for Project List

Type Variety  
 TFMP Projects  
 Non-TFMP Projects  
 Maintenance Projects

## Residential Corridor Reconstruction Projects

ID	Priority	Market Target	Route	From	To	Improvement Description	Benefit				Cost	Year	Notes
							Safety	Operations	Livability	Economic			
125	1	X	Orchard Street	Olive Street	Douglas Street	Reconstruct 2-lane	○		●	○	\$\$		
126	2	X	Olive Street	Chipman Road	Orchard Street	Reconstruct 2-lane	○		●	○	\$		
127	3					Reconstruct 2-lane	○		●		\$		
128	4	X				Reconstruct 2-lane			●		\$ or \$\$		
129	5					Reconstruct 2-lane	○				\$\$		
130						Reconstruct 2-lane					\$		
131													

Market Target includes Proposed Activity Centers

*Yours Truly*

**BRIDGES, STREETS & SIGNALS**  
 (Costs in \$1,000s)

<b>Project</b>	<b>Prior Yrs.</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>Total</b>
Browning Street Extension - Browning to Hamblen Rd	3,200	100	-	-	-	-	3,300
Chipman Road, Bent Tree Dr. to View High Dr.	15,773	-	-	-	-	-	15,773
Colbern Road - M350 to Douglas Street	7,902	12,475	600	-	-	-	20,977
<b>Douglas Street - Chipman Road to 2nd Street</b>	-	-	<b>500</b>	<b>2,036</b>	<b>4,047</b>	-	<b>6,583</b>
Existing Street Light Improvements	115	-	-	-	-	-	115
Independence Ave & Town Centre Blvd Intersect Imp	1,760	-	-	-	-	-	1,760
Jefferson Street - Persels Road to Oldham Parkway	4,022	-	-	-	-	-	4,022
Main Street - Chipman Road to Commerce Drive	1,200	340	-	-	-	-	1,540
M291 North Interchange with US50	-	2,000	4,950	10,000	3,500	500	20,950
Pryor Road Widening Phase 1 - Hook to Longview	2,550	4,500	10,880	3,070	-	-	21,000
Pryor Road Widening Phase 2 - M150 to Hook	-	-	-	750	3,000	5,400	9,150
Residential Curb Replacements	1,000	250	250	250	250	1,000	3,000
Scherer Road Reconstruction - Ward Road to Jefferson Street	-	-	-	-	-	1,000	1,000
Sidewalk Improvements	-	500	500	500	500	500	2,500
Streetlights - Lakewood Boulevard	875	-	-	-	-	-	875
Streetlights - Shenandoah Drive	530	-	-	-	-	-	530
Third Street Improvements - Jefferson St to Blue Parkway/US50	481	1,000	1,050	4,018	-	-	6,549
Third Street Improvements - Murray Road to Pryor Road	7,130	-	-	-	-	-	7,130
Ward Road & Persels Road Signal	-	650	2,700	1,000	-	-	4,350
Ward Road - Chipman Road to NW O'Brien	-	-	-	-	855	1,770	2,625
Ward Road - NW O'Brien Road to Blue Parkway	50	775	1,500	-	-	-	2,325
<b>Subtotal</b>	<b>46,588</b>	<b>22,590</b>	<b>22,930</b>	<b>21,624</b>	<b>12,152</b>	<b>10,170</b>	<b>136,054</b>
<b>Less water and sewer funds included in totals</b>	<b>3,592</b>	<b>1,115</b>	<b>1,550</b>	<b>2,646</b>	<b>777</b>	<b>270</b>	<b>9,950</b>
<b>Total</b>	<b>42,996</b>	<b>21,475</b>	<b>21,380</b>	<b>18,978</b>	<b>11,375</b>	<b>9,900</b>	<b>126,104</b>

**PUBLIC WORKS PROGRAMS**  
 (Costs in \$1,000s)

<b>Programs</b>	<b>Prior Yr</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Overlay & Slurry Seal FY22	4,300	4,400	4,500	4,600	4,700	4,800
Annual Curb and Gutter Replacement Program FY22	1,700	1,750	1,800	1,850	1,900	1,950
<b>Residential Street Reconstruction Program FY22</b>	<b>0</b>	<b>150</b>	<b>300</b>	<b>450</b>	<b>500</b>	<b>500</b>
Neighborhood Traffic Safety Program FY22	50	50	50	50	50	50
Bridge Rehab/ Maintenance FY22	50	50	50	50	50	50
Capital Project Planning FY22	45	45	50	50	50	50
Pavement Marking FY22	525	450	652	750	552	581
Crack Sealing FY22	300	310	320	330	340	350
Community Bus Service - ATA/OATS FY22	353	371	389	409	430	450
<b>TOTAL</b>	<b>7,323</b>	<b>7,576</b>	<b>8,111</b>	<b>8,539</b>	<b>8,572</b>	<b>8,781</b>

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<b>Stormwater Projects to Mitigate Structural Flooding</b>					
<b>2007 Bond Issue: \$1.9M</b>					
<b>2017 CIP Slaes Tax Renewal: \$12.5M</b>					
<u>No.</u>	<u>Recorded first occurrence</u>	<u>Location</u>	<u>Status of Action</u>	<u>Flooding Verified</u>	<u>No. of Structures affected</u>
1		SW Pinetree Lane (Pinetree Village)	complete	yes	2
2		3rd Street, between Market and Johnson Street (Arnold Hall)	In construction	yes	3
3		NE Maple	complete	yes	1
4		SW Pinnell Circle 105	complete	yes	1
5		SE Hackamore Dr:	In design	yes	2
6		SW 34th	complete	yes	1
8		NE Sun Court	In construction	yes	1
9		NE Port Drive	In construction	yes	1
10		SW Lea Drive	In construction	yes	4
11		SE Bingham	complete	yes	1
12		SE Brentwood Dr	complete	yes	2
15		SE Grand	complete	yes	3
17		SE Secretariat Dr	In design	yes	1
18	8/5/2019	NE Pierce Place	In design	yes	1
19	7/4/2019	Arlington Circle	In design	yes	1
20	7/4/2019	Country Lane	In design	yes	1
21	7/9/2009	NE Timbercreek Drive/CT	In design	yes	3
22	7/1/2017	SE 2nd Terrace	In design	yes	2
23	7/4/2019	Country Ln and 6th St	In design	yes	3
24	5/1/2002	Onyx Drive	awaiting staff	yes	3
25	6/1/1990	3rd Street	In design	yes	5
26	5/1/2013	Boone Trl	In design	yes	3
28	7/1/2020	Ponderosa Street	In design	yes	1
29	7/1/2020	NE NOELEEN LN	awaiting staff	yes	1
30	7/4/2019	SW 3RD ST, Lakeview, and Madison	In design	yes	6
31	5/19/2021	109 NW Orchard	awaiting staff	yes	1
<b>Total</b>				<b>26</b>	<b>54</b>