PARKING STUDY

2023 Preventive Maintenance Group 1

South Avenue (East Henrietta Road to Elmwood Avenue)
University Avenue (Culver Road to Blossom Road)
East Avenue (Culver Road to Probert Street)
Culver Road (Garson Avenue to Laurelton Road)
Culver Road (Clifford Avenue to Norton Street)
City or Rochester, Monroe County
P.I.N. 4CR0.13

Prepared For:

City of Rochester
Department of Environmental Services (Street Design)
30 Church Street
Rochester, NY 14614

City of Rochester, NY
Lovely A. Warren, Mayor

Prepared By:

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL
339 East Avenue, Suite 200
Rochester, NY 14604

February 2022

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. Department of Transportation
Federal Highway Administration

TABLE OF CONTENTS

FIGURES AND TABLES

I. INTRODUCTION

This study is being performed in support of the Design Approval Document prepared for the City of Rochester PJ# 21117 – 2023 Preventive Maintenance Group 1, PIN 4CR0.13. The purpose of the parking survey (or parking usage study) is to provide details on the efficiency and utilization of existing on-street parking and to evaluate the effects of modifications to on-street parking within the project limits along South Avenue, University Avenue, East Avenue, and Culver Road to include bike lanes. This report presents a summary of the existing parking inventory, survey results, and conclusions.

The need for a parking study was established to determine the effects of a reduction in on-street parking spaces would have on parking utilization. A reduction in spaces would be a direct result of implementing a proposal to include on-street bike lanes along South Avenue, University Avenue, East Avenue, and Culver Road within the project limits.

The Parking Study as shown in Figures 1 - 5 includes the on-street parking (or curbside parking) spaces provided on each side of the street in the study area. Along South Avenue from East Henrietta Road to Elmwood Avenue the majority of the land use is residential. Along University Avenue from Culver Road to Blossom Road there is a mix of retail and restaurant land uses. Along East Avenue from Culver Road to Probert Street there is mostly residential land uses. Culver Road from Garson Avenue to Laurelton Road consists of a mix of residential, retail, and restaurant land uses, whereas Culver Road from Clifford Avenue to Norton Street consists of mostly residential land uses.

II. METHODOLOGY

Parking inventories gather information on the existing parking supply and its use. Parking inventories include observations of the number of parking spaces, their location, and the type of parking facility. To allow for a comprehensive method of evaluating the data the study area is divided into blocks and the inventoried parking locations are recorded into *Tables 1A – 1F*.

A parking (or occupancy) survey was used in analyzing the parking capacity of the study area. Parking occupancy is the total number of vehicles parked at any given time. The purpose of occupancy surveys is to establish variations and peak parking demand.

III. PARKING INVENTORY

An inventory of the number of on-street parking spaces was conducted by Lu Engineers. The number of existing available on-street parking spaces was estimated assuming 20 ft. long spaces, no parking 20 ft. from an intersection, no parking 15 ft. from a fire hydrant and no parking 5 ft. from a driveway. All inventoried spaces are identified with individual block numbers (on-street parking) as shown in *Figures 1 - 5* and *Tables 1A – 1F*. The total number of estimated available on-street parking spaces identified in the study area was 23 on South Avenue, 39 on University Avenue, 155 on East Avenue, 80 on Culver Road from Garson Avenue to Laurelton Road, and 101 on Culver Road from Clifford Avenue to Norton Street.

IV. PARKING SURVEY

The parking survey was performed during the following dates / times:

- Tuesday, February 1, 2022 at 6:30 AM, 10:00 AM, 12:30 PM, 3:00 PM, and 7:00 PM
- Wednesday, February 2, 2022 at 6:30 AM, 10:00 AM, 12:30 PM, 3:00 PM, and 7:00 PM
- Saturday, February 5, 2022 at 2:00 PM
- Tuesday, February 8, 2022 at 6:30 AM, 10:00 AM, 12:30 PM, 3:00 PM, and 7:00 PM
- Thursday, February 10, 2022 at 6:30 AM, 10:00 AM, 12:30 PM, 3:00 PM, and 7:00 PM
- Saturday, February 12, 2022 at 2:00 PM
- Wednesday, February 16, 2022 at 6:30 AM, 10:00 AM, 12:30 PM, 3:00 PM, and 7:00 PM
- Thursday, February 17, 2022 at 6:30 AM, 10:00 AM, 12:30 PM, 3:00 PM, and 7:00 PM
- Saturday, February 19, 2022 at 2:00 PM

An observer traveled a fixed route and recorded the total amount of on-street parking occupied spaces. The parking survey shows the number of vehicles parked in predefined areas during a set time-period. *Tables 1A – 1F: On-Street Parking Utilization* summarize the information for the parking survey for South Avenue (*Table 1A*), University Avenue (*Table 1B*), East Avenue (*Table 1C*), and Culver Road (*Tables 1D – 1F*) within the project limits. It is apparent that the most highly utilized on-street parking areas are along the retail, restaurant, and commercial property blocks. It should be noted that the East Avenue parking study did not include weekday midday counts due to parking restrictions Monday – Friday from 7:00 AM to 6:00 PM.

Combined utilization is defined as the number of vehicles parked throughout the study areas divided by the total number of study hours. For defining practical capacity, it is assumed that 90% of the total spaces will be utilized at one time. Maximum utilization is defined as the maximum number of vehicles parked in the defined blocks or areas throughout the study period.

South Avenue On-Street Parking Observations

The following are general observations from Table 1A (South Avenue: On-Street Parking Utilization):

- None of the individual parking block time periods were found to be at practical or full capacity (90% - 100% utilization).
- None of time periods surveyed had a combined utilization of parking spaces of 5% or greater.
- All properties located within this section of South Avenue have driveways that can be used for parking multiple vehicles.

University Avenue On-Street Parking Observations

The following are general observations from Tables 1B (University Avenue: On-Street Parking Utilization):

- None of the individual parking block time periods were found to be at practical or full capacity (90% - 100% utilization).
- Combined utilization over 50% can be noted at the following three (3) study periods:
    - Tuesday at 7:00 PM
    - Wednesday at 12:30 PM and 7:00 PM
- Parking Block 1 from Culver Road to Blossom Road (north side) was found to have a maximum utilization of 72% which was recorded during the Saturday count at 2:00 PM.
- Parking Block 2 from Culver Road to East Boulevard (south side) was found to have a maximum utilization of 64% which was recorded during the Wednesday count at 3:00 PM.
- The on-street parking spaces along University Avenue are typically utilized by motorists accessing the retail, restaurant, and commercial properties throughout the day.
- All properties on this block have off-street parking lots that may be used by motorists.

East Avenue On-Street Parking Observations

Please refer to Table 1C (East Avenue: On-Street Parking Utilization). There were no parked vehicles observed during any time periods throughout the East Avenue project limits, therefore utilization is 0%. Majority of land uses within this section of East Avenue consist of residential properties with driveways or parking lots, which are utilized by motorists.

Culver Road (from Garson Avenue to Laurelton Road) On-Street Parking Observations

The following are general observations from Table 1D & 1E (Culver Road (from Garson Avenue to Laurelton Road): On-Street Parking Utilization):

- On Saturday at 2:00 PM it was observed that four (4) individual parking blocks periods were found to be at practical or full capacity (90% - 100% utilization). The combined utilization during this time period was calculated to be 58%.
- The combined maximum utilization for this section of Culver Road was calculated to be 66% with 53 of 80 total spaces utilized.

Parsells Avenue to Melville Street (Parking Blocks 3 and 14)

The on-street parking spaces are typically utilized by motorists accessing the retail, restaurant, and commercial properties throughout the day. Parking utilization on these blocks tended to decrease to 0% around 7:00 PM on weekdays. On Saturday at 2:00 PM both blocks were 100% utilized by parked vehicles. All properties on this block have driveways that can be used for parking multiple vehicles.

Conklin Avenue to Merchants Road (Parking Blocks 8 and 18)

The on-street parking spaces are typically utilized by motorists accessing the retail, restaurant, and commercial properties throughout the day. Parking utilization on the southern block (parking block 18) tended to increase around 7:00 PM on weekdays. On Saturday at 2:00 PM parking block 8 was fully utilized (100%) and parking block 18 was above practical capacity, at 93% utilization. All properties on this block have driveways that can be used for parking multiple vehicles.

Culver Road (from Clifford Avenue to Norton Street) On-Street Parking Observations

The following are general observations from Table 1F (Culver Road (from Clifford Avenue to Norton Street): On-Street Parking Utilization):

- None of the individual parking block time periods were found to be above 15% utilization.
- None of time periods surveyed had a combined utilization of parking spaces of 5% or greater.
- All properties located within this section of Culver Road have driveways that can be used for parking multiple vehicles.

V. PROPOSED PARKING AND BIKE LANE ALTERNATIVES

The 2023 Preventive Maintenance Group 1 project proposes changing the current on-street parking configuration at various locations along South Avenue, University Avenue, East Avenue, and Culver Road to allow for bike lanes and vehicle turning lanes. The proposed bike lane and parking configuration is as follows:

South Avenue

The proposed South Avenue plan installs bike lanes from approximately 200 ft. north of Science Parkway to Fort Hill Terrace along the west side of the roadway, connecting into the existing bike lanes. There are 23 existing on-street parking spaces on along South Avenue within the project limits, all of which will be eliminated with the installation of bike lanes. It is anticipated that the elimination of the existing 23 on-street parking spaces will have minor or no impacts because all properties along this section of South Avenue have driveways that can be used for parking multiple vehicles. Refer to *Figure 1 – South Avenue Parking Study* for the proposed bike lane and parking lane configuration.

University Avenue

The proposed University Avenue plan will install a bike lane from Culver Road to approximately 150 ft. east of East Boulevard along the north side of the roadway. Additionally, a bike lane will be installed along the south side of University Avenue beginning at the Culver Road intersection and connecting into the existing bike lane between East Boulevard and Blossom Road. There are 39 existing on-street parking spaces on along University Avenue within the project limits. The installation of the bike lanes will cause 14 parking spaces to be eliminated along the south side of University Avenue in parking block 2. The heavily utilized parking block 1 along the north side of University Avenue will not be impacted by the addition of bike lanes. It is anticipated that the elimination of the existing 14 on-street parking spaces will have minor or no impacts because all properties along this section of South Avenue have driveways or parking lots that can be used for parking multiple vehicles. Refer to *Figure 2 – University Avenue Parking Study* for the proposed bike lane and parking lane configuration.

East Avenue

The proposed East Avenue plan installs bike lanes from Culver Road to approximately 200 ft. east of Colby Street along the north and south sides of the roadway. There are 155 existing on-street parking spaces on along East Avenue within the project limits, all of which will be eliminated with the installation of bike lanes. During the five (5) parking study time periods, on three (3) different days, no vehicles were observed to be parked within the project limits. It is anticipated that the elimination of the existing 155 on-street parking spaces will have minor or no impacts due to the underutilization of the on-street parking. Additionally, all properties along this section of South Avenue have driveways or parking lots that can be used for parking multiple vehicles. Refer to *Figure 3 – East Avenue Parking Study* for the proposed bike lane and parking lane configuration.

Culver Road (from Garson Avenue to Laurelton Road)

The proposed Culver Road plan installs bike lanes from Melville Street to Ferris Street along the north side and from Melville Street to Conklin Avenue along the south side of the roadway. There are 80 existing on-street parking spaces on along this section of Culver Road. The installation of the bike lanes will cause 26 parking spaces to be eliminated along Culver Road, which includes parking blocks 4 – 7, 16, and 17. None of the parking blocks to be eliminated reached practical capacity or full capacity during any of the eleven (11) study periods, on three (3) different days. Of the parking blocks to be eliminated, parking block 7 along the north side of Culver Road from Vermont Street to Ferris Street was the most utilized, with a maximum utilization of 75% (3 out of 4 parking spaces utilized). The second most utilized parking block to be eliminated is parking block 5, on the north side of Culver Road from Hazelwood Terrace to Rosewood Terrace, with a maximum utilization of 67% (2 out of 3 spaces utilized). It is anticipated that the elimination of the existing 26 on-street parking spaces will have minor or no impacts because all properties along this section of Culver Road have driveways or parking lots that can be used for parking multiple vehicles. Refer to *Figure 4 – Culver Road Parking Study* for the proposed bike lane and parking lane configuration.

Culver Road (from Clifford Avenue to Norton Street)

The proposed Culver Road plan installs bike lanes from Waring Road to Norton Street along the north and south sides of the roadway. There are 101 existing on-street parking spaces on along this section of Culver Road. The installation of the bike lanes will cause all parking spaces to be eliminated along the south side of Culver Road from Waring Road to Norton Street (47 spaces), parking blocks 28 – 32. Parking spaces along the north side of Culver Road from Waring Road to Norton Street will be maintained and three (3) additional spaces will be added near a proposed curb bump-out located at the intersection of Culver Road and Densmore/Master Street (parking block 24). None of the parking blocks to be eliminated reached above 15% maximum utilization during any of the eleven (11) study periods, on three (3) different days. It is anticipated that the elimination of the existing 47 on-street parking spaces will have minor or no impacts due to the underutilization of the on-street parking. Additionally, all properties along this section of South Avenue have driveways or parking lots that can be used for parking multiple vehicles. Refer to *Figure 5 – Culver Road Parking Study* for the proposed bike lane and parking lane configuration.

VI. CONCLUSIONS AND RECOMMENDATIONS

The on-street parking spaces within the South Avenue, University Avenue, East Avenue, and Culver Road project limits are not fully utilized except for weekends in isolated retail, restaurant, and commercial property blocks. It does not appear that residents rely upon on-street parking to access their homes because all properties within the study area have driveways or parking lots that can be used for parking multiple vehicles.

The following recommendations are provided for the proposed roadway design.

South Avenue

Due to the observed public's underutilization of on-street parking on South Avenue between East Henrietta Road and Elmwood Avenue it is recommended to include the installation of new bike lanes proposed and shown in *Figure 1 – South Avenue Parking Study*.

University Avenue

Due to the availability of off-street parking lots and driveways that can be used for parking multiple vehicles on University Avenue between Culver Road and Blossom Road, it is recommended to include the installation of the new bike lanes proposed and shown in *Figure 2 – University Avenue Parking Study*. The elimination of parking block 2 is expected to cause drivers to utilize the off-street parking options or parking block 1, which never reached practical capacity throughout the period of this parking study.

East Avenue

Due to the observed public's underutilization of on-street parking and the availability of off-street parking lots and driveways that can be used for parking multiple vehicles along East Avenue between Culver Road and Probert Street it is recommended to include the installation of new bike lanes proposed and shown in *Figure 3 – East Avenue Parking Study*.

Culver Road (from Garson Avenue to Laurelton Road)

Due to the observed public's underutilization of on-street parking blocks 4 – 7, 16, and 17, as well as the availability of off-street parking lots and driveways that can be used for parking multiple vehicles along Culver Road between Garson Avenue and Laurelton Road, it is recommended to include the installation of new bike lanes proposed and shown in *Figure 4 – Culver Road Parking Study*.

Culver Road (from Clifford Avenue to Norton Street)

Due to the observed public's underutilization of on-street parking and the availability of off-street parking lots and driveways that can be used for parking multiple vehicles along Culver Road between Clifford Avenue and Norton Street it is recommended to include the installation of new bike lanes proposed and shown in *Figure 5 – Culver Road Parking Study*.

Table 1A - SOUTH AVENUE (EAST HENRIETTA ROAD to ELMWOOD AVENUE)

Parking Block (On-Street) Utilization - Existing

Day	Time Period	1		2		3		4		5		Total Spaces Filled	Combined Utilization
Side		North Side											
Block Sidestreets		*E. Henrietta*	*Boothe*	*Boothe*	*Warren*	*Warren*	*Rosemount*	*Rosemount*	*Fort Hill*	*Fort Hill*	*Elmwood*		
Existing # of Spaces/Block		*8*		*5*		*6*		*4*		*No parking*		*23*	
Removed # of Spaces/Block		**8**		**5**		**6**		**4**				**23**	
Proposed # of Spaces/Block		**0**		**0**		**0**		**0**				**0**	
Wednesday (2/16/2022)	6:30 AM	*0*	0%	*0*	0%	*1*	17%	*0*	0%			*1*	4%
	10:00 AM	*0*	0%	*0*	0%	*0*	0%	*0*	0%			*0*	0%
	12:30 PM	*0*	0%	*0*	0%	*0*	0%	*0*	0%			*0*	0%
	3:00 PM	*0*	0%	*0*	0%	*0*	0%	*0*	0%			*0*	0%
	7:00 PM	*0*	0%	*0*	0%	*0*	0%	*0*	0%			*0*	0%
Thursday (2/17/2022)	6:30 AM	*0*	0%	*0*	0%	*1*	17%	*0*	0%			*1*	4%
	10:00 AM	*0*	0%	*0*	0%	*0*	0%	*0*	0%			*0*	0%
	12:30 PM	*0*	0%	*0*	0%	*0*	0%	*0*	0%			*0*	0%
	3:00 PM	*0*	0%	*0*	0%	*0*	0%	*0*	0%			*0*	0%
	7:00 PM	*0*	0%	*0*	0%	*0*	0%	*0*	0%			*0*	0%
Saturday (2/19/2022)	2:00 PM	*0*	0%	*0*	0%	*0*	0%	*0*	0%			*0*	0%
Maximum # Vehicles / Block		*0*		*0*		*1*		*0*				*1*	4%
Maximum Utilization / Block		0%		0%		17%		0%				4%	

🟨 *Denotes area at or above practical capacity (90% utilization or greater)*

🟩 *Denotes blocks with full or partial elimination of existing on-street parking*
(New Bike Lanes added: Science Parkway to Fort Hill Terrace,

Table 1B - UNIVERSITY AVENUE (CULVER ROAD to BLOSSOM ROAD)

Parking Block (On-Street) Utilization - Existing

Parking Block #		1		2		3		Total Spaces Filled	Combined Utilization
Side		North Side		South Side					
Block Sidestreets		*Culver*	*Blossom*	*Culver*	*East Blvd*	*East Blvd*	*Blossom*		
Existing # of Spaces/Block		*25*		*14*		*No parking*		*39*	
Removed # of Spaces/Block		**0**		**14**				**14**	
Proposed # of Spaces/Block		**25**		**0**				**25**	
Day	Time Period								
Tuesday (2/1/2022)	6:30 AM	*1*	4%	*0*	0%			*1*	3%
	10:00 AM	*4*	16%	*4*	29%			*8*	21%
	12:30 PM	*11*	44%	*6*	43%			*17*	44%
	3:00 PM	*9*	36%	*6*	43%			*15*	38%
	7:00 PM	*17*	68%	*4*	29%			*21*	54%
Wednesday (2/2/2022)	6:30 AM	*0*	0%	*0*	0%			*0*	0%
	10:00 AM	*4*	16%	*4*	29%			*8*	21%
	12:30 PM	*13*	52%	*7*	50%			*20*	51%
	3:00 PM	*6*	24%	*9*	64%			*15*	38%
	7:00 PM	*15*	60%	*7*	50%			*22*	56%
Saturday (2/5/2022)	2:00 PM	*18*	72%	*0*	0%			*18*	46%
Maximum # Vehicles / Block		*18*		*9*				*27*	69%
Maximum Utilization / Block		72%		64%				69%	

🟨 *Denotes area at or above practical capacity (90% utilization or greater)*

🟩 *Denotes blocks with full or partial elimination of existing on-street parking*
(New Bike Lanes added: Culver Road to Blossom Road,

Table 1C - EAST AVENUE (CULVER ROAD to PROBERT STREET)

Parking Block (On-Street) Utilization - Existing

Parking Block #		1		2		3		4		5		6		7		8		9		Total Spaces Filled	Combined Utilization
Side		North Side						South Side													
Block Sidestreets		*Culver*	*East Blvd*	*East Blvd*	*Farrington*	*Farrington*	*Probert*	*Culver*	*Douglas*	*Douglas*	*East Blvd*	*East Blvd*	*Hawthorne*	*Hawthorne*	*Colby*	*Colby*	*Park*	*Park*	*Probert*		
Existing # of Spaces/Block		*16*		*50*		*No parking*		*6*		*15*		*13*		*55*		*No parking*		*No parking*		*155*	
Removed # of Spaces/Block		**16**		**50**				**6**		**15**		**13**		**55**						**155**	
Proposed # of Spaces/Block		**0**		**0**				**0**		**0**		**0**		**0**						**0**	
Day	Time Period																				
Tuesday 2/1/2022	6:30 AM	*0*	0%	*0*	0%			*0*	0%	*0*	0%	*0*	0%	*0*	0%					*0*	0%
	7:00 PM	*0*	0%	*0*	0%			*0*	0%	*0*	0%	*0*	0%	*0*	0%					*0*	0%
Wednesday 2/2/2022	6:30 AM	*0*	0%	*0*	0%			*0*	0%	*0*	0%	*0*	0%	*0*	0%					*0*	0%
	7:00 PM	*0*	0%	*0*	0%			*0*	0%	*0*	0%	*0*	0%	*0*	0%					*0*	0%
Saturday (2/5/2022)	2:00 PM	*0*	0%	*0*	0%			*0*	0%	*0*	0%	*0*	0%	*0*	0%					*0*	0%
Maximum # Vehicles / Block		*0*		*0*				*0*		*0*		*0*		*0*						*0*	0%
Maximum Utilization / Block		0%		0%				0%		0%		0%		0%						0%	

Note: No parking Monday through Friday between 7am and 6pm per COR ordinance (blocks 1, 2, and 4-7)

🟨 *Denotes area at or above practical capacity (90% utilization or greater)*

🟩 *Denotes blocks with full or partial elimination of existing on-street parking (New Bike Lanes added: Culver Road to Park Avenue)*

Table 1D - CULVER ROAD (GARSON AVENUE to LAURELTON ROAD)

Parking Block (On-Street) Utilization - Existing

Parking Block #		1		2		3		4		5		6		7		8		9		10		Total Spaces Filled (Including South Side)	Combined Utilization (Including South Side)
Side		North Side																					
Block Sidestreets		Garson	Grand	Grand	Parsells	Parsells	Melville	Melville	Hazelwood	Hazelwood	Rosewood	Rosewood	Vermont	Vermont	Ferris	Ferris	Richland	Richland	Bay	Bay	Laurelton		
Existing # of Spaces/Block		No parking		8		11		3		3		5		4		6		No parking		No parking		80	
Removed # of Spaces/Block				**0**		**0**		**3**		**3**		**5**		**4**		**0**						**26**	
Proposed # of Spaces/Block				**8**		**11**		**0**		**0**		**0**		**0**		**6**						**54**	
Day	Time Period																						
Tuesday (2/8/2022)	6:30 AM			0	0%	6	55%	0	0%	1	33%	0	0%	1	25%	1	17%					13	16%
	10:00 AM			2	25%	8	73%	0	0%	1	33%	0	0%	1	25%	0	0%					17	21%
	12:30 PM			0	0%	8	73%	0	0%	2	67%	0	0%	1	25%	1	17%					20	25%
	3:00 PM			1	13%	5	45%	0	0%	1	33%	0	0%	0	0%	2	33%					15	19%
	7:00 PM			1	13%	0	0%	0	0%	1	33%	0	0%	1	25%	1	17%					17	21%
Thursday (2/10/2022)	6:30 AM			0	0%	1	9%	0	0%	0	0%	0	0%	3	75%	0	0%					9	11%
	10:00 AM			2	25%	6	55%	0	0%	1	33%	0	0%	2	50%	0	0%					21	26%
	12:30 PM			6	75%	6	55%	0	0%	1	33%	0	0%	3	75%	0	0%					28	35%
	3:00 PM			5	63%	6	55%	0	0%	1	33%	0	0%	2	50%	0	0%					28	35%
	7:00 PM			1	13%	0	0%	0	0%	1	33%	0	0%	1	25%	0	0%					16	20%
Saturday (2/12/2022)	2:00 PM			3	38%	11	🟨 100%	0	0%	0	0%	0	0%	1	25%	6	🟨 100%					46	58%
Maximum # Vehicles / Block				6		11		0		2		0		3		6						53	66%
Maximum Utilization / Block				75%		100%		0%		67%		0%		75%		100%						66%	

🟨 *Denotes area at or above practical capacity (90% utilization or greater)*

🟩 *Denotes blocks with full or partial elimination of existing on-street parking (New Bike Lanes added: North Side from Melville Street to Ferris Street)*

Table 1E - CULVER ROAD (GARSON AVENUE to LAURELTON ROAD) - CONTINUED

Parking Block (On-Street) Utilization - Existing

Parking Block #		11		12		13		14		15		16		17		18		19		20		Total Spaces Filled (Including North Side)	Combined Utilization (Including North Side)
Side		South Side																					
Block Sidestreets		Garson	Grand	Grand	McKinley	McKinley	Parsells	Parsells	Melville	Melville	Hazelwood	Hazelwood	Queens	Queens	Conklin	Conklin	Merchants	Merchants	Bay	Bay	Laurelton		
Existing # of Spaces/Block		No parking		9		No parking		5		No parking		6		5		15		No parking		No parking		80	
Removed # of Spaces/Block				0				0				6		5		0						26	
Proposed # of Spaces/Block				9				5				0		0		15						54	
Day	Time Period																						
Tuesday (2/8/2022)	6:30 AM			0	0%			0	0%			0	0%	1	20%	3	20%					13	16%
	10:00 AM			0	0%			0	0%			0	0%	1	20%	4	27%					17	21%
	12:30 PM			0	0%			0	0%			0	0%	1	20%	7	47%					20	25%
	3:00 PM			0	0%			0	0%			0	0%	1	20%	5	33%					15	19%
	7:00 PM			0	0%			0	0%			0	0%	1	20%	12	80%					17	21%
Thursday (2/10/2022)	6:30 AM			0	0%			0	0%			0	0%	0	0%	5	33%					9	11%
	10:00 AM			0	0%			0	0%			0	0%	0	0%	10	67%					21	26%
	12:30 PM			0	0%			0	0%			0	0%	2	40%	10	67%					28	35%
	3:00 PM			0	0%			1	20%			0	0%	1	20%	12	80%					28	35%
	7:00 PM			0	0%			0	0%			0	0%	1	20%	12	80%					16	20%
Saturday (2/12/2022)	2:00 PM			4	44%			5	100%			0	0%	2	40%	14	93%					46	58%
Maximum # Vehicles / Block				4				5				0		2		14						53	66%
Maximum Utilization / Block				44%				100%				0%		40%		93%						66%	

🟨 *Denotes area at or above practical capacity (90% utilization or greater)*

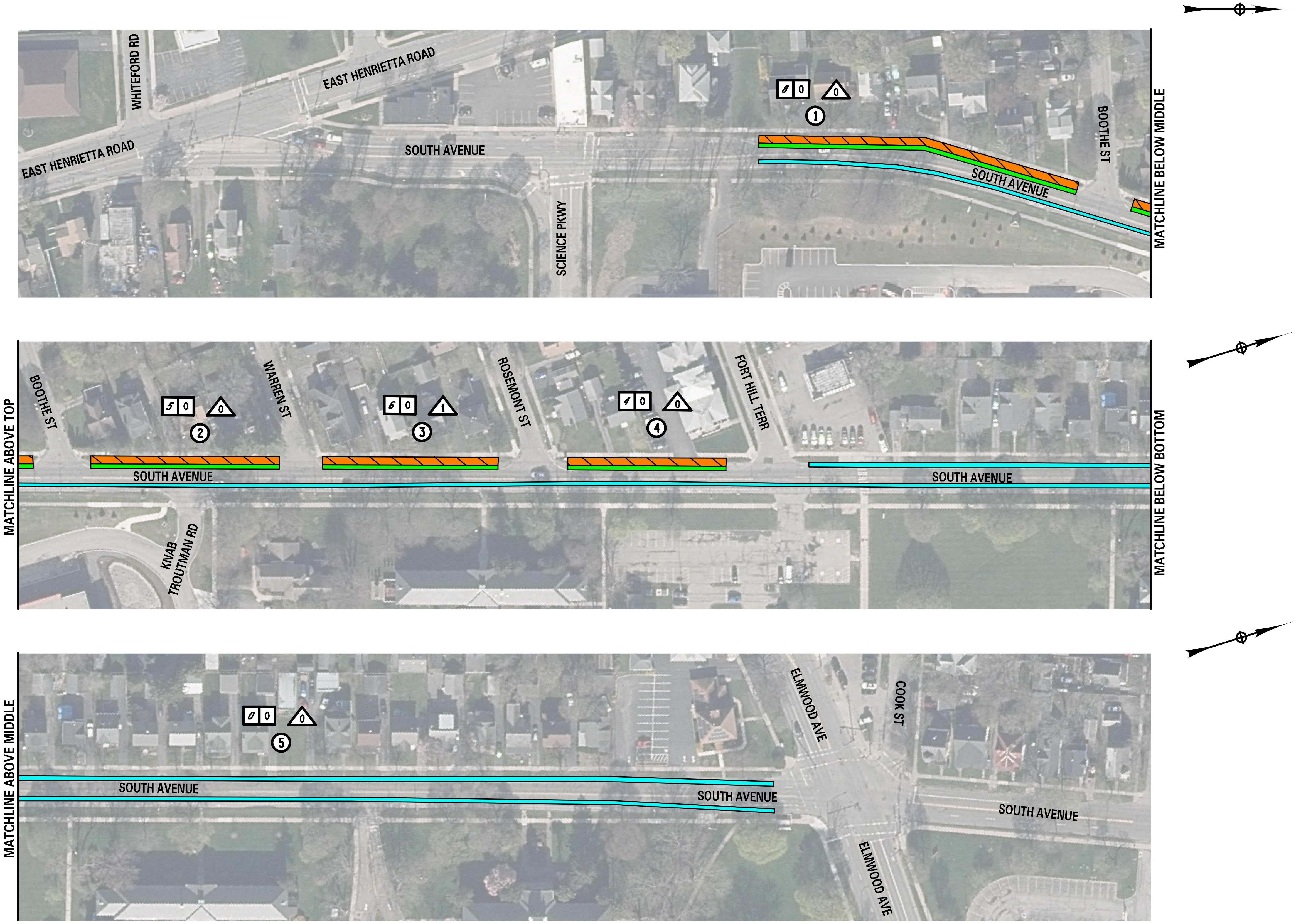
🟩 *Denotes blocks with full or partial elimination of existing on-street parking (New Bike Lanes added: South Side from Hazelwood Terrace to Conklin Avenue)*

Table 1F - CULVER ROAD (CLIFFORD AVENUE to NORTON STREET)

Parking Block (On-Street) Utilization - Existing

Parking Block #		21		22		23		24		25		26		27		28		29		30		31		32		Total Spaces Filled	Combined Utilization
Side		North Side												South Side													
Block Sidestreets		Clifford	Meredith	Meredith	Lancraft	Lancraft	Waring	Waring	Densmore	Densmore	Costich	Costich	Norton	Clifford	Waring	Waring	Seymour	Seymour	Charwood	Charwood	Charwood	Charwood	Culverton	Culverton	Norton		
Existing # of Spaces/Block		No parking		No parking		No parking		28		11		15		No parking		9		9		9		8		12		101	
Added # of Spaces/Block								3		0		0				0		0		0		0		0		3	
Removed # of Spaces/Block								0		0		0				9		9		9		8		12		47	
Proposed # of Spaces/Block								31		11		15				0		0		0		0		0		57	
Day	Time Period																										
Tuesday (2/8/2022)	6:30 AM							0	0%	0	0%	1	7%			0	0%	0	0%	0	0%	0	0%	0	0%	1	1%
	10:00 AM							0	0%	0	0%	1	7%			0	0%	0	0%	0	0%	0	0%	0	0%	1	1%
	12:30 PM							0	0%	0	0%	1	7%			0	0%	0	0%	0	0%	0	0%	0	0%	1	1%
	3:00 PM							0	0%	0	0%	0	0%			0	0%	0	0%	0	0%	0	0%	1	8%	1	1%
	7:00 PM							1	4%	0	0%	0	0%			0	0%	0	0%	0	0%	0	0%	1	8%	2	2%
Thursday (2/10/2022)	6:30 AM							0	0%	0	0%	0	0%			0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
	10:00 AM							2	7%	0	0%	0	0%			0	0%	0	0%	0	0%	0	0%	0	0%	2	2%
	12:30 PM							3	11%	0	0%	0	0%			0	0%	0	0%	0	0%	0	0%	0	0%	3	3%
	3:00 PM							1	4%	0	0%	0	0%			0	0%	0	0%	0	0%	0	0%	1	8%	2	2%
	7:00 PM							1	4%	0	0%	0	0%			0	0%	0	0%	0	0%	0	0%	1	8%	2	2%
Saturday (2/12/2022)	2:00 PM							1	4%	0	0%	0	0%			0	0%	0	0%	1	11%	1	13%	1	8%	4	4%
Maximum # Vehicles / Block								3		0		1				0		0		1		1		1		7	7%
Maximum Utilization / Block								11%		0%		7%				0%		0%		11%		13%		8%		7%	

🟨	*Denotes area at or above practical capacity (90% utilization or greater)*
🟩	*Denotes blocks with full or partial elimination of existing on-street parking (New Bike Lanes added: South Side from Waring Road to Norton Street)*
🟪	*Denotes blocks with additional proposed on-street parking (curb bump-out at Densmore Street)*



LEGEND:

PARKING BLOCKS (NORTH SIDE)
① EAST HENRIETTA TO BOOTHE STREET
② BOOTHE STREET TO WARREN STREET
③ WARREN STREET TO ROSEMOUNT STREET
④ ROSEMOUNT STREET TO FORT HILL TERRACE
⑤ FORT HILL TERRACE TO ELMWOOD AVENUE

🟧 EXISTING ON-STREET PARKING
🟨 EXISTING ON-STREET PARKING WITH NO PARKING M-F 7AM TO 6PM
▨ EXISTING ON-STREET PARKING TO BE REMOVED
🟪 PROPOSED ON-STREET PARKING TO BE ADDED
🟦 EXISTING BICYCLE LANE
🟩 PROPOSED BICYCLE LANE
XX|XX NUMBER OF AVAILABLE ON-STREET PARKING SPACES (*EXISTING* / PROPOSED)
△XX MAXIMUM OBSERVED NUMBER OF ON-STREET PARKING SPACES CURRENTLY UTILIZED

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL
PROJECT MANAGER: J. OTTMAN
DRAWN BY: P. BORKOWSKI

City of Rochester
Department of Environmental Services

DATE

PROJECT TITLE
2023 PREVENTIVE MAINTENANCE
GROUP 1 PROJECT
SOUTH AVE. (ELMWOOD AVE. TO E. HENRIETTA RD.)
UNIVERSITY AVE. (CULVER RD. TO BLOSSOM RD.)
EAST AVE. (CULVER RD. TO PROBERT ST.)
CULVER RD. (GARSON AVE. TO LAURELTON RD.)
CULVER RD. (CLIFFORD RD. TO NORTON ST.)

NO.	REVISION	BY	DATE

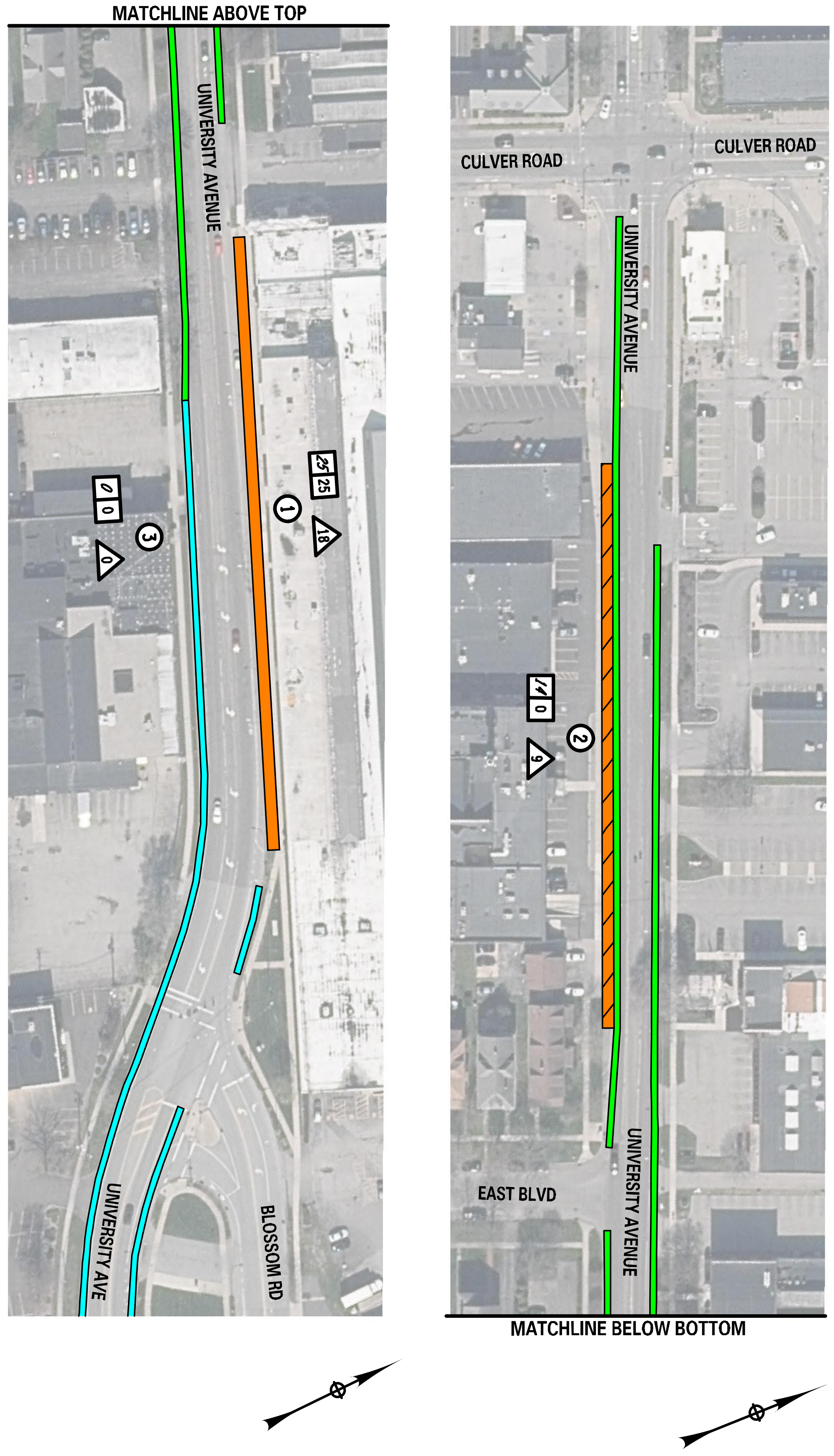
ISSUED	FEBRUARY 2022
CHECKED	JWO
DRAWN	PMB
DESIGN	PV
SCALE	NOT TO SCALE
PROJECT NUMBER	4252

DRAWING TITLE
SOUTH AVENUE
PARKING STUDY
FIGURE 1

DRAWING NO.
1
OF
5

FILE NAME = Parking Study Figures.dgn
DATE/TIME = 22-FEB-2022 08:12
USER = pborkowski

FILE NAME = Parking Study Figures.dgn
DATE/TIME = 21-FEB-2022 15:55
USER = pborkowski



LEGEND:

PARKING BLOCKS (NORTH SIDE)
① CULVER ROAD TO BLOSSOM ROAD

PARKING BLOCKS (SOUTH SIDE)
② CULVER ROAD TO EAST BOULEVARD
③ EAST BOULEVARD TO BLOSSOM ROAD

🟧 EXISTING ON-STREET PARKING
🟨 EXISTING ON-STREET PARKING WITH NO PARKING M-F 7AM TO 6PM
▨ EXISTING ON-STREET PARKING TO BE REMOVED
🟪 PROPOSED ON-STREET PARKING TO BE ADDED
🟦 EXISTING BICYCLE LANE
🟩 PROPOSED BICYCLE LANE
XX | XX NUMBER OF AVAILABLE ON-STREET PARKING SPACES (*EXISTING* / PROPOSED)
△XX MAXIMUM OBSERVED NUMBER OF ON-STREET PARKING SPACES CURRENTLY UTILIZED

DRAWING NO. 2 OF 5

DRAWING TITLE
UNIVERSITY AVENUE
PARKING STUDY
FIGURE 2

ISSUED	FEBRUARY 2022
CHECKED	JWO
DRAWN	PMB
DESIGN	PV
SCALE	NOT TO SCALE
PROJECT NUMBER	4252

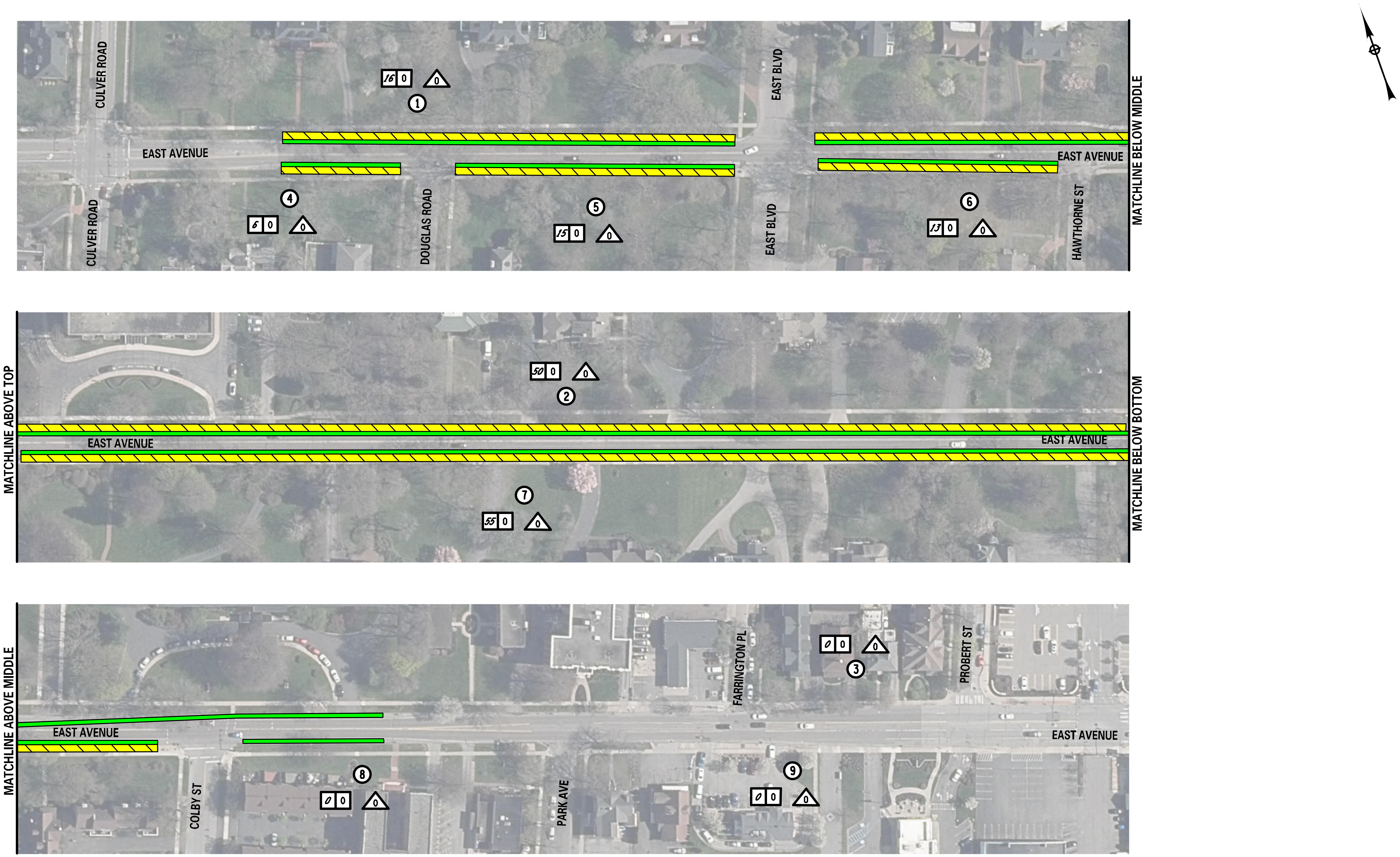
NO.	REVISION	BY	DATE

PROJECT TITLE
2023 PREVENTIVE MAINTENANCE
GROUP 1 PROJECT
SOUTH AVE. (ELMWOOD AVE. TO E. HENRIETTA RD.)
UNIVERSITY AVE. (CULVER RD. TO BLOSSOM RD.)
EAST AVE. (CULVER RD. TO PROBERT ST.)
CULVER RD. (GARSON AVE. TO LAURELTON RD.)
CULVER RD. (CLIFFORD RD. TO NORTON ST.)

DATE

City of Rochester
Department of
Environmental Services

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL
PROJECT MANAGER: J. OTTMAN
DRAWN BY: P. BORKOWSKI



LEGEND:

PARKING BLOCKS (NORTH SIDE)
① CULVER ROAD TO EAST BOULEVARD
② EAST BOULEVARD TO FARRINGTON PLACE
③ FARRINGTON PLACE TO PROBERT STREET

PARKING BLOCKS (SOUTH SIDE)
④ CULVER ROAD TO DOUGLAS ROAD
⑤ DOUGLAS ROAD TO EAST BOULEVARD
⑥ EAST BOULEVARD TO HAWTHORNE STREET
⑦ HAWTHORNE STREET TO COLBY STREET
⑧ COLBY STREET TO PARK AVENUE
⑨ PARK AVENUE TO PROBERT STREET

🟧 EXISTING ON-STREET PARKING
🟨 EXISTING ON-STREET PARKING WITH NO PARKING M-F 7AM TO 6PM
▨ EXISTING ON-STREET PARKING TO BE REMOVED
🟪 PROPOSED ON-STREET PARKING TO BE ADDED
🟦 EXISTING BICYCLE LANE
🟩 PROPOSED BICYCLE LANE
XX XX NUMBER OF AVAILABLE ON-STREET PARKING SPACES (*EXISTING* / PROPOSED)
△XX MAXIMUM OBSERVED NUMBER OF ON-STREET PARKING SPACES CURRENTLY UTILIZED

City of Rochester
Department of Environmental Services

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

PROJECT MANAGER: J. OTTMAN
DRAWN BY: P. BORKOWSKI

PROJECT TITLE
2023 PREVENTIVE MAINTENANCE
GROUP 1 PROJECT
SOUTH AVE. (ELMWOOD AVE. TO E. HENRIETTA RD.)
UNIVERSITY AVE. (CULVER RD. TO BLOSSOM RD.)
EAST AVE. (CULVER RD. TO PROBERT ST.)
CULVER RD. (GARSON AVE. TO LAURELTON RD.)
CULVER RD. (CLIFFORD RD. TO NORTON ST.)

DATE

NO.	REVISION	BY	DATE

ISSUED FEBRUARY 2022
CHECKED JWO
DRAWN PMB
DESIGN PV
SCALE NOT TO SCALE
PROJECT NUMBER 4252

DRAWING TITLE
EAST AVENUE PARKING STUDY FIGURE 3

DRAWING NO. 3 OF 5

LEGEND:

PARKING BLOCKS (NORTH SIDE)
① GARSON AVENUE TO GRAND AVENUE
② GRAND AVENUE TO PARSELLS AVENUE
③ PARSELLS AVENUE TO MELVILLE STREET
④ MELVILLE STREET TO HAZELWOOD TERRACE
⑤ HAZELWOOD TERRACE TO ROSEWOOD TERRACE

PARKING BLOCKS (NORTH SIDE) (CONTINUED)
⑥ ROSEWOOD TERRACE TO VERMONT STREET
⑦ VERMONT STREET TO FERRIS STREET
⑧ FERRIS STREET TO RICHLAND STREET
⑨ RICHLAND STREET TO BAY STREET
⑩ BAY STREET TO LAURELTON ROAD

PARKING BLOCKS (SOUTH SIDE)
⑪ GARSON AVENUE TO GRAND AVENUE
⑫ GRAND AVENUE TO MCKINLEY STREET
⑬ MCKINLEY STREET TO PARSELLS AVENUE
⑭ PARSELLS AVENUE TO MELVILLE STREET
⑮ MELVILLE STREET TO HAZELWOOD TERRACE

PARKING BLOCKS (SOUTH SIDE) (CONTINUED)
⑯ HAZELWOOD TERRACE TO QUEENS STREET
⑰ QUEENS STREET TO CONKLIN AVENUE
⑱ CONKLIN AVENUE TO MERCHANTS ROAD
⑲ MERCHANTS ROAD TO BAY STREET
⑳ BAY STREET TO LAURELTON ROAD

🟧 EXISTING ON-STREET PARKING
🟨 EXISTING ON-STREET PARKING WITH NO PARKING M-F 7AM TO 6PM
▨ EXISTING ON-STREET PARKING TO BE REMOVED
🟪 PROPOSED ON-STREET PARKING TO BE ADDED
🟦 EXISTING BICYCLE LANE
🟩 PROPOSED BICYCLE LANE
XX XX NUMBER OF AVAILABLE ON-STREET PARKING SPACES (*EXISTING* / PROPOSED)
△XX MAXIMUM OBSERVED NUMBER OF ON-STREET PARKING SPACES CURRENTLY UTILIZED

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL
PROJECT MANAGER: J. OTTMAN
DRAWN BY: P. BORKOWSKI

City of Rochester
Department of Environmental Services

DATE

PROJECT TITLE
2023 PREVENTIVE MAINTENANCE
GROUP 1 PROJECT
SOUTH AVE. (ELMWOOD AVE. TO E. HENRIETTA RD.)
UNIVERSITY AVE. (CULVER RD. TO BLOSSOM RD.)
EAST AVE. (CULVER RD. TO PROBERT ST.)
CULVER RD. (GARSON AVE. TO LAURELTON RD.)
CULVER RD. (CLIFFORD RD. TO NORTON ST.)

NO.	REVISION	BY	DATE

ISSUED FEBRUARY 2022
CHECKED JWO
DRAWN PMB
DESIGN PV
SCALE NOT TO SCALE
PROJECT NUMBER 4252

DRAWING TITLE
CULVER ROAD PARKING STUDY FIGURE 4

DRAWING NO. 4 OF 5

FILE NAME = Parking Study Figures.dgn
DATE/TIME = 21-FEB-2022 15:57
USER = pborkowski

LEGEND:

PARKING BLOCKS (NORTH SIDE)
- ㉑ CLIFFORD AVENUE TO MEREDITH STREET
- ㉒ MEREDITH STREET TO LANCRAFT STREET
- ㉓ LANCRAFT STREET TO WARING ROAD
- ㉔ WARING ROAD TO DENSMORE STREET
- ㉕ DENSMORE STREET TO COSTICH ROAD
- ㉖ COSTICH ROAD TO NORTON STREET

PARKING BLOCKS (SOUTH SIDE)
- ㉗ CLIFFORD AVENUE TO WARING ROAD
- ㉘ WARING ROAD TO SEYMOUR ROAD
- ㉙ SEYMOUR ROAD TO CHARWOOD CIRCLE
- ㉚ CHARWOOD CIRCLE TO CHARWOOD CIRCLE
- ㉛ CHARWOOD CIRCLE TO CULVERTON DRIVE
- ㉜ CULVERTON DRIVE TO NORTON STREET

🟧	EXISTING ON-STREET PARKING
🟨	EXISTING ON-STREET PARKING WITH NO PARKING M-F 7AM TO 6PM
▨	EXISTING ON-STREET PARKING TO BE REMOVED
🟪	PROPOSED ON-STREET PARKING TO BE ADDED
🟦	EXISTING BICYCLE LANE
🟩	PROPOSED BICYCLE LANE
XX XX	NUMBER OF AVAILABLE ON-STREET PARKING SPACES (*EXISTING* / PROPOSED)
△ XX	MAXIMUM OBSERVED NUMBER OF ON-STREET PARKING SPACES CURRENTLY UTILIZED

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL
PROJECT MANAGER: J. OTTMAN
DRAWN BY: P. BORKOWSKI

City of Rochester
Department of Environmental Services

DATE

PROJECT TITLE
2023 PREVENTIVE MAINTENANCE
GROUP 1 PROJECT
SOUTH AVE. (ELMWOOD AVE. TO E. HENRIETTA RD.)
UNIVERSITY AVE. (CULVER RD. TO BLOSSOM RD.)
EAST AVE. (CULVER RD. TO PROBERT ST.)
CULVER RD. (GARSON AVE. TO LAURELTON RD.)
CULVER RD. (CLIFFORD RD. TO NORTON ST.)

NO.	REVISION	BY	DATE

ISSUED	FEBRUARY 2022
CHECKED	JWO
DRAWN	PMB
DESIGN	PV
SCALE	NOT TO SCALE
PROJECT NUMBER	4252

DRAWING TITLE
CULVER ROAD
PARKING STUDY
FIGURE 5

DRAWING NO.
5
OF
5

FILE NAME = Parking Study Figures.dgn
DATE/TIME = 21-FEB-2022 16:00
USER = pborkowski