

Design Report Memorandum

Scottsville Road – Elmwood Avenue Improvement Project

(West City Line to Mt. Hope Avenue)

P.C. 17102

Prepared for:



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A. Introduction and Project Description

Lu Engineers has been retained by the City of Rochester to design improvements for the revitalization of Scottsville Road and Elmwood Avenue from the West City Line to Mt. Hope Avenue.

The limits for the Scottsville Road / Elmwood Avenue Improvement Project are the West City Line at the southwestern limit and Mt. Hope Avenue at the eastern limit. Refer to the *Project Location Map* in Appendix A. The 1.5 mile project length includes nine signalized intersections (Kingsboro Road, Genesee Street, S. Plymouth Avenue/Genesee Valley Sports Complex, Wilson Boulevard/Moore Road, Kendrick Road, Entrance to Strong Medical School Parking lot, Thomas H. Jackson Drive (Strong Hospital), East Drive and Mt. Hope Avenue) and 3 stop-controlled intersections on Scottsville Road (Vixette Street, Pioneer Street / Mineola Street and Winbourne Road).

Scottsville Road is classified as an urban principal arterial and carries approximately 16,800 vehicles per day. Elmwood Avenue is classified as an urban minor arterial and carries approximately 19,700 vehicles per day. Both streets are posted with the City speed limit of 30 mph.

The need for this project is based on roadway pavement surface condition deficiencies. The project objectives / purpose includes the following:

- Correct identified pavement deficiencies to extend the useful life of the highway and maintain it in a structurally sound condition using cost effective pavement treatments which provide low life cycle costs.
- Repair and replace deteriorated pedestrian facilities meeting the requirements of the American Disabilities Act (ADA).
- Incorporate the City of Rochester “Complete Streets” policy to the project improvements as appropriate.

The project proposes to provide pavement restoration and preventative maintenance treatments to these City owned streets to extend the service life by repairing the pavement base layers where needed and replacing the existing wearing surface. The objective is to prevent the condition of the roadway from declining beyond the point of which preventative maintenance treatments can be applied in the future. In addition the project will repair and replace existing broken curb and sidewalk, replace sidewalk curb ramps not in compliance with current ADA standards, replace signs and pavement markings to meet current MUTCD standards, and investigate the application of the City “Complete Streets” policy where feasible, including a potential “Road Diet” to convert vehicle travel lanes to bike lanes and adding an on-street parking lane along the south curb line in the eastbound direction on Elmwood Avenue between Genesee Street and South Plymouth Avenue adjacent to the Genesee Valley West Park.

The analyses and design concepts described in this Preliminary Design Report Memorandum have been prepared in conjunction with the plans.



B. Existing Characteristics, Inventory and Evaluation

As part of the design process, specific elements of the Scottsville Road / Elmwood Avenue infrastructure were reviewed and assessed. The existing element descriptions have been categorized as follows:

1. Roadway Geometry
2. Typical Section and Pavement Condition Evaluation
3. Sidewalks, Curbs, Driveways and ADA Curb Ramps Assessment
4. Roadway Drainage Inlet Condition Assessment
5. Land Use and Parking
6. City of Rochester “Complete Streets” Policy Evaluation
7. Traffic Data
8. Accident Data
9. Regulatory and Parking Sign Inventory and Evaluation
10. Utilities

1. Roadway Geometry

The terrain of Scottsville Road / Elmwood Avenue for this 1.5 mile stretch is relatively flat, with gentle longitudinal grades along the street centerline except at the vicinity of the Elmwood Avenue bridge over the Genesee River. The roadway longitudinal slopes at this location are steepened for the bridge overpass along with the adjacent bridge underpass approximately 500 ft west of the Genesee River. The horizontal alignment includes five curves, a sharp curve to the right at the signalized intersection of Genesee Street ($R = 305'$), a gentle curve to the right at the signalized intersection of S. Plymouth Avenue ($R = 2291'$), a gentle curve to the right at the signalized intersection of Wilson Boulevard ($R = 1910'$), a sharp curve to the left at the signalized intersection of Kendrick Road ($R = 249'$), and a gentle curve to the right just west of the Strong Hospital entrance ($R = 2343'$). The pavement cross-slope is approximately 2.0% from the centerline to the curb, with catch basins collecting the storm water runoff channeled along the curb lines at regular interval spacing and at low points throughout the project corridor.

2. Typical Section and Pavement Condition Evaluation

Within the limits for the Scottsville Road / Elmwood Avenue improvement project the available record drawings of construction projects are limited. The most recent full-depth asphalt pavement reconstruction of Elmwood Avenue was in 1986. The reconstruction of Elmwood Avenue in 1986 can be split into two segments as follows: Scottsville Road to the Genesee River segment included a curb-to-curb width of 55 ft., varying tree lawn widths and 5 ft. wide concrete sidewalks centered within the 100 ft. wide right-of-way, the Genesee River to Mt. Hope Avenue segment included two curb-to-curb widths of 24 ft. with a 14 ft. curbed median / turn lanes, varying tree lawn widths and 5 ft. wide concrete sidewalks centered within the 100 ft. wide right-of-way. The most recent rehabilitation



project on Scottsville Road was in 1987. The curb to curb width is typically 40 ft., with four 10 ft. travel lanes centered within the 66 ft. wide right-of-way.

According to record drawings, the Elmwood Avenue pavement section consists of granite curbing with 7" reveal, 6" underdrain, 11" stone subbase, 8" asphalt base course, 2" asphalt binder course and 1½" asphalt top course. The most recent treatment in this area since the 1986 reconstruction has been crackfilling. According to record drawings, the Scottsville Road Avenue pavement section consists of granite curbing with 7" reveal, 14" stone subbase, 2" asphalt binder course and 1½" asphalt top course. The most recent treatment in this area since the 1986 reconstruction has been crackfilling. Refer to Appendix F "*Pavement Evaluation and Treatment Selection Report (PETSR)*" for additional information on the existing pavement section and pavement treatment history.

An analysis of the existing roadway pavement condition was conducted and recorded in the PETSR. The pavement evaluation included obtaining pavement cores, completing a field survey of the pavement recording the type and severity of surface distress observed. In general the pavement condition was fair to good throughout the project limits except for isolated areas where more severe pavement surface distress was observed more frequently on Scottsville Road than Elmwood Avenue. Refer to Appendix F "*Pavement Evaluation and Treatment Selection Report (PETSR)*" for additional information on the existing pavement surface distress survey and pavement conditions.

The project pavement evaluation was split into roadway segments based on record plans and the pavement maintenance history as follows:

Scottsville Road PETSR pavement segments:

- Segment A - Sta. S 10+00 to Sta. S 24+50 (pavement cores S - A.1 thru S - A.4)
- Segment B.1 - Sta. S 24+50 to Sta. S 28+77 (pavement cores S - B.1 thru S - B.2)
- Segment B.2 - Sta. S 110+00 to Sta. E 112+25 (pavement cores E - B.3 thru E - B.4)

Elmwood Avenue PETSR Pavement Segments:

- Segment C - Sta. E 112+25 to Sta. E 121+00 (pavement cores E - C.1 thru E - C.4)
- Segment D.1 - Sta. E 121+00 to Sta. E 126+12 (pavement core E - D.1)
- Segment D.2 - Sta. E 131+15 to Sta. E 155+00 (pavement cores E - D.2 thru E - D.4)
- Segment E - Sta. E 155+00 to Sta. E 170+80 (pavement cores E - E.1 thru E - E.4)

Refer to Appendix F "*Pavement Evaluation and Treatment Selection Report (PETSR)*" and the typical sections in Appendix A for additional information on the existing roadway pavement condition evaluation.

Within the project limits, the pavement is currently striped as follows:

Scottsville Road

- West City Line to Winbourne Street - two 10 ft. wide travel lanes in each direction
- Winbourne Street to Genesee Street - two 11 ft. wide travel lanes in each direction with a 10 ft. wide left turn lane at Genesee Street



Elmwood Avenue

- Genesee Street to the Genesee River - two 11 ft. wide travel lanes in each direction with an 11 ft. wide right turn lane at Genesee Street and a 10 ft. wide left turn lane at S. Plymouth Avenue
- Genesee River to Mt. Hope Avenue - two 12 ft. wide travel lanes in each direction with a 12 ft. wide left turn lane at Kendrick and 10 ft. wide left turn lanes at the hospital entrance and East Drive

3. Sidewalks, Curbs, Driveways and ADA Curb Ramps Assessment

The existing concrete sidewalks within the project limits are generally in good condition, with the exception of a few tripping hazards and deteriorated sections of sidewalk at locations identified and inventoried by photo logs during a project walk-thru. There are no known private building underground vaults beneath the sidewalks within the highway right-of-way that may be impacted by replacement of sidewalk on this project.

The existing granite curb within the project limits is generally in good condition with curb reveal of 4" to 6". The curb identified in the walk-thru as broken or missing sections was photographed and inventoried, refer to Appendix G for replacements.

The project corridor is densely lined with residential driveways, with several minor commercial driveways on Scottsville Road and Elmwood Avenue west of the Genesee River crossing. Improvements to driveways are not anticipated within the project scope other than removing driveway aprons no longer in service.

All of the intersections have sidewalk curb ramps; however, many of the ramp and side flare slopes are not compliant with current ADA standards, refer to Appendix C for the "*ADA Curb Ramp Assessment Technical Memorandum*" for more information on the sidewalk curb ramps within the project limits. Refer to the *Roadway Plans* within Appendix A for the limits of sidewalk, curb, and curb ramp replacement within the project limits.

4. Roadway Drainage Inlets

The existing drainage inlets in the roadway were inventoried and assessed for condition and debris buildup. Refer to Appendix D "*Drainage System Assessment Technical Memorandum*" for a complete review and assessment of the drainage structures condition and the work proposed to address any issues correctable under the project scope of improvements.



5. Land Use and Parking

The general land uses within the Scottsville Road / Elmwood Avenue project corridor consist of single-family residential, multi-family residential and parkland on the west side of the Genesee River. The east side of the river consists primarily of medical building complexes associated with Strong Memorial Hospital and Mount Hope Cemetery.

The City of Rochester Zoning Districts for Scottsville Road / Elmwood Avenue within the project limits are as follows:

- Kingsboro Road Intersection; C-1 (Neighborhood Center Commercial)
- Kingsboro Road to Genesee Street; R-1 (Low-Density Residential)
- Genesee Street to Wilson Boulevard; O-S (Open Space District) and R-1 (Low-Density Residential)
- Wilson Boulevard to East Drive; PD#10 (Planned Development District) and O-S (Open Space District)
- East Drive to Mt. Hope Avenue; CV (Collegetown Village District) and O-S (Open Space District)

On-street parking is not permitted along Scottsville Road from 7–9 AM and from 4–6 PM from Kingsboro Road to Winbourne Road. No Standing is permitted along all of the approaches and departures at the Scottsville Road/Elmwood Avenue and Genesee Street intersection. On-street parking is not permitted on both sides of Elmwood Avenue from Kendrick Road to Mt. Hope Avenue. There are two No Stopping except for buses locations along the south side of Elmwood between the entrance to Strong Medical School Parking lot and East Drive.

Due to several off-street parking lots serving the Genesee Valley West Park (GVWP) on both sides of Elmwood Avenue it was determined that a parking study to investigate whether additional on-street parking should be included as part of the proposed project improvements was unnecessary. Refer to Appendix H “*Traffic Data / Level of Service Analysis*” for additional discussion about on-street parking on Elmwood Avenue in the vicinity of the GVWP.



6. City of Rochester “Complete Streets”

According to Section 104-29 of the Municipal Code, the City of Rochester seeks to create an interconnected network of transportation facilities to accommodate all modes of travel in a manner that is consistent with neighborhood context and is supportive of community goals. The project review included existing infrastructure condition assessment, evaluation and site visits to determine feasible options to improve bicycling and pedestrian facilities.

The following strategies were considered as part of the preliminary design for the project.

- a. Traffic Control Devices: high visibility crosswalks, signing
- b. Converting available additional travel lanes into bike lanes through a “Road Diet”

A Traffic Study was conducted to determine if a “Road Diet” would be feasible on Elmwood Avenue between Genesee Street and S. Plymouth Avenue. This would convert one of the five travel lanes into bike lanes in both directions. Refer to Appendix H “*Traffic Data / LOS Analysis*” and Section E of the Design Report for the conclusions of this investigation.

The City of Rochester Bicycle Master Plan recommends bicycle boulevards, also known as “neighborhood greenways”, which are a series of inter-connected streets which have been modified or provide enhanced accommodation as through streets for bicyclists while discouraging through automobile traffic. A boulevard is planned to utilize a crossing of Scottsville Road at the Pioneer Street / Mineola Street intersection to provide access to the Genesee Valley West Park bike path.

7. Traffic Data

Existing traffic volume data available from the MCDOT, along with additional peak hour turning movement counts taken at the Scottsville Road / Elmwood Avenue / Genesee Street and the Genesee Street / Genesee Park Blvd intersections, were processed and analyzed. This analysis compared the existing lane configuration with a “Road Diet” scenario on Elmwood Avenue between the intersections of Genesee Street and S. Plymouth Avenue. Refer to Appendix H “*Traffic Data / LOS Analysis*”, for complete discussion of the detailed analysis, the existing and projected traffic volumes, and the LOS model printouts.

The following is a summary of the intersection ADT peak hour volume level-of-service (LOS) results at each signalized intersection included in the Traffic Analysis within the project limits, for both the existing volumes and the projected traffic volumes in ETC+15 using the MCDOT recommended straight growth rate of 1.5%/year.



AM Peak Hour – Intersection LOS (Existing Lane Configuration)

Intersection	EB LOS	WB LOS	NB LOS	SB LOS
Genesee St / Scottsville Rd – Existing	B	B	-	A
Genesee St / Scottsville Rd – ETC+15	C	B	-	A
Genesee Park Blvd / Genesee St – Existing	B	-	A	D
Genesee Park Blvd / Genesee St – ETC+15	B	-	A	D
S. Plymouth Ave / Elmwood Ave – Existing	A	A	A	D
S. Plymouth Ave / Elmwood Ave – ETC+15	A	A	B	D

PM Peak Hour – Intersection LOS (Existing Lane Configuration)

Intersection	EB LOS	WB LOS	NB LOS	SB LOS
Genesee St / Scottsville Rd – Existing	B	B	-	A
Genesee St / Scottsville Rd – ETC+15	C	C	-	B
Genesee Park Blvd / Genesee St – Existing	C	-	A	E
Genesee Park Blvd / Genesee St – ETC+15	C	-	A	E
S. Plymouth Ave / Elmwood Ave – Existing	A	A	C	D
S. Plymouth Ave / Elmwood Ave – ETC+15	A	A	C	D

AM Peak Hour – Intersection LOS (Road Diet)

Intersection	EB LOS	WB LOS	NB LOS	SB LOS
Genesee St / Scottsville Rd – ETC	C	B	-	C
Genesee St / Scottsville Rd – ETC+15	F	C	-	C
Genesee Park Blvd / Genesee St – ETC	A	-	A	D
Genesee Park Blvd / Genesee St – ETC+15	A	-	A	D
S. Plymouth Ave / Elmwood Ave – ETC	A	A	B	D
S. Plymouth Ave / Elmwood Ave – ETC+15	A	A	B	D

PM Peak Hour - Intersection LOS (Road Diet)

Intersection	EB LOS	WB LOS	NB LOS	SB LOS
Genesee St / Scottsville Rd – ETC	C	D	-	C
Genesee St / Scottsville Rd – ETC+15	E	F	-	D
Genesee Park Blvd / Genesee St – ETC	C	-	A	E
Genesee Park Blvd / Genesee St – ETC+15	B	-	A	E
S. Plymouth Ave / Elmwood Ave – ETC	A	A	C	D
S. Plymouth Ave / Elmwood Ave – ETC+15	A	A	C	D



8. Accident Data

Available accident reports for the latest three year period of August 2014 thru July 2017 were reviewed and analyzed by type, location, and trend. The annual accident rates were calculated and compared to the average annual accident rates for a similar facility in Monroe County. In general, the accident rates at the four main signalized intersections within the project corridor are above the Monroe County average rates as a result of the predominate accidents being rear end and side swipe accidents. There are no specific safety problems that this project could remediate within the scope of work. Refer to Appendix E “*Accident Data/Analysis*” for the complete details.

Location (Intersections)	Number of Accidents (8/2014 – 7/2017)	Accident Rate (MEV)	MCDOT Average Accident Rate (MEV)
Kingsboro Rd @ Scottsville Rd	5	0.25	0.53
Mineola/Pioneer @ Scottsville Rd	2	0.09	0.12
Winbourne Rd @ Scottsville Rd	1	0.05	0.12
Vixette @ Scottsville Rd	1	0.05	0.12
Genesee St @ Scottsville Rd / Elmwood Ave	18	0.68	0.53
S. Plymouth Ave @ Elmwood Ave	7	0.30	0.51
Wilson Blvd / Moore Rd @ Elmwood Ave	30	1.06	0.51
Kendrick Rd @ Elmwood Ave	36	1.17	0.51
Strong Hospital Entrance @ Elmwood Ave	5	0.22	0.51
East Drive @ Elmwood Ave	26	1.16	0.51

For Corridor Segment Accident Rates, refer to Appendix E



9. Regulatory and Parking Sign Inventory and Evaluation

All existing regulatory and parking signs within the project limits were photo logged, inventoried and evaluated for reflectivity, sign panel damage, mounting condition, and compliance with the most recent versions of the National Manual on Uniform Traffic Control Devices (NMUTCD), 2009 Edition with revisions and the New York Supplement to the Manual on Uniform Traffic Control Devices (NYSMUTCD), 2009 Edition with revisions. Refer to Appendix G *“Traffic Signs, Curb and Sidewalk Inventory and Evaluation”* for the complete inventory / evaluation.

10. Utilities

Several public and private utilities are located within the project corridor. A table summarizing the general type and location is provided in this section of the report. The University of Rochester/Strong Hospital has the following facilities within the project right of way:

- IT Duct Banks: 1 crossing at Lot #7 driveway, 1 crossing at the Dentistry School driveway.
- District Hot Water Piping: 1 crossing at Sta. 139+75, 1 crossing at Sta. 146+00. Piping in south tree lawn for 50 feet then terminates but is for future expansion.
- Chilled Water Piping: 2 crossings of 2 pipes at Dentistry School parking lot.
- Steam piping: 1 crossing at Dentistry School parking lot, piping runs along south ROW line on private property.



Utility Inventory Table

Utility	Owner	Type	Location
Sewer	Monroe County (DES)	Trunk Lines	Kingsboro to Winbourne (2 lines); Winbourne to Plymouth (1 line); Wilson to Mt Hope (1 line) all in roadway
Storm Sewer	Monroe County (DES)	Catch basins with laterals to sewer trunk lines	Kingsboro to Plymouth; Wilson to Mt Hope
Street Lighting	City Lighting	30' high, 250 Watt HPS metal cobra	Kingsboro to Mt Hope, (both sides, Kendrick to Mt Hope (median)
Water	City Water Bureau	12" Cast Iron 16" Ductile Iron 10" and 12 " Cast Iron 8" and 12" Cast Iron	Kingsboro to Genesee (south side) Genesee to River (North Side), River to U of R Bridges (North side) U of R Bridges to Kendrick (North side) Kendrick to Mt Hope (North side)
Traffic Signals	Monroe County DOT	semi-actuated, coordinated with newer ped signals	Kingsboro, S. Plymouth, Wilson/Moore, Kendrick, Medical School, Thomas Jackson, East, Mt. Hope. Scottsville/Elmwood/Genesee
Traffic ITS	Monroe County DOT	Underground fiber optic system	Kingsboro to Genesee (north side) Genesee to Plymouth (south side) Plymouth to Mt Hope (north side)
Electric	RG&E	Underground system Aerial lines	Kingsboro to Genesee (eastbound travel lanes); Genesee to U of R Lot #7 (north sidewalk) U of R Lot #7 to Mt. Hope (north ROW line)
Gas	RG&E	6" WR ST 12" WR ST 2" WR ST 6" WR ST	Kingsboro to Genesee (at ROW, one crossing) Genesee to Kendrick (at ROW, one crossing) Kendrick to U of R Lot #7 (in south sidewalk) East to Mt Hope (in South sidewalk)
Telephone	Frontier Corp.	Underground system	Kingsboro to Genesee (north side) Genesee to Mt Hope (north side)
Cable	(Spectrum)	Aerial lines	Kingsboro to Plymouth (rear property lines) U of R Lot #7 to Mt. Hope (north ROW)
Internet	Mobilitie Windstream Level 3	Pole Mounted Underground system Underground system	On two poles between Kendrick and East (north side) At Intercampus Drive bridge At Intercampus Drive bridge



C. Design Standards

The following design standards were referenced for the project:

Pedestrian Facilities	<ul style="list-style-type: none">• City of Rochester “Complete Streets” Policy• American Disabilities Act (ADA) – 1991 ADAAG
Bicycle Facilities	<ul style="list-style-type: none">• City of Rochester “Complete Streets” Policy• MCDOT - City Project Scoping Meeting Consultant Information
Traffic Signals and Regulatory Sign Upgrades	MCDOT - City Project Scoping Meeting Consultant Information

There are no nonstandard or nonconforming roadway features within the project limits.

The existing pedestrian facilities within the scope of this project were evaluated for conformance with the applicable standards in the NYSDOT Critical Elements for the Design, Layout and Acceptance of Pedestrian Facilities. If the work at any facility will not meet the applicable standards, then procedural requirements identified in ED 15-004 - Design, Construction and Inspection of Pedestrian Facilities in the Public Right of Way were followed and the facility will be rehabilitated, replaced or justified as nonstandard.

D. Environmental Classification and Documentation

SEQRA (State Environmental Quality Review Act):

This project can be classified as a SEQR Type II Action pursuant to 6 NYCRR 617.5, with the City of Rochester acting as the Lead Agency. A Type II Action is assumed to not have a significant effect on the environment, or is precluded from review under the Environmental Conservation Law, Article 8. The full scope of the project conforms to the following Type II criteria found in 6 NYCRR Part 617.5.

- 617.(c)(1): maintenance or repair involving no substantial changes in an existing structure or facility;
- 617.(c)(2): replacement, rehabilitation or reconstruction of a structure or facility, in kind, on the same site;
- 617.(c)(4): repaving of existing highway not involving the addition of new travel lanes;
- 617. (c)(15): minor temporary uses of land having negligible or no permanent impact on the environment.

The City of Rochester’s Environmental Assessment Form was also prepared for this project.

The following Checklist(s) are attached:

- ☒ Environmental Scoping Checklist



1. Environmental Documentation

See Appendix B for additional Environmental Documentation.

Asbestos

The project area was screened to identify potential Asbestos Containing Materials (ACMs). Several materials were identified and are summarized in the Asbestos Screening Report, found in Appendix B. Sampling of the identified materials has not been conducted.

Hazardous Waste and Contaminated Materials

A Hazardous Waste/Contaminated Materials screening was conducted for the project corridor. This screening included a review of available records and project corridor walkover. Several sites adjacent to the project site were identified. All sites included reported NYSDEC spills related to Underground Storage Tanks (USTs) or other releases, and each spill has been recorded as closed by NYSDEC. These sites are not expected to impact project construction based on the nature of the spill events reviewed, the dates of the spills recorded and the nature of the proposed work, which is limited to roadway rehabilitation with limited excavation, and curb ramp repair. No further studies related to hazardous waste are recommended for the project. The report can be found in Appendix B.

Historic and Cultural Resources

The project site was not reviewed for the presence or absence of historic resources, as all proposed work is located within the highway boundary in previously disturbed areas.

Parks

No designated parks are located within the project area. Mount Hope Cemetery and Genesee Valley Park are located adjacent to the project site. No park land will be utilized for this project.

Others

- NYSDOT Perm 33 Highway Work Permit

Coordination

- No Environmental Coordination was conducted as part of this project.



E. Project Design Improvements and Recommendations

Using the established design standards and the results of the inventories and evaluations in the Preliminary Investigation Phase of the project, the following elements have been identified as the priority focus:

1. Roadway Pavement Restoration
2. Sidewalk, Curb and ADA Curb Ramps
3. Regulatory and Parking Signs
4. City's Policy for Design of "Complete Streets"
5. Utility Adjustments, as needed
6. Maintenance and Protection of Traffic

The recommended improvements for the project are:

- Restore the pavement which includes milling the existing pavement, spot pavement repairs at deteriorated pavement locations and installing a new Hot Mix Asphalt (HMA) wearing surface
- Adjusting or replacing drainage basin frames and grates and cleaning drainage systems (pipes and structures)
- Replacing signal loops impacted by the project
- Installing handicap ramps and detectable warning surfaces as needed to address ADAAG/PROWAG requirements
- Installing new pavement markings to meet current MUTCD requirements.
- Installing new traffic regulatory signs as needed to meet current code for MUTCD

Most of the basic infrastructure elements of the street other than the pavement, including the lane widths/usage, curbing, sidewalks, signs and drainage are in good condition and serviceability with only minor replacements or adjustments needed.

The proposed preliminary design includes the following elements:

1. Roadway Pavement Restoration

The proposed roadway pavement restoration throughout the project limits will be completed from curb-to-curb and will include limited full / partial depth pavement repairs, which will be finalized after milling operations are complete and the remaining pavement is evaluated to identify any significant areas that may require pavement base repair. Most of the project segments show signs of pavement distress that appear to be surface related only; limited repairs are anticipated throughout most of the project. Traffic signal loops impacted by the milling will be replaced in the binder course with Hot Mix Asphalt (HMA) top course placed over the entire pavement surface.



The AASHTO Pavement Design method was used to determine the pavement rehabilitation treatment needed to restore the pavement riding surface and structural integrity to sustain the traffic loading expected to extend the service life. In general, the project paving limits can be broken down into three segments of varying pavement restoration treatments.

- The Scottsville Road segment from the West City line to Windbourne Road will receive a 4" deep milling with a two course HMA overlay (2" binder and 2" top course resurfacing treatment).
- The Scottsville Road / Elmwood Avenue segment from Windbourne Road to the Genesee River will receive a 2" deep milling and single course HMA overlay (2" top course resurfacing treatment).
- The Elmwood Avenue from the Genesee River to East Drive will receive a 1½" deep milling and single course HMA overlay (1½" top course resurfacing treatment).

Refer to Appendix F "*Pavement Evaluation and Treatment Selection Report (PETSR)*" for additional information.

2. Sidewalk, Curb and ADA Curb Ramp Replacements

The project will replace all sections of sidewalk identified as safety hazards due to the condition or trip hazards present in addition to all sections of granite curb identified as broken or missing. Refer to Appendix G for more information on sidewalk and curb replacements within the project limits.

Sidewalk curb ramps will be upgraded to assure compliance with current ADA standards. Refer to Appendix C for the "*ADA Curb Ramp Assessment Technical Memorandum*" for more information on the sidewalk curb ramp replacements within the project limits. All construction will be performed within the City ROW, therefore no easements, grading releases or acquisitions will be required.

3. Regulatory and Parking Signs

All regulatory and parking signs within the project limits will be replaced, removed or relocated based on the proposed improvements and the findings of the inventory / evaluation of the existing regulatory and parking signs. Refer to Appendix G "Traffic Signs, Curb and Sidewalk Inventory and Evaluation" for an itemized table of the proposed replacement / removal / relocation of the regulatory and parking signs.



4. “Complete Streets” Policy

A Traffic Study was conducted to determine if a “Road Diet” would be feasible on Elmwood Avenue between Genesee Street and S. Plymouth Avenue. This proposal would convert one of the five travel lanes into bike lanes in both directions. A Road Diet was not feasible due to the high peak hour traffic volumes through the signalized intersections in this location. Therefore, the only feasible strategy incorporated into the project will be high visibility crosswalks and improved signing of the corridor.

Scottsville Road was also considered for a reduction of travel lanes from four lanes to three lanes with bike lanes in either direction. The high commuter traffic volumes in the AM and PM hours do not meet the City Traffic Engineering criteria for a road diet (peak one-way traffic volumes of less than 450 vehicles per hour per travel lane). Consequently a road diet on Scottsville Road is not feasible.

In accordance with the City of Rochester Bicycle Master Plan improvements to accommodate a bicycle boulevard crossing of Scottsville Road at the Pioneer Street / Mineola Street Intersection will be investigated during final design.

5. Utilities

General utility adjustments will be required to accommodate the pavement milling and resurfacing. The scope of adjustments needed for traffic hand holes, lighting pullboxes, sewer manholes, catch basin frames and grates, water services, water valves, and hydrants will be defined during final design.

6. Maintenance and Protection of Traffic

All vehicle traffic along with pedestrian and driveway access will be maintained during construction at all times. The existing curb-to-curb width will allow continuous vehicular travel through the moving work zones for the pavement restoration work that includes pavement repairs, milling and resurfacing pavement operations, adjustments to catch basins, manholes, water valves and other utility work. A detailed plan will be included in the design plans, including standard typical details and schematic layouts for moveable curbside work zones and sidewalk closures, as well as coordination notes for maintaining temporary lighting, emergency vehicle access, property access, RGRTA bus stops, and City School District coordination.



F. Project Schedule and Cost

Coordination with all involved utilities and agencies will continue throughout the design process. Final Design & Bid ready documents for advertisement for Contractor Bid Proposals are scheduled for completion March 2019, with a scheduled Letting of the project in April 2019 and construction start in July 2019. The construction duration is expected to be 140 calendar days.

The Federal-Aid project D034682 - *Elmwood Avenue / College Town Cycle Track* is anticipated to be constructed in Spring 2019 and will include the overlapping segment of Elmwood Avenue between Wilson Boulevard and Mt. Hope Avenue. The Scottsville Road / Elmwood Avenue Improvements project will need to be closely coordinated with the scope of the Elmwood Avenue / College Town Cycle Track project both during final design and construction.

The following table summarizes the estimated total cost and share breakdown for the construction of the proposed improvements under the Scottsville Road / Elmwood Avenue Improvements project.

BASIS OF ESTIMATE

1. Estimate was prepared using current adjusted regional unit prices from the NYSDOT Average Weighted Bid Prices Pay Item Catalog and recent bid data from similar projects for the City of Rochester. Refer to *Appendix I* for the Estimate of Probable Construction Cost.

Preliminary Construction Cost Estimate		
Agency Funding (Shares)	Estimated Cost ¹	Planning Budget Amount
City - Streets	\$1,976,000	
City - Water	\$15,000	
County - Sewer Pure Waters	\$178,000	
County – Traffic	\$77,000	
Total Cost	\$2,246,000	\$1,840,000

APPENDIX A

**Project Location Map
Roadway Plans & Typical Sections**

APPENDIX B

Environmental Information (Short Form EAF-1c)

APPENDIX C

ADA Sidewalk Curb Ramp Assessment

APPENDIX D

Drainage System Assessment

APPENDIX E

Accident Data / Analysis

APPENDIX F

Pavement Evaluation and Treatment Selection Report (PETSR)

APPENDIX G

Traffic Signs, Curb and Sidewalk Inventory and Evaluation

APPENDIX H

Traffic Data / LOS Analysis

APPENDIX I

Estimate of Probable Construction Cost