

ROSEVILLE
REQUEST FOR COUNCIL ACTION

Date: July 11, 2016
Item No.: 14.a

Department Approval



City Manager Approval



Item Description: Receive Feasibility Report and Order Public Hearing for South Lake
Owasso Private Drive Storm Sewer Improvements

BACKGROUND

At the March 28, 2016, meeting the City Council order the preparation of a feasibility report for the construction of a storm water best management practice (BMP) on Owasso Private Drive, located east of South Owasso Boulevard between Lake Owasso and the railroad tracks.

The project will address many issues in the area related to storm water. Currently this private road is a gravel road with little or no drainage. The water that does drain from the roadway area, discharges directly to Lake Owasso with little or no treatment. Further, there have been numerous requests to correct drainage and to pave this road in the past. Due to the nature of the road being a private road and the limited space to construct a standard road design, it has remained unpaved.

The overall proposed project would include the construction of a subsurface storm water system BMP. The system would have an underdrain with drain tile that would discharge to the lake. The subsurface media would provide treatment and retention. The surface of the BMP would be a permeable paver system that would also provide a hard driving surface.

Two neighborhood meetings, May 21, 2014 and January 19, 2016, were held by staff to meet with residents that would be directly affected by this project. The feedback from both of these meetings for this project has been very positive.

Staff presented the project to the Public Works Environment and Transportation Commission on March 22, 2016. The commission unanimously recommended that the City Council move forward with the project.

Since this neighborhood has never been assessed for storm water, the cost participation of the storm water infrastructure will follow the City's Special Assessment Policy. Residents will be assessed up to 25% of the cost of the storm water improvements. Staff will receive the Benefit Analysis from an outside licensed appraiser which will determine the maximum benefit to the assessed properties. Per State law, this will be the maximum amount the City can assess properties for the proposed project.

At their March 28th meeting, the City Council directed staff to prepare a feasibility report for this project. Staff was also directed to explore the cost of a traditional paved road and the cost per resident for that improvement.

In accordance with City Council direction, a feasibility report has been prepared that details the proposed design, neighborhood impact, and estimated cost of the South Lake Owasso Private

Drive Storm Sewer Improvements. The next step in the process is for the Council to accept the feasibility report, determine the amount of preliminary assessments and to schedule a public hearing.

As part of the Feasibility Report, a benefit analysis was prepared to determine the maximum value benefit to each impacted property as a result of the improvements. The benefit analysis showed a maximum benefit of \$10,000 for seven of the lots and \$3,333 for the western most property (349 South Owasso Blvd W).

If the residents were to construct a traditional bituminous roadway, it is estimated to the total cost would be \$96,900, or \$12,122.50 per lot (if evenly divided eight ways). The City can only assess the maximum benefit amount, unless all abutting property owners waive their right to the 429 process through formal written agreement and agree to have up to the entire cost of the project assessed against their properties.

POLICY OBJECTIVE

The feasibility report details the proposed design, neighborhood impact, estimated cost and proposed funding for the construction of these public improvements. Assessments shall be equivalent or less than the anticipated increase in market value for properties being assessed. It is the City's policy to assess the cost to construct the drainage improvements:

- Adjacent residential property owner assessed for up to 25% of the cost.
- Appraisals will be completed prior to the Public Hearing to determine the influence of the improvement project on the value of the properties proposing to be assessed.

BUDGET IMPLICATIONS

This project has financial implications for the city including the following:

1. Assessments levied in accordance with the City's assessment policy.
2. The City would receive a \$50,000 grant from Ramsey Washington Metro Watershed District.
3. The remaining project costs would be covered by the City's Stormwater Utility Fund.

The following is a summary of the preliminary estimated costs and financing for the South Lake Owasso Private Drive Storm Sewer Improvements.

	Estimated cost	Assessments*	Watershed Grant	Stormwater Fund
Stormwater Improvements	\$310,263	\$73,333	\$50,000	\$186,930

*Assessment total above assumes the maximum benefit amount. If property owners waive their right to the 429 process, this amount could be increased.

STAFF RECOMMENDATION

Staff recommends that the City Council receive the feasibility report and order a public improvement hearing for the Owasso Private Drive Storm Water Project for August 8, 2016 at 6:00 p.m.

64 **REQUESTED COUNCIL ACTION**

65 Adoption of a resolution receiving the feasibility report and ordering public improvement
66 hearings for the Owasso Private Drive Storm Water Project for August 8, 2016 at 6:00 p.m.

Prepared by: Jesse Freihammer, Asst. Public Works Director/City Engineer

Attachments: A: Resolution
B: Feasibility Report

**EXTRACT OF MINUTES OF MEETING
OF THE
CITY COUNCIL OF THE CITY OF ROSEVILLE**

* * * * *

Pursuant to due call and notice thereof, a regular meeting of the City Council of the City of Roseville, County of Ramsey, Minnesota was duly held on the 11th day of July, 2016, at 6:00 p.m.

The following members were present: and and the following were absent: .

Member introduced the following resolution and moved its adoption:

RESOLUTION No.

**RECEIVING THE FEASIBILITY REPORT FOR OWASSO PRIVATE DRIVE
STORMWATER IMPROVEMENTS AND ORDERING PUBLIC HEARING FOR
IMPROVEMENT**

WHEREAS, pursuant to resolution of the Council adopted July 11, 2016, a report has been prepared by the City Engineer with reference to the improvement of Owasso Private Drive, and;

WHEREAS, the report provides information regarding whether the proposed project is necessary, cost effective, and feasible; whether it should best be made as proposed or in connection with some other improvement; the estimated cost of the improvement as recommended; and a description of the methodology used to calculate individual assessments for affected parcels.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ROSEVILLE, MINNESOTA, as follows:

1. The City Council will consider the improvement of such streets in accordance with the report and the assessment of abutting property for all or a portion of the cost of the improvement pursuant to Minnesota Statutes, Chapter 429 at an estimated total cost of the improvement of \$310,263.03.

2. A public hearing shall be held on such proposed improvement on the 8th day of August, 2016, in the council chambers of the city hall at 6:00 p.m. and the City Engineer shall give mailed and published notice of such hearing and improvement as required by law.

38 The motion for the adoption of the foregoing resolution was duly seconded by Member ,
39 and upon a vote being taken thereon, the following voted in favor thereof: and
40 and the following voted against the same: .

41

42 WHEREUPON said resolution was declared duly passed and adopted.

(Seal)



Public Works
Engineering Department

Feasibility Report

Project 14-21

South Lake Owasso Drainage Improvements

Prepared by: Jesse Freihammer
City Engineer/Asst. Public Works Director
City of Roseville

I hereby certify that this feasibility report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

A handwritten signature in black ink, appearing to read "Jesse Freihammer".

_____, P.E.
Registration No. 47272

**SOUTH LAKE OWASSO DRAINAGE IMPROVEMENTS
FEASIBILITY REPORT
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July 11, 2016

City Council
City of Roseville
2660 Civic Center Drive
Roseville, MN 55113

RE: PROJECT 14-21, South Lake Owasso Drainage Improvements
Feasibility Report

Dear Mayor and City Council Members:

At their March 28, 2016 meeting, the City Council adopted Resolution No. 11310 ordering the preparation of a Feasibility Report for the South Lake Owasso Drainage Improvements.

The total estimated project cost is \$310,000 which includes contingencies.

During the process of studying the existing conditions within the project area, two Public Information meetings were held and input was received from area residents and other City department staff. The comments from these meetings are incorporated into the report.

In accordance with the City Council request, the study has been completed. It is my recommendation that the project as proposed in this study is feasible.

If you have questions regarding the findings and recommendations in the report please contact me directly.

Sincerely,

Jesse Freihammer, P. E.
City Engineer/Asst. Public Works Director
651-792-7042
jesse.freihammer@cityofroseville.com

INTRODUCTION

On March 28, 2016, the Roseville City Council adopted Resolution No. 11310 ordering the preparation of a Feasibility Report for drainage improvements along South Lake Owasso Boulevard. This report details that investigation.

Currently the roadway is a private road and it is gravel. The road narrows as you travel east until you eventually reach a dead end. Residents have noted that there has been drainage issues along the road for many years. Washouts or holes that develop in the gravel road are very common. Because of the grade standing water can often be found after rain events. Untreated runoff also eventually flows north through the properties and into Lake Owasso.

The proposed project involves the installation of a permeable paver drain system. This system would address the drainage issues and direct discharge into Lake Owasso. This system would also provide the residents with a hard surface to drive on.

It is expected that if this improvement is approved, the work will start in the summer of 2017, with completion within 2-4 weeks. The project was initiated by council/staff as part of our ongoing drainage improvement projects. As outlined by state law, projects initiated by council/staff require a 4/5 vote by the City Council for approval.

PUBLIC INVOLVEMENT

The public involvement process for this proposed project consisted of two neighborhood meetings, one in 2014 and one in 2016. Meeting notices were sent out at least two weeks in advance to all property owners abutting the street to be reconstructed.

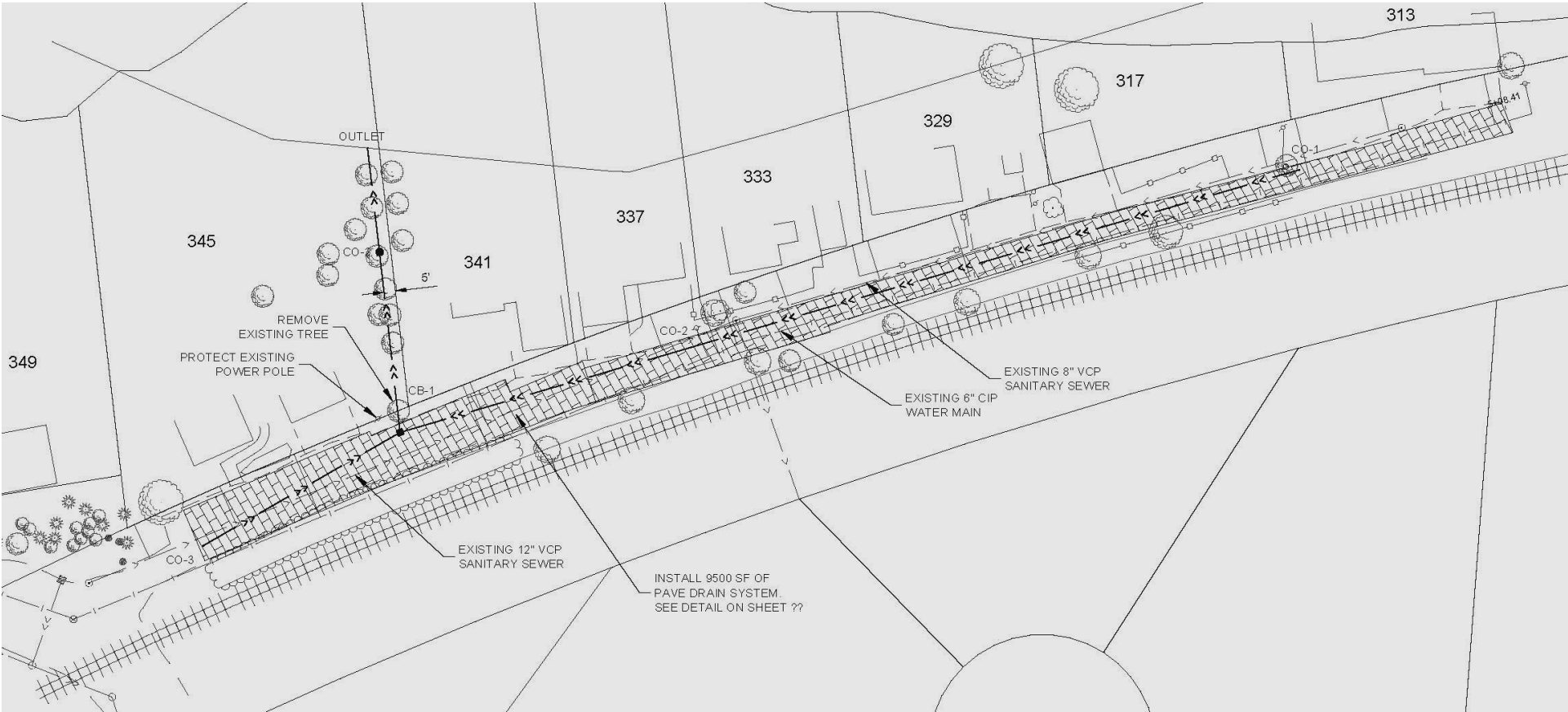
The first meeting was held at 6:00 p.m. on May 21, 2014, at Roseville City Hall, where staff presented information regarding the issues with the drainage in the area. Residents provided input regarding neighborhood concerns along the corridor.

The second meeting was on January 19, 2016, at 6:00 p.m., at Roseville City Hall, where staff showed the residents a proposed drainage improvements. At this meeting staff showed the permeable paver drain system. Contour maps and drainage plans were also shown.

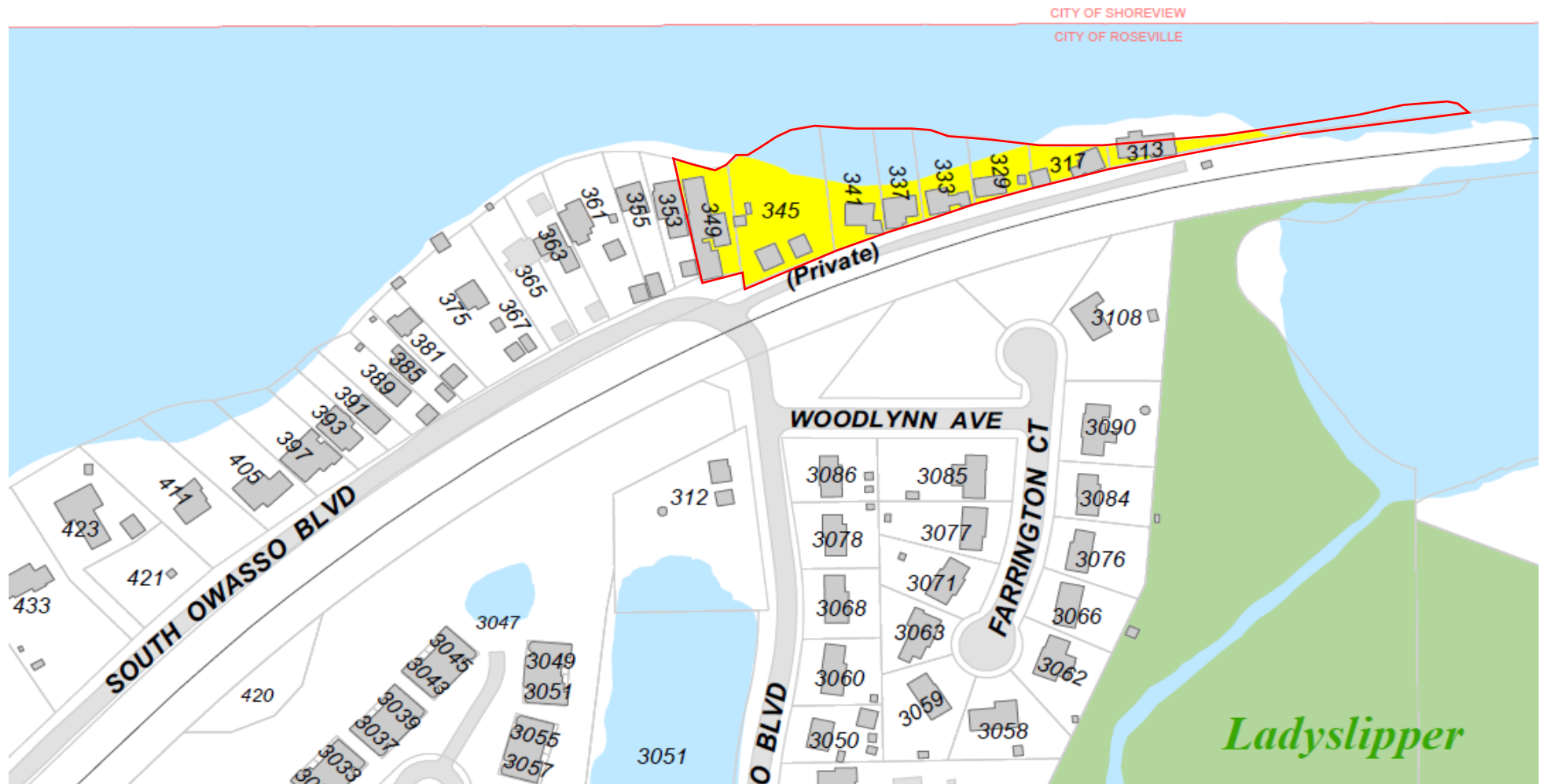
At the January 19 meeting staff also reviewed the estimated project costs and estimated assessments for the benefiting properties.

This report summarizes the design items that were discussed during the public involvement process.

Project Map



Property Map



ST-14-21 South Lake Owasso Drainage Improvement Project



Prepared by:
Engineering Department
January 14, 2018



Properties Impacted

Data Sources and Contacts:
 • Ramsey County GIS Data Map (11/01/15)
 • City of Roseville Engineering Department
 For further information regarding the contents of this map contact:
 City of Roseville, Engineering Department,
 16001 Olson Parkway North, Roseville, MN 55127

DISCLAIMER:
This map neither is a legal statement nor a warranty, and is not intended to be used as one. This map is a compilation of publicly available information and data collected in various cities, counties, states and federal offices and other information gathered from various sources, and is to be used for reference purposes only. The city does not warrant that the Geographic Information System (GIS) data is accurate, complete, or that the map is up-to-date. The city does not warrant that the map is suitable for any purpose, including any planning, management, or regulatory or enforcement or the location of any business, facilities, property, or structures, and that the map is not intended to be used for such purposes. The planning department is provided primarily for reference purposes only. The city does not warrant that the map is accurate, complete, or that the map is up-to-date. The city does not warrant that the map is suitable for any purpose, including any planning, management, or regulatory or enforcement or the location of any business, facilities, property, or structures, and that the map is not intended to be used for such purposes. The planning department is provided primarily for reference purposes only. The city does not warrant that the map is accurate, complete, or that the map is up-to-date. The city does not warrant that the map is suitable for any purpose, including any planning, management, or regulatory or enforcement or the location of any business, facilities, property, or structures, and that the map is not intended to be used for such purposes. The planning department is provided primarily for reference purposes only.

0 50 100 150 200 Feet

mapdoc: SouthLakeOwassoDrainageNotification.mxd
map: SouthLakeOwassoDrainageNotification.pdf



CONCLUSIONS & RECOMMENDATIONS

- A. All portions of the project proposed are feasible.
- B. Estimated project cost:

	Project Cost
Drainage Improvements	\$310,263
Total	\$310,263

The following is a summary of the recommendations discussed in this report.

- A. Construct the project in 2017.
- B. Construct roadway using Pave Drain system.
- C. Construct storm sewer improvements to address water quality, meet watershed requirements, and address drainage concerns along the corridor.
- D. Fund the project with storm water utility funds and assessments as detailed this report.
- E. Schedule a public hearing for the South Lake Owasso Drainage improvements project on August 8, 2016.

EXISTING CONDITIONS

General Comments

South Owasso Boulevard is a private gravel road that serves 8 properties and terminates at the farthest east property. The width of road varies. At the west end it is approximately 16 feet and get as narrow as 10 feet at the east end. The road is gravel and shows many signs of rutting and washouts. Residents have commented that water overland flows off the road and through their yards to get to the lake.

Special Considerations

A. Storm Water

The runoff from this entire area flows directly in to Lake Owasso.

B. Utilities

This is a mature neighborhood that has the majority of the utilities located on overhead power poles. A summary of the existing private utilities:

- Xcel Power: Overhead lines run along the roadway.

C. Railroad

The construction limits of this work will be within a private easement within the railroad's right-of-way.

PROPOSED CONSTRUCTION

General Comments

City staff has worked closely with the neighborhood to develop preliminary plans that meet the needs of both the neighborhood and the City at large. This is a stormwater and drainage improvement project and stormwater funds will be used to pay for a portion of the costs along with a grant from the Ramsey-Washington Metro Watershed District and the proposed assessments.

The benefit of a permeable road is that it will provide a structural surface to drive on, and also capture stormwater which will alleviate drainage issues that the adjacent private property owners have, and also improve the water quality of Lake Owasso. The permeable system captures stormwater by having open joints between the blocks that will allow water to be stored in the rock base. Once in the rock base, the underlying soils will allow for some infiltration, and the additional water will be stored before being routed into a perforated drain tile system that will carry water to the storm sewer.

This permeable system will capture a 2.5" rainfall before it is routed into the storm sewer, and it can reduce the rate at which water goes to the lake by 80% for the 100 year rainfall. Ramsey-Washington Metro Watershed District label Lake Owasso's water quality as "At Risk" for being impaired for nutrients. This project will help protect the lake by improving the quality of stormwater going to the lake by removing 2 lbs of phosphorus on an annual basis. Two pounds of phosphorus could produce up to 1,000 lbs of algae if it makes it into Lake Owasso.

The proposed improvements will fit within the existing footprint of the private road. This is necessary in order to stay within the access easement that the property owners have with the railroad.

The vertical concrete curb will only be installed on the south side of the project. The curb was requested by the residents as a means to prevent sediment from washing down the railroad embankment and onto the permeable paver surface.

Existing street grades will be altered to slope away from the properties. This will allow the water to flow away from the existing homes and then infiltrate through the permeable pavers system.

The existing manholes and other structures will be adjusted as necessary as part of this project. Two additional storm sewer structures will need to be added for the underdrain portion of the permeable paver system. The sanitary sewer mains are scheduled to be lined in 2016 before this project. Staff is not recommending replacement of the watermain due to the low historical occurrence of watermain breaks in this area. There may be some maintenance work on sanitary and water main structures such as manholes, valves and hydrants as a part of this project that will be funded by the appropriate utility fund. The sanitary sewer mains in this area have already been re-lined.

If unsuitable material is encountered beneath the existing pavement during construction, it will be removed and replaced with suitable backfill material. Any sod that is damaged as a result of the project will be replaced.

Efforts will be made to protect and retain the trees that currently exist in the corridor. When necessary, however, trees will be removed to allow for the proposed improvements. Several trees are expected to be removed as part of the storm sewer piping that will run through one property and into the lake.

Staff will work with other public and quasi-public utilities to coordinate other utility improvements with the street reconstruction project. Minor changes to the existing electric, telephone, and cable TV may be necessary for this project.

Since the improvements will provide a better driving surface, staff looked at a scenario as if the road surface were constructed to determine the costs for comparison. The estimated cost to construct a new bituminous roadway in place of the existing gravel roadway comes out to \$96,900. If this type of roadway was constructed, 100% of the costs would be assessed to the property owners because it is a private road.

Special Considerations

All items in this section of the report have been presented and discussed with the residents during the public involvement process.

A. Storm Water

The goal of the project is to collect stormwater and treat the water before it discharges into the Lake. This will be achieved by using the pervious pave drain system as well as underdrains. These infiltration trenches will capture the water, treat it, and then pipe it into the Lake. This will help to preserve future water quality in Lake Owasso.

B. Erosion Control

As part of the project plans and specifications, staff is required to prepare a storm water pollution prevention plan (SWPPP) for the purposes of enforcing erosion and sediment control rules. The SWPPP will include erosion and sediment control methods that will be implemented throughout the project. Silt fence, bio-rolls, erosion control blanket, and other best management practices will be utilized where direct runoff might occur. Inlet protection will be used to protect both the existing and new catch basins during construction. Street sweeping will occur, as needed, on all paved street surfaces throughout the project, including intersecting streets. Exposed soils and aggregate material will be watered as needed as a dust-control measure. An erosion and sediment control plan sheet and storm water pollution prevention plan will be created during the design phase of this project. Immediate turf establishment in areas of soil disturbance will be required such as placing seed and erosion control blanket. After street and utility work is completed, sod and/or hydro mulched seed will be placed as the permanent turf establishment in all disturbed areas. The City, in coordination with the watershed district, will closely monitor all erosion and sediment

control measures throughout the construction process. The selected contractor will be required to install all preventative measures and maintain them as required by the City, CRWD, MPCA, and other regulatory agencies.

C. Private Utilities

Private utility companies have been notified that this project is being considered for construction in 2016. The Xcel overhead powerlines should not be affected by this work.

D. Railroad

City Staff has already contacted the railroad and approval for this project has already been received. It should be noted that this proposed work will be in a private easement, not road right of way. This private easement is for access and is between the property owners and the railroad.

E. Permits

Permits will be required from the following agencies for the proposed project:

Agency	Required Permit
Minnesota Pollution Control Agency (MPCA)	NPDES Erosion & Storm water
Ramsey Washington Metro Watershed District (RWMWD)	Storm water

During final design for the project, City staff will coordinate with each of the agencies to ensure all requirements are met.

PROPOSED FUNDING

A. Special Assessments

State Statute 429 has two major points to consider when justifying assessments, first, the assessment has to treat similar properties equally, and second, the amount of the assessment has to be equal to or less than the resulting increase in property value. Assuming this project is completed by summer 2017, the final assessment amount would be determined following an assessment hearing in the fall of 2017 and a thorough review of the proposed assessments by the Council. The following City of Roseville assessment policies are being followed:

- For new storm sewer improvements, all properties that benefit that have not been assessed for storm water in the past, will be assessed 25% of the stormwater improvement costs.

Assessment Summary	
Estimated total project cost	\$310,263
Lots Benefitting	8
Cost per Lot	\$38,782.87
Assessment Rate	
25% of cost/lot	\$9,695.72

- Alternatively, if surface improvements to the road were to be assessed, all properties that access the private road would be assessed 100% of a private road improvement costs.

Assessment Summary

Estimated total project cost \$96,900

Assessment Rate

100% of cost/lot **\$12,112.50**

- Benefit Appraisal study was conducted to determine the potential benefit to the assessed properties within the project area. The result of the study is as follows:
 - Maximum Assessment Rate
 - 313 S Owasso Blvd W - \$10,000
 - 317 S Owasso Blvd W - \$10,000
 - 329 S Owasso Blvd W - \$10,000
 - 333 S Owasso Blvd W - \$10,000
 - 337 S Owasso Blvd W - \$10,000
 - 341 S Owasso Blvd W - \$10,000
 - 345 S Owasso Blvd W - \$10,000
 - 349 S Owasso Blvd W - \$3,333

Since the property owners would see more benefit than just the storm water improvements and would also see a new pavement benefit, staff reasons the assessment rate be more similar to the private road improvement assessment rate of \$12,112.50 per lot. Since this rate is greater than the maximum assessment rate based on the Benefit appraisal, staff recommends that the improvements be assessed at the maximum assessment rate.

B. Proposed Funding Summary

	Estimated cost	Assessments	Watershed Grant	Stormwater Fund
Stormwater Improvements	\$310,263	\$73,333	\$50,000	\$186,930

C. Schedule

If the City Council approves the project for construction the following is the recommended schedule for this project.

City Council Receives Feasibility Report and Orders the Public Improvement Hearing	July 11, 2016
Conduct Public Improvement Hearing and Order Preparation of Plans and Specifications	August 8, 2016
City Council Approves Plans and Specifications and Orders Ad for Bids	September 14, 2016
Anticipated Bid Opening	February 2017
City Council Accepts Bids and Awards the Construction Contract	March 2017
Begin Construction	Summer 2017
Complete Construction	Summer 2017
City Council Conducts the Final Assessment Hearing	Fall 2017

Preliminary Assessment Roll

Parcel ID	Site Address	Assessment	Notes
12923120040	349 South Owasso Blvd W Roseville, MN 55113	\$3,333.00	Maximum assessed rate based on benefit appraisal. This parcel does not receive the full benefits from the Stormwater improvements.
12923120006	341 South Owasso Blvd W Roseville, MN 55113	\$10,000.00	Maximum assessed rate based on benefit appraisal.
12923120005	337 South Owasso Blvd SW Roseville, MN 55113	\$10,000.00	Maximum assessed rate based on benefit appraisal.
12923120004	333 South Owasso Blvd W Roseville, MN 55113	\$10,000.00	Maximum assessed rate based on benefit appraisal.
12923120003	329 South Owasso Blvd Roseville, MN 55113	\$10,000.00	Maximum assessed rate based on benefit appraisal.
12923120002	317 South Owasso Blvd W Roseville, MN 55113	\$10,000.00	Maximum assessed rate based on benefit appraisal.
12923120007	345 South Owasso Blvd W Roseville, MN 55113	\$10,000.00	Maximum assessed rate based on benefit appraisal.
12923120001	313 South Owasso Blvd W Roseville, MN 55113	\$10,000.00	Maximum assessed rate based on benefit appraisal.