Public Works Committee

Meeting Date: 03/18/2025

Primary Strategic Plan Initiative: Not Applicable

Title:

Review Gravel Road Elimination Program Funding Options

Purpose/Background:

Purpose:

Review updated project costs for Gravel Road Elimination Program (GREP), and discuss project prioritizations and funding sources.

Background:

In 2025, the City of Ramsey will be required to regularly maintain approximately 2.2 miles of public gravel surfaced roads. Maintaining gravel roads requires the use of a road grader. In non-winter months, the grader is used to grade the surface to remove potholes and "washboards" and to restore the crown on the roads so they drain properly. During winter months the grader is primarily used to plow snow from gravel roads, though grading the surface may also be required during the winter.

A 1999 John Deere road grader is used to maintain gravel roads. This grader is not identified for replacement within the Capital Improvement Program (CIP). If this grader was ever out of service for any length of time, the city would need to rent a replacement temporarily to maintain all gravel roads.

On May 21, 2002, the Public Works Committee held one of its first in-depth discussions on costs associated with maintaining and paving gravel (called dirt at the time) roads. A copy of the meeting minutes from this Public Works Committee discussion is attached for reference.

On July 19, 2011, the Public Works Committee discussed adopting a Gravel Road Elimination Policy. However, a draft policy was never developed. Attached is a copy of this Public Works Committee case with meeting minutes.

In 2014 the City adopted a Special Assessments Policy, which included a requirement for benefiting property owners to pay 50-percent of the costs to convert a gravel road to a paved street. Attached is a copy of the adopted Special Assessments Policy.

On February 20, 2024, the Public Works Committee directed staff to obtain a geotechnical report with soil borings for all remaining regularly maintained public gravel roads, and to explore stormwater management needs as required to convert these gravel roads to bituminous pavement sections. Attached is a copy of the Geotechnical Exploration Report obtained from ITT including a summary and map of all existing gravel roads, with the exception of the 0.31-mile cul-de-sac segment of 173rd Avenue west of Nowthen Boulevard/CSAH 5 that is gravel surfaced but is proposed to be paved with the Trott Brook Crossing residential development within the next several years.

At the January 21, 2025, Public Works Committee meeting, staff reviewed updated project cost estimates to pave the six gravel road segments, which total approximately 1.9 miles in length and have a total estimated project cost of $2,250,000. Staff also provided a recommendation for gravel road segment paving priorities. Staff then requested direction from the Committee on whether a draft Gravel Road Elimination Policy should be prepared for future review by the Committee and potential City Council adoption, which would include detailed project cost estimates for each gravel road segment, a project prioritization schedule, and a recommended funding program.

The consensus of the Committee was that it appeared to be in the best interests of the city to convert gravel roads to paved streets therefore the Committee wanted to make this a priority, especially since the 1999 John Deere road grader was removed from the CIP and is no longer programmed for replacement. The Committee also requested additional details on projected transfers from the PIR fund to the general fund, noting this could be a potential source of funding. The Committee did not appear to support the use of bonds for this work. Staff was directed to present additional funding options at a future meeting.

Notification:

Notification was not required for this case.

Time Frame/Observations/Alternatives:

Timeframe:

Staff anticipates up to 20 minutes will be required to present and discuss this case and respond to questions.

Observations:

In 2004, when the Gravel Road Elimination Policy was first being discussed, Ramsey had about 12 miles of gravel surfaced roads. Roughly 10.1 miles of gravel roads have been paved since, or are proposed to be paved with private developments.

In 2024, the 0.07-mile gravel surfaced segment of Basalt Street was paved as part of Improvement Project #24-07. In addition, the 0.13-mile segment of Limonite Street that was gravel surfaced was paved as part of the Jam Hops development. For the purpose of this case, the focus is on paving the remaining 1.9 miles of gravel roads.

Until a Gravel Road Elimination Policy is adopted, Staff will continue to explore and promote the elimination of gravel roads during City improvement projects and as part of private development projects.

Alternatives:

Alternative #1:

Motion to direct staff to finalize a draft Gravel Road Elimination Policy that includes estimated project costs for all six gravel road segments, a project prioritization schedule, and a funding program as follows; _____.

Alternative #2:

Motion of other.

Funding Source:

Preliminary estimated project costs to convert the six (6) identified gravel road segments totaling 1.9 miles in length to paved streets meeting current city design standards total $2,250,000 based on the information and recommendations included within the attached Geotechnical Report dated October 7, 2024, prepared by Independent Testing Technologies (ITT). This report provides design recommendations for each gravel road segment based on the results of 24 soil borings completed on September 11th and 12th, 2024. Project cost estimates reflect minimal subgrade correction and stormwater management costs.

Copies of the preliminary cost estimates for all 6 segments are attached.

Staff previously identified the following potential funding sources for Gravel Road Elimination Program projects;

- Public Improvement Revolving (PIR) funds
- Sanitary Sewer Funds
- Water Funds
- Stormwater Funds
- Municipal State Aid (MSA)
- Bonds

- Assessments

Attached is a copy of the cash flow projections for these funds copied from the 2025 to 2034 Capital Improvement Plan. As previously discussed, of these funds only the PIR fund, bonds, and assessments are applicable. Pavement Management (PM) Funds are not an option as these funds are strictly dedicated to funding pavement overlay and street reconstruction projects and are not applicable to gravel road conversion projects.

Per the attached Special Assessments Policy, property owners could be assessed 50-percent of project costs to convert the street they directly access from gravel surfacing to bituminous pavement. However, property owners could petition against the assessments.

Since the January 20th PWC meeting, staff identified two other potential funding sources, TIF 1 and TIF 2. According to Finance Director Diana Lund, TIF 1 has a current balance of $1,052,000 but approximately $800,000 of this is dedicated to funding a 2026 Pavement Management Program project, which will leave a balance of approximately $250,000 in 2027. Similarly, TIF 2 has a current balance of $1,300,000 but approximately $680,000 of this is dedicated to funding a 2027 Pavement Management Program project, which will leave a balance of approximately $620,000 in 2027. This means approximately $870,000 could be available to fund gravel road paving projects from the TIF 1 and TIF 2 districts, of which 2 appear to apply, namely Areas E (158th Lane) and F (Beatty and Collins Drive). These projects have estimated costs of $430,000 and $280,000, respectively, totaling $710,000.

There are other potential road improvement projects within TIF 14 (COR) that could be funded partially with TIF 1 and TIF 2 funds. Ultimately, a priority list of road improvements should be set with the limited funds we have available.

Recommendation:

Staff has no recommendation at this time.

Outcome/Action:

Based on discussion.

Attachments

May 21, 2002, PWC minutes
July 19, 2011 PWC case and minutes
Estimated GREP costs
GREP Geotech Report
CIP Cash Flow Projections
Special Assessments Policy

Form Review

Inbox	Reviewed By	Date
Brian Hagen	Brian Hagen	03/13/2025 01:05 PM
Form Started By: Bruce Westby		Started On: 02/28/2025 02:11 PM
Final Approval Date: 03/13/2025		

PUBLIC WORKS COMMITTEE
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Ramsey Public Works Committee conducted a regular meeting on Tuesday, May 21, 2002, at the Ramsey Fire Station #2, 15050 Armstrong Boulevard NW, Ramsey, Minnesota.

Members Present:	Mayor Tom Gamec Councilmember Susan Anderson Councilmember Terry Hendriksen Councilmember Patti Kurak Councilmember Gerald Zimmerman
Also Present:	Fire Chief/Director of Public Works Dean Kapler Principal City Engineer Brian Olson City Engineer Steve Jankowski Street Supervisor Grant Riemer

CALL TO ORDER

Chairperson Zimmerman called the regular meeting of the Public Works Committee to order at 5:37 p.m.

CITIZEN INPUT

None.

APPROVAL OF AGENDA

Mayor Gamec requested that Case #3 be handled prior to Case #1.

Motion by Councilmember Kurak, seconded by Councilmember Hendriksen, to approve the agenda as amended.

Motion carried. Voting Yes: Mayor Gamec and Councilmembers Kurak, Hendriksen, Anderson, and Zimmerman. Voting No: None.

COMMITTEE BUSINESS

Case #3: A Discussion of Dirt versus Paved Streets

City Engineer Jankowski stated that recently, there has been interest by the Committee in reviewing the few remaining dirt streets within the City. Specifically, the Committee directed

that a comparison of the maintenance costs be provided. Two separate analysis approaches were done. Secondly, the Committee requested that a maintenance program that would provide an acceptable level of service on unpaved streets be investigated.

Cindy Blackstad, Chameleon Street NW, Ramsey, stated that she moved into her home six years ago and there has been no upgrade of their dirt road or any Class V placed on their road in that time. This year the road is in extremely bad condition making it very difficult to even drive down the road. She stated that if they want to have people over they have to plan it for a time when it is not going to be wet otherwise people cannot get to their house. She stated that she would like to see the road paved, especially after reviewing the analysis done by staff.

Councilmember Zimmerman explained that there is process where residents can petition to the City Council to have their road paved.

Mayor Gamec stated that after reviewing the analysis it is obvious that some of the dirt roads have become very costly for the City to maintain. He stated that the Council needs to determine if it would be more beneficial for the City to share the cost of paving the roads with the homeowners, which would then cut down the City's maintenance costs.

Councilmember Zimmerman replied that there has never been any maintenance on the dirt roads so it seems as if the City is punishing the people for not having paved roads.

Mayor Gamec stated that some of the dirt roads would require major work to upgrade them. The City could assess the homeowners for that work, but it would end up being an ongoing charge for those residents.

Councilmember Hendriksen stated that the analysis that was done by staff is based on the assumption that they are treating dirt roads the same as paved roads. He explained that the way the City handles paved streets is that they provide routine maintenance for which the City covers 50 percent and the benefited parties pay the other 50 percent. Contrast that to dirt streets in which the City 100 percent of the maintenance costs. That did not make sense to him. He stated that the City does routine maintenance, such as filling a pothole on paved streets, as well as on gravel streets. It doesn't make sense that they build something and expect it to last forever. Mr. Hendriksen felt that if the policy for paved streets works today then it should be applied it to gravel streets. An acceptable level of maintenance should be determined for dirt roads that would be done on a regular basis and then that cost should be assessed to the property owners, which would be consistent with the paved street policy. If those cost become too much for the property owners along the dirt roads then they always have the option to petition to have the road paved. He did not understand why dirt roads were not treated the same and why residents were so reluctant to forward a petition to the Council to have the roads paved. Mr. Hendriksen did not feel that the City should force anyone to have a paved road if they do not want it paved.

City Engineer Jankowski stated that it was suggested that a dirt street maintenance program similar to that used for paved streets be considered. The existing practice of grading dirt street periodically is not providing an acceptable level of service on these roads based on the frequent

complaints received from residents on these roads. Providing a good level of service on an unpaved road might be obtained by placing four inches of Class 5 combined with applying a dust control annually. Thereafter, a two inches of Class 5 might be required every 5 years. Below is an analysis of the cost for this for a typical one half-mile stretch of Dirt Street having 20 residences (i.e. 157th Avenue). The costs associated with this would be as follows:

1st year	1480 tons	Class 5 @ 7.50/in.	= $11,100
Each year	7040 yd²	Dust Control @0.30/yd²	= $ 2,112
Every 5 years	740 ton	Class 5 @ 7.50/in.	= $ 5,050

An annual cost of $4,446 per year or $222/unit/year would be required to address these costs for the 1st ten years. Thereafter, annual cost would be $3,546/yr or $177/yr/unit. This analysis is based on an 8% interest rate. It was noted that this would be a rather substantial cost, and does not allow for drainage connections, which are needed on several of the existing dirt streets. For example, the eastern end of 157th Avenue is lower than the existing grade so that water ponds in the roadway. To bring this roadway up to a truly acceptable standard, the same drainage connection that would be required for the street, if it were paved, should be undertaken to provide a well functioning gravel street. As a point of comparison, to pave this same roadway would require the following expenditure:

1480 tons	Class 5 @ $7.50/ton	= $11,100
850 tons	Bituminous @ $30/ton	= $25,500
		$36,600

At 8% interest, this would be $5,453 per year over 10 years or $273/year/unit. The above cost of drainage connection, however, would cost the same in either upgrading to an acceptable gravel road or a paved road.

Councilmember Kurak inquired if the estimates included the cost of staff time or would the City contract the work out.

City Engineer Jankowski replied that the costs did not include the cost to periodically grade the roads, which would be necessary.

Councilmember Kurak inquired if those costs should be in included in the analysis.

City Engineer Jankowski replied that they could include those costs, but explained that there is some routine maintenance that occurs on both paved and dirt streets.

Councilmember Kurak replied that the City does not use City equipment or City staff to do overlay or sealcoating projects on paved streets like they would to grave dirt roads, so the cost to the City would be higher on the dirt roads

Principal City Engineer Olson noted that the dirt road maintenance schedule was being presented as an alternative if the Council did not want to pursue the option of having all the roads paved.

Councilmember Hendriksen noted that the City does clean the paved streets, as well as purchase bituminous material to fill potholes, none of which is required on a dirt road. He inquired as to what the cost was to overlay a ½ mile of street.

City Engineer Jankowski replied that the cost to overlay ½ mile would be $23,232.

Councilmember Hendriksen inquired as to what it would cost to build ½ mile of street.

City Engineer Jankowski replied approximately $60,000 to $70,000.

Councilmember Hendriksen stated that essentially what they would be doing in year one under the proposed dirt road maintenance plan, is building a gravel road. For purposes of comparison to an overlay the cost to construct the gravel road was less.

Principal City Engineer Olson noted that four inches of gravel is not as strong as a bituminous road.

Councilmember Hendriksen replied that he understood that they were not the same type of road, but they both are streets and both residential streets. He stated that if the City is going to do an overlay it would be $23,000, of which they would assess back to the homeowners around $11,000 every seven years. He did not think it was unreasonable that the reconstruction of the dirt road be assessed to the property owners as well. If the City needs to do dust control then they could factor that into the overall cost. If the City decides that a road needs 14,800 tons of Class V it is a one-year event and never reoccurs, which is unlike an overlay. In the first year in building the dirt road there would be $5,050 that would be assessed to the benefited parties and the City would pay $5,050 as opposed to around $12,000. At year 5 there would be $5,000 in expense with $2,500 being assessed to benefited parties and City would pay $2,500. He inquired as to what the cost was to sealcoat a ½ mile of road.

Principal City Engineer Olson replied approximately $6,000.

Councilmember Hendriksen explained that in one scenario they have an overlay cost of $24,000 of which the City pays $12,000. In year 7 there would be a cost of $6,000 of which the City pays $3,000, in year 14 there would be an additional $6,000 with the City paying $3,000 for a total City cost on paved roads of $18,000. On a dirt road the first year would cost $11,000 with the City share being $5,550. In year 5 it would be $2,500 for the City, and another $2,500 five years later. He stated that very clearly there is a cost of $10,500 for dirt streets and $18,000 in paved street maintenance costs.

City Engineer Jankowski reviewed the City's current paved street maintenance program noting that the total cost to the City over 30 years is $20,592.

Principal City Engineer Olson noted that if the City were to do the suggested maintenance on the unpaved streets the City would not be eliminating the cost of grading the roads.

Councilmember Hendriksen inquired as to what it cost the City to sweep the roads.

Principal City Engineer Olson replied that there is no cost to sweep the unpaved roads, but the City does have to do more cleaning the ditch systems to maintain drainage in the areas of unpaved roads. The reason the paved roads are swept is to make sure that sand and slat don't get into the drainage system. He noted that both of those maintenance issues are covered by the Storm Water Utility fund, which is why those issues were not included in the report.

City Engineer Jankowski stated that a comparative analysis of the taxpayer expense associated with the maintenance costs over a thirty-year period was done. The analysis is based on a half-mile of roadway, which might be typical of 156th and 157th Avenues between Variolite and Armstrong Boulevard. Mr. Jankowski reviewed the typical maintenance requirements for each type of street noting that in actual practice it is not unusual to deviate from this typical schedule for paved road maintenance. Similarly, dirt road maintenance is closely tied to the number of rainfall events, which occur between March and November, which can also vary from year to year. The comparative financial analysis is based on two primary unit costs. The unit costs for seal coating and overlays are $0.85 per square yard, and $3.30 per square yard, respectively. These unit prices are the current costs, including both construction and project overhead, based on the City's experience with its annual street maintenance program. The dirt street maintenance is based on the current charge rate for the use of the City's grader operation at $100 per hour. The results of the analysis show that over a period of thirty years, the total number of City dollars spent on dirt street maintenance is 88 percent of that projected for paved streets. However, since there is a significant difference in the cash flow expenditure between these processes, annual versus periodic, it is useful to also compare them using a present worth analysis. Present worth represents the amount of money that would be needed at the onset of the thirty-year period to pay all expenditures with the unspent balance earning interest at a specified rate. A zero balance would remain after the 30-year period. Based on a present worth analysis, dirt street maintenance is between 112% to 115% as costly as paved street maintenance, using 6% and 8% interest rates respectively. It was pointed out that the idealized schedule provided for bituminous street maintenance has not always been realized because of budget limitations and pavement ratings. A second method of comparing the relative costs of the two types of street maintenance, which would more accurately reflect the actual costs experienced in the past, could be based on analysis of benefit the City contributes per unit on an annual basis. Mr. Jankowski reviewed the unit benefit analysis for both dirt and paved streets noting that the analysis shows that over the last nine year period the contribution of the City on a per unit basis for dirt streets has been 178% of that for paved streets. In the future this unit benefit for dirt streets would be expected to remain constant (excluding inflation). The future trend for paved streets is somewhat more difficult to predict. On one hand, the increasing number of overlays will cause this unit benefit to increase. Conversely, the increasing percentage of smaller sized lots, which consequently require smaller amounts of pavement per unit, will tend to lower the benefit.

Councilmember Hendriksen inquired as to how much of the cost for grading is actual grading time and how much is transport time.

Street Supervisor Riemer replied that 40 percent of the cost is grading and 60 percent is travel.

City Engineer Jankowski reviewed the location of the remaining gravel roads.

Councilmember Anderson inquired if there has been any concerns from the Police or Fire Departments regarding the difficulty on accessing some of the dirt roads.

Mayor Gamec replied that he thinks it is a real concern because in Ms. Blackstad's neighborhood people have to drive in other people's yards to get through.

Councilmember Zimmerman replied that the problem is that the Council has not instructed Public Works staff to do the necessary maintenance.

Councilmember Hendriksen stated that in the best case scenario the paved road costs more to maintain, ignoring the initial cost to build it and the reoccurring overlay costs. So the best case scenario is that it is cheaper for the City to have the dirt roads, which has to be a reality because in the country the County is not out there paving roads to save costs. Obviously the cost to build and maintain a dirt road is less.

Councilmember Anderson replied that if cost the City $22,500 to maintain the dirt roads and $20,592 for the paved roads, the maintenance cost is less on the paved roads.

City Engineer Jankowski noted that the paved street costs do not include the initial construction costs because but it is paid by the developer or the people who live on the street.

Councilmember Hendriksen stated that he did not think that the analysis was a true representation of the actual costs. He stated that he would have a difficult time believing the assumptions without further analysis. He noted that currently the City does not allow any dirt roads to be built in the City so the dirt roads they are talking about are existing streets so there would be no developers to cover the cost to pave the roads so the City would have to incur the cost or the property owners.

Principal City Engineer Olson replied that staff was not making any recommendation as to whether they should require people to pave their streets. He explained that there had been a lot of comments that the people who live on dirt roads subsidize paved streets and both analysis presented show that that is not the case.

Councilmember Hendriksen stated that the total cost of maintaining paved streets is greater then maintaining gravel streets.

Principal City Engineer Olson replied that he did not agree.

Councilmember Hendriksen stated that the total cost of maintaining paved streets is $30.52 x 2 which is $61.04 per unit, of that $30.52 comes from the City and $30.52 goes to the homeowner. In the dirt road scenario it is $51.72. So in reality it is cheaper to maintain the dirt road, but the

problem is that the City bears the entire cost rather than assessing it. Hen explained that if he lived on a dirt street and did not have to pay for the maintenance it would be an incentive to stay on a dirt road, but if the City were to treat the people on dirt streets the same and assess half the cost on a fair basis they may choose to live on a paved street. He stated that the reason for resistance to paved streets probably has to do with the fact that the City is not assessing for the maintenance on the dirt roads, which the City is doing little maintenance on.

Principal City Engineer Olson explained that the dirt street maintenance program was a proposal and has not been followed to date. He noted that if the City were to assess the costs under the proposed maintenance program the assessment amount would be higher for the people along the dirt roads then it is on a paved road.

Councilmember Hendriksen stated that he was not disputing that the incremental cost to go to a bituminous street from nothing it makes sense. In the ½ mile example if they are going to have a tar street there will be a $60,000 to $70,000 expense in year one and the question is will the City pay for that cost or assess the entire amount to the benefited homeowners.

Principal City Engineer Olson replied that the current policy is to assess 100 percent of the cost to the benefited homeowners. He stated that staff would like to see the roads paved and what they are trying to identify is that the maintenance costs are similar. What staff would like to see is some sort of incentive program for the residents on dirt streets to pave their roads, noting that there are only five miles of dirt roads remaining in the City. Staff recommended that the City pay 50 percent of the cost to pave the roads, similar to seal coating and overlays, as a one time incentive, but not make it a requirement.

Councilmember Anderson stated that it appeared that a majority if the dirt roads have to be rebuilt and questioned if a road is under water who is responsible for rebuilding the road.

Mayor Gamec stated that his preference was to offer a one-time incentive to get the roads paved and cut down on maintenance costs. After that any roads remaining than would have to be assessed for the maintenance. One concern with dirt roads is that it washes away and then there is culvert cleaning that is required. He stated that he would like to see the cost of each project come back before the Public Works Committee for consideration.

City Engineer Jankowski noted that in 1994 a rough cost analysis was done for paving the remaining dirt roads.

Councilmember Kurak stated that she agreed with offering the one time incentive concept and the assessment of upkeep if they choose not to pave their roads, except in situations where safety might be a concern. She stated that if there are safety concerns with the road she did not think the option should be given to the homeowners.

Principal City Engineer Olson replied that the City cannot force people to pave their road if they don't want to.

Councilmember Kurak inquired even in cases where health, safety and welfare are at risk.

Councilmember Zimmerman replied that if the roads are that bad then the City has not done their job.

Principal City Engineer Olson noted that if the City wants to pave the entire street without assessing the homeowners they can do that.

Councilmember Hendriksen stated that if the dirt roads are not functioning then they need to prepare the feasibility study to bring it up to acceptable standards and they might discover that the incremental cost to bring the road up to those standards in comparison to a paved street is not significant. He requested that an analysis be done as to whether a road might need a major rebuild or a minor upgrade and then proceed with feasibility studies. He stated that when the homeowner finds out the difference is not significant they may choose to pave the streets. Not disputing that there is a problem with the dirt roads, but they are not handling the situation appropriately. He noted that he did not think that the City should be offering to build roads at the public expense.

Principal City Engineer Olson inquired if Mr. Hendriksen felt it was reasonable to assess 50 percent to pave the street and the City pay the other 50 percent since it is an existing street.

Councilmember Hendriksen replied that he did not see why they should not be treated the same as people who live on paved roads.

Motion by Mayor Gamec, seconded by Councilmember Hendriksen, to recommend that the City Council direct the Engineering Department to prepare feasibility studies to rebuild the dirt roads with Class V and address drainage issues including a separate cost for black top for Council review.

Further discussion: Councilmember Zimmerman noted that the complaint in his area is that their dirt road serves as a through street and not a lot of money has been spent in the area. Councilmember Hendriksen stated that when they assess a paved street they take into the consideration if it is an MSA street. If any of the streets are performing the function of a collector street they need to look at that aspect and be able to support or oppose that claim. City Engineer Jankowski replied that they will address those issues in the feasibility study. Councilmember Zimmerman inquired if the motion indicated that the City would cover any of the costs. Mayor Gamec replied that the feasibility studies would have to be reviewed by the Council before any decision would be made.

Motion carried. Voting Yes: Mayor Gamec and Councilmembers Hendriksen, Anderson, and Kurak. Voting No: None.

Case #1: Update to Highlands at River Park

Public Works Committee **5. 4.**

Meeting Date: 07/19/2011

By: Grant Riemer, Engineering/Public Works

Title:

Review Dirt Road Elimination Policy

Background:

In 2004, when the program was first talked about, we had 12 miles of road with dirt /gravel surface. The 2010-2011 construction seasons will include the paving 1.52 miles of roadway in our system. Paving/improvement projects completed in 2010 included Ute St., 151st Ave, 152nd Ave, Fluorine St. and will finish up this year with the paving of Puma St and Chameleon St. With the completion of these projects we will have approximately 2.64 miles of dirt/gravel roads left in our system.

Notification:

Observations:

Of the remaining segments some may never be petitioned for improvement. Traprock St, south of Hwy 10 will be addressed when the Anoka County develops the park. 173rd Ave currently has 3 residents, so assessment costs even at 50% share with the city would be prohibitive. Potassium St, north of County Rd 5 was scheduled to paved with redevelopment in that area. There are two small segments in our industrial parks, Basalt St and Limonite St which will be paved when development in those areas increases. This group of road segments total 1.04 miles.

Of the remaining segments Carolina Acres and Itasca Heights are the most maintenance prone. Improvements to these developments would provide the most payback, if the city were to contribute 50% of the improvement cost. Drainage is poor in both areas and requests for grading are increased because of that factor. Carolina Acres is on the far north end of the city and requires almost 20 minutes travel time just to get to the site. Itasca Heights is south of Hwy 10 near the weigh station and would need considerable drainage work. The Itasca Heights location near the Mississippi river would add challenges and cost for storm water design. Of the remaining roads Garnet St, north of CR 27, would be next in line, because of the travel time involved. Summer grading is not the only cost associated with these dirt roads. Early winter and late spring snowfalls require the motor grader to plow these areas because of soft road conditions. A complete "round" of grading or snowplowing, including travel time, is 3 1/2 hours. The cost associated with grading our dirt roads just, using fuel and labor costs at today's prices, runs about $170.00 every time we grade. Staff also receives several calls per year for dust control or to add gravel to the road surface.

During the joint City Council meeting with the City of Nowthen there was discussion about the sharing or swapping of services with them. Staff will continue to look for opportunities when they present themselves.

Funding Source:

General Fund -Street maintenance contracted services 0311

Staff Recommendation:

Continue to eliminate dirt roads when development opportunities present themselves and resourses are available to help residents with assesments.

Committee Action:

Based on discussion

Form Review

City Administrator Ulrich added for the transition policy is to stop the service first and tell people they are responsible for shoveling their sidewalk if they want to but we will not enforce it. Stopping that service will create some neighborhood pure pressure to shovel those walks, then phase in heavy handed implementation and maybe two to three years down the line see how it works.

Consensus of the Committee is for townhome developments to maintain their own sidewalks.

Case #5.3: RFP for Parking Ramp and Parking Lot Snow Removal at the Municipal Center

Street Supervisor Remer is asking for going out for RFP's for snow removal of the parking ramp and the three parking lots at the municipal center. City maintenance staff would still do the sidewalks around the municipal center.

Street Supervisor Riemer also wanted the Committee to know that as part of the contract the parking ramp would need to be done by 5am for the bus service.

Motion by Councilmember Elvig, second by Chairperson McGlone to recommend RFP for contracted snow removal services for municipal parking ramp and parking lot at the municipal center.

Motion carried. Voting Yes: Chairperson McGlone and Councilmembers Backous and Elvig. Voting No: None.

Case #5.4: Review Dirt Road Elimination Policy

Public Works Street Supervisor Riemer reviewed the staff report and stated that we are down to about 1.5 miles of dirt road. Of the two that require the most maintenance is Xenolith Street on the north end of town and Beatty Avenue on the south end of town, both have bad drainage and gets numerous request for grading and maintenance in these areas. He stated if we were to continue with the policy these would be the two areas he would like to see concentrated on if possible. He also explained it takes about 3.5 hours to do all the dirt roads in our system. Staff is asking for prioritizing the streets if we were to continue with this program

Councilmember Elvig wants clarification that the policy is if they want to petition the City would put 50% in to create incentive and asked if any of these people have come forward.

Councilmember McGlone stated asked if we were going to go ahead and initiate a road project are these already listed in our CIP. If we are talking policy perhaps as part of our policy is to add these to our CIP and may have a different funding in the future.

Councilmember Backous asked does that require a letter to those residents,

Street Supervisor Riemer stated that staff just wanted to make the Committee aware that those roads are out there and is asking if there is any priority.

City Administrator Ulrich summarized from the discussion that the letter referred to would just be a reminder to those residents that the City does have a dirt road policy and we will pay half, this is the existing policy, if there is any urgency or incentive to that then a petition would need to be brought forward.

Chairperson McGlone would like to see these projects put on the CIP.

Street Supervisor Reimer stated right now it is coming out of the street overlay and sealcoat projects.

Public Works Director Olson stated there is so much to discuss in regards to the street reconstruction issue that is whether we contribute anything, whether still require assessments or a portion of, whether we pick up the first paving. If we do that we have to think about other things. He does feel that it would be a good idea to notify people that we are coming to a close on our gravel and dirt roads and this program is currently out there.

Staff is asking to eliminate dirt roads when development opportunities present itself.

Consensus of Committee is to continue in this direction.

Case #5.5: Update on Anoka County Access Spacing Guidelines that Determine Locations for Hard Channelization

Public Works Director Olson reviewed the staff report and opened it up for discussion.

Chairperson McGlone asked if we are currently working with Anoka and other communities to address these things with the County.

Public Works Director Olson responded not over our change spacing guidelines. The last time this was discussed staff was asked to look into two specific areas. One was Bunker Lake Boulevard and Highway 47 and as a result of the joint meeting with the City of Anoka, they agreed to take the lead on this. The other area was Sunfish Lake Boulevard near Highway 10. Staff has met with the property owners and we agreed to contribute to the cost, because there was uncertainty to what the solution was, there was uncertainty that we could contribute to a certain amount. This prompted the property owners to go to Anoka County and the County Engineers have agreed to send a memo defining their stands on the project and staff is still waiting for that memo.

COMMITTEE INPUT

Public Works Director Olson gave an update on the following projects:

Updates on Street Maintenance Program is on tonight's Special City Council Meeting.
Update on Bunker Lake Blvd and 83 signalization continues and they are running sewer on the west side of Armstrong Boulevard.

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area A

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 23,400.00	$ 23,400.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	11	$ 250.00	$ 2,750.00	
3	2104.502	CLEARING	EA	35	$ 400.00	$ 14,000.00	
4	2104.502	GRUBBING	EA	35	$ 400.00	$ 14,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	66.00	$ 5.00	$ 330.00	
6	2105.607	COMMON EXCAVATION	CY	2,343.44	$ 35.00	$ 82,020.56	9.1" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	23.58	$ 500.00	$ 11,790.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	1,669.33	$ 50.00	$ 83,466.67	EV to CV conv. factor = 1.25. 8" under pavement, 6" under driveways.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	440.16	$ 5.00	$ 2,200.80	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	710.54	$ 95.00	$ 67,501.68	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	532.91	$ 100.00	$ 53,290.80	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	908.27	$ 50.00	$ 45,413.33	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	1.30	$ 35,000.00	$ 45,471.07	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 445,634.91*	
					5-Percent Contingency Cost	*$ 22,281.75*	
					14-Percent Indirect Cost	*$ 65,508.33*	
					Estimated Project Cost	**$ 533,424.99**	**> Use $540,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area B

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 5,900.00	$ 5,900.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	4	$ 250.00	$ 1,000.00	
3	2104.502	CLEARING	EA	25	$ 400.00	$ 10,000.00	
4	2104.502	GRUBBING	EA	25	$ 400.00	$ 10,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	66.00	$ 5.00	$ 330.00	
6	2105.607	COMMON EXCAVATION	CY	504.86	$ 35.00	$ 17,670.25	5.25" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	5.08	$ 500.00	$ 2,540.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	365.43	$ 50.00	$ 18,271.60	EV to CV conv. factor = 1.25. 8" under pavement, 6" under driveways.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	94.83	$ 5.00	$ 474.13	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	153.08	$ 95.00	$ 14,542.35	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	114.81	$ 100.00	$ 11,480.80	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	195.67	$ 50.00	$ 9,783.70	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	0.28	$ 35,000.00	$ 9,796.14	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 111,788.98*	
					5-Percent Contingency Cost	*$ 5,589.45*	
					14-Percent Indirect Cost	*$ 16,432.98*	
					Estimated Project Cost	**$ 133,811.41**	**> Use $140,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area C

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 23,700.00	$ 23,700.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	20	$ 250.00	$ 5,000.00	
3	2104.502	CLEARING	EA	10	$ 400.00	$ 4,000.00	
4	2104.502	GRUBBING	EA	10	$ 400.00	$ 4,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	132.00	$ 5.00	$ 660.00	
6	2105.607	COMMON EXCAVATION	CY	2,224.06	$ 35.00	$ 77,841.94	4.4" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	27.09	$ 500.00	$ 13,545.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	1,475.78	$ 50.00	$ 73,788.89	EV to CV conv. factor = 1.25. 6" under pavement and driveways
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	505.68	$ 5.00	$ 2,528.40	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	816.31	$ 95.00	$ 77,549.64	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	612.23	$ 100.00	$ 61,223.40	
12	2504.602	ADJUST VALVE BOX	EA	6.00	$ 350.00	$ 2,100.00	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	1,043.47	$ 50.00	$ 52,173.33	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	1.49	$ 35,000.00	$ 52,239.67	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 450,350.28*	
					5-Percent Contingency Cost	*$ 22,517.51*	
					14-Percent Indirect Cost	*$ 66,201.49*	
					Estimated Project Cost	**$ 539,069.28**	**> Use $540,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area D

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 13,700.00	$ 13,700.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	6	$ 250.00	$ 1,500.00	
3	2104.502	CLEARING	EA	20	$ 400.00	$ 8,000.00	
4	2104.502	GRUBBING	EA	20	$ 400.00	$ 8,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	66.00	$ 5.00	$ 330.00	
6	2105.607	COMMON EXCAVATION	CY	1,244.62	$ 35.00	$ 43,561.60	12.67" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	15.16	$ 500.00	$ 7,580.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	807.41	$ 50.00	$ 40,370.37	EV to CV conv. factor = 1.25. 6" under pavement and driveways.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	282.99	$ 5.00	$ 1,414.93	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	456.82	$ 95.00	$ 43,398.03	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	342.62	$ 100.00	$ 34,261.60	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	583.94	$ 50.00	$ 29,197.04	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	0.84	$ 35,000.00	$ 29,234.16	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 260,547.73*	
					5-Percent Contingency Cost	*$ 13,027.39*	
					14-Percent Indirect Cost	*$ 38,300.52*	
					Estimated Project Cost	**$ 311,875.64**	**> Use $320,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area E

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 18,500.00	$ 18,500.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	13	$ 250.00	$ 3,250.00	
3	2104.502	CLEARING	EA	60	$ 400.00	$ 24,000.00	
4	2104.502	GRUBBING	EA	60	$ 400.00	$ 24,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	66.00	$ 5.00	$ 330.00	
6	2105.607	COMMON EXCAVATION	CY	1,695.94	$ 35.00	$ 59,358.06	5.33" average aggregate depth per soil borings. Includes 625' additional 6" excavation west end.
7	2112.519	SUBGRADE PREPARATION	RDST	16.71	$ 500.00	$ 8,355.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	1,236.74	$ 50.00	$ 61,837.04	EV to CV conv. factor = 1.25. 6" under pavement and driveways. Includes 625' additional 6" aggr base west end.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	311.92	$ 5.00	$ 1,559.60	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	503.53	$ 95.00	$ 47,835.16	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	377.65	$ 100.00	$ 37,764.60	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	643.64	$ 50.00	$ 32,182.22	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	0.92	$ 35,000.00	$ 32,223.14	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 351,194.82*	
					5-Percent Contingency Cost	*$ 17,559.74*	
					14-Percent Indirect Cost	*$ 51,625.64*	
					Estimated Project Cost	**$ 420,380.19**	**> Use $430,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area F

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 19,300.00	$ 19,300.00	8-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	17	$ 250.00	$ 4,250.00	
3	2104.502	CLEARING	EA	10	$ 400.00	$ 4,000.00	
4	2104.502	GRUBBING	EA	10	$ 400.00	$ 4,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	70.00	$ 5.00	$ 350.00	
6	2105.607	COMMON EXCAVATION	CY	1,056.61	$ 35.00	$ 36,981.39	6.875" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	12.87	$ 500.00	$ 6,435.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	727.78	$ 50.00	$ 36,388.89	EV to CV conv. factor = 1.25. 6" under pavement and driveways.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	240.24	$ 5.00	$ 1,201.20	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	387.82	$ 95.00	$ 36,842.52	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	290.86	$ 100.00	$ 29,086.20	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	495.73	$ 50.00	$ 24,786.67	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	0.71	$ 35,000.00	$ 24,818.18	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 228,440.05*	
					5-Percent Contingency Cost	*$ 11,422.00*	
					14-Percent Indirect Cost	*$ 33,580.69*	
					Estimated Project Cost	**$ 273,442.74**	**> Use $280,000**

INDEPENDENT TESTING TECHNOLOGIES
337 31st Avenue South • Waite Park, MN 56387 • (320) 253-4338 • www.independenttestingtech.com

OCTOBER 7, 2024

PROJECT 24-327
REPORT OF GEOTECHNICAL EXPLORATION

For

CITY PROJECT #25-07
VARIOUS GRAVEL ROADS
RAMSEY, MINNESOTA

Prepared For:

CITY OF RAMSEY

INDEPENDENT TESTING TECHNOLOGIES
337 31st Avenue South • Waite Park, MN 56387 • (320) 253-4338 • www.independenttestingtech.com

October 7, 2024

Mr. Joe Feriancek
City of Ramsey
7550 Sunwood Drive NW
Ramsey, MN 55303

RE: 24-327 Report of Geotechnical Exploration
City Project #25-07
Various Gravel Roads
Ramsey, Minnesota

Dear Mr. Feriancek:

Independent Testing Technologies, Inc. is pleased to submit the results of our subsurface investigation program for this project in Ramsey, Minnesota. This report represents our work on this project as authorized by you. It includes our recommendations regarding earthwork, fill and compaction, subgrade preparation, and pavement design. An electronic copy is enclosed.

The soils encountered were mostly fine grained sandy fill (SM, SP-SM) over native, sandy (SP, SP-SM) outwash soils. Some of the fill near the surface was dark but is not believed to be overly organic. Organic silt (OL) and peat (PT) was encountered in borings SB-1 through SB-3 on Xenolith Street to depths of 7.5 to 10.0 feet. No peat (PT) or other highly organic soils were encountered in any of the other borings. Some fine silty clayey sands (SC-SM) and clayey sand (SC) were encountered in borings SB-5and SB-6 on Carolyn Lane NW and in boring SB-9 in Garnet Street NW. Groundwater was observed in some of the borings at varying depths.

Mr. Feriancek, it has been our pleasure to work with you on this project. Independent Testing appreciated the opportunity to perform this geotechnical evaluation and look forward to continuing our participation during the construction phase of this project. Please contact Patrick Johnson if you have any questions regarding this report. Please contact Tyler Burkes if you would like a proposal for the materials testing services that will be needed.

Sincerely,

Patrick A. Johnson, P.E.
Minnesota License #22037

Kevin T. Reller
President

CERTIFICATION

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

Patrick A. Johnson

Date: October 7, 2024 License No.: 22037

TABLE OF CONTENTS

GEOTECHNICAL EXPLORATION
CITY OF RAMSEY
IMPROVEMENTS PROJECT 25-07
VARIOUS GRAVEL ROADS
RAMSEY, MINNESOTA
ITT PROJECT 24-327

A. Introduction

This report is being prepared for use by our client on this specific project. We intend to present this report and our findings in the same logical manner that led us to arrive at our recommendations. This report is based on some general assumptions regarding the anticipated construction based on experience with similar projects. These assumptions and the entire report should be reviewed immediately upon receipt.

Purpose:

The purpose of our investigation was to evaluate the existing soil and water conditions on numerous gravel roads throughout the City of Ramsey for the purpose of paving the existing roadways. The project has six different areas of roadways. Area A on the north side of the city includes Xenolith Street NW and Carolyn Lane NW. Area B on the north side of the city includes Garnet Street NW. Area C near the center of the city includes 157th Avenue NW. Area D on the east side of the city includes Potassium Street NW. Area E on the east side of the city includes 148th Lane NW. Area F on the southwest side of the city includes Beatty Avenue NW And Collins Drive NW. In accordance with your written authorization, we have conducted a subsurface exploration program for the proposed project.

Scope of Services:

Our authorized scope of services included the following:

1. To investigate the subsurface soil and water conditions encountered at twenty-four (24) split-spoon soil boring locations. The borings were planned in the roadway surface to depths of ten (10) feet at each location.
2. To provide a report of our findings including a summary of our findings with aggregate thickness at each boring location as well as recommendations regarding earthwork, fill and compaction, subgrade preparation, and pavement design with an estimated design R-value.

General Site Conditions:

The projects are located throughout the city of Ramsey. All the streets are in older residential areas. The sites are all relatively flat and level, with slopes of 2-6 percent.

Available Subsurface Information:

According to the Geologic Map of Minnesota, Quaternary Geology, prepared by Howard C. Hobbs and Joseph E. Goebel (1982, Minnesota Geological Survey), most of the sites lie within an outwash unit not associated with a particular moraine. It is associated with the Des Moines glaciation of Pleistocene, Late Wisconsinan age. The drift is derived from parent material in North Dakota and Manitoba. The northernmost site lies within an end moraine of the Pine City Moraine Association. This is also associated with the Des Moines Lobe glaciation. The grey, calcareous drift is derived from parent material from Manitoba and eastern North Dakota.

According to the Soil Survey of Anoka County prepared by the Soil Conservation Service, most of the sites lie within the Hubbard- Nymore Soil Associations. These consist of nearly level to gently sloping, excessively drained soils that are sandy throughout. The individual soils mapped on these sites are sandy and have few limitations for development of local roads and streets. However, the middle portion of Potassium Street in Area D is mapped as mucky peat with severe limitations for local street construction.

The northernmost site lies within the Heyder- Kingsley- Hayden Soil Association, which consist of gently undulating to steep, well drained soils formed in loamy glacial till. They are generally fairly well suited for construction of local streets. However, the north half of Xenolith Street NW is mapped as mucky peat with severe limitations for local street construction.

B. Exploration Program

Twenty- four (24) split-spoon soil borings were conducted on this project. The borings were advanced to depths of 10 feet using a 3 ¼ inch I.D. hollow stem auger. Samples were obtained every 2 ½ feet using a 2-inch O.D. split-spoon sampler in accordance with the American Society for Testing and Materials (ASTM D1586). Standard penetration values (N-values) were obtained at each sample interval by driving the sampler into the soil using a 140-pound hammer falling 30 inches. After an

initial set of 6 inches, the number of blows required to drive the sampler 12 inches is known as the standard penetration resistance or N-value. Where the sampler cannot be driven at least 6 inches by 50 blows of the hammer, the total number of blows as well as the distance driven is reported on the boring logs.

Groundwater levels were noted during drilling and immediately after completion. The holes were backfilled with the auger cuttings. Some settlement of the bore holes may be expected. All the borings were conducted with a truck mounted rig.

Exploration Results:

All of the borings were conducted in existing gravel surfaced streets and encountered 5 to 12 inches of aggregate at the surface. The following table shows the depth of aggregate at each boring:

Boring	Street	Aggregate	Boring	Street	Aggregate
Area A			SB-13	157th Avenue	5.0 inches
SB-1	Xenolith Street	7.0 inches	SB-14	157th Avenue	3.0 inches
SB-2	Xenolith Street	12.0 inches	Area D		
SB-3	Xenolith Street	16.0 inches	SB-15	Potassium Street	12.0 inches
SB-4	Xenolith Street	11.0 inches	SB-16	Potassium Street	20.0 inches
SB-5	Xenolith Street	6.0 inches	SB-17	Potassium Street	6.0 inches
SB-6	Carolyn Lane	4.5 inches	Area E		
SB-7	Carolyn Lane	7.0 inches	SB-18	148th Lane	5.0 inches
Area B			SB-19	148th Lane	5.0 inches
SB-8	Garnet Street	4.5 inches	SB-20	148th Lane	6.0 inches
SB-9	Garnet Street	6.0 inches	Area F		
Area C			SB-21	Beatty Avenue	6.0 inches
SB-10	157th Avenue	7.0 inches	SB-22	Collins Drive	7.0 inches
SB-11	157th Avenue	4.0 inches	SB-23	Collins Drive	5.5 inches
SB-12	157th Avenue	3.0 inches	SB-24	Collins Drive	9.0 inches

Below the aggregate, boring SB-1 encountered fine grained, poorly graded sand with silt (SP-SM) fill to 5.0 feet, followed by organic silt (OL) to 7.5 feet, native, fine grained, clayey sand (SC) to 10.0 feet and then silty clayey sand (SC-SM) to termination at 11.5 feet. Below the aggregate, boring SB-2 encountered fine grained, poorly graded sand (SP) fill to 5.0 feet, followed by peat (PT) to 10.0 feet, and then native, clayey sand (SC) to termination at 11.5 feet. Below the aggregate, boring SB-3 encountered fine grained, poorly graded sand (SP) fill to 5.0 feet, followed by organic silt (OL) to 7.5 feet, native, clayey sand (SC) to 10.0 feet and then silty clayey sand (SC-SM) to termination at 11.5 feet.

Below the aggregate, boring SB-4 encountered fine grained, silty sand (SM) to 10.0 feet, followed by clayey sand (SC) to termination at 11.5 feet. Below the aggregate, boring SB-5 encountered fine grained, poorly graded sand with silt (SP-SM) to 5.0 feet, followed by silty clayey sand (SC-SM) to 7.5 feet, silty sand (SM) to 10.0 feet and then clayey sand (SC) to termination at 11.5 feet. Below the aggregate, boring SB-6 encountered fine grained, poorly graded sand with silt (SP-SM) to 5.0 feet, followed by clayey sand (SC) to 9.5 feet and then poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, boring SB-7 encountered fine grained, silty sand (SM) to 4.0 feet, followed by poorly graded sand (SP) to termination at 11.5 feet.

Below the aggregate, boring SB-8 encountered fine grained, silty sand (SM) to 10.0 feet, followed by poorly graded sand with silt (SP-SM) to termination at 11.5 feet. Below the aggregate, boring SB-9 encountered fine grained, silty clayey sand (SC-SM) to termination at 11.5 feet.

Below the aggregate, boring SB-10 encountered fine grained, poorly graded sand (SP) fill to 4.0 feet, followed by native, poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, borings SB-11, SB-12, SB-13, and SB-14 all encountered native, fine grained, poorly graded sand (SP) to termination at 11.5 feet.

Below the aggregate, borings SB-15, SB-16 and SB-17 all encountered fine grained, poorly graded sand (SP) to termination at 11.5 feet.

Below the aggregate, borings SB-18 and SB-19 both encountered native, poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, boring SB-20 encountered fine grained, poorly graded sand with silt (SP-SM) fill to 4.0 feet, followed by native, silty sand (SM) to 7.0 feet and then poorly graded sand (SP) to termination at 11.5 feet.

Below the aggregate, boring SB-21 encountered native, poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, boring SB-22 encountered fine grained, silty sand (SM) fill to 4.0 feet, followed by native, poorly graded sand (SP) to 10.0 feet and then fine silty sand (SM) to termination at 11.5 feet. Below the aggregate, boring SB-23 encountered native, poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, boring SB-24 encountered fine grained, poorly graded sand (SP) fill to 5.0 feet, followed by native, poorly graded sand with silt (SP-SM) to 9.0 feet and then poorly graded sand (SP) to termination at 11.5 feet.

Penetration Test Results:

The blow counts in the sandy soils (SM, SP-SM, SM, SC-SM, SC) ranged from 0 to 25, which are very low to moderate, indicating they are in a very loose to medium dense condition. The blow counts in the organic silt (OL) and peat (PT) on Xenolith Street ranged from 1 to 3, which are very low, indicating they are in a very soft condition. Refusal of the spoon or auger did not occur in any of the borings. Drilling was relatively easy.

Water Level Observations:

Observations of the subsurface water conditions were made during drilling operations. Groundwater was encountered in a few of the borings at the time of drilling. Groundwater was only encountered in three of the borings at the time of drilling. The following table shows the depth to water at each boring:

Boring	Water	Boring	Water	Boring	Water	Boring	Water
SB-1	None	SB-7	11’ 0”	SB-13	None	SB-19	9’ 0”
SB-2	None	SB-8	None	SB-14	None	SB-20	9’ 0”

SB-3	None	SB-9	None	SB-15	10’ 0”	SB-21	None
SB-4	None	SB-10	None	SB-16	4’ 0”	SB-22	None
SB-5	None	SB-11	None	SB-17	None	SB-23	None
SB-6	11’ 0”	SB-12	None	SB-18	None	SB-24	None

The water levels were observed over a short period of time. However, we feel they are an accurate representation of the true groundwater conditions on most of the sites due to the high permeability of the native sandy soils. However, in area A, the organic soils (OL, PT) and fine clayey sands (SC, SC-SM) likely did not allow the water to infiltrate into the holes. The water levels in that site are likely to match the level of the adjacent wetlands along the street.

It should be noted that fluctuations in the level of the groundwater can occur due to variations in rainfall, temperature, spring thaw and other factors not evident at the time of our investigation.

Mottled soils were observed. Mottled native soils are a historical indication of a temporarily or seasonally saturated soil condition. Grey soils were also observed. Grey native soils are an indication of a permanently saturated soil condition.

Laboratory Testing

Moisture Content Tests- Moisture content tests were performed on every split spoon sample in accordance with ASTM method D2216; *Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass*. Individual test results are shown on the boring logs adjacent to the sample that was tested.

Organic Content Tests- Organic content tests were performed on selected split spoon samples in accordance with ASTM method D2974; *Standard Test Method for Moisture, Ash and Organic matter of Peat and Other Organic of Soils*. Individual test results are shown on the boring logs adjacent to the sample that was tested.

C. Engineering Review

Discussion:

We understand the streets will be paved with a bituminous surface. We assume there will be little line or grade adjustments to the streets. We assume there will only be slight grading of the existing aggregate, and adding some aggregate needed to prepare the surface for paving.

The peat (PT) and organic silt (OL) encountered on Xenolith Street NW in Area A are not suitable for pavement subgrade and pavement support. They are very susceptible to settlement and movement. To reduce the amount of settlement and differential movement, we recommend using a geogrid under the aggregate to provide additional support for the pavement.

Based on our observation, it appears the roadway embankment through the wetland area on Xenolith Street NW was stable. Unless there is going to be a change in grade of more than 1 foot during construction, or if it is known that there is some issue in the embankment in this area, it is our opinion that the embankment should remain in place.

The sandy soils encountered near the surface on the rest of the sites are predominantly fine grained, silty sands (SM), poorly graded sands with silt (SP-SM) and poorly graded sands (SP). They appear to mostly be outwash materials. The native sands (SM, SP-SM, SP) are considered excellent material for use as roadway subgrade material and for bituminous pavement support.

D. Recommendations

The following recommendations are based on our understanding of the proposed project. If our understanding of the project is not accurate or if changes are made to the project scope, please inform us so that our recommendations can be amended, if necessary. We have included recommendations regarding earthwork and construction that may help in cost estimates and aid in design. We should be allowed to review the proposed construction plans to provide further detailed recommendations, if necessary. Without the opportunity to review the final construction plans, the recommendations made in this report may no longer be valid.

Embankment/ Road Fill:

The on-site soils consisting of fine grained, poorly graded sand (SP), poorly graded sand with silt

(SP-SM) and silty sands (SM) are considered excellent material for use as roadway subgrade material. These soils are fairly easy to compact using vibratory compaction equipment near their optimum moisture contents.

We recommend that any imported fill and utility trench backfill material consist of mineral soils meeting the requirements specified below. No organic soils, roots, stumps, logs, brush, etc. should be used as structural fill below any utility structure or pavement section. We recommend that all fill and utility trench backfill material be free of soft, wet, or frozen soils, highly expansive soils, rubble, debris, and rocks in excess of 6 inches in diameter. The fill material should be as uniform as possible both in composition and moisture content.

No organic soils with organic content in excess of 3.0% by weight should be used as roadway embankment fill or as subgrade material. Some of the fill was dark brown to black. However, it is our opinion that most of the dark silty sand fill will be suitable for re-use.

The organic soils encountered on Xenolith Street in Area A were covered with at least 5 feet of granular, inorganic fill. That means it is below the depth that would be affected by traffic wheel loading. It is still likely to be affected by frost heave and some differential settlement. We see no need to remove this material unless it is exposed during construction.

We recommend that all embankment fill material be placed in 12-inch loose lifts and compacted to a minimum of 95% of standard proctor maximum density (ASTM D698). Any fill placed in the top 3 feet of the road subgrade should be compacted to at least 100% of standard proctor maximum density. All fill material should be compacted at a moisture content within plus or minus 2% of the optimum moisture as determined by a standard proctor. We recommend compaction tests be taken at a minimum rate of one test per two feet of fill per 200 linear feet of roadway subgrade, and aggregate base material.

E. Pavement Recommendations

Areas A & B:

For the portion of Xenolith Street NW that runs through the wetland area, we recommend using a geogrid in the aggregate base to provide support for the pavement. We recommend placing a multi-axial geogrid withing the aggregate base layer. We recommend 6 inches of aggregate be placed above the geogrid and at least 2 inches of aggregate remain under the geo rid. The existing aggregate could be salvaged from the roadway to be re-used above the geogrid. With the geogrid reinforced aggregate base and granular material over the organic silt and peat, we recommend 3.5 inches of bituminous be placed over the aggregate.

The clayey sands (SC), silty clayey sands (SC-SM) and silty sands (SM) encountered on sites A and B are classified as A-2-4 and A-2-6 soils in accordance with the American Association of State Highway Transportation Officials (AASHTO) classification system. A-2-4 and A-2-6 soils are rated as fair material for use as roadway subgrade material. Without benefit of a laboratory R-value determination and based on Mn/Dot guidelines, we recommend an R-value of 30 be assumed for the onsite soils.

Based on an assumed R-value of 30, we recommend the following bituminous pavement section for low volume, 9-ton, residential streets:

Thickness	Course/Description	G.E.
3.5”	MnDOT Superpave Bituminous	7.9”
8.0”	MnDOT 3138 Class 5 Aggregate Base	8.0”
11.5”	TOTAL	15.9”

In using the assumed R-value for bituminous pavement or concrete design, it is essential that the subgrade be constructed of uniform soils at a moisture content and density in accordance with MnDOT specification 2105 and capable of passing a test roll in accordance with MnDOT specification 2111. The native, undisturbed soils may need preparation (drying and compacting) to pass a proof roll. If the subgrade is not compacted, uniform and capable of passing a test roll, then we recommend the subgrade be scarified and recompacted or subcut and replaced with

geotextile fabric and select granular material meeting MnDOT specification 3149. The top of the subgrade should be compacted to a minimum of 100% of standard proctor maximum density. The subgrade should be sloped towards the edges to provide drainage.

Areas C through F:

The silty sand (SM), poorly graded sand with silt (SP-SM) and poorly graded sand (SP) outwash soils on site this site are classified as A-1-b and A-3 soils in accordance with the American Association of State Highway Transportation Officials (AASHTO) classification system. A-1-b and A-3 soils are rated as excellent material for use as roadway subgrade material. Without benefit of a laboratory R-value determination and based on Mn/Dot guidelines, we recommend an R-value of 70 be assumed for the onsite soils.

Based on an assumed R-value of 70, we recommend the following bituminous pavement section for low volume, 9-ton, residential streets:

Thickness	Course/Description	G.E.
3.5”	MnDOT Superpave Bituminous	7.9”
6.0”	MnDOT 3138 Class 5 Aggregate Base	6.0”
9.5”	TOTAL	13.9”

In using the above R-value for bituminous pavement design, it is essential that the subgrade be constructed of uniform soils at a moisture content and density in accordance with Mn Dot specification 2105 and capable of passing a test roll in accordance with Mn Dot specification 2111. The native, undisturbed soils may need preparation (drying and compacting) to pass a proof roll. If the subgrade is not compacted, uniform and capable of passing a test roll, then we recommend the subgrade be scarified and recompacted or subcut and geotextile fabric placed along with select granular material meeting Mn Dot specification 3149. The top of subgrade should be compacted to a minimum of 100% of standard proctor maximum density. The subgrade should be sloped towards the edges to provide drainage.

F. Closing

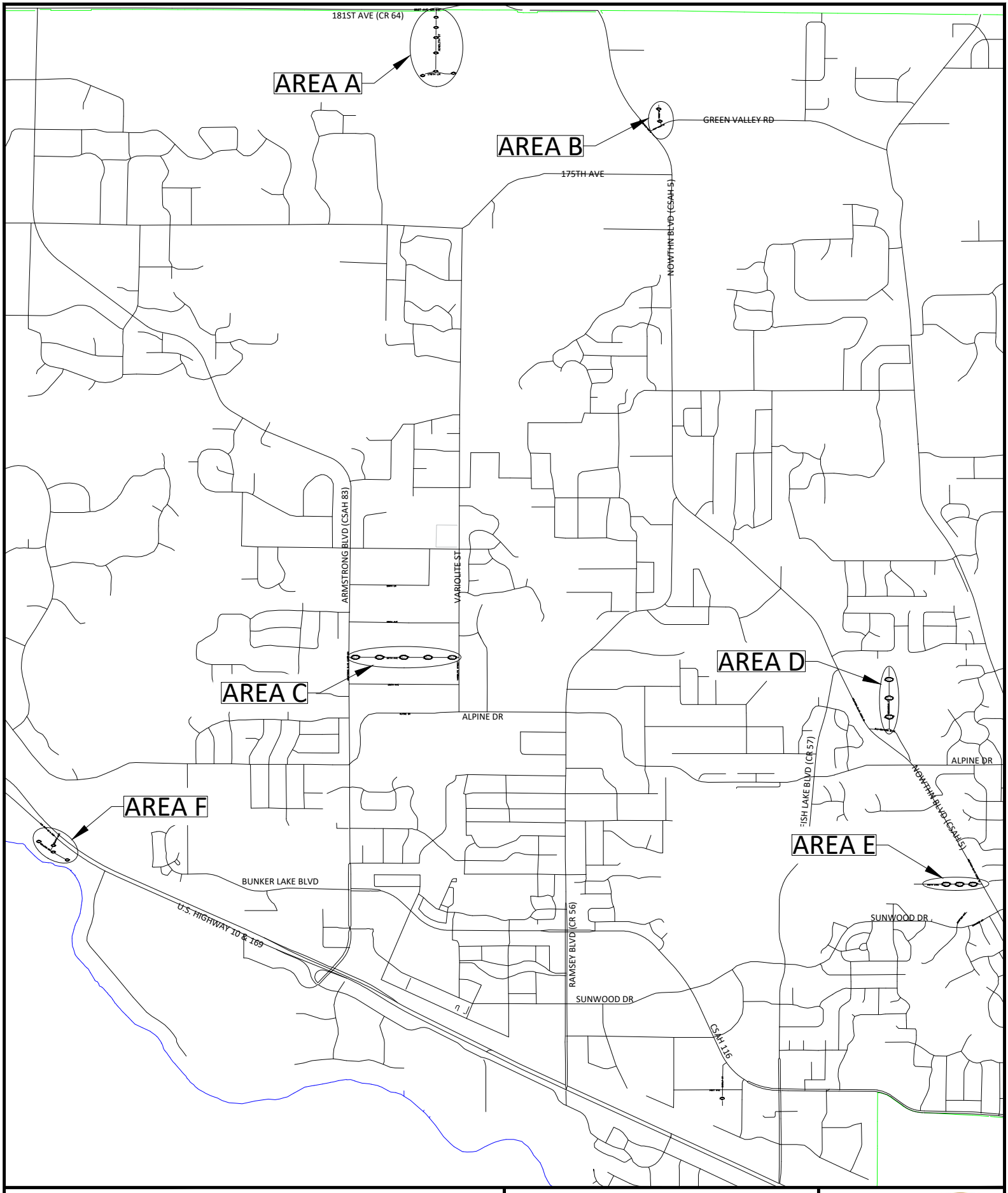
Our work was performed for geotechnical purposes only and not to document the presence or extent of any contamination on the site. We can note that our crew did not detect any obvious contamination by sight or smell during drilling operations. However, human senses are limited in terms of contamination detection and, therefore, the lack of detection through human sensing does not preclude the possibility of the presence of contamination of the site.

This report represents the result of our subsurface investigation and is based on information gathered at specific locations. Subsurface conditions can change a great deal over short horizontal distances. Also, the actual interface between strata will likely be a gradual transition rather than an abrupt change as represented on the boring logs.

Geotechnical engineering is based extensively on opinion. Therefore, the data contained in this report should be used as a guide, and we recommend that construction monitoring be performed by a qualified geotechnical engineer or technician. We recommend ITT be retained to perform construction observation and materials testing on this project due to our familiarity with the soils. Any changes in the subsurface conditions from those found during this geotechnical exploration should be brought to the attention of a soils engineer.

APPENDIX 1

BORING LOCATION PLAN



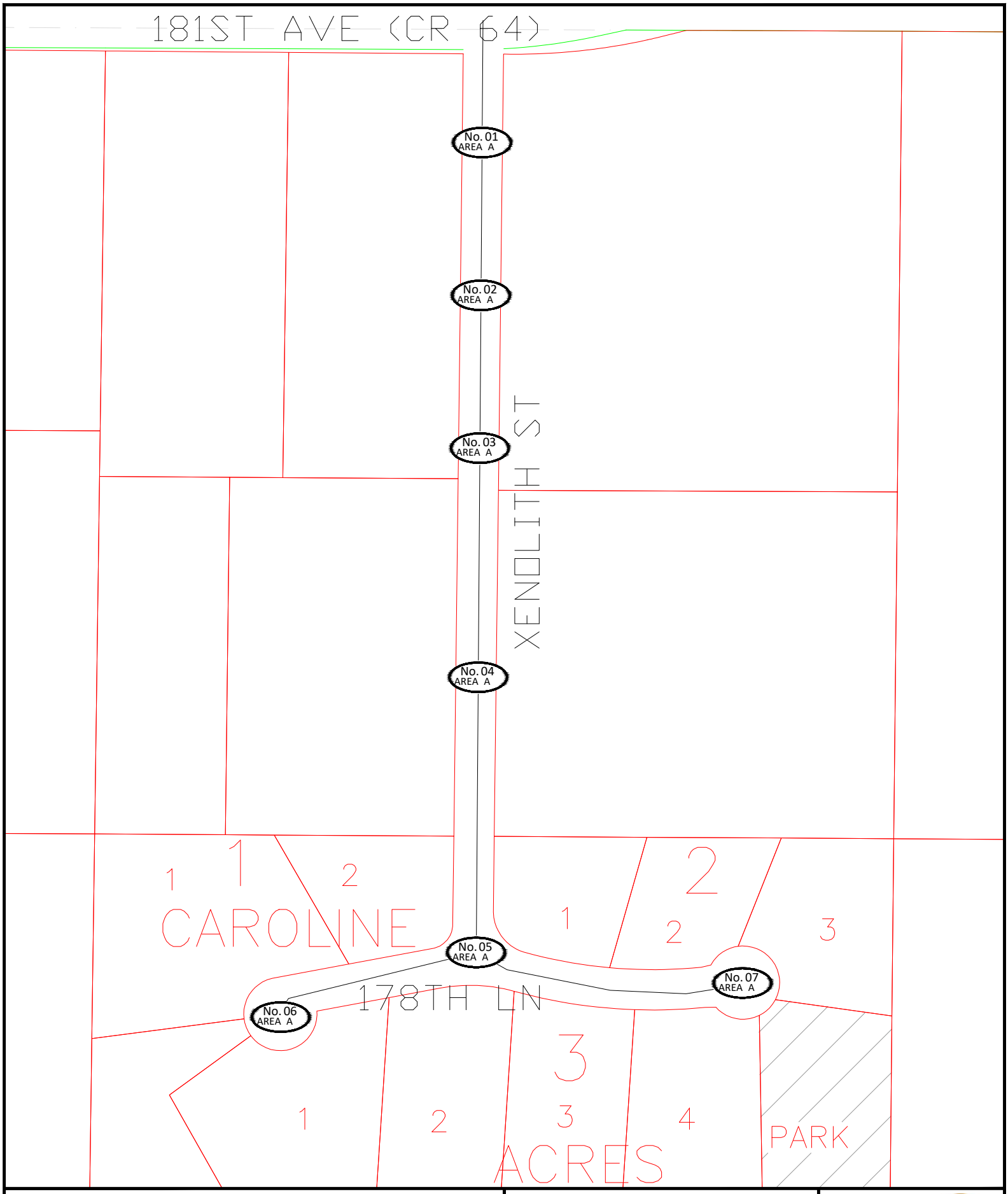
2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
OVERALL AREA MAP

0 3000 6000 9000

SCALE (FEET)

N

City of RAMSEY



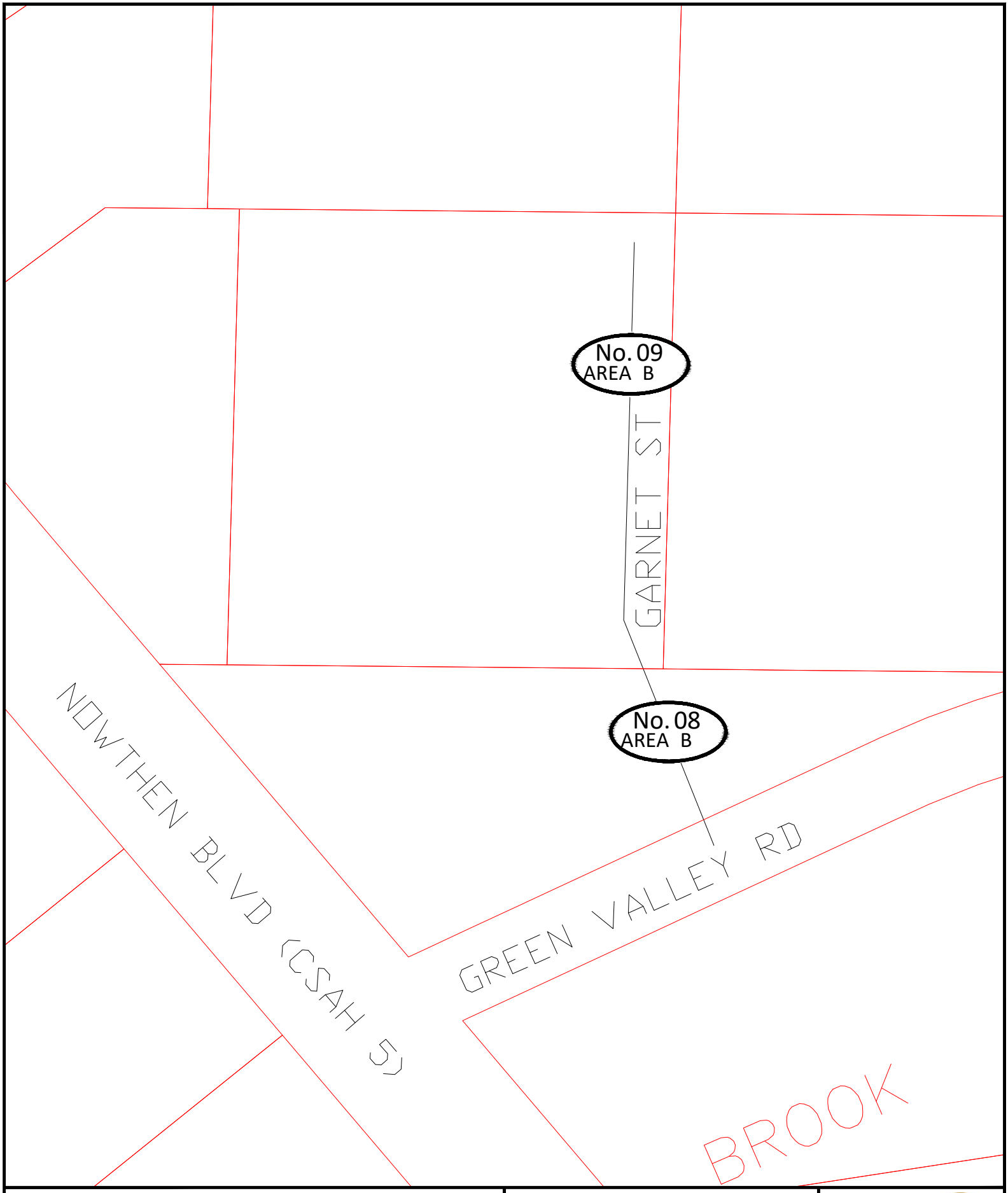
2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA A

0 250 500 750

SCALE (FEET)

N

City of RAMSEY

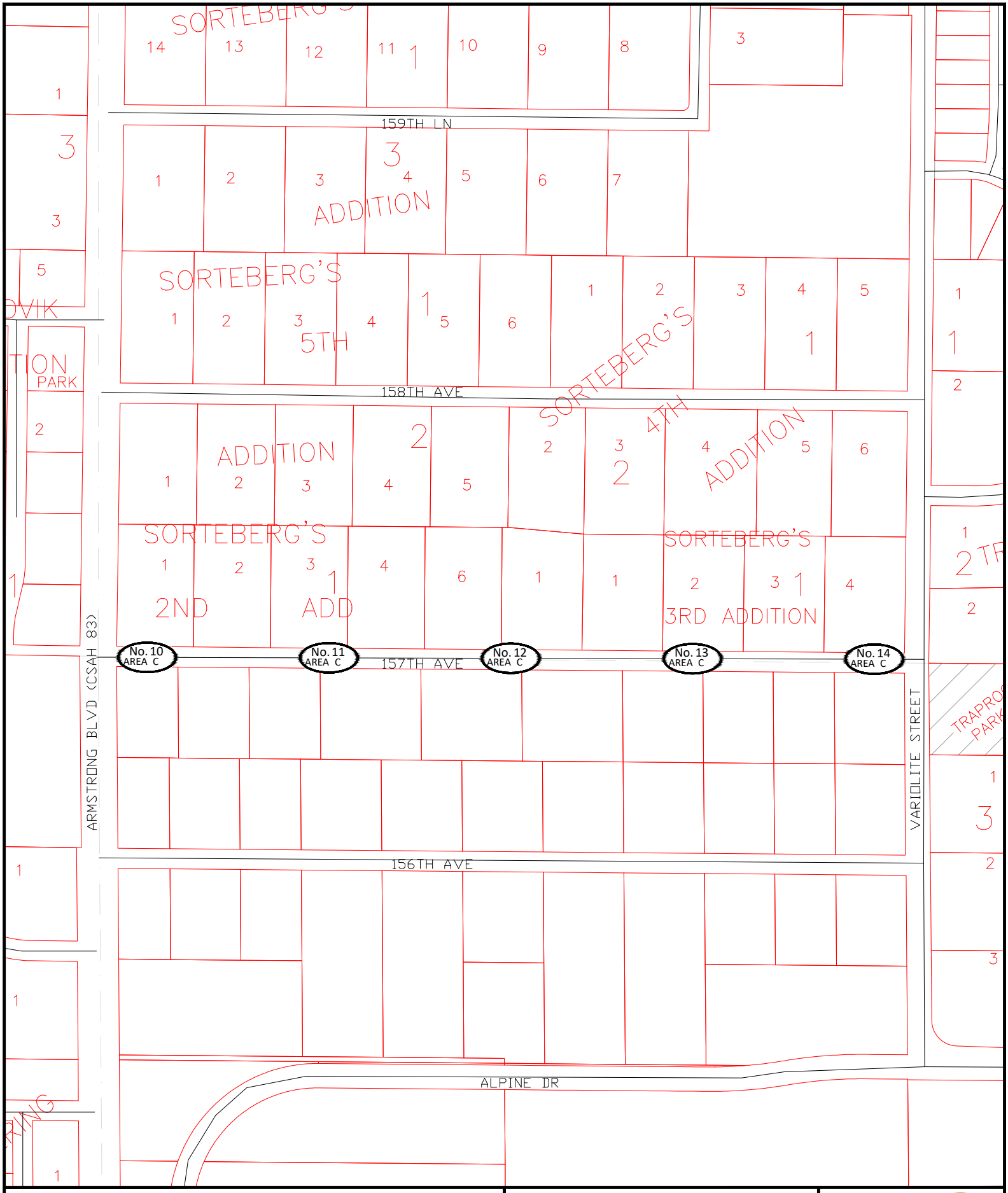


2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA B

0 100 200 300
SCALE (FEET)

N

City of RAMSEY

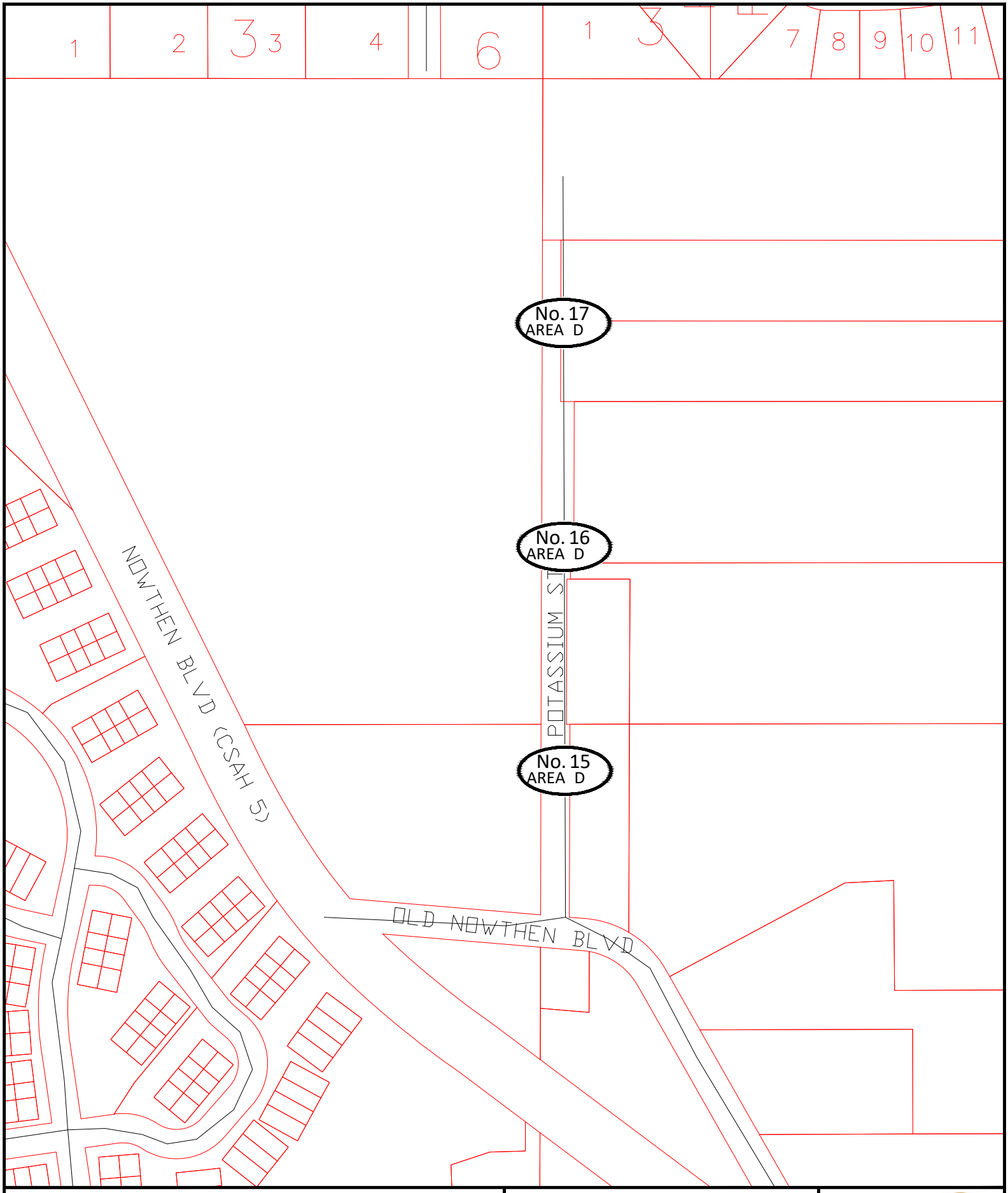


2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA C

0 400 800 12000
SCALE (FEET)

N

City of RAMSEY



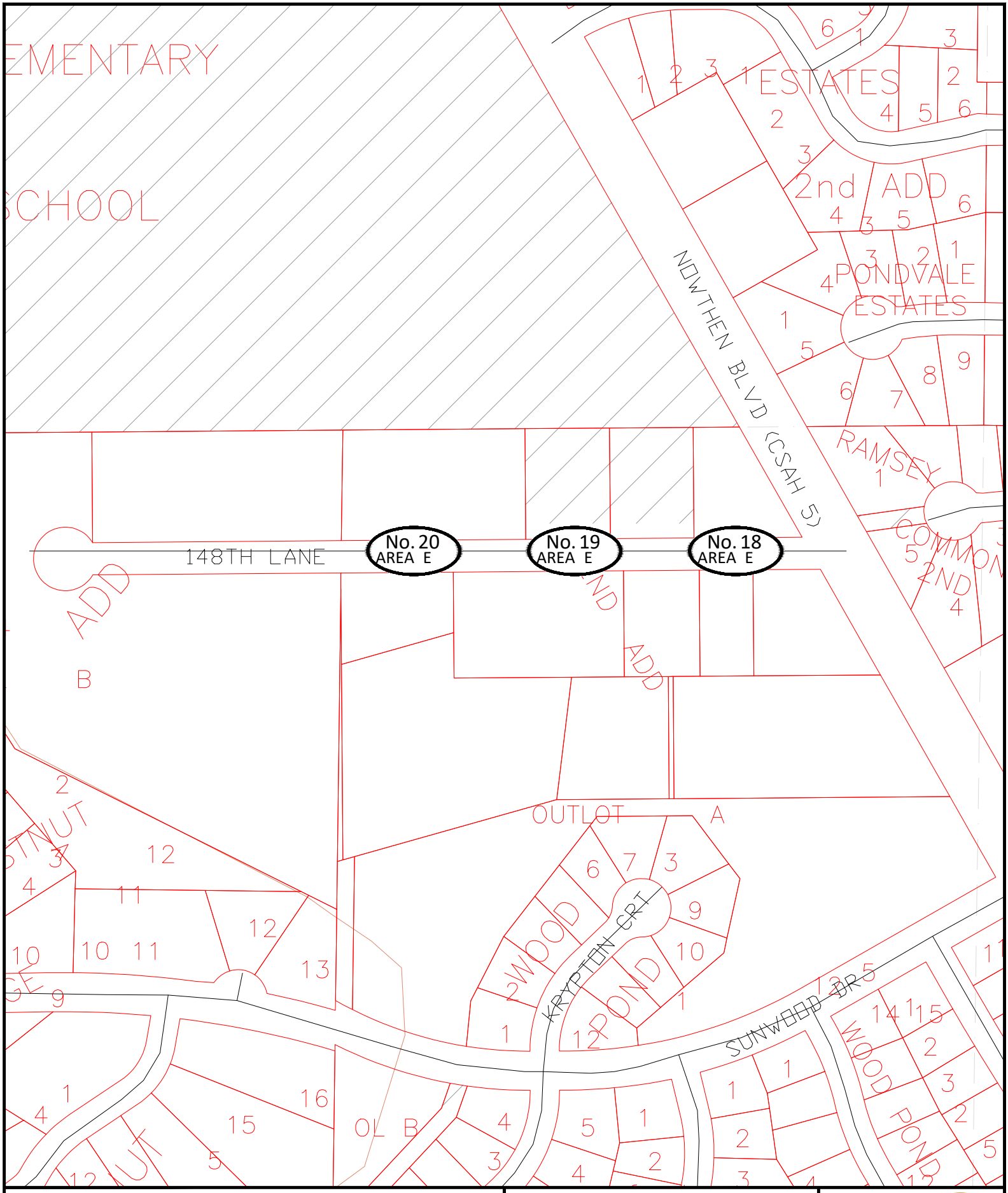
2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA D

0 250 500 750

SCALE (FEET)

N

City of RAMSEY

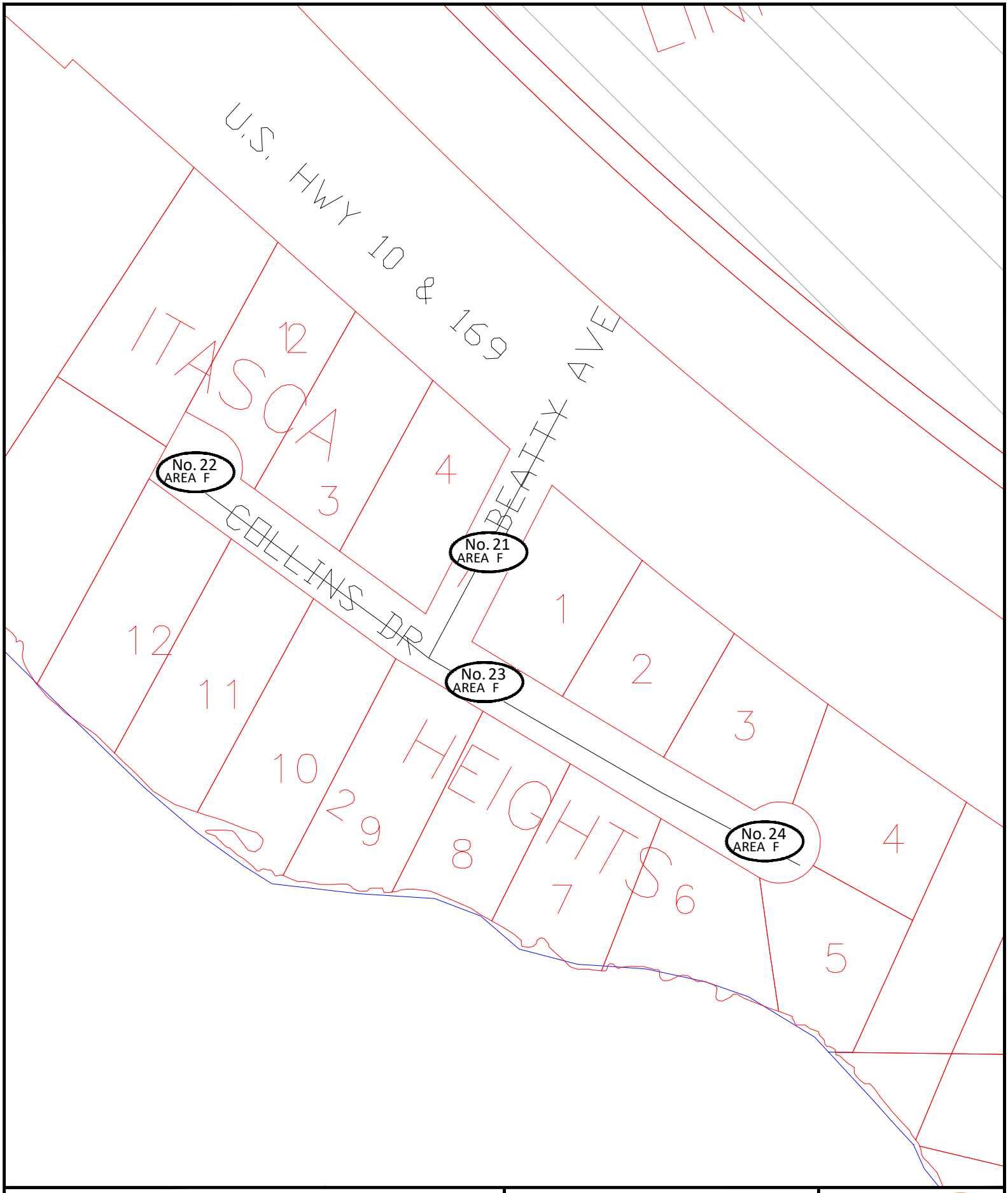


2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA E

0 250 500 750
SCALE (FEET)

N

City of RAMSEY



2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA F

0 150 300 450
SCALE (FEET)

N

City of RAMSEY

APPENDIX 2

SOIL BORING LOGS

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-1**
START TIME: **10:00** *END TIME:* **10:15**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Xenolith Street- NW See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
7.0"		**7.0 inches Aggregate**				
	SP-SM	**POORLY GRADED SAND w/ SILT, fine grained, dark brown.** **FILL**	**1**	**6**	4.4	
5.0						
	OL	**ORGANIC SILT, black.**	**2**	**3**	28.3	**Organic Content= 4.1%**
7.5						
	SC	**CLAYEY SAND, fine grained, grey.**	**3**	**2**	14.1	
10.0						
	SC-SM	**SILTY CLAYEY SAND, fine grained, w/ a trace of GRAVEL, grey.**	**4**	**14**	14.8	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' 6" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-2**
START TIME: **10:15** *END TIME:* **10:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Xenolith Street- NW See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
12.0"		**12.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, brown.**				
		FILL	**1**	**5**	5.0	
5.0						
	PT	**PEAT, black.**	**2**	**2**	205.1	
		sand in tip, blue, green	**3**	**1**	231.8	
10.0						
	SC	**CLAYEY SAND, fine to medium grained, grey, blue.**	**4**	**6**	15.4	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-3**
START TIME: **10:30** *END TIME:* **10:45**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Xenolith Street- NW See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
16.0"		**16.0 inches Aggregate**				
5.0	**SP**	**POORLY GRADED SAND, fine grained, brown.** **FILL**	**1**	**5**	4.6	
7.5	**OL**	**ORGANIC SILT, black.**	**2**	**3**	24.7	
10.0	**SC**	**CLAYEY SAND, fine grained, blue, green, dark grey.**	**3**	**w/h***	20.0	***Weight of Hammer**
11.5	**SC-SM**	**SILTY CLAYEY SAND w/ SILT, fine grained, grey.**	**4**	**5**	17.4	
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 8' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-4**
START TIME: **10:45** *END TIME:* **11:00**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Xenolith Street- NW See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
11.0"		**11.0 inches Aggregate**				
	SM	**SILTY SAND, fine grained, dark brown.**				
			1	**5**	14.6	
5.0		**brown.**				
			2	**4**	12.8	
			3	**6**	11.5	
10.0						
	SC	**CLAYEY SAND, fine grained, grey, mottled.**	**4**	**5**	21.4	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-5**
START TIME: **11:00** *END TIME:* **11:15**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Xenolith Street- NW See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
6.0"		**6.0 inches Aggregate**				
5.0	**SP-SM**	**POORLY GRADED SAND w/ SILT, fine grained, brown.**	**1**	**6**	6.1	
7.5	**SC-SM**	**SILTY CLAYEY SAND, fine grained, dark brown.**	**2**	**3**	15.1	
10.0	**SM**	**SILTY SAND, fine grained, brown.**	**3**	**7**	7.4	
11.5	**SC**	**CLAYEY SAND, fine, grained, grey, brown, mottled.**	**4**	**5**	16.2	
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-6**
START TIME: **11:15** *END TIME:* **11:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Carolyn Lane NW- See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
4.5"		4.5 inches Aggregate				
	SP-SM	POORLY GRADED SAND w/ SILT, fine grained, dark brown.	1	4	6.9	
5.0						
	SC	CLAYEY SAND, fine grained, reddish brown, mottled.	2	5	16.2	
			3	16	9.7	
9.5						
10.0	SP	POORLY GRADED SAND, fine to medium grained, brown.				
			4	8	11.0	V Water enountered at 11' 0" during drilling.
11.5						
		Boring complete to 11.5 feet. Water encountered at 11' 0" during drilling. No water measured to cave-in at 7' 6 " after completion.				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-7**
START TIME: **11:30** *END TIME:* **11:45**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Carolyn Lane NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
7.0"		**7.0 inches Aggregate**				
	SM	**SILTY SAND, fine grained, dark brown.**				
4.0			**1**	**12**	5.6	
5.0	**SP**	**POORLY GRADED SAND, fine to medium grained, w/ a trace of GRAVEL, brown.**	**2**	**13**	5.7	
		fine to medium grained, brown.	**3**	**9**	5.9	
10.0						
11.5			**4**	**7**	21.4	**V Water enountered at 11' 0" during drilling.**
		Boring complete to 11.5 feet. **Water encountered at 11' 0" during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-8**
START TIME: **12:15** *END TIME:* **12:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Garnet Street NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	W_n	*Notes*
4.5"		**4.5 inches Aggregate**				
	SM	**SILTY SAND, fine grained, w/ a trace of GRAVEL, brown.**				
		brown.	**1**	**7**	11.0	
5.0			**2**	**7**	12.9	
		reddish brown.	**3**	**20**	13.0	
10.0						
	SP-SM	**POORLY GRADED SAND w/ SILT, fine grained, w/ a trace of GRAVEL, reddish brown.**	**4**	**20**	8.1	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' 6" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-9**
START TIME: **12:30** *END TIME:* **12:45**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Garnet Street NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	W_n	*Notes*
6.0"		**6.0 inches Aggregate**				
	SC-SM	**SILTY CLAYEY SAND, fine grained, brown, mottled.**				
			1	**5**	11.9	
5.0						
			2	**10**	13.7	
		w/ a trace of GRAVEL, reddish brown.	**3**	**8**	14.9	
10.0						
			4	**14**	11.2	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-10**
START TIME: **3:00** *END TIME:* **3:15**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **157th Avenue- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
7.0"		**7.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, black.** **FILL**				
4.0			**1**	**7**	6.3	
5.0	**SP**	**POORLY GRADED SAND, fine grained, brown.**				
			2	**6**	3.0	
			3	**6**	3.7	
10.0		**fine to medium grained.**				
11.5			**4**	**5**	3.9	
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' 2" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-11**
START TIME: **3:15** *END TIME:* **3:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **157th Avenue- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
4.0"		**4.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine to medium grained, dark brown.**				
			1	**4**	5.4	
5.0		**fine grained, brown.**				
			2	**4**	4.1	
		dark brown				
			3	**4**	4.7	
10.0		**fine to medium grained, brown.**				
			4	**4**	4.2	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-12**
START TIME: **3:30** *END TIME:* **3:45**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **157th Avenue- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
3.0"		**3.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown to black.**				
			1	**7**	7.6	
5.0		**fine grained, brown.**				
			2	**11**	5.3	
			3	**6**	3.7	
10.0		**light brown.**				
			4	**5**	2.8	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-13**
START TIME: **3:45** *END TIME:* **4:00**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **157th Avenue- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
5.0"		**5.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown,**				
			1	**5**	3.5	
5.0		**brown.**				
			2	**7**	3.9	
			3	**10**	4.3	
10.0						
			4	**20**	7.8	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-14**
START TIME: **4:00** *END TIME:* **4:15**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **157th Avenue- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
3.0"		3.0 inches Aggregate				
	SP	POORLY GRADED SAND, fine grained, dark brown				
			1	6	7.8	
		brown.				
5.0						
			2	10	2.9	
			3	11	3.6	
10.0		w/ GRAVEL.				
			4	15	5.4	
11.5						
		Boring complete to 11.5 feet. No water encountered during drilling. No water measured to cave-in at 7' after completion.				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-15**
START TIME: **4:15** *END TIME:* **4:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Potassium Street NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
12.0"		**12.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, brown.**				
			1	**4**	4.7	
5.0		**fine to medium grained, w/ a trace of GRAVEL.**				
			2	**4**	5.0	
		fine grained.				
			3	**4**	8.2	
					16.8	**V Water encountered at 10.0 feet during drilling.**
11.5		**medium to coarse grained.**	**4**	**4**		
		Boring complete to 11.5 feet. **Water encountered 10.0 feet during drilling.** **No water measured to cave-in at 6' 9" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-16**
START TIME: **7:45** *END TIME:* **8:00**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Potassium Street NW- See Boring Location Plan** *ELEVATION:* **N/G**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
		20.0 inches Aggregate				
20.0"						
	SP	**POORLY GRADED SAND, fine grained, dark brown.**				
			1	**6**	9.0	
						V Water measured at 4' 0" after completion.
5.0		**grey.**				
			2	**8**	23.3	
			3	**8**	29.8	
10.0						
		fine to medium grained.	**4**	**6**	25.6	
11.5						
		Boring complete to 11.5 feet. **Water encountered at 5' during drilling.** **Water measured at 4' 0" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-17**
START TIME: **8:15** *END TIME:* **8:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Potassium Street NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	W_n	*Notes*
6.0"		**6.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, brown.**				
			1	**4**	5.2	
5.0						
			2	**4**	7.2	
		fine to medium grained.				
			3	**8**	5.6	
10.0		**fine grained, light brown.**				
			4	**12**	9.2	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' 6" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-18**
START TIME: **8:50** *END TIME:* **9:05**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **148th Lane NW- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
5.0"		**5.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, brown.**				
			1	**7**	3.4	
5.0		**fine to medium grained, light brown.**				
			2	**11**	3.2	
			3	**15**	3.7	
10.0						
			4	**13**	3.7	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 6' 9" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-19**
START TIME: **9:05** *END TIME:* **9:20**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **148th Lane NW- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
5.0"		**5.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown.**				
			1	**6**	1.9	
5.0		**fine to medium grained, brown.**				
			2	**3**	3.1	
			3	**5**	12.4	**V Water enountered at 9' 0" during drilling.**
10.0						
			4	**5**	20.5	
11.5						
		Boring complete to 11.5 feet. **Water encountered at 9' 0" during drilling.** **No water measured to cave-in at 6' 6" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-20**
START TIME: **9:20** *END TIME:* **9:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **148th Lane NW- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
6.0"		6.0 inches Aggregate				
	SP-SM	POORLY GRADED SAND w/ SILT, fine grained, dark brown. FILL				
4.0			1	5	5.7	
5.0	SM	SILTY SAND, fine grained, dark brown.				
7.0			2	5	9.2	
	SP	POORLY GRADED SAND, fine grained, greyish brown.				
			3	15	18.4	V Water enountered at 9' 0" during drilling.
10.0		grey.				
11.5			4	4	24.3	
		Boring complete to 11.5 feet. Water encountered at 9' 0" during drilling. No water measured at cave-in at 6' 9" after completion.				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-21**
START TIME: **1:20** *END TIME:* **1:35**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Beatty Avenue NW- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
6.0"		**6.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown.**				
			1	**5**	5.2	
5.0		**fine to medium grained, brown.**				
			2	**4**	7.0	
		fine grained.				
			3	**16**	3.3	
10.0		**fine to medium grained, w/ GRAVEL.**				
			4	**25**	4.2	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured at cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-22**
START TIME: **1:35** *END TIME:* **1:50**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Collins Drive NW- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
7.0"		7.0 inches Aggregate				
	SM	SILTY SAND, fine grained, dark brown to black. FILL	1	6	12.6	
4.0						
5.0	SP	POORLY GRADED SAND, fine grained, brown.	2	17	3.2	
			3	24	3.7	
10.0						
	SM	SILTY SAND, fine grained, brown.	4	23	8.2	
11.5						
		Boring complete to 11.5 feet. No water encountered during drilling. No water measured at cave-in at 6' 6" after completion.				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-23**
START TIME: **1:50** *END TIME:* **2:05**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Collins Drive NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
5.5"		**5.5 inches Aggregate**				
	SP	**POORY GRADED SAND, fine grained, dark brown, black.**				
			1	**6**	4.5	
5.0		**brown.**				
			2	**10**	3.3	
			3	**7**	3.1	
10.0						
			4	**8**	3.6	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured at cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-24**
START TIME: **2:05** *END TIME:* **2:20**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Collins Drive NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	W_n	*Notes*
9.0"		**9.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown.**				
		FILL	**1**	**4**	5.3	
5.0						
	SP-SM	**POORLY GRADED SAND w/ SILT, fine grained, brown.**	**2**	**5**	3.6	
9.0			**3**	**5**	4.8	
10.0	**SP**	**POORLY GRADED SAND, fine to medium grained, brown.**				
11.5			**4**	**5**	3.3	
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured at cave-in at 7' after completion.**				

Unified Soil Classification (USC) System (from ASTM D 2487)

Major Divisions			Group Symbol	Typical Names
Course-Grained Soils More than 50% retained on the 0.075 mm (No. 200) sieve	**Gravels** 50% or more of course fraction retained on the 4.75 mm (No. 4) sieve	Clean Gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		Gravels with Fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	Sands 50% or more of course fraction passes the 4.75 (No. 4) sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines
			SP	Poorly graded sands and gravelly sands, little or no fines
		Sands with Fines	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils More than 50% passes the 0.075 mm (No. 200) sieve	**Silts and Clays** Liquid Limit 50% or less		ML	Inorganic silts, very fine sands, rock four, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly/sandy/silty/lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays Liquid Limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
			CH	Inorganic clays or high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
Highly Organic Soils			PT	Peat, muck, and other highly organic soils

Prefix: G = Gravel, S = Sand, M = Silt, C = Clay, O = Organic
Suffix: W = Well Graded, P = Poorly Graded, M = Silty, L = Clay, LL < 50%, H = Clay, LL > 50%

CITY OF RAMSEY
CAPITAL IMPROVEMENT PROGRAM
2025-2034

The Capital Improvement Program document is a planning tool maintained by the city to identify future projects, related expenditures, and funding sources. All projects designated in the Capital Improvement Program are contingent upon availability of resources during the planned year. The total expenditure of projects includes city-funded sources as well as other resources such as grants, fees, bonding, etc.

MSA Fund

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Beginning Balance	3,960,405	1,089,728	1,082,215	85,436	409,578	627,241	894,989	1,521,621	1,850,252	1,906,935	2,389,901	3,124,498
Revenues												
Current Year Allocation (Held at State)	1,543,201	1,676,298	1,684,679	1,693,103	1,701,568	1,710,076	1,718,627	1,727,220	1,735,856	1,744,535	1,753,258	1,762,024
Transportation Tax - 2023 Legislation		12,066										
TIF Transfer for Variolite St												
Riverdale Reim from metro municipal agreement												
Interest Earnings	19,802	10,897	10,822	854	4,096	6,272	8,950	15,216	18,503	19,069	23,899	31,245
Coop Grant for Riverdale												
HRA Share for Riverdale		647,886										
TIF Share for Riverdale												
Total Revenue	5,523,408	3,436,876	2,777,717	1,779,393	2,115,243	2,343,589	2,622,566	3,264,057	3,604,611	3,670,539	4,167,058	4,917,767
Expenditures												
MSA Maintenance (Received from State Held Allocation)	(210,000)	(240,000)	(240,000)	(240,000)	(270,000)	(270,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)
CIP Projects												
MSA Overlays: 2023 See listing in CIP	(421,141)											
167th Avenue Street Recon	(1,652,600)											
Waco to Sunwood Dr Rec												
MSA overlays: 2024 See Listing in CIP	(697)	(366,900)										
MSA overlays: 2026 See Listing in CIP				(1,121,815)								
MSA overlays: 2027 See Listing in CIP					(747,780)							
MSA overlays: 2028 See Listing in CIP												
MSA overlays: 2029 See Listing in CIP							(239,400)					
MSA overlays: 2030 See Listing in CIP								(66,150)				
MSA overlays: 2031 See Listing in CIP									(876,488)			
MSA overlays: 2034 See Listing in CIP												**980,437**
MSA Pavement Rejuvenation												
Alpine Drive (TH 47 & Roanoke) Street Recon								(1,019,655)				
Alpine Drive (Variolite & Ramsey Blvd) Street Recon									(492,188)			
Alpine Drive (Puma CSAH 83)	(44,798)	(689,602)										
Alpine Drive (5/47)			(530,250)									
Alpine Drive (cr57/CSAH 5)			(445,031)									
Alpine Drive ((TH10 & Puma Street)						(1,107,600)						
142nd Avenue										(529,200)		
161st Avenue Recon	(766,655)	(38,000)										
Riverdale between Llama & Bowers & Capstone/Pearson	(261,636)											
Jaspar Street (Sunwood/McKinley)										(413,438)		
Juniper Ridge between 156th & Roanoke Street Recon					(390,628)							
Sunwood Drive Recon CR5 Erkium St			(303,000)									
Uranimite Street (149th ave/152nd ln)											(327,600)	
Waco Street (150th/Alpine Dr)											(372,960)	
142nd Ave Street Recon					(67,594)							
Roundabout-Alpine/Armstrong	(184,575)											
Hwy 10 & BNSF RR Grade Separation at Ramsey Blvd	(375,000)	(250,000)	(375,000)									
Hwy 10 & BNSF RR Grade Separation at Sunfish Lake	(375,000)	(250,000)	(375,000)									
Recon Xkimo TH47 to 142nd	(37,222)	(474,159)										
Concrete Repairs			(405,000)				(549,545)					
Annual MSA Pavement Marking Improvements	(104,355)	(46,000)	(19,000)	(8,000)	(12,000)	(71,000)	(12,000)	(28,000)	(29,000)	(38,000)	(42,000)	(22,000)
Total Expenditures	(4,433,679)	(2,354,661)	(2,692,281)	(1,369,815)	(1,488,002)	(1,448,600)	(1,100,945)	(1,413,805)	(1,697,676)	(1,280,638)	(1,042,560)	658,437
FUND BALANCE, End of Year	**1,089,728**	**1,082,215**	**85,436**	**409,578**	**627,241**	**894,989**	**1,521,621**	**1,850,252**	**1,906,935**	**2,389,901**	**3,124,498**	**5,576,204**

Pavement Management Fund-9435	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Beginning Balance	15,102,525	14,628,255	10,556,453	6,126,043	3,915,162	1,777,321	1,357,833	701,982	407,993	(268,577)	(6,590)	(1,070,111)
Special Assessments	9,857	-	-	-	-	-	-	-	-	-	-	-
Transfers In: TIF 1-Flintwood Hills Recon				840,000								
Transfers In: TIF 2-Flintwood Hills Recon				175,920								
Transfers In: TIF 2-Riverside West Recon				199,665								
Transfers In: TIF 2-Windemere Woods Recon					658,685							
Property Tax Levy(based on 5% Levy increase	1,739,254	1,826,217	1,917,528	2,013,404	2,114,074	2,219,778	2,330,767	2,447,305	2,569,671	2,698,154	2,833,062	2,974,715
Est Arbitrage	(166,156)											
Interest Earnings	495,686	73,141	52,782	30,630	19,576	8,887	6,789	3,510	2,040	(1,343)	(33)	(5,351)
Total Revenues	2,078,641	1,899,358	1,970,310	3,259,619	2,792,335	2,228,665	2,337,556	2,450,815	2,571,711	2,696,811	2,833,029	2,969,364
Road Improvements:												
Pavement Management Projects(See CIP listings)	(2,521,754)	(5,855,870)	(6,341,430)	(5,420,331)	(4,891,213)	(2,616,120)	(2,984,494)	(2,744,805)	(3,248,280)	(2,434,824)	(3,896,550)	(3,957,030)
Special Assessment Rebate	(31,158)	(59,290)	(59,290)	(50,169)	(38,964)	(32,033)	(8,913)					
Inspector Vehicle for road projects		(56,000)										
Total Expenditures	(2,552,912)	(5,971,160)	(6,400,720)	(5,470,500)	(4,930,177)	(2,648,153)	(2,993,407)	(2,744,805)	(3,248,280)	(2,434,824)	(3,896,550)	(3,957,030)
Increase (decrease) in Cash	(474,271)	(4,071,802)	(4,430,410)	(2,210,881)	(2,137,841)	(419,488)	(655,851)	(293,990)	(676,569)	261,987	(1,063,521)	(987,666)
FUND BALANCE, End of Year	**14,628,255**	**10,556,453**	**6,126,043**	**3,915,162**	**1,777,321**	**1,357,833**	**701,982**	**407,993**	**(268,577)**	**(6,590)**	**(1,070,111)**	**(2,057,776)**

PUBLIC IMPROVEMENT REVOLVING [PIR] FUND #9400

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
FUND BALANCE - Beginning of Year	5,518,433	5,026,067	3,721,431	2,458,145	2,376,727	2,129,494	1,919,789	1,707,987	1,494,067	1,278,007	1,059,787	839,385
REVENUES:												
Special Assessments (P&I) & Payoffs	532,280	9,056										
Wear Course Parkside Towhhomes		7,700										
PSD Special Assess for Bunker Lake Blvd				191,000								
Reim Pothole Patching Arpa Funds		100,000										
Reim Fire Truck Loan				300,000								
Prior 2010 COR Exp Reim	45,343											
General Fund -30% transfer (exces	27,827	-	-	-	-	-	-	-	-	-	-	-
TIF 8 Reimbursement interfund Loan												
Interest Earnings	264,751	50,261	37,214	24,581	23,767	21,295	19,198	17,080	14,941	12,780	10,598	8,394
Total Revenues	870,201	167,016	37,214	515,581	23,767	21,295	19,198	17,080	14,941	12,780	10,598	8,394
EXPENDITURES:												
Hwy 47 Transportation Study		30,000										
Alpine/Armstrong Roundabout Landscaping					40,000							
Business Park 95 Cul-De-Sac		139,354										
County 5 Transportation Study		50,000										
County 83 Transportation Study		35,000										
Hwy 10 road impr-bill time	14,972	100,000										
Hwy 10 & BNSF RR Grade Sep at Ram	375,000	250,000	375,000									
Hwy 10 & BNSF RR Grade Sep at Sunfi	375,000	250,000	375,000									
Pothole Patching	422,595											
Basalt st		99,000										
McKinley Street Pavement Ext (From CC Case)		94,172										
MSA Bunkr Lake Blvd (See Oppidan Contrib & Spec Asses to PSD				391,000								
2025 Neighborhood Overlays			14,500									
Ramsey Villas Sound Wall		58,001										
Sunwood Drive Roundabout Landscaping			30,000									
Sunwood Drive Concrete Repairs		50,000										
Tree Preservation-Riverdale (Capstone/Pearson project)-10		110,125										
Anoka Cnty S.A. Expenses		6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Transfers to Other Funds:												
General Fund-Loan For Fire Truck			300,000									
General Fund Transfer To	175,000	200,000	200,000	200,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000
Total Expenditures	1,362,567	1,471,652	1,300,500	597,000	271,000	231,000	231,000	231,000	231,000	231,000	231,000	231,000
INCREASE (DECREASE) IN CASH	(492,366)	(1,304,636)	(1,263,286)	(81,419)	(247,233)	(209,705)	(211,802)	(213,920)	(216,059)	(218,220)	(220,402)	(222,606)
FUND BALANCE - End of Year	**5,026,067**	**3,721,431**	**2,458,145**	**2,376,727**	**2,129,494**	**1,919,789**	**1,707,987**	**1,494,067**	**1,278,007**	**1,059,787**	**839,385**	**616,779**

Sewer Utility Fund - Working Capital

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
New Construction Units	50	50	100	25	25	25	25	25	25	25	25	25
Connection Charge	1,349	1,349	1,389	1,417	1,445	1,474	1,503	1,534	1,564	1,596	1,627	1,660
Beginning Balance	11,545,660	11,216,353	7,824,276	4,822,412	4,479,531	4,609,654	4,536,059	4,344,956	4,316,977	4,152,783	3,838,880	3,360,737
Utility Revenue												
From Utility Billings(sewer study)	1,986,513	2,285,920	2,335,216	2,381,920	2,429,559	2,478,150	2,527,713	2,578,267	2,629,833	2,682,429	2,736,078	2,790,799
WRITE DOWN INV TO MARKET VALUE												
Interest Earnings	850,112	56,082	39,121	24,112	22,398	23,048	22,680	43,450	43,170	41,528	38,389	33,607
SAC (1% of SAC Fee to Met Council)	7,952	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Connection Charges-Trunk	92,711	67,450	138,900	35,420	36,128	36,850	37,587	38,339	39,106	39,888	40,686	41,500
(see Construction units & Connection Charge Above)												
Operating Expense	(1,576,798)	(1,876,029)	(1,917,601)	(2,051,833)	(2,195,461)	(2,349,144)	(2,513,584)	(2,689,535)	(2,877,802)	(3,079,248)	(3,294,796)	(3,525,431)
(Personal Services, Supplies, Other Services & Charges)												
CIP Projects-Sewer Utilities												
Utility Truck(s)		(75,000)	(34,000)			(39,000)						
Water truck (1/4 cost)				(84,000)								
Jetter/Vac Truck				(650,000)								
Televisng Trailer		(50,000)										
Mobile Generator					(164,000)							
Backhoe (portion of cost)							(17,000)					
Pavement Mgmt Road Projects	(20,840)											
Xkimo		**(5,000)**										
Juniper Woods		**(16,000)**										
161st Avenue Recon	(138,216)	**(10,000)**										
Lift Station #1 Rehab & Generator		**(100,000)**	**(65,000)**									
Lift Station #4 Backup Generator							**(250,000)**					
Lift Station #7 Backup Generator						**(225,000)**						
Replace Pumps at Liftsation #2		(57,000)										
Replace Pumps at Liftsation #4		(59,000)										
Trott Brook Crossing Liftstation #10	(1,530,740)	(35,000)										
Water Treatment Plant		(3,500,000)	(3,500,000)									
Fire Station #1 Sanitary Sewer		(20,000)										
Remaining Working Capital Balance	**11,216,353**	**7,824,276**	**4,822,412**	**4,479,531**	**4,609,654**	**4,536,059**	**4,344,956**	**4,316,977**	**4,152,783**	**3,838,880**	**3,360,737**	**2,702,712**

Stormwater Management Fund #292

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Beginning Balance	1,081,777	1,441,919	1,816,383	1,187,547	1,219,422	1,251,616	1,284,132	1,316,974	1,350,144	1,383,645	1,417,481	1,451,656
Developer's Contributions	235,196	301,367	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
COR Infiltration Contributions												
Home2 Suites	18,510											
Waterfront		27,678										
Lightbridge Academy		20,000										
Skyline On Sunwood		11,000										
Aldi	23,220											
Reim prior 2010 COR Exp	24,929											
Interest Earnings	58,288	14,419	18,164	11,875	12,194	12,516	12,841	13,170	13,501	13,836	14,175	14,517
Total Revenues	360,143	374,464	38,164	31,875	32,194	32,516	32,841	33,170	33,501	33,836	34,175	34,517
CIP Projects-Park Projects												
Riversbend Regional Storm Basin			(667,000)									
Total Expenditures	-	-	(667,000)	-	-	-	-	-	-	-	-	-
Increase (decrease) in Cash	360,143	374,464	(628,836)	31,875	32,194	32,516	32,841	33,170	33,501	33,836	34,175	34,517
FUND BALANCE, End of Year	1,441,919	1,816,383	1,187,547	1,219,422	1,251,616	1,284,132	1,316,974	1,350,144	1,383,645	1,417,481	1,451,656	1,486,173

Storm Water Utility Fund #605	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Working Capital												
Beginning Balance	2,864,406	3,035,191	2,426,536	1,535,262	947,476	398,935	775,560	1,035,314	1,294,941	1,219,743	1,242,551	950,322
Utility Revenue -	1,252,659	1,333,400	1,533,410	1,686,751	1,855,426	2,040,969	2,143,017	2,250,168	2,362,676	2,480,810	2,604,851	2,735,093
From Utility Billings												
Interest Earnings	148,835	30,352	24,265	15,353	9,475	3,989	7,756	10,353	12,949	12,197	12,426	9,503
Total revenues	1,401,494	1,363,752	1,557,675	1,702,104	1,864,901	2,044,958	2,150,773	2,260,521	2,375,626	2,493,008	2,617,276	2,744,596
Operating Expense												
(Personal Services, Supplies, Other												
Services & Charges)	(482,623)	(516,407)	(663,869)	(765,256)	(841,781)	(1,000,960)	(1,176,056)	(1,368,661)	(1,580,527)	(1,813,580)	(2,069,938)	(2,351,932)
CIP Projects-Stormwater Utility												
Street Sweeper			(330,000)		(330,000)							
Water Truck (1/4 of Cost)				(84,000)								
Vactor Trailer		(211,534)										
Jetter/Vac Truck ($850K total)				(200,000)								
Ford f550 (1/3 cost) $128,255		(58,650)										
Water Truck (Share of)				(125,000)								
Annual Drainage Enhancement			(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)
Outlet Control Structure Improvement	(81,925)											
Central Park Parking Lot Recon-Run Off	(136,755)											
River Storm Water Discharge Treatment			(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)
Storm Sewer 142nd Avenue										(108,486)		
Storm Sewer 161st Avenue	(230,116)	(10,000)										
Storm Sewer Anderson Estates												(85,050)
Storm Sewer Alpine Drive									(73,828)			
Storm Sewer Barthels Rum River Acres		(151,313)										
Storm Sewer Barthels Rum River Acres 2nd	(231,896)	(10,000)										
Storm Sewer Bunker Lake Blvd(Jackal St/Armstrong)				(49,215)								
Storm Sewer Carol Rose Est				(67,014)								
Storm Sewer Brookview Est										(80,590)		
Storm Sewer Countryside Est (From cc case)				(291,006)								
Storm sewer for concrete repairs							(143,182)					
Storm Sewer Deerwood St					(104,751)							
Storm Sewer Dickensons Mississippi Est			(306,722)									
Storm Sewer Echo Ridge										(22,680)		
Storm Sewer Xkimo St		(106,600)										
Storm Sewer Fox Ridge Et 1st & 2nd			(394,506)									
Storm Sewer Ford Brook Est 3rd		(108,360)										
Storm Sewer Halls Dover		(88,200)										
Storm Sewer Alicia St							(80,719)					
Storm Sewer Alpine Drive								(152,948)				
Storm Sewer Alpine (puma-CSAH 83)		(110,160)										
Storm Sewer Alpine Dr (5/47)			(79,538)									
Storm Sewer Alpine (CR 57/CSAJ 5)			(66,755)									
Storm Sewer Hall-Anderson Acres					(163,152)							
Storm Sewer Sorteberg 6					(114,948)							
Storm Sewer Jaspar St										(62,016)		
Storm Sewer Klemish & Klemish									(143,640)			
Storm Sewer Winnemere woods					(98,803)							
Storm Sewer High Point			(214,524)									
Storm Sewer Menkvels Country Park							(89,775)					
Storm Sewer Nature View								(43,470)				
Storm Sewer North Forty									(105,840)			
Storm Sewer Northfork Lake										(58,590)		
Storm Sewer Northfork Oaks 2nd										(51,030)		
Storm Sewer Northfork Oaks 3rd										(94,500)		
Storm Sewer Oakwood Hills					(46,350)							
Storm Sewer Riverside West				(29,950)								
Storm Sewer River Bluffs								(62,606)				
Storm Sewer Section 01 unplatted				(132,192)								
Storm Sewer Section 22 Unplatted			(44,541)									
Storm Sewer Section 06 Unplatted												(231,525)
Storm Sewer Section 07 Unplatted							(13,076)					
Storm Sewer Section 17 Unplatted							(121,078)					
Storm Sewer Section 24 Unplatted								(34,965)				
Storm Sewer Section 15 Unplatted									(148,365)			
Storm Sewer Sunwood D/Waco Street Recon												
Storm Sewer Ramsey Meadows 1, 3 & 4						(43,290)						
Storm Sewer Sunfish Square 1 & 2							(86,231)					
Storm Sewer Sunwood (5/Erkium)			(45,450)									
Storm Sewer Section 21 unplatted						(287,352)						
Storm Sewer 167th Ave		(78,550)										
Storm Sewer-Flintwood Hills				(152,388)								
Storm Sewer-Juniper between 156 & Roanoke					(58,594)							
Storm Sewer-Juniper Woods 1-3rd		(61,875)										
Storm Sewer 142nd Avenue					(10,139)							
Storm Sewer 2027 MSA Overlay Projects					(37,389)							
Storm Sewer 2023 MSA Overlay Projects	(11,657)											
Storm Sewer 2023 Overlay Projects	(8,356)											
Storm Sewer 2024 MSA overlay projects		(18,345)										
Storm Sewer 2024 overlay projects		(114,195)										
Storm Sewer 2025 overlay projects			(69,190)									
Storm Sewer 2026 overlay projects				(32,451)								
Storm Sewer 2027 overlay projects					(49,133)							
Storm Sewer 2028 overlay projects						(20,592)						
Storm Sewer 2029 MSA overlay projects							(11,970)					
Storm Sewer 2029 Overlay Projects							(18,932)					
Storm Sewer 2030 MSA Overlay Projects								(3,308)				
Storm Sewer 2030 Overlay Projects								(42,872)				
Storm Sewer 2031 MSA Overlay Projects									(43,824)			
Storm Sewer 2031 Overlay Projects									(29,799)			
Storm Sewer 2034 MSA Overlay Projects												(49,022)
Storm Sewer 2034 Overlay Projects												(5,985)
Storm Sewer Rivenwick 1st & 2nd												(125,213)
Storm Sewer Riverwood Hills												(117,180)
Storm Sewer Rodeo Hills/Valley View		(174,168)										
Storm Sewer Section 01 unplateed Recon		(50,400)										
Storm Sewer Sortegerg's street recon			(83,855)									
Storm Sewer Whispering Pine Est Plat 5												(16,632)
Storm Sewer Whispering Pine Est Plat 3	(47,381)	(45,000)										
Storm Sewer Windsorwood					(58,401)							
Storm Sewer Woodlawn Est								(142,065)				
2026 MSA Overlays				(168,272)								
Storm Sewer-MSA Alpind Drive T 10 & PUMA						(166,140)						
Storm Sewer-Gateway Industrial Park										(28,728)		
Storm Sewer-MSA Uranimite											(49,140)	
Storm Sewer-MSA Waco Street											(55,944)	
Storm Sewer-Brookview Est											(77,490)	
Storm Sewer-hunters Ridge											(315,630)	
Storm Sewer-Regency Pond 1-3											(191,363)	
Storm Sewer Sports Have Secc 1 Unpl				(43,146)								
Stormwater Drainage Impr 156 & Juniper Ridge					(350,000)							
Stormwater Drainage Impr 156th & Armstrong									(175,000)			
Total Expenditures	(1,230,709)	(1,972,407)	(2,448,949)	(2,289,890)	(2,413,441)	(1,668,334)	(1,891,018)	(2,000,895)	(2,450,824)	(2,470,200)	(2,909,505)	(3,132,538)
Remaining Working Capital Balance	**3,035,191**	**2,426,536**	**1,535,262**	**947,476**	**398,935**	**775,560**	**1,035,314**	**1,294,941**	**1,219,743**	**1,242,551**	**950,322**	**562,380**
		5% rate inc	15% rate inc	10% rate inc	10% rate inc	10% rate inc	5% rate inc	5% rate inc	5% rate inc	5% rate inc	5% rate inc	5% rate inc

Water Utility Fund #601

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Capital Expenses-Equipment												
CIP Projects												
Fire Station #1 Extension of Water		$ (20,000)										
Backhoe (portion of cost)							(17,000)					
Water Reading Meter Fixed Network					(175,000)							
Water truck (1/4 cost)				(84,000)								
util truck cost share	(60,764)	(58,650)	(34,000)			(39,000)						
A. **Water Supply & Treatment Improvements**												
Construct Well #9& Pumphouse #5			(50,000)	(1,100,000)								
Construct Well #10 & Pumphouse #6						(1,750,000)						
Well #1 Rehabilitation (Not in CIP Maintenance)		(59,000)	(62,000)	(65,000)	(68,000)	(68,000)	(68,000)	(68,000)	(68,000)	(68,000)	(68,000)	(68,000)
Pumphouse #1 Roof Replacement			(42,500)									
Well #1 Pressure Filter and Generator					(1,500,000)							
Water Treatment Facility 10 MGD Groundwater includes lines	(6,468,692)	(19,500,000)	(8,500,000)									
Refurbish Water Tower #2			(20,000)	(1,000,000)								
Refurbish Water Tower #1			$ (20,000)		(750,000)							
Watermain - xkimo		$ (33,000)										
Watermain - Alpine Drive		$ (601,000)										
Watermain-Dickenson's Mississippi Estates			$ (250,000)									
Watermain - Halls Dover Acres		$ (400,000)										
161st Ave Recon	$ (133,666)	$ (10,000)										
Subtotal - Capital Expenses	$ (6,663,122)	$ (20,681,650)	$ (8,978,500)	$ (2,249,000)	$ (2,493,000)	$ (1,857,000)	$ (85,000)	$ (68,000)	$ (68,000)	$ (68,000)	$ (68,000)	$ (68,000)
Operational Expenses												
Operating Expense-Distribution and Administration	$ (1,263,548)	$ (1,351,996)	$ (1,541,276)	$ (1,649,165)	$ (1,764,607)	$ (1,888,129)	$ (2,020,298)	$ (2,161,719)	$ (2,313,039)	$ (2,474,952)	$ (2,648,199)	$ (2,833,573)
Operating Expense-Treatment			(672,667)	(1,079,630)	(1,155,204)	(1,236,068)	(1,322,593)	(1,415,175)	(1,514,237)	(1,620,234)	(1,733,650)	(1,855,005)
Subtotal-Operating Expense	$ (1,263,548)	$ (1,351,996)	$ (2,213,943)	$ (2,728,795)	$ (2,919,811)	$ (3,124,198)	$ (3,342,891)	$ (3,576,894)	$ (3,827,276)	$ (4,095,186)	$ (4,381,849)	$ (4,688,578)
Total Annual Expenses	$ (7,926,670)	$ (22,033,646)	$ (11,192,443)	$ (4,977,795)	$ (5,412,811)	$ (4,981,198)	$ (3,427,891)	$ (3,644,894)	$ (3,895,276)	$ (4,163,186)	$ (4,449,849)	$ (4,756,578)
Water System Revenue												
New Service Connections(From Fiscal Impact Study 10/05 reduced by 200-3(	50	50	100	50	25	25	25	25	25	25	25	25
Water Sales (gallons/year)	1,076,136,938	1,090,126,718	1,104,298,366	1,118,654,245	1,133,196,750	1,147,928,308	1,162,851,376	1,177,968,443	1,193,282,033	1,208,794,700	1,224,509,031	1,240,427,648
Water rates ($/1000 gal)	$ 3.17	$ 3.33	$ 3.66	$ 4.02	$ 4.43	$ 4.87	$ 5.11	$ 5.32	$ 5.53	$ 5.75	$ 5.98	$ 6.22
Water Availability Charge (WAC) ($/connection)()	$ 1,481	$ 1,481	$ 1,555	$ 1,602	$ 1,650	$ 1,699	$ 1,750	$ 1,803	$ 1,857	$ 1,912	$ 1,970	$ 2,029
ɔnnection/Trunk Charge ($/connection)(4.5% after year 2005)	$ 2,043	$ 2,009	$ 2,069	$ 2,121	$ 2,174	$ 2,228	$ 2,284	$ 2,341	$ 2,400	$ 2,460	$ 2,521	$ 2,584
ate Revenue(Water Sales/1000 x Water Rates) + water meters	$ 3,574,961	$ 3,332,883	$ 3,666,172	$ 3,959,465	$ 4,157,439	$ 4,365,311	$ 4,583,576	$ 4,766,919	$ 4,957,596	$ 5,155,900	$ 5,362,136	$ 5,576,621
WAC Revenue(Service Connections x Wac Charge)	$ 917,425	$ 74,050	$ 362,427	$ 80,083	$ 41,242	$ 42,480	$ 43,754	$ 45,067	$ 46,419	$ 47,811	$ 49,246	$ 50,723
WRITE DOWN INVESTMENTS TO MARKET VALUE												
Interest Earnings	$ 2,072,701	$ 124,013	$ 32,009	$ 19,268	$ 15,192	$ 19,430	$ 14,926	$ 27,688	$ 40,254	$ 51,744	$ 62,667	$ 72,909
Total System Revenue	$ 6,565,087	$ 3,530,946	$ 4,060,608	$ 4,058,816	$ 4,213,873	$ 4,427,220	$ 4,642,256	$ 4,839,674	$ 5,044,269	$ 5,255,455	$ 5,474,049	$ 5,700,253
PW Land/Building-Internal Loan 2009-2028 @2%	**$ 39,337**	**$ 40,124**	**$ 40,926**	**$ 41,745**	**$ 41,745**	**$ 41,745**						
Internal Loan to offset Muni Center Debt beginning year 2011-2030 @2%	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**				
State GRANT (on building only not trunk lines)			**$ 3,200,000**									
Sales Tax Reim (on building only. Not lines)			**$ 1,280,845**									
Water Working Capital Balance												
Total Annual Expenses	$ (7,926,670)	$ (22,033,646)	$ (11,192,443)	$ (4,977,795)	$ (5,412,811)	$ (4,981,198)	$ (3,427,891)	$ (3,644,894)	$ (3,895,276)	$ (4,163,186)	$ (4,449,849)	$ (4,756,578)
Total System Revenue	$ 6,666,277	$ 3,632,923	$ 8,644,232	$ 4,162,414	$ 4,317,471	$ 4,530,818	$ 4,704,109	$ 4,901,527	$ 5,044,269	$ 5,255,455	$ 5,474,049	$ 5,700,253
Net Income(Loss)	$ (1,260,393)	$ (18,400,723)	$ (2,548,210)	$ (815,381)	$ (1,095,340)	$ (450,380)	$ 1,276,218	$ 1,256,633	$ 1,148,993	$ 1,092,270	$ 1,024,200	$ 943,675
Beginning Water Working Capital Balance	$ 26,063,011	$ 24,802,617	$ 6,401,894	$ 3,853,684	$ 3,038,303	$ 1,942,963	$ 1,492,584	$ 2,768,802	$ 4,025,435	$ 5,174,428	$ 6,266,697	$ 7,290,897
Ending Water Working Capital Balance	$ 24,802,617	$ 6,401,894	$ 3,853,684	$ 3,038,303	$ 1,942,963	$ 1,492,584	$ 2,768,802	$ 4,025,435	$ 5,174,428	$ 6,266,697	$ 7,290,897	$ 8,234,572

SPECIAL ASSESSMENTS POLICY AND PROCEDURES FOR PUBLIC IMPROVEMENTS AND MAINTENANCE COSTS

SECTION 1. GENERAL POLICY STATEMENT.

The purpose of this policy is to establish a fair and equitable manner of assessing the increase in market value (special benefit) associated with public improvements. The procedures used by the City for levying special assessments are those specified by the City Charter and Minnesota Statutes Chapter 429, which provide that all or a part of the cost of improvements may be assessed against benefiting properties.

Three basic criteria must be satisfied before a particular parcel can be assessed. The criteria are as follows:

1. The land must have received special benefit from the improvement.
2. The amount of the assessment must not exceed the special benefit.
3. The assessment must be uniform in relation to the same class of property within the assessment area.

It is important to recognize that the actual cost of extending an improvement past or through a particular parcel is not the controlling factor in determining the amount to be assessed. However, in many cases the method for assigning the value of the benefit received by the improvement, and therefore the amount to be assessed, will focus on calculating the proportionate cost of providing the improvement, provided the cost does not exceed the increase in property market value resulting from the improvement. The entire project shall be considered as a whole for the purpose of calculating and computing an assessment rate. In the event City staff has doubt as to whether the costs of the project may exceed the special benefits to the property, the City Council may obtain such appraisals as may be necessary to support the proposed assessment.

The assessment policy is intended to serve as a guide for a systematic assessment process in the City. There may be exceptions to the policy or unique circumstances or situations that may require special consideration and discretion by City staff and the City Council.

SECTION 2. IMPROVEMENTS AND MAINTENANCE COSTS ELIGIBLE FOR SPECIAL ASSESSMENT.

Subd. 1. Public improvements, and related acquisition, construction, extension, and maintenance of such improvements, authorized by Minnesota Statutes, Sections 429.021 and 459.14, subd. 7, that are eligible for special assessment within the City include the following:

1. Streets, sidewalks, pavement, curbs and gutters, including the beautification thereof.
2. Parking lots.
3. Water works systems and appurtenances, within and without the corporate limits.
4. Sanitary sewer and storm sewer systems including appurtenances, within and without the corporate limits.
5. Street boulevard trees.
6. Street lights, street lighting systems and special lighting systems.
7. Steam heating mains.
8. Parks, playgrounds, and recreational facilities, including the purchase of equipment, within or without the corporate limits.
9. Abatement of nuisances, including but not limited to, draining and filling swamps, marshes, and ponds on public and private property.
10. Dikes and other flood control works.
11. Retaining walls and area walls.
12. A pedestrian skyway system upon a petition pursuant to section 429.031, subdivision 3.
13. Underground pedestrian concourses.
14. Public malls, plazas or courtyards.
15. District heating systems.
16. Fire protection systems in existing buildings upon a petition pursuant to section 429.031, subdivision 3.
17. Highway sound barriers.
18. Gas and electric distribution facilities.

Subd. 2. The City is also authorized by ordinance adopted pursuant to Minnesota Statutes Section 429.101 to recover, through special assessment, certain costs, including the following:

1. Snow, ice, or rubbish removal from sidewalks.
2. Weed elimination from streets or private property.
3. Removal or elimination of public health or safety hazards from private property excluding any structure included under the provisions of Minnesota Statutes, sections 463.15 to 463.26.
4. Installation or repair of water service lines, street sprinkling, sweeping, or other dust treatment of streets.
5. The trimming and care of trees and the removal of unsound trees from any street.
6. The treatment and removal of insect infested or diseased trees on private property.
7. The repair of sidewalks and alleys.
8. The operation of a street lighting system.
9. The operation and maintenance of a fire protection or a pedestrian skyway system.

SECTION 3. INITIATION OF PUBLIC IMPROVEMENT PROJECTS.

Public improvement projects can be initiated in the following ways.

1. Public improvement projects may be initiated by petition of owners of not less than 50% in frontage of the property abutting the proposed improvement in accordance with the provisions of Section 8.4.2 of the City Charter.

2. Public improvements also may be initiated by the City Council when, in its judgment, such action is required and is in accordance with the provisions of Chapter 8 of the City Charter.

3. A resolution ordering any improvements initiated by the Council requires a four-fifths majority vote of all members of the Council. A resolution ordering any improvements petitioned for by owners of not less than 50% of abutting property owners requires a majority vote of all members of the Council. A resolution ordering any improvements initiated by all owners of abutting property, and assessing the entire cost against their property, may be adopted without a public hearing. The Council may consider the request of a Developer to construct the improvements and assess them.

SECTION 4. PUBLIC IMPROVEMENT PROCEDURE.

The following is the general procedure followed by the City Council for all public improvement projects from initiation of such a project through certification of the assessment roll to the County Auditor. Formats for the various reports and resolutions referenced in this section are made a part of the policies and procedures of the City**. Applicable state law and City Charter provisions take precedence over the following general procedure.**

1. Staff reviews the petition or Developer's request for submission to Council.
2. Council accepts or rejects the petition or request. If based upon a petition, the Council adopts a resolution declaring whether the required percentage of property owners signed the petition. If the petition or request is accepted, Council orders the preparation of a feasibility report.
3. Staff prepares the feasibility report. The report shall preliminarily evaluate whether the proposed improvement is necessary, cost-effective, and feasible and whether it should be made as proposed or in conjunction with another project. The report shall include an estimate of the cost of the improvement as proposed. Council may refer the report to the Planning and Zoning Commission.
4. Council accepts or rejects the feasibility report. If accepted, Council orders a public hearing on the improvements.
5. Staff posts and publishes the hearing notice and mails notices to affected property owners as provided in Minn. Stat. § 429.031(a).
6. Council conducts a public hearing.
7. Within six (6) months of the hearing date, but no sooner than sixty (60) days after per City Charter § 8.4.1, Council adopts or rejects a resolution ordering the improvement to be constructed and advertisement of bids. If adopted, staff prepares final plans, advertises for and opens bids as provided in Minn. Stat. § 429.041, prepares a bid tabulation, makes a recommendation to City Council for award, and prepares a proposed assessment roll. Bonds to finance project costs may be issued at any time after the improvements are ordered.

8. Council reviews the proposed assessment roll and orders an assessment hearing.
9. Staff publishes a hearing notice and mails notice of the hearing date and proposed assessments to the affected property owners as provided in Minn. Stat. § 429.061.
10. Council conducts the assessment hearing and adopts, revises, or rejects the resolution determining the amount of the total expense the City will pay, if any, and establishing the assessment roll. If adopted, Council authorizes certification of the assessment to the County Auditor.
11. Council awards contracts based on the bids received.
12. Staff certifies the assessment roll to the County Auditor.
13. Staff supervises construction and prepares payments.

SECTION 5. FINANCING OF PUBLIC IMPROVEMENTS.

The City encourages public improvement projects when the area benefiting and needing such improvements develop. Examples of this policy can be seen through the subdivision regulations, zoning ordinance, and building codes. Developers are required to provide the needed improvements and services before development occurs, thereby avoiding unexpected hardships on the property owners purchasing such property and the general public. However, it is recognized that certain areas of the City have developed without all needed public improvements (e.g. parks, water, sewer, and street improvements) and that methods must be found to provide these improvements without causing undue hardships on the general public or the individual property owners.

Special assessments are generally accepted as a means by which areas can obtain improvements or services; however, the method of financing assessment is a critical factor to both the City and the property owner. Full project costs spread over a very short term can cause an undue hardship on the property owner and, likewise, city costs and systems costs spread over a long period of time can cause an undue hardship on the City.

It is the policy of the City to not defer assessments except in cases where hardship to senior citizens 65 years of age or older, or persons retired by virtue of a permanent and total disability, would result. Also, the City Council may elect to defer assessments on undeveloped land for a specified length of time or until the lands are developed. Terms and conditions of any such deferral will be established in the resolution adopting the assessments.

SECTION 6. GENERAL ASSESSMENT POLICIES APPLICABLE TO ALL TYPES OF IMPROVEMENTS.

The cost of any improvement shall be assessed based upon benefits received. The following general principles shall be used as a basis of the City's assessment policy:

1. **Project Cost.** The "project cost" of an improvement includes the costs of all necessary construction work required to accomplish the improvement (direct costs), plus engineering, legal, administrative, financing and other contingent costs, including acquisition of right-of-way and other property (indirect costs). The finance charges include all costs of financing the project. These costs include, but are not limited to, financial consultant's fees, bond rating agency fee, bond attorney's fees, and capitalized interest. The interest charged to the project shall be included as financing charges.

2. **City Cost.** The "city cost" of an improvement is the amount of the total improvement expense the City will pay as determined by Council resolution. Where the project cost of an improvement is not entirely attributed to the need for service to the area served by the improvement, or where unusual conditions beyond the control of the owners of the property in the area served by the improvement would result in an inequitable distribution of special assessments, or for any other reason determined by the City, the City, through the use of other funds, may pay such "city cost."
3. **Assessable Cost.** The "assessable cost" of an improvement is equal to the "project cost" minus the "city cost."
4. **Interest.** The City will charge interest on special assessments at a rate specified in the resolution approving the assessment roll. If bonds were sold to finance the improvement project, the interest rate shall be equal to the interest rate of the bonds plus 2% (2% above bond rate), rounded to the nearest quarter of a percent. If no bonds were sold, the interest rate shall be set at the U.S. Treasury rate (10-year for 10 year assessment; 15-Year for 15 year assessment) plus 2 percentage points.
5. **Prepayment.** Property owners may pay their assessments in full, interest free, for a period of 30 days after the assessment hearing. After such period interest shall be computed from the date specified in the assessment resolution. The City will transmit a certified duplicate of the assessment roll with each installment, including interest, to the County Auditor, or in lieu of such certification, annually certify to the County Auditor by November 30 in each year, the total amount of installments of and interest on assessments on each parcel that are to become due in the following year.
6. **Extensions.** Where an improvement is designed for service of an area beyond that receiving the initial benefit, the City may pay for increased project costs due to such provisions for future service extensions. The City will levy assessments to cover this cost when a new improvement is installed as an extension of the existing improvement upon identification of such additional amount in the notice of hearing for the extensions or new improvements. As an alternative, the City may assess these costs to the area of future extension immediately based on the value of benefit received.
7. **Project Assistance.** If the City receives financial assistance from the Federal Government, the State of Minnesota, the County, or from any other source to defray a portion of the costs of a given improvement, such aid will be used first to reduce the "city cost" of the improvement. If the financial assistance received is greater than the "city cost," the remainder of the aid will be placed in the Public Improvement Revolving Fund to be applied towards other City projects.
8. **Assessable Property.** Property owned by the City and other political subdivisions including municipal building sites, parks and playgrounds, but not including public streets, alleys, and right-of-way, shall be regarded as being assessable on the same basis as if such property was privately owned. Private right-of-way shall be assessable.
9. **Individual Benefits.** The City may construct improvements specifically designed for or shown to be of benefit solely to one or more properties. The costs for these improvements will be assessed directly to such properties, and not included in the assessments for the remainder of the project. An example would be utility service lines running from the main lines to the property.
10. **Benefit Appraisals.** In the event that City staff has doubt as to whether the proposed assessments exceed the special benefits to the property(ies) in question, the City Council may order benefit appraisals or benefit appraisal consultations as deemed necessary to support the proposed assessments. As a general rule, benefit appraisals or benefit appraisal consultations may be ordered when the proposed assessment exceeds $5,000 for a standard city street

reconstruction project on a residential lot, or $20,000 per acre for commercial or industrial property.

11. **Condemnation Awards.** A property owner may elect to offset special assessments against condemnation awards. In such case, the property owner must execute an agreement (Net Assessment Agreement) with the City.
12. **Subgrade Corrections.** All costs relative to subgrade soil corrections deemed necessary to construct or reconstruct City streets will be considered a "city cost" and will not be assessed.
13. **Rural to Urban Conversion.** All costs relative to converting an existing rural street section to an urban street section by filling roadside drainage ditches and adding curb and gutter and storm sewer will be considered a "city cost" and will not be assessed.
14. **Oversizing.** All costs relative to oversizing an existing City street by increasing the width of the street and/or the load carrying capacity of the pavement section will be considered a "city cost" and will not be assessed.

SECTION 7. METHODS OF ASSESSMENT.

Subd. 1. General Statement. There are three different methods of assessment: adjusted front footage, area, and per lot. The feasibility report will recommend one or a combination of these methods for each project, based upon which method would best reflect the benefit received for the area to be assessed. The City Council will select the preferred method of calculating the assessments along with other applicable assessment criteria.

Subd. 2. Policy Statement. The following methods of assessment, as described and defined below, are hereby established as the preferred methods of assessment in the City.

A. "Adjusted Front Footage" Method of Assessment.

The "adjusted front footage" method of assessment is based on the quotient of the "assessable cost" divided by the total assessable frontage benefiting from the improvement. This method is typically applied to commercial, industrial, and multi-family residential properties. For the purpose of determining the "assessable frontage," all properties, including those owned by governmental entities, shall have their frontages included in such calculation.

The actual physical dimensions of a parcel abutting an improvement (i.e., street, sewer, water, etc.) shall not be construed as the frontage utilized to calculate the assessment for a particular parcel. Rather, an "adjusted front footage" will be determined. The purpose of this method is to equalize assessment calculations for lots of similar size. Individual parcels by their very nature differ considerably in shape and area. The following procedures will apply when calculating adjusted front footage. The selection of the appropriate procedure will be determined by the specified configuration of the parcel. All measurements will be scaled from available plat and section maps and will be rounded down to the nearest foot dimension with any excess fraction deleted.

1. *Rectangular Interior Lots.* The rectangular lot is defined as having no more than 2 feet of difference between the front and rear lot lines. The adjusted front footage is the actual front footage of the lot. For rectangular lots whose frontage is greater than its depth, the "odd shaped lot" method shall be used.

2. *Odd Shaped Lots.* For odd shaped lots such as exist on cul-de-sacs and curved streets where there is more than 2 feet of difference between the front and rear lot lines, and where the lots frontage is greater than its depth, the "odd shaped lot" method of determining the adjusted front footage shall be used. The adjusted front footage shall be computed by dividing the area of the lot by 12,000 square feet to determine the equivalent number of front footage units in the parcel. The number of units multiplied by 65 feet will give the adjusted front footage.

3. *Corner Lot Adjustment.* For street and trail assessments, the short side will be assessed the actual front footage. The long side will be assessed one-half the actual side footage. Sanitary sewer and watermain will only be assessed on the short side of a corner lot.

4. *Zonal Assessment.* When the street along the long side of a corner lot is improved, the cost shall be assessed equally to all lots within ½ block in each direction of the street improved. This method may be selected rather than the "corner lot adjustment".

5. *Double Fronting Lots.* When a lot has frontage on two streets, the lot is subject to assessments for improvements to both streets, consistent with this policy, regardless of the timing of the improvements.

B. "Area" Method of Assessment.

The "area" method of assessment is based on the number of square feet or acres within the boundaries of the appropriate property lines of the parcels benefiting from the project. This method is most often applied to commercial and industrial lots. The assessment rate (i.e., cost per square foot) shall be calculated by dividing the total assessable cost by the total assessable area. On large lots, the City Engineer may determine that only a portion of the lots receives the benefit and may select a lot depth for the calculations equal to the benefit received.

All properties included in the benefited area, including those owned by governmental entities, churches, etc., shall be assessable. The following items may not be included in area calculations: public right-of-ways, and natural waterways, swamps and lakes and other wetlands designated by the Minnesota Department of Natural Resources or the City. The City Engineer will make a recommendation on the boundaries or parameters of the benefited area in the feasibility report.

C. "Per Lot" Method of Assessment.

The "per lot" method of assessment is based on equal assessment of all lots within the benefited area. This method is typically applied to single-family residential lots with similar sizes and configurations. The "assessment per lot" shall be the quotient of the "assessable cost" divided by the total assessable lots or parcels benefiting from the improvement. For the purpose of determining the "lots" or "parcels" all parcels, including those owned by governmental entities, shall be included in such calculations.

SECTION 8. STANDARDS FOR PUBLIC IMPROVEMENT PROJECTS.

The following standards are hereby established by the City to provide a uniform guide for improvements within the City.

A. Surface Improvements

Surface improvements shall normally include all improvements visible on or above the ground within the right-of-way, and include, but are not limited to, trees, lighting, sidewalks, trails, signing, street and accessory improvements such as drainage ponds and facilities, parking lots, parks and playgrounds. Surface improvements shall also normally include aggregate or granular base materials for bituminous and concrete pavements.

Policy Statement. Prior to construction or completion of surface improvements, all utilities and utility service lines (including sanitary sewers, storm sewers, water lines, gas and electric service) shall be installed to all planned service locations such as residences or buildings.

When practicable, no surface improvements to less than both sides of a full block of street shall be approved except as necessary to complete partially completed improvements initiated previously. Concrete or bituminous curbing, or concrete curb and gutter, shall be installed at the same time as street surfacing.

B. Sub-Surface Improvements

Sub-surface improvements shall normally include such items as water distribution, sanitary sewer and storm sewer lines and appurtenant infrastructure, and electric and gas utilities.

Main lines are the publicly owned and maintained lines or facilities such as trunk lines, interceptors, mains, and laterals. Service lines are those privately owned lines or facilities extending from the main line to the property line.

Policy Statement. Sub-surface improvements shall be made to serve current and projected land use. All installations shall conform to applicable standards established by local, state and/or federal agencies of competent jurisdiction. All installations shall also comply, to the maximum extent feasible, with nationally recognized standards such as those of the American Insurance Association.

Service lines from the lateral or trunk utility to the property line of all planned service locations such as residences or buildings on properties whose owner has requested service shall be installed in conjunction with the construction of the mains.

C. Subgrade Improvements

Subgrade improvements shall normally include such items as subgrade corrections (removing layers/pockets of unsuitable soils and replacing them with aggregate base, select granular material, or other more suitable soils) and installation of geotextile fabrics.

Policy Statement. Prior to construction or completion of subgrade improvements, all utilities and utility service lines (including sanitary sewers, storm sewers, water lines, gas and electric service) shall be installed to all planned service locations such as residences or buildings.

SECTION 9. POLICIES OF REASSESSMENT.

The City shall design public improvements to last for a definite period. The life expectancy or service life shall be as stated in the policy statement of this section, or if different, shall be as stated in the resolution ordering improvement and preparation of plans.

Policy Statement

The following are the "life expectancies" or "service lives" of public improvements except as may be otherwise stated in the resolution ordering improvement and preparation of plans.

1. Sidewalks and Trails – 30 years.
2. Street improvements, including surfacing and curb and gutter – 60 years.
3. Ornamental street lighting – 30 years.
4. Water Mains – 60 years.
5. Sanitary Sewers – 60 years.
6. Storm Sewers – 60 years.

SECTION 10. ASSESSMENT COMPUTATIONS.

The following is the typical city assessment for various specified improvements. The City Council reserves the right to vary from the following computations when conditions warrant. All computations are subject to the criteria set forth in Section 1.

A. Street and Curb and Gutter Improvements

1. ***New Construction.*** New streets are assessed 100% to the abutting benefited properties. Street and curb and gutter improvements will normally be assessed by the adjusted front footage method for commercial, industrial and multi-family residential properties, or by the per lot method for single-family residential properties, however other methods including the area method may be utilized if conditions warrant. Cost of construction of streets shall be assessed based on the minimum design of 7-ton axle load in residential areas and 9-ton axle load in commercial and industrial areas. Oversizing costs that are incurred in excess of the above may be paid by: (1) State funds, (2) larger assessment rates to other benefited properties, (3) general obligation funds, or (4) any other method or combination of methods authorized by the City Council.
2. ***Reconstruction and Overlays.*** Street reconstructions and overlays, including the associated removal and replacement of curb and gutter, are assessed 25% to the abutting benefited properties or as otherwise determined by Council ordered benefit appraisals.
3. ***Gravel Streets.*** Upgrading existing gravel streets by adding pavement, curb and gutter, and storm sewer are assessed 50% to the abutting benefited properties or as otherwise determined by Council ordered benefit appraisals.
4. ***Seal Coats.*** Sealcoats are not assessed.
5. ***Alleys.*** Upgrading existing gravel alleys by adding pavement is assessed 50% to all lots abutting on the alley in the block being improved or as otherwise determined by Council ordered benefit appraisals. Reconstructing existing paved alleys is 25% assessed to all lots abutting on the alley or as otherwise determined by Council ordered benefit appraisals.

B. Sidewalks and Trails

1. ***New Construction.*** New sidewalks and trails are not assessed to the abutting property on which the sidewalk is located, but rather are funded 100% by the City. In new subdivisions, the City will require the developer to finance sidewalk and trail improvements rather than assessing the cost.
2. ***Reconstruction.*** Replacement sidewalks are assessed 25% to the abutting property owner and 75% City funded.

C. Storm Sewer Improvements

Storm sewers are assessed on a project-by-project basis. Storm sewers in new subdivisions are considered an assessable improvement on an area basis.

Oversizing costs due to larger mains and larger appurtenances are paid for by a combination of availability charges, user charges and/or trunk area assessment charges. Trunk area storm sewer charges are levied to all unplatted property at the time of platting, to re-plats that have not been charged trunk area charges when the land was originally platted, and to re-plats that have been charged trunk area charges when the land was originally platted but where the use is increasing (only the cost difference based on current and prior use is charged). The charges will be set in the annual fee schedule approved by the City Council.

Normally, storm sewers are assessed on an area basis (square foot or acres), but in certain situations the per lot method or adjusted front footage method may be utilized at the City Council's discretion.

The replacement of existing storm sewers is paid for entirely through the Stormwater Utility Fund.

D. Sanitary Sewer Assessments

Assessments for sanitary sewer in residential areas are based upon the cost of construction of 8-inch mains, which is the smallest size installed in residential areas of the City. Assessments for sanitary sewers in commercial and industrial areas are based upon a standard size of 12-inch mains. Sanitary sewer assessments must conform to Chapter 8 of the City Charter.

Oversizing costs due to larger mains and larger appurtenances will be paid for by a combination of availability charges, user charges and/or trunk area assessment charges. Trunk area sanitary sewer charges shall be levied on all un-platted property at the time of platting and on re-plats that have not been charged trunk area charges when the land was originally platted. The charges will be set in the annual fee schedule approved by the City Council. Services installed to individual properties are assessed to the benefiting property as allowed under Chapter 8 of the City Charter.

Normally, sanitary sewers are assessed on an area basis (square foot or acres), but in certain situations the per lot method or adjusted front footage method may be utilized at the City Council's discretion.

Lateral benefit from major trunk sewers or interceptors is assessed to the properties benefited by the sewer. Any oversizing cost is assessed as described above.

The replacement of existing sewers is funded entirely by the City through the sewer enterprise funds.

Individual sanitary sewer service lines installed directly to specified properties are fully assessed directly to the benefited properties. Properties that have existing private sanitary services, but do not have mainline sewers adjacent to, across or abutting their property lines pay 0% of the assessment rate for the new mainline sanitary sewer, and 100% of the cost associated with replacing the service lines.

Any existing sanitary sewer service lines found to be defective as part of a project are replaced as part of the project and are assessed to the benefiting property as allowed under Chapter 8 of the City Charter.

Property owners electing to connect to City sewer during street reconstruction projects will receive a credit to offset those costs that would have been incurred by the City to reconstruct the street and boulevard after connecting to City sewer if the street were not being reconstructed. The amount of the credit will be set in the annual fee schedule approved by the City Council. Connecting to City sewer requires a City water connection.

E. Watermain Assessments

Assessments for watermains in residential areas are based upon the cost of construction of 8-inch mains, which is the smallest size installed in residential areas of the City. Assessments for watermains in commercial and industrial areas are based upon the standard size of 12-inch mains. Watermain assessments must conform to Chapter 8 of the City Charter.

Oversizing costs due to larger mains and larger appurtenances are paid for by a combination of availability charges, user charges and/or trunk area assessment charges. Trunk area water charges shall be levied on all un-platted property at the time of platting and on re-plats that have not been charged trunk area charges when the land was originally platted. The charges will be set in the annual fee schedule approved by the City Council. Services installed to individual properties shall be fully assessed to the benefiting property.

Normally, watermains are assessed on a per lot basis, but in certain situations the area or adjusted front footage method may be utilized at the City Council's discretion.

The replacement of existing watermains is funded entirely by the City through the water enterprise funds.

Lateral benefit from major trunk watermains is assessed to properties benefited by the watermain. Lateral watermain assessments are based on the costs for an equivalent 8-inch diameter watermain for residential properties and for an equivalent 12-inch diameter watermain for commercial/industrial properties.

Individual water service lines installed directly to specified properties are fully assessed directly to the benefited properties. Properties that have existing private water services, but do not have

mainline watermains adjacent to, across or abutting their property lines pay 0% of the assessment rate for the new watermain but 100% of the cost associated with replacing their service lines.

Any existing water service lines found to be defective as part of the project, are replaced as part of the project and are assessed directly to the benefiting property as allowed under Chapter 8 of the City Charter.

Property owners electing to connect to City water during street reconstruction projects will receive a credit to offset those costs that would have been incurred by the City to reconstruct the street and boulevard after connecting to City water if the street were not being reconstructed. The amount of the credit will be set in the annual fee schedule approved by the City Council.

F. Street Boulevard Trees

All street boulevard trees installed as part of new street constructions or in reconstructing existing streets shall be included as part of the overall project costs included in the assessment calculations.

G. Street Lights

All costs for new streetlights installed as part of constructing new streets or streetlights relocated as part of reconstructing streets are included in the overall project costs and included in the assessment calculations, unless otherwise directed by the City Council. In new subdivisions, the City will require the developer to finance street light improvements rather than assessing the cost.

H. Other Improvements

Based on the City Council's determination, any other eligible improvements may be fully assessed or assessed in part.

SECTION 11. DEFERMENT OF SPECIAL ASSESSMENTS.

Subd. 1. The Council may defer the payment of any special assessment on homestead property owned by a person who is 65 years of age or older, or who is retired by virtue of permanent and total disability, and the City Clerk is hereby authorized to record the deferment of special assessments where all of the following conditions are met:

1. The applicant must apply for the deferment not later than 90 days after the assessment is adopted by the City Council.
2. The applicant must be 65 years of age or older or retired by virtue of permanent and total disability at the time the assessment is adopted.
3. The applicant must be the owner of the property.
4. The applicant must occupy the property as his or her principal place of residence.
5. The average annual payment for assessments levied against the subject property exceed one percent of the adjusted gross income of the applicant as evidenced by the applicant's most recent federal income tax return. The average annual payment of an assessment shall be the total cost of the assessment divided by the number of years over which it is spread.

Subd. 2. The deferment shall be granted for as long a period of time as the hardship exists and the conditions in subdivision 1 remain true. It shall be the duty of the applicant to notify the City Clerk of any change in his or her status that would affect eligibility for deferment.

Subd. 3. The entire amount of deferred special assessments shall be due within sixty days after loss of eligibility by the applicant. If the special assessment is not paid within the sixty (60) days, the City Clerk shall add thereto interest accruing from the first date the applicant loses eligibility at the rate as defined in section 6.4 and the total amount of principal and interest shall be certified to the County Auditor for collection with taxes the following year. Should the applicant demonstrate to the satisfaction of the Council, that full repayment of the deferred special assessment would cause the applicant particular undue financial hardship, the Council may order that the applicant pay within sixty days a sum equal to the number of installments of deferred special assessments outstanding and unpaid to date, including principal and interest, with the balance thereafter paid according to the terms and conditions of the original special assessments.

Subd. 4. The option to defer the payment of special assessments shall terminate and all amounts accumulated plus applicable interest shall become due upon the occurrence of any one of the following:

1. The death of the owner when there is no spouse who is eligible for deferment.
2. The sale, transfer or subdivision of all or any part of the property.
3. Loss of homestead status on the property.
4. Determination by the Council for any reason that immediate or partial payment would impose no hardship.

State Law References(s): Minn. Stat. § 435.193, Senior Citizens or retired & disabled persons hardship special assessment deferral.

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*Amended: 1/13/15 by Resolution #15-01-016 – *Section 6 - #4 Interest to reflect interest rate on bonded projects*