CEDAR RAPIDS CAPITAL IMPROVEMENT 10 YEAR PLAN

PAVING FOR PROGRESS

MAY 2015

CEDAR RAPIDS
City of Five Seasons®

PREPARED BY

HRGreen

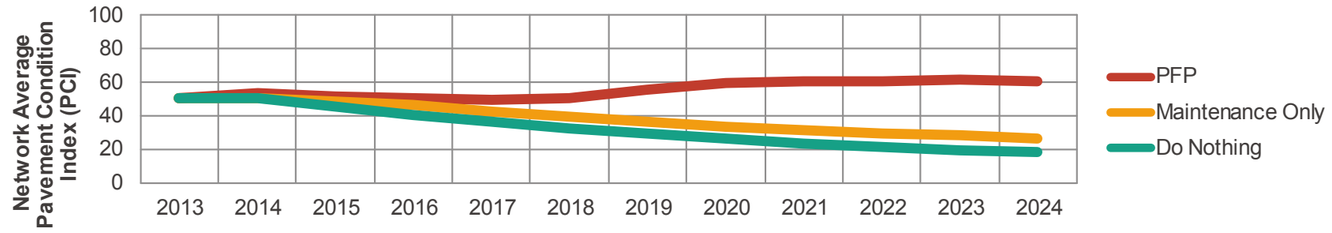
Executive Summary

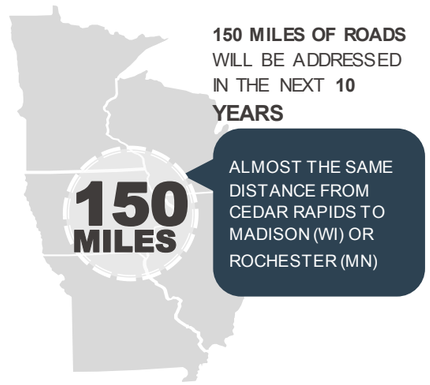
The objective of “Paving for Progress” (PFP) is to improve the neighborhoods of Cedar Rapids, making them more comfortable, convenient and desirable places to live, play and work. In support of this objective, Cedar Rapids voters approved a one-cent Local Option Sales Tax (LOST), in November of 2013, to fund street improvements over the next 10 years. Approval of the LOST coincided with the first delivery of the Iowa Pavement Management Program’s (IPMP) pavement condition data from Iowa State University. In order to determine the best way to spend the PFP funds, the City retained the services of HR Green, Inc. to develop a comprehensive and impartial pavement management program. This program compiles information from a number of sources and uses computer modelling techniques to help in evaluating the entirety of Cedar Rapids’ 600 miles of roadways. The IPMP data, in combination with field inspections performed by City staff and HR Green, served as the basis for the analysis of current pavement conditions and projecting future performance of the road network. The resulting plan provides guidance on the most effective maintenance practices, rehabilitation treatments, and reconstruction activities.

Condition scores were developed, and treatment types selected for use in the plan. The average road in the City has a Pavement Condition Score of 55/100, which represents the very top of the “Fair” category. The majority of roads in Cedar Rapids are quite old. Approximately 90% will need some form of work within the next 10-12 years. Currently, the roadways ranked in “Good” condition carry less than 13% of traffic in Cedar Rapids. These low volume roads will see less damage annually, so they will not need much work, and fewer people will derive benefits from any repair done. The greatest impact to the travelling public, and most efficient use of PFP, will be from maintaining and improving the higher traffic “Fair” and “Poor” conditioned roads.

The collection of LOST funds started July 1, 2014. To put the collected revenue to immediate use, “Quickstart” projects were selected for completion in the 2014 and 2015 construction seasons. Starting in 2016, road projects will be selected from the evaluations of this plan. Each project location and treatment type recommendation was determined through the use of modelling software and GIS analyses.

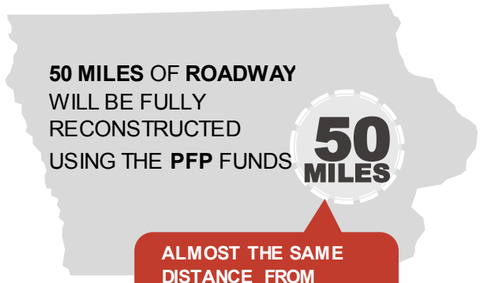
Paving For Progress: A Critical Road Investment





150 MILES OF ROADS WILL BE ADDRESSED IN THE NEXT **10 YEARS**

ALMOST THE SAME DISTANCE FROM CEDAR RAPIDS TO MADISON (WI) OR ROCHESTER (MN)



50 MILES OF **ROADWAY** WILL BE FULLY RECONSTRUCTED USING THE **PFP** FUNDS

ALMOST THE SAME DISTANCE FROM CEDAR RAPIDS TO WATERLOO

APPROXIMATELY 36%

OF **ALL LANE-MILES** IN THE CEDAR RAPIDS WILL UNDERGO TREATMENT

MORE THAN 50% OF ALL VEHICLE MILES

DRIVEN IN CEDAR RAPIDS WILL BE ON ROADS REPAIRED THROUGH THE **PFP** FUNDING

AT LEAST 60% OF ALL CITIZENS

WILL BE WITHIN WALKING DISTANCE OF A PROJECT

IN EXCESS OF **$150 MILLION OF CONSTRUCTION** WILL OCCUR BY THE END OF THE PROGRAM

$150 MILLION

IF THAT MUCH MONEY IN $10 BILLS WERE STACKED ON TOP OF EACH OTHER, THEY WOULD REACH OVER A MILE HIGH

Table of Contents

Introduction

What is “Paving for Progress?”

Paving for Progress is a *program* that carries out an important City *policy*. The policy objective is to improve not only street conditions, but the curb appeal of neighborhoods throughout Cedar Rapids. The City recognizes that street conditions are holding some neighborhoods back from reaching their potential. Therefore the City has launched a program to improve neighborhoods, and help them become more comfortable, convenient and desirable places. This program was branded *Paving for Progress.* In November of 2013, Cedar Rapids approved a one-cent Local Option Sales Tax (LOST) specifically for maintenance, repair, construction and reconstruction of roads within Cedar Rapids. The LOST had already existed since 2008, when it was initially passed to help Cedar Rapids recover from a devastating flood. The 2013 ballot initiative simply continued that existing LOST, and redirected its revenues to a new and timely purpose. In order to make the best use of this money, Cedar Rapids worked with HR Green – a 102-year-old Cedar Rapids engineering firm – to develop an impartial, data-based, system of determining the best projects to include in a proposed 10-year pavement improvement program.

Using Pavement Management methodology, HR Green developed recommendations using the right pavement treatment, at the right time, on the right road. Large amounts of pavement condition data were collected and analyzed with complex computer models, to determine the best use of the LOST revenues and improve the overall condition of the public road network in Cedar Rapids. This report is the culmination of those efforts and includes a 10-year plan of recommended projects that capitalizes on $18 million in new annual revenue, set aside solely for the maintenance, rehabilitation, and reconstruction of public streets.

Program Goals

- Improve/maintain the network so the average road is in “Fair” or better condition.
- Follow through on promises to the citizens of Cedar Rapids who approved the tax.
- Dedicate additional effort to the local street network.
- Commit to spending the revenues wisely on behalf of the public through a strategic, data driven plan

Analysis & Methods

Data Collection

Roadway pavement condition data were collected by a *Fugro Roadware* Automatic Road Analyzer (ARAN). This is a van outfitted with an array of sensors and cameras that automatically collect data about the road. These data include, but are not limited to, cracking, potholes, faulting, spalling, rutting, etc. The data was then processed and divided up using the existing City of Cedar Rapids’ road segmentation for use in ArcGIS (a mapping and data analytics software) by Iowa State University’s Institute for Transportation, which is the agency currently supporting Iowa DOT’s pavement management data collection.

Along with the ARAN data collection, City of Cedar Rapids Staff provided manual inspection services for many roads. This inventory was based on the University of Wisconsin- Madison’s Pavement Surface Evaluation and Rating (PASER) System. The PASER inventory recorded information similar to the data collected by the ARAN, using a tablet computer. Additionally, information on sidewalks, curb ramps, storm inlets and more were collected. This “on-the-ground” field data was used to verify the ARAN collected data, and to supplement information that could not be collected by the ARAN, such as pavement history and curb/gutter condition. Each of the roads was then placed into a condition category ranging from “Very Poor” to “Very Good.” All of the data was then appended with information regarding traffic, functional class, number of lanes and the like, then stored within both GIS and dTIMS databases so that it could be analyzed.

Figure 1: Automatic Road Analyzer (ARAN) - The van is outfitted with an array of sensors and cameras that automatically collect data about the road.

Pavement Life Cycles

The reason pavement management techniques are important is that pavements do not decay at a constant rate over time. Time is a crucial factor in how much investment it takes to repair a road back to a serviceable status. A new pavement will not change drastically over the early years of its life, but once it starts to go, it can go very quickly. If left too long, the pavement may even reach failing status.

When these problems are caught early, however, a small investment at the right time can drastically improve the life of a pavement. Rehabilitating a pavement in “Fair” condition will usually cost less than 25% of what it takes to reconstruct a failing pavement.

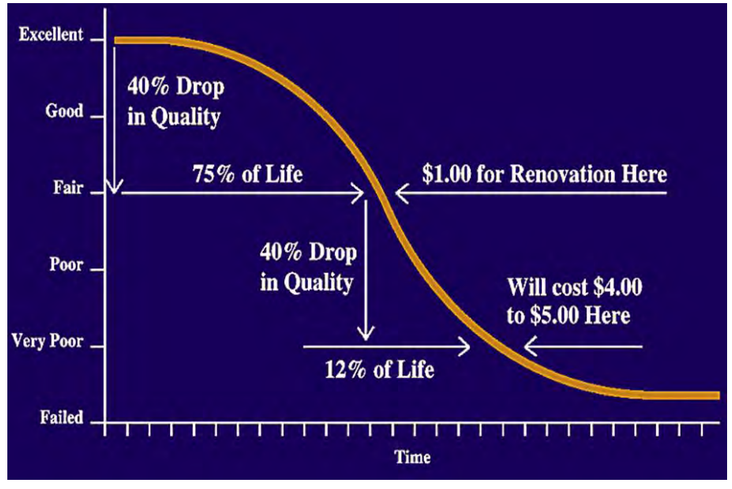


Figure 2: Renovating a pavement in fair condition will usually cost less than 25% of what it takes to reconstruct a failing pavement.

Therefore, it is important to invest wisely and early. Paving for Progress sets Cedar Rapids on a course toward this ideal practice of early and wise investment.

However, before an ideal road network can be reached, many of the worst roadways will need to be reconstructed. Pavements in the "Poor" condition category will, in most cases, be deferred or given light maintenance with the intent of reconstructing before reaching "Very Poor" condition. This effectively saves money and squeezes the most life out of the network, while still giving the opportunity to practice Pavement Management elsewhere in the City.

Different types of pavement behave differently, and different classes of road have different stressors. To accommodate these factors, a pavement life cycle curve was developed for Asphalt and Concrete pavement types and separated further into local and arterial classifications. These curves were calibrated to follow the general assumption that a pavement reaches "Fair" condition at 75% of its design life, and "Very Poor" condition at the end of its design life. Existing pavement ages were not available in all cases, so they were assumed using back calculations of the pavement life-cycle curve to determine their approximate functional stage. These curves do not represent the traditional design life-cycle curve; instead they address the performance of the pavement and how much longer we can realistically expect it to last without having to determine the structural characteristics and history for every street in the City.

The automated data collection process delivered a detailed output of 0.10-mile sections of roadway that were then aggregated to city-block sized summary sections matching the aforementioned segmentation from the City. Each type of distress was then assessed for severity and quantity and combined to form an overall condition index for each section. This pavement condition index (PCI) was used as the primary assessment variable in determining if a pavement needed some form of treatment. Specific distresses also were used as trigger conditions and helped to determine which type of treatment should be used in each project.

In order to model the different behaviors of different types of pavement, life cycle curves were created using the expected life and the condition thresholds for ACC and PCC pavements for both arterial and local streets, respectively. The equation and curve represent how a typical pavement will perform as pavement age increases. A separate curve was developed for each pavement type and functional class.

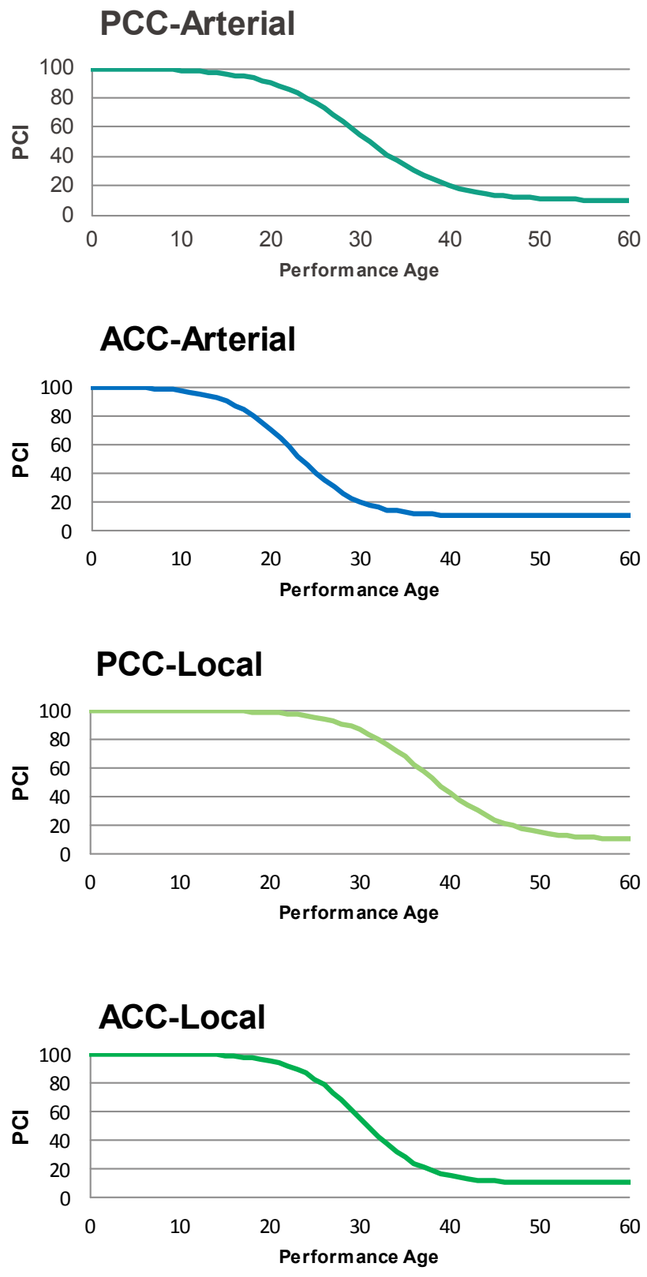


Figure 4: Example Pavement Performance Curves

Condition Thresholds

Initial condition thresholds were created after careful research of similar pavement management programs, condition rating systems, and analysis of the IPMP data. These are used to determine when roads should be repaired and what target condition level the Cedar Rapids Road Network ought to maintain. The threshold values were then taken before a steering committee of Cedar Rapids Maintenance, Construction, and Public Works staff for final guidance on the selection of condition criteria.

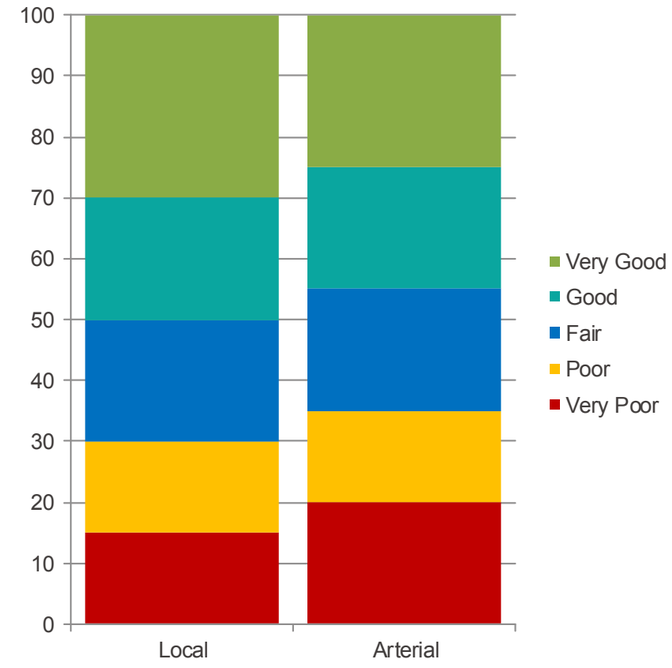


Figure 5: Paving For Progress Condition Thresholds

Local and Arterial streets have different PCI thresholds because Arterial street usage requires a higher standard of performance. Arterial streets receive much higher volumes of traffic than Local streets, and are typically traveled at higher speeds. Small distresses become a larger nuisance when driven at higher speeds, so what might be acceptable on a Local street would not, in many cases, be acceptable on an Arterial route. This plan categorizes all roads not classified as a Local road as Arterial, for modelling purposes.

Figure 6: These roads had the highest overall ratings for both Roughness and PCI; both were in the 80's and freshly resurfaced.

Figure 7: Example of Fair road condition.

Figure8: Example of Poor road condition.

Figure9: Perhaps the worst location in the City, an entire intersection with PCI < 10.

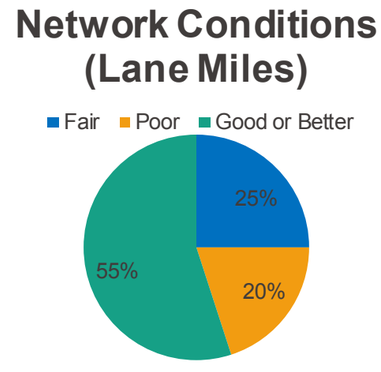


Figure 10: Existing Network Condition

Network Summary

On a total mileage basis, it may appear the Cedar Rapids road network is in excellent condition. More than half of the lane miles in the City are in "Good" or "Very Good" condition. However, less than 13% of the public's vehicle miles annually are traveled on those roads! The vast majority of traffic occurs on roads in "Fair" condition. Moreover, the average PCI rating across the City is just 55, which is considered "Fair," and the highest PCI ratings observed in the City are only in the 80's.

This plan aims to reduce the number of "Poor" conditioned roads, but more importantly, it is intended to maintain the heavily travelled "Fair" condition roads by extending their service life with restorative maintenance and optimal rehabilitations. Ten years is a long time in the life of a road, which typically lasts 30-40 years. If no maintenance occurred within Cedar Rapids, we would expect the road conditions to worsen and quite quickly in many cases. In fact, 90% of the Cedar Rapids Network will need some form of preventative maintenance in the next 10 years to keep everything from falling below the "Poor" condition threshold.

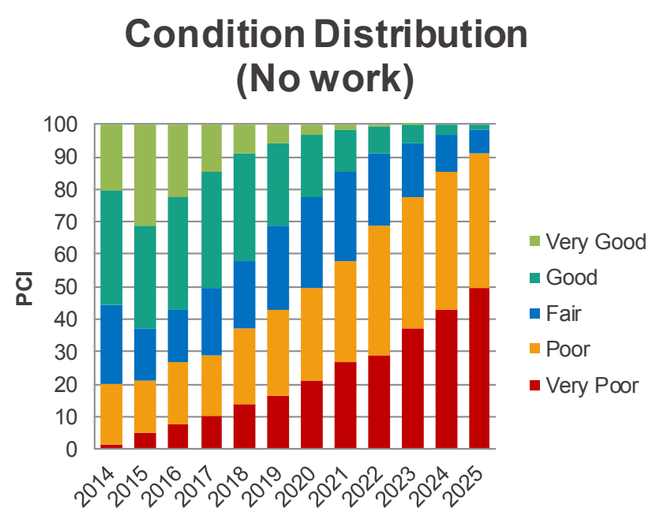
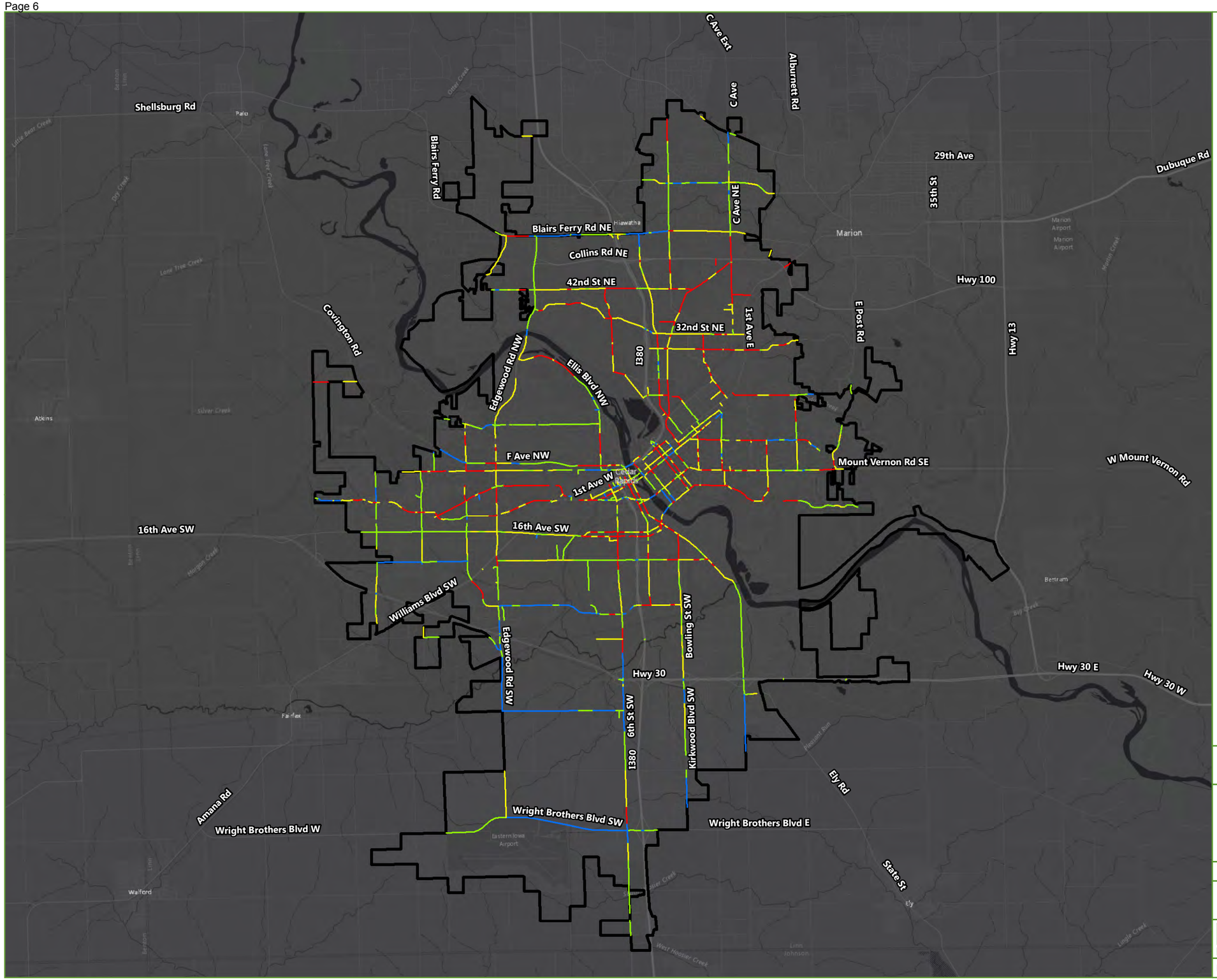


Figure 11: Initial improvements to the network as shown in the graph are from the Quickstart program.



PAVING FOR PROGRESS

Legend

Arterials Roads

Conditions

- Poor
- Fair
- Good
- Very Good
- City Limits

0 2,125 4,250 8,500 Feet

1 inch = 8,500 feet

N

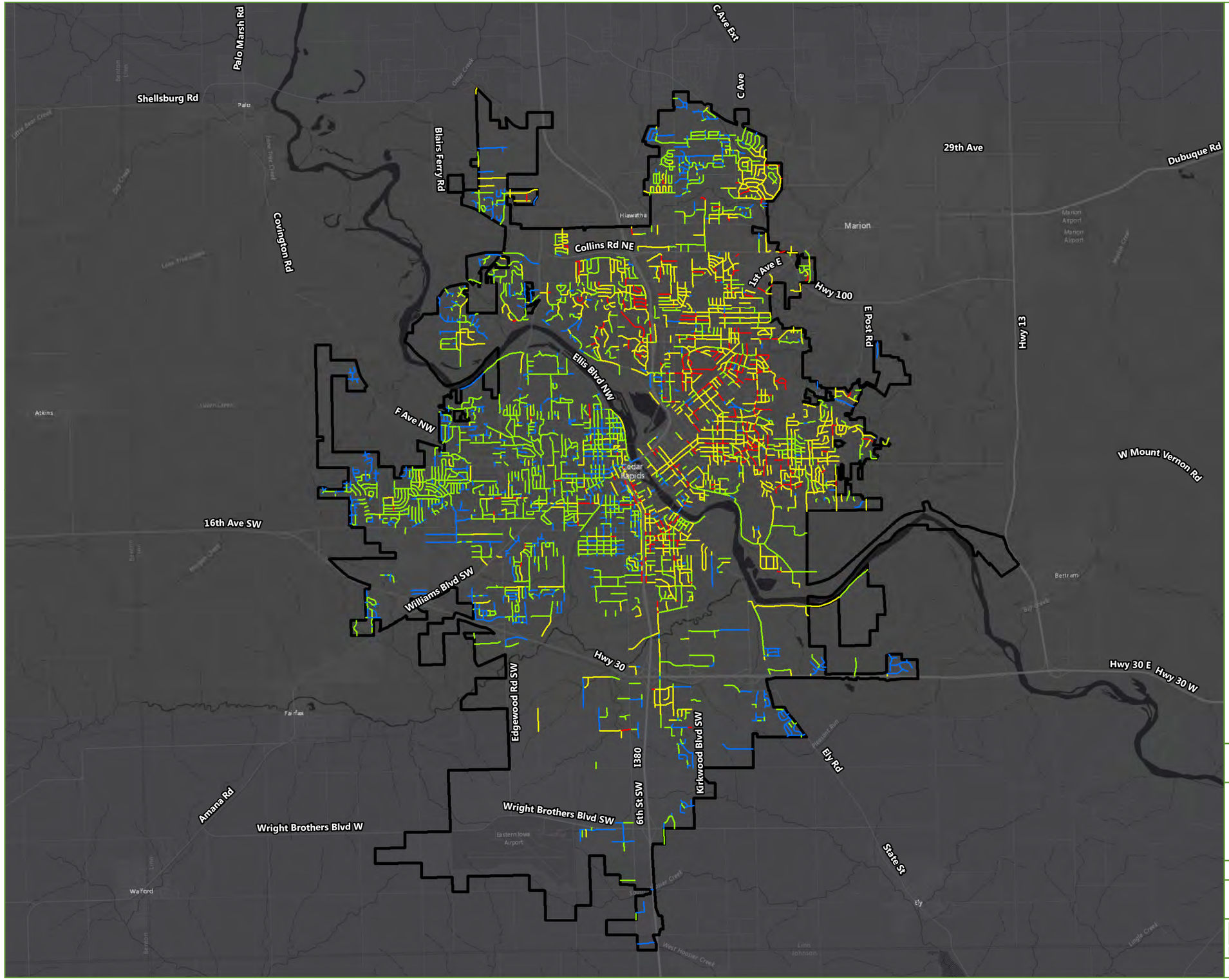
Arterial Current Conditions Paving For Progress Projects

Arterial Roads Current Conditions

MAP 1
Arterial Current Conditions

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.



Legend

Local Roads

Conditions

- Poor
- Fair
- Good
- Very Good
- City Limits

0 2,125 4,250 8,500 Feet

1 inch = 8,500 feet

N

Local Current Conditions Paving For Progress Projects

Local Roads Current Conditions

MAP 2
Local Current Conditions

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.

Treatments

While there are many ways to repair or build a road, for the scope of this plan and the sheer volume of data, the final model needed to select from a limited menu of treatments as opposed to every treatment method available. A list of many categories of treatments was provided to the City and City staff selected what they felt were most likely to be used in Cedar Rapids. These selected treatments were then separated into three categories: maintenance, rehabilitation, and reconstruction. Each treatment was given a price, a unique trigger condition, and an improvement effect.

The triggers determine when the various treatments are used for a given road based on its unique condition. Some treatments pertain only to Portland Cement Concrete (PCC) roads, while others pertain only to Asphalt Cement Concrete (ACC) roads. Others pertain to both pavement types and are based on information such as the amount of cracks in the pavement or the amount of patches already done on the road. Once a treatment is selected from the "toolbox," the improvement effect is applied. Some effects include resetting the cracking to a value of "0" or increasing the PCI rating by a certain percentage. In Figure 12, the green line represents the change applied to a road after a thick overlay, while the red line is the projected decay if nothing was done to the road at all. The difference between the two curves is one of the key variables (the others are cost and traffic) in determining which treatment is best. The treatment effect (green) will be different between treatments but also depend on which year it is treated.

Seal Coat, Brick, and Gravel roads were not considered as a part of the analysis. The methods and treatment types in this study do not apply to such roads. Since these roads represent a small fraction of the overall road network in Cedar Rapids, they will be handled on a case by case basis. It is recommended that these roads continue to be monitored closely over the life of this plan.

In this planning phase, and in addition to the budgeting and treatments, pavement performance curves were created to model the life-cycle of a road's pavement. Considering the time-span of this project, it is imperative the final model be able to make rational estimates and projections about conditions years from now. Where pavement age was not available, it was estimated based on current conditions and life-span behaviors of similar pavements. Each year, the whole road network's condition will decay based on estimated age and road characteristics (including traffic volume). Together with the trigger conditions, this helps schedule the right treatment for the right road at the right time. The final model optimizes the project selection and timing based on the benefits provided to City residents.

Treatment types fall into three general categories: **Reconstruction**, **Rehabilitation** and **Maintenance**. Reconstruction involves complete demolition and rebuilding of the roadway. **Rehabilitation** refers to large-scale repairs to a street such as resurfacing, panel replacements, or other heavy maintenance work. **Maintenance** work improves ride quality without substantially changing the structure of the street such as crack sealing and pothole patching. **Reconstruction** of a roadway is typically the most expensive treatment method in terms of initial costs; despite this, it is sometimes the most cost-effective treatment for a deteriorated road, in the long run. The trick is identifying when a smart application of other treatment types can extend the life more effectively, per dollar spent, than a reconstruction. When Maintenance is applied appropriately, it can keep a street in "Good" condition much longer, helping to maximize the benefits to the community without breaking the bank. Half of the roads identified as "Poor" at the beginning of this plan are slated to be reconstructed. The lion's share of the work, however, will actually be performed on roads presently on the lower edge of "Good" condition to prevent further deterioration.

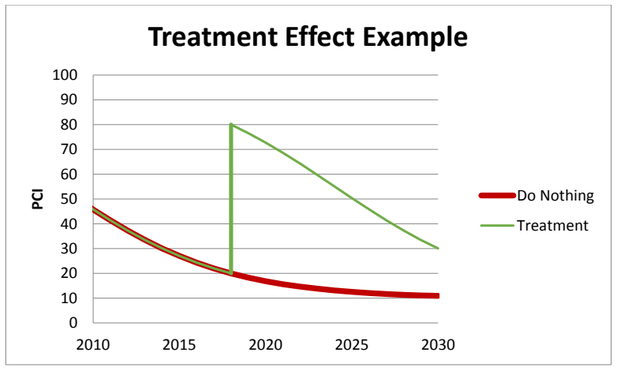


Figure 12: This figure represents what happens in the model when a treatment is applied.

PAVEMENT TREATMENTS	
Chip Seal	
Description	Asphalt coated chips laid loose upon a pavement including any required preparations such as patching.
Cost	$3/SY
Application	Structurally sound pavements with minor surface distresses, typically Poor pavements with Longitudinal and Alligator Cracking.
Crack Filling/Sealing	
Description	Routine maintenance using sealant to cover and fill cracks, potentially including the cost of sawing/routing the cracks as well.
Cost	$200/ Station for 12' of width (1 station = 100 ft.)
Application	Good and Very Good Pavements with any amount of cracking are the targets.
Diamond Grinding	
Description	Removal of a thin layer of PCC pavement to deal with minor surface distresses and ride quality issues. Includes minor patching, crack filling/sealing, and profiling.
Cost	$5/SY
Application	Structurally sound PCC pavements with surface defects and severe roughness. Typically Fair and Poor Pavements are targets.
Mill and Fill	
Description	3" of Pavement Removal and replacement with ACC. Includes Tack and Patch.
Cost	$50/SY
Application	ACC and combination pavements with severe roughness, and surface defects. Typically Poor and Very Poor Pavements are targets.
PCC Restoration	
Description	Reparative practices combined for a holistic improvement to PCC pavements. Including but not limited to Full Depth Patching, crack filling/sealing and profiling.
Cost	$19/SY
Application	Fair or Better Pavements with isolated defects and no catastrophic structural deficiencies.
Thick ACC Overlay	
Description	3" of ACC over the existing pavement and structural preparation treatments, including but not limited to hole patching, crack filling, profiling, and Crack Filling/Seating.
Cost	$35/SY
Application	Poor or Very Poor Pavements without major structural deficiencies such as D-Cracking. Block Cracked pavements are good targets.
Thin ACC Overlay	
Description	1.5" of ACC including tack and patch.
Cost	$17/SY
Application	Structurally sound pavements with surface distresses.
Reconstruction	
Description	The complete removal and replacement of a pavement section
Cost	$150 per Square Yard (SY)
Application	Pavement beyond regular serviceability. Very Poor pavements are the usual targets

Funding Allocation

Funding will be split between Arterial and Local streets, with 60% of all LOST dollars going to Local street work and the rest to Arterial roads. This was identified as a primary goal early on in the plan, so citizens see as much work close to home as possible while still giving the Arterial network the attention it requires. No proportion of the funding was specifically set aside for Reconstruction, but ideally, it would be around 50%.

Not every aspect of a Reconstruction project will be funded by LOST. Upgrades to certain facilities may be warranted by the project, and determined for LOST eligibility on a case-by-case basis. These may include driveway and sidewalk replacements, changes to roadway markings, and repairing existing, non-ADA-compliant sidewalks and curb ramps. For reference, please see Figure 13: PFP Project Funding Eligibility. The costs shown for a project are for the roadway treatments only. In addition, 20% of the projected $18 Million per year in LOST revenue will be set aside specifically for design costs, construction observation, program management, and sidewalk upgrades. Safety improvements and complete streets policies will be enforced as required by City Code and Policies. This does not mean bike lanes will be a part of every road project. Only roads already identified as essential bicycle corridors will have those measures taken during construction.

The various City departments will also work with each other, along with private utilities, so newly improved road projects will not be torn up right away for utility or sewer work. Work already identified for such things will be delayed, when possible, to coincide with Reconstruction and Rehabilitation work recommended within this plan. That work, however, may not be eligible to receive LOST funds and will be costs additional to those in this plan.

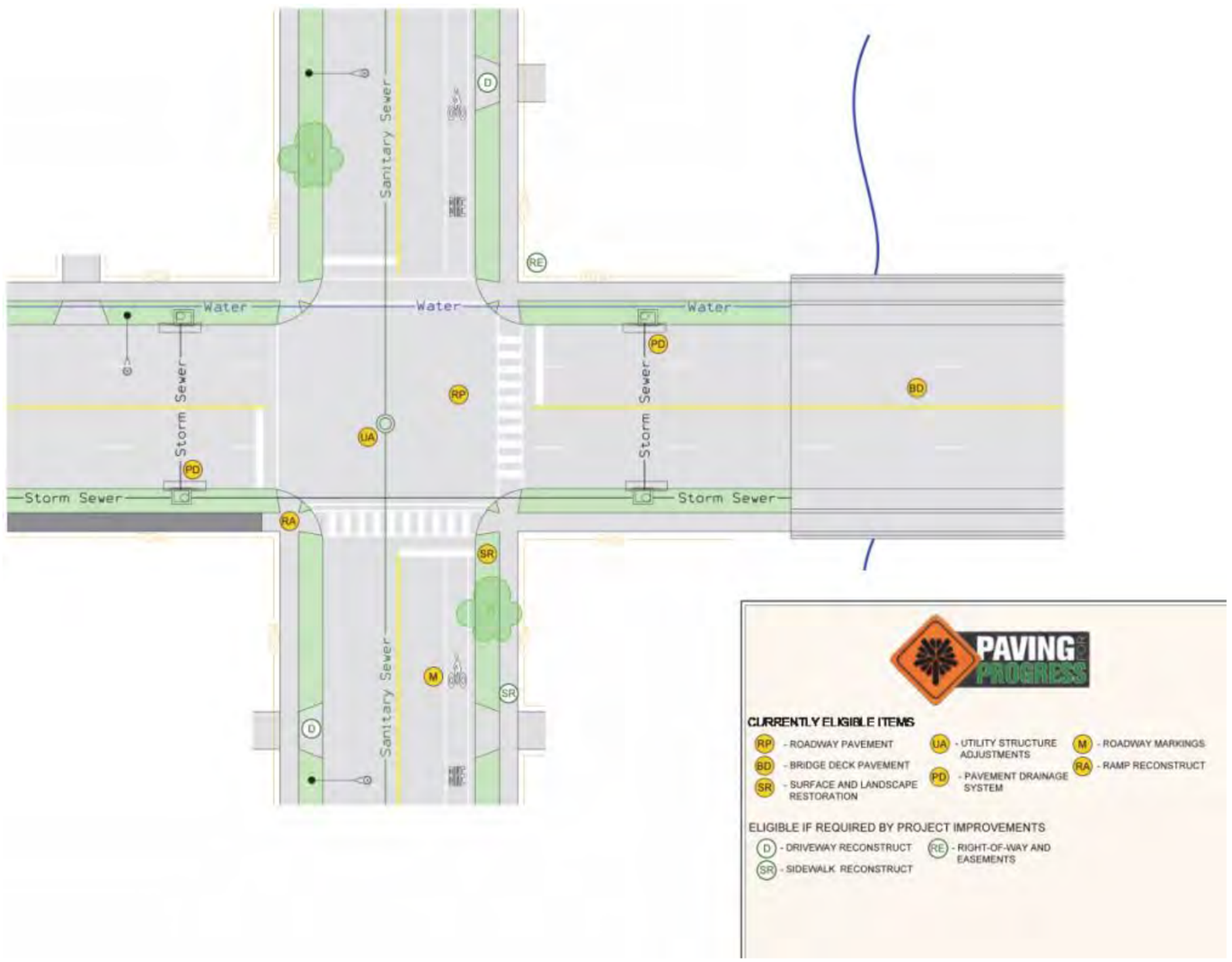


Figure 13: Paving for Progress Projects Funding Eligibility Figure

dTIMS Modeling

dTIMS (Deighton's Total Infrastructure Asset Management Software) is a computer program developed by Deighton Associates Limited for use in storing infrastructure asset data, developing projections of infrastructure asset performance, estimating remaining life in various infrastructure assets, determining when they need to be replaced or repaired, and estimating how much the treatment will cost. It allows for any and all asset data to be entered, there is no limit to what information can be stored within the program and considered during the modelling process. However, in Version 8 (The version sold by IPMP to Cedar Rapids), the user must manually program how all of the data relates to each other, assign costs, develop the treatment triggers and effects, create funding pools that each treatment will pull from, and develop their own life-cycle curves for the infrastructure assets. Once this is accomplished, dTIMS' primary feature goes to work; it runs a heuristic algorithm (a series of tests using general rules and guessing approaches for determining optimal solutions) to identify an optimal "Strategy" for maintenance and replacement of the infrastructure assets in question, given the budget, treatments, and life-cycle information supplied by the user.

Some manipulation through GIS was required to combine the IPMP data with outside data sources from the City and State before it could be imported into dTIMS. The compiled data was used to create the condition scoring system for the network and estimate remaining service lives. These two tasks were done by comparing all of the roads in Cedar Rapids in regards to each of the distress types to create a well-balanced system that considered a variety of factors regarding pavement quality. Once all the data were compiled in GIS, it was imported to dTIMS and the model was run. The outputs were analyzed to determine optimal ways to combine nearby projects of complimentary treatment types, and programmed to achieve the optimal treatment timing. Arterial roads were each considered independently and combined solely within the same corridor. The Local roads, however, were combined into neighborhoods, isolated projects, and zones based on connectivity and traffic levels. Each of these groupings of Local roads was analyzed as if they were a single road segment; all of the same analyses were applied including treatment triggers and cost estimates.

The model was set to keep all of the proposed work within the assigned budget, while maximizing the "Benefit" provided to the public. Benefit was determined as the difference between the conditions of the road network if nothing was done and the selected treatment effect. This method is standard practice when determining optimal treatment. The model used in this plan also factors in the amount of traffic (AADT) on the affected roads. The final result represents both the number of people who will receive the benefit of driving on a newly reconstructed road and the magnitude of the improvement. Both the costs and the benefits were adjusted for inflation and discount rates over the 10 years of the proposed plan.

Work was then assigned to City Forces and Private Contractors based on the size, traffic impacts, and complexity of the project; also to ensure the work allocated is within the City's means.

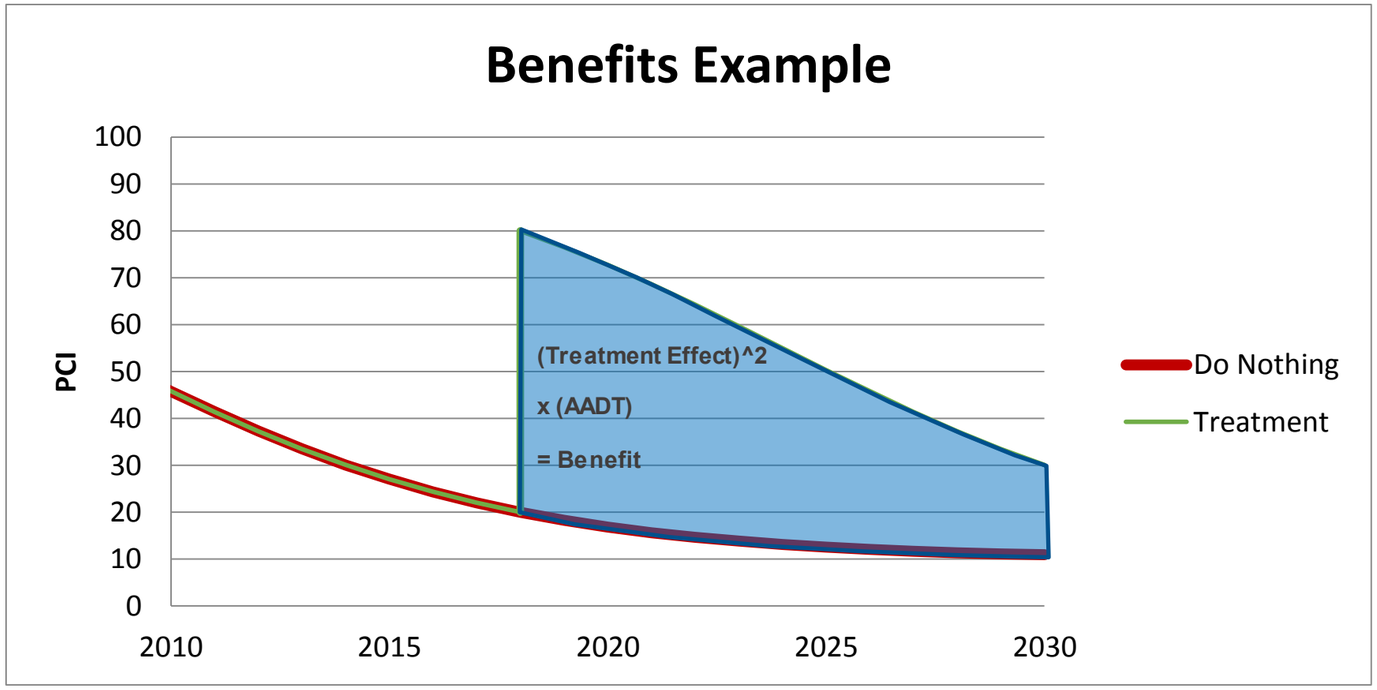


Figure 14: Picture demonstrating what the benefits calculation looks like

Results: 10 Year Plan

A timely strategy means spending "smart" by making investments needed to keep roadways in good repair, rather than paying more money later to address greater deterioration. By performing appropriate maintenance in a timely manner, the life of the pavement can be extended (retaining serviceability and performance), thereby, delaying the need for costly rehabilitation or reconstruction.

Initially, 2014 and 2015 projects were selected by City staff as part of the Quickstart program; these include projects such as Diagonal Drive from Interstate 380 to 8th Ave SW, and Wiley Blvd SW from Williams to 16th Ave. A handful of long-term projects outside of the 2014/15 Quickstart program were also included in the initial selection to begin planning and design, so they may be constructed as soon as possible. All other projects were programmed via the model.

The plan will perform work on over 50% of the "Poor" roads and commit over 60% of funding to the Local street network. Not only will the plan maintain the existing network, projections indicate it will increase overall network pavement condition by nearly 20%! Figure 16 compares the PFP plan against a maintenance-only strategy (no heavy rehabilitation or reconstruction), and a strategy in which no work whatsoever is done, demonstrating what PFP can accomplish. PFP increases the network quality and is significantly more cost efficient than simple reactive maintenance.

Quadrant maps and detailed comprehensive lists may be found in the appendix. Information includes type of suggested work and estimated completion timeframe. All of this information will also be available on the City's Paving for Progress website (CityofCR.com/PavingforProgress) as well.

This plan intends to be a living document. Iowa DOT and the Iowa Pavement Management Program will be delivering new data every two years. The data will be used to validate and update the model, verify progress, and report on changes. Bi-annual reviews and updates to this plan will ensure this amazing data resource is made the most of. Quarterly reports about the work completed through PFP will be delivered to City Staff and used to track success and efficiency of the proposed program.

Figure 15: Reconstruction work from 2014 Quickstart program

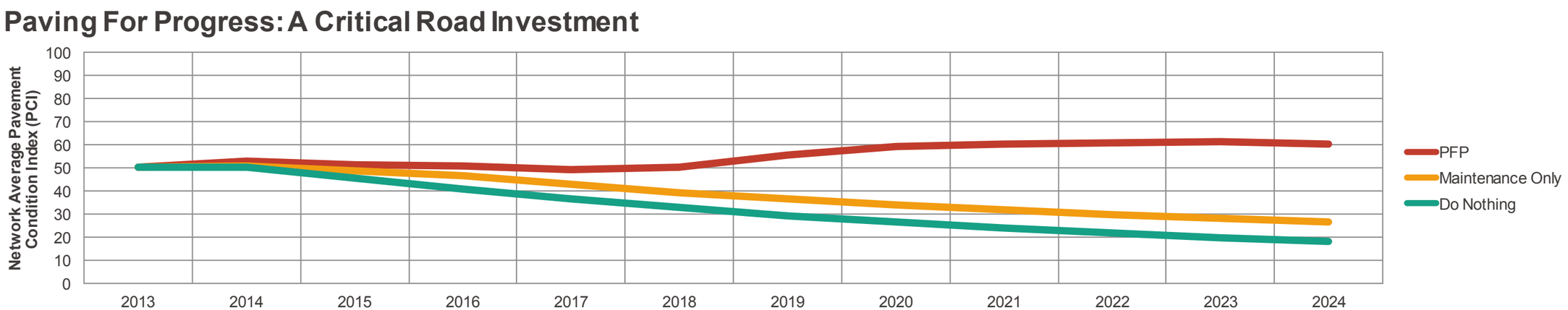
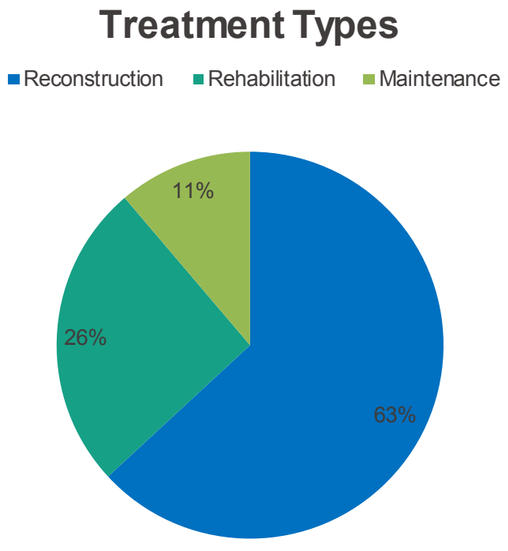


Figure 16: This figure represents what will happen to the street network given 3 different scenarios, if no work is done, only maintenance work, and the PFP plan



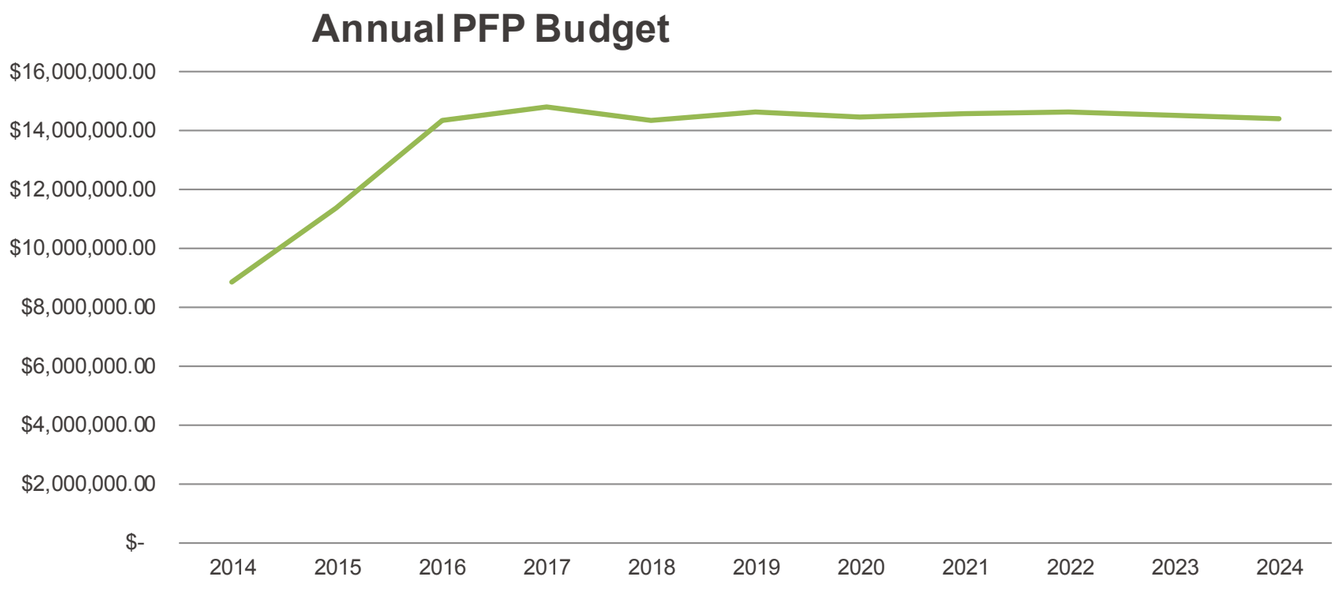


Figure 19: PFP Budget

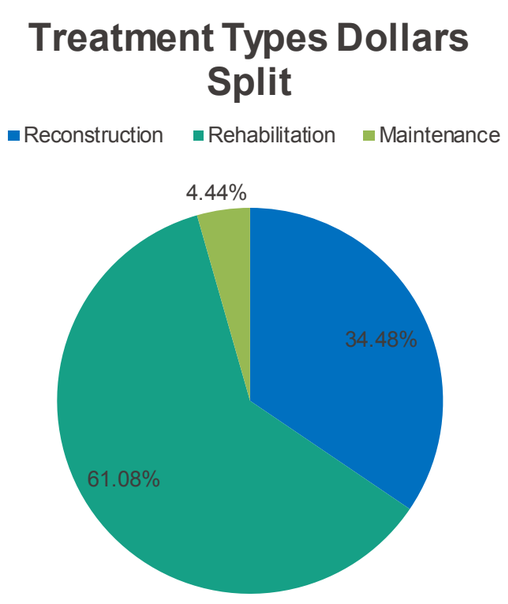


Figure 18: Treatment types, budget and dollars

The PFP budget (Figure 19), after scaling up during the Quickstart Program, remains relatively constant, and keeps a fair balance of the three pavement management categories. The cost of Maintenance and Reconstructions are both at extreme ends of the cost spectrum so there is dramatic shift in the data when moving from project scale in size to scale in dollars (Figure 18). This conforms to the expectation that about 50% of the PFP money should go into Reconstruction work. The budget figure represents only the construction budget, 20% of the projected $18 Million in revenue each year is set aside for other costs such as design, and the remaining balance will be about $14.4 Million for just construction costs. Of the LOST funds expected to be spent by PFP, the goal to maintain 60/40 split between Local and Arterial streets has been met, each receiving their share of the projected $150 Million total planned for the next 10 years (Figure 20).

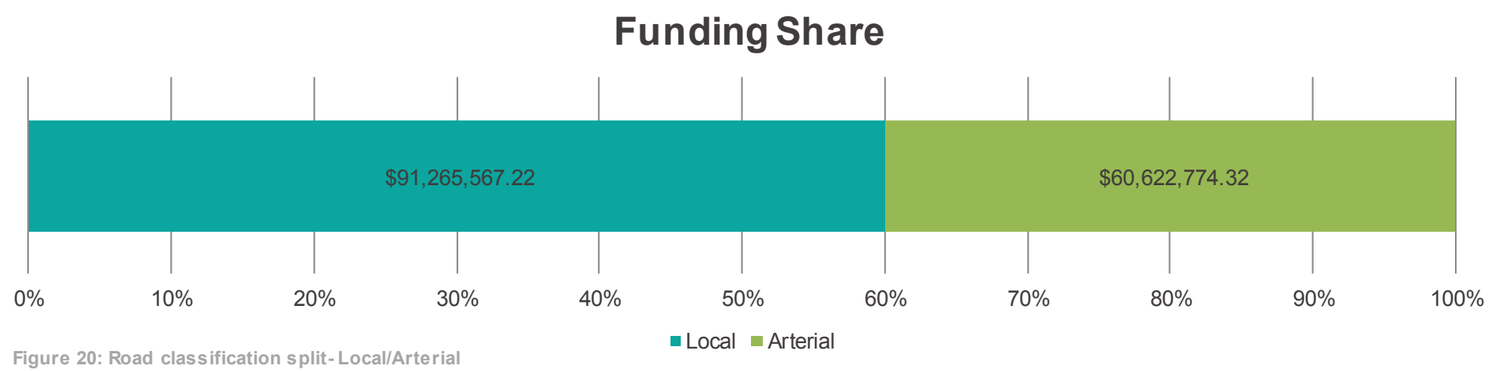
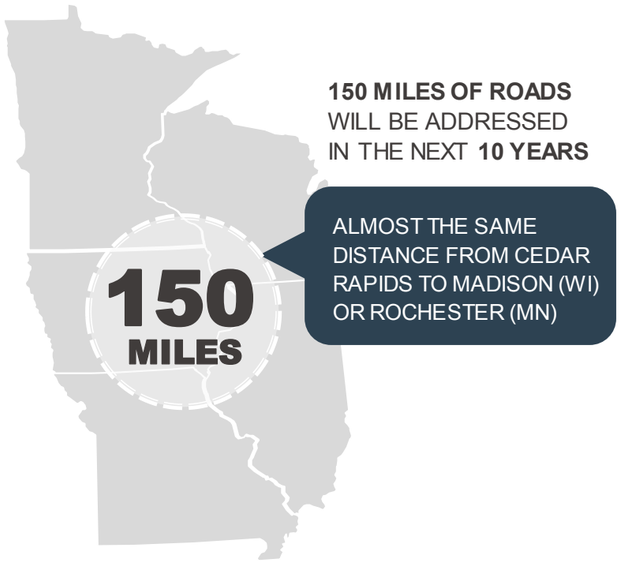


Figure 20: Road classification split - Local/Arterial

Road Condition Impacts



150 MILES OF ROADS WILL BE ADDRESSED IN THE NEXT **10 YEARS**

ALMOST THE SAME DISTANCE FROM CEDAR RAPIDS TO MADISON (WI) OR ROCHESTER (MN)

APPROXIMATELY 36%

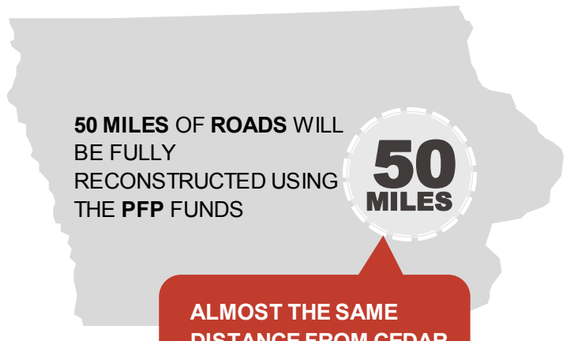
OF **ALL LANE-MILES** IN THE CEDAR RAPIDS WILL UNDERGO TREATMENT

MORE THAN 50% OF ALL VEHICLE MILES

DRIVEN IN CEDAR RAPIDS WILL BE ON ROADS REPAIRED THROUGH THE **PFP** FUNDING

AT LEAST 60% OF ALL CITIZENS

WILL BE WITHIN WALKING DISTANCE OF A PROJECT



50 MILES OF **ROADS** WILL BE FULLY RECONSTRUCTED USING THE **PFP** FUNDS

ALMOST THE SAME DISTANCE FROM CEDAR RAPIDS TO WATERLOO

IN EXCESS OF **$170 MILLION OF CONSTRUCTION** WILL OCCUR BY THE END OF THE PROGRAM

$150 MILLION

IFTHAT MUCH MONEY IN $10 BILLS WERE STACKED ON TOP OF EACH OTHER THEY WOULD REACH OVER A MILE HIGH

Paving for Progress' impacts are not subtle; in fact, it will be hard to miss all of the **$150 Million** of **construction work** that is going to be done in Cedar Rapids. With over **150 miles** expected to receive treatment in the next 10 years, 1/4th of the entire road network will be revitalized, and when factoring in numbers of lanes, that number stretches to **36%!** These many miles of road are the most vital in Cedar Rapids, carrying over half of the **vehicle miles travelled** annually. **60%** of the population will very likely be within **walking distance** to a project (defined as a1/4th mile by the American Disabilities Act), that is less than a **minute's drive** away! 4500ft of roughness (measured as the variation in road height due to cracks and potholes) will be smoothed out, and about 50 miles of road will actually be **completely reconstructed**; that would be the same as paving a brand new road all the way from downtown Cedar Rapids to Waterloo! Expect to see a whole bunch of blue signs showing what is shaping up to be some amazing **Progress** these next few years!

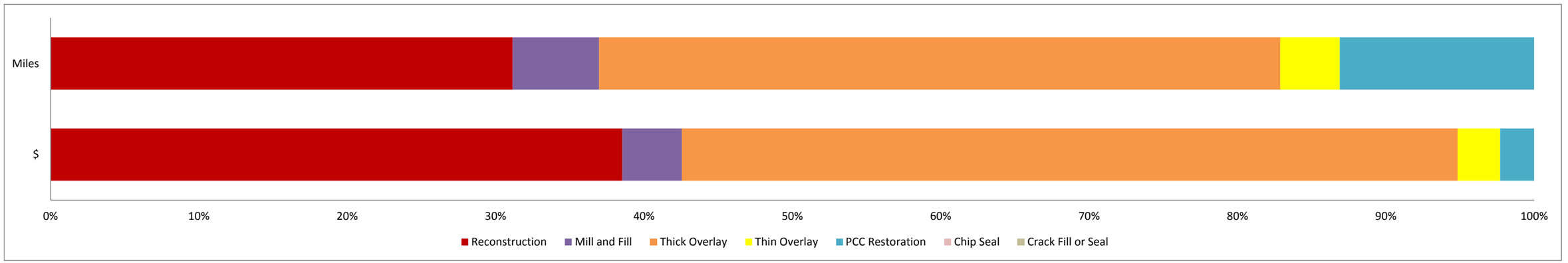
Figure 17: Local Option Sales Tax Dollars at Work signage.

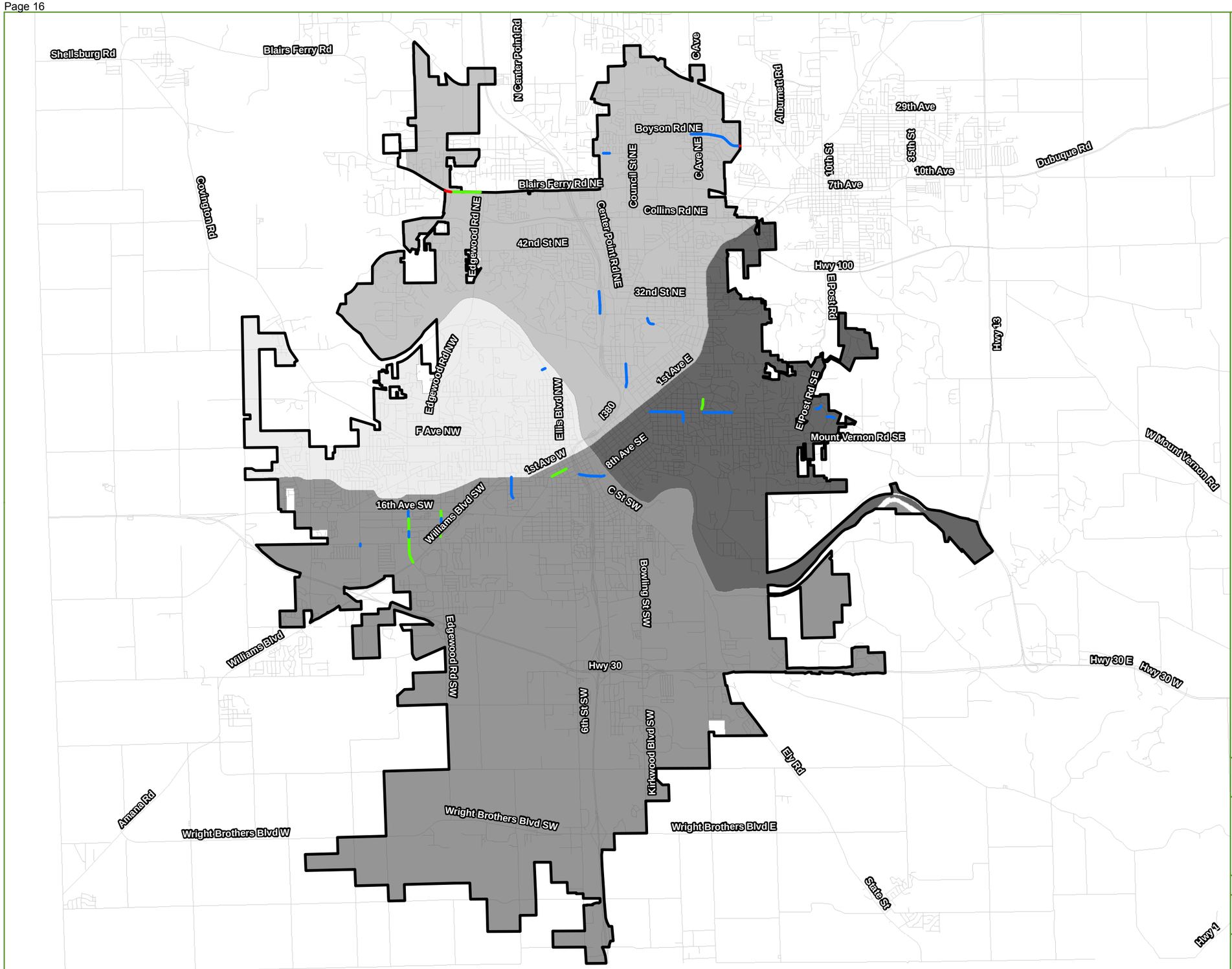
You may have already seen a few around from the 2014 Quickstart projects. PFP construction projects will all be identified using these custom signs showing that the tax dollars are hard at work!

Appendix: Project Lists and Maps

Quickstarts: Project Year 2014

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
17TH ST SW	1ST AVE W	10TH AVE SW	0.25	Rehabilitation	
19TH ST SE	5TH AVE SE	BEVER AVE SE	0.29	Rehabilitation	To be bid as part of group 2
3RD AVE SW	6TH ST SW	10TH ST SW	0.25	Maintenance	
BEVER AVE SE	22ND ST SE	MEMORIAL DR SE	0.44	Rehabilitation	To be bid as part of group 2
BEVER AVE SE	14TH ST SE	19TH ST SE	0.51	Rehabilitation	To be bid as part of group 2
BLAIRS FERRY RD NE	BOYSON RD	BOYSON RD NE	0.55	Reconstruction	
BOYSON RD NE	BOYSON RD	C AVE NE	0.81	Reconstruction	
BROADVIEW DR SE	LAWNDALE DR SE	GREEN VALLEY TER SE	0.12	Rehabilitation	
DIAGONAL DR SW	L ST SW	8TH AVE SW	0.57	Reconstruction	
EDGEWOOD RD SW	16TH AVE SW	WILLIAMS BLVD	0.40	Rehabilitation	To be bid as part of group 3
GARDEN DR SE	WASHINGTON AVE SE	GRANDE AVE SE	0.15	Rehabilitation	To be bid as part of group 2
GREEN VALLEY DR SE	GREEN VALLEY TER SE	450' WEST	0.10	Rehabilitation	
JUHL DR NE	DEER HORN TRL NE	CHIPPEWA TRL NE	0.34	Rehabilitation	
NORTHBROOK DR NE	LAUREL LN NE	BOXWOOD LN NE	0.10	Rehabilitation	
OAKLAND RD NE	E AVE NE	H AVE NE	0.36	Rehabilitation	
PRAIRIE DR NE	ROBINWOOD LN NE	25TH ST NE	0.15	Rehabilitation	
WILEY BLVD SW	WILLIAMS BLVD	16TH AVE SW	0.81	Rehabilitation	
TOTALS	15 PROJECTS		6.3 Mi		





PAVING FOR PROGRESS

Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction
- City Limits

Quadrants

- NW
- NE
- SW
- SE

0 2,000 4,000 8,000 Feet

1 inch = 8,000 feet

N

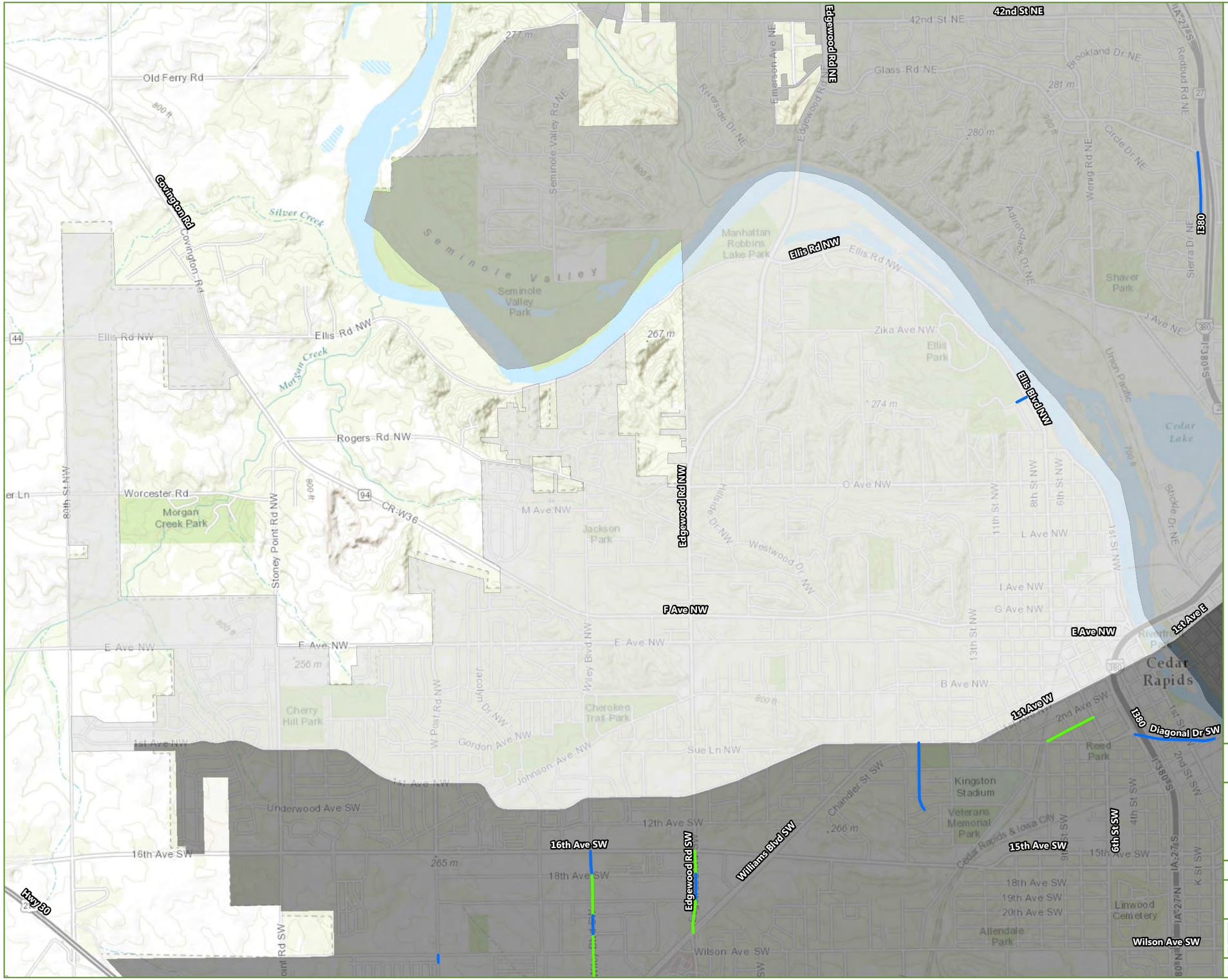
2014
Paving For Progress Projects

Council District 5

MAP 3
2014 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: J.R.K.
DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 625 1,250 2,500 Feet

1 inch = 2,500 feet

N

2014
Paving For Progress Projects

NW Quadrant

MAP 4
2014 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
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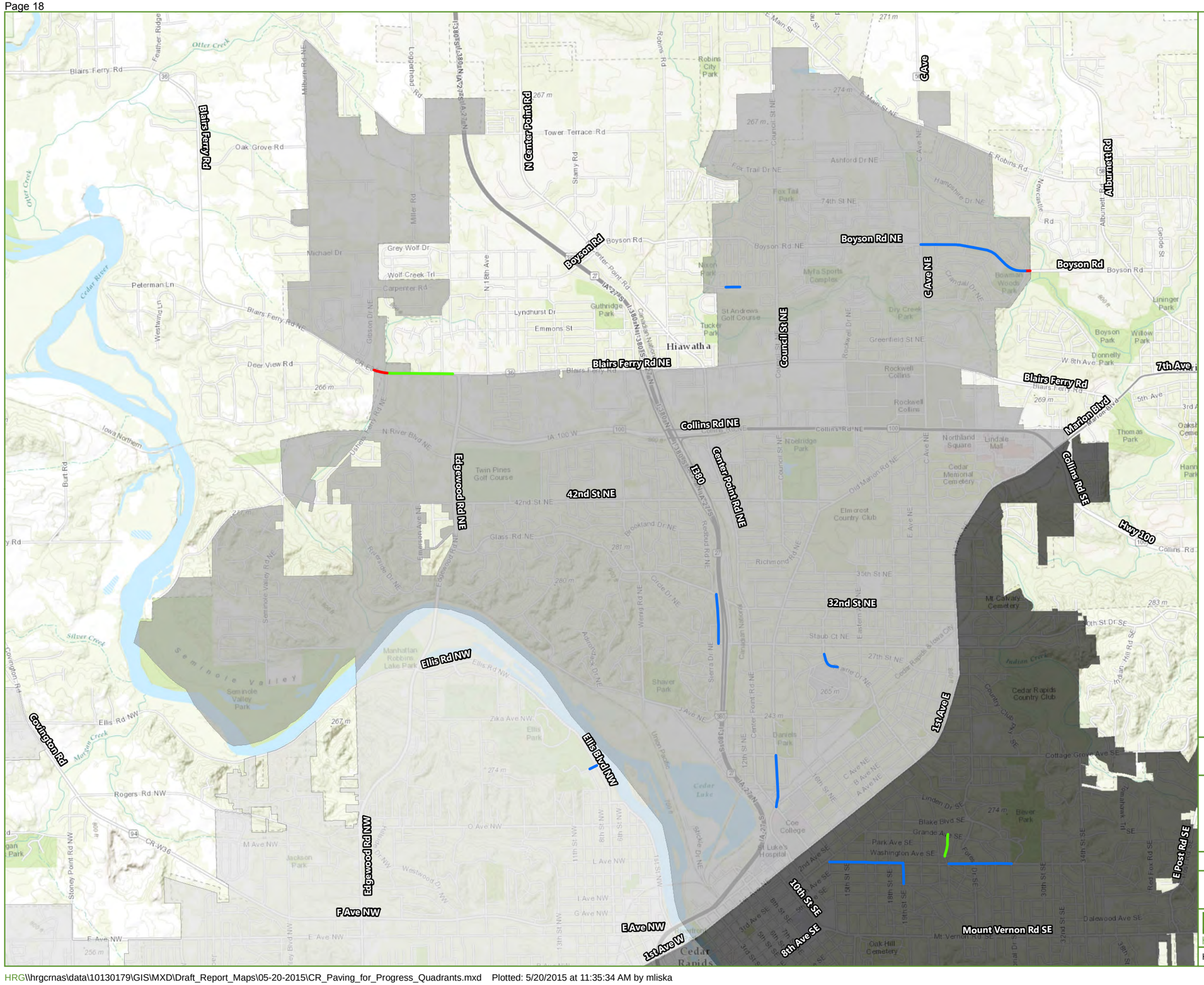
HRG JOB NO: 10130179
APPROVED BY: M.S.L.
DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

2014
Paving For Progress Projects

NE Quadrant

MAP 5
2014 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

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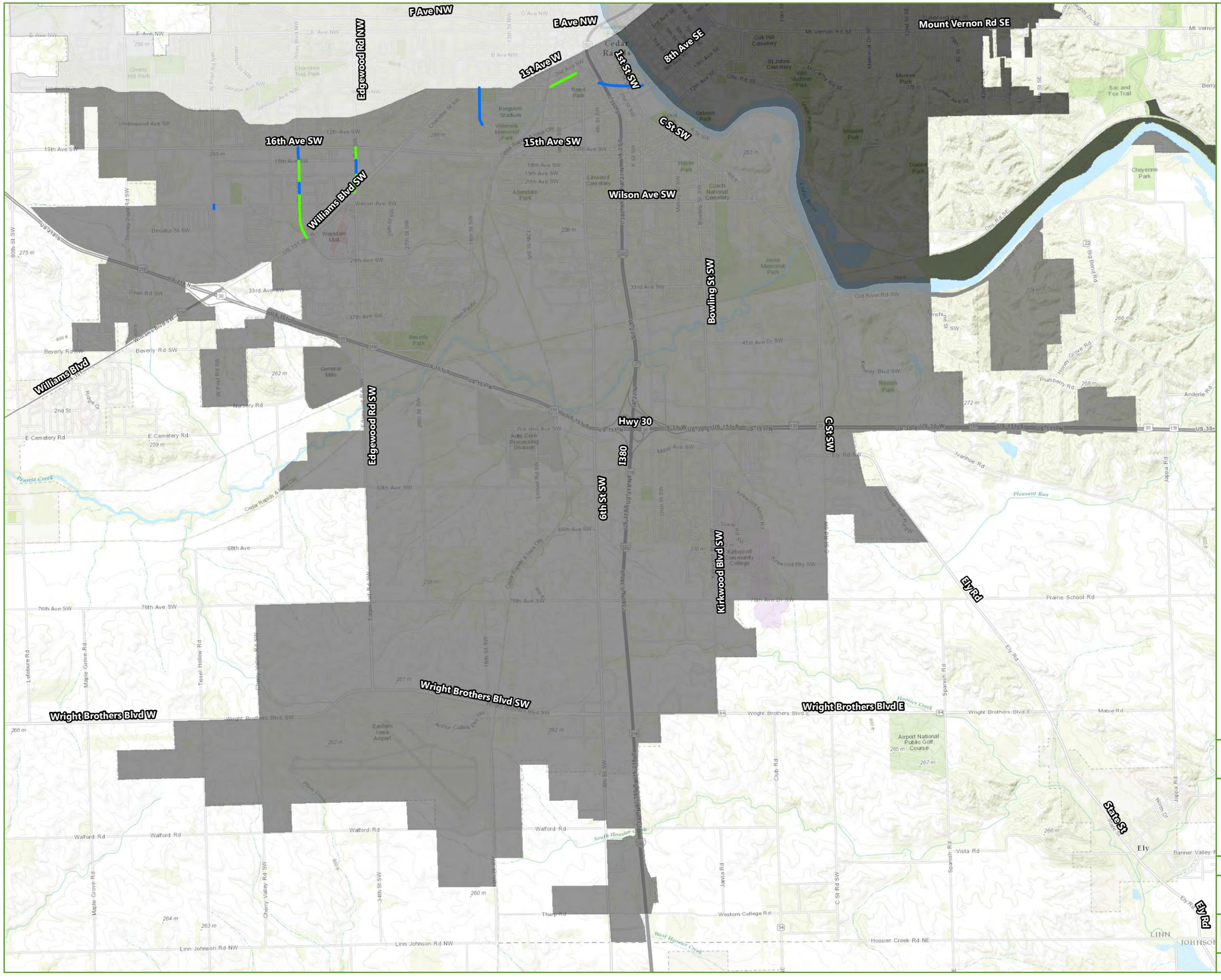


Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 1,125 2,250 4,500 Feet

1 inch = 4,500 feet

N

2014
Paving For Progress Projects

SW Quadrant

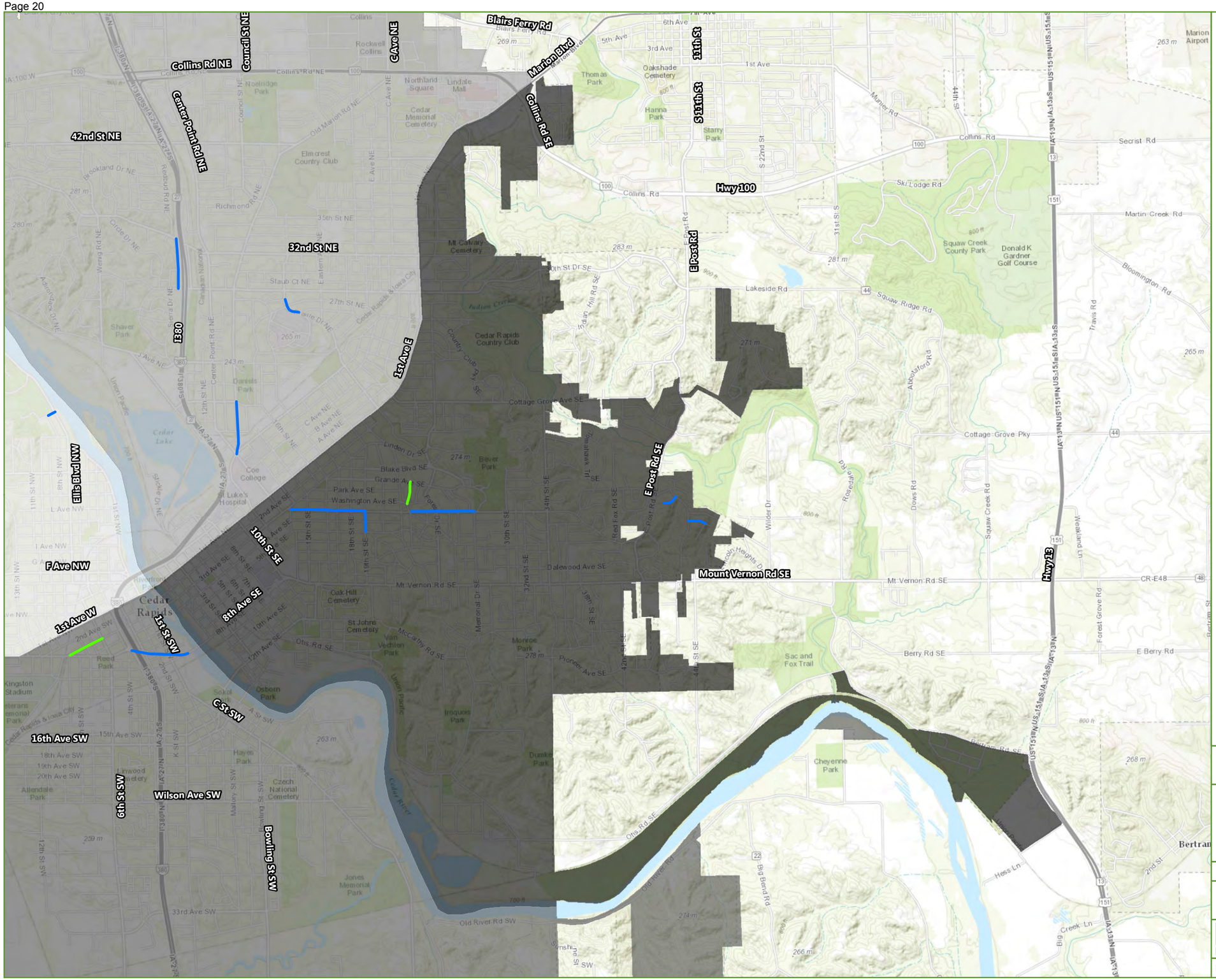
MAP 6
2014 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015

DRAWN BY: M.S.L.

HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

2014
Paving For Progress Projects

SE Quadrant

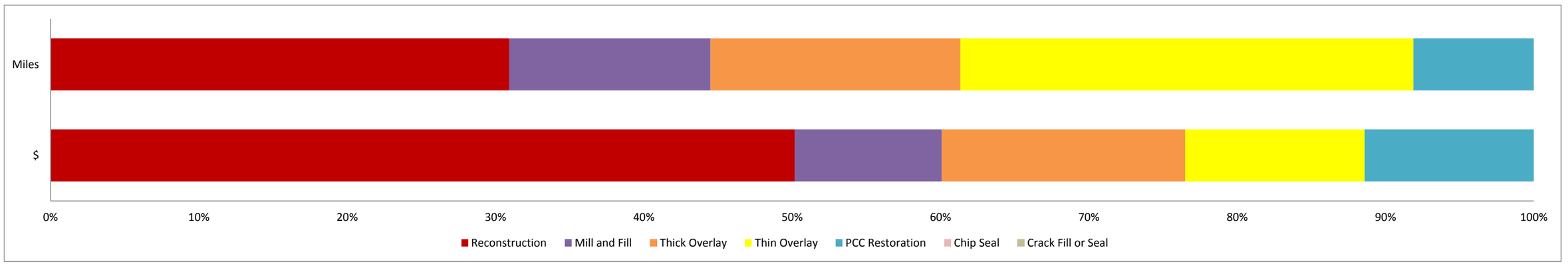
MAP 7
2014 Treatments

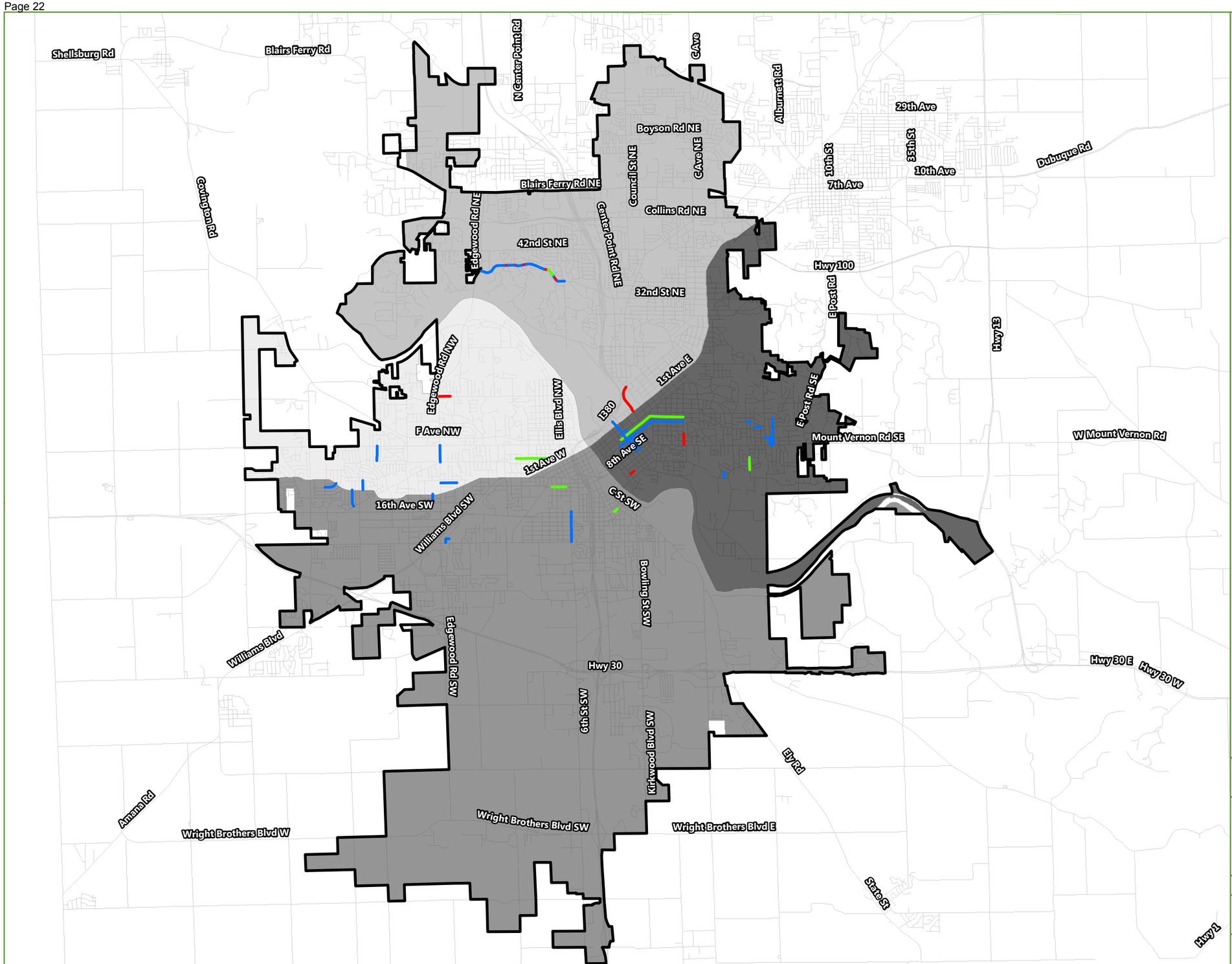
HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: M.S.L.
DESIGNED BY: M.S.L.

Quickstarts: Project Year 2015

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
11TH AVE SE	3RD ST SE	4TH ST SE	0.07	Reconstruction	
19TH ST SE	8TH AVE SE	GLENWAY DR SE	0.02	Reconstruction	
1ST AVE E	34TH ST NE	40TH ST NE	0.68	Rehabilitation	
20TH ST NW	BURCH AVE	JOHNSON AVE	0.12	Maintenance	
26TH ST SE	MCCARTHY RD	PARKWOOD DRIVE	0.09	Maintenance	
30TH ST SE	SEELY AVE	CRESTVIEW DRIVE	0.20	Maintenance	
35TH ST SE	MOUNT VERNON RD	DALEWOOD AVE	0.10	Maintenance	
36TH ST SE	MT VERNON RD	WHITE OAK RD	0.41	Rehabilitation	
4TH AVE SE	5TH ST SE	19TH ST SE	1.09	Rehabilitation	
7TH ST SE	8TH AVE SE	7TH AVE SE	0.07	Rehabilitation	To be bid as part of group 1
7TH ST SE	6TH AVE SE	5TH AVE SE	0.07	Rehabilitation	To be bid as part of group 1
7TH ST SE	3RD AVE SE	1ST AVE E	0.15	Rehabilitation	To be bid as part of group 1
8TH AVE SW	10TH ST SW	7TH ST SW	0.22	Maintenance	
8TH ST SE	8TH AVE SE	3RD AVE SE	0.36	Rehabilitation	To be bid as part of group 1
AUBURN DR SW	12TH AVE	1ST AVE	0.12	Maintenance	
B AVE NW	8TH ST NW	HIGHLAND DR NW	0.52	Reconstruction	
CHERRY HILL RD SW	JOHNSON AVE	1ST AVE	0.25	Maintenance	
COE RD NE	CENTER POINT RD NE	1ST AVE E	0.43	Reconstruction	
CRESTRIDGE AVE SW	BROADMORE	1ST AVE	0.19	Maintenance	
DAIRYDALE CT SE	32ND ST	KNOLL ST	0.10	Maintenance	
DALEWOOD AVE SE	34TH ST	35TH ST	0.07	Maintenance	
EDGEWOOD RD NW	JOHNSON AVE NW	E AVE NW	0.26	Rehabilitation	
GLASS RD NE	WENIG RD NE	EDGEWOOD RD NE	1.43	Reconstruction	
KENRICH DR SW	WILSON AVE SW	N TO DEAD END	0.12	Maintenance	
MANSFIELD AVE SE	30TH ST	31ST ST	0.07	Maintenance	
MEADOWLARK LN NW	1ST AVE	SKYLINE DRIVE	0.14	Maintenance	
MIDWAY DR NW	PEACE AVE NW	ALMA DR NW	0.73	Reconstruction	
RAVENWOOD TERRACE NW	EDGEWOOD RD	29TH ST	0.25	Maintenance	
WEST POST RD SW	RUHD ST	DECATUR ST	0.31	Maintenance	
WILSON AVE SW	WEST POST RD	TROY ST	0.28	Maintenance	
ZELDA DR NW	MIDWAY DRIVE	400 ZELDA DRIVE	0.09	Maintenance	
TOTALS	27 PROJECTS		7.3 Mi		





Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction
- City Limits

Quadrants

- NW
- NE
- SW
- SE

0 2,000 4,000 8,000 Feet

1 inch = 8,000 feet

N

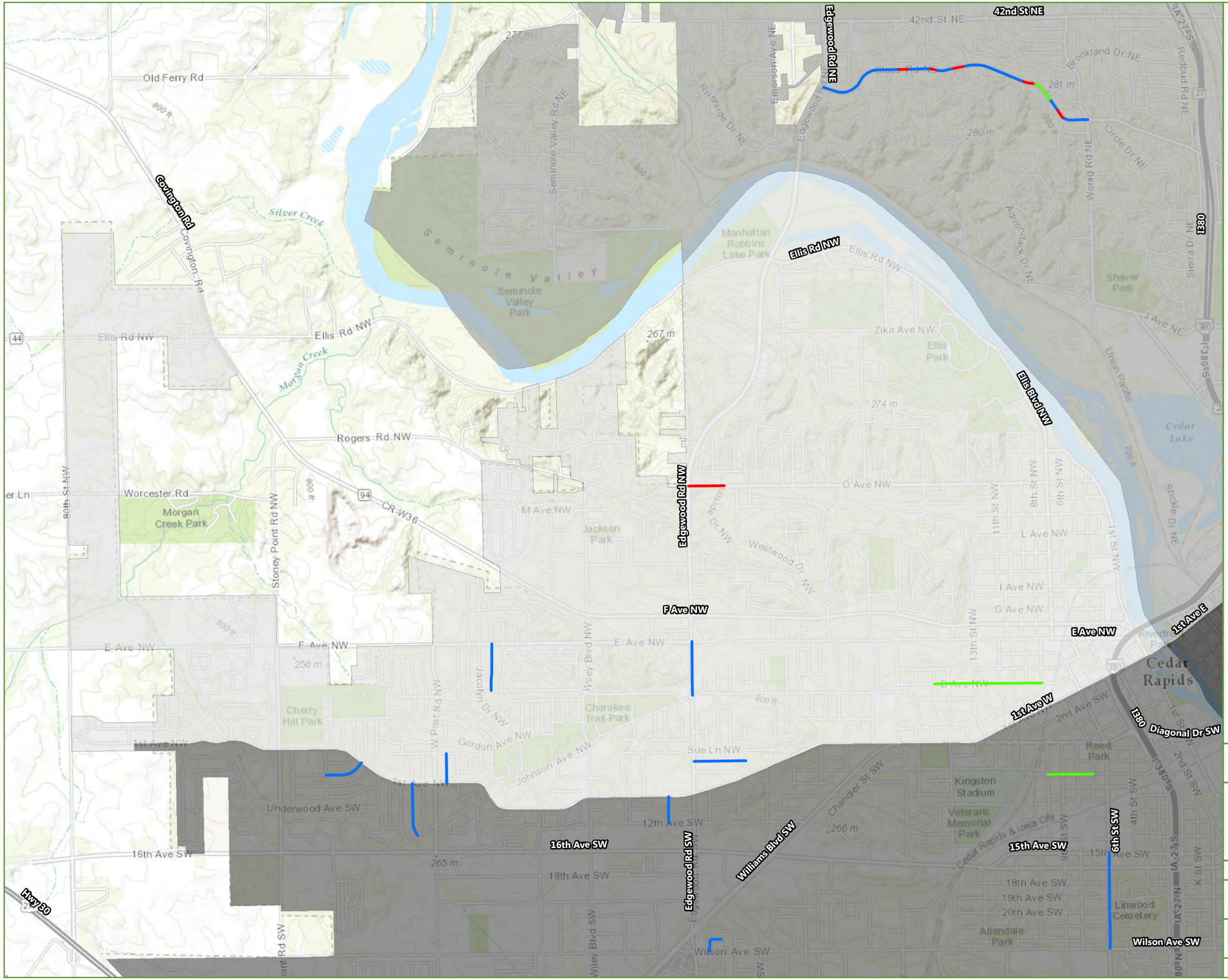
2015 Paving For Progress Projects

Council District 10

MAP 8
2015 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: J.R.K.
DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 625 1,250 2,500 Feet

1 inch = 2,500 feet

N

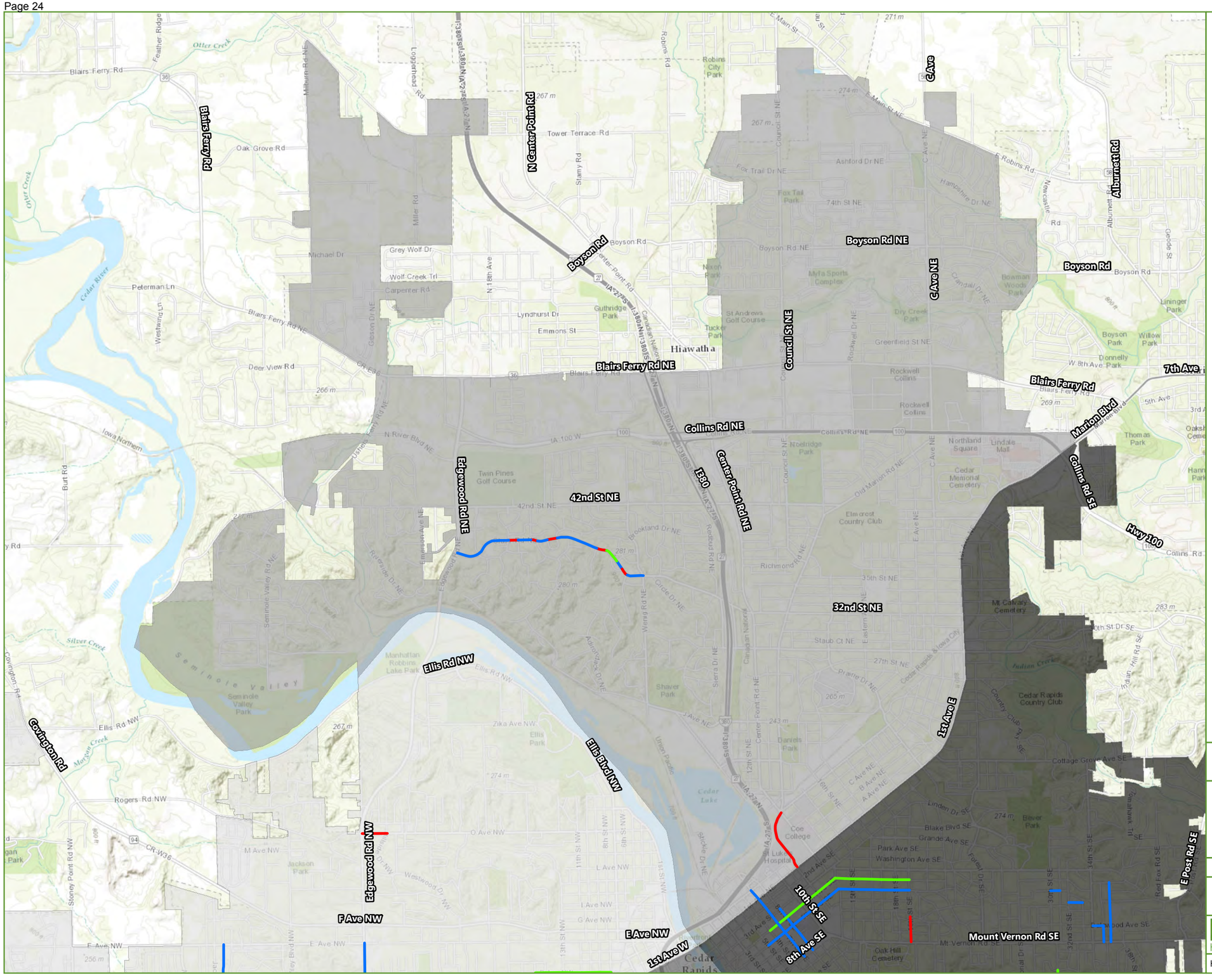
2015 Paving For Progress Projects

NW Quadrant

MAP 9
2015 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: M.S.L.
DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

2015 Paving For Progress Projects

NE Quadrant

MAP 10
2015 Treatments

HRGreen
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
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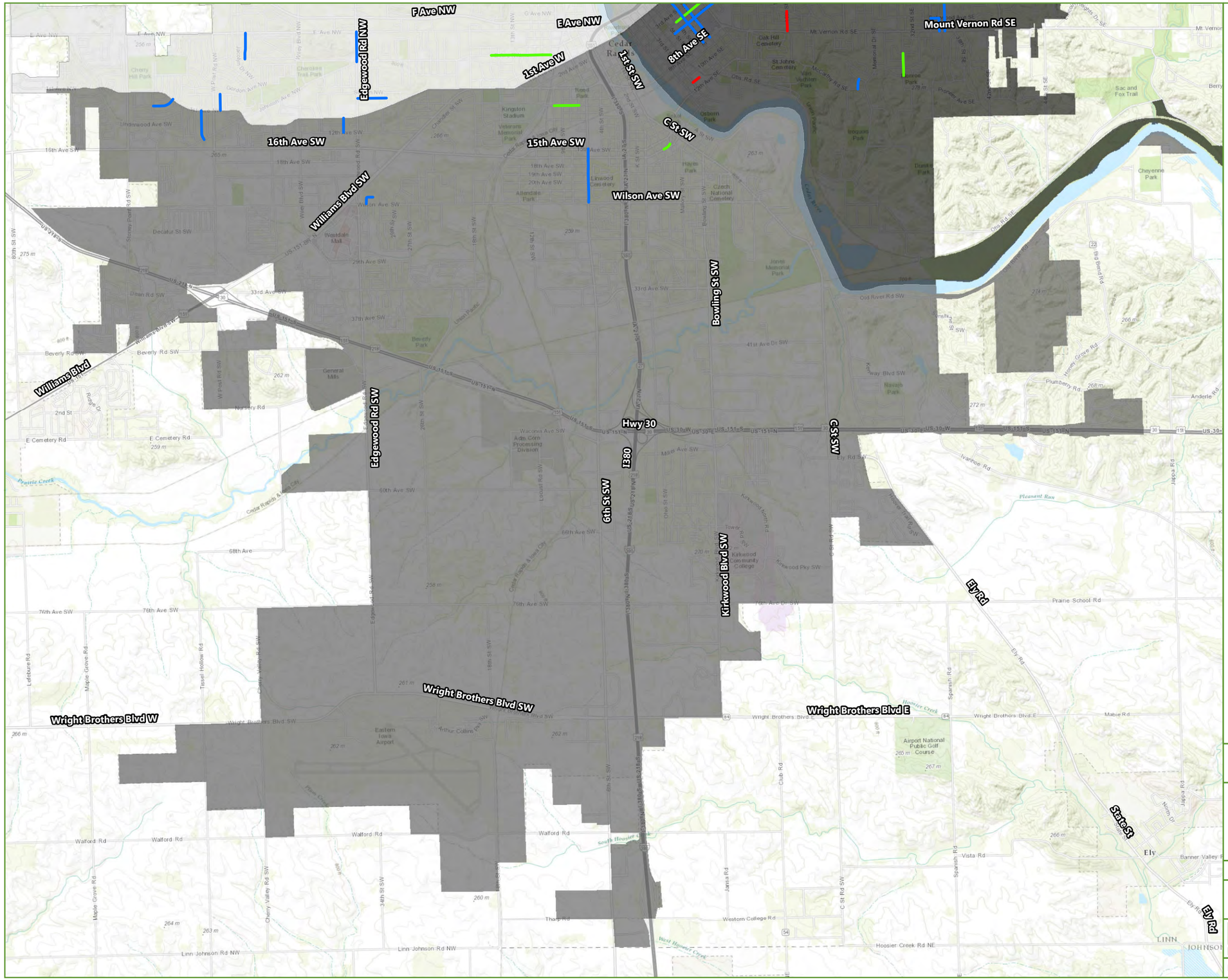
HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.



PAVING FOR PROGRESS

Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 1,125 2,250 4,500 Feet

1 inch = 4,500 feet

N

2015
Paving For Progress Projects

SW Quadrant

MAP 11
2015 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
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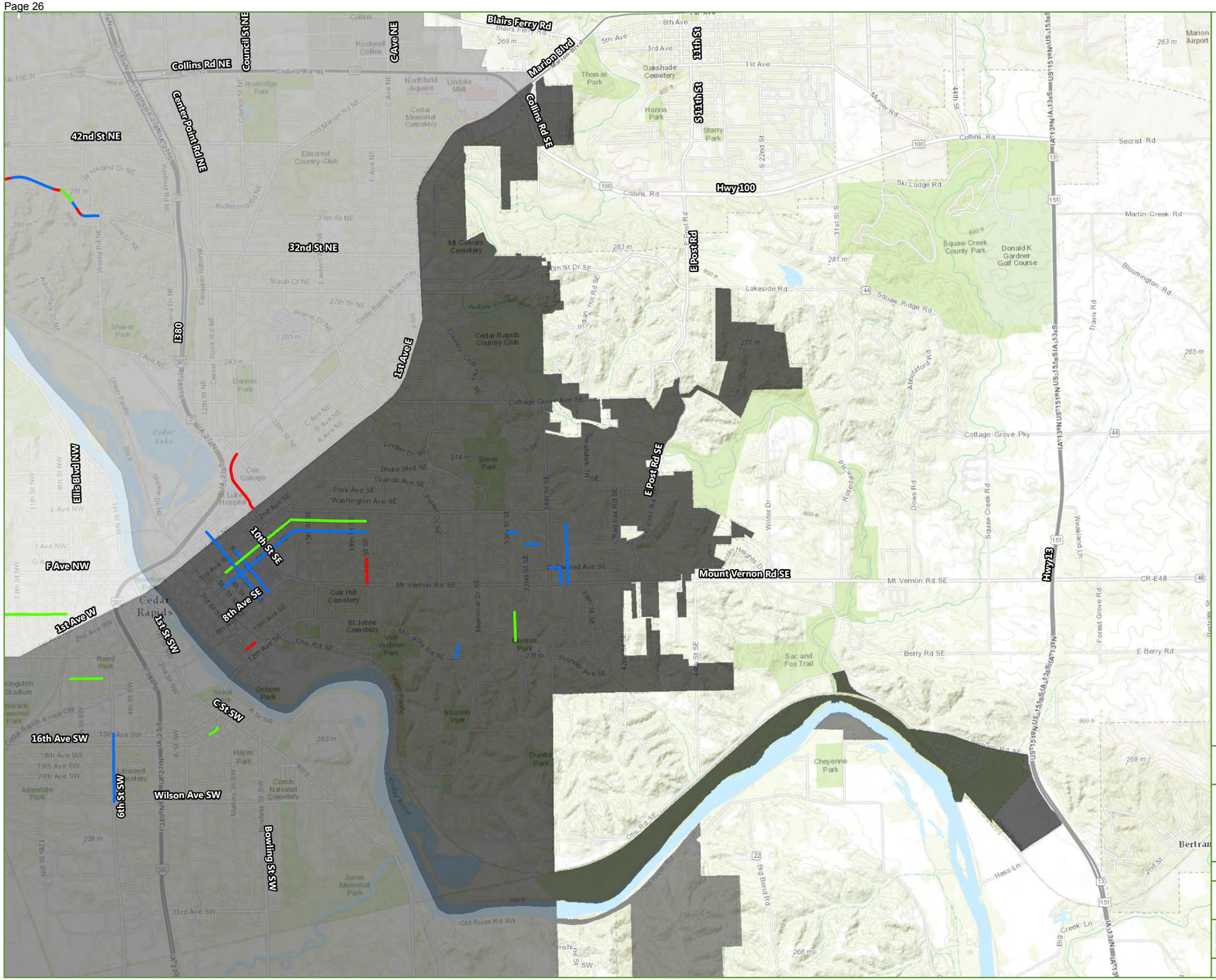
HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

2015
Paving For Progress Projects

SE Quadrant

MAP 12
2015 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: M.S.L.
DESIGNED BY: M.S.L.

PHASE 1: Project Years 2016-2018

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
12TH AVE SE	6TH ST SE	19TH ST SE	0.69	Reconstruction	
12TH ST SE	5TH AVE SE	3RD AVE SE	0.15	Reconstruction	To be bid as part of group 547, Sidewalk
13TH ST NW	A AVE	B AVE	0.20	Maintenance	
14TH AVE SE	36TH ST SE	42ND ST SE	0.43	Rehabilitation	
14TH AVE SE	28TH ST SE	30TH ST SE	0.45	Rehabilitation	
14TH ST SE	3RD AVE SE	5TH AVE SE	0.26	Reconstruction	To be bid as part of group 547
15TH AVE SW	3RD ST SW	M ST SW	0.11	Reconstruction	
15TH ST NE	1ST AVE E	E AVE NE	0.37	Rehabilitation	Intakes and Some Milling
15TH ST NW	A AVE NW	1ST AVE W	0.07	Rehabilitation	
16TH AVE SW	6TH ST SW	12TH ST SW	0.45	Maintenance	
16TH ST NE	A AVE NE	1ST AVE E	0.08	Rehabilitation	
17TH ST NE	F AVE NE	J AVE NE	0.29	Rehabilitation	To be bid as part of group 324, curbs, intakes, sidewalks/ramps
18TH ST SW	13th AVE SW	16TH AVE SW	0.13	Rehabilitation	
1ST AVE W	STONEY POINT RD SW	ATWOOD DR SW	0.06	Rehabilitation	
1ST AVE W	31ST ST SW	29TH ST NW	0.05	Reconstruction	
1ST ST NW	PENN AVE NW	L AVE NW	0.48	Rehabilitation	
1ST ST SE	3RD AVE SW	1ST ST NE	0.15	Maintenance	
20TH AVE SW	WEST POST RD SW	EDGEWOOD RD SW	1.25	Maintenance	Failed pavement around intake on west side of project
21ST AVE SW	WILEY BLVD SW	WESTDALE DR SW	0.15	Maintenance	To be bid as part of group 53
22ND AVE SW	WILEY BLVD SW	WESTDALE DR SW	0.16	Maintenance	To be bid as part of group 53
22ND ST NW	BURCH AVE	JOHNSON AVE	0.13	Maintenance	
29TH ST DR SE	1ST AVE SE	TAMA ST SE	0.87	Rehabilitation	
31ST ST SW	12TH AVE	1ST AVE	0.11	Maintenance	
32ND ST NE	C AVE NE	E AVE NE	0.15	Reconstruction	
34TH ST NE	1ST AVE E	W OF F AVE NE	0.51	Reconstruction	
34TH ST SE	BEVER AVE SE	MOUNT VERNON RD SE	0.50	Rehabilitation	
35TH ST NE	EASTERN AVE NE	1ST AVE NE	0.68	Rehabilitation	Reconstruct E ave stretch
3RD ST SW	WILSON AVE SW	16TH AVE SW	0.39	Rehabilitation	
3RD ST SW	8TH AVE SW	1ST AVE	0.60	Rehabilitation	To be bid as part of group 509
42ND ST NE	FOREST VIEW CT NE	RIVERSIDE DR NE	0.05	Reconstruction	
42ND ST NE	EDGEWOOD RD NE	GEORGIA AVE NE	0.15	Rehabilitation	
42ND ST NE	I 380	WENIG RD NE	0.85	Rehabilitation	
42ND ST SE	MOUNT VERNON RD SE	13TH AVE SE	0.28	Rehabilitation	
43RD ST NE	CULVER ST NE	F AVE NE	0.13	Maintenance	To be bid as part of group 685
44TH ST NE	WESTCHESTER DR NE	PINE VIEW DR NE	0.14	Rehabilitation	To be bid as part of group 259
48TH ST NE	OZARK ST NE	COUNCIL ST NE	0.25	Rehabilitation	To be bid as part of group 272, intakes
4TH AVE SE	SW OF 1ST ST SE	6TH ST SE	0.40	Rehabilitation	
4TH ST NE	C AVE NE	1ST AVE E	0.22	Rehabilitation	To be bid as part of group 429, FDR North of I380
51ST ST NE	SYLVIA ST NE	COUNCIL ST NE	0.18	Rehabilitation	To be bid as part of group 117
66TH AVE SW	LOCUST RD SW	6TH ST SW	0.51	Maintenance	
6TH AVE SE	6TH ST SE	7TH ST SE	0.08	Reconstruction	To be bid as part of group 425
6TH ST SE	8TH AVE SE	A AVE NE	0.59	Rehabilitation	To be bid as part of group 425
6TH ST SW	COUNTY LINE	WRIGHT BROTHERS BLVD SW	1.80	Maintenance	Concrete restoration between capital and Wbros
6TH ST SW	33RD AVE SW	S. OF WILSON AVE SW	0.90	Rehabilitation	
74TH ST NE	WHITE IVY PL NE	C AVE NE	0.36	Reconstruction	
7TH AVE SW	3RD ST SW	2ND ST SW	0.07	Rehabilitation	To be bid as part of group 509

PHASE 1: Project Years 2016-2018

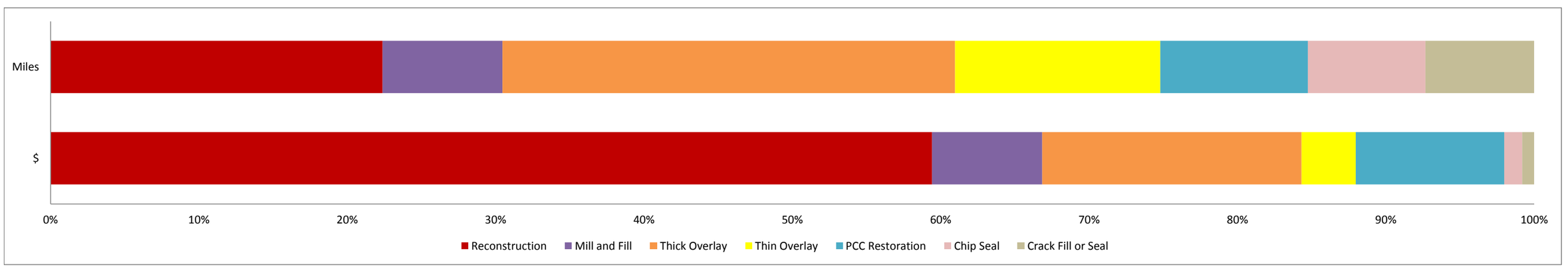
Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
7TH ST NE	A AVE NE	C AVE NE	0.14	Reconstruction	
7TH ST SE	10TH AVE SE	11TH AVE SE	0.07	Rehabilitation	Curb and intake work
8TH AVE SW	7TH ST SW	I 380	0.33	Rehabilitation	To be bid as part of group 371
ADIRONDACK DR NE	J AVE NE	ALLEGHANY DR NE	0.65	Reconstruction	To be bid as part of group 263
ALLEGHANY DR NE	ADIRONDACK DR NE	E TO DEAD END	0.36	Rehabilitation	To be bid as part of group 263
B AVE NE	27TH ST NE	29TH ST NE	0.18	Rehabilitation	Intakes
BAYBERRY DR SW	CAMEO LN SW	EDGEWOOD RD SW	0.21	Maintenance	To be bid as part of group 55
BLAIRS FERRY RD NE	C AVE NE	OAKWOOD AVE NE	0.31	Maintenance	
BLAIRS FERRY RD NE	6TH AVE	8TH AVE	0.13	Rehabilitation	Significant FDP on Eastbound lane
BLAKE BLVD SE	BLAKE TER SE	17TH ST SE	0.86	Rehabilitation	To be bid as part of group 605
BLAKE CT SE	BLAKE TER SE	BLAKE TER SE	0.48	Rehabilitation	To be bid as part of group 605
BLANCHE DR NW	O AVE NW	SHULTZ DR NW	0.10	Maintenance	To be bid as part of group 228
BLUE JAY DR NE	GLASS RD NE	42ND ST NE	0.24	Rehabilitation	To be bid as part of group 260
BOYSON RD NE	BOXWOOD LN NE	DRY RUN CREEK CT	0.22	Rehabilitation	
BOYSON RD NE	KINGSWOOD LN NE	ARBOR LN NE	0.14	Rehabilitation	
BRAMBLE RD SW	29TH AVE SW	33RD AVE SW	0.25	Maintenance	To be bid as part of group 55, significant patching at the intersections, intakes
BRENTWOOD DR NE	C AVE NE	BOYSON RD NE	0.84	Reconstruction	
BURCH AVE NW	24TH ST	19TH ST	0.35	Maintenance	
C AVE NE	4TH ST NE	7TH ST NE	0.10	Rehabilitation	To be bid as part of group 429
C AVE NE	40TH ST NE	OLD MARION RD NE	0.59	Reconstruction	
C ST SW	21ST AVE SW	20TH AVE SW	0.07	Rehabilitation	
C ST SW	ELY RD SW	HANDLEY DR SW	0.80	Maintenance	Concrete restoration on other side of bridge
CAMEO LN SW	PEBBLE LN SW	33RD AVE SW	0.15	Maintenance	To be bid as part of group 55
CARPENTER RD NE	WOLF CREEK TRL NE	MILLER RD	0.51	Rehabilitation	To be bid as part of group 291, 1 section of full reconstruct
CARRIAGE DR SW	BRAMBLE RD SW	CHAPEL DR SW	0.22	Maintenance	To be bid as part of group 55
CENTER POINT RD NE	32ND ST NE	29TH ST NE	0.25	Rehabilitation	
CHAPEL DR SW	29TH AVE SW	BAYBERRY DR SW	0.15	Maintenance	To be bid as part of group 55
CONTINENTAL PL NE	ROCKWELL DR NE	W TO DEAD END	0.04	Rehabilitation	To be bid as part of group 311
CORAL LN SW	CAMEO LN SW	EDEN LN SW	0.12	Maintenance	To be bid as part of group 55
COUNCIL ST NE	S MENTZER RD	WOODCREST ST NE	0.40	Maintenance	
COVENTRY LN NE	WESTCHESTER DR NE	TOWNE HOUSE DR NE	0.23	Rehabilitation	To be bid as part of group 259
DODGE RD NE	OZARK ST NE	CENTER POINT RD NE	0.28	Rehabilitation	To be bid as part of group 272
DREXEL DR SW	LANGDON AVE	1ST AVE	0.06	Rehabilitation	
E AVE NW	21ST ST NW	23RD ST NW	0.13	Rehabilitation	
E AVE NW	ZELDA DR NW	WILEY BLVD NW	0.19	Rehabilitation	
EASTERN AVE NE	35TH ST NE	32ND ST NE	0.25	Rehabilitation	
EDEN LN SW	BAYBERRY DR SW	33RD AVE SW	0.10	Maintenance	To be bid as part of group 55
EDGEWOOD RD SW	WRIGHT BROTHERS BLVD SW	76TH AVE SW	0.78	Maintenance	significant rutting on east side
ELLIS BLVD NW	G AVE NW	N AVE NW	0.54	Rehabilitation	
ELLIS RD NW	80TH ST NW	FOREST BROOK DR NW	0.60	Maintenance	
ELMHURST DR NE	OAKLAND RD NE	J AVE NE	0.66	Rehabilitation	To be bid as part of group 324
F AVE NE	ESTROY DR NE	DANBURY ST NE	0.35	Maintenance	To be bid as part of group 685
F AVE NW	4TH ST NW	ELLIS BLVD NW	0.18	Maintenance	Reconstruct Ellis Blvd/F Ave intersection
GRANITE CT NE	WASATCH CT NE	SE TO DEAD END	0.17	Rehabilitation	To be bid as part of group 263
HALL CT NE	51ST ST NE	S TO DEAD END	0.07	Rehabilitation	To be bid as part of group 117
HAWKEYE DOWNS RD SW	J ST SW	6TH ST SW	0.58	Rehabilitation	
HAZEL DR NE	ELMHURST DR NE	ELMHURST DR NE	0.16	Rehabilitation	To be bid as part of group 324

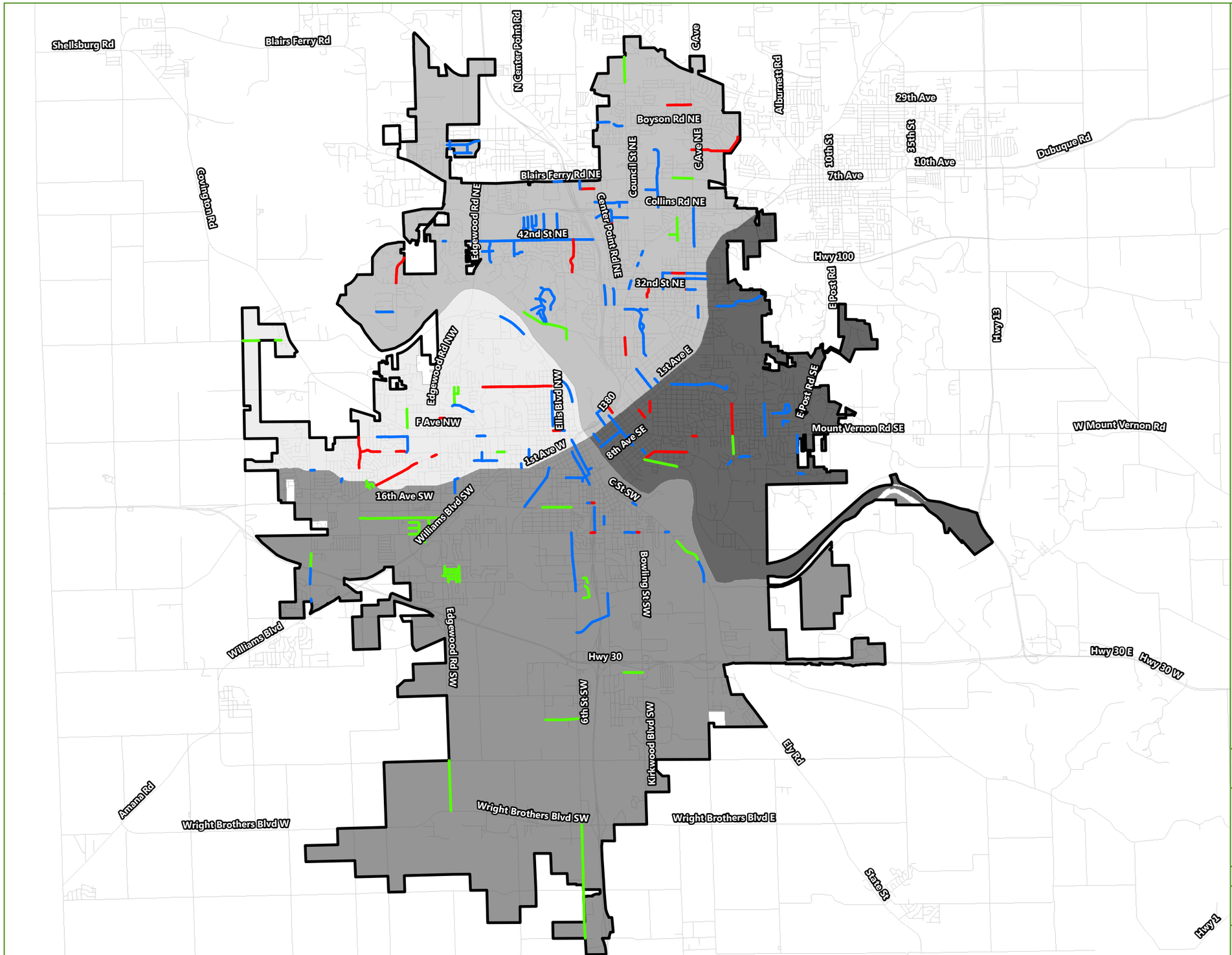
PHASE 1: Project Years 2016-2018

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
INDIAN DR NE	RIVER VIEW RD NE	CARPENTER RD NE	0.13	Rehabilitation	To be bid as part of group 291
IRIS AVE NW	EDGEWOOD RD NW	W TO DEAD END	0.08	Maintenance	
J AVE NE	LONG BLUFF RD NE	WENIG RD NE	0.72	Maintenance	To be bid as part of group 316
J ST SW	19TH AVE SW	21ST AVE SW	0.12	Rehabilitation	
J ST SW	36TH AVE SW	HAWKEYE DOWNS RD SW	0.34	Rehabilitation	
JOHNSON AVE NW	18TH ST NW	19TH ST NW	0.12	Maintenance	
JOHNSON AVE NW	1ST AVE NW	MIDWAY DR NW	1.04	Reconstruction	
KIOWA TRL NE	CHIPPEWA TRL NE	CROW WING DR NE	0.26	Rehabilitation	
L ST SW	10TH AVE SW	3RD ST NW	0.76	Rehabilitation	
LANCASTER DR NE	TOWNE HOUSE DR NE	COVENTRY LN NE	0.22	Rehabilitation	To be bid as part of group 259
LEROY ST SW	JOHNSON AVE SW	1ST AVE W	0.15	Rehabilitation	To be bid as part of group 23711
LOST VALLEY RD SE	BEVER AVE SE	BEVER AVE SE	0.28	Rehabilitation	
MADISON ST NE	GLASS RD NE	29TH ST NE	0.30	Rehabilitation	
MCKINSIE CT NE	ADIRONDACK DR NE	SW TO DEADEND	0.19	Reconstruction	To be bid as part of group 263
MEMORIAL DR SE	MOUNT VERNON RD SE	14TH AVE SE	0.28	Maintenance	
MEMORIAL DR SE	HERTZ DR SE	PARKWOOD DR SE	0.06	Rehabilitation	
MEMORIAL DR SE	MOUNT VERNON RD SE	BEVER AVE SE	0.50	Reconstruction	
MIDWAY DR NW	ALMA DR NW	WILEY BLVD NW	0.16	Reconstruction	
MIDWAY DR NW	WEST POST RD NW	PEACE AVE NW	0.32	Reconstruction	
MILLER AVE SW	VERMONT ST SW	KIRKWOOD BLVD SW	0.29	Maintenance	
MOUNT VERNON RD SE	21ST ST SE	20TH ST SE	0.07	Reconstruction	
N ST SW	8TH AVE SW	S TO DEAD END	0.06	Rehabilitation	To be bid as part of group 371, intakes
NORTH TOWNE LN NE	CENTER POINT RD NE	NORTH TOWNE PL NE	0.22	Reconstruction	To be bid as part of group 116
NORTH TOWNE PL NE	BLAIRS FERRY RD NE	NORTH TOWNE LN NE	0.13	Reconstruction	To be bid as part of group 116
NORTHWOOD DR NE	GLASS RD NE	42ND ST NE	0.52	Reconstruction	
O AVE NW	KOEHLER DR NW	ELLIS BLVD NW	0.61	Reconstruction	Multiyear
O AVE NW	23RD ST NW	KOEHLER DR NW	0.62	Reconstruction	Multiyear
OAKLAND RD NE	GOLFVIEW DR NE	MIAMI DR NE	0.07	Rehabilitation	
OAKLAND RD NE	HOUSTON ST NE	HOLLYWOOD BLVD NE	0.05	Rehabilitation	
OAKLAND RD NE	J AVE NE	H AVE NE	0.27	Reconstruction	
OAKLAND RD NE	CENTER ST NE	32ND ST NE	0.13	Rehabilitation	
OTIS RD SE	12TH AVE SE	15TH AVE SE	0.52	Maintenance	
OZARK ST NE	NAVAJO DR NE	DODGE RD NE	0.19	Reconstruction	To be bid as part of group 272, intakes, southern half reconstruct
PEBBLE DR SW	CHAPEL DR SW	BRAMBLE RD SW	0.22	Maintenance	To be bid as part of group 55
PINE VIEW DR NE	42ND ST NE	TOWNE HOUSE DR NE	0.35	Rehabilitation	To be bid as part of group 259
PIONEER TRL SE	SOUTH RIDGE KNOLL CT SE	42ND ST SE	0.09	Rehabilitation	
PRAIRIE DR NE	30TH ST NE	32ND ST NE	0.13	Reconstruction	To be bid as part of group 318
RAINIER CT NE	ADIRONDACK DR NE	E&W TO DEAD ENDS	0.16	Reconstruction	To be bid as part of group 263
RAVEN LN NE	BLUE JAY DR NE	E TO DEAD END	0.13	Rehabilitation	To be bid as part of group 260
RIVER CENTER CT NE	EDGEWOOD RD NE	E TO DEAD END	0.17	Rehabilitation	To be bid as part of group 260
RIVER RIDGE DR NE	42ND ST NE	GLASS RD NE	0.33	Rehabilitation	To be bid as part of group 260
RIVERVIEW RD NE	LF VALLEY RD	RIVER VIEW RD NE	0.26	Rehabilitation	To be bid as part of group 291
ROBINWOOD LN NE	ELMHURST DR NE	PRAIRIE DR NE	0.15	Rehabilitation	To be bid as part of group 318
ROCKFORD RD SW	3RD AVE SW	16TH AVE SW	0.72	Rehabilitation	
ROCKWELL DR NE	COLLINS AVE NE	N TO DEAD END	0.95	Rehabilitation	To be bid as part of group 311
SCHULTZ DR NW	BLANCHE DR NW	WOODSIDE DR NW	0.06	Maintenance	To be bid as part of group 228
SCOTTY DR SW	WILSON AVE SW	20TH AVE SW	0.26	Maintenance	To be bid as part of group 53

PHASE 1: Project Years 2016-2018

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
SEMINOLE VALLEY RD NE	COTTAGE HILL LN	42ND ST	0.47	Reconstruction	Multiyear
SEMINOLE VALLEY RD NE	COTTAGE RIDGE CT NE	COTTAGE HILL LN	0.26	Reconstruction	Multiyear
SKYLARK LN SE	36TH ST	BEVER AVE	0.21	Rehabilitation	
SOUTH RIDGE DR SW	SOUTHRIDGE DR SW	N TO DEAD END	0.12	Maintenance	To be bid as part of group 31
SOUTHGATE CT SW	33RD AVE SW	S TO DEAD END	0.19	Maintenance	To be bid as part of group 31
SOUTTER AVE CT SE	40TH ST	W TO DEAD END	0.15	Rehabilitation	
SPENCER DR SW	JOHNSON AVE SW	W TO DEAD END	0.14	Maintenance	To be bid as part of group 23711
STONEY POINT RD SW	US 30	BRYANT BLVD SW	0.23	Maintenance	
STONEY POINT RD SW	US 30	PALMETTO CIR SW	0.52	Rehabilitation	
SUGAR PINE DR NE	PINE VIEW DR NE	TOWNE HOUSE DR NE	0.25	Rehabilitation	To be bid as part of group 259
WASATCH CT NE	ADIRONDACK DR NE	W TO DEAD END	0.13	Reconstruction	To be bid as part of group 263
WENIG RD NE	J AVE NE	S TO DEAD END	0.16	Maintenance	To be bid as part of group 316, intakes
WENIG RD NE	42ND ST NE	TOWNE HOUSE DR NE	0.40	Rehabilitation	
WEST POST RD NW	E AVE NW	GORDON AVE NW	0.48	Reconstruction	
WESTCHESTER DR NE	42ND ST NE	TOWNE HOUSE DR NE	0.55	Rehabilitation	To be bid as part of group 259
WESTDALE DR SW	WILLIAMS BLVD	21ST AVE SW	0.35	Maintenance	To be bid as part of group 53
WESTWOOD DR NW	HILLSIDE DR NW	GLENWOOD DR NW	0.35	Rehabilitation	To be bid as part of group 228
WHITNEY DR NE	ADIRONDACK DR NE	NW TO DEAD END	0.06	Reconstruction	To be bid as part of group 263
WILEY BLVD NW	F AVE NW	CEDARCREST CT NW	0.29	Maintenance	
WILEY BLVD NW	E AVE NW	MIDWAY DR NW	0.25	Rehabilitation	
WILSON AVE DR SW	C ST SW	FRUITLAND BLVD SW	0.06	Rehabilitation	
WILSON AVE DR SW	VICTORIA DR SW	MALLORY ST SW	0.22	Reconstruction	
WILSON AVE SW	WILEY BLVD SW	WILLIAMS BLVD	0.33	Maintenance	To be bid as part of group 53
WILSON AVE SW	L ST SW	3RD ST SW	0.07	Reconstruction	
WOLF CREEK TRL NE	CARPENTER RD NE	WOLF VALLEY RD	0.12	Rehabilitation	To be bid as part of group 291
WOODSIDE DR NW	O AVE NW	WESTWOOD DR NW	0.28	Maintenance	To be bid as part of group 228
TOTALS	120 PROJECTS		51.6 Mi		





PAVING FOR PROGRESS

Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction
- City Limits

Quadrants

- NW
- NE
- SW
- SE

0 2,000 4,000 8,000 Feet

1 inch = 8,000 feet

N

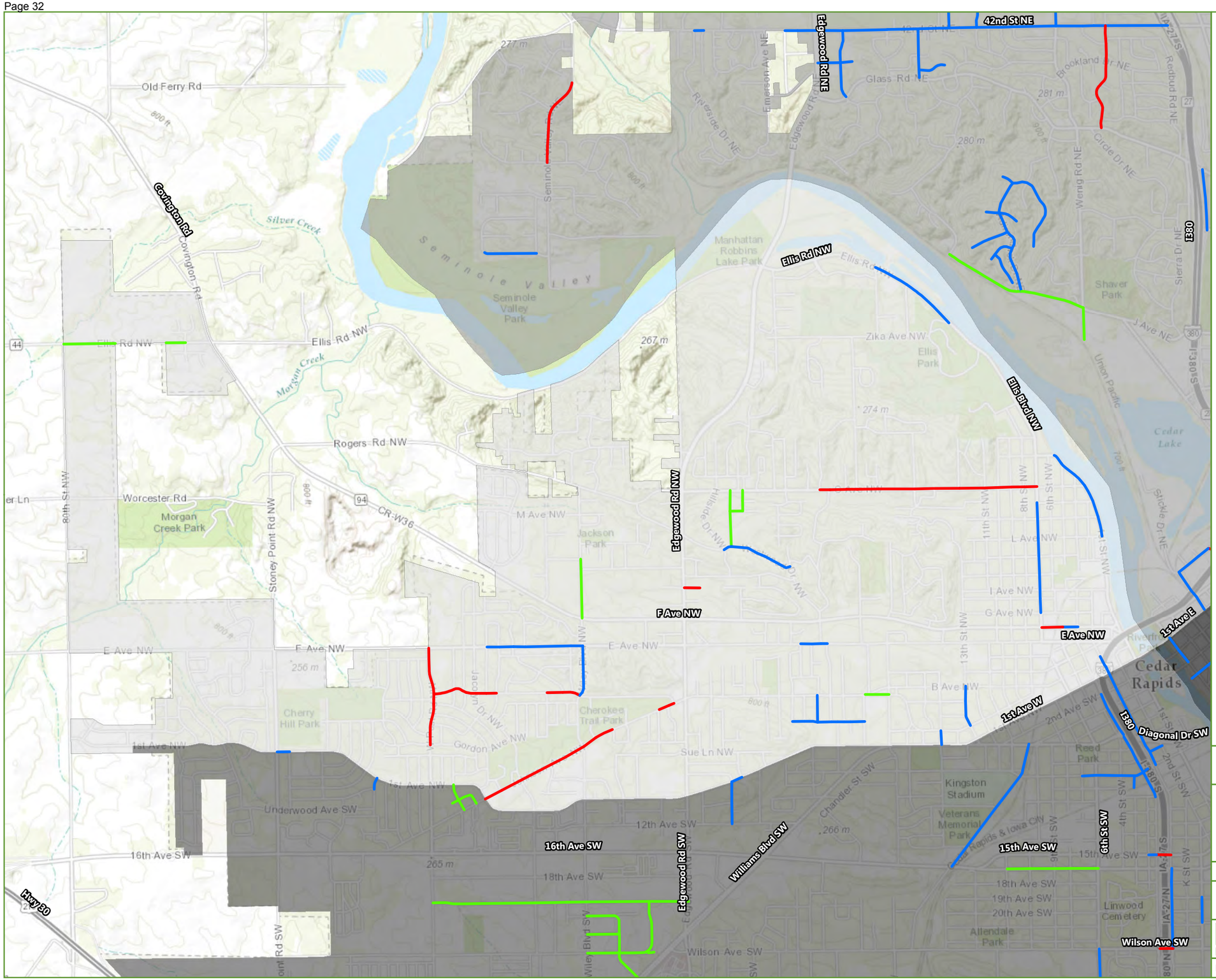
Phase 1 (2016, 2017, 2018) Paving For Progress Projects

Council District 15

MAP 13
Phase 1 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: J.R.K.
DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 625 1,250 2,500 Feet

1 inch = 2,500 feet

N

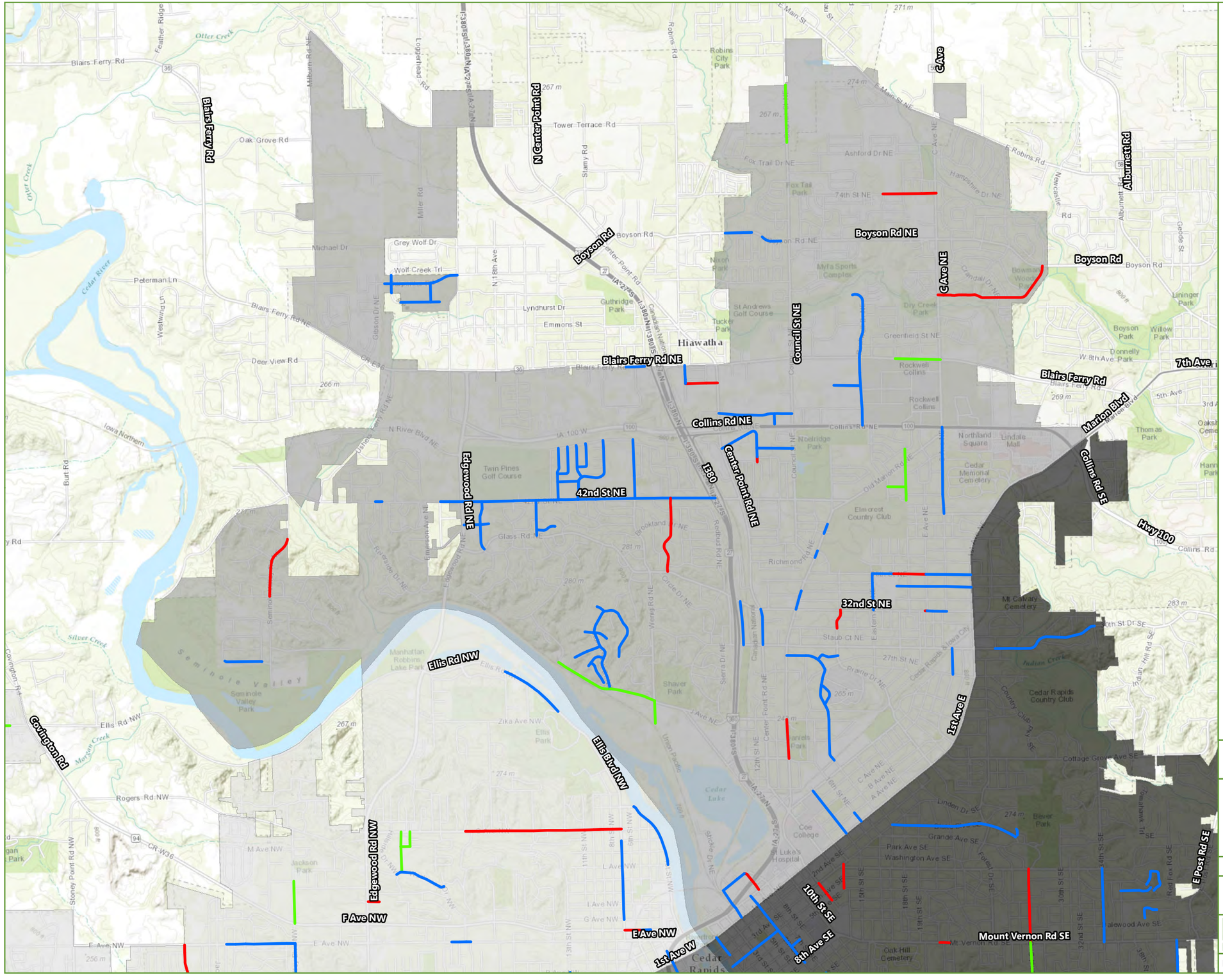
Phase 1 (2016, 2017, 2018) Paving For Progress Projects

NW Quadrant

MAP 14
Phase 1 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: M.S.L.
DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

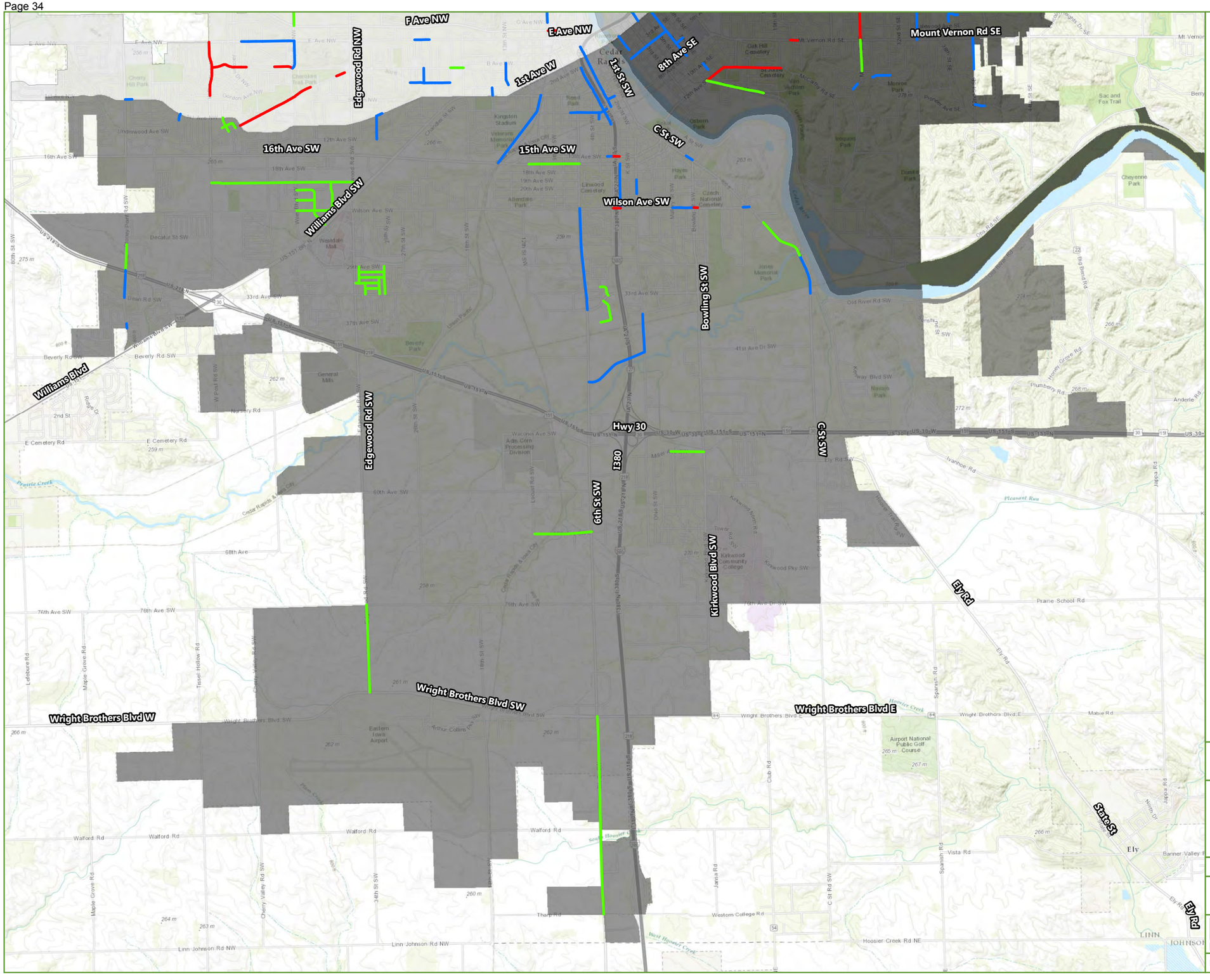
Phase 1 (2016, 2017, 2018) Paving For Progress Projects

NE Quadrant

MAP 15
Phase 1 Treatments

HRGreen
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.



Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 1,125 2,250 4,500 Feet

1 inch = 4,500 feet

N

Phase 1 (2016, 2017, 2018) Paving For Progress Projects

SW Quadrant

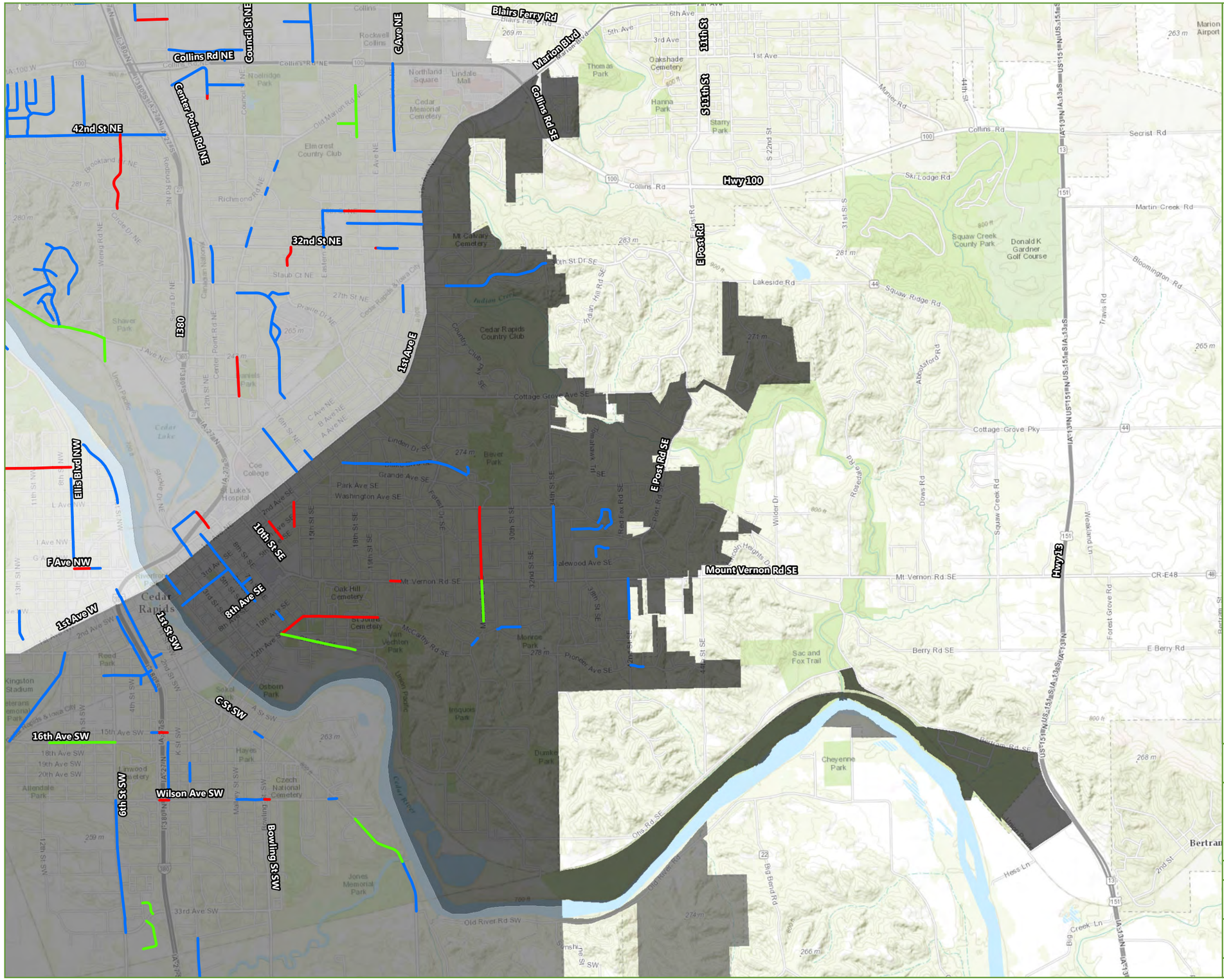
MAP 16
Phase 1 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015

DRAWN BY: M.S.L.

HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.



PAVING FOR PROGRESS

Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

Phase 1 (2016, 2017, 2018) Paving For Progress Projects

SE Quadrant

MAP 17
Phase 1 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: M.S.L.
DESIGNED BY: M.S.L.

PHASE 2: Project Years 2019-2021

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
WOODSIDE DR NW	O AVE NW	WESTWOOD DR NW	0.28	Maintenance	To be bid as part of group 228
10TH ST SE	4TH AVE SE	3RD AVE SE	0.07	Rehabilitation	
11TH ST SW	63RD AVE SW	60TH AVE SW	0.15	Rehabilitation	To be bid as part of group 25
11TH ST SW	29TH AVE SW	26TH AVE SW	0.25	Rehabilitation	To be bid as part of group 715
13TH AVE SE	2ND ST SE	3RD ST SE	0.07	Rehabilitation	To be bid as part of group 309
14TH AVE SE	1ST ST SE	4TH ST SE	0.19	Rehabilitation	To be bid as part of group 309
15TH AVE SW	2ND ST SW	J ST SW	0.07	Rehabilitation	
16TH AVE BRG	A ST SW	1ST ST SE	0.15	Rehabilitation	To be bid as part of group 309
16TH ST NE	E AVE NE	F AVE NE	0.06	Rehabilitation	
18TH ST SW	WILSON AVE SW	29TH AVE SW	0.61	Rehabilitation	
19TH ST SE	RIDGEWOOD TER SE	BEVER AVE SE	0.36	Reconstruction	
1ST AVE W	ROCK VALLEY DR SW	MASON DR NW	0.08	Reconstruction	
1ST ST NW	L AVE NW	F AVE NW	0.48	Maintenance	To be bid as part of group 465
1ST ST SE	14TH AVE SE	12TH AVE SW	0.14	Rehabilitation	To be bid as part of group 309
21ST ST NE	COTTAGE GROVE AVE SE	F AVE NE	0.45	Rehabilitation	
23RD ST DR SE	1ST AVE E	FOREST DR SE	0.15	Reconstruction	To be bid as part of group 158
26TH AVE CT SW	12TH ST SW	12TH ST SW	0.15	Rehabilitation	To be bid as part of group 715
26TH AVE SW	12TH ST SW	11TH ST SW	0.11	Rehabilitation	To be bid as part of group 715
26TH ST NW	Q AVE NW	O AVE NW	0.25	Rehabilitation	To be bid as part of group 591
27TH AVE SW	11TH ST SW	12TH ST SW	0.10	Rehabilitation	To be bid as part of group 715
27TH ST NE	FRANKLIN AVE NE	1ST AVE E	0.36	Rehabilitation	
27TH ST NW	O AVE NW	Q AVE NW	0.25	Rehabilitation	To be bid as part of group 591
28TH AVE SW	27TH ST SW	31ST ST SW	0.25	Rehabilitation	To be bid as part of group 177
29TH AVE SW	12TH ST SW	6TH ST SW	0.57	Rehabilitation	To be bid as part of group 715
29TH ST SW	28TH AVE SW	WILSON AVE SW	0.41	Rehabilitation	To be bid as part of group 177
2ND AVE SE	32ND ST DR SE	35TH ST DR SE	0.25	Rehabilitation	To be bid as part of group 159
2ND AVE SE	19TH ST SE	CRESCENT ST SE	0.20	Maintenance	To be bid as part of group 394
2ND ST SE	OSBORN AVE SE	12TH AVE SE	0.26	Rehabilitation	To be bid as part of group 309
30TH ST SW	VAN BUREN DR SW	28TH AVE SW	0.26	Rehabilitation	To be bid as part of group 177
31ST AVE SW	6TH ST SW	7TH ST SW	0.26	Rehabilitation	To be bid as part of group 154
31ST ST SW	28TH AVE SW	WILSON AVE SW	0.25	Rehabilitation	To be bid as part of group 177
32ND AVE SW	6TH ST SW	12TH ST SW	0.46	Rehabilitation	To be bid as part of group 154
33RD AVE SW	SE RAMP	SOUTHGATE CT SW	0.22	Reconstruction	
33RD ST DR SE	3RD AVE SE	1ST AVE E	0.22	Rehabilitation	To be bid as part of group 159
34TH ST DR SE	1ST AVE E	3RD AVE SE	0.33	Rehabilitation	To be bid as part of group 159
34TH ST SE	MOUNT VERNON RD SE	PIONEER AVE SE	0.52	Rehabilitation	
35TH ST DR SE	1ST AVE E	3RD AVE SE	0.33	Rehabilitation	To be bid as part of group 159
36TH ST DR SE	1ST AVE E	ELM AVE SE	0.07	Rehabilitation	To be bid as part of group 159
36TH ST NE	E AVE NE	1ST AVE E	0.31	Rehabilitation	To be bid as part of group 160
3RD AVE SE	35TH ST DR SE	33RD ST DR SE	0.13	Rehabilitation	To be bid as part of group 159
3RD ST NW	E AVE NW	I AVE NW	0.26	Rehabilitation	To be bid as part of group 443
3RD ST SE	12TH AVE SE	OSBORN AVE SE	0.21	Rehabilitation	To be bid as part of group 309
42ND ST NE	USHERS FERRY RD	EMERSON AVE NE	0.30	Reconstruction	
42ND ST NE	RIVERSIDE DR NE	WEST OF OLD OAK DR NE	0.12	Reconstruction	
42ND ST SE	13TH AVE SE	HIGH RIDGE DR	0.48	Reconstruction	
49TH AVE DR SW	BOWLING ST SW	50TH AVE DR SW	0.49	Rehabilitation	To be bid as part of group 19

PHASE 2: Project Years 2019-2021

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
4TH ST NW	I AVE NW	E AVE NW	0.26	Rehabilitation	To be bid as part of group 443
4TH ST SE	12TH AVE SE	14TH AVE SE	0.09	Rehabilitation	To be bid as part of group 309
4TH ST SW	66TH AVE SW	N&S TO DEAD ENDS	0.20	Rehabilitation	To be bid as part of group 25
50TH AVE DR SW	BOWLING ST SW	49TH AVE DR SW	0.45	Rehabilitation	To be bid as part of group 19
50TH AVE SW	J ST SW	BOWLING ST SW	0.51	Rehabilitation	To be bid as part of group 19
5TH ST NW	3RD AVE SW	F AVE NW	0.46	Rehabilitation	To be bid as part of group 471
5TH ST SW	7TH AVE SW	6TH AVE SW	0.06	Maintenance	To be bid as part of group 373
60TH ST NE	COUNCIL ST NE	DRY CREEK LN NE	0.14	Rehabilitation	To be bid as part of group 141
63RD AVE SW	LOCUST RD SW	11TH ST SW	0.13	Rehabilitation	To be bid as part of group 25
6TH AVE SW	6TH ST SW	E TO DEAD END	0.13	Maintenance	To be bid as part of group 373
6TH ST SW	LINCOLN FWY	WACONIA CT SW	0.14	Reconstruction	
6TH ST SW	7TH AVE SW	3RD AVE SW	0.35	Reconstruction	
71ST ST NE	C AVE NE	WILTON DR NE	0.04	Rehabilitation	To be bid as part of group 288
7TH AVE SW	6TH ST SW	L ST SW	0.20	Maintenance	To be bid as part of group 373
7TH STR PL SW	32ND AVE SW	33RD AVE SW	0.15	Rehabilitation	To be bid as part of group 154
8TH AVE SE	7TH ST SE	6TH ST SE	0.07	Rehabilitation	
8TH AVE SW	I 380	DIAGONAL DR SW	0.30	Rehabilitation	
8TH AVE SW	10TH ST SW	15TH ST SW	0.48	Reconstruction	
8TH ST SW	66TH AVE SW	S TO DEAD END	0.12	Rehabilitation	To be bid as part of group 25
A AVE NE	3RD ST NE	6TH ST NE	0.21	Rehabilitation	
A AVE NW	5TH ST NW	W TO DEAD END	0.03	Rehabilitation	To be bid as part of group 471
A ST SW	C ST SW	E TO DEAD END	0.92	Rehabilitation	
ANTELOPE TRL NE	TIMBERLINE DR NE	WHITE TAIL LN NE	0.09	Rehabilitation	To be bid as part of group 584
ARIZONA AVE NE	CENTER POINT RD NE	LAWRENCE ST NE	0.24	Rehabilitation	To be bid as part of group 271
ARIZONA CT NE	LAWRENCE ST NE	E TO DEAD END	0.07	Rehabilitation	To be bid as part of group 271
ARMAR DR SE	MARION BLVD	S TO DEAD END	0.25	Rehabilitation	To be bid as part of group 82
BELDEN CT NE	TIMBERLINE DR NE	W TO DEAD END	0.06	Rehabilitation	To be bid as part of group 584
BELMONT PKWY NW	WESTWOOD DR NW	HIGHWOOD DR NW	0.37	Rehabilitation	To be bid as part of group 295
BENT TREE CT NE	RIVERSIDE DR NE	S TO DEAD END	0.17	Rehabilitation	To be bid as part of group 261
BEVER AVE SE	EAST POST RD SE	E TO DEAD END	0.25	Rehabilitation	
BEZDEK DR NW	PAZ AVE NW	MIDWAY DR NW	0.27	Maintenance	To be bid as part of group 234
BLUE MOUND DR NE	PINE GROVE DR NE	TWIN MOUND DR NE	0.20	Rehabilitation	To be bid as part of group 33
BLUE RIDGE CT NE	ALLEGHANY DR NE	S TO DEAD END	0.13	Reconstruction	To be bid as part of group 602
BLUE RIDGE DR NE	SHASTA DR NE	ALLEGHANY DR NE	0.20	Reconstruction	To be bid as part of group 602
BOWLING ST SW	26TH AVE DR SW	24TH AVE SW	0.10	Rehabilitation	
BRADBURY DR NE	CRANDALL DR NE	N TO DEAD END	0.06	Rehabilitation	To be bid as part of group 679
BRADFORD RD NE	CRANDALL DR NE	WINDSOR DR NE	0.06	Rehabilitation	To be bid as part of group 679
BRIDGIT LN SE	ARMAR DR SE	TAMA ST SE	0.17	Rehabilitation	To be bid as part of group 82
C AVE NE	35TH ST NE	36TH ST NE	0.08	Rehabilitation	To be bid as part of group 160
C AVE NE	BLAIRS FERRY RD NE	COLLINS AVE NE	0.46	Reconstruction	
C AVE NW	E AVE NW	W TO DEAD END	0.12	Rehabilitation	To be bid as part of group 471
C ST SW	15TH AVE SW	14TH AVE SW	0.06	Rehabilitation	
C ST SW	THOMAS EDISON BLVD SW	SW RAMP	0.12	Reconstruction	
CANDLEWICK DR NE	WILTON DR NE	STONEHAVEN LN NE	0.15	Rehabilitation	To be bid as part of group 288
CEDAR RIDGE DR NE	WYNDHAM DR NE	E&W TO DEAD ENDS	0.14	Rehabilitation	To be bid as part of group 584
CENTER POINT RD NE	LINCOLN AVE NE	J AVE NE	0.40	Reconstruction	
CHELSEA DR NE	BOYSON RD NE	REVERE DR NE	0.45	Rehabilitation	To be bid as part of group 288

PHASE 2: Project Years 2019-2021

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
CIMMIE AVE NE	DRY CREEK LN NE	ROCKWELL DR NE	39.00	Rehabilitation	To be bid as part of group 141
COTTAGE GROVE AVE SE	LINCOLNSHIRE DR SE	34TH ST SE	0.28	Reconstruction	
COUNCIL ST NE	51ST ST NE	COLLINS AVE NE	0.08	Reconstruction	
CRANDALL DR NE	C AVE NE	BRENTWOOD DR NE	0.54	Reconstruction	To be bid as part of group 679
CRESCENT ST SE	BLAKE BLVD SE	2ND AVE SE	0.34	Maintenance	To be bid as part of group 394
DEVONSHIRE DR NE	BOYSON RD NE	WILTON DR NE	0.07	Rehabilitation	To be bid as part of group 288
DOVE CT NE	FALCON DR NE	N TO DEAD END	0.08	Rehabilitation	To be bid as part of group 266
DOWNS BLVD SW	WILLOW CREEK DR SW	WACONIA AVE SW	0.22	Maintenance	To be bid as part of group 22
DRY CREEK LN NE	60TH ST NE	BLAIRS FERRY RD NE	0.19	Rehabilitation	To be bid as part of group 141
DUFFY DR NE	PARK PL NE	COLLINS AVE NE	0.12	Rehabilitation	To be bid as part of group 142
EAGLE CT NE	FALCON DR NE	S TO DEAD END	0.03	Rehabilitation	To be bid as part of group 266
ECHO LN NW	SKYLINE DR NW	RICHMAR LN NW	0.09	Maintenance	To be bid as part of group 237
EDGEWOOD DR NW	EDGEWOOD LN NW	N&S TO DEAD ENDS	0.32	Rehabilitation	To be bid as part of group 144
EDGEWOOD LN NW	EDGEWOOD DR NW	EDGEWOOD RD NW	0.04	Rehabilitation	To be bid as part of group 144
EDGEWOOD RD SW	NW RAMP	37TH AVE SW	0.10	Reconstruction	
EDWARD CT SE	MAUREEN DR SE	W TO DEAD END	0.05	Rehabilitation	To be bid as part of group 82
ELLIS RD NW	ELLIS RD	EDGEWOOD RD NW	1.24	Maintenance	
ELM AVE SE	36TH ST DR SE	35TH ST DR SE	0.10	Rehabilitation	To be bid as part of group 159
EMERSON AVE NE	RIVERSIDE DR NE	RIVERBEND DR NE	0.06	Rehabilitation	To be bid as part of group 261
F AVE NW	1ST ST AND F AVE CONN	1ST ST NW	0.04	Maintenance	To be bid as part of group 465
FALCON CT NE	FALCON DR NE	S TO DEAD END	0.02	Rehabilitation	To be bid as part of group 266
FALCON DR NE	GLASS RD NE	WENIG RD NE	0.54	Rehabilitation	To be bid as part of group 266
FINCH CT NE	42ND ST NE	S TO DEAD END	0.06	Rehabilitation	To be bid as part of group 266
FIR TREE DR NE	TWIN MOUND DR NE	N PINE DR NE	0.08	Rehabilitation	To be bid as part of group 33
FLORAL DR NW	MIDWAY DR NW	N TO DEAD END	0.11	Maintenance	To be bid as part of group 234
FOREST DR SE	NDEN TER SE	CONNFOREST DR SE	0.12	Maintenance	To be bid as part of group 394
FOREST DR SE	DOWS LN SE	23RD ST DR SE	0.51	Reconstruction	
GAS LIGHT CT SW	ROLLING RIDGE CT SW	E TO DEAD END	0.12	Maintenance	To be bid as part of group 20
GAS LIGHT RD SW	ROLLING RIDGE CT SW	W TO DEAD END	0.08	Maintenance	To be bid as part of group 20
GLEN ELM DR NE	42ND ST NE	WENIG RD NE	0.34	Reconstruction	To be bid as part of group 266
GLEN ELM TER NE	SALLY DR NE	GLEN ELM DR NE	0.06	Rehabilitation	To be bid as part of group 266
GLENWOOD DR NW	WOODLAND CT NW	BELMONT PKWY NW	0.20	Rehabilitation	To be bid as part of group 295
GREEN VALLEY CT SE	GREEN VALLEY TER SE	W TO DEAD END	0.03	Rehabilitation	To be bid as part of group 80
GREEN VALLEY CV SE	GREEN VALLEY TER SE	W TO DEAD END	0.03	Rehabilitation	To be bid as part of group 80
GREEN VALLEY PL SE	GREEN VALLEY TER SE	E TO DEAD END	0.05	Rehabilitation	To be bid as part of group 80
GREEN VALLEY TER SE	BEVER AVE SE	S TO DEAD END	0.61	Rehabilitation	To be bid as part of group 80
H AVE NW	2nd ST NW	W TO DEAD END	0.11	Rehabilitation	To be bid as part of group 443
HAMER DR NW	26TH ST NW	E TO DEAD END	0.23	Rehabilitation	To be bid as part of group 591
HAMPDEN DR NE	DEVONSHIRE DR NE	CRANDALL DR NE	0.20	Rehabilitation	To be bid as part of group 679
HARBET AVE NW	1ST AVE W	GORDON AVE NW	0.22	Maintenance	To be bid as part of group 237
HILLMER DR SW	31ST ST SW	29TH ST SW	0.12	Rehabilitation	To be bid as part of group 177
HOLLYWOOD BLVD NE	CENTER POINT RD NE	COUNCIL ST NE	0.31	Rehabilitation	To be bid as part of group 271
I AVE NW	1ST ST NW	3RD ST NW	0.08	Rehabilitation	To be bid as part of group 443
J AVE NE	I 380	OAKLAND RD NE	0.37	Rehabilitation	
J AVE NE	OAKLAND RD NE	MAPLEWOOD DR NE	0.14	Reconstruction	
J ST SW	13TH AVE SW	14TH AVE SW	0.07	Rehabilitation	
J ST SW	MILLER AVE SW	50TH AVE SW	0.44	Rehabilitation	

PHASE 2: Project Years 2019-2021

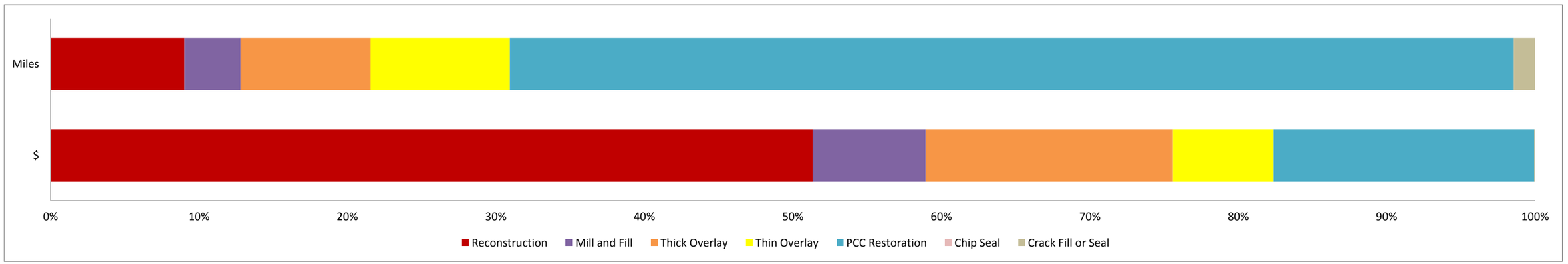
Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
JOHNSON AVE NW	MIDWAY DR NW	32ND ST NW	0.19	Rehabilitation	
JOMAR CT SW	WILSON AVE SW	S TO DEAD END	0.11	Rehabilitation	To be bid as part of group 177
KERRY LN SE	TAMA ST SE	ARMAR DR SE	0.18	Rehabilitation	To be bid as part of group 82
KILIMANJARO DR NE	SHASTA DR NE	WENIG RD NE	0.14	Rehabilitation	To be bid as part of group 602
KIRKWOOD BLVD SW	TOWER RD SW	76TH AVE SW	0.25	Maintenance	To be bid as part of group 20
KIRKWOOD BLVD SW	DEVONWOOD DR SW	KIRKWOOD CT SW	0.16	Rehabilitation	
KROENERT CT SW	27TH AVE SW	W TO DEAD END	0.07	Rehabilitation	To be bid as part of group 715
LAKESIDE DR NE	TWIXT TOWN RD	S TO DEAD END	0.05	Rehabilitation	To be bid as part of group 83
LARK CT NE	42ND ST NE	S TO DEAD END	0.06	Rehabilitation	To be bid as part of group 266
LAWRENCE ST NE	RICHMOND DR NE	HOLLYWOOD BLVD NE	0.12	Rehabilitation	To be bid as part of group 271
LEROY ST NW	SKYLINE DR NW	1ST AVE W	0.14	Maintenance	To be bid as part of group 237
LINDALE AVE NE	27TH ST NE	32ND ST NE	0.31	Reconstruction	
LINDEN DR SE	3RD AVE SE	E TO DEAD END	0.60	Maintenance	To be bid as part of group 394
LINDEN TER SE	BLAKE BLVD SE	LINDEN DR SE	0.19	Maintenance	To be bid as part of group 394
LOCUST RD SW	60TH AVE SW	66TH AVE SW	0.38	Rehabilitation	To be bid as part of group 25
LOOKOUT CT SW	PRAIRIE HEIGHTS DR SW	E TO DEAD END	0.06	Maintenance	To be bid as part of group 20
MAUREEN CT SE	MAUREEN CT SE	S TO DEAD END	0.11	Rehabilitation	To be bid as part of group 82
MAUREEN DR SE	1ST AVE W	S TO DEAD END	0.18	Rehabilitation	To be bid as part of group 82
MEADOWLARK LN SW	ARK LN NW	MEADOWLARK LN NW	0.03	Maintenance	To be bid as part of group 237
MEMORIAL DR SE	OTIS RD SE	FOREST RIDGE CT SE	0.64	Maintenance	
MIAMI DR NE	CENTER POINT RD NE	SHERMAN ST NE	0.20	Rehabilitation	To be bid as part of group 271
MITVALSKY CT SE	THOMPSON DR SE	23RD ST DR SE	0.10	Reconstruction	To be bid as part of group 158
MOUNT VERNON RD SE	19TH ST SE	9TH AVE SE	0.38	Reconstruction	
MOUNT VERNON RD SE	38TH ST SE	30TH ST SE	0.49	Reconstruction	
NASSAU ST SE	BLAKE BLVD SE	3RD AVE	0.18	Maintenance	To be bid as part of group 394
NORTH PINE DR NE	N PINE DR NE	TWIN MOUND DR NE	0.31	Rehabilitation	To be bid as part of group 33
NORTHBROOK DR NE	NIXON DR	COUNCIL ST NE	0.42	Rehabilitation	Skip Boxwood to Laurel
NORTHLAND AVE NE	COLLINS AVE	NORTHLAND CT NE	0.31	Rehabilitation	To be bid as part of group 85
NORTHLAND CT NE	NORTHLAND AVE NE	E TO DEAD END	0.05	Rehabilitation	To be bid as part of group 85
O AVE NW	HILLSIDE DR NW	23RD ST NW	0.61	Reconstruction	Multiyear
OAKLAND RD NE	35TH ST NE	34TH ST NE	0.06	Rehabilitation	
OLD MARION RD NE	CAVALIER ST NE	REGENT ST NE	0.11	Reconstruction	
ORIOLE CT NE	FALCON DR NE	N TO DEAD END	0.12	Rehabilitation	To be bid as part of group 266
OTIS RD SE	15TH AVE SE	MEMORIAL DR SE	1.29	Rehabilitation	
PARK PL NE	COUNCIL ST NE	ROCKWELL DR NE	0.48	Rehabilitation	To be bid as part of group 142
PARK PLACE LN NE	COLLINS AVE NE	PARK PL NE	0.12	Rehabilitation	To be bid as part of group 142
PEARL AVE NW	FLORAL DR NW	SHETLAND DR NW	0.34	Maintenance	To be bid as part of group 234
PINE GROVE CT NE	PINE GROVE DR NE	E TO DEAD END	0.09	Rehabilitation	To be bid as part of group 33
PINE GROVE DR NE	PINE WOOD DR NE	PINE GROVE CT NE	0.27	Rehabilitation	To be bid as part of group 33
PINE TREE DR NE	N PINE DR NE	W TO DEAD END	0.14	Rehabilitation	To be bid as part of group 33
PINE WOOD DR NE	YELLOW PINE DR NE	PINE GROVE DR NE	0.21	Rehabilitation	To be bid as part of group 33
PRAIRIE HAWK CT SW	PRAIRIE HAWK DR SW	E TO DEAD END	0.05	Maintenance	To be bid as part of group 20
PRAIRIE HAWK DR SW	76TH AVE SW	PRAIRIE HEIGHTS DR SW	0.34	Maintenance	To be bid as part of group 20
PRAIRIE HEIGHTS DR SW	LOOKOUT DR	GAS LIGHT RD SW	0.24	Maintenance	To be bid as part of group 20
Q AVE NW	26TH ST NW	29TH ST NW	0.20	Rehabilitation	To be bid as part of group 591
RED CEDAR DR NE	TIMBERLINE DR NE	RIVER RIDGE DR NE	0.10	Rehabilitation	To be bid as part of group 584
REVERE CT NE	C AVE NE	E TO DEAD END	0.16	Rehabilitation	To be bid as part of group 288

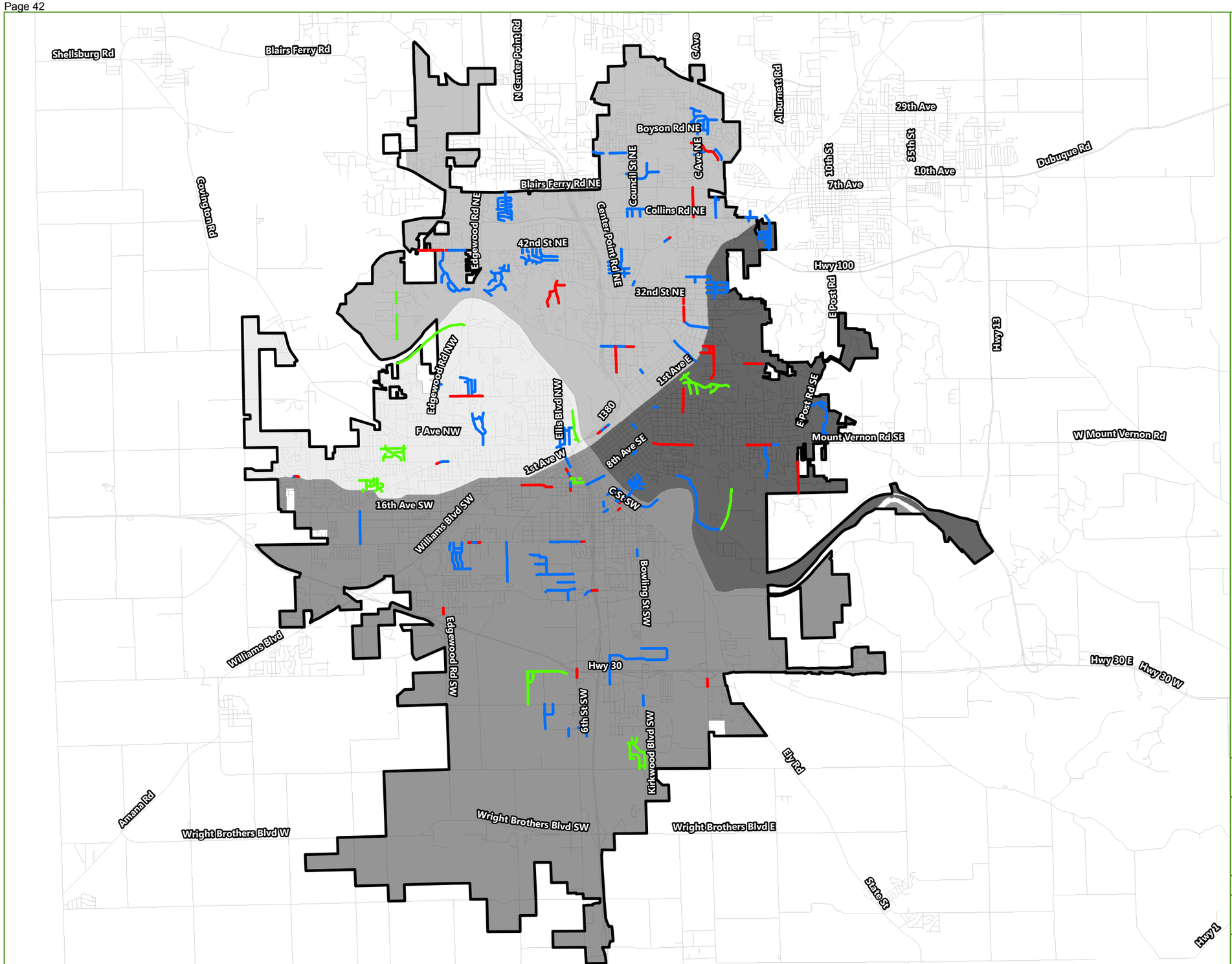
PHASE 2: Project Years 2019-2021

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
REVERE DR NE	REVERE CT NE	CHELSEA DR NE	0.13	Rehabilitation	To be bid as part of group 288
RICH MAR CT NW	HARBET AVE NW	NE TO DEAD END	0.16	Maintenance	To be bid as part of group 237
RICH MAR LN NW	LEROY ST NW	HARBET AVE NW	0.18	Maintenance	To be bid as part of group 237
RIDGEMOUNT DR NE	CIMMIE AVE NE	N TO DEAD END	0.15	Rehabilitation	To be bid as part of group 141
RIVER RIDGE CT NE	RIVER RIDGE DR NE	E&W TO DEAD ENDS	0.15	Rehabilitation	To be bid as part of group 584
RIVER RIDGE DR NE	42ND ST NE	RIVER RIDGE CT NE	0.50	Rehabilitation	To be bid as part of group 584
RIVERBEND DR NE	RIVERSIDE DR NE	RIVERSIDE DR NE	0.27	Rehabilitation	To be bid as part of group 261
RIVERSIDE CT NE	EMERSON AVE NE	E TO DEAD END	0.10	Rehabilitation	To be bid as part of group 261
RIVERSIDE DR NE	42ND ST NE	RIVERBEND DR NE	0.77	Rehabilitation	To be bid as part of group 261
ROLLING RIDGE CT SW	GAS LIGHT RD SW	N TO DEAD END	0.08	Maintenance	To be bid as part of group 20
ROLLING RIDGE DR SW	TOWER RD SW	ROLLING RIDGE CT SW	0.25	Maintenance	To be bid as part of group 20
SALLY DR NE	42ND ST NE	FALCON DR NE	0.27	Rehabilitation	To be bid as part of group 266
SEMINOLE VALLEY RD NE	USHERS RIDGE DR NE	S TO DEAD END	0.12	Maintenance	
SHASTA CT NE	BLUE RIDGE DR NE	S TO DEAD END	0.21	Rehabilitation	To be bid as part of group 602
SHASTA DR NE	BLUE RIDGE DR NE	GLASS RD NE	0.15	Rehabilitation	To be bid as part of group 602
SHERMAN ST NE	HOLLYWOOD BLVD NE	42ND ST NE	0.31	Rehabilitation	To be bid as part of group 271
SHETLAND DR NW	MIDWAY DR NW	E AVE NW	0.23	Maintenance	To be bid as part of group 234
SHORT ST NW	JOHNSON AVE NW	RICHMAR CT NW	0.06	Maintenance	To be bid as part of group 237
SILVER SPRING DR NE	N PINE DR NE	PINE GROVE DR NE	0.12	Rehabilitation	To be bid as part of group 33
SKYLINE DR NW	SUNRISE DR NW	WEST POST RD NW	0.23	Maintenance	To be bid as part of group 237
SOUTHVIEW DR	RIDGE DR	TWIXT TOWN RD	0.10	Rehabilitation	To be bid as part of group 83
SPRUCE WOOD CT NE	N PINE DR NE	W TO DEAD END	0.07	Rehabilitation	To be bid as part of group 33
SPRUCE WOOD DR NE	WESTERN PINE DR NE	N PINE DR NE	0.10	Rehabilitation	To be bid as part of group 33
STONEHAVEN LN NE	WATERBURY LN NE	CHELSEA DR NE	0.18	Rehabilitation	To be bid as part of group 288
SUNRISE DR NW	GORDON AVE NW	RICHMAR LN NW	0.11	Maintenance	To be bid as part of group 237
TAMA ST SE	BRIDGET LN SE	KERRY LN SE	0.08	Rehabilitation	To be bid as part of group 82
TEXAS AVE NE	CENTER POINT RD NE	SHERMAN ST NE	0.19	Rehabilitation	To be bid as part of group 271
THOMPSON DR SE	1ST AVE E	FOREST DR SE	0.20	Reconstruction	To be bid as part of group 158
TIMBERLINE DR NE	GLASS RD NE	S TO DEAD END	0.43	Rehabilitation	To be bid as part of group 584
TOPAZ AVE NW	PEACE AVE NW	SHETLAND DR NW	0.35	Maintenance	To be bid as part of group 234
TOPAZ CT NW	SHETLAND DR NW	E TO DEAD END	0.03	Maintenance	To be bid as part of group 234
TWIN MOUND DR NE	BLUE MOUND DR NE	FIR TREE DR NE	0.14	Rehabilitation	To be bid as part of group 33
TWIXT TOWN RD NE	1ST AVE E	LAKESIDE DR NE	0.18	Rehabilitation	To be bid as part of group 83
VALLEY HIGH CT NW	27TH ST NW	W TO DEAD END	0.04	Rehabilitation	To be bid as part of group 591
VAN BUREN DR SW	29TH ST SW	31ST ST SW	0.13	Rehabilitation	To be bid as part of group 177
WACONIA AVE SW	LN FWY	WILLOW CREEK DR SW	0.61	Maintenance	To be bid as part of group 22
WATERBURY LN NE	STONEHAVEN LN NE	CANDLEWICK DR NE	0.12	Rehabilitation	To be bid as part of group 288
WEDGEWOOD DR NE	42ND ST NE	SALLY DR NE	0.12	Rehabilitation	To be bid as part of group 266
WEST POST RD SW	16TH AVE SW	WILSON AVE SW	0.54	Rehabilitation	
WESTERN PINE DR NE	N PINE DR NE	SPRUCEWOOD DR NE	0.10	Rehabilitation	To be bid as part of group 33
WESTWOOD DR NW	E AVE NW	GLENWOOD DR NW	0.43	Rehabilitation	To be bid as part of group 295
WHITE TAIL LN NE	ANTELOPE TRL NE	GLASS RD NE	0.09	Rehabilitation	To be bid as part of group 584
WILLOW CREEK DR SW	WACONIA AVE SW	60TH AVE SW	0.23	Maintenance	To be bid as part of group 22
WILLSHIRE CT NE	CHELSEA DR NE	NORMANDY DR NE	0.14	Rehabilitation	To be bid as part of group 288
WILSON AVE SW	HICKORY DR SW	LORI DR SW	0.18	Reconstruction	
WILSON AVE SW	N ST SW	11TH ST SW	0.53	Rehabilitation	
WILTON CT NE	WILTON DR NE	SW TO DEAD END	0.03	Rehabilitation	To be bid as part of group 288

PHASE 2: Project Years 2019-2021

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
WILTON DR NE	CHELSEA DR NE	REVERE DR NE	0.39	Rehabilitation	To be bid as part of group 288
WINDSOR DR NE	BRADFORD RD NE	BRENTWOOD DR NE	0.19	Reconstruction	To be bid as part of group 679
WOODLAND CT NW	GLENWOOD DR NW	N TO DEAD END	0.10	Rehabilitation	To be bid as part of group 295
WYNDHAM DR NE	TIMBERLINE DR NE	CEDAR RIDGE DR NE	0.26	Rehabilitation	To be bid as part of group 584
YELLOW PINE CT NE	N PINE DR NE	W TO DEAD END	0.07	Rehabilitation	To be bid as part of group 33
YELLOW PINE DR NE	N PINE DR NE	PINE WOOD DR NE	0.10	Rehabilitation	To be bid as part of group 33
TOTALS	84 PROJECTS		70.9 Mi		





PAVING FOR PROGRESS

Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction
- City Limits

Quadrants

- NW
- NE
- SW
- SE

0 2,000 4,000 8,000 Feet

1 inch = 8,000 feet

N

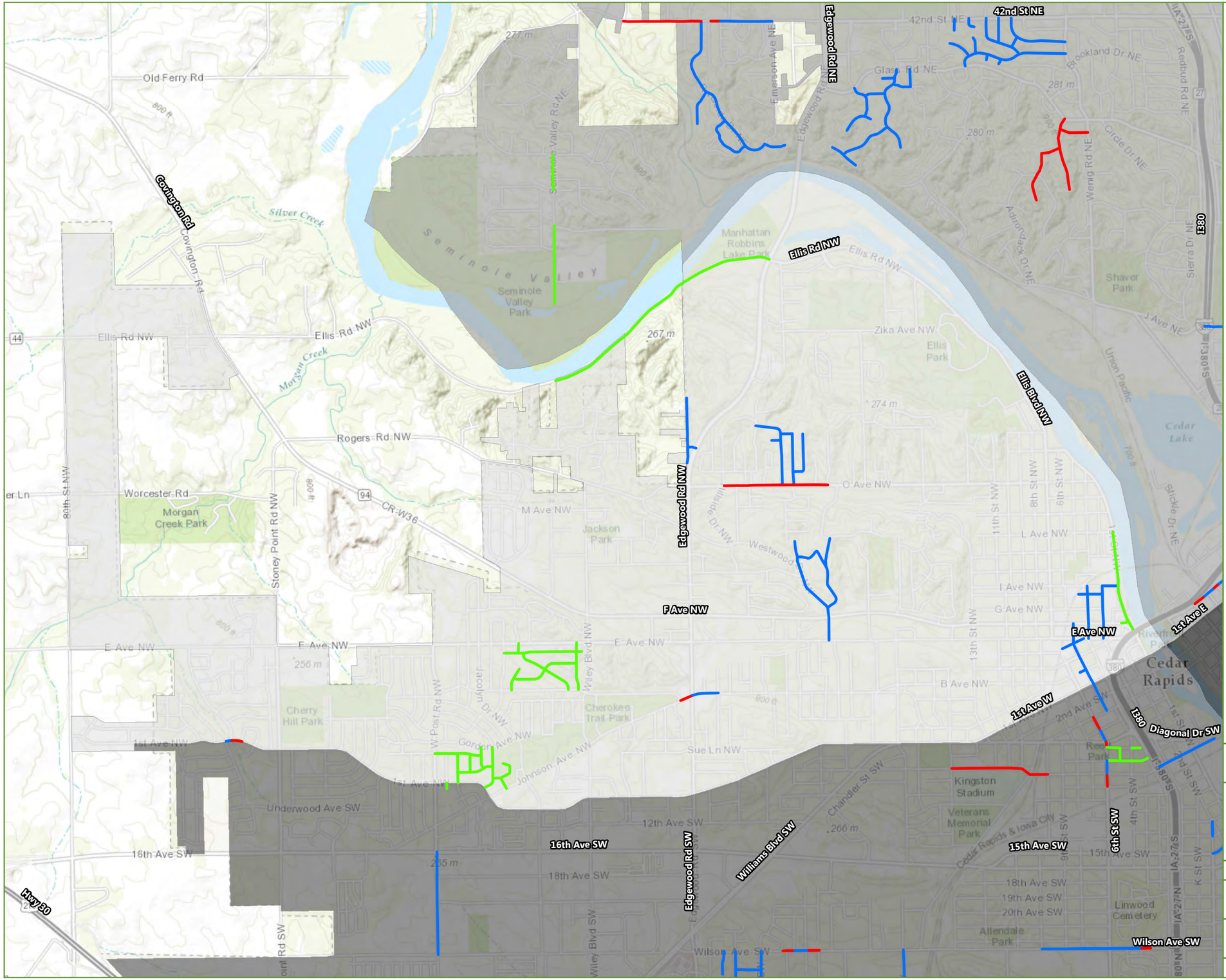
Phase 2 (2019, 2020, 2021) Paving For Progress Projects

Council District 20

MAP 18
Phase 2 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: J.R.K.
DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 625 1,250 2,500 Feet

1 inch = 2,500 feet

N

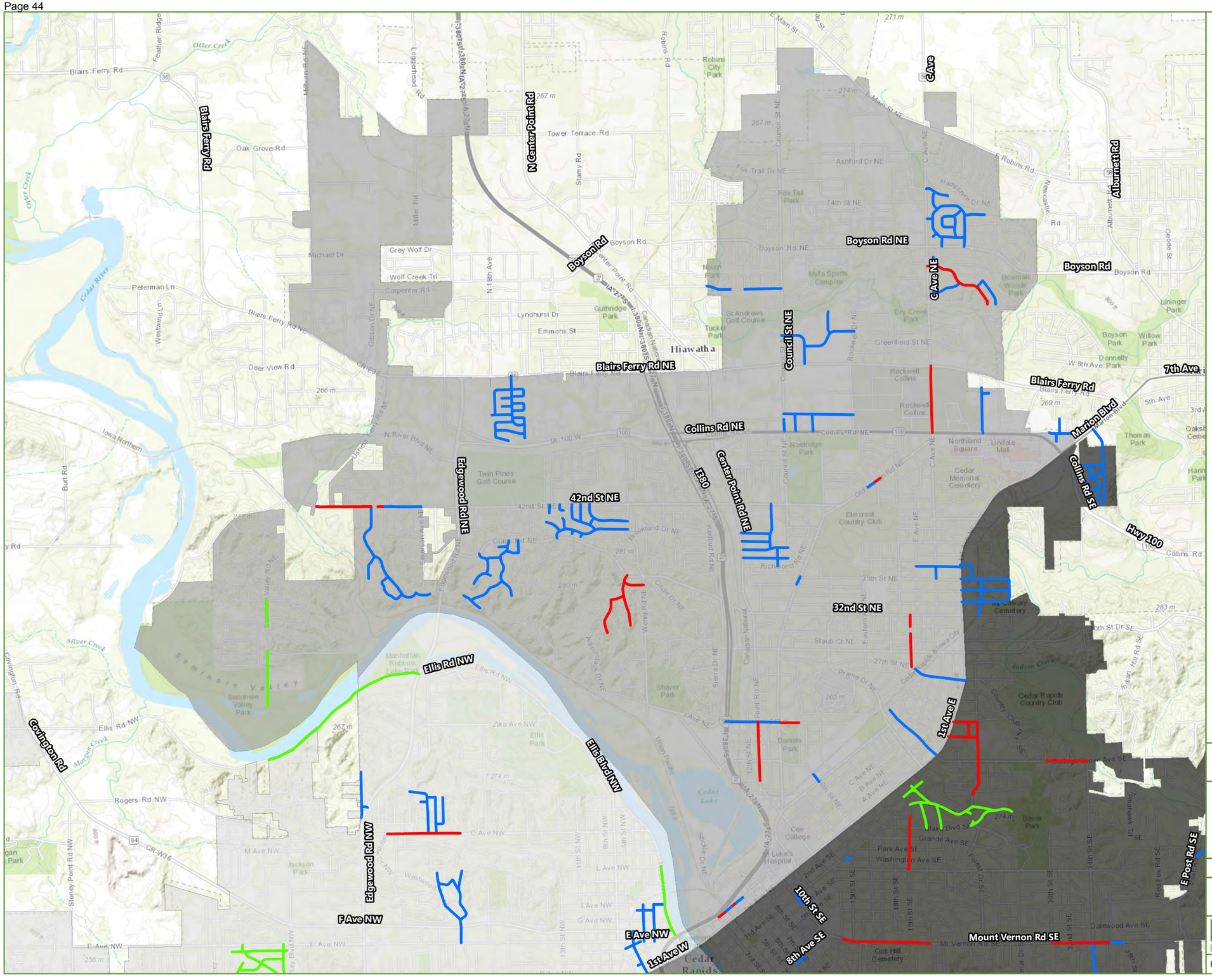
Phase 2 (2019, 2020, 2021) Paving For Progress Projects

NW Quadrant

MAP 19
Phase 2 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: M.S.L.
DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

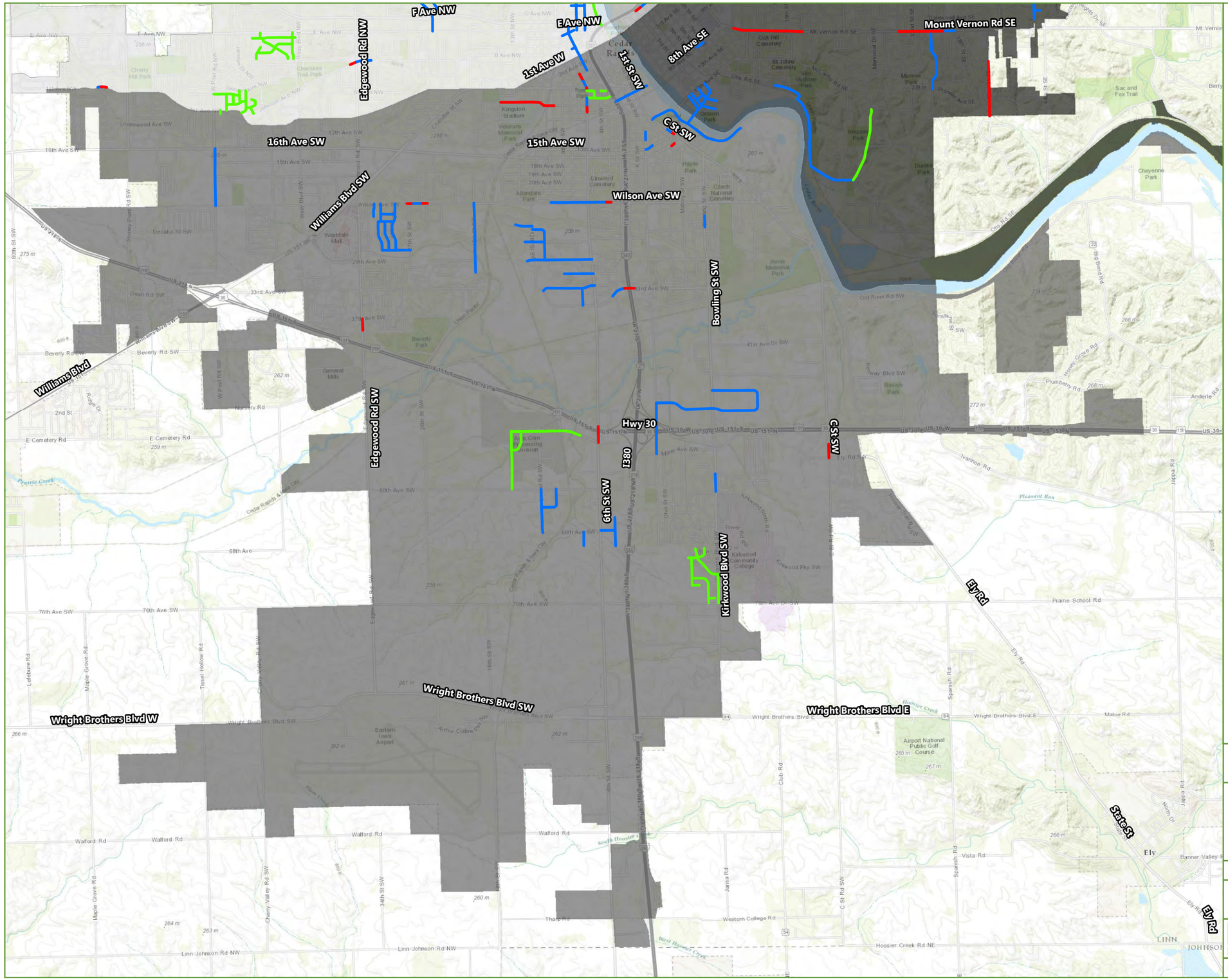
Phase 2 (2019, 2020, 2021) Paving For Progress Projects

NE Quadrant

MAP 20
Phase 2 Treatments

HRGreen
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

0 1,125 2,250 4,500 Feet

1 inch = 4,500 feet

N

Phase 2 (2019, 2020, 2021) Paving For Progress Projects

SW Quadrant

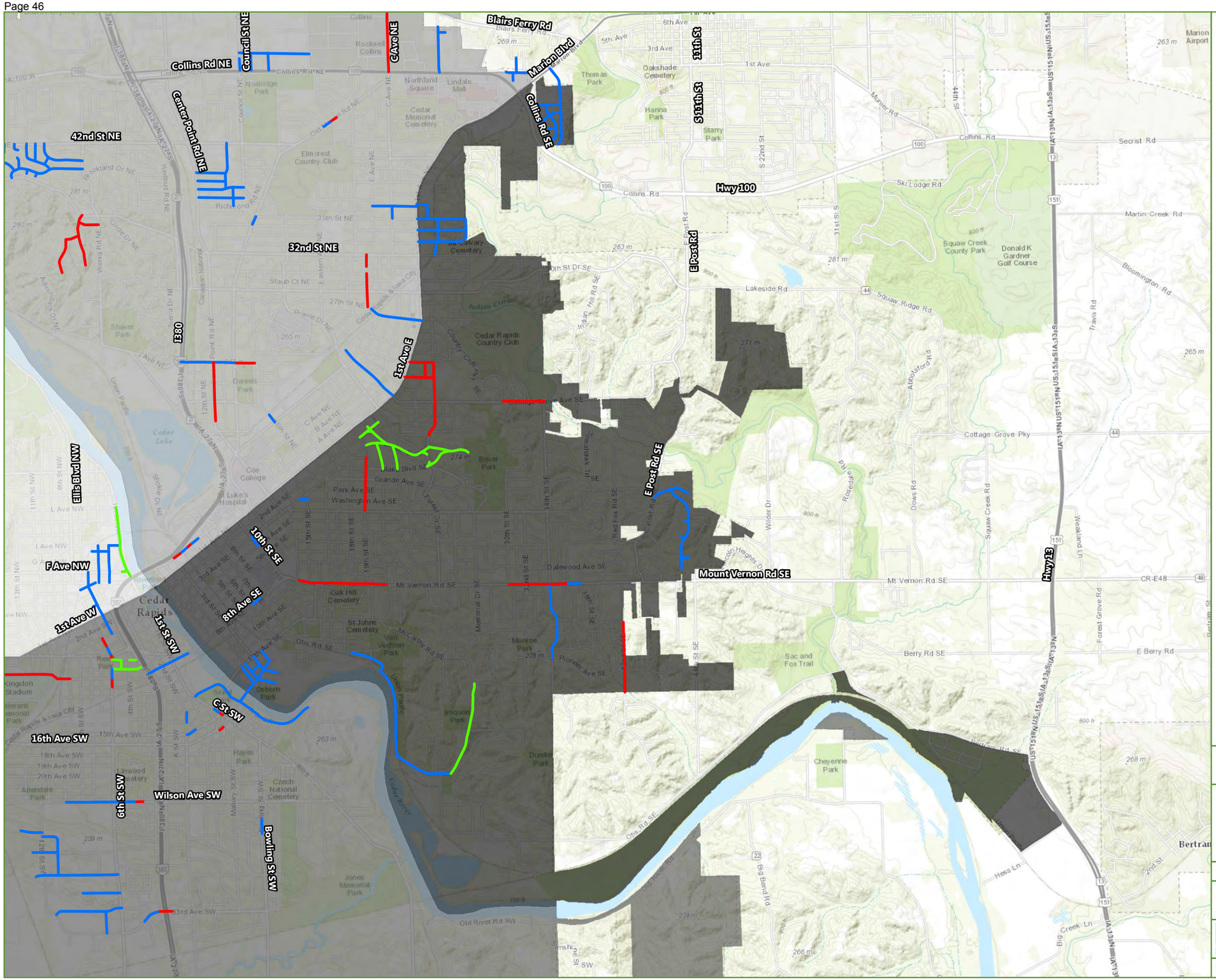
MAP 21
Phase 2 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015

DRAWN BY: M.S.L.

HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

Phase 2 (2019, 2020, 2021) Paving For Progress Projects

SE Quadrant

MAP 22
Phase 2 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.

PHASE 3: Project Years 2022-2024

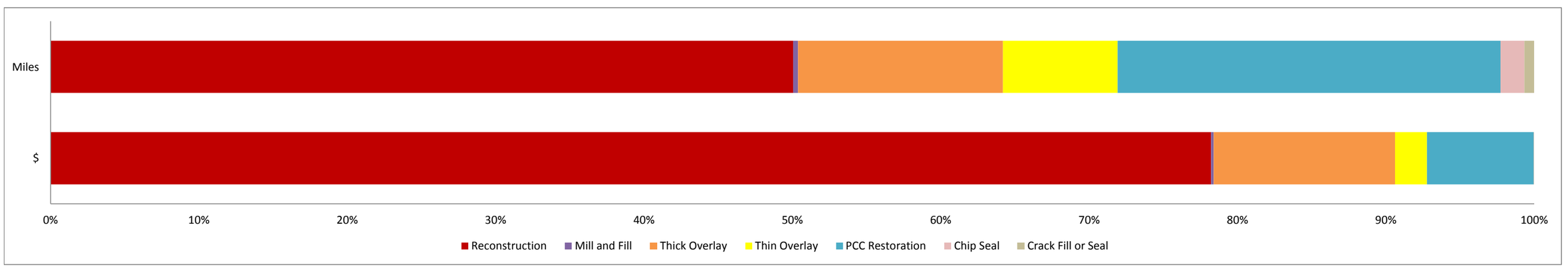
Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
11TH ST NW	M AVE NW	N TO DEAD END	0.40	Reconstruction	
12TH AVE SE	4TH ST SE	1ST ST NE	0.18	Reconstruction	
16TH AVE SW	HAMILTON ST SW	1ST ST SW	0.07	Rehabilitation	
16TH AVE SW	3RD ST SW	N ST SW	0.17	Rehabilitation	
16TH AVE SW	WILLIAMS BLVD	EDGEWOOD RD SW	0.37	Maintenance	
16TH AVE SW	23RD ST SW	WILLIAMS BLVD	0.29	Rehabilitation	
16TH ST NE	D AVE NE	B AVE NE	0.15	Rehabilitation	
18TH ST NW	MAPLE DR NW	JOHNSON AVE NW	0.18	Maintenance	
1ST ST SW	11TH AVE SW	4TH AVE SW	0.67	Rehabilitation	
20TH ST NE	A AVE NE	B AVE NE	0.08	Rehabilitation	
22ND ST NE	D AVE NE	1ST AVE E	0.30	Reconstruction	To be bid as part of group 382
23RD ST NE	E AVE NE	A AVE NE	0.29	Reconstruction	To be bid as part of group 381
2ND ST SW	18TH AVE SW	J ST SW	0.32	Reconstruction	
30TH ST NE	C AVE NE	LINDALE AVE NE	0.23	Reconstruction	To be bid as part of group 164
30TH ST SE	PIONEER AVE SE	MOUNT VERNON RD SE	0.13	Reconstruction	
31ST ST NE	C AVE NE	1ST AVE E	0.21	Reconstruction	To be bid as part of group 164
33RD AVE SW	CAMEO LN SW	ROYAL DR SW	0.14	Rehabilitation	
33RD AVE SW	REMINGTON ST SW	18TH ST SW	0.11	Reconstruction	
33RD AVE SW	SOUTHGATE CT SW	7TH STREET PL SW	0.29	Reconstruction	
35TH ST NE	OAKLAND RD NE	EASTERN AVE NE	0.43	Reconstruction	
38TH ST NE	F AVE NE	1ST AVE E	0.45	Reconstruction	
3RD AVE SE	14TH ST SE	BEVER AVE SE	0.07	Reconstruction	
3RD AVE SE	16TH ST SE	PARK CT SE	0.07	Rehabilitation	
40TH ST DR SE	1 ST SE	GLENBROOK DR	0.28	Reconstruction	To be bid as part of group 106
44TH ST NE	E AVE NE	C AVE NE	0.08	Reconstruction	To be bid as part of group 586
4TH ST CT SW	58TH AVE SW	58TH AVE SW	0.22	Rehabilitation	To be bid as part of group 24
4TH ST SW	50TH ST CT SW	S TO DEAD END	0.13	Rehabilitation	To be bid as part of group 24
50TH AVE CT SW	4TH ST SW	E TO DEAD END	0.15	Rehabilitation	To be bid as part of group 24
58TH AVE CT SW	6TH ST SW	W TO DEAD END	0.19	Rehabilitation	To be bid as part of group 24
58TH AVE SW	6TH ST SW	4TH ST CT SW	0.23	Rehabilitation	To be bid as part of group 24
5TH AVE SE	2ND ST SE	5TH ST SE	0.21	Reconstruction	To be bid as part of group 433
6TH ST SW	10TH AVE SW	15TH AVE SW	0.26	Rehabilitation	
7TH AVE SE	3RD ST SE	5TH ST SE	0.14	Reconstruction	To be bid as part of group 433
8TH AVE SE	5TH ST SE	2ND ST SE	0.22	Rehabilitation	
8TH AVE SE	10TH ST SE	8TH ST SE	0.14	Reconstruction	
A AVE NE	23RD ST NE	29TH ST NE	0.49	Reconstruction	To be bid as part of group 381
B AVE NE	27TH ST NE	22ND ST NE	0.39	Reconstruction	To be bid as part of group 382
B AVE NE	14TH ST NE	19TH ST NE	0.63	Reconstruction	
BERKSHIRE DR NE	NORMANDY DR NE	C AVE NE	0.48	Rehabilitation	To be bid as part of group 285
BLAIRS FERRY RD NE	ROCKWELL DR NE	CRANE LN NE	0.69	Maintenance	
BLAIRS FERRY RD NE	CENTER POINT RD NE	I380	0.65	Reconstruction	
BOXWOOD LN NE	BROOKDALE LN NE	S TO DEAD END	0.04	Rehabilitation	To be bid as part of group 110
BROOKDALE LN NE	IDLEDALE RD NE	COUNCIL ST NE	0.27	Rehabilitation	To be bid as part of group 110
C AVE NE	23RD ST NE	27TH ST NE	0.27	Reconstruction	To be bid as part of group 381
C AVE NE	37TH ST NE	36TH ST NE	0.09	Rehabilitation	
C AVE NE	SHEFFIELD DR NE	BERKSHIRE DR NE	0.09	Rehabilitation	
C AVE NE	GREENFIELD ST NE	CRIMSON DR NE	0.05	Rehabilitation	
C AVE NE	BERKSHIRE DR NE	REVERE CT NE	0.17	Rehabilitation	

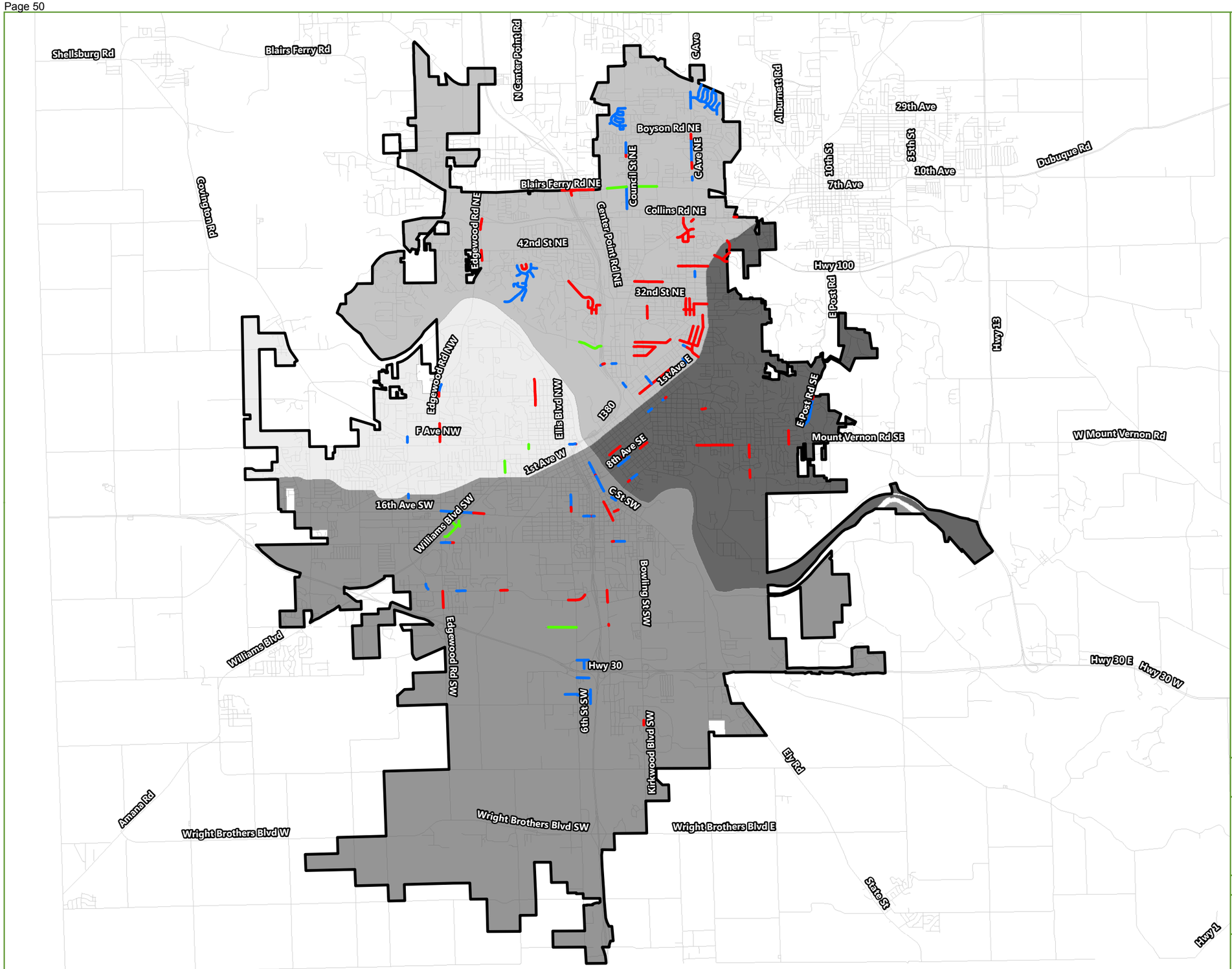
PHASE 3: Project Years 2022-2024

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
C AVE NE	FRANKLIN AVE NE	31ST ST NE	0.17	Reconstruction	To be bid as part of group 164
C AVE NE	BOYSON RD NE	TEAKWOOD LN NE	0.53	Reconstruction	
C ST SW	14TH AVE SW	13TH AVE SW	0.08	Rehabilitation	14th intersection is the southern one
CARBRY CT NE	RIMROCK DR NE	W TO DEAD END	0.09	Rehabilitation	To be bid as part of group 262
CENTER POINT RD NE	12TH ST NE	F AVE NE	0.08	Rehabilitation	
CIRCLE DR NE	GLASS RD NE	COLDSTREAM AVE NE	0.71	Reconstruction	To be bid as part of group 302
CIRCLE HILL CT NE	CIRCLE DR NE	W TO DEAD END	0.15	Reconstruction	To be bid as part of group 302
COPPERMILL RD NE	OLD ORCHARD RD NE	GLASS RD NE	0.18	Rehabilitation	To be bid as part of group 262
COTTONWOOD LN NE	IDLEDALE RD NE	PARKWOOD LN NE	0.18	Rehabilitation	To be bid as part of group 110
COUNCIL ST NE	TOWER LN NE	AHEARN DR NE	0.22	Rehabilitation	
COUNCIL ST NE	BLAIRS FERRY RD NE	PARK PL NE	0.34	Rehabilitation	
D AVE NE	29TH ST NE	32ND ST NE	0.25	Reconstruction	To be bid as part of group 164
E AVE NE	29TH ST NE	32ND ST NE	0.25	Reconstruction	To be bid as part of group 164
E AVE NE	WOODFIELD LN NE	N TO DEAD END	0.42	Reconstruction	To be bid as part of group 586
EAST POST RD SE	TRAILRIDGE RD SE	N .11 MI	0.11	Reconstruction	
EAST POST RD SE	BEVER AVE SE	BEVER AVE SE	0.34	Rehabilitation	
EDGEWOOD RD NE	42ND ST NE	RIVER CENTER CT NE	0.16	Reconstruction	
EDGEWOOD RD NE	PROPOSED IA100	NORTH RIVER BLVD NE	0.17	Reconstruction	
EDGEWOOD RD NW	EDGEWOOD LN NW	O AVE NW	0.19	Rehabilitation	
EDGEWOOD RD NW	WAVELAND DR NW	SUNNYDALE ST NW	0.24	Reconstruction	
EDGEWOOD RD SW	37TH AVE SW	33RD AVE SW	0.25	Reconstruction	
GLENBROOK DR SE	1ST AVE E	GLENBROOK DR	0.16	Reconstruction	To be bid as part of group 106
H AVE NE	CENTER POINT RD NE	SW RAMP	0.14	Reconstruction	
HOMEWOOD LN NE	IDLEDALE RD NE	VINEWOOD LN NE	0.14	Rehabilitation	To be bid as part of group 110
I AVE NE	MAPLEWOOD DR NE	J AVE NE	0.38	Reconstruction	
IDLEDALE RD NE	BROOKDALE LN NE	COUNCIL ST NE	0.33	Rehabilitation	To be bid as part of group 110
INGLESIDE DR SW	6TH ST SW	W TO DEAD END	0.44	Maintenance	
J AVE NE	SHAVER RD NE	I 380	0.37	Maintenance	
J AVE NE	MAPLEWOOD DR NE	I AVE NE	0.33	Reconstruction	To be bid as part of group 326
J ST SW	36TH AVE SW	33RD AVE SW	0.17	Reconstruction	
K AVE NE	MAPLEWOOD DR NE	PRAIRIE DR NE	0.56	Reconstruction	
KIRKWOOD BLVD SW	66TH AVE SW	OKLAHOMA AVE SW	0.08	Rehabilitation	
MARQUETTE DR NE	BERKSHIRE DR NE	EAST ROBINS RD	0.23	Rehabilitation	To be bid as part of group 285
MOUNT VERNON RD SE	KNOLLWOOD DR SE	21ST ST SE	0.25	Reconstruction	
MOUNT VERNON RD SE	MEMORIAL DR SE	KNOLLWOOD DR SE	0.29	Reconstruction	
NILSEN RD NE	F AVE NE	C AVE NE	0.29	Reconstruction	To be bid as part of group 586
NORMANDY DR NE	HAMPSHIRE DR NE	BECKETT DR NE	0.18	Rehabilitation	To be bid as part of group 285
OLD MARION RD NE	MARION RD NE	C AVE NE CONN	0.05	Reconstruction	To be bid as part of group 586
OLD ORCHARD CT NE	OLD ORCHARD RD NE	W TO DEAD END	0.12	Rehabilitation	To be bid as part of group 262
OLD ORCHARD RD NE	LONG BLUFF RD NE	GLASS RD NE	0.72	Rehabilitation	To be bid as part of group 262
PARKDALE LN NE	WINDWOOD LN NE	BROOKDALE LN NE	0.08	Rehabilitation	To be bid as part of group 110
PARKWOOD LN NE	COTTONWOOD LN NE	COTTONWOOD LN NE	0.21	Rehabilitation	To be bid as part of group 110
PLUM GROVE CT NE	PLUMB GROVE CT NE	W TO DEAD END	0.05	Rehabilitation	To be bid as part of group 262
PRAIRIE DR NE	ROBINWOOD LN NE	30TH ST NE	0.19	Reconstruction	
PRINCETON DR NE	HAMPSHIRE DR NE	EAST ROBINS RD	0.33	Rehabilitation	To be bid as part of group 285
RESTON CT NE	COPPERMILL RD NE	E TO DEAD END	0.09	Rehabilitation	To be bid as part of group 262

PHASE 3: Project Years 2022-2024

Road Name	Start Intersection	End Intersection	Miles	Treatment Type	Comments/Notes
RIMROCK CT NE	OLD ORCHARD RD NE	E TO DEAD END	0.22	Rehabilitation	To be bid as part of group 262
RIMROCK DR NE	OLD ORCHARD RD NE	W TO DEAD END	0.15	Rehabilitation	To be bid as part of group 262
SHARWOOD DR NE	CIRCLE DR NE	SIERRA DR NE	0.07	Reconstruction	To be bid as part of group 302
SIERRA DR NE	COLDSTREAM AVE NE	JUHL DR NE	0.18	Reconstruction	To be bid as part of group 302
SILVERTHORNE RD NE	COPPERMILL RD NE	E TO DEAD END	0.11	Rehabilitation	To be bid as part of group 262
SYCAMORE CT NE	GLASS RD NE	GLASS RD NE	0.18	Reconstruction	To be bid as part of group 262
THORNDALE DR NE	BERKSHIRE DR NE	WINSTON DR NE	0.23	Rehabilitation	To be bid as part of group 285
TRENT ST SW	16TH AVE SW	WILLIAMS PKWY SW	0.27	Maintenance	To be bid as part of group 348
VINEWOOD LN NE	HOMEWOOD LN NE	IDLEDALE RD NE	0.11	Rehabilitation	To be bid as part of group 110
WACONIA CT SW	6TH ST SW	E TO DEAD END	0.19	Rehabilitation	To be bid as part of group 24
WESTBURY DR NE	BERKSHIRE DR NE	PRINCETON DR NE	0.30	Rehabilitation	To be bid as part of group 285
WESTOVER RD SE	40TH ST SE	GLENBROOK DR	0.15	Reconstruction	To be bid as part of group 106
WILEY BLVD NW	ORCHARD DR NW	F AVE NW	0.09	Rehabilitation	
WILEY BLVD SW	HEATHER CT SW	1ST AVE W	0.06	Rehabilitation	
WILEY BLVD SW	31ST AVE SW	33RD AVE SW	0.09	Rehabilitation	
WILLIAMS PKWY SW	TRENT ST SW	E & W TO DEAD ENDS	0.40	Maintenance	To be bid as part of group 348
WILSON AVE SW	MALLORY ST SW	2ND ST SW	0.20	Rehabilitation	
WILSON AVE SW	EDGEWOOD RD SW	31ST ST SW	0.19	Rehabilitation	
WINDWOOD LN NE	PARKDALE LN NE	PARKWOOD LN NE	0.13	Rehabilitation	To be bid as part of group 110
WINSTON DR NE	BERKSHIRE DR NE	THORNDALE DR NE	0.23	Rehabilitation	To be bid as part of group 285
WINTERWOOD CT NE	OLD ORCHARD RD NE	S TO DEAD END	0.09	Rehabilitation	To be bid as part of group 262
WOODFIELD LN NE	NILSEN RD NE	E AVE NE	0.13	Reconstruction	To be bid as part of group 586
TOTALS	69 PROJECTS		27.2 Mi		





Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction
- City Limits

Quadrants

- NW
- NE
- SW
- SE

0 2,000 4,000 8,000 Feet

1 inch = 8,000 feet

N

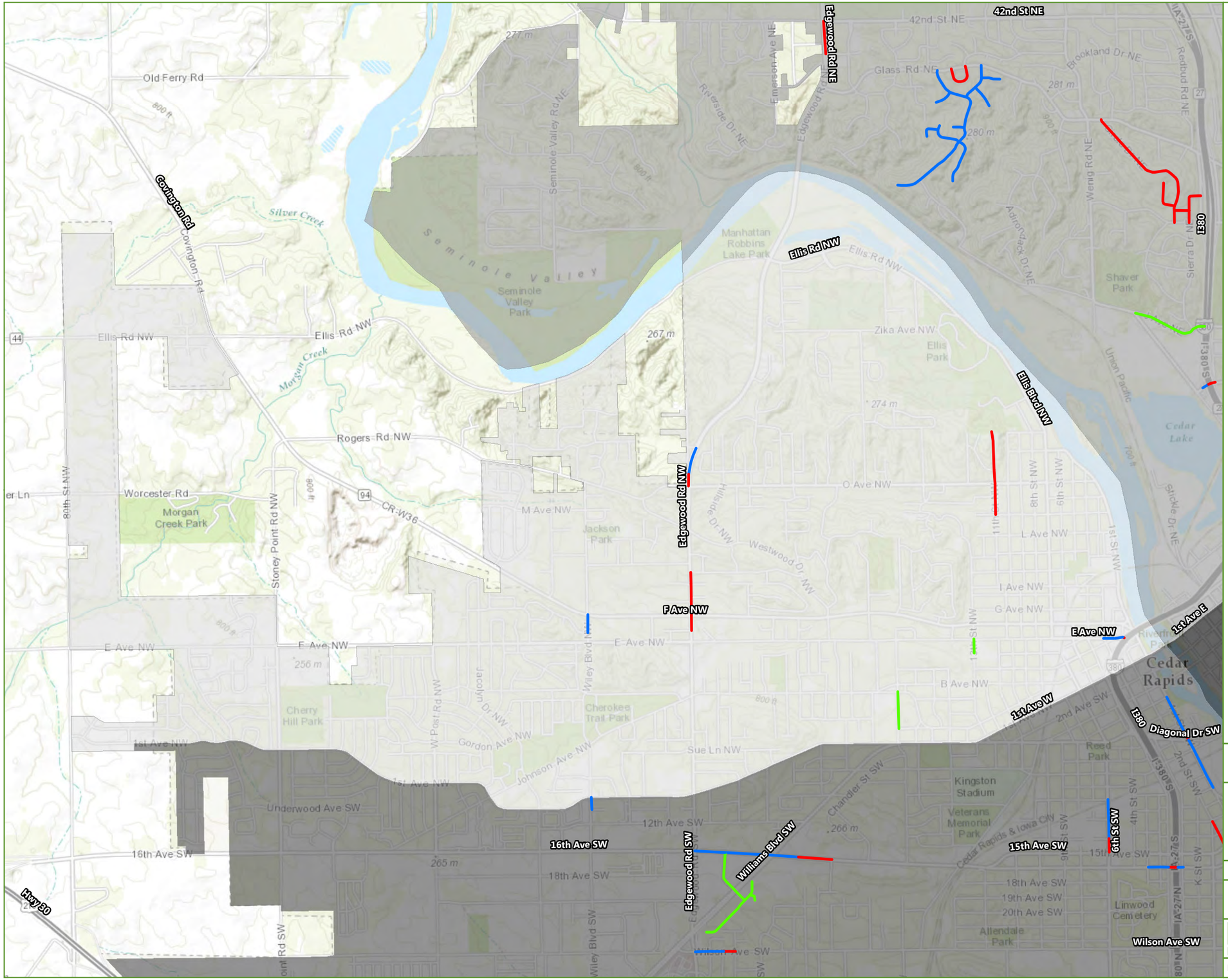
Phase 3 (2022, 2023, 2024) Paving For Progress Projects

Council District 25

MAP 23
Phase 3 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: J.R.K.
DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 625 1,250 2,500 Feet

1 inch = 2,500 feet

N

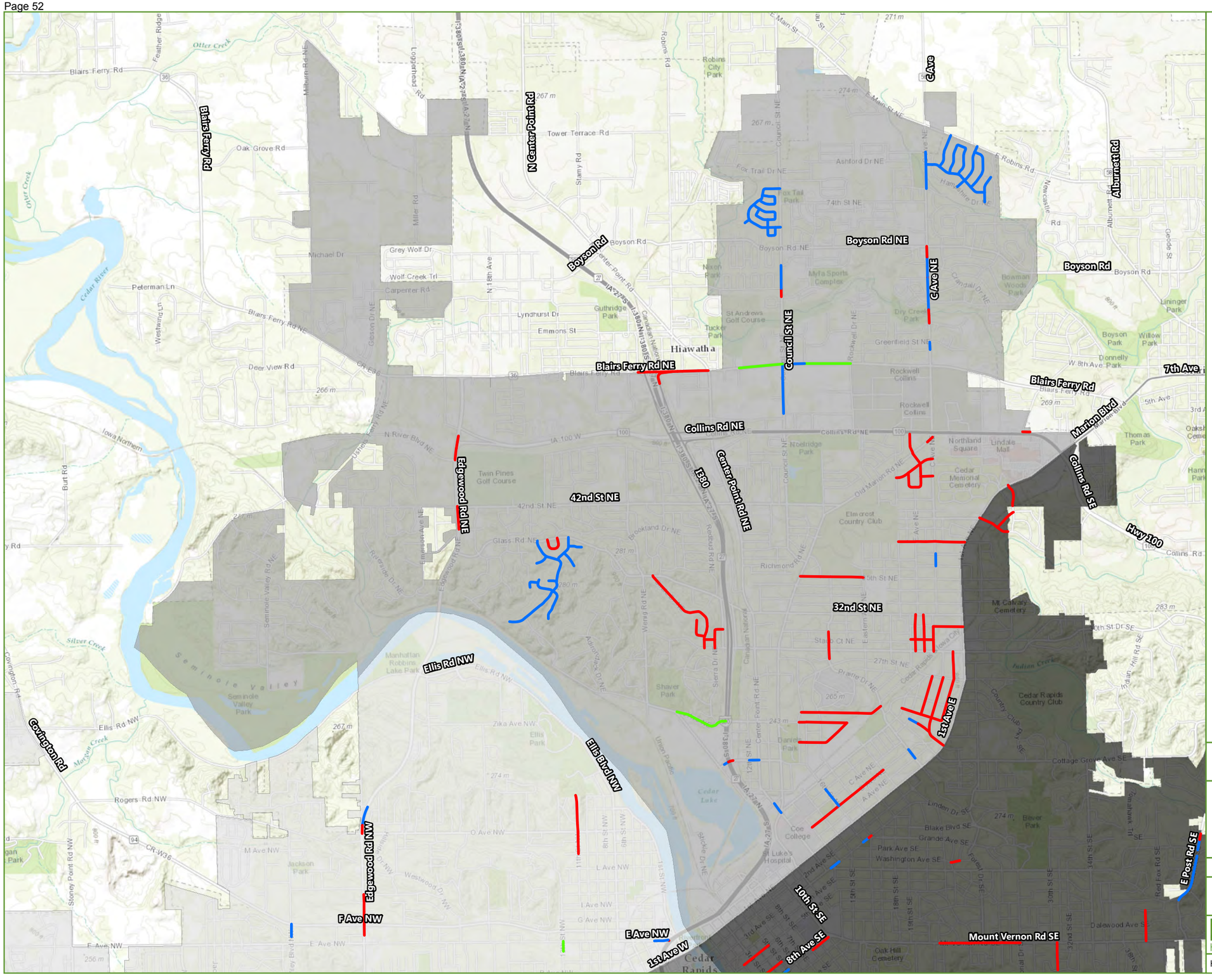
Phase 3 (2022, 2023, 2024) Paving For Progress Projects

NW Quadrant

MAP 24
Phase 3 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179
APPROVED BY: M.S.L.
DESIGNED BY: M.S.L.



PAVING FOR PROGRESS

Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

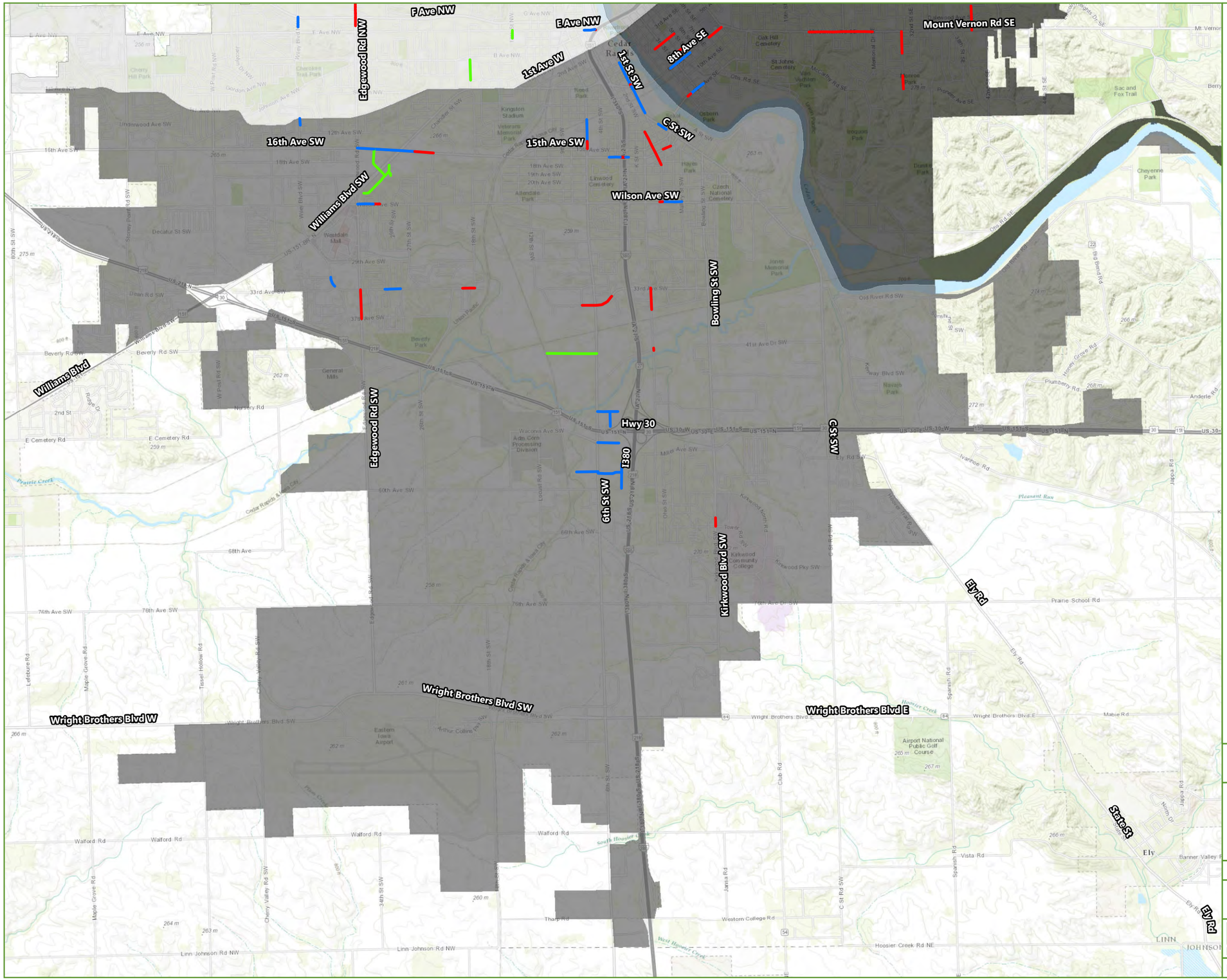
Phase 3 (2022, 2023, 2024) Paving For Progress Projects

NE Quadrant

MAP 25
Phase 3 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

		DATE: 5/20/2015
		DRAWN BY: M.S.L.
HRG JOB NO: 10130179	APPROVED BY: M.S.L.	DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

0 1,125 2,250 4,500 Feet

1 inch = 4,500 feet

N

Phase 3 (2022, 2023, 2024) Paving For Progress Projects

SW Quadrant

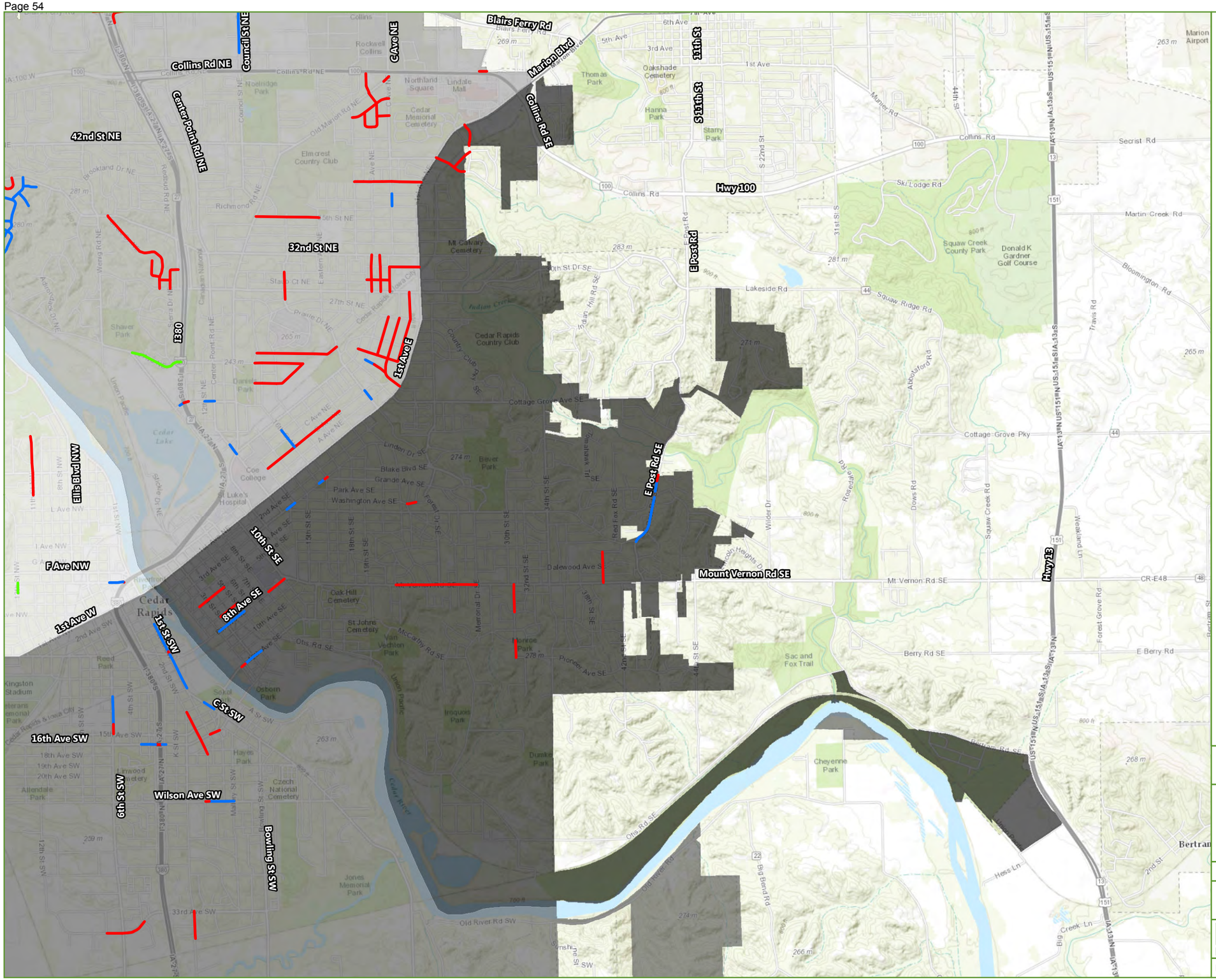
MAP 26
Phase 3 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015

DRAWN BY: M.S.L.

HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.



Legend

Project Type

- Maintenance
- Rehabilitation
- Reconstruction

Quadrants

- NW
- NE
- SW
- SE

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

0 875 1,750 3,500 Feet

1 inch = 3,500 feet

N

Phase 3 (2022, 2023, 2024) Paving For Progress Projects

SE Quadrant

MAP 27
Phase 3 Treatments

HRGreer
8710 Earhart Lane SW
Cedar Rapids, IA 52404
Phone: 319.841.4000

DATE: 5/20/2015
DRAWN BY: M.S.L.
HRG JOB NO: 10130179 | APPROVED BY: M.S.L. | DESIGNED BY: M.S.L.

Appendix: Cost Calculations for Pavement Treatments

Reconstruction	
Quantities for pricing are per Square Yard	
Excavation	$ 5.00
Subgrade	$ 2.00
Sub-base	$ 6.00
Sub-drain	$ 6.00
Storm Sewer	$ 25.00
Pavement Removal	$ 10.00
Pavement	$ 50.00
Drives and Sidewalks	$ 8.00
Seeding, Paint Markings, etc.	$ 5.00
Mobilization, Traffic Control, survey (15%)	$ 18.00
Contingency (10%)	$ 14.00
Total (rounded up)	$ 150.00

Crack Filling/Sealing	
Assumed cost is per station (100ft) and per 12' of lane width	
Total	$ 200.00

Thick Overlay	
Quantities for pricing are per Square Yard	
3" HMA overlay + Tack @ $90/Ton	$ 15.00
Tack + Patching @ $200/Ton	$ 5.00
Contingency/Mobilization/other (25%)	$ 7.00
Drives, Curb/Gutter, and Sidewalks	$ 8.00
Total (rounded up)	$ 35.00

PCC Restoration	
Quantities for pricing are per Square Yard	
Assume 10% Remove/Replace	$ 9.00
Crack Fill	$ 1.50
Profile	$ 5.00
Contingency/Mobilization/other (20%)	$ 3.00
Total (rounded up)	$ 19.00
Note: if 20% Remove/Replace is needed it becomes 24/sy, the same price as a Thick Overlay	

Chip Seal	
Quantities for pricing are per Square Yard	
Assume 3/SY since the City can do this in-house	
Total (rounded up)	$ 3.00

Mill & Fill	
Quantities for pricing are per Square Yard	
3" HMA overlay + Tack/Patch @ $90/Ton	$20.00
Milling	$ 5.00
Curb/Gutter	$ 7.00
Contingency/Mobilization/other (25%)	$ 10.00
Drives and Sidewalks	$ 8.00
Total (rounded up)	$ 50.00

Thin Overlay	
Quantities for pricing are per Square Yard	
1.5" HMA overlay @ $90/Ton	$10.00
Tack + Patching @ $200/Ton	$ 3.00
Contingency/Mobilization/other (25%)	$ 3.50
Total (rounded up)	$ 17.00

Diamond Grind	
Quantities for pricing are per Square Yard	
Assume 5/SY	
Total (rounded up)	$ 5.00