



Welcome

Ken DeKeyser, City Engineer

# Today's Agenda

- Staff Presentations – Development Services, IT-GIS, Construction, Utilities and Engineering
- City Engineer
  - 2025 One City Goal
  - Focus for FY 25-26
  - Outlook for FY 27



# The 2025 One City Goal is "Adjust to Financial Realities"



- State scrutinizing city property taxes and borrowing
- Expenses outpacing revenue
- Federal funding is not guaranteed



# Focus for FY 25-26

- Integrating staff for LOST and non-LOST projects
- Use the bid item checklist
- Blue Beam plan review – bookmark your plans
- Annual qualifications are due June 30
- Wider look at consultant utilization
- Design for minimal ROW and easement acquisition
- Real estate, Federal Aid process and bridges/structures.
- Continued scrutiny:
  - ROW, permits, budgets, and utility coordination are resolved before bidding
  - Quality – constructability and functionality
  - PSA amendments - % increase, justification
  - Adequate public information



# Outlook for FY 27 – Adjust to Financial Realities

- Fewer General Obligation (GO) bond projects.
- Tax Increment Financing (TIF) will be used sparingly.
- Sewer projects as funded by the utility.
- Paving for Progress in good shape.
- Big time projects including 8th Avenue Bridge, casino, Connect CR and Flood Control System Reach 2 Phase 2.
- PFP team at full-strength.
- Less on-call assignments.





# Right of Way / Encroachment Overview and Updates

# ROW Permit Team Introduction

Seth  
Gunnerson  
ZONING  
ADMINISTRATOR

Dani  
Blin  
PERMIT  
SUPERVISOR

Amy  
Icenbice  
SENIOR  
PERMITCOORDINATOR

Kelly  
Hansel  
PERMITCOORDINATOR

Annie  
Kirchoff  
PERMITCOORDINATOR

Ashley  
Sharpe  
PERMIT TECHNICIAN



# Right-of-Way Online



## Welcome, Dani

### Open Items

You have no open requests at this time

[See More >>](#)

### Completed Items

Right of Way Permit Question	Completed	1
ROW Permit Submittal - 500 15TH AVE SW	Cancelled	0
ROW Encroachment Application Submittal - 500 15TH AVE SW	Void	0

[See More >>](#)

### Action Items

Balance Due	\$50.00
My To Do Items	0



# ONLINE



## Need a Right-of-Way Permit?

It's easy to get a permit application online through My CR



### Getting Started

#### STEP 1

Visit [my.cedar-rapids.org/Account/Login](http://my.cedar-rapids.org/Account/Login) and click "Sign Up" to create an account

#### STEP 2 (CONTRACTORS ONLY)

Email a request to [rightofwaypermit@cedar-rapids.org](mailto:rightofwaypermit@cedar-rapids.org) to activate your registration.

My CR

### Applying for a Permit

Once you've created an account, follow these simple steps to apply for a permit.



Log in at [my.cedar-rapids.org/Account/Login](http://my.cedar-rapids.org/Account/Login)



Click on the **Right-of-Way Permit** icon.



Click on the **Right-of-Way Permit Submittal** icon, then follow the system prompts.

### Paying for Your Permit

Payment is required before your ROW permit will be processed. Pay by credit/debit card as part of the online application. Cash/check payments are also accepted by mail or in the City Services Center drop box at 500 15th Ave SW, Cedar Rapids, IA 52404. To ensure payment is completed, please include your ROW permit number as reference with payment. All applications submitted require payment to be processed.

Need More Info?

[www.cityofcr.com/rightofwaypermits](http://www.cityofcr.com/rightofwaypermits)



My CR

City of Cedar Rapids



Right-of-Way Permit



Right-of-Way Permit Submittal



Obstruction Permit



Encroachment Request



Bond for Grading, Opening or Working in Public Street and Public Property



ROW Payment



## Encroachment Request

Use My CR to request an encroachment online:



### Getting Started

#### STEP 1

Visit [my.cedar-rapids.org/Account/Login](http://my.cedar-rapids.org/Account/Login) and click "Sign Up" to create an account

My CR

### Request an Encroachment

Once you've created an account, follow these simple steps to request an encroachment.



Login at [my.cedar-rapids.org/Account/Login](http://my.cedar-rapids.org/Account/Login)



Click on the **Right-of-Way** icon.



Click on the **Encroachment** icon, then follow the system prompts.

### Paying for Your Encroachment Request

Payment is required before your encroachment request will be processed. Pay by credit/debit card as part of the online application. Cash/check payments made payable to "City Treasurer" are also accepted by mail, or at the customer service counter on the second floor of City Services Center, 500 15th Avenue SW, Cedar Rapids, IA 52404 during regular business hours. To ensure payment is completed, please include your request number as reference with payment. All requests submitted require payment to be processed.

Need More Info?

[CityofCR.com/Encroachments](http://CityofCR.com/Encroachments)



# Permit Requests Online

- Application wizard walks you through the request.
- Streamlines application process with accuracy and efficiency.
- Dashboard provides status updates to the applicants
- Discussion feature allows for transparency internally and externally and provides immediate communication.
- All communication with a request is saved for easy reference.
- Payment required at time of request to process.

✔ Contact Details > ✔ Additional Details  
Additional Information > ✔ Insurance Attachment  
Bond or Property Insurance > Minor Exc Work Type

Minor Excavation Work Type

Is your work a minor excavation?  
(Mud Jacking, Curb and Sidewalk Grinding,  
Mailbox, Tree Planting)

Yes  No

Cancel Back Next

✔ Minor Exc Work Type > ✔ Driveway Work Type > ✔ Utilities Work Type > Dry Utilities Work Type

Dry Utility Work Type

Are you working with a dry utility?  
(Gas, Electric, Telecom)

Yes  No

Cancel Back Next

✔ Streets Work Type > ✔ Monitoring Well Soil Boring > Additional Work Type

Additional Work Type

Work will be done in: (Select all that apply)

Street  Alley  ROW  Easement  Other

Restoration of ROW

Applicant

Will traffic be impacted?

Yes  No

Will any work be done within 10' of a tree in public right-of-way?

Yes  No

If working within 15' of a sidewalk ramp, will  
the ramp be impacted? (If yes, you are  
required to upload a drawing)

Yes  No

Cancel Back Next



# Bond Submittal Online



## Bond for Grading, Opening or Working in Public Street and Public Property

### Bond for Grading, Opening or Working in Public Street and Public Property

#### Welcome

Bond for Grading, opening or working in public street and public property.

WELCOME! You are about to submit a bond to work in the public Right-of-Way within the City of Cedar Rapids.

Before proceeding, please make sure the following information is present:

- Bond is for Cedar Rapids and the bond amount is \$10,000 payable to the City of Cedar Rapids.
- All signatures on the bond have been obtained, **including witness signature.**
- Power of Attorney Letter is included with the bond submission.
- Bond number is present and legible.

For additional resources, please visit our website:

- [Example Bond](#)
- [Right of Way Permit](#)

Cancel

Next

#### BOND FOR GRADING, OPENING OR WORKING IN PUBLIC STREET AND PUBLIC PROPERTY

Bond No: \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, THAT \_\_\_\_\_ of  
FULL ADDRESS-CITY-ST-ZIP, NOT PO BOX \_\_\_\_\_ as  
principal, and \_\_\_\_\_  
ADDRESS CONTINUED \_\_\_\_\_ as surety, are held and firmly bound unto the City of  
Cedar Rapids, Iowa, in the penal and full sum of TEN THOUSAND DOLLARS (\$10,000) for the payment of  
which well and truly to be made we do hereby jointly and severally bind ourselves, our heirs, executors,  
administrators, personal representatives, successors, and assigns for a term of one year from the date of  
MONTH, DAY, YEAR to MONTH, DAY, YEAR.

The conditions of the above obligation are such that, whereas the above bounden principal desires and  
may in the future desire a permit or permits for WORKING IN OR OPENING THE CITY STREET or PUBLIC  
PROPERTY for the purpose of constructing private driveways, grading the parking or excavating in the street  
or public property, which permit or permits must be obtained in compliance with Chapter 9 of the Municipal  
Code of the City of Cedar Rapids, Iowa;

Now, therefore, in consideration of said permit or permits now or hereafter being issued, or renewed, said  
principal or surety shall from this date forward:

1. Indemnify and save harmless the City of Cedar Rapids, Iowa, its officials or any of its employees  
responsible for issuing permits for constructing private driveways, grading the parking or excavating in the  
street or public property, and successors, from and on account of any and all judgments, claims, costs,  
expenses, or liabilities of any kind whatsoever which said City and any or all of the persons above enumerated  
may sustain or which may be recovered from it or them, from or by reason of the issuance of each such permit,  
or by reason of any act, neglect or thing done under or by virtue of the authority given in any such permit, or in  
any way connected with, relating to, or growing out of any work performed by said principal, his or its agents  
and employees, or any subcontractor or anyone in any way under the principal's supervision and direction;

2. In all respects be bound hereby to all applicable requirements and provisions required to be in this bond  
by Chapter 9 of the Municipal Code of the City of Cedar Rapids, Iowa, and by ordinances and regulations now  
existing and hereafter enacted by the City of Cedar Rapids, Iowa, the same as though such requirements and  
provisions were fully set forth in this bond, and by reference such requirements and provisions are made a part  
hereof;

3. Comply with and faithfully observe and obey all applicable regulations and ordinances of the City of  
Cedar Rapids, Iowa, now existing or hereafter enacted and all other applicable laws now existing or hereafter  
enacted affecting or relating to the grading, opening or working in the City streets or public property;

4. Pay all damages or loss to the City of Cedar Rapids, Iowa, that may occur from any act or negligence of  
said principal, his or its agents or employees, anyone under his or its supervision or direction, or any  
subcontractor, as a result of his grading, opening or working in the City streets or public property;



# Public Right-of-Way Goals

- Preserve right-of-way.
  - Preserve and protect the interest of City infrastructure.
  - Consideration of future public improvement impacts.
  - Do not give something that we may take back in the future.
  - Need vs. Want
  - Public Use vs. Individual Use
- Apply consistent policy ordinance 9A.01(o)
  - The public right-of-way shall be reserved for public use or open space; the rights of the public, present, and future, should not be diminished by installing private improvements within the public right-of-way. Under certain, narrow, and limited circumstances and as a last resort, an encroachment may be requested for consideration by the City.



# Public Easement Goals

Preserve the rights of a public easement.

- Preserve and protect the interest of City infrastructure.
- Allow for operation, maintenance, and providing infrastructure.
- Bring valuable infrastructure and public utilities to property owners.
- Consideration of future use
- Good neighbors doing the right thing to protect the neighborhood.

Apply consistent policy

- The rights of the public easement, present, and future, should not be diminished by the installation of private improvements within the public easements.



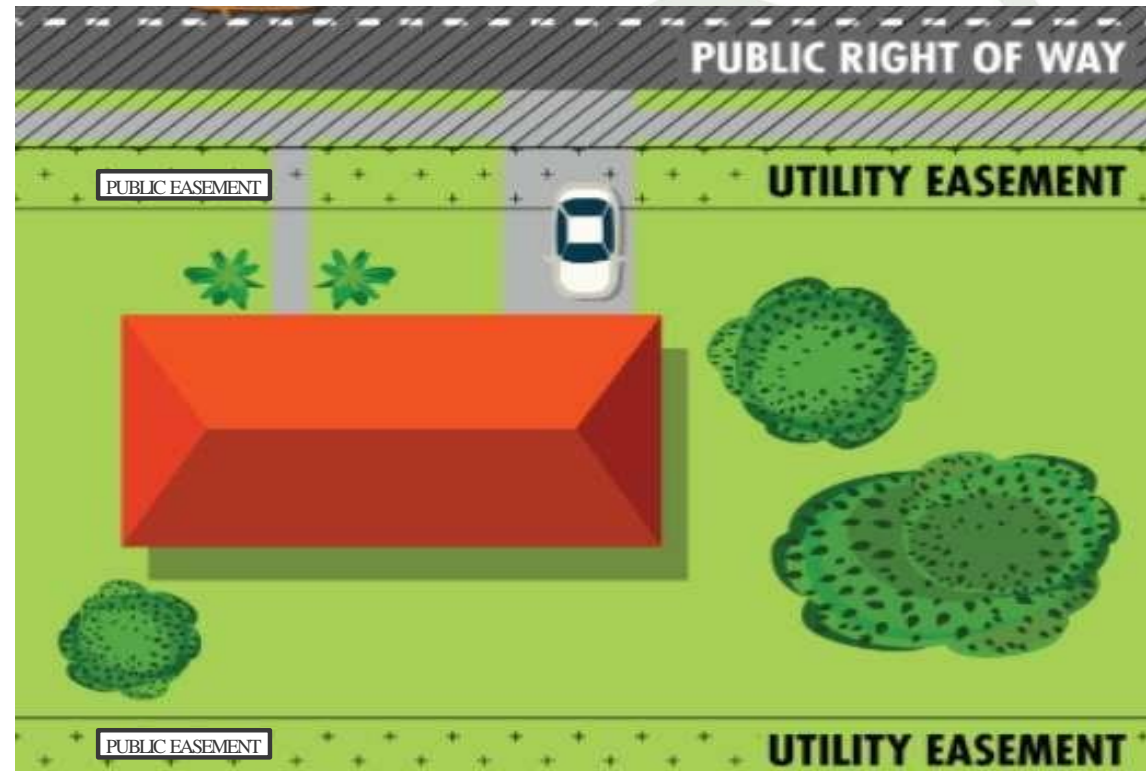
# Encroachment

## Where?

Public ROW  
(not on private property)

Public Easement  
(always on a property)

- Utility
- Drainage
- Water
- Storm
- Sidewalk



# Fees for Encroachment Request

Fee Schedule by resolution July 13, 2021

- Application (Easement) \$250
- Application (Right-of-Way) \$500
- Closing Cost \$100
- Recording Cost \$50
- Agreement Renewal or Transfer of Ownership \$100



# Contact Right-of-Way

## Right of Way Main Line 319-286-5777

**CEDAR RAPIDS**  
City of Five Seasons\*

Skip to Content    f    t    YouTube    RSS    FONT SIZE + -    Translate

FOR RESIDENTS ▾    FOR BUSINESS ▾    LOCAL GOVERNMENT ▾    DISCOVER CEDAR RAPIDS ▾    I WANT TO... ▾    MEDIA SUPPORT

Q Enter search terms.

**RIGHT OF WAY PERMITS**

HOME > LOCAL GOVERNMENT > DEPARTMENTS G - V > PUBLIC WORKS > REAL ESTATE > RIGHT OF WAY PERMITS



# Questions?

Presented by:

Dani Blin

Permit Supervisor

[da.blin@cedar-raids.org](mailto:da.blin@cedar-raids.org)

319-286-5836





# Private Development & Right-of-Way Inspections

**2025 Construction Season**

# 2025 Private Development/Right-of-Way

- **Stephen Homburg – ROW/Private Development Inspection Supervisor**
- **Carson Kuntz – NW Quadrant Technician**
- **Jeff Jagielski – NE Quadrant Technician**
- **Vaughn Dougherty – SE Quadrant Technician**
- **William Eggert – SW Quadrant Technician**

## Permit Totals

(January 1, 2024 – December 31, 2024)

- **2,998 right-of-way permits were applied for in 2024.**
- **Approximately 4,950 inspections completed for the Issued Permits in 2024.**



# Notable SUDAS and City Supplemental Changes for 2025

- **Cedar Rapids Supplemental to the SUDAS Design Manual Chapter 5, Section 5L4: Driveway Design Criteria - Update footnote to Table 5L-4.01:**

\*\* Maximum width of 24 feet per garage up to a total maximum of 36 feet for 3-stall garages or larger except when prohibited by access spacing or located on a cul-de-sac bulb where the maximum driveway width is 24 feet. For Single Unit, Two Unit and Attached Residential properties less than 48' wide, maximum width is limited to 50% of lot width based on Cedar Rapids Zoning Code Section 32.04.02.J.1.b.iii.



# 24-Hour Pre-Construction Notice (New / Reconstruct)

## Additional Information

### Friendly Reminder:

1. The applicant shall notify Iowa One Call (IOC) at 1-800-292-8989 or [www.iowaonecall.com](http://www.iowaonecall.com) for utility locates prior to excavation. IOC required 48 hours notice.

2. Upon approval of permit, the applicant shall notify Public Works Inspectors NE/SE at 1-319-521-5863 or NW/SW at 1-319-440-6377 at least 24 hours in advance of starting any work and in advance of any street or alley pavement repairs. Concrete work requires forms inspections prior to pour and a final inspection after the pour. For properties in NE/SE Quadrant call Vaughn at 319-521-5863; for properties in SW/NW Quadrant call Will at 319-440-6377 to set up inspections. Please give 24 hours advance notice for any needed inspection.

3. Sidewalk Reimbursement Requirements: Pre-Pour Inspection, Inspection after construction has been started, but before the concrete pour. Final Inspection, Inspection after the sidewalk installation is completed. Both inspections are required for the repair to be eligible for reimbursement.

- After the right-of-way permit has been issued, the contractor or applicant shall contact the inspector before starting any work to schedule a pre-construction meeting.



# 24-Hour Inspection Notice (New / Reconstruct)

## Additional Information

### Friendly Reminder:

1. The applicant shall notify Iowa One Call (IOC) at 1-800-292-8989 or [www.iowaonecall.com](http://www.iowaonecall.com) for utility locates prior to excavation. IOC required 48 hours notice.
2. Upon approval of permit, the applicant shall notify Public Works Inspectors NE/SE at 1-319-521-5863 or NW/SW at 1-319-440-6377 at least 24 hours in advance of starting any work and in advance of any street or alley pavement repairs. Concrete work requires forms inspections prior to pour and a final inspection after the pour. For properties in NE/SE Quadrant call Vaughn at 319-521-5863; for properties in SW/NW Quadrant call Will at 319-440-6377 to set up inspections. **Please give 24 hours advance notice for any needed inspection.**
3. Sidewalk Reimbursement Requirements: Pre-Pour Inspection, Inspection after construction has been started, but before the concrete pour. Final Inspection, Inspection after the sidewalk installation is completed. Both inspections are required for the repair to be eligible for reimbursement.

- The contractor or applicant will need to give a 24-hour notice to the inspector for any needed inspection.
- **The 24-hour notice is a condition of both the right-of-way permit and is part of the Cedar Rapids Supplemental Specifications to SUDAS.**



# Calendar Invitation for Inspections

The screenshot shows the Outlook 'Meeting' form. The title is 'Permit Number - Inspection Type'. The 'Required' field contains 'Inspector E-mail'. The 'Optional' field is empty. The start time is 'Wed 3/1/2023 8:00 AM' and the end time is 'Wed 3/1/2023 8:30 AM'. The location is 'Site Address when Possible'. The 'Optional Message Area' is empty. The form is titled 'Permit Number - Inspection Type - Meeting' and has a 'Send' button on the left.

- The information needed for the calendar invitations are the permit number, inspection type, the inspector's e-mail, and the site address.
- If needed the permittee can add an additional message in the body of the invite. This could be the on-site contact or any other relevant information pertaining to the inspection.



# Inspections

- Everyone **MUST** have the approved right-of-way permit and traffic control plan (electronic or hard copy) on site while working within the City right-of-way.  
**ANYONE** with the City may stop and ask to see it.
- Make sure the permit the City approved **ALWAYS** matches the work you're doing.
  - Example: Contractor indicated he was replacing sidewalk only but he also replaced the approach and driveway.  
**A revised site plan would need to be submitted, reviewed, and approved before continuing with the project.**



# Working Without a Permit



- Contractors or homeowners will be issued a Cease Work Order and be required to stop work after making the work area safe.
- An administrative 'Working Without a Permit' penalty can be assessed when applying for the right-of-way permit.

**No work can resume until a right-of-way permit is obtained.**



# Cease Work Order

- The Cease Work Order form will continue to be used this construction season by the Private Development/Right-of-Way Inspection Group.
- The form will be completed and given to the contractor or left at the property.
- A door hanger will be used to affix the Cease Work Order to the property if no contractor is present on site.
- No work can resume on site until approved by the technician.



## CITY OF CEDAR RAPIDS "CEASE WORK ORDER"

ID # \_\_\_\_\_

TO: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

You are hereby notified that all work in the City right of way shall cease immediately due to the following violation(s):

No Valid/Issued Right-of-Way Permit.  
City of Cedar Rapids (Ordinance 9A) requires all work in the right of way to be permitted. You are required to go to [www.mv.cedar-rapids.org/Account/Login](http://www.mv.cedar-rapids.org/Account/Login) to submit a right of way permit request for your work.  
\*\*\* A \$50.00 'Working Without Permit' penalty will be assessed. \*\*\*  
This penalty is to be paid within 30 days of notification for any work performed prior to issuance of Permit.

Work Not In Compliance.  
Work is not in compliance with permit requirements and/or construction specifications.  
Description: \_\_\_\_\_  
\_\_\_\_\_

Permitting questions can be directed to the Right of Way Division at 319-286-5777 or via email at: [rightofwaypermit@cedar-rapids.org](mailto:rightofwaypermit@cedar-rapids.org).

Notify Right of Way Technician when the situation has been corrected, work may not resume until approved by the technician. The Right of Way Technician's card is attached for convenience.

\_\_\_\_\_  
RECIPIENT SIGNATURE

\_\_\_\_\_  
TECHNICIAN SIGNATURE



# Traffic Control Inspection Report

- Traffic Control Inspection Reports will be used to help contractors identify and resolve any issue with the configuration of traffic controls.
- The Traffic Control Inspection Reports will be completed and given to the contractor on site. If no contractor is present, the report will be sent to the contractor or permit holder.



## "TRAFFIC CONTROL INSPECTION REPORT"

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_ AM / PM PERMIT NO: \_\_\_\_\_

LOCATION: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

ROW TECHNICIAN: \_\_\_\_\_

### FIELD OBSERVATIONS:

- NO ACTIVITY
- CEASE WORK ORDER ISSUED
- INSPECTION REPORT GIVEN TO CONTRACTOR

### OBSERVED PROBLEMS:

- TAPER
- FLAGGING
- DELINEATION
- SHOULDER WORK
- SIGNING
- CLOSURE
- OTHER: \_\_\_\_\_

### COMMENTS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

ROW TECHNICIAN SIGNATURE: \_\_\_\_\_



# Notice of Obstruction



- A Notice of Obstruction will continue to be used this construction season by the Right-of-Way Inspection Group.
- The Notice of Obstruction will be completed and given to the contractor on site. If no contractor is present, the report will be sent to the contractor or permit holder.
- If there is no permit present, a door hanger will be used to affix the Notice of Obstruction to the property.

## "NOTICE OF OBSTRUCTION"

ID #: \_\_\_\_\_

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_ AM/PM

TO: \_\_\_\_\_

LOCATION: \_\_\_\_\_

You are hereby notified that the \_\_\_\_\_ you have placed or constructed is within the City of Cedar Rapids Right-of-way and in violation of Municipal Ordinance Chapter 9A. You have \_\_\_ day(s) from the above date to either:

- Apply for a Right-of-Way permit.
- Remove the encroachment.

Please direct any questions to City of Cedar Rapids Right of Way Division at 319-286-5777 or email at:

[rightofwaypermit@cedar-rapids.org](mailto:rightofwaypermit@cedar-rapids.org)

Failure to comply constitutes a violation of City Ordinance and, in accordance with Chapter 9A, City of Cedar Rapids reserves the right to remove the encroachment and hold the property owner responsible for all incurred costs related to the removal.

Notify Right of Way Technician when the situation has been corrected.

The Right of Way Technician's card is attached for convenience.

RECIPIENT SIGNATURE: \_\_\_\_\_

ROW TECHNICIAN SIGNATURE: \_\_\_\_\_



# Contractor Identification and Equipment on Site

- Contractor vehicles shall list the Contractor's name in two places, and the signage should be legible from at least 50 feet.
- Workers shall wear high visibility vests when in the right-of-way.
- Contractors shall ensure the correct equipment is present on site to complete the permitted work, for example:
  - Vibratory tools, strikeoff/straightedge, compactors, etc.



# Driveway Standards

## (New / Reconstruct)

- Flares need to be a minimum 3'. There are instances such as property lines, power poles, etc. that prevent flare requirements.
- Mailboxes can be relocated.
- 5' sidewalk bench (excludes ½" expansion on either side).
- Incline of the approach should be between 2% and less than 12%.

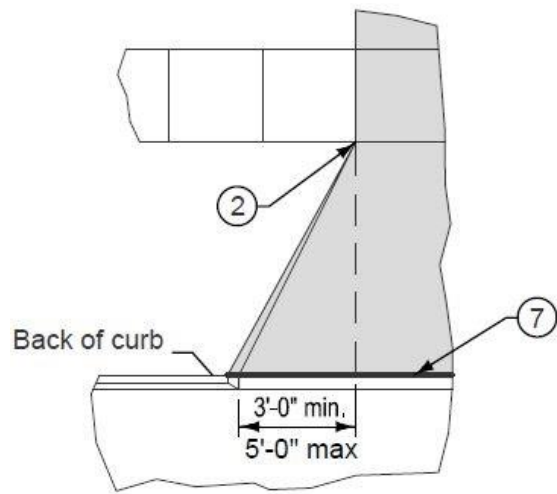


Type A Driveway



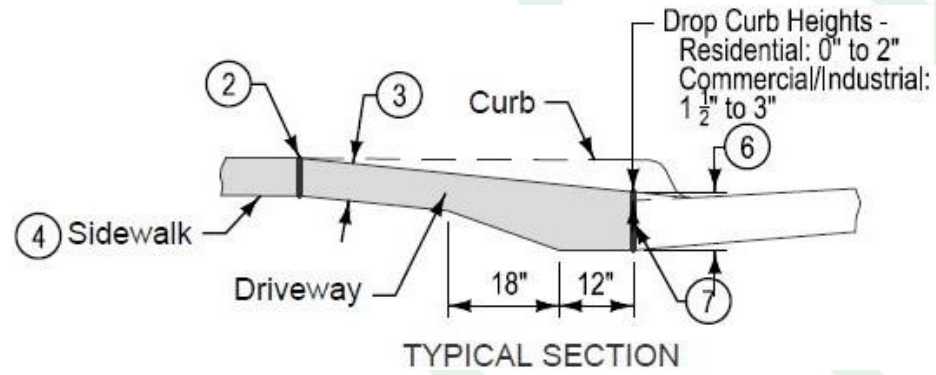
Type B Driveway



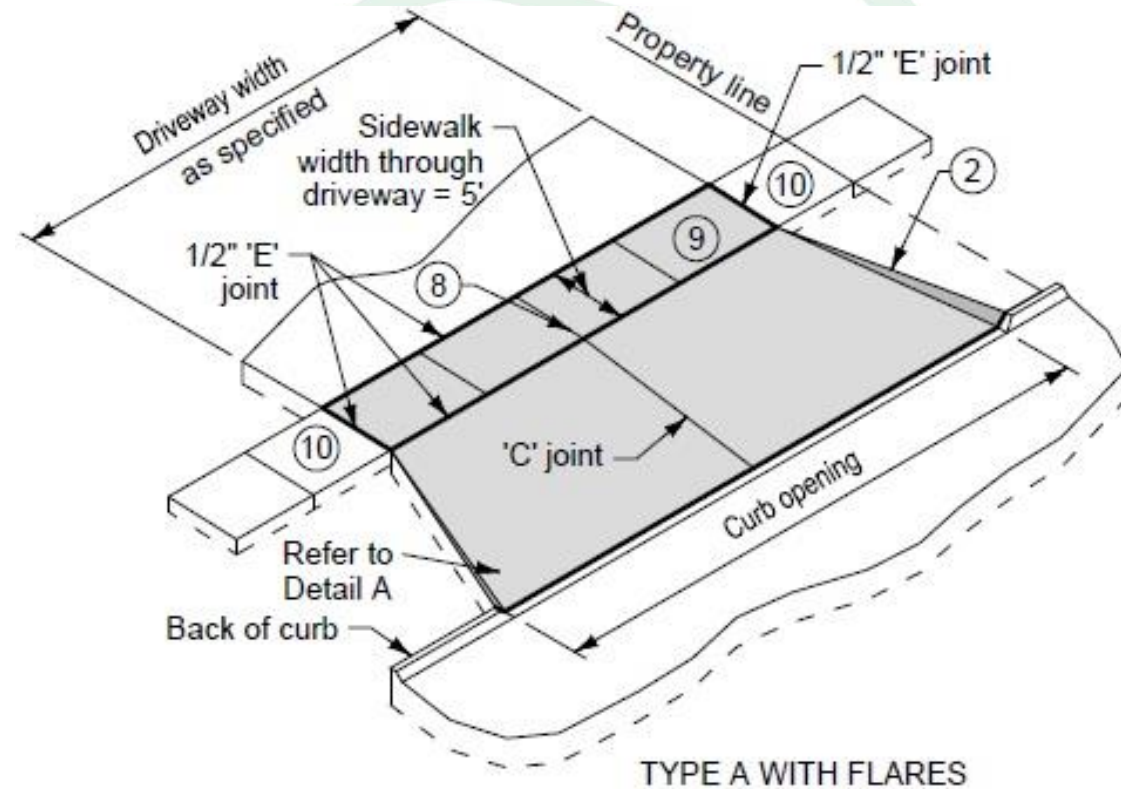


DETAIL A

- ② Transition the curb height to 0 inches at end of taper/radius or at the front edge of sidewalk. Do not extend raised curb across sidewalk.
- ③ Pavement thickness.  
Residential: 6 inches minimum.  
Commercial and industrial: 7 inches minimum.
- ④ Sidewalk thickness through driveway to match thickness of driveway.
- ⑥ Match thickness of adjacent roadway, 8 inches minimum.
- ⑦ Provide 'E' joint at back of curb unless 'B' joint is specified.
- ⑧ For alleys, invert the pavement crown 2% toward center of alley.
- ⑨ If the driveway apron is being reconstructed, any sidewalk bench less than 5 foot wide or greater than 2% cross slope shall also be reconstructed to a minimum 5 foot wide.  
Target cross slope of 1.5% with a maximum cross slope of 2.0% is required.



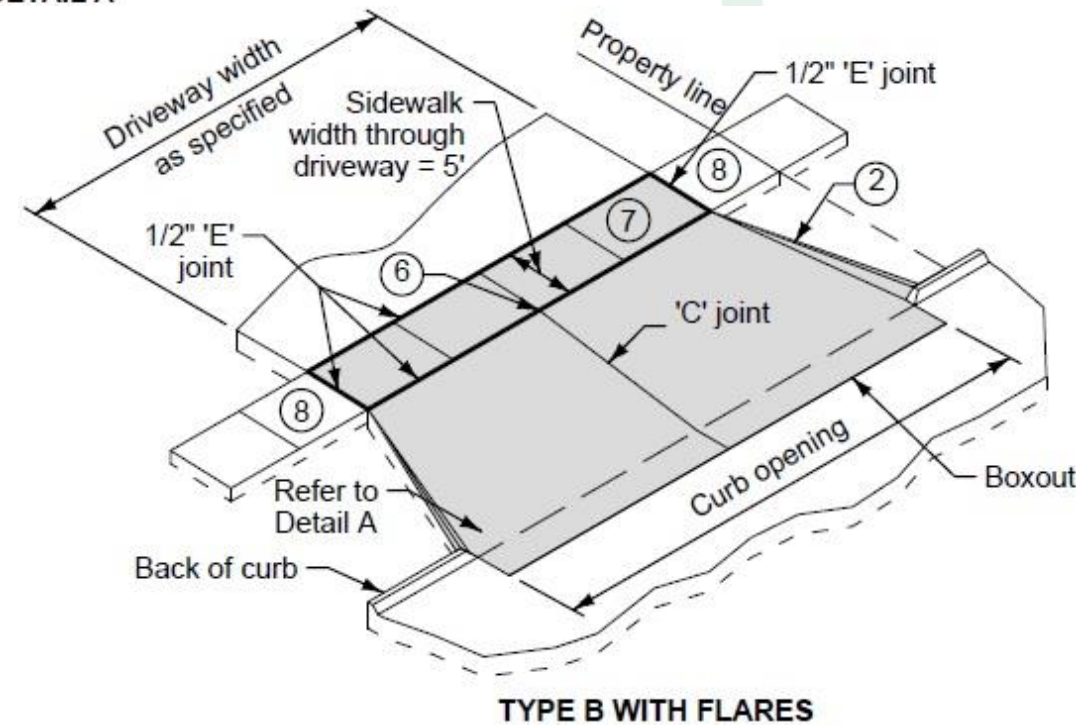
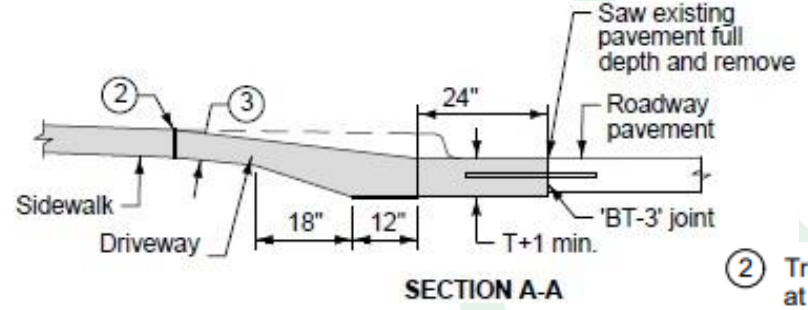
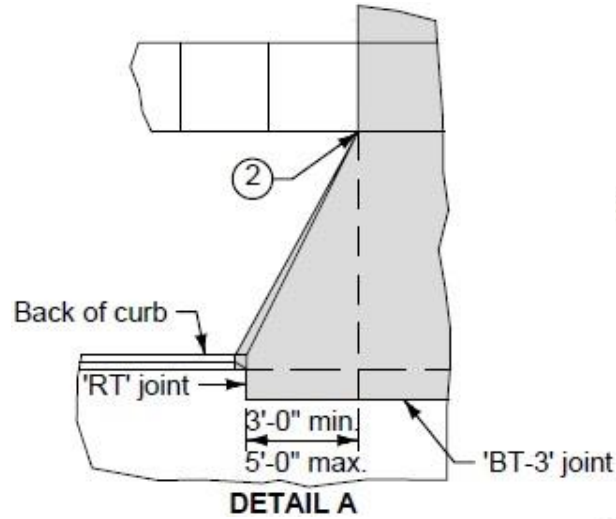
TYPICAL SECTION



TYPE A WITH FLARES

**Cedar Rapids General Supplemental Specification  
to SUDAS CR 7030.101**





- ② Transition the curb height to 0 inches at end of taper/radius or at the front edge of sidewalk. Do not extend raised curb cross sidewalk.
- ③ Pavement thickness.  
Residential: 6 inches minimum.  
Commercial and industrial: 7 inches minimum.
- ④ Sidewalk thickness through driveway to match thickness of driveway.
- ⑤ If longitudinal joint is located 48 inches or less from the back of curb, extend boxout to joint line. Full depth saw cut is still required.
- ⑥ For alleys, invert the pavement crown 2% toward the center of the alley.
- ⑦ If the driveway apron is being reconstructed, any sidewalk bench less than 5 foot wide or greater than 2% cross slope shall also be reconstructed to a minimum 5 foot wide. Target cross slope of 1.5% with a maximum cross slope of 2.0% is required.
- ⑧ If cross slope of adjacent sidewalk panel exceeds 2.0%, remove and replace to transition from existing sidewalk to sidewalk through driveway. If the elevation change requires a curb ramp, comply with Figure 7030.205; verify need for detectable warning panel with Engineer.

**Cedar Rapids General Supplemental Specification to SUDAS CR 7030.102**



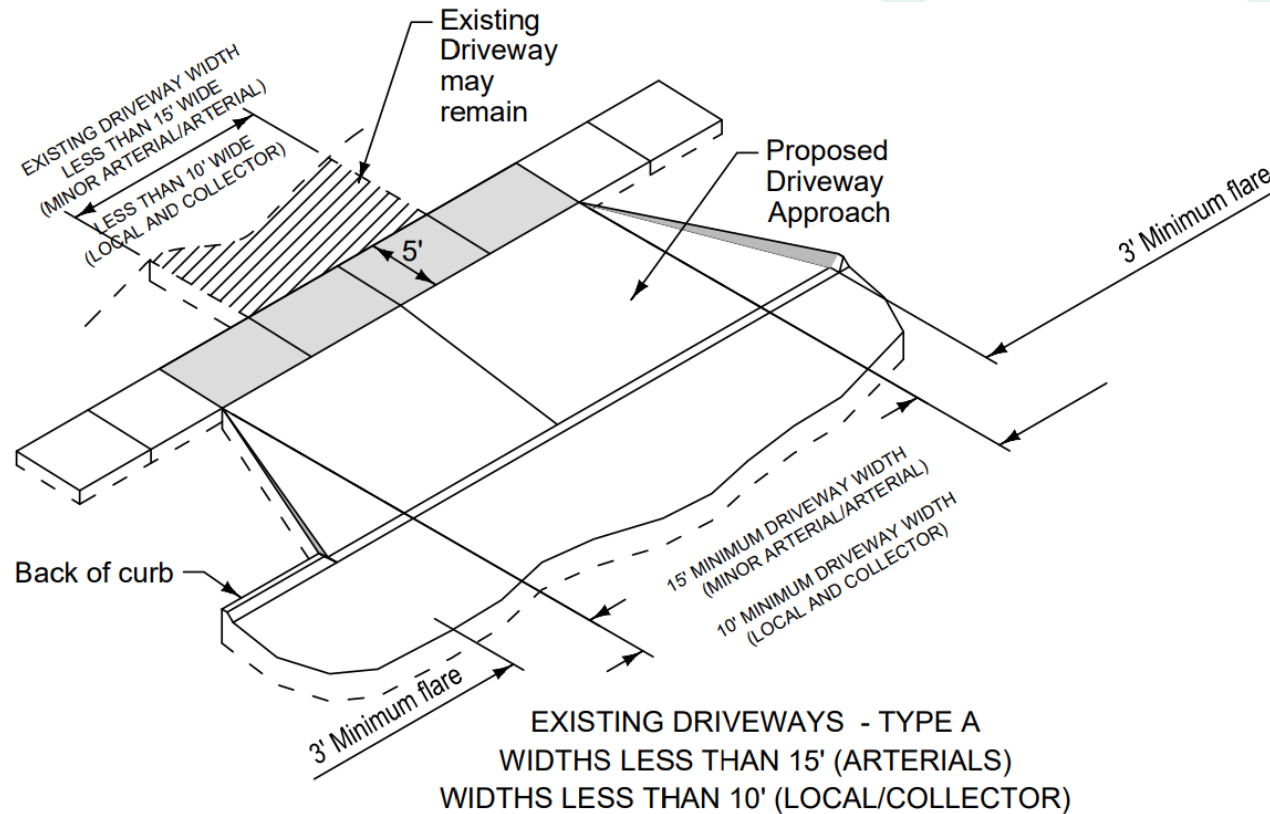


## Transition Panels on Either Side of the Sidewalk Bench

- ⑩ If cross slope of adjacent sidewalk panel exceeds 2.0%, remove and replace to transition from existing sidewalk to sidewalk through driveway. If elevation change requires a curb ramp, comply with Figure 7030.205; verify need for detectable warning panel with Engineer.

Cedar Rapids General Supplemental Specification to SUDAS CR 7030.101 – Note 10





Driveways in this exhibit are applicable to reconstruction of existing residential driveway approach only.

Reconstruction of the existing private driveways and driveway connections are not required.

In some cases, this standard may not be applicable and subject to engineering judgement.

Driveways should not be built in a way which disrupts an existing utility structure (Power Pole, Utility box, fire hydrant and the like).

See other sheets for special cases of driveway flare widths when the standard 3 foot minimum flare is not feasible.

New driveways must follow 7030.101 or 7030.102.

## Cedar Rapids General Supplemental Specification to SUDAS CR 7030.999.900 – Concrete Driveway Approach Adjacent to Existing Driveway, Type A and Type B



# Driveway Standards (New / Reconstruct)

- City standard for concrete mix is C3, C4, or M.
- Concrete mix shall be from an IDOT Certified Ready Mix Supplier.
- 1" expansion at the street needs to be sealed to protect the integrity of the city street. ALL expansion needs to be sealed.
- On Page 27 of 34 of the Cedar Rapids Supplemental Specifications to SUDAS, it states:

## 5. Joint Sealing – DELETE and REPLACE the following:

- b. All expansion and isolation joints shall be sealed. Trim preformed joint material to  $\frac{1}{2}$  inch below the concrete surface. Ensure the joint is clean and dry. Install joint sealant per manufacturer's recommendations.





**All expansion and isolation joints shall be sealed.** This includes both the  $\frac{1}{2}$ " expansion and 1" expansion on site. Trim the joint material to  $\frac{1}{2}$ " below the concrete surface. Ensure the joint is clean and dry. Install joint sealant per manufacturer's recommendations.





## 2.07 Detectable Warnings – ADD

All detectable warning panels installed in Cedar Rapids shall be cast iron and brick red (Federal # 22144 or equivalent) in color, or as specified in the contract documents.

When a Locking Lid “Meter Box” Cover for Service Stop Boxes is only partially within the sidewalk paving area, the contractor should ensure the Locking Lid Cover is fully encased in concrete. The above picture includes an example of this.



# Water Service Notification and Inspection

- Notify Water Department when encountering water service shutoffs in the concrete work areas. The Meter Shop can be reached at (319)286-5933.
  - The Water Department should inspect and determine if the water service shutoff should remain or be moved.
- CR Supplement To SUDAS 5910.999.910:  
[https://cms8.revize.com/revize/cedarrapids/Public%20Works/SUDAS/FIGURES/5910.999.910%20Water%20Service%20Stop%20Box%20in%20Pavement%20\(2022%20Edition\).pdf](https://cms8.revize.com/revize/cedarrapids/Public%20Works/SUDAS/FIGURES/5910.999.910%20Water%20Service%20Stop%20Box%20in%20Pavement%20(2022%20Edition).pdf)



# Sidewalks

- The goal of the City's sidewalk repair program is to make the sidewalk smooth and walkable.
- City sidewalk cross slope target is 1.5%, but can **NOT** exceed 2%.
- City standard for concrete mix is C3, C4 or M. Mix must be from an Iowa DOT Certified Ready Mix Supplier.
- Ensure the correct form width. Verify the width in between your forms before pouring(4' is 4' and 5' is 5').



## 2. Transverse Contraction Joints – ADD the following:

- c. General: Construct a ½ inch expansion joint every 75 feet or at nearest joint for all PCC sidewalks and shared-use paths.





- Standard core hole –  
Utility Installation in  
Paved Roadways Detail

- 12-Inch core hole poured  
back with M-Mix



# Right-of-Way Must be Restored



- Debris left after job completion



- Emergency utility repair. No permit, no area protection.



# Right-of-Way Must be Restored



- Trip Hazard



- Core settled after being re-inserted



# Thank You!

If you have any questions, comments, or concerns, please reach out to us. Our e-mail addresses and phone numbers are listed below.

## Presented by:

**Stephen Homburg**, *ROW/Development Inspection Supervisor*

[S.Homburg@cedar-rapids.org](mailto:S.Homburg@cedar-rapids.org) 319-206-6391

**Vaughn Dougherty**, *ROW/Development Field Technician, SE Quadrant*

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**Jeff Jagielski**, *ROW/Development Field Technician, NE Quadrant*

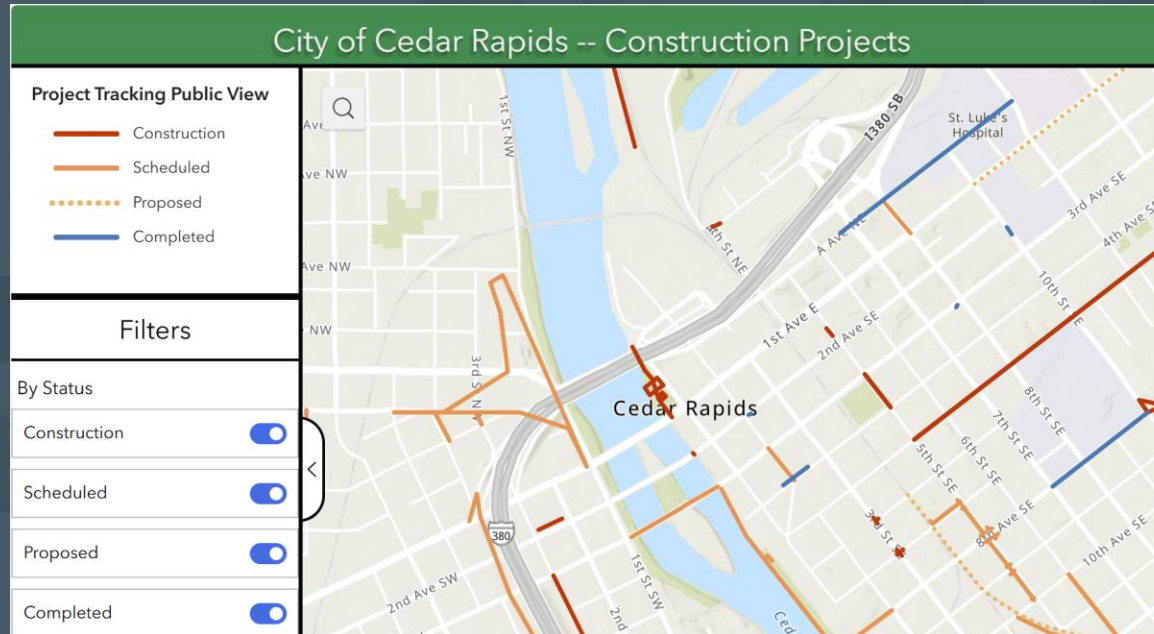
[J.Jagielski@cedar-rapids.org](mailto:J.Jagielski@cedar-rapids.org) 319-893-9442

**Carson Kuntz**, *ROW/Development Field Technician, NW Quadrant*

[C.Kuntz@cedar-rapids.org](mailto:C.Kuntz@cedar-rapids.org) 319-487-4751



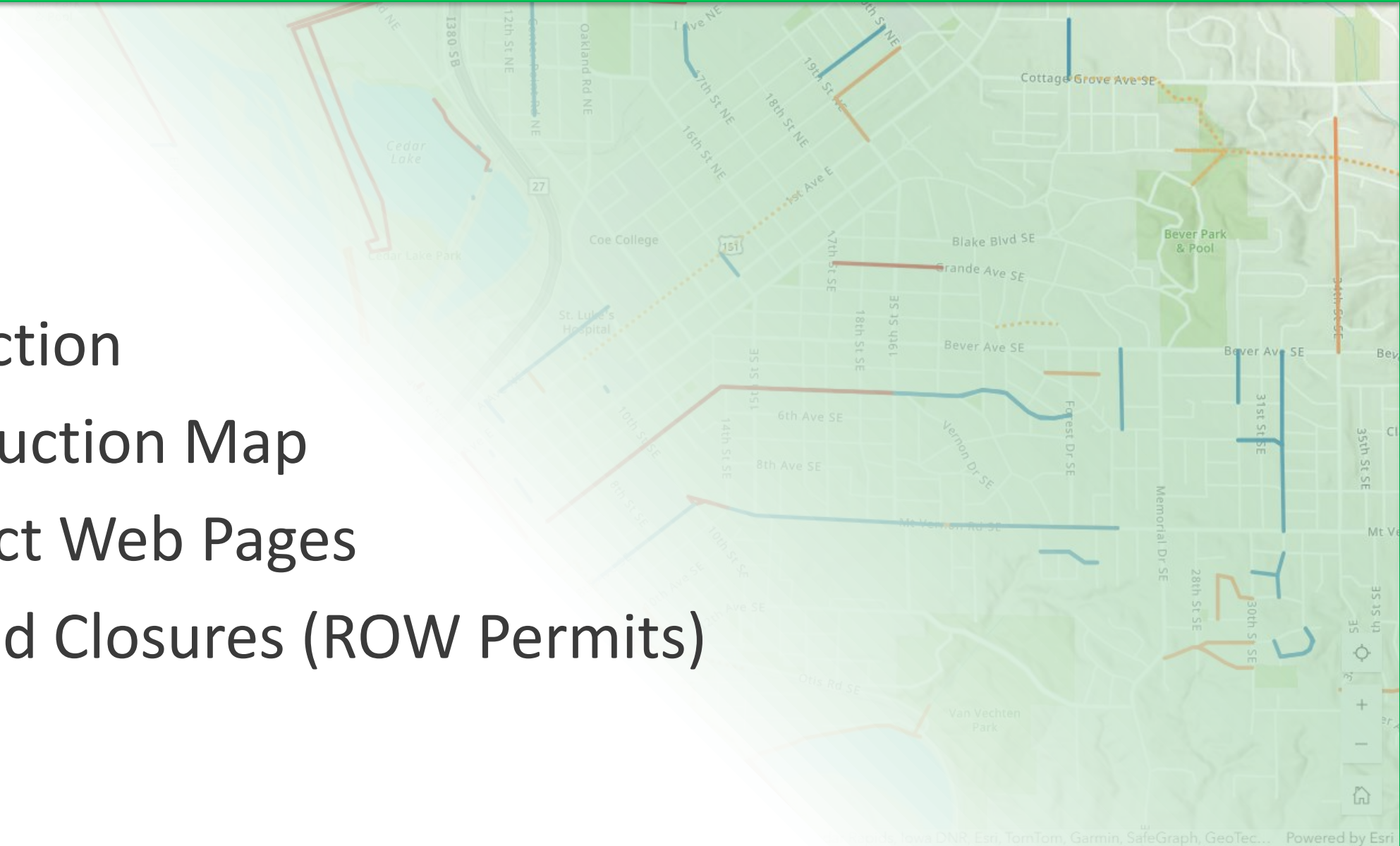
# 'Construction Map'



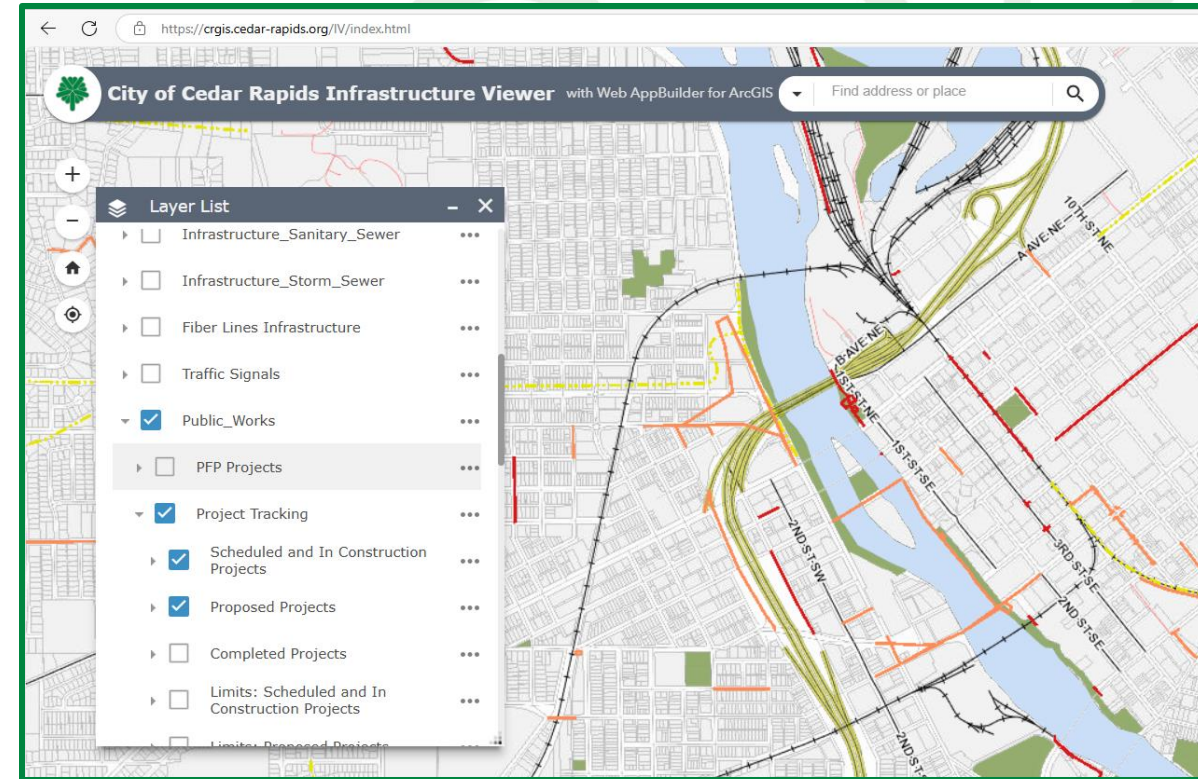
Dane Atkins, Geospatial Analyst  
Dept. of Information Technology / GIS

# Outline

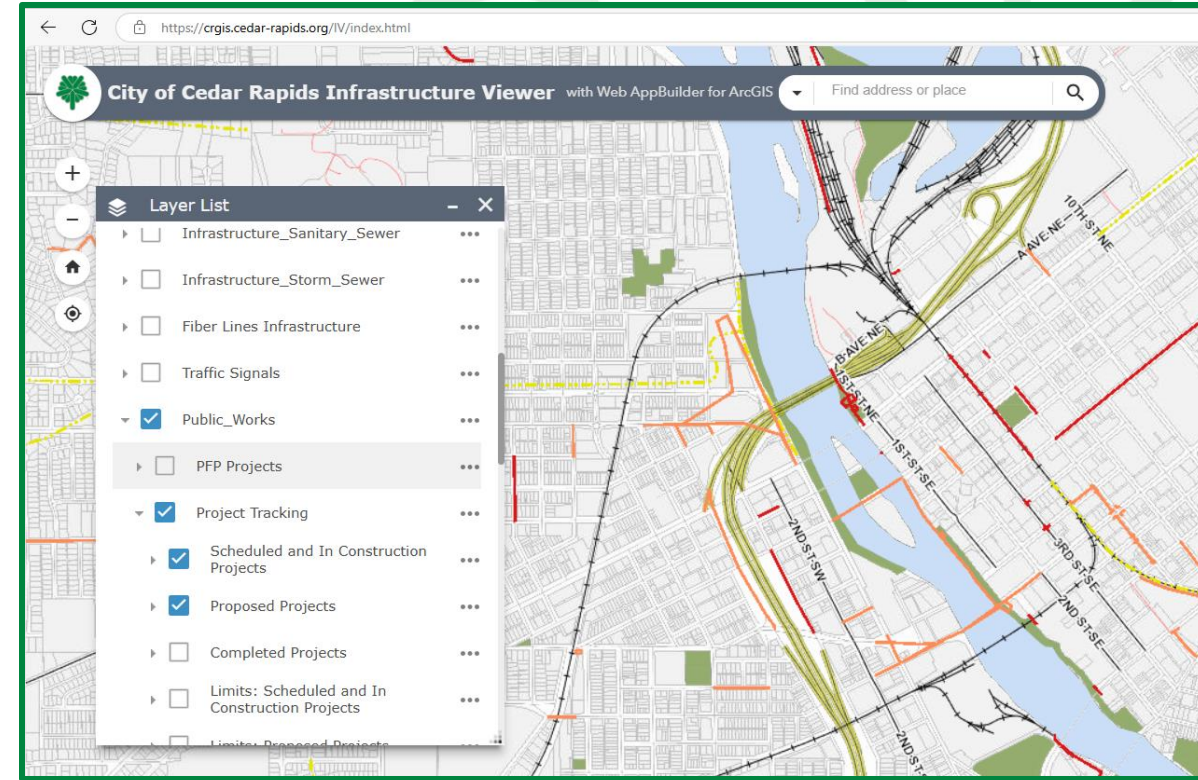
- Introduction
- Construction Map
- Project Web Pages
  - Road Closures (ROW Permits)



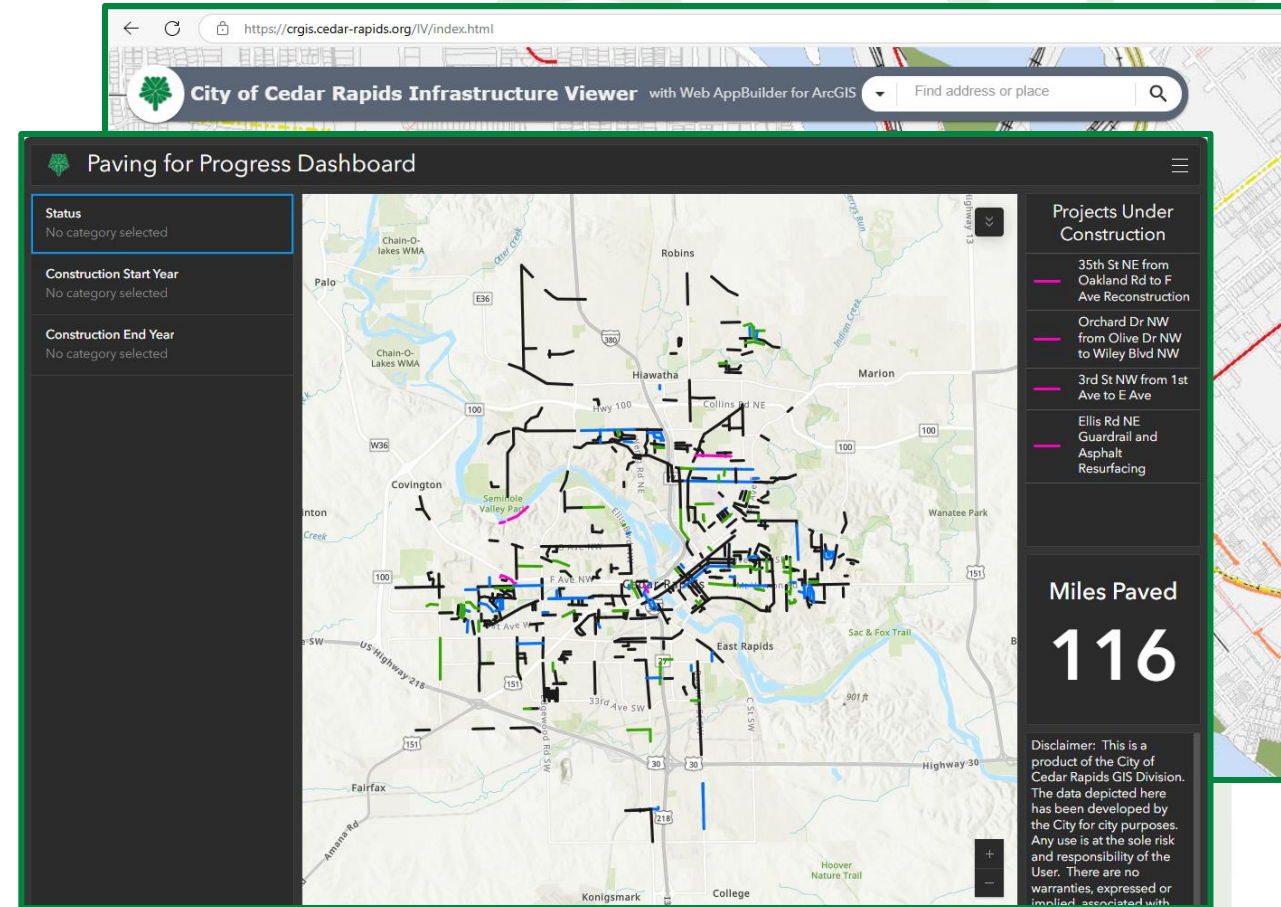
- A History of GIS for Project Tracking



- A History of GIS for Project Tracking
  - Internal records date to 2018.



- A History of GIS for Project Tracking
  - Internal records date to 2018.
  - Early public dashboards drafted between 2019 and 2021

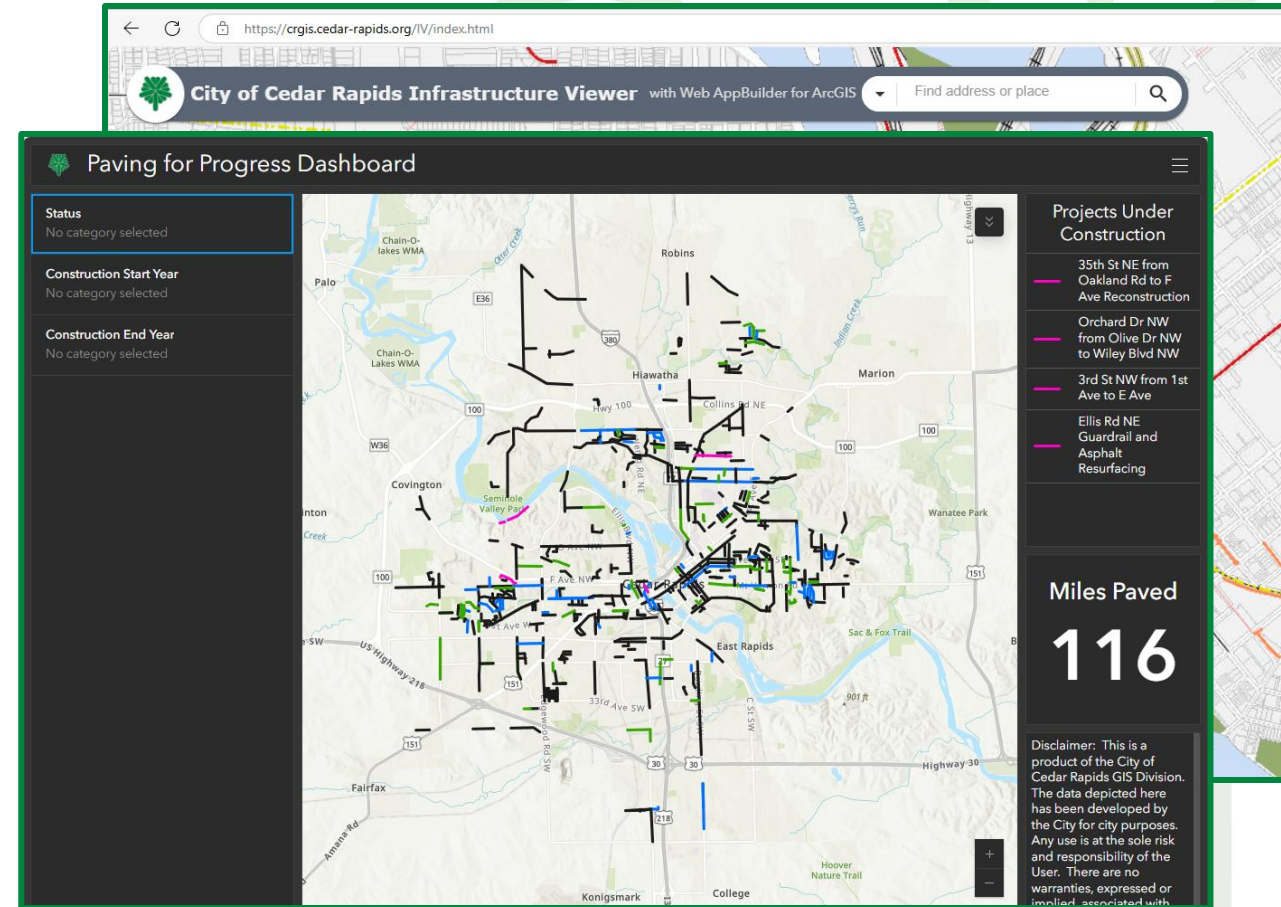


- A History of GIS for Project Tracking

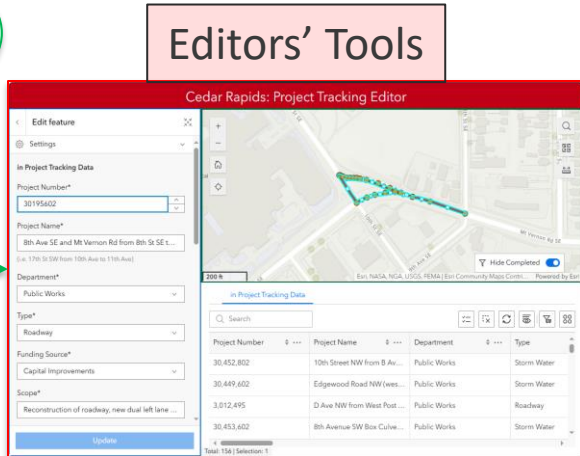
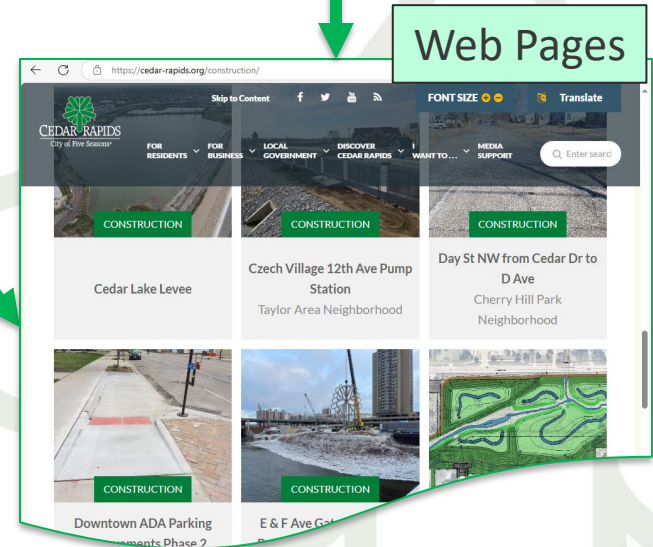
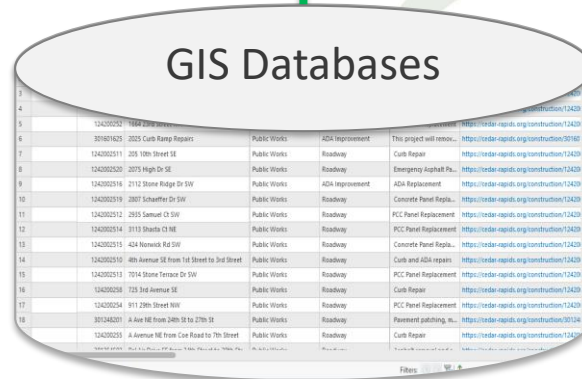
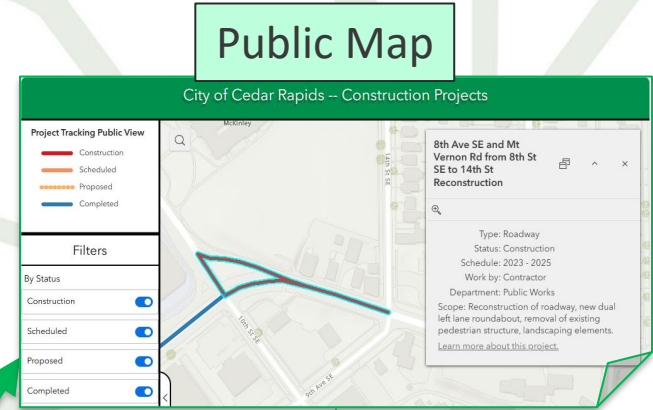
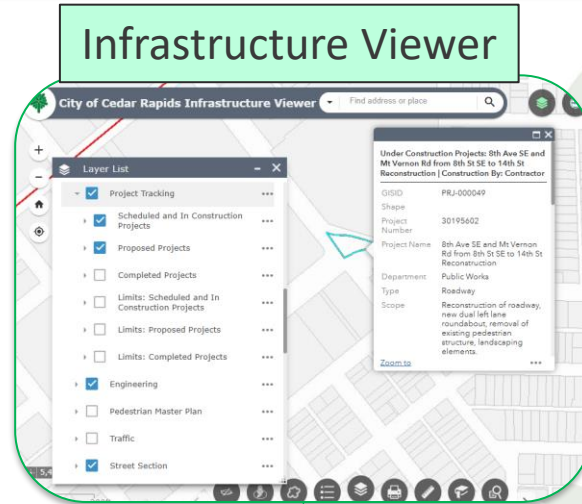
- Internal records date to 2018.
- Early public dashboards drafted between 2019 and 2021

Issues:

- Data updated by ‘telephone-game’
- Slow updates / inaccurate data



- GIS Map Goals:
  - Streamlined database
  - User (staff) editable
  - Robust enough for Public display
  - Integration between Database, a Map, and the City Website



Project Tracking Application – Public Viewer

<https://experience.arcgis.com/experience/...>

**Project Tracking Public View**

- Construction (Red line)
- Scheduled (Orange line)
- Proposed (Dotted orange line)
- Completed (Blue line)

**Filters**

By Status

- Construction
- Scheduled
- Proposed
- Completed

By Year

from

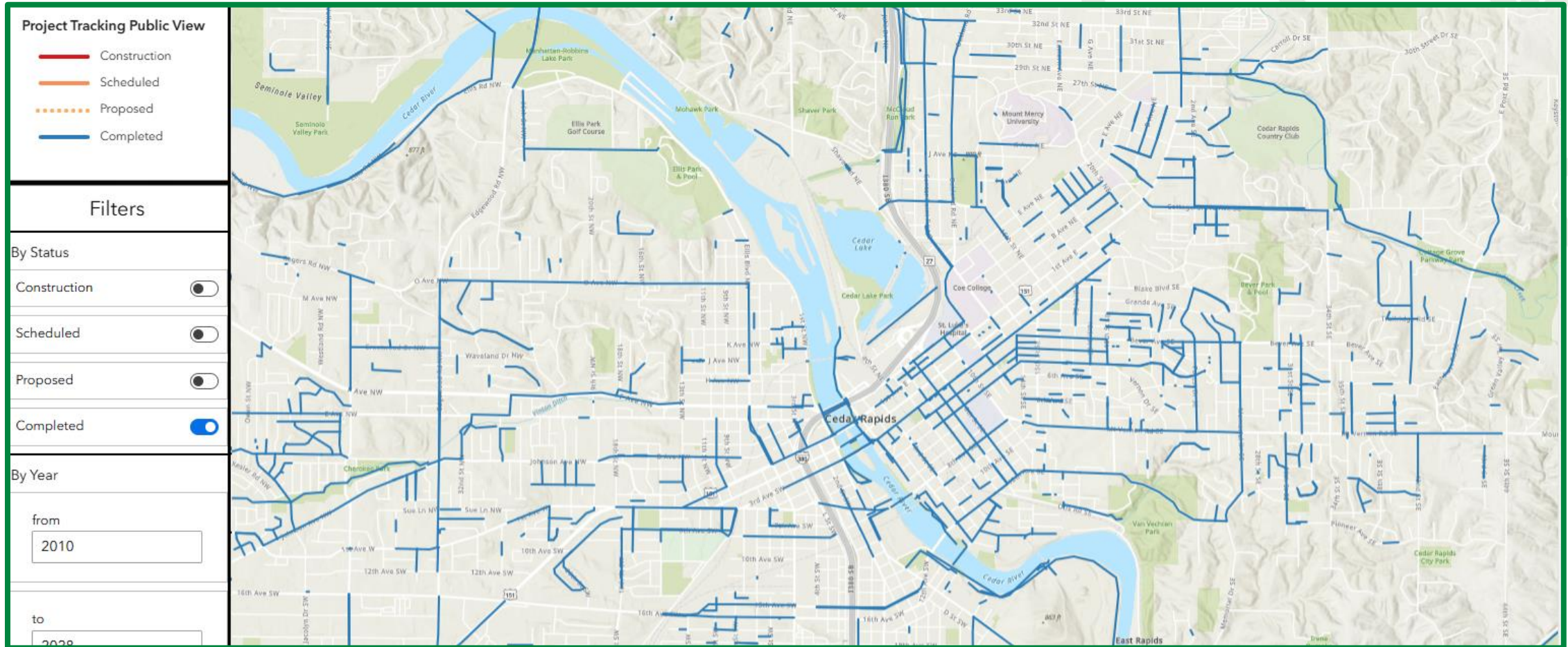
to

**8th Ave SE and Mt Vernon Rd from 8th St SE to 14th St Reconstruction**

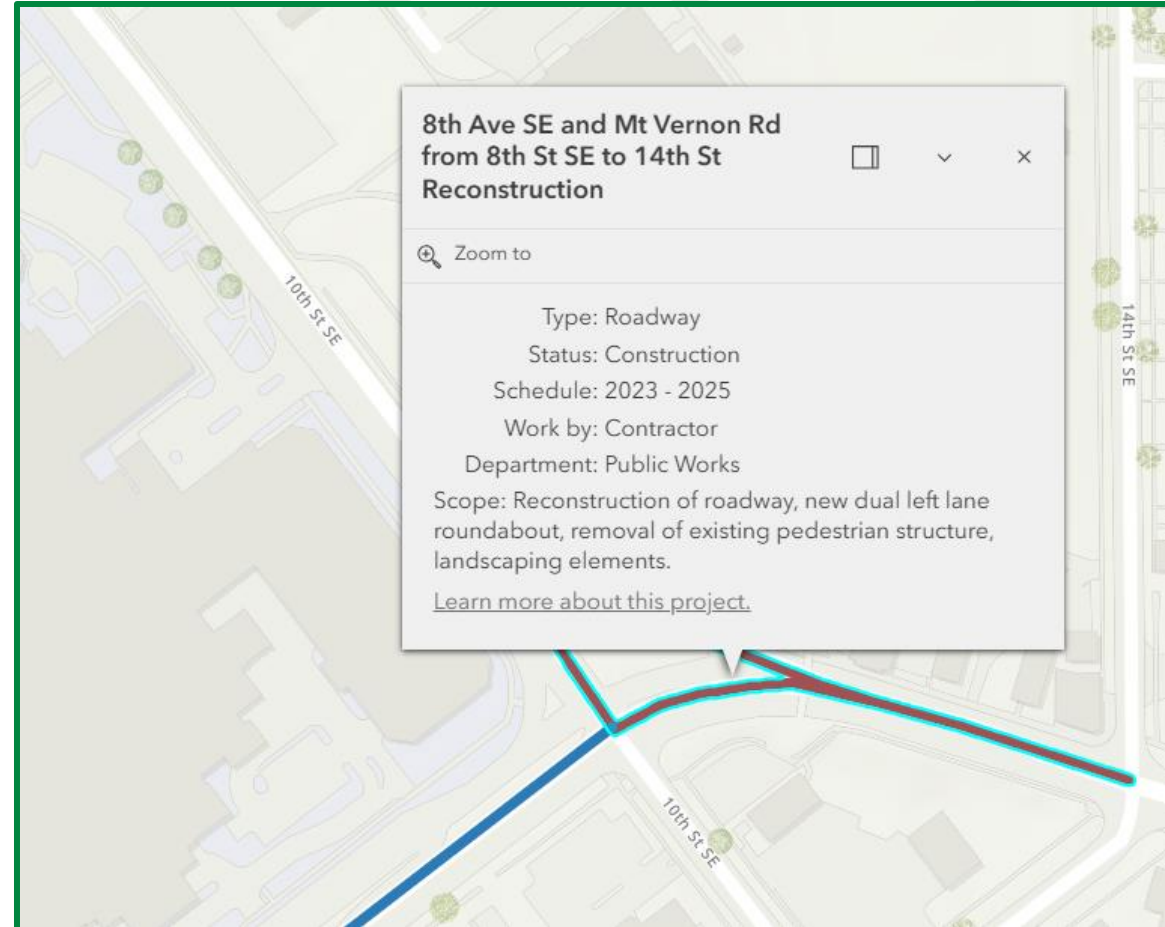
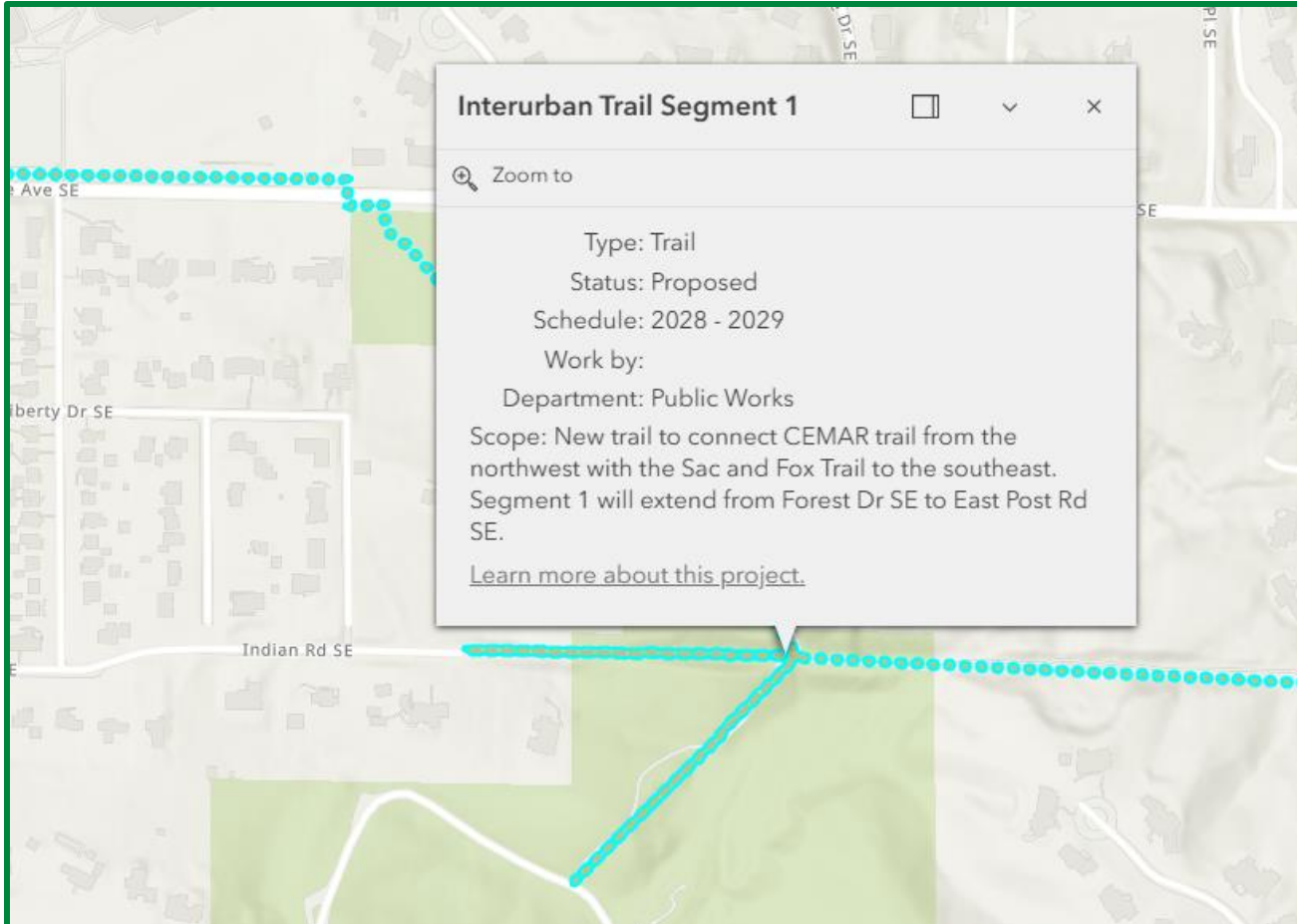
Type: Roadway  
 Status: Construction  
 Schedule: 2023 - 2025  
 Work by: Contractor  
 Department: Public Works  
 Scope: Reconstruction of roadway, new dual left lane roundabout, removal of existing



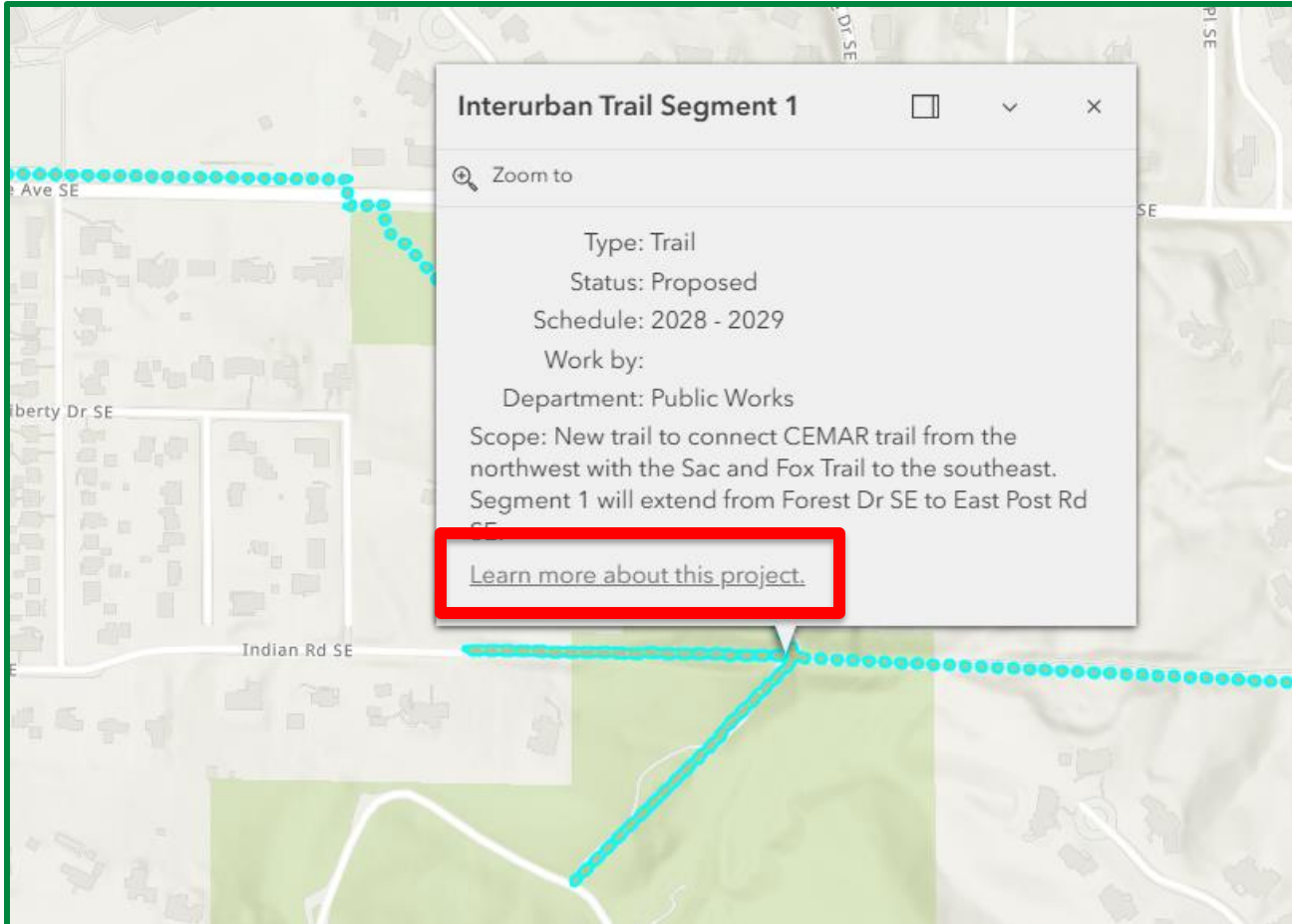
Project Tracking Application – Public Viewer



Project Tracking Application – Public Viewer



Project Tracking Application – Public Viewer

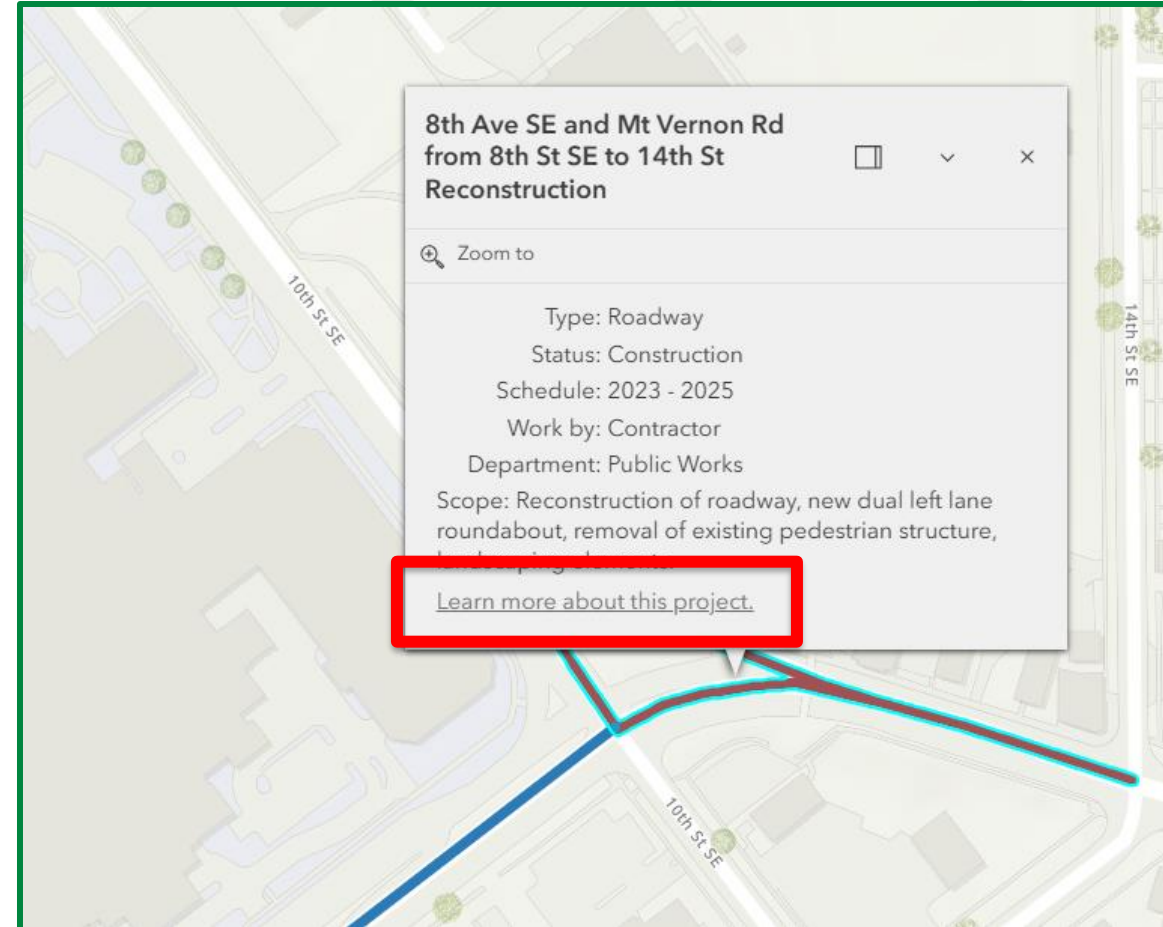


**Interurban Trail Segment 1**

Zoom to

Type: Trail  
Status: Proposed  
Schedule: 2028 - 2029  
Work by:  
Department: Public Works  
Scope: New trail to connect CEMAR trail from the northwest with the Sac and Fox Trail to the southeast. Segment 1 will extend from Forest Dr SE to East Post Rd SE.

[Learn more about this project.](#)



**8th Ave SE and Mt Vernon Rd from 8th St SE to 14th St Reconstruction**

Zoom to

Type: Roadway  
Status: Construction  
Schedule: 2023 - 2025  
Work by: Contractor  
Department: Public Works  
Scope: Reconstruction of roadway, new dual left lane roundabout, removal of existing pedestrian structure, and utility work.

[Learn more about this project.](#)



[City of Cedar Rapids – Construction Web Pages](https://cedar-rapids.org/construction/)  
<https://cedar-rapids.org/construction/>

### Interurban Trail Segment 1

A new segment will extend the existing Interurban Trail east from Forest Drive SE. This project will connect the sidewalks on Cottage Grove Avenue SE, near Washington High school, through Bever Park's trail system, and extend through to East Post Road SE.

#### Key Contacts

**Project Engineer I**  
City of Cedar Rapids  
Kyle Bieghler  
3192865821 | [k.bieghler@cedar-rapids.org](mailto:k.bieghler@cedar-rapids.org)

#### At a Glance

New trail to connect CEMAR trail from the northwest with the Sac and Fox Trail to southeast. Segment 1 will extend from Forest Dr SE to East Post Rd SE.

#### Key Information

- Planned Construction Start: 2028
- Estimated Completion: 2029
- Status: Proposed

Bever Park Neighborhood	City Council District #2	SE
-------------------------	--------------------------	----

#### Project Phase



Proposed



Scheduled



Construction



Completed

### 8th Ave SE and Mt Vernon Rd from 8th St SE to 14th St Reconstruction

The 8th & Mount Vernon Road project stretches from 8th Street to 14th Street and includes: the reconstruction of the roadway within the project limits along with construction of a roundabout at the 8th Avenue/10th St/Mount Vernon Road SE intersection, raised medians with aesthetic improvements including brick pavers, retaining walls, replacement of sanitary sewer, storm sewer and water main and ADA sidewalk ramps with pedestrian beacons at the roundabout crosswalks. Construction on this project began late in 2023 and is expected to be completed in the spring of 2025. The majority of the roadway improvements are scheduled for construction during the 2024 construction season.

#### Latest Update

Intermittent construction on Stage 3 continues during the winter season. Eastbound and westbound traffic continues to travel on the southern portion of 8th Avenue and Mount Vernon Road. Stage 3 construction includes the replacement of utilities, reconstruction of the street and construction of roundabout pavement.

**Spring Construction is Scheduled to Commence March 24 and should include the following:**

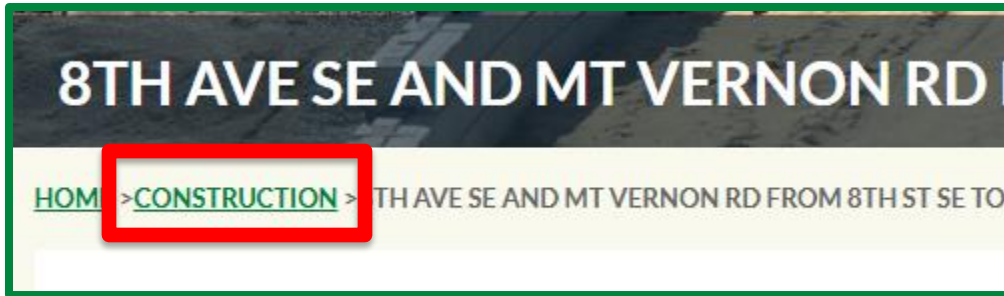
- Minor wrap-up of underground utility installation
- Construction grading
- Construction of pavement
- Continued retaining wall construction

**Traffic impacts:**

- The 10th Street SE intersection is closed to through traffic.
- Vehicles can use Mount Vernon Road SE/8th Avenue, but cannot turn onto 10th Street.
- The two existing northernmost lanes of 8th Avenue SE and Mount Vernon Road are closed and being reconstructed (Stage 3).



[City of Cedar Rapids – Construction Web Pages](https://cedar-rapids.org/construction/)  
<https://cedar-rapids.org/construction/>



Search By Name

Filter by: DEPARTMENT    NEIGHBORHOOD/AREA    TYPE    STATUS    **APPLY**    REVERT

---

159 Results  
 Showing 1-12

 CONSTRUCTION	 CONSTRUCTION	 CONSTRUCTION
2807 Schaeffer Dr SW	FY26 Transit Stops Taylor Area Neighborhood	Wright Brothers Boulevard and I-380
 CONSTRUCTION	 CONSTRUCTION	 CONSTRUCTION
10th Street NW from B Avenue to D Avenue Storm Sewer Cross Connection Northwest Neighborhood	22nd Avenue SW from 11th St to 13th St	2nd Avenue SE Floodgate



City of Cedar Rapids – Construction Web Pages  
<https://cedar-rapids.org/construction/>

### 8th Ave SE and Mt Vernon Rd from 8th St SE to 14th St Reconstruction

The 8th & Mount Vernon Road project stretches from 8th Street to 14th Street and includes: the reconstruction of the roadway within the project limits along with construction of a roundabout at the 8th Avenue/10th St/Mount Vernon Road SE intersection, raised medians with aesthetic improvements including brick pavers, retaining walls, replacement of sanitary sewer, storm sewer and water main and ADA sidewalk ramps with pedestrian beacons at the roundabout crosswalks. Construction on this project began late in 2023 and is expected to be completed in the spring of 2025. The majority of the roadway improvements are scheduled for construction during the 2024 construction season.

**Project Phase**

This project is under construction.

Proposed      Scheduled      **Construction**      Completed

---

**Map**

[View full construction map](#)    [View current road closures](#)

100 ft    East Community Maps Contributors, City of Cedar Rapids, Iowa DNR, © OpenStreetMap, Wikimedia, CC BY-SA, Imagery provided by ESRI

#### Construction Photos



City of Cedar Rapids – Construction Web Pages  
<https://cedar-rapids.org/construction/>

### 8th Ave SE and Mt Vernon Rd from 8th St SE to 14th St Reconstruction

The 8th & Mount Vernon Road project stretches from 8th Street to 14th Street and includes: the reconstruction of the roadway within the project limits along with construction of a roundabout at the 8th Avenue/10th St/Mount Vernon Road SE intersection, raised medians with aesthetic improvements including brick pavers, retaining walls, replacement of sanitary sewer, storm sewer and water main and ADA sidewalk ramps with pedestrian beacons at the roundabout crosswalks. Construction on this project began late in 2023 and is expected to be completed in the spring of 2025. The majority of the roadway improvements are scheduled for construction during the 2024 construction season.

**Project Phase**  
This project is under construction.

**Map**

[View full construction map](#) [View current road closures](#)

#### Construction Photos



### Road Closures Map – Public Viewer

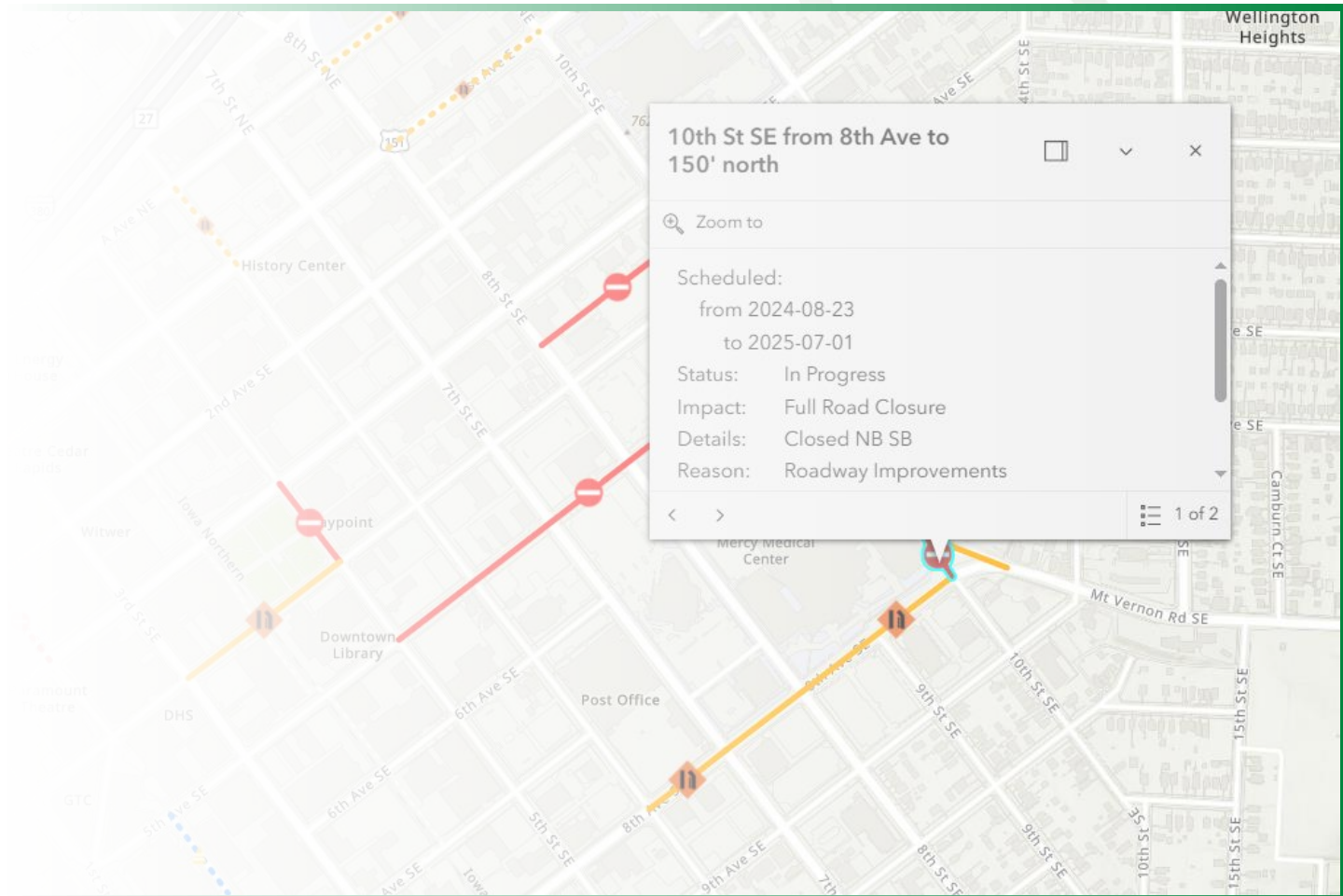
<https://experience.arcgis.com/experience/...>



[Road Closures Map – Public Viewer](https://experience.arcgis.com/experience/...)  
<https://experience.arcgis.com/experience/...>

## Useful for:

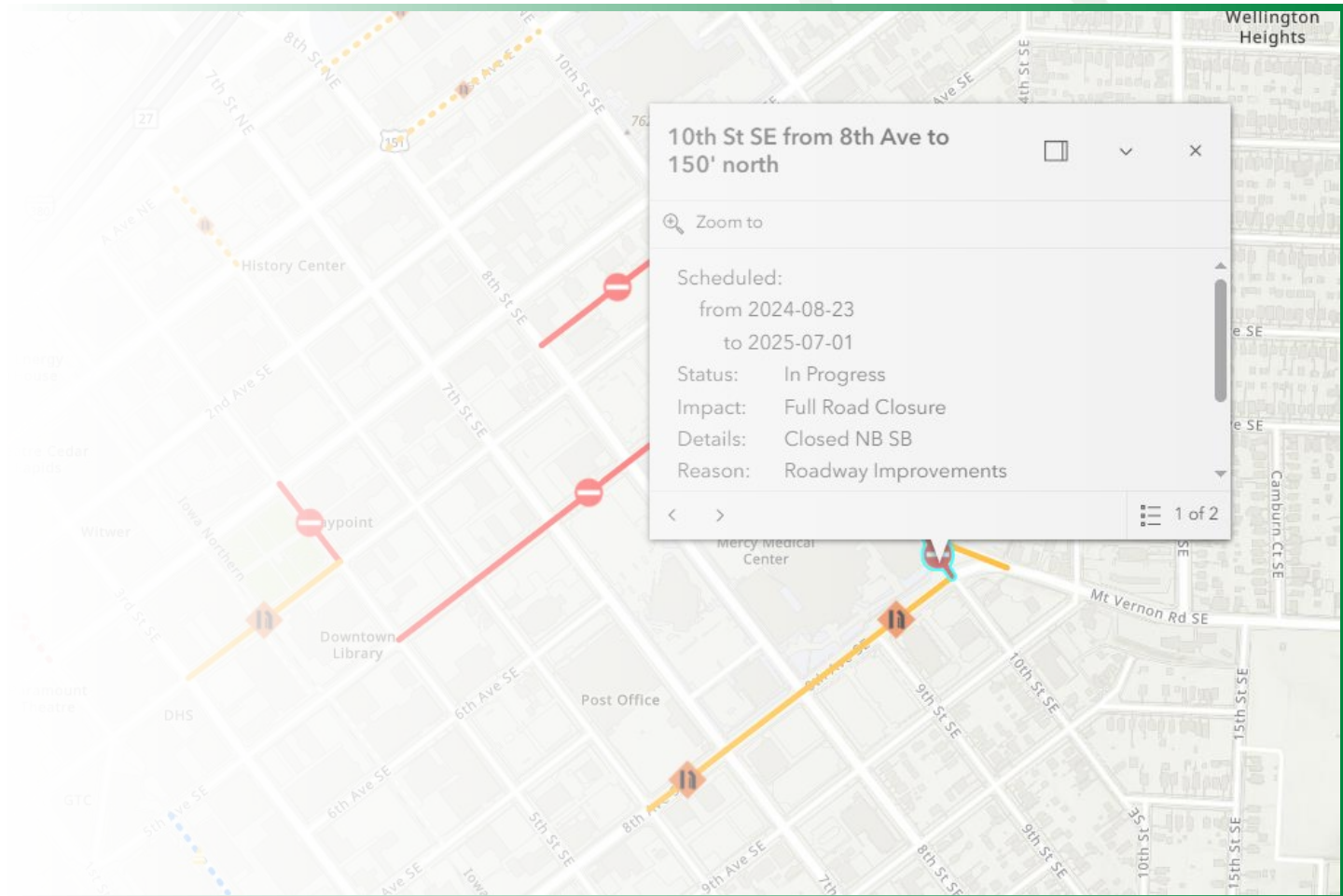
- **Public**



[Road Closures Map – Public Viewer](https://experience.arcgis.com/experience/...)  
<https://experience.arcgis.com/experience/...>

### Useful for:

- Public
- Traffic Engineering
  - *ROW Inspectors*

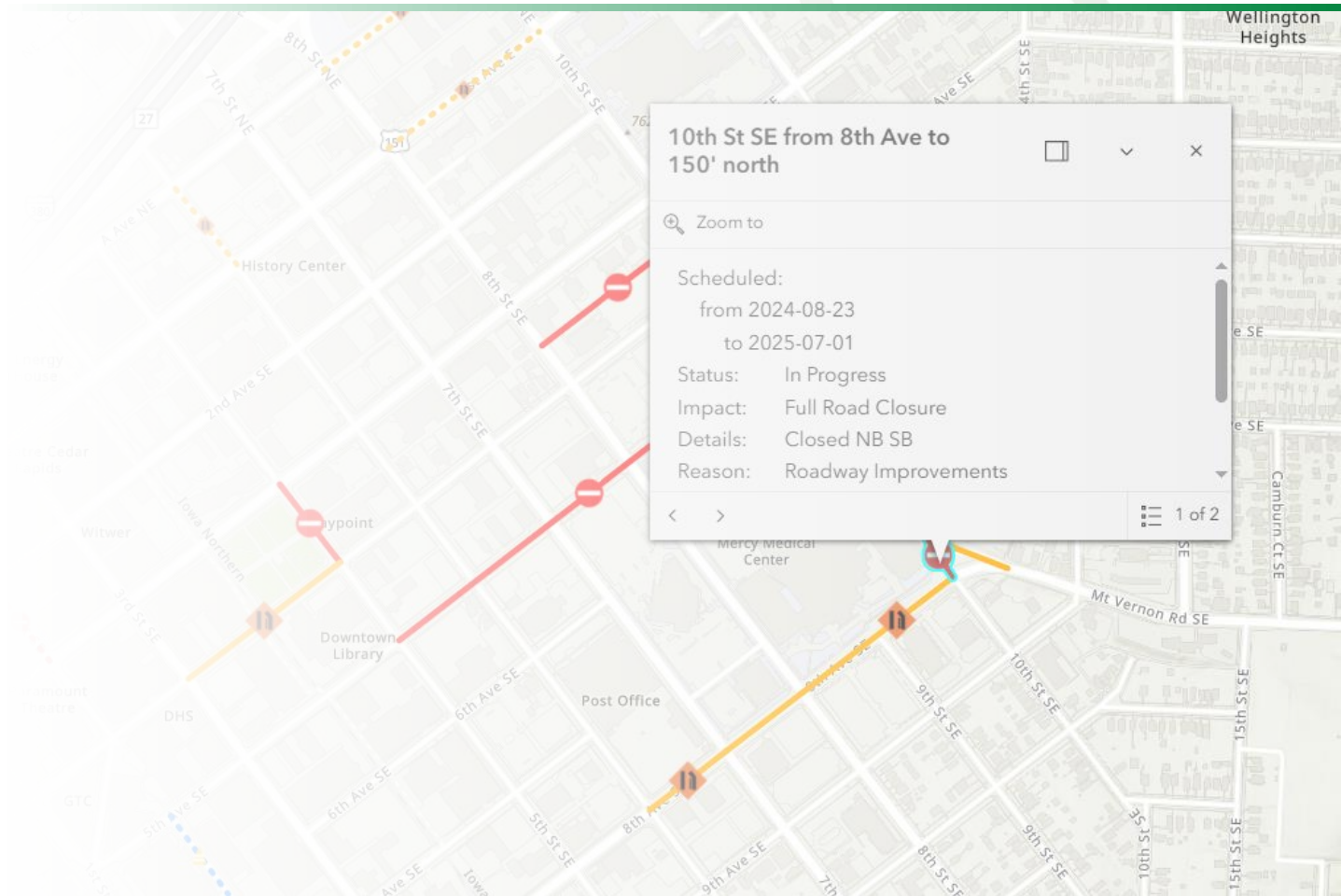


## [Road Closures Map – Public Viewer](#)

<https://experience.arcgis.com/experience/...>

### Useful for:

- Public
- Traffic Engineering
  - *ROW Inspectors*
- Project Managers

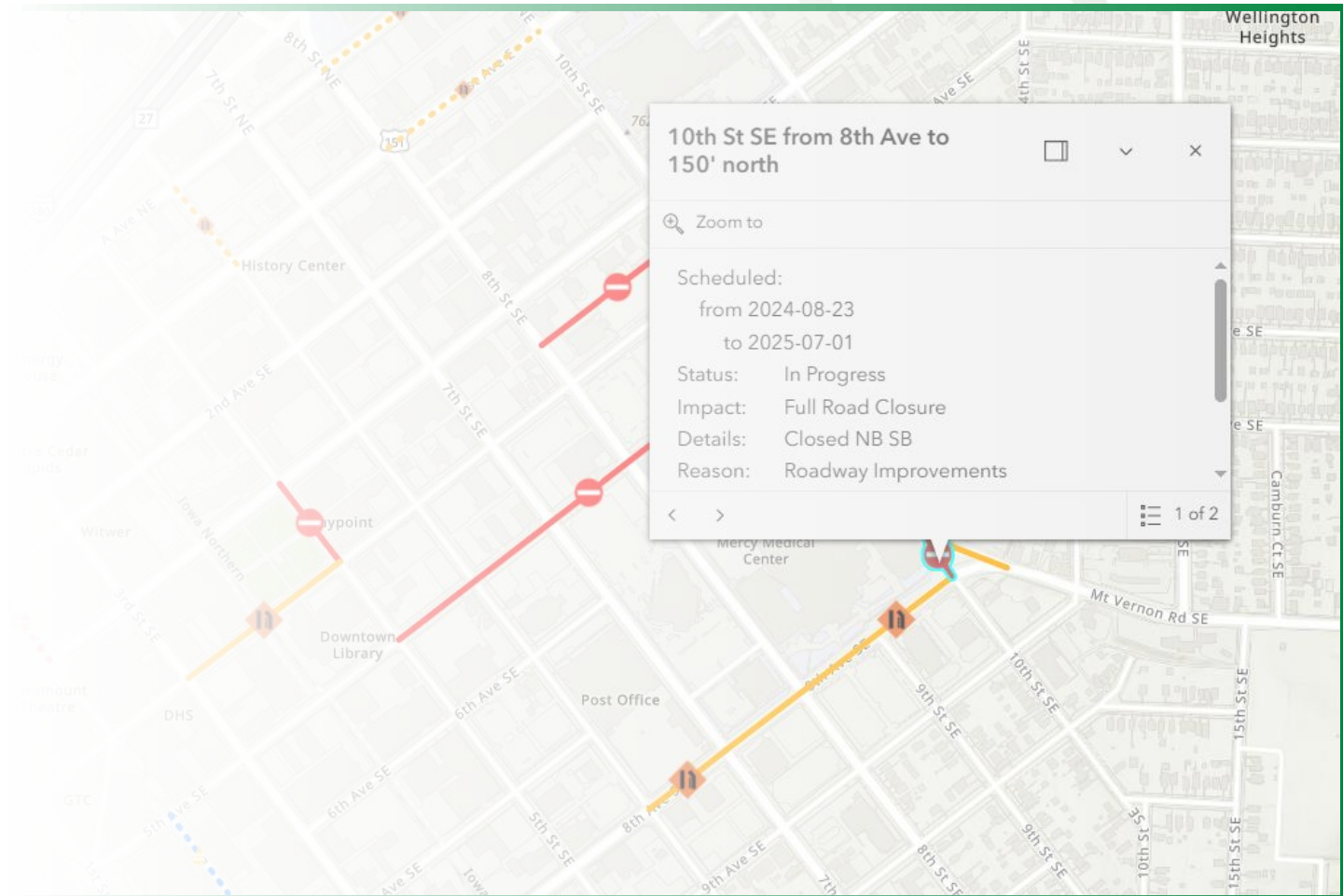


Road Closures Map – Public Viewer

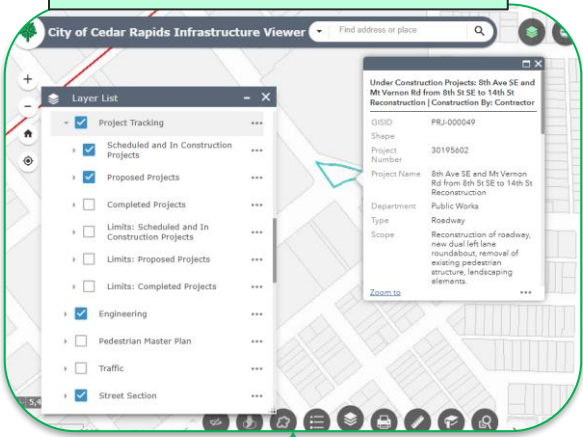
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**Useful for:**

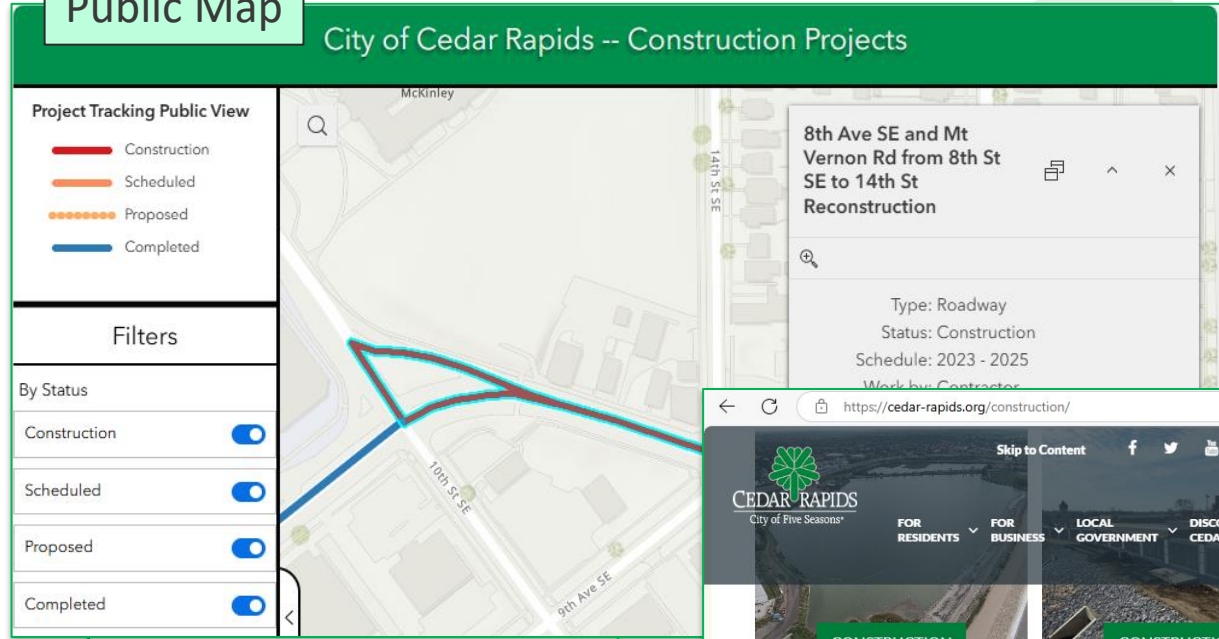
- **Public**
- **Traffic Engineering**
  - *ROW Inspectors*
- **Project Managers**
- **You?...**



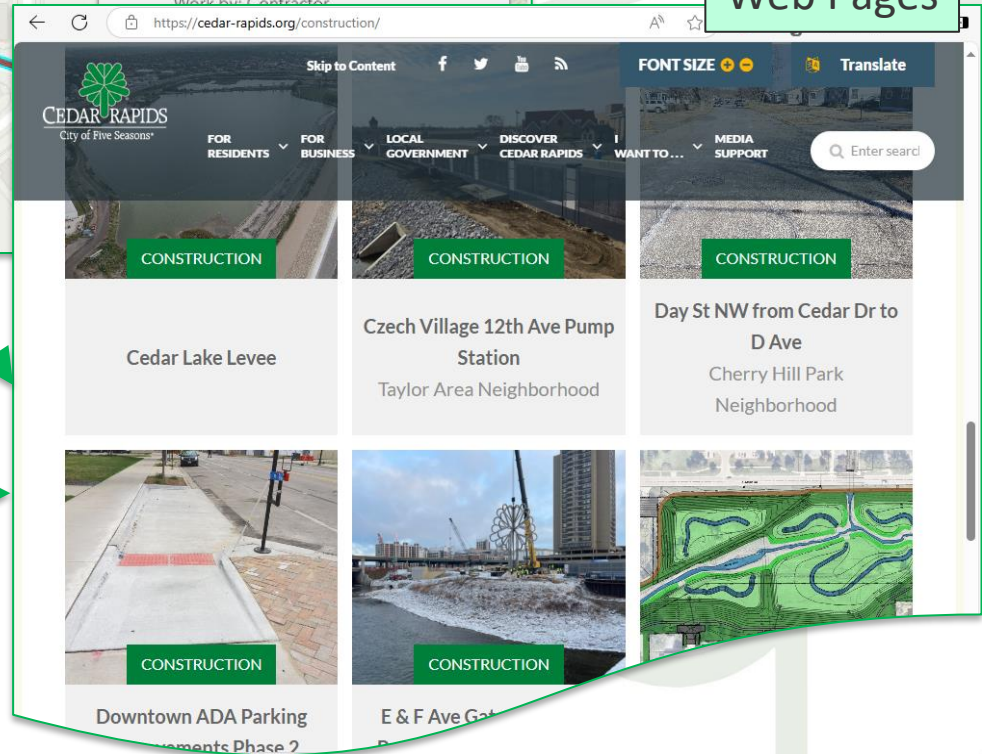
# Infrastructure Viewer



# Public Map



# Web Pages

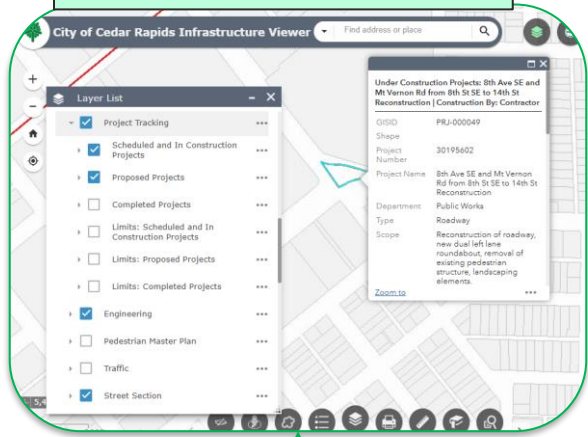


# GIS Databases

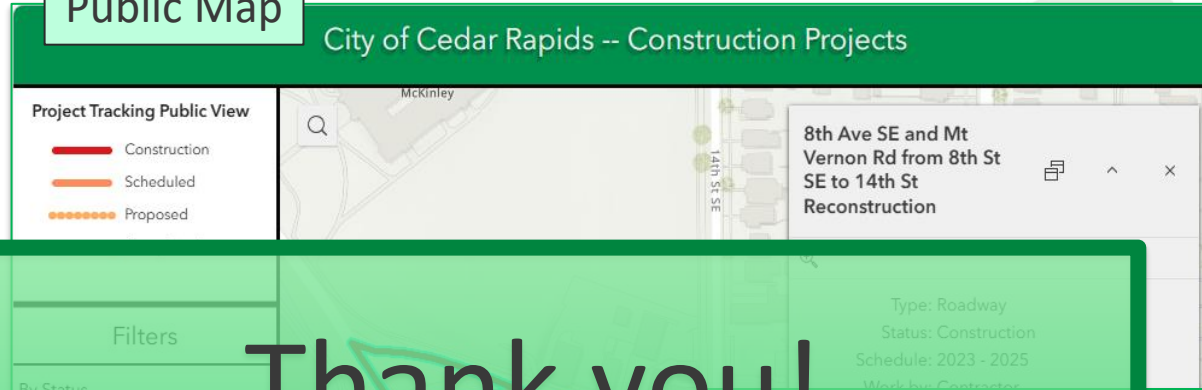
ID	Address	Project Name	Type	Status	URL
134200251	1842 23rd Street	ADA Improvement	Roadway	Construction	https://cedar-rapids.org/construction/134200251
301401625	2025 Curb Ramp Repairs	Curb Repair	Roadway	Construction	https://cedar-rapids.org/construction/301401625
134200251	205 10th Street SE	Curb Repair	Roadway	Construction	https://cedar-rapids.org/construction/134200251
134200252	2075 High Dr SE	Emergency Asphalt Pa.	Roadway	Construction	https://cedar-rapids.org/construction/134200252
134200318	2112 Stone Ridge Dr SW	ADA Improvement	Roadway	Construction	https://cedar-rapids.org/construction/134200318
134200319	2807 Schaeffer Dr SW	Concrete Panel Repla.	Roadway	Construction	https://cedar-rapids.org/construction/134200319
134200252	2935 Samuel Ct SW	PCC Panel Replacement	Roadway	Construction	https://cedar-rapids.org/construction/134200252
134200254	3113 Shafts Ct NE	PCC Panel Replacement	Roadway	Construction	https://cedar-rapids.org/construction/134200254
134200251	424 Norwalk Rd SW	Concrete Panel Repla.	Roadway	Construction	https://cedar-rapids.org/construction/134200251
134200251	4th Avenue SE from 1st Street to 3rd Street	Curb and ADA repairs	Roadway	Construction	https://cedar-rapids.org/construction/134200251
134200251	7014 Stone Terrace Dr SW	PCC Panel Replacement	Roadway	Construction	https://cedar-rapids.org/construction/134200251
134200251	725 3rd Avenue SE	Curb Repair	Roadway	Construction	https://cedar-rapids.org/construction/134200251
134200251	911 29th Street NW	PCC Panel Replacement	Roadway	Construction	https://cedar-rapids.org/construction/134200251
301342020	3 Ave NE from 34th St to 37th St	Pavement patching, m.	Roadway	Construction	https://cedar-rapids.org/construction/301342020
134200251	4 Avenue NE from Cow Road to 7th Street	Curb Repair	Roadway	Construction	https://cedar-rapids.org/construction/134200251



## Infrastructure Viewer



## Public Map

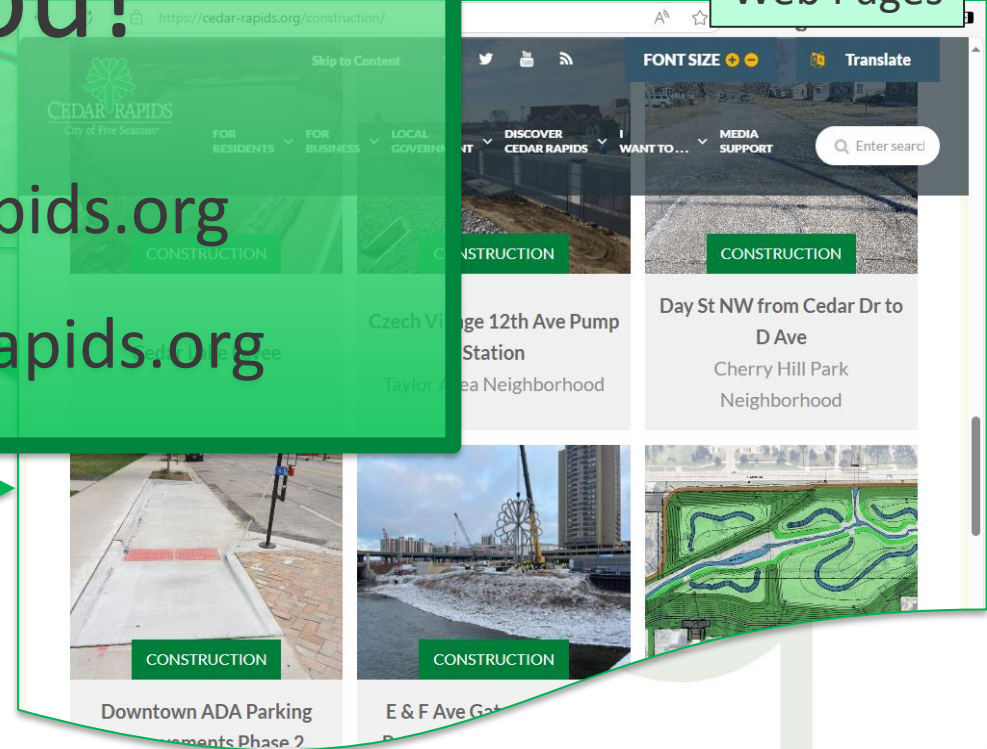


Thank you!

IT-GIS@Cedar-Rapids.org

D.Atkins@Cedar-Rapids.org

## Web Pages



## GIS Databases

ID	Address	Project Name	Department	Type	Scope	URL
134200251	1642 27th Street SW	ADA Improvement	Public Works	Roadway	This project will reconstruct...	<a href="https://cedar-rapids.org/construction/134200251">https://cedar-rapids.org/construction/134200251</a>
301621625	2025 Curb Ramp Repairs	Curb Repair	Public Works	Roadway	Curb Repair	<a href="https://cedar-rapids.org/construction/301621625">https://cedar-rapids.org/construction/301621625</a>
1342002511	205 10th Street SE	ADA Improvement	Public Works	Roadway	Emergency Asphalt Pa...	<a href="https://cedar-rapids.org/construction/1342002511">https://cedar-rapids.org/construction/1342002511</a>
1342002520	2075 High Dr SE	ADA Improvement	Public Works	Roadway	ADA Improvement	<a href="https://cedar-rapids.org/construction/1342002520">https://cedar-rapids.org/construction/1342002520</a>
1342002519	2112 Stone Ridge Dr SW	Concrete Panel Repla...	Public Works	Roadway	Concrete Panel Repla...	<a href="https://cedar-rapids.org/construction/1342002519">https://cedar-rapids.org/construction/1342002519</a>
1342002518	2807 Schaeffer Dr SW	PCC Panel Replacement	Public Works	Roadway	PCC Panel Replacement	<a href="https://cedar-rapids.org/construction/1342002518">https://cedar-rapids.org/construction/1342002518</a>
1342002512	2935 Samuel Ct SW	PCC Panel Replacement	Public Works	Roadway	PCC Panel Replacement	<a href="https://cedar-rapids.org/construction/1342002512">https://cedar-rapids.org/construction/1342002512</a>
1342002514	3113 Shafts Ct NE	Concrete Panel Repla...	Public Works	Roadway	Concrete Panel Repla...	<a href="https://cedar-rapids.org/construction/1342002514">https://cedar-rapids.org/construction/1342002514</a>
1342002515	424 Newark Rd SW	Curb and ADA Repairs	Public Works	Roadway	Curb and ADA Repairs	<a href="https://cedar-rapids.org/construction/1342002515">https://cedar-rapids.org/construction/1342002515</a>
1342002510	4th Avenue SE from 1st Street to 3rd Street	PCC Panel Replacement	Public Works	Roadway	PCC Panel Replacement	<a href="https://cedar-rapids.org/construction/1342002510">https://cedar-rapids.org/construction/1342002510</a>
1342002513	7014 Stone Terrace Dr SW	Curb Repair	Public Works	Roadway	Curb Repair	<a href="https://cedar-rapids.org/construction/1342002513">https://cedar-rapids.org/construction/1342002513</a>
1342002508	725 3rd Avenue SE	PCC Base Replacement	Public Works	Roadway	PCC Base Replacement	<a href="https://cedar-rapids.org/construction/1342002508">https://cedar-rapids.org/construction/1342002508</a>
1342002509	911 28th Street NW	Pavement patching, m...	Public Works	Roadway	Pavement patching, m...	<a href="https://cedar-rapids.org/construction/1342002509">https://cedar-rapids.org/construction/1342002509</a>
301342020	8 Ave NE from 34th St to 37th St	Curb Repair	Public Works	Roadway	Curb Repair	<a href="https://cedar-rapids.org/construction/301342020">https://cedar-rapids.org/construction/301342020</a>
1342002505	4 Avenue NE from Cow Road to 7th Street	Curb Repair	Public Works	Roadway	Curb Repair	<a href="https://cedar-rapids.org/construction/1342002505">https://cedar-rapids.org/construction/1342002505</a>





# 2025 Construction Realities

Taylor Burgin, Construction Engineering Manager

# Agenda

- Organizational Health
- Project Success
- Anticipate
- Accommodate
- Customer Service
  - It's 2025. All jobs are customer service.



# Organizational Health

- Our Core Values
  - We Serve Enthusiastically
  - We Team Up
  - We Find A Way



# Project Planning and Success

- Project success depends on understanding what the project needs and what the citizens/business needs are.
- Customer service expectations are getting higher.
  - Social Media
  - Local News
  - We don't get to tell the story

## Progress or panic? Cedar Rapids businesses weigh in on 42nd street northeast construction

"This will be devastating for us. It will take us from 7,000 cars a day to zero for two years."



# Project Planning and Success

- The needs of the customer largely dictate how a project can be built.
- During design we need to spend time discussing how we maintain the level of service needed.
- Staging changes, temporary signs, pavement/sidewalk, safety fence, sequencing work
- J sheets capture the big picture, notes are important to make it clear of what the expectation is.
  - Maintaining driveway access or sidewalk access to an area, may not show up as a Phase, but captured in a general staging note.



# The Superpower of Anticipation

- Anticipate
  - Verb
    - 1. Regard as probable; expect or predict
    - 2. Act as a forerunner or precursor of.



# Everyone plays a role

- A project team is successful based on everyone executing their role.
- Each role is vital
- Project success comes from anticipating and being proactive
- Projects fail when motions are driven by reaction.



# Example

- Field Staff – Anticipating needs of the next pipe, fitting, structure
- Field Supervisor – Anticipating needs for the next day to next few weeks
- Project Manager – Anticipating needs for a few weeks to months
- Ownership – Anticipating needs for months to years



# Accommodate

- This does not just apply to ADA
- Accommodation
  - Verb
    - 1. provide lodging or sufficient space for.
    - 2. fit in with the wishes or needs of.



# Accommodations

- What does this look like for a project?
  - Business Concerns:
    - Visibility/Signs
    - Access to Parking
    - Walkable path from parking to business
    - Deliveries
    - Water and Sewer Service
  - Homeowners:
    - ADA Needs/Access
    - Limit time out of driveways
    - Leave sidewalks in longer if they are forced to walk
    - Use fence to guide people where they are allowed to travel



# Who's Responsible?

- Everyone
  - Design is the base. We need to understand the needs of the project and the area.
  - Contractors play a key role in building a project successfully
  - Things will change, but our ability to anticipate makes all the difference in our ability to communicate and accommodate.
  - Make sure signs are true/accurate



# Customer Service

- Be polite and anticipate needs
- Clean up garbage
- Be mindful of where we're parking
- Have bathroom facilities available
- Do work you would be ok with in your yard
- Work together when needs arise
- Positive Stories
- Negative Stories
  - These spread fast



# Customer Service

- Business Specific Signage (Mostly for CIP Projects)
- Fencing to designate safe areas
  - Used more in heavy pedestrian areas like downtown or near schools
- Good visuals and communication prior to a project and during a project
- Regular updates with key stakeholders
  - Business districts/MedQ
  - Keeping residents updated, especially for access if things are changing



# 2025 Feelings

- And don't forget to go faster and do it cheaper...you only have 8 months of good weather.



# Open Discussion?

Presented by:

**Taylor Burgin**

*Construction Engineering Manager*

[t.burgin@cedar-rapids.org](mailto:t.burgin@cedar-rapids.org)

319.286.5524





# Utilities Department Water Division

Consultant and Contractor Updates for 2025!

# Today's Topics

- Cedar Rapids General Supplement to...
- SUDAS Design Manual
- SUDAS Specifications
- Water Construction Permitting
- Water Distribution Materials and Construction
- Water Division Stand-By



# General Supplement to SUDAS Design Manual



- Chapter 4: Water Mains
  - Specifies permanent dead-ends shall terminate with a fire hydrant.
  - Modified language to specify ductile iron pipe from anchor tee or auxiliary valve is required (dead-end hydrants).



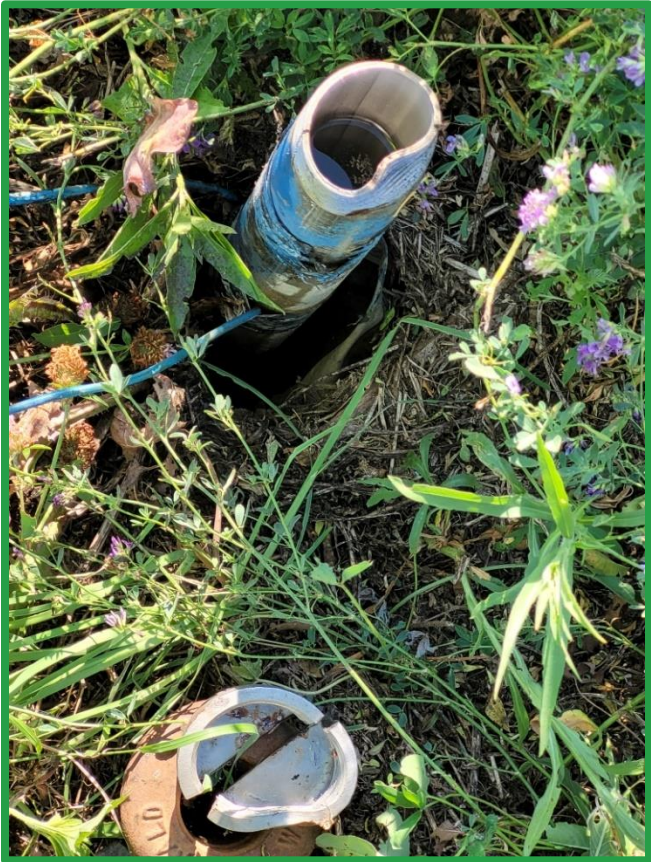
# General Supplement to SUDAS Design Manual

- Chapter 4: Water Mains
  - Dead-end valve requirements.
    - Where dead-end water mains are installed to accommodate a future extension, a valve shall be installed within 5 feet of the nearest looped water main, fire hydrant, or water service connection.
  - Service valve requirements.
    - Recommends to design critical facility (Schools, Hospitals, Clinics) service lines with a valve on each side of the connection.
    - Requires private service valves for lines 4 inches or larger to be within 5 feet of the public water main.





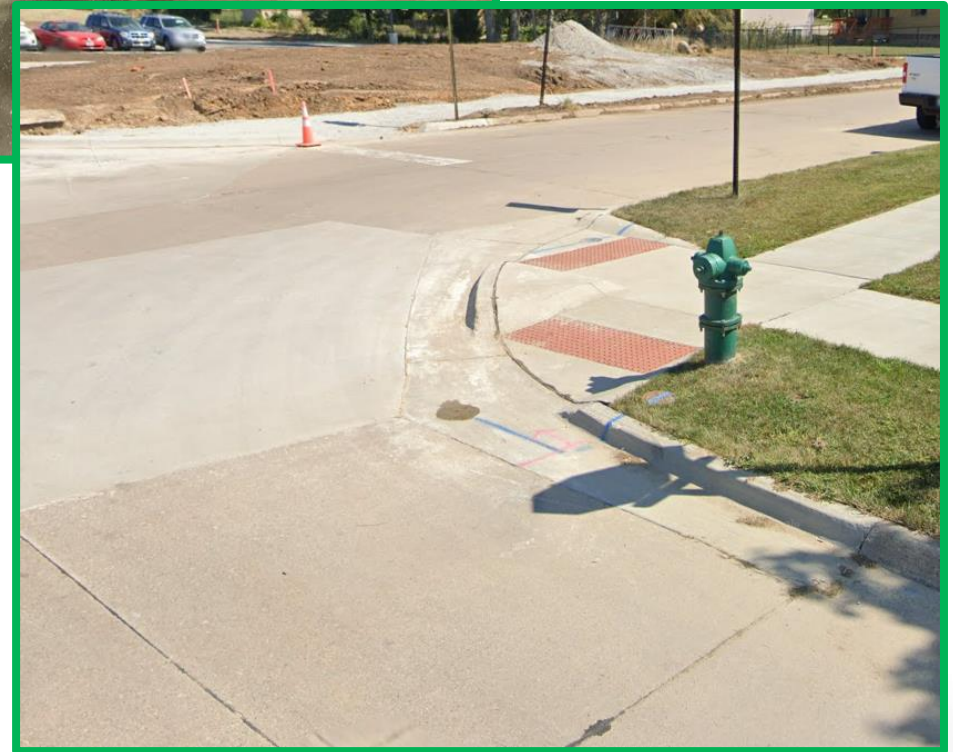
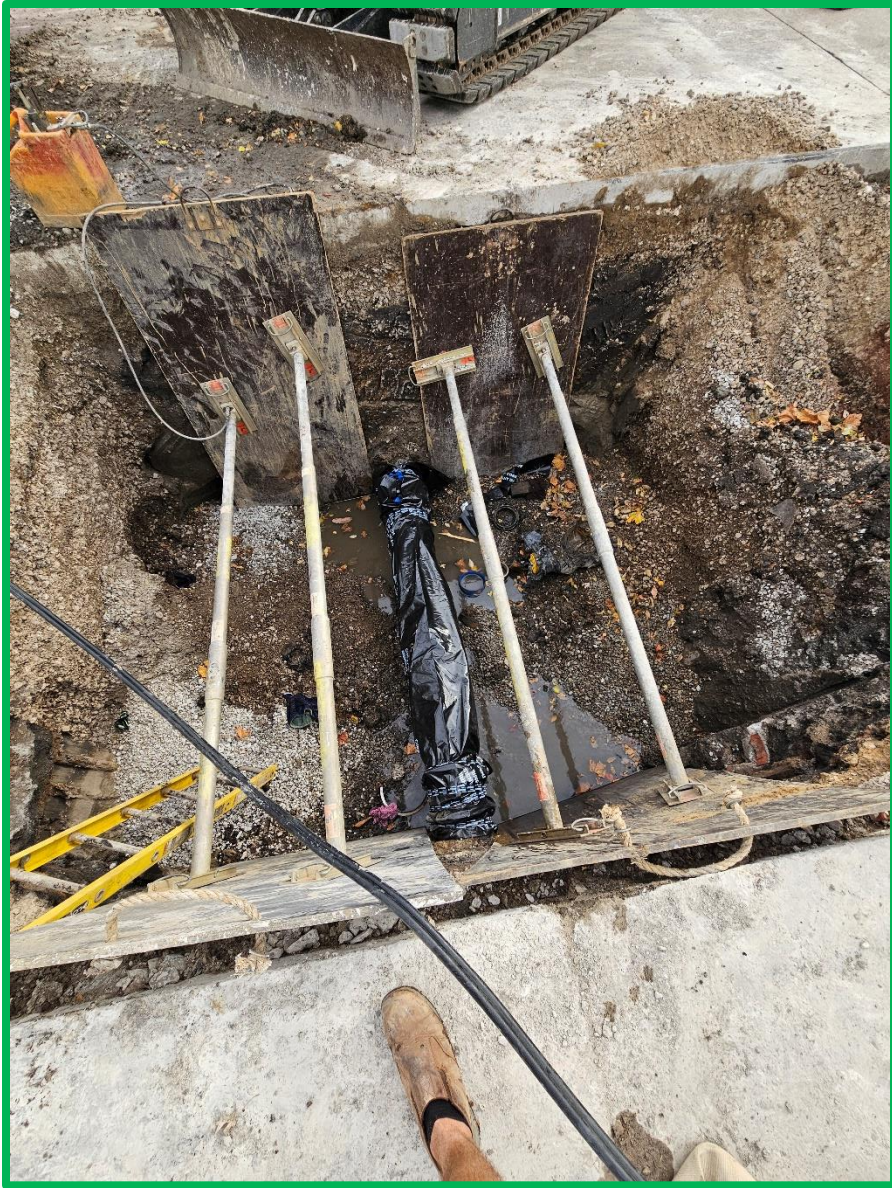
# Blow-off Assemblies



# General Supplement to SUDAS Design Manual

- Maintain at least 5 feet from sidewalk ramps, light poles, and other permanent improvements.







# General Supplement to SUDAS Design Manual

- CAD/Shapefiles are extremely helpful to map proposed improvements.
  - Provide water main alignment with project deliverables.
  - Send to: [Water-GIS@cedar-rapids.org](mailto:Water-GIS@cedar-rapids.org)
- Engineering Drawings
  - Public and private ownership.
  - Pipe information; diameter, material, material thickness.
  - Valve information; diameter, type.
  - Comply with disinfection and hydrostatic testing requirements.





- Every asset is assigned a unique identification number.
- Mapping accuracy.
  - Construction.
  - Field locates.
  - Future maintenance and repair.
  - Replacement.



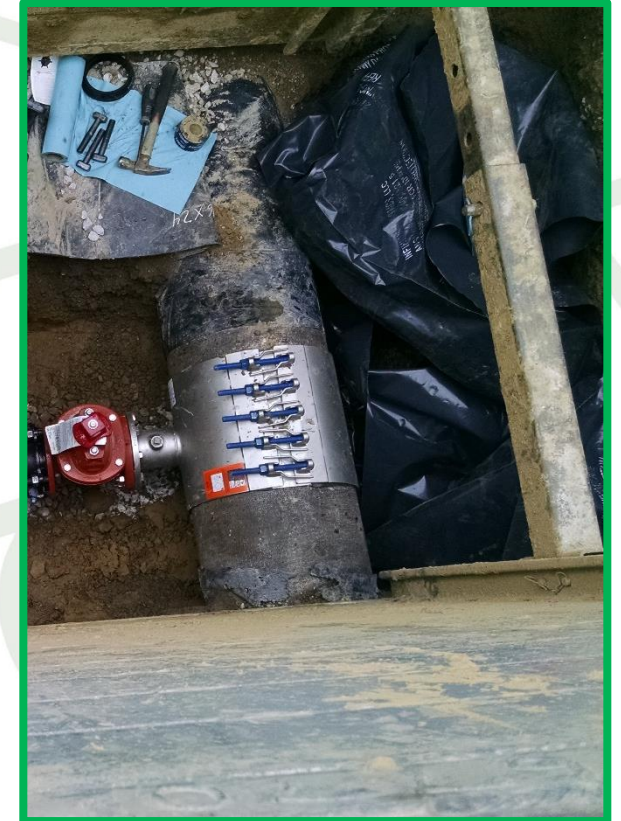
# General Supplement to SUDAS Specifications

- **Why are Specifications important to the City of Cedar Rapids?**
  - Best Tasting Drinking Water (2010, 2012, 2022, 2023)
    - Disinfection and Hydrostatic Testing prior to introducing new water main into the public system.
  - Fire and Emergency Response
    - Active fire incidents handled by the CR Fire Department.
    - Properly operating hydrants and uniform hydrant models allow for quick emergency response.
  - Asset Management
    - Over 715 miles of public water main.
    - Average of 125 main breaks per year.
    - Proper bedding and backfill reduces future water main breaks.



# Recent Specification Updates – Water Taps

- 4 inch to 12 inch Tap Requirements
  - Provide properly sized trench with protective system.
  - Valve is installed and holding 100 psi.
  - Soil classification is assumed to be Class C.
  - Taps 4 inches or larger will not be performed on private water mains by the City.
- 1 inch and 2 inch Tap Requirements
  - Contractor to provide 48 hour notice prior to PVC taps.
    - May require a water shutdown or depressurization.
  - All other taps provide 24 hour notice.



# Recent Specification Updates – Water Services

- Locking lids required for water service curb stop boxes within sidewalk or driveway pavement.
- Valve box adjustments and replacements need to specify water main or water services.
- Abandoned corporation fittings on 16 inch and larger water main – water service disconnect.
- Tracer wire installation.
  - Perform field locate testing using low frequency locating equipment.
  - Verify clear signals, continuity testing is not accepted.



# Recent Specification Updates – Water Main

- Nitrile gaskets are required for all public ductile iron pipe installations.
- Use joint restraint locking gaskets for 6 inch through 24 inch in lieu of thrust blocks.
  - Restrained joint pipe may also be used.
- In accordance with Cedar Rapids Standard Figures – 5910.999.900
- Ductile Iron Pipe Research Association's (DIPRA).
- Zinc coated ductile iron pipe with v-bio enhanced polyethylene wrap.
  - Replaces cathodic protection system.
- Soil boring to indicate corrosiveness – corrosion suite.



**Assumptions:** Type 2 Laying Condition (flat-bottom trench, backfill lightly consolidated to centerline of pipe), Good Sand and Gravel, Pressure of 150 psi, 1.5 Safety Factor, 5.5' Bury Depth, Polywrapped

		Minimum Joint Restraint Length on Each Side of Fitting (Feet)					
Angle	Fitting Direction	6-inch	8-inch	12-inch	16-inch	20-inch	24-inch
11.25°	Horizontal & Vertical Up	3	3	4	5	6	6
	Vertical Down	4	6	7	9	11	13
22.5°	Horizontal & Vertical Up	4	5	7	9	11	12
	Vertical Down	8	10	14	18	21	25
45°	Horizontal & Vertical Up	8	10	14	18	21	24
	Vertical Down	15	20	28	36	44	52
90°	Horizontal & Vertical Up	18	23	32	42	50	58
	Vertical Down	36	47	67	87	105	124
Tee (Run and Branch) or Dead-End		36	47	67	87	105	124

NOTES:

1. APPROVED METHODS OF PIPE JOINT RESTRAINT: RESTRAINED JOINT PIPE, LOCKING GASKETS, RESTRAINING RODS FOR M.J. PIPE, SET SCREW RESTRAINER GLANDS FOR M.J. PIPE, OR RESTRAINING RODS FOR PUSH-ON JOINT PIPE.
2. ALL FITTINGS SHALL BE RESTRAINED PER CEDAR RAPIDS SUPPLEMENTAL SPECIFICATIONS TO SUDAS STANDARD SPECIFICATIONS, SECTION 5910, 2.03-A.
3. ALL FIRE HYDRANT ASSEMBLIES SHALL HAVE A JOINT RESTRAINT SYSTEM.
4. THE USE OF THRUST BLOCKS FOR PIPE AND FITTING RESTRAINT IS NOT ALLOWED UNLESS SPECIFIED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE ENGINEER.
5. NO UNRESTRAINED JOINTS MAY BE LOCATED WITHIN THE RESTRAINED LENGTH VALUES ON EITHER SIDE OF THE FITTING. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS THE GREATEST LENGTH OF RESTRAINED PIPE.
6. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA), WITH THE FOLLOWING ASSUMPTIONS:

LAYING CONDITION: TYPE 2  
 WORKING/TEST PRESSURE: 150 PSI  
 SOIL CONDITIONS: GOOD SAND & GRAVEL  
 MINIMUM COVER: 5.5 FEET  
 FACTOR OF SAFETY: 1.5

7. FOR ALL OTHER CONDITIONS THAT ARE DIFFERENT THAN SPECIFIED ABOVE, THE ENGINEER SHALL CONFIRM ACTUAL CONDITIONS AND INCREASE RESTRAINT LENGTH AS REQUIRED.

FIGURE 5910.999.900 SHEET 1 OF 1


 <b>CEDAR RAPIDS</b> <small>City of Five Seasons</small>	<small>REVISION</small> 2    10-11-2024
	<b>5910.999.900</b> <small>SHEET 1 of 1</small>
<b>Cedar Rapids General          Supplemental Specifications To SUDAS</b>	
<b>RESTRAINING METHODS</b>	



TABLE 2

Likelihood Score Sheet

LIKELIHOOD FACTOR	POINTS	MAXIMUM POSSIBLE POINTS		
RESISTIVITY	< 500 ohm-cm ≥ 500 - 1000 ohm-cm > 1000 - 1500 ohm-cm > 1500 - 2000 ohm-cm > 2000 - 3000 ohm-cm > 3000 - 5000 ohm-cm > 5000 ohm-cm	30 25 22 19 10 5 0	<b>30</b>	
CHLORIDES	> 100 ppm = positive 50 - 100 ppm = trace < 50 ppm = negative	8 3 0		<b>8</b>
MOISTURE CONTENT	> 15% = Wet 5 - 15% = Moist < 5% = Dry	5 2.5 0		
GROUND WATER INFLUENCE	Pipe below the water table at any time	5		<b>5</b>
pH	pH 0 - 4 pH > 4 - 6 pH 6 - 8, with sulfides and low or negative redox pH > 6	4 1 4 0		
SULFIDE IONS	positive (≥1 ppm) trace (> 0 and < 1 ppm) negative ( 0 ppm)	4 1.5 0		<b>4</b>
REDOX POTENTIAL	= negative = positive 0 - 100 mv = positive > 100 mv	2 1 0	<b>2</b>	
BI-METALLIC CONSIDERATIONS	Connected to noble metals (e.g. copper) - yes Connected to noble metals (e.g. copper) - no	2 0		<b>2</b>
<b>TOTAL POSSIBLE POINTS</b>			<b>60</b>	
Known Corrosive Environments	Cinders, Mine Waste, Peat Bog, Landfill, Fly Ash, Coal		<b>21</b>	

\* Soils with Known Corrosive Environments shall be assigned 21 points or the total of points for Likelihood Factors, whichever is greater.

TABLE 3

Consequence Score Sheet

CONSEQUENCE FACTOR	POINTS	MAXIMUM POSSIBLE POINTS	
PIPE SERVICE	3" to 24" 30" to 36" 42" to 48" 54" to 64"	0 8 12 22	<b>22</b>
LOCATION: Construction-Repair Considerations	Routine (Fair to good access, minimal traffic/other utility consideration, etc.) Moderate (Typical business/residential areas, some right of way limitations, etc.) Difficult (Subaqueous crossings, downtown metropolitan business areas, multiple utilities congestion, swamps, etc.)	0 8 20	
DEPTH OF COVER CONSIDERATIONS	0 to 10 feet depth > 10 to 20 feet depth > 20 feet depth	0 3 5	<b>5</b>
ALTERNATE WATER SUPPLY	Alternate supply available - no Alternate supply available - yes	3 0	
<b>TOTAL POSSIBLE POINTS</b>			<b>50</b>

DDM® Two-Dimensional Matrix

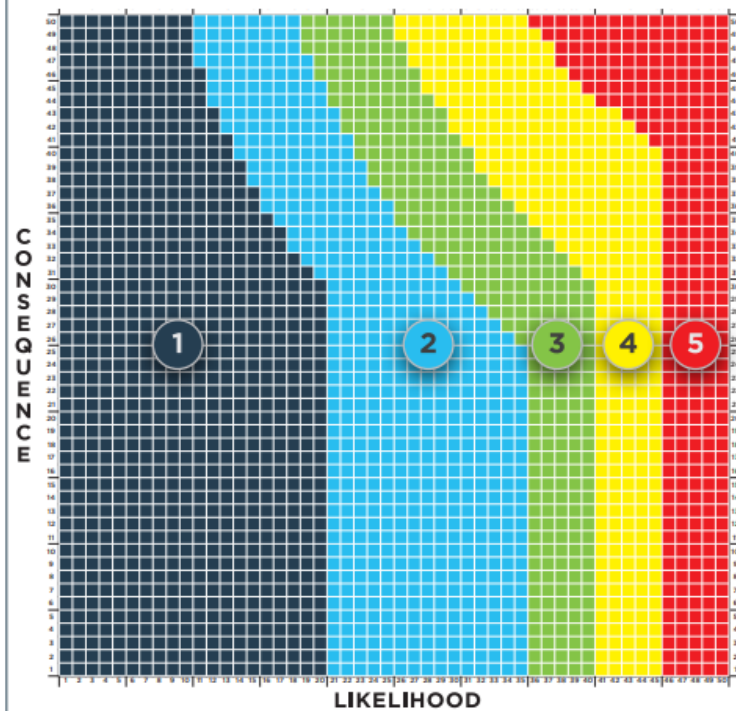


TABLE 1

Design Decision Model® (DDM®)

Recommendations	
<b>1</b>	As manufactured with shop coat
<b>2</b>	V-Bio® Enhanced Polyethylene Encasement
<b>3</b>	V-Bio® Enhanced Polyethylene Encasement, or V-Bio® Enhanced Polyethylene Encasement with Joint Bonds
<b>4</b>	V-Bio® Enhanced Polyethylene Encasement with Metallized Zinc Coating, or V-Bio® Enhanced Polyethylene Encasement with Life Extension Cathodic Protection
<b>5</b>	V-Bio® Enhanced Polyethylene Encasement with Metallized Zinc Coating, or V-Bio® Enhanced Polyethylene Encasement with Cathodic Protection

\* Recommendations in Zones 4 and 5 recognize a practical difference between distribution and transmission mains. Distribution mains are generally smaller sized pipes, with the final classification to be defined by the pipeline owner. Cathodic protection should be considered where external corrosion is a significant risk or where pipe repairs/replacements would be cost prohibitive.





# PVC Water Main Design and Install

- Only allowable in previously undeveloped areas; based on property zoning.
- Limit joint deflections to 4 inches maximum per joint (approximately 1°) or less per manufacturer's recommendation.
- Ductile iron fittings are required; different joint restraint.
- Pipe deflection in the trench is not allowed.
- Pressure Class 235, DR 18; Pressure Class 305, DR 14 (80+ psi).
- Not allowed within 500 feet of a Contaminated Site, Underground Storage Tank, or Leaking Underground Storage Tank.
- Not allowed within fire hydrant assemblies.
- Pipe must be protected from direct exposure to ultraviolet light.



# Recent Updates - Materials

- The City of Cedar Rapids does not provide owner supplied hydrants and valves within Capital Improvement Projects.
  - Note that contractors and developers no longer purchase material from the City at our direct cost when installing public water system improvements.
- Installation of Flushing Device (Air Release, Blow Offs, and Post Hydrants) – Owner Supplied bid item was removed.
- Clow Medallion is the only approved Fire Hydrant model for public improvements.
  - Note that Clow Medallion, Kennedy Guardian K81-D, and Mueller Super Centurion 250 are accepted for private fire hydrants.



# Water-Sewer Separation Requirements

- **Horizontal Separation of Gravity Sewers from Water Mains**
  - Sanitary and Combined Sewers
    - 10+ feet; 3 – 10 feet; 2 – 3 feet (minimum).
  - Storm Sewers
    - 10+ feet; 3 – 10 feet.
- **Horizontal Separation of Water Mains from Sanitary Sewer, Combined Sewer, or Storm Sewer Manholes or Structures**
  - 3 feet separation (minimum).
- **Horizontal Separation of Sewer Force Mains from Water Mains**
  - 10+ feet; 4 – 10 feet; not allowed less than 4 feet.



# Water-Sewer Separation Requirements

- **Vertical Separation of Sewers and Water Main Crossovers**
  - Sanitary and Combined Sewers
    - 18 inches; 6 inches (minimum).
    - Installation above or below.
  - Storm Sewers
    - 18 inches; 6 inches (minimum).
    - Installation above or below.



# Water-Sewer Separation Requirements

- Several different alternatives to be complaint.
- Horizontal separation with vertical separation.
- Separate trench or bench of undisturbed earth.
- Sanitary or storm sewer to be water main materials.
- Storm sewer to be RCP with O-ring/profile gaskets.
- Water main in watertight casing pipe.
- Ductile iron water main with nitrile gaskets.



# Iowa DNR Construction Permitting

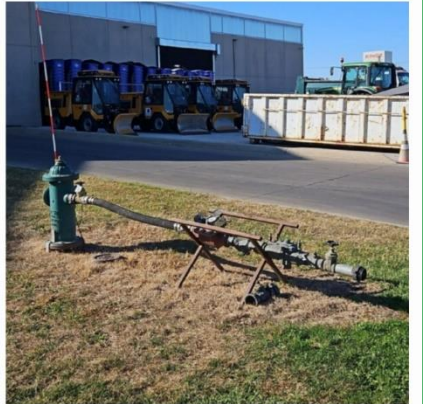
- Permitting depends on type of water main, not ownership.
  - Water main or water service line.
  - Not based on public or private.
- Single connection or multiple connections.
- Possibility of future extensions.
- Cedar Rapids matches Iowa DNR permitting fees.
- Cedar Rapids water permit checklist form.
- Delegation of construction permitting authority.



# Valves and Hydrants

- Adjusting valve nut and hydrant breakaway to proper grade.
  - Operating nut extensions (valve nut extensions).
  - Hydrant sweeps; Gradelok; new installations.
  - Hydrant barrel extensions; existing installations.
- Hydrant nozzle to face roadway.
- Protect during backfill and hydroseeding.
- Delivery of removed valve or hydrant coordinated with inspectors.
- Authorized hydrant use – hydrant meter set.
- Do not paint or mark hydrants as a survey reference.



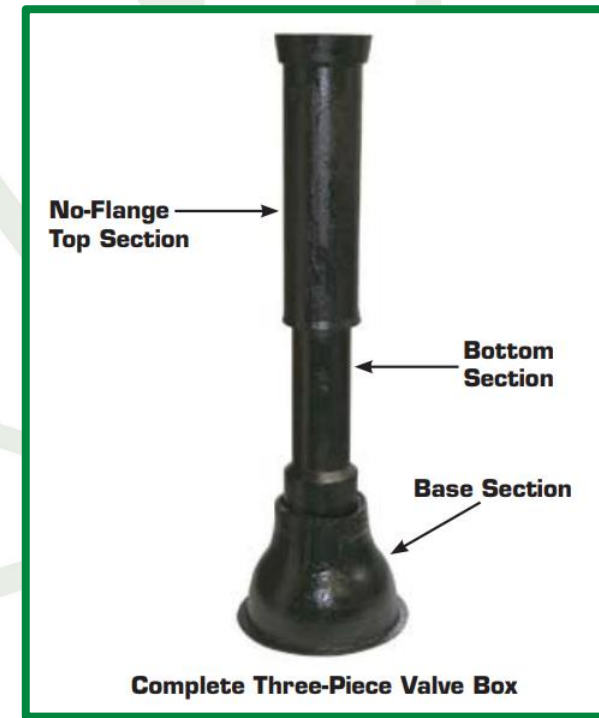






# Water Valve Boxes

- **Valve Box Adjustment:** minor adjustment; adjust existing valve box to finished grade, typically less than 1 foot.
- **Valve Box and Stem Extension:** more than a minor adjustment is required; install valve box extension and/or valve operating nut extension as necessary to raise 2 inch operating nut within 4 to 6 feet of the finished grade.
- **Valve Box Replacement:** existing valve box is deteriorated, mis-aligned, full of debris or new location will be in paved area; slide type for valve boxes in paved areas, screw type for all other areas, locking lids for valve boxes in sidewalk.
- **Valve Box Removal:** existing valve box will be within a section of abandoned water main; remove the top 2 sections of a 3-piece valve box or removal to a minimum of 5 foot below top of grade.



# Water Main Punch List

- Hydrants
  - Needs to be painted or cleaned from hydroseed/concrete/dirt.
  - Install tracer wire bracket.
  - Hydrant orientation.
  - Adjustment to proper breakaway depth.
- Valves and Valve Boxes
  - Needs raising, lowering, or straightening.
  - Install stem and/or valve box extension.
  - Drill hole for tracer wire.
- Blow-off Assemblies
  - Install short type valve box over stand pipe and curb stop.
  - Materials to be stainless steel.
  - Addition of dirt around assembly.
- General
  - Addition of black dirt and fill around facilities.



# Water Division Stand-By Requirements

- Stand-by notes located on [City of Cedar Rapids](https://www.cedar-rapids.org) website.
- Show underground facilities on all right-of-way permit application maps and attachments.
  - Email [Water-GIS@cedar-rapids.org](mailto:Water-GIS@cedar-rapids.org) to request mapping.
  - Email [IT-GIS@cedar-rapids.org](mailto:IT-GIS@cedar-rapids.org) to request login credentials to the City's GIS Infrastructure Viewer.
- Excavation within 6-feet of a marked large water main (16 inch or larger).
- Directional drilling crossings or installations within 6 feet of a marked large water main (16 inch or larger).
- Maintain 10-foot parallel separation from field marked water mains or 6-feet from field located (pothole or vac excavate) water mains.
- To schedule, contact Water Division – Engineering at 319-286-5950; 24-hour minimum notice prior to commencing work.



# Thank You!



Presented by:

**Brandon Schmall**

*Water Distribution Engineering Manager*

[b.schmall@cedar-rapids.org](mailto:b.schmall@cedar-rapids.org)



Break





# Paving for Progress and 2025 SUDAS Supplement Update

Doug Wilson, PE  
Paving for Progress Program Manager

# Paving for Progress

- 1 percent local options sales tax
- 20-year investment: 2014–2034
- Sales tax generated by Cedar Rapids residents and visitors
- Approximately \$26 million annually
- Funds set aside solely for the maintenance, repair, construction and reconstruction of public streets



# Paving for Progress

- Funding approved by voters through 2034
- Budget = \$28.56 million for FY 26
- Entering year 11 of the program
- 10-year capital improvement plan
  - Data driven
  - Recommended treatment methods
  - Rehabilitation/Reconstruction balance
- First Plan published in 2015
- Update to be published in 2025

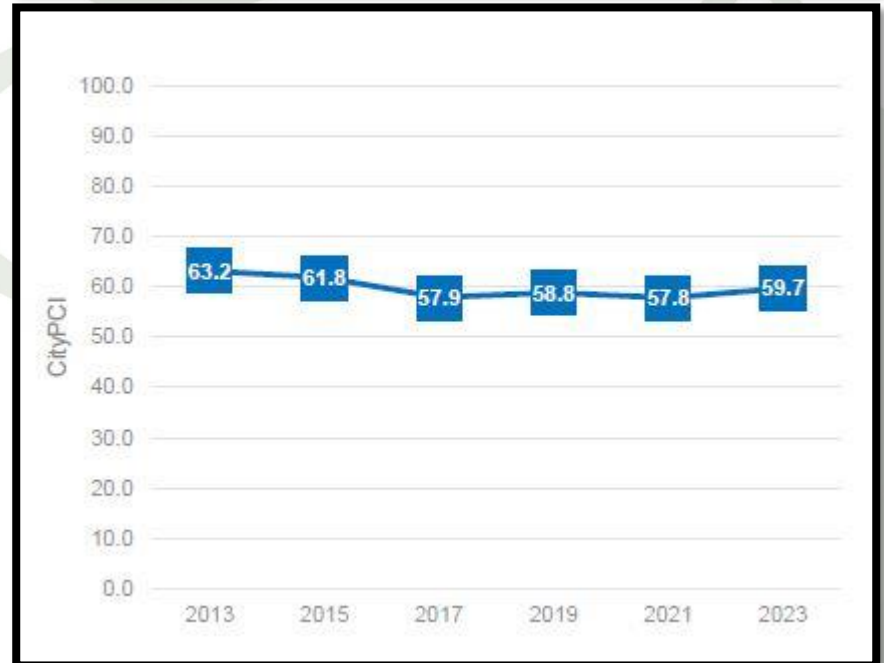
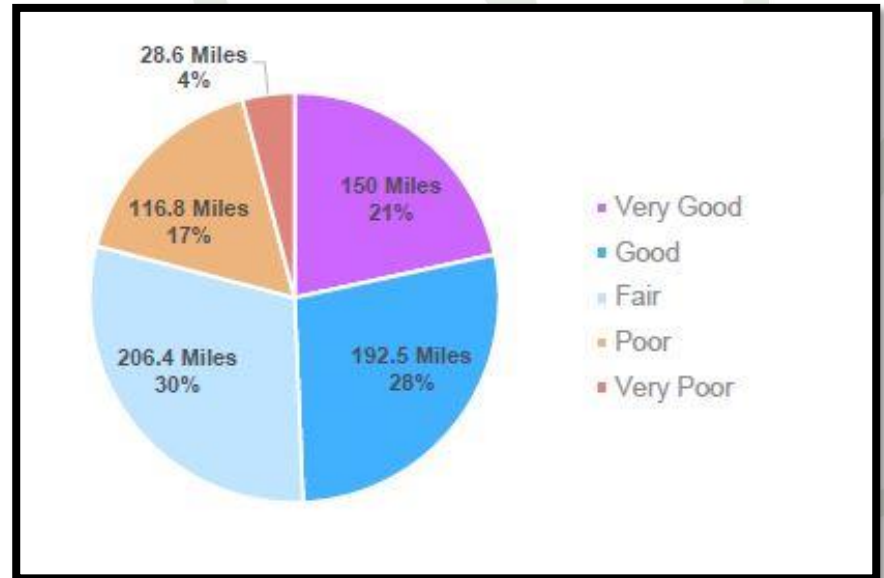




# City of Cedar Rapids

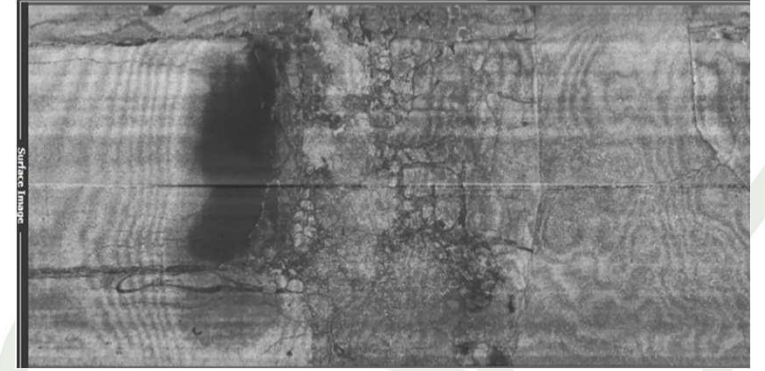
## Pavement Management Program Update

### FY 2026-2035

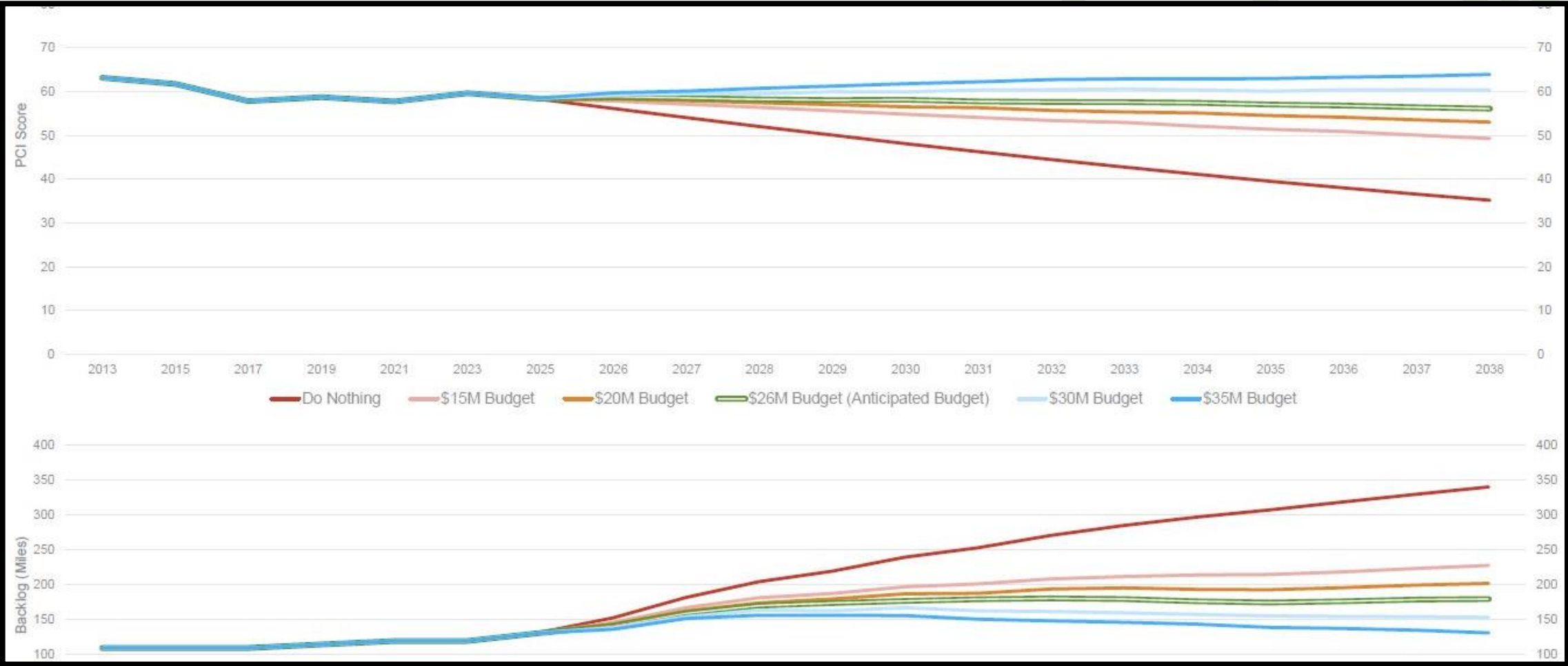


# Data

- Every road inspected & categorized
- Ranked Very Poor to Very Good
- Data re-collected every two years, so we can measure progress



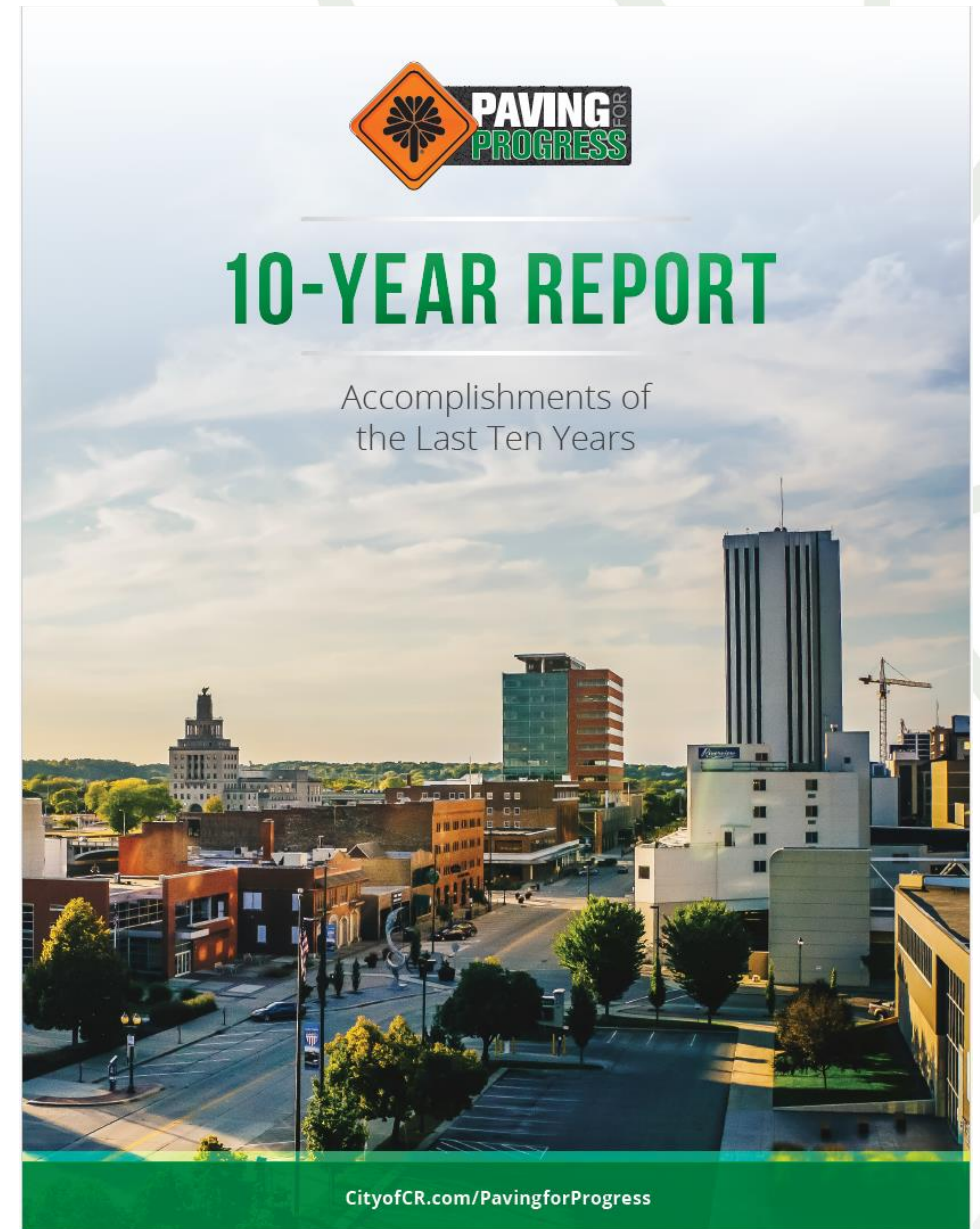
# Budget Based Projections





# Impacts to Date

- Approximately **\$221 million** invested into our roads
- Nearly **120 linear miles** of roadway improved
- **386 projects** completed to date
- **75%** of completed projects have been residential
  - Would not have been possible without the program funding
- **25%** of completed projects have been arterial





"It is amazing how much can be accomplished through teamwork, planning and great communication. I am grateful to be a part of it."

**CRAIG TOBIN**  
PRESIDENT, PIRC TOBIN

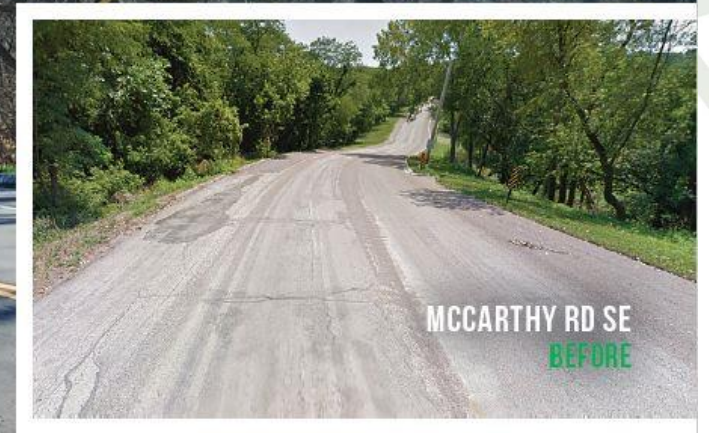
OAKLAND RD NE  
AFTER



"We are very excited about the new roads and new sidewalks. This will really help."

GRANDMASTER WOO JIN JUNG  
JUNG'S TAEKWANDO

MCCARTHY RD SE  
AFTER



MCCARTHY RD SE  
BEFORE



## COMMUNITY OUTREACH

Our commitment is to communicate the results of the program and to let you know when a project is coming to your neighborhood. Community outreach has been ongoing throughout the life of the program and aims to educate the public on the use of their tax dollars and the methods used to prioritize roads.



**150+ NEIGHBORHOOD MEETINGS** have been held over the life of the program



**40,000+ INFORMATIONAL LETTERS** have been mailed to property owners



**150+ MEDIA STORIES** have been issued on Paving for Progress projects



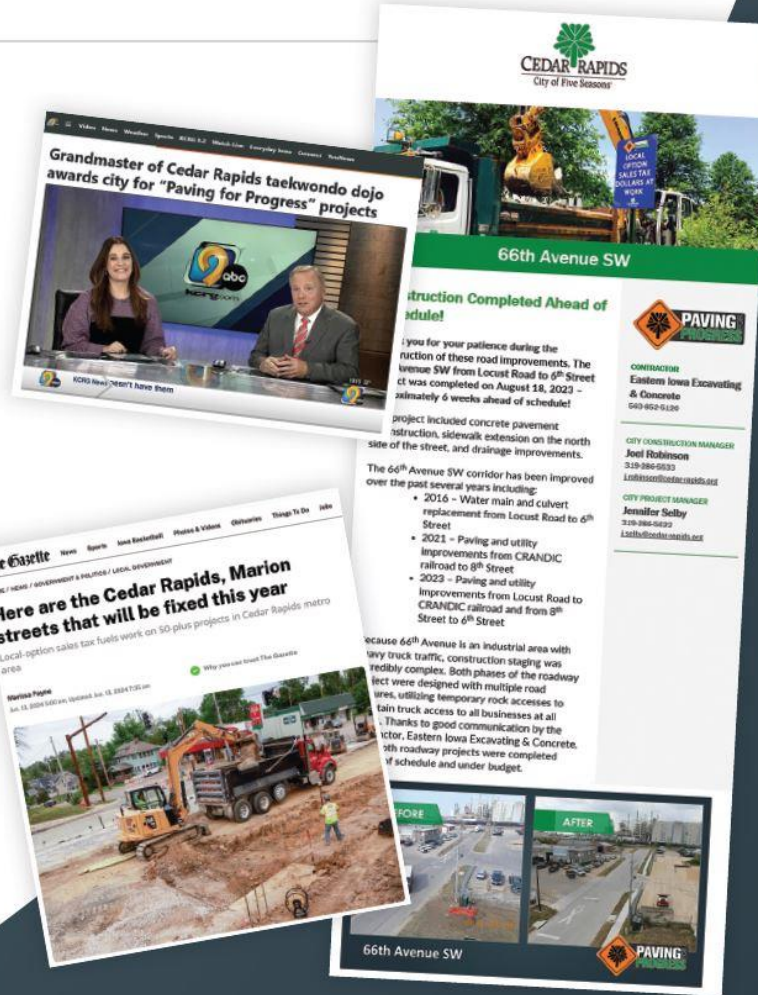
**120+ PUBLIC HEARINGS** have been held for proposed projects



**ONLINE DATABASE** with a full plan, map of projects, and schedule of public meetings



**SIGN UP FOR PROJECT NEWSLETTERS!**  
Visit [CityofCR.com/PavingforProgress](http://CityofCR.com/PavingforProgress)



# Ongoing and New Projects

- **35<sup>th</sup> Street NE** from Oakland Road to F Avenue
- **3<sup>rd</sup> Street SW** from 3<sup>rd</sup> Avenue to Diagonal Drive
- **5<sup>th</sup> Avenue SE** from 5<sup>th</sup> Street to 19<sup>th</sup> Street
- **42<sup>nd</sup> Street NE** from Edgewood Road to Pine View Drive



# City Forces Local Streets

More than 45 neighborhood streets will be completed this season



- Cox Avenue NW
- Glenwood Drive NW
- Harnet Street NW
- Hillside Drive NW
- Shelley Lane NW
- Valley Street NW
- 4<sup>th</sup> Avenue SE
- 5<sup>th</sup> Street SE
- 6<sup>th</sup> Street SE
- Grande Avenue SE
- Seely Avenue SE
- 12<sup>th</sup> Avenue SW
- 22<sup>nd</sup> Avenue SW
- 6<sup>th</sup> Street SW
- Foote Street SW
- 6<sup>th</sup> Avenue SW
- 9<sup>th</sup> Street SW
- 2<sup>nd</sup> Street SW
- 20<sup>th</sup> Avenue SW
- 7<sup>th</sup> Avenue SW
- 19<sup>th</sup> Street NE
- B Avenue NE
- Greene Avenue NE
- J Avenue NE
- Lorcardo Drive NE
- 27<sup>th</sup> Street NW
- Chestnut Ridge Court NE
- Franbrook Ter NW
- Leroy Street NW
- 14<sup>th</sup> Avenue SE
- Bever Avenue SE, Intersection with Green Valley Terrace
- 9<sup>th</sup> Avenue SW
- Broadmore Road SW
- Lauren Drive SW,
- Hollywood Boulevard NE
- Matterhorn Drive NE
- Regal Avenue NE
- Sherman Street NE
- Day Street NW
- Jacolyn Drive NW
- Kesler Road NW
- 26<sup>th</sup> Street Drive SE
- Eastland Drive SE
- Parkland Drive SE
- Seely Avenue SE
- Crestview Drive SE



# Future Projects

- Mount Vernon Road SE from 20<sup>th</sup> Street to 26<sup>th</sup> Street
- Johnson Avenue NW from east of Edgewood Road to 18<sup>th</sup> Street
- 42<sup>nd</sup> Street NE from Pine View Drive to Wenig Road
- E Avenue NW from Wiley Boulevard to Edgewood Road
- 34<sup>th</sup> Street SE from Bever Avenue to Spoon Creek Court
- D Avenue NW from Mayberry Drive to West Post Road
- Noelridge Neighborhood Reconstruction, including Regal Street, Gateway Drive and F Avenue
- 16<sup>th</sup> Avenue SW from Wiley Boulevard to Williams Boulevard
- Richard Drive NE from Evergreen Street to Nancy Jane Lane and Nancy Jane Lane NE from Richard Drive to Brookland Drive
- Evergreen Street NE/ Redbud Road NE from Northwood Drive to Brookland Drive
- L Street SW from 1<sup>st</sup> Avenue to 5<sup>th</sup> Avenue



**BEFORE**



**AFTER**



Center Pt Rd NE from Lincoln Ave to J Ave

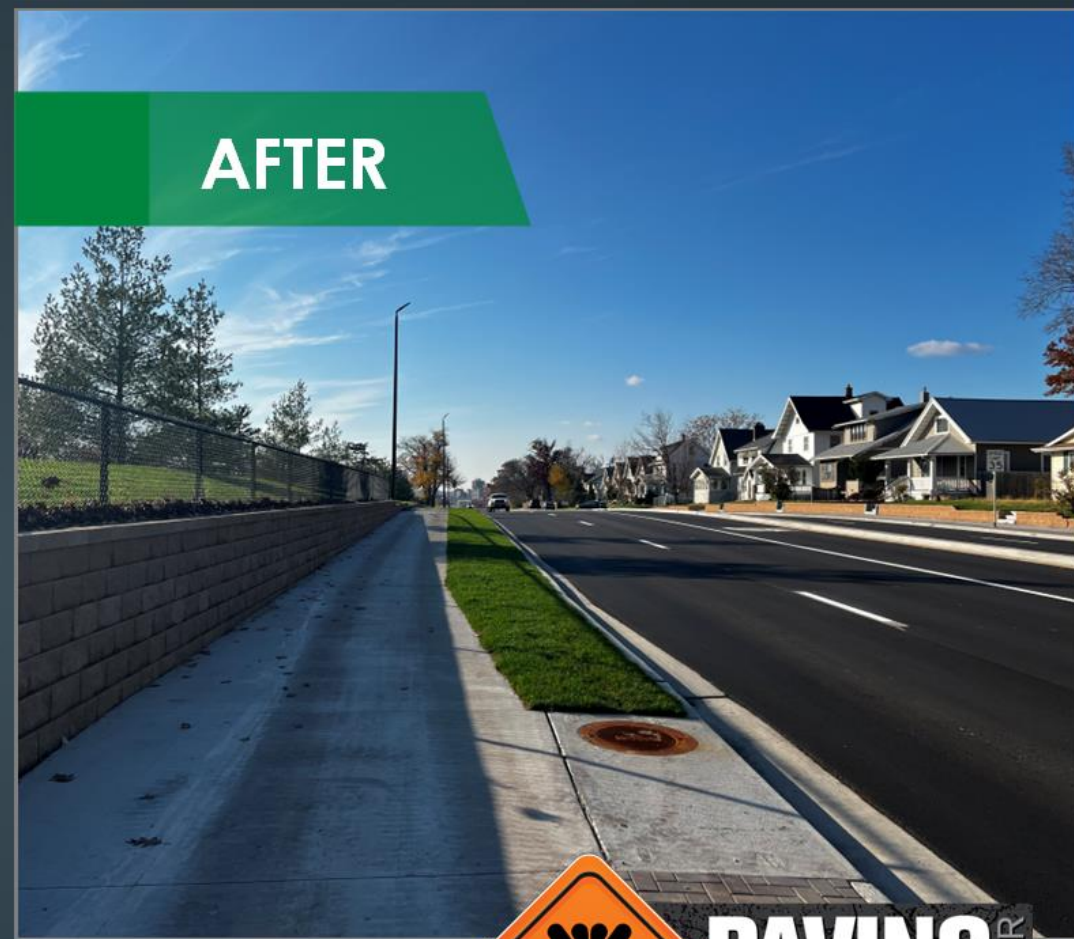


**PAVING** FOR  
**PROGRESS**



**BEFORE**

**AFTER**



Mt Vernon Rd from 14th St to 20th St



**PAVING** FOR  
**PROGRESS**



**BEFORE**

**AFTER**

"I love the improvements made to Mt. Vernon Rd from 14th - 20th Streets. I pass that way almost every day, and this project has made driving that route so much better. Worth the wait. Thank you!"

**JADE HART**  
CEDAR RAPIDS RESIDENT

**Mt Vernon Rd from 14th St to 20th St**



# SUDAS and the SUDAS Supplement

- **Iowa Statewide Urban Design and Specifications (SUDAS)**
  - Iowa State University – [Design](#) and [Specifications](#)
  - Adopted by Cedar Rapids in 2019 – (previously Metro Specs)
- **General Supplement to SUDAS Design and Specifications**
  - Located on the [City of Cedar Rapids \(public facing\) website](#)
  - Cedar Rapids specific needs that aren't addressed in SUDAS
  - Collaboration with Iowa SUDAS committee for annual updates



# SUDAS and its Supplements

- City Project Manager's responsibility to review, learn, and apply to projects
- Communicate expectations to Design Consultants
  - Contracted as part of PSA
  - Identify gaps, redundancies, areas for improvement
- Engage with the SUDAS Committee



## PUBLIC WORKS

[Public Works](#)

[Meet the Director](#)

[Accreditation](#)

[Projects](#)



[Engineering & Construction](#)



[Real Estate](#)



[Sanitary Sewer & Storm  
Sewer Maintenance](#)



[Stormwater Program](#)



[Street Maintenance](#)



[Traffic Engineering](#)



[Flood Control System](#)



[Doing Business](#)



## SUDAS

The City of Cedar Rapids adopted SUDAS (Statewide Urban Design and Specifications), effective January 1, 2019. SUDAS and the Cedar Rapids Supplemental Documents will be followed by City staff as well as professional design and construction staff who work on City projects. The General Supplements are typically revised once per year, usually in December. When the City of Cedar Rapids makes changes to the General Supplements, the updated versions can be found on the pages linked below, along with a summary of the changes made with the latest revisions. Previous editions of the General Supplements can also be found on those pages. For questions or to provide feedback, please email [SUDAS@cedar-rapids.org](mailto:SUDAS@cedar-rapids.org).

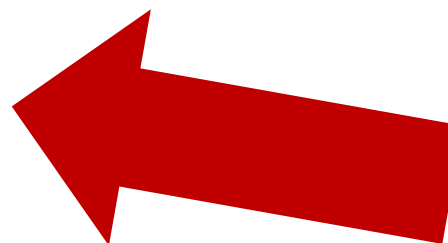
### Cedar Rapids Supplement Documents:

The current version of the Cedar Rapids Supplement Documents are the 2025 Editions.

- [General Supplement to SUDAS Design Manual](#)
- [General Supplement to SUDAS Standard Specifications](#)

### Iowa SUDAS Standards:

- [Design Manual](#)
- [Standard Specifications Manual](#)



# CR 2025 SUDAS Supplement Highlights

- Cold Weather Protection of PCC
  - CR Supplement allows a lower air temperature, but lays out additional requirements such as removing subgrade protect “just prior” to paving, 48-hr forecasted lows, etc.
- Added a detail for mounting signs in brick pavers
- Revised detail for RRFB’s – New sign and LED Pedestrian Activation Indication

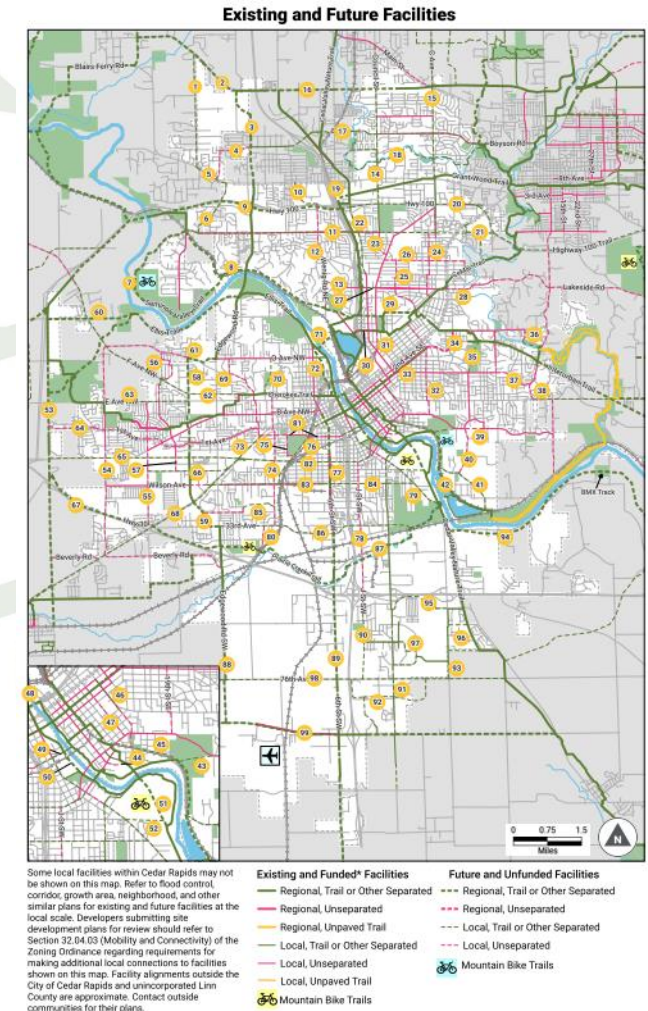


R10-25 Sign  
*iNX Crosswalk  
Button Station*



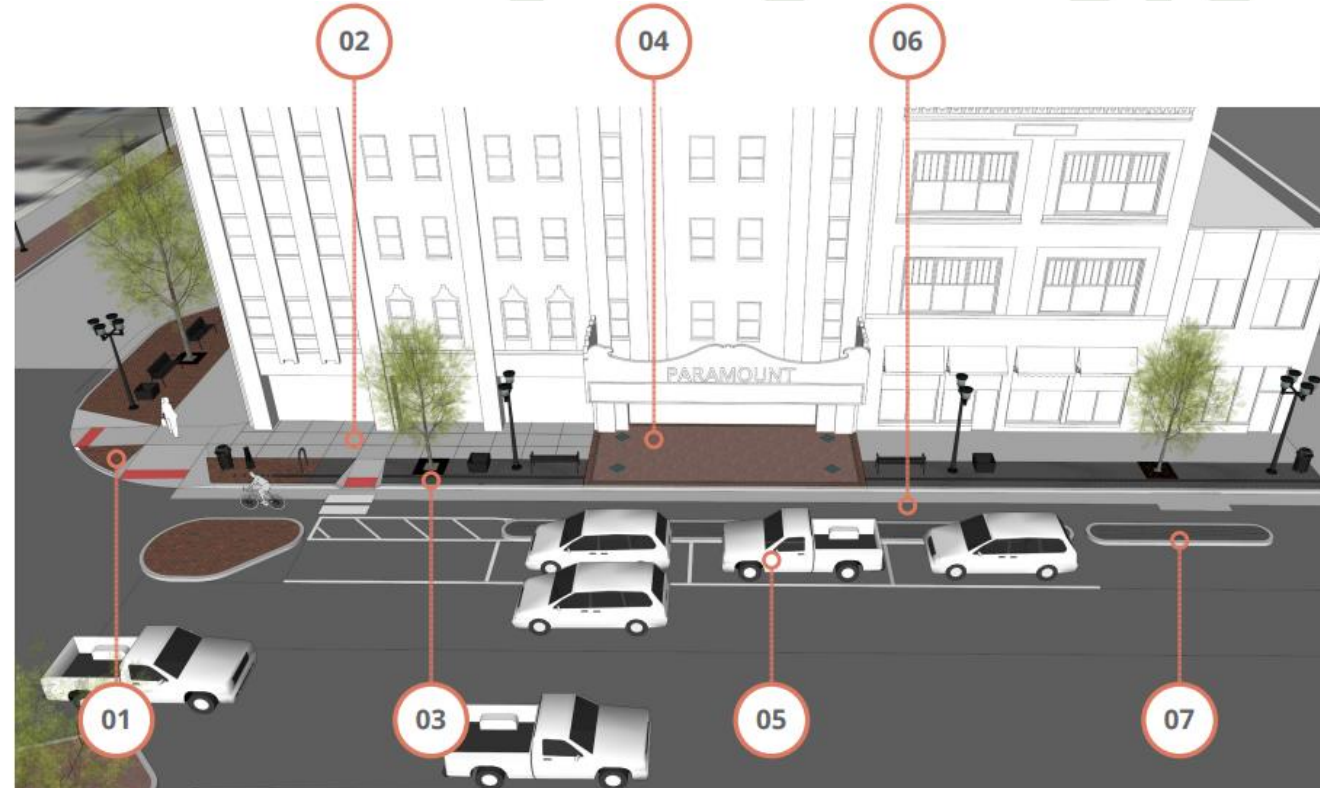
# CR 2025 SUDAS Supplement Highlights

- 6 ft minimum sidewalk widths along Minor/Major Arterial roadways and along designated 'bikeways' per Linn County and Cedar Rapids Trails and Bikeways Plan (adoption expected this summer)



# Future Supplement

- Incorporation of certain elements of the Cedar Rapids ROW Planning and Specifications Manual (2020) into SUDAS Supplement
- Replacement of entire SUDAS Design Chapter 13 – Traffic Control with City Supplement



TYPICAL DOWNTOWN STREETSCAPE TREATMENT

- 01 Red pavers at corners and high activity areas
- 02 Pedestrian through zone - standard PCC
- 03 Amenity zone - concrete pavers per downtown standard
- 04 "Door Mat" permitted for eligible buildings\*

- 05 Parallel parking set outside of protected bike lane
- 06 Protected bike lanes preferred adjacent to sidewalk
- 07 Protective medians furnished with pavers

\*See note on Pg. 83



Questions, Comments, or Ideas:

SUDAS@cedar-rapids.org

Presented by:

Doug Wilson, PE  
*Paving for Progress Program Manager*  
[D.Wilson@cedar-rapids.org](mailto:D.Wilson@cedar-rapids.org)  
319-286-5141





# Sewer Utilities, CIP and PDMM

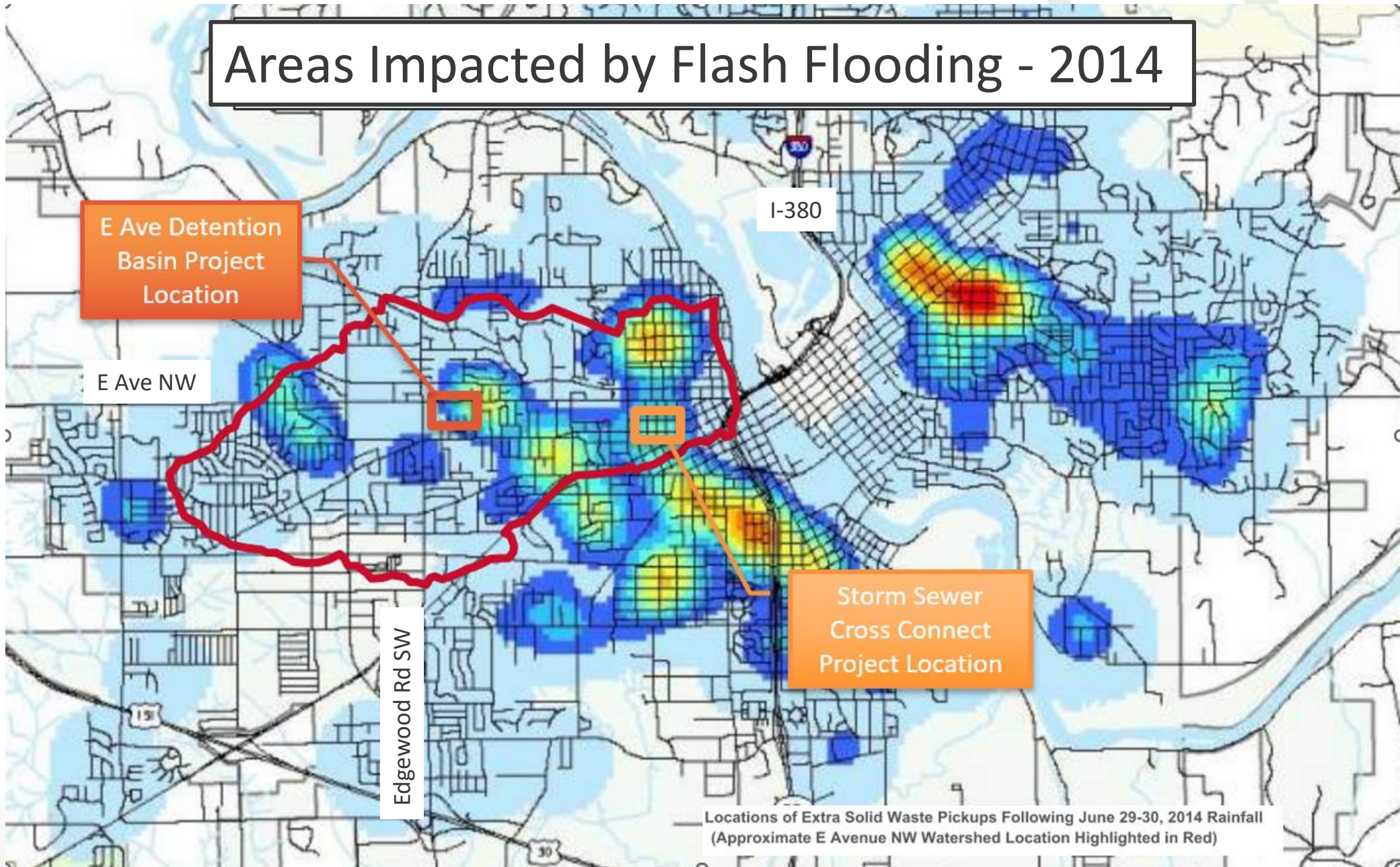
5/5/2025

# Major Sewer Projects Bidding 2025

- E Ave NW Detention Basin Expansion (February)
- 10th St NW Box Culvert – B Ave to D Ave (March)
- 2025 Detention Basin Maintenance (March)
- South Hoosier Lift Station Improvements (May)
- Sanitary Sewer Ext. from Old Bridge Rd SW to 76th Ave (June)
- 8th Ave SW Box Culvert Replacement E/o Rockford Rd (August)



# Areas Impacted by Flash Flooding - 2014



Locations of Extra Solid Waste Pickups Following June 29-30, 2014 Rainfall  
(Approximate E Avenue NW Watershed Location Highlighted in Red)

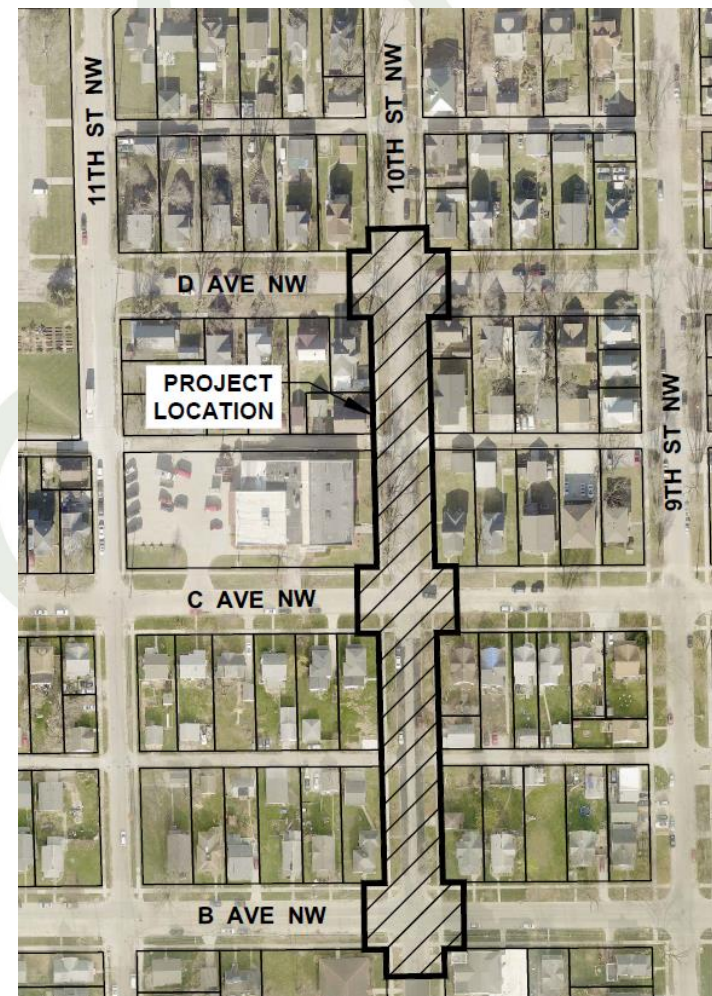


# E Ave NW Detention Basin Expansion



# 10th St NW Box Culvert

- Connection of existing box culverts at B and D Ave NW
- Reduce flash flooding by utilizing remaining capacity in D Ave culvert



# Rockford Rd Detention

- Finalizing acquisition negotiations with owner of property at 1820 Rockford Rd SW



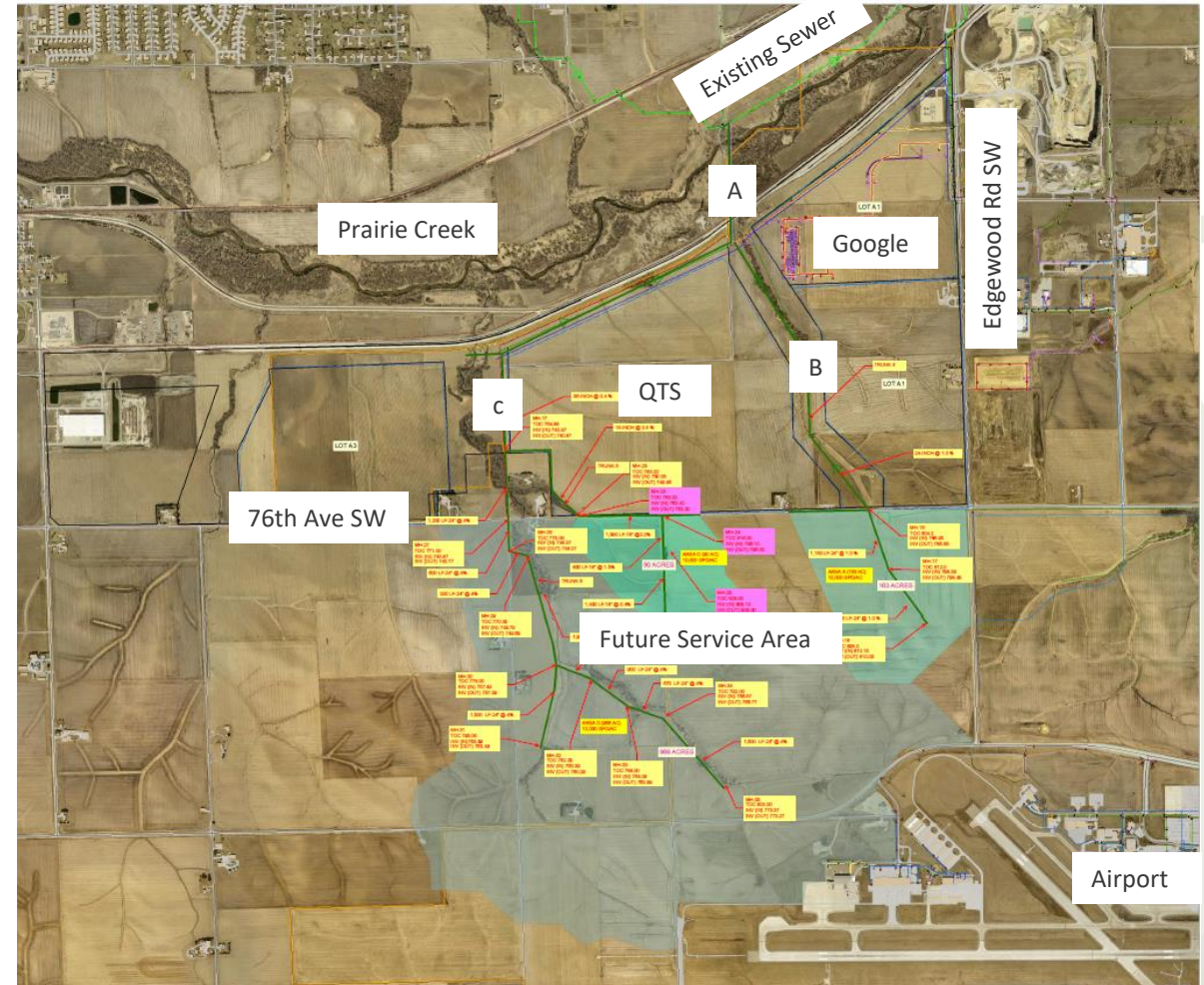
# Snap-On Culvert Lining

- Piloting at two locations with deteriorated culverts
- Reduced cost and traffic impacts compared to culvert replacement
- Increases capacity of the culvert due to smoothness compared to existing CMP



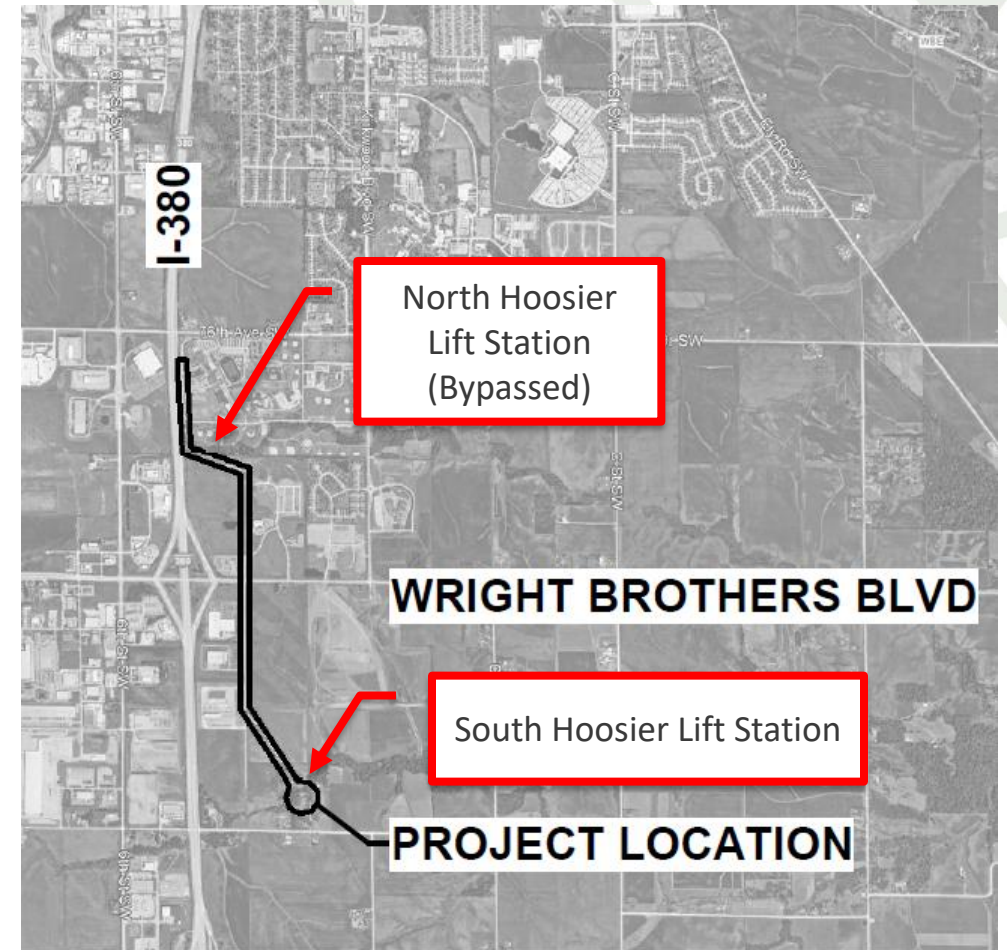
# Big Cedar Industrial Center/CID SuperPark

- **Segment A:** City project to extend 36" sanitary sewer across Prairie Creek (completed 2025)
- **Segment B:** City project to extend 24" sewer through Google site to 76th Ave
- **Segment C:** QTS to extend 36" sewer through their site to 76th Ave
- Watermain also extended to site.
- Google datacenter minimum \$576 million
- QTS datacenters minimum \$750 million
- Both developments set new records for economic development investments in Cedar Rapids!



# South Hoosier Lift Station Improvements

- Replacement of existing lift station with new lift station, Approximately 6 MGD firm capacity
- Three pumps with space for fourth future pump
- New 14-inch HDPE forcemain will be extended past the North Hoosier Lift Station which is currently at capacity
- New electrical and control building





# Stormwater Master Plan Updates

- Prairie Creek and Morgan Creek model/plans finished this year  
(No Tier 1 projects)
- City-wide model updates
- Underground Storage Study
- Community Rating System (National Flood Insurance Program)
- McCloud Run Fish-Kill Study (Facilitated by Utilities Dept.)



# Storm Sewer Cleaning and Inspections

- Goal is to clean and inspect all storm sewers on a 10 to 15-year cycle
- All sewers jetted and vacuumed before televising
- Pilot program in Kenwood Watershed

<u>Total Cleanings</u>	<u>2537</u>	
Clear	660	26%
Light	1308	52%
Medium	412	16%
Heavy/Full	157	6%

*\*About 600 pipes cleaned before we began keeping records of sedimentation level*



# Storm Sewer Cleaning and Inspections

## Goals:

- Restore capacity of storm sewers
- Identify failing pipes
- Discovery of illicit discharges, cross-bores, etc.
- Improve water quality



*Utility cross-bores limit capacity of sewers and trap debris that causes blockages*



# Storm Sewer Cleaning and Inspections



*Geothermal system at Franklin Middle School –  
Valve left open leading to constant discharge*



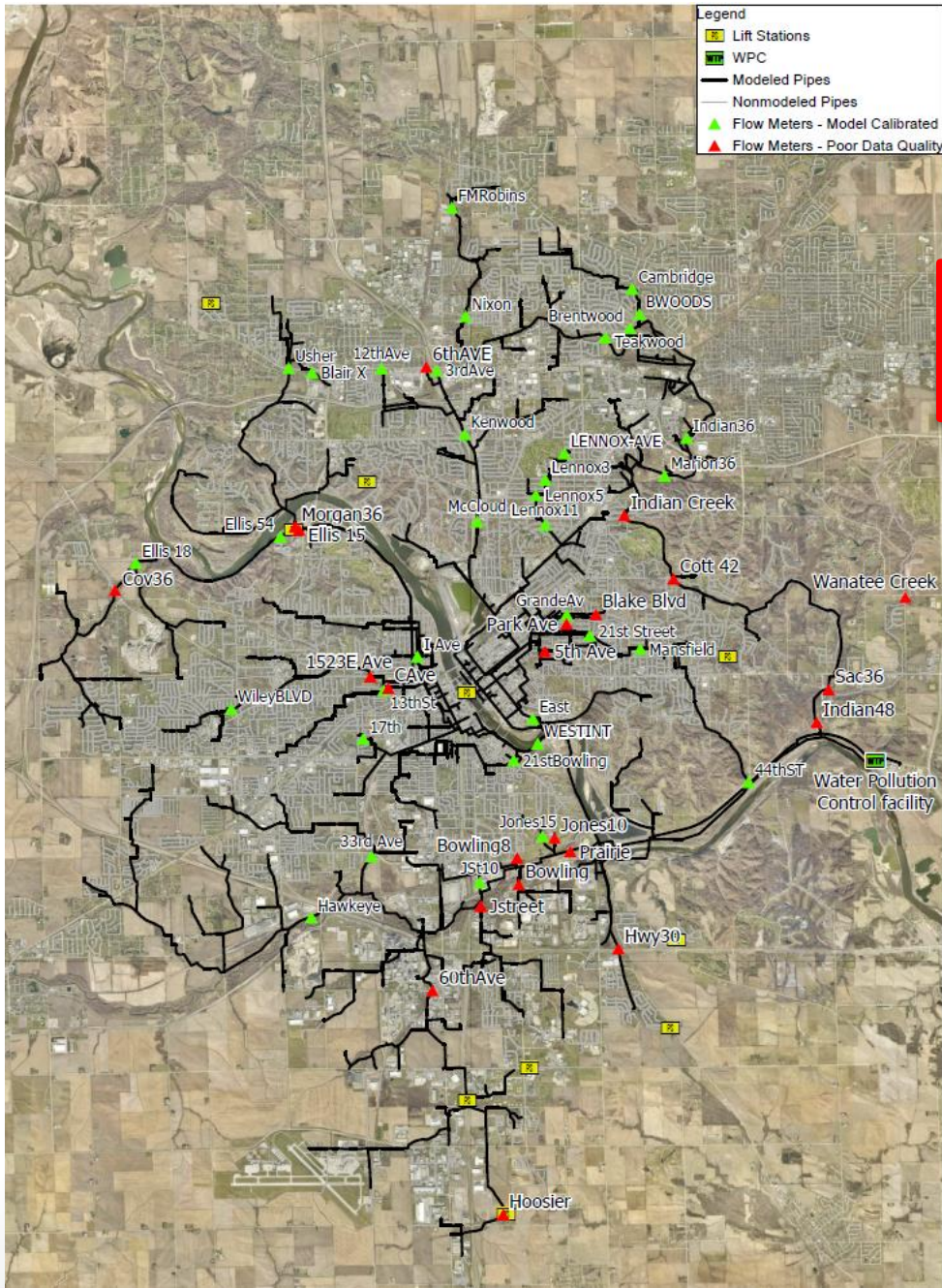
*Soap bubbles led to the discovery of laundry  
facility discharge from Coe College*



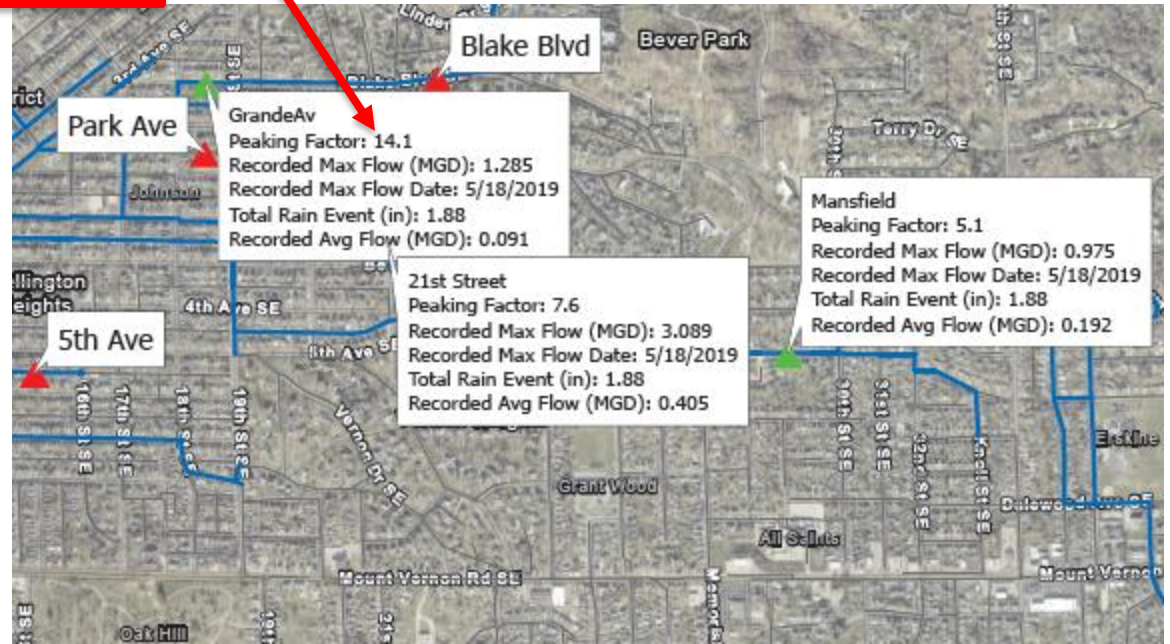
# Sanitary Master Plan Updates

- City-wide model updates
- Growth area cost-to-serve and FCS Group study
  - Emphasis on commercial/industrial development in South and Southwest Growth Areas
- Forcemain and siphon condition assessment
  - (Four forcemain breaks in 2024)
- I&I reduction, peaking factor mapping



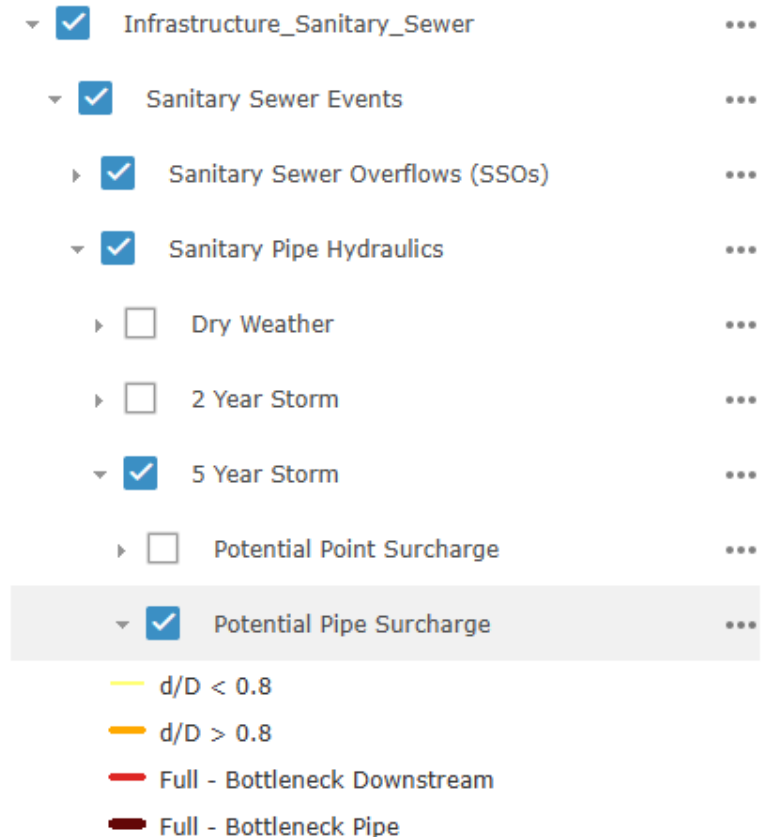


Grand Ave SE  
Peaking  
Factor 14.1



# Misc. Sewer Reminders

- Make sure structures and pipes are inspected during project scoping phase
- If there are any bottlenecks in your project limits – discuss with your PM
- Not all storm items will be covered under 304 – discuss with your PM
- Ensure drainage is provided through all phases of construction



*Hydraulic maps are available in Infrastructure Viewer for storm and sanitary sewer – Be sure to select the right storm event!*



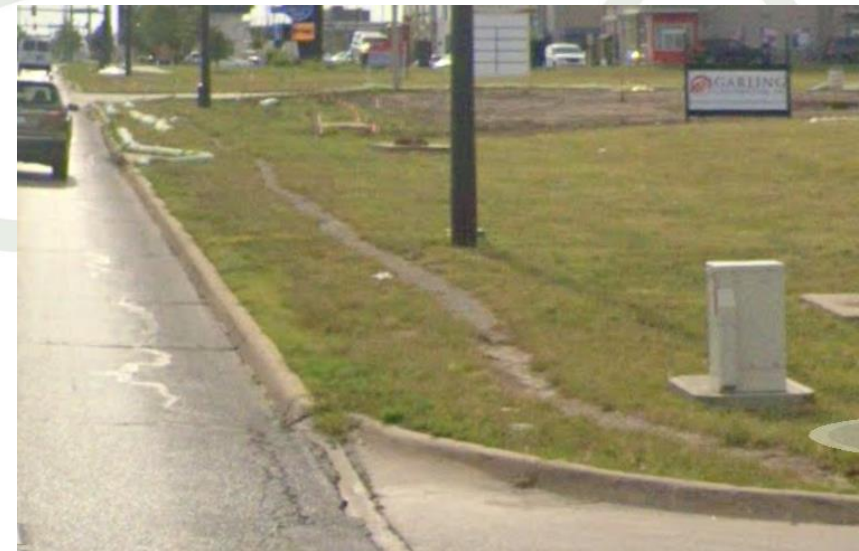
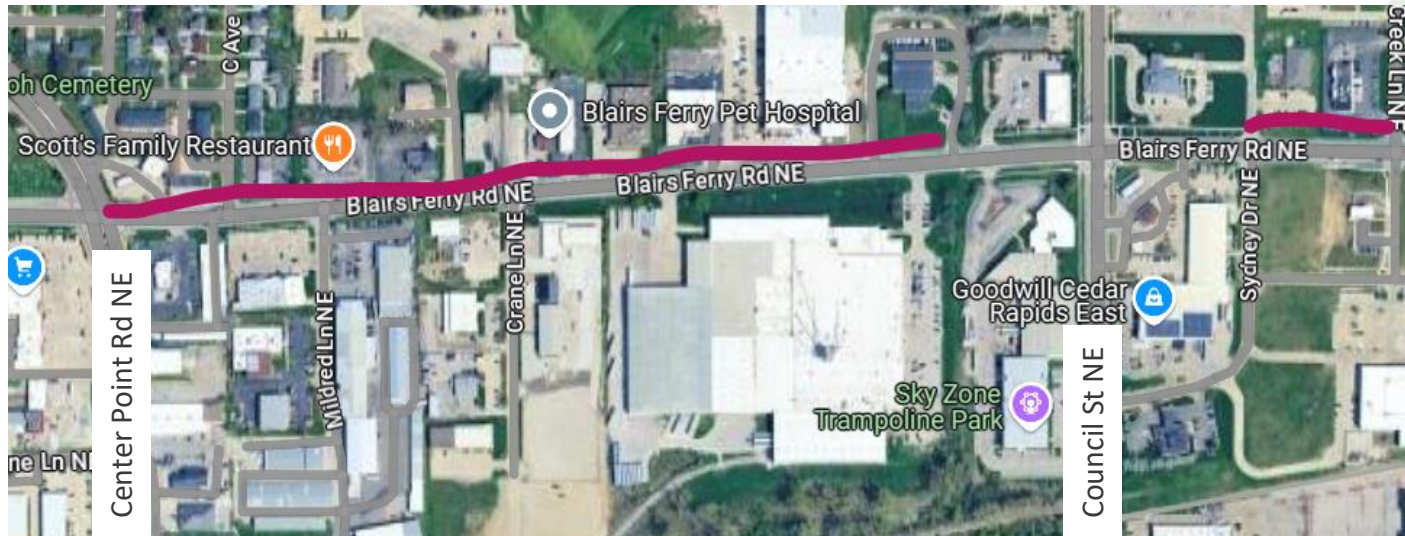
# Major CIP Projects - Bidding in 2025

- 2025 Transit Stop Improvements – 11+ locations (April)
- FY 2025 Bridge Maintenance – J St SW and 3rd Ave (April)
- Walford Rd SW from 6th St SW to 1,350 ft West (April)
- Blairs Ferry Rd NE Sidewalk Infill (reduced scope) – North Towne Pl to Sammi Dr (May)
- 2025 Curb Ramp Repairs – 103 ramps across 26 locations (May)
- Edgewood Rd Trail Phase 3 – Glass Rd to Towne Centre Way (July)
- 4th St Trail Segment 1 – 7th Ave SE to Cedar River Bridge (August)
- Cedar Lake Amenities Package 2



# Blairs Ferry Rd NE Sidewalk Infill

- Scope of work reduced to match available budget
- Most responses for “Route I’d like to walk” on previous pedestrian master plan
- This package includes maroon locations if funding allows

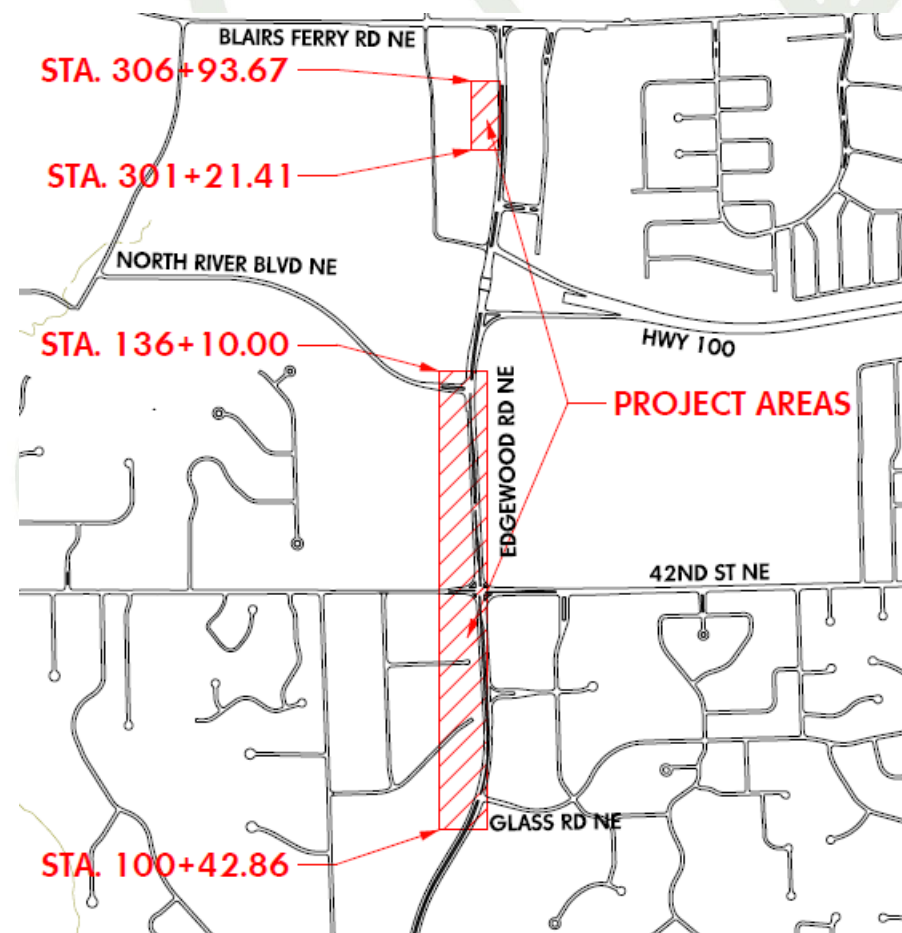


*Beaten path on Blairs Ferry Rd NE east of Sydney Dr NE*



# Edgewood Rd Trail Phase 3

- Extension of 10 ft trail along Edgewood Rd NE
- Funding from Transportation Alternatives Program
- Will provide trail connection from Blairs Ferry Rd down Edgewood Rd across the Cedar River and beyond



# 4th St Trail Segment 1

- Off-street trail from 7th Ave SE to 10th St SE
- Will provide connection to LightLine Loop
- Funding
  - STBG Grant (\$1.4 million)
  - The Wellmark Foundation (\$100k)
  - Linn Co. Trails Association (\$100k)
  - City General Obligation Bonds



# Pedestrian Master Plan

- Update in progress – City staff (CIP, IT, and others), consultant, and cooperation with IDOT
- Refresh of data, incorporating pedestrian crash data
- Incorporation of community feedback (one of 17 categories to map demand)
- Identify projects and design methodologies that improve safety and connectivity
  - Crosswalk visibility enhancements
  - Signal timing/signage
  - Medians and pedestrian refuges
  - Road diets
  - Walkways such as sidewalks/shoulders



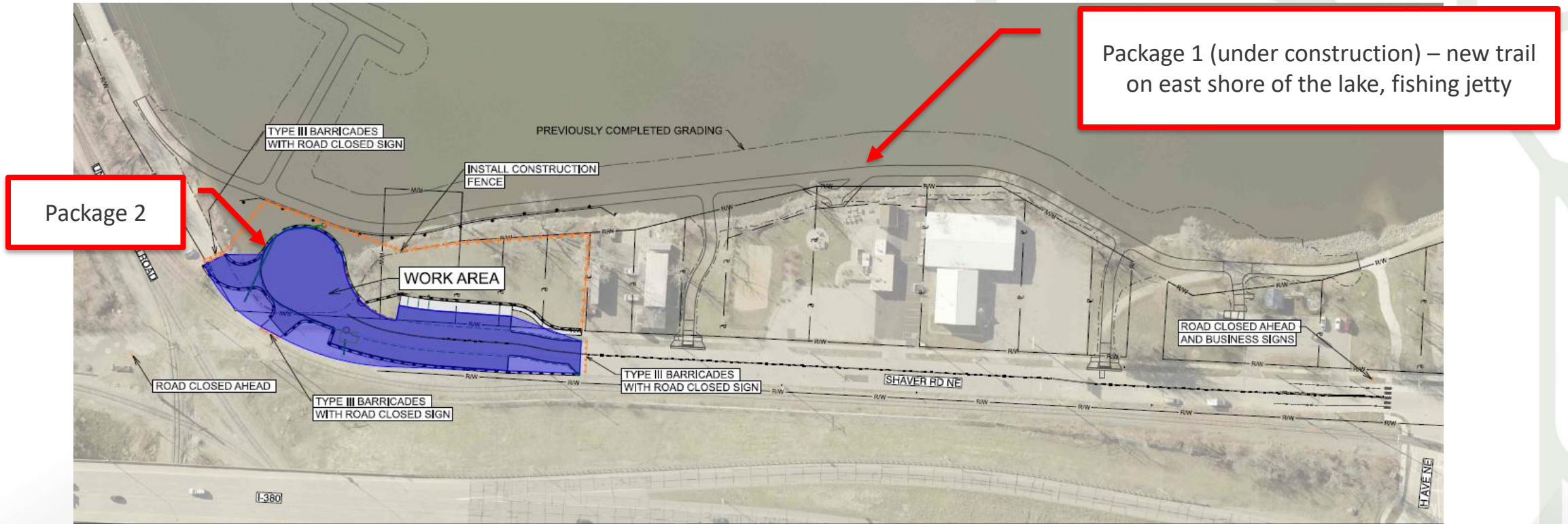
# Pedestrian Master Plan – Preliminary Stats

- For **70%** of crashes, the pedestrian was "Entering or Crossing Roadway"; **49%** were 'In Crosswalk' (intersection or mid-block) and only **10%** of crashes were "Along Roadway"
- **53%** of all fatal and severe injuries (FSI) occurred on roadways with >10,000 AADT.
- Majority of crashes occurred during daylight hours, with **86%** in dry conditions



# Cedar Lake Amenities Package 2

- ConnectCR project to construct parking and cul-de-sac at Shaver Rd NE



# Alliant Energy LightLine Bridge



WSP CONFLUENCE Shoemaker  
Hoaland



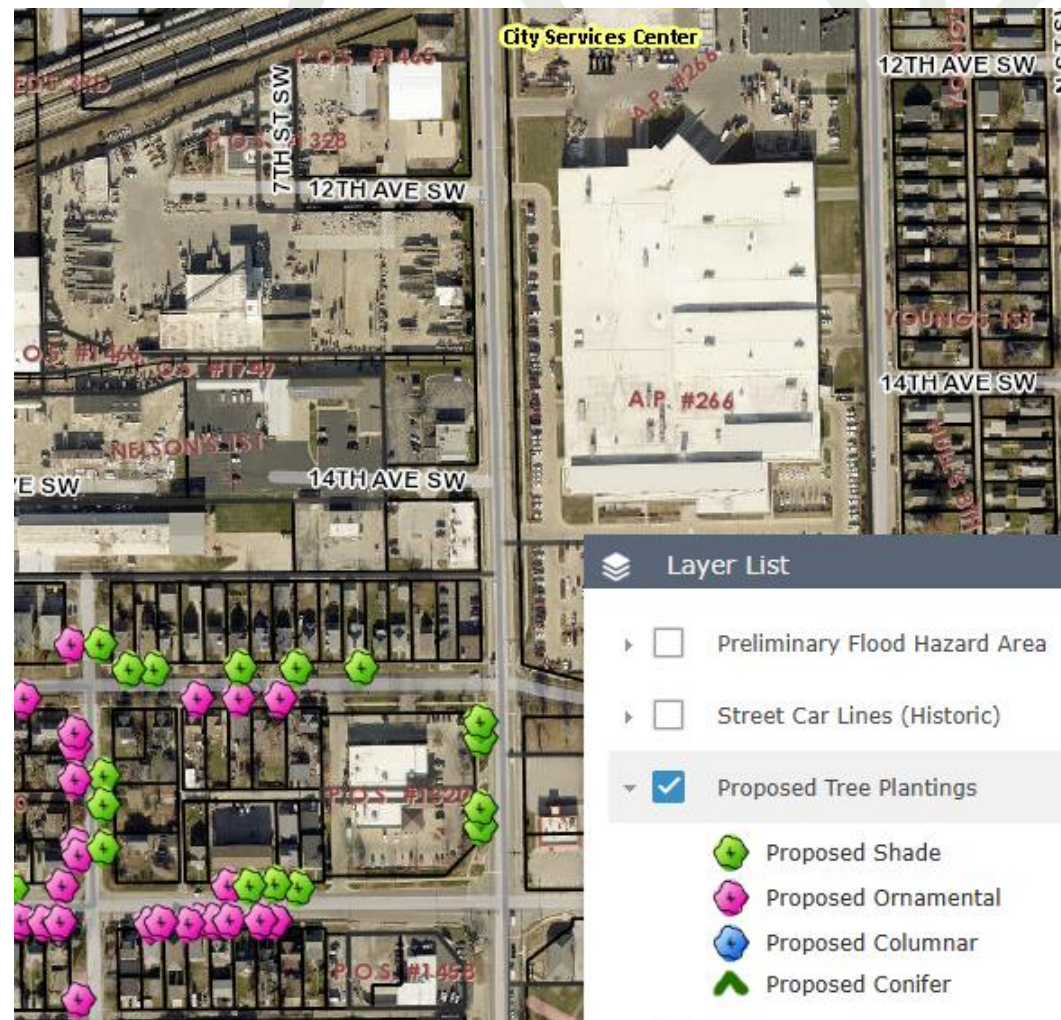
# PDMM – New Updates

- Public Relations SOP
  - Pre-design Public Information Meetings (explain need for project)
  - Meeting with impacted businesses individually
  - Social media campaigns to help support impacted businesses
  - Public facing construction map and project webpages
  - Review of Linn County Community Services Map for stakeholder identification
  - Translation services/translated websites



# PDMM – New Updates

- CIP Statement Form – Check of “Proposed Tree Plantings” layer in GIS
- Elimination of plan review comment tabs in PDG
- Plan reviews through Bluebeam, consultant led (currently piloting)



# PDMM – New Updates

- Design walk-throughs with construction and operations staff
- Changing name of “Final” plans to “Check” plans
  - Check plans are the first submission that is 100% complete. Comments are incorporated into the Print plans. In some cases, multiple rounds of Check plans may be needed.
- Instructions to Bidders – IonWave is now the only option for bidders to submit questions (not fax, email, phone, mail, etc.)



# PDMM - Acquisitions

- In-house staff
  - Vacancies, remaining staff primarily working on Flood Control System projects
- On-call acquisition services
  - Contracts expire in September
- Design consultants
  - Submit qualifications in annual SOQ



# PDMM – Need For Follow-Thru

- Immediate Needs forms followed up promptly with amendment
- Post-design AND post-construction consultant evaluations
  - Currently only doing “post-design” reviews after construction, if any review occurs at all
  - Average scores for each consultant reviewed at the time of project selection



# Thank You

Presented by:

**Ben Worrell, PE**

*Sewer Utilities Program Manager*

[b.worrell@cedar-rapids.org](mailto:b.worrell@cedar-rapids.org)

319-286-5745





## Development & Floodplain in Cedar Rapids



# Floodplain info for Cedar Rapids

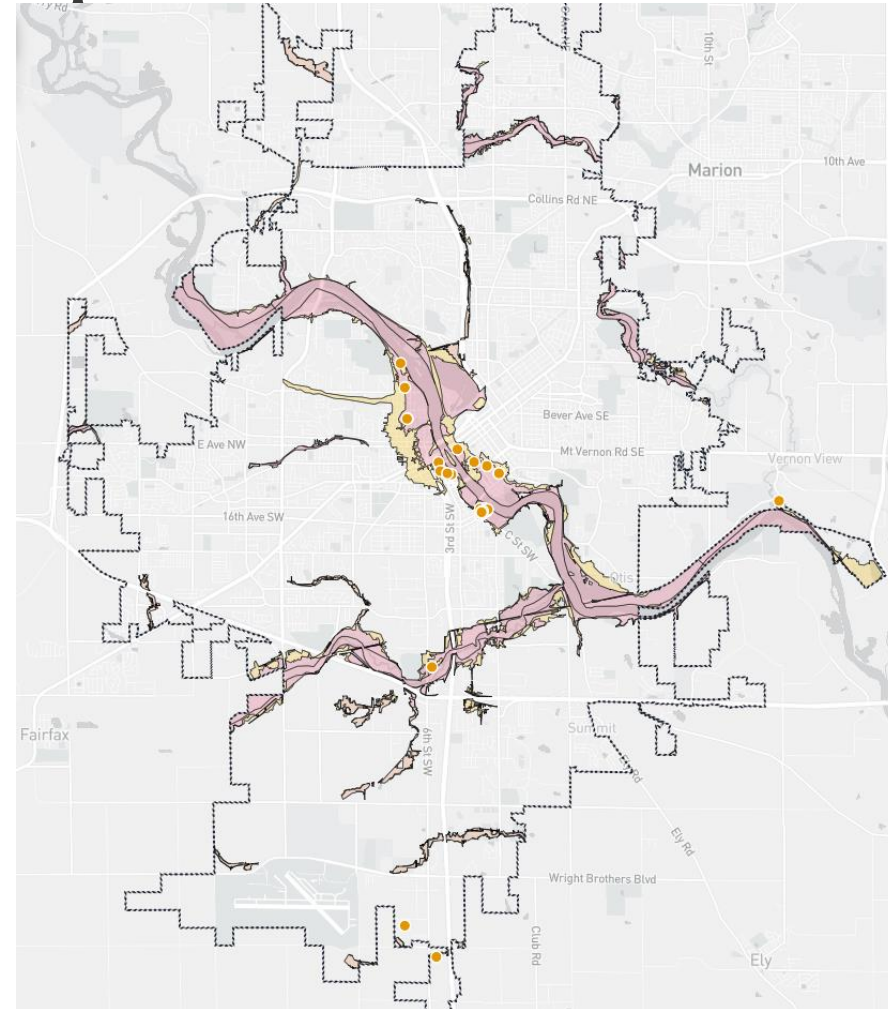
- ~4700 acres of floodplain area
- ~1000 flood insurance policies within city limits (owner and tenant policies)
- 14 repetitive loss areas



# Why we adopt floodplain maps & ordinance requirements

- Participation in the National Flood Insurance Program (NFIP)
- Continue to qualify for disaster recovery aid
- Improved protection of properties
- Reduced risk to residents
- Reduced flood insurance costs

<https://www.floodsmart.gov/costOfFlooding/index.html>



# What requires a permit?

- Federal and local code state that any development in the mapped floodplain requires a Floodplain permit be approved prior to other permits or initiating work.
- What is Development?
  - *Development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials. (44 CFR 59.1)*
- Limited exemptions exist but must be reviewed by Administrator
  - Routine maintenance to structures in narrow cases
  - Projects valued at less than \$500 (materials and labor) are minor projects
  - Gardening activities, lawncare not altering grade, etc.



# Development Examples

New Construction



Substantial Improvement



Encroachments/Infrastructure/grading



Alteration/Restoration Projects



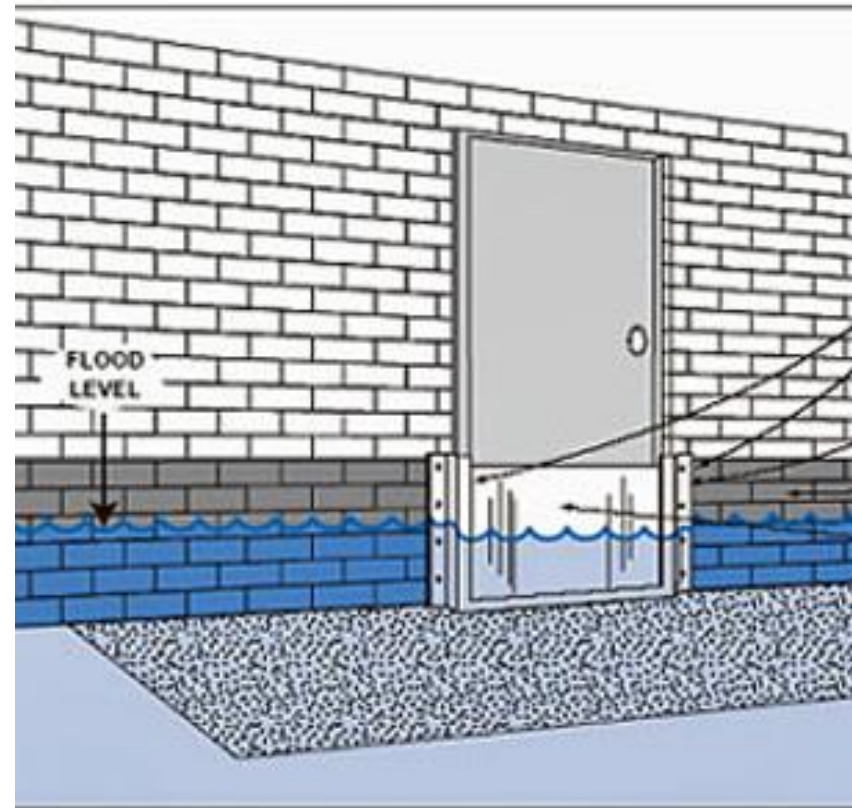
# Residential Specific Rules

- Must be elevated for new or substantial improvement
- Foundations must be designed by an engineer in compliance with ASCE 24
- structures elevated on Fill must have grading/fill designed by an engineer, and extend 5ft out at the elevation height
- Don't forget about the detached garages!



# Non-Residential Specific Rules

- Must be elevated or dry floodproofed for new or substantial improvement
- Retrofitting is possible for existing, but requires careful review of the building by a Structural Engineer
- Watch out for basements



# Non-Residential Specific Rules

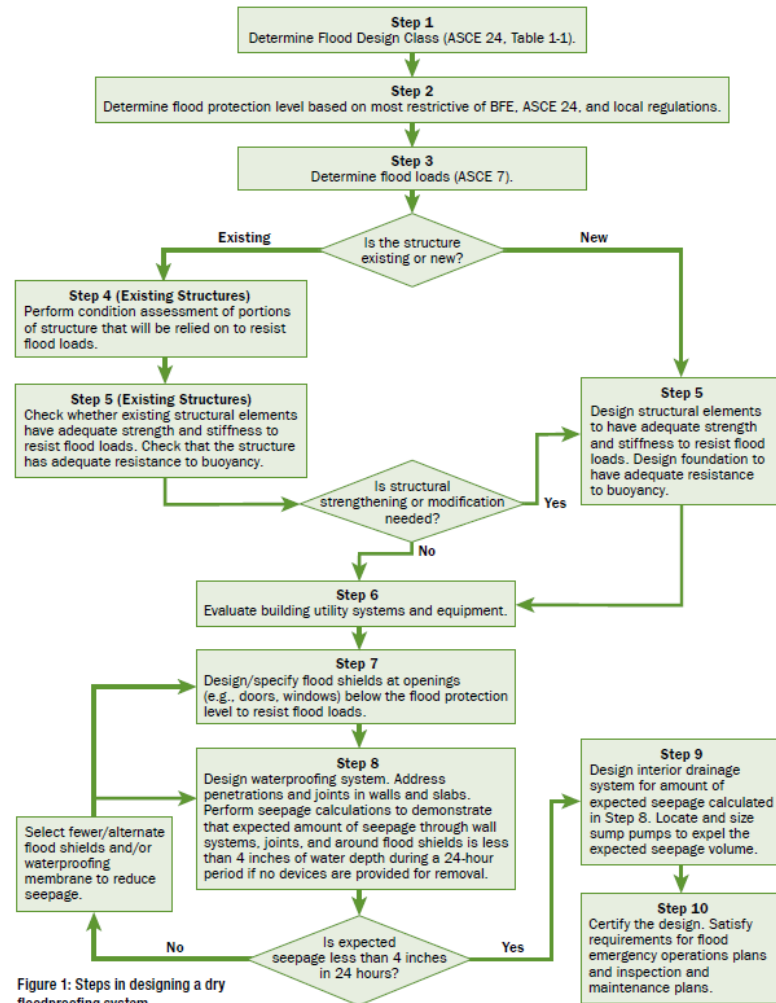


Figure 1: Steps in designing a dry floodproofing system



# Non-Residential Specific Rules Floodproofing Certificates

## What's needed: Main document

- Property Information
- Flood Insurance Rate Map information
- Details on Dry Floodproofing design certification
- Final As-Built Certification

DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program		OMB Control No. 1660-0008 Expiration Date: 06/30/2026
<b>DRY FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES</b>		
<b>PAPERWORK BURDEN DISCLOSURE NOTICE</b>		
Public reporting burden for this data collection is estimated to average 3.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). <b>NOTE: Do not send your completed form to this address.</b>		
<b>General:</b> This information is provided pursuant to Public Law 96-511 (the Paperwork Reduction Act of 1980, as amended), dated December 11, 1980, to allow the public to participate more fully and meaningfully in the Federal paperwork review process.		
<b>Authority:</b> Public Law 96-511, amended; 44 U.S.C. 3507; and 5 CFR 1320.		
<b>PRIVACY ACT STATEMENT</b>		
<b>Authority:</b> Title 44 CFR § 60.3, 61.7 and 61.8.		
<b>Principal Purpose(s):</b> This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.		
<b>Routine Use(s):</b> The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/ FEMA-003 – National Flood Insurance Program Files System or Records Notice 79 Fed. Reg. 28747 (May 19, 2014), and upon written request, written consent, by agreement, or as required by law.		
<b>Disclosure:</b> The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or being subject to higher premium rates for flood insurance. Information will only be released as permitted by law.		
<b>PURPOSE OF THE DRY FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES</b>		
Under the National Flood Insurance Program (NFIP), the dry floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation (BFE) or for certain flood zones, the natural Highest Adjacent Grade (HAG). A dry floodproofing design certification is required for non-residential structures that are dry floodproofed and the dry floodproofed non-residential portions of mixed-use buildings. This form is to be used for that certification. FEMA Form 206-FY-21-122 NFIP Residential Basement Floodproofing Certificate is required for the residential portions of mixed-use buildings.		
A dry floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Before a dry floodproofed building is designed, numerous planning considerations, including flood warning time, uses of the building, mode of entry to and exit from the building and the site in general, floodwater velocities, flood depths, debris impact potential, flood frequency, and any other State and local requirements must be addressed to ensure that dry floodproofing will be a viable floodplain management measure.		
The minimum NFIP requirement is to dry floodproof a building to the BFE. However, to be in compliance with the requirements of American Society of Civil Engineers (ASCE) 24, <i>Flood Resistant Design and Construction</i> , one foot is subtracted from the dry floodproofed elevation. Therefore, a building must be dry floodproofed to one foot above the BFE to be considered for floodproofing with FEMA Form 206-FY-21-122. For dry floodproofing, the building's dry floodproofed design elevation must be at least two feet above the actual		



# Non-Residential Specific Rules Floodproofing Certificates

## What's needed: Photographs

- photos of all sides/aspects of the building
- Photos of all components used to provide dry floodproofing
- Photos of installed barriers/shields and clear photos of opening areas where they need to be deployed
- Photos of penetration through dry floodproofed areas for utilities



# Non-Residential Specific Rules Floodproofing Certificates

## What's needed: Comprehensive Flood Emergency Operations Plan

- Comprehensive list of personnel, equipment, tools and supplies needed to deploy protections within the flood warning time
- Clearly defined chain of command, assigned responsibilities, and contact information
- Procedure for notifying personnel responsible with list of duty requirements
- Decision tree that identifies sequence, timeline, and responsible parties including triggers to initiate the steps
- Written description and map of storage location of dry floodproofing materials and all applicable tools, materials, etc needed



# Project Highlights



# Resources

## City Resources

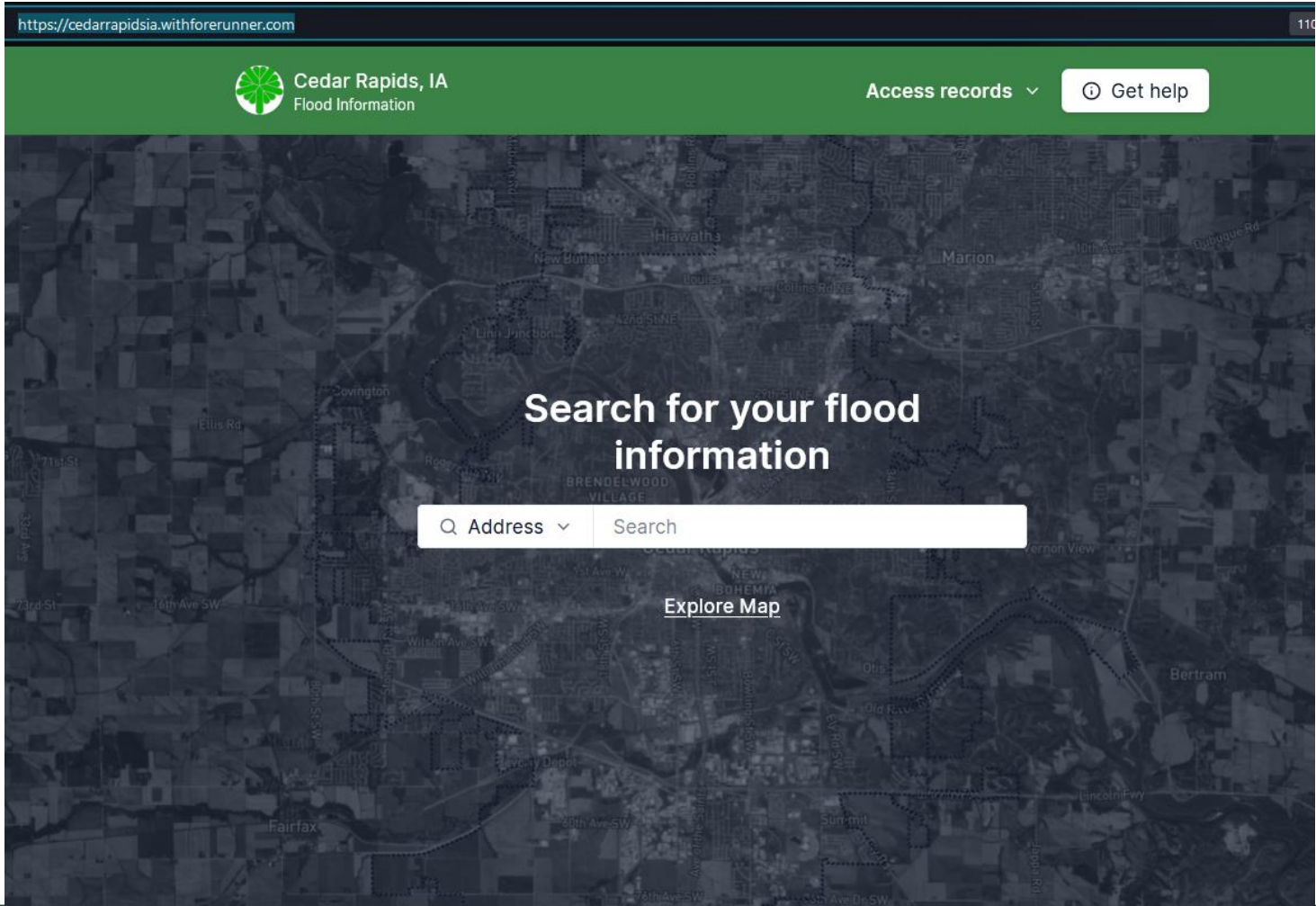
- Forerunner Flood data platform
  - Host as much files and data here
- City Infrastructure Viewer tool
- Physical Flood Maps and Flood Insurance Studies (available to view at CSC)
- Elevation Certs and Floodproofing Certs

## Other resources

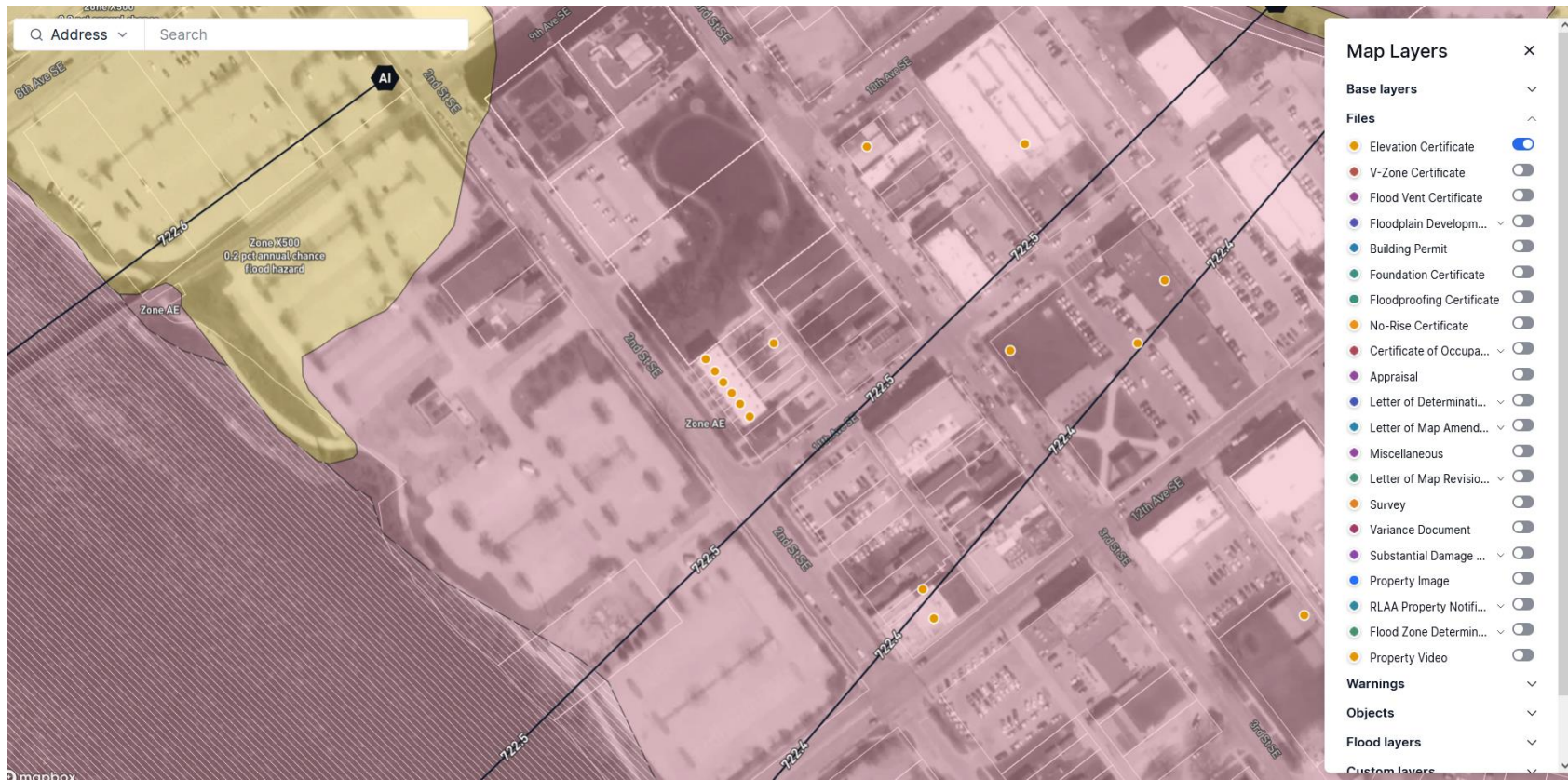
- FEMA Map Services Center
  - Flood studies
  - LOMC/LOMR/LOMA docs
  - Prelim maps (if in progress)
- FEMA Technical Bulletins
- ASCE 24-24
- Iowa DNR



# Cedar Rapids Forerunner Platform



# Cedar Rapids Forerunner Platform



# Cedar Rapids Forerunner Platform

- Flood Zone Information
  - Zones, RL areas, FIRM Panel info, etc.
- Uploaded files
  - Elevation Certs
  - Floodproofing Certs
  - Substantial Damage Determinations
  - And many more
- Substantial Improvement History
  - Permit history and valuation thresholds

Go to Cedar Rapids, IA's homepage Print page

mapbox Effective FIRM

1016 2nd St Se  
Cedar Rapids, IA 52401  
Parcel ID: 142818801900000

View on Google Streetview

Overview Records **Files**

Recent files

1/18/2016 Elevation Certificate  
1016 2nd St SE.pdf



# Questions?

Presented by:

**Mathew Langley**

*Floodplain Administrator*

[m.Langley@cedar-rapids.org](mailto:m.Langley@cedar-rapids.org)

319-286-5043



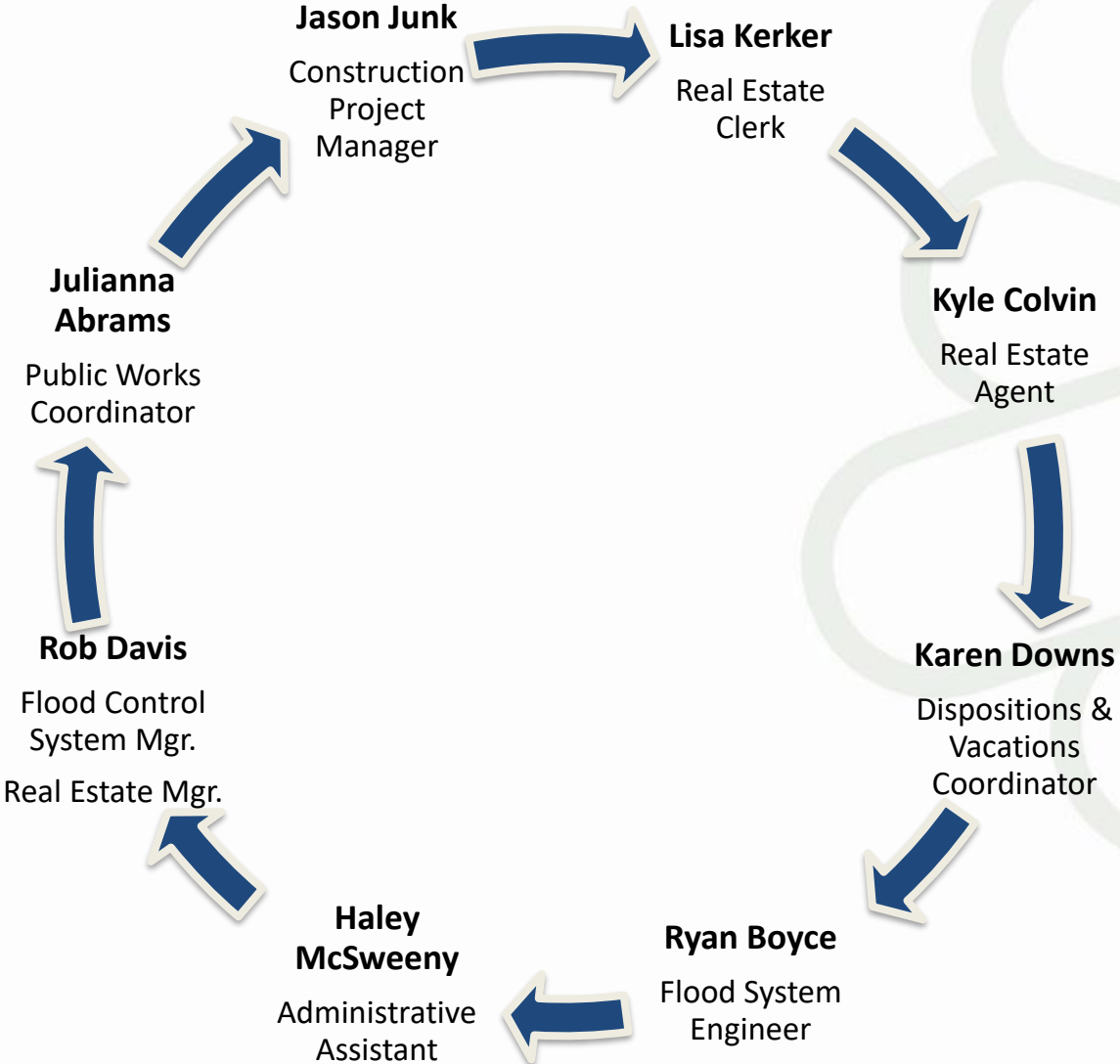
# Real Estate and Flood Control System

Annual Consultant Meeting



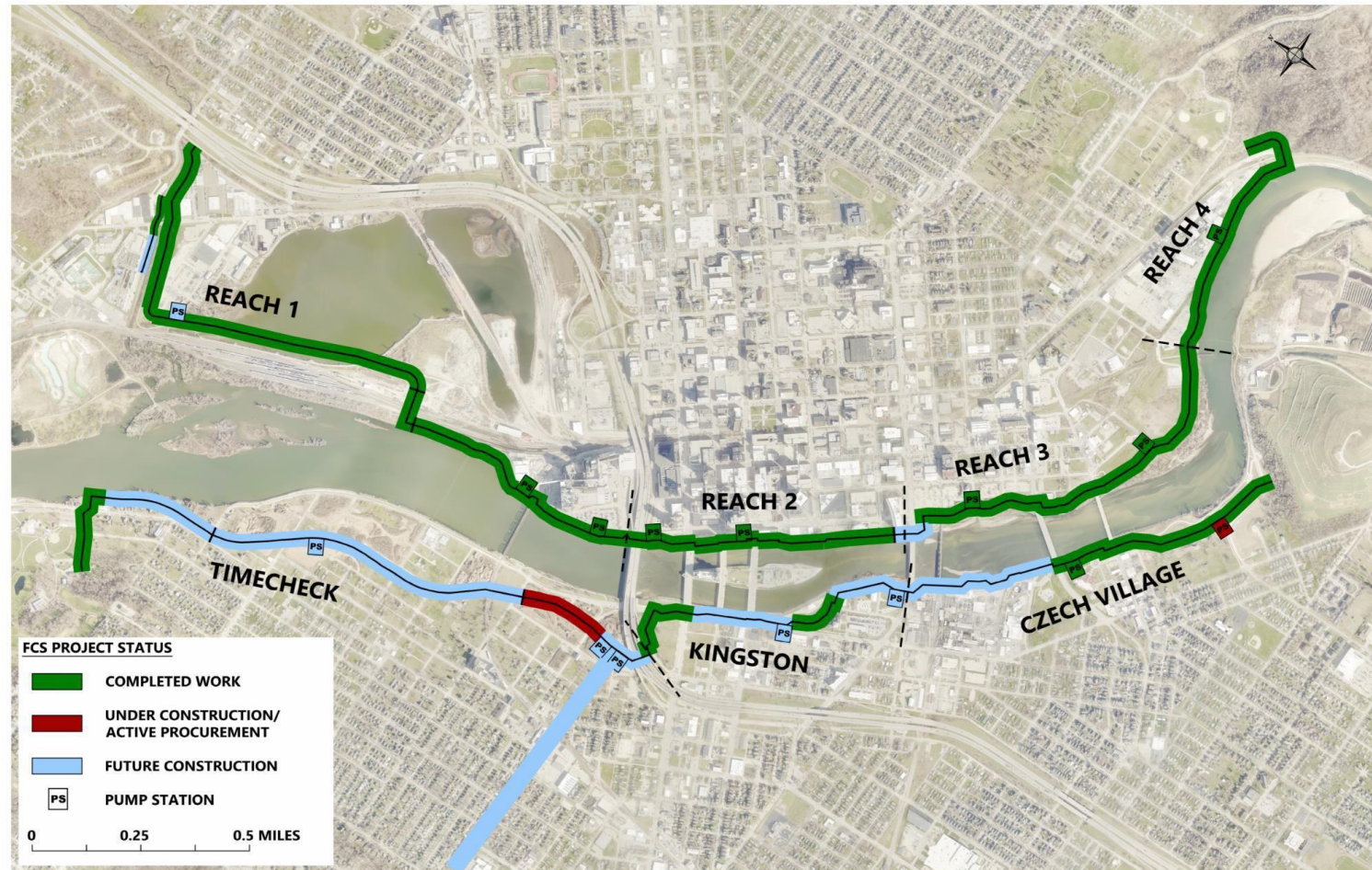
Presented by **Rob Davis, P.E., ENVSP**

# Flood Control System Team



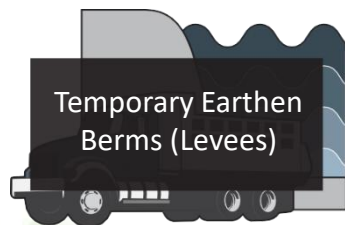
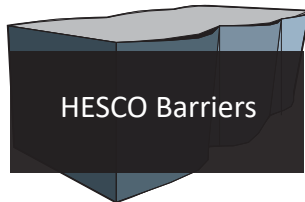
# 2024-2027 Floodments

Current FCS Completion Status: Approximately 30% complete



# Protection Plan through FCS

*More line of protection = More emergency flood response savings*



	2015	2025	2027
Manhole/ Intake Wells	300 Wells	200 Wells	100 Wells
Storm Sewer Plugs	45 Plugs	18 Plugs	10 Plugs
HESCO Barriers	24,700 units	14,300 units	6,500 units
Temporary Earthen Berms (Levees)	71,800 CY	21,800 CY	7,400 CY



# Current Projects

## **North Segment: Time Check & Cedar Lake Area**

Ellis Lane NW Levee (Phase 1) // 2024-2025

Cedar Valley Nature Trail Improvements // 2020-2025

Northwest Neighborhood Detention Basins // 2025-2026

## **Central Segment: Downtown & Kingston Village**

E and F Avenue NE Floodgates under 5-in-1 Dam // 2024-2025

Tree of Five Seasons Park // 2024-2026

City Hall Flood Control // 2026-2027

2<sup>nd</sup> Avenue SE Floodgate // 2024-2025

3<sup>rd</sup> Avenue to 8<sup>th</sup> Avenue Riverfront // 2025-2027

8<sup>th</sup> Avenue Bridge & Riverfront Improvements / 2027-2037



# Looking forward and beyond

- Iowa Flood Mitigation (IFM) Sales Tax Program thru FY35
- City plans to protect until completion of a permanent Flood Control System



# Upcoming Events and Highlights

## Ribbon Cutting Ceremonies in 2025

### 12<sup>th</sup> Avenue SW Pump Station, Floodwall and Closure

- East of Czech Village
- Capacity anticipated to be over 100,000 gpm

### McCloud Run

- Trout stream
- Trail bridge



# Real Estate Team

- Acquire land for all City Departments (FEE, PE, TE, Eminent Domain)
- Clear Encumbrances (releases, subordinations)
- Dispositions and Vacations
- Relocation



# Exhibits and Plats (POS)

Exhibits are recorded:

- ✓ Clear and concise details help for historical reference.
- ✓ Prefer documents that can scale to 8 ½" x 11".

Plats of Survey (POS) require an assigned number from the Auditor before sending to the Real Estate Team.

These types of documents are no longer needed in original hard copy.

- ✓ The recorder's office stores electronically.



# Real Estate ROW (Right of Way) Process

We follow the Iowa DOT's acquisition process

1. 3 months researching and preparing documents
2. 3-6 months (on average) negotiating
3. 4 months to exercise Eminent Domain (if needed)
4. 1 month for closing and get City Council approval

On average, the process takes a year to obtain all necessary agreements



# Working Together



## Timely Communication- Document with clear and concise details

- Communicate early and often:
  - ✓ Risk to Budget
  - ✓ Risk to Schedule
  - ✓ Risk to Scope

## Detailed Communications:

- Consistently provide Project #, project name, and invoice #
- Include city employee contact

Deliver quality products - Maintain despite project size or scope

If expectations are unclear, ask - Delays may be preventable

## Opportunities -

- One consultant present at this event/meeting?
- Did we share the needed close out documentation with all parties?
- Have permits been requested, documented, maintained?
- Are the resources consistent with the need?

# Questions | Discussion

Presented by:

**Rob Davis, P.E., ENVSP**

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# Thank You

