AGENDA OF THE IMPROVEMENT AND SERVICES COMMITTEE

WEDNESDAY, APRIL 9, 2025, 5:00 PM
Immediately following Parks Committee.

AMENDED

In person at City Hall, Room 207
Virtual attendance also available via Zoom.

A. Zoom Meeting Information.

1. Join Zoom Meeting Online:
   https://us02web.zoom.us/j/82206544400?pwd=NDd1bmszNUhBWW9XRVU5ck1zMjZ2QT09

   Or call in by phone: +1 312 626 6799
   Meeting ID: 822 0654 4400
   Passcode: 635662

   If you wish to speak at this public meeting or leave a comment, please fill out the online Comment Form prior to the meeting. More detailed Zoom Instructions can be found online.

B. Roll Call.

C. Approval of the Agenda.

D. Approval of Minutes.

E. Regular Business.

1. Consideration with possible action on request by Ald. Prestley to conduct a street light study on Wisconsin Avenue previously held at the February 26, 2025, Improvement & Services Committee meeting.

2. Consideration with possible action on request by Department of Public Works to enter into a Routine Bridge Maintenance and Operation Agreement between the City and the

Wisconsin Department of Transportation for State Fiscal Year 2025.

3. Consideration with possible action on request by University of Wisconsin Board of Regents to install an ALPR Flock camera on the southeast intersection right-of-way of Nicolet Road and Mahon Creek subject to the execution of a Hold Harmless Agreement and submittal of appropriate insurance and to authorize the Mayor and City Clerk to sign the Agreement.

4. Consideration with possible action on request by Turn Key Network Solutions (TKNS) to establish a utility easement along the former right-of-way of S. Oakland Avenue through Seymour Park.

5. Consideration with possible action on request by Saphner Trust to enter into a Developer's Agreement for the installation of pavement and all utilities related to the development of Parcel 6H-1247-3.

6. Consideration with possible action on request by Department of Public Works to approve a pilot program for full sanitary sewer lateral replacement during street reconstruction projects in areas of known I&I or capacity issues.

7. Consideration with possible action on request by Department of Public Works to purchase 22 Iteris Video Detection Camera Systems in the amount of $402,028.00 from Mobotrex and 54 traffic signal controllers, 26 controller cabinets, and 28 database conversion systems from Traffic Control Corporation in the amount of $684,554.00 for the new controllers as part of the WisDOT Traffic Signal Controller Upgrade project.

8. Consideration with possible action on request by Department of Public Works - Operations Division to purchase one (1) Bobcat UW56 Toolcat off the Sourcewell Contract #040329-CEC for $76,769.09; two (2) Erskine snow blowers for $7,954.00 each; and two (2) Erskine v-plows for $3,000.00 each off the Minnesota State Contract #246981 from Bobcat Plus for a net total of $98,677.09, which includes delivery, setup, warranty, and operator training.

9. Consideration with possible action on request by Department of Public Works to adopt a resolution to increase parking rates in public parking ramps during the 2025 NFL Draft from $1.00/hour - $12.00/day maximum to $2.00/hour - $24.00/day maximum.

10. Consideration with possible action on request by Department of Public Works to review and approve the award of WSG 1-25 SALT STORAGE SHED CONCRETE REPAIRS to Restoration Systems, Inc. in the amount of $78,940.00.

11. Report the award of contract RAMPS 2-25 PINE STREET RAMP PT REPAIRS to Cy-Con, Inc. in the amount of $238,998.00.

12. Report of actions taken by the Department of Public Works.

    A. Granting of Licenses

        1. Sidewalk Builder

            a. Allied Concrete Construction, Inc.
            b. Blaser Construction, LLC
            c. Delahaut Custom Concrete, LLC

d. Elexco, Inc.
e. Hemle Construction & Concrete, LLC
f. J.C. Santy Construction, LLC
g. Loch Construction Co., Inc.
h. Precision Flatwork
i. Zeise Construction
j. Craftsman Concrete, LLC
k. Titletown Construction, LLC
l. KPC Concrete Contractors, LLC
m. D&T Construction, LLC
n. Evraets Concrete Construction, LLC
o. Josh Bailey Concrete, LLC
p. Parham Construction

13. Consideration with possible action on request by Department of Public Works to approve the award of contract ASPHALT PAVING 2025 to MCC, Inc. in the amount of $745,179.30.

14. Consideration with possible action on request by Department of Public Works to approve the award of contract PAVEMENT REPAIR 2025 to Martell Construction in the amount of $1,871,967.50.

F. Informational.

1. Director's Report on recent activities of the Public Works Department.

2. The next Improvement & Services Committee meeting is scheduled for April 30, 2025.

G. Public Hearings.

H. Adjournment.

1) THIS MEETING IS RECORDED: THE VIDEO OF THIS MEETING AND MINUTES ARE AVAILABLE ONLINE AT www.greenbaywi.gov
2) ACCESSIBILITY: Any person wishing to attend who requires special accommodation because of a disability, should contact the City Safety Manager at 920-448-3125 at least 48 hours before the scheduled meeting time so that arrangements can be made.
3) QUORUM: Please take notice that a majority or quorum of the Common Council will attend this Improvement and Services Committee meeting and will constitute a meeting of the Common Council for purposes of discussion and information gathering relative to this agenda.
4) REPRESENTATION: The party requesting the communication, or their representative, should be present at this meeting.

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.1

Consideration with possible action on request by Ald. Prestley to conduct a street light study on Wisconsin Avenue previously held at the February 26, 2025, Improvement & Services Committee meeting.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

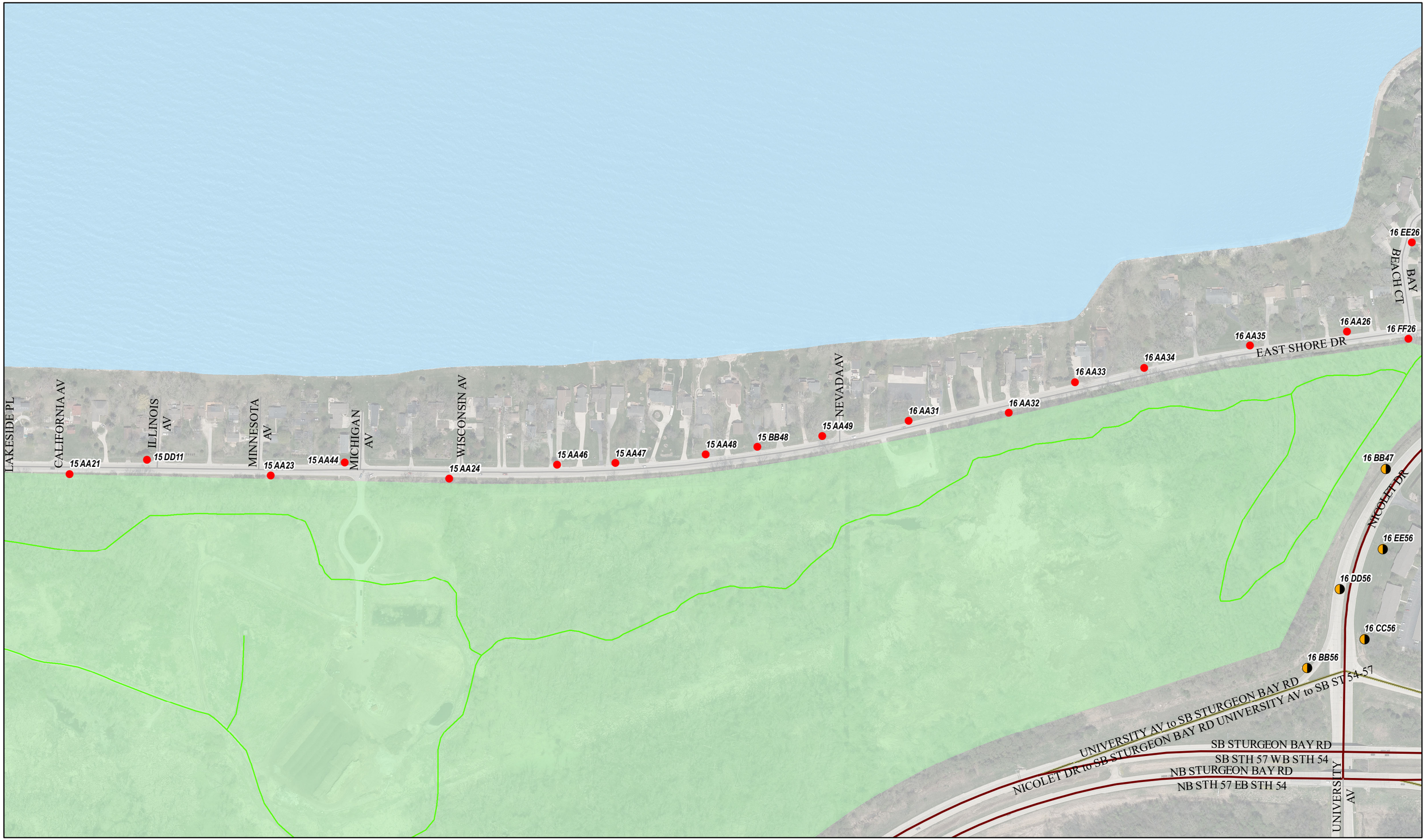
ATTACHMENTS

1. Wisconsin Lighting
2. East Shore Drive Lighting
3. Lighting General East Shore Drive
4. Street Light Study Signature

To request a street light study on Wisconsin Avenue

1 in = 50 ft

Recommendation - Wisconsin Avenue is like many of short seagments of roadways north of East Sore Drive that does not have streetlighting.
Since Wisconsin Avenue is only 250 feet in length and only serves as an access to 4 homes not general motoring traffic our recommendation is to not install a streetlight.



To request a street light study on Wisconsin Avenue

1 in = 300 ft

Background - City light spacing is 300 feet. None of the State Streets north of East Shore Drive has lighting as the blocks are short and used to access homes not general motoring traffic.
The intention of roadway lighting is to light roadway not residential lots.

To request a street light study on Wisconsin Avenue

1 in = 50 ft

Recommendation - Wisconsin Avenue is like many of short seagments of roadways north of East Sore Drive that does not have streetlighting.
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Since Wisconsin Avenue is only 250 feet in length and only serves as an access to 4 homes not general motoring traffic our recommendation is to not install a streetlight.

Consideration with possible action on request by Ald. Prestley to conduct a street light study on Wisconsin Avenue.

For Streetlight

2219 WIS. AV.

Against Streetlight

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.2

Consideration with possible action on request by Department of Public Works to enter into a Routine Bridge Maintenance and Operation Agreement between the City and the Wisconsin Department of Transportation for State Fiscal Year 2025.

BACKGROUND

There are three lift bridges spanning the Fox River in downtown Green Bay: The Ray Nitschke Memorial Bridge on Main Street/Dousman Street; The Bart Starr Memorial Bridge on Walnut Street; and the Donald A. Tilleman Bridge on Mason Street. Of these, the Nitschke Bridge is owned by the City of Green Bay, while the Starr and Tilleman Bridges are owned by the Wisconsin Department of Transportation (WisDOT). The City and WisDOT have historically cooperated with each other on the routine aspects of bridge operation and maintenance, and the provisions of that agreement have been recorded in a standardized agreement. These agreements are year-to-year in nature and must be renewed for each State fiscal year.

RECOMMENDATION

Staff recommends approving the Routine Bridge Maintenance and Operation Agreement between the City and the Wisconsin Department of Transportation for State Fiscal Year 2026.

FISCAL IMPACT

The expected City fiscal impact under this agreement is approximately $15,000 for traffic control. This amount can be reimbursed by WisDOT for the Starr and Tilleman Bridges. Expenses for the Nitschke Bridge are considered regular operating expenses and are considered when the City applies for lift bridge state aid.

ATTACHMENTS

1. Lift Bridge Maintenance Agreement - 2026 City of Green Bay

Routine Bridge Maintenance and Operation Agreement

Wisconsin Department of Transportation

Fiscal Year 2026

City of Green Bay

This Agreement is made by and between the State of Wisconsin Department of Transportation, a Wisconsin state agency, (the "Department") and City of Green Bay, a Wisconsin municipal body corporate, (the "City"), collectively referred to as the Parties in accordance with Wis. Stat. §§ 84.07(1), (2) and 83.015.

WHEREAS, the City owns a movable bridge identified as City Structure B-05-0311, also known as Ray Nitschke Memorial (Main Street) Bridge; and

WHEREAS, the Department owns movable bridges B-05-0134 Mason St. Bridge and B-05-0269 Walnut St. Bridge; and

WHEREAS, pursuant to a prior agreement, the City has operated the above described movable bridges on behalf of itself and the Department; and

WHEREAS, the Parties desire to transfer certain operational duties of City Structure B-05-0311, B-05-0134 Mason St. Bridge and B-05-0269 Walnut St. Bridge from the City to the Department.

NOW THEREFORE, upon the mutual promises contained herein, and upon such other consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. The Department requires the City to perform the Services described in Section 2 and allow the B-05-0311 Bridge Access as described in Section 4, and the City agrees to perform the Services and allow the B-05-0311 Bridge Access. It is understood that the Services and B-05-0311 Bridge Access authorized under this Agreement shall be accomplished in compliance with state and federal law, and under the general direction of the Department.

2. The City agrees to provide labor, equipment, and authorized materials needed to perform traffic control operations for routine maintenance activities of the following movable bridges located on the State Trunk System in the City:

B-05-0134 Mason St. Bridge

B-05-0269 Walnut St. Bridge

(the "Services"). The total estimated City costs of the Services is: $15,000. Charge ID: 0005-05-25.

3. Payment for Services will be made to the City based on actual labor, including fringe benefit costs, and equipment. Itemized invoices for the Services shall be submitted monthly, within one-month of the period which the work was performed, as required by Wis. Stat. § 84.07(2). Invoices shall be emailed to Jason Lahm at jason.lahm@dot.wi.gov. The Department will make payments after the Department verifies the invoices are in accordance with this Agreement. All payments are subject to audit by the Department.

4. The City agrees to allow Department staff and Department contracted staff to access and enter the City Structure B-05-0311 and to operate the lift bridge structure, and perform required activities needed to operate the lift bridge structure. No costs shall be incurred by the City for Department directed operations or activities on the City Structure B-05-0311. The Department will notify the City in writing or by phone prior to

any required B-05-0311 Bridge Access. The Department and Department contracted staff will describe to the City the purpose of the required B-05-0311 Bridge Access.

5. The Parties agree that any and all other prior agreements with respect to operations of City Structure B-05-0311, B-05-0134 Mason St. Bridge and B-05-0269 Walnut St. Bridge are hereby rescinded and terminated.

6. Insurance Coverage. The State of Wisconsin Department of Transportation will not issue individualized evidence of insurance. The State, its agencies, and departments are self insured. The State's Self-Funded Liability and Property Programs are self-maintained comprehensive programs of commercial insurance that meets the laws of the State of Wisconsin. Insurance requirements are met by self- insurance rather than purchasing insurance in a commercial insurance market.

The Department is granted sovereign immunity and is therefore immunized against liability and suit by all parties. Sovereign immunity cannot be waived and no provision or term in this agreement shall be construed to limit, affect, or waive sovereign immunity. The Department cannot waive subrogation or liability or provide indemnification in any manner. Wis. Stat. sec. 895. 46 provides for the payment of certain negligence claims against WisDOT employees and agents.

7. Each Party shall be responsible for the consequences of its own acts, errors, or omissions and those of its employees, officers, officials, agents, boards, committees, commissions, agencies, and representatives and shall be responsible for any losses, claims, and liabilities which are attributable to such acts, errors, or omissions, including providing its own defense, except as provided herein. In situations including joint liability, each Party shall be responsible for the consequences of its own acts, errors, or omissions and those of its employees, officers, officials, agents, boards, commissions, committees, agencies, and representatives. It is not the intent of the Parties to waive any statutory protections or impose liability beyond that imposed by state statutes. The obligations of the Parties under this paragraph shall survive the expiration or termination of this Agreement. Either Party may enforce the terms of this Agreement by any legal means.

8. Either party may, with 90-day written notice, unilaterally terminate this Agreement, effective if given/served prior to July 1st, 2026. Should the Department be given due and sufficient notice of the termination of this Agreement by the City, the Department agrees to fulfill all the contractual duties and responsibilities of the City prior to termination of this Agreement.

Any written notice of termination shall be served upon the following representatives by certified mail, return receipt requested:

On Behalf of City of Green Bay:
Steve Grenier
City of Green Bay – Director of Public Works
100 N. Jefferson St. Room 300
Green Bay, WI 54303

On Behalf of the Department:
Jason Lahm
Wisconsin Department of Transportation - Northeast Region
944 Vanderperren Way
Green Bay, WI 54304

9. In connection with the Services provided under this Agreement, the Parties agree not to discriminate against any employee or applicant for employment because of sex, age, race, religion, color, handicap, physical condition, developmental disability as defined in Wis. Stat. § 51.01(5), sexual orientation, or national origin. This Section shall include, but not be limited to the following: employment upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms

of compensation; and selection for training, including apprenticeship. The Parties shall post in a conspicuous place, available for employees and applicants for employment, notices setting forth this Section.

10. This Agreement will be construed and interpreted in accordance with the laws of the State of Wisconsin, notwithstanding any conflicts of laws provisions.

11. Neither Party may assign its rights or delegate its obligations under this Agreement without the prior written consent of the other Party.

12. If any provision of this Agreement or the application thereof to any persons or circumstances shall, to any extent, be invalid or unenforceable, then the remainder of this Agreement or the application of such provision, or portion thereof, and each provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

13. This Agreement constitutes the Parties' complete agreement and may only be modified, amended, or added after the date of this Agreement by a written instrument executed by both Parties, except as otherwise provided herein.

14. This Agreement may be executed in several counterparts, and the signatures on this Contract may be transmitted electronically. Electronic signatures will deemed to constitute original signatures and counterparts to this Agreement containing the signatures (whether original or electronic) of all the parties will be deemed to constitute a single, enforceable Contract.

IN WITNESS WHEREOF, the Parties, by their authorized officer or representatives, have caused this Agreement to be executed as of the date both Parties have signed below.

WISCONSIN DEPARTMENT OF TRANSPORTATION

By: _____

Title: _____

Date: _____

CITY OF GREEN BAY

By: _____
Eric Genrich - Mayor

Date: _____

By: _____
Celestine Jeffreys - Clerk

Date: _____

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.3

Consideration with possible action on request by University of Wisconsin Board of Regents to install an ALPR Flock camera on the southeast intersection right-of-way of Nicolet Road and Mahon Creek subject to the execution of a Hold Harmless Agreement and submittal of appropriate insurance and to authorize the Mayor and City Clerk to sign the Agreement.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

1. Flock Safety Equipment

FLOCK SAFETY EQUIPMENT INSTALLATION

CASE NUMBER: 00792589
PERMITTING JURISDICTION:
Green Bay (City of), Right-of-Way

Green Bay (City of), Right-of-Way
ON BEHALF OF
WI - UW Green Bay Campus PD

CONTACT LIST

PERMITTING
christine.strileckis@flocksafety.com

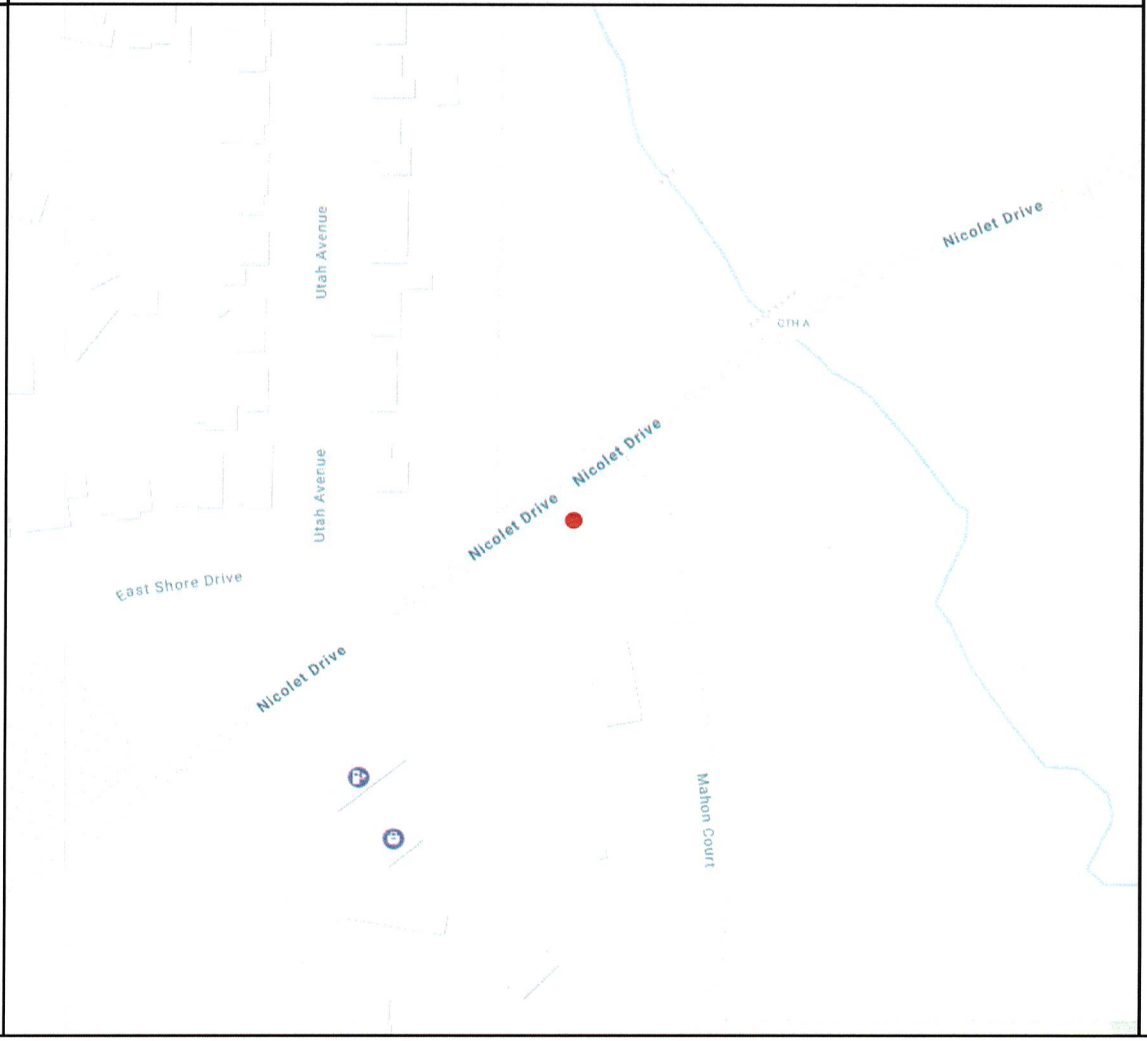
PROJECT MANAGER
alex.catozzi@flocksafety.com

SEE APPROVED PERMIT FOR LISTED INSPECTOR*

DRAWING INDEX

T.01	COVER SHEET & LOCATION MAPS
GN.01	GENERAL NOTES
A.01	PLAN DRAWINGS
SPEC.01 - SPEC.03	EQUIPMENT & FOUNDATION DETAILS

811 Know what's below. Call before you dig.



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WI - UW Green Bay Campus PD

00792589

Flock Safety
1170 HOWELL MILL ROAD SUITE 210
ATLANTA, GA 30318

REV	DATE	BY	DESCRIPTION
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
0	02/25/2025	FLK	PRELIM

I HEREBY CERTIFY THIS DOCUMENT WAS PREPARED BY MYSELF OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN

(THIS SPACE LEFT INTENTIONALLY BLANK FOR STAMP)

FLOCK SAFETY EQUIPMENT INSTALLATION

CASE NUMBER: 00792589
PERMITTING JURISDICTION: Green Bay (City of), Right-of-Way

COVER SHEET & LOCATION MAPS	
SHEET: **T.01**	REV: **0**

THIS DOCUMENT HAS BEEN DRAWN BASED OFF THE MOST RECENT AVAILABLE DATA & AERIAL IMAGERY. THIS INCLUDES RIGHT OF WAY, EXISTING UTILITIES, & PRIVATE PROPERTY LINES. IT REMAINS THE RESPONSIBILITY OF OTHERS TO VERIFY ALL DATA PRIOR AND EXISTING SURROUNDING FACILITIES TO VERIFY & CONFLICTS ABOVE & BELOW GRADE. ALL CONSTRUCTION TO FOLLOW WISCONSIN DEPARTMENT OF TRANSPORTATION GENERAL GUIDELINES. DO NOT SCALE DRAWINGS. CALL 811 PRIOR TO DIGGING.

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.4

Consideration with possible action on request by Turn Key Network Solutions (TKNS) to establish a utility easement along the former right-of-way of S. Oakland Avenue through Seymour Park.

BACKGROUND

When South Oakland Avenue was vacated to allow for use as part of Seymour Park, some existing utilities were left within the vacated right-of-way. Additionally, utilities are looking to locate or relocate facilities in association with recent construction projects within Seymour Park. The Department of Public Works has determined that a utility easement corridor located within the former right-of-way of South Oakland Avenue is the most appropriate location for this easement. DPW has consulted with Parks, Recreation, and Forestry and agreed upon this location for the easement.

RECOMMENDATION

Approve the request by Turn Key Network Solutions (TKNS) to establish a utility easement along the former right-of-way of S. Oakland Avenue through Seymour Park.

FISCAL IMPACT

None

ATTACHMENTS

1. Seymour Park Relocate
2. Seymour Park Utility Easement

SEYMOUR PARK RELOCATE

GREEN BAY, WI

317 SEYMOUR CT.

OUTSIDE PLANT CONSTRUCTION

FIBER OPTIC CABLE ROUTE

TKNS PROJECT #28341

TURNKEY
Network Solutions

PROPRIETARY
INFORMATION NOT FOR DISCLOSURE
This set of plans contains confidential or proprietary information, and the recipient must not disclose, copy, re-create, or distribute the plans or the information contained therein, either directly or indirectly, to other entities or individuals without written or express permission from US Signal.

DRAWING DISCLAIMER
Facility locations are general in nature. TURNKEY will not be held accountable for the accuracy of the information provided in these drawings.

CAUTION
FOREIGN UTILITY LOCATION ARE APPROXIMATE. CONTACT THE LOCAL ONE CALL AGENCY 72 HOURS PRIOR TO CONSTRUCTION FOR EXACT UTILITY LOCATIONS AT:
DIGGERS HOTLINE
1-800-242-8511

N
W E
S

REVISIONS

REV. #	DESCRIPTION	BY	DATE

TURNKEY Network Solutions
616-455-9840
WWW.TKNS.NET

US SIGNAL

CABLE AND INNERDUCT DESCRIPTION		
FIBER COUNT:	72ct FOC	
INNERDUCT:	PL. (1) 1.25" HDPE W/ TRACER WIRE	
LOCATION INFORMATION		
COUNTY:	BROWN	
CITY:	GREEN BAY	
TOWNSHIP:	GREEN BAY	
SECTION: 36,35	TOWN: 24N	RANGE: 20E

SEYMOUR PARK RELOCATE

DRAWN BY : RT / DAS	DATE: 11/23/2024
AS-BUILTS BY :	DATE:
ENGINEERED BY: BOB H.	DRAWING SCALE: NONE
DRAWING DESCRIPTION:	KEYMAP
JOB NUMBER:	28341
DRAWING NUMBER :	1 OF 1

Centerline
County/TWP/Sec Lines
Railroads
Right-of-Way
Roads (Asphalt or Gravel)
Fenceline
River/Stream
Aerial Fiber Optic Cable — XXct FOC
Buried Fiber Optic Cable
Water Line — WTR — WTR
Gas Line — GAS — GAS
Power — PWR — PWR
Sanitary Sewer — SAN — SWR
Storm Sewer — STM — SWR

WALL MOUNT TERMINATION	
B-BOARD:	YES/ NO
BOARD SIZE:	#
LOCATION:	XXX
PANEL TYPE:	XXX
PART #	XXX
PNL CAP:	12ct, 48ct, ect.
# OF TERM:	#
TERM STYLE:	Unicam/ Pigtail
CONN STYLE:	SC or ST
TERM PORTS TO:	# - #
EOC:	#

RACK MOUNT TERMINATION	
RR#:	#
LGX PANEL#	#
LOCATION	XXX
PANEL TYPE:	XXX
PART #	XXX
PNL LENGTH:	19" or 23"
PNL SIZE:	1U, 2U, ect.
PNL CAP:	12ct, 48ct, ect.
# OF TERM:	#
TERM STYLE:	Unicam/ Pigtail
CONN STYLE:	SC or ST
TERM PORTS TO:	# - #
EOC:	#

TRANSITION SPLICE	
TYPE:	Wall or Capsule
LOC:	HH, P-Box, etc.
#FOC:	
#FOC:	

Bridge

Transformer Profile

Street Light Profile

Street Light

Duct Diagram

PLACE (2) 1.25" HDPE INNERDUCTS WITH TRACER WIRE VIA DIRECTIONAL BORE. MINIMUM DEPTH OF 48"

Section 2

Section 4

Capacitor Pole
Push Pole
Transformer Pole
Metal Pole
ExistingCable Marker Sign
Existing Telephone Pole
Existing Power Pole
New Power Pole
Transmission Pole
Transmission Pole w/ Transformer
Pole ID — Pole # XXXXX XXXXX XXXXX XXXXX XXXXX
Bond to Existing Ground
Ground
Dead End
Culvert
House/Building — X
Handhole (Existing) HH HH (Proposed)
Manhole (Existing) MH MH (Proposed)
Existing Splice
Proposed Splice
Existing Storage Loop
Proposed Storage Loop
Road Markers — ℄ R/W
Span — 000'
Fiber Tag — **XXct FOC**
Overlash

Existing CATV Anchor
Proposed Anchor and Guy — PL A & G
Proposed Anchor and Guy With Johnny ball — PL A & G W/ J-BALL
Existing Power Anchor and Guy
Existing FOC Anchor
Proposed Sidewalk Anchor
Existing Sidewalk Anchor
Anchor 2 Power
Telephone Anchor
Riser
Pole to Pole Guy — PPG
Overhead Guy — OHG
Pedestal (Telephone)
Transformer — E
Gas Valve — G
R/W Marker
Sewer Manhole — S
Hydrant
Drain Basin
Catch Basin
Coil
Tree
Mile Marker — Mile Post 107
Proposed Bore Pit
Sidewalk

PROPRIETARY INFORMATION NOT FOR DISCLOSURE

This set of plans contains confidential or proprietary information, and the recipient must not disclose, copy, re-create, or distribute the plans or the information contained therein, either directly or indirectly, to other entities or individuals without written or express permission from US Signal.

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CAUTION

FOREIGN UTILITY LOCATION ARE APPROXIMATE. CONTACT THE LOCAL ONE CALL AGENCY 72 HOURS PRIOR TO CONSTRUCTION FOR EXACT UTILITY LOCATIONS AT:

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1-800-242-8511

REVISIONS

REV. #	DESCRIPTION	BY	DATE

TURNKEY Network Solutions
616-455-9840
WWW.TKNS.NET

US SIGNAL

CABLE AND INNERDUCT DESCRIPTION			
FIBER COUNT:	72ct FOC		
INNERDUCT:	PL. (1) 1.25" HDPE W/ TRACER WIRE		
LOCATION INFORMATION			
COUNTY:	BROWN		
CITY:	GREEN BAY		
TOWNSHIP:	GREEN BAY		
SECTION: 36,35	TOWN: 24N	RANGE: 20E	

SEYMOUR PARK RELOCATE

DRAWN BY : RT / DAS	DATE: 11/23/2024
AS-BUILTS BY :	DATE:
ENGINEERED BY: BOB H.	DRAWING SCALE: NONE
DRAWING DESCRIPTION:	SYMBOL SHEET
JOB NUMBER:	28341
DRAWING NUMBER :	1 OF 1

MATERIALS

DESCRIPTION	UNIT	QTY
72ct SM SJ SA	FT	1055
RISER GUARD 2"x10' (CBL) POLY	EA	4
LASHING WIRE 1600' .038	FT	238
GROUND ROD 5/8"x8' COPPER CLAD	EA	1
HAND HOLE 24"x36"x36" BASE & LID	EA	1
(1) 1.25" HDPE - SINGLE	FT	346
MULETAPE 1800 LBS	FT	386
COPPERHEAD #12 RED TRACER WIRE	FT	386
#2 AWG SOLID BARE GROUND WIRE	FT	20
TRACER WIRE TERM BOX	EA	2
LOCATE POST	EA	1

LABOR

DESCRIPTION	UNIT	QTY
PLACE (1) 1.25" HDPE w/ TRACER WIRE VIA TRENCH	FT	346
PLACE (1) 24"x36"x36" HANDHOLE	EA	1
AERIAL-DELASH ROADSIDE ACCESSIBLE	FT	139
AERIAL - LASH ROADSIDE ACCESSIBLE	FT	139
POLE RISER ATTCHMENT	EA	4
PLACE HANDHOLE	EA	1
PLACE GROUND ROD	EA	1
WRECK OUT 72ct FIBER	FT	465
PULL 72ct FIBER THROUGH DUCT	FT	346
SPLICEING 97-144 FIBERS	EA	144

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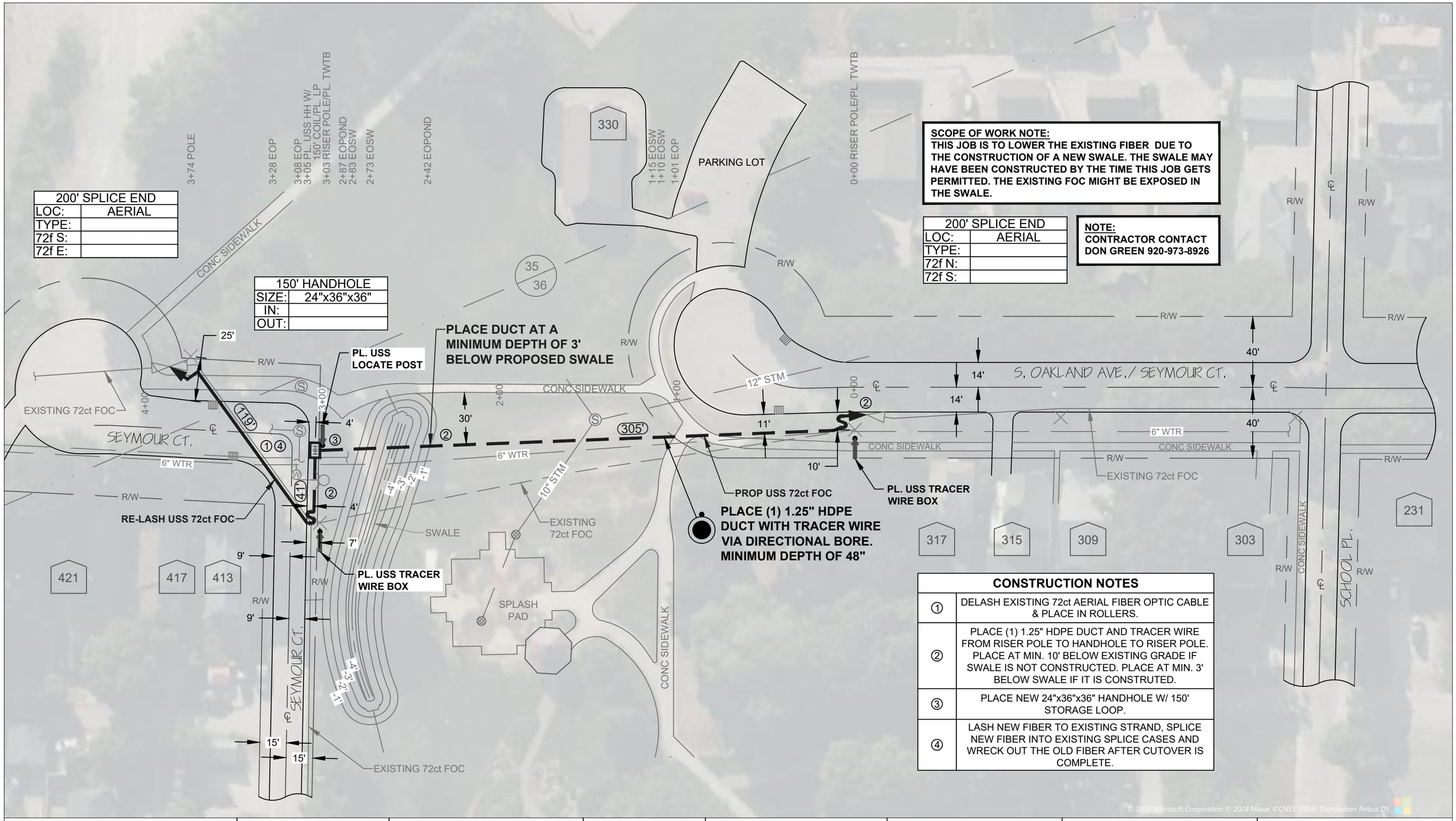
SEYMOUR PARK RELOCATE

DRAWN BY : RT / DAS	DATE: 11/23/2024
AS-BUILTS BY :	DATE:
ENGINEERED BY: BOB H.	DRAWING SCALE: NONE
DRAWING DESCRIPTION:	MATERIAL SHEET
JOB NUMBER:	28341
DRAWING NUMBER :	1 OF 1



200' SPLICE END	
LOC:	AERIAL
TYPE:	
72f S:	
72f E:	

150' HANDHOLE	
SIZE:	24"x36"x36"
IN:	
OUT:	

SCOPE OF WORK NOTE:
THIS JOB IS TO LOWER THE EXISTING FIBER DUE TO THE CONSTRUCTION OF A NEW SWALE. THE SWALE MAY HAVE BEEN CONSTRUCTED BY THE TIME THIS JOB GETS PERMITTED. THE EXISTING FOC MIGHT BE EXPOSED IN THE SWALE.

200' SPLICE END	
LOC:	AERIAL
TYPE:	
72f N:	
72f S:	

NOTE:
CONTRACTOR CONTACT DON GREEN 920-973-8926

CONSTRUCTION NOTES

①	DELASH EXISTING 72ct AERIAL FIBER OPTIC CABLE & PLACE IN ROLLERS.
②	PLACE (1) 1.25" HDPE DUCT AND TRACER WIRE FROM RISER POLE TO HANDHOLE TO RISER POLE. PLACE AT MIN. 10' BELOW EXISTING GRADE IF SWALE IS NOT CONSTRUCTED. PLACE AT MIN. 3' BELOW SWALE IF IT IS CONSTRUTED.
③	PLACE NEW 24"x36"x36" HANDHOLE W/ 150' STORAGE LOOP.
④	LASH NEW FIBER TO EXISTING STRAND, SPLICE NEW FIBER INTO EXISTING SPLICE CASES AND WRECK OUT THE OLD FIBER AFTER CUTOVER IS COMPLETE.

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DIGGERS HOTLINE
1-800-242-8511

REVISIONS

REV. #	DESCRIPTION	BY	DATE

TURNKEY Network Solutions
616-455-9840
WWW.TKNS.NET

US SIGNAL

CABLE AND INNERDUCT DESCRIPTION	
FIBER COUNT:	72ct FOC
INNERDUCT:	PL. (1) 1.25" HDPE W/ TRACER WIRE
LOCATION INFORMATION	
COUNTY:	BROWN
CITY:	GREEN BAY
TOWNSHIP:	GREEN BAY
SECTION: 36,35	TOWN: 24N RANGE: 20E

SEYMOUR PARK RELOCATE

DRAWN BY : RT / DAS	DATE: 11/23/2024
AS-BUILTS BY :	DATE:
ENGINEERED BY: BOB H.	DRAWING SCALE: 1" = 50'
DRAWING DESCRIPTION:	PROPOSED ROUTE
JOB NUMBER:	28341
DRAWING NUMBER :	1 OF 1

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INNERDUCT:	PL. (1) 1.25" HDPE W/ TRACER WIRE	
LOCATION INFORMATION		
COUNTY:	BROWN	
CITY:	GREEN BAY	
TOWNSHIP:	GREEN BAY	
SECTION: 36,35	TOWN: 24N	RANGE: 20E

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DRAWING DESCRIPTION:	REFERENCE PIC
JOB NUMBER:	28341
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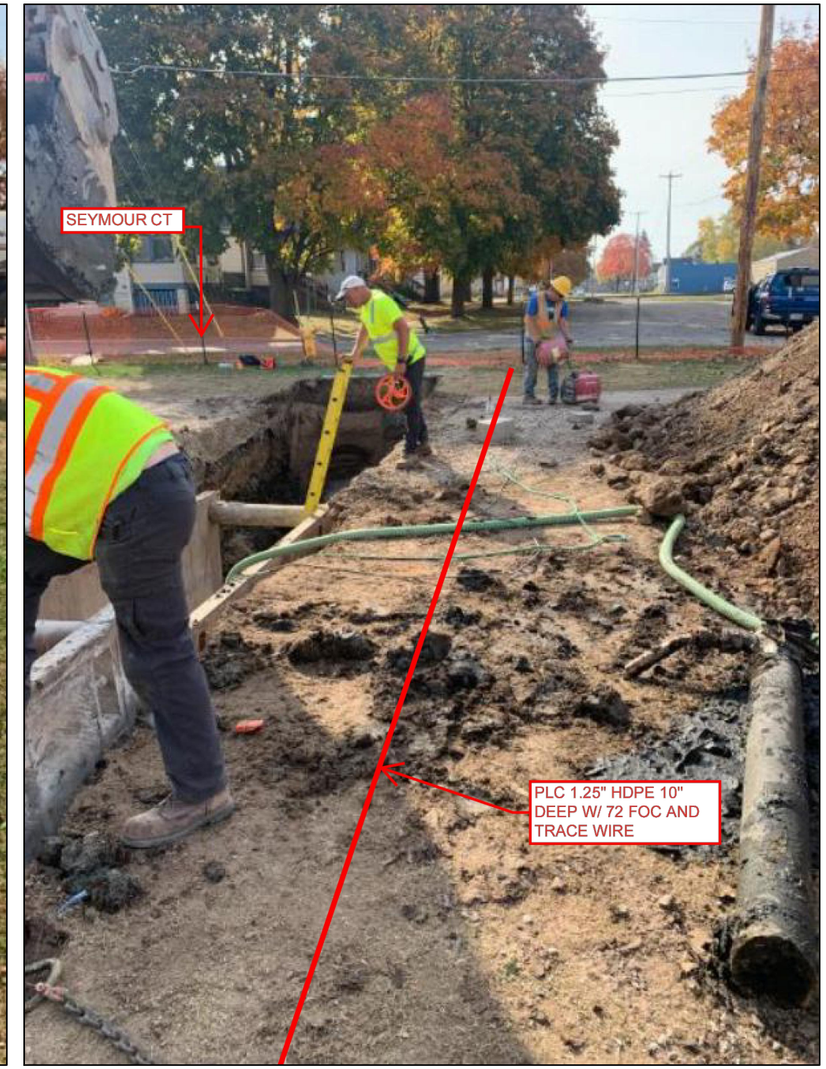

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COUNTY:	BROWN	
CITY:	GREEN BAY	
TOWNSHIP:	GREEN BAY	
SECTION: 36,35	TOWN: 24N	RANGE: 20E

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ENGINEERED BY:	BOB H.	DRAWING SCALE:	NONE
DRAWING DESCRIPTION:	REFERENCE PIC		
JOB NUMBER:	28341		
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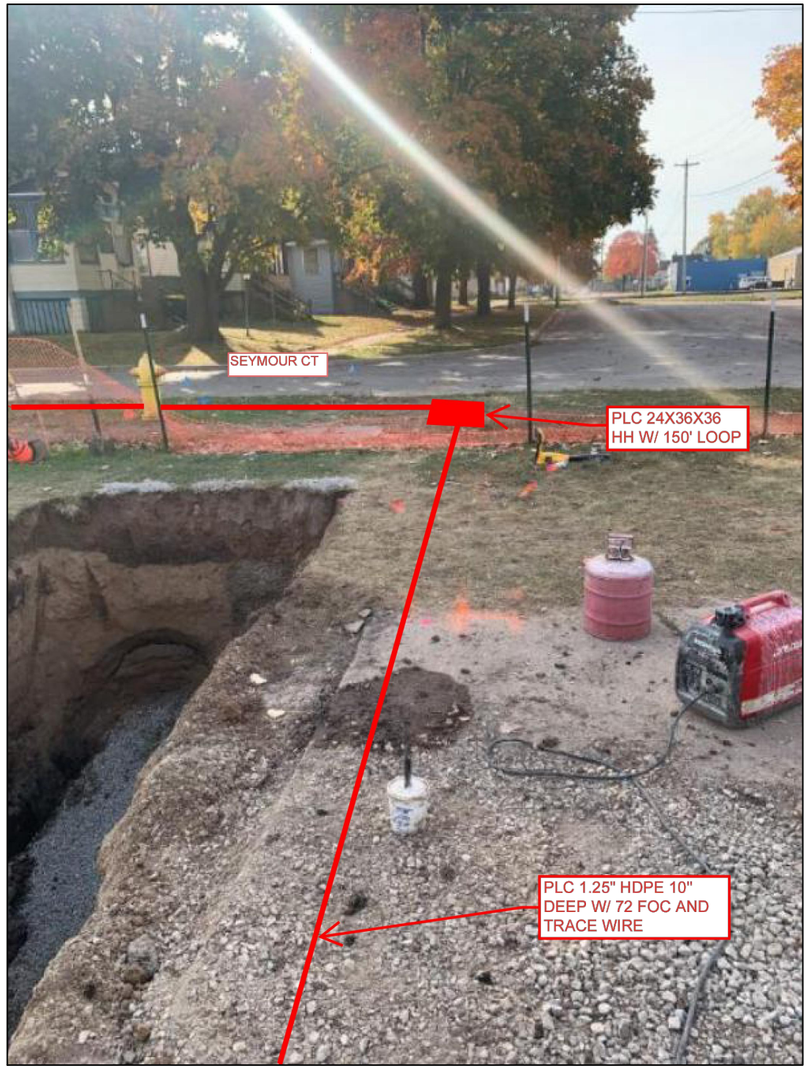

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JOB NUMBER:	28341
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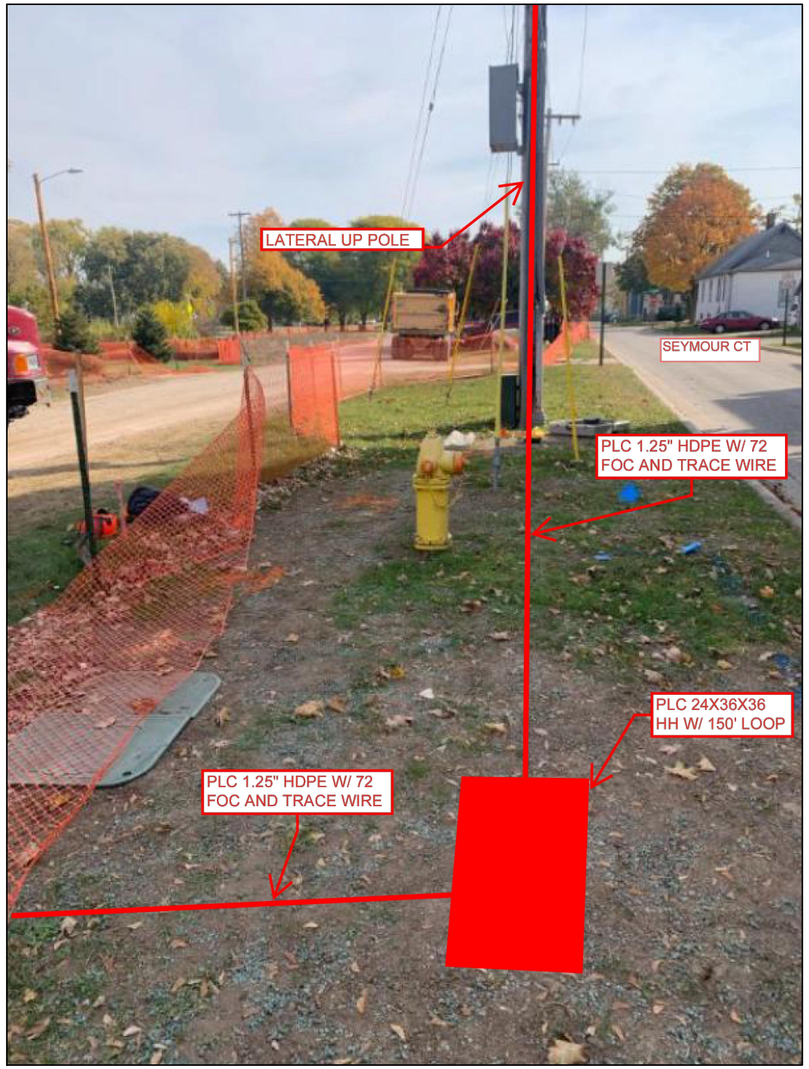

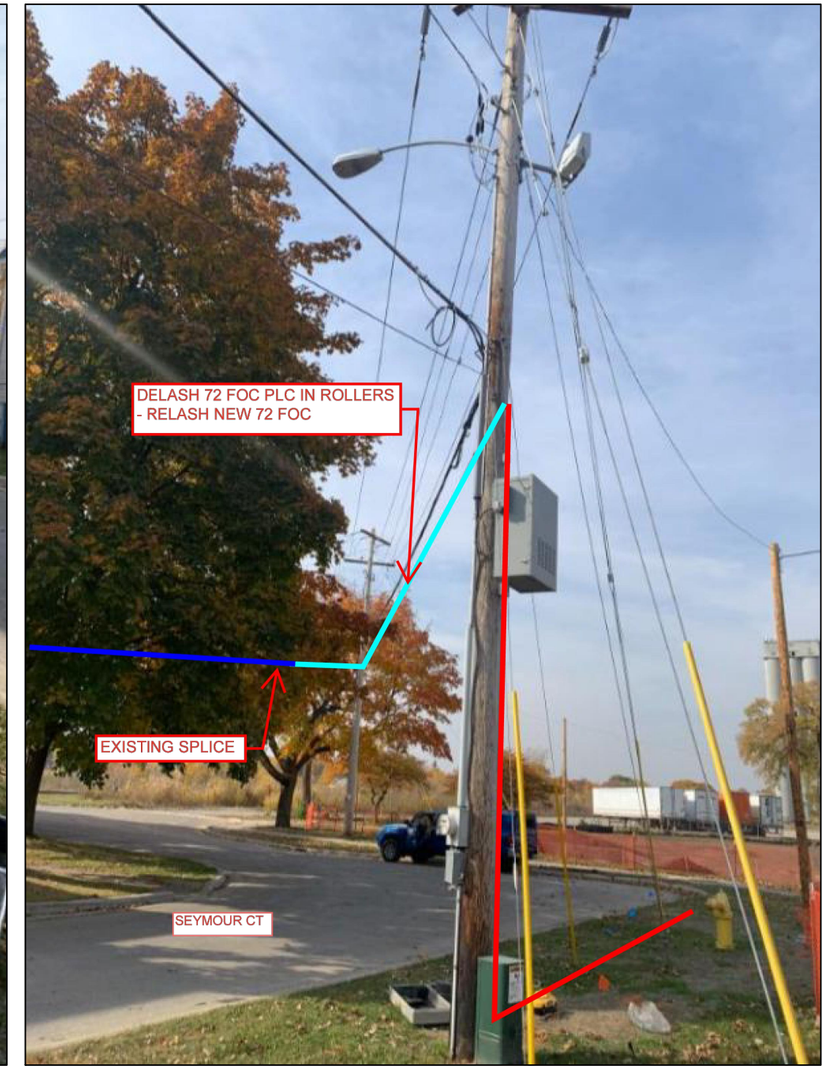

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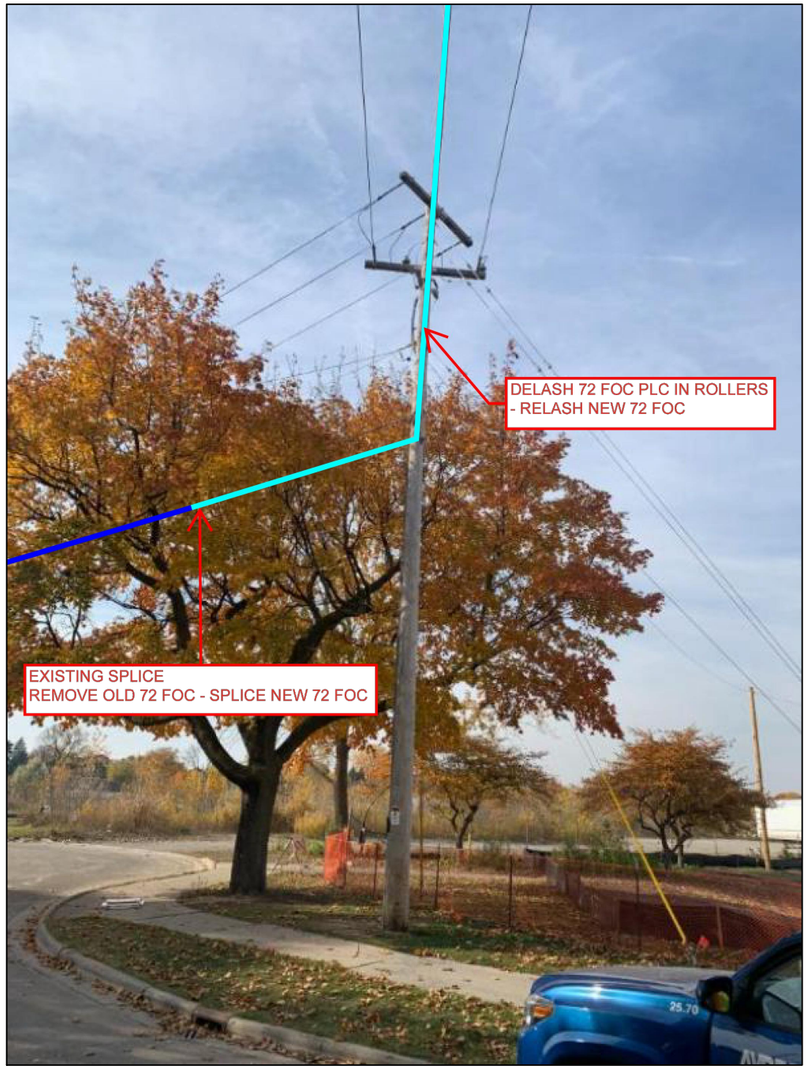

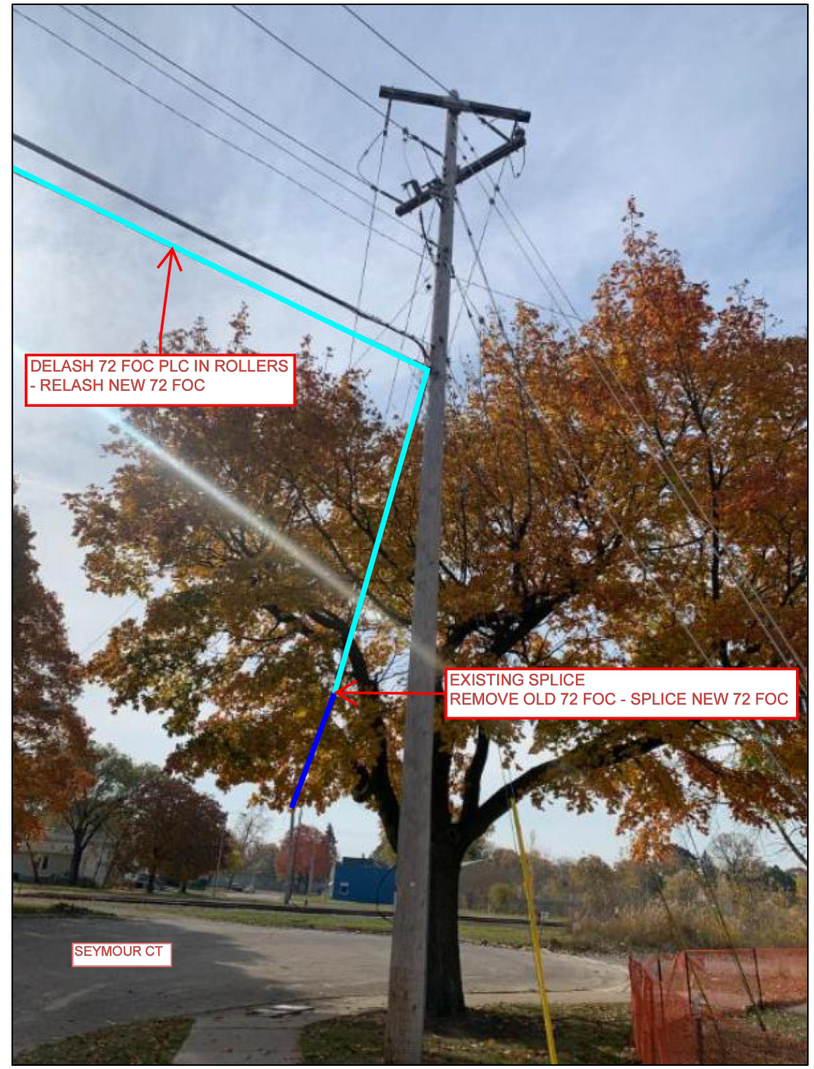

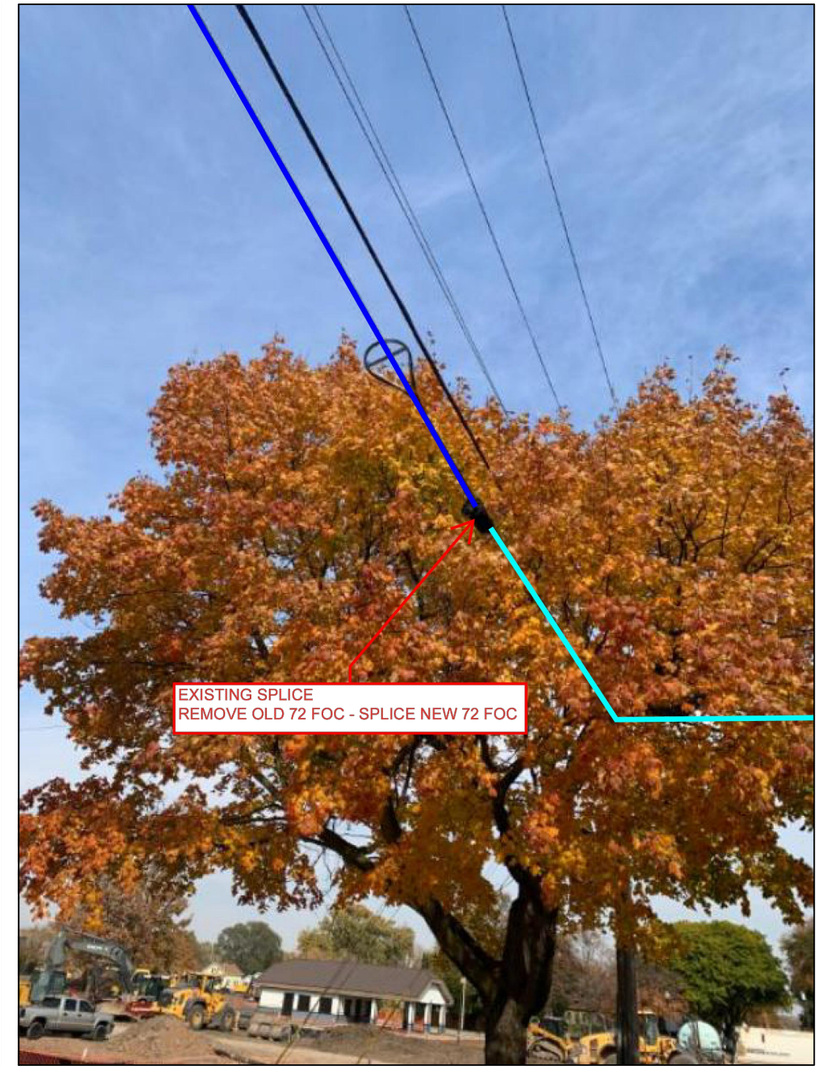

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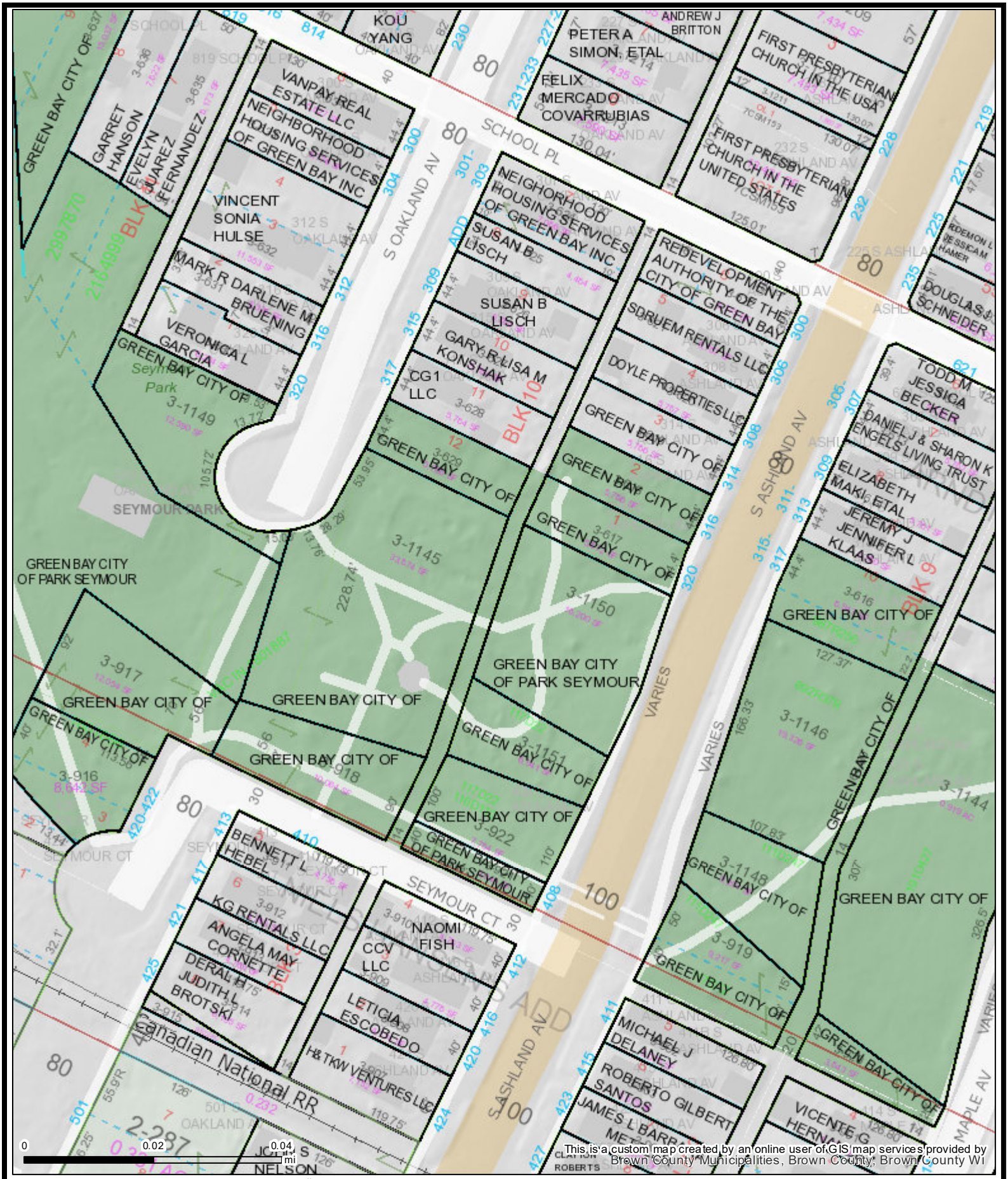


Seymour Park Utility Easement

Map printed on 4/4/2025

1:1,200

1 inch = 100 feet*

1 inch = 0.0189 miles*

**original page size: 8.5"x11"*

Appropriate format depends on zoom level

Parcel ownership key

- Parcel Boundary
- Condominium
- Gap or Overlap

"hooks" indicate parcel ownership crosses a line

- Parcel line
- Right of Way line
- Meander line
- Lines between deeds or lots
- Historic Parcel Line
- Vacated Right of Way

A complete key (legend) is available at:
tinyurl.com/BrownDogLegend

(920) 448-6480
www.browncountywi.gov

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.5

Consideration with possible action on request by Saphner Trust to enter into a Developer's Agreement for the installation of pavement and all utilities related to the development of Parcel 6H-1247-3.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.6

Consideration with possible action on request by Department of Public Works to approve a pilot program for full sanitary sewer lateral replacement during street reconstruction projects in areas of known I&I or capacity issues.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

1. Residential Letter - Sanitary Sewer Later Replacement
2. Temporary Right of Entry - Lateral Replacement
3. NW_FinancialImpactEvaluationTM-rev11042024_wMaps
4. 2025-03-18 IS Memo - II and Lateral Replacement Policy rev. 4-2-25

Public Works Department
100 North Jefferson Street • Room 300
Green Bay, Wisconsin 54301-5026
www.greenbaywi.gov

Administration | Engineering | Traffic 920.448.3100
Operations 920.448.3535
Parking 920.448.3431
Fax 920.448.3102

[Date]

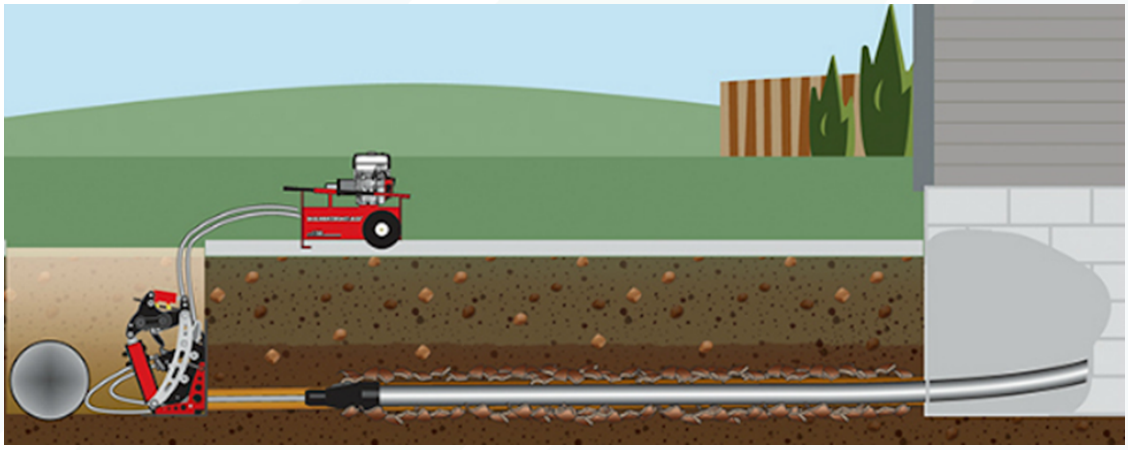
Name
Address
Green Bay, WI [XXXXX]

Dear Property Owner:

As part of our upcoming street reconstruction project, Pavement 25-XX [Project Name], the City is offering to replace your residential sanitary sewer lateral during the street reconstruction project **at no cost** to you. This is a voluntary program that the City is offering because of the mutual public health and financial benefits. Please note that the sanitary sewer lateral from the home to the main sewer is owned by the property owner. Should it become necessary to replace the lateral at a time other than during this street reconstruction project, it would be at your own expense.

Tree roots and groundwater like to infiltrate through cracks or joints in lateral pipes, which can lead to sewer backups into your home and/or increased flows within the sanitary sewers. Based on the age or condition of the City sewers and preliminary televising records, the City believes that your lateral is of the age or condition that would warrant replacement. Additional verification will be done by inspecting the lateral prior to construction by placing a camera through the pipe, which is referred to as televising.

If you participate in this program, the City would complete this work during the street reconstruction project via a method called pipe bursting, where a new plastic pipe is pulled through your existing sanitary lateral. This method requires a small 2 foot by 2 foot hole in the basement. The new pipe is pulled underground from the street to the hole in the basement floor leaving everything above it intact. Access to the basement would be through a basement window or door. The City will repair the basement floor with concrete. The process typically takes 3 - 4 hours. The process is depicted below:



Source: City of De Pere Full Lateral Replacement Policy, October 7, 2024

There are situations where a foundation drain around the house is directly connected to the sanitary sewer lateral. If that situation is found the contractor will install a sump pit at no cost to you, however, you would be responsible for the installation of the sump pump and discharging piping out of the basement. As noted above, the contractor will be televising your sanitary lateral prior to performing work. The televising should be able to tell whether you need a sump pit pump or not. We will notify you if we anticipate a sump pump is needed. At that time you can choose not to participate in the program. The televising would also allow us to verify that pipe bursting the sanitary lateral is viable (there are no major sags, structural concerns, or other issues).

For us to complete the work, we need a temporary construction permit to access your property. This permit is for the installation of the sanitary lateral and only for the duration of the project. This is not a permanent easement. The temporary construction permit is attached for your review and signature. If you are interested in participating in this program, please sign and return the attached right of entry permit no later than **[due date].** A stamped envelope addressed to the City of Green Bay is included for use in returning the singed permit.

Please note that the sanitary sewer lateral from the home to the main sewer is owned by the property owner. Should it become necessary to replace the lateral at a time other than this street reconstruction project, it would be at your own expense.

If you have any questions, you can reach out to [project engineer] at [email] or [phone number].

Sincerely,

[Project Engineer Name]
Civil Engineer

Public Works Department
100 North Jefferson Street • Room 300
Green Bay, Wisconsin 54301-5026
www.greenbaywi.gov

Administration | Engineering | Traffic 920.448.3100
Operations 920.448.3535
Parking 920.448.3431
Fax 920.448.3102

Temporary Right of Entry / Construction Permit

For Full-length Sanitary Lateral Relay

PAVEMENT 25-XX [PROJECT NAME]

If you would like to participate in the voluntary sanitary lateral replacement form, please sign and complete this form and return a copy to greenbaypublicworks@greenbaywi.gov or mail or deliver a copy to City of Green Bay, 100 N. Jefferson St., Room 300, Green Bay, WI 54301-5026.

Owner	XXX
Address	XXX
Parcel #	XXX

Settlement Amount

$0.00 – Mutual Benefits

The undersigned property owner(s) of the above referenced parcel, permits the City of Green Bay, its agents, contractors, or employees the right to enter their property and building for the purpose of full-length sanitary sewer lateral relay into the basement. Excavations for the relay are anticipated at the sanitary sewer main in the right of way and in the basement. The basement floor will be restored with concrete. The demolition and restoration of any finished basements to access the concrete basement floor shall be the responsibility of the property owner.

If foundation drains are found to be connected to the sanitary sewer line, the foundation drain will be disconnected and rerouted to a newly provided sump pump pit as part of the full-length sanitary sewer lateral relay. The property owner will be notified of any foundation drain impacts

and will be responsible for the installation of a sump pump and the associated plumbing and appurtenances to pump groundwater from the newly installed sump pump pit pursuant to the City of Green Bay Plumbing Code.

For this work to be completed, access to the basement is required from an external window or door. Exterior access is required to pull the new pipe into the existing lateral.

The permit shall terminate upon completion of the construction projects for which this instrument is given.

Dated this _____ day of _____, _____.

_____

«Property Owner Name»

Please provide your contact information should the City need to contact you for further information:

Name:_____

Phone Number:_____

For planning purposes, please answer the following:

Does your home have an existing sump pump? Yes ☐ No ☐

Is your basement finished or unfished? Finished Basement ☐ Unfinished Basement ☐

250 East Wisconsin Avenue, Suite 1600
Milwaukee, WI 53202-4203

T: 414.273.8800

Technical Memorandum

Prepared for: Green Bay Metropolitan Sewerage District (NEW Water)

Project Title: Regional I&I Program Implementation, Phase 1

Project No.: 159779.500

Technical Memorandum No. 1

Subject: Inflow & Infiltration Financial Impact Evaluation

Date: November 4, 2024

To: Lisa Sarau, NEW Water Project Manager

From: Julie McMullin, Brown and Caldwell (BC) Project Manager

Copy to: Andy Lukas, BC

Prepared by: _____
Julie McMullin

_____
David Perry

Reviewed by: _____
Andy Lukas

DRAFT

Limitations:

This is a draft memorandum and is not intended to be a final representation of the work done or recommendations made by Brown and Caldwell. It should not be relied upon; consult the final report.

This document was prepared solely for Green Bay Metropolitan Sewerage District (NEW Water) in accordance with professional standards at the time the services were performed and in accordance with the contract between NEW Water and Brown and Caldwell dated February 23, 2023. This document is governed by the specific scope of work authorized by NEW Water; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by NEW Water and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

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NW_FinancialImpactEvaluationTM-rev11042024

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List of Acronyms

BC = Brown and Caldwell

DPF = De Pere Facility

EQ = equalization storage

GBF = Green Bay Facility

gpad = gallons per acre per day

gpcd = gallons per capita per day

I&I = Infiltration and Inflow

LF = linear feet

MG = million gallons

Mgd = million gallons per day

SSO = Sanitary Sewer Overflow

TM = Technical MemorandumTable ES-1. Comparison of Simulated Model Results by Scenario v

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Executive Summary

This Technical Memorandum (TM) describes the process and findings of an Inflow and Infiltration (I&I) Financial Impact Evaluation that Brown and Caldwell (BC) completed for the Green Bay Metropolitan Sewerage District, referred to in this TM by its brand name of NEW Water. This high-level evaluation was completed to identify how the cost of I&I reduction within the NEW Water service area compares to the cost of conventional capacity improvements to the wastewater conveyance system and treatment facilities . More I&I reduction would require fewer capacity improvements downstream in the NEW Water system, and less I&I reduction would require more capacity improvements. The evaluation seeks to find the cost-effective 'right balance' between the two.

For the evaluation, NEW Water provided BC with its MIKE URBAN model of the conveyance system that was developed for the 2018 *Interceptor Master Plan*. Brown and Caldwell revised the model to facilitate the Financial Impact Evaluation, including updating the model to include changes to the interceptor system from 2018 through June 2023 and then.

Using this MIKE URBAN model, BC evaluated the following four flow scenarios:

- **Baseline 10% Probability**: The flows are from the model used for the *Interceptor Master Plan*. These flows are representative of the population as of 2018 and were calibrated to measured flow data through 2018 as part of the *Interceptor Master Plan* effort. The 10% Probability simulation represents a wet weather flow recurrence event that has a 10% probability of being equaled or exceeded in any one year.
- **Future 10% Probability:** The flows include additional catchments to reflect areas of future growth and estimated future population equivalents representative of the year 2070. As with the Baseline 10% Probability scenario, the wet weather flows have a 10% probability of being equaled or exceeded in any one year.
- **Baseline 2% Probability:** The flows are from the model used for the *Interceptor Master Plan*. Simulated wet weather flows have a 2% probability of being equaled or exceeded in any one year.
- **Future 2% Probability:** The flows include the future catchments and estimated future population equivalents representative of the year 2070. Simulated wet weather flows have a 2% probability of being equaled or exceeded in any one year.

Table ES-1 summarizes the results of each of these model simulations. This shows that the conveyance system, the Green Bay Facility (GBF), and the De Pere Facility (DPF) are performing well for the Baseline and Future 10% Probability scenarios, with no water levels that exceed the ground surface and peak flows that are at or within the capacities of the GBF and DPF. Under the Baseline and Future 2% Probability scenarios, the system is stressed, with water levels that exceed the ground surface for up to 5% of the manholes and peak flows that exceed the capacities of the GBF and DPF.

Table ES-1. Comparison of Simulated Model Results by Scenario

Simulated Performance Metric	Baseline 10% Probability	Future 10% Probability	Baseline 2% Probability	Future 2% Probability
Percent of total pipe length with peak flow greater than 120% of full pipe capacity	3%	5%	8%	11%

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Table ES-1. Comparison of Simulated Model Results by Scenario				
Simulated Performance Metric	Baseline 10% Probability	Future 10% Probability	Baseline 2% Probability	Future 2% Probability
Number of manholes with water less than 10 feet from the ground surface	8	22	87	160
Percent of manholes with water level less than 10 feet from the ground surface.	1%	2%	8%	14%
Number of manholes with water level above the ground surface	none	none	28 manholes in the model	60 manholes in the model
Percent of manholes with water level above the ground surface	0	0	2%	5%
Peak flow above capacity -GBF (mgd)	0	0	25	44
Peak flow above capacity -DPF (mgd)	0	0	16	28
Storage Volume Needed -GBF (MG)	0	0	5	22
Storage Volume Needed -DPF (MG)	0	0	5	13

The greatest capacity impacts were for the Future 2% Probability scenario, so the team focused on evaluating options for eliminating the capacity issues for this scenario. The team evaluated the following options:

- **Convey+EQ**, which would transport all additional flow through improved interceptors, pump stations and force mains. It also includes adding equalization (EQ) tanks to store the excess flow at the GBF and DPF rather than evaluating increases in treatment capacity.
- **I&I Reduction**, which addresses capacity exceedances by reducing I&I at the most impactful catchments.
- **Combination (Convey+EQ+I&I Reduction)**, which is using a combination of I&I reduction and improvements to the conveyance system and the GBF and DPF treatment facilities to eliminate capacity impacts.

Figure ES-1 and Table ES-2 provide a comparison of these different options. Both show that I&I reduction without any conveyance and EQ is the most expensive option. However, a 10% reduction in peak I&I may be the most cost-effective combination of I&I reduction with conveyance improvements; this correlates with the "knee of the curve" in Figure ES-1, where the green line stops decreasing and starts increasing. Reductions in I&I greater than 10% quickly become more expensive than conveyance improvements. Note that this is a 10% reduction in overall I&I of the entire system. Individual catchment areas with high I&I rates will need greater levels of reduction so the overall system can achieve the 10% reduction.

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Table ES-2. Summary of Estimated Construction Costs for Future 2% Probability Scenario									
Option	EQ Storage at GBF ($ Million)	EQ Storage at DPF ($ Million)	EQ Storage at GBF and DPF ($ Million)	Pump Stations	Forcemains	Interceptors	Convey+EQ ($ Million)	I&I Reduction ($ Million)	Total ($ Million)
				Cost ($ Million)	Cost ($ Million)	Cost ($ Million)			
Convey+EQ Only	$154	$91	$245	$20	$5	$18	$288	$0	$288
I&I Reduction Only	$0	$0	$0	$0	$0	$0	$0	$647	$647
Convey+EQ+I&I Reduction	$63	$63	$126	$18	$5	$16	$165	$65	$229

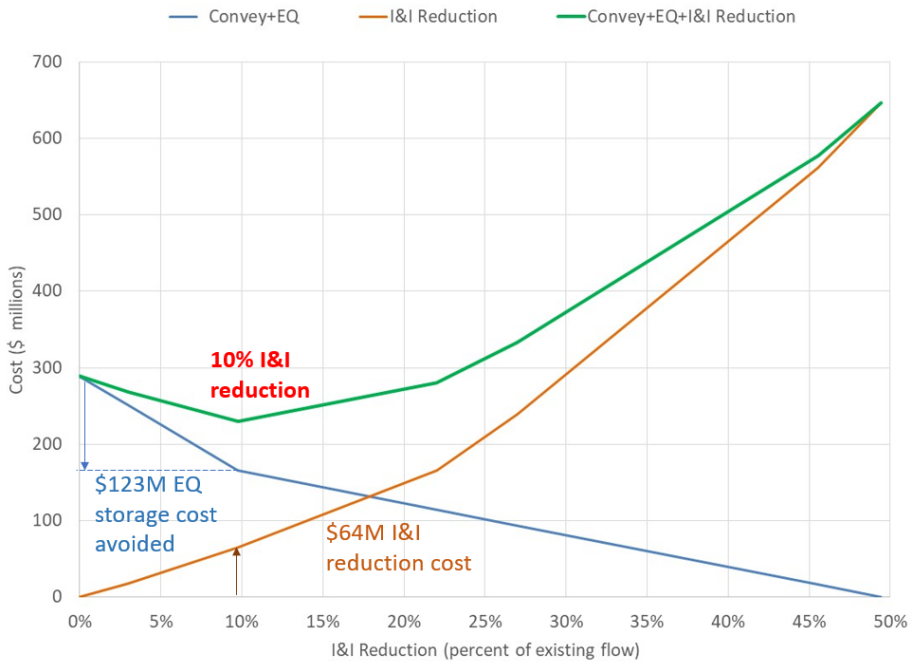

Figure ES-1. Comparison of Costs for the Convey+EQ Only, I&I Reduction Only, and Convey+EQ+I&I Reduction options.

Because this is a high-level study, the cost values have a substantial range of variability. The relative costs of conveyance and I&I reduction are more important than the actual numerical values. This analysis is insightful in that it shows some level of I&I reduction is likely more cost-effective than the cost of conveyance improvements and EQ storage alone. It also justifies a regional program that targets areas of high levels of peak I&I.

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Section 1: Background

This Financial Impact Evaluation is a high-level look at the NEW Water wastewater system to estimate the cost to achieve a desired level of protection against overflows and surcharging in the interceptors. The level of protection can be improved by a reduction in inflow and infiltration (I&I) or an increase in conveyance and treatment capacity. Inflow and infiltration is the result of degradation of the pipes and manholes, including the privately owned laterals, municipal customer sewers, and NEW Water interceptors, that allow clear water to leak into sanitary sewer systems. While the sanitary sewers are designed to accommodate some clear water, clear water beyond the design amount results in flows that exceed the capacity of the conveyance and treatment, which can result in sewer overflows and basement backups. The Financial Impact Evaluation compares the cost of I&I reduction within the NEW Water service area, the cost of conventional capacity improvements to the wastewater conveyance and treatment facilities, and the cost of a combination of both I&I reduction and conveyance improvements. The evaluation provides a broad capacity assessment of the NEW Water wastewater interceptor system, lift stations and force mains, and treatment facilities, which include the Green Bay Facility (GBF) and the De Pere Facility (DPF).

Performance is viewed through the flow meter data that shows flow response during wet weather events and the impact on the regional system, demonstrated by surcharging in the manholes. This performance-based approach attempts to estimate the cost of I&I reduction work to achieve a reduced level of peak I&I flow. The cost is based on the quantity of flow removed rather than quantities of I&I mitigation work, such as length of pipe repair, number of manholes fixed, or number of laterals rehabilitated. The basis for this approach is a library of I&I reduction projects that have been studied to understand this relationship between I&I reduction investment and flow reduction.

Section 2: Methodology

This section discusses the process and assumptions used to complete the evaluation. It covers the construct of the model used to simulate system capacity and flow generation. It also describes the flow scenarios used for the evaluation.

2.1 Process

The team used the following process for completing the Financial Impact Evaluation:

1. Prepared a baseline scenario model, in which the team:
    a. Updated the MIKE URBAN model of the conveyance system that was developed for the 2018 *Interceptor Sewer Master Plan* with as-built information from projects NEW Water has completed since 2018.
    b. Removed local sewer restrictions in the model, such as at pump stations or the treatment facilities, to see how the facilities would react if all the flow generated in the service area made it to the downstream wastewater conveyance and treatment facilities.
2. Performed a long-term simulation of flows and identified 10% and 2% probability flow recurrence events.
3. Simulated the 10% probability event in the baseline (Baseline 10% Probability) and future scenario (Future 10% Probability) models.

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4. Simulated the 2% probability flow recurrence event in the baseline (Baseline 2% Probability) and future (Future 2% Probability) scenarios, to see how flows from a larger wet weather event further stresses the wastewater conveyance system and treatment facilities.
5. Evaluated the performance of the conveyance system at conveying the different flow scenarios. This included identifying areas where the wastewater conveyance and/or treatment system were experiencing more flows than their capacity.
6. Identified needs for conveyance system improvements and EQ storage at the GBF and DPF to fully convey the flows under the Future 2% Probability scenario; this is later referred to as the "Convey+EQ" option.
7. Identified how much I&I reduction would be needed so that peak flows in the Future 2% Probability scenario do not exceed the capacity of the existing conveyance system; this is the "I&I Reduction" option.
8. Identified one combination of I&I reduction and conveyance system improvements; this is the "Combination" option.
9. Provided and compared estimated costs for the Future 2% Probability scenario for each of the options of Convey+EQ, I&I Reduction, and Combination.

2.2 Evaluation Events

The evaluation included two flow recurrence events: June 1969 to represent the 10% probability event and June 1990 to represent the 2% probability event. The rainfall data recorded for these events are shown in Figure 2-1. The events were identified by performing a long term simulation (LTS) of the flows in the MIKE URBAN model and performing a Log Pearson Type III statistical analysis to identify flow recurrence probability of each event used in the LTS. Attachment A includes additional details on the evaluation events.

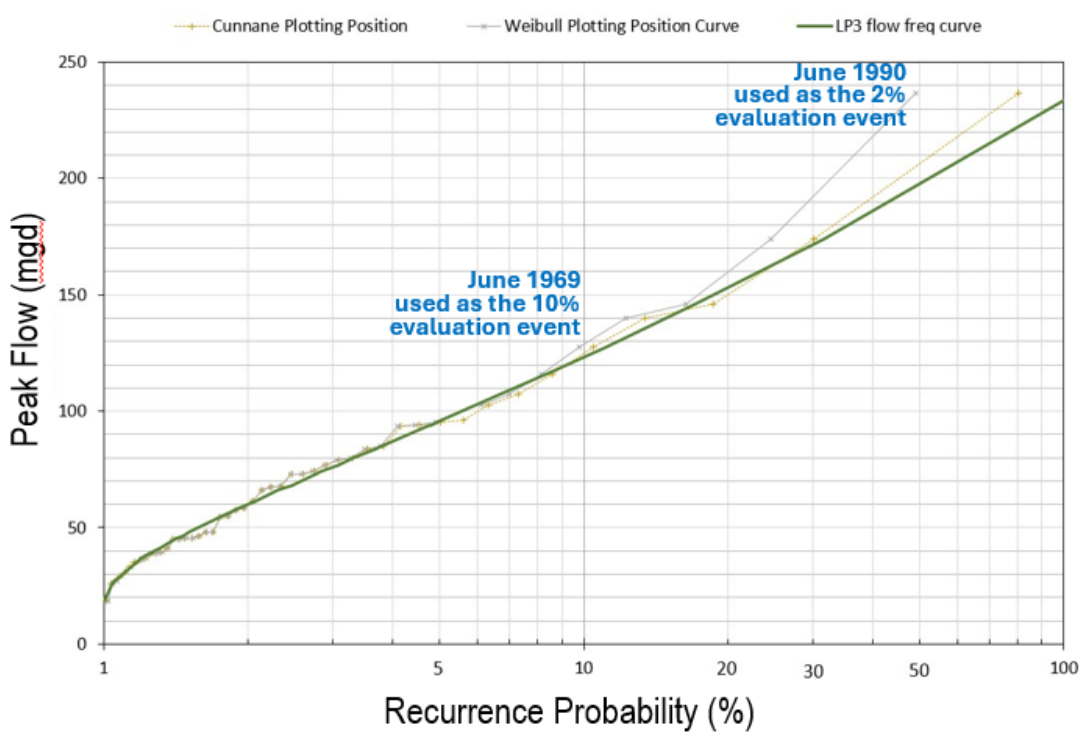

Figure 2-1. Evaluation Events.

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2.3 Assumptions

The Financial Impact Evaluation includes the following assumptions and caveats:

- The evaluation provides a relative comparison of the costs for different options for handling additional flows. The results are not to be used for the planning of future facilities within the NEW Water system.
- The evaluation of peak flows and the cost of I&I reduction consider both the NEW Water and municipal customer assets as an integrated hydrologic system without distinguishing the source of flow between asset ownership.
- The evaluation of conveyance and the cost of conveyance improvements is limited to the NEW Water system and does not consider the capacity of municipal wastewater conveyance systems.
- The model used for the evaluation was created to support the Interceptor Master Plan, which is a broader focus than the assessment and management of I&I. This evaluation is a preliminary look using the model as-is. The model will need to be updated and recalibrated before the Regional I&I Reduction Program is fully implemented.
- The model used for this evaluation was created in 2018 and has not been re-calibrated since that time. Therefore, the flows for the baseline condition may not be representative of today's flows.
- The model results and costs may not compare with past studies. This is an independent review with the sole purpose of comparing difference scenarios and options.
- Future growth areas are defined by an estimated future year 2070 population for each catchment area.
- Future flow growth is assumed to be 75 gallons per capita per person per day (gpcd). This value represents 45 gpcd for user generated flow and 30 gpcd for I&I entering the system.
- The baseline population is estimated to be 221,000 persons. According to the Brown County Regional Planning Commission, the future year 2070 population is projected to be 604,000, which is 2.7 times larger than the baseline population. This increase in population is particularly important in the DPF service area.
- I&I unit costs do not represent any specific rehabilitation approaches for reducing I&I.
- The evaluation uses the existing I&I rates without further increases that might happen in the future from progressive system degradation, as it is assumed that NEW Water and its customer municipalities are completing future systematic asset maintenance to prevent this.

Section 3: Assessment of System Performance

This section discusses the evaluation criteria and assessment of the performance of the NEW Water wastewater conveyance and treatment system during simulations of the Baseline 10%, Future 10%, Baseline 25%, and Future 2% Probability scenarios, prior to adding any improvements to the conveyance system or treatment facilities.

3.1 Evaluation Criteria

The team used the following criteria to evaluate system performance:

- Zero sanitary sewer overflows (SSO)
- Water levels in the sewers are allowable up to 10 feet below the ground level unless the manhole depth is less than 10 feet below the ground; for these shallow manholes, no surcharging is allowed.
- No exceedance of pump station firm capacity at the lift stations not at the GBF and DPF

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- GBF Capacity of 148.8 million gallons per day (mgd) and DPF Capacity of 40.4 mgd

3.2 10% Probability Scenario

Figure 3-1 shows the model-simulated peak hourly flow during the Baseline 10% Probability scenario. In this figure, each catchment is color-coded by its wet weather flows normalized in gallons per acre per day (GPAD). Since the dry weather portion of the flow is subtracted from the GPAD values, catchments with higher GPAD values have more I&I. Figure 3-1 is helpful for identifying which portions of the NEW Water system have the highest I&I rates, as identified by the darker blue areas. The peak I&I flow per unit area values are also used to estimate the cost of I&I reduction efforts.

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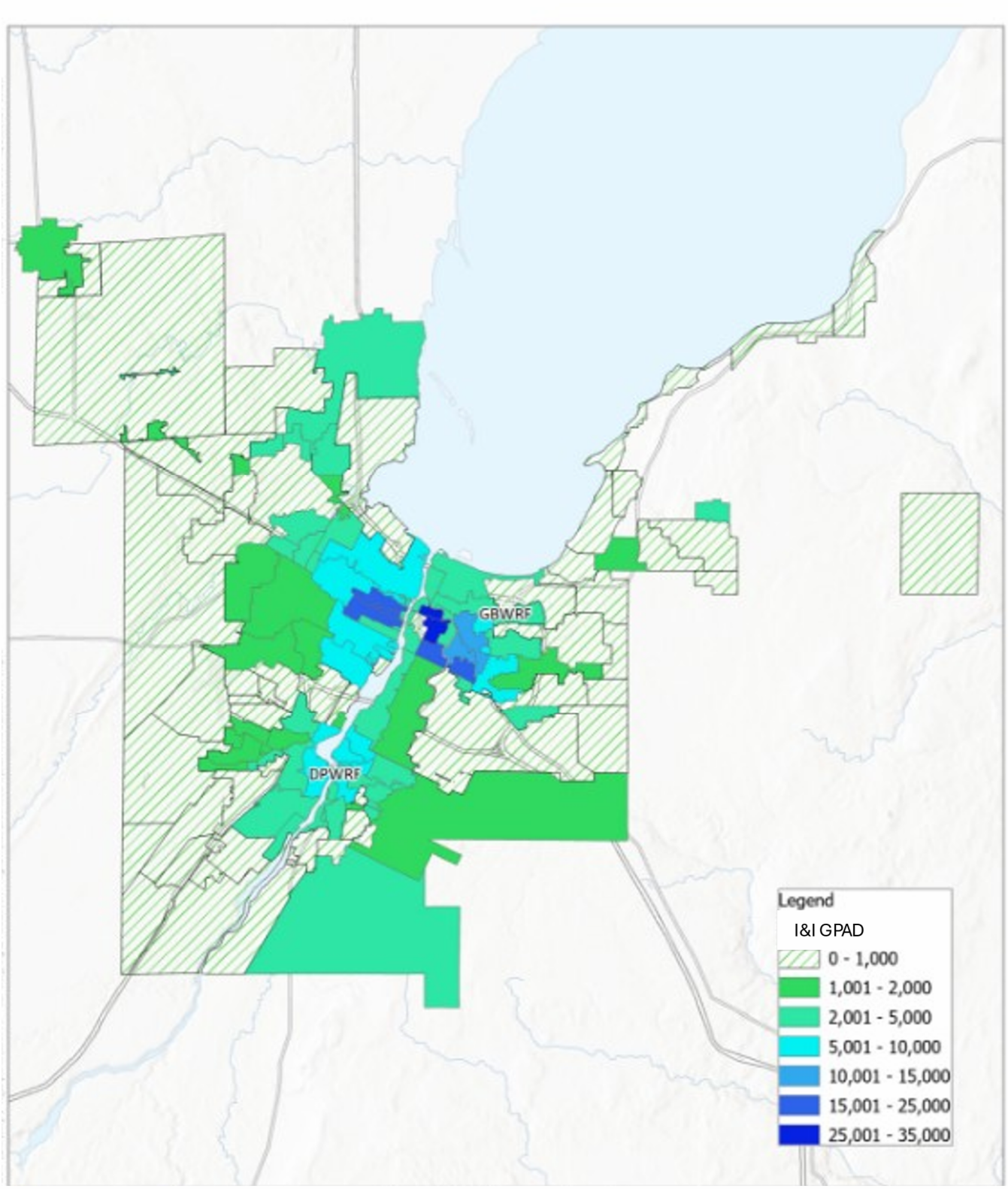

Figure 3-1. Results of Baseline 10% Scenario – gpad by Catchment

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Figures 3-2 and 3-3 provide plan views of the NEW Water interceptor system with the results of the Baseline 10% Probability simulation. Figure 3-2 shows the simulated water level at each manhole as compared to the ground level and Figure 3-3 compares the simulated peak flows versus the pipe capacity under the Baseline 10% Probability scenario. Larger versions of Figures 3-2 through 3-9 are included in Attachment A.

There are many cases where the manholes are surcharged but the pipes in that area are not identified as capacity limited pipes. This is caused by a downstream restriction, such as in the downstream sewers or pumps, that causes an upstream surcharge condition even though the pipes near the manhole have adequate capacity. It is important to consider both peak water level and pipe flow versus capacity to obtain a full picture of system performance.

In Figure 3-2, the manholes are color coded by the number of feet between the water level and the ground level. The small purple dots indicate manholes where the water level is 0 to 10 feet below the ground level. Manholes where the water level is greater than the ground level are indicated by larger red dots. This figure shows that during the Baseline 10% Probability simulation, none of the manholes have simulated water levels that are above the ground and only 1% have levels that are 10 feet or less from the ground.

Figure 3-3 helps to identify the pipes that have a capacity restriction. In Figure 3-3, each pipe segment in the model is color coded to identify the ratio of simulated peak flow to pipe capacity. The Mannings's equation full pipe flow rate is defined as the "capacity" of the pipe. A ratio of 1 for the peak flow versus full pipe capacity means that the pipe is at capacity. A ratio less than 1 indicates that there is still pipe capacity during peak flow; on Figure 3-3, these are the pipes shown in black and green. Pipes with a ratio of more than 1 indicates that there is more peak flow than the pipe can handle. In Figure 3-3, the blue pipes have a peak flow that is up to 20% greater than capacity. Pipes that are colored pink have a peak flow up to twice as high as capacity; this creates a risk of surcharging which can affect the performance of connected municipal customer sewer systems. Pipes colored red have peak flows more than double the pipe capacity.

This is a high-level screening approach to identify areas of capacity restriction. It is best to view an image like this along with a picture of manhole surcharging to see where capacity restrictions are causing a risk of overflows. This capacity screening can show colored pipes just because they have locally flat slope (hence a low Manning's capacity value). This is generally not a problem if the flat sloped pipes are short, and the neighboring pipes do not have a flat slope. Under the Baseline 10% Probability scenario, 3% of the interceptor sewers in the NEW Water system have insufficient capacity.

Figures 3-4 and 3-5 provide a plan view of the NEW Water interceptor system under the Future 10% Probability scenario. Under this scenario, 5% of the interceptor sewers in the NEW Water system have insufficient capacity and 2% of the manholes have simulated water levels that are 10 feet or less from the ground; there are no manholes where the water level exceeds the ground level. The results are very similar to those for the Baseline 10% Probability scenario.

Table 3-1 summarizes the performance of the GBF and DPF in the Baseline and Future 10% Probability scenarios. The capacity of the GBF is 148.8 mgd and the DPF capacity is 40.4 mgd. For both the Baseline and Future scenarios, the peak flow to the GBF and the DPF is less than or equal the capacities of the facilities.

Table 3-1. Summary of Treatment Facility Performance in 10% Probability Scenarios

Treatment Facility	Facility Capacity (mgd)	Baseline 10% Probability			Future 10% Probability		
		Peak Flow (mgd)	Peak Flow Above Capacity (mgd)	Storage Needed (MG)	Peak Flow (mgd)	Peak Flow Above Capacity (mgd)	Storage Needed (MG)
GBF	148.8	132	0	0	147	0	0
DPF	40.4	31	0	0	40	0	0

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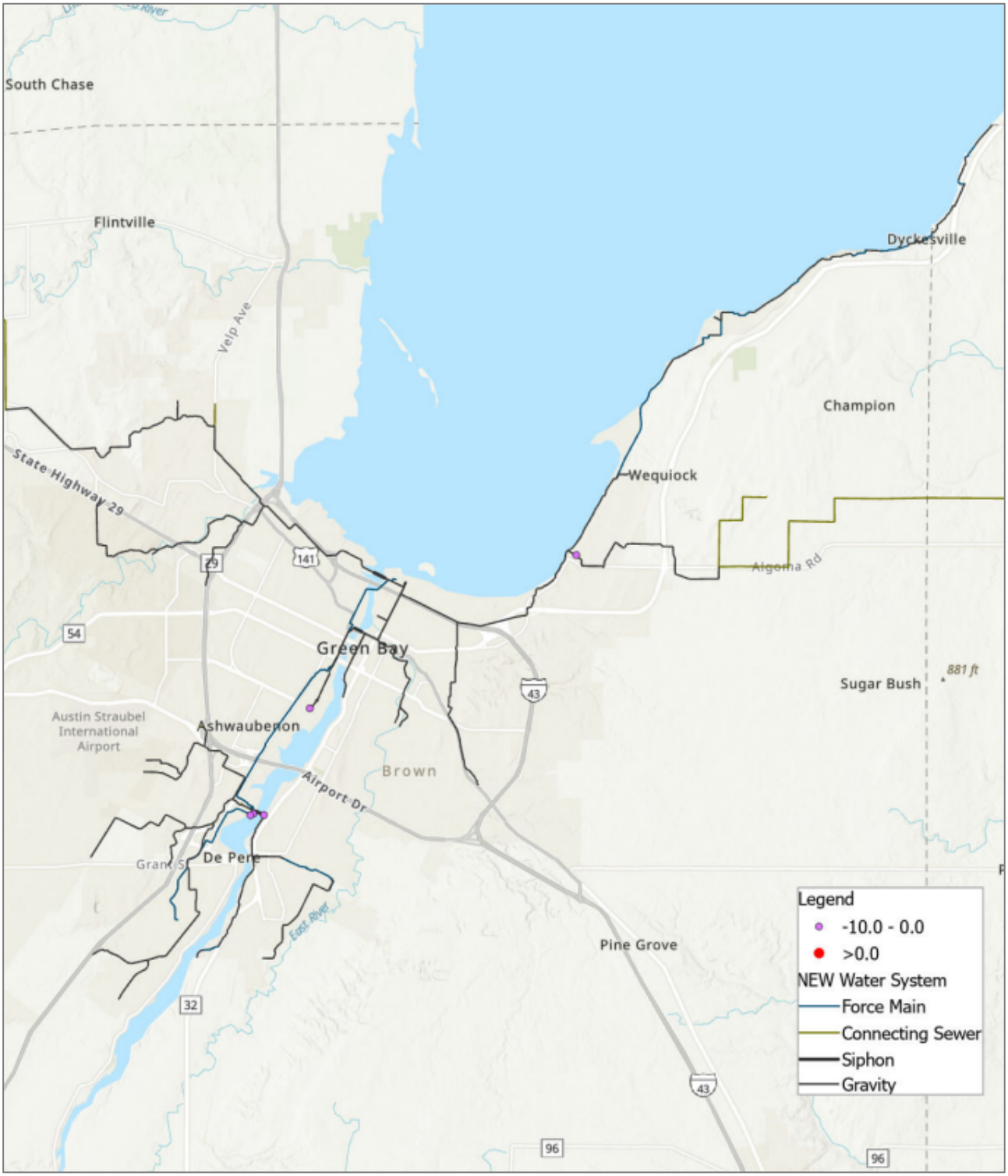

Figure 3-2. Results of Baseline 10% Probability Simulation - Manhole Water Level Versus Ground Level

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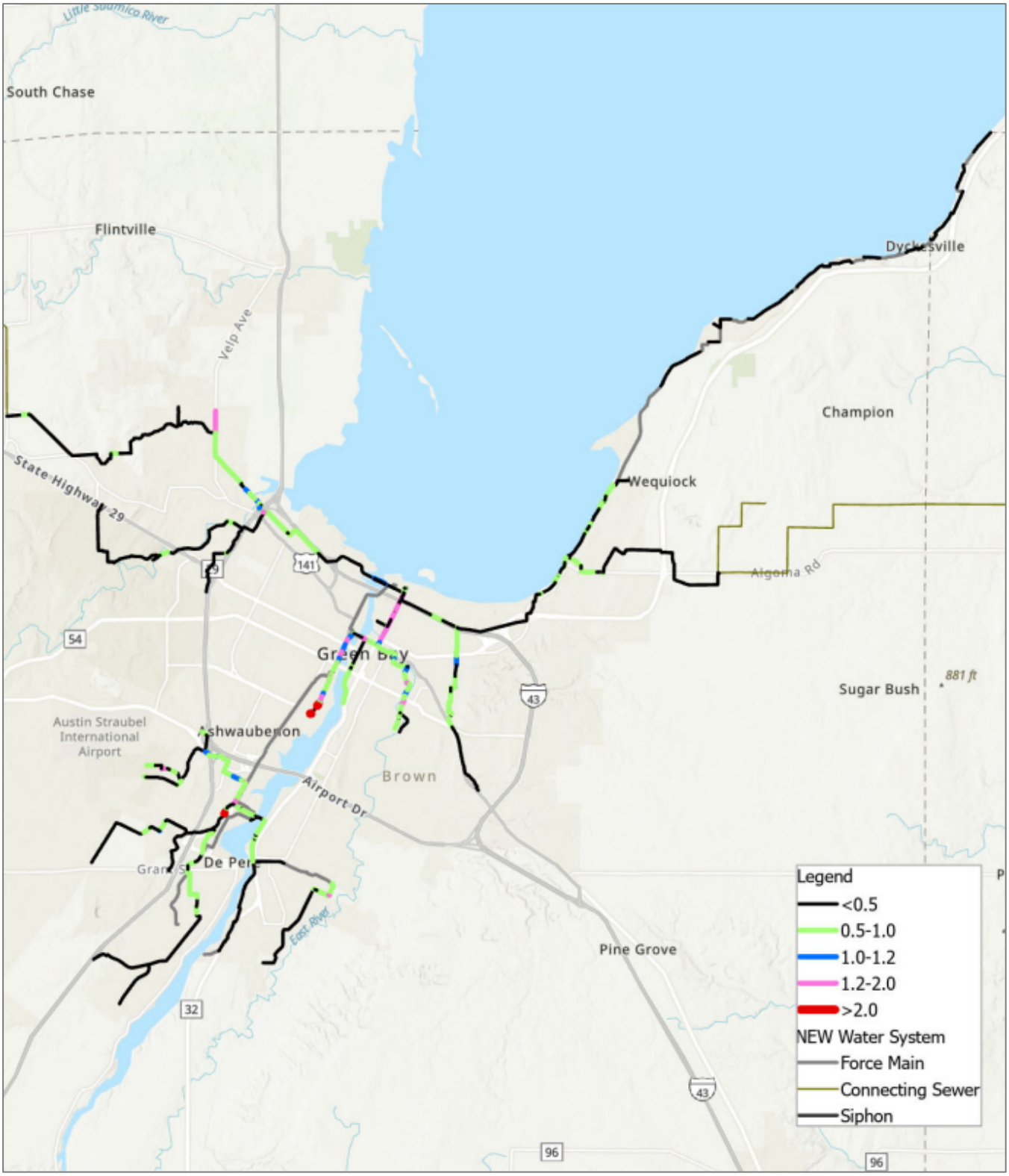

Figure 3-3. Results of Baseline 10% Probability Simulation - Peak Flow to Pipe Capacity Ratio

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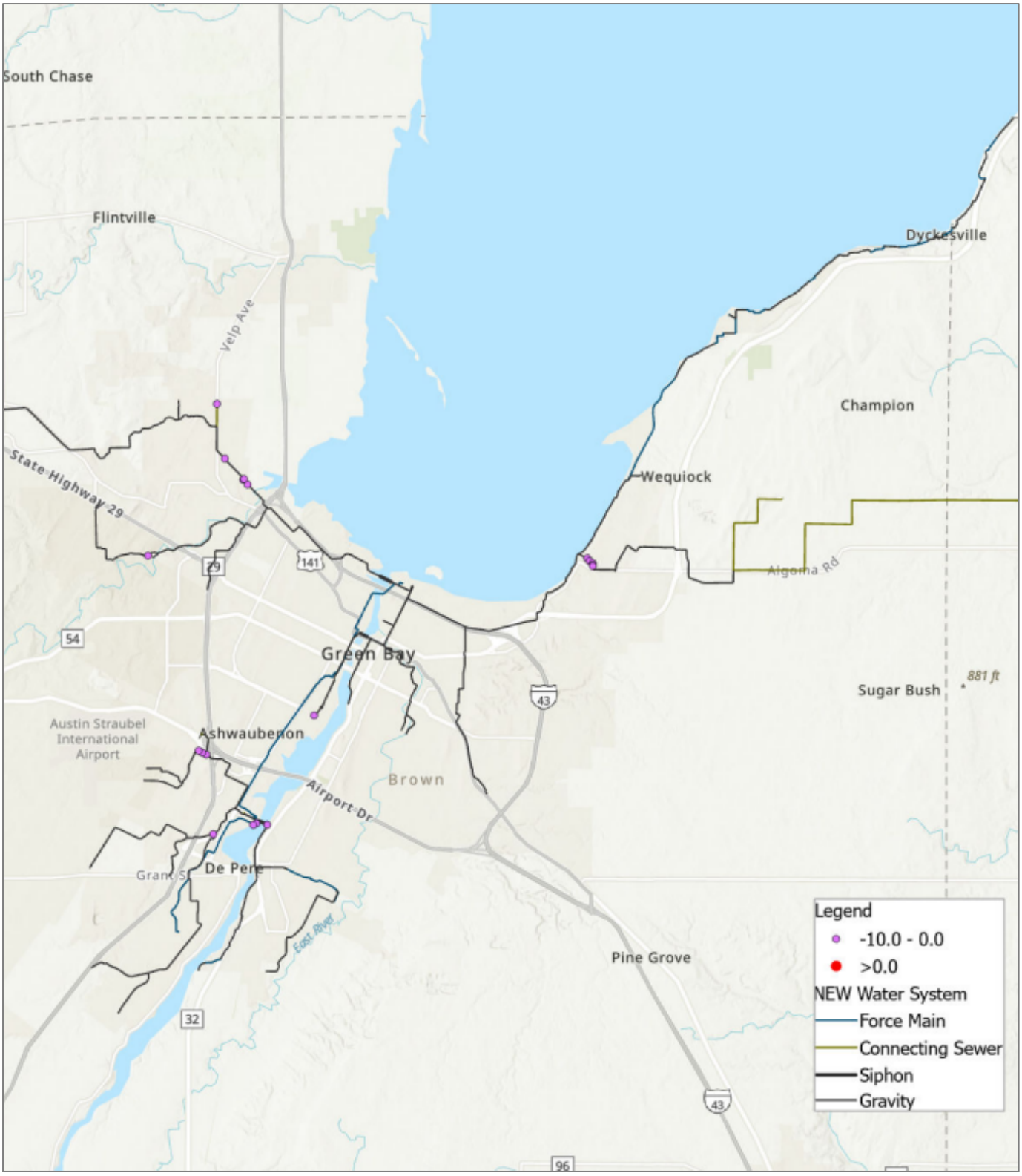

Figure 3-4. Results of Future 10% Probability Simulation - Manhole Water Level Versus Ground Level

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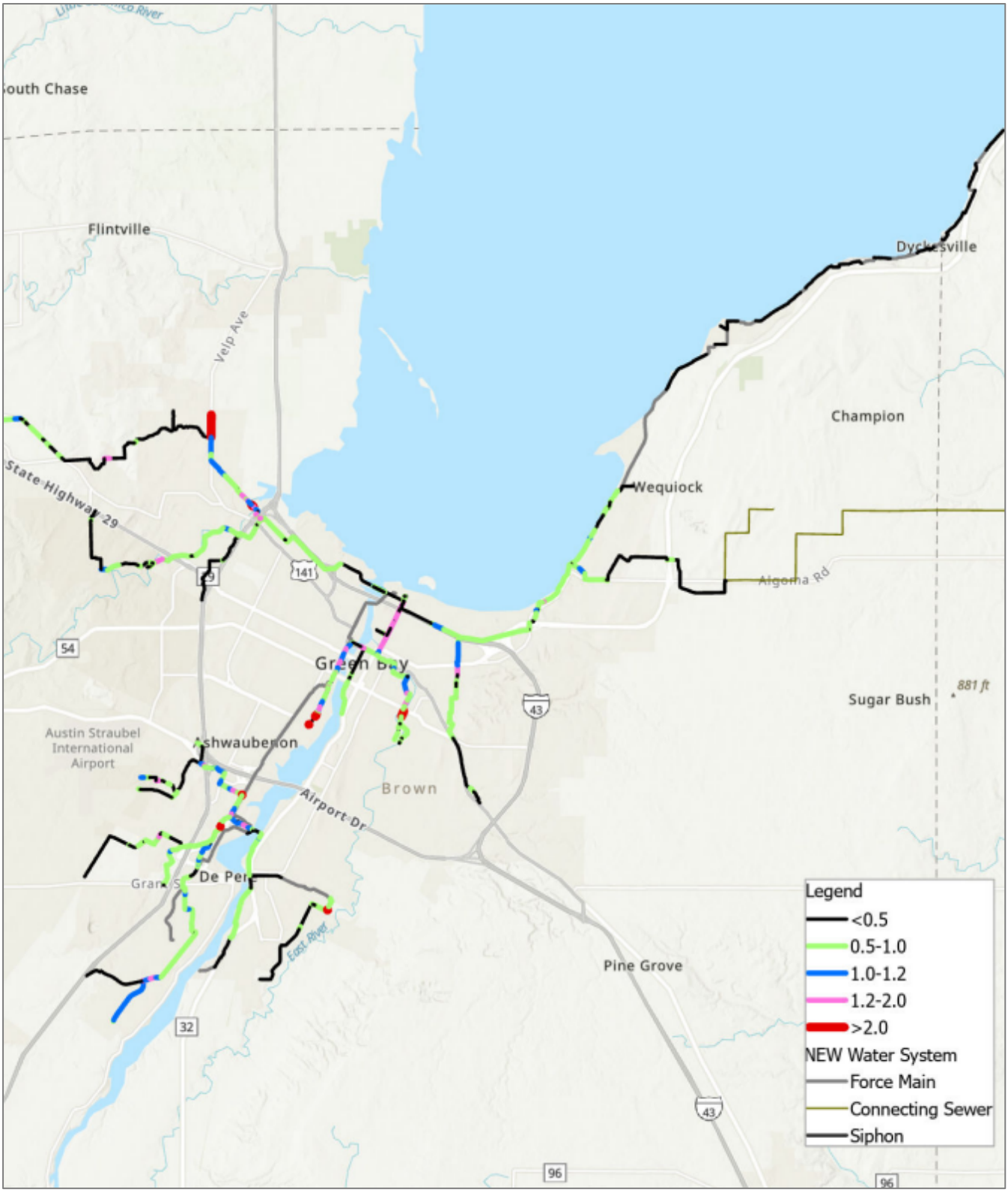

Figure 3-5. Results of Future 10% Probability Simulation - Peak Flow to Pipe Capacity Ratio

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3.3 2% Probability Scenario

Figures 3-6 and 3-7 provide the results of the model simulation of the NEW Water interceptor system under the Baseline 2% Probability scenario. Figures 3-8 and 3-9 provide the results of the model simulation under the Future 2% Probability scenario. These figures show that the system is much more strained under the 2% Probability scenarios than under the 10% Probability scenarios.

The simulation of the Baseline 2% Probability scenario shows that 8% of the interceptor sewers have insufficient capacity. It also demonstrated that 8% of the manholes have water levels that are within 10 feet of the ground surface and 2% of the manholes have water levels that exceed the ground surface.

For the Future 2% Probability scenario, the simulation showed that 11% of the interceptor sewers have insufficient capacity and 14% of the manholes have water levels that are within 10 feet of the ground surface; 5% of the manholes have water levels that exceed the ground surface.

Table 3-2 summarizes the performance of the GBF and DPF in the Baseline and Future 2% Probability scenarios. For the Future 2% Probability scenario, the peak flow to the GBF is 193 mgd, or 44 mgd greater than its capacity; the peak flow to the DPF is 68 mgd, or 28 mgd greater than its capacity. To contain the peak flows that exceed the capacities of these facilities, this translates to a storage need of 22 MG for the GBF and 13 MG for the DPF.

Table 3-2. Summary of Treatment Facility Performance in 2% Probability Scenarios

Treatment Facility	Facility Capacity (mgd)	Baseline 2% Probability			Future 2% Probability		
		Peak Flow (mgd)	Peak Flow Above Capacity (mgd)	Storage Needed (MG)	Peak Flow (mgd)	Peak Flow Above Capacity (mgd)	Storage Needed (MG)
GBF	148.8	174	25	5	193	44	22
DPF	40.4	56	16	5	68	28	13

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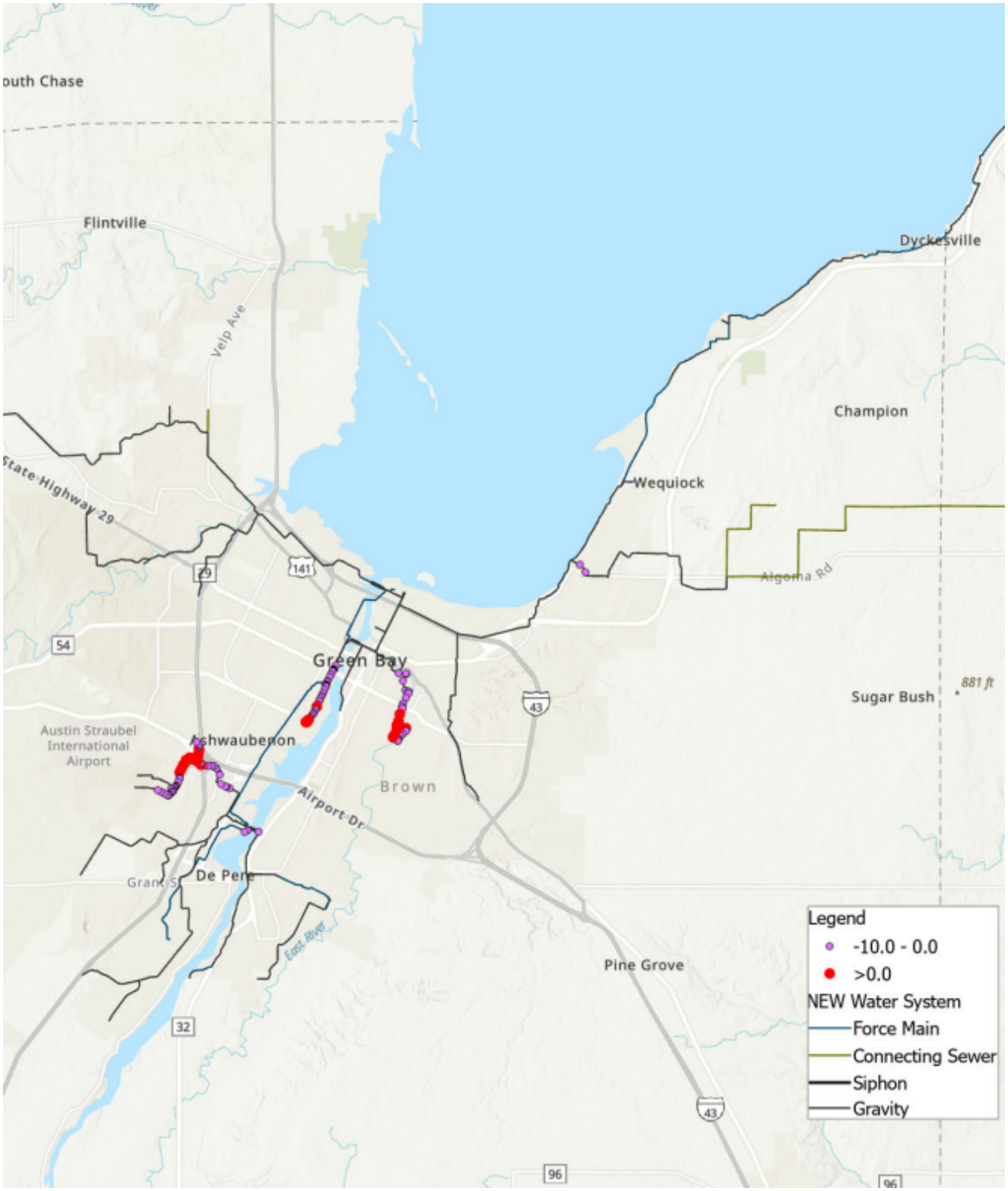

Figure 3-6. Results of Baseline 2% Probability Simulation - Manhole Water Level Versus Ground Level

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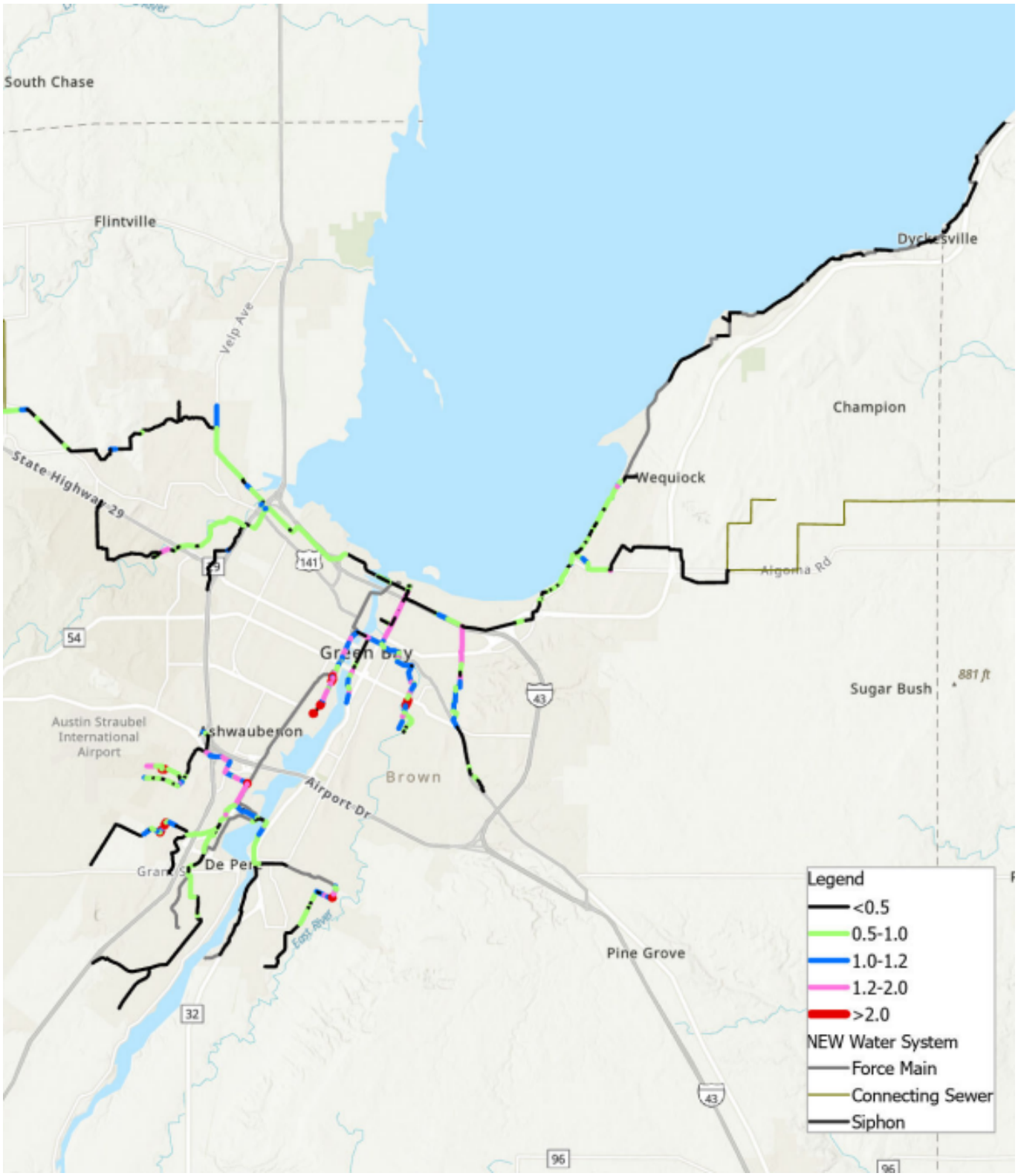

Figure 3-7. Results of Baseline 2% Probability Simulation - Peak Flow to Pipe Capacity Ratio

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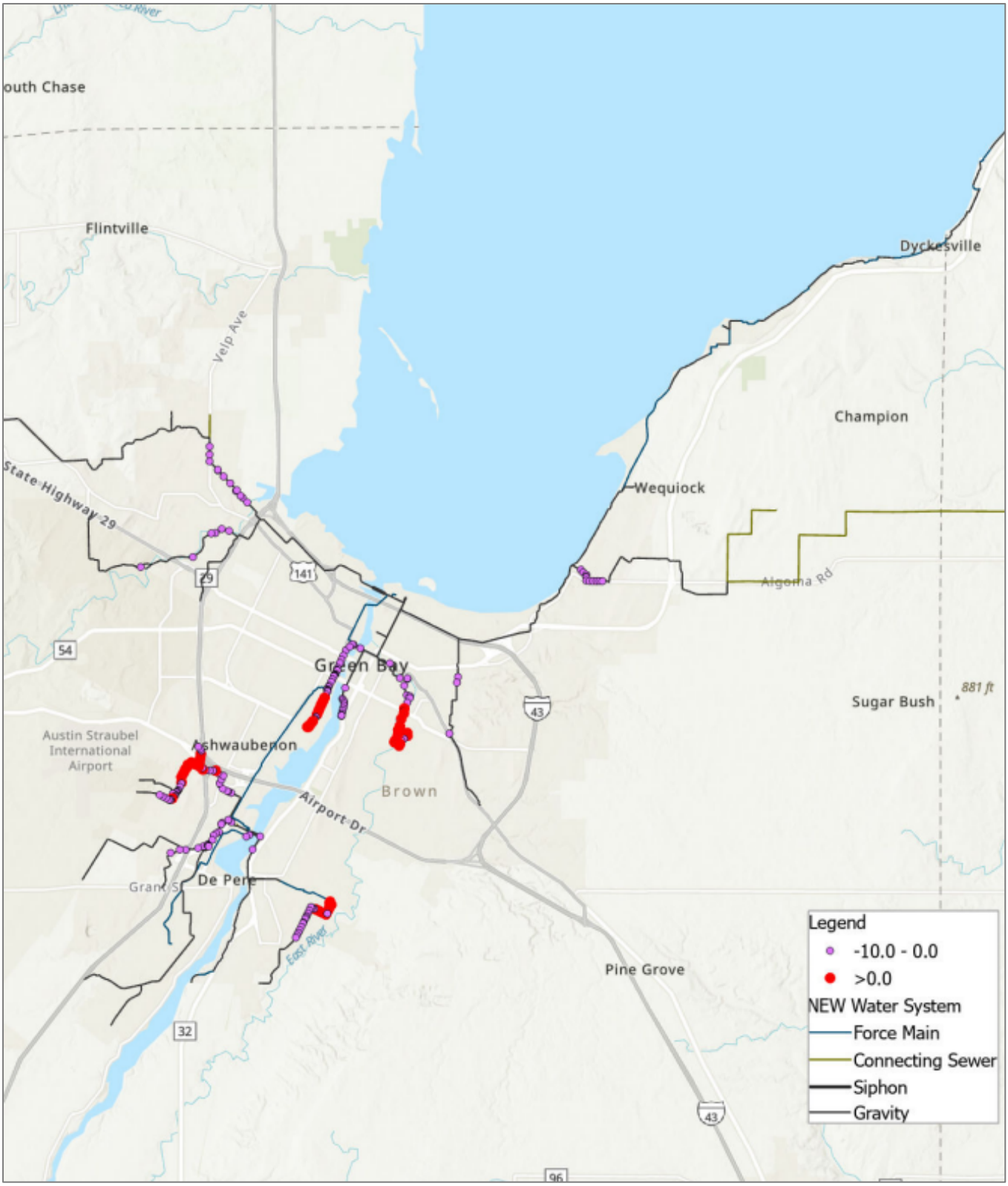

Figure 3-8 Results of Future 2% Probability Simulation - Manhole Water Level Versus Ground Level

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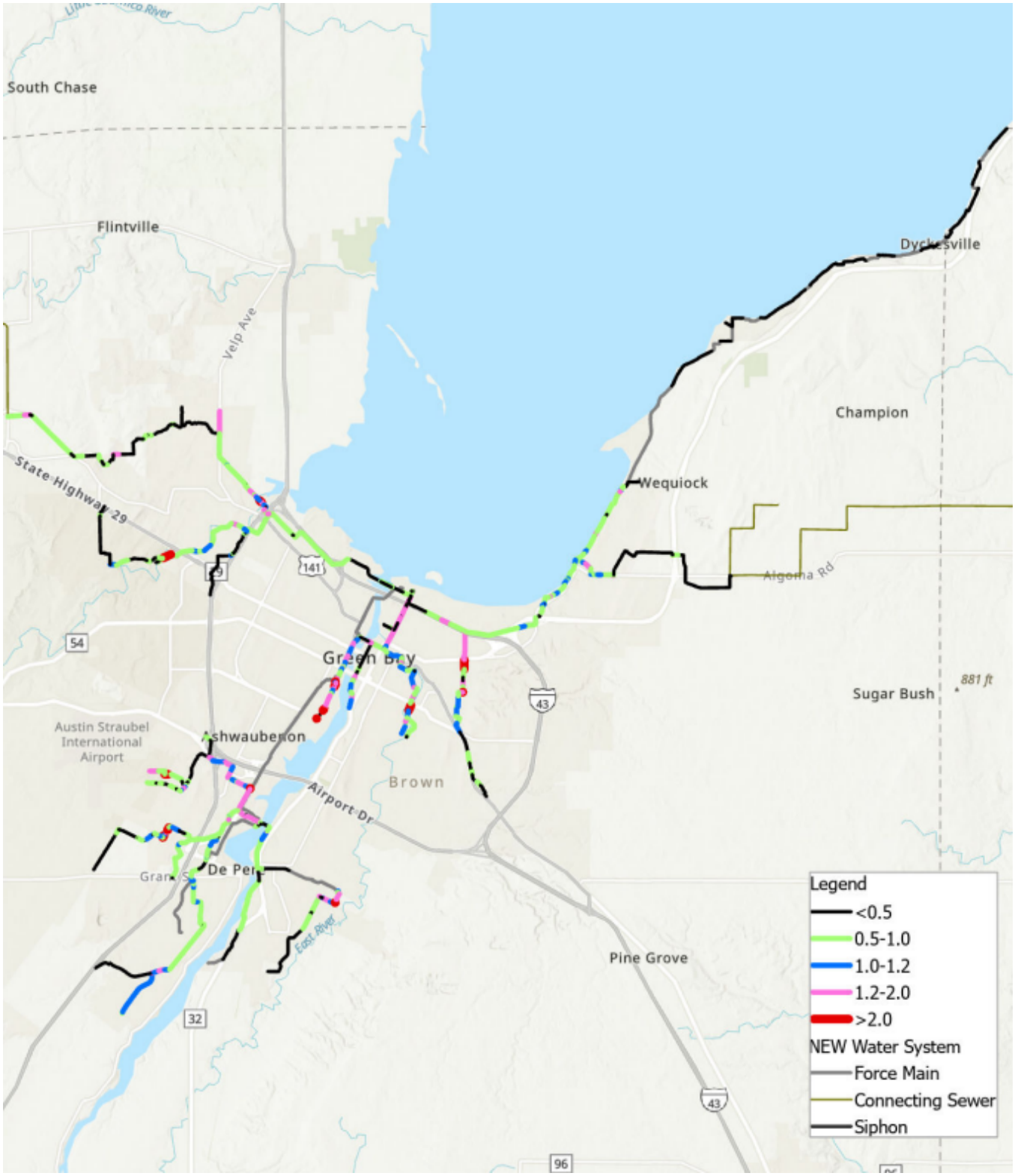

Figure 3-9. Results of Future 2% Probability Simulation - Peak Flow to Pipe Capacity Ratio

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3.4 Comparison of Scenarios

Table 3-3 summarizes the simulated model results of the Baseline 10%, Future 10%, Baseline 2%, and Future 2% Probability scenarios.

As seen in Table 3-3, the NEW Water system performs better under the Future 10% Probability scenario than under the Baseline 2% Probability scenario. This shows that a lower probability event, or larger storm, will stress the system more than increased development.

Please note that not all pipes with flow exceeding capacity will need upsizing; some of these pipes may be able to tolerate the higher flows provided that the surcharge is not excessive. An example of this scenario is the Quincy Street Interceptor (QSI). While the capacity of the QSI has been exceeded during the simulation of the 2% Probability events, the surcharging does not come within 10 feet of the ground surface. Therefore, the QSI would not require improvements based on the evaluation criteria provided in Section 3.1.

Table 3-3 is a screening level summary of the pipes and not an identification of deficiencies.

Table 3-3. Comparison of Simulated Model Results by Scenario

Simulated Performance Metric	Baseline 10% Probability	Future 10% Probability	Baseline 2% Probability	Future 2% Probability
Percent of total pipe length with peak flow greater than 120% of full pipe capacity	3%	5%	8%	11%
Number of manholes with water less than 10 feet from the ground surface	8	22	87	160
Percent of manholes with water level less than 10 feet from the ground surface.	1%	2%	8%	14%
Number of manholes with water level above the ground surface	none	none	28 manholes in the model	60 manholes in the model
Percent of manholes with water level above the ground surface	0	0	2%	5%

Total inventory of NEW Water interceptors: 449,700 LF (in the model)

Total number of NEW Water manholes: 1152

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Figure 3-10 shows the hydrographs at the GBF for each of the four scenarios. As seen in this figure:

- The GBF has adequate capacity for the peak flow from the Baseline and Future 10% Probability scenarios.
- Peak flow is greater than the GBF capacity for the Baseline and Future 2% Probability scenarios.
- For the Baseline 2% Probability scenario, the storage volume needed is 13 MG; this is indicated by the area under the dotted light blue line that is above the 148.8 mgd GBF capacity line.
- For the Future 2% Probability scenario, the storage volume needed is 22 MG; this is indicated by the area under the dotted dark blue line that is above the 148.8 mgd GBF capacity line.

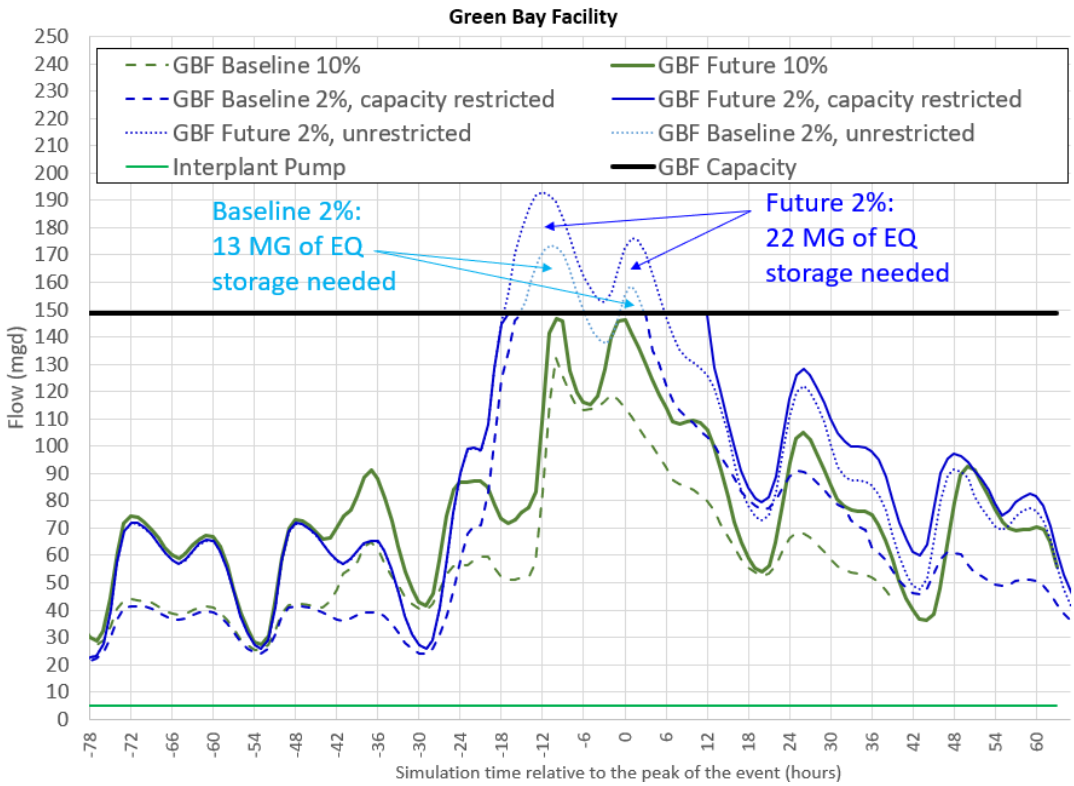

Figure 3-10. Comparison of Hydrographs for each Scenario at the GBF

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Figure 3-11 shows the hydrographs at the DPF for each of the four scenarios. As seen in this figure:

- The DPF has adequate capacity for the Baseline and Future 10% Probability scenarios.
- Peak flow to the DPF is greater than DPF capacity for the Baseline and Future 2% Probability scenarios.
- The storage volume needed to contain the Baseline 2% Probability scenario is 5 MG; this is indicated by the area under the dotted orange line that is above the 40.4 mgd DPF capacity line.
- The storage volume needed to contain the Future 2% Probability scenario is 13 MG; this is indicated by the area under the dotted red line that is above the DPF capacity line.

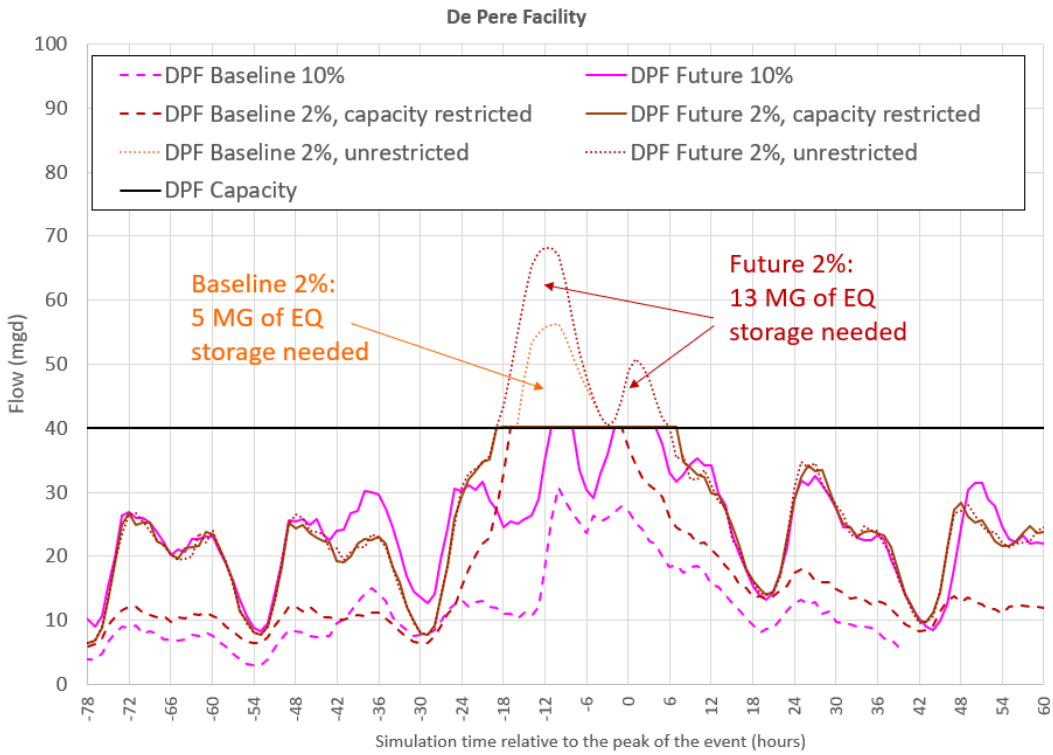

Figure 3-11. Comparison of Hydrographs for each Scenario at the DPF

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Section 4: Financial Impact Evaluation

This section discusses the results and conclusions of the Financial Impact Evaluation. The Financial Impact Evaluation was only completed for the Future 2% Probability scenario because it represents the most extreme scenario with the most impacts to the wastewater conveyance and treatment facilities. Costs developed for this evaluation only represent estimated construction costs and do not include other related costs such as design and construction management.

For the Financial Impact Evaluation, the team identified different options for containing all the simulated flows within the wastewater conveyance and treatment facilities during each modeled scenario. These options included:

- Convey+EQ Only
- I&I Reduction Only
- Convey+EQ+I&I Reduction

Costs presented in this TM represent planning level construction costs and are intended only for comparison of the different scenarios. As a result, the costs may not align with other NEW Water planning level costs.

4.1 Convey+EQ Only Option

The Convey+EQ Only option conveys the additional flow through improvements to the interceptors, pump stations and force mains, broadly referred to as the "conveyance system" for this evaluation. It also includes adding equalization tanks to store the excess flow at the GBF and DPF, rather than considering upgraded capacity at the treatment facilities.

This option considers I&I rates that would remain as-is and explores the conveyance system improvements needed to manage the Future 2% Probability scenario successfully. Attachment B includes details on which facilities would be upsized under this scenario and the estimated construction costs for improvements.

For this evaluation, the sewers identified as not meeting the evaluation criteria were upsized to adequately convey the flow. For the Future 2% Probability scenario, 33,087 LF of interceptor sewers would need to be upsized, or 6% of the interceptor sewers in the NEW Water network. The planning-level construction cost to upsize these sewers is $18million, based on the interceptor unit costs from NEW Water's *Interceptor Master Plan* (Donohue, 2018), and adjusted for inflation based on the Engineering News Record (ENR) Consumer Cost Index (CCI). An ENR CCI of 14,200 was used for December 2017 and an ENR CCI of 17,368 was used for February 2024 (ENR, 2024).

Based on the lift station firm capacities that were identified in NEW Water's *Lift Station Facilities Plan* (Strand, 2022), 10 of the lift stations in the model have simulated peak flows to the lift station that exceed the lift station firm capacities. The planning-level construction cost to upgrade these lift stations is $20 million. This estimated cost is based on the Raw Wastewater Pumping Stations Construction Costs chart from *Pumping Station Design, Revised Third Edition* (Jones, 2008), and adjusted for inflation using the February 2024 ENR CCI. These unit costs were also validated against the lift station upgrade costs in the NEW Water *Lift Station Facilities Plan*.

With the increases to the lift stations' capacity, three of the force mains will also need to be upsized to keep the velocities less than 8 feet per second. These are the force mains at ERLS, EBS-7, and EBS-9. The planning-level construction cost to upgrade these three forcemains is about $5 million, based on the interceptor unit costs from NEW Water's *Interceptor Master Plan* (Donohue, 2018). These estimated costs were adjusted for inflation using the February 2024 ENR CCI, as well as validated against the forcemain upgrade costs that were included in the NEW Water *Lift Station Facilities Plan*.

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The most expensive improvement is for managing the peak flow in excess of the GBF and DPF capacities. This evaluation used equalization (EQ) storage for the management of this excess flow. The cost of EQ storage for each treatment facility was based on a unit cost of $7 per gallon, which is the storage gallon unit cost from the NEW Water *Interceptor Master Plan* (Donohue, 2018) adjusted for inflation based on the ENR CCIs. For the Future 2% Probability scenario, 22 MG of storage is needed at the GBF for a cost of $154 million and 13 MG of storage is needed at the DPF for a cost of $91 million, for a total EQ storage cost of $245 million.

The planning-level construction cost for all these improvements is estimated as $288 million. Notice that the cost of EQ storage at GBF and DPF dominates the total cost , as the cost of upsizing the interceptors and pumps is a relatively small fraction.

4.2 I&I Reduction Only Option

If the conveyance system remains as-is, the I&I Reduction Only option explores the I&I reduction necessary to convey the Future 2% Probability scenario successfully. This option eliminates I&I in excess of system capacity at the most impactful catchments, which are those catchments with the highest I&I rates (GPAD value) as identified in dark blue in Figure 3-1.

The costs for I&I reduction were estimated based on a trendline of unit costs that was developed from past I&I reduction projects that have been completed in the United States; the trendline is based on the cost to remove the I&I as compared to the amount of I&I before the reduction efforts. Attachment C includes details on how this cost was estimated. The approach does not assume any specific approach for repairing public and/or privately-owned components of the upstream wastewater conveyance system.

To make it easier to evaluate the impacts of I&I, I&I in the GBF service area was evaluated independently of the DPF area. Figure 4-1 shows the catchments that are tributary to the GBF, sorted by gpad from highest to lowest. The cost to achieve a series of I&I reduction steps was estimated. The strategy would be to first reduce I&I in those catchments with the highest I&I rates (leakiest) and continue to work on I&I in other catchments until reaching a level where the flows fit within the existing capacity of the conveyance and treatment facilities for the Future 2% Probability scenario. For the GBF service area, the leakiest catchments are above 20,000 gpad. Five steps were used to bring the I&I rates down to 2,500 gpad to manage the Future 2% Probability scenario flows within the existing conveyance and treatment system. This requires I&I work in 38 catchments in the GBF area to reduce the I&I flows by 45%. This level of I&I reduction would require substantial work in half of the catchments tributary to the GBF, at an estimated construction cost of $387 million.

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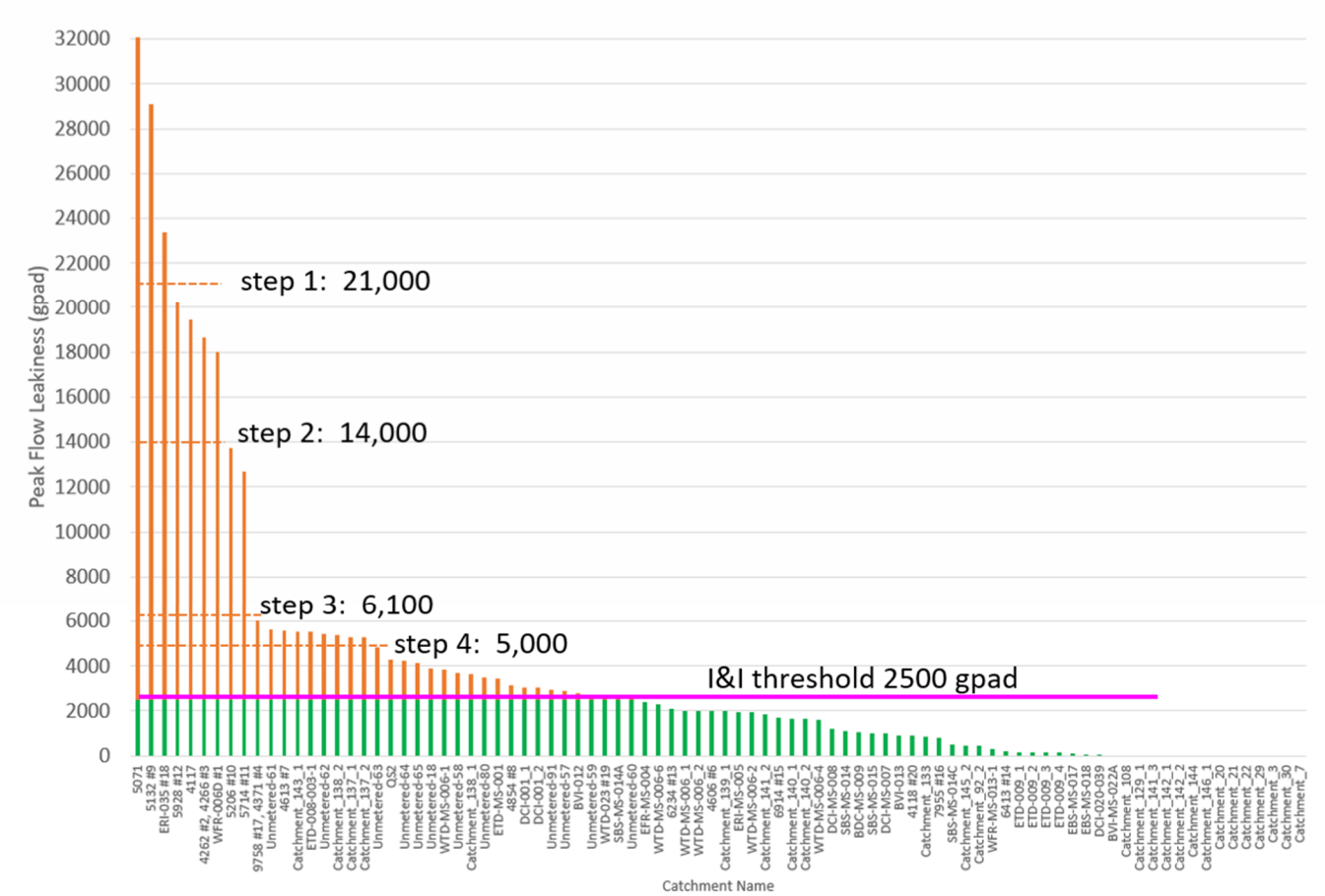

Figure 4-1. Catchments tributary to the GBF, sorted by highest gpad.

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Figure 4-2 shows the catchments that are tributary to the DPF, sorted by gpad from highest to lowest. For the DPF service area, the leakiest catchments are above 6,000 gpad. Six steps were used to bring the I&I rates down to 800 gpad to manage the Future 2% Probability scenario flow within the existing wastewater conveyance and treatment facilities. This requires I&I work in 38 catchments in the DPF area to reduce peak I&I by 65%. This level of I&I reduction would require work in two-thirds of the catchments at an estimated construction cost of $260 million.

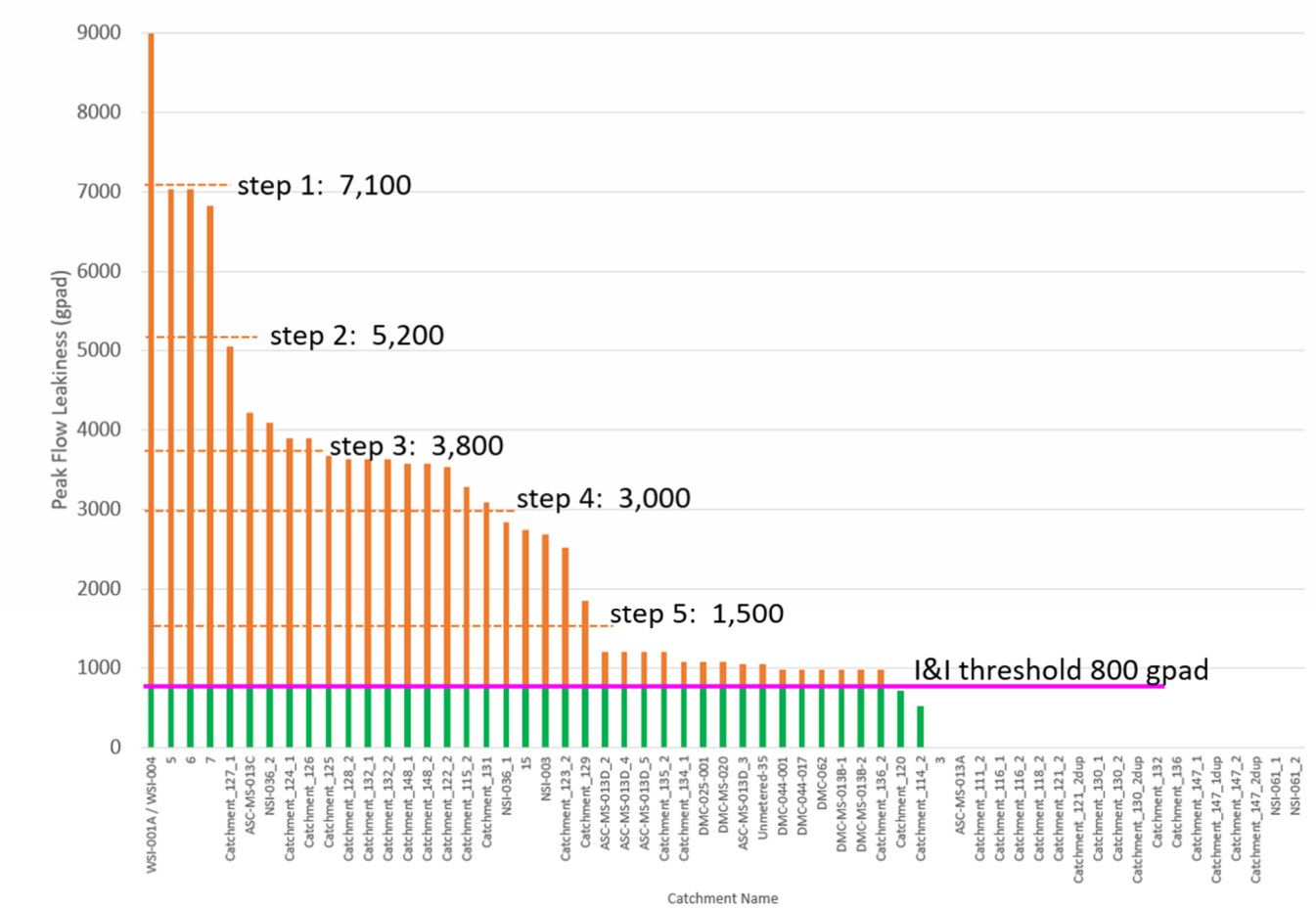

Figure 4-2. Catchments tributary to the DPF, sorted by highest gpad.

Note: A number of catchments in the model were added for the future development areas. These future areas were not in the model when it was calibrated for the existing conditions. The I&I values shown in Figures 7 and 8 are for the catchments that were active in the existing conditions. The future catchments were assigned an I&I allowance of 30 gallons per capita per day. That is why many catchments in the bar graph do not have a value. These are not anticipated to be areas of significant I&I.

The total cost of I&I reduction in both the GBF and DPF service areas is in the range of $647 million to achieve a 49% reduction in the overall system peak I&I rates.

This is an extreme case where all the capacity exceedances of the wastewater conveyance and treatment facilities are resolved by only with I&I reduction. It is not intended to be a realistic option, but a bookend solution to help appreciate the benefits of mixing of capacity improvements along with some I&I reduction.

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4.3 Convey+EQ+I&I Reduction Option

The Combination Option uses a combination of I&I reduction and conveyance improvements to manage the remaining flow. Figure 4-3 shows the amount of I&I reduction versus the cost of this reduction for the Convey+EQ Only, I&I Reduction Only, and Convey+EQ+I&I Reduction options. In this figure, the blue curve is the cost of wastewater conveyance system improvements, including EQ storage at GBF and DPF (Convey+EQ). The orange curve is the cost of I&I reduction, which rapidly increases as more I&I reduction is needed. The green curve is the sum of conveyance improvements and I&I reduction.

In general, Figure 4-3 shows that the cost of I&I reduction is much greater than conveyance system improvements. The most cost-effective combination of I&I reduction and conveyance system improvements is when the I&I is reduced by 10% in those catchments with the highest I&I in the system. This is the point where the green line changes from decreasing to increasing, or the "knee of the curve". At this point, a tactical program of I&I reduction in these catchments may be worth the effort because it reduces the demand for conveyance improvements without the I&I work becoming cost prohibitive.

If the I&I is reduced by 10%, targeting the highest I&I rate areas first, the conveyance improvement costs and EQ storage can be reduced from $288 million to approximately $165 million. With this level of I&I reduction, EQ storage volume needed at the GBF is approximately 9 MG and at the DPF is approximately 9 MG. It is estimated that a $65 million investment in I&I reduction efforts for the Future 2% Probability scenario would save approximately $123 million in EQ storage cost at the GBF and DPF. The "cost-effective" level of I&I reduction is approximately 10% reduction in wet weather flows, for a total cost of $229 million.

It is important to note that systematic asset maintenance is needed in all the catchments to prevent degradation in I&I rates over time. This analysis does not include an estimate of the cost of systematic asset maintenance, yet it is essential for the long-term successful operation of the system for level of protection that is enjoyed today. I&I reduction also has a dual benefit of repairing degradation in the conveyance system as well as reducing flows.

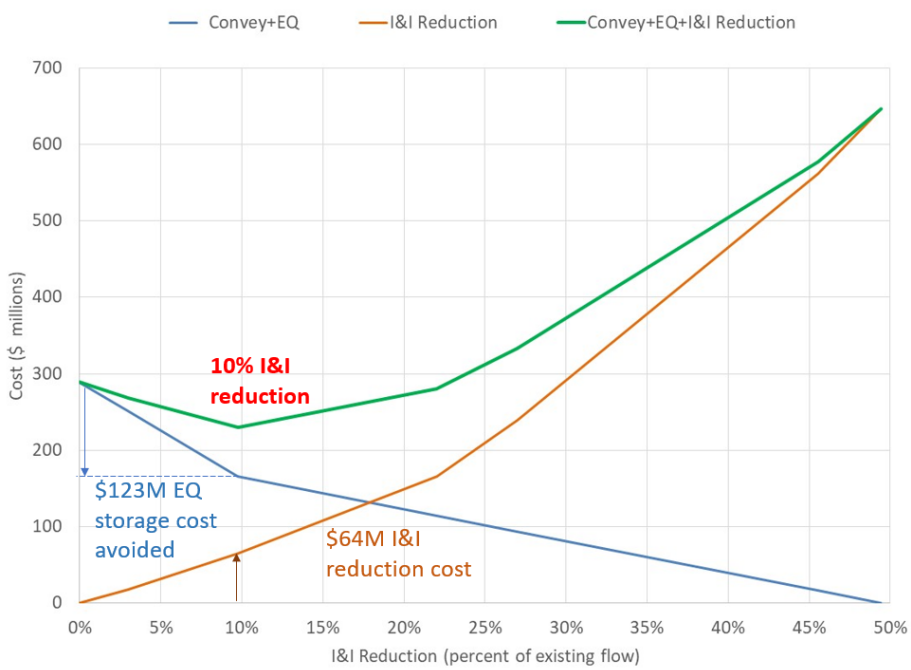

Figure 4-3. Comparison of Costs for the Convey+EQ Only, I&I Reduction Only, and Convey+EQ+I&I Reduction Options.

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4.4 Conclusions

This evaluation assessed the performance of the NEW Water wastewater conveyance and treatment facilities during the Baseline 10%, Future 10%, Baseline 2%, and Future 2% Probability flow scenarios. It also provided a planning-level estimate of the approximate construction cost of I&I reduction within the NEW Water service area compared to the cost of improvements to the wastewater conveyance and treatment facilities during the Future 2% Probability scenario. The evaluation provided a broad assessment of the NEW Water interceptor system, its lift stations and force mains, and its treatment facilities, which include the GBF and the DPF.

Table 4-1 summarizes the costs of the Convey+EQ, I&I Reduction, and Combination Options. This table shows that the cost of only performing I&I reduction is much greater than the cost to only perform conveyance system improvements with EQ storage. The total cost of conveyance and treatment improvements to manage a Future 2% Probability scenario without excessive surcharging is $288 million if I&I flow rates and volumes do not change. When coupled with a 10% reduction in I&I, this total cost drops to an estimated $229 million. The 10% I&I reduction level is the reduction in the overall I&I for the entire NEW Water service area, with focus on the leakiest catchments. A tactical program of I&I reduction in the leakiest catchments is worth the effort because it reduces the demand for conveyance improvements without the I&I work becoming cost prohibitive. I&I reduction has a dual benefit of repairing degradation in the conveyance system as well as reducing flows.

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Table 4-1. Summary of Estimated Construction Costs for Future 2% Probability Scenario									
Option	EQ Storage at GBF ($ Million)	EQ Storage at DPF ($ Million)	EQ Storage at GBF and DPF ($ Million)	Pump Stations	Forcemains	Interceptors	Convey+EQ ($ Million)	I&I Reduction ($ Million)	Total ($ Million)
				Cost ($ Million)	Cost ($ Million)	Cost ($ Million)			
Convey+EQ Only	$154	$91	$245	$20	$5	$18	$288	$0	$288
I&I Reduction Only	$0	$0	$0	$0	$0	$0	$0	$647	$647
Convey+EQ+I&I Reduction	$63	$63	$126	$18	$5	$16	$165	$65	$229

Because this is a high-level study, the cost values have a substantial range of variability. The relative cost of conveyance improvements and I&I reduction is more important than the actual numerical values. The purpose of this study is to help compare the cost of I&I to the cost of conveyance improvements. This helps set modest and realistic goals for I&I reduction to achieve the lowest overall cost for the rate payers.

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Attachment A: Supplemental Model Documentation

Evaluation Events

Two events were used to evaluate the hydraulic performance of the system. One is called the 10% probability event and the other is the 2% probability event.

10% probability event

The 10% probability event is based on the rainfall pattern at the Green Bay airport on June 25-27, 1969. The total rainfall depth was 4.9 inches over 36 hours. During this time the rain was concentrated into three waves of high intensity rainfall separated by intervals with little rain. The rainfall hyetograph (a plot of rain intensity over time) is shown in Figure A-1. The data has a 1-hour time step. The rain intensity (units of inches/hour) uses the scale on the left side of the graph. The total accumulated rain depth (units of inches) uses the scale on the right side of the graph.

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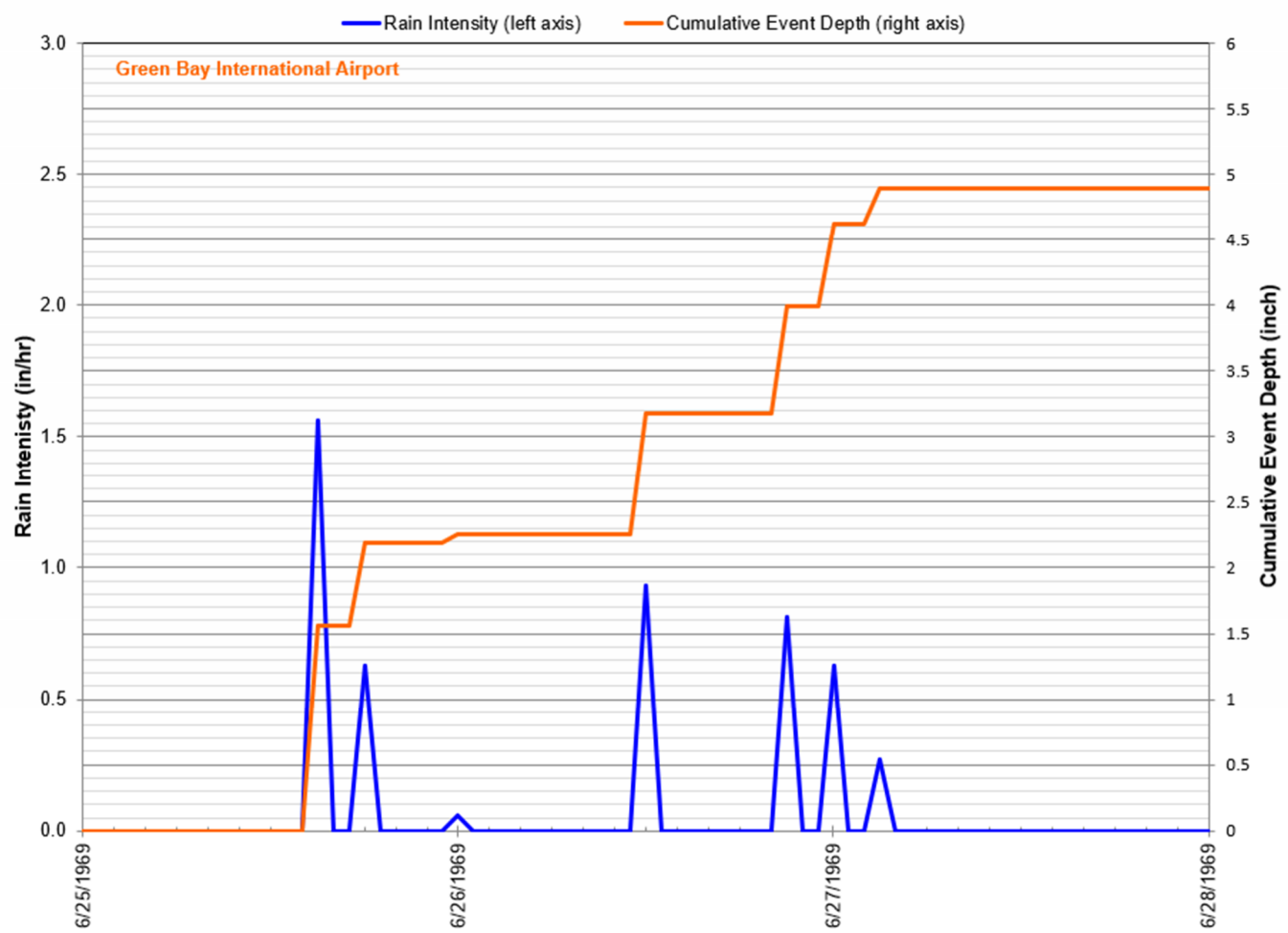

Figure A-1 Rain intensity and depth - 10% Probability Event (June 1969)

The June 1969 event was replotted using a rainfall depth-duration-frequency curve shown in Figure A-2. This orders the rainfall depth values according to a range of time durations. The June 1969 event is plotted in the graph over a background family of curves that are based on the NOAA Atlas 14 rainfall frequency provided by the National Weather Service for the Green Bay region (values based on the airport data).

The rainfall in this event ranks as 10% probability rainfall event (equivalent to a 10-year recurrence interval) for a 1-hour duration. Each individual wave of rain ranks in the range of a 5-year recurrence interval. The total rainfall over 36 hours ranks as a 40-year recurrence interval.

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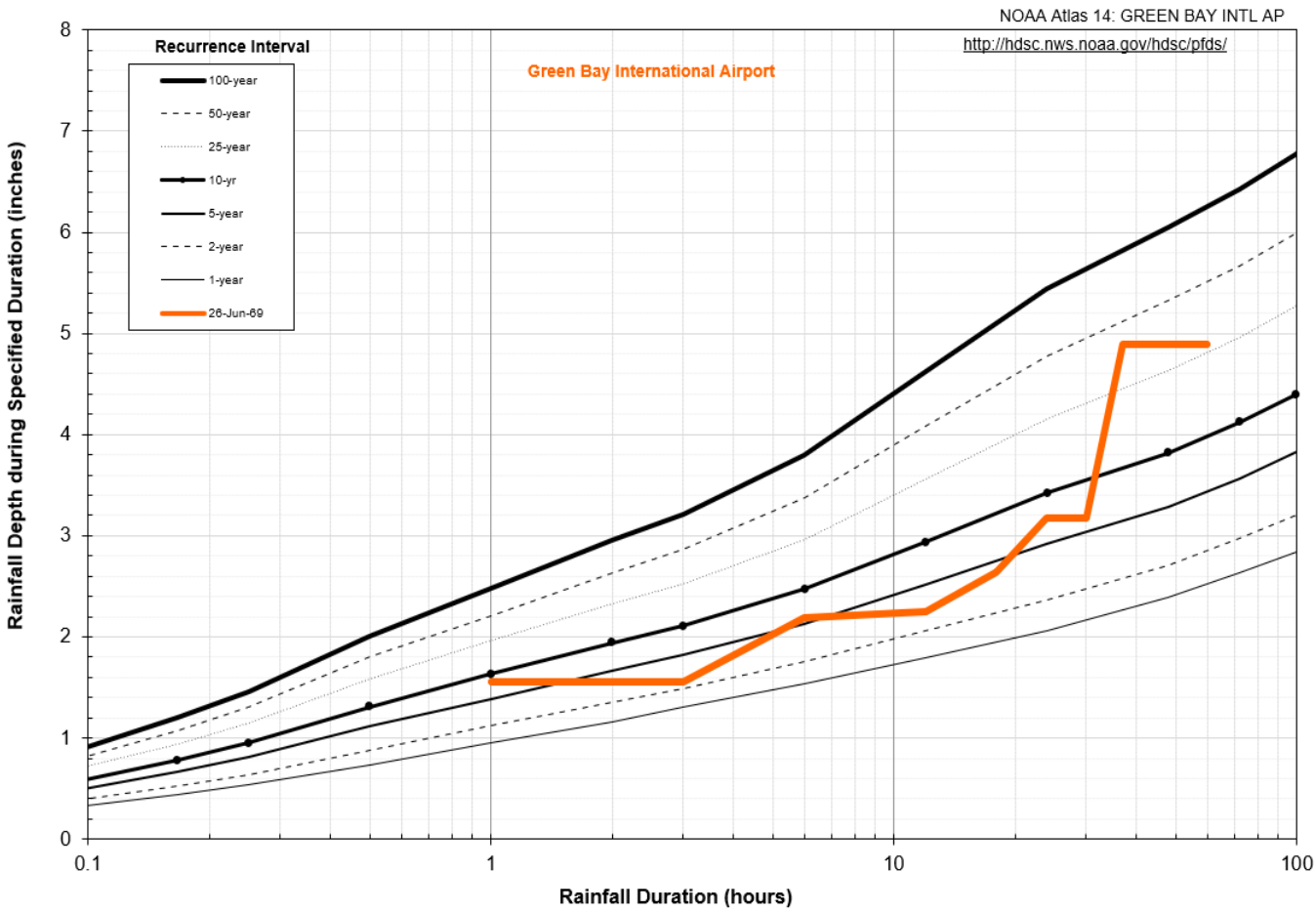

Figure A-2 Rainfall Depth-Duration-Frequency Curve - 10% Probability Event (June 1969)

For evaluating the hydraulic capacity, this event was chosen for the 10% probability event because it generates flows with a 10% annual exceedance probability (also known as a 10-year flow recurrence interval). A long-term simulation was run to estimate the total flow generated in the tributary areas (model catchments) before it is routed through the NEW Water interceptors. The peak total flow rate generated in the tributary areas for each event in the 48-year period from 1964 to 2011 was ranked to estimate the likelihood of each event as a peak flow statistic. This result is a simulated value based on the sum of all the catchment flows. It is not a flow value that can be measured at any one point in the system. It is a useful way to view the total flow generated by catchments. The summary of that statistical analysis is shown in Figure A-3 as a flow frequency curve (peak flow vs. recurrence interval).

The graph shows three very similar curves which are three statistical methods: a Weibull plotting position curve, a Cunnane plotting position curve, and a log-Pearson type 3 (LP3) curve. All these three methods agree up to the 20-year recurrence interval. Beyond that there are very few events in the 48-year simulation record to base a meaningful estimate of risk; consequently, the three curves start to diverge for long recurrence intervals. This means estimates of risk become more uncertain.

The June 1969 event ranks as a 10-year recurrence interval. Therefore, it was used as the 10% probability event for this study.

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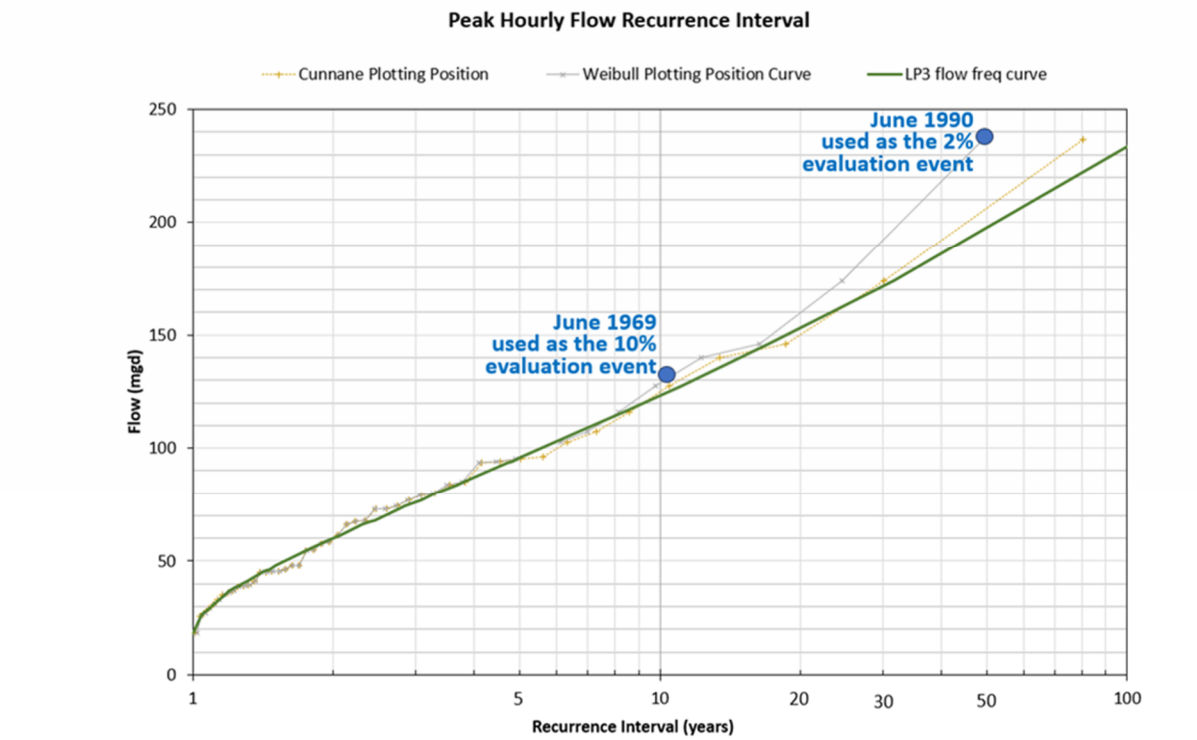

Figure A-3. Flow Frequency for Total Tributary Area Flow

2% Probability Event

The 2% probability event is based on the rainfall pattern at the Green Bay airport on June 22, 1990. The total rainfall depth was 4.5 inches over 20 hours. During this time the rain was relatively constant at a low intensity. The rainfall hyetograph is shown in Figure A-4. The data has a 1-hour time step.

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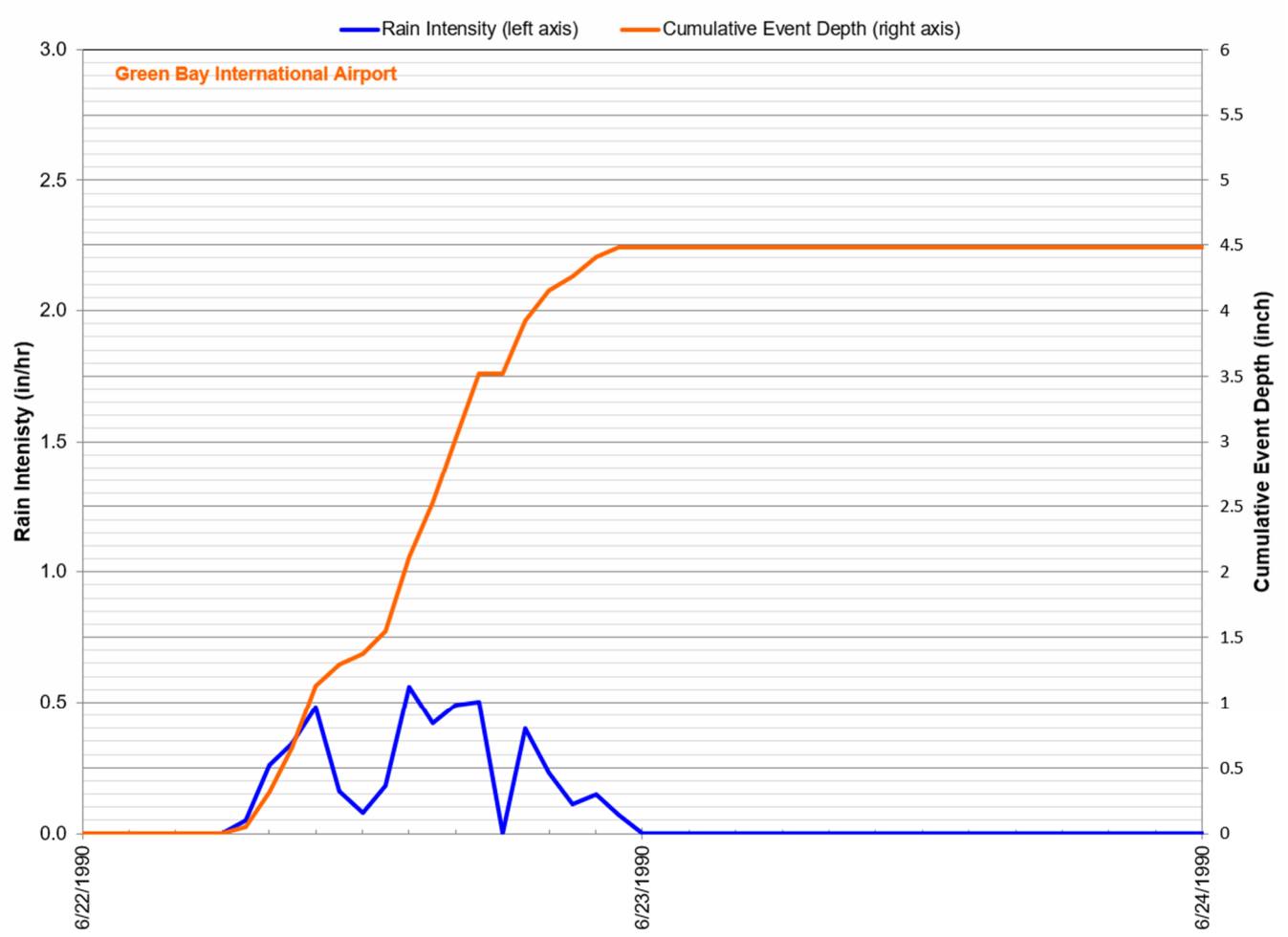

Figure A-4. Rain intensity and depth - 2% Probability Event (June 1990)

Figure A-5 shows the depth-duration-frequency curve for the June 1990 event. The rainfall intensity during this event was low so it does not rank as a significant event for durations less than 3 hours. As the time extends, the rain frequency increases from a 4% probability event (at 10-hour duration) and up to 2% probability event (for 20-hour duration).

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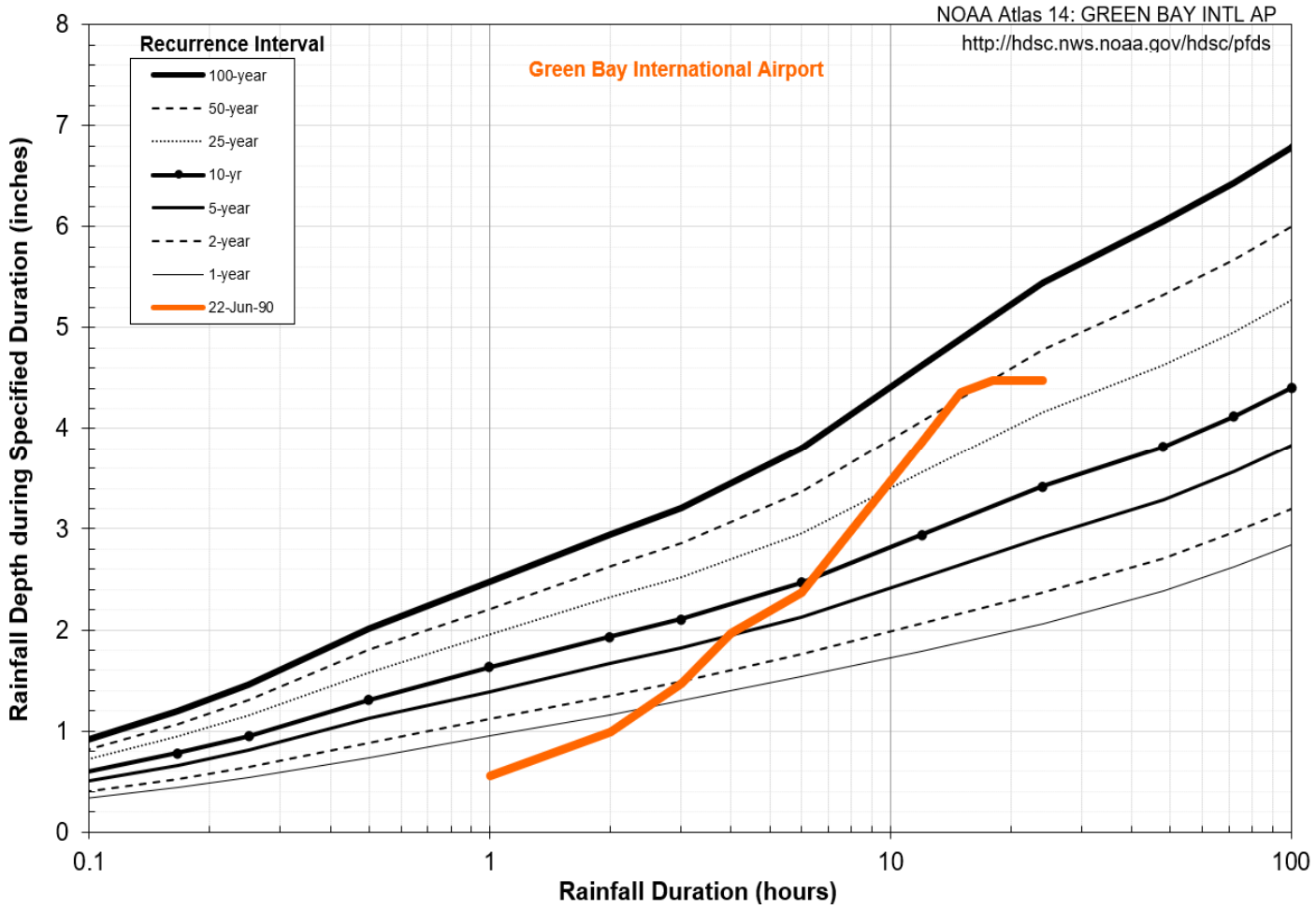

Figure A-5. Rainfall Depth-Duration-Frequency Curve - 2% Probability Event (June 1990)

The June 1990 event was the largest event in the simulated period. For evaluating the hydraulic capacity, this event was chosen for the 2% probability event, but the uncertainty in this estimate is large because it is a rare event. Referring to Figure A-5, the June 1990 event has a total tributary flow risk in the range of a 50-year recurrence interval, or 2% probability.

Larger Maps of Model Results

The following maps have the same information as Figures 3-2 through 3-9 in the TM but are included in this attachment in larger form for easier viewing by the reader.

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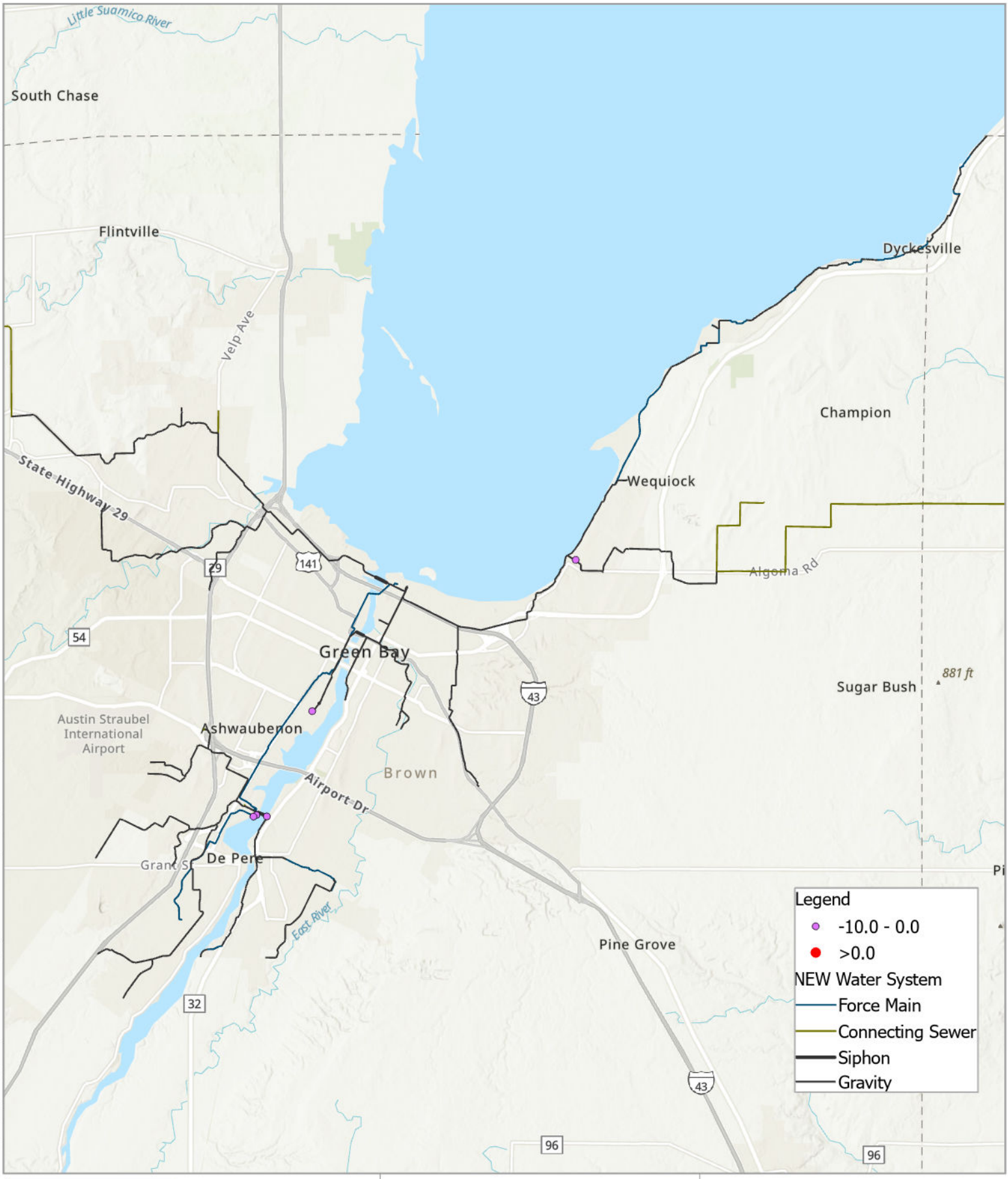

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NEW Water/159779

Regional I&I Program Implementation

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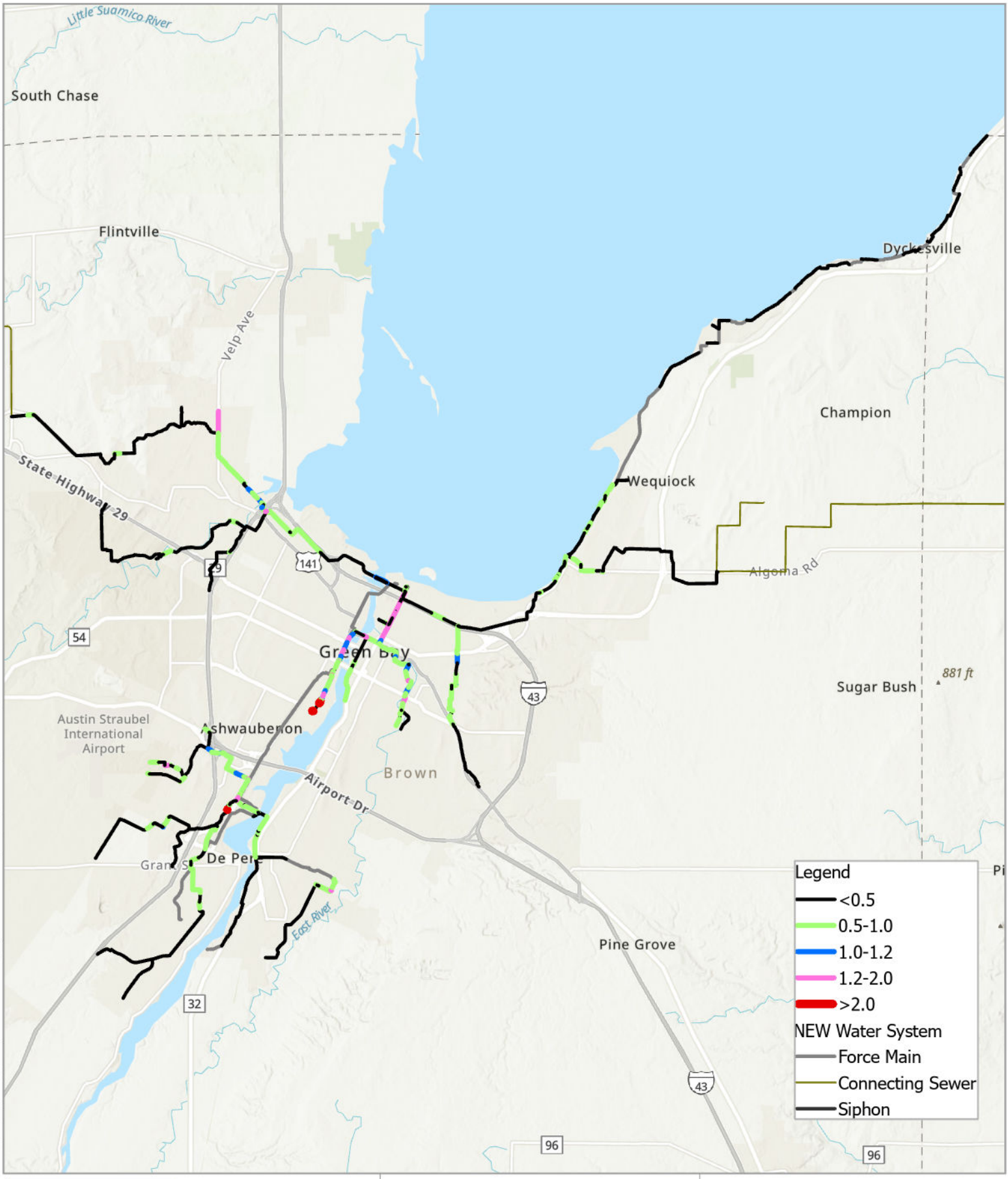
Baseline 10% Manhole Surcharge



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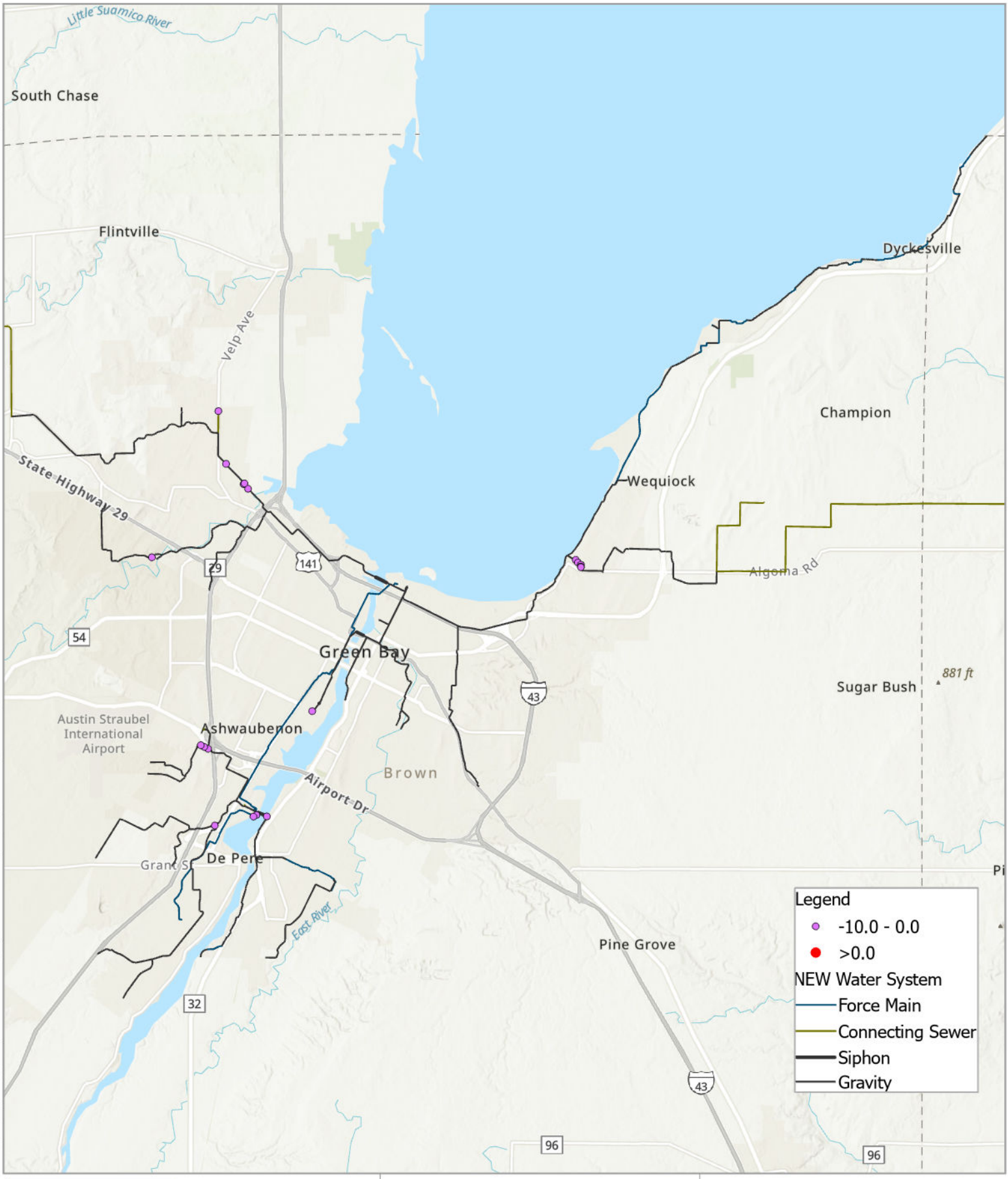
Baseline 10% Pipe Flow Versus Capacity



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Future 10% Manhole Surcharge

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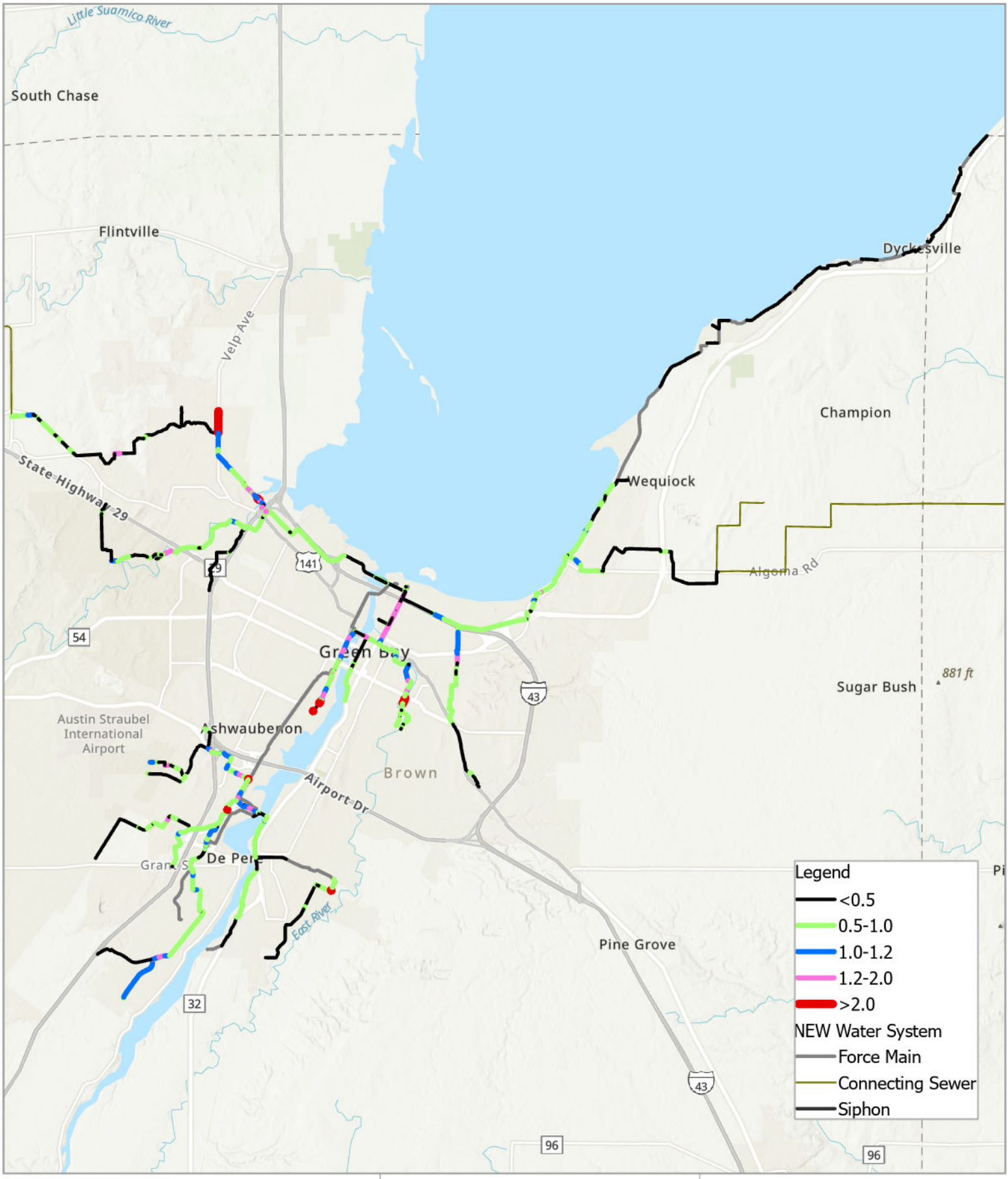

Brown AND Caldwell

NEW Water/159779

Regional I&I Program Implementation

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Future 10% Pipe Flow Versus Capacity

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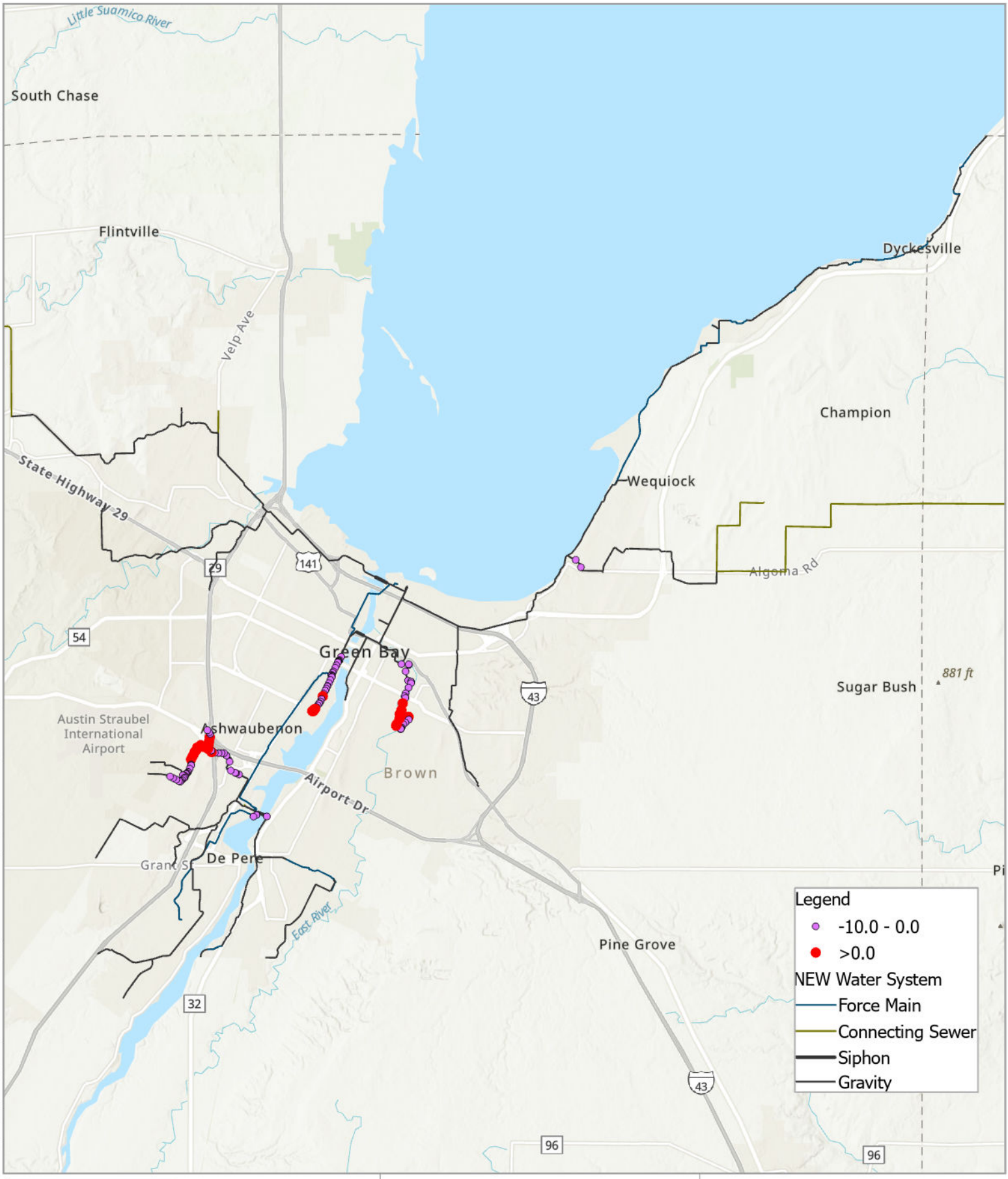

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NEW Water/159779

Regional I&I Program Implementation

Date: 9/12/2024 11:58 AM

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Baseline 2% Manhole Surcharge

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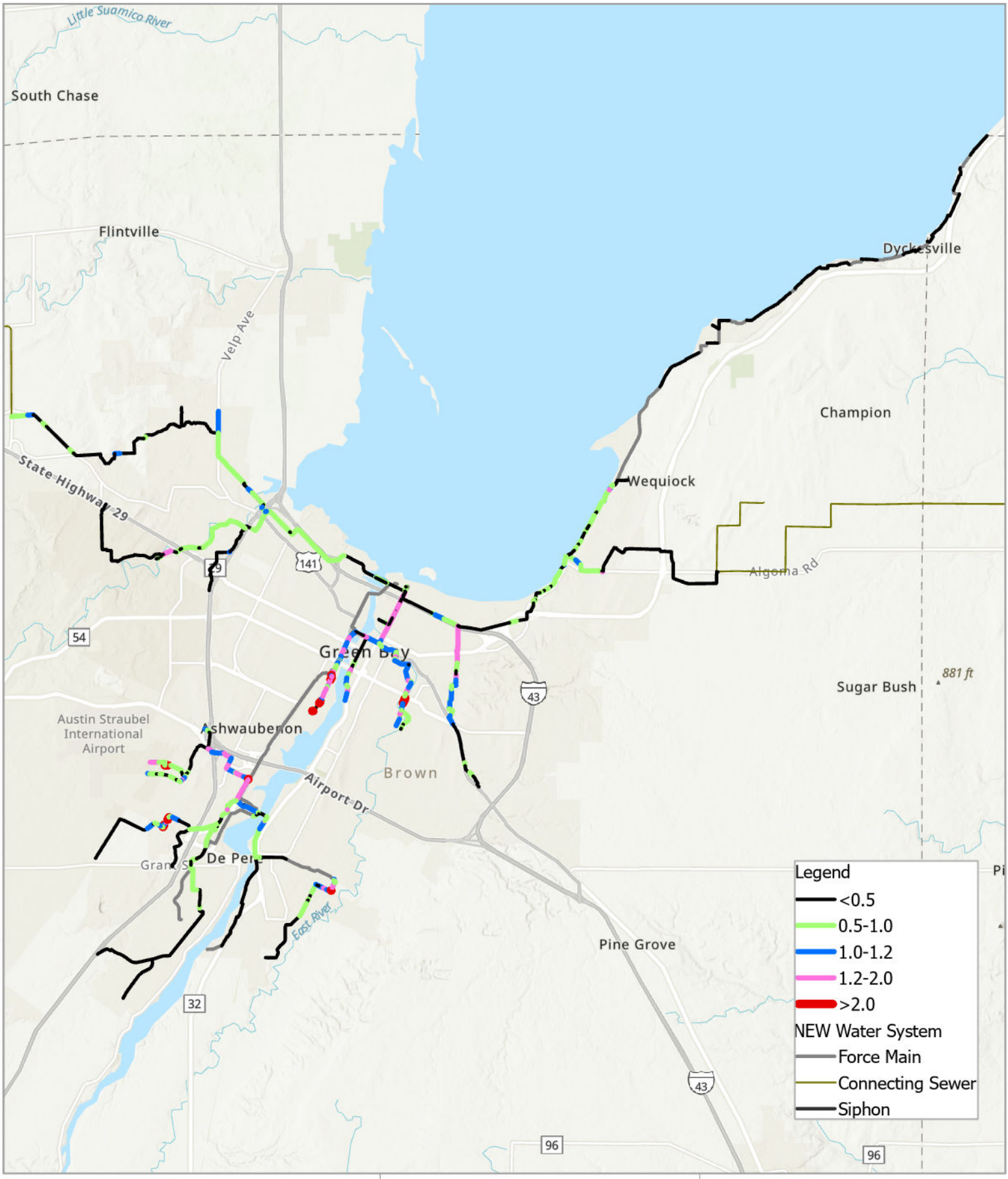

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Spatial Reference:
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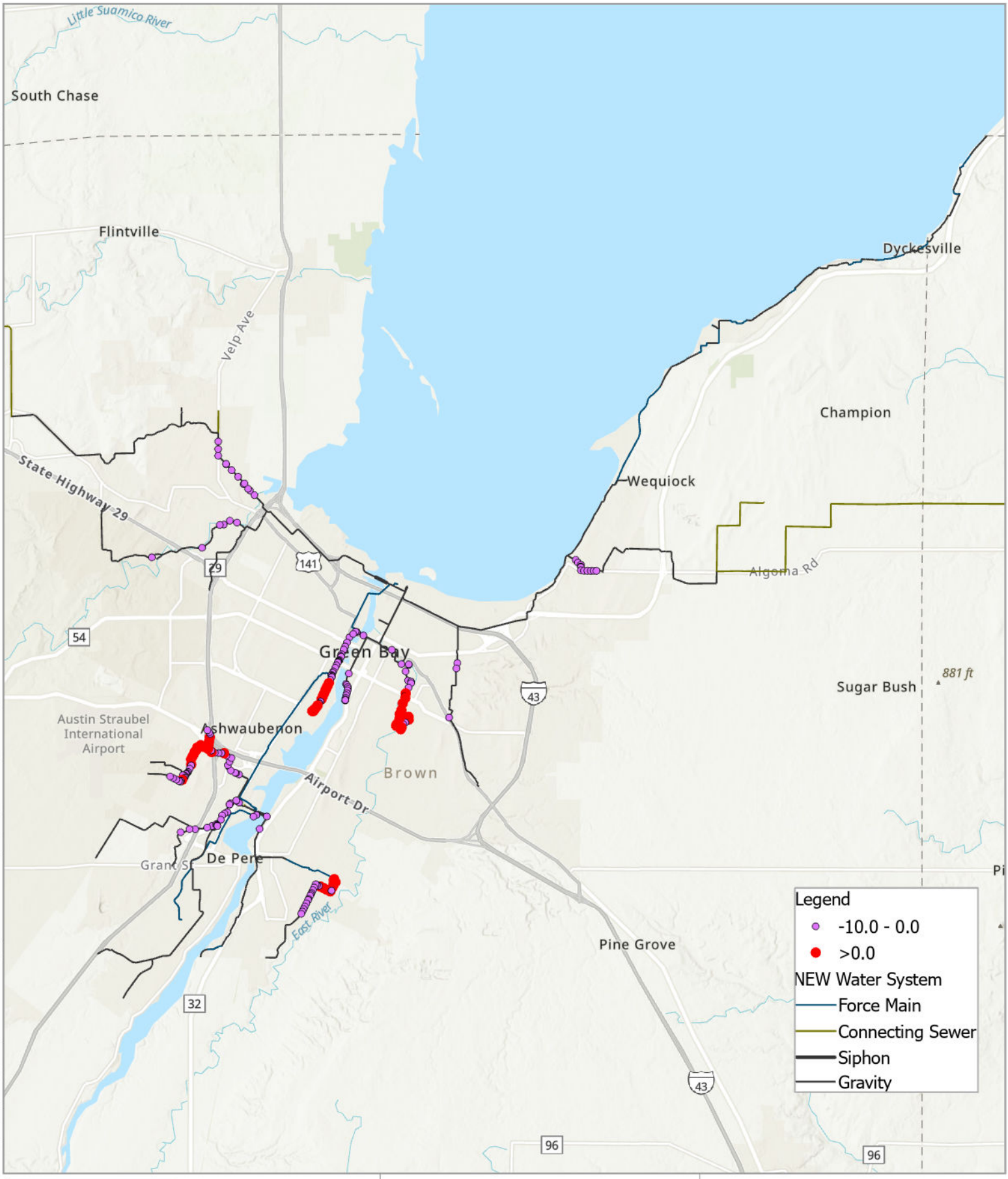
Baseline 2% Pipe Flow Versus Capacity



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Future 2% Manhole Surcharge

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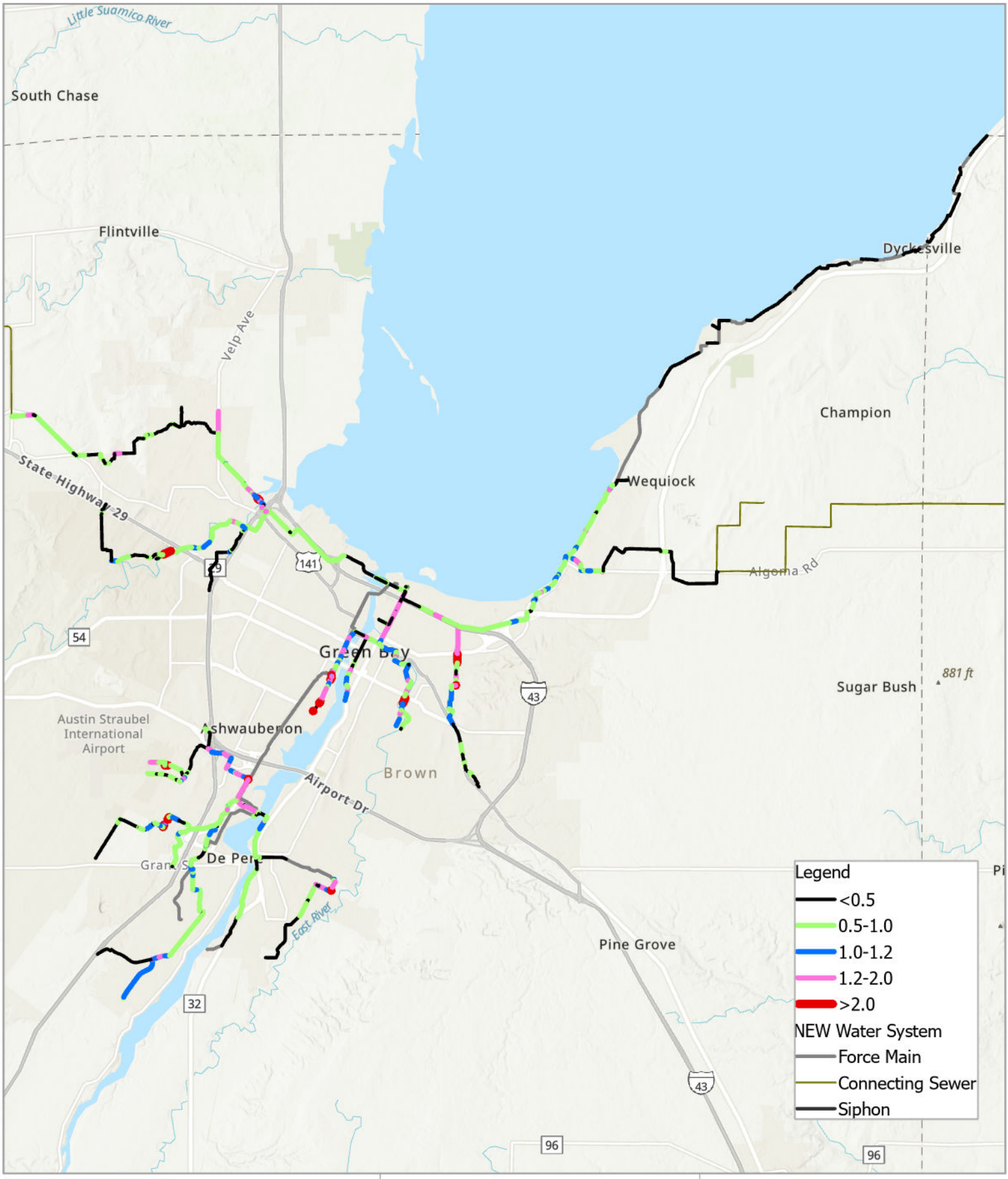

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Regional I&I Program Implementation

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Future 2% Pipe Flow Versus Capacity

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Attachment B: Construction Cost Estimate Details for Convey+EQ Only Option

Future 2% Probability Scenario

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Table B-1. Estimated Total Construction Costs for Convey+EQ Option								
Option	EQ Storage at GBF and DPF ($ Million)	Pump Stations		Force mains		Interceptors		Total Convey+EQ ($ Million)
		Quantity	Cost ($ Million)	Length (LF)	Cost ($ Million)	Length (LF)	Cost ($ Million)	
Convey+EQ	$245	10	$20	9,350	$5	33,087	$18	$288

Table B-2. Estimated Construction Costs for EQ Storage at Treatment Facilities			
Facility	Estimated Storage Needs		Estimated Cost
	MG	gallons	($ Million
GBF	22	22,000,000	$154
DPF	13	13,000,000	$91
Total	35	35,000,000	$245

Source: Storage Unit Costs from the GBMSD Interceptor Master Plan (Donohue, 2018); adjusted from December 2017 (ENR CCI = 14,200) to February 2024 (ENR CCI = 17,368) and rounded up to nearest dollar.

Table B-3. Estimated Construction Costs for Pump Station Replacements						
Lift Station	Max Simulated Flows (gpm)	Max Simulated Flows (MGD)	I&I reduction needed to match baseline flow to baseline capacity	Amount over Design Capacity (gpm)	Estimated Cost for entire Pump Station Replacement (formula)	Count of Lift Stations over Design Capacity
ERLS	7,713	11	57%	7,705	$6,600,000	1
OPLS	0		0%			0
EBS-1	1,959	3	55%	1,956	$2,100,000	1
EBS-2	1,300	2	57%	1,298	$1,500,000	1
EBS-3	1,797	3	51%	1,794	$1,900,000	1
EBS-4	1,246	2	56%	1,244	$1,500,000	1
EBS-5	995	1	61%	994	$1,300,000	1
EBS-6	996	1	60%	994	$1,300,000	1
EBS-7	798	1	62%	797	$1,200,000	1
EBS-8	995	1	54%	993	$1,300,000	1
EBS-9	798	1	69%	797	$1,200,000	1
EBS-10	0	0	0%	0		0
EBS-11	0	0	0%	0		0
TOTALS	18,595	27		18,572	$19,900,000	10

Source: Pump Station Construction Costs table from Pumping Station Design, Revised Third Edition. (Jones,et.al 2008), adjusted to February 2024 ENR CCI (17,368)

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Table B-4. Estimated Construction Costs for Force Main Replacements									
Lift Station	Number of pipes	Force main Diameter (inch)	Material	Force main Length (LF)	Max 10yr Simulated Flows (gpm)	Velocity (fps)	Proposed Diameter (in)	Unit Cost per LF	Cost
ERLS	2	12	PVC	7850 (Dual)	5,382	8	24	$288	$4,525,660
OPLS	1	6	PVC	1764	0.00	0	---	---	---
EBS-1	1	14	PVC	13,185	1,958	4	---	---	---
EBS-2	1	12	PVC	2006	1,299	4	---	---	---
EBS-3	1	12	PVC	2,599	1,797	5	---	---	---
EBS-4	1	10	PVC	2413	1,246	5	---	---	---
EBS-5	1	8	PVC	879	995	6	---	---	---
EBS-6	1	8	PVC	1790	996	6	---	---	---
EBS-7	1	6	PVC	103	798	9	8	$140	$14,410
EBS-8	1	10	PVC	3260	995	4	---	---	---
EBS-9	1	6	PVC	1,397	798	9	8	$140	$195,470
EBS-10	1	6	PVC	998	0.00	0	---	---	---
EBS-11	1	8	PVC	2,001	0.00	0	---	---	---
				40,245			Totals	---	$4,735,540

Source: Interceptor Unit Costs from the GBMSD Interceptor Master Plan (Donohue, 2018); adjusted from December 2017 (ENR CCI = 14,200) to February 2024 (ENR CCI = 17,368)

Table B-5. Estimated Construction Costs for Interceptor Sewer Replacements							
Model LinkName (Interceptor Sewer)	Upstream Manhole	Downstream Manhole	Original Diameter (in)	Proposed Diameter (in)	Length of Interceptor Upgrades (LF)	Unit Cost per LF	Cost
136	SBS-020-006	SBS-020-005	15	21	427	$257	$109,610
168	DMC-016	DMC-015	27	36	468	$430	$201,390
174	DMC-014	DMC-013	30	36	579	$430	$249,280
179	DMC-013	DMC-012	30	36	573	$430	$246,470
192	WFR-008	WFR-007A	42	48	496	$598	$297,060
253	DMC-MS-013B	ASC-008	25	36	35	$430	$15,060
290	ETD-008-005	ETD-008-004	36	42	114	$511	$58,160
291	ETD-008-007	ETD-008-006	36	42	1,081	$511	$552,540
292	ETD-008-006	ETD-008-005	36	42	415	$511	$211,830
315	BVI-MS-022	BVI-022	24	36	2,534	$430	$1,090,050
334	WFR-022	WFR-021	22	30	356	$356	$126,810
335	WFR-023	WFR-022	22	30	311	$356	$110,650
345	WFR-021	WFR-020	22	30	324	$356	$115,180

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Table B-5. Estimated Construction Costs for Interceptor Sewer Replacements							
Model LinkName (Interceptor Sewer)	Upstream Manhole	Downstream Manhole	Original Diameter (in)	Proposed Diameter (in)	Length of Interceptor Upgrades (LF)	Unit Cost per LF	Cost
346	WFR-009	WFR-008	36	42	185	$511	$94,610
347	WFR-010	WFR-009	36	42	269	$511	$137,340
348	WFR-011	WFR-010	36	42	86	$511	$43,920
349	WFR-012	WFR-011	36	42	128	$511	$65,430
350	WFR-013	WFR-012	36	42	91	$511	$46,610
513	SBS-020-004	SBS-020-003	15	21	352	$257	$90,350
517	SBS-020-005	SBS-020-004	15	21	397	$257	$102,020
564	ETD-008-001	ETD-008	36	42	409	$511	$209,010
566	ETD-008-002	ETD-008-001	36	42	339	$511	$173,410
569	ETD-008-003	ETD-008-002	36	42	791	$511	$403,940
574	WFR-004	WFR-003	42	48	400	$598	$239,040
575	ERI-003	ERI-002	48	60	429	$793	$340,430
576	ERI-002	ERI-001	48	60	821	$793	$651,200
577	ETD-008-004	ETD-008-003	36	42	1,280	$511	$653,970
578	ERI-004	ERI-003	48	60	580	$793	$459,560
579	WFR-005	WFR-004	42	48	605	$598	$361,820
580	WFR-005A	WFR-005	42	48	210	$598	$125,890
581	ERI-005	ERI-004	48	60	519	$793	$411,640
584	ERI-006	ERI-005	48	60	284	$793	$225,040
586	ERI-006A	ERI-006	48	60	207	$793	$163,970
588	WFR-006B	WFR-006A	42	48	94	$598	$55,960
589	WFR-006C	WFR-006B	42	48	50	$598	$29,960
590	WFR-006D	WFR-006C	42	48	70	$598	$41,820
591	ERI-007	ERI-006A	48	60	894	$793	$708,810
592	ERI-007A	ERI-007	48	60	843	$793	$668,550
594	WFR-007	WFR-006D	42	48	383	$598	$228,900
642	DMC-025	DMC-024	24	30	434	$356	$154,370
644	DMC-024	DMC-023	24	30	192	$356	$68,310
645	DMC-023	DMC-022	24	30	386	$356	$137,550
646	DMC-021	DMC-020	24	30	357	$356	$127,060
647	DMC-020	DMC-019	24	30	296	$356	$105,420
650	DMC-019	DMC-018	24	30	381	$356	$135,450
652	DMC-018	DMC-017	24	30	652	$356	$232,020
655	DMC-017	DMC-016	27	36	466	$430	$200,600
663	DMC-015	DMC-014	27	36	407	$430	$175,190
667	DMC-012	DMC-011	30	36	95	$430	$40,760

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Table B-5. Estimated Construction Costs for Interceptor Sewer Replacements							
Model LinkName (Interceptor Sewer)	Upstream Manhole	Downstream Manhole	Original Diameter (in)	Proposed Diameter (in)	Length of Interceptor Upgrades (LF)	Unit Cost per LF	Cost
675	DMC-011	DMC-010	30	36	404	$430	$173,920
676	DMC-010	DMC-009	30	36	588	$430	$252,740
681	DMC-009	DMC-008	30	36	600	$430	$258,050
683	DMC-008	DMC-007	30	36	76	$430	$32,890
690	DMC-007	DMC-006	30	36	484	$430	$208,060
696	DMC-006	DMC-005	30	36	627	$430	$269,660
697	DMC-005	DMC-004	30	36	594	$430	$255,630
698	DMC-004	DMC-003	30	36	669	$430	$287,710
725	ERI-001	QSI-010	48	60	457	$793	$362,320
744	WFR-007A	WFR-007	42	48	318	$598	$190,310
843	DMC-003	DMC-MS-013B	25	36	413	$430	$177,560
845	DMC-022	DMC-021	24	30	418	$356	$148,900
880	ASC-004	ASC-003	48	60	659	$793	$522,470
881	ASC-003	ASC-002	48	60	484	$793	$383,730
882	ASC-002	ASC-001	48	60	35	$793	$27,750
1075	ASC-008	ASC-007	48	60	391	$793	$309,920
1076	ASC-007	ASC-006	48	60	713	$793	$565,220
1077	ASC-006	ASC-005	48	60	166	$793	$131,330
1079	ASC-005	ASC-004	48	60	527	$793	$418,190
1093	WFR-024	WFR-023	21	30	235	$356	$83,800
1095	WFR-014	WFR-013	36	42	375	$511	$191,750
1096	WFR-015	WFR-014	36	42	403	$511	$205,700
1097	WFR-016	WFR-015	36	42	384	$511	$196,130
1125	WFR-017	WFR-016	36	42	37	$511	$18,910
1126	WFR-018	WFR-017	22	30	281	$356	$100,090
1127	WFR-019	WFR-018	22	30	261	$356	$92,790
1128	WFR-020	WFR-019	22	30	393	$356	$140,050
Totals:					**33,087**		**$17,499,600**

Source: Inceptor Sewer Unit Costs from the GBMSD Interceptor Master Plan (Donohue, 2018); adjusted from December 2017 (ENR CCI = 14,200) to February 2024(ENR CCI = 17,368) and rounded up to nearest dollar.

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Attachment C: Construction Cost Estimate Details for I&I Reduction Only Option

Future 2% Probability Scenario

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Inflow and infiltration (I&I) is the result of degradation of the pipes and manholes (including the privately owned laterals) that allow clear water to leak into the wastewater conveyance and treatment facilities. This added clear water imposes a significant burden on the capacity of these facilities. Traditionally, a study of I&I requires an understanding of the condition of the system, such as through flow monitoring, CCTV inspection, smoke testing, and other techniques.

The financial impact evaluation is focused on system performance. Performance is viewed through the simulated wet weather response to I&I that shows high peak flows and surcharging in the manholes. This performance-based approach attempts to estimate the cost of I&I reduction work to achieve a reduced level of I&I peak flow. The cost is based on the quantity of flow removed rather than quantities of I&I mitigation techniques such as length of pipe repaired, number of manholes fixed, or number of laterals rehabilitated.

The basis for this approach is a library of I&I reduction projects that have been studied to understand the relationship between I&I reduction investment and flow reduction of an initial level of I&I. The cost curve of I&I reduction was originally developed using relevant data collected for the Water Environment Research Foundation (WERF) publication *Case Studies in Rainfall Derived Infiltration and Inflow Reduction* (2004). Since then, BC has supplemented and updated the curve with I&I reduction projects conducted across the United States. The curve is based on the cost and I&I removal rates achieved through various rehabilitation projects with different pre-rehabilitation I&I flows. The study concluded that the more I&I present in a basin on a gallon per sewered acre per day (gpad) basis, the easier and therefore less costly it is to find and remove. As I&I is removed, the I&I density in gpad is reduced and the incremental cost of removing additional I&I increments increases. The simulated I&I reduction scenarios established GPAD limits on leakiness in the catchments to generate simulated flow reductions.

This approach is intended to provide planning-level cost data for comparison to other approaches. The costs represented in the case studies included a variety of repair methods, primarily manhole repair and pipe lining. In some cases, private laterals were included in the repair scope. Application of the I&I reduction cost curve in the cost-effective analysis does not imply a specific repair method or prescribe a specific repair strategy or location. When the rehabilitation is ultimately performed, costs will vary from this planning-level estimate based on the extent and nature of the repair effort, the actual condition of the sewer assets included and local conditions at the time of the repair.

Brown and Caldwell analyzed the case study data and selected a planning level I&I reduction cost curve for this evaluation. Figure C-1 depicts the cost-adjusted case study data which naturally has a wide range of scatter. A typical trendline is used as the unit cost curve for use in the analysis. Not all repair projects will achieve the desired outcome, but the cumulative benefit of many projects is likely to follow this trend.

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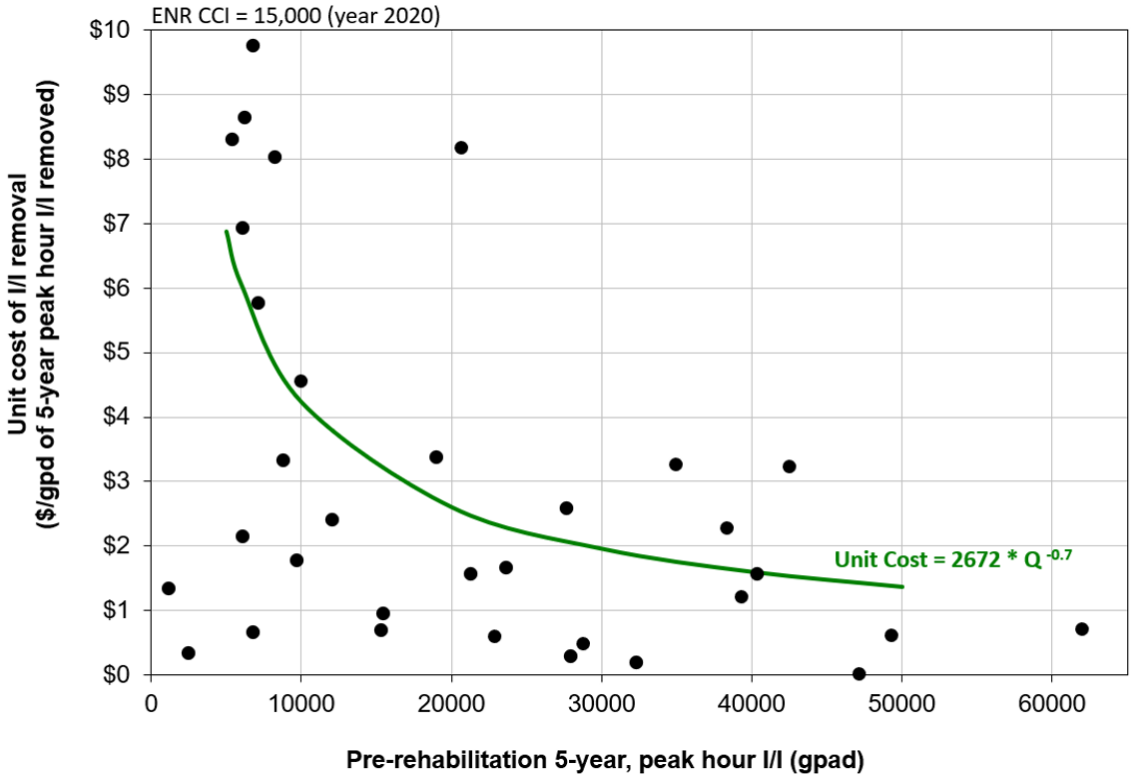

Figure C-1. I&I Reduction Cost Curve Used for Cost-Effective Analysis

Using the formula from the trend line in Figure C-1, unit costs in dollars per gallon per day ($/GPD) of peak I&I flow removal were applied to estimate the construction costs of I&I removal. This was applied for each I&I reduction step in the cost-effective analysis based on the I&I densities in the catchments. I&I density, in gpad, was calculated as the simulated peak hour I&I divided by the sewered area of the catchment.

As I&I is reduced in a catchment, the cost increases to remove additional flows. Therefore, to capture the variable costs within each area, I&I flow was broken into small, incremental percentages. Figure C-2 depicts the cumulative I&I reduction cost curve that was developed for the NEW Water Financial Impact Evaluation.

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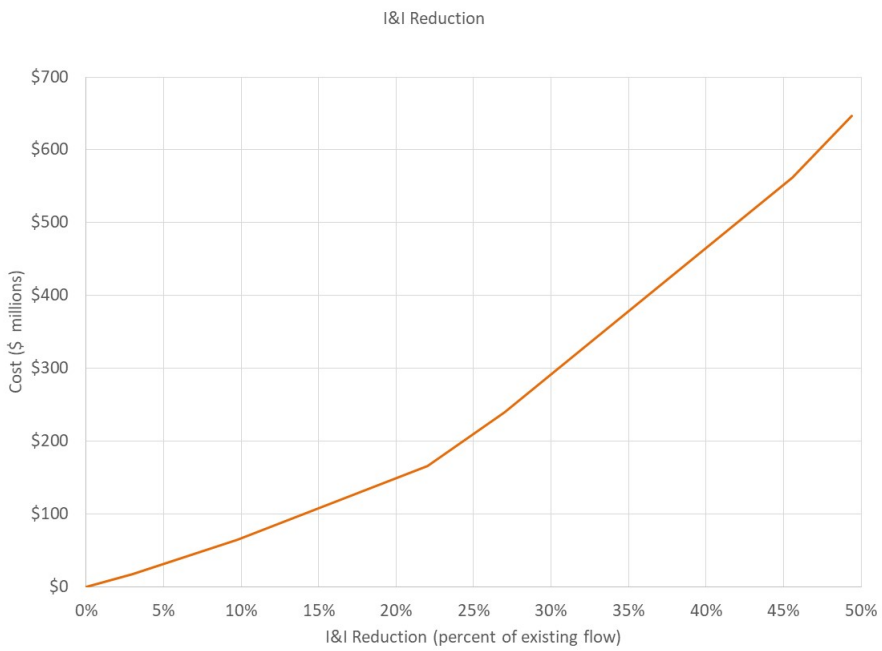

Figure C-2. Cumulative I&I Reduction Cost Curve

Table C-1 summarizes the cost of I&I reduction and conveyance/EQ improvements. In Table C-1, an I&I threshold is set for each step to achieve progressively better I&I management. The number of catchments that exceed each I&I threshold is identified. It is assumed that rehabilitation in the identified catchments can bring the I&I rates down to the threshold in that step. The I&I reduction costs are itemized by treatment plant (GBF and DPF) individually and summed together for the systemwide total. On the systemwide level, the I&I cost is compared to the cost of conveyance system improvements to obtain the total cost required to achieve the system performance goals for surcharge and overflow management. The step with lowest total cost is the cost-effective level of I&I reduction.

In this evaluation, Step 2 has the lowest total cost; that is the step with 10% I&I reduction. The total cost curve is relatively flat from Step 0 to Step 2; then the costs rise rapidly for the subsequent steps. Therefore, given the accuracy of the evaluation any of the cases from Step 0 to Step 2 can be considered "cost-effective".

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Table C-1. I&I Reduction Costs for Future 2% Probability Scenario

	GBF							DPF							Systemwide: GBF+DPF					
	Threshold In GBF area (gpad)	Number Catchment Reduced	Pct Red	Step Flow Removed (mgd)	Cumulative Flow Removed (mgd)	Step Cost ($ million)	Cumulative Cost ($ million)	Threshold in the DPF area (gpad)	Number Catchments Reduced	Pct Red	Step Flow Removed (mgd)	Cumulative Flow Removed (mgd)	Step Cost ($ million)	Cumulative Cost ($ million)	Total I&I Reduction Removed (mgd)	Total I&I Percent Reduction	Cost I&I Reduction ($ million)	Cost of Convey+EQ ($ million)	Total ($ million)	Comments
Step 0		0	0%		0		$0		0	0%				$0	0	0%	$0	$288	$288	cost effective
Step 1	21,000	3	3%	4	4	$10	$10	7,100	1	4%	1	1	$8	$8	5	3%	$18	$250	$268	cost effective
Step 2	14,000	7	10%	10	14	$31	$40	5,200	4	10%	3	4	$17	$24	18	10%	$64	$165	$229	cost effective
Step 3	6,100	9	23%	21	35	$80	$121	3,800	9	17%	3	7	$21	$45	42	22%	$166	$114	$280	
Step 4	5,000	18	28%	7	42	$47	$168	3,000	18	24%	3	10	$26	$72	52	27%	$240	$93	$333	
Step 5	2,500	38	45%	26	68	$219	$387	1,500	23	47%	9	19	$103	$175	87	46%	$562	$16	$578	
Step 6	2,500	38	45%		68	$0	$387	800	38	65%	7	26	$85	$260	94	49%	$647	$0	$647	

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Green Bay, Wisconsin 54301-5026
www.greenbaywi.gov

Administration | Engineering | Traffic 920.448.3100
Operations 920.448.3535
Parking 920.448.3431
Fax 920.448.3102

TO: Steve Grenier, Director of Public Works
Improvement and Services Committee

FROM: Valerie Joosten, P.E. – Utility Manager

DATE: March 18, 2025

RE: Lateral Replacement Program for Street Reconstruction Projects

The City of Green Bay, NEW Water, and our neighboring communities have been meeting over the last few years to discuss the significant inflow and infiltration (I&I) in the regional sanitary sewer collection system and potential solutions. In Green Bay, like many municipalities with aging sewers, groundwater and storm water can enter the sanitary sewer system through cracks, leaks, faulty connections or illicit connections. This can overload the sanitary sewers and lead to sanitary sewer overflows, sewer backups and/or basement backups.

I&I can also be a significant problem for the wastewater treatment plant (NEW Water), since it increases and dilutes the amount of sewage that requires treatment. During storm events or times of snow melt, the flows to the wastewater plant spike due to I&I, causing the treatment plant to operate at maximum capacity and at risk of an overflow. NEW Water has made capital improvements and established operational procedures at its facilities to manage the peak flows during storm events. However, additional efforts are needed to further reduce I&I to avoid having to make more costly investments. A study recently conducted by NEW Water concluded that a 10% reduction in I&I will be the most cost-effective means for reducing the demand for costly NEW Water improvements and that targeting areas with the highest I&I is the most effective approach.

Green Bay is NEW Water's largest municipal customer and has some of the highest I&I rates in our area due to the historical nature of the City and our sewers. While Green Bay has an extensive inspection, maintenance and repair program for its City owned sewers more needs to be done to adequately address I&I in the system. Additional I&I reduction efforts would help ensure adequate sewer and treatment capacity for our City and future development. I&I reduction also benefits public health by reducing sanitary sewer overflows and system backups.

Further information about I&I can be found on the City's webpage at https://www.greenbaywi.gov/1511/Infiltration-and-Inflow.

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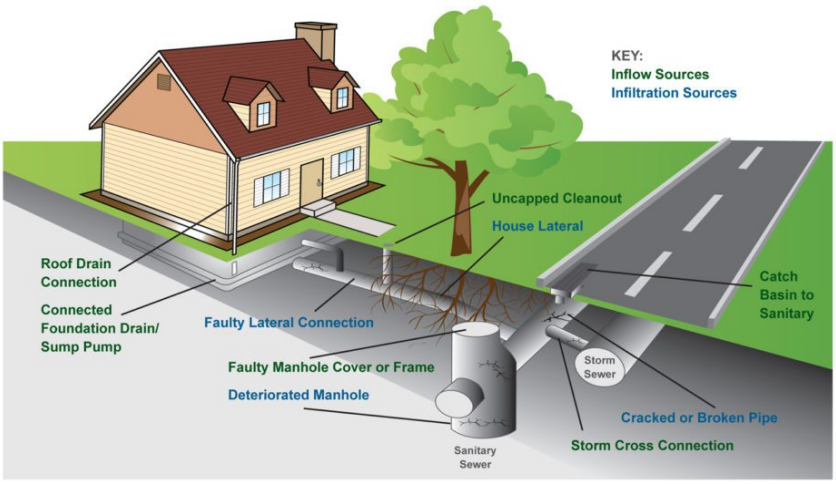
Sources of I&I



Source: Madison Metropolitan Sewerage District

Proposed Lateral Replacement Program for Street Reconstruction Projects

During street reconstruction projects, the City reviews the City's sewer systems and incorporates sewer upgrades or repairs into the project. Currently, the City may install a new lateral from the City's sanitary sewer main to behind the curb depending on sewer condition and location. However, this does not address the portion of the lateral between the curb and the building. The lateral is typically the same age as the City's sewer and may be in poor condition. Property owners typically do not repair their lateral until a break or back-up occurs. At that point, it can be an expensive unexpected cost for the property owner.

To address this source of I&I, the City is proposing a pilot program for full replacement of residential laterals from the main sewer to the building during street reconstruction projects. This lateral replacement program would be voluntary. It would be offered to residential properties in areas with known I&I or capacity issues and would be fully funded by the Sanitary Sewer Utility.

The Village of Allouez has operated a similar program for the last 7 years; however, they require the homeowners to pay the cost back to the City. The cost to the property owner is still cheaper for the property owner than the cost of a back-up and having to repair the lateral at a time other than during a street reconstruct. The City of De Pere started a lateral replacement program one year ago and covers the full cost of the replacement. Both programs, utilize a trenchless method called pipe bursting, which allows the replacement to be done with limited disturbance of the yard. These programs have been successful with a high participation rate.

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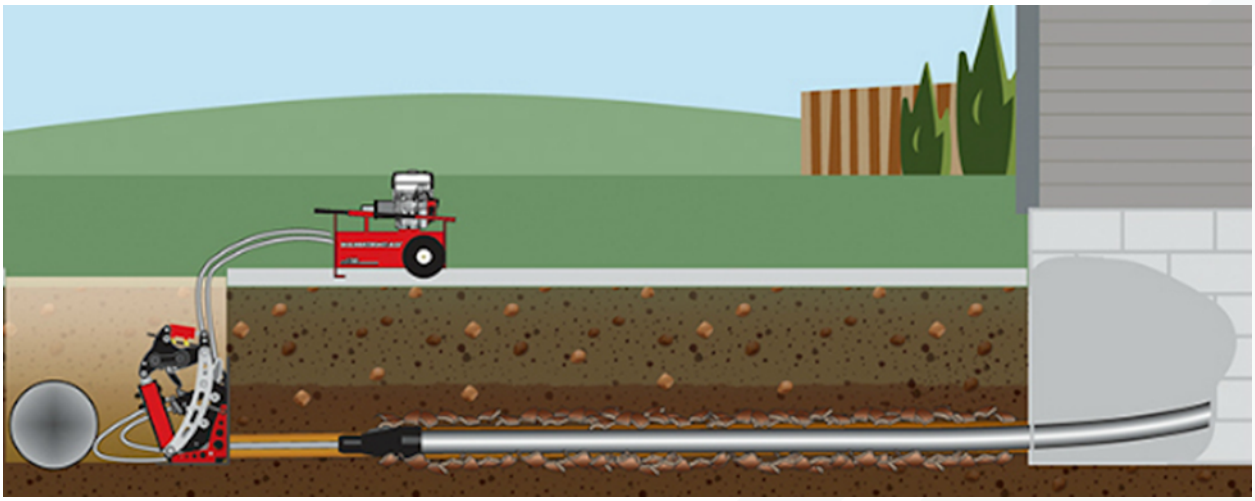
The City proposes using this same method, which would require access to the basement and an approximate 2-foot by 2-foot excavation in the basement floor. The end result would be a new plastic pipe from the City's sewer into the basement.



Source: City of De Pere Full Lateral Replacement Policy, October 7, 2024

The work would be completed by the City's contractor for the street reconstruction project. The contractor will restore the concrete floor after the connection; however, the cost to restore finished basement (walls, floors, finishes, etc.) would be the responsibility of the property owner. The property owner would need to authorize the work in writing prior to construction to be included in this voluntary program. Draft copies of the letter to the property owner and temporary right of entry form are attached.

If approved, the City anticipates offering the program for the following 2025 street reconstruction projects:

Street Reconstruction Project	Estimated # of laterals	Age of City's Sanitary Sewer	Estimated Cost of Full Lateral Replacement*
Oak Street: Howard to Railroad Crossing	18	1956	$34,650
4th Street: Broadway to S. Maple Avenue	21	1954	$36,750
Hazel Street: Shawano Avenue to School Place	22	1948	$23,100
Howard Street: 12th Avenue to S. Oakland Avenue	49	1948	$60,025

*Maximum estimated cost since it is based on 100% participation and does not subtract the City's current cost to partially replace the lateral.

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Fiscal Impact
The estimated cost of this program is $154,525 or less in 2025. The cost would be fully funded by the Sanitary Sewer Utility within the current capital improvement fund.

Recommendation
To authorize the Department of Public Works to implement a pilot program for full sanitary sewer lateral replacement during street reconstruction projects in areas of known I&I or capacity issues.

Attachments
- Draft – Residential Letter – Sanitary Sewer Lateral Replacement
- Draft – Temporary Right of Entry – Lateral Replacement
- Brown and Caldwell, Inflow & Infiltration Financial Impact Evaluation, Technical Memorandum No. 1, November 4, 2024 (Draft)

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.7

Consideration with possible action on request by Department of Public Works to purchase 22 Iteris Video Detection Camera Systems in the amount of $402,028.00 from Mobotrex and 54 traffic signal controllers, 26 controller cabinets, and 28 database conversion systems from Traffic Control Corporation in the amount of $684,554.00 for the new controllers as part of the WisDOT Traffic Signal Controller Upgrade project.

BACKGROUND

Traffic signal controller hardware, including the signal controller ("computer" that makes the signal work), video detection hardware, and controller cabinet to house the hardware, on connecting highways around the City is outdated and inefficient. The Wisconsin Department of Transportation offers a grant program which will offset the cost of upgrading controller hardware at a 90% State/10% local funding match. The Common Council approved our request to seek and accept this grant in 2024. We are now at the point of purchasing the hardware to complete the work anticipated in the grant.

Due to proprietary issues with controller technology, the City has committed to WisDOT to upgrade to the WisDOT recommended controllers manufactured by Cobalt. These controllers require a specific control cabinet, manufactured by Econolite. Lastly, we have been trying various manufacturers of controller video detection systems over the last 10 years and have settled on the Iteris manufactured cameras as the most reliable. DPW staff worked with Purchasing to properly quote out the purchase of materials in accordance with our City Purchasing Policy.

RECOMMENDATION

To approve the request by Department of Public Works to purchase 22 Iteris Video Detection Camera Systems in the amount of $402,028 from Mobotrex and 54 traffic signal controllers, 26 controller cabinets, and 28 database conversion systems from Traffic Control Corporation in the amount of $684,554 for the new controllers as part of the WisDOT Traffic Signal Controller Upgrade project.

FISCAL IMPACT

The City will complete the purchase of the materials, and we can seek reimbursement for the State portion on July 1. Overall impact to the City will be $125,000, which was part of our 2025 Capital Improvement Program.

ATTACHMENTS

1. Project Award Letter NE2602L
2. 2024 Controller Upgrade Connecting Highways
3. revQ1941975
4. TCC QUOTE #663302

Project Award Letter

Signals and ITS Standalone Program

Spring 2024 Award

July 15, 2024

To:
City of Green Bay
Steven Grenier
steven.grenier@greenbaywi.gov

From:
Kim Bradley
Wisconsin Department of Transportation

Dear Steven Grenier,

The Wisconsin Department of Transportation (WisDOT) Signals and ITS Standalone Program (SISP) has awarded the [Municipality] the following project (s) for [Fiscal Years that Apply]:

Project Name	Award Total
NE2602L Signal Rehab Green Bay Citywide Connecting Highway Traffic Signal Equipment Replacement	Total: $ 1,250,000 90% State: $1,125,000 10% Local: $125,000

The project will be funded 90% State/10% City of Green Bay. Per current program policy any amount over the project application award shall be funded by the City of Green Bay. WisDOT Region Staff will contact you prior to the award year to establish a State Municipal Financial Agreement (SMFA) between WisDOT and the City of Green Bay to determine financial, invoicing, reporting, and contracting responsibilities for both parties.

Please contact me if you have questions.

Sincerely,
Kim Bradley

Attachment: PDF Application submitted by Municipality

Wisconsin Department of Transportation (WisDOT)

Signals and ITS Standalone Program Project Application Form

GENERAL INSTRUCTIONS

MUNICIPAL APPLICATIONS DUE TO REGIONAL LIAISON: **April 5, 2024**

****Municipalities may submit a maximum of two applications per calendar year.****

REGIONAL APPLICATIONS DUE: **April 19, 2024**

The following application will be used to evaluate and determine award of Signals and ITS Standalone Program projects to be funded as budget permits. Each applicant requesting funds from the Signals and ITS Standalone Program must submit the following information:

- ☒ Completed Signals and ITS Standalone Program Project Application Form (one for each project request).
- ☐ Any supporting materials deemed necessary by the Region or municipalities.

Project Application Form:

1. Project Identification – Fill in the areas applicable to the proposed project.
2. Project Type – Identify the proposed project type.
3. Project Information – Describe the proposed project in as much detail as possible. Detailed descriptions explaining how the project will address the identified need(s) are essential for application review and evaluation.
4. Project Cost and Schedule – Provide the project costs in the requested fiscal year. When developing project estimates account for additional costs associated with accessible pedestrian signals (APS), traffic signal detection, and emergency vehicle preemption (EVP) systems if your project is proposing them. Provide anticipated project schedule and proposed resources to accomplish implementation. Geometric improvements must not exceed 50% of the TOTAL COST funded by this appropriation.
   ****Maximum project award is limited to $1,250,000.****
   ****Municipal projects require 10% funding commitment from the requesting agency. Requesting municipal agency will also be responsible for any project costs more than the approved appropriation funding amount asked for in this application.****
5. Additional Project Information – Answer the questions as they relate to the proposed project.
6. Contact Information and Signature – Provide contact information. Application must be signed by the WisDOT Regional Operations Chief (WisDOT managed projects only) or the Municipal Sponsor to certify application and commit funds.

Supporting Materials: Each completed application shall include the following, *if applicable*:

- Map of location or general sketch of project proposal or site photo(s). *An adequate sketch is the minimum requirement. Preliminary plan layout sheets or study reports should be provided if available.*
- Completed Project Evaluation Factor (PEF) worksheet and/or Interactive Highway Safety Design Model (IHSDM) benefit-cost analysis.
- TSMO-TIP package (one for each project request as required based on project type).
- New Traffic Signal – Warrant Documentation, required **only** for proposals to install new traffic signals (example worksheet available upon request. Ref: Manual on Uniform Traffic Control Devices [MUTCD], Chapter 4C). Approved Traffic Control Signal Approval Request ***Form DT1199*** (Required with application for all proposals to install new traffic signals on the State Trunk Highway System, including Connecting Highways and ramp terminals).
- New Pedestrian Hybrid Beacon – Warrant Documentation, required **only** for proposals to install new pedestrian hybrid beacons (example worksheet available upon request. Ref: Manual on Uniform Traffic Control Devices [MUTCD], Chapter 4F). Approved Pedestrian Hybrid Beacon Approval Request ***Form DT1196*** (Required with application for all proposals to install new pedestrian hybrid beacons on the State Trunk Highway System, including Connecting Highways).
- Systems Engineering Analysis (SEA) – *An SEA may be needed for certain types of projects funded by this Program.*

Submittal Instructions and General Questions:

Program Contact – Todd Szymkowski, PE, PTOE, PMP | Bureau of Traffic Operations| todd.szymkowski@dot.wi.gov |414-227-3125

Projects requested by a municipality should be coordinated with and submitted to their Regional liaisons (found at link below): (https://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/highway/sisp.aspx).

Wisconsin Department of Transportation (WisDOT)

Signals and ITS Standalone Program

Project Application Form

1. Project Identification

PROJECT NAME (consistent with TSMO-TIP documentation if applicable) City of Green Bay Connecting Highway Traffic Controller – Cabinet – Camera Replacement		
FUNDING REQUEST TOTAL $ 1,250,000		
COUNTY Brown	CITY/TOWN Green Bay	REGION Northeast
STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP) ELIGIBLE (Is this project eligible to be integrated with an existing STIP project?)		☒ YES ☐ NO
MUNICIPAL* ☒ YES ☐ NO	MUNICIPAL PRIORITIES (If two (2) applications are submitted, select priority)	☐ 1ST ☐ 2ND
*Municipal projects require a 10% funding commitment from the requesting agency. The requesting municipal agency will also be responsible for any project costs more than the approved appropriation funding amount based on this application.		

2. Project Type

Identify the proposed project type: Check boxes that apply below.	
☐ 1. New Signal Installation*	Install new traffic signal.
☒ 2. Signal Rehabilitation*	Upgrade or replace existing signal infrastructure (poles, wiring, detection, cabinet, controller, etc.); Construct minor geometric improvements.
☐ 3. Signal Retrofit*	Install monotubes, flashing yellow arrows, or other safety improvements at existing traffic signal, Install adaptive signal systems; replacement of TS 1 cabinets, controllers, etc.
☐ 4. Signal Retiming	Collect and evaluate data; Develop signal timing plan; Develop and implement corridor coordination plan. ***Municipal owned signals not eligible for this project type per Form DT1199.***
☐ 5. Intersection Communication	Construct and integrate fiber communication for signals; Install and integrate wireless communication, including cellular modems and radios for signals.
☐ 6. New ITS Device Installation	Install new ITS infrastructure including cameras, backbone fiber, network equipment, etc.
☐ 7. ITS Device Rehabilitation	Upgrade, install or replace existing detection, controllers, battery backup, cameras, ramp meter LED's, etc.
☒ 8. System Software	Upgrade, install, or replace software.
☐ 9. Life-Cycle Replacement	Replace existing end-of-life signals and/or ITS equipment including cameras, controllers, LED's, etc. ***Municipal owned signals not eligible for this project type per Form DT1199.***
☐ 10. Other	Examples include: • Performance Measures Applications • Research and Development Projects • CAV Deployments and Applications • Studies, Plans, and Evaluations
*Items not covered by SISP program funds: all lighting infrastructure, enhanced signs (ex: RRFB, Dynamic Speed Displays), decorative signal poles, decorative cabinets, and decorative signal infrastructure. Other items may also not be covered as deemed appropriate by the SISP evaluation committee.	

3. Project Information

3a. Project Description

Project description should include location specific information.

☐ See attached TSMO-TIP Application

This project will replace the 58 existing controllers with Econolite controllers. These 58 locations are along the existing Connecting Highway routes within the City of Green Bay. The existing locations are Siemens controllers with Tactics control software. The city has also experienced failures in Grid Smart cameras and the aging cameras on both Main Street and Monroe Avenue. This project is to address the combination of aged equipment and shortcomings for Siemens products, equivalent to WisDOT's recent transitions to Econolite in the Region. This improvement project will be done in-house using city electricians. The city has not included city labor as part of the grant application as this will be in addition to the 90/10 cost sharing agreement.

3b. Mobility Improvements

In some detail, describe the anticipated mobility improvements of the proposed project and how they will be measured (e.g., detector data will be used to determine before and after peak hour delay).

☐ See attached TSMO-TIP Application, if applicable.

Indicate your expected benefits below and provide documentation to support your analysis.

☐ Annual mobility benefits are expected to be greater than the capital cost of the project.
☐ Annual mobility benefits are expected to be greater than half of the capital cost of the project.
☒ Annual mobility benefits are expected to be greater than $0.
☐ No expected mobility improvements.

Although there is not a direct mobility benefit expected the problems with existing controllers has created problems as the city has limited ability to continue to replace an ageing and in some cases a failing product.

3c. Operations and Maintenance Impacts

In some detail, describe how the proposed project is anticipated to impact operations and maintenance funds. For example, is the project replacing infrastructure that has been regularly out-of-service and has required increased maintenance?

☐ See attached TSMO-TIP Application, if applicable.

☐ There is a demonstrated history of maintenance issues that will be corrected with this project. Include specific number of knockdowns, service calls, outages, etc., below.

☒ Maintenance may be reduced due to this project.

☐ No expected operations and maintenance impacts.

Signal operations and maintenance will be improved with the more robust and stable capabilities of Econolite equipment. A reliable system will improve operations and allow more prompt response to concerns and complaints. The city has experienced several failures of recently purchased Siemen controllers and has had difficulty reinstalling signal timing plans from Tactics control software. Grid Smart has also experienced quality issues and have been prone to fail. Service for these cameras has been very slow. On the older camera on Main Street and Monroe Avenue city has started to see signs of aging as these cameras are reaching their useful lives.

3d. Existing Conditions

Describe the conditions of the existing infrastructure. For example, condition of current infrastructure could be described as fair, disrepair, or out of commission. List any components NOT meeting current WMUTCD standards. Existing age of the current infrastructure could be described as 5 years past end-of-life, within 5 years past end-of-life, within 3 years of expected end-of-life, or current/new installation. Typical lifecycles of common infrastructure include communications (20 years), signal poles (25 years), controller (16 years), cabinet (20 years), DMS (20 years), CCTV (10 years), and detection (10 years).

Existing Siemens controllers have experienced above average failures, especially the newer M60 units due to supposed power supply issues. The Tactics software has experienced shortcomings, a lack of support for bug fixes, and lack of modern development. The Tactics software notifications and alerts do not work reliably and there are continual flaws with software programming of controllers. Multiple Grid Smart failures requiring replacement.

3e. Energy and Environmental Impacts

In some detail, describe the anticipated energy and environmental impacts of the proposed project. For example, is the proposed project expected to replace existing infrastructure that may be accessed from a central location rather than driving to the field location for manual access?

☐ See attached TSMO-TIP Application, if applicable.

Indicate your expected benefits below.

☐ Annual energy and environmental benefits are expected to be greater than the capital cost of the project (provide documentation).

☒ Annual energy and environmental benefits are expected to be greater than $0.

☐ Project is not expected to impact the natural environment.

☐ Project is expected to negatively impact the natural environment.

Although there is not a direct environmental benefit expected, the Econolite equipment will lead to more robust performance. This will reduce the number of trips and time allocation to each intersection for shortcomings and failures. Nonfunctioning cameras require a signal to go into background pretimed setting that causes delays. All video locations run 24/7 but when cameras go down the city has to decide if they need to go back into nighttime flash.

3f. Safety Improvements

3f. Safety Improvements

In some detail, describe current safety concerns and the anticipated safety improvements of the proposed project.

☐ See attached TSMO-TIP Application, if applicable.

☐ No expected safety impacts.

Although there is not a direct safety benefit, upgrading to Econolite controllers will result in increased efficiencies in special programming to accommodate various traffic patterns. This will allow the signals to operate more responsive to traffic conditions, which will reduce delays, queues, and ultimately crashes. Traffic Signal working 24/7 using video detection is safer than going into flash operation at night.

4. Project Cost and Schedule

List major construction items and associated estimates such as new traffic signal installation, intersection channelization, etc. When developing project costs account for additional costs for accessible pedestrian signals (APS), traffic signal detection, and emergency vehicle preemption (EVP) systems if your project is proposing them. Project expense is considered during the evaluation of the projects. Therefore, **ALL COSTS** (including design, utilities, and R/E) should be provided regardless of whether awarded project funds will be used for all elements of the project. **Maximum project award is limited to a total of $1,250,000.**

Cost	FY25 (07/24 – 06/25)	FY26 (07/25 – 06/26)	FY27 (07/26 – 06/27)	FY28 (07/27 – 06/28)
Design:				
WisDOT Staff Delivery/Design				
Consultant Work Order				
Real Estate: (Note: Real estate acquisition CANNOT be funded by this appropriation.) Identify funding source:				
Construction:				
Procurement: State Furnished Materials				
Procurement: Service and Installation		671,910	578,090	
LET Construction				
Other Costs:				
***TOTAL PROJECT COST PER FY =**		671,910	578,090	
MUNICIPAL FUNDING COMMITMENT (10%) =		**67,191**	**57,809**	

* Awarded project funds must be encumbered during the FY identified unless coordinated with the Regional Program Liaison. Requested funds will not be increased beyond the amount asked for in this application after the award of the project.

Schedule		
Task	Months (MM/YY – MM/YY)	Anticipated Required Resources (Region Project Design Section (PDS), Region Traffic Operations, consultant, procurement contracts, etc.)

1. Design		
2. Real Estate		
3. Procurement		
4. Construction		
5. Other		

5. Additional Project Information

5a. Performance Improvement Program Goals

Does this project help with achieving WisDOT's performance goals? Refer to http://dotnet/mapss/index.htm	Select all that apply:
– *Mobility*: Delivering transportation choices that result in efficient trips and no unexpected delays.	☒ Mobility
– *Accountability*: The continuous effort to use public dollars in the most efficient and cost-effective way.	☒ Accountability
– *Preservation*: Protecting, maintaining, and operating Wisconsin's transportation system efficiently by making sound investments that preserve and extend the life of our infrastructure, while protecting our natural environment.	☒ Preservation
– *Safety*: Moving toward minimizing the number of deaths, injuries, and crashes on our roadways.	☒ Safety
– *Service*: High quality and accurate products and services delivered in a timely fashion by a professional and proactive workforce.	☒ Service

5b. Additional Justification

Provide additional detail that should be considered during the evaluation of this project. This may include the consequences of what would happen should the project not be implemented.

Existing Siemens controllers have experienced above average failures. The Tactics software has experienced shortcomings, a lack of support for bug fixes, and lack of modern development. The city no longer retains active licensing with Siemens for support. Replacement of aging cameras.

6. Contact Information and Signature

PRIMARY CONTACT NAME (Responsible for Project Delivery) *Steven M. Grenier, P.E.*	TITLE *Director of Public Works, City of Green Bay*
EMAIL ADDRESS Steven Grenier@*greenbaywi.gov*	TELEPHONE 920-448-3097
WISDOT REGIONAL LIAISON CONTACT NAME (Municipal Only)	MUNICIPAL SPONSOR EMAIL ADDRESS
MUNICIPAL SPONSOR SIGNATURE (Responsible for 10% funding – Municipal Only)	DATE 03/21/2024
SIGNATURE OF WisDOT REGIONAL OPERATIONS CHIEF (WisDOT Projects Only)	DATE

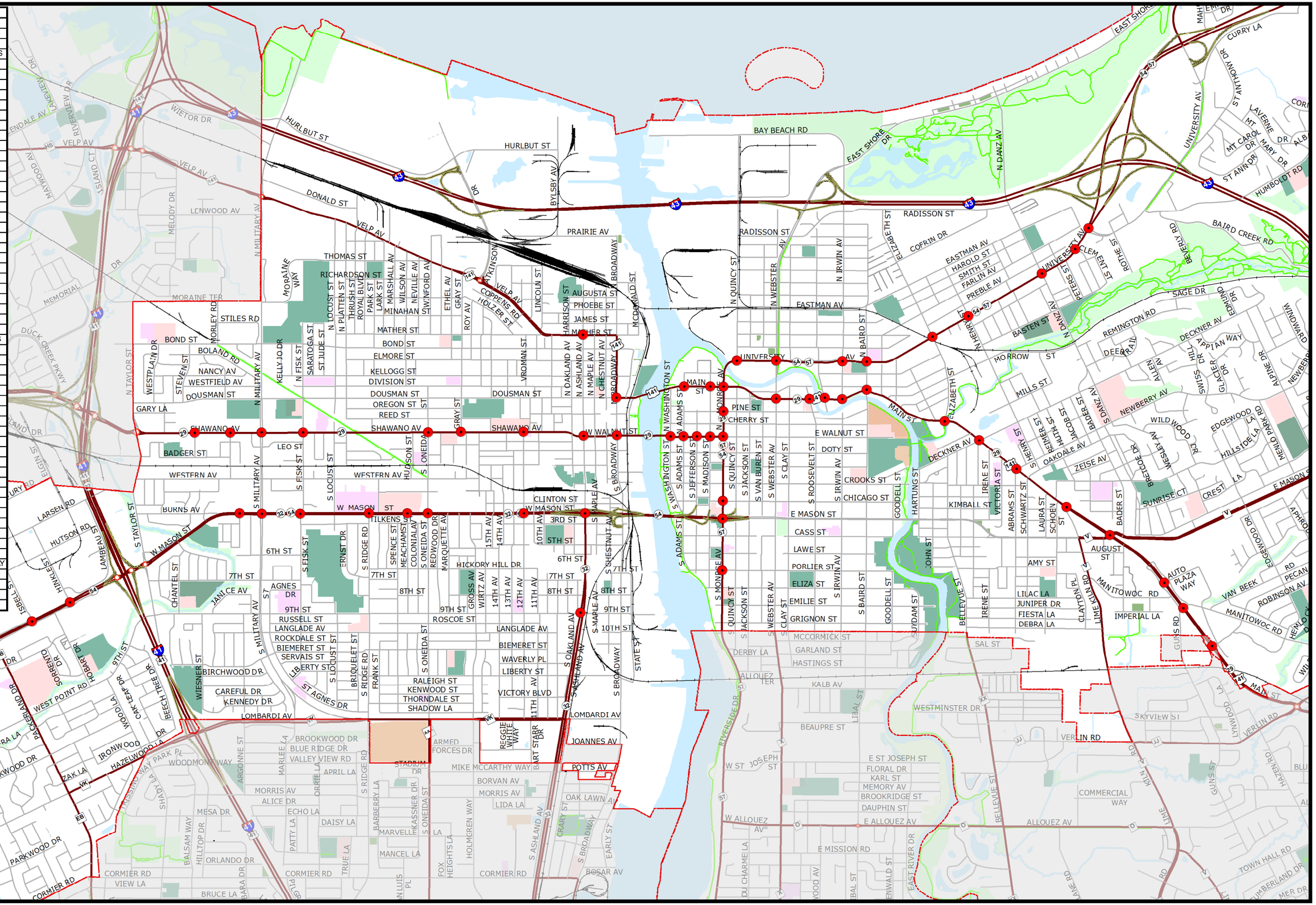
REVISED 12/7/2023

#	Intersection	Controller Age	Controller Type	Cabinet Age	Controller	Cabinet	Ground Sleeve	Camera Replacement	Camera Type	Total 2026	Total 2027
1	ASHLAND - WALNUT	August 1, 2016	M50	2011	$ 4,328.00					$ 4,328.00	
2	SHAWANO - 12th	August 1, 2000	EPAC300	1996	$ 4,328.00	$ 16,500.00	$ 550.00			$ 21,378.00	
3	ASHLAND - MATHER	December 1, 1995	EPIC140	1988	$ 4,328.00	$ 16,500.00	$ 550.00			$ 21,378.00	
4	ASHLAND - MASON RAMPS	January 1, 2011	M50	2010	$ 4,328.00	$ 16,500.00	$ 550.00			$ 21,378.00	
5	ASHLAND - NINTH	October 1, 1995	EPAC300	1997	$ 4,328.00	$ 16,500.00	$ 550.00				
6	BROADWAY - DOUSMAN	March 1, 2014	M50	2011	$ 4,328.00			$ 27,500.00	GridSmart 2015	$ 31,828.00	
7	BROADWAY - WALNUT	August 1, 1993	EPIC140	1993	$ 4,328.00	$ 16,500.00	$ 550.00			$ 21,378.00	
8	MAIN - ADAMS	January 1, 2013	M50	2008	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00	Iteris 2008		$ 48,878.00
9	MAIN - MADISON	January 1, 2010	M50	2008	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00	Iteris 2008		$ 48,878.00
10	MAIN - MONROE	August 1, 2008	M50	2008	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00	Iteris 2008		$ 48,878.00
11	MAIN - WEBSTER	June 1, 2010	M50	2010	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00	Iteris 2008		$ 48,878.00
12	MAIN - ROOSEVELT	August 1, 2008	EPAC300	2008	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00	Iteris 2008		$ 48,878.00
13	MAIN - IRWIN	November 1, 2012	M50	2008	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00	Iteris 2008		$ 48,878.00
14	MAIN - BAIRD	August 1, 2008	EPAC300	2008	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00	Iteris 2008		$ 21,378.00
15	MAIN - ELIZABETH	January 1, 2004	EPIC140	1992	$ 4,328.00	$ 16,500.00	$ 550.00				$ 21,378.00
16	MAIN - DECKNER	January 1, 2000	EPIC140	1988	$ 4,328.00	$ 16,500.00	$ 550.00				$ 21,378.00
17	MAIN - ABRAMS	December 1, 1998	EPIC140	1987	$ 4,328.00	$ 16,500.00	$ 550.00				$ 21,378.00
18	MAIN - LIME KILN	March 1, 1996	EPIC140	1987	$ 4,328.00	$ 16,500.00	$ 550.00				$ 21,378.00
19	MAIN - AUTO PLAZA	February 1, 2012	M50	2012	$ 4,328.00						$ 4,328.00
20	MAIN - MANITOWOC	March 1, 2014	M50	2012	$ 4,328.00						$ 4,328.00
21	MASON - MITCHELL	December 1, 2020	M60	2021	$ 4,328.00			$ 27,500.00	GridSmart 2019	$ 31,828.00	
22	MASON - MILITARY	November 1, 2012	M50	2010	$ 4,328.00			$ 27,500.00	GridSmart 2019	$ 31,828.00	
23	MASON - FISK	November 1, 2020	M60	2020	$ 4,328.00			$ 27,500.00	GridSmart 2019	$ 31,828.00	
24	MASON - RIDGE	November 1, 2020	M60	2020	$ 4,328.00			$ 27,500.00	GridSmart 2019	$ 31,828.00	
25	MASON - ONEIDA	April 1, 2016	M60	2020	$ 4,328.00			$ 27,500.00	GridSmart 2019	$ 31,828.00	
26	MASON - TWELFTH	January 1, 2021	M60	2020	$ 4,328.00			$ 27,500.00	GridSmart 2019	$ 31,828.00	
27	MASON - MAIN	April 1, 2018	M60	2017	$ 4,328.00						$ 4,328.00
28	MILITARY - SHAWANO	June 1, 2010	M50	2010	$ 4,328.00			$ 27,500.00	Iteris 2010		$ 31,828.00
29	MONROE - PINE	April 1, 2014	M50	2014	$ 4,328.00						$ 4,328.00
30	MONROE - WALNUT	April 1, 2014	M50	2014	$ 4,328.00						$ 4,328.00
31	MONROE - CHICAGO	April 1, 2014	M50	2014	$ 4,328.00						$ 4,328.00
32	MONROE - MASON RAMPS	August 1, 2014	M50	2014	$ 4,328.00						$ 4,328.00
33	SHAWANO - FISK	December 1, 1995	EPIC140	1983	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00		$ 48,878.00	
34	SHAWANO - ONEIDA	July 1, 2016	M50	2018	$ 4,328.00						$ 4,328.00
35	UNIVERSITY - QUINCY	November 1, 1995	EPAC300	1997	$ 4,328.00	$ 16,500.00	$ 550.00			$ 21,378.00	
36	UNIVERSITY - WEBSTER	April 1, 2017	M60	2017	$ 4,328.00						$ 4,328.00
37	UNIVERSITY - IRWIN	March 1, 1994	EPIC140	1988	$ 4,328.00	$ 16,500.00	$ 550.00				$ 21,378.00
38	UNIVERSITY - BAIRD	December 1, 1995	EPIC140	1989	$ 4,328.00	$ 16,500.00	$ 550.00				$ 21,378.00
39	UNIVERSITY - ELIZABETH	January 1, 2004	EPIC140	1990	$ 4,328.00	$ 16,500.00	$ 550.00				$ 21,378.00
40	UNIVERSITY - HENRY	March 1, 1994	EPIC140	1984	$ 4,328.00	$ 16,500.00	$ 550.00				$ 21,378.00
41	UNIVERSITY - DANZ	August 1, 2016	M60	2016	$ 4,328.00						$ 4,328.00
42	WALNUT - WASHINGTON	November 1, 2015	M50	2011	$ 4,328.00			$ 27,500.00	GridSmart 2020	$ 31,828.00	
43	WALNUT - ADAMS	November 1, 2015	M50	2011	$ 4,328.00			$ 27,500.00	GridSmart 2020	$ 31,828.00	
44	WALNUT - JEFFERSON	November 1, 2015	M50	2011	$ 4,328.00			$ 27,500.00	GridSmart 2018	$ 31,828.00	
45	WALNUT - MADISON	January 1, 2013	M50	2011	$ 4,328.00			$ 27,500.00	GridSmart 2018	$ 31,828.00	
46	SHAWANO - PERKINS	March 1, 1999	EPIC140	1995	$ 4,328.00	$ 16,500.00	$ 550.00			$ 21,378.00	
47	SHAWANO - GRAY	August 1, 1993	EPAC300	1987	$ 4,328.00	$ 16,500.00	$ 550.00			$ 21,378.00	
48	SHAWANO - SIEGLER	September 1, 2009	EPAC300	2009	$ 4,328.00						$ 4,328.00
49	MASON - MEACHAM	April 1, 2018	M60	2020	$ 4,328.00						$ 4,328.00
50	MONROE - PORLIER	January 1, 1997	EPAC300	1997	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00	None	$ 48,878.00	
51	MASON - PACKERLAND	March 1, 1994	EPAC300	1996	$ 4,328.00	$ 16,500.00	$ 550.00				
52	MASON - COUNTRY CLUB	March 1, 2015	M50	2009	$ 4,328.00	$ 16,500.00	$ 550.00				
53	MASON - ISBELL	November 1, 2002	EPAC300	2010	$ 4,328.00	$ 16,500.00	$ 550.00				
54	HY 54/57 - UNIVERSITY WAY	November 1, 2016	M60	2016	$ 4,328.00						$ 4,328.00
55	MAIN - PECAN	February 1, 1999	EPAC300	1997	$ 4,328.00	$ 16,500.00	$ 550.00			$ 21,378.00	
56	MAIN - ST GEORGE	August 1, 2008	EPAC300	2008	$ 4,328.00	$ 16,500.00	$ 550.00	$ 27,500.00	Iteris 2008	$ 48,878.00	
57	MASON - HINKLE	July 1, 1997	EPAC300	2001	$ 4,328.00	$ 16,500.00	$ 550.00				
58	HY 54/57 - CLEMENT	January 1, 2017	M60	2016	$ 4,328.00						$ 4,328.00
			Line Totals		**$ 251,024.00**	**$ 511,500.00**	**$ 17,050.00**	**$ 605,000.00**	**$ -**		

	2026	2027
Total	**$ 671,910.00**	**$ 578,090.00**
10%	$ 67,191.00	$ 57,809.00
		$ 1,250,000.00

Delete these locations as they will be rebuilt prior to grant

#	Intersection
1	ASHLAND - WALNUT
2	SHAWANO - 12th
3	ASHLAND - MATHER
4	ASHLAND - MASON RAMPS
5	ASHLAND - NINTH
6	BROADWAY - DOUSMAN
7	BROADWAY - WALNUT
8	MAIN - ADAMS
9	MAIN - MADISON
10	MAIN - MONROE
11	MAIN - WEBSTER
12	MAIN - ROOSEVELT
13	MAIN - IRWIN
14	MAIN - BAIRD
15	MAIN - ELIZABETH
16	MAIN - DECKNER
17	MAIN - ABRAMS
18	MAIN - LIME KILN
19	MAIN - AUTO PLAZA
20	MAIN - MANITOWOC
21	MASON - MITCHELL
22	MASON - MILITARY
23	MASON - FISK
24	MASON - RIDGE
25	MASON - ONEIDA
26	MASON - TWELFTH
27	MASON - MAIN
28	MILITARY - SHAWANO
29	MONROE - PINE
30	MONROE - WALNUT
31	MONROE - CHICAGO
32	MONROE - MASON RAMPS
33	SHAWANO - FISK
34	SHAWANO - ONEIDA
35	UNIVERSITY - QUINCY
36	UNIVERSITY - WEBSTER
37	UNIVERSITY - IRWIN
38	UNIVERSITY - BAIRD
39	UNIVERSITY - ELIZABETH
40	UNIVERSITY - HENRY
41	UNIVERSITY - DANZ
42	WALNUT - WASHINGTON
43	WALNUT - ADAMS
44	WALNUT - JEFFERSON
45	WALNUT - MADISON
46	SHAWANO - PERKINS
47	SHAWANO - GRAY
48	SHAWANO - SIEGLER
49	MASON - MEACHAM
50	MONROE - PORLIER
51	MASON - PACKERLAND
52	MASON - COUNTRYCLUB
53	MASON - ISBELL
54	HY 54/57 - UNIVERSITY WAY
55	MAIN - PECAN
56	MAIN - ST GEORGE
57	MASON - HINKLE
58	HY 54/57 - CLEMENT



#	Intersection
1	ASHLAND - WALNUT
2	SHAWANO - 12th
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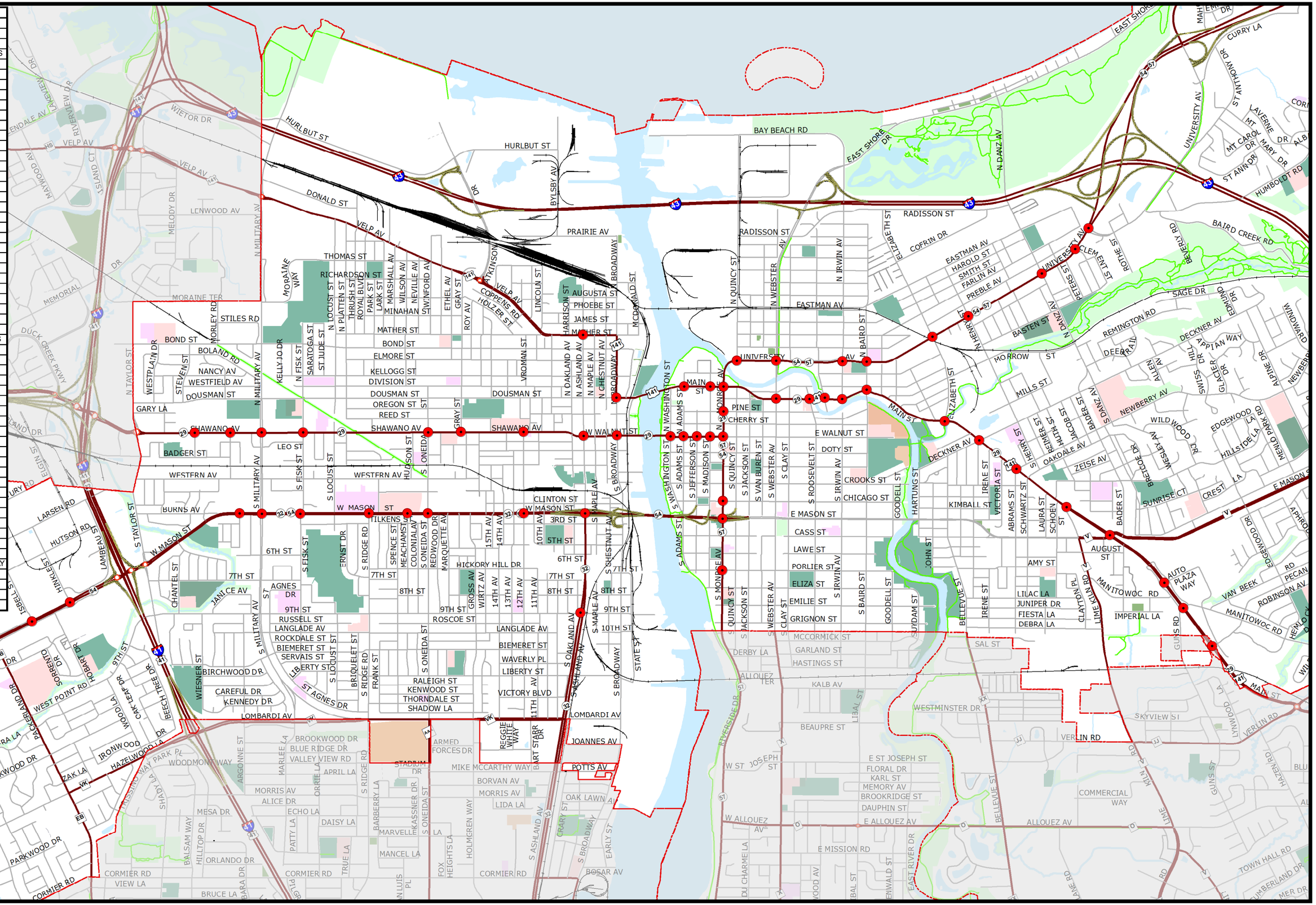
54	HY 54/57 - UNIVERSITY WAY
55	MAIN - PECAN
56	MAIN - ST GEORGE
57	MASON - HINKLE
58	HY 54/57 - CLEMENT



MOBILITY & TRAFFIC EXPERTS

Quote

Quote Number: **1941975**

109 West 55th Street | Davenport, IA 52806 | (563) 323-0009

Date: 03/05/2025
Expire Date: 4/30/2025
Prepared By: Harrison, Kyle R.

Customer: GRE0017

Bruley, Jerry
City of Green Bay
1820 Mills St
Green Bay WI 54302-3514
United States

Contact: Bruley, Jerry
Phone: 920-391-3650

Description: Iteris Next Systems Quote -- Trade-In Pricing

Part #	Description	Quantity	Price	Extended
PAYLINE	(22) Iteris Next Systems -- trade-in	22	$18,274.00	$402,028.00

Sale Amount:	**$402,028.00**
Sales Tax:	0.00
Misc Charges:	0.00
Total Amount:	**$402,028.00**

Terms:

THIS QUOTE IS BASED ON THE ENTIRE VALUE AND VOLUME OF ALL LINE ITEMS - Prices listed on this quote are valid only in the event of purchase of all line items in the quantities listed, in their entirety. Purchases of individual line items will require a new quote prior to acceptance of any purchase orders.

PAYMENT TERMS ARE NET 30 DAYS with prior approved credit. MoboTrex, LLC retains title to material until paid in full. A service charge of 1.5% per month (18% annual rate) will be assessed against all past due accounts. Prices and delivery quoted are firm for 30 days from the data of bid. The above quote does not include installation of the products quoted. On-Site technical assistance is available and will be quoted upon request.

Quotation does not include sales tax. Sales tax will be added at time of invoice unless a valid Sales Tax Exempt certificate has been provided. Sales tax exempt certificate should accompany customer Purchase Order.

Limited Warranty: MoboTrex, LLC only obligations shall be to replace such quantity of the product proven to be defective.

Warranty Period: The length of warranty manufacturers have conveyed to the seller and which can be passed on to the buyer.

Additional terms and conditions apply - See MoboTrex, LLC Terms & Conditions document at our website: www.mobotrex.com.

Thank you for the opportunity to provide this quote.

TRAFFIC CONTROL CORPORATION
5651 MEMORIAL AVENUE
OAK PARK HEIGHTS, MN 55082
PHONE: 651-439-1737

QUOTATION

Number 663302

To: 11081
GREEN BAY, CITY OF
100 N JEFFERSON ST
CITY HALL
ROOM 101
GREEN BAY WI 54301 USA

Attn:
Email:
Phone: 920-448-3010 **Fax:** 920-448-3050

Quote Date: 3/4/2025 **Expires:** 5/3/2025
Terms: NET 30 BASED ON APPROVED CREDIT
FOB: DESTINATION-FRT INCLUDED
Salesperson: MATT ALLWOOD
Email: MAllwood@TCC1.com
Phone: 651-439-1737

Letting Date:
Location: CITY OF GREEN BAY
Book / Call / Item:
Description: TRAFFIC CONTROLLER AND CABINET REPLACEMENT
Contract No: WISDOT TS2 CABINET CONTRACT

Part Number / Description	Unit Price	Qty/UM	Net Price
F73692 (504) CONTROLLER, COBALT, C, TYPE 2, DATA KEY, EOS: ECONOLITE, COBC22100000000000	4,340.00	54.00 EA	234,360.00
DATA BASE CONVERSION CRAIG TO CONVERT EAGLE DATA BASE OVER TO EOS - TO BE TESTED AT GREEN BAY PUBLIC WORKS AND DOES NOT INLCULDE SITE VISIT	275.00	28.00 EA	7,700.00
NEMA TS2 TYPE 1 TRAFFIC SIGNAL CONTROL CABINET 55" ECONOLITE 16 POSITION TS2 TYPE 1 CABINET, INCLUDES POWER SUPPLY, 3 BIU, 4 FTR, 1 FLASHER * WISDOT CONTRACT $12,750 EDI MMU2 SMART MONITOR * WISDOT CONTRACT $1,535 LIGHTING PANEL *WISDOT CONTRACT $595 CABINET HEATER *WISDOT CONTRACT $160 SURGE WUPPRESSOR, TRIPP LITE *WISDOT CONTRACT $175 16 LOAD SWITCHES * WISDOT CONTRACT $44 EACH GENERATOR TRANSFER SWITCH *WISDOT CONTRACT $1,100 *CABINET DOES NOT INCLUDE ANY INTERCONNECT EQUIPMENT*	17,019.00	26.00 EA	442,494.00

Item Total:	684,554.00
Misc Charges and Adjustments:	0.00
Quote Total:	**684,554.00**

Pricing does not include applicable sales taxes. If order is to be exempt sales tax, documentation must be provided at time of order. Additional terms may apply. Review our full Terms & Conditions of Sale at www.trafficcontrolcorp.com.

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.8

Consideration with possible action on request by Department of Public Works - Operations Division to purchase one (1) Bobcat UW56 Toolcat off the Sourcewell Contract #040329-CEC for $76,769.09; two (2) Erskine snow blowers for $7,954.00 each; and two (2) Erskine v-plows for $3,000.00 each off the Minnesota State Contract #246981 from Bobcat Plus for a net total of $98,677.09, which includes delivery, setup, warranty, and operator training.

BACKGROUND

The Department of Public Works utilizes sidewalk tractors year-round for various core functions, including snow removal, litter cleanup, yard waste collection and grass cutting. Unit 750, a 2006 Holder C9.88 and unit 759, a 2004 Holder C9.72 have reached their maximum service life, and a replacement has been approved in the 2025 budget.

RECOMMENDATION

To approve the purchase

FISCAL IMPACT

ATTACHMENTS

1. quote-BW1103379
2. Toolcat and Attachments Req
3. CITY OF GREEN BAY - UW56 - quote-MB1047268 (2)

Quotation Number: **BW1103379**
Quote Sent Date: **Apr 02, 2025**
Expiration Date: **May 02, 2025**
Prepared By: **Brian Weber**
Phone: 920-660-9356
Email: bweber@bobcatplus.com

Customer
City of Green Bay - Public Works
519 S ONEIDA ST
GREEN BAY, WI, 54303-2009
Phone: +1 920 492 3751

Contact
Nathan Wachtendonk
Phone: +1 920 492 3751
Email: nathanwa@greenbaywi.gov

Dealer
Bobcat Plus, Inc., DePere, WI
1372 MID VALLEY DR.
DEPERE, WI, 54115

Item Name	Item Number	Quantity	Price Each	Total
Erskine SB300 48" snow blower 17-22 GPM	901780	1	10,104.00	10,104.00
	Total for Erskine SB300 48" snow blower 17-22 GPM			10,104.00
Erskine SB300 48" snow blower 17-22 GPM	901780	1	10,104.00	10,104.00
	Total for Erskine SB300 48" snow blower 17-22 GPM			10,104.00
Mini Snow/Light material 48" Blade	900338	1	3,790.00	3,790.00
	Total for Mini Snow/Light material 48" Blade			3,790.00
Mini Snow/Light material 48" Blade	900338	1	3,790.00	3,790.00
	Total for Mini Snow/Light material 48" Blade			3,790.00
		Quote Total - USD		27,788.00
		Discount		
		Discount per Minnesota state bid Contract 246982		-5,880.00
		Sales total before Taxes		21,908.00
		Taxes		0.00
		Quote Total - USD		**21,908.00**

Notes:
3% fee will be applied if paying with credit card.Discounts are based on ordering 2 snow blowers and 2 Snow blades

Customer acceptance:
Quotation Number:: **BW1103379** Purchase Order:_____

Authorized Signature:

Print:_____ Sign:_____

Date:_____ Email:_____ Tax Exempt: Y ☐ / N ☐

City of Green Bay
DPW - Operations

Requestion Request

To: Beth Nadolski Spears
Public Works Supervisor

From: Nathan Wachtendonk
Fleet Manager

Date: April 2, 2025

Re: **Toolcat and Attachments**

Item: (1) Toolcat w/attachments

Cost: $98,677.09

Vendor: Bobcat Plus

Account# 427503-55501

Delivery: DPW West Side Garage

Background:

The Department of Public Works utilizes sidewalk tractors year-round for various core functions including snow removal, litter cleanup, yard waste collection and grass cutting. Unit 750, a 2006 Holder C9.88 and unit 759, a 2004 Holder C9.72 have reached their maximum service life, and a replacement has been approved in the 2025 budget.

Recommendation:

To purchase (1) Bobcat UW56 Toolcat off the Sourcewell Contract #040329-CEC for $76,769.09; (2) Erskine snow blowers for $7,954 each and (2) Erskine v-plows for $3,000 each off the Minnesota State Contract # 246981 from Bobcat Plus for a net total of **$98,677.09** which includes delivery, setup, warranty, and operator training.

Product Quotation
Quotation Number: **MB1047268**
Quote Sent Date: **Mar 12, 2025**
Expiration Date: **Apr 11, 2025**

Your Bobcat Contact
Mason Brekke
Phone:
Email: mason.brekke@doosan.com

Your Customer Contact

Deliver to
City of Green Bay - Public Works
519 S ONEIDA ST
GREEN BAY, WI, 54303-2009

Bobcat Dealer
Bobcat Plus, Inc., DePere, WI
1372 MID VALLEY DR.
DEPERE, WI, 54115

Bill to
NEW GOVERNMENT CUSTOMER
2391333
250 E Beaton Dr
West Fargo, ND, 58078-2656

Item Name	Item Number	Quantity	Price Each	Total
Bobcat UW56	M1225	1	64,464.00	64,464.00
Standard Equipment: Adjustable Vinyl Seats All-Wheel Steer Automatically Activated Glow Plugs Auxiliary Hydraulics Variable Flow with dual direction detent Beverage Holders Bob-Tach Boom Float Cargo Box Support Cruise Control Speed Management Enclosed Cab with HVAC Dual Port USB charger Lower Engine Guard Limited Slip Transaxle Engine and Hydraulic Monitor with Shutdown Front LED Work Lights Full-time Four-Wheel Drive Horsepower Management Roll Over Protective Structure (ROPS) . Meets Requirements of SAE-J1040 & ISO 3471 Falling Object Protective Structure (FOPS) . Meets Requirements of SAE-J1043 & ISO3449, Level I Dome Light Hydraulic Dump Box Instrumentation: Standard 5" Display with Keyless Start, Engine Temperature and Fuel Gauges, Hour meter, RPM and Warning Indicators. Includes maintenance interval notification, fault display, job codes, quick start, and security lockouts. Joystick, Manually Controlled with Lift Arm Float Lift Arm Support Parking Brake, automatic Power Steering with Tilt Steering Wheel Radiator Screen Rear Receiver Hitch Seat Belts, Shoulder Harness Spark Arrestor Muffler Suspension, 4-wheel independent Tires: 27 x 10.5-15 (8 ply), Lug Tread Toolcat Interlock Control System (TICS) Two-Speed Transmission Machine Warranty: 12 Months, unlimited hours Bobcat Engine Warranty: Additional 12 Months or total of 2000 hours after initial 12 month warranty				
Deluxe Road Package *Included:* Deluxe Road Package includes: Backup Alarm, Turn Signals, Flashers, Tail Lights, Brake Lights, Rear view mirror, Side Mirrors, Horn, Rear work lights, and headlights	M1225-P01-C01	1	2,600.00	2,600.00
Attachment Control	M1225-R08-C02	1	224.80	224.80

Engine Block Heater	M1225-A01-C02	1	128.00	128.00
Heavy Duty Battery	M1225-R07-C02	1	92.00	92.00
High Flow Package	M1225-R03-C02	1	1,736.00	1,736.00
Interior Trim	M1225-A01-C04	1	180.80	180.80
Power Bob-Tach	M1225-R14-C03	1	1,012.00	1,012.00
Radio Option	M1225-R15-C02	1	474.40	474.40
Rear View Camera	M1225-R20-C01	1	315.20	315.20
Traction Control	M1225-R16-C02	1	556.80	556.80
Protection - Rear Window Guard Kit	7150926	1	966.09	966.09
24 Month/2000 Hour Full Extended Warranty	9974360	1	1,300.00	1,300.00
	Total for Bobcat UW56			74,050.09

Quote Total - USD	74,050.09
Dealer P.D.I.	650.00
Freight Charges	1,400.00
Dealer Assembly Charges	169.00
Charges	
Switch and Wiring for Strobe light	400.00
Additional Freight	100.00
Quote Total - USD	**76,769.09**

Comment:
*Plus applicable taxes. IF Tax Exempt, please include Tax Exempt Certificate with the order.

*Prices per the Sourcewell Contract #020223-CEC

*Sourcewell Member Number (if applicable): _____

*All orders should include 1) Accounts Payable Contact and email address, 2) W9 with correct legal entity name, and 3) Bill to Address.

*Orders may be placed with the contract holder or authorized dealer as allowed by the terms and conditions of the contract. *A Copy of all orders must be provided to Heather.Messmer@Doosan.com.

*Contact Holder Information: Doosan Bobcat North America, Inc. Govt Sales, 250 E Beaton Drive, West Fargo, ND 58078. TID# 38-0425350.

*Payment Terms: Net 60 Days. Credit cards accepted.

*Remittance address: Doosan Bobcat North America, Inc. P. O. Box 74007382, Chicago, IL 60674-7382

Customer acceptance:
Quotation Number:: **MB1047268** Purchase Order:_____

Authorized Signature:

Print:_____ Sign:_____

Date:_____ Email:_____

Addresses

Delivery Address_____

Billing Address (if different from ship to):_____

Tax Exempt: Y ☐ / N ☐

Exempt in the State of:_____

Tax Exempt ID:

Federal:_____

State:_____

Expiration Date:_____

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.9

Consideration with possible action on request by Department of Public Works to adopt a resolution to increase parking rates in public parking ramps during the 2025 NFL Draft from $1.00/hour - $12.00/day maximum to $2.00/hour - $24.00/day maximum.

BACKGROUND

Parking in downtown can be very limited, especially at times of high demand, such as special events and festivals. With the expected influx of visitors due to the 2025 NFL Draft, extra assistance, enforcement, security, and monitoring will be required within our public parking ramps. As the Parking Division is a Special Revenue Fund, we must cover our expenses through our revenues with no reliance on the tax-funded General Fund. To help offset some of these additional costs, staff has recommended increasing ramp rates during the draft.

Staff further evaluated increasing meter rates to help offset these costs, but the investment required to change the meters and then change them back after the draft was cost-prohibitive.

Lastly, this change will not impact our normal monthly rental patrons and will only impact hourly parking patrons paying at the ramp.

RECOMMENDATION

To approve the requesst by Department of Public Works to adopt a resolution to increase parking rates in public parking ramps during the 2025 NFL Draft from $1.00/hour - $12.00/day maximum to $2.00/hour - $24.00/day maximum.

FISCAL IMPACT

To be determined

ATTACHMENTS

1. Draft Resolution to Amend Parking Rates

RESOLUTION TO AMEND PARKING RATES

March 4, 2025

BY THE COMMON COUNCIL OF THE CITY OF GREEN BAY:

WHEREAS, the City of Green Bay Common Council has authority to amend the parking rates pursuant to Section 40-52 of the Green Bay Municipal Code; and

WHEREAS, the City of Green Bay is the host city for the 2025 NFL Draft, and anticipates an increase in demand for parking; and

WHEREAS, the current rate of $1.00 per hour and $12 per day at the Pine Street Parking Ramp, Cherry Street Parking Ramp, and the Main Street Parking Ramp are insufficient to encourage responsible parking in high-traffic areas; and

WHEREAS, the Common Council has determined that an adjustment in the hourly parking rate to $2.00 per hour and $24 per day at the Pine Street Parking Ramp, Cherry Street Parking Ramp, and the Main Street Parking Ramp will encourage responsible parking in high-traffic areas and is in the best interest of the public.

NOW, THEREFORE, BE IT RESOLVED that the City of Green Bay Common Council, pursuant to Section 40-52 of the Green Bay Municipal Code, hereby authorize the adjustment in the hourly parking rate to $2.00 per hour and $24 per day at the Pine Street Parking Ramp, Cherry Street Parking Ramp, and the Main Street Parking Ramp; and

BE IT FURTHER RESOLVED that this adjustment in hourly parking rate shall take effect on April 23, 2025, and shall expire on April 25, 2025, with the price reverting back to the rate of $1.00 per hour and $12 per day; and

BE IT FURTHER RESOLVED that the Director of Public Works, or their designee, shall make all necessary changes to reflect this parking rate adjustment.

Adopted _____

Approved _____

_____
Eric Genrich, Mayor

_____
Celestine Jeffreys, Clerk

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.10

Consideration with possible action on request by Department of Public Works to review and approve the award of WSG 1-25 SALT STORAGE SHED CONCRETE REPAIRS to Restoration Systems, Inc. in the amount of $78,940.00.

BACKGROUND

The interior concrete walls are spalling allowing salt infiltration and corrosion of the reinforcing steel. Concrete repairs and coating of the walls is necessary to prevent further corrosion and failure of the structure.

RECOMMENDATION

Department of Public Work recommends awarding the contract to the lowest responsive bidder.

FISCAL IMPACT

$100,00 was allocated in the 2025 CIP request for this project.

ATTACHMENTS

1. QuestCDN_Projectresults_WSG 1-25 Salt Storage Shed Concrete Repairs

WSG 1-25 SALT STORAGE SHED CONCRETE REPAIRS

Quest Number: 9581039

Closing Date: Tue, 04/01/2025 02:00 PM CDT
Posting Type: Construction Project
Owner: Green Bay WI, City of
Solicitor: Green Bay WI, City of

Owner Name:	Green Bay WI, City of
Owner Contact:	Steven Grenier, P.E.
Owner Phone:	920-448-3100
Solicitor Name:	Green Bay WI, City of
Contact:	Trista Hobbs
Email:	trista.hobbs@greenbaywi.gov
Phone:	920-448-3114
Award Date:	
Comments:	
Award Status:	Pending
Letting Bid Tabulation:	View on vBid

Company	Contact	Phone	E-mail	Amount	Awarded	Comment
Restoration Systems Inc.	Blake Dronen	952-368-0463	bdronen@restorationsystems.net	$ 78,940.00		
Central Restoration, LLC	Ashley Sobotta	920-583-3733	sobotta1@centralrestoration.com	$ 87,240.00		
Berglund Construction Company	April Wilson	7733741000	awilson@berglundco.com	$ 93,500.00		
LUNDA CONSTRUCTION	Lunda Estimating	715-284-9491	wiquotes@lundaconstruction.com	$ 155,335.00		
IEI General Contractors	Shane Whelchel	920-337-2111	shane@ieigc.com	$ 191,560.00		

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.11

Report the award of contract RAMPS 2-25 PINE STREET RAMP PT REPAIRS to Cy-Con, Inc. in the amount of $238,998.00.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

1. Contract Award Letter SIGNED for RAMPS 2-25 PINE STREET RAMP PT REPAIRS

Public Works Department
100 North Jefferson Street • Room 300
Green Bay, Wisconsin 54301-5026
www.greenbaywi.gov

Administration | Engineering | Traffic 920.448.3100
Operations 920.448.3535
Parking 920.448.3431
Fax 920.448.3102

March 20, 2025

Cy-Con, Inc.
110 Sycamore St., W.
St. Paul, MN 55117

Ladies and Gentlemen:

You have been awarded contract RAMPS 2-25 PINE STREET RAMP PT REPAIRS in the amount of $238,998.

The terms of the award require your officer to sign the Contract, Performance Bond, Payment Bond, and Federal W-9 form **within ten (10) days of this notice**. They will be emailed to you today.

The completed Performance Bond, Payment Bond, Federal W-9 form, and proof of insurance(s) required in the City of Green Bay Standard Specifications should be mailed to:

City of Green Bay Department of Public Works
Attn: Michelle Wolter
100 N. Jefferson Street, Room 300
Green Bay, WI 54301

If you have any questions, please call (920) 448-3100.

Sincerely,

Steven M. Grenier

Steven M. Grenier, P.E.
Director of Public Works

ejns

cc: Trista Hobbs
Jeff Lambrecht
Kyle Vander Loop

Contract Award Letter for RAMPS 2-25 PINE STREET RAMP PT REPAIRS

Final Audit Report 2025-03-20

Created:	2025-03-20
By:	Elizabeth Nadolski Spears (Elizabeth.Nadolski-Spears@greenbaywi.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAA7_gDH_Yu_Jcweq-AftnrF6s_3TjC77A3

"Contract Award Letter for RAMPS 2-25 PINE STREET RAMP P T REPAIRS" History

Document created by Elizabeth Nadolski Spears (Elizabeth.Nadolski-Spears@greenbaywi.gov)
2025-03-20 - 7:29:16 PM GMT

Document emailed to Steve Grenier (steven.grenier@greenbaywi.gov) for signature
2025-03-20 - 7:29:37 PM GMT

Email viewed by Steve Grenier (steven.grenier@greenbaywi.gov)
2025-03-20 - 7:29:44 PM GMT

Document e-signed by Steve Grenier (steven.grenier@greenbaywi.gov)
Signature Date: 2025-03-20 - 7:56:49 PM GMT - Time Source: server

Agreement completed.
2025-03-20 - 7:56:49 PM GMT

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.12

Report of actions taken by the Department of Public Works.

A. Granting of Licenses

1. Sidewalk Builder

a. Allied Concrete Construction, Inc.
b. Blaser Construction, LLC
c. Delahaut Custom Concrete, LLC
d. Elexco, Inc.
e. Hemle Construction & Concrete, LLC
f. J.C. Santy Construction, LLC
g. Loch Construction Co., Inc.
h. Precision Flatwork
i. Zeise Construction
j. Craftsman Concrete, LLC
k. Titletown Construction, LLC
l. KPC Concrete Contractors, LLC
m. D&T Construction, LLC
n. Evraets Concrete Construction, LLC
o. Josh Bailey Concrete, LLC
p. Parham Construction

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.13

Consideration with possible action on request by Department of Public Works to approve the award of contract ASPHALT PAVING 2025 to MCC, Inc. in the amount of $745,179.30.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

1. QuestCDN_Projectresults_Asphalt Paving 2025

ASPHALT PAVING 2025

Quest Number: 9598321

Closing Date: Tue, 04/01/2025 02:00 PM CDT
Posting Type: Construction Project
Owner: Green Bay WI, City of
Solicitor: Green Bay WI, City of

Owner Name:	Green Bay WI, City of
Owner Contact:	Steven Grenier, P.E.
Owner Phone:	920-448-3100
Solicitor Name:	Green Bay WI, City of
Contact:	Robbie Woldt
Email:	robbie.woldt@greenbaywi.gov
Phone:	920-448-3109
Award Date:	
Comments:	
Award Status:	Pending
Letting Bid Tabulation:	View on vBid

Company	Contact	Phone	E-mail	Amount	Awarded	Comment
MCC, Inc.	Alicia Marx	920-749-3360	bidding@murphyinc.org	$ 745,179.30		
Northeast Asphalt, Inc.	Mary Jorgensen (PMA)	920-757-2900	neaquote@walbecgroup.com	$ 813,641.35		

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # E.14

Consideration with possible action on request by Department of Public Works to approve the award of contract PAVEMENT REPAIR 2025 to Martell Construction in the amount of $1,871,967.50.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

1. QuestCDN_Project Results_Pavement Rapir 2025

PAVEMENT REPAIR 2025

Quest Number: 9551415

Closing Date: Tue, 03/11/2025 02:00 PM CDT
Posting Type: Construction Project
Owner: Green Bay WI, City of
Solicitor: Green Bay WI, City of

Owner Name:	Green Bay WI, City of
Owner Contact:	Steven Grenier, P.E.
Owner Phone:	920-448-3100
Solicitor Name:	Green Bay WI, City of
Contact:	Robbie Woldt
Email:	robbie.woldt@greenbaywi.gov
Phone:	920-448-3100
Award Date:	
Comments:	
Award Status:	Pending
Letting Bid Tabulation:	View on vBid

Company	Contact	Phone	E-mail	Amount	Awarded	Comment
Martell Construction	Ryan Everson	920-468-8071	Reverson@Martellco.com	$ 1,871,967.50		
Al Dix Concrete Inc	Dylan Dix	920-766-4344	dixconcrete@yahoo.com	$ 1,917,450.00		
Highway Landscapers, Inc.	Nick Wilfert	920-759-1701	nwilfert@highway.email	$ 2,049,425.00		

Report to the
Improvement and Service Committee of the City of Green Bay

MEETING DATE	PREPARED BY
April 9, 2025	

AGENDA ITEM # F.1

Director's Report on recent activities of the Public Works Department.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None