

Engineering & Capital Works Department

2023-2024 Biennial Report

Engineering & Capital Works Department

Manage the County's capital replacement and major maintenance programs to ensure long term sustainability of the County's \$3.3B in infrastructure.

Departmental Structure (28 staff total):

- Administration – ECW (2 staff)
- Engineering Services – ENG (13 staff)
- Water & Wastewater Engineering – WWE (7 staff)
- Facilities Capital & Asset Management – FCA (6 staff)

GM Engineering & Capital Works
Tyson Haedrich

Administrative Coordinator
Sue Flaherty

Engineering Services

Manager
Engineering Services
Kris Franklin

Business Services Assistant
Michelle Baldin

Project Manager
Municipal Infrastructure
Danielle Fletcher

Project Manager
Municipal Infrastructure
Mark Long

Project Manager
Municipal Infrastructure
Lucas Hunter

Municipal Technologist
Jordan Higgins

Municipal Technologist
Mike Fleschhut

Municipal Technologist
Doug Reimer

Municipal Technologist
Owen Felker

Municipal Technologist
Joana Nunes

Transportation Engineering
Technologist
Judy Brown

Project Manager
Municipal Drains
John Van Rooy

Engineering Services Student
(Mohawk Coop – 8 months)

Water & Wastewater Engineering

Manager
W&WW Engineering
Phil Wilson

Project Manager
W&WW Capital
Warren Wight

Project Manager
W&WW Capital
Jessica Davidson

Project Manager
W&WW Capital
Shadi Damaj

Project Manager
W&WW Infrastructure
Stephanie Nolet

W&WW Engineering Technologist
Chad Springer

SCADA Coordinator
Ben Howard

Facilities Capital & Asset Management

Manager
Facilities Capital & Asset Management
Jeff Oakes

Project Manager
Facilities Infrastructure
Ashley Schaeffer

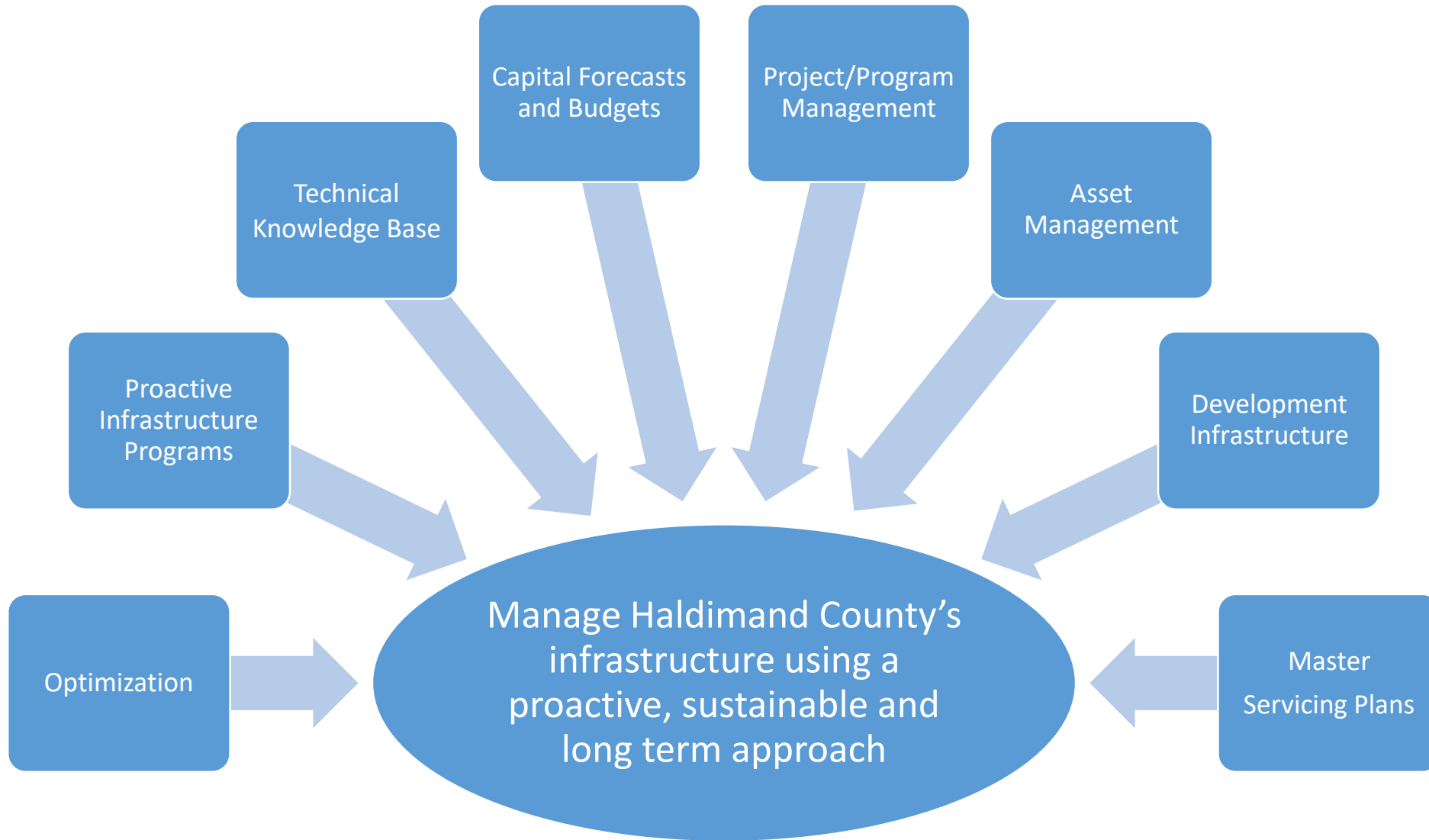
Project Manager
Facilities Infrastructure
Jessica Ignaszak

Facilities Technologist
David Lamanes

Facilities Technologist
Jesse Hunter

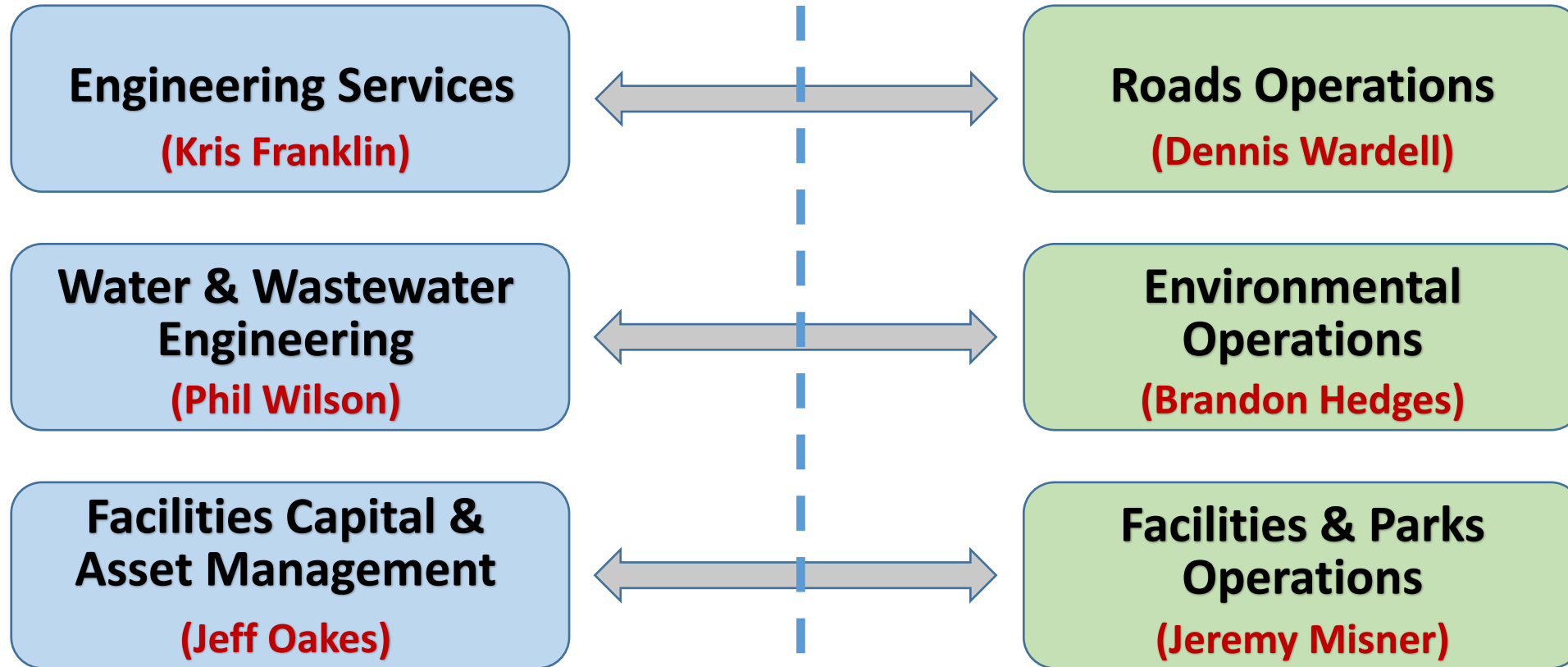
Project Manager
Asset Management
Cindy King





(ECW) Plan/Construct

(PWO) Operate/Maintain



Engineering Services – Responsibilities

- Road Reconstruction Program - \$3M
- Hot Mix Resurfacing Program (500 km of paved rural/urban roads) - \$4.1M
- Urban Paving Program (150 km of urban local roads) - \$2.3M
- Surface Treatment (Tar and Chip) Program (880 km) - \$4.5M
- Gravel Road Conversion Program (2025 Top Coat)
- Structures Program (267 bridges/culverts with 3+ metre span) - \$4.5M
- Municipal Drains Program (84 municipal drains on ten year cycle)
- Development Related Infrastructure

Engineering Services – 2023/24 Highlights

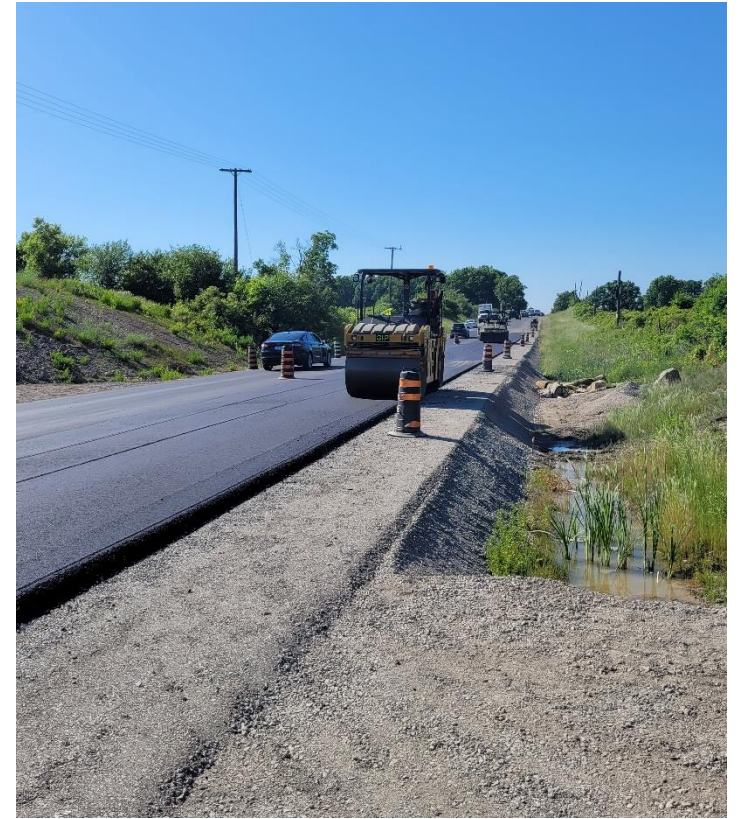
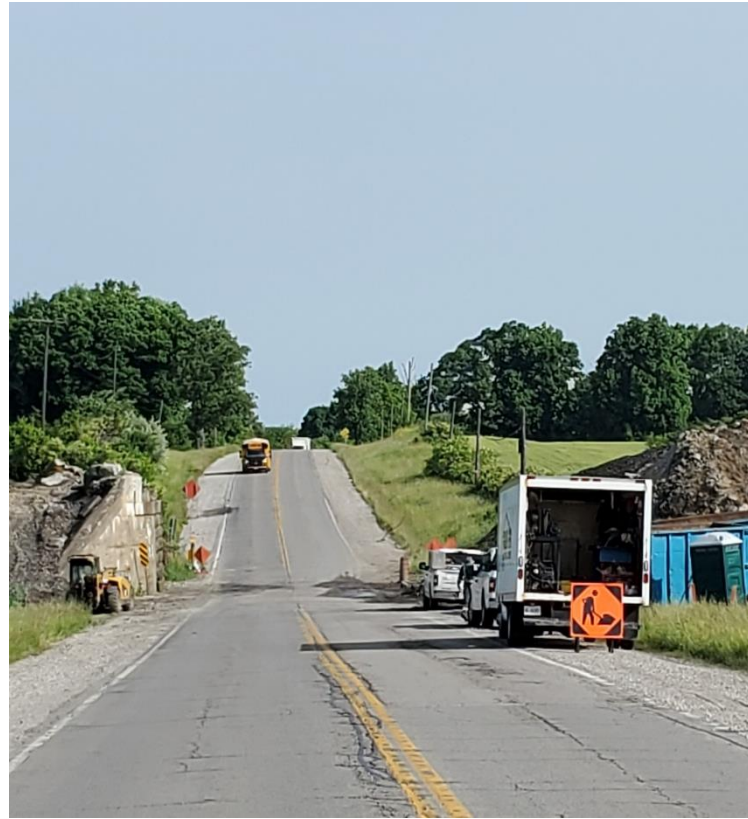
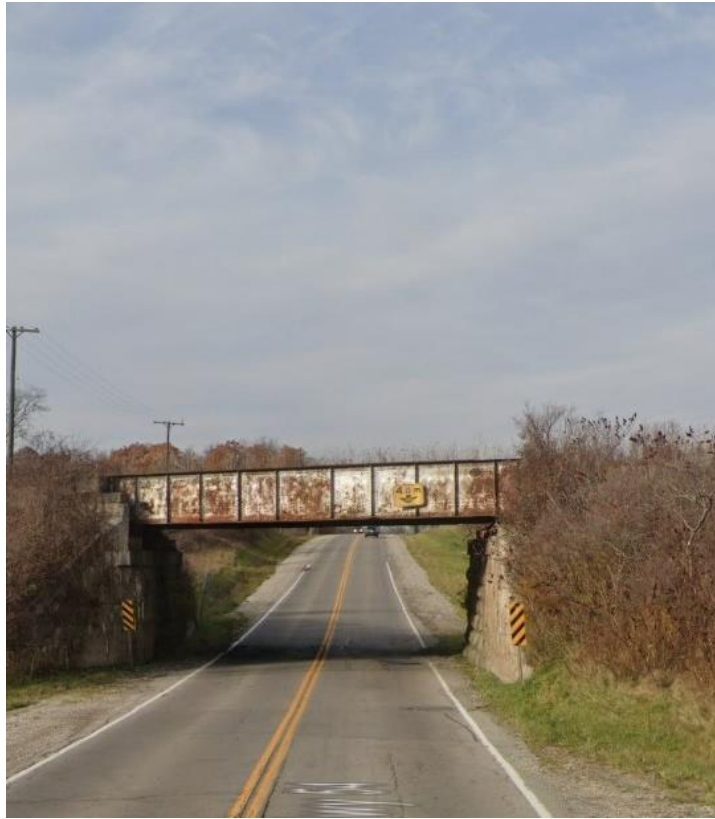
- Completion of Granular Road Conversion Program
- Highway 3 (Jarvis) MTO Connecting Link Grant Funding Award
- Excess Soil Management Program
- Frank Marshall Business Park SWM Pond Expansion
- Stormwater Management Pond Maintenance Program
- Rogers Broadband Municipal ROW Approvals
- Cast Iron Watermain Replacements
- Ward Specific Funding Program

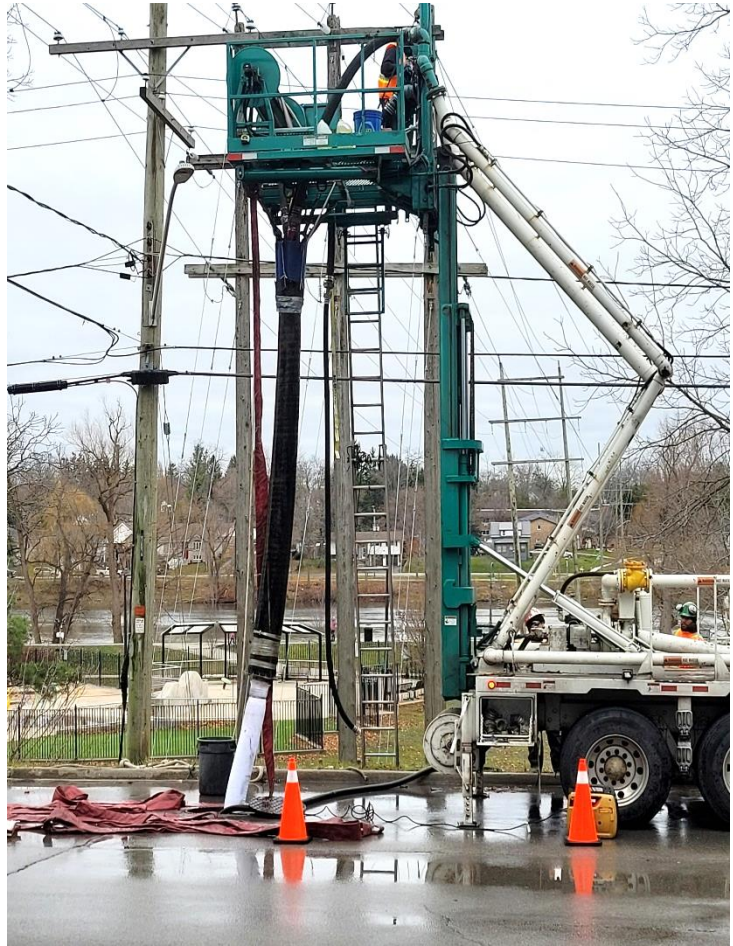
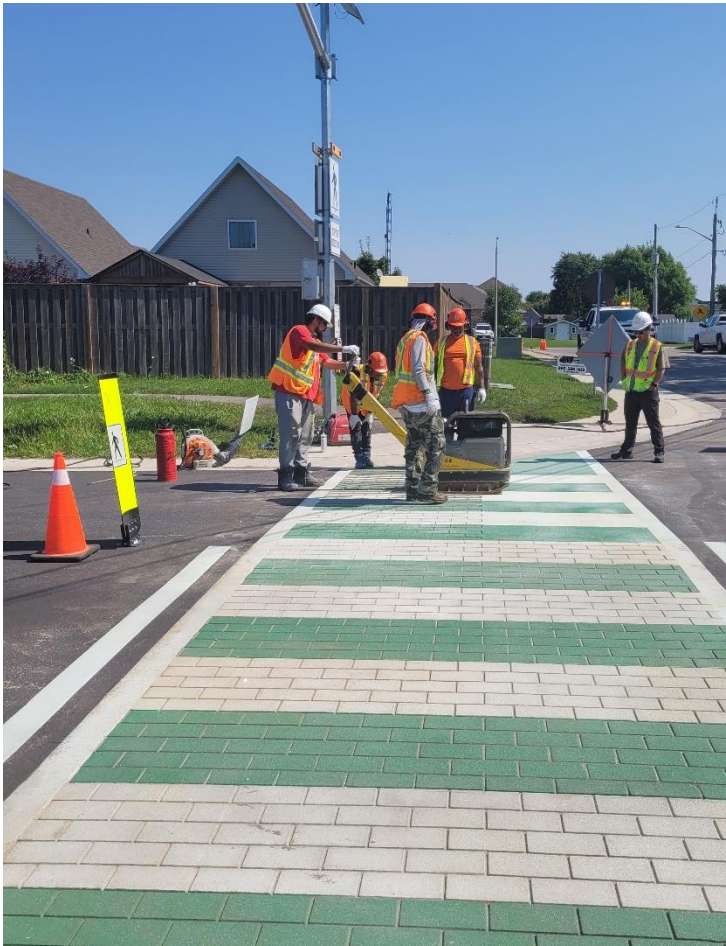












Engineering Services – 2025 Priorities

- Traffic Management Strategy
- Roadside Safety Audit
- Robinson Road/Sandusk Road/Rainham Road
- Cast Iron Watermain Replacement – Caledonia/Hagersville
- Highway 54 Bridge Removal
- Cayuga Kinsmen Community Centre
- Design Criteria Update (Planning)

FCA – Responsibilities

- Facilities Capital Program
 - Administration Buildings, Fire Halls, Roads Yards, Arenas, etc.
 - Community Halls
 - Grandview Lodge
 - Parks and Playgrounds
- Asbestos Management
- Condition Assessments
- Asset Management Program
- Energy Management Program

FCA – 2023/24 Highlights

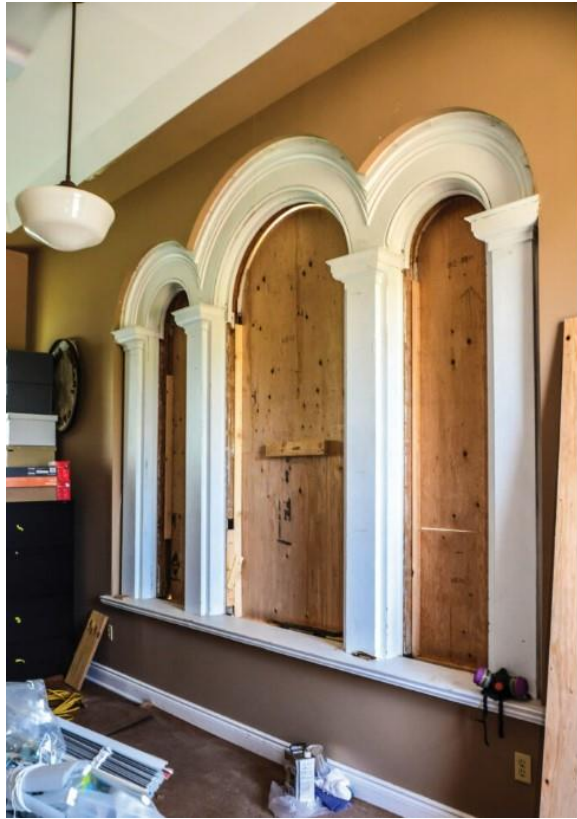
- Caledonia Fire/EMS Station
- Hagersville Library and Active Living Centre
- Asset Management Plan
- Energy Conservation and Demand Management Plan
- Parks & Amenities Condition Assessments
- Fisherville Community Centre Solar Panels
- Kohler Fleet Yard – Addition and Renovations
- Ten Year Capital Budget Buildout











FCA – 2025 Priorities

- Caledonia Fire/EMS Station – Occupancy
- Hagersville Library and Active Living Centre – Construction
- Dunnville Parks Workshop Replacement
- Dunnville Fire/EMS Station
- Asset Management – Levels of Service and Financial Plan
- Climate Change Adaptation Plan
- Parks & Amenities Capital Budget Buildout

W&WW Engineering - Responsibilities

- Water Treatment Systems (2 Plants, 5 Standpipes, 3 Booster Stations)
- Wastewater Treatment Systems (4 Plants, 4 Lagoons, 22 Pumping Stations)
- SCADA Network
- Optimization Program (with Environmental Operations)
- Master Servicing Plans (with Planning)
- Liaison with Industry (with Environmental Operations)
- Regional Servicing Plans
- Technical Support to other County Divisions

W&WW Engineering – 2023/24 Highlights

- Hagersville Master Servicing Plan (Planning)
- Dunnville Water Treatment Plant Upgrades
- Norfolk/Six Nations Water Supply
- Hagersville Transmission Main Twinning Project
- Nairne Street Grand River Tunnel Crossing
- Jarvis Pumping Station Commissioning
- Nanticoke Industrial Pumping Station Upgrades (Stelco/Imperial Oil)
- Imperial Oil Raw Water Line Replacement









HAGERSVILLE MASTER SERVICING PLAN

Public Information Centre

Future Development

Existing and Future Growth in Hagersville:

Existing (2023)

3,164 units

Future Residential Growth

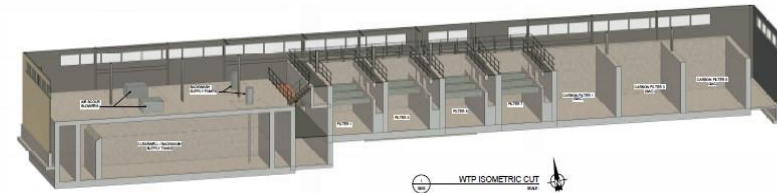
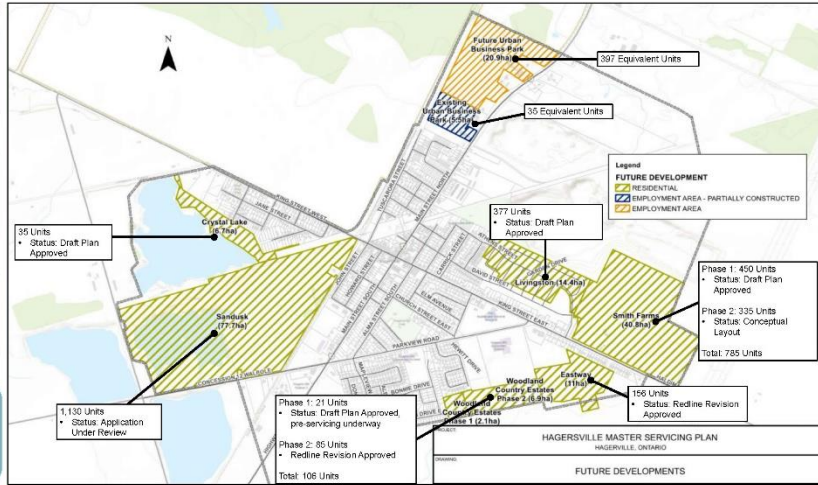
2,589 units

Future Industrial, Commercial, or Institutional (ICI) Growth

432 units

Total (Existing + Future)

6,185 units



WTP ISOMETRIC CUT



WTP ISOMETRIC CUT



WTP ISOMETRIC CUT



Haldimand
County

W&WW Engineering – 2025 Priorities

- Norfolk Water Supply Agreement
- Nanticoke Water Treatment Plant Design
- Caledonia Wastewater Treatment Plant Design
- Cayuga/Dunnville Master Servicing Plans (Planning)
- Caledonia Master Servicing Plan (Planning)
- Caledonia North Reservoir Expansion
- OCWA/Veolia Capital Program
- Hagersville Transmission Main Twinning Project

Engineering & Capital Works – 2025 Themes

- Staff Retention
- Staff Development and Mentorship
- Succession Planning
- Strategic/Sustainable Infrastructure Planning
- Contract Pricing
- Competitive Grant Funding Applications
- Communication/Consultation

Thank You