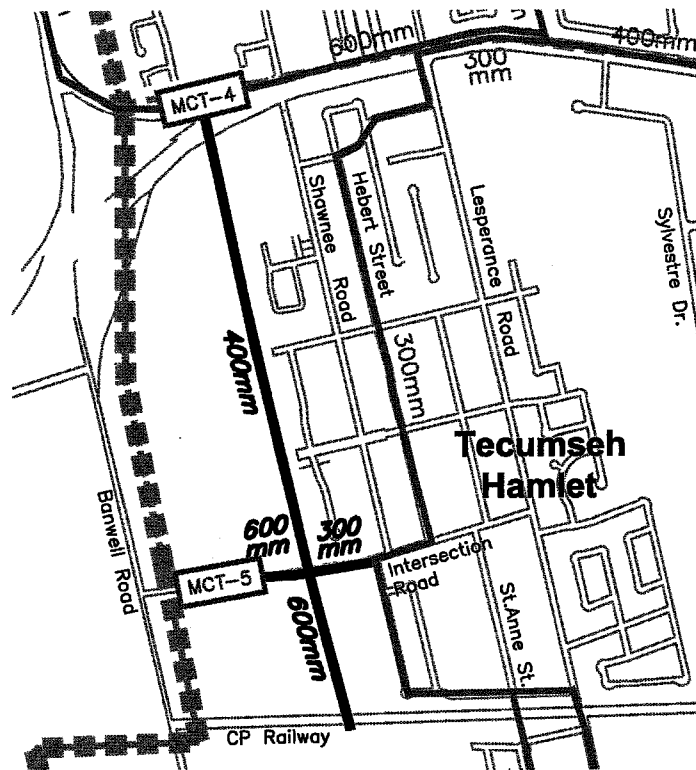


Appendix 1-9
Project Data Sheets

Water Project Data Sheets

Master Plan Recommended Project Data Sheet (Water)

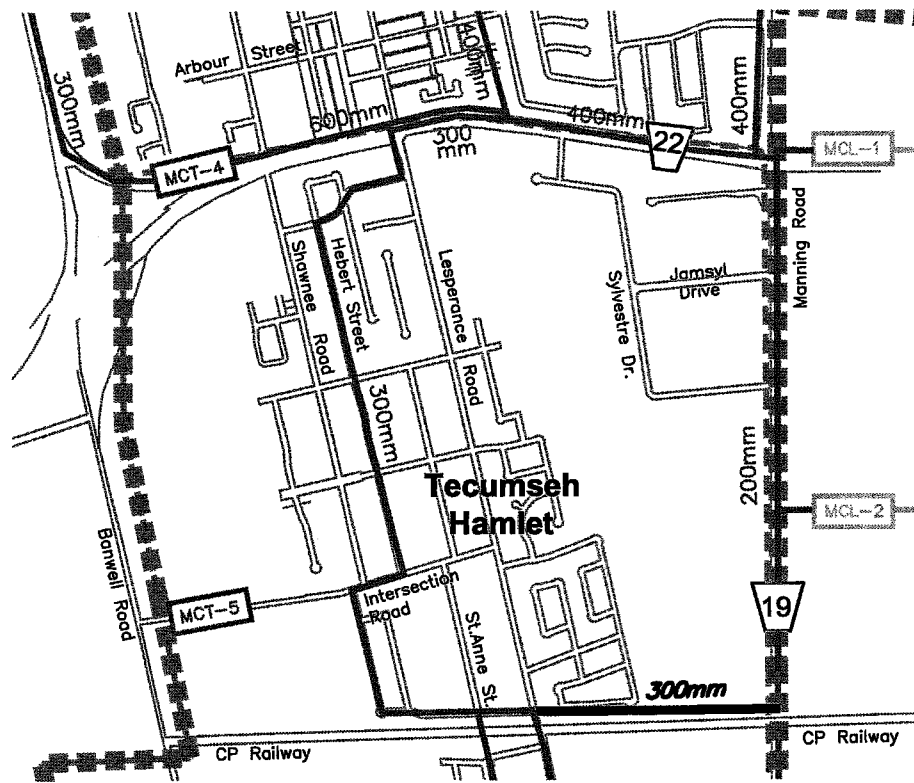
Project Name:	West Tecumseh Trunk Watermain from CR 22 to CP Railway	Project No.:	W-1
Project Timing:	2008-2010		
Project Location:	Tecumseh Hamlet West Development Lands		
Project Description:	Construction of a 400 mm trunk watermain from County Road 22 to Intersection Road and 600 mm trunk watermain from Intersection Road to CP Railway through easements or planned road allowances in Tecumseh Hamlet west development lands, and construction of 300 mm and 600 mm trunk watermain on Intersection Road from the Windsor System to Shawnee Road, to provide water supply for new growth south of County Road 22.		



Project Details:		
Prerequisites:	<ul style="list-style-type: none"> ➤ Requires a 20.0 m wide corridor for permanent easement ➤ Alignment to be established through approved development plans 	
Opportunities:	Combine with Wastewater Project No. WW-1	
Class EA Schedule:	B	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 1,530 m – 400 mm trunk watermain ➤ 275 m – 300 mm trunk watermain ➤ 1,000 m – 600 mm trunk watermain ➤ CP Railway crossing by Jack and Bore 	
Estimated Capital Cost (\$ million):	Existing Development:	0.09
	Growth:	1.76
	Total:	1.85

Master Plan Recommended Project Data Sheet (Water)

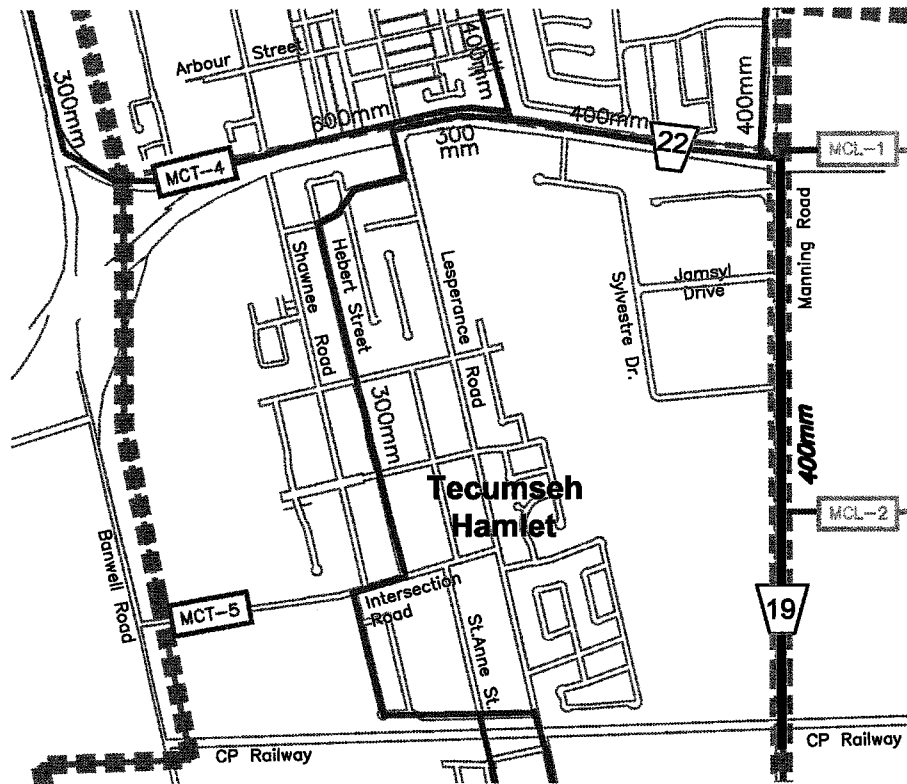
Project Name:	East Tecumseh Hamlet Watermain Connection	Project No.:	W-2A
Project Timing:	2010-2011		
Project Location:	East Tecumseh Hamlet		
Project Description:	Construction of a 300 mm trunk watermain along CP Railway Line from Lesperance Road to Manning Road to provide water supply and improve fire flows for new growth south of County Road 22.		



Project Details:		
Prerequisites:	Requires an easement along CP Railway line from Lesperance Road to Manning Road	
Opportunities:	Combine with Wastewater Project No. WW-3	
Class EA Schedule:	A+	
Preliminary Design Data:	➤ 825 m – 300 mm trunk watermain	
Estimated Capital Cost (\$ million):	Existing Development:	0.06
	Growth:	0.25
	Total:	0.31

Master Plan Recommended Project Data Sheet (Water)

Project Name:	Trunk Watermain on Manning Road from CR 22 to CP Railway	Project No.:	W-2B
Project Timing:	2010-2011		
Project Location:	Manning Road		
Project Description:	Construction of a 400 mm trunk watermain on Manning Road from County Road 22 to CP Railway to provide water supply for new growth south of County Road 22.		

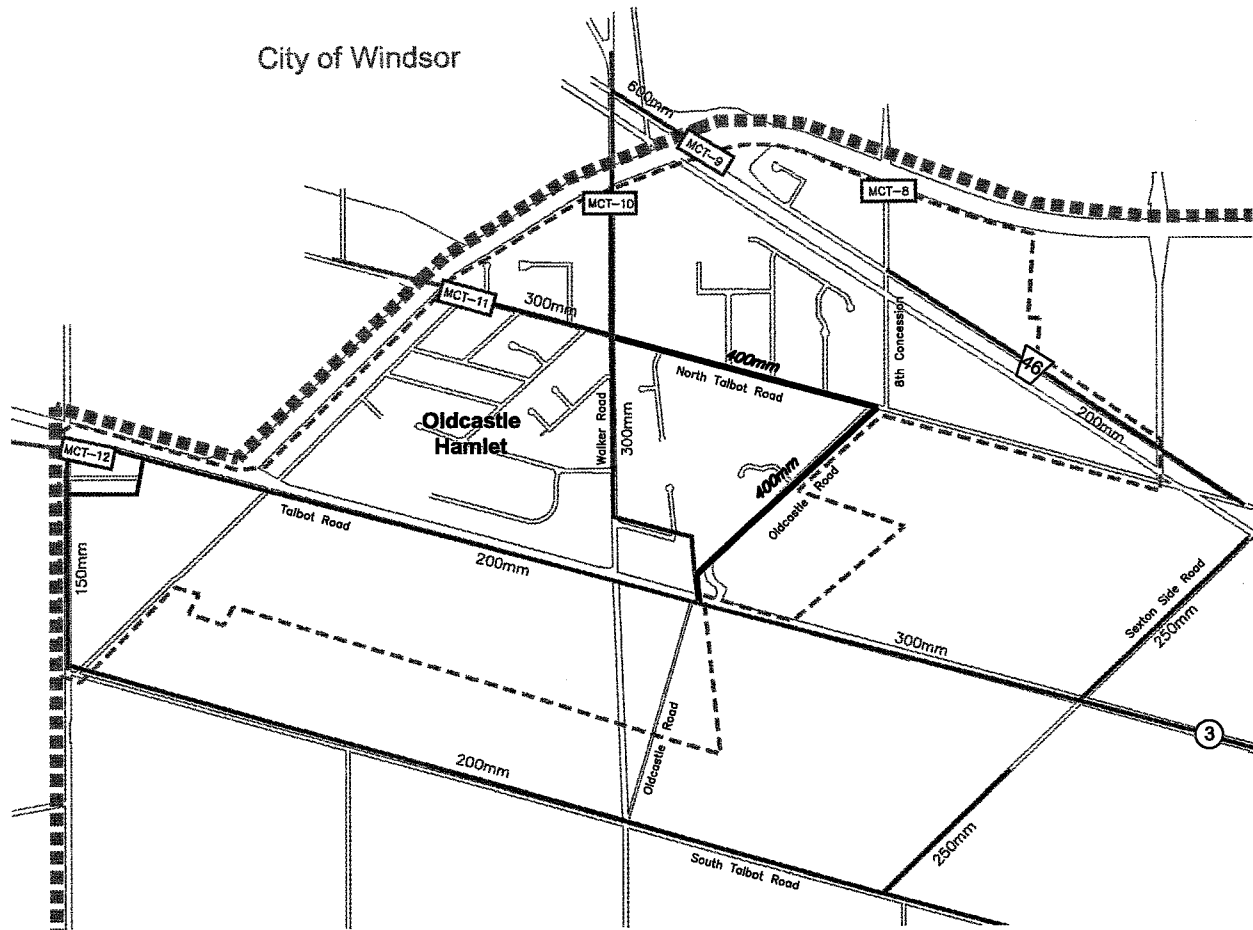


Project Details:

Prerequisites:	None		
Opportunities:	Construction could be co-ordinated with Manning Road Upgrades		
Class EA Schedule:	A+		
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 2,100 m – 400 mm trunk watermain ➤ CP Railway Crossing by Jack and Bore 		
Estimated Capital Cost (\$ million):	Existing Development:	--	
	Growth:	1.33	
	Total:	1.33	

Master Plan Recommended Project Data Sheet (Water)

Project Name:	North Talbot Road Trunk Watermain	Project No.:	W-3
Project Timing:	2009-2010		
Project Location:	North Talbot Road (Oldcastle Hamlet)		
Project Description:	Construction of a 400 mm trunk watermain on North Talbot Road and Oldcastle Road to provide water supply for existing developments and new growth in Oldcastle Hamlet.		

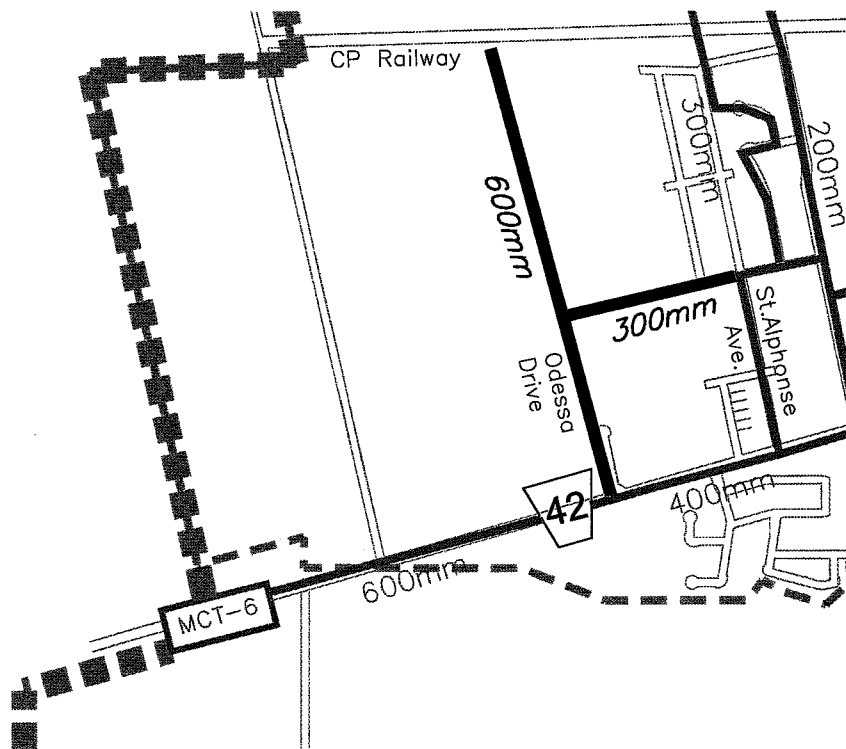


Project Details:

Prerequisites:	None	
Opportunities:	Combine with Wastewater Project No. WW-5	
Class EA Schedule:	A+	
Preliminary Design Data:	2,650 m – 400 mm trunk watermain	
Estimated Capital Cost (\$ million):	Existing Development:	0.23
	Growth:	1.00
	Total:	1.23

Master Plan Recommended Project Data Sheet (Water)

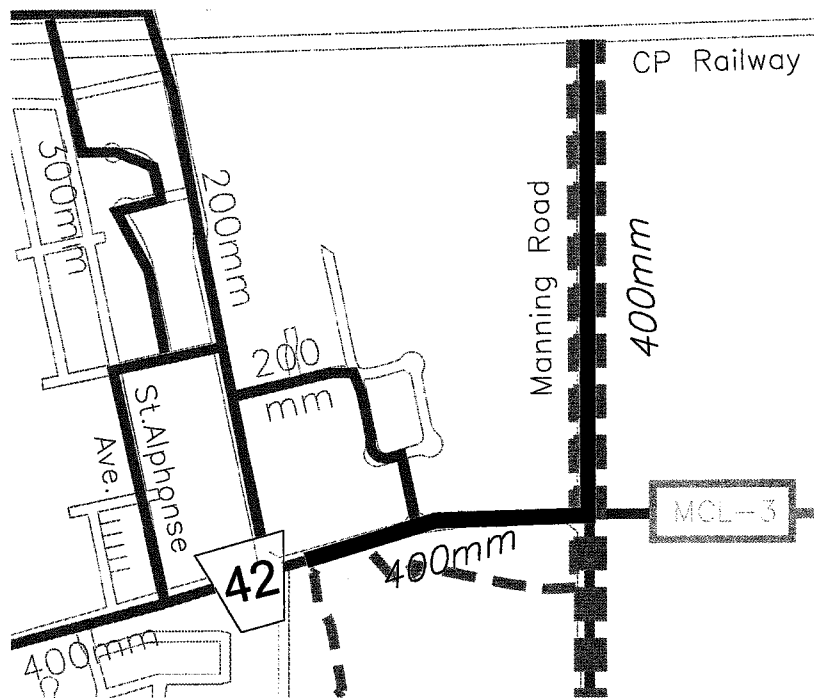
Project Name:	West Tecumseh Trunk Watermain from CP Railway to CR 42	Project No.:	W-4
Project Timing:	2013-2014		
Project Location:	Tecumseh Hamlet West Development Lands		
Project Description:	Construction of 300 mm and 600 mm trunk watermain through easement or planned road allowances in Tecumseh Hamlet west development lands from CP Railway to County Road 42 to provide water supply for new growth south of CP Railway, and to improve fire flows in existing developments.		



Project Details:		
Prerequisites:	<ul style="list-style-type: none"> ➤ Requires a 20.0 m wide corridor for permanent easement ➤ Alignment to be established through development plan approvals 	
Opportunities:	Combine with Wastewater Project No. WW-6	
Class EA Schedule:	B	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 1,150 m – 600 mm trunk watermain ➤ 475 m – 300 mm trunk watermain 	
Estimated Capital Cost (\$ million):	Existing Development:	0.03
	Growth:	0.85
	Total:	0.88

Master Plan Recommended Project Data Sheet (Water)

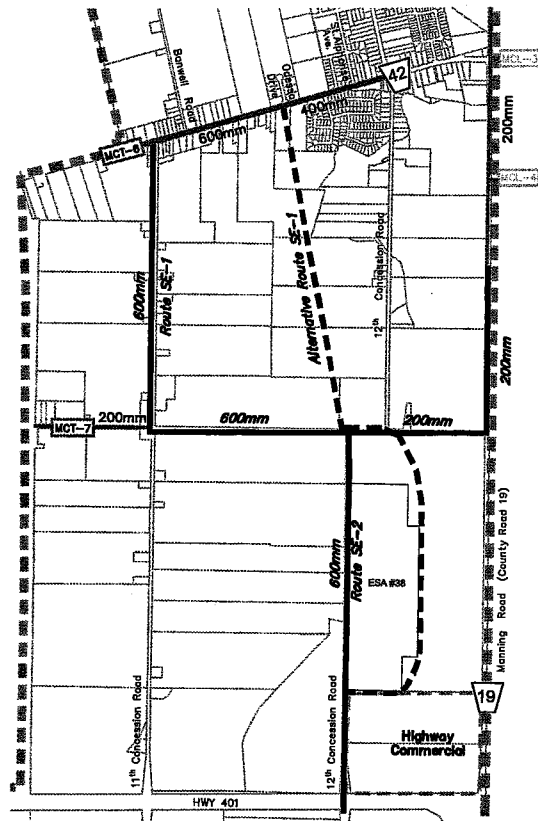
Project Name:	Trunk Watermain on Manning Road south of CP Railway	Project No.:	W-5
Project Timing:	2014-2015		
Project Location:	Manning Road and County Road 42		
Project Description:	Construction of a 400 mm trunk watermain on Manning Road from CP Railway to CR 42 and 400 mm trunk watermain on County Road 42 from 12 th Concession Road to Manning Road to provide water supply for new growth south of CP Railway.		



Project Details:		
Prerequisites:	Completion of 400 mm trunk watermain on Manning Road from CR 22 to CP Railway (Project No. W-2B)	
Opportunities:	Construction could be coordinated with Manning Road Upgrades	
Class EA Schedule:	A+	
Preliminary Design Data:	1,450 m – 400 mm trunk watermain	
Estimated Capital Cost (\$ million):	Existing Development:	0.05
	Growth:	0.61
	Total:	0.66

Master Plan Recommended Project Data Sheet (Water)

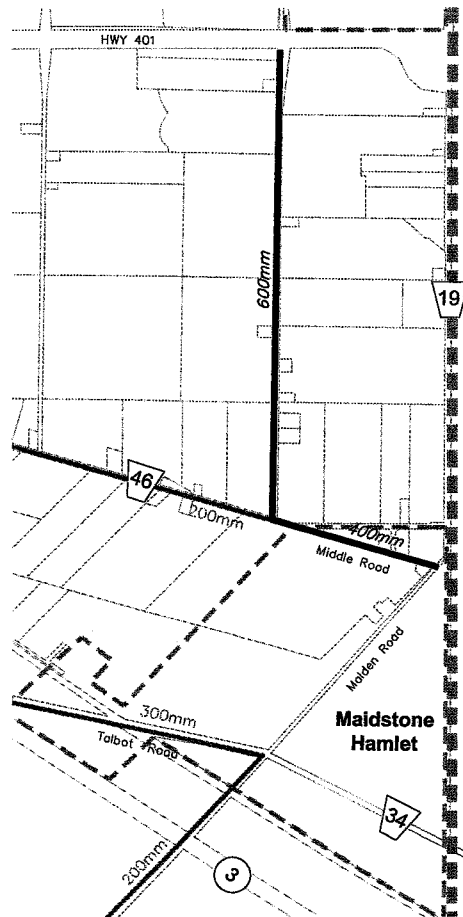
Project Name:	South Tecumseh Trunk Watermain from CR 42 to Highway 401	Project No.:	W-6
Project Timing:	2018-2019		
Project Location:	Southeast Service Area between CR 42 and Highway 401		
Project Description:	Construction of 600 mm trunk watermain through existing ROWs between County Road 42 and Highway 401 to provide water supply for new growth south of CR 42. Alternative alignments through new development can be considered through Planning Act review. Construction of 200 mm watermain on Manning Road from Baseline Road to existing watermain and on Baseline Road from 12 th Concession to Manning Road.		



Project Details:		
Prerequisites:	Completion of West Tecumseh trunk watermain (Project No. W-4)	
Opportunities:	<ul style="list-style-type: none"> ➤ Alignment could shift to be incorporated with new development south of County Road 42 ➤ Combine with Wastewater Project No. WW-8 	
Class EA Schedule:	A+	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 5,740 m – 600 mm trunk watermain ➤ 1,600 m – 200 mm watermain ➤ Highway 401 crossing by Jack and Bore 	
Estimated Capital Cost (\$ million):	Existing Development:	0.84
	Growth:	3.32
	Total:	4.16

Master Plan Recommended Project Data Sheet (Water)

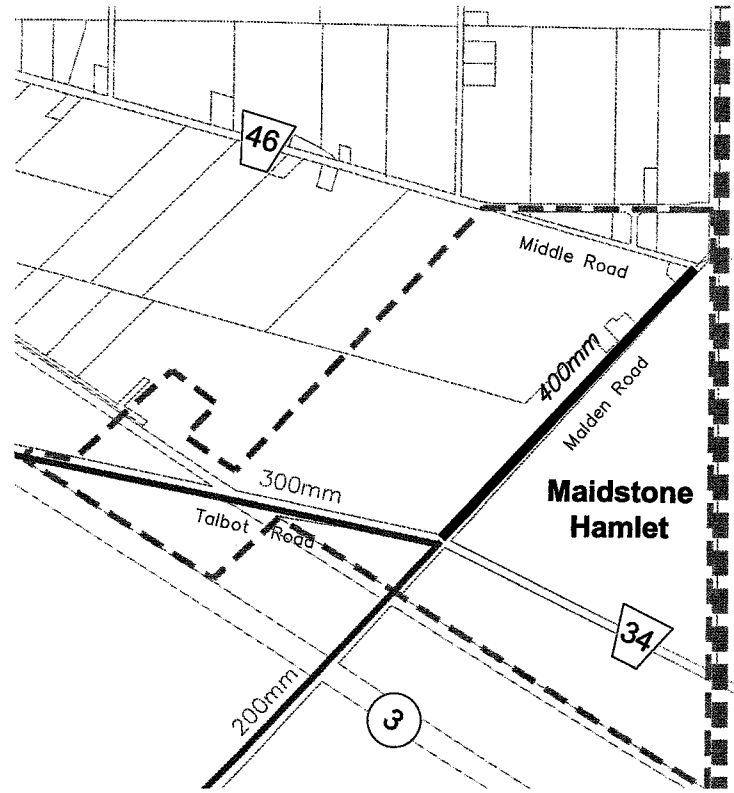
Project Name:	South Tecumseh Trunk Watermain from Highway 401 to Maidstone	Project No.:	W-7
Project Timing:	2019-2020		
Project Location:	12 th Concession Road South of Highway 401		
Project Description:	Construction of 600 mm trunk watermain on 12 th Concession Road and 400 mm trunk watermain on Middle Road to provide water supply for new growth South of Highway 401.		



Project Details:			
Prerequisites:	Completion of South Tecumseh Trunk Watermain to Highway 401 (Project No. W-6)		
Opportunities:	Combine with Wastewater Project No. WW-9		
Class EA Schedule:	A+		
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 2,025 m – 600 mm trunk watermain ➤ 850 m – 400 mm trunk watermain 		
Estimated Capital Cost (\$ million):	Existing Development:		0.30
	Growth:		1.23
	Total:		1.53

Master Plan Recommended Project Data Sheet (Water)

Project Name:	Maidstone Hamlet Trunk Watermain	Project No.:	W-8
Project Timing:	2020-2021		
Project Location:	Maidstone Hamlet		
Project Description:	Construction of a 400 mm trunk watermain on Malden Road from County Road 34 to Middle Road to provide water supply for existing developments and new growth in Maidstone Hamlet.		

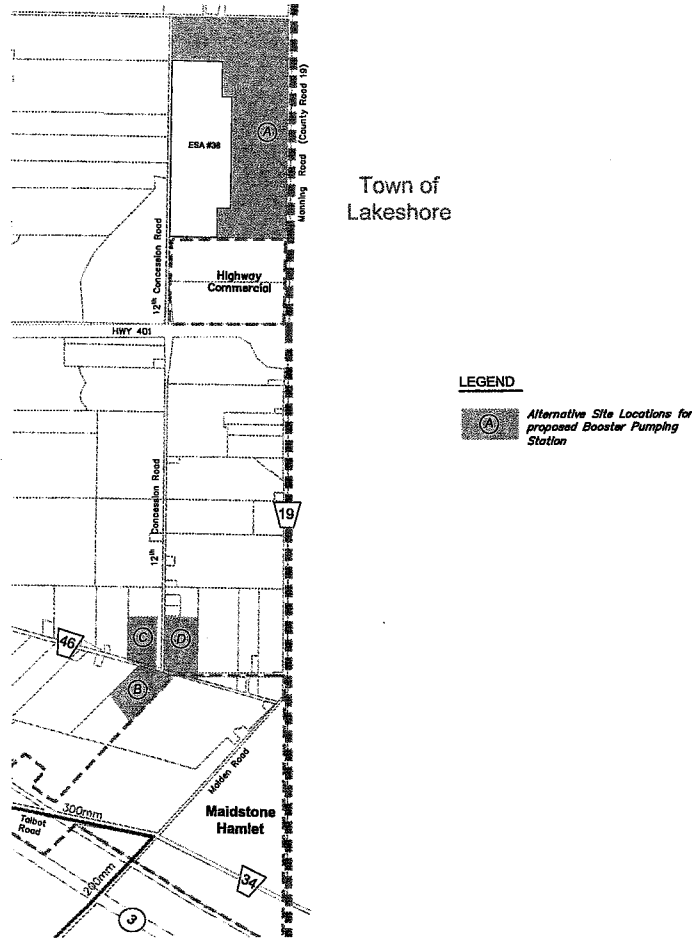


Project Details:

Prerequisites:	Completion of South Tecumseh Trunk Watermain (Project No. W-7)		
Opportunities:	Combine with Wastewater Project No. WW-10		
Class EA Schedule:	A+		
Preliminary Design Data:	1,350 m – 400 mm trunk watermain		
Estimated Capital Cost (\$ million):	Existing Development:		0.14
	Growth:		0.55
	Total:		0.69

Master Plan Recommended Project Data Sheet (Water)

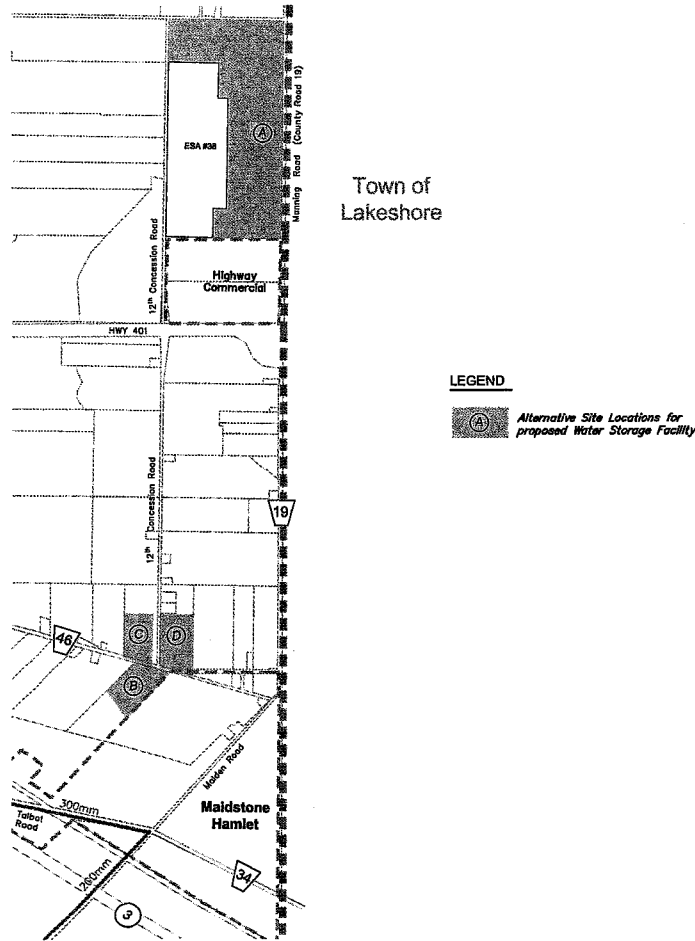
Project Name:	Zone 2 Booster Pumping Station	Project No.:	W-9
Project Timing:	2020-2021		
Project Location:	Southeast Service Area		
Project Description:	Construction of a booster pumping station and zone isolation valves in southeast service area to provide water supply for existing developments and new growth in southeast service area.		



Project Details:		
Prerequisites:	<ul style="list-style-type: none"> ➤ Requires a minimum 50m wide by 50m deep (0.25 ha) parcel of land for the proposed booster pumping station site ➤ Completion of South Tecumseh Trunk Watermains (Project No. W-6 and W-7) 	
Opportunities:	None	
Class EA Schedule:	B	
Preliminary Design Data:	Booster Pumping Station rated capacity: 100 L/s	
Estimated Capital Cost (\$ million):	Existing Development:	0.30
	Growth:	1.20
	Total:	1.50

Master Plan Recommended Project Data Sheet (Water)

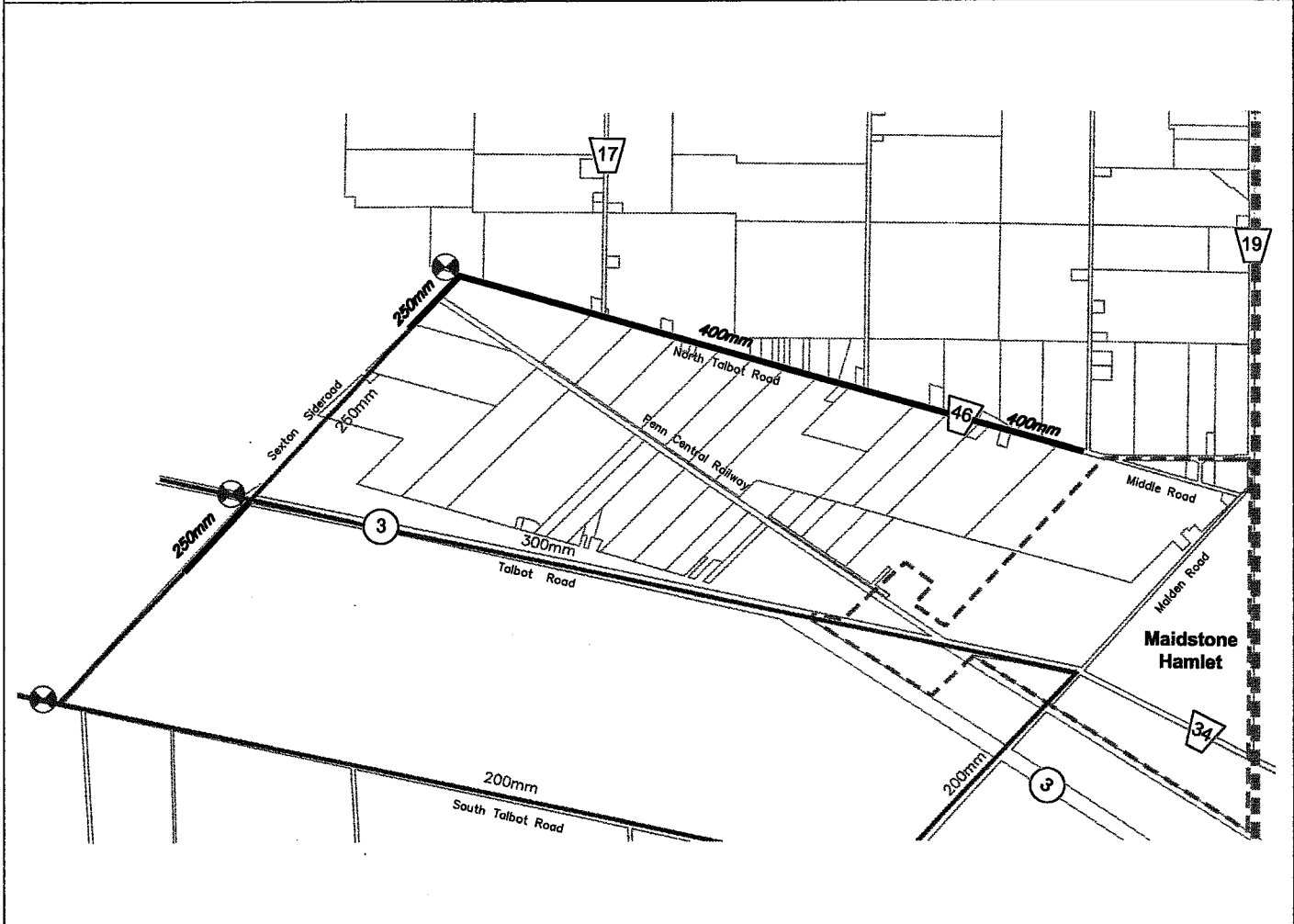
Project Name:	Zone 2 Water Storage Facility	Project No.:	W-10
Project Timing:	2021-2022		
Project Location:	Southeast Service Area		
Project Description:	Construction of a 4.55 ML (1.0 MIG) capacity water storage facility in southeast service area to provide water storage for existing developments and new growth in southeast service area.		



Project Details:		
Prerequisites:	<ul style="list-style-type: none"> ➤ Requires a 5.0 ha parcel of land for the proposed water storage facility site ➤ Completion of South Tecumseh Trunk Watermains (Project No. W-6 and W-7) 	
Opportunities:	None	
Class EA Schedule:	B	
Preliminary Design Data:	Water Storage Capacity: 4.55 ML (1.0 MIG)	
Estimated Capital Cost (\$ million):	Existing Development:	0.74
	Growth:	2.96
	Total:	3.70

Master Plan Recommended Project Data Sheet (Water)

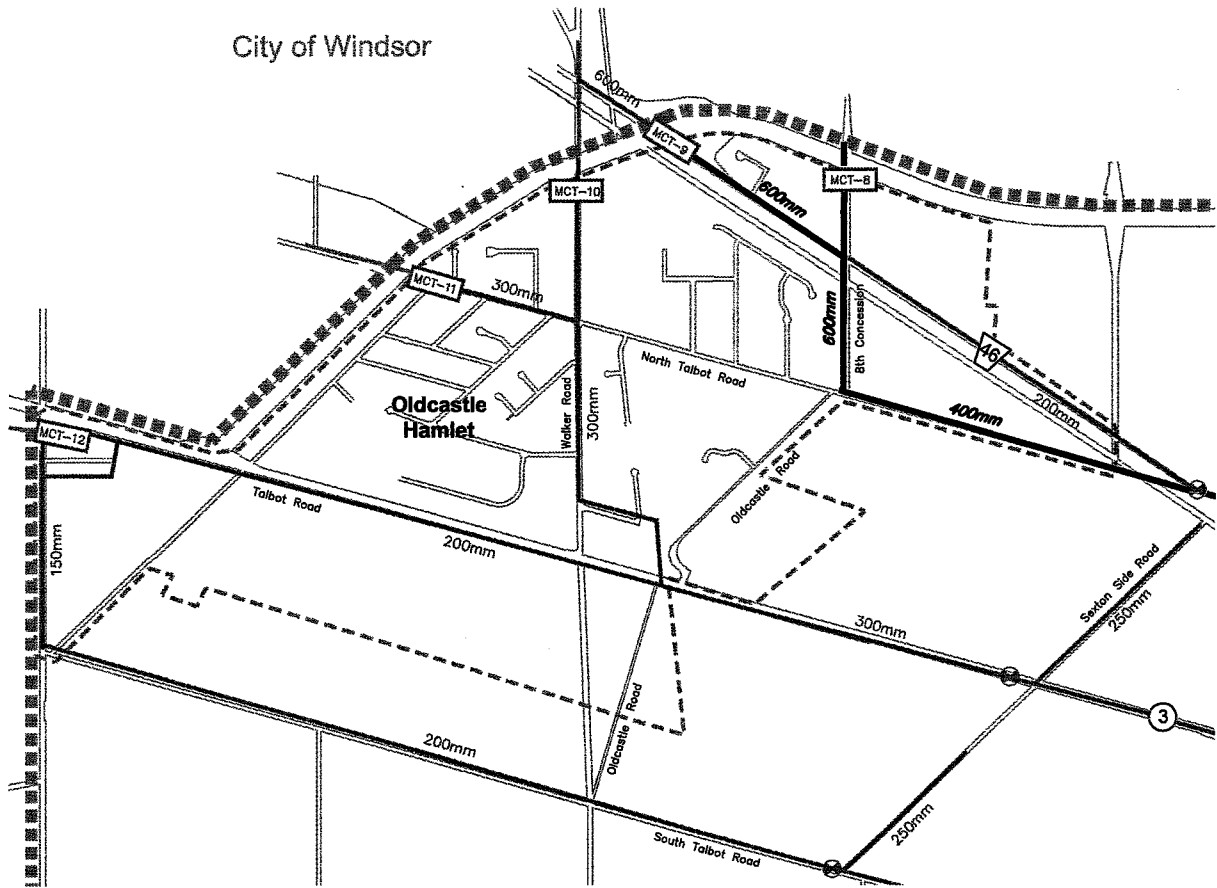
Project Name:	County Road 46 Trunk Watermain	Project No.:	W-11
Project Timing:	2023-2024		
Project Location:	County Road 46		
Project Description:	Construction of 400 mm trunk watermain on County Road 46 and 250 mm watermain on Sexton Sideroad to provide water supply for new growth in southeast service area.		



Project Details:		
Prerequisites:	Completion of South Tecumseh Trunk Watermain (Project No. W-7)	
Opportunities:	None	
Class EA Schedule:	A+	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 3,400 m – 400 mm trunk watermain ➤ 710 m – 250 mm trunk watermain 	
Estimated Capital Cost (\$ million):	Existing Development:	0.63
	Growth:	1.20
	Total:	1.83

Master Plan Recommended Project Data Sheet (Water)

Project Name:	Southwest Tecumseh Trunk Watermain	Project No.:	W-12
Project Timing:	2024-2025		
Project Location:	Oldcastle Hamlet		
Project Description:	Construction of 600 mm and 400 mm trunk watermains in Oldcastle Hamlet to provide water supply for existing developments and new growth in Oldcastle Hamlet.		



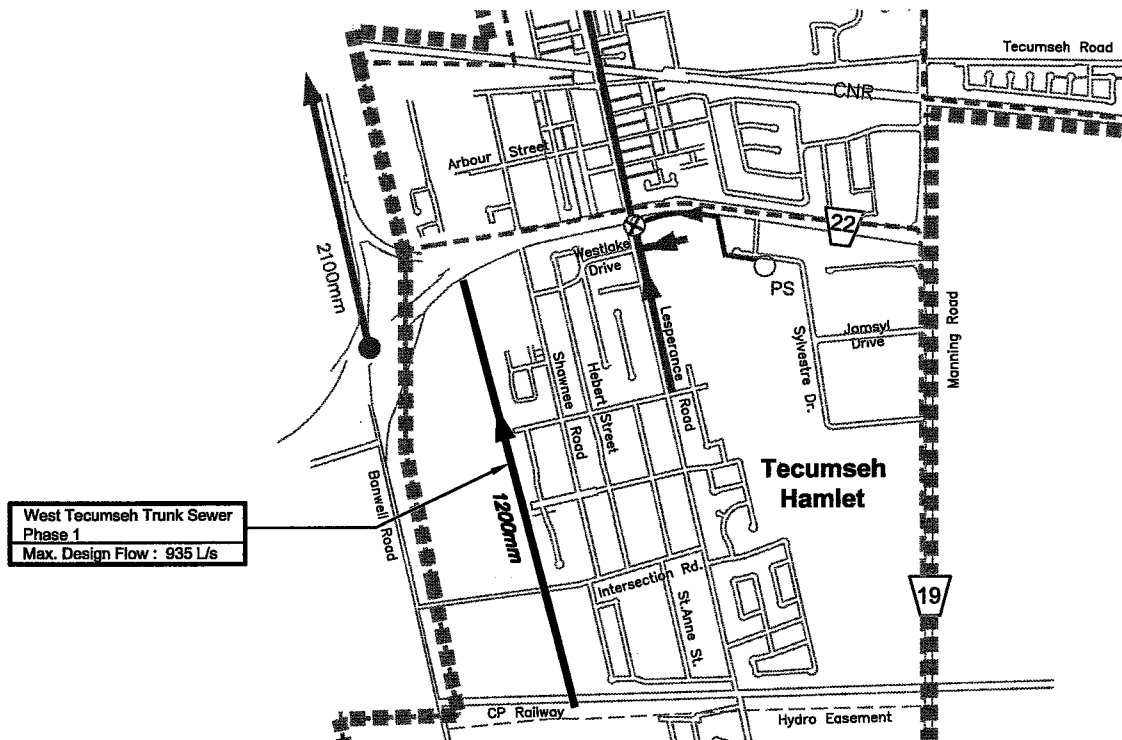
Project Details:

Prerequisites:	None	
Opportunities:	Combine with Wastewater Project No. WW-12	
Class EA Schedule:	A+	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 2,710 m – 600 mm trunk watermain ➤ 2,060 m – 400 mm trunk watermain 	
Estimated Capital Cost (\$ million):	Existing Development:	0.65
	Growth:	2.68
	Total:	3.33

Wastewater Project Data Sheets

Master Plan Recommended Project Data Sheet (Wastewater)

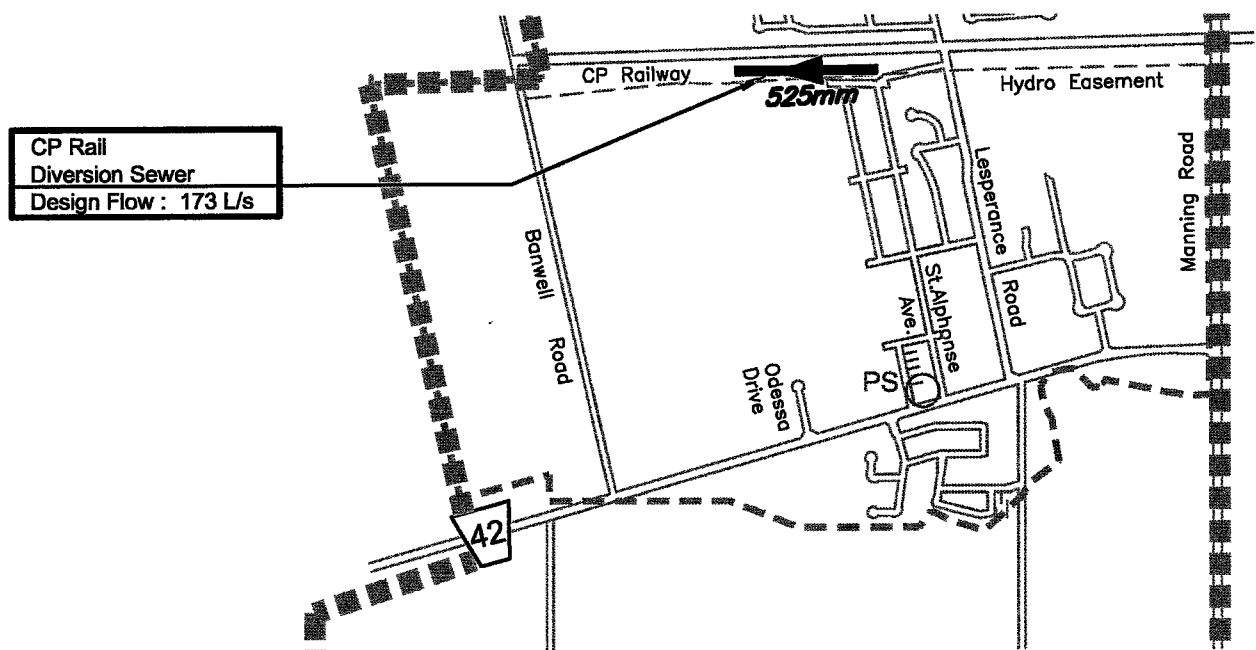
Project Name:	West Tecumseh Trunk Sewer from CR 22 to CP Railway	Project No.:	WW-1
Project Timing:	2008-2010		
Project Location:	Tecumseh Hamlet West Development Lands		
Project Description:	Construction of a 1200 mm trunk sewer through easements or proposed road allowance in Tecumseh Hamlet west development lands from County Road 22 to CP Railway to provide outlet for new growth south of County Road 22.		



Project Details:		
Prerequisites:	<ul style="list-style-type: none"> ➤ Requires CR 22 outlet sewer to be completed ➤ Requires a 20.0 m wide corridor for permanent easement ➤ Alignment subject to approved development plan road alignments ➤ Timing dependent upon development 	
Opportunities:	Combine with Water Project No. W-1	
Class EA Schedule:	B	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 1,945 m – 1200 mm trunk sewer ➤ Metering Flume complete with SCADA connection ➤ CP Railway crossing by Jack and Bore 	
Estimated Capital Cost (\$ million):	Existing Development:	0.57
	Growth:	3.21
	Total:	3.78

Master Plan Recommended Project Data Sheet (Wastewater)

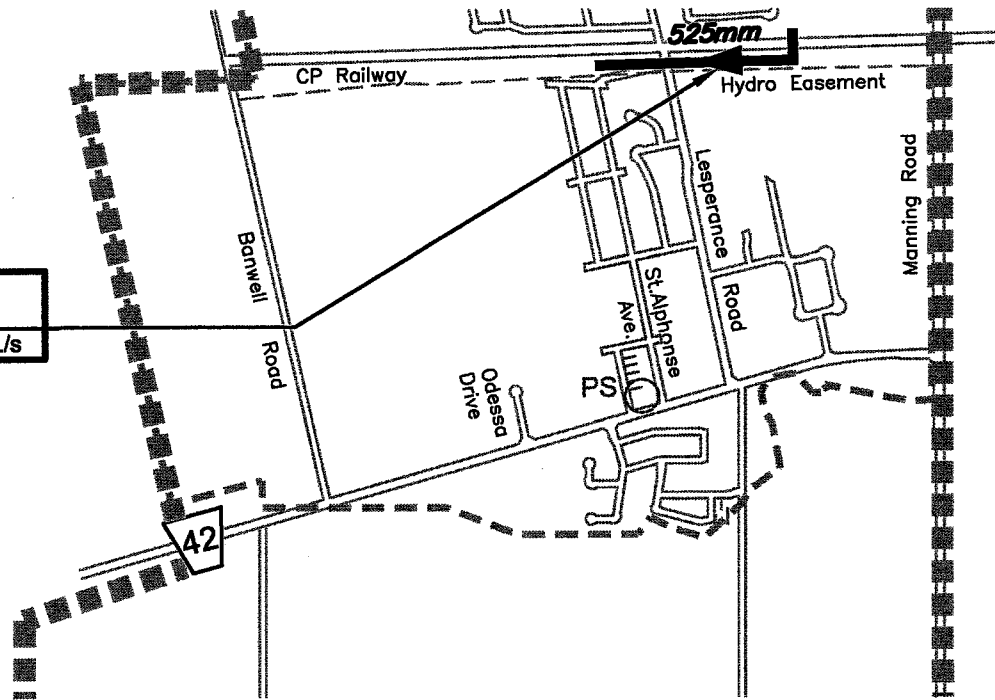
Project Name:	Diversion Sewer South of CP Railway	Project No.:	WW-2
Project Timing:	2008-2010		
Project Location:	Hydro Easement South of CP Railway		
Project Description:	Construction of a 525 mm diversion sewer along Hydro Easement to alleviate surcharge in St. Anne Street trunk sewer north of CP Railway and to provide outlet for growth in Tecumseh Hamlet.		



Project Details:		
Prerequisites:	West Tecumseh Trunk Sewer Phase 1 (Project No. WW-1) to be completed	
Opportunities:	None	
Class EA Schedule:	A+	
Preliminary Design Data:	450 m – 525 mm diversion sewer	
Estimated Capital Cost (\$ million):	Existing Development:	0.11
	Growth:	0.25
	Total:	0.36

Master Plan Recommended Project Data Sheet (Wastewater)

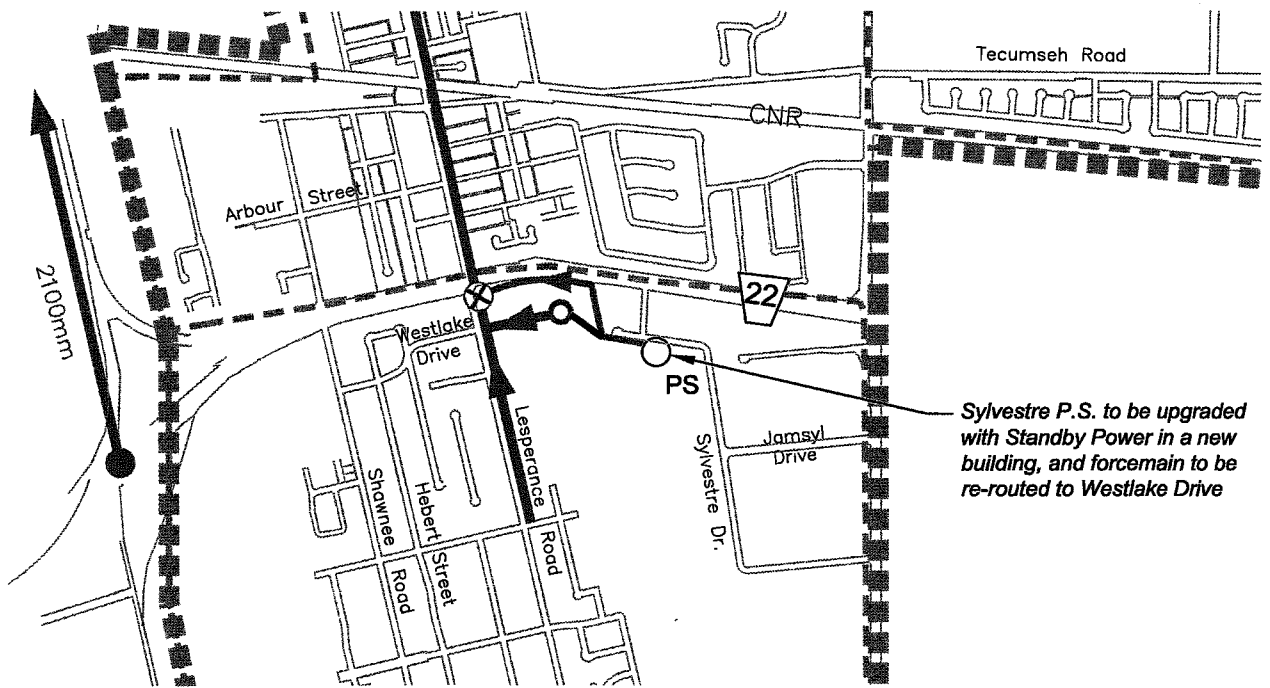
Project Name:	East Tecumseh Trunk Sewer	Project No.:	WW-3
Project Timing:	2010-2011		
Project Location:	Tecumseh Hamlet East Development Lands		
Project Description:	Construction of a 525 mm trunk sewer along hydro easement south of CP Railway to provide outlet for new growth in East Tecumseh Hamlet south of Baillargeon Drain to CR 42		



Project Details:		
Prerequisites:	Diversion Sewer South of CP Railway (Project No. WW-2) to be completed	
Opportunities:	Combine with Water Project No. W-2A	
Class EA Schedule:	A+	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 710 m – 525 mm trunk sewer ➤ CP Railway Crossing by Jack and Bore 	
Estimated Capital Cost (\$ million):	Existing Development:	-
	Growth:	0.84
	Total:	0.84

Master Plan Recommended Project Data Sheet (Wastewater)

Project Name:	Sylvestre Pumping Station Upgrade	Project No.:	WW-4
Project Timing:	2010-2011		
Project Location:	Manning Road Business Park		
Project Description:	Upgrading existing Sylvestre Pumping Station to provide standby power facility in a new building, and to divert forcemain to outlet on Westlake Drive.		

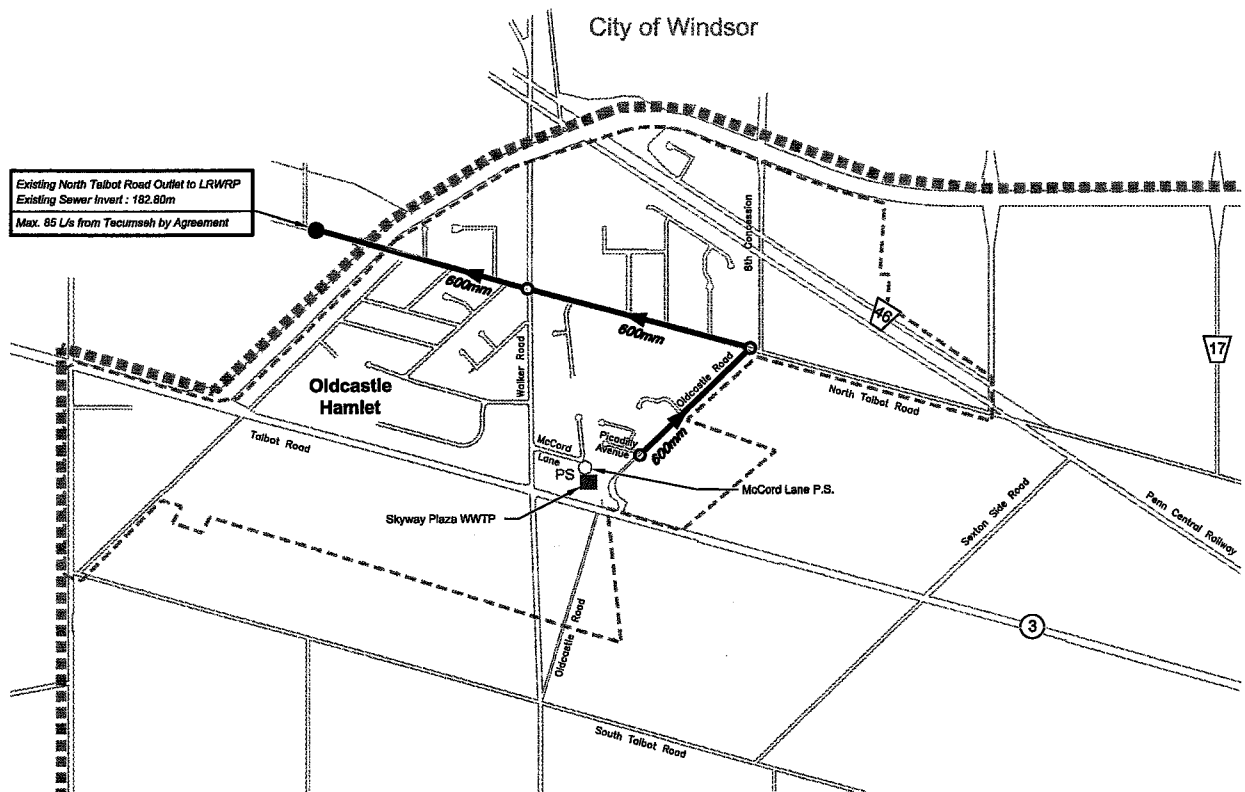


Project Details:

Prerequisites:	Requires a property block approximately 25.0 m x 30.0 m (0.075 ha) for the building site to house standby power and controls	
Opportunities:	None	
Class EA Schedule:	B	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ Design capacity of Pumping Station – 32 L/s ➤ Permanent Standby Power ➤ SCADA 	
Estimated Capital Cost (\$ million):	Existing Development:	0.36
	Growth:	0.54
	Total:	0.90

Master Plan Recommended Project Data Sheet (Wastewater)

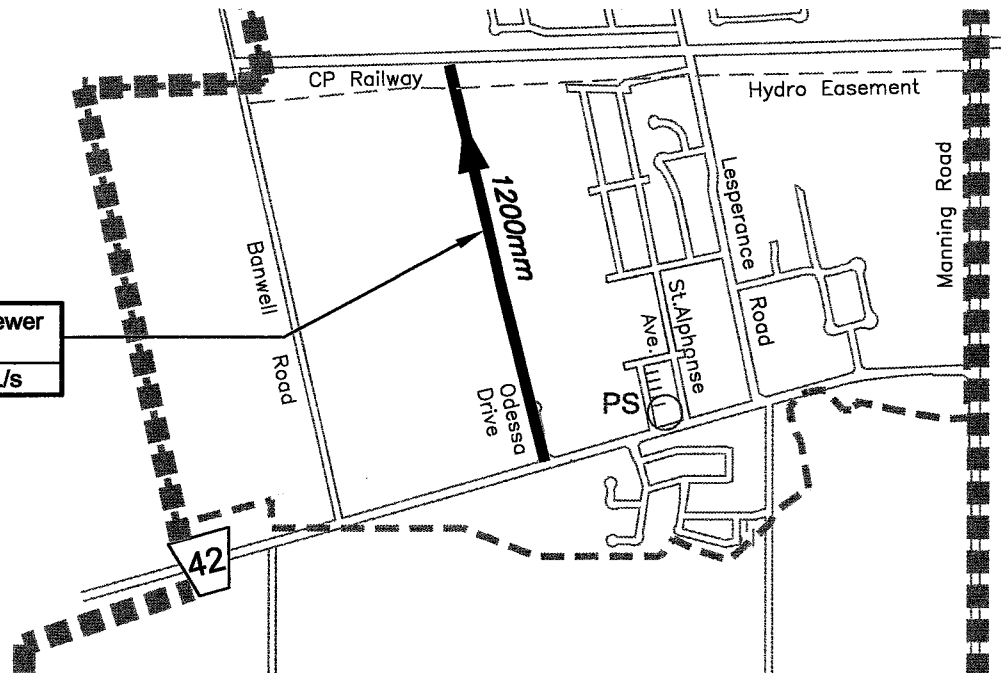
Project Name:	North Talbot Road Trunk Sewer	Project No.:	WW-5
Project Timing:	2009-2010		
Project Location:	North Talbot Road (Oldcastle Hamlet)		
Project Description:	Construction of a 600 mm trunk sewer on North Talbot Road from 8 th Concession Road to Old West Avenue in City of Windsor, and construction of a 600 mm trunk sewer on Oldcastle Road from North Talbot Road to Picadilly Avenue with temporary outlet to the North Talbot Road Trunk Sewer, to provide outlet for existing developments and limited growth in parts of Oldcastle Hamlet.		



Project Details:		
Prerequisites:	None	
Opportunities:	Combine with Water Project No. W-3	
Class EA Schedule:	A+	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 3,700 m – 600 mm trunk sewer ➤ Highway 401 crossing by Jack and Bore ➤ Metering Flume complete with SCADA connection 	
Estimated Capital Cost (\$ million):	Existing Development:	1.52
	Growth:	2.86
	Total:	4.38

Master Plan Recommended Project Data Sheet (Wastewater)

Project Name:	West Tecumseh Trunk Sewer from CP Railway to CR 42	Project No.:	WW-6
Project Timing:	2013-2014		
Project Location:	Tecumseh Hamlet West Development Lands		
Project Description:	Construction of a 1200 mm trunk sewer through easements or proposed road allowances in Tecumseh Hamlet west development lands from CP Railway to County Road 42 to provide outlet for existing development and new growth south of CP Railway, and will accommodate diverted flow from CR 42 Diversion Sewer.		

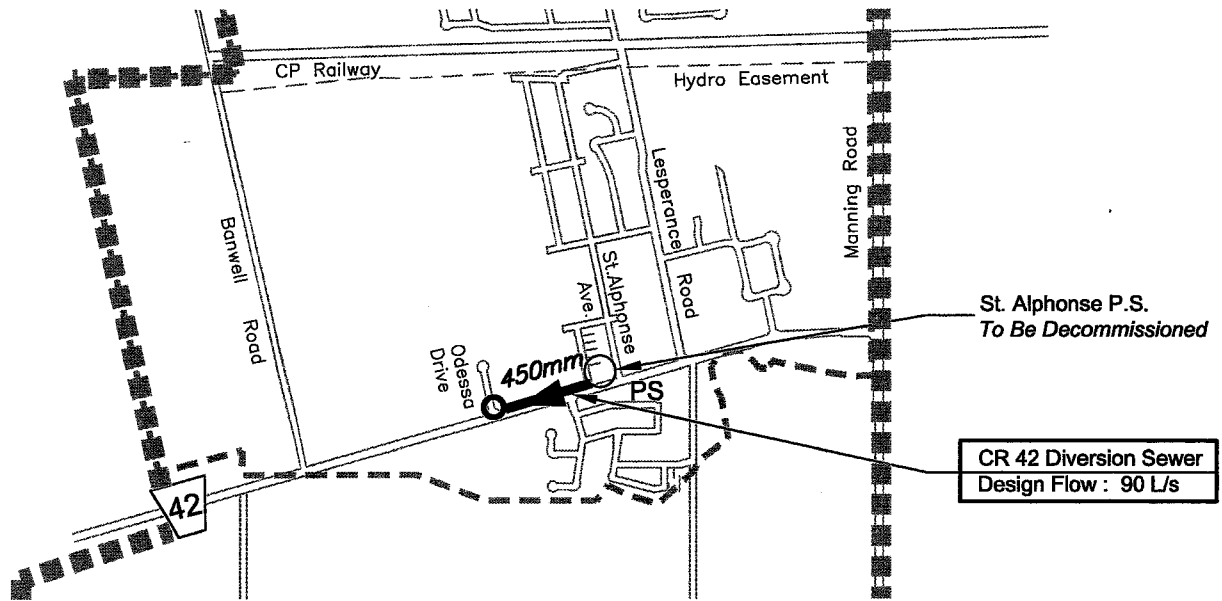


Project Details:

Prerequisites:	<ul style="list-style-type: none"> ➤ West Tecumseh Trunk Sewer Phase 1 (Project No. WW-1) to be completed ➤ Requires a 20.0 m wide corridor for permanent easement ➤ Alignment to be established through development plan approvals ➤ Timing dependent upon development 		
Opportunities:	Combine with Water Project No. W-4		
Class EA Schedule:	B		
Preliminary Design Data:	➤ 1,150 m – 1200 mm trunk sewer		
Estimated Capital Cost (\$ million):	Existing Development:		0.27
	Growth:		1.49
	Total:		1.76

Master Plan Recommended Project Data Sheet (Wastewater)

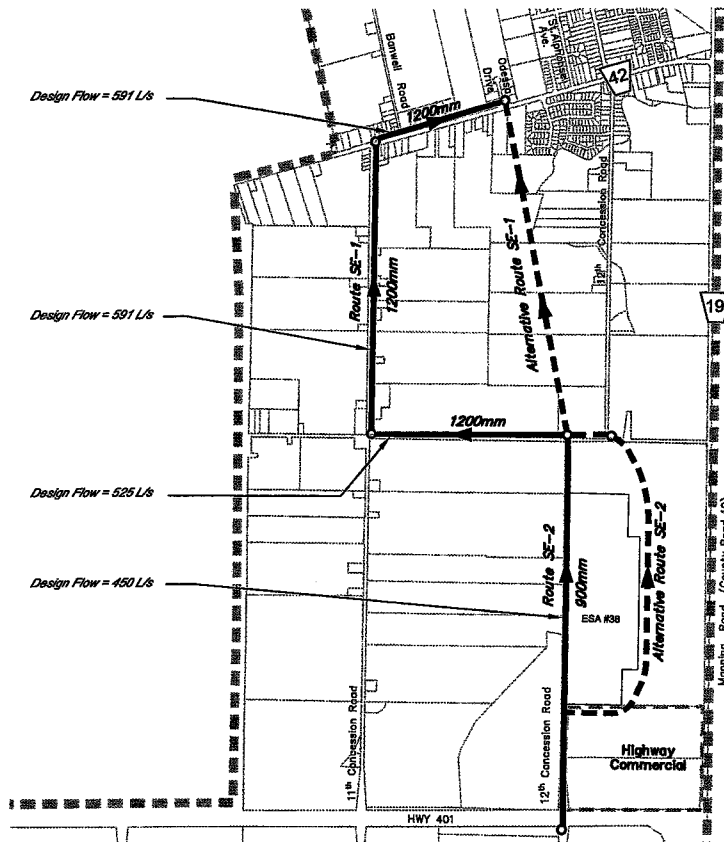
Project Name:	County Road 42 Diversion Sewer	Project No.:	WW-7
Project Timing:	2014-2015		
Project Location:	County Road 42 and St. Alphonse Pumping Station		
Project Description:	Construction of a 450 mm diversion sewer on County Road 42 to alleviate surcharge in St. Alphonse Ave. Trunk Sewer and to facilitate decommissioning of the existing St. Alphonse Pumping Station.		



Project Details:		
Prerequisites:	West Tecumseh Trunk Sewer Phase 2 (Project No. WW-6) to be completed	
Opportunities:	None	
Class EA Schedule:	A+	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 410 m – 450 mm diversion sewer ➤ Decommissioning of existing St. Alphonse Pumping Station 	
Estimated Capital Cost (\$ million):	Existing Development:	0.55
	Growth:	-
	Total:	0.55

Master Plan Recommended Project Data Sheet (Wastewater)

Project Name:	South Tecumseh Trunk Sewer from CR 42 to Highway 401	Project No.:	WW-8
Project Timing:	2018-2019		
Project Location:	Southeast Service Area between CR 42 and Highway 401		
Project Description:	Construction of 1200 mm and 900 mm trunk sewers through existing ROWs between County Road 42 and Highway 401 to provide outlet for new growth south of County Road 42. Consider alternative routes through new development land subject to Planning Act review.		

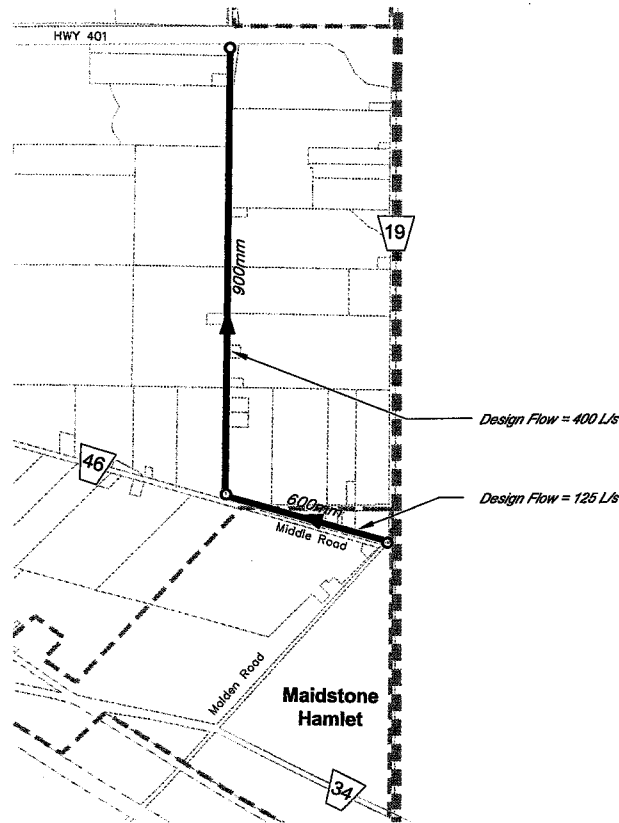


Project Details:

Prerequisites:	West Tecumseh Trunk Sewer Phase 2 (Project No. WW-6) to be completed	
Opportunities:	Combine with Water Project No. W-6	
Class EA Schedule:	A+	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 3,650 m – 1200 mm trunk sewer ➤ 2,640 m – 900 mm trunk sewer ➤ Highway 401 crossing by Jack and Bore 	
Estimated Capital Cost (\$ million):	Existing Development:	0.53
	Growth:	9.89
	Total:	10.42

Master Plan Recommended Project Data Sheet (Wastewater)

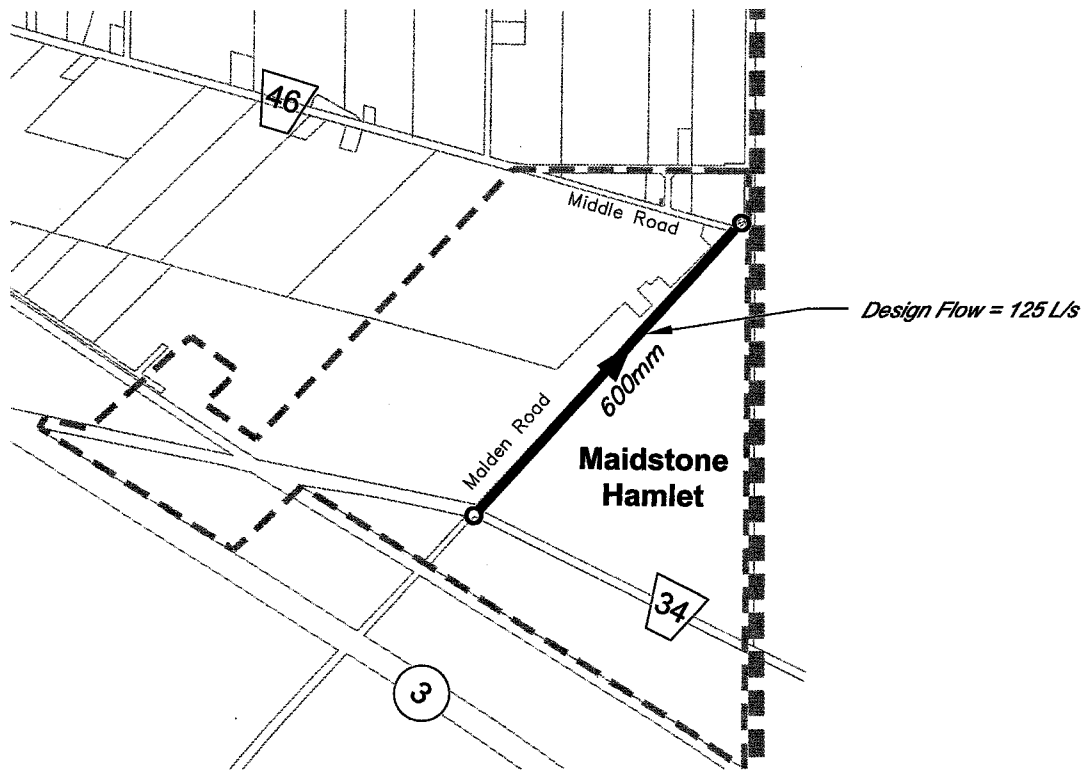
Project Name:	South Tecumseh Trunk Sewer from Highway 401 to Maidstone	Project No.:	WW-9
Project Timing:	2019-2020		
Project Location:	12 th Concession Road		
Project Description:	Construction of 900 mm and 600 mm trunk sewers on 12 th Concession Road and Middle Road from Highway 401 to Maidstone Hamlet to provide outlet for existing development in Maidstone Hamlet, and for new growth south of Highway 401 and in Maidstone Hamlet.		



Project Details:		
Prerequisites:	Completion of South Tecumseh Trunk Sewer to Highway 401 (Project No. WW-8)	
Opportunities:	Combine with Water Project No. W-7	
Class EA Schedule:	A+	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 2,025 m – 900 mm trunk sewer ➤ 850 m – 600 mm trunk sewer 	
Estimated Capital Cost (\$ million):	Existing Development:	0.45
	Growth:	3.14
	Total:	3.59

Master Plan Recommended Project Data Sheet (Wastewater)

Project Name:	Maidstone Hamlet Trunk Sewer	Project No.:	WW-10
Project Timing:	2020-2021		
Project Location:	Malden Road (Maidstone Hamlet)		
Project Description:	Construction of a 600 mm trunk sewer on Malden Road from County Road 34 to Middle Road in Maidstone Hamlet to provide outlet for existing developments and new growth in Maidstone Hamlet.		

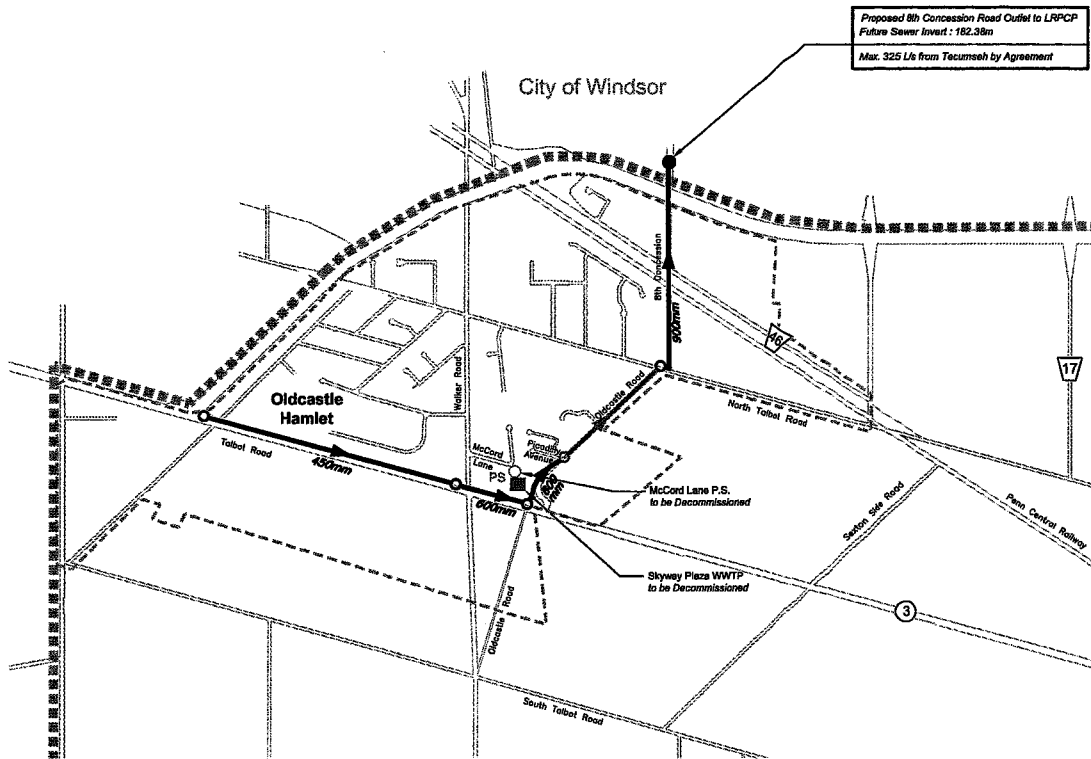


Project Details:

Prerequisites:	Completion of South Trunk Sewer to Maidstone Hamlet (Project No. WW-9)		
Opportunities:	Combine with Water Project No. W-8		
Class EA Schedule:	A+		
Preliminary Design Data:	1,350 m – 600 mm trunk sewer		
Estimated Capital Cost (\$ million):	Existing Development:		0.27
	Growth:		1.11
	Total:		1.38

Master Plan Recommended Project Data Sheet (Wastewater)

Project Name:	Southwest Tecumseh Trunk Sewer	Project No.:	WW-11
Project Timing:	2024-2025		
Project Location:	Oldcastle Hamlet		
Project Description:	Construction of 900 mm, 600 mm and 450 mm trunk sewers in Oldcastle Hamlet to provide outlet for existing developments and new growth in Oldcastle Hamlet and to facilitate decommissioning of existing McCord Lane pumping station and Skyway Plaza wastewater treatment plant.		



Project Details:		
Prerequisites:	North East Windsor Trunk Sanitary Sewer to be extended by Windsor to Town boundary on 8 th Concession Road	
Opportunities:	Combine with Water Project No. W-12	
Class EA Schedule:	A+	
Preliminary Design Data:	<ul style="list-style-type: none"> ➤ 1,250 m – 900 mm trunk sewer ➤ 1,000 m – 600 mm trunk sewer ➤ 1,800 m – 450 mm trunk sewer ➤ Metering Flume complete with SCADA connection 	
Estimated Capital Cost (\$ million):	Existing Development:	1.75
	Growth:	3.62
	Total:	5.37