

Appendices

Appendix A

Supplemental Information



Project No. 11211778
 Revision No. -
 Date May 14, 2021

TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK
2-YEAR INUNDATION BOUNDARIES



Paper Size: ANSIA
 Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983
 Grid: NAD 1983 UTM Zone 17N

FIGURE A.1

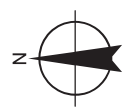


Legend

- 1D 5-year Flood
- 2D 5-year Flood

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TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK
5-YEAR INUNDATION BOUNDARIES



Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983
 Grid: NAD 1983 UTM Zone 17N

FIGURE A.2

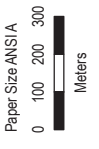
Data source: Image ©2020 Google, Imagery date: 8 Jun 2018

C:\GIS\PROJECT\11211778\Layout\20210512\ProgressReport2_GIS015.mxd
 Print date: 14 May 2021 - 10:48



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TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK
10-YEAR INUNDATION BOUNDARIES



Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983
 Grid: NAD 1983 UTM Zone 17N

FIGURE A.3

Data source: Image ©2020 Google, Imagery date: 8 Jun 2018

C:\GIS\PROJECTS\11211778\Layouts\20210512_ProgessReport2_11211778_20210512_ProgressReport2_GIS016.mxd
 Print date: 14 May 2021 - 10:48



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TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK
25-YEAR INUNDATION BOUNDARIES



Paper Size ANSIA
 0 100 200 300
 Meters

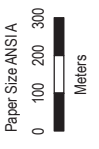
Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983
 Grid: NAD 1983 UTM Zone 17N

FIGURE A.4



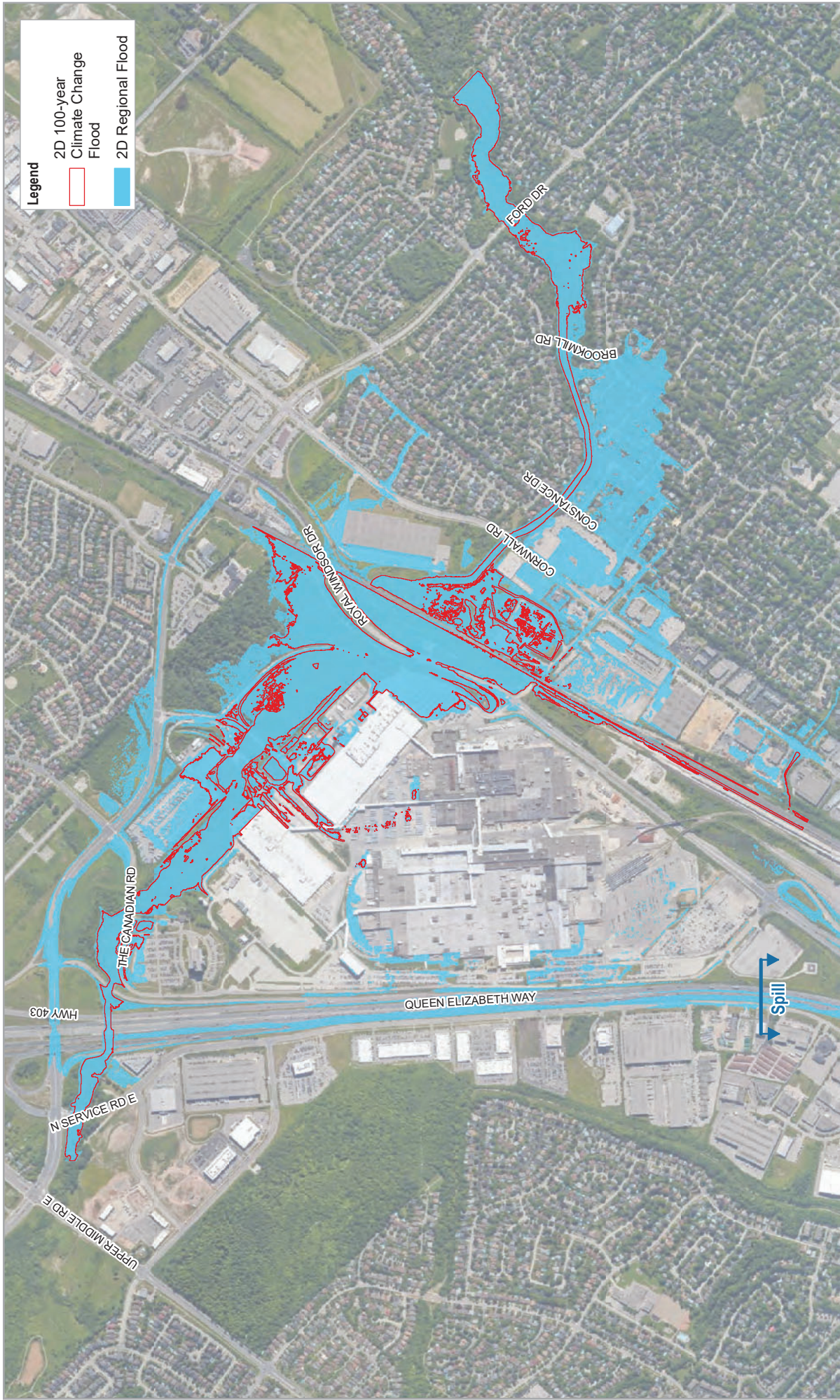
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TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK
50-YEAR INUNDATION BOUNDARIES



Paper Size ANSIA
 Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983
 Grid: NAD 1983 UTM Zone 17N

FIGURE A.5

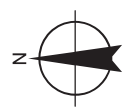


Legend

- 2D 100-year Climate Change Flood
- 2D Regional Flood

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 Date May 17, 2021

TOWN OF OAKVILLE
SPILL ASSESSMENT
UPSTREAM OF HIGHWAY 403



Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983
 Grid: NAD 1983 UTM Zone 17N

FIGURE A.6

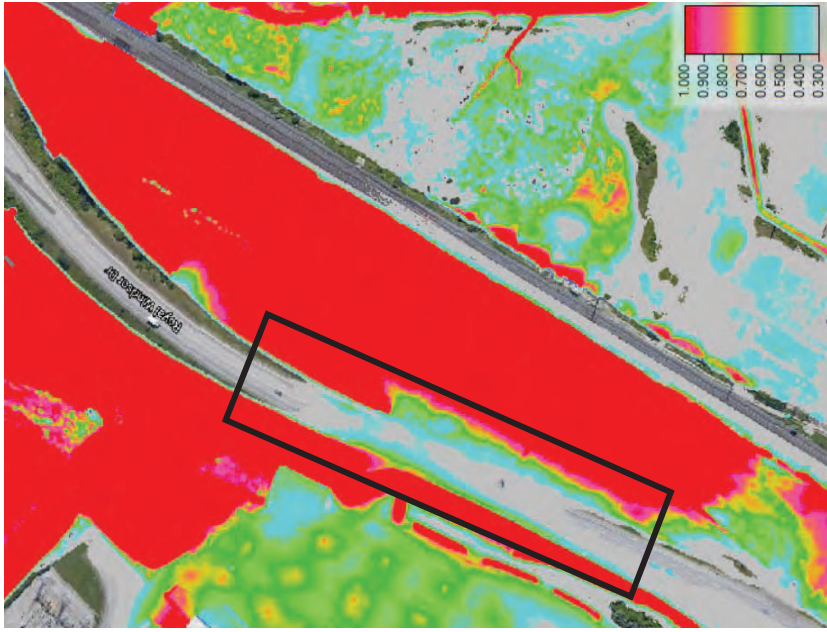


Figure A.7a - Maximum Depth Colour Map (m)

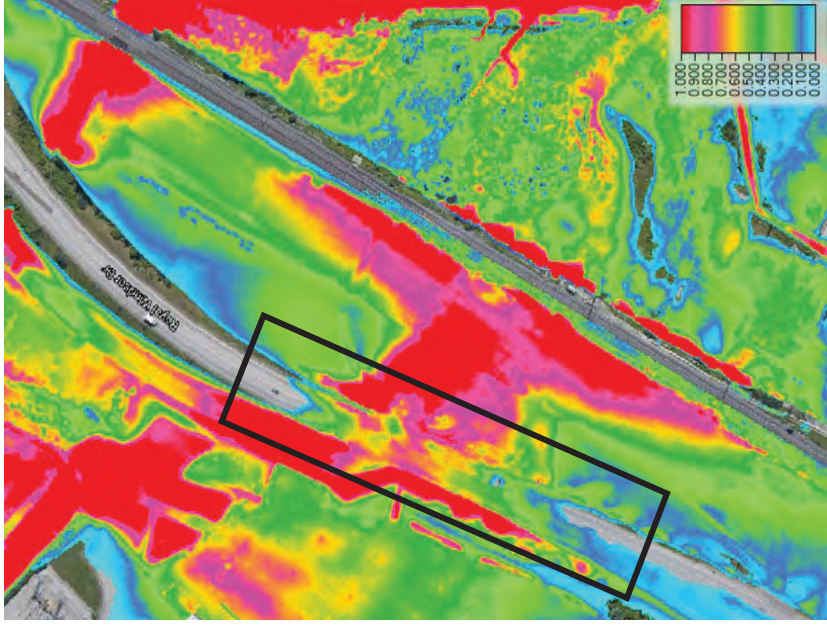
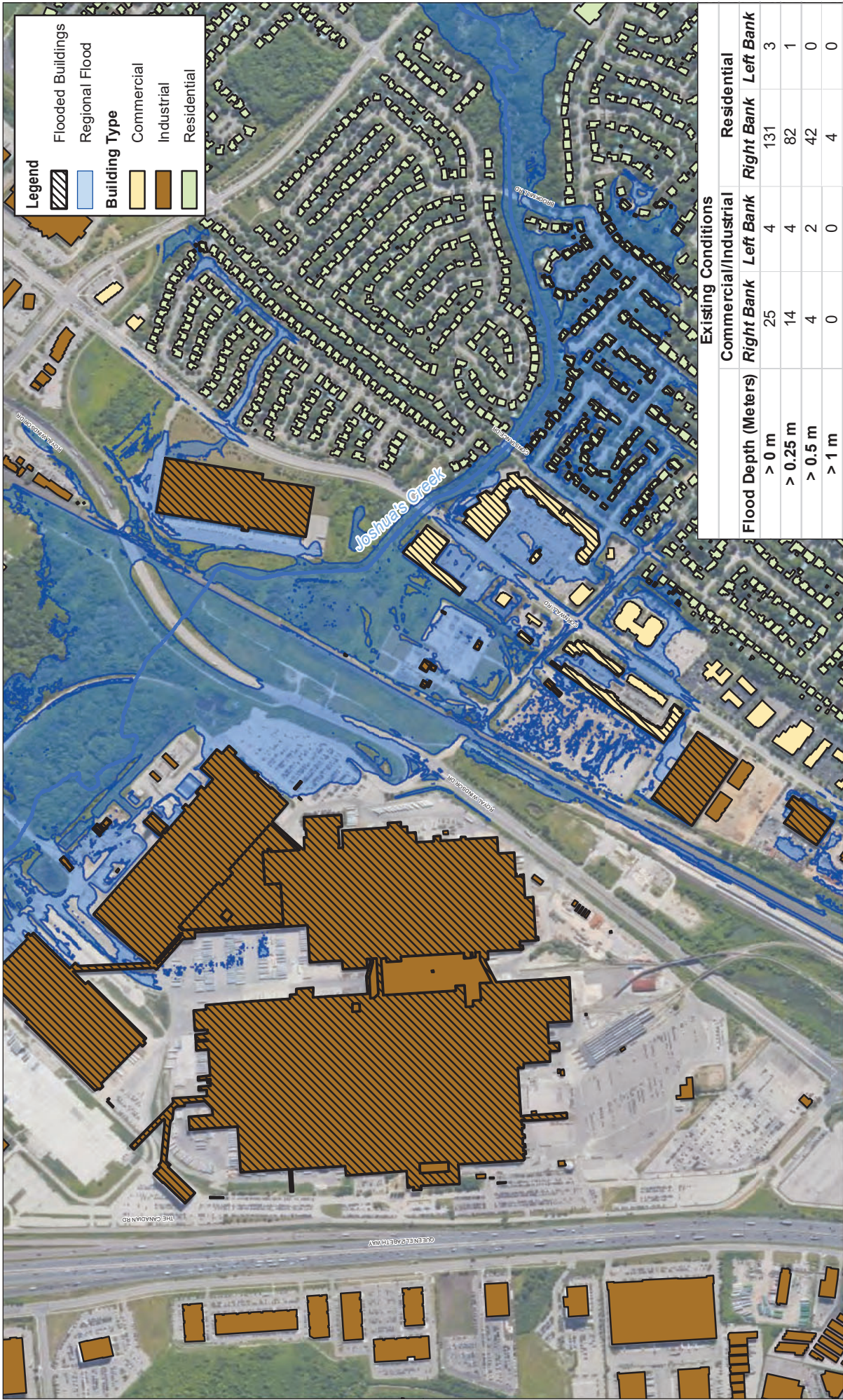


Figure A.7b - Velocity x Depth Colour Map (m^2/s)



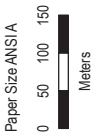
Legend

- Flooded Buildings
- Regional Flood

Building Type

- Commercial
- Industrial
- Residential

Flood Depth (Meters)	Existing Conditions			
	Commercial/Industrial		Residential	
	Right Bank	Left Bank	Right Bank	Left Bank
> 0 m	25	4	131	3
> 0.25 m	14	4	82	1
> 0.5 m	4	2	42	0
> 1 m	0	0	4	0

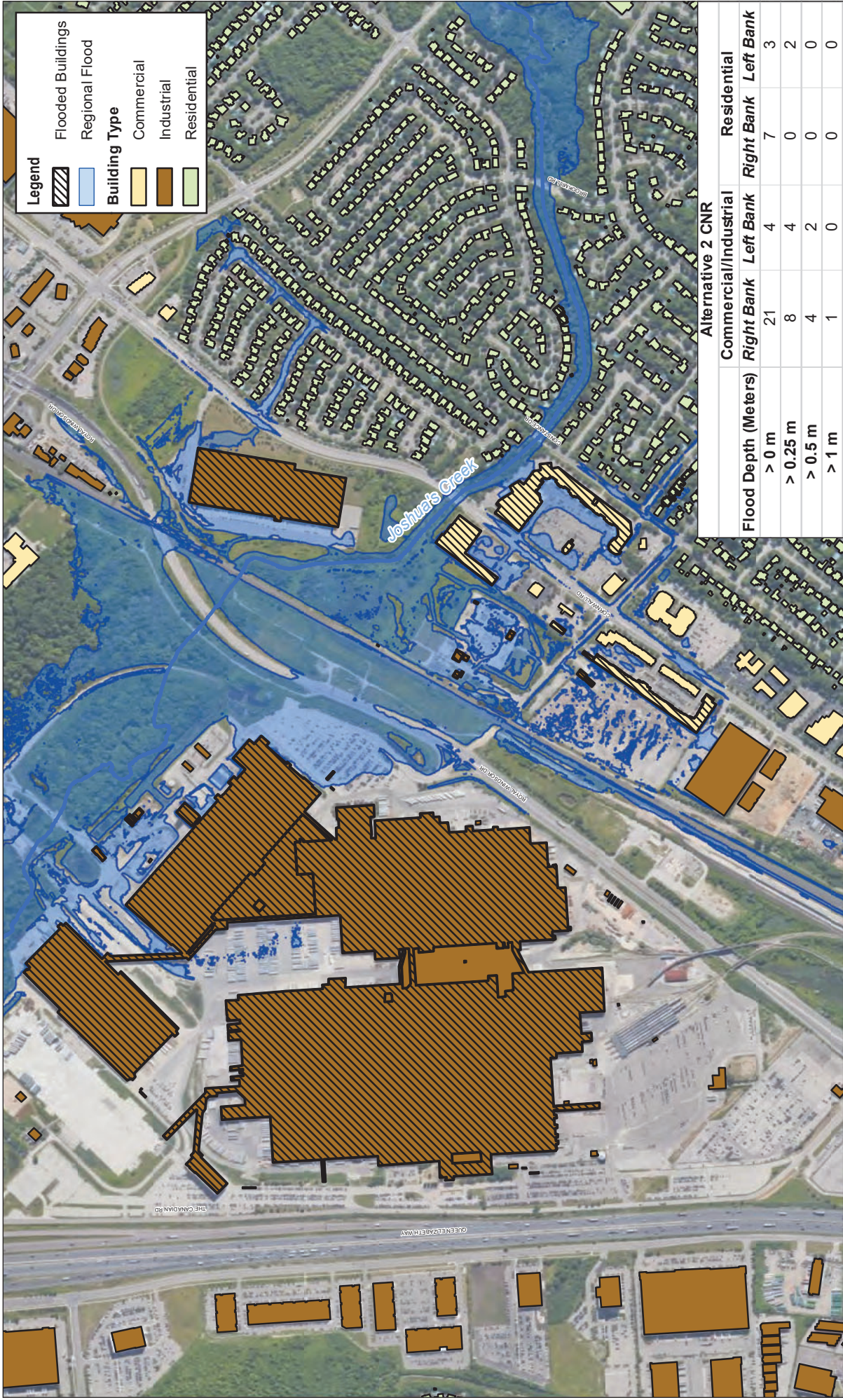


Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983 CSRS
 Grid: NAD 1983 CSRS UTM Zone 17N

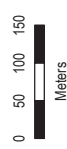
TOWN OF OAKVILLE
 2D HYDRAULIC MODELLING OF JOSHUA'S CREEK
INUNDATED BUILDINGS
EXISTING CONDITIONS

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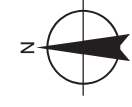
FIGURE A.8



Paper Size ANSIA



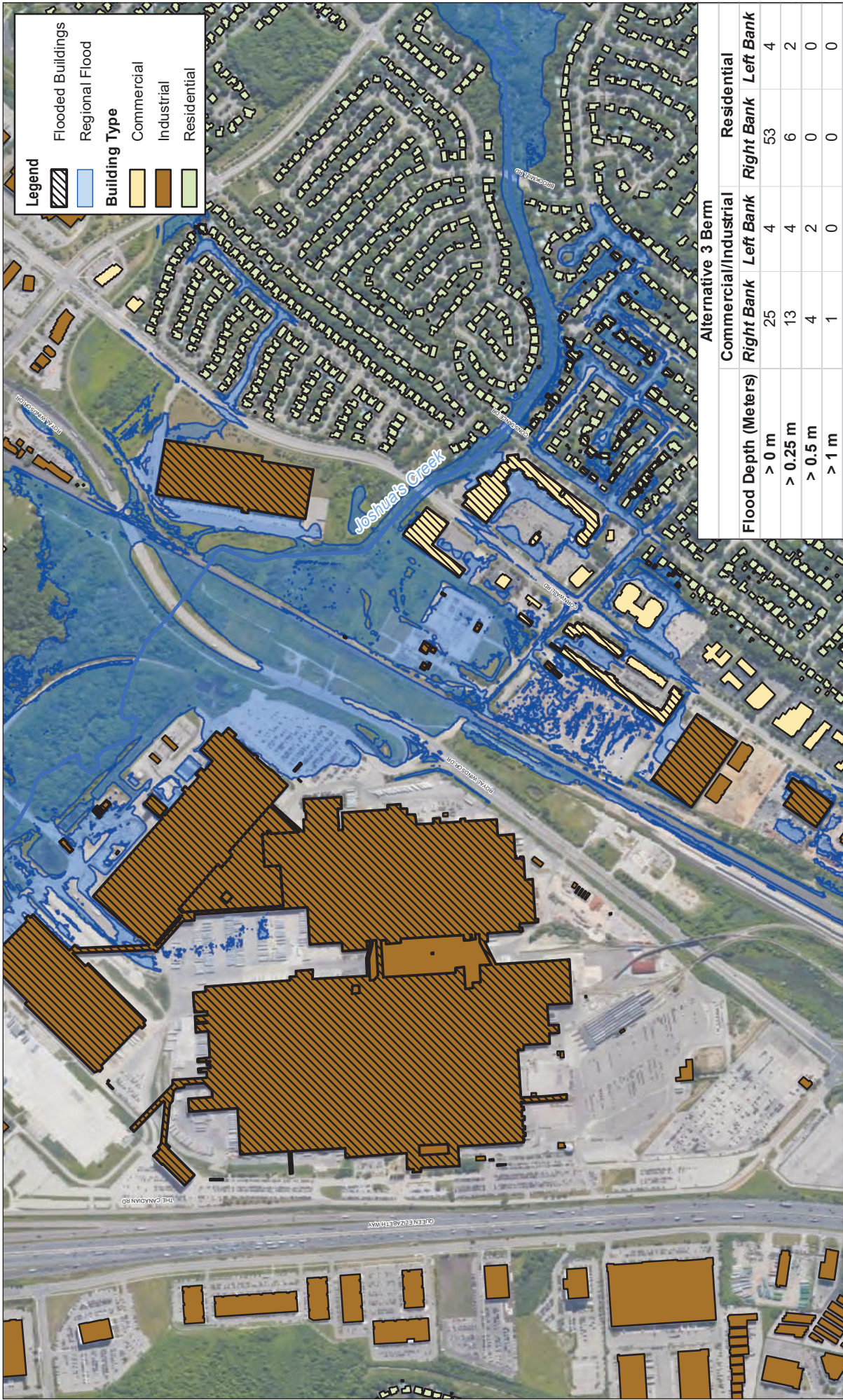
Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983 CSRS
 Grid: NAD 1983 CSRS UTM Zone 17N



TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK
INUNDATED BUILDINGS
ALTERNATIVE 2 CONDITIONS

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FIGURE A.9



Legend

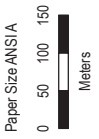
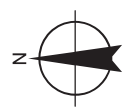
- Flooded Buildings
- Regional Flood

Building Type

- Commercial
- Industrial
- Residential

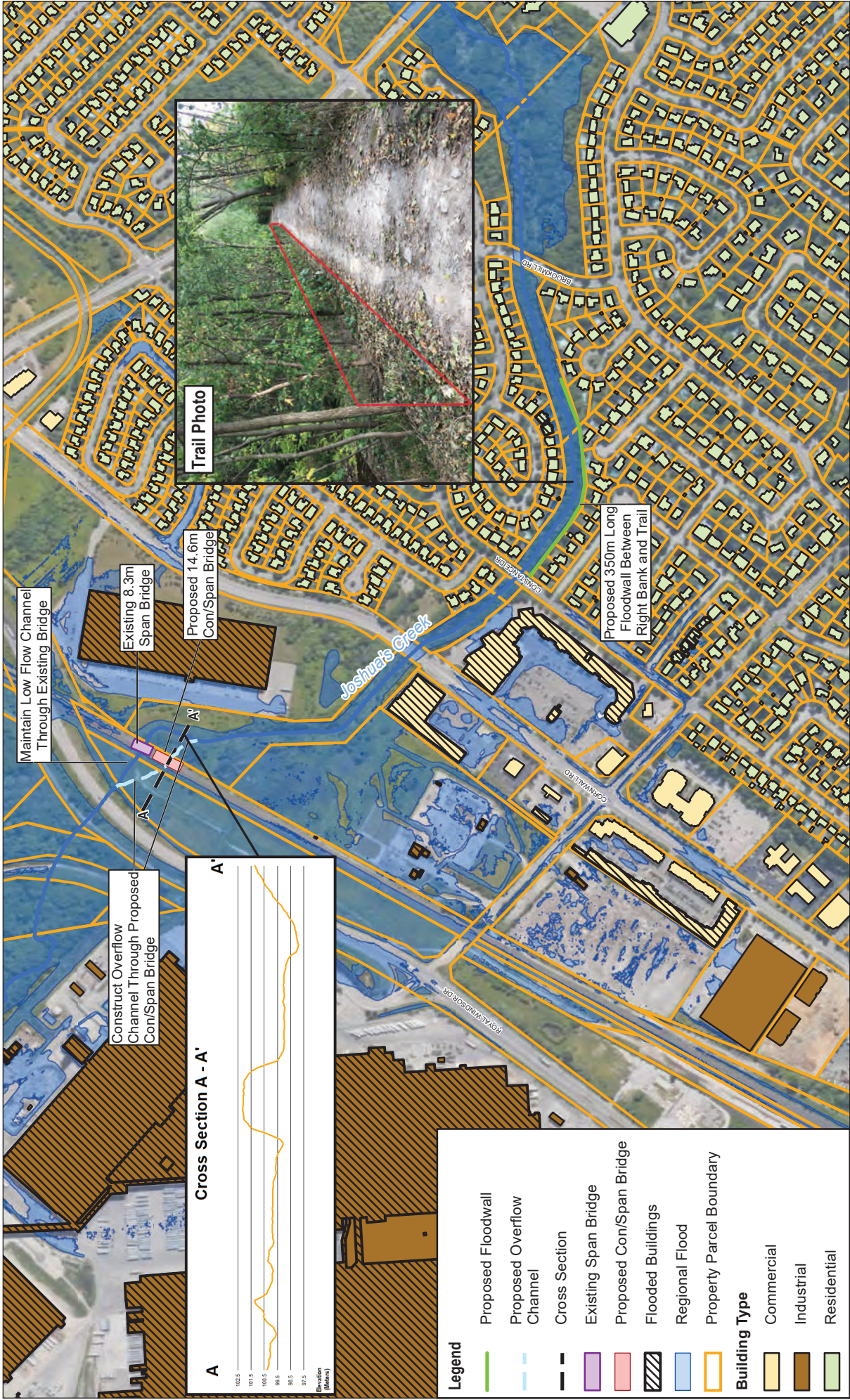
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TOWN OF OAKVILLE
 2D HYDRAULIC MODELLING OF JOSHUA'S CREEK
 INUNDATED BUILDINGS
 ALTERNATIVE 3 CONDITIONS



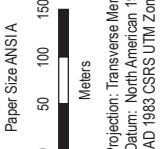
Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983 CSRS
 Grid: NAD 1983 CSRS UTM Zone 17N

FIGURE A.10



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TOWN OF OAKVILLE
 2D HYDRAULIC MODELLING OF JOSHUA'S CREEK
 ALTERNATIVE 2 SCHEMATIC



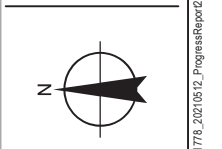
Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983 CSRS
 Grid: NAD 1983 CSRS UTM Zone 17N



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 Date Jun 2, 2022

TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK

ALTERNATIVE 3 SCHEMATIC



Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983 CSRS
 Grid: NAD 1983 CSRS UTM Zone 17N

Existing Conditions

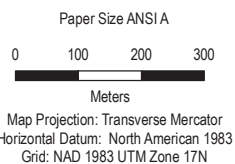


Alternative 2 Conditions



Legend

Proposed Floodwall	Cross Section	Existing Span Bridge	Building Type	Flood Depth
Proposed Overflow Channel	Proposed Con/Span Bridge	Property Parcel Boundary	Commercial	Low Risk (< 0.8 m)
			Industrial	At Risk (>= 0.8 m)
			Residential	



TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK

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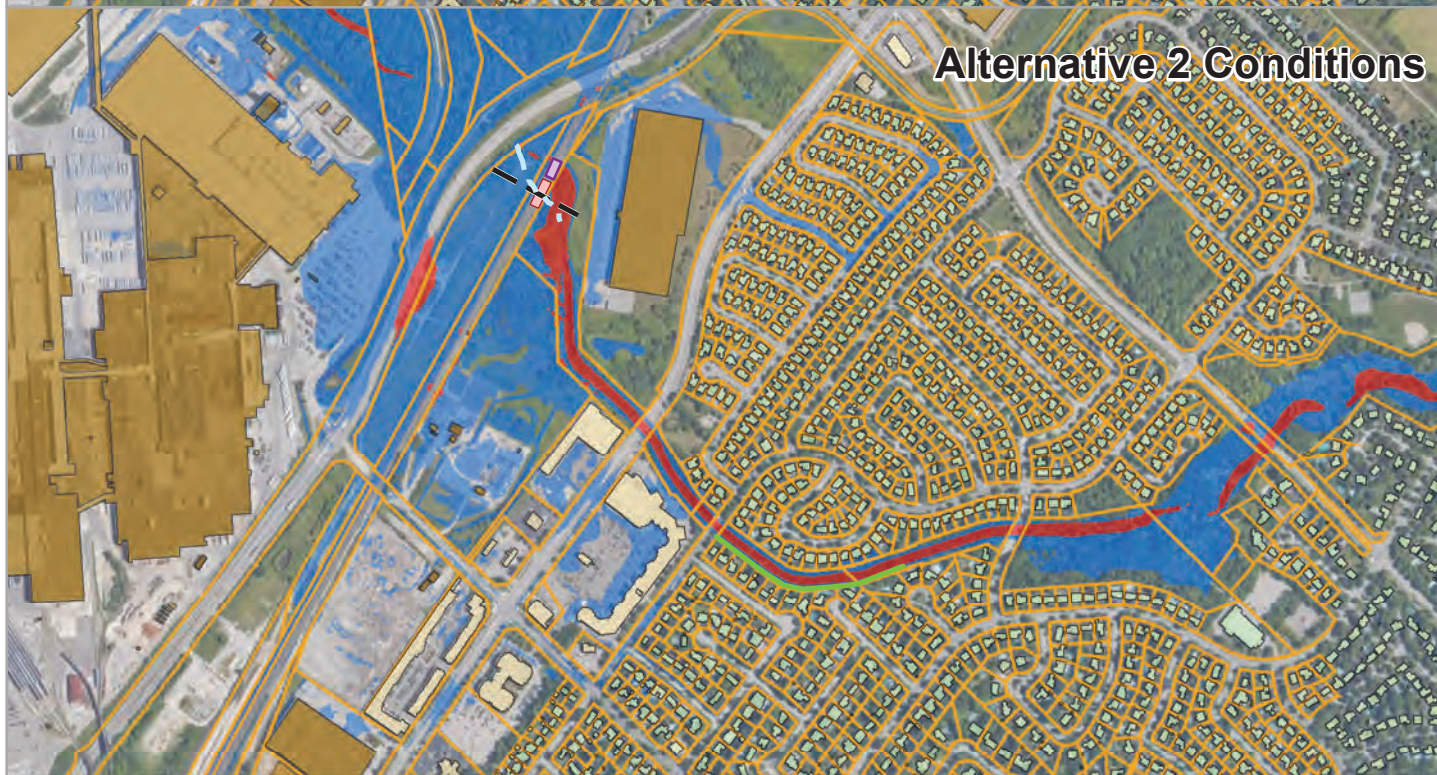
FLOOD DEPTH

FIGURE A.13












Existing Conditions

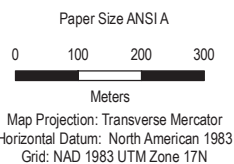


Alternative 2 Conditions



Legend

 Proposed Floodwall	 Cross Section	 Existing Span Bridge	Building Type	Flood Velocity
 Proposed Overflow Channel	 Proposed Con/Span Bridge	 Property Parcel Boundary	 Commercial	 Low Risk (< 1.7 m/s)
			 Industrial	 At Risk (>= 1.7 m/s)
			 Residential	



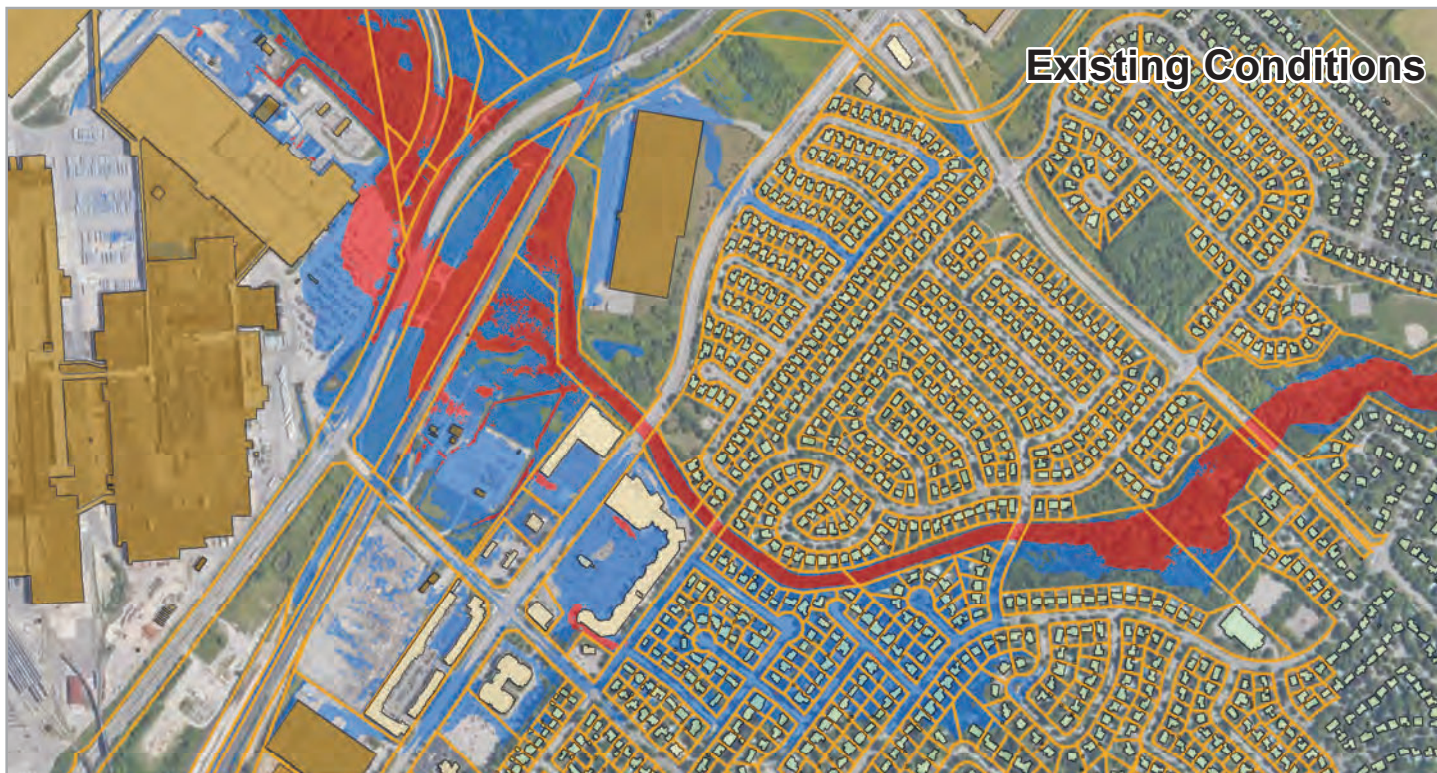
TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK

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FLOOD VELOCITY

FIGURE A.14












Existing Conditions

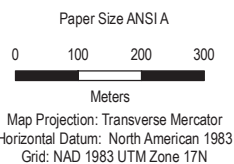


Alternative 2 Conditions



Legend

 Proposed Floodwall	 Cross Section	 Existing Span Bridge	Building Type	Depth x Velocity
 Proposed Overflow Channel	 Proposed Con/Span Bridge	 Property Parcel Boundary	 Commercial	 Low Risk (< 0.4 m2/s)
			 Industrial	 At Risk (>= 0.4 m2/s)
			 Residential	

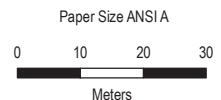
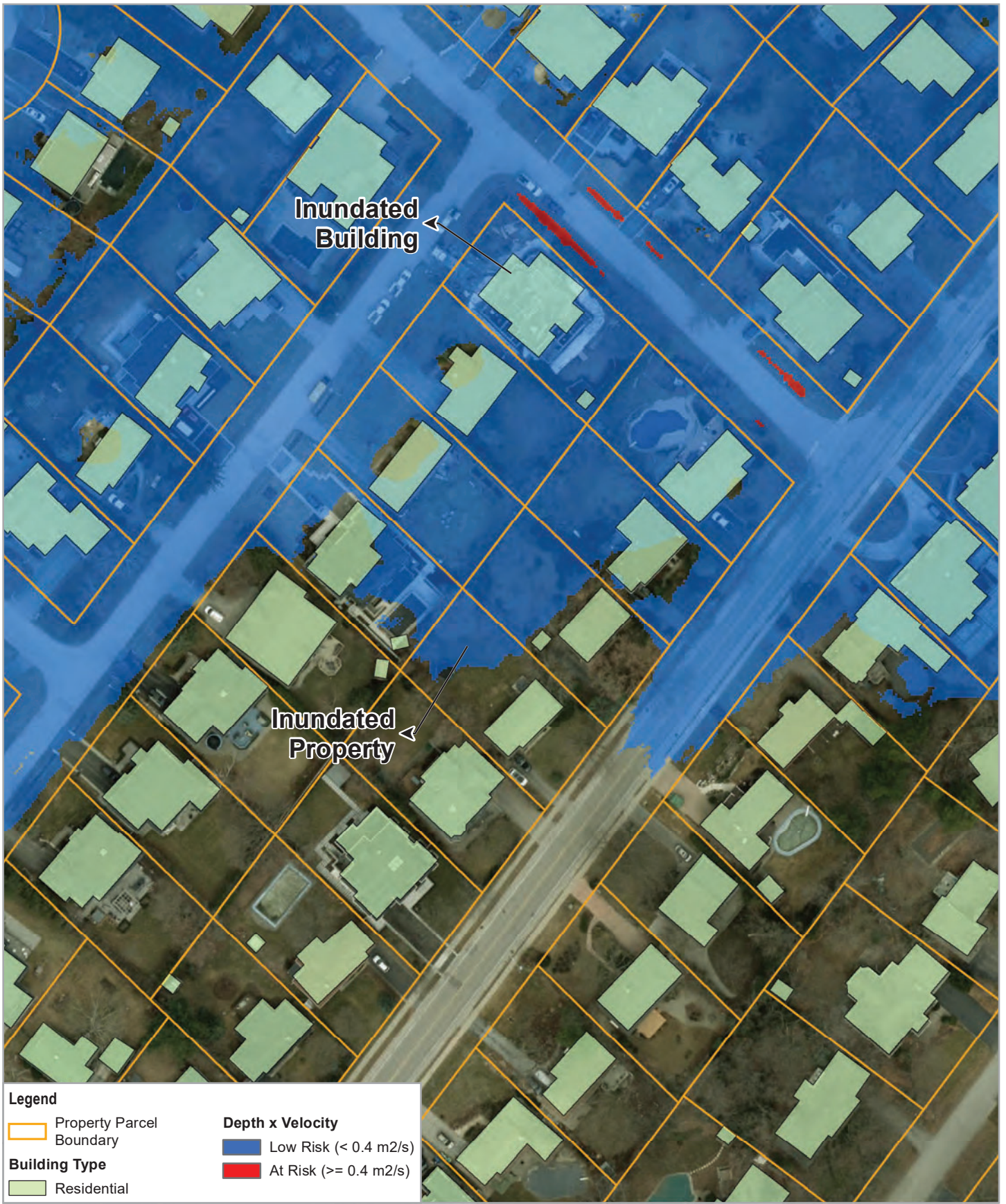


TOWN OF OAKVILLE
2D HYDRAULIC MODELLING OF JOSHUA'S CREEK

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FLOOD DEPTH X VELOCITY

FIGURE A.15



Map Projection: Transverse Mercator
 Horizontal Datum: North American 1983
 Grid: NAD 1983 UTM Zone 17N



TOWN OF OAKVILLE
 2D HYDRAULIC MODELLING OF JOSHUA'S CREEK

**INUNDATED PROPERTY &
 BUILDING COMPARISON**

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FIGURE A.16