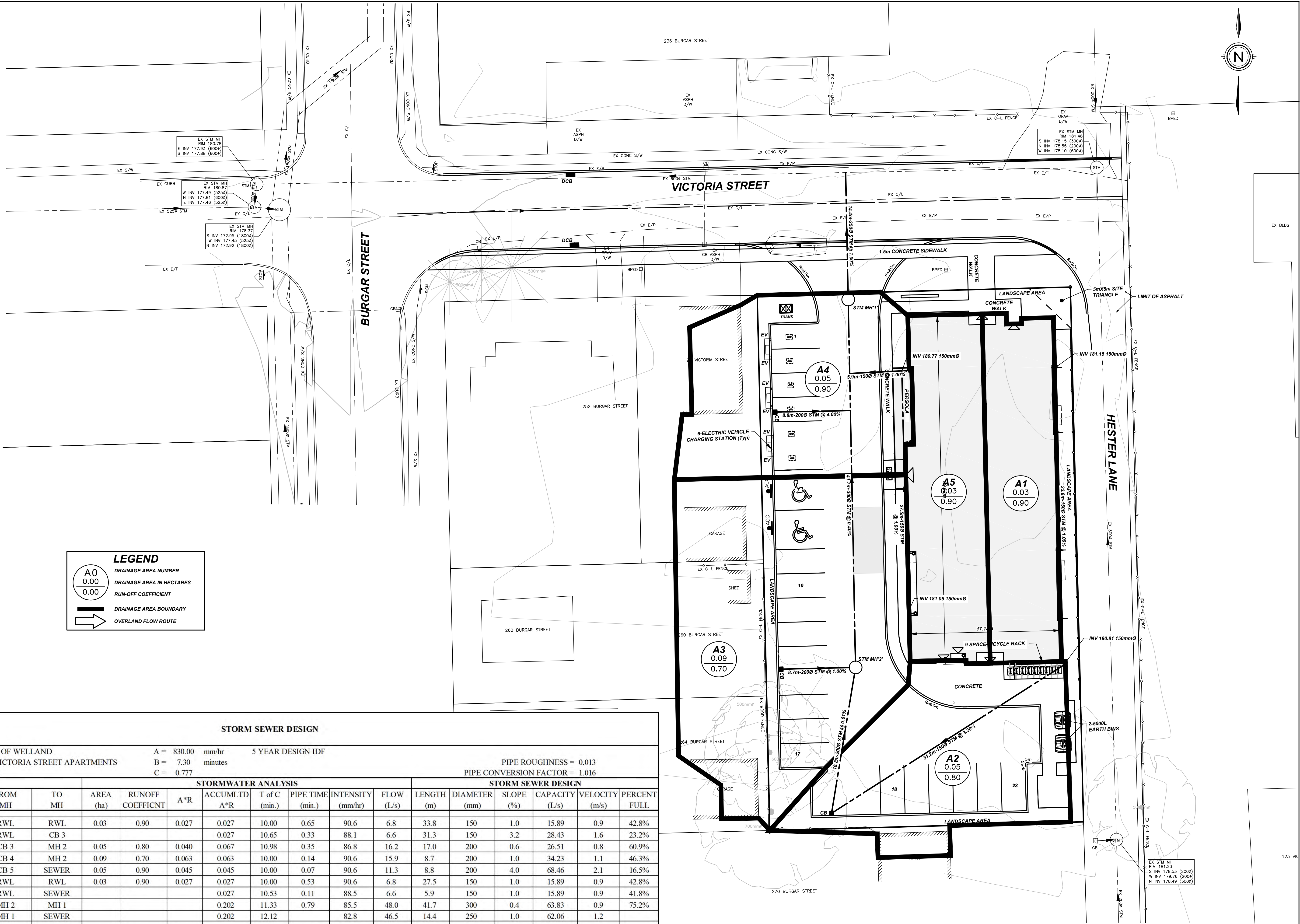




UPPER CANADA CONSULTANTS
3-30 HANNOVER DRIVE
ST. CATHARINES, ON L2W 1A3

MUNICIPALITY: CITY OF WELLAND
PROJECT: 111 VICTORIA STREET APARTMENTS
UCC PROJECT NO.: 24104

A = 830.00 mm/hr
B = 7.30 minutes
C = 0.777

5 YEAR DESIGN IDF

DESCRIPTION			STORMWATER ANALYSIS								STORM SEWER DESIGN					
LOCATION	FROM MH	TO MH	AREA (ha)	RUNOFF COEFFICNT	A*R	ACCUMLTD A*R	T of C (min.)	PIPE TIME (min.)	INTENSITY (mm/hr)	FLOW (L/s)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	CAPACITY (L/s)	VELOCITY (m/s)	PERCENT FULL
A1 - EAST ROOF	RWL	RWL	0.03	0.90	0.027	0.027	10.00	0.65	90.6	6.8	33.8	150	1.0	15.89	0.9	42.8%
PARKING LOT	RWL	CB 3				0.027	10.65	0.33	88.1	6.6	31.3	150	3.2	28.43	1.6	23.2%
A2 - PARKING LOT	CB 3	MH 2	0.05	0.80	0.040	0.067	10.98	0.35	86.8	16.2	17.0	200	0.6	26.51	0.8	60.9%
A3 - PARKING LOT	CB 4	MH 2	0.09	0.70	0.063	0.063	10.00	0.14	90.6	15.9	8.7	200	1.0	34.23	1.1	46.3%
A4 - PARKING LOT	CB 5	SEWER	0.05	0.90	0.045	0.045	10.00	0.07	90.6	11.3	8.8	200	4.0	68.46	2.1	16.5%
A5 - WEST ROOF	RWL	RWL	0.03	0.90	0.027	0.027	10.00	0.53	90.6	6.8	27.5	150	1.0	15.89	0.9	42.8%
RWL LEAD	RWL	SEWER				0.027	10.53	0.11	88.5	6.6	5.9	150	1.0	15.89	0.9	41.8%
PARKING LOT	MH 2	MH 1				0.202	11.33	0.79	85.5	48.0	41.7	300	0.4	63.83	0.9	75.2%
CONTROL OUTLET PIPE	MH 1	SEWER				0.202	12.12		82.8	46.5	14.4	250	1.0	62.06	1.2	

0	ISSUED FOR REVIEW	2025-05-23	C.A.
#	REVISION	DATE	INIT

NOTES:

- THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWER, AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
- PROPERTY LINES WERE PLOTTED USING REGISTERED PLANS AND BARS LOCATED IN THE FIELD. TO VERIFY THE ACCURACY OF THESE PROPERTY LINES, A LEGAL SURVEY SHOULD BE PERFORMED PRIOR TO CONSTRUCTION.
- ALL CONSTRUCTION MUST COMPLY WITH THE NIAGARA PENINSULA STANDARD CONTRACT DOCUMENT.

DRAFTING
DESIGN
CHECKED BY
APPROVED BY

C.A.
J.S.
J.S.
J.S.

PROFESSIONAL ENGINEER
P. SCHULZE
PROVINCE OF ONTARIO

SITE BENCHMARKS:
#1
TOP OF HYD
ELE. 182.26

OWNER:
111 VICTORIA STREET INC.
18 LEAWOOD COURT
ST. CATHARINES, ON L2T 3R6

UPPER CANADA CONSULTANTS
ENGINEERS / PLANNERS

VAUGHAN SEED FLATS
111 VICTORIA STREET, WELLAND
STORM DRAINAGE AREA PLAN

CONSULTANT FILE No. 24104
DATE 2025-05-23
PRINTED 2025-05-23
SCALE 1:200 m
REF No.
DWG No. 24104-STMDA
REV 0