

**SERVICING & STORMWATER MANAGEMENT
IMPLEMENTATION REPORT**

**FLATO EDGEWOOD GREENS
FLATO EAST COMMERCIAL BLOCK
FLATO DEVELOPMENTS INC.**

TOWNSHIP OF SOUTHGATE

**PREPARED BY:
CROZIER CONSULTING ENGINEERS
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COLLINGWOOD, ONTARIO
L9Y 4R3**

NOVEMBER 2020

CFCA FILE NO. 1060-5384



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1.0 INTRODUCTION

Crozier Consulting Engineers ("Crozier") has been retained by Flato Developments Inc. ("Developer") to complete a Servicing and Stormwater Management Implementation Report and engineering design to support the Site Plan Application for a proposed commercial development known as Flato East Commercial Block, referred to hereafter as the ("Subject Development"). The Subject Development is located in the Village of Dundalk, Township of Southgate. The general location of the Subject Development is shown on Figure 1.

The Flato Commercial Block site is legally described as Part of Lot 233 and Lot 234, Concession 1, Village of Dundalk, Township of Southgate, County of Grey. The Subject Development is located within the Draft Plan Approved Dundalk Meadows East Subdivision, herein referred to as ("Flato East"). Within the Flato East Subdivision, the Subject Development is bounded by future Colgan Crescent to the north, future Symington Street to the west, future Milliner Avenue to the south, and Highway 10 to the east.

The Subject Development is approximately 0.67 ha, and is comprised of one single-story 12 unit commercial building with a gross floor area (GFA) of 1,448 square meters, and a parking lot consisting of 75 parking spaces and 2 drive lane entrances. The Subject Development also includes stormwater management infrastructure, as well as water, sanitary, and typical utility servicing. Refer to Figure 2 for the proposed Site Plan.

Contained within this report is a description of the existing site conditions (Section 2.0); a review of the project background information (Section 3.0); proposed sanitary servicing, water distribution, and utilities servicing strategies (Section 4.0); stormwater management and water quality control elements (Section 5.0); and a summary of the recommended erosion and sediment controls to be implemented prior to and during construction (Section 6.0).

2.0 SITE DESCRIPTION

The 70 ha Flato Edgewood Greens Development in the southeast end of the Village of Dundalk is comprised of three Draft Plan Approved subdivisions; Dundalk Meadows West, East and North. The Subject Development is located within the Dundalk Meadows East Subdivision, which is bounded by the Flato Meadows North Development to the north, Highway 10 to the east, open space to the south, and the Dundalk Meadows West Development to the west.

The Subject Development is currently characterized by vacant land and is located at the east end of the Flato East Development area. Within Flato East, the Subject Development is bounded by future Milliner Avenue to the south, future Symington Street to the west, future Colgan Crescent to the north, and Highway 10 to the east.

Based on the Soil Survey map of Grey County (1979), the site is underlain by Parkhill Loam, a medium textured soil derived from dolomitic limestone till, and Listowel Silt Loam, which carries the same characteristics as the Parkhill Loam. Both soils are known to have poor drainage and are classified within the hydrologic soil group BC (Ministry of Transportation, 1997).

3.0 BACKGROUND

The Subject Development is designated by the Corporation of the Township of Southgate as "Neighbourhood Area with Exceptions" as of the September 2020 Amendment No. 26 to By-law 2020-103.

It is understood that in 2016, a Development Permit Application was submitted to the Township of Southgate for the Flato East Development within which the Commercial Block site is now proposed. The development commenced in September 2017, and following the buildup of the previous phases, the Developer would like to move forward development of the Commercial Block.

4.0 PROPOSED SERVICING STRATEGY

4.1 Sanitary Servicing

4.1.1 Future External Infrastructure

Upon completion of Phase 11 of the Flato East Subdivision, municipal gravity sanitary sewers will be available adjacent to the Subject Development with a 200 mm diameter service stub constructed on the northwestern limit of the site along future Colgan Crescent. Final location and elevation of this stub will be provided once installation of the Colgan Crescent Sewer is complete. The service stub will discharge into the Colgan Crescent sanitary manhole. From this manhole sanitary flows will flow west to Symington Street then north to the Morgan Avenue sanitary line where flows will be conveyed to the Sanitary Pumping Station which is currently under design by Crozier in support of Phases 7-11 of the overall Edgewood Greens development. Please reference the General Site External Servicing Plan presented in Figure 3 for the future external civil infrastructure.

4.1.2 Proposed Servicing Strategy

Sanitary servicing of the proposed commercial building is to be provided by 200 mm and 150 mm diameter internal sanitary sewers connecting the building's internal plumbing systems to the future 200 mm diameter sanitary stub. The General Site Servicing Plan is presented in Drawing C101.

Preliminary sanitary flows for the site were estimated using the Ministry of Environment, Conservation and Parks (MOECP) criteria and Township of Southgate Municipal Standards:

- Average Flow Rate - 450 L/cap/day
- Infiltration – 0.15 L/s/ha
- Peaking Factor – 4.4 (Harmon)
- Equivalent Population – 19 persons based on conversion values provided by the Township. Please reference Appendix A for detailed calculations.

Based on these values it is estimated that peak sanitary flow from the site will be 0.53 L/s. Please reference Appendix B for the detailed peak flow calculations.

An analysis was completed to ensure the future external Flato East sanitary infrastructure maintains sufficient capacity for the newly proposed Commercial Block. This analysis consisted of a comparison of estimated flow between the Commercial Block and the previously proposed residential units. This comparison indicates that the replacement of the previously proposed residential units with the Commercial Block will result in a peak sanitary flow reduction of 1.42 L/s. Based on this analysis, there is sufficient sanitary capacity for the Subject Development. Please refer to Appendix C for the Phase 8 sanitary sewer design sheet.

Per the 2019 Reserve Capacity Study (Triton Engineering, April 2019), Phases 7-11 of the Flato East development represent 460 uncommitted equivalent residential units. Currently the Township's Waste Water Treatment Plant can support 410 uncommitted equivalent residential units. The EA process to increase wastewater capacity is ongoing, however our office notes that the proposed change to commercial usage will facilitate a modest reduction in equivalent residential units associated with the Flato East Development.

4.2 Domestic Water Servicing

The future water distribution infrastructure to be provided to the Commercial Block consists of two 200 mm diameter stubs coming off the mains on Morgan Avenue and Colgan Crescent at the Southwest and northeast entrances respectively. The a 200 mm diameter line will connect these two stubs to provide looping through the site with a 200mm x 200mm x 200mm service 'T' coming from this through line to provide Water Servicing to the building itself. Separate domestic and fire water services will be provided to the building. Refer to Drawing C101 for General Site Servicing layouts.

Domestic water demands for the site were estimated using the Ministry of Environment, Conservation, and Parks (MOECP) criteria as specified in the Township of Southgate Municipal Standards:

- Average Flow Rate – 450 L/cap/day
- Peak Factors: Peak Day / Peak Hour – 2.75 / 4.1

Based on these values it is estimated that water demands for the site are as follows:

- Average Day – 0.1 L/s
- Max Day – 0.3 L/s
- Peak Hour – 0.4 L/s

Preliminary fire flows required to service the Commercial Block were determined to be 150 L/s as per the Fire Underwriters Survey, and 60 L/s as per the Office of the Fire Marshal. Refer to Appendix D for potable water servicing demand and fire flow demand calculations. Confirmation of the capacity of the watermain and future existing stubs to meet development needs will be subject to the Township completing a distribution analysis and updating their municipal model.

The Township has indicated that the watermain distribution network located in the privately held portions of the development will remain under private ownership, and will not be assumed by the municipality.

4.3 Utility Servicing

The Flato Commercial Block will be serviced with natural gas, telephone, cable TV and hydro. Coordination will be required with utility companies to ensure that sufficient capacity exists within future facilities along Morgan Avenue and/or Colgan Crescent.

5.0 STORMWATER MANAGEMENT & SITE DRAINAGE

5.1 Design Criteria

The stormwater management features for this site have been designed to comply with the policies and standards of the various agencies including the Township of Southgate, Ministry of the Environment, Conservation, and Parks, and the Grand River Conservation Authority.

The stormwater management strategies for the proposed development are listed below:

- Water Quantity Control
 - Capture and control of the post development flows to pre-development flows for all storm events from the 2 year to 100 year events.

- Water Quality Control
 - 80% removal efficiency of total suspended solids per MECP “Enhanced Protection” requirements.
- Development standards
 - Minor and major drainage system to convey frequent and infrequent rainfall and runoff events, respectively.

In meeting the applicable policies and standards of the aforementioned agencies, the development will also be required to meet the following criteria:

- Manage the internal stormwater by safely conveying peak flows to suitable outlets and provide the necessary water quality controls.
- Manage any external drainage entering the site by providing safe conveyance across the Subject Development.
- Ensuring the development lands are not susceptible to flood inundation during all storm events.

5.2 Pre-Development Drainage Conditions

The existing drainage patterns of the site have been reflected in the Pre-Development Drainage Plan presented in Figure 4. The topographic survey of the site indicates the site is generally raised in the middle and sloped to the east and west. As such, runoff will sheet flow towards Highway 10 to the east, and sheet flow towards the Foley Drain to the west. The Foley Drain then flows south ultimately discharging to the Grand River.

5.3 Proposed Drainage Conditions

The proposed Flato Commercial Block will consist of an 75 space parking lot, two entry ways, and a commercial building. The site is separated into three separate drainage areas to better represent stormwater management. Two of the three drainage areas delineated will be captured and conveyed to the storm outlet by the internal storm sewers, with the remaining drainage area sheet flowing onto the surrounding public roadways excluding Highway 10. Refer to Figure 5 for the proposed Storm Area Drainage Plan.

The internal drainage system for the proposed Flato Commercial Block will consist of surface catchbasins and storm sewers to collect and convey flow generated from minor storm events up to and including the five-year design storms. Please refer to Appendix E for the Internal Storm Design Sheets. The Subject Development will have overland flow routes designed to convey the major design storm flows, up to and including the 100-year and regional events.

The primary drainage areas consist of the parking lot area and building rooftop. The parking lot will be graded to direct minor storm event runoff towards the catchbasins. Runoff from the building rooftop will be directed into the storm sewer system using storm drains. Internal storm sewers will then convey storm flows to future external sewers established in Flato East Phase 11 along Milliner Avenue. Stormwater flows will then be conveyed to the future SWM Facility #3 for quantity and quality control, before discharging to the Foley Drain.

For major storm events exceeding the five-year event, an overland flow route using the south entrance as an outlet will allow storm runoff to discharge to the future Milliner Avenue Right of Way. The overland flow will then be conveyed along the future Milliner Avenue west towards the Flato East SWM Facility #3. The flow will subsequently be released from SWM Facility #3 into the Foley Drain system. Refer to Figure 6 for External Storm Drainage Plan.

5.4 Stormwater Quality Control

The water quality controls for the Subject Development will be provided by the future SWM Facility #3 constructed with Flato East Phase 11. After discharging from the Foley Drain, the Grand River is the ultimate receiver from the site; therefore, the development will incorporate measures to provide "enhanced protection" quality control (*Stormwater Management Planning and Design Manual*, Ministry of the Environment, 2003). Provisions will be made to ensure the SWM Facility #3 is designed to accommodate and provide both stormwater quality and quantity control for the Subject Development.

5.5 Stormwater Management (SWM) Analysis

As illustrated in the Site Plan (Figure 1), the proposed commercial block will impact Phase 11 of the Flato Edgewood Greens Development. Thirty-three (33) townhome units will be replaced by the commercial plaza. Due to the impervious nature of the proposed design, the development will result in a minor 2% increase in imperviousness within the impacted lands when compared to the previously proposed residential development and a insignificant increase to the overall Zone 3 Area. The below analysis was completed to confirm SWM Facility #3 capacity to handle to the predicted increase in runoff.

A preliminary design for SWM Facility #3 was completed by our office in 2016 and outlined in the Preliminary Stormwater Management and Floodplain Assessment Report. To ensure the preliminary design of this SWM Facility is sufficient to accommodate the increased levels of runoff from the commercial block, a hydrologic analysis was completed. To complete this analysis, the preliminary stage-storage discharge (SSD) relationship presented in the Preliminary SWM Report was used and the hydrologic model (SWMHYMO) catchment parameters were updated reflect the new impervious levels, which are characteristic of a commercial development.

The hydrologic analysis has been separated into two sections; Water Quality and Extended Detention, and Water Quantity.

5.5.1 Water Quality & Extended Detention (ED)

After updating the level of imperviousness for the contributing drainage area to SWM Facility #3 to account for the commercial block, the permanent pool and extended detention requirements were analyzed. Please refer to Appendix F for the updated hydrologic parameter sheets. As a result of the increased imperviousness, the required permanent pool and extended detention volumes increased. Based on the available storage of SWM Facility #3 (preliminary design), the facility is able to accommodate the increase of runoff and the previously designed outlet control structure (extended detention orifice) still meets the minimum 24-hour extended detention drawdown requirement. Water quality and extended detention calculations have been provided in Appendix G. A summary of the required and provided permanent pool and extended detention volumes has been provided in Table 1. Based on this analysis, the design of SWM Facility #3 is sufficient to meet the Ministry of Environment, Conservation, and Parks (MECP) enhanced protection water quality objectives.

Table 1: SWM Facility Quality Control Characteristics

	Required Volume (m ³)	Provided Volume (m ³)
Permanent Pool	769	1262
MOE Extended Detention	452	1349
Erosion Control	1349	1349

5.5.2 Water Quantity

To determine if the SWM Facility still meets the water quantity "Post-to-Pre" control objectives for the Foley Drain, the hydrologic model (SWMHYMO) was updated. As mentioned above, only the catchment parameters of the contributing drainage area needed to be revised, as the ED orifice sizing did not need to change. As such, the SSD for SWM Facility #3, represented using the ROUTE RESERVOIR command in SWMHYMO, is consistent with the hydraulics presented in the Preliminary SWM Report. SWM Facility #2 also outlets to the Foley Drain. As such, the SWMHYMO model also includes the SSD for SWM Facility #2 based on the Phase 7, 8 and 10 detailed design and the SWM Facility #2 catchment area, however the design of this facility is unaffected by the introduction of the commercial block.

Based on the modelling results, the proposed commercial block did not substantially impact the design of SWM Facility #3, in that "Post-to-Pre" control is still met and the 100-year high water level (514.08 m) still remains below the emergency spillway invert (514.30 m).

As evidenced by Table 2 below, 'Post-to-Pre' peak stormwater flow rate control has been met at the point of interest for the Foley Drain.

Table 2: Summary of 'Post-to-Pre' Peak Flows in the Foley Drain

Return Period (Years)	Pre-Development (m ³ /s)	Post Development (m ³ /s)
2 yr Chicago	1.44	1.44
5 yr Chicago	2.86	2.82
10 yr Chicago	3.98	3.90
25 yr Chicago	5.52	5.43
50 yr Chicago	6.80	6.69
100 yr Chicago	8.10	7.97
2 yr SCS	3.63	3.58
5 yr SCS	6.41	6.33
10 yr SCS	8.50	8.37
25 yr SCS	11.32	11.14
50 yr SCS	13.55	13.31
100 yr SCS	15.79	15.48

As outlined in Table 3 below, the SWMHYMO results indicate that the 100-year high water level of SWM Facility #3 sits at approximately 85% of the ponds total storage, up to the invert of the emergency spillway based on this SWM analysis, no additional storage is required. SWMHYMO modelling input and output files have been provided in Appendix B.

Table 3: Summary of SWM Facility Operating Conditions

SWM Facility #3	Without Commercial Block		With Commercial Block	
Operating Level	Elevation	Storage	Elevation	Storage
Permanent Pool (Provided)	512.40 m	1262 m ³	512.40 m	1262 m ³
Permanent Pool (Required)		758 m ³		769 m ³
Extended Detention	512.73 m	1310 m ³	512.75	1349 m ³
100-year HWL	514.08 m	9044 m ³	514.08 m	9100 m ³
Emergency Spillway Invert	514.30 m	10757 m ³	514.30m	10757 m ³
Storage Used	84% ¹		85% ¹	

1. Up to the invert of the emergency spillway; not entire pond storage.

Based on this analysis, the proposed commercial block can be serviced from a stormwater management perspective using the approved SWM Facility #3 as it is adequately sized to handle the increased volume of runoff and stormwater flows generated by the Subject Development.

6.0 EROSION & SEDIMENTATION CONTROLS DURING CONSTRUCTION

Erosion and sediment controls will be implemented on-site prior to construction where required and as directed by the Developer and their site representative. See Drawing C102 for the site's Sediment Control Plan. The following controls are to be implemented:

- Stone Mud Mat
 - A mud mat will be installed to reduce the amount of mud tracking onto existing paved roadways during site servicing operations.
- Silt Fencing
 - Silt fencing will be constructed in accordance with GRCA's Typical Detail of Silt/Sediment Fence (BSD-23 Draft). It should be noted that additional silt fencing may be added based on field decisions by the Engineer and Developer prior to, during and following the earth works.
- Flow Check Dams
 - A temporary straw bale dam will be utilized on-site in order to prevent any silt mitigation off site during and after construction activities. This dam will promote settling of suspended solids and will reduce flow velocities. Sediment accumulation will be monitored and removed as necessary.

7.0 CONCLUSIONS & RECOMMENDATIONS

The analysis presented above provides a comprehensive servicing and stormwater management assessment in support of the proposed Flato Dundalk Meadows Commercial Block Site Plan Application.

- Stormwater management objectives for water quality control have been addressed in the design of the Flato Commercial Block. Quantity control up to and including the 100 year storm will be provided.
- Sanitary services for the Flato Commercial Block will be provided by a service extension from the sewer in the future Colgan Crescent. This sewer has adequate capacity for the Flato Commercial Block.
- An internal watermain system will be provided connecting the future Colgan Crescent and Morgan Avenue watermains to the proposed Commercial Block building. Internal watermain sizing is to be confirmed with the Town Water Distribution Model through the course of detailed design.
- Sediment and erosion controls as specified, will be effective in preventing and controlling sediment from migrating into nearby swales, ditches and watercourses.

Given the above noted conclusions, we support the development of the subject lands from the perspective of engineering servicing and stormwater management requirements.

Respectfully Submitted,

C.F. Crozier & Associates Inc.



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APPENDIX A

EQUIVALENT POPULATION CALCULATIONS



File: 1060-5384
Date: 15-Oct-20
By: 03-Nov-20
Check By:

Flato Commercial - Equivalent Population

Developed Site Area 0.67 ha

Equivalent Dayly Flow Calculations

Commercial
 $R = 1,635 \text{ sq.m} \times 5\text{L/day/sq.m}$ $R = 8175 \text{ L/day}$

Equivalent Persons Calculation

Per Capital Flow 450 L/C-day

Equivalent Persons

$$\begin{aligned}Peq &= \text{Total/Per Capital Flow} \\Peq &= (8175\text{L/day})/(450 \text{ L/C-day})\end{aligned}$$

$$\begin{aligned}Peq &= 18.17 \text{ Persons} \\Peq &= 19.00 \text{ Persons}\end{aligned}$$

Total Design Sewage Flows

Equivalent Mixed Use Population 19 persons
Total Population **19 persons**

APPENDIX B

PRELIMINARY SANITARY FLOW RATE CALCULATIONS



File: 1060-5384
Date: 15-Oct-20
By: 03-Nov-20
Check By:

Flato Commercial - Sanitary Flow Requirements

Developed Site Area	0.67 ha
Total Population	19 persons
<u>Commercial</u>	
Per Capital Flow	450 L/C-day
Average Daily Flow	0.10 L/sec
Peak Factor	4.4
Peak Flow	0.43 L/sec
Total Peak Daily Flow	0.53 L/sec

APPENDIX C

PHASE 8 SANITARY SEWER DESIGN SHEET



Project No.: 1060-5177
 File Name: Sanitary Sewer Design
 Date: 2020.08.19

EDGEWOOD GREENS - PUMP STATION CATCHMENT

SANITARY SEWER DESIGN MODEL - 2nd Submission

DESIGN: CHECK: J.Korzeniowski D. Tone, P. Eng./ B Powers														Peak Factor (M) = 1+(14/4+(P/1000)^0.5) Avg. Daily/Capita Flow = 350 L/cap.d Q infiltration = 0.15 L/ha.s												
Catchment Area		FROM MH	TO MH	Length (m)	Inc. Area (Ha)	Cum. Area (Ha)	Lots	Inc. Pop	TOTAL trib pop	Peak Factor	Avg. Flow (l/s)	Max Flow (l/s)	Infilt. (l/s)	Total Infilt.	Combined (l/s)	Pipe Diam (mm)	Upper Inv. El.	Lower Inv. El.	Slope (%)	Cap. (l/s)	Vel. (m/s)	Ground Upper	Ground Lower	Cover Upper	Cover Lower	
1	Ex11A	3A		84.7	0.84	0.84	14	49	49	4.32	0.20	0.86	0.13	0.13	0.98	200	513.73	512.89	1.00%	32.80	1.04	516.33	516.15	2.4	2.7	
2		3A	3	84.7	0.48	1.32	7	25	74	4.28	0.30	1.27	0.07	0.20	1.47	200	512.87	512.44	0.50%	23.19	0.74	516.15	516.22	3.1	3.3	
3		1	2	37.9	0.38	0.38	6	21	21	4.38	0.09	0.37	0.06	0.06	0.43	200	512.91	512.53	1.00%	32.80	1.04	516.43	516.24	3.3	3.2	
4		2	3	43.4	0.39	0.77	6	21	42	4.33	0.17	0.74	0.06	0.12	0.85	200	512.51	512.29	0.50%	23.19	0.74	516.24	516.22	3.5	3.4	
5		3	4	57.5	0.54	2.63	7	25	140	4.20	0.57	2.38	0.08	0.39	2.78	200	512.27	512.04	0.40%	20.74	0.66	516.22	515.80	3.8	3.2	
6		4	5	57.5	0.60	3.23	9	32	172	4.17	0.69	2.90	0.09	0.48	3.38	200	512.02	511.79	0.40%	20.74	0.66	515.80	516.22	3.6	3.9	
7		5	6	20.9	0.30	3.53	3	11	182	4.16	0.74	3.07	0.05	0.53	3.60	200	511.74	511.66	0.40%	20.74	0.66	516.22	516.01	4.3	3.8	
8		6	7	62.1	0.19	3.72	1	4	186	4.16	0.75	3.13	0.03	0.56	3.68	200	511.61	511.36	0.41%	21.00	0.67	516.01	515.76	4.2	3.9	
9		7	8	98.0	0.50	4.22	6	21	207	4.14	0.84	3.47	0.08	0.63	4.10	200	511.34	510.94	0.40%	20.74	0.66	515.76	516.06	4.2	4.6	
FUT 26		FUT 29	FUT28	39.3	0.25	0.25	5	18	18	4.39	0.07	0.31	0.04	0.04	0.35	200	N/A	N/A	1.00%	32.80	1.04	N/A	N/A	N/A	N/A	
FUT 25		25	FUT28	82.0	0.55	0.55	11	39	39	4.34	0.16	0.68	0.08	0.08	0.76	200	518.03	N/A	1.56%	40.97	1.30	520.63	N/A	N/A	N/A	
FUT 27		FUT28	FUT30	80.0	0.56	1.36	9	32	88	4.26	0.35	1.51	0.08	0.20	1.71	200	N/A	N/A	0.50%	23.19	0.74	N/A	N/A	N/A	N/A	
FUT28		FUT30	FUT31	80.0	0.67	2.03	13	46	133	4.21	0.54	2.27	0.10	0.30	2.57	200	N/A	N/A	0.53%	23.88	0.76	N/A	N/A	N/A	N/A	
FUT29		FUT31	8	80.0	0.56	2.59	9	32	165	4.18	0.67	2.78	0.08	0.39	3.17	200	N/A	513.35	1.00%	32.80	1.04	N/A	516.06	N/A	N/A	
10		8	9	65.5	0.53	7.34	9	32	403	4.02	1.63	6.56	0.08	1.10	7.66	200	510.92	510.71	0.34%	19.12	0.61	516.06	516.38	4.9	5.2	
11		9	10	20.9	0.25	7.59	3	11	413	4.02	1.67	6.72	0.04	1.14	7.86	200	510.66	510.59	0.34%	19.12	0.61	516.38	516.46	5.5	5.4	
12		10	11	67.3	0.56	8.15	9	32	445	4.00	1.80	7.20	0.08	1.22	8.42	200	510.54	510.31	0.34%	19.12	0.61	516.46	516.89	5.7	6.1	
20		25	24	80.0	0.45	0.45	12	42	42	4.33	0.17	0.74	0.07	0.07	0.80	200	517.57	516.00	1.96%	45.92	1.46	520.63	518.86	2.9	2.3	
19		24	11	80.0	0.59	1.04	16	56	98	4.25	0.40	1.69	0.09	0.16	1.84	200	513.97	513.43	0.68%	27.05	0.86	518.86	516.89	4.7	2.9	
13		11	12	74.6	0.33	9.52	6	21	564	3.95	2.28	9.01	0.05	1.43	10.44	250	510.23	510.00	0.30%	32.57	0.66	516.89	517.04	6.4	6.5	
14		12	13	74.6	0.44	9.96	9	32	595	3.93	2.41	9.48	0.07	1.49	10.98	250	509.98	509.76	0.30%	32.57	0.66	517.04	517.42	6.8	7.2	
FUT PHASE (11, 12, 13)		FUT 111	13	29.0	9.50	9.50	227	795	795	3.86	3.22	12.43	1.43	1.43	13.86	200	510.85	510.11	2.31%	49.85	1.59	N/A	517.42	N/A	N/A	6.8
15		13	14	42.6	0.18	19.64	3	11	1400	3.70	5.67	20.99	0.03	2.95	23.94	250	509.68	509.55	0.30%	32.57	0.66	517.42	517.41	7.5	7.4	



Project No.: 1060-5177
File Name: Sanitary Sewer Design
Date: 2020.08.19

EDGEWOOD GREENS - PUMP STATION CATCHMENT

SANITARY SEWER DESIGN MODEL - 2nd Submission

DESIGN: CHECK:	J.Korzeniowski D. Tone, P. Eng./ B Powers													N = 0.013 Population= 3.5 p.p.u.	Peak Factor (M) = 1+(14/4+(P/1000)^0.5) Avg. Daily/Capita Flow = 350 L/cap.d Q infiltration = 0.15 L/ha.s									
Catchment Area	FROM MH	TO MH	Length (m)	Inc. Area (Ha)	Cum. Area (Ha)	Lots	Inc. Pop	TOTAL trib pop	Peak Factor	Avg. Flow (l/s)	Max Flow (l/s)	Infilt. (l/s)	Total Infilt.	Combined (l/s)	Pipe Diam (mm)	Upper Inv. El.	Lower Inv. El.	Slope (%)	Cap. (l/s)	Vel. (m/s)	Ground Upper	Ground Lower	Cover Upper	Cover Lower
21	25	32	71.8	0.43	0.43	11	39	39	4.34	0.16	0.68	0.06	0.06	0.74	200	517.83	516.84	1.38%	38.53	1.23	520.63	520.04	2.6	2.7
22	32	33	65.7	0.45	0.88	11	39	77	4.27	0.31	1.33	0.07	0.13	1.46	200	516.82	515.39	2.18%	48.43	1.54	520.04	518.56	3.0	2.7
23	33	34	16.6	0.31	1.19	3	11	88	4.26	0.35	1.51	0.05	0.18	1.69	200	515.34	514.83	3.06%	57.37	1.83	518.56	518.13	3.0	2.8
24	34	27	68.3	0.61	1.80	10	35	123	4.22	0.50	2.09	0.09	0.27	2.36	200	514.78	514.10	1.00%	32.80	1.04	518.13	517.42	3.2	2.8
18	24	26	80.6	0.40	0.40	12	42	42	4.33	0.17	0.74	0.06	0.06	0.80	200	516.10	515.02	1.33%	37.83	1.20	518.86	518.05	2.6	2.5
17	26	27	68.6	0.28	0.68	8	28	70	4.28	0.28	1.21	0.04	0.10	1.32	200	515.00	514.32	1.00%	32.80	1.04	518.05	517.42	2.8	2.6
16	27	14	37.4	0.18	2.66	3	11	203	4.15	0.82	3.41	0.03	0.40	3.81	200	514.08	513.63	1.21%	36.08	1.15	517.42	517.41	3.1	3.3
	14	Pump Station	13.5	22.30				1603	3.66	6.49	23.76		3.35	27.10	250	509.47	509.43	0.30%	32.57	0.66	517.41	N/A	N/A	N/A

APPENDIX D

PRELIMINARY DOMESTIC WATER FLOW RATE
CALCULATIONS
FIRE SUPPRESSION FLOW RATE CALCULATIONS



Project: Flato Commercial

Project No.: 1060-5384

Date: 2020-15-10

Flato Commercial - Water Flow Requirements

Site Area	0.67 ha
Equivalent Mixed Use Population (See Appendix A)	19 persons

Water Design Flows

Commercial	450 L/C-day
------------	-------------

Total Domestic Water Design Flows

Average Daily Flow	0.1 L/s
--------------------	---------

Max Day Peak Factor	2.75
---------------------	------

Max Day Demand Flow	0.3 L/s
---------------------	---------

Peak Hour Factor	4.1
------------------	-----

Peak Hour Flow	0.4 L/s
----------------	---------

Fire Flow (per Fire Underwriters Survey)	150 L/s
------------------------------------------	---------

(note minimum fire flow per Town Standard is 57 L/sec)

Peak Design Flow	150.3 L/s
-------------------------	------------------

FLATO COMMERCIAL
Fire Protection Volume Calculation
CFCA File: 1060-5384

* Based on Site Plan

October 23, 2020

Page 1

Water Supply for Public Fire Protection - 1999
Fire Underwriters Survey

Part II - Guide for Determination of Required Fire Flow

1. An estimate of fire flow required for a given area may be determined by the formula:

$$F = 220 * C * \sqrt{A}$$

where

F = the required fire flow in litres per minute
C = coefficient related to the type of construction
= 1.5 for wood frame construction (structure essentially all combustible)
= 1.0 for ordinary construction (brick or other masonry walls, combustible floor and interior)
= 0.8 for non-combustible construction (unprotected metal structural components)
= 0.6 for fire-resistive construction (fully protected frame, floors, roof)
A = The total floor area in square metres (including all storeys, but excluding basements at least 50 percent below grade) in the building considered.

Ordinary Construction
0.8 C

1 number of floors
1635 sq.m. total floor area

Therefore F= **7,000 L/min (rounded to nearest 1000 L/min)**

Fire flow determined above shall not exceed:

30,000 L/min for wood frame construction
30,000 L/min for ordinary construction
25,000 L/min for non-combustible construction
25,000 L/min for fire-resistive construction

2. Values obtained in No. 1 may be reduced by as much as 25% for occupancies having low contents fire hazard or may be increased by up to 25% surcharge for occupancies having a high fire hazard.

Non-Combustible	-25%	Free Burning	15%
Limited Combustible	-15%	Rapid Burning	25%
Combustible	No Charge		

Low fire Hazard occupancy for dwellings	0% reduction
	0 L/min reduction

Note: Flow determined shall not be less than 2,000 L/min

3. Sprinklers - The value obtained in No. 2 above may be reduced by up to 50% for complete automatic sprinkler protection.

Automatic Sprinklers (30% Reduction)
0 L/min surcharge / reduction

FLATO COMMERCIAL
Fire Protection Volume Calculation
CFCA File: 1060-5384

* Based on Site Plan

Page 2

Water Supply for Public Fire Protection - 1999

Fire Underwriters Survey

Part II - Guide for Determination of Required Fire Flow

4. Exposure - To the value obtained in No. 2, a percentage should be added for structures exposed within 45 metres by the fire area under consideration. The percentage shall depend upon the height, area, and construction of the building(s) being exposed, the separation, openings in the exposed building(s), the length and height of exposure, the provision of automatic sprinklers and/or outside sprinklers in the building(s) exposed, the occupancy of the exposed building(s) and the effect of hillside locations on the possible spread of fire.

Separation	Charge	Separation	Charge
0 to 3 m	25%	20.1 to 30 m	10%
3.1 to 10 m	20%	30.1 to 45 m	5%
10.1 to 20 m	15%		

Exposed buildings

Name		Distance		
Northwest	Town Houses	8	20%	1400
Southeast	Single Houses	27.5	10%	700
Northeast	N/A			
Southwest	Town Houses	55	0%	0 2,100 L/min Surcharge

Determine Required Fire Flow

No. 1	7,000
No. 2	0 reduction
No. 3	0 reduction
No. 4	<u>2,100</u> surcharge

Required Duration of Fire Flow	
Flow Required L/min	Duration (hours)
2,000 or less	1.0
3,000	1.25
4,000	1.5
5,000	1.75
6,000	2.0
8,000	2.0
10,000	2.0
12,000	2.5
14,000	3.0
16,000	3.5
18,000	4.0
20,000	4.5
22,000	5.0
24,000	5.5
26,000	6.0
28,000	6.5
30,000	7.0
32,000	7.5
34,000	8.0
36,000	8.5
38,000	9.0
40,000 and over	9.5

Determine Required Fire Storage Volume

Flow from above 9,000 L/min

Required duration 2.00 hours

Therefore: 1,080,000 Litres or
 1,080 cu.m. is the required fire storage volume.

FLATO COMMERCIAL
Fire Protection Volume Calculation
CFCA File: 1060-5384

* Based on Site Plan

Page 3

Calculation Check

Office of the Fire Marshall - Fire Protection Water Supply Guideline for Part 3 in the OBC (October 2006)

$$Q = KVS_{TOT}$$

Q = minimum supply of water in litres (L)

K = water supply coefficient

V = total building volume in cubic metres

S_{TOT} = total of spatial coefficient values from property line exposures on all sides

K = 16 Group C building with noncombustible construction (Table 1 Row 2)

V = 7357.5 $h=4.5 \text{ m area}= 1635 \text{ m}^2$ -> height from Table 5 Performance Standards #1 of Section 3: Performance Standards for Mid-Rise Buildings

S_{TOT} = 1 S_{TOT} Need Not Exceed 2.0

$$Q = 117720 \text{ L}$$

Table 2

3600 L/min

60 L/s

APPENDIX E

COMMERCIAL BLOCK STORM DESIGN SHEET

DUNDALK MEADOWS - COMMERCIAL BLOCK
 5 YEAR - STORM SEWER DESIGN SHEET

			FREQUENCY							5 YEARS - Dundalk IDF			100 YEARS -Dundalk IDF						
			5 YEARS		Coef. A=		30.6	Coef. B=		-0.70	Coef. A=	Coef. B=							
			TIME OF CONCENTRATION							10.00	MANNINGS "n"			0.013					
CATCHMENT AREA I.D.	FR MH NO	TO MH NO	RUN-OFF	Cummul.	TIME OF						PIPE	VEL.		TIME					
			AREA (A) (Ha)	COEFF (C _s)	A x C	A x C	CONC. (min.)	I (mm/hr)	Q (RUNOFF) (l/sec)	SLOPE (%)	DIA. (mm)	(m/sec)	LENGTH (m)	OF FLOW (min)	CAPACITY (l/sec)	Percent Full			
4	CB1	CBMH2	0.09	0.98	0.092	0.092	10.00	107.07	27.29	0.40	300	0.87	40.00	0.77	61.16	44.6			
3	CBMH2	CBMH1	0.08	0.98	0.078	0.170	10.77	101.65	48.07	0.40	300	0.87	29.00	0.56	61.16	78.6			
2, Building 1	CB2	CBMH1	0.13	0.98	0.132	0.132	10.00	107.07	39.20	0.40	300	0.87	26.60	0.51	61.16	64.1			
1	CBMH1	MH1	0.08	0.98	0.078	0.380	11.33	98.12	103.71	0.50	450	1.27	14.50	0.19	201.60	51.4			
5, Building 2	CBMH3	MH1	0.18	0.98	0.181	0.181	10.00	107.07	53.88	0.40	300	90.30	19.00	0.00	6382.93	0.8			
	MH1	OUTLET	0.00	0.98	0.000	0.561	11.52	96.98	151.31	0.50	450	1.27	15.00	0.20	201.60	75.1			

APPENDIX F

HYDROLOGICAL PARAMATER SHEETS



Project Name: Edgewood Greens
 Project Number: 1060-4892
 Date: February 12, 2019
 By: H. Birrell

D.A. NAME Ext 1
 D.A. AREA (ha) 41.2

Hydrologic Parameters: NASHYD Command
Pre-Development - Unnamed Tributary

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	74.15	30.55
Harriston Silt Loam	Hs	B	25.85	10.65
			0.00	0.00
			0.00	0.00
Total Area				41.20

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	3.0	98	98	98	98	98	4.4	98	98	98	7.4	725.2
Hs	0.3	98	98	98	98	98	0.3	98	98	98	0.6	58.8
0	98	98	98	98	98	98	98	98	98	98	0	0
0	98	98	98	98	98	98	98	98	98	98	0	0
Subtotal Area	3.3		0		0		4.7		0			

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	4.62	60	6.48	65	0.00	50	5.01	69	7.05	74	23.15	1565.12
Hs	0.92	60	0.00	65	0.00	50	5.53	69	3.60	74	10.05	703.15
0	0.00		0.00		0.00		0.00		0.00		0.00	0.00
0	0.00		0.00		0.00		0.00		0.00		0.00	0.00
Subtotal Area	5.54		6.48		0.00		10.53		10.65			

				Composite Area Calculations				Total Pervious Area			
								Total Impervious Area			
								% Impervious			
								Composite Curve Number			
								Total Area Check			
								41.2			

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harrison Silt Loam		0		0		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	5.541	55.41002	0.25	4.62	0.25	0.92	0		0		1.38525
Meadow	8	6.4765	51.81195	0.28	6.48	0	0	0		0		1.81342
Wetland	16	0	0	0.00		0		0		0		0
Lawn/Pasture	5	10.534	52.6692	0.28	5.01	0.28	5.53	0		0		2.94948
Cultivated	7	10.649	74.54064	0.35	7.05	0.35	3.60	0.00		0		3.72703
Impervious	2	8	16	0.95	7.40	0.95	0.60	0		0		7.6
Composite IA		41.2	6.078442	Composite Runoff Coefficient								0.42415

Time to Peak Inputs					Uplands		Bransby Williams		Airport			
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Channel	950	8.5	0.89%	4.6	0.44	0.61	0.41	0.70	0.85	0.57	1.38	0.92
Overland	300	2	0.67%	2.3	0.19	0.44	0.30					
Appropriate calculated time to peak:					0.57	Appropriate Method:		Bransby Williams				



Project Name: Edgewood Greens
 Project Number: 1060-4892
 Date: February 12, 2019
 By: H.B

D.A. NAME Pre 2
D.A. AREA (ha) 14.85

Hydrologic Parameters: NASHYD Command Pre-Development - Unnamed Tributary

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	14.85
Harriston Silt Loam	Hs	B	0.00	0.00
			0.00	0.00
			0.00	0.00
Total Area				14.85

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	0	98	98	98	98	98	98	98	98	98	0	0
Hs	0	98	98	98	98	98	98	98	98	98	0	0
0	98	98	98	98	98	98	98	98	98	98	0	0
0	98	98	98	98	98	98	98	98	98	98	0	0
Subtotal Area	0		0		0		0		0			

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	0.00	60	0.00	65	0.00	50	0.00	69	14.85	74	14.85	1098.90
Hs	0.00	60	0.00	65	0.00	50	0.00	69	0.00	74	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.00		14.85			

				Composite Area Calculations				Total Pervious Area			
								Total Impervious Area			
								% Impervious			
								Composite Curve Number			
								Total Area Check			
								14.85			

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harriston Silt Loam		0		0		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	0	0	0.25	0.00	0.25	0.00	0		0		0
Meadow	8	0	0	0.28	0.00	0		0		0		0
Wetland	16	0	0	0.00		0		0		0		0
Lawn/Pasture	5	0	0	0.28	0.00	0.28	0.00	0		0		0
Cultivated	7	14.85	103.95	0.35	14.85	0.35	0.00	0.00		0		5.1975
Impervious	2	0	0	0.95	0.00	0.95	0.00	0		0		0
Composite IA		14.85	7	Composite Runoff Coefficient								0.35

Time to Peak Inputs					Uplands		Bransby Williams		Airport				
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)	
Channel	500	3.2	0.64%	4.6	0.37	0.38	0.25	0.39	0.52	0.35	1.12	0.75	
Overland	200	3	1.50%	2.3	0.28	0.20	0.13						
Appropriate calculated time to peak:					0.75	Appropriate Method:		Airport					



Project Name: Edgewood Greens
 Project Number: 1060-4892
 Date: February 12, 2019
 By: HB

D.A. NAME Ext 3
 D.A. AREA (ha) 1.55

Hydrologic Parameters: NASHYD Command Pre-Development - Unnamed Tributary

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	1.55
Harriston Silt Loam	Hs	B	0.00	0.00
			0.00	0.00
			0.00	0.00
Total Area				1.55

Impervious Landuses Present:											
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals
	Area (ha)	CN									
Ls	0	98	98	98	98	98	98	98	98	98	0 0
Hs	0	98	98	98	98	98	98	98	98	98	0 0
0	98	98	98	98	98	98	98	98	98	98	0 0
0	98	98	98	98	98	98	98	98	98	98	0 0
Subtotal Area	0		0		0		0		0		

Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
Ls	1.55	60	0.00	65	0.00	50	0.00	69	0.00	74	1.55 93.00
Hs	0.00	60	0.00	65	0.00	50	0.00	69	0.00	74	0.00 0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
Subtotal Area	1.55		0.00	0.00	0.00		0.00		0.00		

				Composite Area Calculations				Total Pervious Area		
								Total Impervious Area		
								% Impervious		
								Composite Curve Number		
								60.0		
								Total Area Check		
								1.55		

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harrison Silt Loam		0		0		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	1.55	15.5	0.25	1.55	0.25	0.00	0	0	0	0.3875	
Meadow	8	0	0	0.28	0.00	0	0	0	0	0	0	
Wetland	16	0	0	0.00	0	0	0	0	0	0	0	
Lawn/Pasture	5	0	0	0.28	0.00	0.28	0.00	0	0	0	0	
Cultivated	7	0	0	0.35	0.00	0.35	0.00	0.00	0	0	0	
Impervious	2	0	0	0.95	0.00	0.95	0.00	0	0	0	0	
Composite IA		1.55	10	Composite Runoff Coefficient							0.25	

Time to Peak Inputs					Uplands		Bransby Williams		Airport			
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Channel	100	0.89	0.89%	4.6	0.43	0.06	0.04	0.14	0.19	0.13	0.71	0.47
Overland	100	0.67	0.67%	2.3	0.19	0.15	0.10					
Appropriate calculated time to peak:					0.47	Appropriate Method:		Airport				



Project Name: Edgewood Greens
 Project Number: 1060-4892
 Date: February 12, 2019
 By: HB

D.A. NAME Ext 2
 D.A. AREA (ha) 417.20

**Hydrologic Parameters: NASHYD Command
 Pre-Development - Foley Drain**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	16.9	70.61
Harriston Silt Loam	Hs	B	52.1	217.30
Parkhill Loam	Pal	C	6.8	28.37
Muck	M	D	24.2	100.92
Total Area				417.20

Impervious Landuses Present:

Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	1.8	98		98		98		98		98	1.8167	178.0349
Hs	4.9	98		98		98		98		98	4.9195	482.1064
Pal		98		98		98		98		98	0	0
M		98		98		98		98		98	0	0
Subtotal Area	6.74		0		0		0		0			

Pervious Landuses Present:

Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	19.44	60	3.04	65	0.01	50	4.13	69	42.17	74	68.79	4770.28
Hs	20.32	60	9.17	65	0.05	50	11.85	69	171.00	74	212.38	15289.03
Pal	2.82	73	4.43	76	0.00	50	0.97	79	20.14	82	28.37	2271.07
M	58.35	79	18.28	81	0.02	50	0.02	84	24.26	86	100.92	8178.53
Subtotal Area	100.92		34.92		0.08		16.96		257.57			
				Composite Area Calculations				Total Pervious Area Total Impervious Area % Impervious Composite Curve Number				410.46 6.7361 0.016 74.7
								Total Area Check				417.2

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harriston Silt Loam		Parkhill Loam		Muck		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	100.9	1009.2	0.25	19.44	0.25	20	0.35	3	0.35	58	31.34738
Meadow	8	34.9	279.4	0.28	3.04	0.28	9	0.40	4	0.40	18	12.50393
Wetland	16	0.1	1.3	0.05	0.01	0.05	0.05	0.05	0	0.05	0.02	0.004182
Lawn/Pasture	5	17.0	84.8	0.28	4.13	0.28	12	0.40	1	0.40	0	4.867269
Cultivated	7	257.6	1803.0	0.35	42.17	0.35	171.00	0.55	20.14	0.55	24	99.03074
Impervious	2	6.7	13.5	0.95	1.82	0.95	5	0.95	0	0.95	0	6.399328
Composite IA		417.2	7.65	Composite Runoff Coefficient								0.369494

Flow Path Description	Time to Peak Inputs					Uplands		Bransby Williams		Airport		
	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp (hr)	TOTAL Tp (hr)	Tc (hr)	Tp (hr)	Tc (hr)	Tp (hr)
Channel	4150	15	0.36%	4.6	0.28	4.17	2.79	3.08	2.79	1.87	3.51	2.35
Overland	400	5	1.25%	2.3	0.26	0.43	0.29					

Appropriate calculated time to peak: 1.87 Appropriate Method: Bransby Williams



Project Name: Edgewood Greens
Project Number: 1060-4892
Date: February 12, 2019
By: HB

D.A. NAME Pre 3
D.A. AREA (ha) 29.18

Hydrologic Parameters: NASHYD Command Pre-Development - Foley Drain

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	73.0	21.30
Harriston Silt Loam	Hs	B	0.0	0.00
Parkhill Loam	Pal	C	27.0	7.88
Muck	M	D	0.0	0.00
Total Area				29.18

Impervious Landuses Present:

Pervious Landuses Present:

Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	0.00	60	0.00	65	0.00	50	0.00	69	21.30	74	21.30	1576.30
Hs	0.00	60	0.00	65	0.00	50	0.00	69	0.00	74	0.00	0.00
Pal	0.00	73	0.00	76	0.00	50	0.00	79	7.88	82	7.88	646.05
M	0.00	79	0.00	81	0.00	50	0.00	84	0.00	86	0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.00		29.18			
								Total Pervious Area				29.18
								Total Impervious Area				0
								% Impervious				0.000
								Composite Curve Number				76.2
								Total Area Check				29.18

Initial Abstraction and Tp Calculations

Time to Peak Inputs					Uplands			Bransby Williams		Airport		
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Channel	350	2	0.57%	4.6	0.35	0.28	0.19	0.40	0.46	0.31	0.96	0.64
Overland	350	6	1.71%	2.3	0.30	0.32	0.22					

Appropriate calculated time to peak: 0.64 Appropriate Method: Airport



CROZIER
& ASSOCIATES
Consulting Engineers

Project Name: Edgewood Greens
Project Number: 1060-4892
Date: February 12, 2019
By: HB

D.A. NAME Ext 4
D.A. AREA (ha) 6.30

Hydrologic Parameters: NASHYD Command Pre-Development - Foley Drain

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	63.4	3.99
Harriston Silt Loam	Hs	B	0.0	0.00
Parkhill Loam	Pal	C	36.7	2.31
Muck	M	D	0.0	0.00
Total Area				6.30

Impervious Landuses Present:

Impervious Landuses Present:										Subtotals		
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Area	A*CN
	Area (ha)	CN										
Ls	0.00	98		98		98		98		98	0	0
Hs	0.00	98		98		98		98		98	0	0
Pal		98		98		98		98		98	0	0
M		98		98		98		98		98	0	0
Subtotal Area		0		0		0		0		0		

Pervious Landuses Present:

Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	3.99	60	0.00	65	0.00	50	0.00	69	0.00	74	3.99	239.46
Hs	0.00	60	0.00	65	0.00	50	0.00	69	0.00	74	0.00	0.00
Pal	2.31	73	0.00	76	0.00	50	0.00	79	0.00	82	2.31	168.55
M	0.00	79	0.00	81	0.00	50	0.00	84	0.00	86	0.00	0.00
Subtotal Area	6.30		0.00		0.00		0.00		0.00			
								Total Pervious Area Total Impervious Area % Impervious Composite Curve Number				6.30
				Composite Area Calculations								0
												0.000
												64.8
								Total Area Check				6.3

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harriston Silt Loam		Parkhill Loam		Muck		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	6.3	63.0	0.25	3.99	0.25	0	0.35	2	0.35	0	1.805895
Meadow	8	0.0	0.0	0.28	0.00	0.28	0	0.40	0	0.40	0	0
Wetland	16	0.0	0.0	0.05	0.00	0.05	0.00		0	0.05	0.00	0
Lawn/Pasture	5	0.0	0.0	0.28	0.00	0.28	0	0.40	0	0.40	0	0
Cultivated	7	0.0	0.0	0.35	0.00	0.35	0.00	0.55	0.00	0.55	0	0
Impervious	2	0.0	0.0	0.95	0.00	0.95	0	0.95	0	0.95	0	0
Composite IA		6.3	10.0	Composite Runoff Coefficient						0.28665		

Time to Peak Inputs					Uplands			Bransby Williams		Airport		
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Channel	100	0.65	0.65%	4.6	0.37	0.07	0.05	0.34	0.39	0.26	0.95	0.64
Overland	400	5	1.25%	2.3	0.26	0.43	0.29					

Appropriate calculated time to peak: 0.64 Appropriate Method: Airport

NOTE: REVISED TO INCLUDE PROPOSED COMMERCIAL BLOCK



Project Name:	Edgewood Greens	D.A. NAME	FB2
Project Number:	1060-5384	D.A. AREA (ha)	10.10
Date:	2020.11.03		
By:	HB		

**Hydrologic Parameters: STANDHYD Command
Post-Development**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	10.10
			0.00	
			0.00	
			0.00	
Total Area Check			10.10	

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	2.55	98		98	0.60	98	2.69	98		98	5.85	572.9
0	0	98		98	0	98	0	98		98	0.00	0.00
0	0	98		98	0	98	0	98		98	0.00	0.00
0	0	98		98	0	98	0	98		98	0.00	0.00
Subtotal Area	2.55		0		0.60		2.69					

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area	A*CN						
Ls	0		0		0		4.3	74	0		4.25	315
0	0		0		0		0.00		0		0.00	0.00
0	0		0		0		0.00		0		0.00	0.00
0	0		0		0		0.00		0		0.00	0.00
Subtotal Area	0		0		0		4.25		0			

Note: % X imp and % T imp given	Pervious Area Calculations	Total Pervious Area	4.25
		Composite Pervious Curve Number (*)	74.0
	Impervious Area Calculations	Total Directly Connected Area	3.15
		Total Indirectly Connected Area	2.69
		Total Impervious Area	5.85
		% X imp	31.2
		% T imp	57.9
		Total Area Check	10.1

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	4.25	21.2715
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0%	40	0.25
Impervious	2.0	0.5%	259	0.013

*Impervious travel length calculated by $LGI = (A/1.5)^{0.5}$



Project Name: Edgewood Greens D.A. NAME SWM #3
 Project Number: 1060-5384 D.A. AREA (ha) 1.21
 Date: 2020.01.13
 By: H. Birrell

**Hydrologic Parameters: STANDHYD Command
Post-Development**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	1.21
			0.00	
			0.00	
			0.00	
Total Area Check			1.21	

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area	A*CN						
Ls	98	98	98	98	98	98	98	0.61	98	98	0.61	59.3
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
Subtotal Area	0.00		0		0.00		0.00		0.61		0.61	

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area	A*CN						
Ls	0	0	0	0	0	0	0.61	74	0	0	0.61	45
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
Subtotal Area	0		0		0		0.61		0			

Note: % X imp and % T imp given	Pervious Area Calculations	Total Pervious Area	0.61
		Composite Pervious Curve Number (*)	74.0
		Total Directly Connected Area	0.61
	Impervious Area Calculations	Total Indirectly Connected Area	0.00
		Total Impervious Area	0.61
		% X imp	50.0
% T imp	50.0		
Total Area Check	1.21		

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.61	3.025
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0%	40	0.25
Impervious	2.0	0.5%	90	0.013

*Impervious travel length calculated by $LGI = (A/1.5)^{0.5}$



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: HB

D.A. NAME Ext 4
 D.A. AREA (ha) 6.30

**Hydrologic Parameters: NASHYD Command
 Post-Development - Foley Drain**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	63.4	3.99
Harriston Silt Loam	Hs	B	0.0	0.00
Parkhill Loam	Pal	C	36.7	2.31
Muck	M	D	0.0	0.00
Total Area				6.30

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	0.00	98	98	98	98	98	98	98	98	98	0	0
Hs	0.00	98	98	98	98	98	98	98	98	98	0	0
Pal	98	98	98	98	98	98	98	98	98	98	0	0
M	98	98	98	98	98	98	98	98	98	98	0	0
Subtotal Area	0		0		0		0		0			

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	3.99	60	0.00	65	0.00	50	0.00	69	0.00	74	3.99	239.46
Hs	0.00	60	0.00	65	0.00	50	0.00	69	0.00	74	0.00	0.00
Pal	2.31	73	0.00	76	0.00	50	0.00	79	0.00	82	2.31	168.55
M	0.00	79	0.00	81	0.00	50	0.00	84	0.00	86	0.00	0.00
Subtotal Area	6.30		0.00		0.00		0.00		0.00			

		Total Pervious Area	6.30
		Total Impervious Area	0
		% Impervious	0.000
		Composite Curve Number	64.8
		Total Area Check	6.3

Initial Abstraction and Tp Calculations

Initial Abstraction			Composite Curve Number									
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harrison Silt Loam		Parkhill Loam		Muck		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	6.3	63.0	0.25	3.99	0.25	0	0.35	2	0.35	0	1.805895
Meadow	8	0.0	0.0	0.28	0.00	0.28	0	0.40	0	0.40	0	0
Wetland	16	0.0	0.0	0.05	0.00	0.05	0.00	0.00	0	0.05	0.00	0
Lawn/Pasture	5	0.0	0.0	0.28	0.00	0.28	0	0.40	0	0.40	0	0
Cultivated	7	0.0	0.0	0.35	0.00	0.35	0.00	0.55	0.00	0.55	0	0
Impervious	2	0.0	0.0	0.95	0.00	0.95	0	0.95	0	0.95	0	0
Composite IA	6.3	10.0		Composite Runoff Coefficient								0.28665

Time to Peak Inputs					Uplands		Bransby Williams		Airport			
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Channel	100	0.65	0.65%	4.6	0.37	0.07	0.05	0.34	0.39	0.26	0.95	0.64
Overland	400	5	1.25%	2.3	0.26	0.43	0.29					

Appropriate calculated time to peak: 0.64 Appropriate Method: Airport



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: H. Birrell

D.A. NAME FB Z1 - 2
 D.A. AREA (ha) 5.68

**Hydrologic Parameters: NASHYD Command
 Post-Development - West WS (Full Buildout)**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	5.68
Harriston Silt Loam	Hs	B	0.00	0.00
			0.00	0.00
			0.00	0.00
Total Area				5.68

Impervious Landuses Present:													
Soils		Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN	
Ls	0.1	98		98		98		0.6	98		98	0.7 68.6	
Hs	0	98		98		98		98	98		98	0 0	
0	98		98		98		98	98		98	0 0		
0	98		98		98		98	98		98	0 0		
Subtotal Area	0.1		0		0		0.6		0				

Pervious Landuses Present:													
Soils		Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
Soils	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN	
Ls	0.00	60	0.00	65	0.00	50	0.00	74	4.98	74	4.98	368.52	
Hs	0.00	60	0.00	65	0.00	50	0.00	74	0.00	74	0.00	0.00	
0	0.00		0.00		0.00		0.00		0.00		0.00	0.00	
0	0.00		0.00		0.00		0.00		0.00		0.00	0.00	
Subtotal Area	0.00		0.00		0.00		0.00		4.98				



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: HB

D.A. NAME
 D.A. AREA (ha)

MINOR
 0.21

Hydrologic Parameters: STANDHYD Command Post-Development

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	0.21
			0.00	
			0.00	
			0.00	
Total Area Check				0.21

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	0.05	98	98	98	0.08	98	0.00	98	98	98	0.13	12.6
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
Subtotal Area	0.05		0		0.08		0.00					

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area	A*CN						
Ls	0	0	0	0	0	0	0.1	74	0	0	0.08	6
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
Subtotal Area	0		0		0		0.08		0			

Note:	% X imp and % T imp given	Pervious Area Calculations Impervious Area Calculations	Total Pervious Area	0.08
			Composite Pervious Curve Number (*)	74.0
			Total Directly Connected Area	0.13
			Total Indirectly Connected Area	0.00
			Total Impervious Area	0.13
			% X imp	61.4
			% T imp	61.4
			Total Area Check	0.21

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.08	0.4
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0%	40	0.25
Impervious	2.0	0.5%	37	0.013

*Impervious travel length calculated by $LGI = (A/1.5)^{0.5}$



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: HB

D.A. NAME
 D.A. AREA (ha)

FBI-A
 0.33

Hydrologic Parameters: STANDHYD Command Post-Development

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	0.33
			0.00	
			0.00	
			0.00	
Total Area Check				0.33

Impervious Landuses Present:											
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals
	Area (ha)	CN									
Ls	0.00	98	98	98	0.00	98	0.13	98	98	98	0.13 12.7
0	98	98	98	98	98	98	98	98	98	98	0.00 0.00
0	98	98	98	98	98	98	98	98	98	98	0.00 0.00
0	98	98	98	98	98	98	98	98	98	98	0.00 0.00
Subtotal Area	0.00		0		0.00		0.13				

Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals
	Area (ha)	CN	Area (ha)	CN							
Ls	0	0	0	0	0	0	0.2	74	0	0	0.20 15
0	0	0	0	0	0	0	0.00	0	0	0	0.00 0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00 0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00 0.00
Subtotal Area	0		0		0		0.20		0		

Note:	% X imp and % T imp given	Pervious Area Calculations Impervious Area Calculations	Total Pervious Area	0.20
			Composite Pervious Curve Number (*)	74.0
			Total Directly Connected Area	0.00
			Total Indirectly Connected Area	0.13
			Total Impervious Area	0.13
			% X imp	0.0
			% T imp	39.4
			Total Area Check	0.33

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.20	1
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0%	40	0.25
Impervious	2.0	0.5%	47	0.013

*Impervious travel length calculated by $LGI = (A/1.5)^{0.5}$



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: July 3, 2019
 By: HB

D.A. NAME
 D.A. AREA (ha) **14.70**

FB1

**Hydrologic Parameters: STANDHYD Command
Post-Development**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	14.70
			0.00	
			0.00	
			0.00	
Total Area Check				14.70

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	4.50	98	98	98	0.50	98	3.10	98	98	98	8.10	793.8
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
Subtotal Area	4.50		0		0.50		3.10					

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area	A*CN						
Ls	0	0	0	0	0	0	6.6	74	0	0	6.60	488
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
Subtotal Area	0		0		0		6.60		0			

Note:	% X imp and % T imp given	Pervious Area Calculations Impervious Area Calculations	Total Pervious Area	6.60
			Composite Pervious Curve Number (*)	74.0
			Total Directly Connected Area	5.00
			Total Indirectly Connected Area	3.10
			Total Impervious Area	8.10
			% X imp	34.0
			% T imp	55.1
			Total Area Check	14.70

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	6.60	33
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0%	40	0.25
Impervious	2.0	0.5%	313	0.013

*Impervious travel length calculated by LGI = (A/1.5)^0.5



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: H. Birrell

D.A. NAME
 D.A. AREA (ha)

FB Z1 - 3
 1.0

Hydrologic Parameters: STANDHYD Command
Post-Development (Full Buildout)

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	0.98
			0.00	
			0.00	
			0.00	
Total Area Check				0.98

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	0.29	98	0	98	0	98	0.20	98	98	98	0.49	48.0
0	98	98	0	98	0	98	98	98	98	98	0.00	0.00
0	98	98	0	98	0	98	98	98	98	98	0.00	0.00
0	98	98	0	98	0	98	98	98	98	98	0.00	0.00
Subtotal Area	0.29		0		0.00		0.20		0.00		0.49	

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area	A*CN						
Ls	0	0	0	0	0	0	0.49	74	0	0	0.49	36
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
Subtotal Area	0		0		0		0.49		0			

Note: % X imp and % T imp given		Pervious Area Calculations	Total Pervious Area	0.49
			Composite Pervious Curve Number (*)	74.0
		Impervious Area Calculations	Total Directly Connected Area	0.29
			Total Indirectly Connected Area	0.20
			Total Impervious Area	0.49
			% X imp	30.0
			% T imp	50.0
			Total Area Check	0.98

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.49	2.45
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0%	40	0.25
Impervious	2.0	0.5%	81	0.013

*Impervious travel length calculated by LGI = (A/1.5)^0.5



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 6, 2019
 By: H. Birrell

D.A. NAME
 D.A. AREA (ha)

FB Z1 - 1
 12.4

Hydrologic Parameters: STANDHYD Command
Post-Development (Full Buildout)

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	12.37
			0.00	
			0.00	
			0.00	
Total Area Check				12.37

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	3.71	98	98	98	98	98	2.47	98	98	98	6.19	606.1
0	0	98	98	98	98	98	0.00	98	98	98	0.00	0.00
0	0	98	98	98	98	98	0.00	98	98	98	0.00	0.00
0	0	98	98	98	98	98	0.00	98	98	98	0.00	0.00
Subtotal Area	3.71		0		0.00		2.47		0.00		6.19	

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area	A*CN						
Ls	0	0	0	0	0	0	6.185	74	0	0	6.19	458
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
Subtotal Area	0		0		0		6.19		0			

Note: % X imp and % T imp given		Pervious Area Calculations	Total Pervious Area	6.19
			Composite Pervious Curve Number (*)	74.0
		Impervious Area Calculations	Total Directly Connected Area	3.71
			Total Indirectly Connected Area	2.47
			Total Impervious Area	6.19
			% X imp	30.0
			% T imp	50.0
			Total Area Check	12.37

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	6.19	30.925
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0%	40	0.25
Impervious	2.0	0.5%	287	0.013

*Impervious travel length calculated by LGI = (A/1.5)^0.5



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: July 3, 2019
 By: H. Birrell

D.A. NAME NAT
 D.A. AREA (ha) 6.51

Hydrologic Parameters: NASHYD Command Pre-Development - Foley Drain

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	73.0	4.75
Harriston Silt Loam	Hs	B	0.0	0.00
Parkhill Loam	Pal	C	27.0	1.76
Muck	M	D	0.0	0.00
Total Area				6.51

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	0	98	98	98	98	0.79	98	98	98	98	0.79	77.42
Hs	0	98	98	98	98		98	98	98	98	0	0
Pal	98	98	98	98	98		98	98	98	98	0	0
M	98	98	98	98	98		98	98	98	98	0	0
Subtotal Area	0		0		0	0.79		0				

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	0.00	60	0.00	65	0.00	50	0.00	69	3.96	74	3.96	293.21
Hs	0.00	60	0.00	65	0.00	50	0.00	69	0.00	74	0.00	0.00
Pal	0.00	73	0.00	76	0.00	50	0.00	79	1.76	82	1.76	144.13
M	0.00	79	0.00	81	0.00	50	0.00	84	0.00	86	0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.00		5.72			

		Total Pervious Area	5.72
		Total Impervious Area	0.79
		% Impervious	0.121
		Composite Curve Number	79.1
		Total Area Check	6.51

Initial Abstraction and Tp Calculations

Initial Abstraction			Composite Curve Number									
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harrison Silt Loam		Parkhill Loam		Muck		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	0.0	0.0	0.25	0.00	0.25	0	0.35	0	0.35	0	0
Meadow	8	0.0	0.0	0.28	0.00	0.28	0	0.40	0	0.40	0	0
Wetland	16	0.0	0.0	0.05	0.00	0.05	0.00	0.00	0	0.05	0.00	0
Lawn/Pasture	5	0.0	0.0	0.28	0.00	0.28	0	0.40	0	0.40	0	0
Cultivated	7	5.7	40.0	0.35	3.96	0.35	0.00	0.55	1.76	0.55	0	2.35354
Impervious	2	0.8	1.6	0.95	0.79	0.95	0	0.95	0	0.95	0	0.7505
Composite IA	6.5	6.4		Composite Runoff Coefficient								0.48

Time to Peak Inputs					Uplands		Bransby Williams		Airport			
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Channel	350	2	0.57%	4.6	0.35	0.28	0.19	0.40	0.54	0.36	0.86	0.57
Overland	350	6	1.71%	2.3	0.30	0.32	0.22	0.40				

Appropriate calculated time to peak: 0.36 Appropriate Method: Bransby Williams



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: H. Birrell

D.A. NAME
 D.A. AREA (ha)

SWMF2
 1.11

Hydrologic Parameters: STANDHYD Command Post-Development

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	1.11
			0.00	0.00
			0.00	0.00
			0.00	0.00
Total Area Check				1.11

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	98	98	98	98	98	98	98	98	98	98	0.56	54.9
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
Subtotal Area	0.00		0		0.00		0.00		0.56		0.56	

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area	A*CN						
Ls	0	0	0	0	0	0	0.6	74	0	0	0.55	41
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
Subtotal Area	0		0		0		0.56		0			

Note: % X imp and % T imp given	Pervious Area Calculations	Total Pervious Area	0.55
		Composite Pervious Curve Number (*)	74.0
	Impervious Area Calculations	Total Directly Connected Area	0.56
		Total Indirectly Connected Area	0.00
		Total Impervious Area	0.56
		% X imp	50.5
		% T imp	50.5
		Total Area Check	1.11

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.55	2.75
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0%	40	0.25
Impervious	2.0	0.5%	86	0.013

*Impervious travel length calculated by LGI = (A/1.5)^0.5



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: H. Birrell

D.A. NAME Ext 5
 D.A. AREA (ha) 0.97

Hydrologic Parameters: NASHYD Command Post-Development - Unnamed Tributary

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100	0.97
Harriston Silt Loam	Hs	B	0	0.00
				0.00
				0.00
Total Area				0.97

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls		98		98		98	0.15	98	98	98	0.15	14.7
Hs		98		98		98		98	98	98	0	0
0		98		98		98		98	98	98	0	0
0		98		98		98		98	98	98	0	0
Subtotal Area	0		0		0		0.15		0			

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	0.00	60	0.00	65	0.00	50	0.82	74	0.00	74	0.82	60.68
Hs	0.00	60	0.00	65	0.00	50	0.00	74	0.00	74	0.00	0.00
0	0.00		0.00		0.00		0.00		0.00		0.00	0.00
0	0.00		0.00		0.00		0.00		0.00		0.00	0.00
Subtotal Area	0.00		0.00		0.00		0.82		0.00			

		Total Pervious Area	0.8
		Total Impervious Area	0.2
		% Impervious	0.15
		Composite Curve Number	77.7
		Total Area Check	0.97

Initial Abstraction and Tp Calculations

Initial Abstraction			Composite Curve Number									
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harriston Silt Loam		0		0		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	0	0	0.25	0.00	0.25	0.00	0	0	0	0	0
Meadow	8	0	0	0.28	0.00	0	0	0	0	0	0	0
Wetland	16	0	0	0.00		0	0	0	0	0	0	0
Lawn/Pasture	5	0.82	4.1	0.28	0.82	0.28	0.00	0	0	0	0	0.2296
Cultivated	7	0	0	0.35	0.00	0.35	0.00	0.00	0.00	0	0	0
Impervious	2	0.15	0.3	0.95	0.15	0.95	0.00	0	0	0	0	0.1425
Composite IA	0.97	4.536082		Composite Runoff Coefficient								0.383608

Time to Peak Inputs					Uplands		Bransby Williams		Airport			
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Overland	130	2	1.54%	2.3	0.29	0.13	0.08	0.08	0.11	0.08	0.38	0.26
	Appropriate calculated time to peak:				0.26	Appropriate Method:		Airport				



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: H. Birrell

D.A. NAME
 D.A. AREA (ha) SWMF #1
 1.9

**Hydrologic Parameters: STANDHYD Command
 Post-Development**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	1.90
			0.00	0.00
			0.00	0.00
			0.00	0.00
Total Area Check			1.90	

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	98	98	98	98	98	98	98	0.95	98	98	0.95	93.1
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
0	98	98	98	98	98	98	98	98	98	98	0.00	0.00
Subtotal Area	0.00		0		0.00		0.00		0.95		0.95	

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	0	98	0	98	0	98	0.95	74	0	98	0.95	70
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
0	0	0	0	0	0	0	0.00	0	0	0	0.00	0.00
Subtotal Area	0		0		0		0.95		0		0.95	

Note: % X imp and % T imp given	Pervious Area Calculations		Total Pervious Area	0.95
			Composite Pervious Curve Number (*)	74.0
			Total Directly Connected Area	0.95
			Total Indirectly Connected Area	0.00
			Total Impervious Area	0.95
			% X imp	50.0
			% T imp	50.0
Total Area Check				1.90

Initial Abstraction and Tp Calculations

Landuse	IA (mm)	Area (ha)	A * IA
Woodland	10	0	0
Meadow	8	0	0
Wetland	16	0	0
Lawn	5	0.95	4.75
Cultivated	7	0	0

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0%	40	0.25
Impervious	2.0	0.5%	113	0.013

*Impervious travel length calculated by $LGI = (A/1.5)^{0.5}$



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: H. Birrell

D.A. NAME Ext 1
 D.A. AREA (ha) 41.2

**Hydrologic Parameters: NASHYD Command
 Pre-Development - Unnamed Tributary**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	74.15	30.55
Harriston Silt Loam	Hs	B	25.85	10.65
			0.00	0.00
			0.00	0.00
Total Area				41.20

Impervious Landuses Present:										
Soils	Roadway	Sidewalk		Driveway		Building		SWMF		Subtotals
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	A*CN
Ls	3.0	98	98	98	98	4.4	98	98	98	7.4 725.2
Hs	0.3	98	98	98	98	0.3	98	98	98	0.6 58.8
0	98	98	98	98	98	98	98	98	98	0 0
0	98	98	98	98	98	98	98	98	98	0 0
Subtotal Area	3.3		0		0		4.7		0	

Pervious Landuses Present:										
Soils	Woodland	Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	A*CN
Ls	4.62	60	6.48	65	0.00	50	5.01	69	7.05	74 23.15 1565.12
Hs	0.92	60	0.00	65	0.00	50	5.53	69	3.60	74 10.05 703.15
0	0.00		0.00		0.00		0.00		0.00	0.00 0.00
0	0.00		0.00		0.00		0.00		0.00	0.00 0.00
Subtotal Area	5.54		6.48		0.00		10.53		10.65	
Composite Area Calculations				Total Pervious Area Total Impervious Area % Impervious Composite Curve Number					33.20 8 0.2 74.1	
									Total Area Check	
									41.2	

Initial Abstraction and Tp Calculations

Initial Abstraction				Composite Curve Number								
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harrison Silt Loam		0		0		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	5.54	55.41002	0.25	4.62	0.25	0.92	0		0		1.38525
Meadow	8	6.4765	51.81195	0.28	6.48	0		0		0		1.81342
Wetland	16	0	0	0.00		0		0		0		0
Lawn/Pasture	5	10.534	52.6692	0.28	5.01	0.28	5.53	0		0		2.94948
Cultivated	7	10.649	74.54064	0.35	7.05	0.35	3.60	0.00		0		3.72703
Impervious	2	8	16	0.95	7.40	0.95	0.60	0		0		7.6
Composite IA		41.2	6.078442	Composite Runoff Coefficient								0.42415

Time to Peak Inputs					Uplands		Bransby Williams		Airport			
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Channel	950	8.5	0.89%	4.6	0.44	0.61	0.41	0.70	0.85	0.57	1.38	0.92
Overland	300	2	0.67%	2.3	0.19	0.44	0.30					
Appropriate calculated time to peak:					0.57	Appropriate Method:		Bransby Williams				



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: H. Birrell

D.A. NAME Ext 3
 D.A. AREA (ha) 1.55

**Hydrologic Parameters: NASHYD Command
 Pre-Development - Unnamed Tributary**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	100.00	1.55
Harriston Silt Loam	Hs	B	0.00	0.00
			0.00	0.00
			0.00	0.00
Total Area				1.55

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	0	98	98	98	98	98	98	98	98	98	0	0
Hs	0	98	98	98	98	98	98	98	98	98	0	0
0	98	98	98	98	98	98	98	98	98	98	0	0
0	98	98	98	98	98	98	98	98	98	98	0	0
Subtotal Area	0		0		0		0		0			

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	1.55	60	0.00	65	0.00	50	0.00	69	0.00	74	1.55	93.00
Hs	0.00	60	0.00	65	0.00	50	0.00	69	0.00	74	0.00	0.00
0	0.00		0.00		0.00		0.00		0.00		0.00	0.00
0	0.00		0.00		0.00		0.00		0.00		0.00	0.00
Subtotal Area	1.55		0.00		0.00		0.00		0.00			

		Total Pervious Area	1.55
		Total Impervious Area	0
		% Impervious	0.0
		Composite Curve Number	60.0
		Total Area Check	1.55

Initial Abstraction and Tp Calculations

Initial Abstraction			Composite Curve Number									
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harrison Silt Loam		0		0		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	1.55	15.5	0.25	1.55	0.25	0.00	0	0	0	0	0.3875
Meadow	8	0	0	0.28	0.00	0	0	0	0	0	0	0
Wetland	16	0	0	0.00		0		0		0		0
Lawn/Pasture	5	0	0	0.28	0.00	0.28	0.00	0	0	0	0	0
Cultivated	7	0	0	0.35	0.00	0.35	0.00	0.00	0.00	0	0	0
Impervious	2	0	0	0.95	0.00	0.95	0.00	0	0	0	0	0
Composite IA		1.55	10	Composite Runoff Coefficient								0.25

Time to Peak Inputs					Uplands		Bransby Williams		Airport			
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Channel	100	0.89	0.89%	4.6	0.43	0.06	0.04	0.14	0.19	0.13	0.71	0.47
Overland	100	0.67	0.67%	2.3	0.19	0.15	0.10	0.14				
Appropriate calculated time to peak:					0.47	Appropriate Method:		Airport				



Project Name: Edgewood Greens
 Project Number: 1060-5177
 Date: June 24, 2019
 By: H. Birrell

D.A. NAME Ext 2
 D.A. AREA (ha) 417.20

**Hydrologic Parameters: NASHYD Command
 Pre-Development - Foley Drain**

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Listowell Silt Loam	Ls	B	16.9	70.61
Harriston Silt Loam	Hs	B	52.1	217.30
Parkhill Loam	Pal	C	6.8	28.37
Muck	M	D	24.2	100.92
Total Area				417.20

Impervious Landuses Present:												
Soils	Roadway		Sidewalk		Driveway		Building		SWMF		Subtotals	
	Area (ha)	CN	Area	A*CN								
Ls	1.8	98		98		98		98		98	1.8167	178.0349
Hs	4.9	98		98		98		98		98	4.9195	482.1064
Pal		98		98		98		98		98	0	0
M		98		98		98		98		98	0	0
Subtotal Area	6.74		0		0		0		0			

Pervious Landuses Present:												
Soils	Woodland		Meadow		Wetland		Lawn/Pasture		Cultivated		Subtotals	
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area	A*CN
Ls	19.44	60	3.04	65	0.01	50	4.13	69	42.17	74	68.79	4770.28
Hs	20.32	60	9.17	65	0.05	50	11.85	69	171.00	74	212.38	15289.03
Pal	2.82	73	4.43	76	0.00	50	0.97	79	20.14	82	28.37	2271.07
M	58.35	79	18.28	81	0.02	50	0.02	84	24.26	86	100.92	8178.53
Subtotal Area	100.92		34.92		0.08		16.96		257.57			

			Total Pervious Area		410.46
			Total Impervious Area		6.7361
			% Impervious		0.016
			Composite Curve Number		74.7
			Total Area Check		417.2

Initial Abstraction and Tp Calculations

Initial Abstraction			Composite Curve Number									
Landuse	IA (mm)	Area (ha)	A * IA	Listowell Silt Loam		Harrison Silt Loam		Parkhill Loam		Muck		A*RC
				RC	Area	RC	Area	RC	Area	RC	Area	
Woodland	10	100.9	1009.2	0.25	19.44	0.25	20	0.35	3	0.35	58	31.34738
Meadow	8	34.9	279.4	0.28	3.04	0.28	9	0.40	4	0.40	18	12.50393
Wetland	16	0.1	1.3	0.05	0.01	0.05	0.05	0.05	0	0.05	0.02	0.004182
Lawn/Pasture	5	17.0	84.8	0.28	4.13	0.28	12	0.40	1	0.40	0	4.867269
Cultivated	7	257.6	1803.0	0.35	42.17	0.35	171.00	0.55	20.14	0.55	24	99.03074
Impervious	2	6.7	13.5	0.95	1.82	0.95	5	0.95	0	0.95	0	6.399328
Composite IA		417.2	7.65	Composite Runoff Coefficient								0.369494

Time to Peak Inputs					Uplands		Bransby Williams		Airport			
Flow Path Description	Length (m)	Drop (m)	Slope (%)	V/S ^{0.5}	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
Channel	4150	15	0.36%	4.6	0.28	4.17	2.79	3.08	2.79	1.87	3.51	2.35
Overland	400	5	1.25%	2.3	0.26	0.43	0.29					

Appropriate calculated time to peak: 1.87 Appropriate Method: Bransby Williams

APPENDIX G

STORMWATER MANAGEMENT FACILITY #3 CALCULATIONS



CROZIER
& ASSOCIATES
Consulting Engineers

Water Quality Requirements

Project #: 1060-5384
Project: Dundalk Commercial
Date: 2020.01.17
By: HB

Post-development Scenario Water Quality Requirements for SWM Facility #3 Wetland

Areas Contributing	Area (ha)	% Imp	25mm RV (mm)	25mm RV (m³)
FB2	10.1	59	11.76	1188
SWMF3	1.21	50	13.36	162
TOTAL	11.31	58		1349
MOE Total WQ Volume (m ³ /ha)				108
MOE ED Volume (m ³ /ha)				40
MOE ED Volume (m ³)				452
MOE PP Volume (m ³ /ha)				68
MOE PP Volume (m ³)				769
Pond Required ED Volume (m ³)				1349
Pond Required PP Volume (m ³)				769
Available ED Volume				1349
Provided PP Volume (m ³)*				1262

* $PP\ Vol = (Avg.\ PP\ Area\ in\ Forebay \times Forebay\ Depth) + (Avg.\ PP\ Area\ in\ Main\ Cell \times Main\ Cell\ Depth)$

$$PP\ Vol = \left(\frac{223m^2 + 721m^2}{2} \times 1m \right) + \left(\frac{2445m^2 + 2820m^2}{2} \times 0.3m \right) = 1262m^3$$



**CROZIER
& ASSOCIATES**
Consulting Engineers

Project: 1060-5384
Project No.: Dundalk Commercial
File: Extended Detention
Design by: HB
Date: 2020.01.17

EXTENDED DETENTION SPECIFICATIONS - SWM FACILITY #3

(Per MOECC)

Extended Detention Volume (Area x runoff from 25mm event)	1349
t (drawdown time - seconds, <i>hours in italics</i>)	37.5
Ao (cross section area of orifice - sqm)	0.0123
h (maximum water elevation above orifice for extended detention- m)	0.35
C (discharge coefficient)	0.64
Ap (average surface area for extended detention - sqm)	3997

$$t = 2*Ap*(h^{0.5})/(C*Ao*(g^2)^{0.5})$$

Ao = 0.012357419 sqm d = 125 mm

Extended Detention Orifice Diameter (as designed) d = **125** mm



**CROZIER
& ASSOCIATES**
Consulting Engineers

Project: 1060-5384
Project No.: Dundalk Commercial
File: Stage Storage Discharge
Design by: BH
Date: June 1, 2016
MOD: 2020.01.14

**SWM Facility #3 Pond Stage Storage Outflow Calculations
& Extended Detention Calculations (per GRCA)**

Outlet Structure Dimensions

E.D. Orifice Diameter: 0.125 m
E.D. Orifice Invert Elevation: 512.4 m
Spillway Elev. 514.3 m
Spillway Bot. Width 20 m
Trap. Side Slopes 6:1

Pond Dimensions				East Outlet Structure Discharge				Total		
Elev. (m)	Depth Above PP (m)	Area (sqm)	Storage Volume (cu.m)	ED Orifice Discharge (cu.m/s)	Spillway Ave. Weir Width (m)	Spillway Discharge (cu.m/s)	Total Discharge (cu.m/s)	ED Draw- down time (hrs)	Total Discharge (cu.m/s)	Storage (ha-m)
512.40	0.00	3541	0	0.000	0.00	0.000	0.000		0.000	0.000
512.50	0.10	3737	364	0.007	0.00	0.000	0.007	30.008	0.007	0.036
512.60	0.20	3933	747	0.013	0.00	0.000	0.013	10.849	0.013	0.075
512.68	0.28	4089	1068	0.016	1.00	0.000	0.016	6.121	0.016	0.107
512.70	0.30	4128	1150	0.017	10.40	0.000	0.017		0.017	0.115
512.75	0.35	4226	1349	0.019	10.70	0.000	0.019		0.019	0.135
512.80	0.40	4324	1573	0.020	11.00	0.000	0.020		0.020	0.157
512.90	0.50	4520	2015	0.023	11.60	0.000	0.023		0.023	0.202
513.00	0.60	4768	2480	0.026	12.20	0.000	0.0255		0.026	0.248
513.05	0.65	4891	2721	0.027	12.50	0.000	0.027		0.027	0.272
513.10	0.70	5015	2969	0.028	12.80	0.000	0.028		0.028	0.297
513.20	0.80	5263	3483	0.030	13.40	0.000	0.030		0.030	0.348
513.30	0.90	5510	4021	0.032	14.00	0.000	0.032		0.032	0.402
513.40	1.00	5758	4585	0.034	14.60	0.000	0.034		0.034	0.458
513.50	1.10	6006	5173	0.035	15.20	0.000	0.035		0.035	0.517
513.60	1.20	6253	5786	0.037	15.80	0.000	0.037		0.037	0.579
513.70	1.30	6501	6424	0.039	16.40	0.000	0.039		0.039	0.642
513.80	1.40	6748	7086	0.040	17.00	0.000	0.040		0.040	0.709
513.90	1.50	6996	7773	0.042	17.60	0.000	0.042		0.042	0.777
514.00	1.60	7243	8485	0.043	18.20	0.000	0.043		0.043	0.849
514.10	1.70	7491	9222	0.045	18.80	0.000	0.045		0.045	0.922
514.20	1.80	7677	9980	0.046	19.40	0.000	0.046		0.046	0.998
514.30	1.90	7863	10757	0.047	20.00	0.000	0.047		0.047	1.076
514.40	2.00	8049	11553	0.048	20.60	1.199	1.247		1.247	1.155

Total ED Draw Down Time (hrs) 46.978

APPENDIX H

SWMHYMO MODELLING DATA

00001> 2 Metric units

00001> Project Name : [Dundalk Meadows Phase 7 & 8] Project Number : [1060-5177]

00004> Date : 2020.01.13

00005> # Modeler : [H.Birrell]

00006> # License : 3737016

00007> # CALIB STANDBY

00008> # Ia=10, DT=1[min], AREA=[1.21] (ha), NSEG=[1], SCS=[0] (min),

00009> # |<- storm filename, enter per line for NSTORM time

00010> # POST DRAFTSTORM MODEL---

00011> # FULL BUILDDOWN

00012> #

00013> #

00014> #

00015> #

00016> #

00017> #

00018> #

00019> #

00020> #

00021> #

00022> #

00023> READ STORM

00024> # STORM_FILENAME="*25mm.stm"

00025> #

00026> #

00027> # Controlled Runoff From ZONE 1

00028> #

00029> #

00030> #

00031> #

00032> # SWM Facility #1 Area

00033> #

00034> #

00035> # Most Site Area

00036> #

00037> #

00038> #

00039> # CALIB NASHYD

00040> # ID=[1], NYHD=[*Ext 5*], DT=[1]min, AREA=[0.97] (ha),

00041> # DWF=[0] (cms), CN=C[17.7], IA=[4.5] (mm),

00042> # NSEG=[1], TPF=[0.26]hrs,

00043> # SCS curve number CN=[74],

00044> # Previous surfaces: IaPer=[3] (mm), SLPF=[0.2] (mm),

00045> # DWF=[0] (mm), MNF=[0.25], SCS=[0] (min),

00046> # Impervious surfaces: IALimp=[2] (mm), SLPI=[0.5] (mm),

00047> # LGI=[287] (mm), MNI=[0.013], SCI=[0] (min),

00048> # RAINFALL=[, , ,] (mm/hr), END=1

00049> # CALIB STANDBY

00050> # ID=[1], NYHD=[*FB 21-3*], DT=[1]min, AREA=[0.98] (ha),

00051> # XIMP=[0] (cms), CN=C[17.7], IA=[4.5] (mm),

00052> # DWF=[0] (cms), MNF=[0.25], SCS=[0] (min),

00053> # SCS curve number CN=[74],

00054> # Previous surfaces: IaPer=[3] (mm), SLPF=[0.2] (mm),

00055> # DWF=[0] (mm), MNF=[0.25], SCS=[0] (min),

00056> # Impervious surfaces: IALimp=[2] (mm), SLPI=[0.5] (mm),

00057> # LGI=[81] (mm), MNI=[0.013], SCI=[0] (min),

00058> # RAINFALL=[, , ,] (mm/hr), END=1

00059> #

00060> # CALIB STANDBY

00061> # ID=[4], NYHD=[*SMWF#1*], DT=[1]min, AREA=[1.31] (ha),

00062> # XIMP=[0] (cms), CN=C[17.7], IA=[4.5] (mm),

00063> # DWF=[0] (cms), MNF=[0.25], SCS=[0] (min),

00064> # SCS curve number CN=[74],

00065> # Previous surfaces: IaPer=[3] (mm), SLPF=[0.2] (mm),

00066> # DWF=[0] (mm), MNF=[0.25], SCS=[0] (min),

00067> # Impervious surfaces: IALimp=[2] (mm), SLPI=[0.5] (mm),

00068> # LGI=[113] (mm), MNI=[0.013], SCI=[0] (min),

00069> # RAINFALL=[, , ,] (mm/hr), END=1

00070> # ADD HYD

00071> # IDsum=[5], NYHD=[*FB1 IN*], IDs to add=[1+2+3+4]

00072> #

00073> #

00074> #

00075> #

00076> #

00077> #

00078> #

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00095> #

00096> #

00097> #

00098> # CALIB NASHYD

00099> # ID=[3], NYHD=[*Ext 1*], DT=[1]min, AREA=[41.2] (ha),

00100> # DWF=[0] (cms), CN=C[74.1], IA=[6.1] (mm),

00101> # NSEG=[1], TPF=[0.57]hrs,

00102> # RAINFALL=[, , ,] (mm/hr), END=1

00103> #

00104> #

00105> #

00106> #

00107> #

00108> #

00109> #

00110> #

00111> #

00112> #

00113> #

00114> #

00115> #

00116> #

00117> #

00118> #

00119> #

00120> #

00121> #

00122> #

00123> #

00124> # CALIB NASHYD

00125> # ID=[5], NYHD=[*FB 21-2*], DT=[1]min, AREA=[5.68] (ha),

00126> # XIMP=[0] (cms), CN=C[17.7], IA=[6.4] (mm),

00127> # DWF=[0] (cms), MNF=[0.40]hrs,

00128> # RAINFALL=[, , ,] (mm/hr), END=1

00129> #

00130> #

00131> # Total Flow at South Property Line

00132> #

00133> # ADD HYD

00134> # IDsum=[3], NYHD=[*Unc FL*], IDs to add=[1+2+4+5]

00135> #

00136> #

00137> #

00138> #

00139> #

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00209> #

00210> #

00211> #

00212> #

00213> #

00214> #

00215> # ADD RVD

00216> #

00217> #

00218> #

00219> #

00220> #

00221> #

00222> #

00223> #

00224> #

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00238> #

00239> #

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00241> #

00242> #

00243> #

00244> #

00245> # ADD RVD

00246> #

00247> # DIVERT RVD

00248> #

00249> #

00250> #

00251> #

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00254> #

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00257> #

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00269> #

00270> #

00271> #

00272> #

00273> #

00274> #

00275> #

00276> #

00277> #

00278> # CALIB NASHYD

00279> # ID=[5], NYHD=[*Ext 2*], DT=[1]min, AREA=[417.2] (ha),

00280> # DWF=[0] (cms), CN=C[74.7], IA=[7.65] (mm),

00281> # NSEG=[1], TPF=[1.87]hrs,

00282> # RAINFALL=[, , ,] (mm/hr), END=1

00283> # CALIB NASHYD

00284> # ID=[5], NYHD=[*Ext 1*], DT=[1]min, AREA=[6.51] (ha),

00285> # XIMP=[0] (cms), CN=C[74.7], IA=[6.4] (mm),

00286> # DWF=[0] (cms), MNF=[0.36]hrs,

00287> # RAINFALL=[, , ,] (mm/hr), END=1

00288> # ADD RVD

00289> #

00290> #

00291> #

00292> #

00293> #

00294> #

00295> #

00296> #

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00319> # CALIB STANDBY

00320> # ID=[7], NYHD=[*FB 2 Out*], DT=[1]min, AREA=[10.1] (ha),

00321> # XIMP=[0] (cms), CN=C[0.32], IA=[0.2] (mm),

00322> # DWF=[0] (cms), MNF=[0.25], SCS=[0] (min),

00323> # SCS curve number CN=[74],

00324> # Previous surfaces: IaPer=[5] (mm), SLPF=[2.0] (mm),

00325> # DWF=[0] (mm), MNF=[0.25], SCS=[0] (min),

00326> # Impervious surfaces: IALimp=[2] (mm), SLPI=[0.5] (mm),

00327> # LGI=[289] (mm), MNI=[0.013], SCI=[0] (min),

00328> # RAINFALL=[, , ,] (mm/hr), END=1

00329> # CALIB STANDBY

00330> # ID=[8], NYHD=[*FB 1*], DT=[1]min, AREA=[1.21] (ha),

00331> # XIMP=[0.50], TPF=[0.50], DWF=[0] (cms), MNF=[0.25], SCS=[0] (min),

00332> # SCS curve number CN=[74],

00333> # Previous surfaces: IaPer=[5] (mm), SLPF=[2.0] (mm),

00334> # DWF=[0] (mm), MNF=[0.25], SCS=[0] (min),

00335> # Impervious surfaces: IALimp=[2] (mm), SLPI=[0.5] (mm),

00336> # LGI=[289] (mm), MNI=[0.013], SCI=[0] (min),

00337> # RAINFALL=[, , ,] (mm/hr), END=1

00338> # ADD RVD

00339> #

00340> #

00341> #

00342> # ROUTE RESERVOIR

00343> # IDout=[7], NYHD=[*FB3 Out*], IDin=[9],

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00365> #

00366> #

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00368> # CALIB STANDBY

00369> # ID=[3], NYHD=[*FB1*], DT=[1]min, AREA=[14.70] (ha),

00370> # XIMP=[0.35], TPF=[0.55], DWF=[0] (cms), MNF=[0.25], SCS=[0] (min),

00371> # SCS curve number CN=[74],

00372> # Previous surfaces: IaPer=[5] (mm), SLPF=[2.0] (mm),

00373> # DWF=[0] (mm), MNF=[0.25], SCS=[0] (min),

00374> # Impervious surfaces: IALimp=[2] (mm), SLPI=[0.5] (mm),

00375> # LGI=[313] (mm), MNI=[0.013], SCI=[0] (min),

00376> # RAINFALL=[, , ,] (mm/hr), END=1

00377> # CALIB STANDBY

00378> # ID=[4], NYHD=[*MINOR*], DT=[1]min, AREA=[0.21] (ha),

00379> # XIMP=[0.61], TPF=[0.61], DWF=[0] (cms), MNF=[0.25], SCS=[0] (min),

00380> # SCS curve number CN=[74],

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00361> ADD HYD          IDSum=[9], NYHD=[*Foley Drain*], IDs to add=[4+5+7+8]
00362> CALIB NASHYD      ID=[4], NYHD=[*Ext 4*], DT=[1]min, AREA=[6.3](ha),
00363>           DNW=[0] (cms), CN=C([64.8], Ia=[10](mm),
00364>           Nn=[3], TF=[0.64]hrs,
00365>           RAINFALL=[ , , , , ](mm/hr), END=1
00366> *-----+
00367> ADD HYD          IDSum=[5], NYHD=[*Pt of IntF*], IDs to add=[9+4]
00368> CALIB NASHYD      IDSum=[10], NYHD=[*Pt of IntF*], IDs to add=[1+2+3+6]
00371> *-----+
00372> ADD HYD          IDSum=[10], NYHD=[*Pt of IntF*], IDs to add=[1+2+3+6]
00373>
00374> *-----+
00375> *-----+ 2-YEAR 100% CHICAGO STORM
00376> *-----+
00377> CALIB NASHYD      IDSum=[21], TD=[18]hrs, TPHAT=[0.333], CSDT=[5] (min),
00378>           ICASEcs=[2],
00379>           Enter ordinates of IDF curve below, at least seven points
00380>           TIME (min)    Q (mm/hr/mm/hr)
00381>           [5]   [17.8]
00382>           [10]  [75.8]
00383>           [15]  [300]
00384>           [20]  [34.0]
00385>           [60]  [21.0]
00386>           [120] [10.0]
00387>           [360] [6.1]
00388>           [720] [3.7]
00389>           [1440] [2.3]
00390>           [-1]  [-1]
00391> *-----+
00400> *-----+ Controlled Runoff From ZONE 1
00401> *-----+
00402> *-----+ CALIB NASHYD
00403> *-----+ Controlled Runoff From ZONE 1
00404> *-----+
00405> *-----+ SWN Facility #1 Area
00406> *-----+ Next Site Area
00407> *-----+
00408> *-----+ CALIB NASHYD
00409> *-----+ ID=[1], NYHD=[*Ext 5*], DT=[1]min, AREA=[0.97] (ha),
00410>           DNW=[0] (cms), CN=C([17.7], Ia=[4.5]mm),
00411>           Nn=[3], TF=[0.26]hrs,
00412>           RAINFALL=[ , , , , ](mm/hr), END=1
00413> *-----+
00414> *-----+ CALIB STANDHYD
00415> *-----+ ID=[2], NYHD=[*FB 21-1*], DT=[1] (min), AREA=[12.37] (ha),
00416>           XIMF=[0.3], TIME=[0.3]hrs, DNW=[0] (cms), LOSS=[2],
00417>           SCS curve number CN=[74]
00418>           Previous surfaces: IAper=[5](mm), SLIP=[2.0](%), SCS=[0](min),
00419>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.25](%), SCS=[0](min),
00420>           LGI=[1287](mm), MNI=[0.013], SCI=[0] (min),
00421>           RAINFALL=[ , , , , ](mm/hr), END=1
00422> *-----+
00423> *-----+ CALIB STANDHYD
00424> *-----+ ID=[3], NYHD=[*FB 21-3*], DT=[1] (min), AREA=[0.98] (ha),
00425>           XIMF=[0.3], TIME=[0.30], DNW=[0] (cms), LOSS=[2],
00426>           SCS curve number CN=[74]
00427>           Previous surfaces: IAper=[5](mm), SLIP=[2.0](%), SCS=[0] (min),
00428>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.25](%), SCS=[0] (min),
00429>           LGI=[81](mm), MNI=[0.013], SCI=[0] (min),
00430>           RAINFALL=[ , , , , ](mm/hr), END=1
00431> *-----+
00432> *-----+ CALIB STANDHYD
00433> *-----+ ID=[4], NYHD=[*SNDFW*], DT=[1] (min), AREA=[1.9] (ha),
00434>           XIMF=[0.5], TIME=[0.5], DNW=[0] (cms), LOSS=[2],
00435>           SCS curve number CN=[74]
00436>           Previous surfaces: IAper=[5](mm), SLIP=[2.0](%), SCS=[0] (min),
00437>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.25](%), SCS=[0] (min),
00438>           LGI=[112](mm), MNI=[0.013], SCI=[0] (min),
00439>           RAINFALL=[ , , , , ](mm/hr), END=1
00440> *-----+
00441> *-----+ CALIB STANDHYD
00442> *-----+ ID=[5], NYHD=[*P21 1M*], IDs to add=[1+2+3+4]
00443> *-----+
00444> *-----+ SWN Facility #1
00445> *-----+
00446> *-----+ ROUTE RESERVOIR
00447> *-----+ IDout=[3], NYHD=[*#2Out*], IDin=[5],
00448>           ROT=[1] (min),
00449>           TABLE of ( OUTFLOW-STORAGE ) values
00450>           [ 0.0 , 0.0 ]
00451>           [ 0.01 , 0.024 ]
00452>           [ 0.011 , 0.114 ]
00453>           [ 0.013 , 0.164 ]
00454>           [ 0.015 , 0.207 ]
00455>           [ 0.018 , 0.380 ]
00456>           [ 0.020 , 0.523 ]
00457>           [ 0.022 , 0.673 ]
00458>           [ 0.027 , 0.848 ]
00459>           [ 0.0252 , 1.092 ]
00460>           [-1]  [-1] (max twenty pts)
00461>           IDovf=[2], NYHovf=[*#10Over*]
00462> *-----+
00463> *-----+ Watercourse Flows- ZONE 1
00464> *-----+
00465> *-----+ Watercourse Flows- ZONE 2
00466> *-----+
00467> *-----+ East Watercourse Area
00468> *-----+ Foley Drain
00469> *-----+
00470> *-----+ SWN Facility #2
00471> *-----+
00472> *-----+ CALIB NASHYD
00473> *-----+ ID=[3], NYHD=[*Ext 1*], DT=[1]min, AREA=[41.2] (ha),
00474>           DNW=[0] (cms), CN=C([74.1], Ia=[6.1]mm),
00475>           Nn=[3], TF=[0.57]hrs,
00476>           RAINFALL=[ , , , , ](mm/hr), END=1
00477> *-----+
00478> *-----+ ROUTE CHANNEL
00479> *-----+ IDout=[4], NYHD=[*Sitetag*], IDin=[3],
00480>           PFSLOPE=[0.96] (%),
00481>           CHLOTH=[425] (m), CHLSLOPE=[0.96] (%),
00482>           SECNUM=[1],
00483>           (SEGRNUMBER, SEGDIST (m)) = 0.035, 75.5 -0.045, 78.5 0.035, 151.0 NSEG times
00484>           (DISTANCE (m), ELEVATION (m)) = 31.0, 515.00
00485>           [ 48.0 , 514.81 ]
00486>           [ 51.0 , 514.81 ]
00487>           [ 68.5 , 514.54 ]
00488>           [ 75.5 , 514.23 ]
00489>           [ 77.5 , 514.06 ]
00490>           [ 78.5 , 514.36 ]
00491>           [ 79.5 , 514.29 ]
00492>           [ 92.5 , 514.49 ]
00493>           [ 103.5 , 514.51 ]
00494>           [ 118.5 , 514.57 ]
00495>           [ 130.5 , 514.50 ]
00496>           [ 151.0 , 515.00 ]
00497> *-----+
00498> *-----+ CALIB NASHYD
00499> *-----+ ID=[5], NYHD=[*FB 21-2*], DT=[1]min, AREA=[5.68] (ha),
00500>           DNW=[0] (cms), CN=C([77], Ia=[6.4]mm),
00501>           Nn=[3], TF=[0.40]hrs,
00502>           RAINFALL=[ , , , , ](mm/hr), END=1
00503> *-----+
00504> *-----+ Total Flow at South Property Line
00505> *-----+
00506> *-----+ ADD HYD
00507> *-----+ IDSum=[3], NYHD=[*UHC PL*], IDs to add=[1+2+4+5]
00508> *-----+
00509> *-----+ ROUTE CHANNEL
00510> *-----+ IDout=[1], NYHD=[*BS Lag*], IDin=[3],
00511>           ROT=[1] (min),
00512>           CHLOTH=[150] (m), CHLSLOPE=[0.96] (%),
00513>           SECNUM=[1], NSEG=[3]
00514>           (SEGRNUMBER, SEGDIST (m)) = 0.035, 75.5 -0.045, 78.5 0.035, 151.0 NSEG times
00515>           (DISTANCE (m), ELEVATION (m)) = 31.0, 515.00
00516>           [ 48.0 , 514.81 ]
00517>           [ 60.0 , 514.69 ]
00518>           [ 64.0 , 514.51 ]
00519>           [ 75.5 , 514.23 ]
00520>           [ 76.0 , 514.06 ]
00521>           [ 77.5 , 514.09 ]
00522>           [ 78.5 , 514.36 ]
00523>           [ 79.5 , 514.39 ]
00524>           [ 82.5 , 514.33 ]
00525>           [ 103.5 , 514.51 ]
00526>           [ 118.5 , 514.67 ]
00527>           [ 130.5 , 514.50 ]
00528>           [ 151.0 , 515.00 ]
00529> *-----+
00530> *-----+ CALIB NASHYD
00531> *-----+ ID=[3], NYHD=[*Ext 3*], DT=[1]min, AREA=[1.55] (ha),
00532>           DNW=[0] (cms), CN=C([60], Ia=[10]mm),
00533>           Nn=[3], TF=[0.47]hrs,
00534>           RAINFALL=[ , , , , ](mm/hr), END=1
00535> *-----+
00536> *-----+ Controlled Runoff From ZONE 2
00537> *-----+
00538> *-----+ Controlled Runoff From ZONE 2
00539> *-----+
00540> *-----+ CALIB NASHYD
00541> *-----+ IDSum=[9], NYHD=[*F1B*], DT=[1] (min), AREA=[14.70] (ha),
00542>           XIMF=[0.35], TIME=[0.55], DNW=[0] (cms), LOSS=[2],
00543>           SCS curve number CN=[74]
00544>           CALIB STANDHYD
00545>           ID=[3], NYHD=[*F1B*], DT=[1] (min), AREA=[14.70] (ha),
00546>           XIMF=[0.41], TIME=[0.61], DNW=[0] (cms), LOSS=[2],
00547>           SCS curve number CN=[74]
00548>           Previous surfaces: IAper=[5](mm), SLIP=[2.0](%), SCS=[0] (min),
00549>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.25](%), SCS=[0] (min),
00550>           LGI=[240](mm), MNI=[0.25], SCI=[0] (min),
00551>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.13], SCI=[0] (min),
00552>           LGI=[313](mm), MNI=[0.013], SCI=[0] (min),
00553> *-----+
00554>           CALIB STANDHYD
00555>           ID=[4], NYHD=[*MINCR*], DT=[1] (min), AREA=[0.21] (ha),
00556>           XIMF=[0.41], TIME=[0.61], DNW=[0] (cms), LOSS=[2],
00557>           SCS curve number CN=[74]
00558>           Previous surfaces: IAper=[5](mm), SLIP=[2.0](%), SCS=[0] (min),
00559>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.5](%), SCS=[0] (min),
00560>           LGI=[47](mm), MNI=[0.13], SCI=[0] (min),
00561>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.13], SCI=[0] (min),
00562>           LGI=[313](mm), MNI=[0.013], SCI=[0] (min),
00563>           IDSum=[4], NDout=[2]max five,
00564>           outflow hydrographs (ID, NYHD)=4, *MINCR*, *MJOR*
00565>           flow distribution table (modify as necessary)
00566>           Note: New ID in (cm)
00567>           Q100 + Q101 = QTOTAL
00568>           [ 0.000 + 0.000 = 0.000 ]
00569>           [ 0.000 + 0.033 = 0.033 ]
00570>           [ 0.035 + 10.000 = 10.035]end
00571>           CALIB STANDHYD
00572>           ID=[4], NYHD=[*FB 21-1*], DT=[1] (min), AREA=[0.33] (ha),
00573>           XIMF=[0.51], TIME=[0.34], DNW=[0] (cms), LOSS=[2],
00574>           SCS curve number CN=[74]
00575>           Previous surfaces: IAper=[5](mm), SLIP=[2.0](%), SCS=[0] (min),
00576>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.5](%), SCS=[0] (min),
00577>           LGI=[47](mm), MNI=[0.13], SCI=[0] (min),
00578>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.13], SCI=[0] (min),
00579>           LGI=[86](mm), MNI=[0.013], SCI=[0] (min),
00580>           CALIB STANDHYD
00581>           ID=[17], NYHD=[*F1B*], DT=[1] (min), AREA=[0.33] (ha),
00582>           XIMF=[0.51], TIME=[0.34], DNW=[0] (cms), LOSS=[2],
00583>           SCS curve number CN=[74]
00584>           Previous surfaces: IAper=[5](mm), SLIP=[2.0](%), SCS=[0] (min),
00585>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.5](%), SCS=[0] (min),
00586>           LGI=[86](mm), MNI=[0.013], SCI=[0] (min),
00587>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.13], SCI=[0] (min),
00588>           LGI=[86](mm), MNI=[0.013], SCI=[0] (min),
00589>           IDSum=[8], NYHD=[*P12 In*], IDs to add=[3+9+4+7]
00590>           CALIB STANDHYD
00591>           ID=[18], NYHD=[*P12 In*], DT=[1] (min), AREA=[1.11] (ha),
00592>           XIMF=[0.51], TIME=[0.31], DNW=[0] (cms), LOSS=[2],
00593>           SCS curve number CN=[74]
00594>           Previous surfaces: IAper=[5](mm), SLIP=[2.0](%), SCS=[0] (min),
00595>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.5](%), SCS=[0] (min),
00596>           LGI=[86](mm), MNI=[0.013], SCI=[0] (min),
00597>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.13], SCI=[0] (min),
00598>           LGI=[86](mm), MNI=[0.013], SCI=[0] (min),
00599>           IDSum=[9], NYHD=[*#2Out*], IDin=[8],
00600>           ROT=[1] (min),
00601>           TABLE of ( OUTFLOW-STORAGE ) values
00602>           [ 0.0 , 0.0 ]
00603>           [ 0.025 , 0.123 ]
00604>           [ 0.036 , 0.204 ]
00605>           [ 0.044 , 0.261 ]
00606>           [ 0.053 , 0.320 ]
00607>           [ 0.061 , 0.350 ]
00608>           [ 0.110 , 0.380 ]
00609>           [ 0.146 , 0.380 ]
00610>           [ 0.222 , 0.442 ]
00611>           [ 0.560 , 0.574 ]
00612>           [ 0.628 , 0.642 ]
00613>           [ 1.112 , 0.712 ]
00614>           [ 1.535 , 0.782 ]
00615>           [ 1.746 , 0.818 ]
00616>           [ 1.884 , 0.855 ]
00617>           [ 3.005 , 0.940 ]
00618>           [ 4.324 , 1.022 ]
00619>           [ 12.016 , 1.330 ]
00620>           [-1 , -1 ] (max twenty pts)
00621>           IDSum=[4], NYHDout=[*#2Over*]
00622>           ADD HYD
00623>           IDSum=[5], NDout=[2]max five,
00624>           outflow hydrograph (ID, NYHD)=3, *Twobw*, 4, *Twobw*
00625>           flow distribution table (modify as necessary)
00626>           Note: New ID in (cm)
00627>           Q100 + Q101 = QTOTAL
00628>           [ 0.000 + 0.008 = 0.008 ]
00629>           [ 0.000 + 0.022 = 0.022 ]
00630>           [ 0.000 + 0.033 = 0.033 ]
00631>           [ 0.000 + 0.044 = 0.044 ]
00632>           [ 0.019 + 0.062 = 0.080 ]
00633>           [ 0.053 + 0.098 = 0.146 ]
00634>           [ 0.100 + 0.139 = 0.239 ]
00635>           [ 0.208 + 0.352 = 0.560 ]
00636>           [ 0.348 + 0.808 = 1.1554 ]
00637>           [ 0.486 + 1.250 = 1.946 ]
00638>           [ 1.503 + 1.486 = 3.988 ]
00639>           [ 1.589 + 2.584 = 3.173 ]
00640>           [ 0.678 + 4.312 = 4.989 ]
00641>           [ 0.395 + 12.716 = 13.192 ] end
00642>           Watercourse Flows- ZONE 2
00643>           Watercourse Flows- ZONE 2
00644>           East Watercourse Area
00645>           Foley Drain
00646>           SWN Facility #2
00647>           SWN Facility #3
00648>           SWN Facility #4
00649>           SWN Facility #5
00650>           SWN Facility #6
00651>           SWN Facility #7
00652>           SWN Facility #8
00653>           SWN Facility #9
00654>           CALIB NASHYD
00655>           ID=[5], NYHD=[*Ext-2*], DT=[1]min, AREA=[17.2] (ha),
00656>           DNW=[0] (cms), CN=C([74.7], Ia=[7.65]mm),
00657>           RAINFALL=[ , , , , ](mm/hr), END=1
00658>           CALIB NASHYD
00659>           ID=[3], NYHD=[*Ext-2*], DT=[1]min, AREA=[6.51] (ha),
00660>           DNW=[0] (cms), CN=C([74.7], Ia=[6.4]mm),
00661>           RAINFALL=[ , , , , ](mm/hr), END=1
00662>           ADD HYD
00663>           IDSum=[5], NYHD=[*Ext*], IDs to add=[5+7]
00664>           ROUTE CHANNEL
00665>           ID=[5], NYHD=[*Sitetag*], IDin=[8],
00666>           CHLOTH=[550] (m), CHLSLOPE=[0.65] (%),
00667>           PFSLOPE=[0.65] (%),
00668>           SECNUM=[1], NSEG=[3]
00669>           (SEGRNUMBER, SEGDIST (m)) = 0.035, 75.5 -0.045, 221.70 0.035, 266.50 NSEG times
00670>           (DISTANCE (m), ELEVATION (m)) = 179.70, 514.50
00671>           [ 215.50 , 513.50 ]
00672>           [ 215.50 , 513.50 ]
00673>           [ 215.50 , 513.50 ]
00674>           [ 215.50 , 513.50 ]
00675>           [ 215.50 , 513.50 ]
00676>           [ 217.45 , 512.46 ]
00677>           [ 217.80 , 512.50 ]
00678>           [ 221.30 , 513.50 ]
00679>           [ 221.70 , 513.71 ]
00680>           [ 224.00 , 513.71 ]
00681>           [ 243.80 , 514.00 ]
00682>           [ 243.80 , 514.00 ]
00683>           [ 249.40 , 514.12 ]
00684>           [ 259.30 , 514.28 ]
00685>           [ 266.80 , 514.40 ]
00686>           [ 266.80 , 514.40 ]
00687>           [ 266.80 , 514.40 ]
00688>           [ 266.80 , 514.40 ]
00689>           [ 266.80 , 514.40 ]
00690>           [ 266.80 , 514.40 ]
00691>           [ 266.80 , 514.40 ]
00692>           [ 266.80 , 514.40 ]
00693>           [ 266.80 , 514.40 ]
00694>           [ 266.80 , 514.40 ]
00695>           [ 266.80 , 514.40 ]
00696>           [ 266.80 , 514.40 ]
00697>           [ 266.80 , 514.40 ]
00698>           [ 266.80 , 514.40 ]
00699>           [ 266.80 , 514.40 ]
00700>           [ 266.80 , 514.40 ]
00701>           RAINFALL=[ , , , , ](mm/hr), END=1
00702>           CALIB STANDHYD
00703>           ID=[7], NYHD=[*FB2*], DT=[1] (min), AREA=[10.11] (ha),
00704>           XIMF=[0.32], TIME=[0.379], DNW=[0] (cms), LOSS=[2],
00705>           SCS curve number CN=[74]
00706>           Previous surfaces: IAper=[5](mm), SLIP=[2.0](%), SCS=[0] (min),
00707>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.5](%), SCS=[0] (min),
00708>           LGI=[40](mm), MNI=[0.25], SCI=[0] (min),
00709>           Impervious surfaces: IAimp=[2](mm), SLIP=[0.13], SCI=[0] (min),
00710>           LGI=[190](mm), MNI=[0.013], SCI=[0] (min),
00711>           RAINFALL=[ , , , , ](mm/hr), END=1
00712>           ADD HYD
00713>           IDSum=[9], NYHD=[*#3IN*], IDs to add=[7+8]
00714>           ROUTE CHANNEL
00715>           ID=[1], NYHD=[*Ext*], IDin=[9],
00716>           ROUTE CHANNEL
00717>           IDSum=[7], NYHD=[*#3Out*], IDin=[9],
00718>           ROT=[1] (min),
00719>           TABLE of ( OUTFLOW-STORAGE ) values
00720>           (cms - (ha-m))

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01081> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01082> IMPVRS SURFACES: LGP=[40](m), MNP=[0.21], SCF=[0](min),
 01083> RAINFALL=[, , , 1(mm/hr) , END=1
 01084> * ADD HYD
 01085> IDsum=[9], NHYD=[*P3IN*], IDs to add=[7+8]
 01086> *-----
 01087> ----- SWM Facility #3 -----
 01088> *-----
 01089> *----- ROUTE RESERVOIR -----
 01090> IDout=[7], NHYD=[*#3Out*], IDin=[9],
 01091> RDT=[1](min)
 01092> TABLE of (OUTFLOW-STORAGE) values
 01093> (cms) - (ha-m)
 01094> [0.00 , 0.00]
 01095> [0.007 , 0.036]
 01096> [0.013 , 0.075]
 01097> [0.018 , 0.107]
 01098> [0.017 , 0.115]
 01099> [0.023 , 0.202]
 01100> [0.030 , 0.348]
 01101> [0.035 , 0.517]
 01102> [0.040 , 0.698]
 01103> [0.045 , 0.922]
 01104> [1.247 , 1.155]
 01105> [1.247 , 1.155] (max twenty pts)
 01106> IDovf=[8], NHYDovf=[*#4Over*]
 01107> *-----
 01108> ----- RDbun=[9], NHYD=[*Foley Drain*], IDs to add=[4+5+8]
 01109> *-----
 01110> ----- ADD HYD
 01111> IDsum=[4], NHYD=[*Ext 4*], DT=[1]min, AREA=[6.3](ha),
 01112> SCS curve number CN=[74], TPF=[0.64]hrs, END=1
 01113> CALIB NASHYD
 01114> RAINFALL=[, , , 1(mm/hr) , END=1
 01115> *-----
 01116> IDsum=[5], NHYD=[*Pt. of IntP*], IDs to add=[9+4]
 01117> ADD HYD
 01118> IDsum=[10], NHYD=[*%P of IntT*], IDs to add=[1+2+3+6]
 01119> *-----
 01120> *----- ADD HYD
 01121> IDsum=[10], NHYD=[*%P of IntT*], IDs to add=[1+2+3+6]
 01122> *-----
 01123> *-----
 01124> *----- 11 000 Y Y RRRR CCCC H H IIIII
 01125> 1 0 0 Y Y R R C H H I
 01126> 0 0 0 Y Y R R C H H I
 01127> 1 0 0 Y Y R R C H H I
 01128> *----- 11111 000 Y Y R R CCCC H H IIIII
 01129> *-----
 01130> *----- 10-YEAR, 3 HOUR CHICAGO STORM
 01131> *-----
 01132> *-----
 01133> *----- UNITS=[2], TDP=[3](hrs), TPRA=[0.333], CSDF=[5](min),
 01134> ICASEchd=[1],
 01135> Estimated ordinates of IDF curve below, at least seven points
 01136> TIME (min) Intensity(mm/hr)
 01137> [10] [185.8]
 01138> [10] [185.8]
 01139> [10] [185.8]
 01140> [15] [86.8]
 01141> [30] [53.7]
 01142> [60] [32.3]
 01143> [120] [20.5]
 01144> [360] [9.6]
 01145> [720] [5.9]
 01146> [1440] [3.7]
 01147> [-1] [-1]
 01148> *-----
 01149> *-----
 01150> *----- Controlled Runoff From ZONE 1
 01151> *-----
 01152> *-----
 01153> *-----
 01154> *-----
 01155> *-----
 01156> *----- SWM Facility #1 Area -----
 01157> *----- West Site Area -----
 01158> *-----
 01159> *-----
 01160> *----- ADD HYD
 01161> IDsum=[11], NHYD=[*Ext 5*], DT=[1]min, AREA=[0.97](ha),
 01162> SCS curve number CN=[77.7], C/N=[17.7], IA=[4.5](mm),
 01163> TPF=[0.26]hrs, END=1
 01164> RAINFALL=[, , , 1(mm/hr) , END=1
 01165> *-----
 01166> CALIB STANDYD
 01167> ID=[2], NHYD=[*FB Z1-1*], DT=[1](min), AREA=[12.37](ha),
 01168> XIMP=[0.3], TINF=[0.50], DWF=[0](cms), LOSS=[2],
 01169> SCS curve number CN=[74],
 01170> Impervious surfaces: IAImp=[1](mm), SLIP=[2.0](%),
 01171> Pervious surfaces: IApers=[1](mm), SLIP=[2.0](%),
 01172> RAINFALL=[, , , 1(mm/hr) , END=1
 01173> *-----
 01174> CALIB STANDYD
 01175> ID=[3], NHYD=[*FB Z1-3*], DT=[1](min), AREA=[0.28](ha),
 01176> XIMP=[0.3], TINF=[0.50], DWF=[0](cms), LOSS=[2],
 01177> SCS curve number CN=[74],
 01178> Impervious surfaces: IAImp=[1](mm), SLIP=[2.0](%),
 01179> Pervious surfaces: IAImp=[1](mm), SLIP=[2.0](%),
 01180> RAINFALL=[, , , 1(mm/hr) , END=1
 01181> *-----
 01182> *----- ADD HYD
 01183> IDsum=[4], NHYD=[*FB 1M*], IDs to add=[1+2+3+4]
 01184> *-----
 01185> *-----
 01186> *----- SWM Facility #1 -----
 01187> *-----
 01188> *----- ROUTE RESERVOIR -----
 01189> IDout=[5], NHYD=[*#3Out*], IDin=[5],
 01190> RDT=[1](min)
 01191> TABLE of (OUTFLOW-STORAGE) values
 01192> (cms) - (ha-m)
 01193> [0.0 , 0.0]
 01194> [0.005 , 0.034]
 01195> [0.01 , 0.10]
 01196> [0.013 , 0.164]
 01197> [0.017 , 0.297]
 01198> [0.018 , 0.30]
 01199> [0.02 , 0.329]
 01200> [0.022 , 0.374]
 01201> [0.067 , 0.948]
 01202> [0.134 , 1.932]
 01203> [-1 , -1] (max twenty pts)
 01204> IDovf=[2], NHYDovf=[*#1Over*]
 01205> *-----
 01206> *----- Watercourse Flows- ZONE 1
 01207> *-----
 01208> *-----
 01209> *----- West Watercourse Area -----
 01210> *----- Small Unnamed Tributary -----
 01211> *-----
 01212> *-----
 01213> CALIB NASHYD
 01214> ID=[3], NHYD=[*Ext 1*], DT=[1]min, AREA=[41.2](ha),
 01215> SCS curve number CN=[74.1], IA=[6.1](mm),
 01216> TPF=[0.57]hrs, END=1
 01217> RAINFALL=[, , , 1(mm/hr) , END=1
 01218> *-----
 01219> ROUTE CHANNEL
 01220> IDout=[4], NHYD=[*SsiteLag*], IDin=[3],
 01221> RDT=[1](min),
 01222> CHLSLOP=[425](m), CHLSLOPE=[0.96](%),
 01223> SECNUM=[1], NSEG=[3]
 01224> (SEGRROUTE, SEGDIS (m) = 0.035, 75.5 , -0.045, 78.5 0.035, 151.0) NSEG times
 01225> (DISTANCE (m), ELEVATION (m) = 15.0 , 515.000
 01226> [48.0 , 514.81]
 01227> [60.0 , 514.69]
 01228> [64.0 , 514.57]
 01229> [75.5 , 514.23]
 01230> [76.0 , 514.06]
 01231> [77.5 , 514.00]
 01232> [78.5 , 514.36]
 01233> [79.5 , 514.39]
 01234> [82.0 , 514.33]
 01235> [103.5 , 514.51]
 01236> [118.5 , 514.67]
 01237> [130.5 , 514.50]
 01238> [135.0 , 514.00]
 01239> [179.5 , 514.39]
 01240> [217.5 , 514.39]
 01241> [218.5 , 514.36]
 01242> [219.5 , 514.39]
 01243> [221.5 , 514.39]
 01244> [223.5 , 514.39]
 01245> [227.5 , 514.39]
 01246> [231.5 , 514.39]
 01247> [235.5 , 514.39]
 01248> *-----
 01249> CALIB NASHYD
 01250> ID=[5], NHYD=[*FB Z1-2*], DT=[1]min, AREA=[5.68](ha),
 01251> SCS curve number CN=[77.1], IA=[6.4](mm),
 01252> TPF=[0.40]hrs, END=1
 01253> RAINFALL=[, , , 1(mm/hr) , END=1
 01254> *-----
 01255> *----- Total Flow at South Property Line -----
 01256> *-----
 01257> *----- ADD HYD
 01258> IDsum=[3], NHYD=[*GSS Pt*], IDs to add=[1+2+4+5]
 01259> *-----
 01260> ROUTE CHANNEL
 01261> IDout=[1], NHYD=[*GS Lag*], IDin=[3],
 01262> RDT=[1](min), CHLSLOP=[1.05](%),
 01263> TABLE of (OUTFLOW-STORAGE) values
 01264> (OUTLET-SURFACE) values
 01265> (cm/m - (ha-m))
 01266> [0.007 , 0.036]
 01267> [0.013 , 0.075]
 01268> [0.018 , 0.107]
 01269> [0.023 , 0.202]
 01270> [0.030 , 0.348]
 01271> [0.035 , 0.517]
 01272> [0.040 , 0.698]
 01273> [0.045 , 0.922]
 01274> [1.247 , 1.155]
 01275> [1.247 , 1.155] (max twenty pts)
 01276> IDovf=[8], NHYDovf=[*#4Over*]
 01277> *-----
 01278> *----- CALIB NASHYD
 01279> ID=[2], NHYD=[*Ext 3*], DT=[1]min, AREA=[1.55](ha),
 01280> SCS curve number CN=[74],
 01281> IA=[10](mm), TPF=[0.47]hrs, C/N=[60], IA=[10](mm),
 01282> N=[3], TF=[0.47]hrs, END=1
 01283> *-----
 01284> *----- Controlled Runoff From ZONE 2 -----
 01285> *-----
 01286> *----- ADD HYD
 01287> IDsum=[8], NHYD=[*#4Over*]
 01288> *-----
 01289> *----- CALIB STANDYD
 01290> ID=[3], NHYD=[*FB1-A*], DT=[1](min), AREA=[1.5](ha),
 01291> XIMP=[0.51], TINF=[0.51], DWF=[0](cms), LOSS=[2],
 01292> SCS curve number CN=[74],
 01293> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01294> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01295> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01296> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01297> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01298> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01299> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01300> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01301> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01302> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01303> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01304> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01305> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01306> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01307> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01308> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01309> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01310> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01311> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01312> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01313> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01314> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01315> Note: all flows are in (cms)
 01316> Q [0.000 + 0.000] QTOTAL [0.000]
 01317> Q [0.000 + 0.000] QTOPO [0.000]
 01318> Q [0.035 + 0.000] Q [0.035]
 01319> Q [0.035 + 0.000] Q [0.035] end
 01320> *-----
 01321> CALIB STANDYD
 01322> ID=[4], NHYD=[*FB1-A*], DT=[1](min), AREA=[0.33](ha),
 01323> XIMP=[0.51], TINF=[0.51], DWF=[0](cms), LOSS=[2],
 01324> SCS curve number CN=[74],
 01325> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01326> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01327> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01328> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01329> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01330> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01331> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01332> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01333> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01334> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01335> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01336> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01337> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01338> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01339> Pervious surfaces: IApers=[5](mm), SLPF=[2.0](%),
 01340> Impervious surfaces: IAImp=[2](mm), SLIP=[0.25](%),
 01341> *-----
 01342> DIVERT HYD
 01343> IDsum=[8], NHYD=[*#2 In*], IDs to add=[3+5+4+7]
 01344> *-----
 01345> *----- SWM Facility #2 -----
 01346> *-----
 01347> *----- ROUTE RESERVOIR -----
 01348> IDout=[5], NHYD=[*#3Out*], IDin=[8],
 01349> RDT=[1](min)
 01350> TABLE of (OUTFLOW-STORAGE) values
 01351> (OUTLET-SURFACE) values
 01352> (cm/m - (ha-m))
 01353> [0.000 + 0.000] Q [0.000]
 01354> [0.000 + 0.000] Q [0.000]
 01355> [0.000 + 0.048] Q [0.048]
 01356> [0.026 + 0.123] Q [0.123]
 01357> [0.035 + 0.035] Q [0.035]
 01358> [0.035 + 0.035] Q [0.035]
 01359> [0.035 + 0.035] Q [0.035]
 01360> [0.035 + 0.035] Q [0.035]
 01361> [0.035 + 0.035] Q [0.035]
 01362> [0.035 + 0.035] Q [0.035]
 01363> [0.060 + 0.320] Q [0.320]
 01364> [0.146 + 0.380] Q [0.380]
 01365> [0.239 + 0.443] Q [0.443]
 01366> [0.332 + 0.510] Q [0.510]
 01367> [0.429 + 0.642] Q [0.642]
 01368> [0.514 + 0.711] Q [0.711]
 01369> [0.601 + 0.797] Q [0.797]
 01370> [0.687 + 0.818] Q [0.818]
 01371> [0.774 + 0.847] Q [0.847]
 01372> *-----
 01373> DIVERT HYD
 01374> IDsum=[5], NHYD=[*2 In*], IDs to add=[1+4+1]
 01375> *-----
 01376> flow distribution table: (modify as necessary)
 01377> Note: all flows are in (cms)
 01378> Q [0.000 + 0.008] Q [0.008]
 01379> Q [0.000 + 0.008] Q [0.008]
 01380> Q [0.000 + 0.033] Q [0.033]
 01381> Q [0.000 + 0.044] Q [0.044]
 01382> Q [0.000 + 0.050] Q [0.050]
 01383> Q [0.053 + 0.093] Q [0.093]
 01384> Q [0.097 + 0.143] Q [0.143]
 01385> Q [0.240 + 0.352] Q [0.352]
 01386> Q [0.345 + 0.554] Q [0.554]
 01387> Q [0.461 + 1.285] Q [1.285]
 01388> Q [0.503 + 1.486] Q [1.486]
 01389> Q [0.543 + 1.680] Q [1.680]
 01390> Q [0.679 + 4.312] Q [4.312]
 01391> Q [0.975 + 12.716] Q [13.692] end
 01392> *-----
 01393> *----- Watercourse Flows- ZONE 2 -----
 01394> *-----
 01395> *-----
 01396> *----- East Watercourse Area -----
 01397> *----- Foley Drain -----
 01398> *-----
 01399> *-----
 01400> *-----
 01401> *-----
 01402> *-----
 01403> CALIB NASHYD
 01404> ID=[5], NHYD=[*Ext 2*], DT=[1]min, AREA=[41.72](ha),
 01405> SCS curve number CN=[74.7], IA=[7.65](mm),
 01406> TPF=[1.8]hrs, END=1
 01407> RAINFALL=[, , , 1(mm/hr) , END=1
 01408> CALIB NASHYD
 01409> ID=[7], NHYD=[*NAR*], DT=[1]min, AREA=[6.51](ha),
 01410> DWF=[0](cms), C/N=[79.1], IA=[6.4](mm),
 01411> N=[3], TPF=[0.36]hrs, END=1
 01412> RAINFALL=[, , , 1(mm/hr) , END=1
 01413> *-----
 01414> *----- ADD HYD -----
 01415> IDsum=[8], NHYD=[*SiteLag*], IDin=[8],
 01416> RDT=[1](min), CHLSLOP=[0.65](%),
 01417> SECNUM=[1], NSEG=[3]
 01418> (SEGRROUTE, SEGDIS (m) = 0.035, 215.60 , -0.045, 221.70 0.035, 266.50) NSEG times
 01419> (DISTANCE (m), ELEVATION (m) = 179.5 , 514.50
 01420> [196.60 , 514.00]
 01421> [202.50 , 513.99]
 01422> [216.55 , 513.00]
 01423> [217.20 , 512.50]
 01424> [217.45 , 512.46]
 01425> [217.50 , 512.40]
 01426> [217.75 , 512.30]
 01427> [218.25 , 512.00]
 01428> [218.95 , 513.00]
 01429> [220.50 , 513.00]
 01430> [221.30 , 513.71]
 01431> [230.40 , 513.71]
 01432> [243.80 , 514.00]
 01433> [249.20 , 514.23]
 01434> [259.50 , 514.28]
 01435> [266.50 , 514.50]
 01436> *-----
 01437> *----- Controlled Runoff From ZONE 3 -----
 01438> *-----
 01439> *-----
 01440> *-----

01441> *-----
01442> -----
01443> CALIB STANDHYD
01444> ID=[7], NYHD=[{"FBZ*"}, DT=[1] (min), AREA=[10.1] (ha),
01445> XIMP=[0.312], TIME=[0.579], DWF=[0] (cms), LOSS=[2],
01446> SCS curve number CN=[74],
01447> Previous surfaces: IApers=[5] (mm), SLIP=[2.0] (%),
01448> Impervious surfaces: LGI=[40] (m), MNF=[0.25], SCP=[0] (min),
01449> Impervious surfaces: IALimp=[2] (mm), SLIP=[0.5] (%),
01450> Impervious surfaces: LGI=[293] (m), MNF=[0.013], SCI=[0] (min),
01451> RAINFALL=[, , , 1 (mm/hr) , END=1]
01452> *-----
01453> CALIB STANDHYD
01454> ID=[8], NYHD=[{"SMWF*"}, DT=[1] (min), AREA=[1.21] (ha),
01455> XIMP=[0.50], TIME=[0.50], DWF=[0] (cms), LOSS=[2],
01456> SCS curve number CN=[74],
01457> Previous surfaces: IApers=[5] (mm), SLIP=[2.0] (%),
01458> Impervious surfaces: IALimp=[2] (mm), SLIP=[0.5] (%),
01459> Impervious surfaces: LGI=[40] (m), MNF=[0.25], SCP=[0] (min),
01460> Impervious surfaces: IALimp=[2] (mm), SLIP=[0.5] (%),
01461> RAINFALL=[, , , 1 (mm/hr) , END=1]
01462> ADD HYD
01463> IDsum=[9], NYHD=[{"P3IN*"}, IDs to add=[7+8]
01464> *-----
01465> SWM Facility #3
01466> *-----
01467> ROUTE RESERVOIR
01468> IDout=[7], NYHD=[{"#4Out*"}, IDin=[9],
01469> ROT=[1] (min)
01470> TABLE of (OUTFLOW-STORAGE) values
01471> (cms) - (ha=m)
01472> (0.007 , 0.036)
01473> (0.013 , 0.075)
01474> (0.017 , 0.117)
01475> (0.017 , 0.115)
01476> (0.023 , 0.202)
01477> (0.026 , 0.210)
01478> (0.030 , 0.248)
01479> (0.035 , 0.317)
01480> (0.040 , 0.709)
01481> (0.045 , 0.822)
01482> (1.247 , 1.155)
01483> [-----
01484> IDovf=[8], NYHDovf=[#82over*]
01485> *-----
01486> ADD HYD
01487> IDsum=[9], NYHD=[{"Foley Drain"}, IDs to add=[4+5+7+8]
01488> *-----
01489> CALIB NASHYD
01490> ID=[4], NYHD=[{"Ext 4"}, DT=[1] (min), AREA=[6.3] (ha),
01491> DWF=[0] (cms), CN=[64.8], IA=[10] (mm),
01492> XIMP=[0.41], TIME=[0.64] (hrs), J [mm/hr], END=1
01493> *-----
01494> ADD HYD
01495> IDsum=[5], NYHD=[{"Pct of Inv*"}, IDs to add=[9+4]
01496> *-----
01497> ADD HYD
01498> IDsum=[10], NYHD=[{"Pct of Inv"}, IDs to add=[4+2+3+6]
01499> *-----
01500> *-----
01501> # 2222 5555 Y Y RRRR CCCC H H IIIII
01502> # 2 5 Y Y R R C H H I
01503> # 2222 5555 Y Y RRRR C H H IIIII
01504> # 2222 5555 Y R R CCCC H H IIIII
01505> #-----
01506> *-----
01507> *-----
01508> *-----
01509> *-----
01510> CHICAGO STORM
01511> UNITS=[2], TDA=[3] (hrs), TRATR=[0.333], CSSTD=[5] (min),
01512> ICASEcs=[2],
01513> Enter coordinates of IDF curve below, at least seven points
01514> TIME (min) Intensity(mm/hr)
01515> (5) [220.5]
01516> (10) [180.0]
01517> (15) [140.0]
01518> (30) [63.7]
01519> (45) [1.4]
01520> (120) [24.4]
01521> [360] [11.4]
01522> [720] [7.0]
01523> [1440] [4.4]
01524> [-----
01525> *-----
01526> *-----
01527> *-----
01528> Controlled Runoff from ZONE 1
01529> *-----
01530> *-----
01531> *-----
01532> *-----
01533> *-----
01534> *-----
01535> *-----
01536> CALIB NASHYD
01537> ID=[1], NYHD=[{"Ext 5"}, DT=[1] (min), AREA=[0.97] (ha),
01538> DWF=[0] (cms), CN=[17.7], IA=[4.5] (mm),
01539> XIMP=[0.31], TIME=[0.41] (hrs), J [mm/hr], END=1
01540> *-----
01541> CALIB STANDHYD
01542> ID=[2], NYHD=[{"FB 2.1*"}, DT=[1] (min), AREA=[12.37] (ha),
01543> XIMP=[0.31], TIME=[0.50], DWF=[0] (cms), LOSS=[2],
01544> SCS curve number CN=[74],
01545> Previous surfaces: IApers=[5] (mm), SLIP=[2.0] (%),
01546> Impervious surfaces: IALimp=[2] (mm), MNF=[0.25], SCP=[0] (min),
01547> RAINFALL=[, , , 1 (mm/hr) , END=1]
01548> *-----
01549> CALIB STANDHYD
01550> ID=[3], NYHD=[{"FB 2.1*"}, DT=[1] (min), AREA=[0.98] (ha),
01551> XIMP=[0.31], TIME=[0.50], DWF=[0] (cms), LOSS=[2],
01552> SCS curve number CN=[74],
01553> Previous surfaces: IApers=[5] (mm), SLIP=[2.0] (%),
01554> Impervious surfaces: IALimp=[2] (mm), SLIP=[0.5] (%),
01555> RAINFALL=[, , , 1 (mm/hr) , END=1]
01556> *-----
01557> CALIB STANDHYD
01558> ID=[4], NYHD=[{"SMWF*"}, DT=[1] (min), AREA=[1.9] (ha),
01559> XIMP=[0.51], TIME=[0.51], DWF=[0] (cms), LOSS=[2],
01560> SCS curve number CN=[74],
01561> Previous surfaces: IApers=[5] (mm), SLIP=[2.0] (%),
01562> Impervious surfaces: IALimp=[2] (mm), MNF=[0.25], SCP=[0] (min),
01563> Impervious surfaces: IALimp=[2] (mm), SLIP=[0.5] (%),
01564> RAINFALL=[, , , 1 (mm/hr) , END=1]
01565> *-----
01566> ADD HYD
01567> IDsum=[5], NYHD=[{"Pft 1In*"}, IDs to add=[4+2+3+4]
01568> *-----
01569> *-----
01570> *-----
01571> ROUTE RESERVOIR
01572> IDout=[11], NYHD=[{"#4Out*"}, IDin=[5],
01573> ROT=[1] (min)
01574> TABLE of (OUTFLOW-STORAGE) values
01575> (cms) - (ha=m)
01576> (0.005 , 0.034)
01577> (0.011 , 0.114)
01578> (0.017 , 0.209)
01579> (0.018 , 0.380)
01580> (0.022 , 0.423)
01581> (0.022 , 0.734)
01582> (0.067 , 0.848)
01583> (0.125 , 1.092)
01584> [-----
01585> IDovf=[2], NYHDovf=[#810over*]
01586> *-----
01587> *-----
01588> *-----
01589> *-----
01590> *-----
01591> Watercourse Flows - ZONE 1
01592> *-----
01593> *-----
01594> *-----
01595> *-----
01596> *-----
01597> *-----
01598> CALIB NASHYD
01599> ID=[3], NYHD=[{"Ext 1"}, DT=[1] (min), AREA=[41.2] (ha),
01600> DWF=[0] (cms), CN=[C*(74.1), IA=[6.1] (mm),
01601> XIMP=[0.31] (hrs), J [mm/hr], END=1
01602> *-----
01603> ROUTE CHANNEL
01604> IDout=[4], NYHD=[{"SiteLag"}, IDin=[3],
01605> ROT=[1] (min),
01606> CHLTHB=[425] (m), CHLSLOPE=[0.96] (%),
01607> FLSLOPE=[0.96] (%),
01608> SECNUM=[1], NSEG=[1]
01609> (SEGROUGH, SEGDIST (m))=[10.035, 75.5 , -0.045, 78.5 0.035, 151.0] NSEG times
01610> (DISTANCE (m), ELEVATION (m))=[
01611> 48.0, 514.81]
01612> [60.0, 514.69]
01613> [68.5, 514.54]
01614> [77.5, 514.06]
01615> [78.5, 514.36]
01616> [79.5, 514.39]
01617> [92.5, 514.49]
01618> [105.5, 514.51]
01619> [119.5, 514.67]
01620> [-----
01621> [130.5, 514.50]
01622> [151.0, 515.00]
01623> *-----
01624> CALIB NASHYD
01625> ID=[5], NYHD=[{"FB Z-2*"}, DT=[1] (min), AREA=[5.68] (ha),
01626> DWF=[0] (cms), CN=[C*(77), IA=[6.4] (mm),
01627> XIMP=[0.41], TIME=[0.40] (hrs), J [mm/hr],
01628> RAINFALL=[, , , 1 (mm/hr) , END=1]
01629> *-----
01630> ADD HYD
01631> IDsum=[3], NYHD=[{"Unc Pl*"}, IDs to add=[1+4+4+5]
01632> *-----
01633> ROUTE CHANNEL
01634> IDout=[1], NYHD=[{"DS Lag"}, IDin=[3],
01635> ROT=[1] (min),
01636> CHLTHB=[150] (m), CHLSLOPE=[0.96] (%),
01637> SECNUM=[1], NSEG=[3]
01638> (SEGROUGH, SEGDIST (m))=[10.035, 75.5 , -0.045, 78.5 0.035, 151.0] NSEG times
01639> (DISTANCE (m), ELEVATION (m))=[
01640> 48.0, 514.81]
01641> [60.0, 514.69]
01642> [68.5, 514.54]
01643> [76.0, 514.36]
01644> [76.0, 514.06]
01645> [77.5, 514.39]
01646> [78.5, 514.36]
01647> [79.5, 514.39]
01648> [82.5, 514.49]
01649> [103.5, 514.51]
01650> [118.5, 514.67]
01651> [130.5, 514.50]
01652> [151.0, 515.00]
01653> *-----
01654> CALIB NASHYD
01655> ID=[12], NYHD=[{"Ext 3"}, DT=[1] (min), AREA=[1.55] (ha),
01656> DWF=[0] (cms), CN=[C*(60), IA=[19] (mm),
01657> XIMP=[0.41], TIME=[0.47] (hrs), J [mm/hr], END=1
01658> RAINFALL=[, , , 1 (mm/hr) , END=1]
01659> *-----
01660> *-----
01661> ADD HYD
01662> *-----
01663> *-----
01664> Controlled Runoff from ZONE 2
01665> *-----
01666> *-----
01667> *-----
01668> *-----
01669> CALIB STANDHYD
01670> ID=[3], NYHD=[{"Pft1*"}, DT=[1] (min), AREA=[14.70] (ha),
01671> XIMP=[0.41], TIME=[0.41], DWF=[0] (cms), LOSS=[2],
01672> SCS curve number CN=[74],
01673> Previous surfaces: IApers=[5] (mm), SLIP=[2.0] (%),
01674> Impervious surfaces: IALimp=[2] (mm), SLIP=[0.5] (%),
01675> Impervious surfaces: LGI=[40] (m), MNF=[0.25], SCP=[0] (min),
01676> RAINFALL=[, , , 1 (mm/hr) , END=1]
01677> *-----
01678> CALIB STANDHYD
01679> ID=[4], NYHD=[{"MINOR*"}, DT=[1] (min), AREA=[0.21] (ha),
01680> XIMP=[0.41], TIME=[0.394], DWF=[0] (cms), LOSS=[2],
01681> SCS curve number CN=[74],
01682> Previous surfaces: IApers=[5] (mm), SLIP=[2.0] (%),
01683> Impervious surfaces: IALimp=[2] (mm), SLIP=[0.5] (%),
01684> Impervious surfaces: LGI=[40] (m), MNF=[0.25], SCP=[0] (min),
01685> RAINFALL=[, , , 1 (mm/hr) , END=1]
01686> *-----
01687> DIVERT HYD
01688> IDsum=[4], NDout=[2] max five,
01689> outflow hydrograph (ID, NYHD)=[5, "MINOR", 6, "MAJOR"]
01690> Note: all flows are in (cms)
01691> QID1 + QID2 = QTOTAL
01692> (0.000 + 0.000 = 0.000)
01693> (0.035 + 0.000 = 0.035)
01694> (0.035 + 10.000 = 10.035)end
01695> *-----
01696> CALIB STANDHYD
01697> ID=[4], NYHD=[{"FB-A*"}, DT=[1] (min), AREA=[0.33] (ha),
01698> XIMP=[0.41], TIME=[0.394], DWF=[0] (cms), LOSS=[2],
01699> SCS curve number CN=[74],
01700> Previous surfaces: IApers=[5] (mm), SLIP=[2.0] (%),
01701> Impervious surfaces: IALimp=[2] (mm), SLIP=[0.5] (%),
01702> Impervious surfaces: LGI=[40] (m), MNF=[0.25], SCP=[0] (min),
01703> RAINFALL=[, , , 1 (mm/hr) , END=1]
01704> *-----
01705> CALIB STANDHYD
01706> ID=[7], NYHD=[{"SMWF2*"}, DT=[1] (min), AREA=[1.11] (ha),
01707> XIMP=[0.51], TIME=[0.51], DWF=[0] (cms), LOSS=[2],
01708> SCS curve number CN=[74],
01709> Previous surfaces: IApers=[5] (mm), SLIP=[2.0] (%),
01710> Impervious surfaces: IALimp=[2] (mm), SLIP=[0.5] (%),
01711> Impervious surfaces: LGI=[40] (m), MNF=[0.25], SCP=[0] (min),
01712> RAINFALL=[, , , 1 (mm/hr) , END=1]
01713> *-----
01714> *-----
01715> *-----
01716> ADD HYD
01717> IDsum=[8], NYHD=[{"#P2 In"}, IDs to add=[3+5+4+7]
01718> *-----
01719> *-----
01720> *-----
01721> *-----
01722> *-----
01723> TABLE of (OUTFLOW-STORAGE) values
01724> (cms) - (ha=m)
01725> (0.0 , 0.048)
01726> (0.026 , 0.123)
01727> (0.036 , 0.204)
01728> (0.080 , 0.320)
01729> (0.110 , 0.350)
01730> (0.130 , 0.380)
01731> (0.239 , 0.443)
01732> (0.360 , 0.574)
01733> (0.462 , 0.642)
01734> (1.154 , 0.711)
01735> (1.335 , 0.782)
01736> (1.713 , 0.818)
01737> (1.824 , 0.847)
01738> (1.984 , 0.855)
01739> (2.040 , 0.860)
01740> (4.449 , 1.032)
01741> (12.016 , 1.330)
01742> [-----
01743> IDovf=[4], NYHDovf=[#P2 over*]
01744> *-----
01745> ADD HYD
01746> IDsum=[5], NYHD=[{"#P2 Out"}, IDs to add=[3+4]
01747> *-----
01748> DIVERT HYD
01749> IDsum=[5], NYHD=[{"#Ptwo In"}, IDs to add=[3+5+4+7]
01750> *-----
01751> *-----
01752> Note: all flows are in (cms)
01753> QID1 + QID2 = QTOTAL
01754> (0.000 + 0.008 = 0.008)
01755> (0.000 + 0.022 = 0.026)
01756> (0.000 + 0.044 = 0.044)
01757> (0.019 + 0.062 = 0.080)
01758> (0.020 + 0.094 = 0.114)
01759> (0.097 + 0.143 = 0.239)
01760> (0.208 + 0.352 = 0.560)
01761> (0.461 + 0.745 = 1.206)
01762> (1.461 + 1.285 = 1.746)
01763> (0.503 + 1.486 = 1.988)
01764> (0.503 + 2.046 = 2.549)
01765> (0.679 + 2.312 = 2.991)
01766> (0.975 + 12.716 = 13.692) end
01767> *-----
01768> *-----
01769> *-----
01770> *-----
01771> *-----
01772> *-----
01773> *-----
01774> *-----
01775> *-----
01776> *-----
01777> *-----
01778> CALIB NASHYD
01779> ID=[5], NYHD=[{"Ext-2"}, DT=[1] (min), AREA=[417.2] (ha),
01780> DWF=[0] (cms), CN=[C*(74.7), IA=[7.65] (mm),
01781> XIMP=[0.41], TIME=[0.8] (hrs), J [mm/hr], END=1
01782> RAINFALL=[, , , 1 (mm/hr) , END=1]
01783> *-----
01784> CALIB NASHYD
01785> ID=[7], NYHD=[{"S4*"}, DT=[1] (min), AREA=[6.51] (ha),
01786> DWF=[0] (cms), CN=[C*(79.1), IA=[6.4] (mm),
01787> XIMP=[0.36] (hrs), J [mm/hr], END=1
01788> RAINFALL=[, , , 1 (mm/hr) , END=1]
01789> *-----
01790> ROUTE CHANNEL
01791> IDout=[1], NYHD=[{"SiteLag"}, IDin=[8],
01792> ROT=[1] (min),
01793> CHLTHB=[510] (m), CHLSLOPE=[0.65] (%),
01794> SECNUM=[1], NSEG=[3]
01795> (SEGROUGH, SEGDIST (m))=[0.035, 215.60 , -0.045, 221.70 0.035, 266.50] NSEG times
01796> (DISTANCE (m), ELEVATION (m))=[
01797> 514.50]
01798> (196.60, 514.00)
01799> (215.60, 513.59)
01800> (216.55, 513.60)
01801> (237.20, 512.50)

01801- [217.45, 512.46]
01802- [217.80, 512.50]
01803- [221.30, 513.00]
01804- [221.30, 513.50]
01805- [221.70, 513.71]
01806- [224.20, 514.11]
01807- [243.80, 514.00]
01808- [249.40, 514.12]
01809- [249.40, 514.09]
01810- [246.50, 514.50]
01811- *-----
01812- | Controlled Runoff From ZONE 3
01813- *-----
01814- *-----
01815- *-----
01816- *-----
01817- *-----
01818- *-----
01819- CALIB STANDRD ID=[7], NYHD=[FB2*], DT=[1]min, AREA=[10.1] (ha), XIMP=[0.312], TIME=[0.579], DWF=[0] (cms), LOSS=[2], SCS curve number CN=[74],
01820- Previous surfaces: IAPer=[5] (mm), SLIP=[2.0] (%),
01821- Impervious surfaces: IAImp=[2] (mm), SLIP=[2.0] (%),
01822- RAINFALL=[, , , ,] (mm/hr), END=1
01823- *-----
01824- *-----
01825- *-----
01826- *-----
01827- *-----
01828- CALIB STANDRD ID=[8], NYHD=[SMF3*], DT=[1]min, AREA=[21.1] (ha), XIMP=[0.501], TIME=[0.501], DWF=[0] (cms), LOSS=[2], SCS curve number CN=[74],
01829- Previous surfaces: IAPer=[5] (mm), SLIP=[2.0] (%),
01830- Impervious surfaces: IAImp=[2] (mm), SLIP=[2.0] (%),
01831- RAINFALL=[, , , ,] (mm/hr), END=1
01832- *-----
01833- *-----
01834- *-----
01835- *-----
01836- *-----
01837- ADD HYD IDsum=[9], NYHD=[P3IN*], IDs to add=[7+8]
01838- *-----
01839- *-----
01840- *-----
01841- *-----
01842- ROUTE RESERVOIR IDout=[7], NYHD=[#3Out*], IDin=[9], ROT=[1] (min)
01843- TABLE of (OUTFLOW-STORAGE) values
01844- *-----
01845- [0.0 , 0.0]
01846- [0.005 , 0.034]
01847- [0.013 , 0.075]
01848- [0.016 , 0.107]
01849- [0.021 , 0.131]
01850- [0.023 , 0.202]
01851- [0.027 , 0.272]
01852- [0.031 , 0.348]
01853- [0.035 , 0.317]
01854- [0.040 , 0.709]
01855- [0.045 , 0.922]
01856- [0.047 , 1.051]
01857- [-1 , -1] (max twenty pts)
01858- *-----
01859- IDovf=[8], NYHDovf=[#2Over*]
01860- *-----
01861- ADD HYD IDsum=[9], NYHD=[Foley Drain*], IDs to add=[4+5+7+8]
01862- *-----
01863- CALIB NASHYD ID=[4], NYHD=[Ext 4*], DT=[1]min, AREA=[6.3] (ha), XIMP=[0] (cms), CN=[64.8], IA=[10] (mm),
01864- DWF=[0] (cms), TF=[0.64] (hrs),
01865- RAINFALL=[, , , ,] (mm/hr), END=1
01866- *-----
01867- *-----
01868- ADD HYD IDsum=[5], NYHD=[Pt of Int*], IDs to add=[9+4]
01869- *-----
01870- ADD HYD IDsum=[10], NYHD=[#Pt of Int*], IDs to add=[1+2+3+6]
01871- *-----
01872- *-----
01873- *-----
01874- *-----
01875- 5555 000 Y Y BRRR CCCC H H IIIII
01876- # 5 0 0 Y Y B R R C H H HHHHH
01877- 5555 0 0 Y Y B R R C H H H I
01878- 5555 000 Y Y B R R CCCC H H IIIIII
01879- *-----
01880- *-----
01881- *-----
01882- *-----
01883- *-----
01884- *-----
01885- *-----
01886- *-----
01887- *-----
01888- *-----
01889- *-----
01890- *-----
01891- *-----
01892- *-----
01893- *-----
01894- *-----
01895- *-----
01896- *-----
01897- *-----
01898- *-----
01899- *-----
01900- *-----
01901- *-----
01902- *-----
01903- *-----
01904- *-----
01905- *-----
01906- *-----
01907- *-----
01908- *-----
01909- *-----
01910- *-----
01911- *-----
01912- *-----
01913- *-----
01914- *-----
01915- CALIB STANDRD ID=[12], NYHD=[FB 21-1*], DT=[1]min, AREA=[12.37] (ha), XIMP=[0.511], TIME=[0.501] (hrs), DWF=[0] (cms), LOSS=[2], SCS curve number CN=[74],
01916- Previous surfaces: IAPer=[5] (mm), SLIP=[2.0] (%),
01917- Impervious surfaces: IAImp=[2] (mm), SLIP=[2.0] (%),
01918- RAINFALL=[, , , ,] (mm/hr), END=1
01919- *-----
01920- *-----
01921- *-----
01922- *-----
01923- *-----
01924- CALIB STANDRD ID=[13], NYHD=[FB 21-3*], DT=[1]min, AREA=[0.98] (ha), XIMP=[0.511], TIME=[0.51], DWF=[0] (cms), LOSS=[2], SCS curve number CN=[74],
01925- Previous surfaces: IAPer=[5] (mm), SLIP=[2.0] (%),
01926- Impervious surfaces: IAImp=[2] (mm), SLIP=[2.0] (%),
01927- RAINFALL=[, , , ,] (mm/hr), END=1
01928- *-----
01929- *-----
01930- *-----
01931- *-----
01932- *-----
01933- CALIB STANDRD ID=[14], NYHD=[SMF4#1*], DT=[1]min, AREA=[1.9] (ha), XIMP=[0.5], TIME=[0.51], DWF=[0] (cms), LOSS=[2], SCS curve number CN=[74],
01934- Previous surfaces: IAPer=[5] (mm), SLIP=[2.0] (%),
01935- Impervious surfaces: IAImp=[2] (mm), SLIP=[2.0] (%),
01936- RAINFALL=[, , , ,] (mm/hr), END=1
01937- *-----
01938- *-----
01939- *-----
01940- *-----
01941- *-----
01942- *-----
01943- *-----
01944- *-----
01945- *-----
01946- ROUTE RESERVOIR IDout=[1], NYHD=[#4Out*], IDin=[5], ROT=[1] (min),
01947- TABLE of (OUTFLOW-STORAGE) values
01948- *-----
01949- [0.0 , 0.0]
01950- [0.005 , 0.034]
01951- [0.011 , 0.114]
01952- [0.013 , 0.164]
01953- [0.018 , 0.237]
01954- [0.018 , 0.380]
01955- [0.020 , 0.523]
01956- [0.025 , 0.738]
01957- [0.067 , 0.848]
01958- [0.252 , 1.092]
01959- [-1 , -1] (max twenty pts)
01960- *-----
01961- IDovf=[2], NYHDovf=[#4Over*]
01962- *-----
01963- *-----
01964- *-----
01965- *-----
01966- *-----
01967- *-----
01968- *-----
01969- *-----
01970- *-----
01971- *-----
01972- *-----
01973- *-----
01974- *-----
01975- *-----
01976- *-----
01977- *-----
01978- ROUTE CHANNEL IDout=[4], NYHD=[SsiteLag*], IDin=[3], ROT=[1] (min), CHSLOPE=[0.96] (%),
01979- CHSLOPE=[425] (m), CHSLOPE=[0.96] (%),
01980- *-----
01981- *-----
01982- *-----
01983- *-----
01984- *-----
01985- *-----
01986- *-----
01987- *-----
01988- *-----
01989- *-----
01990- *-----
01991- *-----
01992- *-----
01993- *-----
01994- *-----
01995- *-----
01996- *-----
01997- *-----
01998- *-----
01999- *-----
02000- *-----
02001- *-----
02002- *-----
02003- *-----
02004- *-----
02005- *-----
02006- ADD HYD IDsum=[3], NYHD=[Unc P1*], IDs to add=[1+2+4+5]
02007- *-----
02008- ROUTE CHANNEL IDsum=[1], NYHD=[DB Lag*], IDin=[3], ROT=[1] (min),
02009- CHSLOPE=[0.96] (%),
02010- CHSLOPE=[150] (m), CHSLOPE=[0.96] (%),
02011- CHSLOPE=[0.96] (%),
02012- SEGRNM=[1], NSEG=[3]
02013- (SEGRNM, SEGDST (m))=[0.035, 75.5 - 0.045, 78.5 0.035, 151.0] NSEG times
02014- (DISTANCE (m), ELEVATION (m))=[31.0, 515.00]
02015- *-----
02016- *-----
02017- *-----
02018- *-----
02019- *-----
02020- *-----
02021- *-----
02022- *-----
02023- *-----
02024- *-----
02025- *-----
02026- *-----
02027- *-----
02028- *-----
02029- CALIB NASHYD ID=[2], NYHD=[*P* 4*], DT=[1]min, AREA=[1.55] (ha), XIMP=[0.35], TIME=[0.55], DWF=[0] (cms), LOSS=[2], SCS curve number CN=[60], IA=[10] (mm),
02030- DWF=[0] (cms), TF=[0.47] (hrs),
02031- *-----
02032- RAINFALL=[, , , ,] (mm/hr), END=1
02033- *-----
02034- *-----
02035- *-----
02036- *-----
02037- *-----
02038- *-----
02039- *-----
02040- *-----
02041- *-----
02042- *-----
02043- *-----
02044- CALIB STANDRD ID=[3], NYHD=[FB1*], DT=[1]min, AREA=[14.70] (ha), XIMP=[0.35], TIME=[0.55], DWF=[0] (cms), LOSS=[2], SCS curve number CN=[74],
02045- Previous surfaces: IAPer=[5] (mm), SLIP=[2.0] (%),
02046- Impervious surfaces: IAImp=[2] (mm), SLIP=[2.0] (%),
02047- RAINFALL=[, , , ,] (mm/hr), END=1
02048- *-----
02049- *-----
02050- *-----
02051- *-----
02052- *-----
02053- CALIB STANDRD ID=[4], NYHD=[MINCR*], DT=[1]min, AREA=[0.21] (ha), XIMP=[0.41], TIME=[0.61], DWF=[0] (cms), LOSS=[2], SCS curve number CN=[74],
02054- Previous surfaces: IAPer=[5] (mm), SLIP=[2.0] (%),
02055- Impervious surfaces: IAImp=[2] (mm), SLIP=[2.0] (%),
02056- RAINFALL=[, , , ,] (mm/hr), END=1
02057- *-----
02058- *-----
02059- *-----
02060- *-----
02061- *-----
02062- DIVERT RND IDsum=[4], NDout=[2]max fix,
02063- outflow hydrograph (ID, NYHD)=(5, "MINCR", 6, "MAJOR")
02064- flow distribution table (modify if necessary)
02065- Note: all flows in (cm)
02066- QD11 + QD12 = TOTAL
02067- 0.000 + 0.000 = 0.000
02068- 0.003 + 0.000 = 0.003
02069- 0.035 + 10.000 = 10.035 end
02070- *-----
02071- CALIB STANDRD ID=[4], NYHD=[F2-A*], DT=[1]min, AREA=[0.33] (ha), XIMP=[0.51], TIME=[0.394], DWF=[0] (cms), LOSS=[2], SCS curve number CN=[74],
02072- Previous surfaces: IAPer=[5] (mm), SLIP=[2.0] (%),
02073- Impervious surfaces: IAImp=[2] (mm), SLIP=[2.0] (%),
02074- RAINFALL=[, , , ,] (mm/hr), END=1
02075- *-----
02076- *-----
02077- *-----
02078- *-----
02079- *-----
02080- *-----
02081- *-----
02082- *-----
02083- *-----
02084- *-----
02085- *-----
02086- *-----
02087- *-----
02088- *-----
02089- *-----
02090- *-----
02091- *-----
02092- *-----
02093- *-----
02094- ROUTE RESERVOIR IDout=[3], NYHD=[#3Out*], IDin=[8], ROT=[1] (min),
02095- TABLE of (OUTFLOW-STORAGE) values
02096- *-----
02097- [0.0 , 0.0]
02098- [0.026 , 0.123]
02099- [0.036 , 0.204]
02100- [0.044 , 0.261]
02101- [0.052 , 0.320]
02102- [0.110 , 0.350]
02103- [0.129 , 0.443]
02104- [0.560 , 0.574]
02105- [0.628 , 0.642]
02106- [1.131 , 0.711]
02107- [1.535 , 0.782]
02108- [1.746 , 0.818]
02109- [1.847 , 0.847]
02110- [1.984 , 0.855]
02111- [3.005 , 0.940]
02112- [4.436 , 1.032]
02113- [12.016 , 1.330]
02114- *-----
02115- *-----
02116- *-----
02117- *-----
02118- IDovf=[4], NYHDovf=[#2Over*]
02119- *-----
02120- ADD HYD IDsum=[5], NYHD=[#P2 Out*], IDs to add=[3+4]
02121- *-----
02122- DIVERT RND IDsum=[5], NDout=[2]max fix,
02123- outflow hydrograph (ID, NYHD)=(3, "FTwoM", 4, "FTwoE")
02124- flow distribution table (modify as necessary)
02125- Note: all flows in (cm)
02126- QD11 + QD12 = TOTAL
02127- 0.000 + 0.008 = 0.008
02128- 0.000 + 0.022 = 0.026
02129- 0.000 + 0.033 = 0.033
02130- 0.000 + 0.044 = 0.044
02131- 0.019 + 0.062 = 0.080
02132- 0.053 + 0.093 = 0.146
02133- 0.109 + 0.159 = 0.259
02134- 0.200 + 0.352 = 0.560
02135- 0.345 + 0.809 = 1.1554
02136- 0.446 + 1.080 = 1.530
02137- 0.503 + 1.486 = 1.998
02138- 0.589 + 2.584 = 3.173
02139- 0.747 + 3.191 = 3.938
02140- 0.975 + 12.716 = 13.6921 end
02141- *-----
02142- *-----
02143- *-----
02144- *-----
02145- *-----
02146- *-----
02147- *-----
02148- *-----
02149- *-----
02150- *-----
02151- *-----
02152- *-----
02153- *-----
02154- CALIB NASHYD ID=[5], NYHD=[Ext-2*], DT=[1]min, AREA=[41.72] (ha), DWF=[0] (cms), CN=[74.7], IA=[7.65] (mm),
02155- DWF=[0] (cms), TF=[1.87] (hrs),
02156- RAINFALL=[, , , ,] (mm/hr), END=1
02157- *-----
02158- CALIB NASHYD ID=[7], NYHD=[Ext*], DT=[1]min, AREA=[6.51] (ha), DWF=[0] (cms), CN=[79.1], IA=[6.4] (mm),
02159- DWF=[0] (cms), TF=[0.36] (hrs),
02160- *-----

02161> *-----
02162> RAINFALL=[, , , ,](mm/hr), END=1
02163> ADD HYD
02164> *-----
02165> ROUTE CHANNEL
02166> IDout=[5], NYHD=[*S1stLag*], IDin=[8],
02167> FLSLOPE=[0.65](),
02168> CHLGTH=[550] (m), CHLSLOPE=[0.65](),
02169> SECDIM=[1], NSEG=[3]
02170> (SEGROUNDS, SEGDIST (m))=[0.035, 215.60 -0.045, 221.70 0.035, 266.50] NSEG TIMES
02171> (DISTANCE (m), ELEVATION (m))=[179.70, 514.500]
02172> [215.60, 513.500]
02173> [215.60, 513.593]
02174> [216.55, 513.500]
02175> [217.20, 513.500]
02176> [217.85, 514.450]
02177> [217.80, 512.500]
02178> [218.85, 513.500]
02179> [221.20, 513.500]
02180> [221.70, 513.711]
02181> [230.40, 513.711]
02182> [243.40, 514.100]
02183> [249.40, 514.12]
02184> [259.50, 513.500]
02185> [266.50, 514.500]
02186> *-----
02187> *-----
02188> *-----
02189> *-----
02190> *-----
02191> *-----
02192> *-----
02193> *-----
02194> CALIB STANDBY
02195> ID=[17], NYHD=[*FB1*], DT=[1]min, AREA=[1.1] (ha),
02196> XIMP=[0.312], TIME=[0.579], DWF=[0] (cms), LOSS=[2],
02197> SCS curve number CN=[74],
02198> Previous surfaces: IApex=[5] (mm), SLIP=[2.0] (),
02199> LOP=[40] (m), MNP=[0.25], SCP=[0] (min),
02200> Impervious surfaces: IAImp=[2] (mm), SLIP=[0.5] (),
02201> LGI=[29.9] (m), MNI=[0.013], SCI=[0] (min),
02202> RAINFALL=[, , , ,](mm/hr), END=1
02203> CALIB STANDBY
02204> ID=[8], NYHD=[*S2ndP*], DT=[1]min, AREA=[1.21] (ha),
02205> XIMP=[0.312], TIME=[0.579], DWF=[0] (cms), LOSS=[2],
02206> SCS curve number CN=[74],
02207> Previous surfaces: IApex=[5] (mm), SLIP=[2.0] (),
02208> LOP=[40] (m), MNP=[0.25], SCP=[0] (min),
02209> Impervious surfaces: IAImp=[2] (mm), SLIP=[0.5] (),
02210> LGI=[90] (m), MNI=[0.013], SCI=[0] (min),
02211> RAINFALL=[, , , ,](mm/hr), END=1
02212> ADD HYD
02213> IDsum=[9], NYHD=[*P3IN*], IDs to add=[7+8]
02214> *-----
02215> *-----
02216> *-----
02217> *-----
02218> *-----
02219> *-----
02220> *-----
02221> TABLE of (CUTOFF-STORAGE) values
02222> [0.0 , 0.0]
02223> [0.007 , 0.036]
02224> [0.014 , 0.073]
02225> [0.016 , 0.107]
02226> [0.017 , 0.115]
02227> [0.018 , 0.122]
02228> [0.027 , 0.272]
02229> [0.030 , 0.348]
02230> [0.040 , 0.709]
02231> [0.045 , 0.922]
02232> [1.000 , 1.551]
02233> [-1 , -1] (max twenty pts)
02234> IDovf=[8], NYHDovf=[*#2over*]
02235> *-----
02236> ADD HYD
02237> IDsum=[9], NYHD=[*Poly Drain*], IDs to add=[4+5+7+8]
02238> *-----
02239> CALIB NASHRD
02240> ID=[14], NYHD=[*FB 4*], DT=[1]min, AREA=[6.3] (ha),
02241> DWF=[0] (cms), CN=[45.8], Ia=[10] (mm),
02242> TIME=[0.64] (hrs), NF=[4.81], R=[4.81] (mm),
02243> ADD HYD
02244> IDsum=[10], NYHD=[*Pf of IntP*], IDs to add=[9+4]
02245> ADD HYD
02246> *-----
02247> *-----
02248> *-----
02249> *-----
02250> *-----
02251> 11 000 000 Y N FFFF CCCC H H IIIII
02252> # 1 0 0 0 0 0 Y R R C H H I
02253> # 1 0 0 0 0 0 Y R R R C H H I
02254> # 1111 000 000 Y R R CCCC H H IIIII
02255> *-----
02256> *-----
02257> *-----
02258> *-----
02259> *-----
02260> *-----
02261> 100-YEAR, 3 HOUR CHICAGO STORM
02262> *-----
02263> CHICAGO STORM
02264> UNITNS=[2], TD=[3] (hrs), TPBRT=[0.333], CSDF=[3] (min),
02265> ICASEcs=[2],
02266> Enter ordinates of DP curve below, at least seven points
02267> TIME (min) / (mm/hr)
02268> (5) [270.2]
02269> (10) [147.2]
02270> (15) [113.2]
02271> (30) [76.2]
02272> (60) [45.4]
02273> (120) [23.0]
02274> (360) [14.0]
02275> (720) [8.7]
02276> (1440) [5.4]
02277> -1 -1
02278> *-----
02279> Controlled Runoff From ZONE 1
02280> *-----
02281> *-----
02282> *-----
02283> *-----
02284> *-----
02285> *-----
02286> *-----
02287> *-----
02288> *-----
02289> *-----
02290> *-----
02291> CALIB NASHRD
02292> ID=[1], NYHD=[*Exr 5*], DT=[1]min, AREA=[0.97] (ha),
02293> DWF=[0] (cms), CN=[C=17.7], Ia=[4.5] (mm),
02294> TIME=[0.26] (hrs), R=[4.5] (mm),
02295> ADD HYD
02296> *-----
02297> CALIB STANDBY
02298> ID=[12], NYHD=[*FB 21-1*], DT=[1]min, AREA=[0.97] (ha),
02299> XIMP=[0.51], TIME=[0.51], DWF=[0] (cms), LOSS=[2],
02300> SCS curve number CN=[74],
02301> Previous surfaces: IApex=[5] (mm), SLIP=[2.0] (),
02302> LOP=[40] (m), MNP=[0.25], SCP=[0] (min),
02303> Impervious surfaces: IAImp=[2] (mm), SLIP=[0.5] (),
02304> LGI=[28.7] (m), MNI=[0.013], SCI=[0] (min),
02305> RAINFALL=[, , , ,](mm/hr), END=1
02306> CALIB STANDBY
02307> ID=[13], NYHD=[*FB 21-3*], DT=[1]min, AREA=[0.98] (ha),
02308> XIMP=[0.51], TIME=[0.51], DWF=[0] (cms), LOSS=[2],
02309> SCS curve number CN=[74],
02310> Previous surfaces: IApex=[5] (mm), SLIP=[2.0] (),
02311> LOP=[40] (m), MNP=[0.25], SCP=[0] (min),
02312> Impervious surfaces: IAImp=[2] (mm), SLIP=[0.5] (),
02313> LGI=[28.7] (m), MNI=[0.013], SCI=[0] (min),
02314> RAINFALL=[, , , ,](mm/hr), END=1
02315> CALIB STANDBY
02316> ID=[4], NYHD=[*SNW#1*], DT=[1]min, AREA=[1.9] (ha),
02317> XIMP=[0.51], TIME=[0.51], DWF=[0] (cms), LOSS=[2],
02318> SCS curve number CN=[74],
02319> Previous surfaces: IApex=[5] (mm), SLIP=[2.0] (),
02320> LOP=[40] (m), MNP=[0.25], SCP=[0] (min),
02321> Impervious surfaces: IAImp=[2] (mm), SLIP=[0.5] (),
02322> LGI=[113] (m), MNI=[0.013], SCI=[0] (min),
02323> RAINFALL=[, , , ,](mm/hr), END=1
02324> *-----
02325> *-----
02326> *-----
02327> *-----
02328> *-----
02329> *-----
02330> *-----
02331> *-----
02332> *-----
02333> *-----
02334> *-----
02335> *-----
02336> *-----
02337> *-----
02338> *-----
02339> *-----
02340> *-----
02341> *-----
02342> *-----
02343> *-----
02344> *-----
02345> *-----
02346> *-----
02347> *-----
02348> *-----
02349> *-----
02350> *-----
02351> CALIB NASHRD
02352> ID=[17], NYHD=[*FB 21-1*], DT=[1]min, AREA=[1.1] (ha),
02353> DWF=[0] (cms), CN=[C=7.1], Ia=[4.5] (mm),
02354> TIME=[0.57], NF=[4.81], R=[4.81] (mm),
02355> ADD HYD
02356> *-----
02357> ROUTE CHANNEL
02358> IDout=[4], NYHD=[*S1stLag*], IDin=[8],
02359> CHLGTH=[425] (m), CHLSLOPE=[0.96] (),
02360> FSFSLOPE=[0.96] (),
02361> SECDIM=[1], NSEG=[3]
02362> (SEGROUNDS, SEGDIST (m))=[0.035, 205.60 -0.045, 221.70 0.035, 266.50] NSEG TIMES
02363> (DISTANCE (m), ELEVATION (m))=[179.70, 514.500]
02364> [215.60, 513.593]
02365> [216.55, 513.500]
02366> [217.20, 513.500]
02367> [217.85, 514.450]
02368> [218.85, 513.500]
02369> [221.20, 513.500]
02370> [221.70, 513.711]
02371> [230.40, 513.711]
02372> [243.40, 514.100]
02373> [249.40, 514.12]
02374> [259.50, 513.500]
02375> [266.50, 514.500]
02376> *-----
02377> *-----
02378> *-----
02379> *-----
02380> *-----
02381> *-----
02382> ADD HYD
02383> *-----
02384> *-----
02385> *-----
02386> *-----
02387> *-----
02388> *-----
02389> *-----
02390> *-----
02391> CALIB STANDBY
02392> ID=[17], NYHD=[*FB 21-2*], DT=[1]min, AREA=[5.68] (ha),
02393> DWF=[0] (cms), CN=[C=7.7], Ia=[6.4] (mm),
02394> TIME=[0.49] (hrs), NF=[4.81], R=[4.81] (mm),
02395> ADD HYD
02396> *-----
02397> ROUTE CHANNEL
02398> IDout=[4], NYHD=[*S1stLag*], IDin=[3],
02399> RDT=[1] (min),
02400> CHLGTH=[425] (m), CHLSLOPE=[0.96] (),
02401> FSFSLOPE=[0.96] (),
02402> SECDIM=[1], NSEG=[3]
02403> (SEGROUNDS, SEGDIST (m))=[0.035, 75.5 -0.045, 78.5 0.035, 151.0] NSEG TIMES
02404> (DISTANCE (m), ELEVATION (m))=[31.0, 515.00]
02405> *-----
02406> *-----
02407> *-----
02408> *-----
02409> *-----
02410> *-----
02411> *-----
02412> *-----
02413> *-----
02414> *-----
02415> *-----
02416> *-----
02417> *-----
02418> *-----
02419> *-----
02420> *-----
02421> *-----
02422> *-----
02423> *-----
02424> *-----
02425> *-----
02426> *-----
02427> *-----
02428> *-----
02429> *-----
02430> *-----
02431> *-----
02432> *-----
02433> *-----
02434> *-----
02435> *-----
02436> *-----
02437> *-----
02438> *-----
02439> *-----
02440> *-----
02441> *-----
02442> *-----
02443> *-----
02444> *-----
02445> *-----
02446> *-----
02447> *-----
02448> *-----
02449> *-----
02450> *-----
02451> *-----
02452> *-----
02453> *-----
02454> *-----
02455> *-----
02456> *-----
02457> *-----
02458> *-----
02459> *-----
02460> *-----
02461> *-----
02462> *-----
02463> *-----
02464> *-----
02465> *-----
02466> ADD HYD
02467> *-----
02468> *-----
02469> *-----
02470> ROUTE RESERVOIR
02471> IDsum=[8], NYHD=[*#2 in*], IDs to add=[4+5+4+7]
02472> *-----
02473> TABLE of (CUTOFF-STORAGE) values
02474> [0.0 , 0.0]
02475> [0.005 , 0.048]
02476> [0.026 , 0.123]
02477> [0.036 , 0.204]
02478> [0.046 , 0.281]
02479> [0.080 , 0.320]
02480> [0.110 , 0.350]
02481> [0.140 , 0.380]
02482> [0.239 , 0.443]
02483> [0.560 , 0.574]
02484> [0.840 , 0.642]
02485> [1.154 , 0.731]
02486> [1.355 , 0.782]
02487> [1.746 , 0.818]
02488> [1.948 , 0.841]
02489> [1.984 , 0.855]
02490> [3.000 , 0.940]
02491> [4.449 , 1.032]
02492> [12.016 , 1.330]
02493> [-1 , -1] (max twenty pts)
02494> IDovf=[4], NYHDovf=[*#2over*]
02495> *-----
02496> ADD HYD
02497> *-----
02498> DIVERT HYD
02499> IDsum=[5], NDout=[2] max five,
02500> outflow hydrograph (ID NYHD)=3, *Twofw*
02501> Note: all flows are in (cms)
02502> QID1 + QID1 = QTOTAL
02503> 0 0
02504> [0.000 , 0.008]
02505> [0.000 , 0.022]
02506> [0.000 , 0.033]
02507> [0.000 , 0.044]
02508> [0.019 , 0.062]
02509> [0.019 , 0.080]
02510> [0.057 , 0.143]
02511> [0.208 , 0.352]
02512> [0.345 , 0.809]
02513> [0.345 , 1.1554]
02514> [0.450 , 1.454]
02515> [1.503 , 1.486]
02516> [1.589 , 2.584]
02517> [1.674 , 2.591]
02518> [1.975 , 12.716]
02519> *-----
02520> *-----
02521> Watercourse Flows- ZONE 2

02521> *#
02522> *#
02523> *----- East Watercourse Area -----
02524> *----- Foley Drain -----
02525> *-----
02526> *-----
02527> *-----
02528> *-----
02529> CALIB NASHYD
02530> ID=[1], NHYD=[{"Ext 1"}, DT=[1]min, AREA=[41.7] (ha),
02531> DWF=[0] (cms), CN=C[74.1], IA=[7.45] (mm),
02532> N=[3], TPI=[1.87] (hrs), , , , 1 (mm/hr), END=1
02533> RAINFALL=[, , , ,] (mm/hr), END=1
02534> CALIB NASHYD
02535> ID=[7], NHYD=[{"NAT"}, DT=[1]min, AREA=[.51] (ha),
02536> DWF=[0] (cms), CN=C[79.1], IA=[6.4] (mm),
02537> N=[3], TPI=[0.36] (hrs), , , , 1 (mm/hr), END=1
02538> RAINFALL=[, , , ,] (mm/hr), END=1
02539> ADD HYD
02540> IDsum=[8], NHYD=[{"Flow"}, IDs to add=[5+7]
02541> ROUTE CHANNEL
02542> IDout=[1], NHYD=[{"SideLag"}, IDin=[8],
02543> RDT=[1] (min), QSLD=[0.06] (m),
02544> CHLGHTR=[550] (m), CHLSDP=[0.65] (%),
02545> FSLDPR=[0.65] (%),
02546> SEGNUM=[1], NSEG=[1]
02547> (SEGROUGH, SEGDIST (m))=[0.035, 215.60 -0.045, 221.70 0.035, 266.50] NSEG times
02548> (DISTANCE (m), ELEVATION (m))=[179.70, 514.50]
02549> RAINFALL=[, , , ,] (mm/hr), END=1
02550> (215.60, 513.59)
02551> (216.55, 513.00)
02552> (217.50, 512.00)
02553> (217.45, 512.46)
02554> (217.80, 512.50)
02555> (221.80, 512.50)
02556> (221.70, 513.50)
02557> (230.40, 514.11)
02558> (243.80, 514.00)
02559> (249.40, 514.12)
02560> (259.50, 514.28)
02561> (266.50, 514.50)
02562> *-----
02563> *-----
02564> *----- Controlled Runoff From ZONE 3 -----
02565> *-----
02566> *-----
02567> *-----
02568> *-----
02569> *-----
02570> CALIB STANDHYD
02571> ID=[7], NHYD=[{"FIR"}, DT=[1]min, AREA=[10.1] (ha),
02572> XIMP=[0.312], TIMP=[0.579], DWF=[0] (cms), LOSS=[2],
02573> SCS curve number CN=[74],
02574> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02575> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02576> SCI=[0] (min),
02577> RAINFALL=[, , , ,] (mm/hr), END=1
02578> (218.70, 513.21)
02579> CALIB STANDHYD
02580> ID=[8], NHYD=[{"SWRF1"}, DT=[1]min, AREA=[1.21] (ha),
02581> XIMP=[0.50], TIMP=[0.50], DWF=[0] (cms), LOSS=[2],
02582> SCS curve number CN=[74],
02583> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02584> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02585> SCI=[0] (min),
02586> RAINFALL=[, , , ,] (mm/hr), END=1
02587> *-----
02588> ADD HYD
02589> IDsum=[9], NHYD=[{"F3IN"}, IDs to add=[7+8]
02590> *-----
02591> *-----
02592> *----- SWM Facility #3 -----
02593> ROUTE RESERVOIR
02594> IDout=[7], NHYD=[{"#FOut"}, IDin=[9],
02595> RDT=[1] (min),
02596> TABLE of (OUTFLOW-STORAGE) values
02597> (cms) - (ba-m)
02598> [0.0 , 0.0]
02599> [0.008 , 0.040]
02600> [0.013 , 0.075]
02601> [0.016 , 0.107]
02602> [0.017 , 0.155]
02603> [0.018 , 0.202]
02604> [0.027 , 0.272]
02605> [0.030 , 0.348]
02606> [0.033 , 0.423]
02607> [0.040 , 0.709]
02608> [0.045 , 0.922]
02609> [1.000 , 1.551]
02610> [-1 , -1] (max twenty pts)
02610> IDovf=[8], NHYDovf=[#FOver*]
02611> ADD HYD
02612> IDsum=[9], NHYD=[{"Foley Drain"}, IDs to add=[4+5+7+8]
02613> *-----
02614> CALIB NASHYD
02615> ID=[4], NHYD=[{"Ext 4"}, DT=[1]min, AREA=[6.3] (ha),
02616> DWF=[0] (cms), CN=C[64.8], IA=[10] (mm),
02617> N=[3], TPI=[0.64] (hrs), , , , 1 (mm/hr), END=1
02618> RAINFALL=[, , , ,] (mm/hr), END=1
02619> ADD HYD
02620> IDsum=[5], NHYD=[{"Pt of IntF"}, IDs to add=[9+4]
02621> ADD HYD
02622> IDsum=[10], NHYD=[{"Pt of Int"}, IDs to add=[1+2+3+6]
02623> *-----
02624> *-----
02625> *-----
02626> *-----
02627> *-----
02628> *----- 2 YEAR -----
02629> *-----
02630> *-----
02631> *-----
02632> *-----
02633> *-----
02634> *-----
02635> MASS STORM
02636> TOTAL=[55.5] (mm), CSDFLT=[15] (min),
02637> CURVE_FILENAME=[*SCS24H.MER*]
02638> *-----
02639> *-----
02640> *----- Controlled Runoff From ZONE 1 -----
02641> *-----
02642> *-----
02643> *-----
02644> *-----
02645> *-----
02646> *-----
02647> *-----
02648> CALIB NASHYD
02649> ID=[1], NHYD=[{"FB 21"}, DT=[1]min, AREA=[12.37] (ha),
02650> XIMP=[0.3], TIMP=[0.50], DWF=[0] (cms), LOSS=[2],
02651> SCS curve number CN=[74],
02652> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02653> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02654> SCI=[0] (min),
02655> RAINFALL=[, , , ,] (mm/hr), END=1
02656> CALIB STANDHYD
02657> ID=[12], NHYD=[{"FB 21"}, DT=[1]min, AREA=[12.37] (ha),
02658> XIMP=[0.3], TIMP=[0.50], DWF=[0] (cms), LOSS=[2],
02659> SCS curve number CN=[74],
02660> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02661> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02662> SCI=[0] (min),
02663> RAINFALL=[, , , ,] (mm/hr), END=1
02664> CALIB STANDHYD
02665> ID=[13], NHYD=[{"FB 21"}, DT=[1]min, AREA=[0.98] (ha),
02666> XIMP=[0.5], TIMP=[0.50], DWF=[0] (cms), LOSS=[2],
02667> SCS curve number CN=[74],
02668> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02669> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02670> SCI=[0] (min),
02671> RAINFALL=[, , , ,] (mm/hr), END=1
02672> CALIB STANDHYD
02673> ID=[14], NHYD=[{"SWRF1"}, DT=[1]min, AREA=[1.9] (ha),
02674> XIMP=[0.5], TIMP=[0.50], DWF=[0] (cms), LOSS=[2],
02675> SCS curve number CN=[74],
02676> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02677> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02678> SCI=[0] (min),
02679> RAINFALL=[, , , ,] (mm/hr), END=1
02680> ADD HYD
02681> IDsum=[15], NHYD=[{"#F1"}, IDs to add=[1+2+3+4]
02682> *-----
02683> *----- SWM Facility #1 -----
02684> ROUTE RESERVOIR
02685> IDout=[1], NHYD=[{"#FOut"}, IDin=[5],
02686> RDT=[1] (min),
02687> TABLE of (OUTFLOW-STORAGE) values
02688> (cms) - (ba-m)
02689> [0.0 , 0.0]
02690> [0.008 , 0.040]
02691> [0.013 , 0.114]
02692> [0.013 , 0.164]
02693> [0.017 , 0.297]
02694> [0.018 , 0.400]
02695> [0.020 , 0.523]
02696> [0.022 , 0.734]
02697> [0.025 , 0.949]
02698> [0.252 , 1.092]
02699> [-1 , -1] (max twenty pts)
02700> *-----

02701> *-----
02702> *----- Watercourse Flows - ZONE 1 -----
02703> *-----
02704> *-----
02705> *-----
02706> *-----
02707> *----- West Watercourse Area -----
02708> *-----
02709> *----- Small Unnamed Tributary -----
02710> *-----
02711> CALIB NASHYD
02712> ID=[3], NHYD=[{"Ext 1"}, DT=[1]min, AREA=[41.2] (ha),
02713> XIMP=[0] (cms), CN=C[74.1], IA=[6.1] (mm),
02714> N=[3], TPI=[0.36] (hrs), IA=[6.4] (mm),
02715> RAINFALL=[, , , ,] (mm/hr), END=1
02716> ROUTE CHANNEL
02717> IDout=[4], NHYD=[{"SItrab"}, IDin=[3],
02718> ROT=[1] (min),
02719> CHLGHTR=[425] (m), CHLSLOP=[0.96] (%),
02720> SEGUIN=[1], NSSEG=[3]
02721> (SEGROUGH, SEGDIST (m))=[0.035, 75.5 -0.045, 78.5 0.035, 151.0] NSEG times
02722> (DISTANCE (m), ELEVATION (m))=[48.0, 514.81]
02723> RAINFALL=[, , , ,] (mm/hr), END=1
02724> (60.0, 514.69)
02725> (60.0, 514.58)
02726> (75.5, 514.23)
02727> (76.0, 514.06)
02728> (77.5, 514.39)
02729> (78.5, 514.36)
02730> (79.5, 514.39)
02731> (82.5, 514.39)
02732> (103.5, 514.51)
02733> (118.5, 514.67)
02734> (130.5, 514.50)
02735> (151.0, 515.00)
02736> *-----
02737> CALIB NASHYD
02738> ID=[15], NHYD=[{"FB 21"}, DT=[1]min, AREA=[5.68] (ha),
02739> XIMP=[0] (cms), CN=C[77], IA=[6.4] (mm),
02740> N=[3], TPI=[0.40] (hrs), IA=[6.4] (mm),
02741> RAINFALL=[, , , ,] (mm/hr), END=1
02742> *----- Total Flow at South Property Line -----
02743> ADD HYD
02744> IDsum=[3], NHYD=[{"UNC H1"}, IDs to add=[1+2+4+5]
02745> *-----
02746> ROUTE CHANNEL
02747> IDout=[1], NHYD=[{"DS Lag"}, IDin=[3],
02748> RDT=[1] (min), QSLD=[0.06] (m),
02749> CHLGHTR=[150] (m), CHLSLOP=[0.96] (%),
02750> FSLDPR=[0.96] (%),
02751> SEGNUM=[1], NSEG=[1]
02752> (SEGROUGH, SEGDIST (m))=[0.035, 31.0, 515.00]
02753> (DISTANCE (m), ELEVATION (m))=[60.0, 514.69]
02754> RAINFALL=[, , , ,] (mm/hr), END=1
02755> (68.5, 514.54)
02756> (70.5, 514.54)
02757> (76.0, 514.06)
02758> (77.5, 514.06)
02759> (78.5, 514.39)
02760> (79.5, 514.39)
02761> (92.5, 514.49)
02762> (103.5, 514.51)
02763> (118.5, 514.51)
02764> (130.5, 514.50)
02765> (151.0, 515.00)
02766> *-----
02767> CALIB NASHYD
02768> ID=[2], NHYD=[{"Ext 3"}, DT=[1]min, AREA=[1.55] (ha),
02769> XIMP=[0.35], TIMP=[0.55], DWF=[0] (cms), LOSS=[2],
02770> SCS curve number CN=[74],
02771> RAINFALL=[, , , ,] (mm/hr), END=1
02772> *-----
02773> *-----
02774> *----- Controlled Runoff From ZONE 2 -----
02775> *-----
02776> *-----
02777> *-----
02778> *-----
02779> *-----
02780> *-----
02781> *-----
02782> CALIB STANDHYD
02783> ID=[3], NHYD=[{"FB1"}, DT=[1]min, AREA=[14.70] (ha),
02784> XIMP=[0.61], TIMP=[0.61], DWF=[0] (cms), LOSS=[2],
02785> SCS curve number CN=[74],
02786> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02787> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02788> RAINFALL=[, , , ,] (mm/hr), END=1
02789> *-----
02790> *-----
02791> CALIB STANDHYD
02792> ID=[4], NHYD=[{"MINOR"}, DT=[1]min, AREA=[0.21] (ha),
02793> XIMP=[0.61], TIMP=[0.61], DWF=[0] (cms), LOSS=[2],
02794> SCS curve number CN=[74],
02795> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02796> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02797> RAINFALL=[, , , ,] (mm/hr), END=1
02798> *-----
02799> *-----
02800> *-----
02801> *-----
02802> Note: all flows are in (mm/hr) flow distribution table (modify as necessary)
02803> QDL1 QDL2 QTOTAL
02804> 0.000 0.000 0.000
02805> 0.035 0.000 0.035
02806> 1.000 0.000 1.000 0.035 end
02807> *-----
02808> *-----
02809> CALIB STANDHYD
02810> ID=[5], NHYD=[{"MINOR"}, DT=[1]min, AREA=[0.33] (ha),
02811> XIMP=[0.61], TIMP=[0.61], DWF=[0] (cms), LOSS=[2],
02812> SCS curve number CN=[74],
02813> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02814> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02815> RAINFALL=[, , , ,] (mm/hr), END=1
02816> *-----
02817> CALIB STANDHYD
02818> ID=[7], NHYD=[{"SWRF2"}, DT=[1]min, AREA=[1.11] (ha),
02819> XIMP=[0.5], TIMP=[0.50], DWF=[0] (cms), LOSS=[2],
02820> SCS curve number CN=[74],
02821> Pervious surfaces: IApex=[5] (mm), SLIP=[2.0] (%),
02822> Impervious surfaces: IAimp=[2] (mm), SLIP=[0.5] (%),
02823> RAINFALL=[, , , ,] (mm/hr), END=1
02824> *-----
02825> *-----
02826> *-----
02827> *-----
02828> ADD HYD
02829> IDsum=[8], NHYD=[{"#F2 In"}, IDs to add=[3+4+4+4]
02830> *-----
02831> *-----
02832> *----- SWM Facility #2 -----
02833> *-----
02834> ROUTE RESERVOIR
02835> IDout=[3], NHYD=[{"#FOut"}, IDin=[8],
02836> RDT=[1] (min),
02837> TABLE of (OUTFLOW-STORAGE) values
02838> (cms) - (ba-m)
02839> [0.0 , 0.0]
02840> [0.008 , 0.048]
02841> [0.013 , 0.121]
02842> [0.018 , 0.204]
02843> [0.044 , 0.261]
02844> [0.048 , 0.320]
02845> [0.110 , 0.350]
02846> [0.146 , 0.380]
02847> [0.222 , 0.443]
02848> [0.560 , 0.574]
02849> [0.828 , 0.642]
02850> [1.154 , 0.711]
02851> [1.284 , 0.782]
02852> [1.746 , 0.818]
02853> [1.924 , 0.847]
02854> [2.193 , 0.933]
02855> [3.005 , 0.940]
02856> [4.449 , 1.032]
02857> [12.254 , 1.380]
02858> [-1 , -1] (max twenty pts)
02859> *-----
02860> ADD HYD
02861> IDsum=[5], NHYD=[{"#F2 Out"}, IDs to add=[3+4]
02862> *-----
02863> *-----
02864> *-----
02865> Note: all flows are in (mm/hr) flow distribution table: (modify as necessary)
02866> QDL1 QDL2 QTOTAL
02867> 0 + 0 = 0]
02868> 1 0.008 0.008 = 0]
02869> 0.000 + 0.022 = 0.022]
02870> 0.000 0.033 = 0.033]
02871> 0.000 + 0.044 = 0.044]
02872> 0.019 + 0.062 = 0.080]
02873> 0.053 + 0.093 = 0.146]
02874> 0.097 + 0.143 = 0.239]
02875> 0.204 + 0.264 = 0.468]
02876> 0.345 + 0.809 = 1.1554]
02877> 0.441 + 1.285 = 1.746]
02878> 0.589 + 2.584 = 3.173]
02879> 0.679 + 4.312 = 4.991]
02880> 0.975 + 12.716 = 13.6921 end

```

02881> *#
02882> *#
02883> *#
02884> *#
02885> *#
02886> *#
02887> *#
02888> *#
02889> *#
02890> *#
02891> CALIB NASHYD
ID=[5], NYHD=[*Ext-2*], DT=[1]min, AREA=[41.7] (ha),
XIMP=[0.5], TIME=[0.5] (hrs), CN=[74.7], IA=[7.65] (mm),
N=[3], TP=[1.87] (hrs), END=-1
02892> *#
02893> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02894> *#
02895> CALIB NASHYD
ID=[7], NYHD=[*NAT*], DT=[1]min, AREA=[4.51] (ha),
DNF=[0] (cms), CN/C=[79.1], IA=[6.4] (mm),
N=[3], TP=[0.36] (hrs), END=-1
02896> *#
02897> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02898> *#
02899> ADD HYD
IDsum=[8], NYHD=[*FIM*], IDs to add=[5+7]
02900> *#
02901> ROUTE CHANNEL
IDout=[5], NYHD=[*S1stLag*], IDin=[8],
RDT=[1] [min], CHLTH=[510] (m), CHLDFP=[0.65] (%),
FSLPFP=[0.65] (%),
SECNM=[1], NSEG=[3]
{ SEGRGND, SECID (m) }=[10,035,215.40 -0.045,221.70 0.035,266.50] NSEG times
(DISTANCE (m), ELEVATION (m))=[179.70, 514.50]
02910> *#
02911> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02912> *#
02913> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02914> *#
02915> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02916> *#
02917> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02918> *#
02919> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02920> *#
02921> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02922> *#
02923> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02924> *#
02925> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02926> *#
02927> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02928> *#
02929> Controlled Runoff From ZONE 3
02930> *#
02931> *#
02932> CALIB STANODYN
ID=[7], NYHD=[*FB2*], DT=[1] [min], AREA=[10.1] (ha),
XIMP=[0.5], TIME=[0.5] (hrs), DNW=[0] (cms), LOSS=[2],
SCS curve number CN=[74]
02933> *#
02934> Pervious surfaces: IAPer=[5] (mm), SLP=[2.0] (%),
IAPr=[40] (mm), SLPr=[2.0] (%),
DNF=[0] (cms), SCF=[0] (min),
LGI=[259] (m), MNI=[0.013], SCI=[0] (min),
02935> *#
02936> Impervious surfaces: IALimp=[2] (mm), SLIP=[2.0] (%),
LGI=[10] (m), MNI=[0.013], SCI=[0] (min),
LGI=[90] (m), MNI=[0.013], SCI=[0] (min),
02937> *#
02938> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02939> *#
02940> CALIB STANODYN
ID=[8], NYHD=[*SMWF3*], DT=[1] [min], AREA=[1.21] (ha),
XIMP=[0.5], TIME=[0.5] (hrs), DNW=[0] (cms), LOSS=[2],
SCS curve number CN=[74]
02941> *#
02942> Pervious surfaces: IAPer=[5] (mm), SLP=[2.0] (%),
IAPr=[40] (mm), SLPr=[2.0] (%),
DNF=[0] (cms), SCF=[0] (min),
LGI=[259] (m), MNI=[0.013], SCI=[0] (min),
02943> *#
02944> Impervious surfaces: IALimp=[2] (mm), SLIP=[2.0] (%),
LGI=[10] (m), MNI=[0.013], SCI=[0] (min),
LGI=[90] (m), MNI=[0.013], SCI=[0] (min),
02945> *#
02946> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02947> *#
02948> CALIB STANODYN
ID=[8], NYHD=[*FB1*], DT=[1] [min], AREA=[1.21] (ha),
XIMP=[0.5], TIME=[0.5] (hrs), DNW=[0] (cms), LOSS=[2],
SCS curve number CN=[74]
02949> *#
02950> Pervious surfaces: IAPer=[5] (mm), SLP=[2.0] (%),
IAPr=[40] (mm), SLPr=[2.0] (%),
DNF=[0] (cms), SCF=[0] (min),
LGI=[259] (m), MNI=[0.013], SCI=[0] (min),
02951> *#
02952> Impervious surfaces: IALimp=[2] (mm), SLIP=[2.0] (%),
LGI=[10] (m), MNI=[0.013], SCI=[0] (min),
LGI=[90] (m), MNI=[0.013], SCI=[0] (min),
02953> *#
02954> ADD HYD
IDsum=[9], NYHD=[*P3IN*], IDs to add=[7+8]
02955> *#
02956> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02957> *#
02958> ROUTE RESERVOIR
IDout=[7], NYHD=[*#2Out*], IDin=[9],
RDT=[1] [min]
TABLE of ( OUTFLOW-STORAGE ) values
(cms) (ha-m)
[ 0.0 , 0.0 ]
[ 0.007 , 0.036 ]
[ 0.013 , 0.075 ]
[ 0.019 , 0.101 ]
[ 0.017 , 0.115 ]
[ 0.023 , 0.202 ]
[ 0.029 , 0.272 ]
[ 0.036 , 0.348 ]
[ 0.035 , 0.517 ]
[ 0.042 , 0.689 ]
[ 0.045 , 0.922 ]
[ 1.247 , 1.155 ]
[ 1.247 , 1.155 ] (max twenty pts)
02959> *#
02960> IDout=[8], NYHD=[*#2Over*]
02961> *#
02962> *#
02963> *#
02964> *#
02965> *#
02966> *#
02967> *#
02968> *#
02969> *#
02970> *#
02971> *#
02972> *#
02973> *#
02974> ADD HYD
IDsum=[9], NYHD=[*Foley Drain*], IDs to add=[4+5+7+8]
02975> *#
02976> CALIB NASHYD
ID=[4], NYHD=[*Ext 4*], DT=[1]min, AREA=[6.3] (ha),
XIMP=[0.5], TIME=[0.5] (hrs), CN=[74.8], IA=[10] (mm),
N=[3], TP=[0.64] (hrs), END=-1
02977> *#
02978> RAINFALL=[ , , , , 1 (mm/hr), END=-1
02979> *#
02980> *#
02981> ADD HYD
IDsum=[5], NYHD=[*Pt of IntP*], IDs to add=[9+4]
02982> *#
02983> ADD HYD
IDsum=[10], NYHD=[*Pt of IntT*], IDs to add=[1+2+3+6]
02984> *#
02985> *#
02986> *#
02987> *#
02988> *#
02989> *#
02990> *#
02991> *#
02992> *#
02993> *#
02994> *#
02995> *#
02996> *#
02997> *#
02998> *#
02999> *#
03000> *#
03001> *#
03002> *#
03003> *#
03004> *#
03005> *#
03006> *#
03007> *#
03008> *#
03009> *#
03010> *#
03011> *#
03012> *#
03013> *#
03014> *#
03015> *#
03016> *#
03017> *#
03018> *#
03019> *#
03020> *#
03021> *#
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03026> *#
03027> *#
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03062> *#
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03064> *#
03065> *#
03066> *#
03067> *#
03068> *#
03069> *#
03070> *#
03071> *#
03072> *#
03073> CALIB NASHYD
ID=[3], NYHD=[*Ext 1*], DT=[1]min, AREA=[41.2] (ha),
DNF=[0] (cms), CN/C=[74.1], IA=[6.1] (mm),
N=[3], TP=[0.5] (hrs), END=-1
03074> *#
03075> *#
03076> *#
03077> *#
03078> ROUTE CHANNEL
IDout=[8], NYHD=[*StelLag*], IDin=[3],
RDT=[1] [min], CHLTH=[425] (m), CHLDFP=[0.96] (%),
FSLPFP=[0.96] (%),
SECNM=[1], NSEG=[1]
{ SEGRGND, SECID (m) }=[0,035,75.5 -0.045,78.5 0.035,151.0] NSEG times
(DISTANCE (m), ELEVATION (m))=[31.0, 515.00]
03079> *#
03080> *#
03081> *#
03082> *#
03083> *#
03084> *#
03085> *#
03086> *#
03087> *#
03088> *#
03089> *#
03090> *#
03091> *#
03092> *#
03093> *#
03094> *#
03095> *#
03096> *#
03097> *#
03098> *#
03099> CALIB NASHYD
ID=[5], NYHD=[*FB ZL-2*], DT=[1]min, AREA=[5.68] (ha),
DNF=[0] (cms), CN/C=[77], IA=[6.4] (mm),
N=[3], TP=[0.4] (hrs), END=-1
03100> *#
03101> *#
03102> *#
03103> *#
03104> *#
03105> *#
03106> ADD HYD
IDsum=[3], NYHD=[*One PL*], IDs to add=[1+2+4+5]
03107> *#
03108> ROUTE CHANNEL
IDout=[1], NYHD=[*DB Lag*], IDin=[3],
RDT=[1] [min], CHLTH=[150] (m), CHLDFP=[0.96] (%),
FSLPFP=[0.96] (%),
SECNM=[1], NSEG=[3]
{ SEGRGND, SECID (m) }=[10,035,75.5 -0.045,78.5 0.035,151.0] NSEG times
(DISTANCE (m), ELEVATION (m))=[31.0, 515.00]
03109> *#
03110> *#
03111> *#
03112> *#
03113> *#
03114> *#
03115> *#
03116> *#
03117> *#
03118> *#
03119> *#
03120> *#
03121> *#
03122> *#
03123> *#
03124> *#
03125> *#
03126> *#
03127> *#
03128> *#
03129> *#
03130> *#
03131> *#
03132> *#
03133> *#
03134> *#
03135> *#
03136> *#
03137> *#
03138> *#
03139> *#
03140> *#
03141> *#
03142> *#
03143> CALIB STANODYN
ID=[2], NYHD=[*Ext 3*], DT=[1]min, AREA=[1.55] (ha),
DNF=[0] (cms), CN/C=[60], IA=[10] (mm),
N=[3], TP=[0.47] (hrs), END=-1
03144> *#
03145> *#
03146> *#
03147> *#
03148> *#
03149> *#
03150> *#
03151> *#
03152> *#
03153> CALIB STANODYN
ID=[3], NYHD=[*PM1*], DT=[1]min, AREA=[14.70] (ha),
XIMP=[0.35], TIME=[0.55], DNW=[0] (cms), LOSS=[2],
SCS curve number CN=[74]
03154> *#
03155> *#
03156> *#
03157> *#
03158> *#
03159> *#
03160> *#
03161> *#
03162> DIVERT HYD
IDin=[4], NDout=[2] max five
control hydrograph (ID, NYHD)=5, *MINOR*, *MAJOR*
flow distribution table (modify as necessary)
Note: all flows are in (cms)
QID1 = QID2 = QTOTAL
[ 0.005 * 0.000 = 0.000 ]
[ 0.035 * 0.000 = 0.035 ]
[ 0.035 * 10.000 = 10.035 ] end
03163> *#
03164> *#
03165> *#
03166> *#
03167> *#
03168> *#
03169> *#
03170> *#
03171> CALIB STANODYN
ID=[4], NYHD=[*PM2*], DT=[1]min, AREA=[0.21] (ha),
XIMP=[0.41], TIME=[0.394], DNW=[0] (cms), LOSS=[2],
SCS curve number CN=[74]
03172> *#
03173> *#
03174> *#
03175> *#
03176> *#
03177> *#
03178> *#
03179> *#
03180> CALIB STANODYN
ID=[7], NYHD=[*SMWF2*], DT=[1]min, AREA=[1.11] (ha),
XIMP=[0.51], TIME=[0.51], DNW=[0] (cms), LOSS=[2],
SCS curve number CN=[74]
03181> *#
03182> *#
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03188> *#
03189> *#
03190> ADD HYD
IDsum=[8], NYHD=[*#2 In*], IDs to add=[3+5+4+7]
03191> *#
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03222> DIVERT HYD
IDsum=[5], NYHD=[*#2 Out*], IDin=[8],
RDT=[1] [min]
TABLE of ( OUTFLOW-STORAGE ) values
(cms) (ha-m)
[ 0.008 , 0.048 ]
[ 0.026 , 0.123 ]
[ 0.044 , 0.263 ]
[ 0.080 , 0.320 ]
[ 0.124 , 0.390 ]
[ 0.146 , 0.380 ]
[ 0.239 , 0.443 ]
[ 0.588 , 0.574 ]
[ 0.828 , 0.642 ]
[ 1.154 , 0.711 ]
[ 1.335 , 0.782 ]
[ 1.700 , 0.838 ]
[ 1.824 , 0.847 ]
[ 1.984 , 0.855 ]
[ 2.040 , 0.840 ]
[ 4.549 , 1.032 ]
[ 12.016 , 1.330 ]
[ 12.016 , 1.330 ] (max twenty pts)
03223> *#
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03241> *#----- [ 0.975 + 12.715 = 13.692 ] end
03242> *#----- [ 0.252 , 1.092 ]
03243> *#----- [ -1 , -6 ] (max twenty pts)
03244> *#----- IDovf[2], NHYDovf[="*#IDover"]
03245> *#----- Watercourse Flows - ZONE 2
03246> *#----- --- East Watercourse Area -----
03247> *#----- Foley Utrah
03248> *#----- --- West Watercourse Area -----
03249> *#----- Small Unmaed Tributary -----
03250> *#----- CALIB NASHYD ID=[5], NHYD=[*"Ext-2"], DT=[1]min, AREA=[417.2](ha),
03251> *#----- DWF=[0](cms), CN=C[14.7], IA=[7.65](mm),
03252> *#----- Ns[3], TF=[1.87]hrs, S[1], I[mm/hr], END=1
03253> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03254> *#----- CALIB NASHYD ID=[7], NHYD=[*"P0A*"], DT=[1]min, AREA=[6.51](ha),
03255> *#----- DWF=[0](cms), CN=C[7.1], IA=[6.4](mm),
03256> *#----- Ns[3], TF=[0.36]hrs, S[1], I[mm/hr], END=1
03257> *#----- ADD HYD IDsum=[8], NHYD=[*"Fin*"], IDs to add=[+7]
03258> *#----- ROUTE CHANNEL IDout=[5], NHYD=[*"SlateLag*"], IDin=[8],
03259> *#----- ROT=[1](min),
03260> *#----- CHLTH=[550](m), CHLDP[0.65](%), CHLDPB[0.65](%),
03261> *#----- SECHN=[1], NSEGC[3]
03262> *#----- ( SEGROUDS SEGDIST (m) = 0.035, 215.6 , -0.045, 221.70 0.035, 266.50 ) NSEG times
03263> *#----- ( DISTANCE (m), ELEVATION (m) ) = 215.6, 514.00 , 219.6, 514.00
03264> *#----- 219.6, 514.00 , 221.3, 514.00
03265> *#----- 221.3, 514.00 , 221.70, 513.50
03266> *#----- 221.70, 513.50 , 221.70, 513.50
03267> *#----- 221.70, 513.50 , 224.8, 514.00
03268> *#----- 224.8, 514.00 , 227.29, 512.50
03269> *#----- 227.29, 512.50 , 227.45, 512.46
03270> *#----- 227.45, 512.46 , 227.45, 512.46
03271> *#----- 227.45, 512.46 , 228.58, 513.00
03272> *#----- 228.58, 513.00 , 221.30, 513.50
03273> *#----- 221.30, 513.50 , 221.70, 513.50
03274> *#----- 221.70, 513.50 , 224.8, 514.00
03275> *#----- 224.8, 514.00 , 243.80, 514.00
03276> *#----- 243.80, 514.00 , 249.40, 514.12
03277> *#----- 249.40, 514.12 , 253.80, 514.43
03278> *#----- 253.80, 514.43 , 266.50, 514.50
03279> *#----- Controlled Runoff From ZONE 3
03280> *#----- CALIB STANDHYD ID=[7], NHYD=[*"FB2*"], DT=[1](min), AREA=[10.1](ha),
03281> *#----- XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
03282> *#----- SCS curve number: IApex=[5](mm), SLIP=[2.0](%),
03283> *#----- Previous surfaces: IApex=[5](mm), MNP=[0.25], SCP=[0](min),
03284> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03285> *#----- Ns[3], TF=[0.35]hrs, S[1], I[mm/hr], END=1
03286> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03287> *#----- CALIB STANDHYD ID=[8], NHYD=[*"FBM*"], DT=[1](min), AREA=[1.21](ha),
03288> *#----- XIMP=[0.50], TIME=[0.50], DWF=[0](cms), LOSS=[2],
03289> *#----- SCS curve number: CN=[74],
03290> *#----- Previous surfaces: IApex=[5](mm), SLIP=[2.0](%),
03291> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03292> *#----- Ns[3], TF=[0.35]hrs, S[1], I[mm/hr], END=1
03293> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03294> *#----- CALIB STANDHYD ID=[7], NHYD=[*"FB2*"], DT=[1](min), AREA=[10.1](ha),
03295> *#----- XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
03296> *#----- SCS curve number: IApex=[5](mm), SLIP=[2.0](%),
03297> *#----- Previous surfaces: IApex=[40](mm), MNP=[0.25], SCP=[0](min),
03298> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03299> *#----- Ns[3], TF=[0.35]hrs, S[1], I[mm/hr], END=1
03300> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03301> *#----- CALIB STANDHYD ID=[8], NHYD=[*"FBM*"], DT=[1](min), AREA=[1.21](ha),
03302> *#----- XIMP=[0.50], TIME=[0.50], DWF=[0](cms), LOSS=[2],
03303> *#----- SCS curve number: CN=[74],
03304> *#----- Previous surfaces: IApex=[5](mm), SLIP=[2.0](%),
03305> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03306> *#----- Ns[3], TF=[0.35]hrs, S[1], I[mm/hr], END=1
03307> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03308> *#----- CALIB STANDHYD ID=[7], NHYD=[*"FB2*"], DT=[1](min), AREA=[10.1](ha),
03309> *#----- XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
03310> *#----- SCS curve number: IApex=[5](mm), SLIP=[2.0](%),
03311> *#----- Previous surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03312> *#----- Ns[3], TF=[0.35]hrs, S[1], I[mm/hr], END=1
03313> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03314> *#----- ADD HYD IDsum=[9], NHYD=[*"P3H*"], IDs to add=[?]
03315> *#----- ROUTE CHANNEL IDsum=[9], NHYD=[*"P3H*"], IDs to add=[?]
03316> *#----- SWM Facility #3
03317> *#----- ROUTE RESERVOIR IDout=[7], NHYD=[*"#3Out*"], IDin=[9],
03318> *#----- ROT=[1](min)
03319> *#----- TABLE of ( OUTFLOW-STORAGE ) values
03320> *#----- (cms) - (ha-m)
03321> *#----- [ 0.0 , 0.0 ]
03322> *#----- [ 0.001 , 0.036 ]
03323> *#----- [ 0.013 , 0.075 ]
03324> *#----- [ 0.016 , 0.101 ]
03325> *#----- [ 0.023 , 0.115 ]
03326> *#----- [ 0.023 , 0.202 ]
03327> *#----- [ 0.027 , 0.272 ]
03328> *#----- [ 0.035 , 0.348 ]
03329> *#----- [ 0.035 , 0.517 ]
03330> *#----- [ 0.040 , 0.793 ]
03331> *#----- [ 0.040 , 0.922 ]
03332> *#----- [ 1.247 , 1.155 ]
03333> *#----- [ -1 , -1 ] (max twenty pts)
03334> *#----- IDovf[8], NHYDovf[="*#2Over*"]
03335> *#----- CALIB STANDHYD IDsum=[9], NHYD=[*"F01*"], IDs to add=[4+5+7+8]
03336> *#----- ADD HYD IDsum=[9], NHYD=[*"F01*"], IDs to add=[4+5+7+8]
03337> *#----- CALIB NASHYD ID=[4], NHYD=[*"Ext 4"], DT=[1]min, AREA=[6.3](ha),
03338> *#----- DWF=[0](cms), CN=C[64.8], IA=[10](mm),
03339> *#----- Ns[3], TF=[0.64]hrs, S[1], I[mm/hr], END=1
03340> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03341> *#----- CALIB STANDHYD IDsum=[10], NHYD=[*"P0T*"], IDs to add=[1+2+3+6]
03342> *#----- ADD HYD IDsum=[10], NHYD=[*"P0T*"], IDs to add=[1+2+3+6]
03343> *#----- ROUTE CHANNEL IDsum=[10], NHYD=[*"P0T*"], IDs to add=[1+2+3+6]
03344> *#----- SWM Facility #3
03345> *#----- ROUTE RESERVOIR IDout=[11], NHYD=[*"#2Out*"], IDin=[8],
03346> *#----- ROT=[1](min)
03347> *#----- TABLE of ( OUTFLOW-STORAGE ) values
03348> *#----- (cms) - (ha-m)
03349> *#----- [ 0.0 , 0.0 ]
03350> *#----- [ 0.001 , 0.034 ]
03351> *#----- [ 0.013 , 0.073 ]
03352> *#----- [ 0.016 , 0.101 ]
03353> *#----- [ 0.023 , 0.115 ]
03354> *#----- [ 0.023 , 0.201 ]
03355> *#----- [ 0.027 , 0.271 ]
03356> *#----- [ 0.035 , 0.517 ]
03357> *#----- [ 0.040 , 0.793 ]
03358> *#----- [ 0.040 , 0.922 ]
03359> *#----- [ 1.247 , 1.155 ]
03360> *#----- [ -1 , -1 ] (max twenty pts)
03361> *#----- IDovf[8], NHYDovf[="*#2Over*"]
03362> *#----- CALIB STANDHYD IDsum=[9], NHYD=[*"F01*"], IDs to add=[4+5+7+8]
03363> *#----- ADD HYD IDsum=[9], NHYD=[*"F01*"], IDs to add=[4+5+7+8]
03364> *#----- CALIB NASHYD ID=[4], NHYD=[*"Ext 4"], DT=[1]min, AREA=[6.3](ha),
03365> *#----- DWF=[0](cms), CN=C[64.8], IA=[10](mm),
03366> *#----- Ns[3], TF=[0.64]hrs, S[1], I[mm/hr], END=1
03367> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03368> *#----- CALIB STANDHYD ID=[12], NHYD=[*"FB 21-1"], DT=[1](min), AREA=[12.37](ha),
03369> *#----- XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
03370> *#----- SCS curve number: CN=[74],
03371> *#----- Previous surfaces: IApex=[5](mm), SLIP=[2.0](%),
03372> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03373> *#----- Ns[3], TF=[0.26]hrs, S[1], I[mm/hr], END=1
03374> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03375> *#----- CALIB STANDHYD ID=[12], NHYD=[*"FB 21-1"], DT=[1](min), AREA=[12.37](ha),
03376> *#----- XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
03377> *#----- SCS curve number: CN=[74],
03378> *#----- Previous surfaces: IApex=[5](mm), SLIP=[2.0](%),
03379> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03380> *#----- Ns[3], TF=[0.26]hrs, S[1], I[mm/hr], END=1
03381> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03382> *#----- CALIB STANDHYD ID=[12], NHYD=[*"FB 21-1"], DT=[1](min), AREA=[12.37](ha),
03383> *#----- XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
03384> *#----- SCS curve number: CN=[74],
03385> *#----- Previous surfaces: IApex=[5](mm), SLIP=[2.0](%),
03386> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03387> *#----- Ns[3], TF=[0.26]hrs, S[1], I[mm/hr], END=1
03388> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03389> *#----- CALIB STANDHYD ID=[12], NHYD=[*"FB 21-1"], DT=[1](min), AREA=[12.37](ha),
03390> *#----- XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
03391> *#----- SCS curve number: CN=[74],
03392> *#----- Previous surfaces: IApex=[5](mm), SLIP=[2.0](%),
03393> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03394> *#----- Ns[3], TF=[0.26]hrs, S[1], I[mm/hr], END=1
03395> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03396> *#----- CALIB STANDHYD ID=[13], NHYD=[*"FB 21-3"], DT=[1](min), AREA=[0.98](ha),
03397> *#----- XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
03398> *#----- SCS curve number: CN=[74],
03399> *#----- Previous surfaces: IApex=[5](mm), SLIP=[2.0](%),
03400> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03401> *#----- Ns[3], TF=[0.26]hrs, S[1], I[mm/hr], END=1
03402> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03403> *#----- CALIB STANDHYD ID=[13], NHYD=[*"FB 21-3"], DT=[1](min), AREA=[0.98](ha),
03404> *#----- XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
03405> *#----- SCS curve number: CN=[74],
03406> *#----- Previous surfaces: IApex=[5](mm), SLIP=[2.0](%),
03407> *#----- Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%),
03408> *#----- Ns[3], TF=[0.26]hrs, S[1], I[mm/hr], END=1
03409> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03410> *#----- TABLE of ( OUTFLOW-STORAGE ) values
03411> *#----- (cms) - (ha-m)
03412> *#----- [ 0.0 , 0.0 ]
03413> *#----- [ 0.001 , 0.034 ]
03414> *#----- [ 0.011 , 0.114 ]
03415> *#----- [ 0.013 , 0.164 ]
03416> *#----- [ 0.018 , 0.239 ]
03417> *#----- [ 0.018 , 0.380 ]
03418> *#----- [ 0.020 , 0.523 ]
03419> *#----- [ 0.022 , 0.794 ]
03420> *#----- [ 0.027 , 0.948 ]
03421> *#----- [ 0.975 + 12.715 = 13.692 ] end
03422> *#----- [ 0.252 , 1.092 ]
03423> *#----- [ -1 , -6 ] (max twenty pts)
03424> *#----- IDovf[2], NHYDovf[="*#IDover"]
03425> *#----- Watercourse Flows - ZONE 1
03426> *#----- --- East Watercourse Area -----
03427> *#----- Foley Utrah
03428> *#----- --- West Watercourse Area -----
03429> *#----- Small Unmaed Tributary -----
03430> *#----- CALIB NASHYD ID=[5], NHYD=[*"Ext 1"], DT=[1]min, AREA=[41.2](ha),
03431> *#----- DWF=[0](cms), CN=C[74.1], IA=[6.1](mm),
03432> *#----- Ns[3], TF=[0.57]hrs, S[1], I[mm/hr], END=1
03433> *#----- RAINFALL[ , , , , ](mm/hr), END=1
03434> *#----- ROUTE CHANNEL IDout=[4], NHYD=[*"SlateLag"], IDin=[3],
03435> *#----- ROT=[1](min),
03436> *#----- CHLTH=[425](m), CHLDP[0.96](%), CHLDPB[0.96](%),
03437> *#----- SECHN=[1], NSEGC[3]
03438> *#----- ( SEGROUDS SEGDIST (m) = 0.035, 215.6 , -0.045, 221.70 0.035, 266.50 ) NSEG times
03439> *#----- ( DISTANCE (m), ELEVATION (m) ) = 215.6, 514.00 , 219.6, 514.00
03440> *#----- 219.6, 514.00 , 221.3, 514.00
03441> *#----- 221.3, 514.00 , 224.8, 514.00
03442> *#----- 224.8, 514.00 , 231.0, 515.00
03443> *#----- 231.0, 515.00 , 234.8, 514.00
03444> *#----- 234.8, 514.00 , 241.8, 514.00
03445> *#----- 241.8, 514.00 , 249.4, 514.12
03446> *#----- 249.4, 514.12 , 253.8, 514.43
03447> *#----- 253.8, 514.43 , 266.5, 515.00
03448> *#----- 266.5, 515.00 , 274.3, 514.00
03449> *#----- 274.3, 514.00 , 282.1, 514.00
03450> *#----- 282.1, 514.00 , 289.9, 514.00
03451> *#----- 289.9, 514.00 , 297.7, 514.00
03452> *#----- 297.7, 514.00 , 305.5, 514.00
03453> *#----- 305.5, 514.00 , 313.3, 514.00
03454> *#----- 313.3, 514.00 , 321.1, 514.00
03455> *#----- 321.1, 514.00 , 328.9, 514.00
03456> *#----- 328.9, 514.00 , 336.7, 514.00
03457> *#----- 336.7, 514.00 , 344.5, 514.00
03458> *#----- 344.5, 514.00 , 352.3, 514.00
03459> *#----- 352.3, 514.00 , 360.1, 514.00
03460> *#----- 360.1, 514.00 , 367.9, 514.00
03461> *#----- 367.9, 514.00 , 375.7, 514.00
03462> *#----- 375.7, 514.00 , 383.5, 514.00
03463> *#----- 383.5, 514.00 , 391.3, 514.00
03464> *#----- 391.3, 514.00 , 399.1, 514.00
03465> *#----- 399.1, 514.00 , 406.9, 514.00
03466> *#----- 406.9, 514.00 , 414.7, 514.00
03467> *#----- 414.7, 514.00 , 422.5, 514.00
03468> *#----- 422.5, 514.00 , 430.3, 514.00
03469> *#----- 430.3, 514.00 , 438.1, 514.00
03470> *#----- 438.1, 514.00 , 445.9, 514.00
03471> *#----- 445.9, 514.00 , 453.7, 514.00
03472> *#----- 453.7, 514.00 , 461.5, 514.00
03473> *#----- 461.5, 514.00 , 469.3, 514.00
03474> *#----- 469.3, 514.00 , 477.1, 514.00
03475> *#----- 477.1, 514.00 , 484.9, 514.00
03476> *#----- 484.9, 514.00 , 492.7, 514.00
03477> *#----- 492.7, 514.00 , 500.5, 514.00
03478> *#----- 500.5, 514.00 , 508.3, 514.00
03479> *#----- 508.3, 514.00 , 516.1, 514.00
03480> *#----- 516.1, 514.00 , 523.9, 514.00
03481> *#----- 523.9, 514.00 , 531.7, 514.00
03482> *#----- 531.7, 514.00 , 539.5, 514.00
03483> *#----- 539.5, 514.00 , 547.3, 514.00
03484> *#----- 547.3, 514.00 , 555.1, 514.00
03485> *#----- 555.1, 514.00 , 562.9, 514.00
03486> *#----- 562.9, 514.00 , 570.7, 514.00
03487> *#----- 570.7, 514.00 , 578.5, 514.00
03488> *#----- 578.5, 514.00 , 586.3, 514.00
03489> *#----- 586.3, 514.00 , 594.1, 514.00
03490> *#----- 594.1, 514.00 , 601.9, 514.00
03491> *#----- 601.9, 514.00 , 609.7, 514.00
03492> *#----- 609.7, 514.00 , 617.5, 514.00
03493> *#----- 617.5, 514.00 , 625.3, 514.00
03494> *#----- 625.3, 514.00 , 633.1, 514.00
03495> *#----- 633.1, 514.00 , 640.9, 514.00
03496> *#----- 640.9, 514.00 , 648.7, 514.00
03497> *#----- 648.7, 514.00 , 656.5, 514.00
03498> *#----- 656.5, 514.00 , 664.3, 514.00
03499> *#----- 664.3, 514.00 , 672.1, 514.00
03500> *#----- 672.1, 514.00 , 679.9, 514.00
03501> *#----- 679.9, 514.00 , 687.7, 514.00
03502> *#----- 687.7, 514.00 , 695.5, 514.00
03503> *#----- 695.5, 514.00 , 703.3, 514.00
03504> *#----- 703.3, 514.00 , 711.1, 514.00
03505> *#----- 711.1, 514.00 , 718.9, 514.00
03506> *#----- 718.9, 514.00 , 726.7, 514.00
03507> *#----- 726.7, 514.00 , 734.5, 514.00
03508> *#----- 734.5, 514.00 , 742.3, 514.00
03509> *#----- 742.3, 514.00 , 750.1, 514.00
03510> *#----- 750.1, 514.00 , 757.9, 514.00
03511> *#----- 757.9, 514.00 , 765.7, 514.00
03512> *#----- 765.7, 514.00 , 773.5, 514.00
03513> *#----- 773.5, 514.00 , 781.3, 514.00
03514> *#----- 781.3, 514.00 , 789.1, 514.00
03515> *#----- 789.1, 514.00 , 796.9, 514.00
03516> *#----- 796.9, 514.00 , 804.7, 514.00
03517> *#----- 804.7, 514.00 , 812.5, 514.00
03518> *#----- 812.5, 514.00 , 820.3, 514.00
03519> *#----- 820.3, 514.00 , 828.1, 514.00
03520> *#----- 828.1, 514.00 , 835.9, 514.00
03521> *#----- 835.9, 514.00 , 843.7, 514.00
03522> *#----- 843.7, 514.00 , 851.5, 514.00
03523> *#----- 851.5, 514.00 , 859.3, 514.00
03524> *#----- 859.3, 514.00 , 867.1, 514.00
03525> *#----- 867.1, 514.00 , 874.9, 514.00
03526> *#----- 874.9, 514.00 , 882.7, 514.00
03527> *#----- 882.7, 514.00 , 890.5, 514.00
03528> *#----- 890.5, 514.00 , 898.3, 514.00
03529> *#----- 898.3, 514.00 , 906.1, 514.00
03530> *#----- 906.1, 514.00 , 913.9, 514.00
03531> *#----- 913.9, 514.00 , 921.7, 514.00
03532> *#----- 921.7, 514.00 , 929.5, 514.00
03533> *#----- 929.5, 514.00 , 937.3, 514.00
03534> *#----- 937.3, 514.00 , 945.1, 514.00
03535> *#----- 945.1, 514.00 , 952.9, 514.00
03536> *#----- 952.9, 514.00 , 960.7, 514.00
03537> *#----- 960.7, 514.00 , 968.5, 514.00
03538> *#----- 968.5, 514.00 , 976.3, 514.00
03539> *#----- 976.3, 514.00 , 984.1, 514.00
03540> *#----- 984.1, 514.00 , 991.9, 514.00
03541> *#----- 991.9, 514.00 , 999.7, 514.00
03542> *#----- 999.7, 514.00 , 1007.5, 514.00
03543> *#----- 1007.5, 514.00 , 1015.3, 514.00
03544> *#----- 1015.3, 514.00 , 1023.1, 514.00
03545> *#----- 1023.1, 514.00 , 1030.9, 514.00
03546> *#----- 1030.9, 514.00 , 1038.7, 514.00
03547> *#----- 1038.7, 514.00 , 1046.5, 514.00
03548> *#----- 1046.5, 514.00 , 1054.3, 514.00
03549> *#----- 1054.3, 514.00 , 1062.1, 514.00
03550> *#----- 1062.1, 514.00 , 1069.9, 514.00
03551> *#----- 1069.9, 514.00 , 1077.7, 514.00
03552> *#----- 1077.7, 514.00 , 1085.5, 514.00
03553> *#----- 1085.5, 514.00 , 1093.3, 514.00
03554> *#----- 1093.3, 514.00 , 1101.1, 514.00
03555> *#----- 1101.1, 514.00 , 1108.9, 514.00
03556> *#----- 1108.9, 514.00 , 1116.7, 514.00
03557> *#----- 1116.7, 514.00 , 1124.5, 514.00
03558> *#----- 1124.5, 514.00 , 1132.3, 514.00
03559> *#----- 1132.3, 514.00 , 1140.1, 514.00
03560> *#----- 1140.1, 514.00 , 1147.9, 514.00
03561> *#----- 1147.9, 514.00 , 1155.7, 514.00
03562> *#----- 1155.7, 514.00 , 1163.5, 514.00
03563> *#----- 1163.5, 514.00 , 1171.3, 514.00
03564> *#----- 1171
```

```

03601> [ 0.589 + 2.584 = 3.173 ]
03602> [ 0.679 + 4.312 = 4.991 ]
03603> [ 0.975 + 12.712 = 13.692] end
03604> *-----+
03605> # Watercourse Flows- ZONE 2
03606> *-----+
03607> #-----+
03608> #-----+
03609> #-----+
03610> #-----+
03611> #-----+
03612> #-----+
03613> #-----+
03614> #-----+
03614> CALIB NASHYD
ID=[5], NHYD=[*Ext-2*], DT=[1]min, AREA=[417.2](ha),
DNF=[0](cms), CN/C=[74.1], IA=[6.4](mm),
N=[3], TF=[1.87]hrs, IDout=[1], IDn=[1], IDw=[1]
RAINFALL=[ , , , ](mm/hr), END=1
03617> *-----+
03618> ADD HYD
IDsum=[8], NHYD=[*P1*], IDs to add=[5+7]
03619> *-----+
03620> CALIB NASHYD
ID=[7], NHYD=[*NAT*], DT=[1]min, AREA=[6.51](ha),
DNF=[0](cms), CN/C=[79.1], IA=[6.4](mm),
N=[3], TF=[0.40]hrs, IDout=[1], IDn=[1], IDw=[1]
RAINFALL=[ , , , ](mm/hr), END=1
03621> *-----+
03622> ADD HYD
IDsum=[8], NHYD=[*P1*], IDs to add=[5+7]
03623> *-----+
03624> ROUTE CHANNEL
IDout=[5], NHYD=[*S1stLag*], IDin=[8],
ROUTE CHANNEL IDsum=[8], NHYD=[*S1stLag*], IDin=[8],
CHLTH=[550](m), CHLDFP=[0.65](%),
FSLFOP=[0.65](%),
SECNUM=[1], NHYD=[*NAT*],
(S SECNUM, S ESDOT (m))=[0.035, 215.60 -0.045, 221.70 0.035, 266.50] NSEG times
(DISTANCE (m), ELEVATION (m))=[179.70, 514.50]
03625> *-----+
03626> *-----+
03627> *-----+
03628> *-----+
03629> *-----+
03630> *-----+
03631> *-----+
03632> *-----+
03633> *-----+
03634> *-----+
03635> *-----+
03636> *-----+
03637> *-----+
03638> *-----+
03639> *-----+
03640> *-----+
03641> *-----+
03642> *-----+
03643> *-----+
03644> *-----+
03645> *-----+
03646> *-----+
03647> *-----+
03648> *-----+
03649> *-----+
03650> *-----+
03651> *-----+
03652> *-----+
03653> *-----+
03654> *-----+
03655> *-----+
03656> *-----+
03657> *-----+
03658> *-----+
03659> *-----+
03660> *-----+
03661> *-----+
03662> *-----+
03663> *-----+
03664> *-----+
03665> *-----+
03666> *-----+
03667> *-----+
03668> *-----+
03669> *-----+
03670> *-----+
03671> *-----+
03672> *-----+
03673> *-----+
03674> ADD HYD
IDsum=[9], NHYD=[*P3IN*], IDs to add=[7+8]
03675> *-----+
03676> *-----+
03677> *-----+
03678> *-----+
03679> *-----+
03680> ROUTE RESERVOIR
IDout=[7], NHYD=[*#2Out*], IDin=[9],
RDT=[1](min),
TABLE of (OUTFLOW-STORAGE) values
(cms) -(ba-m)
[ 0.0 , 0.0 ]
[ 0.01 , 0.034 ]
[ 0.013 , 0.067 ]
[ 0.016 , 0.107 ]
[ 0.017 , 0.115 ]
[ 0.018 , 0.123 ]
[ 0.027 , 0.272 ]
[ 0.030 , 0.348 ]
[ 0.031 , 0.423 ]
[ 0.040 , 0.709 ]
[ 0.045 , 0.922 ]
[ 0.046 , 0.951 ]
[ -1 , -1 ] (max twenty pts)
IDovf=[8], NHYDovf=[*#2Over*]
03681> *-----+
03682> *-----+
03683> *-----+
03684> *-----+
03685> *-----+
03686> *-----+
03687> *-----+
03688> *-----+
03689> *-----+
03690> *-----+
03691> *-----+
03692> *-----+
03693> *-----+
03694> *-----+
03695> *-----+
03696> *-----+
03697> *-----+
03698> *-----+
03699> *-----+
03700> *-----+
03701> *-----+
03702> *-----+
03703> *-----+
03704> *-----+
03705> *-----+
03706> *-----+
03707> *-----+
03708> *-----+
03709> *-----+
03710> *-----+
03711> *-----+
03712> *-----+
03713> *-----+
03714> *-----+
03715> *-----+
03716> *-----+
03717> *-----+
03718> *-----+
03719> *-----+
03720> *-----+
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03722> *-----+
03723> *-----+
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03725> *-----+
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03729> *-----+
03730> *-----+
03731> *-----+
03732> *-----+
03733> *-----+
03734> *-----+
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03737> *-----+
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03750> *-----+
03751> *-----+
03752> *-----+
03753> *-----+
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03756> *-----+
03757> *-----+
03758> *-----+
03759> *-----+
03760> *-----+
03761> *-----+
03762> *-----+
03763> *-----+
03764> *-----+
03765> *-----+
03766> *-----+
03767> *-----+
03768> *-----+
03769> *-----+
03770> *-----+
03771> *-----+
03772> *-----+
03773> *-----+
03774> *-----+
03775> *-----+
03776> *-----+
03777> *-----+
03778> *-----+
03779> *-----+
03780> *-----+
03781> [ 0.020 , 0.523 ]
03782> [ 0.022 , 0.734 ]
03783> [ 0.024 , 0.846 ]
03784> [ 0.025 , 1.092 ]
03785> [ -1 , -1 ] (max twenty pts)
IDovf=[2], NHYDovf=[*#1Over*]
03786> *-----+
03787> *-----+
03788> *-----+
03789> *-----+
03790> *-----+
03791> *-----+
03792> *-----+
03793> *-----+
03794> *-----+
03795> *-----+
03796> *-----+
03797> *-----+
03798> *-----+
03799> *-----+
03800> *-----+
03801> *-----+
03802> *-----+
03803> *-----+
03804> *-----+
03805> *-----+
03806> *-----+
03807> *-----+
03808> *-----+
03809> *-----+
03810> *-----+
03811> *-----+
03812> *-----+
03813> *-----+
03814> *-----+
03815> *-----+
03816> *-----+
03817> *-----+
03818> *-----+
03819> *-----+
03820> *-----+
03821> *-----+
03822> *-----+
03823> *-----+
03824> *-----+
03825> *-----+
03826> *-----+
03827> *-----+
03828> *-----+
03829> *-----+
03830> *-----+
03831> *-----+
03832> *-----+
03833> *-----+
03834> *-----+
03835> *-----+
03836> *-----+
03837> *-----+
03838> *-----+
03839> *-----+
03840> *-----+
03841> *-----+
03842> *-----+
03843> *-----+
03844> *-----+
03845> *-----+
03846> *-----+
03847> *-----+
03848> *-----+
03849> *-----+
03850> *-----+
03851> *-----+
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03858> *-----+
03859> *-----+
03860> *-----+
03861> *-----+
03862> *-----+
03863> *-----+
03864> *-----+
03865> *-----+
03866> *-----+
03867> *-----+
03868> *-----+
03869> *-----+
03870> *-----+
03871> *-----+
03872> *-----+
03873> *-----+
03874> *-----+
03875> *-----+
03876> *-----+
03877> *-----+
03878> *-----+
03879> *-----+
03880> *-----+
03881> *-----+
03882> *-----+
03883> *-----+
03884> *-----+
03885> *-----+
03886> *-----+
03887> *-----+
03888> *-----+
03889> *-----+
03890> *-----+
03891> QID1 + QID11 = QTOTAL
03892> [ 0.000 + 0.000 = 0.000 ]
03893> [ 0.000 + 0.000 = 0.000 ]
03894> [ 0.035 + 10.000 = 10.035]end
03895> *-----+
03896> *-----+
03897> *-----+
03898> *-----+
03899> *-----+
03900> *-----+
03901> *-----+
03902> *-----+
03903> *-----+
03904> *-----+
03905> *-----+
03906> *-----+
03907> *-----+
03908> *-----+
03909> *-----+
03910> *-----+
03911> *-----+
03912> *-----+
03913> *-----+
03914> *-----+
03915> *-----+
03916> *-----+
03917> *-----+
03918> *-----+
03919> *-----+
03920> *-----+
03921> *-----+
03922> *-----+
03923> *-----+
03924> *-----+
03925> *-----+
03926> *-----+
03927> *-----+
03928> *-----+
03929> *-----+
03930> *-----+
03931> *-----+
03932> *-----+
03933> *-----+
03934> *-----+
03935> *-----+
03936> *-----+
03937> *-----+
03938> *-----+
03939> *-----+
03940> *-----+
03941> *-----+
03942> *-----+
03943> *-----+
03944> *-----+
03945> *-----+
03946> *-----+
03947> *-----+
03948> *-----+
03949> *-----+
03950> *-----+
03951> QID1 + QID11 = QTOTAL
03952> [ 0.000 + 0.000 = 0.000 ]
03953> [ 0.000 + 0.008 = 0.008 ]
03954> [ 0.000 + 0.022 = 0.026 ]
03955> [ 0.000 + 0.033 = 0.033 ]
03956> [ 0.000 + 0.044 = 0.044 ]
03957> [ 0.019 + 0.062 = 0.080 ]
03958> [ 0.053 + 0.093 = 0.146 ]
03959> [ 0.098 + 0.143 = 0.239 ]
03960> [ 0.208 + 0.352 = 0.560 ]

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03961> [ 0.345 + 0.809 = 1.1554 ]
03962> [ 0.464 + 1.285 = 1.746 ]
03963> [ 0.464 + 1.285 = 1.746 ]
03964> [ 0.589 + 2.584 = 3.173 ]
03965> [ 0.679 + 4.312 = 4.991 ]
03966> [ 0.975 + 12.716 = 13.692] end
03967> *-----+
03968> #-----+ Watercourse Flows- ZONE 2
03969> #-----+
03970> #-----+
03971> #-----+
03972> #-----+
03973> #-----+ East Watercourse Area -----
03974> #-----+ Foley Drain -----
03975> #-----+
03976> #-----+
03977> #-----+
03978> CALIB NASHYD ID=[5], NHYD=[*Ext-2*], DT=[1]min, AREA=[417.2](ha),
03979> DWF=[0](cms), CN=C[79.1], IA=[7.45](mm),
03980> N=[3], TF=[1.87]hrs, END=1
03981> *-----+
03982> CALIB NASHYD ID=[7], NHYD=[*NAT*], DT=[1]min, AREA=[5.51](ha),
03983> DWF=[0](cms), CN=C[79.1], IA=[6.4](mm),
03984> N=[3], TF=[1.87]hrs, END=1
03985> *-----+
03986> RAINFALL[ , , , ](mm/hr), END=1
03987> *-----+
03988> ADD HYD IDsum=[8], NHYD=[*Fl*], IDs to add=[5+?]
03989> *-----+
03990> ROUTE CHANNEL IDsum=[5], NHYD=[*Slope*], IDin=[8],
03991> DT=[1]min, AREA=[0.65](ha),
03992> CHLTH=[500](m) CHLDPE[0.65](%),
03993> FFSLOPE[0.65](%), SECNUM=[1], NHYD=[*Ext-2*],
03994> SEDGROUN, SEDDIST [m])=0.035,215.60 -0.045,221.70 0.035,266.50 NSEG times
03995> ( DISTANCE (m), ELEVATION (m))=(179.70, 514.50)
03996> ( 198.60, 514.50)
03997> ( 217.50, 513.53)
03998> ( 216.55, 513.00)
03999> ( 217.20, 512.50)
04000> ( 217.45, 512.45)
04001> ( 217.80, 512.50)
04002> ( 218.95, 513.00)
04003> ( 220.20, 513.00)
04004> ( 221.70, 513.51)
04005> ( 230.40, 513.51)
04006> ( 243.40, 514.50)
04007> ( 249.40, 514.12)
04008> ( 259.50, 514.28)
04009> ( 266.50, 514.50)
04010> *-----+
04011> *-----+
04012> *-----+
04013> *-----+
04014> *-----+ Controlled Runoff From ZONE 3
04015> *-----+
04016> *-----+
04017> *-----+
04018> *-----+
04019> *-----+ CALIB STANDYD ID=[7], NHYD=[*Ext-2*], DT=[1]min, AREA=[1.21](ha),
04020> XIMP=[0.312], DWF=[0.579], DWF=[0](cms), LOSS=[2],
04021> SCS curve number CN=[74],
04022> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04023> IMPervious surfaces: ILIMP=[0](mm), MNP=[0.25], SCP=[0](min),
04024> RAINFALL[ , , , ](mm/hr), END=1
04025> *-----+
04026> CALIB STANDYD ID=[8], NHYD=[*Slope*], DT=[1]min, AREA=[1.21](ha),
04027> XIMP=[0.312], DWF=[0.579], DWF=[0](cms), LOSS=[2],
04028> SCS curve number CN=[74],
04029> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04030> IMPervious surfaces: ILIMP=[0](mm), MNP=[0.25], SCP=[0](min),
04031> RAINFALL[ , , , ](mm/hr), END=1
04032> *-----+
04033> CALIB STANDYD ID=[9], NHYD=[*Ext-2*], DT=[1]min, AREA=[0.035], SCI=[0](min),
04034> RAINFALL[ , , , ](mm/hr), END=1
04035> *-----+
04036> *-----+ ADD HYD IDsum=[9], NHYD=[*P3IN*], IDs to add=[7+8]
04037> *-----+
04038> *-----+
04039> *-----+ SWM Facility #
04040> *-----+
04041> *-----+ ROUTE RESERVOIR IDout=[7], NHYD=[*#8Out*], IDin=[9],
04042> DT=[1](min),
04043> TABLE of ( OUTFLOW-STORAGE ) values
04044> ( cms ) = ( ha-m )
04045> ( 0.0, 0.0 )
04046> ( 0.007, 0.036 )
04047> ( 0.014, 0.073 )
04048> ( 0.016, 0.107 )
04049> ( 0.017, 0.115 )
04050> ( 0.018, 0.123 )
04051> ( 0.027, 0.272 )
04052> ( 0.030, 0.348 )
04053> ( 0.033, 0.417 )
04054> ( 0.040, 0.709 )
04055> ( 0.045, 0.922 )
04056> ( 1.000, 1.155 )
04057> ( 1.000, 1.155 )
04058> ( 1.000, 1.155 ) ( max twenty pts )
04059> IDovf=[8], NHYDovf=[*#8Over*]
04060> *-----+
04061> ADD HYD IDsum=[9], NHYD=[*Foley Drain*], IDs to add=[4+5+7+8]
04062> *-----+
04063> CALIB NASHYD ID=[4], NHYD=[*Ext-2*], DT=[1]min, AREA=[6.3](ha),
04064> DWF=[0](cms), CN=C[79.1], IA=[4.5](mm),
04065> N=[3], TF=[0.64]hrs, END=1
04066> *-----+
04067> RAINFALL[ , , , ](mm/hr), END=1
04068> *-----+
04069> ADD HYD IDsum=[5], NHYD=[*Pf of Int*], IDs to add=[9+4]
04070> *-----+
04071> *-----+ ADD HYD IDsum=[10], NHYD=[*Pf of Int*], IDs to add=[1+2+3+6]
04072> *-----+
04073> *-----+
04074> *-----+
04075> *-----+ 5555 0 00 Y Y RRRR SSSS CCCC SSSS
04076> 5555 0 00 Y Y RRRR SSSS CCCC SSSS
04077> *-----+ 5 0 0 0 Y R R SSSS C SSSS
04078> *-----+ 5555 0 00 Y R R SSSS C S CCCCC S
04079> *-----+ 50 YEAR
04080> *-----+
04081> *-----+
04082> *-----+
04083> *-----+ MASS STORM TOTAL=[116.8](mm), CSDT=[15](min),
04084> CURVE_FILNAME=[*SC524H.MST*]
04085> *-----+
04086> *-----+ SWM Facility #1 Area -----
04087> *-----+ West Site Area -----
04088> *-----+
04089> *-----+ SWM Facility #1 Area -----
04090> *-----+ West Site Area -----
04091> *-----+
04092> *-----+ CALIB NASHYD ID=[1], NHYD=[*Ext 5*], DT=[1]min, AREA=[0.97](ha),
04093> DWF=[0](cms), CN=C[79.1], IA=[4.5](mm),
04094> N=[3], TF=[0.26]hrs, END=1
04095> *-----+
04096> *-----+ RAINFALL[ , , , ](mm/hr), END=1
04097> *-----+
04098> *-----+ CALIB STANDYD ID=[2], NHYD=[*Ext 2*], DT=[1]min, AREA=[12.37](ha),
04099> XIMP=[0.3], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04100> SCS curve number CN=[74],
04101> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04102> IMPervious surfaces: ILIMP=[0](mm), MNP=[0.25], SCP=[0](min),
04103> RAINFALL[ , , , ](mm/hr), END=1
04104> *-----+
04105> *-----+ CALIB STANDYD ID=[3], NHYD=[*Ext 2*], DT=[1]min, AREA=[0.98](ha),
04106> XIMP=[0.3], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04107> SCS curve number CN=[74],
04108> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04109> IMPervious surfaces: ILIMP=[0](mm), MNP=[0.25], SCP=[0](min),
04110> RAINFALL[ , , , ](mm/hr), END=1
04111> *-----+
04112> *-----+ CALIB STANDYD ID=[4], NHYD=[*Ext 2*], DT=[1]min, AREA=[1.11](ha),
04113> XIMP=[0.51], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04114> SCS curve number CN=[74],
04115> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04116> IMPervious surfaces: ILIMP=[0](mm), MNP=[0.25], SCP=[0](min),
04117> RAINFALL[ , , , ](mm/hr), END=1
04118> *-----+
04119> *-----+ CALIB STANDYD ID=[5], NHYD=[*Ext 2*], DT=[1]min, AREA=[1.11](ha),
04120> XIMP=[0.51], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04121> SCS curve number CN=[74],
04122> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04123> IMPervious surfaces: ILIMP=[0](mm), MNP=[0.25], SCP=[0](min),
04124> RAINFALL[ , , , ](mm/hr), END=1
04125> *-----+
04126> *-----+ CALIB STANDYD ID=[6], NHYD=[*Ext 2*], DT=[1]min, AREA=[1.11](ha),
04127> XIMP=[0.51], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04128> SCS curve number CN=[74],
04129> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04130> IMPervious surfaces: ILIMP=[0](mm), MNP=[0.25], SCP=[0](min),
04131> RAINFALL[ , , , ](mm/hr), END=1
04132> *-----+
04133> *-----+ SWM Facility #
04134> *-----+
04135> *-----+ ROUTE RESERVOIR IDout=[1], NHYD=[*#8Out*], IDin=[5],
04136> DT=[1](min),
04137> TABLE of ( OUTFLOW-STORAGE ) values
04138> ( cms ) = ( ha-m )
04139> ( 0.005, 0.034 )
04140> ( 0.011, 0.114 )
04141> ( 0.019, 0.164 )
04142> *-----+
04143> #-----+ Watercourse Flows- ZONE 2
04144> *-----+
04145> #-----+
04146> #-----+ East Watercourse Area -----
04147> #-----+ Foley Drain -----
04148> #-----+
04149> #-----+
04150> #-----+ West Watercourse Area -----
04151> #-----+ Small Unnamed Tributary -
04152> *-----+
04153> *-----+ CALIB NASHYD ID=[3], NHYD=[*Ext 1*], DT=[1]min, AREA=[41.2](ha),
04154> DWF=[0](cms), CN=C[74.1], IA=[6.1](mm),
04155> N=[3], TF=[0.4]hrs, END=1
04156> *-----+
04157> RAINFALL[ , , , ](mm/hr), END=1
04158> *-----+
04159> *-----+ ROUTE CHANNEL IDout=[4], NHYD=[*Slope*], IDin=[3],
04160> DT=[1]min,
04161> CHLTH=[425](m) CHLDPE[0.96](%),
04162> ROT=[1](min),
04163> RAINFALL[ , , , ](mm/hr), END=1
04164> *-----+
04165> *-----+ CALIB NASHYD ID=[4], NHYD=[*Ext 1*], DT=[1]min, AREA=[5.5](ha),
04166> DWF=[0](cms), CN=C[74.1], IA=[6.1](mm),
04167> N=[3], TF=[0.4]hrs, END=1
04168> *-----+
04169> *-----+ SECRNM[1], NSEG[2]
04170> ( SEGROUND, SEDGIST [m])=0.035,75.5 -0.045,78.5 0.035,151.0 NSEG times
04171> ( DISTANCE (m), ELEVATION (m))=(48.0, 516.81)
04172> ( 48.0, 516.81)
04173> ( 60.0, 516.69)
04174> ( 64.0, 516.81)
04175> ( 75.5, 516.23)
04176> ( 76.0, 516.06)
04177> ( 77.5, 516.06)
04178> ( 78.5, 516.36)
04179> ( 79.5, 516.39)
04180> ( 92.5, 516.49)
04181> ( 103.5, 516.51)
04182> ( 118.5, 516.67)
04183> ( 130.5, 516.50)
04184> ( 151.0, 516.00)
04185> *-----+
04186> *-----+ CALIB NASHYD ID=[5], NHYD=[*Pf ZL-2*], DT=[1]min, AREA=[5.68](ha),
04187> DWF=[0](cms), CN=C[60], IA=[10](mm),
04188> N=[3], TF=[0.40]hrs, END=1
04189> *-----+
04190> *-----+ RAINFALL[ , , , ](mm/hr), END=1
04191> *-----+
04192> *-----+ Total Flow at South Property Line -
04193> *-----+
04194> *-----+ ADD HYD IDsum=[3], NHYD=[*UNC Pf*], IDs to add=[1+2+4+5]
04195> *-----+
04196> *-----+ ROUTE CHANNEL IDout=[1], NHYD=[*DS Lag*], IDin=[3],
04197> DT=[1]min,
04198> CHLDPE[0.96](%),
04199> SECRNM[1], NSEG[2]
04200> ( SEGROUND, SEDGIST [m])=0.035,75.5 -0.045,78.5 0.035,151.0 NSEG times
04201> ( DISTANCE (m), ELEVATION (m))=(31.0, 515.00)
04202> ( 48.0, 516.81)
04203> ( 64.0, 516.69)
04204> ( 68.5, 516.54)
04205> ( 75.5, 516.23)
04206> ( 76.0, 516.06)
04207> ( 77.5, 516.06)
04208> ( 78.5, 516.36)
04209> ( 79.5, 516.39)
04210> ( 92.5, 516.49)
04211> ( 103.5, 516.51)
04212> ( 118.5, 516.67)
04213> ( 130.5, 516.50)
04214> ( 151.0, 516.00)
04215> *-----+
04216> *-----+ CALIB NASHYD ID=[2], NHYD=[*Ext 3*], DT=[1]min, AREA=[1.55](ha),
04217> DWF=[0](cms), CN=C[60], IA=[10](mm),
04218> N=[3], TF=[0.47]hrs, END=1
04219> *-----+
04220> *-----+ RAINFALL[ , , , ](mm/hr), END=1
04221> *-----+
04222> *-----+
04223> *-----+
04224> *-----+ Controlled Runoff From ZONE 2
04225> *-----+
04226> *-----+
04227> *-----+
04228> *-----+
04229> *-----+
04230> *-----+
04231> *-----+ CALIB STANDYD ID=[3], NHYD=[*Ext 2*], DT=[1]min, AREA=[1.21](ha),
04232> XIMP=[0.35], TEMP=[0.55], DWF=[0](cms), LOSS=[2],
04233> SCS curve number CN=[74],
04234> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04235> IMPervious surfaces: ILIMP=[2](mm), SLIP=[0.5](%), SCP=[0](min),
04236> RAINFALL[ , , , ](mm/hr), END=1
04237> *-----+
04238> *-----+ CALIB STANDYD ID=[4], NHYD=[*Ext 2*], DT=[1]min, AREA=[0.21](ha),
04239> XIMP=[0.41], TEMP=[0.61], DWF=[0](cms), LOSS=[2],
04240> SCS curve number CN=[74],
04241> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04242> IMPervious surfaces: ILIMP=[2](mm), SLIP=[0.5](%), SCP=[0](min),
04243> RAINFALL[ , , , ](mm/hr), END=1
04244> *-----+
04245> *-----+ CALIB STANDYD ID=[5], NHYD=[*Ext 2*], DT=[1]min, AREA=[0.21](ha),
04246> XIMP=[0.41], TEMP=[0.61], DWF=[0](cms), LOSS=[2],
04247> SCS curve number CN=[74],
04248> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04249> IMPervious surfaces: ILIMP=[2](mm), SLIP=[0.5](%), SCP=[0](min),
04250> RAINFALL[ , , , ](mm/hr), END=1
04251> *-----+
04252> *-----+ outflow hydrograph (ID, NHYD)=3,*TTwoC*, 4,*TTwoB*
04253> Note: all flows are in (cms) ( modify as necessary)
04254> Q[0.000 + 0.000] Q[0.000 + 0.000]
04255> Q[0.035 + 0.000] Q[0.035 + 0.000]
04256> Q[0.035 + 10.000] Q[0.035 + 10.000]
04257> *-----+
04258> *-----+ outflow hydrograph (ID, NHYD)=5,*MINOR*, 6,*MAJOR*
04259> Note: all flows are in (cms) ( modify as necessary)
04260> Q[0.000 + 0.000] Q[0.000 + 0.000]
04261> Q[0.035 + 0.000] Q[0.035 + 0.000]
04262> Q[0.035 + 10.000] Q[0.035 + 10.000]
04263> *-----+
04264> *-----+ CALIB STANDYD ID=[6], NHYD=[*Ext 2*], DT=[1]min, AREA=[0.33](ha),
04265> XIMP=[0.51], TEMP=[0.51], DWF=[0](cms), LOSS=[2],
04266> SCS curve number CN=[74],
04267> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04268> IMPervious surfaces: ILIMP=[2](mm), SLIP=[0.5](%), SCP=[0](min),
04269> RAINFALL[ , , , ](mm/hr), END=1
04270> *-----+
04271> *-----+ CALIB STANDYD ID=[7], NHYD=[*Ext 2*], DT=[1]min, AREA=[0.33](ha),
04272> XIMP=[0.51], TEMP=[0.51], DWF=[0](cms), LOSS=[2],
04273> SCS curve number CN=[74],
04274> Pervious surfaces: IAPer=[5](mm), SLIP=[2.0](%),
04275> IMPervious surfaces: ILIMP=[2](mm), SLIP=[0.5](%), SCP=[0](min),
04276> RAINFALL[ , , , ](mm/hr), END=1
04277> *-----+
04278> *-----+ ADD HYD IDsum=[8], NHYD=[*#2 In*], IDs to add=[3+5+4+7]
04279> *-----+
04280> *-----+ SWM Facility #2 -----
04281> *-----+
04282> *-----+ ROUTE RESERVOIR IDout=[3], NHYD=[*#8Out*], IDin=[8],
04283> DT=[1](min),
04284> TABLE of ( OUTFLOW-STORAGE ) values
04285> ( cms ) = ( ha-m )
04286> ( 0.008, 0.048 )
04287> ( 0.026, 0.123 )
04288> ( 0.044, 0.204 )
04289> ( 0.044, 0.261 )
04290> ( 0.080, 0.320 )
04291> ( 0.128, 0.390 )
04292> ( 0.146, 0.380 )
04293> ( 0.239, 0.443 )
04294> ( 0.327, 0.512 )
04295> ( 0.828, 0.642 )
04296> ( 1.154, 0.711 )
04297> ( 1.422, 0.782 )
04298> ( 1.746, 0.818 )
04299> ( 1.924, 0.847 )
04300> ( 2.102, 0.893 )
04301> ( 3.005, 0.940 )
04302> ( 4.549, 1.032 )
04303> ( 12.26, 1.301 )
04304> ( 1.000 + 0.000 = 0.000 )
04305> ( 1.000 + 0.000 = 0.000 )
04306> ( 1.000 + 0.000 = 0.000 )
04307> ADD HYD IDsum=[5], NHYD=[*#2 Out*], IDs to add=[3+4]
04308> *-----+
04309> *-----+ SWM Facility #1 -----
04310> *-----+ outflow hydrographs (ID, NHYD)=3,*TTwoC*, 4,*TTwoB*
04311> Note: all flows are in (cms) ( modify as necessary)
04312> Q[0.000 + 0.000] Q[0.000 + 0.000]
04313> Q[0.000 + 0.000] Q[0.000 + 0.000]
04314> Q[0.000 + 0.000] Q[0.000 + 0.000]
04315> Q[0.000 + 0.008] Q[0.000 + 0.008]
04316> Q[0.000 + 0.022] Q[0.000 + 0.022]
04317> Q[0.000 + 0.033] Q[0.000 + 0.033]
04318> Q[0.000 + 0.044] Q[0.000 + 0.044]
04319> Q[0.019 + 0.062] Q[0.019 + 0.060]
04320> Q[0.033 + 0.098] Q[0.033 + 0.096]

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04321: [ 0.097 + 0.143 = 0.239 ]
04322: [ 0.208 + 0.352 = 0.560 ]
04323: [ 0.095 + 0.148 = 0.243 ]
04324: [ 0.461 + 1.285 = 1.744 ]
04325: [ 0.503 + 1.486 = 1.988 ]
04326: [ 0.202 + 0.261 = 0.463 ]
04327: [ 0.679 + 4.312 = 4.991 ]
04328: [ 0.979 + 12.716 = 13.692 ] end
04329: *-----| Watercourse Flows- ZONE 2 |-----|
04331: *-----| Watercourse Flows- ZONE 1 |-----|
04333: *-----| East Watercourse Area |-----|
04334: *-----| Foley Drain |-----|
04335: *-----| West Watercourse Area |-----|
04336: *-----| Small Unnamed Tributary |-----|
04337: *-----|-----|-----|
04338: *-----|-----|-----|
04339: CALIB NASHYD ID=[5], NHYD=[*Ext-2*], DT=[1]min, AREA=[417.2](ha),
04340: DWF=[0](cms), CN=C[74.7], IA=[7.65](mm),
04341: RAINFALL=[ , , , , ](mm/hr), END=1
04342: |-----|-----|-----|
04343: *-----| ID=[7], NHYD=[*NAX*], DT=[1]min, AREA=[5.1](ha),
04344: DWF=[0](cms), CN=C[79.1], IA=[6.4](mm),
04345: N=[3], TF=[0.36]hrs,
04346: RAINFALL=[ , , , , ](mm/hr), END=1
04347: |-----|-----|-----|
04348: ADD HYD IDnum=[8], NHYD=[*FIM*], IDs to add=[5+7]
04349: |-----|-----|-----|
04350: ROUTE CHANNEL IDout=[5], NHYD=[*Slope*], IDin=[8],
04351: RDT=[1](min),
04352: CHLGHTh=[510](m), CHLSLOP=[0.65](%),
04353: FFSLOPE=[0.65](%),
04354: SECNUM=[1], SECID=[3]
04355: (SEGROUGH, SEGDIST (m)=[0.035, 215.40 - 0.045, 221.70 0.035, 266.50] NSEG times
04356: ( DISTANCE (m), ELEVATION (m)=[179.70, 514.50]
04357: [196.60, 513.00]
04358: [215.60, 513.50]
04359: [217.20, 512.50]
04360: [217.45, 512.46]
04361: [217.50, 512.43]
04362: [218.95, 513.00]
04363: [221.30, 513.50]
04364: [221.50, 513.51]
04365: [230.40, 513.71]
04366: [243.80, 514.00]
04367: [249.40, 514.22]
04368: [259.50, 514.28]
04369: [266.50, 514.50]
04370: |-----|-----|-----|
04371: *-----| Controlled Runoff From ZONE 3 |-----|
04372: *-----|-----|-----|
04373: *-----|-----|-----|
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04379: *-----|-----|-----|
04380: CALIB STANHDY ID=[7], NHYD=[*FBZ*], DT=[1]min, AREA=[10.1](ha),
04381: XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
04382: SCS curve number CN=[74],
04383: Pervious surfaces: IApers=[5](mm), SLIP=[2.0](%), SGP=[0](min),
04384: Impervious surfaces: LGI=[40](m), MNP=[0.25], SCP=[0](min),
04385: RGT=[0.005], LCI=[0.005],
04386: Impervious surfaces: LGI=[90](m), MNP=[0.13], SCI=[0](min),
04387: RGT=[0.005], LCI=[0.005],
04388: RAINFALL=[ , , , , ](mm/hr), END=1
04389: |-----|-----|-----|
04390: CALIB STANHDY ID=[8], NHYD=[*SMF3*], DT=[1]min, AREA=[1.21](ha),
04391: XIMP=[0.50], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04392: SCS curve number CN=[74],
04393: Pervious surfaces: IApers=[5](mm), SLIP=[2.0](%), SGP=[0](min),
04394: Impervious surfaces: LGI=[40](m), MNP=[0.25], SCP=[0](min),
04395: RGT=[0.005], LCI=[0.005],
04396: Impervious surfaces: LGI=[90](m), MNP=[0.13], SCI=[0](min),
04397: RGT=[0.005], LCI=[0.005],
04398: RAINFALL=[ , , , , ](mm/hr), END=1
04399: |-----|-----|-----|
04400: ADD HYD IDnum=[9], NHYD=[*P2IN*], IDs to add=[7+8]
04401: |-----|-----|-----|
04402: *-----|-----|-----|
04403: *-----|-----|-----|
04404: ROUTE RESERVOIR IDout=[1], NHYD=[*#2Out*], IDin=[9],
04405: RDT=[1](min)
04406: TABLE of ( OUTFLOW-STORAGE ) values
04407: (cms) - (ha-m)
04408: [ 0.007 + 0.036 ]
04409: [ 0.013 + 0.075 ]
04410: [ 0.018 + 0.117 ]
04411: [ 0.017 + 0.115 ]
04412: [ 0.023 + 0.202 ]
04413: [ 0.028 + 0.272 ]
04414: [ 0.030 + 0.348 ]
04415: [ 0.035 + 0.517 ]
04416: [ 0.040 + 0.679 ]
04417: [ 0.045 + 0.822 ]
04418: [ 1.247 + 1.155 ]
04419: |-----|-----|-----|
04420: *-----|-----|-----|
04421: *-----|-----|-----|
04422: ADD HYD IDnum=[9], NHYD=[*Foley Drain*], IDs to add=[4+5+7+8]
04423: |-----|-----|-----|
04424: CALIB NASHYD ID=[4], NHYD=[*Ext 4*], DT=[1]min, AREA=[6.3](ha),
04425: DWF=[0](cms), CN=C[64.8], IA=[10](mm),
04426: N=[3], TF=[0.36]hrs,
04427: RAINFALL=[ , , , , ](mm/hr), END=1
04428: |-----|-----|-----|
04429: *-----|-----|-----|
04430: ADD HYD IDnum=[10], NHYD=[*Pct of Int*], IDs to add=[5+4+1]
04431: |-----|-----|-----|
04432: ADD HYD IDnum=[10], NHYD=[*Pct of Int*], IDs to add=[1+5+3+6]
04433: |-----|-----|-----|
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04446: *-----|-----|-----|
04447: MASS STORM TOTAL=[128.8](mm), CSDT=[15](min),
04448: CURVE_FILENAME=[*SCS24H.MST*]
04449: |-----|-----|-----|
04450: *-----|-----|-----|
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04459: *-----|-----|-----|
04460: CALIB NASHYD ID=[5], NHYD=[*Ext 5*], DT=[1]min, AREA=[0.97](ha),
04461: XIMP=[0.31], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04462: SCS curve number CN=[77.1], IA=[4.51](mm),
04463: N=[3], TF=[0.26]hrs,
04464: RAINFALL=[ , , , , ](mm/hr), END=1
04465: |-----|-----|-----|
04466: CALIB STANHDY ID=[2], NHYD=[*FB Z1-*], DT=[1]min, AREA=[12.37](ha),
04467: XIMP=[0.3], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04468: SCS curve number CN=[74],
04469: Pervious surfaces: IApers=[5](mm), SLIP=[2.0](%), SGP=[0](min),
04470: Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%), SCI=[0](min),
04471: RGT=[0.005], LCI=[0.005],
04472: RAINFALL=[ , , , , ](mm/hr), END=1
04473: |-----|-----|-----|
04474: CALIB STANHDY ID=[3], NHYD=[*FB Z1-*], DT=[1]min, AREA=[0.98](ha),
04475: XIMP=[0.3], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04476: SCS curve number CN=[74],
04477: Pervious surfaces: IApers=[5](mm), SLIP=[2.0](%), SGP=[0](min),
04478: Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%), SCI=[0](min),
04479: RGT=[0.005], LCI=[0.005],
04480: RAINFALL=[ , , , , ](mm/hr), END=1
04481: |-----|-----|-----|
04482: CALIB STANHDY ID=[4], NHYD=[*SMF4*], DT=[1]min, AREA=[0.9](ha),
04483: XIMP=[0.5], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04484: SCS curve number CN=[74],
04485: Pervious surfaces: IApers=[5](mm), SLIP=[2.0](%), SGP=[0](min),
04486: Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%), SCI=[0](min),
04487: RGT=[0.005], LCI=[0.005],
04488: RAINFALL=[ , , , , ](mm/hr), END=1
04489: |-----|-----|-----|
04490: CALIB STANHDY ID=[5], NHYD=[*FB Z1-*], DT=[1]min, AREA=[1.11](ha),
04491: XIMP=[0.5], TIME=[0.50], DWF=[0](cms), LOSS=[2],
04492: SCS curve number CN=[74],
04493: Pervious surfaces: IApers=[5](mm), SLIP=[2.0](%), SGP=[0](min),
04494: Impervious surfaces: IAlimp=[2](mm), SLIP=[0.5](%), SCI=[0](min),
04495: RGT=[0.005], LCI=[0.005],
04496: RAINFALL=[ , , , , ](mm/hr), END=1
04497: |-----|-----|-----|
04498: *-----|-----|-----|
04499: *-----|-----|-----|
04500: ROUTE RESERVOIR IDout=[1], NHYD=[*#2Out*], IDin=[5],
04501: RDT=[1](min),
04502: TABLE of ( OUTFLOW-STORAGE ) values
04503: (cms) - (ha-m)
04504: [ 0.005 + 0.034 ]
04505: [ 0.011 + 0.114 ]
04506: [ 0.016 + 0.164 ]
04507: [ 0.017 + 0.297 ]
04508: [ 0.018 + 0.380 ]
04509: [ 0.022 + 0.523 ]
04510: [ 0.022 + 0.734 ]
04511: [ 0.025 + 1.092 ]
04512: |-----|-----|-----|
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04522: *-----|-----|-----|
04523: CALIB NASHYD ID=[3], NHYD=[*Ext 1*], DT=[1]min, AREA=[41.2](ha),
04524: DWF=[0](cms), CN=C[74.1], IA=[6.1](mm),
04525: N=[3], TF=[0.36]hrs,
04526: RAINFALL=[ , , , , ](mm/hr), END=1
04527: *-----|-----|-----|
04528: ROUTE CHANNEL IDout=[4], NHYD=[*SiteLag*], IDin=[3],
04529: RDT=[1](min),
04530: CHLGHTh=[425](m), CHLGHTh=[0.96](%), CHLGHTh=[0.96](%),
04531: FFSLP=[0.96](%),
04532: SECNUM=[1], SECID=[3]
04533: (SEGROUGH, SEGDIST (m)=[0.035, 75.5 - 0.045, 78.5 0.035, 151.0] NSEG times
04534: ( DISTANCE (m), ELEVATION (m)=[48.0, 514.81]
04535: [ 60.0, 514.69 ]
04536: [ 68.5, 514.54 ]
04537: [ 75.5, 514.23 ]
04538: [ 76.0, 514.06 ]
04539: [ 77.5, 514.06 ]
04540: [ 78.5, 514.06 ]
04541: [ 79.5, 514.39 ]
04542: [ 82.5, 514.49 ]
04543: [ 84.0, 514.49 ]
04544: [ 85.0, 514.50 ]
04545: [ 88.5, 514.67 ]
04546: [ 103.5, 514.50 ]
04547: [ 118.5, 514.50 ]
04548: [ 130.5, 514.50 ]
04549: [ 151.0, 514.00 ]
04550: |-----|-----|-----|
04551: CALIB NASHYD ID=[5], NHYD=[*FB Z1-*], DT=[1]min, AREA=[5.68](ha),
04552: DWF=[0](cms), CN=C[60], IA=[10](mm),
04553: N=[3], TF=[0.40]hrs,
04554: RAINFALL=[ , , , , ](mm/hr), END=1
04555: *-----|-----|-----|
04556: ROUTE CHANNEL IDout=[1], NHYD=[*DS Lag*], IDin=[3],
04557: RDT=[1](min),
04558: CHLGHTh=[150](m), CHLGHTh=[0.96](%), CHLGHTh=[0.96](%),
04559: FFSLP=[0.96](%),
04560: SECNUM=[1], SECID=[3]
04561: (SEGROUGH, SEGDIST (m)=[31.0, 515.00]
04562: [ 48.0, 514.81 ]
04563: [ 60.0, 514.69 ]
04564: [ 68.5, 514.54 ]
04565: [ 75.5, 514.23 ]
04566: [ 76.0, 514.06 ]
04567: [ 77.5, 514.06 ]
04568: [ 78.5, 514.06 ]
04569: [ 79.5, 514.39 ]
04570: [ 82.5, 514.49 ]
04571: [ 84.0, 514.49 ]
04572: [ 85.0, 514.50 ]
04573: [ 88.5, 514.67 ]
04574: [ 103.5, 514.51 ]
04575: [ 118.5, 514.50 ]
04576: [ 130.5, 514.50 ]
04577: [ 151.0, 514.00 ]
04578: |-----|-----|-----|
04579: CALIB NASHYD ID=[2], NHYD=[*Ext 3*], DT=[1]min, AREA=[1.55](ha),
04580: DWF=[0](cms), CN=C[60], IA=[10](mm),
04581: N=[3], TF=[0.47]hrs,
04582: RAINFALL=[ , , , , ](mm/hr), END=1
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04941: *-----|-----|-----|
04942: *-----|-----|-----|
04943: *-----|-----|-----|
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04946: *-----|-----|-----|
04947: *-----|-----|-----|
04948: *-----|-----|-----|
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04959: *-----|-----|-----|
04960: *-----|-----|-----|
04961: *-----|-----|-----|
04962: *-----|-----|-----|
04963: *-----|-----|-----|
04964: *-----|-----|-----|
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04967: *-----|-----|-----|
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04972: *-----|-----|-----|
04973: *-----|-----|-----|
04974: *-----|-----|-----|
04975: *-----|-----|-----|
04976: *-----|-----|-----|
04977: *-----|-----|-----|
04978: *-----|-----|-----|
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04997: *-----|-----|-----|
04998: *-----|-----|-----|
04999: *-----|-----|-----|
05000: *-----|-----|-----|
05001: *-----|-----|-----|
05002: *-----|-----|-----|
05003: *-----|-----|-----|
05004: *-----|-----|-----|
05005: *-----|-----|-----|
05006: *-----|-----|-----|
05007: *-----|-----|-----|
05008: *-----|-----|-----|
05009: *-----|-----|-----|
05010: *-----|-----|-----|
05011: *-----|-----|-----|
05012: *-----|-----|-----|
05013: *-----|-----|-----|
05
```

```

04681> [ 0.000 + 0.044 = 0.044 ]
04682> [ 0.019 + 0.062 = 0.080 ]
04683> [ 0.038 + 0.081 = 0.116 ]
04684> [ 0.059 + 0.143 = 0.239 ]
04685> [ 0.208 + 0.352 = 0.560 ]
04686> [ 0.208 + 0.352 = 0.560 ]
04687> [ 0.461 + 1.285 = 1.746 ]
04688> [ 0.503 + 1.486 = 1.988 ]
04689> [ 0.503 + 1.486 = 1.988 ]
04690> [ 0.679 + 4.312 = 4.991 ]
04691> [ 0.975 + 12.716 = 13.692] end

04693> *-----+
04694> # Watercourse Flows - ZONE 2
04695> #
04696> #
04697> *-----+ East Watercourse Area
04698> | Foley Drain
04699> #
04700> *-----+
04701> *-----+
04702> #-----+
04703> CALIB NASHYD ID=[3], NHYD=[*Ext=2*], DT=[1|min], AREA=[417.2](ha),
04704> | DWF=[0](cms), CN=C[74.7], IA=[7.65](mm),
04705> | SCS curve number CN=[74.7], MNN=[0.13], SCI=[0](min)
04706> | RAINFALL=[ , , , ](mm/hr), END=-1
04707> *-----+ ID=[7], NHYD=[*Ext=4*], DT=[1|min], AREA=[6.51](ha),
04708> | DWF=[0](cms), CN=C[79.1], IA=[6.4](mm),
04709> | MNN=[0.13], SCI=[0](min)
04710> | RAINFALL=[ , , , ](mm/hr), END=-1
04712> *-----+ IDnum=[8], NHYD=[*Fin*], IDs to add=[5+7]
04713> ADD HYD IDout=[8], NHYD=[*Fin*], IDs to add=[5+7]
04714> *-----+
04715> ROUTE CHANNEL IDout=[5], NHYD=[*SlateCap], IDin=[8],
04716> | ROT=[1](min),
04717> | CHLGH=[550](m), CHLSLOPE=[0.65](%),
04718> | SECNUM=[1], NSEG=[3]
04719> | (SEGROUGH, SEGDIST (m))=[0.035, 215.60 - 0.045, 221.70 0.035, 266.50] NSSEG times
04720> | (DISTANCE (m), ELEVATION (m))=[113.70, 514.50]
04721> | (196.60, 514.00)
04722> | (215.60, 511.50)
04723> | (217.20, 512.50)
04726> | (217.45, 512.46)
04727> | (218.10, 512.40)
04728> | (218.95, 513.00)
04729> | (221.30, 513.50)
04730> | (221.70, 514.10)
04731> | (230.40, 513.71)
04732> | (243.80, 514.00)
04733> | (244.80, 514.22)
04734> | (259.50, 514.28)
04735> | (266.50, 514.50)

04737> *-----+
04738> *-----+ Controlled Runoff From ZONE 3
04739> #
04740> #
04741> #
04742> #
04743> #
04744> CALIB STANDHYD ID=[7], NHYD=[*FB2*], DT=[1](min), AREA=[10.1](ha),
04745> | XIMP=[0.312], TIME=[0.579], DWF=[0](cms), LOSS=[2],
04746> | SCS curve number CN=[74], MNN=[0.13], SCI=[0](min)
04747> | Previous surfaces: IAlpm=[5](mm), SLFp=[2.0](%),
04748> | Impervious surfaces: LDp=[40](m), MNP=[0.25], SCP=[0](min),
04749> | LGI=[259](mm), MNN=[0.13], SCI=[0](min)
04750> | RAINFALL=[ , , , ](mm/hr), END=-1
04751> *-----+
04752> CALIB STANDHYD ID=[8], NHYD=[*SMWF*], DT=[1|min], AREA=[1.21](ha),
04753> | DWF=[0](cms), TIME=[0.50], DWF=[0](cms), LOSS=[2],
04754> | SCS curve number CN=[60], MNN=[0.13], SCI=[0](min)
04755> | Previous surfaces: IAlpm=[5](mm), SLFp=[2.0](%),
04756> | Impervious surfaces: LDp=[40](m), MNP=[0.25], SCP=[0](min),
04757> | LGI=[259](mm), MNN=[0.13], SCI=[0](min)
04758> | RAINFALL=[ , , , ](mm/hr), END=-1
04759> *-----+
04760> ADD HYD IDnum=[9], NHYD=[*P3IN*], IDs to add=[7+8]
04761> *-----+
04762> *-----+ SNN Facility #2
04763> #
04764> #
04765> #
04766> #
04767> ROUTE RESERVOIR IDout=[7], NHYD=[*#3Out*], IDin=[9],
04768> | ROT=[1](min)
04769> | TABLE of ( OUTFLOW-STORAGE ) values
04770> | (cms) - (ha-m)
04771> | ( 0.001 , 0.000 )
04772> | ( 0.007 , 0.036 )
04773> | ( 0.013 , 0.075 )
04774> | ( 0.017 , 0.107 )
04775> | ( 0.017 , 0.115 )
04776> | ( 0.023 , 0.202 )
04777> | ( 0.029 , 0.272 )
04778> | ( 0.030 , 0.248 )
04779> | ( 0.035 , 0.317 )
04780> | ( 0.045 , 0.390 )
04781> | ( 0.045 , 0.322 )
04782> | ( 1.247 , 1.155 )
04783> | (196.60, 514.00) (max twenty pts)
04784> | IDout=[8], NHYD=[*#2Over*]

04785> *-----+
04786> ADD HYD IDnum=[9], NHYD=[*Foley Drain*], IDs to add=[4+5+7+8]
04787> *-----+
04788> CALIB NASHYD ID=[4], NHYD=[*Ext 4*], DT=[1|min], AREA=[6.3](ha),
04789> | DWF=[0](cms), CN=C[64.8], IA=[10](mm),
04790> | MNN=[0.13], SCI=[0](min)
04791> | RAINFALL=[ , , , ](mm/hr), END=-1
04792> *-----+ ID=[9], NHYD=[*Pt of Int*], IDs to add=[9+4]
04793> ADD HYD IDnum=[10], NHYD=[*Pt of Int*], IDs to add=[1+2+3+6]
04794> *-----+
04795> CALIB STANDHYD IDnum=[10], NHYD=[*Ext 5*], DT=[1|min], AREA=[0.97](ha),
04796> | DWF=[0](cms), CN=C[77.7], IA=[14.5](mm),
04797> | MNN=[0.13], TP=[0.26]hrs,
04798> | RAINFALL=[ , , , ](mm/hr), END=-1
04799> *-----+
04800> ADD HYD IDnum=[10], NHYD=[*Fin*], IDs to add=[1+2+3+6]
04801> *-----+
04802> Regional Storm (Hazel)
04803> *-----+
04804> STORM_FILENAME='hazel.stmr'
04805> #
04806> #
04807> #
04808> #
04809> #
04810> #
04811> #
04812> #
04813> #
04814> #
04815> #
04816> #
04817> #
04818> #
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04851> #
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04855> #
04856> #
04857> #
04858> #
04859> #
04860> #

04861> [ 0.022 , 0.734 ]
04862> [ 0.067 , 0.848 ]
04863> [ 0.112 , 1.192 ]
04864> [ -1 , 1 ] (max twenty pts)
04865> | IDovf=[2], NHYDovf=[*#1Over*]

04867> *-----+
04868> # Watercourse Flows - ZONE 1
04869> #
04870> #
04871> #
04872> #
04873> #
04874> #
04875> #
04876> #
04877> CALIB NASHYD ID=[3], NHYD=[*Ext 1*], DT=[1|min], AREA=[41.2](ha),
04878> | DWF=[0](cms), CN=C[74.1], IA=[6.1](mm),
04879> | MNN=[0.13], SCI=[0](min)
04880> | RAINFALL=[ , , , ](mm/hr), END=-1
04881> *-----+ IDout=[4], NHYD=[*SlateLag*], IDin=[3],
04882> | ROT=[1](min),
04883> | CHLGH=[425](m), CHLSLOPE=[0.96](%),
04884> | SECNUM=[1], NSEG=[3]
04885> | ( SEGROUGH, SEGDIST (m))=[0.035, 75.5 - 0.045, 78.5 0.035, 151.0] NSSEG times
04886> | ( DISTANCE (m), ELEVATION (m))=[48.0, 514.81]
04887> | (60.0, 514.69)
04888> | (62.5, 514.49)
04889> | (103.5, 514.21)
04890> | (118.5, 514.67)
04891> | (130.5, 514.50)
04892> | (151.0, 515.00)

04893> [ 76.0 , 514.06 ]
04894> [ 77.5 , 514.21 ]
04895> [ 78.5 , 514.36 ]
04896> [ 79.5 , 514.39 ]
04897> [ 82.5 , 514.49 ]
04898> [ 103.5 , 514.21 ]
04899> [ 118.5 , 514.67 ]
04900> [ 130.5 , 514.50 ]
04901> [ 151.0 , 515.00 ]

04902> *-----+
04903> CALIB NASHYD ID=[4], NHYD=[*ZL*], DT=[1|min], AREA=[5.68](ha),
04904> | DWF=[0](cms), CN=C[77.7], IA=[14.4](mm),
04905> | MNN=[0.40]hrs,
04906> | RAINFALL=[ , , , ](mm/hr), END=-1
04907> *-----+ IDout=[1], NHYD=[*DS Lag*], IDin=[3],
04908> | ROT=[1](min),
04909> | CHLGH=[150](m), CHLSLOPE=[0.96](%),
04910> | SECNUM=[1], NSEG=[3]
04911> | ( SEGROUGH, SEGDIST (m))=[0.035, 75.5 - 0.045, 78.5 0.035, 151.0] NSSEG times
04912> | ( DISTANCE (m), ELEVATION (m))=[31.0, 515.00]
04913> | (40.0, 514.88)
04914> | (60.0, 514.69)
04915> [ 68.5 , 514.54 ]
04916> [ 75.5 , 514.23 ]
04917> [ 77.5 , 514.06 ]
04918> [ 78.5 , 514.36 ]
04919> [ 82.5 , 514.49 ]
04920> [ 103.5 , 514.51 ]
04921> [ 118.5 , 514.37 ]
04922> [ 130.5 , 514.50 ]
04923> [ 151.0 , 515.00 ]

04924> *-----+
04925> Total Flow at South Property Line
04926> #
04927> #
04928> #
04929> #
04930> #
04931> #
04932> #
04933> #
04934> #
04935> #
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04992> #
04993> #
04994> #
04995> #
04996> #
04997> #
04998> #
04999> #
05000> #
05001> #
05002> [ 1.0 , 0.0 ]
05003> [ 0.008 , 0.048 ]
05004> [ 0.026 , 0.23 ]
05005> [ 0.044 , 0.204 ]
05006> [ 0.044 , 0.261 ]
05007> [ 0.055 , 0.231 ]
05008> [ 0.035 , 0.035 ]
05009> [ 0.035 , 0.035 ]
05010> [ 0.116 , 0.380 ]
05011> [ 0.239 , 0.443 ]
05012> [ 0.352 , 0.529 ]
05013> [ 0.828 , 0.642 ]
05014> [ 1.154 , 0.711 ]
05015> [ 1.154 , 0.782 ]
05016> [ 1.746 , 0.818 ]
05017> [ 1.924 , 0.847 ]
05018> [ 3.005 , 0.940 ]
05019> [ 4.549 , 1.032 ]
05020> [ 12.10 , 0.350 ]
05021> [ -1 , 1 ] (max twenty pts)
05022> | IDovf=[4], NHYDovf=[*#2Over*]
05023> | IDnum=[5], NHYD=[*#2 Out*], IDs to add=[3+4]
05024> *-----+ IDnum=[5], NHYD=[*#2 max*], QIDL=[3,*Twp*,"4,*Twp*"]
05025> *-----+ IDnum=[5], NHYD=[*#2 max*], flow distribution table: ( modify as necessary )
05026> | Note: all flows are in (cms)
05027> | QIDL = QIDL / QTOTAL
05028> | 0 + 0 = 0
05029> | 0 + 0.008 = 0.008
05030> | 0 + 0.022 = 0.022
05031> | 0 + 0.033 = 0.033
05032> | 0.000 + 0.044 = 0.044
05033> | 0.000 + 0.100 = 0.100
05034> | 0.000 + 0.093 = 0.093
05035> | 0.000 + 0.146 = 0.146
05036> | 0.097 + 0.143 = 0.239
05037> | 0.097 + 0.352 = 0.560
05038> | 0.208 + 0.352 = 0.560
05039> | 0.345 + 0.089 = 0.434
05040> | 0.345 + 0.500 = 0.845

```

```

05041> [ 0.461 + 1.285 = 1.746 ]
05042> [ 0.503 + 1.486 = 1.988 ]
05043> [ 0.545 + 1.689 = 2.234 ]
05044> [ 0.679 + 4.312 = 4.991 ]
05045> [ 0.975 + 12.716 = 13.692] end

05047> *-----+
05048> #          Watercourse Flows- ZONE 2
05049> #
05050> *-----+
05051> #-----+ East Watercourse Area
05052> #-----+ Foley Drain
05053> #
05054> *-----+
05055> #
05056> #
05057> CALIB NASHRD ID=[5], NYD=[{"Ext":2"}, DT=[1min, AREA=[417.2](ha),
05058> DWF=[0](cms), CN=C[74.7], IA=[7.65](mm),
05059> NC=[1.875], LOS=[2], R=0.000]
05060> RAINFALL=[ , , , ](mm/hr), END=-1
05061> *-----+
05062> CALIB NASHRD ID=[7], NYD=[{"NAT"}, DT=[1min, AREA=[6.5](ha),
05063> DWF=[0](cms), CN=C[79.1], IA=[6.4](mm),
05064> NC=[3], TP=[0.36]hrs,
05065> RAINFALL=[ , , , ](mm/hr), END=-1
05066> *-----+
05067> ADD HYD IDsum=[8], NYD=[{"FIM"}, IDs to add=[5+?]
05068> *-----+
05069> ROUTE CHANNEL IDout=[15], NYD=[{"SStelCap"}, IDin=[8],
05070> RDT=[1](min),
05071> CBLDTW=[550](m), CHLFOP=[0.65](%), TPLFOP=[0.65](%),
05072> SECNUM=[1], NSIG=[3]
05073> (SEGNOGR, SEGDIST [m])=[10.036, 215.40 -0.045, 221.70 0.035, 266.50] NSEG times
05074> (DISTANCE [m], ELEVATION [m])=[179.79, 514.50]
05075> 196.60, 514.00)
05076> 212.40, 513.99
05077> 212.45, 513.00)
05078> 217.20, 512.50)
05079> 217.45, 512.46)
05080> 218.30, 512.50)
05081> 218.95, 513.00)
05082> 221.30, 513.50)
05083> 221.35, 513.51)
05084> 230.40, 513.71)
05085> 243.80, 514.00)
05086> 244.80, 514.23)
05087> 259.50, 514.28)
05088> 266.50, 514.50)

05091> *-----+
05092> *-----+
05093> #          Controlled Runoff From ZONE 3
05094> *-----+
05095> *-----+
05096> #
05097> *-----+
05098> CALIB STANDRD ID=[7], NYD=[{"FZB"}, DT=[1](min), AREA=[10.1](ha),
05099> XIMP=[0.312], TIME=[0.79], DWF=[0](cms), LOS=[2],
05100> SCS curve name: CN=[74]
05101> Fervious surfaces: IAPer=[5](mm), SLP=[2.0](%), LGI=[0.018]
05102> Impervious surfaces: IAPer=[5](mm), SLP=[2.0](%), LGI=[0.018]
05103> MHI=[0.013], SCI=[0](min),
05104> RDT=[1](min),
05105> RAINFALL=[ , , , ](mm/hr), END=-1
05106> *-----+
05107> CALIB STANDRD ID=[8], NYD=[{"SMDF3"}, DT=[1](min), AREA=[1.21](ha),
05108> XIMP=[0.50], TIME=[0.50], DWF=[0](cms), LOS=[2],
05109> SCS curve name: CN=[74]
05110> Services surfaces: IAPer=[5](mm), SLP=[2.0](%), LGI=[0.018]
05111> Impervious surfaces: IAPer=[5](mm), SLP=[2.0](%), LGI=[0.018]
05112> MHI=[0.013], SCI=[0](min),
05113> RDT=[1](min),
05114> RAINFALL=[ , , , ](mm/hr), END=-1
05115> *-----+
05116> ADD HYD IDsum=[9], NYD=[{"P3IN"}, IDs to add=[7+?]
05117> *-----+
05118> #-----+ SWM Facility #3
05119> *-----+
05120> ROUTE RESERVOIR IDout=[7], NYD=[{"#3Out"}, IDin=[9],
05121> RDT=[1](min)
05122> TABLE of ( OUTLINE-STORAGE ) values
05123> (cm - (ha-m)
05124> [ 0.000 , 0.000 ]
05125> [ 0.007 , 0.036 ]
05126> [ 0.013 , 0.075 ]
05127> [ 0.018 , 0.107 ]
05128> [ 0.017 , 0.115 ]
05129> [ 0.023 , 0.202 ]
05130> [ 0.028 , 0.273 ]
05131> [ 0.030 , 0.348 ]
05132> [ 0.035 , 0.517 ]
05133> [ 0.040 , 0.689 ]
05134> [ 0.045 , 0.922 ]
05135> [ 1.247 , 1.155 ]
05136> [ 1.247 , 1.155 ] (max twenty pts)
05137> IDovf=[8], NYDovf=[#82over]
05138> *-----+
05139> ADD HYD IDsum=[9], NYD=[{"Foley Drain"}, IDs to add=[4+5+?+8]
05140> *-----+
05141> CALIB NASHRD ID=[4], NYD=[{"Ext 4"}, DT=[1min, AREA=[6.3](ha),
05142> DWF=[0](cms), CN=C[64.8], IA=[10](mm),
05143> NC=[3], TP=[0.64]hrs,
05144> RAINFALL=[ , , , ](mm/hr), END=-1
05145> *-----+
05146> ADD HYD IDsum=[5], NYD=[{"Pct of Inpt"}, IDs to add=[5+?]
05147> ADD HYD IDsum=[10], NYD=[{"Pct of Intt"}, IDs to add=[1+2+3+6]
05148> *-----+
05149> FINISH
05150>
05151>
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00001+ =====

00002+ SSSSS N N M M H H Y Y M M OOO 222 000 11 77777 =====

00004+ SSSSS W W W M M HHHHH Y M M O 0 0 2 0 0 11 7 Ver4.05.0

00005+ SSSSS W W W M M HHHHH Y M M O 0 0 2 0 0 11 7 Ver4.05.0

00006+ SSSSS W W W M M H H Y M M O 0 0 2 0 0 11 7 APR 2017

00007+ SSSSS W W W M M H H Y M M O 0 0 2 0 0 11 7 =====

00008+ StormWater Management Hydrologic Model 222 000 11 # 3737016

00009+ =====

00011+ SWMM Version 5.0.0

00012+ * A single event and continuous hydrologic simulation model

00013+ based on the principles of HDM and its successors

00014+ CTHMRC-83 and CTHMRC-99.

00015+ =====

00017+ Distributed by: J.F. Sabourin and Associates Inc.

00018+ Ottawa, Ontario: (613) 836-3884

00019+ Guelph, Ontario: (519) 825-6858

00020+ E-Mail: swmym@fsls.com

00021+ =====

00022+ SWMM Version 5.0.0

00023+ =====

00024+ Licensed user: C.F. Crozier & Associates Inc. +++++

00025+ File ID: 3737016

00026+ =====

00027+ =====

00028+ ***** PROGRAM ARRAY DIMENSIONS *****

00029+ Maximum value for flow numbers : 11

00030+ Max. number of nodes : 10548

00031+ Max. number of flow points : 105408

00032+ Summary file: C:\SWMM\00001\SWMM.out

00033+ User comments:

00034+ =====

00035+ 2;

00036+ 3;

00037+ =====

00038+ RUN DATE: 2020-11-03 TIME: 15:14:04 RUN COUNTER: 00001

00039+ Input file: C:\SWMM\00001\Undalk Commercial\ZICOM.dat

00040+ Output file: C:\SWMM\00001\Undalk Commercial\ZICOM.out

00042+ Summary file: C:\SWMM\00001\Undalk Commercial\ZICOM.sum

00043+ User comments:

00044+ =====

00045+ 2;

00046+ 3;

00047+ =====

00048+ =====

00049+ =====

00051# Project Name: [Undalk Meadows Phase 7 & 8] Project Number: [1060-5177]

00052# Date : 2020.01.13

00053# Compiler : 1.0.0.1

00054# Company : C.F. Crozier & Associates Inc.

00055# License #: 3737016

00057# RIN#:COMMAND#

00058# R0001:CODE0001

00059# =====

00060# STORM= 0.00 hrs on 01

00061# [METOUT= 2 (Imperial, 2=metric output)]

00062# [NSTORM= 0]

00063# [NRUN= 0001]

00064# =====

00065# POST DEVELOPMENT MODEL

00066# =====

00067# 2222 5555 N N M M

00068# 2222 5555 M M M M

00069# 2 5 MM MM

00070# 2222 5555 M M M M

00071# =====

00072# =====

00073# R0001:CODE0002

00074# READ STORM

00075# FileNam= 25mm.stm

00076# Compat = 25 as Event

00077# [SDT= 4.80:SOUR= 3.04:PTOT= 25.05]

00078# =====

00079# =====

00080# Controlled Runoff From ZONE 1

00081# =====

00082# =====

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00087# =====

00088# R0001:CODE0003

00089# ADD HYD

00090# FileNam= 25mm.stm

00091# [CN= 77.7: N= 3.00: Tp= .26]

00092# R0001:CODE0004

00093# CALIB STANDNYD -> 1.2 02:FB ZI-1 12.37 .491 No_date 1:03 10.70 .427 .000

00094# [XIMP=.50:TIME=.50]

00095# [LOSS= 2 CN= 74.0]

00096# [Previous area: Iapex= 5.00:SLPF=2.00:LGF= 40.:MNP=.250:SCP= .0]

00097# [Impervious area: IALimp= 2.00:SLPF=1.:50:LGI= 287.:MMI=.013:SCI= .0]

00098# =====

00099# R0001:CODE0005

00100# CALIB STANDNYD -> 1.2 03:FB ZI-1 1.90 .054 No_date 0:58 10.70 .427 .000

00101# [XIMP=.30:TIME=.50]

00102# [LOSS= 2 CN= 74.0]

00103# [Previous area: Iapex= 5.00:SLPF=2.00:LGF= 40.:MNP=.250:SCP= .0]

00104# [Impervious area: IALimp= 2.00:SLPF=1.:50:LGI= 81.:MMI=.013:SCI= .0]

00105# =====

00106# R0001:CODE0006

00107# CALIB STANDNYD -> 1.2 04:FB ZI-1 1.90 .161 No_date 0:58 13.36 .534 .000

00108# [XIMP=.50:TIME=.50]

00109# [LOSS= 2 CN= 74.0]

00110# [Previous area: Iapex= 5.00:SLPF=2.00:LGF= 40.:MNP=.250:SCP= .0]

00111# [Impervious area: IALimp= 2.00:SLPF=1.:50:LGI= 113.:MMI=.013:SCI= .0]

00112# =====

00113# R0001:CODE0007

00114# ADD HYD

00115# FileNam= 25mm.stm

00116# [CN= 77.7: N= 3.00: Tp= .26]

00117# [LOSS= 2 CN= 74.0]

00118# [Previous area: Iapex= 5.00:SLPF=2.00:LGF= 40.:MNP=.250:SCP= .0]

00119# [Impervious area: IALimp= 2.00:SLPF=1.:50:LGI= 113.:MMI=.013:SCI= .0]

00120# =====

00121# R0001:CODE0008

00122# ROUTE RESERVOIR -> 1.2 05:FB ZI-1 16.22 .664 No_date 1:02 4.52 n/a .000

00123# [LOSS= 2 CN= 74.0]

00124# [Previous area: Iapex= 5.00:SLPF=2.00:LGF= 40.:MNP=.250:SCP= .0]

00125# [Impervious area: IALimp= 2.00:SLPF=1.:50:LGI= 16.22 .664 No_date 1:02 10.65 n/a .000

00126# [MxStOdds=1.1625E+00 m3, TotVol=0.00E+00 m3, N-Ovfl= 0, TotSurf= 0 hrs]

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00361# R0001:000400 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00362# CALIB STANDBY 1.0 04:SWMF# 1.90 .223 No_date 1:01 16.67 .557 .000
00363# [ROUTE] Dtn-ID:NHYD-----500
00364# [LOSS= 2 :CNW 74.0] [ROUTE] Dtn-ID:NHYD-----500
00365# [Pervious area: IApmp 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCF= .0]
00366# [Impervious area: IApmp 2.00:SLPI= .50:LGI= 113.:MMI=.013:SCI= .0]
00367# -----
00368# R0001:00041 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00369# ADD HYD + 1.0 02:FBZ 11- 12.37 .670 No_date 1:04 13.76 n/a .000
00370# + 1.0 02:FBZ 21- 12.37 .670 No_date 1:04 13.76 n/a .000
00371# + 1.0 03:FBZ 21- .98 .075 No_date 1:01 13.76 n/a .000
00372# + 1.0 04:SWMF# 1.90 .223 No_date 1:01 16.67 n/a .000
00373# SUM# 1.0 05:PW1 IN 14.22 .306 No_date 1:02 13.67 n/a .000
00374# -----
00375# ----- SWM Facility #1 -----
00376# -----
00377# R0001:00042 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00378# ROUTE RESERVOIR -> 1.0 05:FB 16.22 .906 No_date 1:02 13.76 n/a .000
00379# out 1.0 05:FB 16.22 .906 No_date 1:02 13.76 n/a .000
00380# overflow< 1.0 02:PW1over .000 No_date 0:00 .000
00381# [MSKtCoUsed=.2818E+00 m3, TotFvVol=.000E+00 m3, N-Ovf= 0, TotDvOvf= 0.hrs]
00382# -----
00383# ----- Watercourse Flows- ZONE 1 -----
00384# -----
00385# -----
00386# ----- West Watercourse Area -----
00387# ----- Small Untributary Tributary -----
00388# -----
00389# -----
00390# -----
00391# -----
00392# R0001:00043 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00393# CALIB NASHYD 1.0 03:EX 1 41.20 .306 No_date 1:52 5.03 .168 .000
00394# [CN= 74.1; NO 3:00: Tp= .571]
00395# -----
00396# R0001:00044 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00397# ROUTE CHANNEL -> 1.0 03:FB 41.20 .306 No_date 1:52 5.03 .168 .000
00398# [ROUTE] Dtn-ID:NHYD-----500
00399# [LOSS= 1.001 out- / .960 / 035] [ROUTE] Dtn-ID:NHYD-----500
00400# [Vmax=.438:Imax=.213]
00401# R0001:00045 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00402# CALIB NASHYD 1.0 05:FB 21- 5.68 .057 No_date 1:36 5.56 .186 .000
00403# [CN= 77.0; NO 3:00: Tp= .401]
00404# -----
00405# ----- Total Flow at South Property Line -----
00406# R0001:00046 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00407# ADD HYD 1.0 01:PW1over 16.22 .014 No_date 3:07 13.67 n/a .000
00408# + 1.0 02:PW1over .000 No_date 1:04 13.67 n/a .000
00409# + 1.0 03:PW1over 41.20 .209 No_date 1:52 5.03 .168 .000
00410# + 1.0 05:FB 21- 5.68 .057 No_date 1:36 5.56 .186 .000
00411# SUM# 1.0 03:UCN PL 63.10 .353 No_date 1:59 7.30 n/a .000
00412# -----
00413# -----
00414# R0001:00047 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00415# ROUTE CHANNEL -> 1.0 03:UCN PL 63.10 .353 No_date 1:59 7.30 n/a .000
00416# [ROUTE] Dtn-ID:NHYD-----500
00417# [LOSS= 1.001 out- / .960 / 035] [ROUTE] Dtn-ID:NHYD-----500
00418# [Vmax=.438:Imax=.226]
00419# R0001:00048 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00420# CALIB NASHYD 1.0 02:EX 3 1.55 .005 No_date 1:51 2.09 .070 .000
00421# [CN= 60.0; NO 3:00: Tp= .471]
00422# -----
00423# ----- Controlled Runoff From ZONE 2 -----
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00541# ----- SWM Facility #3 -----
00542# -----
00543# -----
00544# R0001:00065 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00545# ROUTE RESERVOIR -> 1.0 05:FB 16.31 .740 No_date 3:19 15.00 n/a .000
00546# out 1.0 05:FB 16.31 .740 No_date 3:19 15.00 n/a .000
00547# overflow< 1.0 08:FB2over .00 .000 No_date 0:00 .000
00548# [MSKtCoUsed=.1531E+00 m3, TotFvVol=.000E+00 m3, N-Ovf= 0, TotDvOvf= 0.hrs]
00549# -----
00550# R0001:00066 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00551# ADD HYD 1.0 04:PTwo 15.51 .038 No_date 3:19 14.99 n/a .000
00552# + 1.0 04:PTwo 1.428 No_date 3:19 14.99 n/a .000
00553# + 1.0 07:FB2over 42.21 .020 No_date 3:19 15.00 n/a .000
00554# + 1.0 08:FB2over .00 .000 No_date 0:00 .000
00555# SUM# 1.0 09:FB2over 45.63 1.437 No_date 3:45 5.22 n/a .000
00556# -----
00557# R0001:00067 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00558# CALIB NASHYD 1.0 04:Ext 4 6.30 .020 No_date 2:10 2.91 .084 .000
00559# [CN= 64.8; NO 3:00: Tp= .641]
00560# -----
00561# R0001:00068 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00562# ADD HYD 1.0 04:PTwo 45.63 1.437 No_date 3:19 15.00 n/a .000
00563# + 1.0 04:Ext 4 6.30 .020 No_date 2:10 2.91 n/a .000
00564# SUM# 1.0 05:PTof Int 45.63 1.437 No_date 3:43 5.18 n/a .000
00565# -----
00566# R0001:00069 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00567# ADD HYD 1.0 01:IDS Lag 63.10 .352 No_date 2:03 7.30 n/a .000
00568# + 1.0 01:IDS Lag 1.428 No_date 2:03 7.30 n/a .000
00569# + 1.0 03:PTwo 1.428 No_date 2:03 7.30 n/a .000
00570# + 1.0 06:MAJ00N .00 .000 No_date 1:00 19.14 n/a .000
00571# SUM# 1.0 10:PTof Int 44.65 .356 No_date 2:03 7.18 n/a .000
00572# -----
00573# ----- 5-YEAR 2 HOUR CHICAGO STORM -----
00574# -----
00575# 5 Y Y RRRR CCCC R H H I II
00576# 5555 Y Y RRRR C HHHH I
00577# 5555 Y Y RRRR C CCC H H I III
00578# 5555 Y Y RRRR C CCC H H I III
00579# -----
00580# -----
00581# -----
00582# -----
00583# -----
00584# -----
00585# CHICAGO STORM -----
00586# [SDT= 5.00:EDUR= 3.00:PTOF= 40.44] [A/B/C= 56.44:44.44:15.00]
00587# -----
00588# [XMP= .30:TIME= .50] [LOSS= 2 :CNW 74.0]
00589# -----
00590# Controlled Runoff From ZONE 1 -----
00591# -----
00592# -----
00593# -----
00594# -----
00595# -----
00596# -----
00597# -----
00598# R0001:00071 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00599# CALIB NASHYD 1.0 01:Ext 5 .97 .030 No_date 1:20 11.87 .293 .000
00600# [CN= 77.1; NO 3:00: Tp= .261]
00601# -----
00602# R0001:00072 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00603# CALIB STANDBY 1.0 02:FB 21- 12.37 1.034 No_date 1:03 20.99 .519 .000
00604# [XMP= .30:TIME= .50] [LOSS= 2 :CNW 74.0]
00605# -----
00606# [XMP= 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCF= .0]
00607# [Impervious area: IApmp 2.00:SLPI= .50:LGI= 287.:MMI=.013:SCI= .0]
00608# -----
00609# R0001:00073 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00610# CALIB STANDBY 1.0 03:FB 21- .98 .112 No_date 1:00 20.99 .519 .000
00611# [XMP= .30:TIME= .50] [LOSS= 2 :CNW 74.0]
00612# -----
00613# [Pervious area: IApmp 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCF= .0]
00614# [Impervious area: IApmp 2.00:SLPI= .50:LGI= 287.:MMI=.013:SCI= .0]
00615# -----
00616# R0001:00074 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00617# CALIB STANDBY 1.0 04:SWMF# 1.90 .312 No_date 1:01 24.26 .600 .000
00618# [XMP= .30:TIME= .50] [LOSS= 2 :CNW 74.0]
00619# -----
00620# [Pervious area: IApmp 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCF= .0]
00621# [Impervious area: IApmp 2.00:SLPI= .50:LGI= 113.:MMI=.013:SCI= .0]
00622# -----
00623# R0001:00075 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00624# ADD HYD 1.0 04:PTwo 1.99 .000 No_date 1:00 20.99 .519 .000
00625# + 1.0 04:PTwo 1.99 .000 No_date 1:00 20.99 .519 .000
00626# + 1.0 05:FB 21- 12.37 1.034 No_date 1:03 20.99 .519 .000
00627# + 1.0 03:FB 21- 1.428 No_date 1:03 20.99 .519 .000
00628# SUM# 1.0 05:FB 21- 16.22 1.394 No_date 1:03 20.99 .519 .000
00629# -----
00630# ----- SWM Facility #1 -----
00631# -----
00632# -----
00633# -----
00634# -----
00635# -----
00636# -----
00637# -----
00638# -----
00639# -----
00640# -----
00641# -----
00642# -----
00643# -----
00644# -----
00645# -----
00646# -----
00647# -----
00648# -----
00649# -----
00650# -----
00651# -----
00652# ROUTE CHANNEL -> 1.0 03:EX 1 41.20 .603 No_date 1:49 9.58 n/a .000
00653# [ROUTE] Dtn-ID:NHYD-----500
00654# [LOSS= 1.001 out- / .960 / .060] [ROUTE] Dtn-ID:NHYD-----500
00655# [Vmax=.724:Imax=.305]
00656# -----
00657# CALIB NASHYD 1.0 05:FB 21- 5.68 .114 No_date 1:34 10.54 .261 .000
00658# [CN= 77.0; NO 3:00: Tp= .401]
00659# -----
00660# ----- Total Flow at South Property Line -----
00661# -----
00662# ADD HYD 1.0 01:PW1over 16.22 .017 No_date 3:33 20.83 n/a .000
00663# + 1.0 02:PW1over .00 .000 No_date 0:00 .000
00664# + 1.0 04:SWMF# 1.99 .000 No_date 1:00 20.83 n/a .000
00665# + 1.0 05:FB 21- 1.428 No_date 1:03 20.83 n/a .000
00666# + 1.0 06:FB 21- 1.428 No_date 1:03 20.83 n/a .000
00667# SUM# 1.0 03:FB 21- 16.30 .688 No_date 1:56 12.56 n/a .000
00668# -----
00669# R0001:00081 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00670# -----
00671# [ROUTE] Dtn-ID:NHYD-----500
00672# [LOSS= 1.001 out- / .960 / .060] [ROUTE] Dtn-ID:NHYD-----500
00673# [Vmax=.745:Imax=.302]
00674# -----
00675# R0001:00082 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00676# CALIB NASHYD 1.0 02:Ext 3 1.55 .011 No_date 1:45 4.64 .115 .000
00677# [CN= 60.0; NO 3:00: Tp= .471]
00678# -----
00679# -----
00680# -----
00681# -----
00682# -----
00683# -----
00684# -----
00685# -----
00686# -----
00687# -----
00688# -----
00689# -----
00690# -----
00691# -----
00692# R0001:00084 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00693# CALIB STANDBY 1.0 04:MINOR .21 .051 No_date 1:00 27.38 .677 .000
00694# [XMP= .31:TIME= .50] [LOSS= 2 :CNW 74.0]
00695# -----
00696# [Pervious area: IApmp 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCF= .0]
00697# [Impervious area: IApmp 2.00:SLPI= .50:LGI= 313.:MMI=.013:SCI= .0]
00698# -----
00699# R0001:00085 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00700# -----
00701# DIVERT HYD 1.0 05:FB 21- 1.428 No_date 1:00 27.38 n/a .000
00702# diverted < 1.0 05:MINOR .20 .035 No_date 1:00 27.38 n/a .000
00703# diverted < 1.0 06:MAJOR .01 .016 No_date 1:00 27.38 n/a .000
00704# R0001:00086 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00705# -----
00706# -----
00707# -----
00708# -----
00709# -----
00710# -----
00711# R0001:00087 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00712# -----
00713# CALIB STANDBY 1.0 07:NAT 4.60 .000 No_date 1:00 24.54 .607 .000
00714# [XMP= .31:TIME= .50] [LOSS= 2 :CNW 74.0]
00715# -----
00716# [Pervious area: IApmp 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCF= .0]
00717# [Impervious area: IApmp 2.00:SLPI= .50:LGI= 86.:MMI=.013:SCI= .0]
00718# -----
00719# R0001:00088 -----Dtn-ID:NHYD-----AREAh-QPEAKms-TpeakDate_hh:mm-----RVNm-R.C.--DWFcms
00720# ADD HYD 1.0 03:FB 21- 1.395 No_date 1:03 22.46 n/a .000

00722+ + 1.0 05:MINOR .20 .035 No_date 1:00 27.38 n/a .000
 00723+ + 1.0 04:FRI2 .33 .018 No_date 1:10 15.42 n/a .000
 00724+ + 1.0 05:FRI2 16.34 .000 No_date 1:00 22.51 n/a .000
 00724+ + SUM- 1.0 08:FRI2 In 16.34 1.541 No_date 1:03 22.52 n/a .000
 00725# -----|-----|-----|-----|-----|
 00726# -----|-----|-----|-----|-----|
 00726# + -----|-----|-----|-----|-----|
 00726# + SWM Facility #2
 00727# + -----|-----|-----|-----|-----|
 00728# R0001:C00089-----|-----|-----|-----|-----|
 00728# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00728# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00728# -->Nvmm-R.C.--DWFcms
 00729# ROUTE RESERVOIR -> 1.0 05:FRI2 In 16.34 .015 No_date 1:00 22.51 n/a .000
 00729# out <= 1.0 03:FRI2Out 16.34 .079 No_date 3:10 22.51 n/a .000
 00730# overflow <= 1.0 04:FRI2Out .000 No_date 0:00 .00 n/a .000
 00731# (MsStCUsedc_3188E+00 m3, TotVolVnl_0000E+00 m3, N-Ovr- 0, TotHurfvrl_0. hrs)
 00732# -----|-----|-----|-----|-----|
 00734# R0001:C00090-----|-----|-----|-----|-----|
 00734# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00734# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00734# -->Nvmm-R.C.--DWFcms
 00735# ADD HYD
 00735# + -----|-----|-----|-----|-----|
 00735# + 1.0 02:FRI2Over .00 .000 No_date 1:00 22.51 n/a .000
 00736# + SUM- 1.0 05:FRI2 Out 16.34 .079 No_date 3:10 22.51 n/a .000
 00737# + -----|-----|-----|-----|-----|
 00738# # -----|-----|-----|-----|-----|
 00738# + -----|-----|-----|-----|-----|
 00738# + R0001:C00091-----|-----|-----|-----|-----|
 00738# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00738# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00738# -->Nvmm-R.C.--DWFcms
 00739# DIVERT HYD
 00739# -> 1.0 05:FRI2Out 16.34 .079 No_date 3:10 22.51 n/a .000
 00740# diverted <= 1.0 03:FRI2Out .68 .019 No_date 3:10 22.51 n/a .000
 00741# diverted <= 1.0 04:FRI2Out 15.15 .062 No_date 3:10 22.51 n/a .000
 00742# -----|-----|-----|-----|-----|
 00743# -----|-----|-----|-----|-----|
 00743# + -----|-----|-----|-----|-----|
 00743# Watercourse Flows - ZONE 2
 00744# -----|-----|-----|-----|-----|
 00745# -----|-----|-----|-----|-----|
 00745# + -----|-----|-----|-----|-----|
 00745# + East Watercourse Area
 00745# + Foley Drain
 00746# + -----|-----|-----|-----|-----|
 00746# + R0001:C00092-----|-----|-----|-----|-----|
 00746# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00746# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00746# -->Nvmm-R.C.--DWFcms
 00747# CALIB NASHYD 1.0 05:EXT-2 417.20 2.712 No_date 3:15 9.05 .224 .000
 00748# -----|-----|-----|-----|-----|
 00749# -----|-----|-----|-----|-----|
 00749# + -----|-----|-----|-----|-----|
 00749# + 1.0 07:WED 1.51 .193 No_date 1:30 11.48 .283 .000
 00749# + -----|-----|-----|-----|-----|
 00750# # -----|-----|-----|-----|-----|
 00750# + -----|-----|-----|-----|-----|
 00750# + R0001:C00094-----|-----|-----|-----|-----|
 00750# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00750# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00750# -->Nvmm-R.C.--DWFcms
 00751# ADD HYD
 00751# + -----|-----|-----|-----|-----|
 00751# + 1.0 07:WED 6.51 .153 No_date 1:30 11.46 n/a .000
 00752# + SUM- 1.0 08:WED 423.71 2.729 No_date 3:12 9.08 n/a .000
 00753# + -----|-----|-----|-----|-----|
 00754# # -----|-----|-----|-----|-----|
 00754# + -----|-----|-----|-----|-----|
 00754# + R0001:C00095-----|-----|-----|-----|-----|
 00754# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00754# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00754# -->Nvmm-R.C.--DWFcms
 00755# ROUTE CHANNEL -> 1.0 08:FIN 423.71 2.729 No_date 3:12 9.08 n/a .000
 00756# out <= 1.0 04:SITELAG 423.71 2.718 No_date 3:19 9.08 n/a .000
 00757# overflow <= 1.0 05:SITELAG [L/m/n] .550/.650/.035/
 00758# (Vmax=.1044,Dmax=.013)
 00759# -----|-----|-----|-----|-----|
 00760# -----|-----|-----|-----|-----|
 00760# + -----|-----|-----|-----|-----|
 00760# + Controlled Runoff From ZONE 3
 00761# -----|-----|-----|-----|-----|
 00761# + -----|-----|-----|-----|-----|
 00761# + R0001:C00096-----|-----|-----|-----|-----|
 00761# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00761# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00761# -->Nvmm-R.C.--DWFcms
 00762# CALIB STANDNYD 1.0 07:FBZ 10.10 .934 No_date 1:03 22.45 .555 .000
 00763# -----|-----|-----|-----|-----|
 00764# -----|-----|-----|-----|-----|
 00764# + -----|-----|-----|-----|-----|
 00764# + 1.0 08:WED 1.21 .206 No_date 1:01 24.24 n/a .000
 00765# + SUM- 1.0 09:WED 423.71 1.099 No_date 1:02 22.44 n/a .000
 00766# + -----|-----|-----|-----|-----|
 00767# # -----|-----|-----|-----|-----|
 00767# + -----|-----|-----|-----|-----|
 00767# + SWM Facility #3
 00768# -----|-----|-----|-----|-----|
 00768# + -----|-----|-----|-----|-----|
 00768# + R0001:C00097-----|-----|-----|-----|-----|
 00768# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00768# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00768# -->Nvmm-R.C.--DWFcms
 00769# CALIB STANDNYD 1.0 08:WED 3.21 .206 No_date 1:01 24.26 .600 .000
 00770# [IMCm=.30:TIME=.50]
 00770# [LOSS=.2 ICN=.74.0]
 00771# [Pervious area: Taper=.50:SLPF=.2:00:LGP= 40.:MNP=.250:SCP=.0]
 00771# [Impervious area: Taper=.2:00:SLPF=.50:LGP= 259.:MMI=.013:SCl=.0]
 00772# # -----|-----|-----|-----|-----|
 00772# + -----|-----|-----|-----|-----|
 00772# + R0001:C00098-----|-----|-----|-----|-----|
 00772# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00772# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00772# -->Nvmm-R.C.--DWFcms
 00773# ADD HYD
 00773# + -----|-----|-----|-----|-----|
 00773# + 1.0 08:WED 3.21 .206 No_date 1:01 24.24 n/a .000
 00774# + SUM- 1.0 09:WED 423.71 1.099 No_date 1:02 22.44 n/a .000
 00775# + -----|-----|-----|-----|-----|
 00776# # -----|-----|-----|-----|-----|
 00776# + -----|-----|-----|-----|-----|
 00776# + R0001:C00099-----|-----|-----|-----|-----|
 00776# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00776# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00776# -->Nvmm-R.C.--DWFcms
 00777# ROUTE RESERVOIR -> 1.0 09:FIN 11.31 1.099 No_date 1:02 22.64 n/a .000
 00778# out <= 1.0 09:FIN 11.31 .025 No_date 1:20 22.64 n/a .000
 00779# overflow <= 1.0 05:FIN 11.31 .062 No_date 0:00 22.64 n/a .000
 00780# (MsStCUsedc_.25E+00 m3, TotVolVnl_0000E+00 m3, N-Ovr- 0, TotHurfvrl_0. hrs)
 00781# -----|-----|-----|-----|-----|
 00782# -----|-----|-----|-----|-----|
 00782# + -----|-----|-----|-----|-----|
 00782# + R0001:C00100-----|-----|-----|-----|-----|
 00782# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00782# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00782# -->Nvmm-R.C.--DWFcms
 00783# CALIB NASHYD 1.0 04:EXT 4 6.30 .047 No_date 2:02 5.50 .136 .000
 00784# -----|-----|-----|-----|-----|
 00784# # -----|-----|-----|-----|-----|
 00784# + -----|-----|-----|-----|-----|
 00784# + R0001:C00102-----|-----|-----|-----|-----|
 00784# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00784# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00784# -->Nvmm-R.C.--DWFcms
 00785# ADD HYD
 00785# + -----|-----|-----|-----|-----|
 00785# + 1.0 05:EXT 4 6.30 .047 No_date 2:02 5.50 n/a .000
 00786# + SUM- 1.0 05:INTP of Int 456.47 2.821 No_date 3:17 9.82 n/a .000
 00787# + -----|-----|-----|-----|-----|
 00788# # -----|-----|-----|-----|-----|
 00788# + -----|-----|-----|-----|-----|
 00788# + R0001:C00103-----|-----|-----|-----|-----|
 00788# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00788# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00788# -->Nvmm-R.C.--DWFcms
 00789# ADD HYD Lag 63.10 .696 No_date 1:59 12.56 n/a .000
 00790# + -----|-----|-----|-----|-----|
 00790# + 1.0 04:EXT 4 1.54 .015 No_date 1:48 22.46 n/a .000
 00791# + 1.0 04:INTP of Int 456.47 2.821 No_date 3:17 9.82 n/a .000
 00792# + -----|-----|-----|-----|-----|
 00793# # -----|-----|-----|-----|-----|
 00793# + -----|-----|-----|-----|-----|
 00793# + R0001:C00104-----|-----|-----|-----|-----|
 00793# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00793# CHICAGO STORM [SDUR=.50:PTOT=.47.31] [ABW/.50:663.823? 1.500/.719:R=.9997]
 00794# # -----|-----|-----|-----|-----|
 00794# + -----|-----|-----|-----|-----|
 00794# + Controlled Runoff From ZONE 1
 00795# -----|-----|-----|-----|-----|
 00795# + -----|-----|-----|-----|-----|
 00795# + R0001:C00105-----|-----|-----|-----|-----|
 00795# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00795# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00795# -->Nvmm-R.C.--DWFcms
 00796# CALIB NASHYD 1.0 04:EXT 5 .97 .041 No_date 1:21 15.84 .335 .000
 00797# -----|-----|-----|-----|-----|
 00797# # -----|-----|-----|-----|-----|
 00797# + -----|-----|-----|-----|-----|
 00797# + R0001:C00106-----|-----|-----|-----|-----|
 00797# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00797# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00797# -->Nvmm-R.C.--DWFcms
 00798# # -----|-----|-----|-----|-----|
 00798# + -----|-----|-----|-----|-----|
 00798# + R0001:C00107-----|-----|-----|-----|-----|
 00798# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00798# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00798# -->Nvmm-R.C.--DWFcms
 00799# CALIB STANDNYD 1.0 03:FBZ 1-3 .98 .137 No_date 1:00 26.05 .555 .000
 00800# -----|-----|-----|-----|-----|
 00800# # -----|-----|-----|-----|-----|
 00800# + -----|-----|-----|-----|-----|
 00800# + R0001:C00108-----|-----|-----|-----|-----|
 00800# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00800# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00800# -->Nvmm-R.C.--DWFcms
 00801# ADD HYD
 00801# + -----|-----|-----|-----|-----|
 00801# + 1.0 04:FBZ 12.27 1.279 No_date 1:00 26.05 .555 .000
 00802# + SUM- 1.0 05:FBZ 1 .98 .137 No_date 1:00 26.05 n/a .000
 00803# + -----|-----|-----|-----|-----|
 00804# # -----|-----|-----|-----|-----|
 00804# + -----|-----|-----|-----|-----|
 00804# + R0001:C00109-----|-----|-----|-----|-----|
 00804# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00804# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00804# -->Nvmm-R.C.--DWFcms
 00805# ADD HYD
 00805# + -----|-----|-----|-----|-----|
 00805# + 1.0 04:EXT 5 .97 .041 No_date 1:19 15.84 n/a .000
 00806# + SUM- 1.0 05:FBZ 1 .98 .137 No_date 1:00 26.05 n/a .000
 00807# + -----|-----|-----|-----|-----|
 00808# # -----|-----|-----|-----|-----|
 00808# + -----|-----|-----|-----|-----|
 00808# + R0001:C00110-----|-----|-----|-----|-----|
 00808# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00808# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00808# -->Nvmm-R.C.--DWFcms
 00809# CALIB NASHYD 1.0 05:EXT 5 .97 .041 No_date 1:19 15.84 .335 .000
 00810# -----|-----|-----|-----|-----|
 00810# # -----|-----|-----|-----|-----|
 00810# + -----|-----|-----|-----|-----|
 00810# + R0001:C00111-----|-----|-----|-----|-----|
 00810# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00810# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00810# -->Nvmm-R.C.--DWFcms
 00811# # -----|-----|-----|-----|-----|
 00811# + -----|-----|-----|-----|-----|
 00811# + R0001:C00122-----|-----|-----|-----|-----|
 00811# ROUTE CHANNEL -> 1.0 05:FRI2Out 16.31 .19 No_date 3:04 27.74 n/a .000
 00812# out <= 1.0 05:FRI2Out 16.33 .19 No_date 3:04 27.74 n/a .000
 00813# overflow <= 1.0 05:FRI2Out 1.72 .050 No_date 3:04 27.74 n/a .000
 00814# diverted <= 1.0 04:FRI2Out 14.21 .090 No_date 3:04 27.74 n/a .000
 00815# # -----|-----|-----|-----|-----|
 00815# + -----|-----|-----|-----|-----|
 00815# + R0001:C00123-----|-----|-----|-----|-----|
 00815# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00815# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00815# -->Nvmm-R.C.--DWFcms
 00816# CALIB NASHYD 1.0 05:EXT 2 417.20 3.752 No_date 3:33 12.52 .265 .000
 00817# -----|-----|-----|-----|-----|
 00817# # -----|-----|-----|-----|-----|
 00817# + -----|-----|-----|-----|-----|
 00817# + R0001:C00124-----|-----|-----|-----|-----|
 00817# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00817# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00817# -->Nvmm-R.C.--DWFcms
 00818# # -----|-----|-----|-----|-----|
 00818# + -----|-----|-----|-----|-----|
 00818# + R0001:C00125-----|-----|-----|-----|-----|
 00818# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00818# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00818# -->Nvmm-R.C.--DWFcms
 00819# CALIB STANDNYD 1.0 07:FBZ 1-3 6.51 .213 No_date 1:29 15.49 n/a .000
 00820# -----|-----|-----|-----|-----|
 00820# # -----|-----|-----|-----|-----|
 00820# + -----|-----|-----|-----|-----|
 00820# + R0001:C00126-----|-----|-----|-----|-----|
 00820# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00820# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00820# -->Nvmm-R.C.--DWFcms
 00821# # -----|-----|-----|-----|-----|
 00821# + -----|-----|-----|-----|-----|
 00821# + R0001:C00127-----|-----|-----|-----|-----|
 00821# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00821# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00821# -->Nvmm-R.C.--DWFcms
 00822# CALIB STANDNYD 1.0 07:FBZ 1-3 6.51 .213 No_date 1:29 15.49 .327 .000
 00823# -----|-----|-----|-----|-----|
 00823# # -----|-----|-----|-----|-----|
 00823# + -----|-----|-----|-----|-----|
 00823# + R0001:C00128-----|-----|-----|-----|-----|
 00823# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00823# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00823# -->Nvmm-R.C.--DWFcms
 00824# # -----|-----|-----|-----|-----|
 00824# + -----|-----|-----|-----|-----|
 00824# + R0001:C00129-----|-----|-----|-----|-----|
 00824# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00824# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00824# -->Nvmm-R.C.--DWFcms
 00825# # -----|-----|-----|-----|-----|
 00825# + -----|-----|-----|-----|-----|
 00825# + R0001:C00130-----|-----|-----|-----|-----|
 00825# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00825# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00825# -->Nvmm-R.C.--DWFcms
 00826# CALIB NASHYD 1.0 07:FBZ 1-3 6.51 .213 No_date 1:29 15.49 n/a .000
 00827# -----|-----|-----|-----|-----|
 00827# # -----|-----|-----|-----|-----|
 00827# + -----|-----|-----|-----|-----|
 00827# + R0001:C00131-----|-----|-----|-----|-----|
 00827# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00827# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00827# -->Nvmm-R.C.--DWFcms
 00828# # -----|-----|-----|-----|-----|
 00828# + -----|-----|-----|-----|-----|
 00828# + R0001:C00132-----|-----|-----|-----|-----|
 00828# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00828# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00828# -->Nvmm-R.C.--DWFcms
 00829# # -----|-----|-----|-----|-----|
 00829# + -----|-----|-----|-----|-----|
 00829# + R0001:C00133-----|-----|-----|-----|-----|
 00829# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00829# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00829# -->Nvmm-R.C.--DWFcms
 00830# CALIB NASHYD 1.0 05:EXT 2 417.20 3.763 No_date 3:33 12.56 n/a .000
 00831# -----|-----|-----|-----|-----|
 00831# # -----|-----|-----|-----|-----|
 00831# + -----|-----|-----|-----|-----|
 00831# + R0001:C00134-----|-----|-----|-----|-----|
 00831# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00831# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00831# -->Nvmm-R.C.--DWFcms
 00832# # -----|-----|-----|-----|-----|
 00832# + -----|-----|-----|-----|-----|
 00832# + R0001:C00135-----|-----|-----|-----|-----|
 00832# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00832# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00832# -->Nvmm-R.C.--DWFcms
 00833# # -----|-----|-----|-----|-----|
 00833# + -----|-----|-----|-----|-----|
 00833# + R0001:C00136-----|-----|-----|-----|-----|
 00833# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00833# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00833# -->Nvmm-R.C.--DWFcms
 00834# CALIB NASHYD 1.0 05:EXT 2 417.20 3.763 No_date 3:33 12.56 n/a .000
 00835# -----|-----|-----|-----|-----|
 00835# # -----|-----|-----|-----|-----|
 00835# + -----|-----|-----|-----|-----|
 00835# + R0001:C00137-----|-----|-----|-----|-----|
 00835# Dtn-ID:NHYD-----|-----|-----|-----|-----|
 00835# ARAhA-QPEAKcms-Tpeakdate_hh:mm-----|-----|-----|-----|-----|
 00835# -->Nvmm-R.C.--DWFcms
 0

Output File

C.F. Crozier & Associates Inc.

01441+ CALIB_NASHVY 1.0 02:Ext 3 1.55 .033 No_date 1:41 12.57 .200 .000

01442+ [CN= 60.0: Ns: 3.00: Tp: .47] Controlled Runoff From ZONE 2

01443+ #

01444+ # Controlled Runoff From ZONE 2

01445+ #

01446+ #

01447+ #

01448+ #

01449+ #

01450+ R0001:CO0185-----Dtn-ID:NHYD-----AREAh-QPEAKcms-Tpeakdate_hh:mm----RvNm-R.C.---DWFcms

01451+ CALIB_STANDWY 1.0 03:FB1 14.70 2.564 No_date 1:02 40.22 .640 .000

01452+ [XNM=..35:TIMEP=.50] [LOSS= 2 : CNM= 74.0]

01453+ [Previous area: Iappr= 5.00:SLPP=2.00:LGF= 40.:MNPF=.250:SCP= .0]

01454+ [Impervious area: TaImp= 2.00:SLPI= .50:LGH= 313.:HMNI=.013:SCl= .0]

01455+ #

01456+ #

01457+ # R0001:CO0186-----Dtn-ID:NHYD-----AREAh-QPEAKcms-Tpeakdate_hh:mm----RvNm-R.C.---DWFcms

01458+ CALIB_STANDWY 1.0 04:MINOR .21 .082 No_date 1:00 45.99 .732 .000

01459+ [XNM=..41:TIMEP=.61] [LOSS= 2 : CNM= 74.0]

01460+ [Previous area: Taper= 5.00:SLPP=2.00:LGF= 40.:MNPF=.250:SCP= .0]

01461+ [Impervious area: TaImp= 2.00:SLPI= .50:LGH= 313.:HMNI=.013:SCl= .0]

01462+ #

01463+ #

01464+ # R0001:CO0187-----Dtn-ID:NHYD-----AREAh-QPEAKcms-Tpeakdate_hh:mm----RvNm-R.C.---DWFcms

01465+ DIVERT_HYD 1.0 04:MINOR .18 .082 No_date 1:00 45.99 n/a .000

01466+ diverted <= 1.0 05:MINOR .18 .095 No_date 1:00 45.99 n/a .000

01467+ diverted <= 1.0 06:MAJOR .03 .047 No_date 1:00 45.99 n/a .000

01468+ #

01469+ # R0001:CO0188-----Dtn-ID:NHYD-----AREAh-QPEAKcms-Tpeakdate_hh:mm----RvNm-R.C.---DWFcms

01470+ CALIB_STANDWY 1.0 04:FB1-A .33 .047 No_date 1:07 31.54 .502 .000

01471+ [XNM=..41:TIMEP=.39] [LOSS= 2 : CNM= 74.0]

01472+ [Previous area: Taper= 5.00:SLPP=2.00:LGF= 40.:MNPF=.250:SCP= .0]

01473+ [Impervious area: TaImp= 2.00:SLPI= .50:LGH= 47.:HMNI=.013:SCl= .0]

01474+ #

01475+ #

01476+ # R0001:CO0189-----Dtn-ID:NHYD-----AREAh-QPEAKcms-Tpeakdate_hh:mm----RvNm-R.C.---DWFcms

01477+ CALIB_STANDWY 1.0 07:SLPM#2 1.11 .395 No_date 1:00 42.18 .671 .000

01478+ [XNM=..51:TIMEP=.51] [LOSS= 2 : CNM= 74.0]

01479+ [Previous area: Taper= 5.00:SLPP=2.00:LGF= 40.:MNPF=.250:SCP= .0]

01480+ [Impervious area: TaImp= 2.00:SLPI= .50:LGH= 86.:HMNI=.013:SCl= .0]

01481+ #

01482+ #

01483+ #

01484+ # R0001:CO0190-----Dtn-ID:NHYD-----AREAh-QPEAKcms-Tpeakdate_hh:mm----RvNm-R.C.---DWFcms

01485+ ADD HYD 1.0 03:FB1 14.70 2.564 No_date 1:02 40.22 n/a .000

01486+ + 1.0 05:MINOR .18 .035 No_date 1:00 45.99 n/a .000

01487+ + 1.0 06:MAJOR .21 .082 No_date 1:00 45.99 n/a .000

01488+ + 1.0 07:FB2 1.11 .395 No_date 1:00 42.18 n/a .000

01489+ SUM# 1.0 08:FB2 In 16.32 2.871 No_date 1:02 40.24 n/a .000

01490+ #

01491+ #

01492+ # SWM Facility #

01493+ #

01494+ # R0001:CO0191-----Dtn-ID:NHYD-----AREAh-QPEAKcms-Tpeakdate_hh:mm----RvNm-R.C.---DWFcms

01495+ ROUTE RESERVOIR > 1.0 08:FB2 In 16.32 .318 No_date 2:26 40.24 n/a .000

01496+ out <= 1.0 03:FB2Out .00 .000 No_date 0:00 40.24 n/a .000

01497+ overflow <= 1.0 04:FB2Out .00 .000 No_date 0:00 40.24 n/a .000

01498+ #

01499+ # (MSwStoSwd=.432E00 m3, TotVol=.000E+00 m3, Ns:Ofw=.0, TotDurOfw=.0 hrs)

01500+ #

01501+ ADD HYD 1.0 03:FB2Out 16.32 .318 No_date 2:26 40.24 n/a .000

01502+ + 1.0 04:FB2Out .00 .000 No_date 0:00 40.24 n/a .000

01503+ SUM# 1.0 05:FB2Out 16.32 .318 No_date 2:26 40.24 n/a .000

01504+ #

01505+ # DIVERT_HYD >> 1.0 05:FB2 Out 16.32 .318 No_date 2:26 40.24 n/a .000

01506+ diverted <= 1.0 06:FB2 1.24 .318 No_date 2:26 40.24 n/a .000

01507+ diverted <= 1.0 07:FB2 12.74 .194 No_date 2:26 40.24 n/a .000

01508+ #

01509+ #

01510+ # Watercourse Flows- ZONE 2

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02236+ #

02237+ #

01801: [Pervious area: IApers 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCP= .0] 01802: [Impervious area: IAlmp 2.00:SLPI= .50:LGI= 259.:MMI=.013:SCI= .0] 01803: [CN= 77.0: No. 3:00: Tp: .57] 01804: R0001:CO0233-----Dtn-ID:NYDY---AREAh-QPEAKms-TpeakDate_hh:mm---Rvmm-R.C.---DWFcms 01805: CALIB STANDHY 1.0 08:SMF3 1.21 .400 No_date 1:00 47.12 .680 .000 01806: [XIMP=.35:TIMEP=.55] 01807: [LOSS= 2 :CN= 74.0] 01808: [Pervious area: IApers 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCP= .0] 01809: ADD HYD 1.0 08:SMF3 1.21 .400 No_date 1:00 47.12 .680 .000 01810: [XIMP=.35:TIMEP=.55] 01811: R0001:CO0234-----Dtn-ID:NYDY---AREAh-QPEAKms-TpeakDate_hh:mm---Rvmm-R.C.---DWFcms 01812: ADD HYD 1.0 04:PTWod 1.21 .256 No_date 1:00 47.12 .680 .000 01813: + 1.0 05:SLStag 1.21 .400 No_date 1:00 47.12 .680 .000 01814: SUM+ 1.0 09:PF3IN 11.31 2.358 No_date 1:02 46.10 n/a .000 01815: [SMW Facility # 3] 01816: [XIMP=.35:TIMEP=.55] 01817: R0001:CO0235-----Dtn-ID:NYDY---AREAh-QPEAKms-TpeakDate_hh:mm---Rvmm-R.C.---DWFcms 01818: ROUTE RESERVOIR > 1.0 07:PF3IN 11.31 .034 No_date 1:02 46.10 n/a .000 01819: out <= 1.0 07:PF3Out 11.31 .034 No_date 1:02 46.10 n/a .000 01820: overflw <= 1.0 08:PF2over 1.0 08:PF2over 1.0 08:PF2over 1.0 08:PF2over 01821: [MSt:OuSed..4931E00 m3, TotCrVol=.000E000 m3, N-Ovf= 0, TotDurf= 0. hrs] 01822: # 01823: # [MSt:OuSed..4931E00 m3, TotCrVol=.000E000 m3, N-Ovf= 0, TotDurf= 0. hrs] 01824: # 01825: # [CN= 64.8: No. 3:00: Tp: .64] 01826: Dtn-ID:NYDY---AREAh-QPEAKms-TpeakDate_hh:mm---Rvmm-R.C.---DWFcms 01827: ADD HYD 1.0 04:PTWod 12.45 .256 No_date 2:12 45.65 n/a .000 01828: + 1.0 05:SLStag 12.45 .727 No_date 3:18 25.81 n/a .000 01829: + 1.0 05:SLStag 12.45 .256 No_date 3:18 46.10 n/a .000 01830: + 1.0 08:PF2over .00 .000 No_date 0:00 n/a .000 01831: SUM+ 1.0 09:PFoley Dray 44.47 7.909 No_date 3:15 26.88 n/a .000 01832: R0001:CO0237-----Dtn-ID:NYDY---AREAh-QPEAKms-TpeakDate_hh:mm---Rvmm-R.C.---DWFcms 01833: CALIB NASHY 1.0 04:EX4 6.30 .160 No_date 1:55 17.83 .257 .000 01834: [XIMP=.35:TIMEP=.55] 01835: # [CN= 64.8: No. 3:00: Tp: .64] 01836: R0001:CO0238-----Dtn-ID:NYDY---AREAh-QPEAKms-TpeakDate_hh:mm---Rvmm-R.C.---DWFcms 01837: ADD HYD 1.0 09:PFoley Dray 44.77 7.909 No_date 1:55 17.83 .257 .000 01838: + 1.0 05:PTWod 1.0 05:PTWod 1.0 05:PTWod 1.0 05:PTWod 01839: SUM+ 1.0 05:PT of IntP 45.77 7.906 No_date 1:55 17.83 .257 .000 01840: # 01841: R0001:CO0239-----Dtn-ID:NYDY---AREAh-QPEAKms-TpeakDate_hh:mm---Rvmm-R.C.---DWFcms 01842: ADD HYD 1.0 01:IDSag 63.10 1.940 No_date 1:56 30.83 n/a .000 01843: + 1.0 02:Ext 3 1.55 .041 No_date 1:40 15.38 n/a .000 01844: + 1.0 02:Ext 3 1.55 .041 No_date 1:40 15.38 n/a .000 01845: + 1.0 06:MAJOR .03 .056 No_date 1:00 51.56 n/a .000 01846: SUM+ 1.0 10:PT of IntP 68.32 2.130 No_date 1:56 31.28 n/a .000 01847: # 01848: # 01849: # 2222 Y Y RRR SSSS CCCC SSSS 01850: # 2222 Y Y RRR SSSS C CCCS 01851: # 2222 Y R R S S C S 01852: # 2222 Y R R SSSS CCCC SSSS 01853: # 01854: # 01855: # 01856: # 01857: # 2 YEAR -- 01858: R0001:CO0240----- 01859: # 01860: # 01861: # 01862: # [Comment = SCS Type II 24 HR MASS CURVE [SDT=15.00:SDUR= 24.00:PTOT= 55.30] 01863: # 01864: # 01865: # 01866: # 01867: # Controlled Runoff From ZONE 1 01868: # 01869: # 01870: # 01871: # 01872: # 01873: # 01874: # 01875: # 01876: # 01877: # 01878: # 01879: # 01880: # 01881: # 01882: # 01883: # 01884: # 01885: # 01886: # 01887: # 01888: # 01889: # 01890: # 01891: # 01892: # 01893: # 01894: # 01895: # 01896: # 01897: # 01898: # 01899: # 01900: # 01901: # 01902: # 01903: # 01904: # 01905: # 01906: # 01907: # 01908: # 01909: # 01910: # 01911: # 01912: # 01913: # 01914: # 01915: # 01916: # 01917: # 01918: # 01919: # 01920: # 01921: # 01922: # 01923: # 01924: # 01925: # 01926: # 01927: # 01928: # 01929: # 01930: # 01931: # 01932: # 01933: # 01934: # 01935: # 01936: # 01937: # 01938: # 01939: # 01940: # 01941: # 01942: # 01943: # 01944: # 01945: # 01946: # 01947: # 01948: # 01949: # 01950: # 01951: # 01952: # 01953: # 01954: # 01955: # 01956: # 01957: # 01958: # 01959: # 01960: # 01961: # 01962: # 01963: # 01964: # 01965: # 01966: # 01967: # 01968: # 01969: # 01970: # 01971: # 01972: # 01973: # 01974: # 01975: # 01976: # 01977: # 01978: # 01979: # 01980: # 01981: # 01982: # 01983: # 01984: # 01985: # 01986: # 01987: # 01988: # 01989: # 01990: # 01991: # 01992: # 01993: # 01994: # 01995: # 01996: # 01997: # 01998: # 01999: # 02000: # 02001: # 02002: # 02003: # 02004: # 02005: # 02006: # 02007: # 02008: # 02009: # 02010: # 02011: # 02012: # 02013: # 02014: # 02015: # 02016: # 02017: # 02018: # 02019: # 02020: # 02021: # 02022: # 02023: # 02024: # 02025: # 02026: # 02027: # 02028: # 02029: # 02030: # 02031: # 02032: # 02033: # 02034: # 02035: # 02036: # 02037: # 02038: # 02039: # 02040: # 02041: # 02042: # 02043: # 02044: # 02045: # 02046: # 02047: # 02048: # 02049: # 02050: # 02051: # 02052: # 02053: # 02054: # 02055: # 02056: # 02057: # 02058: # 02059: # 02060: # 02061: # 02062: # 02063: # 02064: # 02065: # 02066: # 02067: # 02068: # 02069: # 02070: # 02071: # 02072: # 02073: # 02074: # 02075: # 02076: # 02077: # 02078: # 02079: # 02080: # 02081: # 02082: # 02083: # 02084: # 02085: # 02086: # 02087: # 02088: # 02089: # 02090: # 02091: # 02092: # 02093: # 02094: # 02095: # 02096: # 02097: # 02098: # 02099: # 02100: # 02101: # 02102: # 02103: # 02104: # 02105: # 02106: # 02107: # 02108: # 02109: # 02110: # 02111: # 02112: # 02113: # 02114: # 02115: # 02116: # 02117: # 02118: # 02119: # 02120: # 02121: # 02122: # 02123: # 02124: # 02125: # 02126: # 02127: # 02128: # 02129: # 02130: # 02131: # 02132: # 02133: # 02134: # 02135: # 02136: # 02137: # 02138: # 02139: # 02140: # 02141: # 02142: # 02143: # 02144: # 02145: # 02146: # 02147: # 02148: # 02149: # 02150: # 02151: # 02152: # 02153: # 02154: # 02155: # 02156: # 02157: # 02158: # 02159: # 02160: #

02161# -----
 02162# R0001:CO0280-----
 02163# ROUTE RESERVOIR -> 1.0 05PFIIN 16.21 .1,296 No_date 12:02 48.00 n/a .000
 02164# out <= 1.0 01PFIOut 16.22 .021 No_date 24:09 48.00 n/a .000
 02165# overflow <= 1.0 02PFIOver .00 .000 No_date 0:00 n/a .000
 02166# (MxStoUsed=.6790E+00 m3, TotCvVol=.0000E+00 m3, N-Ovf= 0, TotburOvf=.0hrs)
 02167# -----
 02168# Watercourse Flows- ZONE 1
 02169# -----
 02170# -----
 02171# -----
 02172# -----
 02173# -----
 02174# ----- Small Unnamed Tributary
 02175# -----
 02176# -----
 02177# R0001:CO0281-----
 02178# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02179# [CN= 74.11; Nc: 3.00; Tp: .57]-----
 02180# -----
 02181# R0001:CO0282-----
 02182# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02183# [ROUTE 1.00] out-> 1.0 01PFIOut 41.20 1.439 No_date 12:41 30.17 n/a .000
 02184# [L/S/nw 425. / .960/.035]
 02185# -----
 02186# R0001:CO0283-----
 02187# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02188# CALIB NASHYD 1.0 05PFB Z1- 5.68 .294 No_date 12:19 32.65 .435 .000
 02189# [CN= 77. 0; Nc: 3.00; Tp: .40]-----
 02190# -----
 02191# ----- Total Flow at South Property Line
 02192# -----
 02193# ADD HYD 1.0 01PFIOut 16.22 .021 No_date 24:09 48.00 n/a .000
 02194# + 1.0 01PFIOut 16.22 .021 No_date 24:09 48.00 n/a .000
 02195# + 1.0 04Stltag 41.20 1.439 No_date 12:41 30.17 n/a .000
 02196# + 1.0 05PFB Z1- 5.68 .294 No_date 12:19 32.65 n/a .000
 02197# SUM= 1.0 03PFI PL 63.10 1.677 No_date 12:07 34.98 n/a .000
 02198# -----
 02199# R0001:CO0285-----
 02200# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02201# [ROUTE 1.00] out-> 1.0 01PFIOut 63.10 1.677 No_date 12:37 34.98 n/a .000
 02202# [L/S/nw 425. / .960/.035]
 02203# [Vmax=.784,Imax=.405]
 02204# -----
 02205# R0001:CO0286-----
 02206# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02207# CALIB NASHYD 1.0 02Ext 3 1.55 .037 No_date 12:25 10.08 .241 .000
 02208# -----
 02209# -----
 02210# -----
 02211# ----- Controlled Runoff From ZONE 2
 02212# -----
 02213# -----
 02214# -----
 02215# R0001:CO0287-----
 02216# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02217# [XNm=.61,TIMF=.55]
 02218# [LOSS= 2 CN: 74.0]
 02219# [Previous area: IApes=.50,SLIP=2.00,LGF= 40.,NMF=.250,SCF= .0]
 02220# [Impervious area: IAimp= 2.00,SLI= .50,LGI= 313.,MMI=.013,SCI= .0]
 02221# -----
 02222# R0001:CO0288-----
 02223# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02224# CALIB STANDRDY 1.0 04MINOR .21 .038 No_date 12:00 56.62 .754 .000
 02225# [XNm=.61,TIMF=.61]
 02226# [LOSS= 2 CN: 74.0]
 02227# [Previous area: IApes=.50,SLIP=2.00,LGF= 40.,NMF=.250,SCF= .0]
 02228# [Impervious area: IAimp= 2.00,SLI= .50,LGI= 47.,MMI=.013,SCI= .0]
 02229# -----
 02230# R0001:CO0289-----
 02231# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02232# DIVERT HYD -> 1.0 04MINOR .21 .038 No_date 12:00 56.62 n/a .000
 02233# diverted <= 1.0 05MINOR .21 .035 No_date 12:00 56.62 n/a .000
 02234# diverted <= 1.0 06MINOR .08 .003 No_date 12:00 56.62 n/a .000
 02235# -----
 02236# R0001:CO0290-----
 02237# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02238# CALIB STANDRDY 1.0 04FPIA- .33 .040 No_date 12:03 41.29 .550 .000
 02239# [XNm=.51,TIMF=.51]
 02240# [LOSS= 2 CN: 74.0]
 02241# [Previous area: IApes=.50,SLIP=2.00,LGF= 40.,NMF=.250,SCF= .0]
 02242# [Impervious area: IAimp= 2.00,SLI= .50,LGI= 47.,MMI=.013,SCI= .0]
 02243# -----
 02244# R0001:CO0291-----
 02245# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02246# CALIB STANDRDY 1.0 05Ext 5 .21 .038 No_date 12:00 56.62 n/a .000
 02247# -----
 02248# -----
 02249# R0001:CO0292-----
 02250# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02251# ADD HYD 1.0 03PFI 14.70 1.884 No_date 12:02 50.59 n/a .000
 02252# + 1.0 03PFI 14.70 1.884 No_date 12:02 50.59 n/a .000
 02253# + 1.0 04PFI-A .33 .104 No_date 12:03 41.29 n/a .000
 02254# + 1.0 07SWMF# 1.11 .176 No_date 12:00 52.39 n/a .000
 02255# SUM= 1.0 08PFI 14.70 2.104 No_date 12:01 50.60 n/a .000
 02256# -----
 02257# ----- SWM Facility #2
 02258# -----
 02259# R0001:CO0293-----
 02260# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02261# [ROUTE 1.00] out-> 1.0 01PFIOut 16.35 2.104 No_date 12:01 50.60 n/a .000
 02262# [L/S/nw 425. / .960/.035]
 02263# [Vmax=.777,Imax=.242]
 02264# -----
 02265# R0001:CO0294-----
 02266# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02267# ADD HYD 1.0 03PFI 16.35 .293 No_date 12:51 50.60 n/a .000
 02268# + 1.0 04PFI 16.35 .293 No_date 12:51 50.60 n/a .000
 02269# -----
 02270# R0001:CO0295-----
 02271# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02272# diverted <= 1.0 03PFI 2 Out 3.33 .116 No_date 12:51 50.60 n/a .000
 02273# diverted <= 1.0 04PFI 2 Out 12.80 .178 No_date 12:51 50.60 n/a .000
 02274# -----
 02275# -----
 02276# -----
 02277# -----
 02278# -----
 02279# ----- East Watercourse Area
 02280# ----- File Drain
 02281# -----
 02282# R0001:CO0296-----
 02283# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02284# CALIB NASHYD 1.0 05Ext 2 41.20 6.110 No_date 14:04 29.64 .395 .000
 02285# [CN= 74. 7; Nc: 3.00; Tp: .87]
 02286# -----
 02287# R0001:CO0297-----
 02288# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02289# CALIB NASHYD 1.0 07NAT 6.51 .390 No_date 12:11 34.75 .463 .000
 02290# [CN= 79. 11; Nc: 3.00; Tp: .36]
 02291# -----
 02292# R0001:CO0298-----
 02293# DIn-ID:NHYD--AREAh-QPEAKms-TpeakDate_hh:mm--RvNm-R.C.--DWFcms
 02294# [ROUTE 1.00] out-> 1.0 05PFI 14.70 2.104 No_date 14:04 29.64 n/a .000
 02295# [L/S/nw 425. / .960/.035]
 02296# [Vmax=.1158,Imax=.1289]
 02297# -----
 02298# -----
 02299# -----
 02300# -----
 02301# -----
 02302# -----
 02303# -----
 02304# -----
 02305# -----
 02306# -----
 02307# -----
 02308# -----
 02309# -----
 02310# -----
 02311# -----
 02312# -----
 02313# -----
 02314# -----
 02315# -----
 02316# -----
 02317# -----
 02318# -----
 02319# -----
 02320# -----
 02321# -----
 02322# -----
 02323# -----
 02324# -----
 02325# -----
 02326# -----
 02327# -----
 02328# -----
 02329# -----
 02330# -----
 02331# -----
 02332# -----
 02333# -----
 02334# -----
 02335# -----
 02336# -----
 02337# -----
 02338# -----
 02339# -----
 02340# -----

02521> SUM + 1.0 04:P#2Over .00 .000 No_date 12:00 .00 n/a .000
 02522> SUM + 1.0 05:P#2 Out 16.34 .478 No_date 12:14 61.92 n/a .000
 02523> # Watercourse Flows- ZONE 2
 02524> RO001:CO0329--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02525> DIVERT HYD > 1.0 05:P#2 Out 16.34 .478 No_date 12:14 61.92 n/a .000
 02526> diverted <= 1.0 04:P#2Over 12.32 .299 No_date 12:14 61.92 n/a .000
 02527> #
 02528> #
 02529> #
 02530> #
 02531> #
 02532> #
 02533> #
 02534> #
 02535> #
 02536> #
 02537> RO001:CO0330--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02538> [CN= 74.71; N= 3.00; Tp=.871]
 02539> #
 02540> #
 02541> RO001:CO0331--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02542> [CN= 79.11; N= 3.00; Tp=.361]
 02543> #
 02544> #
 02545> RO001:CO0332--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02546> ADD HYD 1.0 05:Ext-2 417.20 8.094 No_date 14:03 38.88 .441 .000
 02547> + 1.0 07:NIN 6.51 .507 No_date 12:16 44.88 n/a .000
 02548> SUM + 1.0 08:P#In 423.71 8.152 No_date 14:03 38.97 .309 .000
 02549> #
 02550> RO001:CO0333--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02551> [CN= 79.11; N= 1.01; Tp=.456]
 02552> #
 02553> #
 02554> #
 02555> #
 02556> #
 02557> #
 02558> #
 02559> #
 02560> #
 02561> #
 02562> #
 02563> #
 02564> #
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 02578> #
 02579> #
 02580> #
 02581> #
 02582> #
 02583> #
 02584> RO001:CO0334--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02585> CALIB STANDY 1.0 07:FB2 10.10 1.706 No_date 12:02 62.49 .709 .000
 02586> #
 02587> #
 02588> #
 02589> #
 02590> #
 02591> ADD HYD 1.0 04:P#2Out 11.31 .176 No_date 12:02 62.49 n/a .000
 02592> out <= 1.0 04:P#2Out 11.31 .176 No_date 12:02 62.49 n/a .000
 02593> overflow <= 1.0 08:P#2Over .00 .000 No_date 0:00 .00 n/a .000
 02594> SUM + 1.0 09:F#In 447.34 8.316 No_date 14:10 40.20 n/a .000
 02595> #
 02596> RO001:CO0335--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02597> [CN= 74.71; N= 4.00; Tp=.50]
 02598> #
 02599> #
 02600> #
 02601> #
 02602> #
 02603> #
 02604> #
 02605> #
 02606> #
 02607> #
 02608> #
 02609> #
 02610> #
 02611> #
 02612> #
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 02652> #
 02653> #
 02654> #
 02655> #
 02656> #
 02657> #
 02658> #
 02659> #
 02660> #
 02661> RO001:CO0340--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02662> ADD HYD 1.0 04:P#2Out 447.34 8.316 No_date 14:10 40.20 n/a .000
 02663> + 1.0 04:Ext-4 6.34 .194 No_date 12:01 28.23 n/a .000
 02664> SUM + 1.0 05:P#Int 451.64 8.374 No_date 14:09 40.03 n/a .000
 02665> #
 02666> RO001:CO0341--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02667> ADD HYD 1.0 01:Ext Lag 63.10 2.182 No_date 12:41 44.71 n/a .000
 02668> + 1.0 01:P#In 1.94 .194 No_date 12:01 62.55 n/a .000
 02669> + 1.0 01:P#3Out 1.94 .036 No_date 20:10 62.55 n/a .000
 02670> + 1.0 08:P#2Over .00 .000 No_date 0:00 .00 n/a .000
 02671> SUM + 1.0 09:F#In 447.34 8.316 No_date 14:10 40.20 n/a .000
 02672> #
 02673> RO001:CO0339--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02674> [CN= 64.81; N= 3.00; Tp=.541]
 02675> #
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 02677> #
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 02699> #
 02700> #
 02701> #
 02702> RO001:CO0352--> DIn=ID:NHYD ADD HYD 1.0 01:P#Out 16.32 .097 No_date 16:13 73.48 n/a .000
 02703> + 1.0 02:P#In 1.94 .194 No_date 12:01 61.92 n/a .000
 02704> out <= 1.0 02:P#In 1.94 .194 No_date 12:01 61.92 n/a .000
 02705> #
 02706> #
 02707> #
 02708> #
 02709> #
 02710> #
 02711> ROUTE CHANNEL --> 1.0 03:HCPL 63.10 2.886 No_date 12:38 57.64 n/a .000
 02712> [RDW= 1.00] out <= 1.0 01:HCPL 63.10 2.867 No_date 12:42 57.64 n/a .000
 02713> [RDW= 1.00] out <= 1.0 01:HCPL 63.10 2.867 No_date 12:42 57.64 n/a .000
 02714> #
 02715> RO001:CO0354--> DIn=ID:NHYD ADD HYD 1.0 02:Ext 3 1.55 .072 No_date 12:24 33.85 .324 .000
 02716> CALIB NASHYD 1.0 03:HCPL 63.10 2.886 No_date 12:38 57.64 n/a .000
 02717> [CN= 60.01; N= 3.00; Tp=.471]
 02718> #
 02719> #
 02720> #
 02721> #
 02722> Controlled Runoff From ZONE 2
 02723> #
 02724> RO001:CO0355--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02725> CALIB STANDY 1.0 03:FB1 14.70 3.068 No_date 12:02 76.63 .733 .000
 02726> [XME= .35; TIME= .55]
 02727> #
 02728> [CN= 64.81; N= 3.00; Tp=.541]
 02729> #
 02730> #
 02731> #
 02732> RO001:CO0356--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02733> CALIB STANDY 1.0 04:MINOR 21 .21 .057 No_date 12:00 82.98 .794 .000
 02734> [UDW= 1.00; TIME= .51]
 02735> [LOSS= 1.00; TIME= .451]
 02736> #
 02737> [Pervious area: Iapex 5.00:SLPP=2.00:LGF= 40..MNP=.250:SCP= .0]
 02738> #
 02739> RO001:CO0357--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02740> DIVERT HYD --> 1.0 04:HMINOR .21 .058 No_date 12:00 82.98 n/a .000
 02741> diverted <= 1.0 04:HMINOR .21 .058 No_date 12:00 82.98 n/a .000
 02742> diverted <= 1.0 06:MAJOR .02 .022 No_date 12:00 82.98 n/a .000
 02743> #
 02744> RO001:CO0358--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02745> CALIB STANDY 1.0 04:F#IN 21 .33 .070 No_date 12:02 66.30 .654 .000
 02746> [XME= .01; TIME= .55]
 02747> #
 02748> [Pervious area: Iapex 5.00:SLPP=2.00:LGF= 40..MNP=.250:SCP= .0]
 02749> #
 02750> RO001:CO0359--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02751> CALIB STANDY 1.0 07:SM#P2 1.11 .272 No_date 12:00 77.98 .746 .000
 02752> [UDW= 1.00; TIME= .51]
 02753> [LOSS= 1.00; TIME= .451]
 02754> [LOSS= 1.00; TIME= .451]
 02755> #
 02756> [Pervious area: Iapex 5.00:SLPP=2.00:LGF= 40..MNP=.250:SCP= .0]
 02757> #
 02758> RO001:CO0360--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02759> RO001:CO0361--> DIn=ID:NHYD ADD HYD 1.0 03:FB1 14.70 .058 No_date 12:02 76.63 n/a .000
 02760> out <= 1.0 03:P#Out 16.33 .790 No_date 12:31 76.59 n/a .000
 02761> #
 02762> [CN= 64.81; N= 3.00; Tp=.541]
 02763> #
 02764> #
 02765> #
 02766> #
 02767> #
 02768> #
 02769> #
 02770> #
 02771> #
 02772> #
 02773> #
 02774> RO001:CO0362--> DIn=ID:NHYD ADD HYD 1.0 04:F#IN 16 .052 No_date 12:00 76.63 .654 .000
 02775> out <= 1.0 04:F#IN 16 .052 No_date 12:00 76.63 .654 .000
 02776> #
 02777> #
 02778> #
 02779> #
 02780> RO001:CO0363--> DIn=ID:NHYD ADD HYD 1.0 05:P#Out 16.33 .052 No_date 12:31 76.59 n/a .000
 02781> #
 02782> DIVERT HYD --> 1.0 05:P#2 Out 16.33 .790 No_date 12:31 76.59 n/a .000
 02783> diverted <= 1.0 05:P#2 Out 16.33 .790 No_date 12:31 76.59 n/a .000
 02784> #
 02785> #
 02786> #
 02787> #
 02788> #
 02789> #
 02790> #
 02791> #
 02792> RO001:CO0364--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02793> CALIB NASHYD 1.0 05:Ext-2 417.20 10.772 No_date 14:01 51.29 .491 .000
 02794> [CN= 74.71; N= 3.00; Tp=.871]
 02795> #
 02796> RO001:CO0365--> DIn=ID:NHYD ADD HYD 1.0 05:P#In 6.31 .662 No_date 12:15 56.25 .557 .000
 02797> #
 02798> [CN= 79.11; N= 3.00; Tp=.361]
 02799> #
 02800> RO001:CO0366--> DIn=ID:NHYD ADD HYD 1.0 05:P#Out 16.33 .052 No_date 12:31 76.59 n/a .000
 02801> #
 02802> ADD HYD 1.0 05:Ext-2 417.20 10.846 No_date 14:00 51.40 n/a .000
 02803> [CN= 64.81; N= 3.00; Tp=.541]
 02804> #
 02805> RO001:CO0367--> DIn=ID:NHYD ADD HYD 1.0 05:P#Out 16.33 .052 No_date 12:31 76.59 n/a .000
 02806> #
 02807> ROUTE CHANNEL --> 1.0 08:P#In 423.71 4.15 .261 No_date 12:31 76.59 n/a .000
 02808> [CN= 64.81; N= 3.00; Tp=.541]
 02809> #
 02810> [CN= 65.00; N= 0.50; TIME= 1.03]
 02811> #
 02812> #
 02813> #
 02814> #
 02815> #
 02816> #
 02817> RO001:CO0368--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02818> CALIB STANDY 1.0 07:FB2 10.10 2.193 No_date 12:02 77.35 .740 .000
 02819> [XME= .30; TIME= .55]
 02820> [LOSS= 2 ; CN= 74.0]
 02821> #
 02822> [Pervious area: Iapex 5.00:SLPP=2.00:LGF= 40..MNP=.250:SCP= .0]
 02823> #
 02824> RO001:CO0369--> DIn=ID:NHYD ADD HYD 1.0 05:P#In 6.31 .662 No_date 12:15 56.25 .557 .000
 02825> #
 02826> CALIB STANDY 1.0 08:W#P#2 1.21 .293 No_date 12:15 56.25 .557 .000
 02827> [XME= .30; TIME= .55]
 02828> #
 02829> [Pervious area: Iapex 5.00:SLPP=2.00:LGF= 40..MNP=.250:SCP= .0]
 02830> #
 02831> RO001:CO0370--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02832> ADD HYD 1.0 04:P#In 16.31 .211 .052 No_date 12:02 77.35 n/a .000
 02833> out <= 1.0 04:P#In 16.31 .211 .052 No_date 12:02 77.35 n/a .000
 02834> #
 02835> SUM + 1.0 09:P#In 16.31 .247 .279 No_date 12:01 77.36 n/a .000
 02836> #
 02837> #
 02838> #
 02839> #
 02840> RO001:CO0371--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02841> ADD HYD 1.0 04:P#In 11.31 .247 .2474 No_date 12:01 77.36 n/a .000
 02842> out <= 1.0 04:P#In 11.31 .247 .2474 No_date 12:01 77.36 n/a .000
 02843> #
 02844> #
 02845> RO001:CO0372--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02846> ADD HYD 1.0 04:P#In 12.02 .529 No_date 12:31 76.59 n/a .000
 02847> + 1.0 01:P#3Out 423.71 10.876 No_date 14:00 51.40 n/a .000
 02848> + 1.0 01:P#3Out 11.31 .247 .239 No_date 20:07 77.36 n/a .000
 02849> #
 02850> SUM + 1.0 09:P#Out 447.04 4.07 .1000 No_date 12:01 77.36 n/a .000
 02851> #
 02852> RO001:CO0373--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02853> CALIB NASHYD 1.0 04:F#IN 6.30 .267 No_date 12:31 38.41 .368 .000
 02854> [CN= 64.81; N= 3.00; Tp=.641]
 02855> #
 02856> RO001:CO0374--> DIn=ID:NHYD ADD HYD 1.0 04:Ext 447.04 10.861 No_date 14:00 52.53 n/a .000
 02857> + 1.0 04:Ext 447.04 10.861 No_date 14:00 52.53 n/a .000
 02858> #
 02859> #
 02860> SUM + 1.0 05:P#Int 453.34 11.140 No_date 14:06 52.53 n/a .000
 02861> #
 02862> RO001:CO0375--> DIn=ID:NHYD AREAa-QPEAKms-TpeakData_hh:mm-->RVNm-R.C.--DWFcms
 02863> ADD HYD 1.0 01:Ext Lag 63.10 .2867 No_date 12:42 57.64 n/a .000
 02864> + 1.0 01:Ext Lag 63.10 .2867 No_date 12:42 57.64 n/a .000
 02865> #
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 03023> #
 03

02881> Comment = SCS Type II 24 HR MASS CURVE
 02882> [SDT=15.00:SDR= 24.00:PTOT=116.80]
 02883> #
 02884> # Controlled Runoff From ZONE 1
 02885> #
 02886> #
 02887> #
 02888> #
 02889> #
 02890> #
 02891> #
 02892> #
 02893> R0001:CO0377--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 02894> CALIB_NASHYD 1.0 01:Ext 5 .97 .144 No_date 12:09 68.10 .583 .000
 02895> [CN= 77.7; Nr: 3:00; Tp: .26]
 02896> #
 02897> R0001:CO0378--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 02898> CALIB_STANDRD 1.0 02:FB2 ZI-1 12.37 2.931 No_date 12:02 85.15 .729 .000
 02899> [LGS= 2 : CN= 74.0]
 02900> #
 02901> [Fervous area: Iapex 5.00:SLPP=2.00:LGF= 40.:MNP=250:SCP= .0]
 02902> [Impervious area: IAPM= 2.00:SLP1=.50:LGH= 81.:MNP=.013:SC1= .0]
 02903> #
 02904> R0001:CO0379--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 02905> CALIB_STANDRD 1.0 03:FB2 ZI-1 .98 .265 No_date 12:00 85.13 .729 .000
 02906> [XIMF=.30:TIMEP=.50]
 02907> [LGS= 2 : CN= 74.0]
 02908> #
 02909> [Fervous area: Iapex 5.00:SLPP=2.00:LGF= 40.:MNP=250:SCP= .0]
 02910> [Impervious area: IAPM= 2.00:SLP1=.50:LGH= 81.:MNP=.013:SC1= .0]
 02911> #
 02912> R0001:CO0380--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 02913> CALIB_STANDRD 1.0 04:SHWM#1 1.90 .525 No_date 12:00 88.49 .758 .000
 02914> #
 02915> [XIMF=.30:TIMEP=.50]
 02916> #
 02917> [Fervous area: Iapex 5.00:SLPP=2.00:LGF= 40.:MNP=250:SCP= .0]
 02918> [Impervious area: IAPM= 2.00:SLP1=.50:LGH= 81.:MNP=.013:SC1= .0]
 02919> #
 02920> R0001:CO0381--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 02921> ADD HYD 1.0 01:Ext 5 .97 .144 No_date 12:09 68.10 n/a .000
 02922> + 1.0 02:FB2 ZI-1 12.37 2.931 No_date 12:02 85.15 n/a .000
 02923> + 1.0 03:FB2 ZI-1 45.20 3.126 No_date 12:04 85.15 n/a .000
 02924> SUM= 1.0 05:FB1 16.22 3.800 No_date 12:01 84.52 n/a .000
 02925> #
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 02939> #
 02940> #
 02941> #
 02942> R0001:CO0382--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 02943> ROUTE RESERVOIR --> 1.0 05:FB1 IN 16.22 3.800 No_date 12:01 84.52 n/a .000
 02944> out <= 1.0 01:FB1OUT 16.22 .151 No_date 12:14 84.52 n/a .000
 02945> overlap <= 1.0 01:FB1IN 16.22 .08 No_date 12:14 84.52 n/a .000
 02946> [MxStCoLd=6.987E+00 m3, TotVol=0.000E+00 m3, N-Ovr= 0, TotSurfOv= 0. hrs]
 02947> #
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 03060> #
 03061> ROUTE CHANNEL --> 1.0 08:Fin 423.71 12.969 No_date 13:59 61.16 n/a .000
 03062> [RTD= 1.00] out <= 1.0 05:SiteLag 423.71 12.919 No_date 14:07 61.16 n/a .000
 03063> [LGS= 2 : CN= 74.0]
 03064> [Vmax= 1.111 /Imax= 1.483]
 03065> #
 03066> #
 03067> #
 03068> #
 03069> #
 03070> #
 03071> #
 03072> #
 03073> CALIB_STANDRD 1.0 07:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 03074> [XIMF=.31:TIMEP=.58]
 03075> [LGS= 2 : CN= 74.0]
 03076> #
 03077> [Impervious area: Iapex 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCP= .0]
 03078> [Pervious area: IAPM= 2.00:SLP1=.50:LGH= 81.:MNP=.013:SC1= .0]
 03079> #
 03080> R0001:CO0403--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 03081> CALIB_STANDRD 1.0 08:NHYD#3 1.21 .337 No_date 12:00 88.49 .758 .000
 03082> [XIMF=.50:TIMEP=.50]
 03083> [LGS= 2 : CN= 74.0]
 03084> [Pervious area: Iapex 5.00:SLPP=2.00:LGF= 40.:MNP=.250:SCP= .0]
 03085> [Impervious area: IAPM= 2.00:SLP1=.50:LGH= 81.:MNP=.013:SC1= .0]
 03086> #
 03087> ADD HYD 1.0 07:FB2 10.10 2.592 No_date 12:01 88.49 n/a .000
 03088> + 1.0 03:FB2 10.10 .152 No_date 12:01 88.49 n/a .000
 03089> SUM= 1.0 09:FB1 11.31 2.917 No_date 12:01 88.49 n/a .000
 03090> #
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 03098> #
 03099> #
 03100> R0001:CO0404--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 03101> ADD HYD 1.0 07:FB2 10.10 .252 No_date 12:01 88.49 n/a .000
 03102> + 1.0 03:FB2 10.10 .152 No_date 12:01 88.49 n/a .000
 03103> SUM= 1.0 09:FB1 11.31 .204 No_date 12:01 88.49 n/a .000
 03104> #
 03105> SUM= 1.0 09:FB1 11.31 .204 No_date 12:01 88.49 n/a .000
 03106> #
 03107> R0001:CO0407--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 03108> CALIB_NASHYD 1.0 09:FB1 6.30 .327 No_date 12:36 46.40 .399 .000
 03109> [CN= 64.8] Nr: 3:00 Tp: .641
 03110> #
 03111> R0001:CO0408--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 03112> ADD HYD 1.0 09:FB1 446.96 13.210 No_date 14:06 62.56 n/a .000
 03113> + 1.0 05:FB2 10.10 2.592 No_date 12:01 88.49 n/a .000
 03114> SUM= 1.0 05:FB2 453.26 13.307 No_date 14:06 62.54 n/a .000
 03115> #
 03116> R0001:CO0409--> DMin-ID:NHYD--> AREAh-QPEAKcms-TpeakDate_hh:mm-->RVm-R.C.-->DWFcms
 03117> ADD HYD 1.0 01:Ext 3 6.31 .157 No_date 12:24 67.77 n/a .000
 03118> + 1.0 02:Ext 3 423.71 12.919 No_date 14:07 61.16 n/a .000
 03119> SUM= 1.0 01:Ext 3 6.31 .157 No_date 12:24 67.77 n/a .000
 03120> #
 03121> SUM= 1.0 01:Ext 3 6.31 .157 No_date 12:24 67.77 n/a .000
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 03240> #

03241# R0001:CO0424-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03242# CALL STANDYND 1.0 04:MINOR .21 .074 No_date 12:00 105.40 .818 .000
 03243# [XIMP= .51TIMP=.50] [LOSS= 2 : CN= 74.0] [L0S= 2 : CN= 74.0]
 03244# [Pervious area: IApers: 5.00:SLIP=2.00:LGF= 40.:MNP=.250:SCP= .0]
 03245# [Fervious area: IAimp: 2.00:SLIP= .50:LGF= 37.:MNP=.013:SCI= .0]
 03246# [Impervious area: IAimp: 2.00:SLIP= .50:LGF= 37.:MNP=.013:SCI= .0]
 03247# -----
 03248# R0001:CO0425-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03249# DIVER1 <= 1.0 05:MINOR .18 .035 No_date 12:00 105.40 n/a .000
 03250# diverted <= 1.0 06:MAJOR .03 .039 No_date 12:00 105.40 n/a .000
 03251# -----
 03252# R0001:CO0426-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03253# CALIB STANDYND 1.0 04:FB1-A .33 .097 No_date 12:01 88.05 .684 .000
 03254# [XIMP= .51TIMP=.50] [LOSS= 2 : CN= 74.0]
 03255# [Pervious area: IApers: 5.00:SLIP=2.00:LGF= 40.:MNP=.250:SCP= .0]
 03256# [Impervious area: IAimp: 2.00:SLIP= .50:LGF= 37.:MNP=.013:SCI= .0]
 03257# -----
 03258# R0001:CO0427-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03259# CALIB STANDYND 1.0 07:SLMF2 # .11 .036 No_date 12:00 99.92 .776 .000
 03260# [XIMP= .51TIMP=.50] [LOSS= 2 : CN= 74.0]
 03261# [Pervious area: IApers: 5.00:SLIP=2.00:LGF= 40.:MNP=.250:SCP= .0]
 03262# [Impervious area: IAimp: 2.00:SLIP= .50:LGF= 86.:MNP=.013:SCI= .0]
 03263# -----
 03264# R0001:CO0428-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03265# ADD HYD 1.0 07:SLMF2 # .11 .036 No_date 12:00 99.92 .776 .000
 03266# -----
 03267# R0001:CO0428-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03268# ADD HYD 1.0 03:FB1 14.70 .4112 No_date 12:01 98.95 n/a .000
 03269# ADD HYD 1.0 05:MINOR .18 .035 No_date 12:00 105.40 n/a .000
 03270# diverted <= 1.0 05:MINOR .18 .035 No_date 12:00 105.40 n/a .000
 03271# -----
 03272# R0001:CO0428-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03273# SUM# 1.0 08:FB2 In 16.32 .4572 No_date 12:01 98.87 n/a .000
 03274# -----
 03275# R0001:CO0428-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03276# Watercourse Flows- ZONE 2
 03277# -----
 03278# R0001:CO0428-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03279# ROUTE RESERVOIR > 1.0 05:FB2 In 16.32 .4572 No_date 12:01 98.87 n/a .000
 03280# overflow <= 1.0 04:FB2Out .00 .000 No_date 0:00 n/a .000
 03281# [MxStcSeeds=.94E+00 m3, TotVol=0.00E+00 m3, N-Ovr= 0, TotDwrfv= 0, hrs]=
 03282# -----
 03283# R0001:CO0430-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03284# ADD HYD 1.0 03:FB2 # .11 .036 No_date 12:00 98.87 n/a .000
 03285# diverted <= 1.0 04:FB2Out .00 .000 No_date 0:00 n/a .000
 03286# -----
 03287# R0001:CO0431-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03288# DIVERT HYD > 1.0 05:FB2 Out 16.32 .414 No_date 12:00 98.87 n/a .000
 03289# diverted <= 1.0 04:FB2Out .00 .000 No_date 0:00 n/a .000
 03290# diverted <= 1.0 04:FTW2E 11.91 .1017 No_date 12:20 98.87 n/a .000
 03291# -----
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 03299# -----
 03300# -----
 03301# R0001:CO0432-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03302# CALIB NASHR 1.0 05:EXT-2 417.20 15.001 No_date 13:59 70.85 .550 .000
 03303# [XIMP= .51TIMP=.50] [LOSS= 2 : CN= 74.0] [L0S= 2 : CN= 74.0]
 03304# -----
 03305# R0001:CO0433-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03306# CALIB NASHR 6.51 .902 No_date 12:15 79.06 .614 .000
 03307# [CN= 79.11 No: 3.00: Tp: .36]
 03308# -----
 03309# R0001:CO0434-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03310# ADD HYD 1.0 05:EXT-2 417.20 15.001 No_date 13:59 70.85 n/a .000
 03311# diverted <= 1.0 07:MINAR .6.51 .902 No_date 12:15 79.06 n/a .000
 03312# -----
 03313# -----
 03314# R0001:CO0435-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03315# ROUTE CHANNEL > 1.0 04:FB2Out 423.71 15.100 No_date 13:59 70.97 n/a .000
 03316# [ROT= 1.00 out<= 1.0 05:SLSTag [L/S/nm .550 / .650/.035] [Vmax= 1.125:Dmax= 1.519]
 03317# -----
 03318# -----
 03319# -----
 03320# -----
 03321# -----
 03322# Controlled Runoff From ZONE 3
 03323# -----
 03324# -----
 03325# -----
 03326# -----
 03327# -----
 03328# -----
 03329# -----
 03330# -----
 03331# -----
 03332# -----
 03333# -----
 03334# R0001:CO0436-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03335# CALL STANDYND 1.0 07:FB2 # .11 .036 No_date 12:00 99.88 .775 .000
 03336# [XIMP= .51TIMP=.50] [LOSS= 2 : CN= 74.0]
 03337# [Pervious area: IApers: 5.00:SLIP=2.00:LGF= 40.:MNP=.250:SCP= .0]
 03338# [Impervious area: IAimp: 2.00:SLIP= .50:LGF= 259.:MNP=.013:SCI= .0]
 03339# -----
 03340# R0001:CO0437-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03341# ADD HYD 1.0 07:FB2 # .11 .036 No_date 12:00 99.88 .775 .000
 03342# -----
 03343# SUM# 1.0 09:FB1N 11.31 3.308 No_date 12:01 99.82 n/a .000
 03344# -----
 03345# -----
 03346# -----
 03347# -----
 03348# R0001:CO0439-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03349# ROUTE RESERVOIR > 1.0 05:FB2Out 11.31 3.308 No_date 12:01 99.82 n/a .000
 03350# overflow <= 1.0 04:FB2Out .00 .000 No_date 0:00 n/a .000
 03351# [MxStcSeeds=.94E+00 m3, TotVol=0.00E+00 m3, N-Ovr= 0, TotDwrfv= 0, hrs]=
 03352# -----
 03353# R0001:CO0440-----Dtnm-ID:NHYD-----AREAh-QPEAKcms-TpeakData_h:mm:---RVnm-R.C.---DWFcms
 03354# ADD HYD 1.0 07:FB2 # .11 .036 No_date 12:00 99.88 .775 .000
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0360> R0001:CG00474-          DTRin-ID:NYRD- AREAna-QFKAms-TpeakDate_hhmm- -RvW_R.C.- -DWFcns
0360> ADD HYD   1.0 04F#EYR 11.72 1.384 No_date 10:19 177.90 n/a .000
0360> + 1.0 04F#EYR Lag 421.00 1.384 No_date 10:19 177.90 n/a .000
0360> + 1.0 07F#P3out 11.31 1.198 No_date 10:32 179.25 n/a .000
0360> + 1.0 08F#P2over .00 .000 No_date 0:00 .00 .00 .000
0360> SUM: 1.0 04F#EYR Drat 445.13 31.079 No_date 11:58 145.76 n/a .000
0360> #-----+
0360> R0001:CG00475-          DTRin-ID:NYRD- AREAna-QFKAms-TpeakDate_hhmm- -RvW_R.C.- -DWFcns
0360> CALIB NASH 1.0 04F#EXT 4 6.30 .567 No_date 10:40 120.02 .566 .000
0361> [CNE 64.8: Ne 3.000 Tp_ .567 .000
0361> #-----+
0361> R0001:CG00476-          DTRin-ID:NYRD- AREAna-QFKAms-TpeakDate_hhmm- -RvW_R.C.- -DWFcns
0361> ADD HYD   1.0 09F#Pyle Dra 446.74 31.079 No_date 11:58 145.76 n/a .000
0361> + 1.0 04F#EXT 4 6.30 .567 No_date 10:40 120.02 .000 .000
0361> SUM: 1.0 09F#Pyle Int 453.04 31.546 No_date 11:58 144.40 n/a .000
0361> #-----+
0361> R0001:CG00477-          DTRin-ID:NYRD- AREAna-QFKAms-TpeakDate_hhmm- -RvW_R.C.- -DWFcns
0361> ADD HYD   1.0 01F#EYR 6.413 No_date 10:31 152.12 n/a .000
0362> + 1.0 02F#EYR 3 1.55 139 No_date 10:19 109.88 n/a .000
0362> + 1.0 03F#P2over 4.57 .482 No_date 10:19 177.90 n/a .000
0362> + 1.0 04F#EYR 1.55 1.198 No_date 10:32 179.25 n/a .000
0362> SUM: 1.0 10F#Pc Int 69.22 .277 No_date 10:29 152.87 n/a .000
0362> #-----+
0362> R0001:CG00478-          FINISH
0362> #-----+
0362> ***** WARNING / ERRORS / NOTES *****
0363> -----
0363> Simulation ended on 2020-11-03 at 15:14:08
0363> -----
0363> -----
0363> -----

```

FIGURES & DRAWINGS

FIGURES

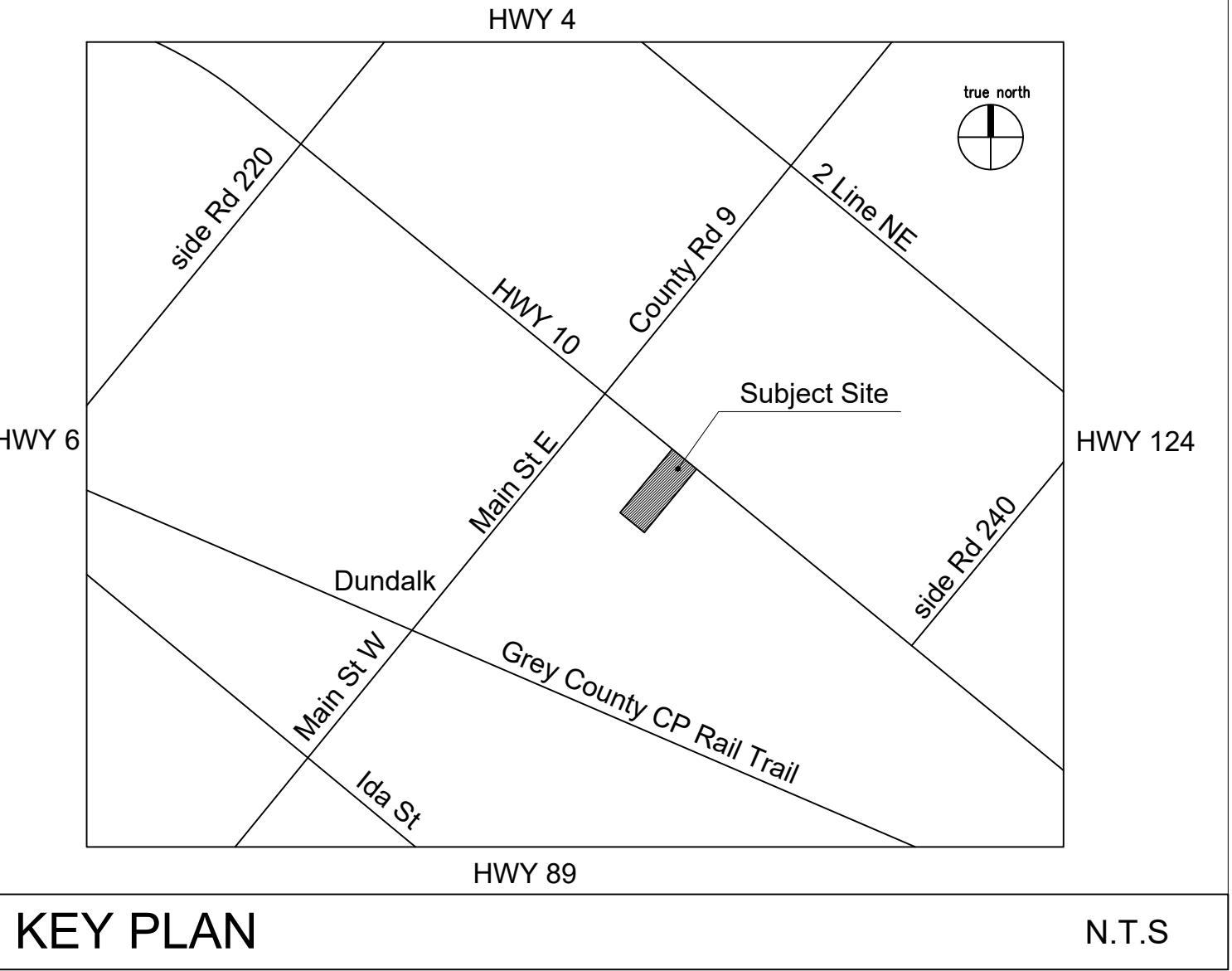
- FIGURE 1: SITE LOCATION PLAN
- FIGURE 2: SITE PLAN
- FIGURE 3: EXTERNAL GENERAL SERVICING PLAN
- FIGURE 4: PRE-DEVELOPMENT DRAINAGE PLAN
- FIGURE 5: STORM AREA DRAINAGE PLAN
- FIGURE 6: EXTERNAL STORM DRAINAGE PLAN

DRAWINGS

- DRAWING C101: GENERAL SITE SERVICING PLAN
- DRAWING C102: SITE GRADING AND SEDIMENT CONTROL PLAN



Legend		Project			
	= SUBJECT LANDS	DUNDALK COMMERCIAL BLOCK TOWNSHIP OF SOUTHGATE			
Drawing		SITE LOCATION PLAN			
		CROZIER CONSULTING ENGINEERS		THE HARBOUREDGE BUILDING, 40 HURON STREET, SUITE 301, COLLINGWOOD, ON L9Y 4R3 705 446-3101 705 446-3520 F WWW.CFCROZIER.CA INFO@CFCROZIER.CA	
Scale	N.T.S.	Date	11/06/2020	Check By	B.H.
Drawn By	J.A.P.	Design By	J.L.	Project	1060-5384
					FIG 1



SITE STATISTICS		
1. SITE AREA BREAKDOWN	AREA ft2	AREA m2
LOT AREA	71,730.0	6664.0
NET LOT AREA	71,730.0	6664.0
2. BUILDING AREA (FOOTPRINT)	15,586.0	1448.0
3. PROPOSED BUILDING HEIGHT		
1 STOREY (MEASURED FROM FFE 0.0)		8.94m2 (29'-0")
4. F.S.I (FLOOR SPACE INDEX)	GROSS FLOOR AREA (m2) / SITE AREA (m2)	(GFA) 1448.0 / (SITE) 6664.0 0.21

5. PARKING (TYPICAL PARKING SPACE SIZE = 2.75m X 5.75m)		
REQUIRED PARKING		
COMMERCIAL PARKING (1 PARKING SPACE / 20m2 OF NFA (1369/20))	68 SPACES	
TOTAL REQUIRED PARKING	68 SPACES	
PROVIDED PARKING		75 SPACES
* OF WHICH 2 SPACES ARE BARRIER-FREE (4.4m X 6m)		

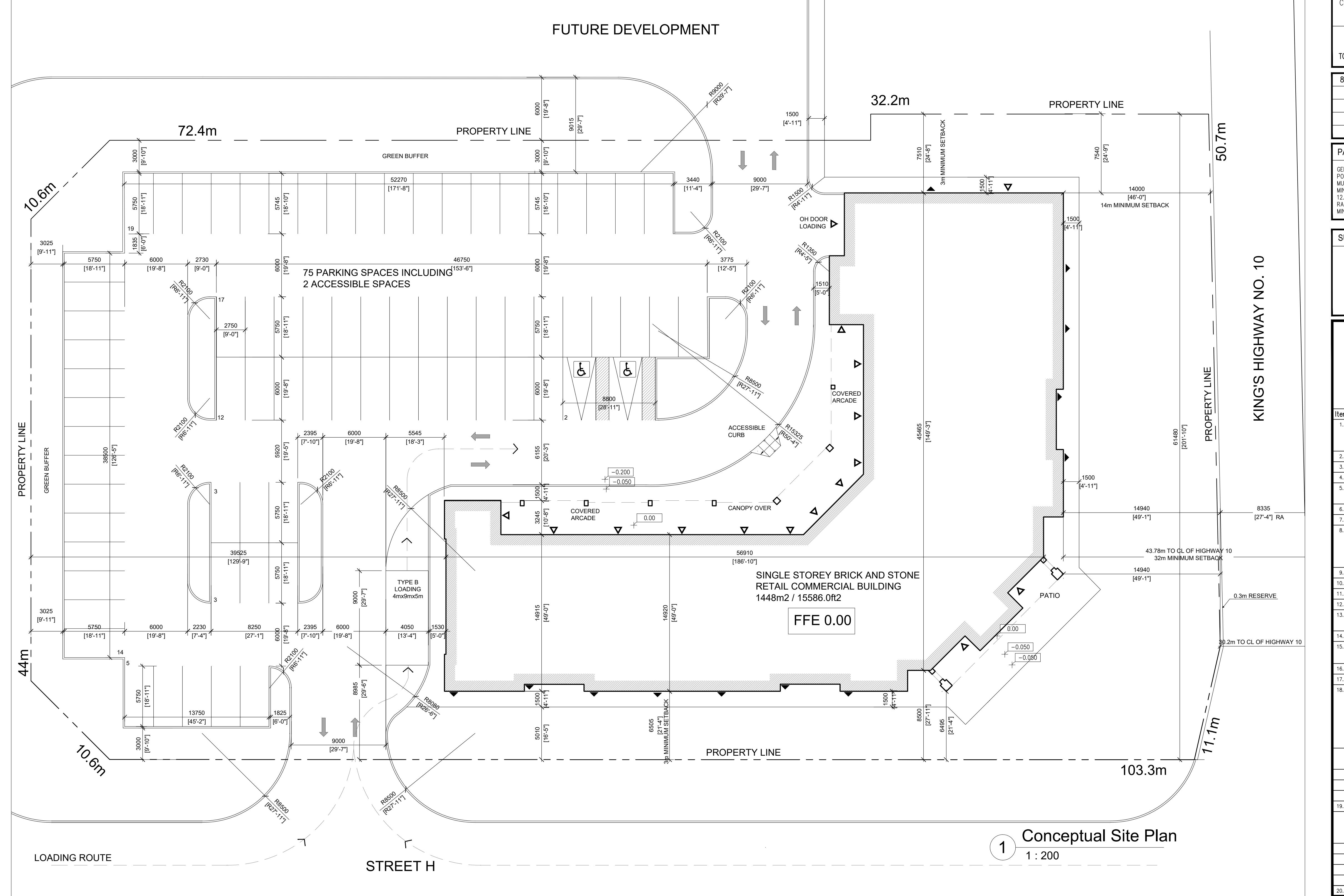
6. LOADING		
REQUIRED	1 TYPE B (4m X 9m X 5m ht)	
PROVIDED	1 TYPE B (4m X 9m X 5m ht)	

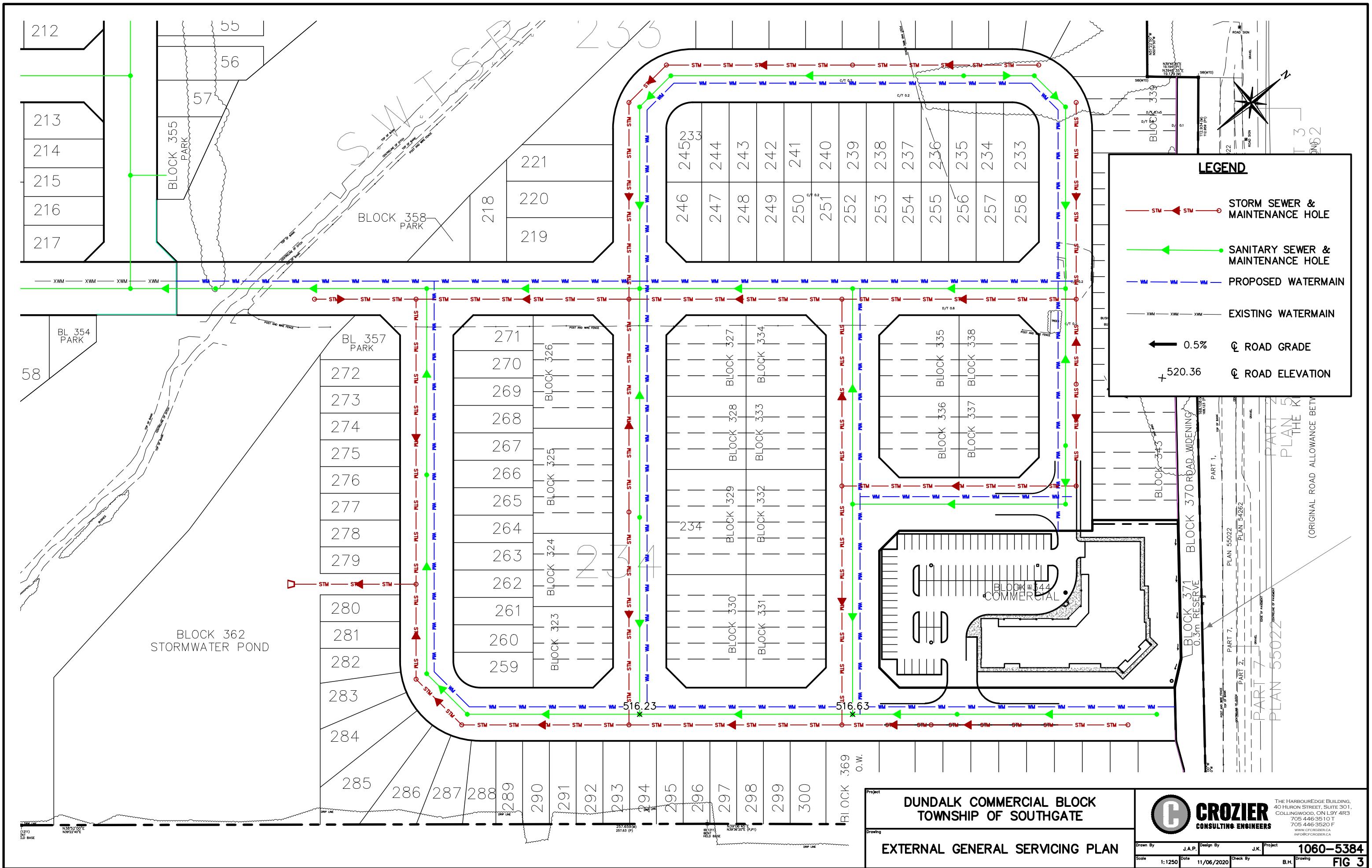
7. FLOOR AREA BREAKDOWN	GROSS FLOOR AREA (GFA)		DEDUCTIONS		NET FLOOR AREA (NFA)	
	ft2	m2	ft2	m2	ft2	m2
GROUND FLOOR (COMMERCIAL, GROUP E CLASSIFICATION)	15586.0	1448.0	LOADING 624.3	58.0	14735.7	1369.0
			MECH 226.0	21.0		
TOTAL	15586.0	1448.0	FLOOR DEDUCTIONS 850.3	79.0	14735.7	1369.0

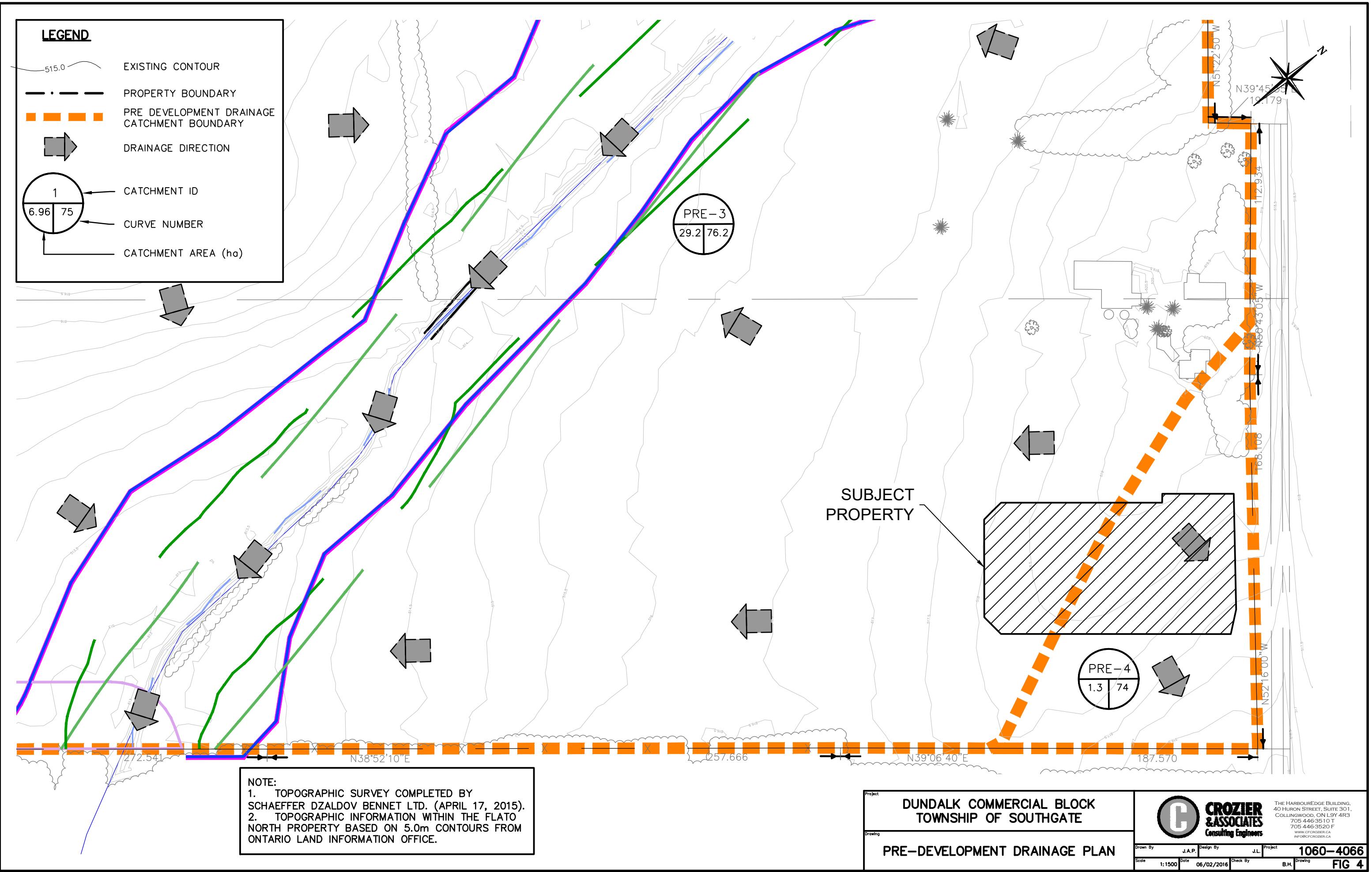
8. SETBACKS		
REQUIRED	3.0m	7.5m
PROVIDED	3.0m	6.5m
NORTH INTERIOR SIDE SETBACK	3.0m	7.5m
SOUTH EXTERIOR SIDE SETBACK	3.0m	6.5m
EAST FRONT SETBACK	14.0m	14.0m
WEST REAR SETBACK	7.5m	39.5

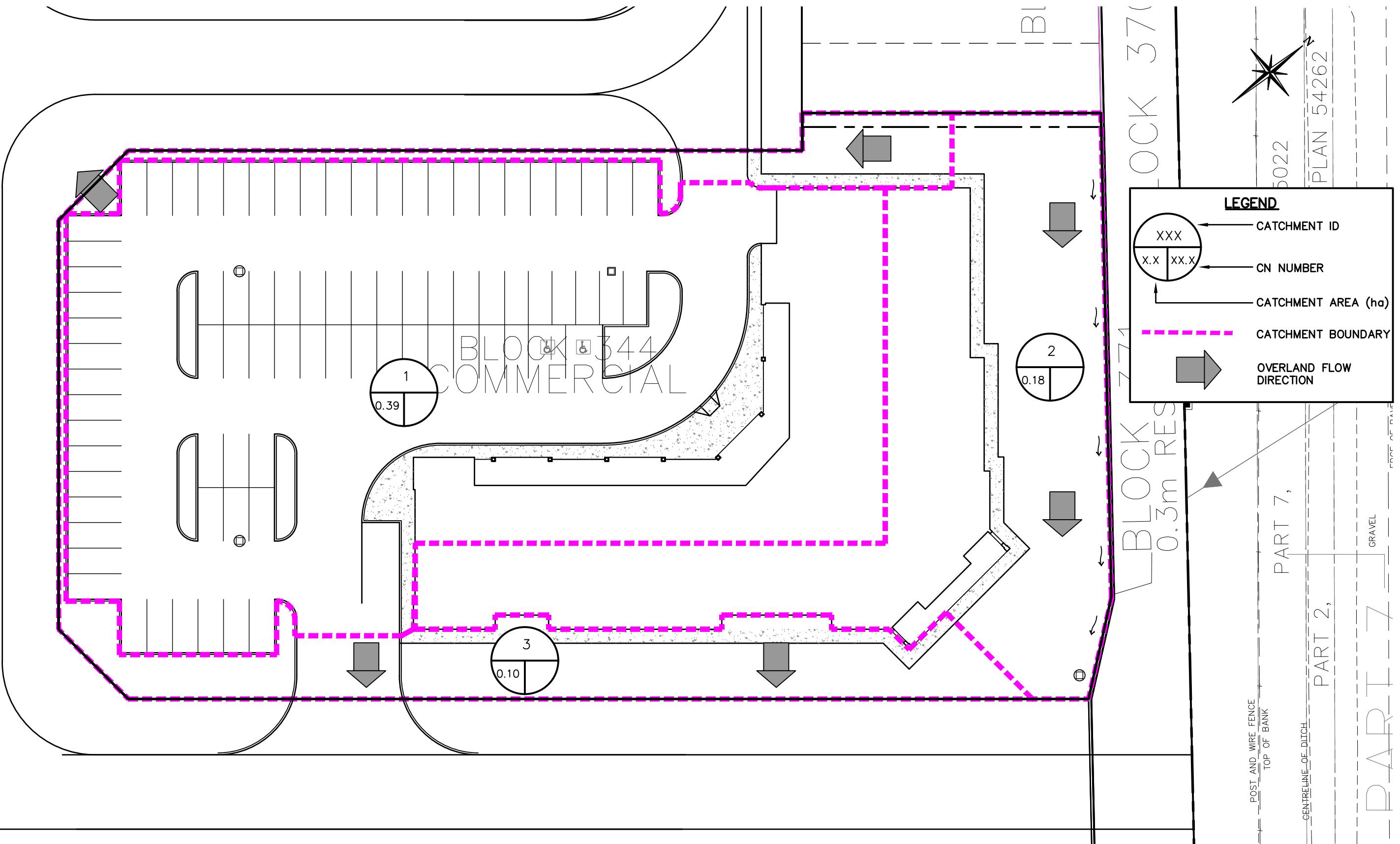
PARKING LEGEND		LEGEND	
GENERAL NOTE - FIRE ROUTE TO BE POSTED AND DESIGNATED UNDER MUNICIPAL BY-LAW TO BE MINIMUM 6.0M WIDE WITH A MINIMUM 12.0m CENTER-LINE TURNING RADIUS MAXIMUM 8% SLOPE OVER A MINIMUM DISTANCE OF 15m	2.75m	2.75m x 25m	CATCH BASIN
R2-100 [R2-117]	5.0m	5.0m	EXISTING SERVICE DOOR
R2-100 [R2-117]	14m MINIMUM SETBACK	14m MINIMUM SETBACK	H.P. HYDRO POLE
R2-100 [R2-117]	14m MINIMUM SETBACK	14m MINIMUM SETBACK	GEODETIC ELEVATION
R2-100 [R2-117]	14m MINIMUM SETBACK	14m MINIMUM SETBACK	MANHOLE
R2-100 [R2-117]	14m MINIMUM SETBACK	14m MINIMUM SETBACK	EXISTING ELEVATION
R2-100 [R2-117]	14m MINIMUM SETBACK	14m MINIMUM SETBACK	FIRE HYDRANT
R2-100 [R2-117]	14m MINIMUM SETBACK	14m MINIMUM SETBACK	PROPOSED ELEVATION
R2-100 [R2-117]	14m MINIMUM SETBACK	14m MINIMUM SETBACK	BOLLARD LIGHT REFER TO ELEC DWGS
R2-100 [R2-117]	14m MINIMUM SETBACK	14m MINIMUM SETBACK	HANDICAPPED PARKING

Firm Name: architecture unfolded			OBC Reference		
Certificate of Practice Number: 4647			Port 3		
The Certificate of Practice Number of the holder is the holder's BCN.			Port 9		
Name of Project: EDGEWOOD PLAZA			11.1 to 11.4		
Location: DUNDALK, ONTARIO			1.1.2 [A] 9.10.1.3		
Item Ontario Building Code Data Matrix Part 3			9.10.2		
1. Project Description:	<input type="checkbox"/> New	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration	<input type="checkbox"/> Port 11	<input type="checkbox"/> Port 3
				11.1 to 11.4	1.1.2 [A]
2. Major Occupancy(s)	Group C, RESIDENTIAL OCCUPANCY			3.1.2.1 (1)	9.10.2
3. Building Area (m2)	Existing	New	1490.4 m2 Total 1490.4 m2	1.4.1.2 [A]	1.4.1.2 [A]
4. Gross Area (m2)	Existing	New	1494 m2 Total 9488.6 m2	1.4.1.2 [A]	1.4.1.2 [A] & 9.10.1
5. Number of Stories	Above grade: 1	Below grade: 0		1.4.1.2 [A] & 3.2.1.1 (8)	9.10.20
6. Number of Streets/Fighter Access: 1				3.2.2.10 & 3.2.5	N/A
7. Building Classification: GROUP C (up to 6-Storey, Sprinklered)				3.2.2.4.3A	9.10.4
8. Sprinkler System Proposed	<input type="checkbox"/> entire building	<input type="checkbox"/> basement & ground floor only	<input type="checkbox"/> roof or roof rating	<input type="checkbox"/> not required	3.2.2.20 – 3.2.2.83
					9.10.8
9. Standpipe required	<input type="checkbox"/> Yes	<input type="checkbox"/> No			3.2.9
10. Fire Alarm required	<input type="checkbox"/> Yes	<input type="checkbox"/> No			3.2.4
11. Water Service/Supply is Adequate	<input type="checkbox"/> Yes	<input type="checkbox"/> No			3.2.5.7
12. High Building	<input type="checkbox"/> Yes	<input type="checkbox"/> No			N/A
13. Permitted Construction	<input type="checkbox"/> Combustible	<input type="checkbox"/> Non-combustible	<input type="checkbox"/> Both		3.2.2.20 – 3.2.2.83
Actual Construction	<input type="checkbox"/> Combustible	<input type="checkbox"/> Non-combustible	<input type="checkbox"/> Both		9.10.6
14. Mezzanine(s) Area m2	N/A			3.2.1.1 (3) – 3.2.1.1 (8)	9.10.4.1
15. Occupant load based on	<input type="checkbox"/> m2/person	<input type="checkbox"/> design of building		3.1.17	9.9.1.3
16. Barrier-free Design	<input type="checkbox"/> Yes	<input type="checkbox"/> No (Explain)			3.8
17. Hazardous Substances	<input type="checkbox"/> Yes	<input type="checkbox"/> No			9.5.2
18. Required Fire Resistance Rating (FRR)	Horizontal Assemblies		Listed Design No. or Description (SB-2)	3.2.20-83 & 3.2.1.4	
	Floors N/A Hours (below grade)			9.10.8	
	Floors N/A Hours (above grade)			9.10.9	
	Roof 0.0 Hours				
	Mezzanine N/A Hours		N/A		
	FRR of Supporting Members		Listed Design No. or Description (SB-2)		
	Floors 1.0 Hours min.200mm Poured CONCRETE SLAB				
	Roof 0.0 Hours				
	Mezzanine N/A Hours		N/A		
19. Spatial Separation – Construction of Exterior Walls				3.2.3	9.10.14
Wall Area of EBF (m2)	L/H or (m)	Permitted Max. % of Openings	Proposed % of Openings	FRR (Hours)	Listed Design or Description
North NO WINDOWS TO NORTH .					Comb. Constr. Non. Const. Comb. Non-com. Cladding
South REFER TO PROPOSED METHOD OF BUILDING COMPLIANCE REPORT BY JENSEN HUGHES .					
East REFER TO PROPOSED METHOD OF BUILDING COMPLIANCE REPORT BY JENSEN HUGHES .					
West REFER TO PROPOSED METHOD OF BUILDING COMPLIANCE REPORT BY JENSEN HUGHES .					
Other = Describe					









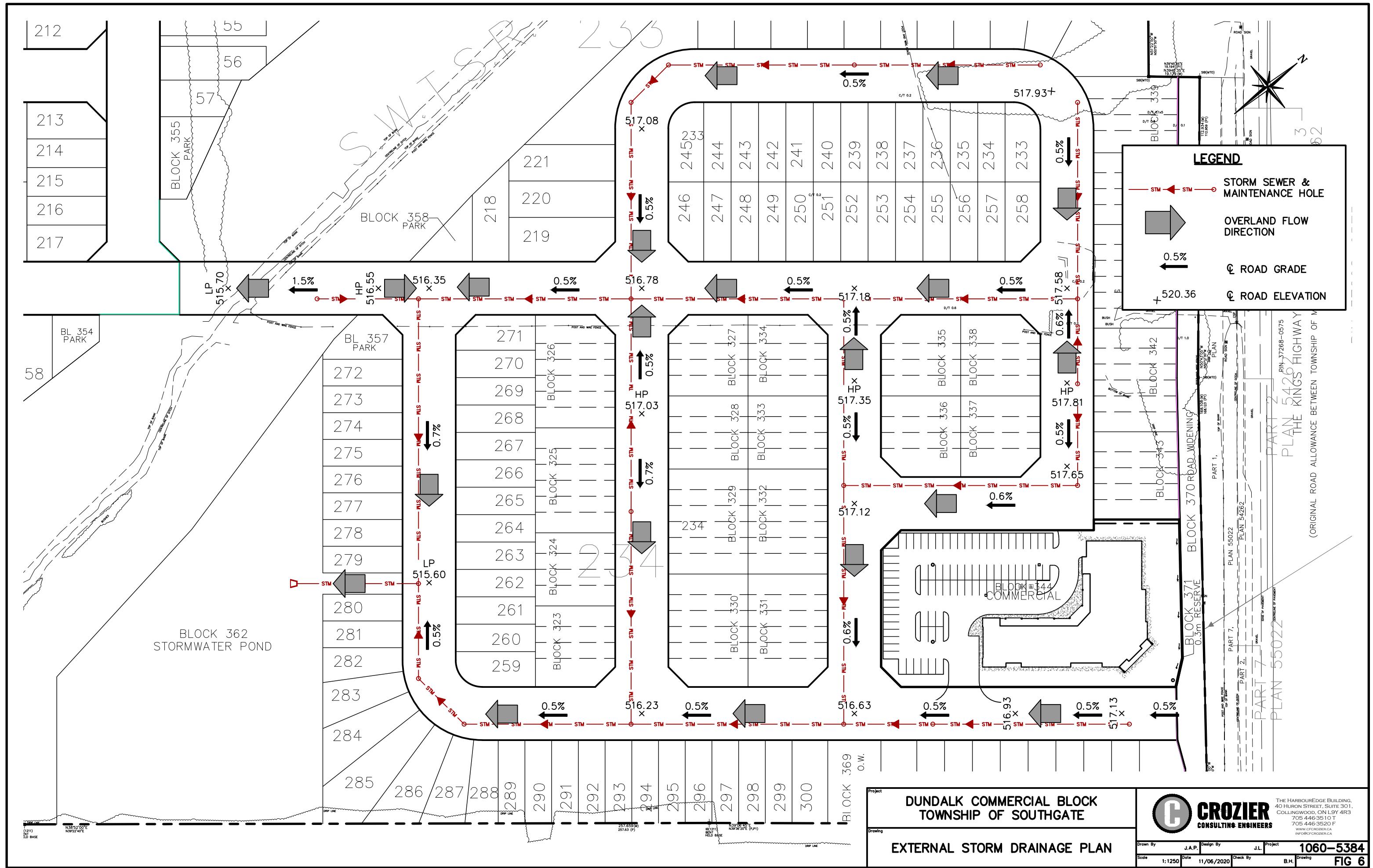
Project
DUNDALK COMMERCIAL BLOCK
TOWNSHIP OF SOUTHGATE
Drawing
STORM AREA DRAINAGE PLAN

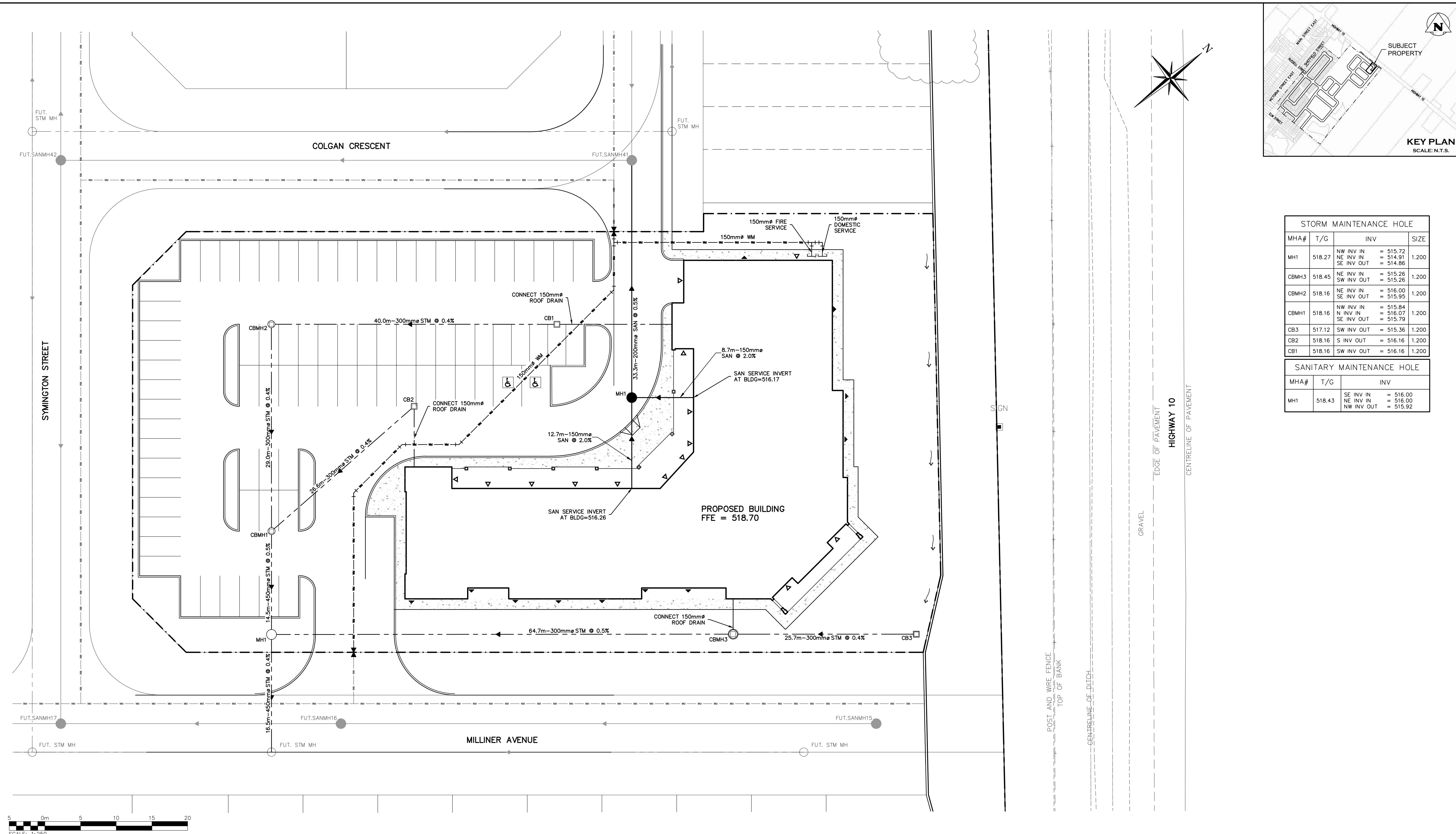
CROZIER
CONSULTING ENGINEERS

The HARBOUR EDGE BUILDING,
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COLLINGWOOD, ON N9Y 4R3
705 446-3510 T
705 446-3520 F
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Drawn By	J.A.P.	Design By	J.L.	Project	1060-5384
Scale	1:400	Date	11/06/2020	Check By	B.H.

FIG 5





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TEMPORARY BENCHMARKS
TBM#1 CONCRETE PIN IN ASPHALT, WEST EDGE OF PAVEMENT ON
ROWS LANE LOCATED 5m NORTH OF MN.135 ELEVATION 514.870m
TBM#2 RUSSELL STREET CC ON CONCRETE CURB ELEVATION 520.79
TBM#3 FLATO EAST PHASE 2&3 STORMWATER FACILITY CC ON CONCRETE
HEADWALL ELEVATION 514.43
GEODETIC BENCHMARKS

No.	ISSUE / REVISION	DATE: DD/MM/YYYY	Engineer	Engineer	Project
1	ISSUED FOR FIRST SUBMISSION	06/11/2020			

PRELIMINARY
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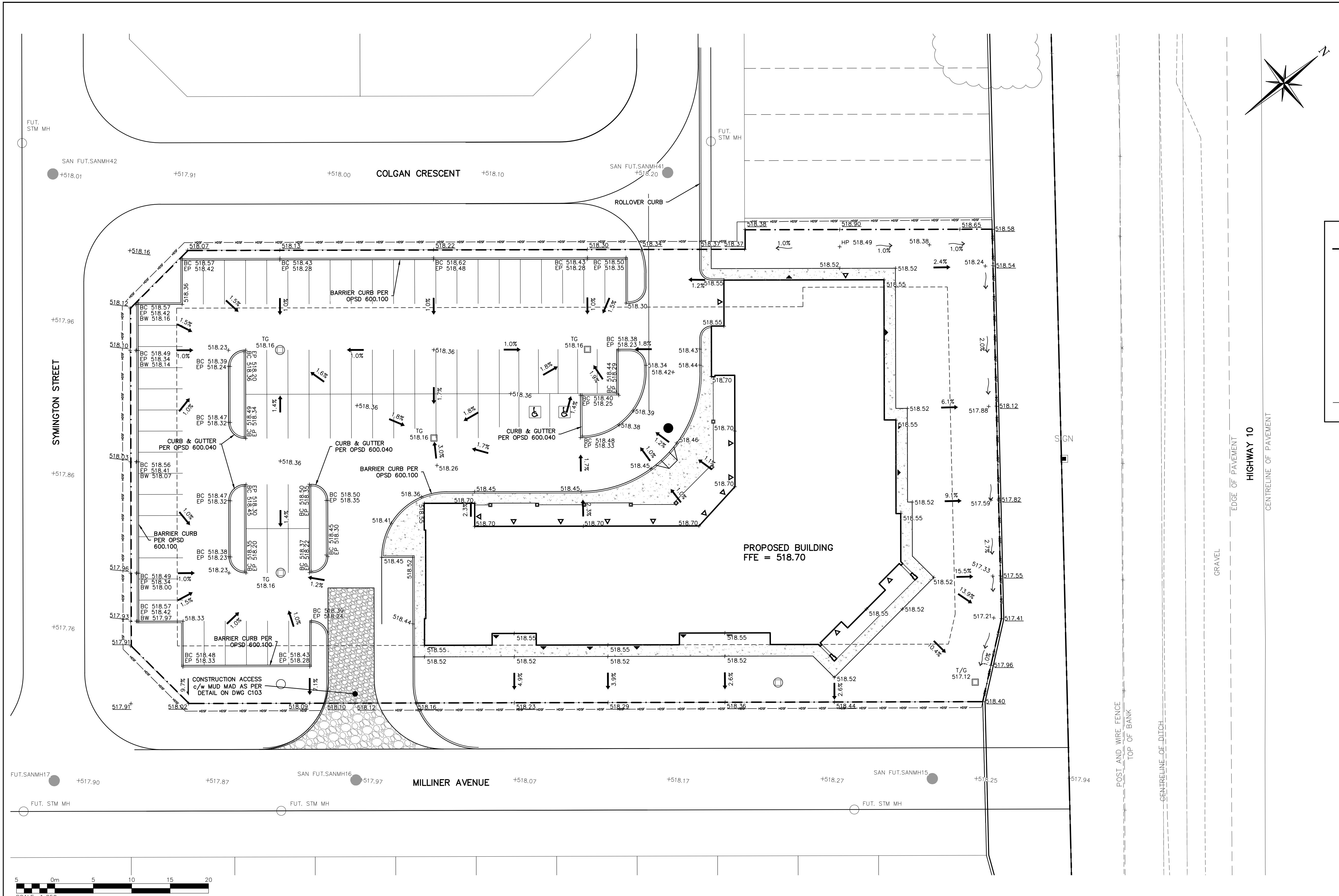
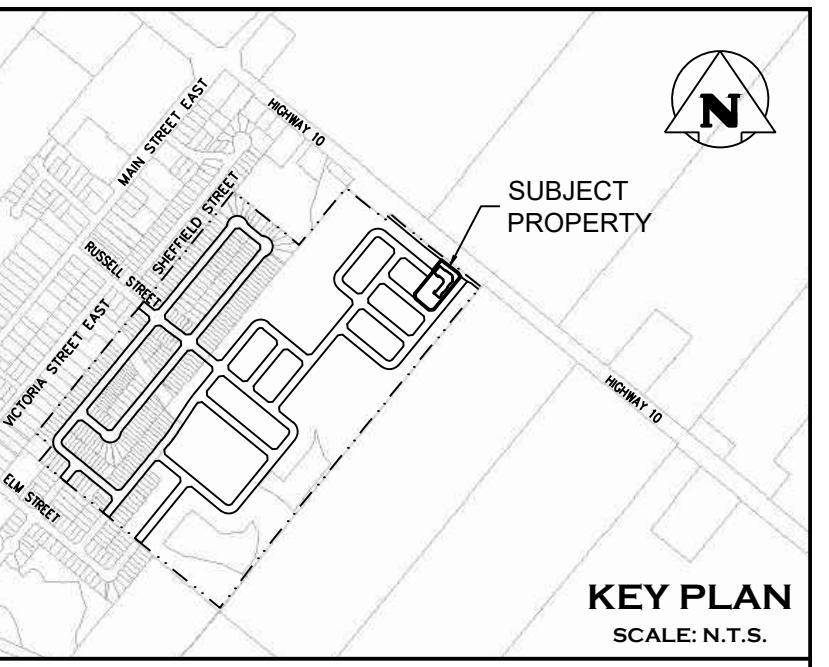
DUNDALK COMMERCIAL BLOCK
TOWNSHIP OF SOUTHGATE

GENERAL SITE SERVICING PLAN

CROZIER
CONSULTING ENGINEERS

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Drawn By J.A.P. Design By V.P./D.T. Project 1060-5384
Scale 1:250 Date 06/11/2020 Check By D.T. Drawing C101



LEGEND	
PROPERTY BOUNDARY	- - - - -
+518.70	PR. ELEVATION
+EP 518.70	PR. EDGE OF PAVEMENT ELEV.
+BC 518.70	PR. BACK OF CURB ELEV.
+BW 518.70	PR. BOTTOM OF RETAINING WALL ELEV.
+518.00	PROPOSED MATCH ELEVATION
+518.70	PR. PHASE 11 CL ELEV.
0.0%	PROPOSED GRADE
— HOSF — HOSF — HOSF	HEAVY DUTY SILT FENCE

NOTE: ADD SILT SACS TO ALL CATCHBASINS IN PUBLIC ROW

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4. DO NOT SCALE THE DRAWINGS.
5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

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TBM#2 RUSSELL STREET CC ON CONCRETE CURB ELEVATION 520.79
TBM#3 FLATO EAST PHASE 2&3 STORMWATER FACILITY CC ON CONCRETE HEADWALL ELEVATION 514.43

GEOEDTIC BENCHMARKS

No.	ISSUE / REVISION	DATE: DD/MM/YYYY	Engineer	Engineer	Project
1	ISSUED FOR FIRST SUBMISSION	06/11/2020			

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

DUNDALK COMMERCIAL BLOCK
TOWNSHIP OF SOUTHGATE

OVERALL SITE GRADING PLAN

CROZIER
CONSULTING ENGINEERS

THE HARBOUREDGE BUILDING,
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Drawn By	J.A.P.	Design By	V.P./D.T.	Project	1060-5384
Scale	1:250	Date	06/11/2020	Check By	D.T.
					Drawing
					C102