MASTER DEVELOPMENT DRAINAGE PLAN ~ BASIN RUNOFF COEFFICIENT SUMMARY

BASIN	TOTAL AREA (AC)	IMPERVIOUS AREA / STREETS				DEVELOPED / UNDEVELOPED AREAS				WEIGHTED			WEIGHTED CA		
		AREA (AC)	C(2)	C(5)	C(100)	AREA (AC)	C(2)	C(5)	C(100)	C(2)	C(5)	C(100)	CA(2)	CA(5)	CA(100)
OS-1	87.1	0.00	0.89	0.90	0.96	87.1	0.05	0.12	0.39	0.05	0.12	0.39	**4.36**	**10.45**	**33.97**
OS-2	8.9	0.00	0.89	0.90	0.96	8.9	0.05	0.12	0.39	0.05	0.12	0.39	**0.45**	**1.07**	**3.47**
OS-3	6.5	2.00	0.57	0.59	0.70	4.5	0.03	0.09	0.36	0.20	0.24	0.46	**1.28**	**1.59**	**3.02**
A	39.3	0.00	0.89	0.90	0.96	39.3	0.15	0.22	0.46	0.15	0.22	0.46	**5.90**	**8.65**	**18.08**
B	1.5	0.00	0.89	0.90	0.96	1.5	0.05	0.12	0.39	0.05	0.12	0.39	**0.08**	**0.18**	**0.59**
C	2.3	0.00	0.89	0.90	0.96	2.3	0.05	0.12	0.39	0.05	0.12	0.39	**0.12**	**0.28**	**0.90**
D	12.3	0.00	0.89	0.90	0.96	12.3	0.04	0.11	0.38	0.04	0.11	0.38	**0.49**	**1.35**	**4.67**
E	3.9	0.00	0.89	0.90	0.96	3.9	0.05	0.12	0.39	0.05	0.12	0.39	**0.20**	**0.47**	**1.52**
F	57.1	0.00	0.89	0.90	0.96	57.1	0.41	0.45	0.59	0.41	0.45	0.59	**23.41**	**25.70**	**33.69**
G	1.1	0.00	0.89	0.90	0.96	1.1	0.05	0.12	0.39	0.05	0.12	0.39	**0.06**	**0.13**	**0.43**

LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND CONTOUR	6910
DRAINAGE BASIN BOUNDARY	
DESIGN POINT	3
BASIN IDENTIFIER / AREA IN ACRES	BB 10.0
EXISTING DIRECTION OF FLOW	
PROPOSED DIRECTION OF FLOW	
EXISTING STORM SEWER	

UNPLATTED OPEN SPACE JOVENCHI LLC

KETTLE CREEK

APPROX. LOCATION OF 100 YR. FLOODPLAIN

APPROX. PMJM HABITAT LINE

PRE-DEVELOPMENT FLOWS:
5 YR. = 4 CFS
100 YR. = 26 CFS

DEVELOPED FLOWS:
5 YR. = 1.4 CFS
100 YR. = 7 CFS

DEVELOPED FLOWS TRIBUTARY TO POWERS POND

PREVIOUS REPORTS:
5 YR. = 94 CFS
100 YR. = 190 CFS

PROPOSED REPORT:
5 YR. = 68 CFS
100 YR. = 150 CFS

EXIST. TEMP. SEDIMENT BASIN TO BE REMOVED UPON DEVELOPMENT

EXIST. FULL SPECTRUM DETENTION FACILITY (POWERS POND)

POWERS BOULEVARD

EXIST. LP

EXIST. HP

EXIST. LP

NORTH FORK AT BRIARGATE FILING 7

EXIST. 36" RCP STUB

THUNDER MOUNTAIN AVE.

NORTH FORK AT BRIARGATE FILING 6

NORTH FORK AT BRIARGATE FILING 5

NORTH FORK AT BRIARGATE FILING 4

PRE-DEVELOPMENT FLOWS:
5 YR. = 3 CFS
100 YR. = 22 CFS

DEVELOPED FLOWS:
5 YR. = 0.4 CFS
100 YR. = 2 CFS

SINGLE FAMILY RESIDENTIAL 3-4 DU/AC.

EXIST. DIVERSION SWALE TO BE REMOVED UPON DEVELOPMENT

UNPLATTED OPEN SPACE JOVENCHI LLC

PRE-DEVELOPMENT FLOWS:
5 YR. = 1 CFS
100 YR. = 8 CFS

DEVELOPED FLOWS:
5 YR. = 0.9 CFS
100 YR. = 5 CFS

PRE-DEVELOPMENT FLOWS:
5 YR. = 32 CFS
100 YR. = 178 CFS

SCS METHOD
DEVELOPED FLOWS ALT 1:
5 YR. = 7 CFS
100 YR. = 108 CFS

DEVELOPED FLOWS ALT 2:
5 YR. = 16 CFS
100 YR. = 141 CFS

LOT 1, AFT RANCH SUB FILING 1
RR-5 ZONING

PRE-DEVELOPMENT FLOWS:
5 YR. = 5 CFS
100 YR. = 27 CFS

DEVELOPED FLOWS:
5 YR. = 0.5 CFS
100 YR. = 3 CFS

EXIST. CULVERT 50% SILTED IN

HP

LP

HOWELLS ROAD

ALTERNATIVE 1
POND 1
TOTAL INFLOW:
5 YR. = 48 CFS
100 YR. = 215 CFS

OUTFLOW:
5 YR. = 0.8 CFS
100 YR. = 134 CFS

EURV REQ. = 0.96 AC-FT.
TOTAL BASIN = 6.4 AC.-FT.

ALTERNATIVE 2
POND 1
TOTAL INFLOW:
5 YR. = 29 CFS
100 YR. = 105 CFS

OUTFLOW:
5 YR. = 0.5 CFS
100 YR. = 58 CFS

EURV REQ. = 0.64 AC-FT.
TOTAL BASIN = 3.0 AC.-FT.

OS-2 8.9 (SEE OFF-SITE BASIN MAP)

UNPLATTED RR-5 ZONING (5 AC. LOTS FULLY DEVELOPED)

MOUNTAIN VIEW DR.

SINGLE FAMILY RESIDENTIAL 1-2 DU/AC.

ALTERNATIVE 1
EXIST. STOCK POND TO BE REMOVED WITH DEVELOPMENT WITHIN BASIN A. OFF-SITE FLOWS CAPTURED IN POND 1.

ALTERNATIVE 2
EXIST. STOCK POND TO REMAIN AND CULVERT W/DOWNSTREAM STORM SYSTEM INSTALLED TO COLLECT 100 YR. FLOWS AND BY-PASS POND 1

EXIST. MULTIPLE CULVERTS COMPLETELY SILTED IN

OS-1 87.1 (SEE OFF-SITE BASIN MAP)

UNPLATTED RR-5 ZONING (5 AC. LOTS FULLY DEVELOPED)

UNPLATTED PUD A ZONING

OS-3 6.5

EXIST. BRIARGATE MAINT. FACILITY

EXIST. CULVERT SILTED IN

EXIST. CULVERT SILTED IN

UNPLATTED PUD A ZONING

HOWELLS ROAD

ARROWHEAD DR.

N

200 100 0 200 400

SCALE: 1" = 200'

MASTER DEVELOPMENT DRAINAGE PLAN ~ SURFACE ROUTING SUMMARY

Design Point(s)	Contributing Basins	Equivalent CA(5)	Equivalent CA(100)	Maximum Tc	Intensity I(5)	Intensity I(100)	Flow Q(5)	Flow Q(100)
D1	B	0.18	0.59	23.3	2.86	4.80	0.5	3
D2	C	0.28	0.90	17.2	3.31	5.56	0.9	5
ALTERNATIVE 1								
D3	OS-1, OS-2, OS-3 and A (TOTAL INFLOW TO POND 1)	**21.75**	**58.54**	**36.5**	**2.19**	**3.67**	**48**	**215**
D4	POND 1 RELEASE and D	SEE POND PACK CALCULATIONS					7	108
ALTERNATIVE 2								
D3	OS-2, OS-3 and A (TOTAL INFLOW TO POND 1)	**11.30**	**24.57**	**28.9**	**2.54**	**4.26**	**29**	**105**
D4	POND 1 RELEASE and OS-1 & D	SEE POND PACK CALCULATIONS					16	141
D5	G	0.13	0.43	21.0	3.01	5.06	0.4	2
D6	E	0.47	1.52	22.2	2.93	4.93	1.4	7
D7	F	25.70	33.69	26.7	2.66	4.46	68	150

MASTER DEVELOPMENT DRAINAGE PLAN ~ BASIN RUNOFF SUMMARY

BASIN	WEIGHTED			OVERLAND				STREET / CHANNEL FLOW				Tc	INTENSITY			TOTAL FLOWS		
	CA(2)	CA(5)	CA(100)	C(5)	Length (ft)	Height (ft)	Tc (min)	Length (ft)	Slope (%)	Velocity (fps)	Tc (min)	TOTAL (min)	I(2) (in/hr)	I(5) (in/hr)	I(100) (in/hr)	Q(2) (cfs)	Q(5) (cfs)	Q(100) (cfs)
OS-1	4.36	10.45	33.97	0.12	300	14	18.4	2200	3.5%	2.4	15.1	33.5	1.86	2.32	3.89	8	**24**	**132**
OS-2	0.45	1.07	3.47	0.12	300	12	19.4	270	3.7%	1.9	2.3	21.7	2.37	2.96	4.98	1	**3**	**17**
OS-3	1.28	1.59	3.02	0.09	300	10	21.2	500	3.2%	1.8	4.7	25.9	2.16	2.70	4.54	3	**4**	**14**
A	5.90	8.65	18.08	0.22	100	2	12.6	1800	2.0%	2.8	10.6	23.2	2.29	2.86	4.81	14	**25**	**87**
B	0.08	0.18	0.59	0.12	300	11	20.0	450	5.0%	2.2	3.4	23.3	2.29	2.86	4.80	0.2	**0.5**	**3**
C	0.12	0.28	0.90	0.08	200	7	17.2					17.2	2.65	3.31	5.56	0.3	**0.9**	**5**
D	0.49	1.35	4.67	0.08	200	20	12.2	500	3.0%	1.7	4.8	17.0	2.66	3.33	5.60	1	**5**	**26**
E	0.20	0.47	1.52	0.12	300	8	22.2					22.2	2.35	2.93	4.93	0.5	**1.4**	**7**
F	23.41	25.70	33.69	0.45	100	2	9.3	3600	3.0%	3.5	17.3	26.7	2.13	2.66	4.46	50	**68**	**150**
G	0.05	0.13	0.43	0.12	300	14	18.4	350	5.0%	2.2	2.6	21.0	2.41	3.01	5.06	0.1	**0.4**	**2**

CLASSIC CONSULTING SM

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KETTLE CREEK NORTH
MASTER DEVELOPMENT DRAINAGE PLAN
DEVELOPED DRAINAGE MAP

CLASSIC CONSULTING

DESIGNED BY	MAW	SCALE		DATE	6-1-19
DRAWN BY	MAW	(H) 1"= 200'		SHEET	2 OF 2
CHECKED BY		(V) 1"= N/A		JOB NO.	2470.80

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