POND 202 DRIVEWAY CULVERT

Qin = 8.14 CFS @ 12.30 HRS, VOLUME= .83 AF
Qout= 8.30 CFS @ 12.31 HRS, VOLUME= .83 AF, ATTEN= 0%, LAG= .1 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
114.4	100	0	0
116.0	300	320	320

STOR-IND METHOD
PEAK STORAGE = 383 CF
PEAK ELEVATION= 116.3 FT
FLOOD ELEVATION= 116.0 FT
START ELEVATION= 114.4 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 2.7 MIN (.82 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	114.4'	**8" CULVERT** n=.03 L=20' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	115.9'	**20' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.44, 1.44, 0, 0, 0, 0

POND 250 CATCH BASIN

Qin = 15.36 CFS @ 12.36 HRS, VOLUME= 1.70 AF
Qout= 15.36 CFS @ 12.36 HRS, VOLUME= 1.70 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
109.5	13	0	0
113.6	13	51	51
113.7	2000	101	152

STOR-IND METHOD
PEAK STORAGE = 25 CF
PEAK ELEVATION= 111.5 FT
FLOOD ELEVATION= 113.7 FT
START ELEVATION= 109.5 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= .1 MIN (1.7 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	109.5'	**30" CULVERT** n=.01 L=10' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.6'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 5.50 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	4.64	24.4	11%75 56%58 4%83 29%72	65	-	6.44	12.32	.70
2	6.00	22.6	13%75 48%58 13%87 27%80	70	-	10.59	12.29	1.11
3	2.10	30.4	36%83 64%72	76	-	4.05	12.38	.47

POND ROUTING BY STOR-IND METHOD

POND NO.	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	PEAK FLOW Qin (CFS)	PEAK FLOW Qout (CFS)	PEAK FLOW Qpri (CFS)	PEAK FLOW Qsec (CFS)	Qout ATTEN. (%)	Qout LAG (MIN)
200	110.0	113.5	112.4	.06	20.74	20.35			2	3.0
201	115.3	118.0	117.4	.03	10.59	10.47			1	.1
202	114.4	116.0	116.4	.01	10.47	10.39			1	0.0
250	109.5	113.7	111.9	0.00	20.35	20.35			0	0.0

SUBCATCHMENT 1 AREA NW OF PROJECT

PEAK= 6.44 CFS @ 12.32 HRS, VOLUME= .70 AF

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

ACRES	CN	
.50	75	HYD B 1/4 AC HOUSE LOTS
2.60	58	HYD B WOODS/GRASS GOOD COND.
.20	83	HYD C 1/4 AC HOUSE LOTS
1.34	72	HYD C WOODS/GRASS GOOD COND.
4.64	65	

Method	Comment	Tc (min)
TR-55 SHEET FLOW	NEAR SUMMIT ST.	8.6
Grass: Short n=.15 L=100' P2=3 in s=.03 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	FOLLOWING SHEET FLOW	6.9
Woodland Kv=5 L=360' s=.03 '/'	V=.87 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	STEEPER SLOPED AREA	2.0
Woodland Kv=5 L=190' s=.1 '/'	V=1.58 fps	
SHALLOW CONCENTRATED/UPLAND FLOW	FLAT AREA BEHIND HOUSES	6.9
Short Grass Pasture Kv=7 L=290'	s=.01 '/' V=.7 fps	
	Total Length= 940 ft	Total Tc= 24.4

SUBCATCHMENT 2 SW AREA CORNER SUMMIT/ALLEN AVE

PEAK= 10.59 CFS @ 12.29 HRS, VOLUME= 1.11 AF

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

ACRES	CN	
.75	75	HYD B 1/4 AC HOUSE LOTS
2.85	58	HYD B WOODS/GRASS GOOD COND.
.80	87	HYD D 1/4 AC HOUSE LOTS
1.60	80	HYD D LAWNS GOOD COND.
6.00	70	

Method	Comment	Tc (min)
TR-55 SHEET FLOW	BACK OF HOUSES	13.4
Grass: Short n=.15 L=100' P2=3 in s=.01 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	AFTER SHEET FLOW	8.2
Woodland Kv=5 L=350' s=.02 '/'	V=.71 fps	
RECT/VEE/TRAP CHANNEL	DITCH ALONG PROPERTY LINE	1.0
W=3' D=1' SS= .1 '/' a=13 sq-ft Pw=23.1' r=.563'		
s=.01 '/' n=.033 V=3.07 fps L=175' Capacity=39.9 cfs		
	Total Length= 625 ft	Total Tc= 22.6

SUBCATCHMENT 3 EAST OF PROJECT

PEAK= 4.05 CFS @ 12.38 HRS, VOLUME= .47 AF

ACRES	CN	
.75	83	HYD C 1/4 ACRE HOUSE LOTS
1.35	72	HYD C WOODS/GRASS GOOD COND.
2.10	76	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	COR ROARING BROOK	22.2
Woods: Light underbrush n=.4 L=100' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	AFTER SHEET FLOW	8.2
Woodland Kv=5 L=350' s=.02 '/' V=.71 fps		
	Total Length= 450 ft Total Tc=	30.4

POND 200 CULVERT AND CB AT ALLEN AVE.

Qin = 20.74 CFS @ 12.32 HRS, VOLUME= 2.28 AF
Qout= 20.35 CFS @ 12.37 HRS, VOLUME= 2.27 AF, ATTEN= 2%, LAG= 3.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
109.8	100	0	0
110.0	400	50	50
112.0	1550	1950	2000
113.0	2200	1875	3875
114.0	5000	3600	7475

STOR-IND METHOD
PEAK STORAGE = 2809 CF
PEAK ELEVATION= 112.4 FT
FLOOD ELEVATION= 113.5 FT
START ELEVATION= 110.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 4.3 MIN (2.25 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	110.0'	**24" CULVERT** n=.01 L=12' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.6'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.44, 1.44, 0, 0, 0, 0
3	P	110.9'	**12" CULVERT** n=.01 L=18' S=.01'/' Ke=.5 Cc=.9 Cd=.6

POND 201 DRIVEWAY CULVERT

Qin = 10.59 CFS @ 12.29 HRS, VOLUME= 1.11 AF
Qout= 10.47 CFS @ 12.29 HRS, VOLUME= 1.11 AF, ATTEN= 1%, LAG= .1 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
115.3	100	0	0
116.0	420	182	182
118.0	1100	1520	1702

STOR-IND METHOD
PEAK STORAGE = 1236 CF
PEAK ELEVATION= 117.4 FT
FLOOD ELEVATION= 118.0 FT
START ELEVATION= 115.3 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 5.8 MIN (1.11 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	115.3'	**8" CULVERT** n=.03 L=20' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	116.9'	**10' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.44, 1.44, 0, 0, 0, 0

POND 202 DRIVEWAY CULVERT

Qin = 10.47 CFS @ 12.29 HRS, VOLUME= 1.11 AF
Qout= 10.39 CFS @ 12.29 HRS, VOLUME= 1.10 AF, ATTEN= 1%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
114.4	100	0	0
116.0	300	320	320

STOR-IND METHOD
PEAK STORAGE = 407 CF
PEAK ELEVATION= 116.4 FT
FLOOD ELEVATION= 116.0 FT
START ELEVATION= 114.4 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 2.4 MIN (1.1 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	114.4'	**8" CULVERT** n=.03 L=20' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	115.9'	**20' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.44, 1.44, 0, 0, 0, 0

POND 250 CATCH BASIN

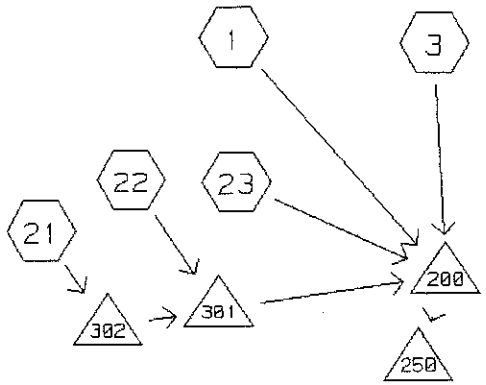
Qin = 20.35 CFS @ 12.37 HRS, VOLUME= 2.27 AF
Qout= 20.35 CFS @ 12.37 HRS, VOLUME= 2.27 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
109.5	13	0	0
113.6	13	51	51
113.7	2000	101	152

STOR-IND METHOD
PEAK STORAGE = 30 CF
PEAK ELEVATION= 111.9 FT
FLOOD ELEVATION= 113.7 FT
START ELEVATION= 109.5 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 0 MIN (2.27 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	109.5'	**30" CULVERT** n=.01 L=10' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.6'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

WATERSHED ROUTING



SUBCATCHMENT REACH POND LINK

SUBCATCHMENT 1	= AREA NW OF PROJECT	-> POND 200
SUBCATCHMENT 3	= EAST OF PROJECT	-> POND 200
SUBCATCHMENT 21	= NORT SIDE OF SUB.#2	-> POND 302
SUBCATCHMENT 22	= AREA WITH EXISTING HOUSE	-> POND 301
SUBCATCHMENT 23	= WEST END SUB. #2	-> POND 200
POND 200	= CULVERT AND CB AT ALLEN AVE.	-> POND 250
POND 250	= CATCH BASIN	->
POND 301	= CULVERT AT NEW DRIVEWAY	-> POND 200
POND 302	= REPLACEMENT CULVERT AT DRIVEWAY	-> POND 301

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 3.00 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	4.57	22.4	11%75 57%58 4%83 28%72	65	-	1.28	12.36	.17
3	2.10	30.4	36%83 64%72	76	-	1.33	12.41	.16
21	5.34	29.4	14%87 53%58 17%80 15%75	69	-	2.03	12.44	.26
22	.36	14.8	44%87 56%80	83	-	.44	12.17	.04
23	.37	59.3	54%87 19%72 27%80	82	-	.23	12.78	.04

POND ROUTING BY STOR-IND METHOD

POND NO.	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	PEAK FLOW Qin (CFS)	PEAK FLOW Qout (CFS)	PEAK FLOW Qpri (CFS)	PEAK FLOW Qsec (CFS)	Qout ATTEN. (%)	Qout LAG (MIN)
200	110.0	114.0	111.1	.03	4.93	4.89			1	2.2
250	109.5	113.7	110.5	0.00	4.89	4.89			0	0.0
301	112.0	115.0	112.8	0.00	2.21	2.22			0	1.0
302	116.0	118.0	116.7	.01	2.03	1.99			2	3.6

SUBCATCHMENT 1 AREA NW OF PROJECT

PEAK= 1.28 CFS @ 12.36 HRS, VOLUME= .17 AF

ACRES	CN	
.50	75	HYD B 1/4 AC HOUSE LOTS
2.60	58	HYD B WOODS/GRASS GOOD COND.
.20	83	HYD C 1/4 AC HOUSE LOTS
1.27	72	HYD C WOODS/GRASS GOOD COND.
4.57	65	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	NEAR SUMMIT ST.	8.6
Grass: Short n=.15 L=100' P2=3 in s=.03 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	FOLLOWING SHEET FLOW	6.9
Woodland Kv=5 L=360' s=.03 '/' V=.87 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	STEEPER SLOPED AREAS	2.0
Woodland Kv=5 L=190' s=.1 '/' V=1.58 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	FLAT AREA BEHIND HOUSES	4.9
Short Grass Pasture Kv=7 L=290' s=.02 '/' V=.99 fps		
	Total Length= 940 ft Total Tc=	22.4

SUBCATCHMENT 3 EAST OF PROJECT

PEAK= 1.33 CFS @ 12.41 HRS, VOLUME= .16 AF

ACRES	CN	
.75	83	HYD C 1/4 ACRE HOUSE LOTS
1.35	72	HYD C WOODS/GRASS GOOD COND
2.10	76	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	COR ROARING BROOK	22.2
Woods: Light underbrush n=.4 L=100' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	AFTER SHEET FLOW	8.2
Woodland Kv=5 L=350' s=.02 '/' V=.71 fps		
	Total Length= 450 ft Total Tc=	30.4

SUBCATCHMENT 21 NORT SIDE OF SUB.#2

PEAK= 2.03 CFS @ 12.44 HRS, VOLUME= .26 AF

ACRES	CN	
.77	87	1/4 AC LOTS D SOIL
2.85	58	WOODS B SOIL GOOD COND.
.92	80	LAWNS D SOIL GOOD COND
.80	75	HYD B 1/4 AC HOUSE LOTS
5.34	69	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Grass: Short n=.15 L=100' P2=3 in s=.01 '/'	BEHIND SUMMIT ST. HOUSES	13.4
SHALLOW CONCENTRATED/UPLAND FLOW Woodland Kv=5 L=450' s=.01 '/' V=.5 fps	FOLLOWING SHEET FLOW	15.0
RECT/VEE/TRAP CHANNEL W=1' D=2' SS= .33 '/' a=14.12 sq-ft Pw=13.8' r=1.026' s=.02 '/' n=.033 V=6.48 fps L=255' Capacity=91.5 cfs	NEW DITCH LOTS 1 & 2	.7
RECT/VEE/TRAP CHANNEL W=2' D=3' SS= .33 '/' a=33.27 sq-ft Pw=21.1' r=1.573' s=.01 '/' n=.035 V=5.74 fps L=100' Capacity=191.1 cfs	ROAD DITCH	.3
	Total Length= 905 ft Total Tc=	29.4

SUBCATCHMENT 22 AREA WITH EXISTING HOUSE

PEAK= .44 CFS @ 12.17 HRS, VOLUME= .04 AF

ACRES	CN	
.16	87	1/4 ACRE LOT D SOIL
.20	80	LAWN D SOIL
.36	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Grass: Short n=.15 L=100' P2=3 in s=.01 '/'	ALONG LAWN	13.4
SHALLOW CONCENTRATED/UPLAND FLOW Grassed Waterway Kv=15 L=125'	AFTER LAWN s=.01 '/' V=1.5 fps	1.4
	Total Length= 225 ft Total Tc=	14.8

SUBCATCHMENT 23 WEST END SUB. #2

PEAK= .23 CFS @ 12.78 HRS, VOLUME= .04 AF

ACRES	CN	
.20	87	1/4 ACRE HOUSE LOTS D SOIL
.07	72	HYD C WOODS/GRASS FROM SUB 3
.10	80	LAWNS D SOIL GOOD COND
.37	82	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Woods: Dense underbrush n=.8 L=100' P2=3 in s=.01 '/'	NEAR PROPERTY LINE	51.0
SHALLOW CONCENTRATED/UPLAND FLOW Woodland Kv=5 L=250' s=.01 '/' V=.5 fps	AFTER SHEET FLOW	8.3
	Total Length= 350 ft	Total Tc= 59.3

POND 200 CULVERT AND CB AT ALLEN AVE.

Qin = 4.93 CFS @ 12.44 HRS, VOLUME= .67 AF
Qout= 4.89 CFS @ 12.48 HRS, VOLUME= .66 AF, ATTEN= 1%, LAG= 2.2 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
109.8	100	0	0
110.0	400	50	50
112.0	1550	1950	2000
113.0	2200	1875	3875
114.0	5000	3600	7475

STOR-IND METHOD
PEAK STORAGE = 1104 CF
PEAK ELEVATION= 111.1 FT
FLOOD ELEVATION= 114.0 FT
START ELEVATION= 110.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 7.8 MIN (.66 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	110.0'	**24" CULVERT** n=.01 L=12' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.5'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.44, 1.44, 0, 0, 0, 0
3	P	110.9'	**12" CULVERT** n=.01 L=18' S=.01'/' Ke=.5 Cc=.9 Cd=.6

POND 250 CATCH BASIN

Qin = 4.89 CFS @ 12.48 HRS, VOLUME= .66 AF
Qout= 4.89 CFS @ 12.48 HRS, VOLUME= .66 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
109.5	13	0	0
113.6	13	51	51
113.7	2000	101	152

STOR-IND METHOD
PEAK STORAGE = 13 CF
PEAK ELEVATION= 110.5 FT
FLOOD ELEVATION= 113.7 FT
START ELEVATION= 109.5 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= .1 MIN (.66 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	109.5'	**30" CULVERT** n=.01 L=10' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.6'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

POND 301 CULVERT AT NEW DRIVEWAY

Qin = 2.21 CFS @ 12.47 HRS, VOLUME= .30 AF
Qout= 2.22 CFS @ 12.48 HRS, VOLUME= .30 AF, ATTEN= 0%, LAG= 1.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
112.0	100	0	0
114.0	350	450	450
115.0	900	625	1075

STOR-IND METHOD
PEAK STORAGE = 180 CF
PEAK ELEVATION= 112.8 FT
FLOOD ELEVATION= 115.0 FT
START ELEVATION= 112.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 2.4 MIN (.3 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	112.0'	**15" CULVERT** n=.01 L=20' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.9'	**10' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

POND 302 REPLACEMENT CULVERT AT DRIVEWAY

Qin = 2.03 CFS @ 12.44 HRS, VOLUME= .26 AF
Qout= 1.99 CFS @ 12.50 HRS, VOLUME= .26 AF, ATTEN= 2%, LAG= 3.6 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
116.0	420	0	0
118.0	1100	1520	1520

STOR-IND METHOD
PEAK STORAGE = 570 CF
PEAK ELEVATION= 116.7 FT
FLOOD ELEVATION= 118.0 FT
START ELEVATION= 116.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 8.5 MIN (.26 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	116.0'	**15" CULVERT** n=.01 L=20' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	117.9'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 4.70 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	4.57	22.4	11%75 57%58 4%83 28%72	65	-	4.64	12.30	.50
3	2.10	30.4	36%83 64%72	76	-	3.13	12.39	.37
21	5.34	29.4	14%87 53%58 17%80 15%75	69	-	5.97	12.39	.71
22	.36	14.8	44%87 56%80	83	-	.89	12.16	.08
23	.37	59.3	54%87 19%72 27%80	82	-	.48	12.75	.08

Data for 99161 SCOTT MCMULLIN ALLEN AVE ALB 10/20/99 DEV
TYPE III 24-HOUR RAINFALL 10 YR STORM = 4.70"

20 Oct 99

Prepared by Pinkham & Greer

POND ROUTING BY STOR-IND METHOD

POND NO.	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	PEAK FLOW Qin (CFS)	PEAK FLOW Qout (CFS)	PEAK FLOW Qpri (CFS)	PEAK FLOW Qsec (CFS)	Qout ATTEN. (%)	Qout LAG (MIN)
200	110.0	114.0	111.9	.04	13.93	13.93			0	1.4
250	109.5	113.7	111.4	0.00	13.93	13.94			0	0.0
301	112.0	115.0	113.8	.01	6.30	6.29			0	1.2
302	116.0	118.0	117.6	.03	5.97	5.82			3	3.6

SUBCATCHMENT 1 AREA NW OF PROJECT

PEAK= 4.64 CFS @ 12.30 HRS, VOLUME= .50 AF

ACRES	CN	
.50	75	HYD B 1/4 AC HOUSE LOTS
2.60	58	HYD B WOODS/GRASS GOOD COND.
.20	83	HYD C 1/4 AC HOUSE LOTS
1.27	72	HYD C WOODS/GRASS GOOD COND.
4.57	65	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	NEAR SUMMIT ST.	8.6
Grass: Short n=.15 L=100' P2=3 in s=.03 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	FOLLOWING SHEET FLOW	6.9
Woodland Kv=5 L=360' s=.03 '/' V=.87 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	STEEPER SLOPED AREAS	2.0
Woodland Kv=5 L=190' s=.1 '/' V=1.58 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	FLAT AREA BEHIND HOUSES	4.9
Short Grass Pasture Kv=7 L=290' s=.02 '/' V=.99 fps		
	Total Length= 940 ft Total Tc=	22.4

SUBCATCHMENT 3 EAST OF PROJECT

PEAK= 3.13 CFS @ 12.39 HRS, VOLUME= .37 AF

ACRES	CN	
.75	83	HYD C 1/4 ACRE HOUSE LOTS
1.35	72	HYD C WOODS/GRASS GOOD COND.
2.10	76	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	COR ROARING BROOK	22.2
Woods: Light underbrush n=.4 L=100' P2=3 in s=.02 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	AFTER SHEET FLOW	8.2
Woodland Kv=5 L=350' s=.02 '/' V=.71 fps		
	Total Length= 450 ft Total Tc=	30.4

SUBCATCHMENT 21 NORT SIDE OF SUB.#2

PEAK= 5.97 CFS @ 12.39 HRS, VOLUME= .71 AF

ACRES	CN	
.77	87	1/4 AC LOTS D SOIL
2.85	58	WOODS B SOIL GOOD COND.
.92	80	LAWNS D SOIL GOOD COND
.80	75	HYD B 1/4 AC HOUSE LOTS
5.34	69	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	**BEHIND SUMMIT ST. HOUSES**	13.4
Grass: Short n=.15 L=100' P2=3 in s=.01 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	**FOLLOWING SHEET FLOW**	15.0
Woodland Kv=5 L=450' s=.01 '/' V=.5 fps		
RECT/VEE/TRAP CHANNEL	**NEW DITCH LOTS 1 & 2**	.7
W=1' D=2' SS= .33 '/' a=14.12 sq-ft Pw=13.8' r=1.026'		
s=.02 '/' n=.033 V=6.48 fps L=255' Capacity=91.5 cfs		
RECT/VEE/TRAP CHANNEL	**ROAD DITCH**	.3
W=2' D=3' SS= .33 '/' a=33.27 sq-ft Pw=21.1' r=1.573'		
s=.01 '/' n=.035 V=5.74 fps L=100' Capacity=191.1 cfs		
	Total Length= 905 ft Total Tc=	29.4

SUBCATCHMENT 22 AREA WITH EXISTING HOUSE

PEAK= .89 CFS @ 12.16 HRS, VOLUME= .08 AF

ACRES	CN	
.16	87	1/4 ACRE LOT D SOIL
.20	80	LAWN D SOIL
.36	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	**ALONG LAWN**	13.4
Grass: Short n=.15 L=100' P2=3 in s=.01 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	**AFTER LAWN**	1.4
Grassed Waterway Kv=15 L=125'	s=.01 '/' V=1.5 fps	
	Total Length= 225 ft Total Tc=	14.8

SUBCATCHMENT 23 WEST END SUB. #2

PEAK= .48 CFS @ 12.75 HRS, VOLUME= .08 AF

ACRES	CN	
.20	87	1/4 ACRE HOUSE LOTS D SOIL
.07	72	HYD C WOODS/GRASS FROM SUB 3
.10	80	LAWNS D SOIL GOOD COND
.37	82	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	NEAR PROPERTY LINE	51.0
Woods: Dense underbrush n=.8 L=100' P2=3 in s=.01 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	AFTER SHEET FLOW	8.3
Woodland Kv=5 L=250' s=.01 '/' V=.5 fps		
	Total Length= 350 ft Total Tc=	59.3

POND 200 CULVERT AND CB AT ALLEN AVE.

Qin = 13.93 CFS @ 12.38 HRS, VOLUME= 1.73 AF
Qout= 13.93 CFS @ 12.41 HRS, VOLUME= 1.72 AF, ATTEN= 0%, LAG= 1.4 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
109.8	100	0	0
110.0	400	50	50
112.0	1550	1950	2000
113.0	2200	1875	3875
114.0	5000	3600	7475

STOR-IND METHOD
PEAK STORAGE = 1872 CF
PEAK ELEVATION= 111.9 FT
FLOOD ELEVATION= 114.0 FT
START ELEVATION= 110.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 4.8 MIN (1.7 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	110.0'	**24" CULVERT** n=.01 L=12' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.5'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.44, 1.44, 0, 0, 0, 0
3	P	110.9'	**12" CULVERT** n=.01 L=18' S=.01'/' Ke=.5 Cc=.9 Cd=.6

POND 250 CATCH BASIN

Qin = 13.93 CFS @ 12.41 HRS, VOLUME= 1.72 AF
Qout= 13.94 CFS @ 12.41 HRS, VOLUME= 1.72 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
109.5	13	0	0
113.6	13	51	51
113.7	2000	101	152

STOR-IND METHOD
PEAK STORAGE = 24 CF
PEAK ELEVATION= 111.4 FT
FLOOD ELEVATION= 113.7 FT
START ELEVATION= 109.5 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= .1 MIN (1.72 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	109.5'	**30" CULVERT** n=.01 L=10' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.6'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

POND 301 CULVERT AT NEW DRIVEWAY

Qin = 6.30 CFS @ 12.43 HRS, VOLUME= .78 AF
Qout= 6.29 CFS @ 12.45 HRS, VOLUME= .78 AF, ATTEN= 0%, LAG= 1.2 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
112.0	100	0	0
114.0	350	450	450
115.0	900	625	1075

STOR-IND METHOD
PEAK STORAGE = 395 CF
PEAK ELEVATION= 113.8 FT
FLOOD ELEVATION= 115.0 FT
START ELEVATION= 112.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 1.6 MIN (.77 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	112.0'	**15" CULVERT** n=.01 L=20' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.9'	**10' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

POND 302 REPLACEMENT CULVERT AT DRIVEWAY

Qin = 5.97 CFS @ 12.39 HRS, VOLUME= .71 AF
Qout= 5.82 CFS @ 12.45 HRS, VOLUME= .70 AF, ATTEN= 3%, LAG= 3.6 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
116.0	420	0	0
118.0	1100	1520	1520

STOR-IND METHOD
PEAK STORAGE = 1227 CF
PEAK ELEVATION= 117.6 FT
FLOOD ELEVATION= 118.0 FT
START ELEVATION= 116.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 5.8 MIN (.7 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	116.0'	**15" CULVERT** n=.01 L=20' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	117.9'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

RUNOFF BY SCS TR-20 METHOD: TYPE III 24-HOUR RAINFALL= 5.50 IN, SCS U.H.

RUNOFF SPAN = 10-20 HRS, dt= .10 HRS, 101 POINTS

SUBCAT NUMBER	AREA (ACRE)	Tc (MIN)	--GROUND COVERS (%CN)--	WGT'D CN	C	PEAK (CFS)	Tpeak (HRS)	VOL (AF)
1	4.57	22.4	11%75 57%58 4%83 28%72	65	-	6.53	12.29	.69
3	2.10	30.4	36%83 64%72	76	-	4.05	12.38	.47
21	5.34	29.4	14%87 53%58 17%80 15%75	69	-	8.12	12.38	.95
22	.36	14.8	44%87 56%80	83	-	1.11	12.16	.10
23	.37	59.3	54%87 19%72 27%80	82	-	.60	12.75	.10

POND ROUTING BY STOR-IND METHOD

POND NO.	START ELEV. (FT)	FLOOD ELEV. (FT)	PEAK ELEV. (FT)	PEAK STORAGE (AF)	PEAK FLOW Qin (CFS)	PEAK FLOW Qout (CFS)	PEAK FLOW Qpri (CFS)	PEAK FLOW Qsec (CFS)	Qout ATTEN. (%)	Qout LAG (MIN)
200	110.0	114.0	112.3	.06	19.60	19.06			3	2.4
250	109.5	113.7	111.8	0.00	19.06	19.06			0	0.0
301	112.0	115.0	114.1	.01	9.46	9.19			3	.5
302	116.0	118.0	117.9	.03	8.12	8.81			0	1.1

SUBCATCHMENT 21 NORT SIDE OF SUB.#2

PEAK= 8.12 CFS @ 12.38 HRS, VOLUME= .95 AF

ACRES	CN	
.77	87	1/4 AC LOTS D SOIL
2.85	58	WOODS B SOIL GOOD COND.
.92	80	LAWNS D SOIL GOOD COND
.80	75	HYD B 1/4 AC HOUSE LOTS
5.34	69	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	BEHIND SUMMIT ST. HOUSES	13.4
Grass: Short n=.15 L=100' P2=3 in s=.01 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	FOLLOWING SHEET FLOW	15.0
Woodland Kv=5 L=450' s=.01 '/' V=.5 fps		
RECT/VEE/TRAP CHANNEL	NEW DITCH LOTS 1 & 2	.7
W=1' D=2' SS= .33 '/' a=14.12 sq-ft Pw=13.8' r=1.026'		
s=.02 '/' n=.033 V=6.48 fps L=255' Capacity=91.5 cfs		
RECT/VEE/TRAP CHANNEL	ROAD DITCH	.3
W=2' D=3' SS= .33 '/' a=33.27 sq-ft Pw=21.1' r=1.573'		
s=.01 '/' n=.035 V=5.74 fps L=100' Capacity=191.1 cfs		
	Total Length= 905 ft Total Tc=	29.4

SUBCATCHMENT 22 AREA WITH EXISTING HOUSE

PEAK= 1.11 CFS @ 12.16 HRS, VOLUME= .10 AF

ACRES	CN	
.16	87	1/4 ACRE LOT D SOIL
.20	80	LAWN D SOIL
.36	83	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	ALONG LAWN	13.4
Grass: Short n=.15 L=100' P2=3 in s=.01 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	AFTER LAWN	1.4
Grassed Waterway Kv=15 L=125'	s=.01 '/' V=1.5 fps	
	Total Length= 225 ft Total Tc=	14.8

SUBCATCHMENT 23 WEST END SUB. #2

PEAK= .60 CFS @ 12.75 HRS, VOLUME= .10 AF

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

ACRES	CN	
.20	87	1/4 ACRE HOUSE LOTS D SOIL
.07	72	HYD C WOODS/GRASS FROM SUB 3
.10	80	LAWNS D SOIL GOOD COND
.37	82	

Method	Comment	Tc (min)
TR-55 SHEET FLOW	NEAR PROPERTY LINE	51.0
Woods: Dense underbrush n=.8 L=100' P2=3 in s=.01 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	AFTER SHEET FLOW	8.3
Woodland Kv=5 L=250' s=.01 '/' V=.5 fps		
	Total Length= 350 ft Total Tc=	59.3

POND 200 CULVERT AND CB AT ALLEN AVE.

Qin = 19.60 CFS @ 12.38 HRS, VOLUME= 2.31 AF
Qout= 19.06 CFS @ 12.42 HRS, VOLUME= 2.30 AF, ATTEN= 3%, LAG= 2.4 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
109.8	100	0	0
110.0	400	50	50
112.0	1550	1950	2000
113.0	2200	1875	3875
114.0	5000	3600	7475

STOR-IND METHOD
PEAK STORAGE = 2579 CF
PEAK ELEVATION= 112.3 FT
FLOOD ELEVATION= 114.0 FT
START ELEVATION= 110.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 4.3 MIN (2.3 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	110.0'	**24" CULVERT** n=.01 L=12' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.5'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.44, 1.44, 0, 0, 0, 0
3	P	110.9'	**12" CULVERT** n=.01 L=18' S=.01'/' Ke=.5 Cc=.9 Cd=.6

POND 250 CATCH BASIN

Qin = 19.06 CFS @ 12.42 HRS, VOLUME= 2.30 AF
Qout= 19.06 CFS @ 12.42 HRS, VOLUME= 2.30 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
109.5	13	0	0
113.6	13	51	51
113.7	2000	101	152

STOR-IND METHOD
PEAK STORAGE = 29 CF
PEAK ELEVATION= 111.8 FT
FLOOD ELEVATION= 113.7 FT
START ELEVATION= 109.5 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 0 MIN (2.27 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	109.5'	**30" CULVERT** n=.01 L=10' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.6'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

POND 301 CULVERT AT NEW DRIVEWAY

Qin = 9.46 CFS @ 12.40 HRS, VOLUME= 1.04 AF
Qout= 9.19 CFS @ 12.40 HRS, VOLUME= 1.04 AF, ATTEN= 3%, LAG= .5 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
112.0	100	0	0
114.0	350	450	450
115.0	900	625	1075

STOR-IND METHOD
PEAK STORAGE = 499 CF
PEAK ELEVATION= 114.1 FT
FLOOD ELEVATION= 115.0 FT
START ELEVATION= 112.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 1.5 MIN (1.03 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	112.0'	**15" CULVERT** n=.01 L=20' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	113.9'	**10' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

POND 302 REPLACEMENT CULVERT AT DRIVEWAY

Qin = 8.12 CFS @ 12.38 HRS, VOLUME= .95 AF
Qout= 8.81 CFS @ 12.40 HRS, VOLUME= .94 AF, ATTEN= 0%, LAG= 1.1 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
116.0	420	0	0
118.0	1100	1520	1520

STOR-IND METHOD
PEAK STORAGE = 1480 CF
PEAK ELEVATION= 117.9 FT
FLOOD ELEVATION= 118.0 FT
START ELEVATION= 116.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 5.2 MIN (.93 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	116.0'	**15" CULVERT** n=.01 L=20' S=.01'/' Ke=.5 Cc=.9 Cd=.6
2	P	117.9'	**50' BROAD-CRESTED RECTANGULAR WEIR X 1.81** Q=C L H^1.5 C=1.48, 1.45, 1.45, 1.44, 0, 0, 0, 0

Richard L. Whitmore
676 Allen Avenue
Portland, Maine 04103
Home Phone 797-3446

November 05, 1999

Joseph E. Gray, Jr.
Director of Planning and Urban Development
Portland City Hall, 4th Floor
389 Congress Street
Portland, Maine 04101

Dear Mr. Gray,,

Thank you for informing me of the meeting on November 9,1999, concerning Scott Mc Mullin's plan to develop a 4-lot residential subdivision next door to my property. Unfortunately I am unable to attend the Planning Board meeting therefore I am sending you my thoughts and concerns in writing. Please convey my concerns to the Planning Board.

Having been a resident of 676 Allen Avenue for 35 years I am very concerned with maintaining the residential quality of the neighborhood. I assume that the quality of homes Mr. McMullin will be developing will meet neighborhood and city standards. This concern arose for me only when I reviewed the rough plans and the proposal for a 10,446 sq. ft. lot.

My major concern involves the disruption of the water level and flow of water adjacent to my lot. The water level in this particular area is extremely high and fragile. Any plans to build in this area must take into consideration the impact excavation may have on the flow of the drain water and the water level itself.

Obviously, I do not have the knowledge or expertise in this area to correctly address the problem but please understand that the area has drainage problems and I would not want to be trying to correct the problem after the construction is completed.

I do not object to the proposed development . Thank you for this opportunity and as usual I have great respect for the cities professional staff.

Sincerely,

Richard L. Whitmore
676 Allen Avenue

Ross A. Cudlitz, PE
PO Box 794
So. Freeport, Maine 04078

Engineering Assistance & Design (**EA&D**), Inc.
Phone/Fax: 207 - 846 - 0839
Page: 207-681-9243

November 8, 1999

Mr. John Flynn, Esq.
Troubh, Heisler & Piampiano
PO Box 9711
Portland, Maine 04104-5011

RE: "McMullin Subdivision; Allen Ave." – Portland

Dear John:

Pursuant with your request, I have reviewed information for the subject project from various sources and have the following comments:

This correspondence is to be used in conjunction with the photo copy mark-up of the Pinkham & Greer Plan # C-1, Rev. 2, Dated 10/14/99, that I dropped off at yours and Pinkham & Greer offices this AM.

Objectives

- Evaluate if the practices used by the Applicant's consultants are accurate and sound.
- Evaluate if there will be any adverse impacts to your client, Charles Esbach.

Information and Sources

- Site inspection/meeting with Charlie Esbach (EA&D)
- Stormwater Calculations/Subdivision Plans (Pinkham & Greer)
- Proposed Drainage after Grading Plan, by Pinkham & Greer (Charlie Esbach)
- Addtional narrative information (Pinkham & Greer)
- Meeting at Pinkham & Greer

Evaluation

- The HydroCAD, Tr-20 based model used by the engineers to evaluate the pre and post condition of the watershed this project lies in has been applied correctly and within the parameters of standard practices and sound judgment. Any deviations in the input and output data are well within the parameters and capabilities of said model.

Please refer to the aforementioned marked up plan for this portion:

- In order to assure that the drainage patterns will be constructed as designed and assumed by the engineer deed restrictions and easements need to be placed on the recordable plat such as:

1. Conveyance of surface flow from the land of N/F Zayas to Allen Ave., via bisecting Lot 2 and following the northern property line of Lot 4, as shown.
2. Conveyance of surface flow from the land of N/F proposed Lot 2, via the easterly or westerly side of the proposed driveway access (for Lot 2) to Allen Ave., as shown.
3. Conveyance of surface flows from the land of N/F Whitmore to Allen Ave., via the westerly property line, as shown.
4. Conveyance of surface flows for the southeasterly corner of N/F proposed Lot 3 to Allen Ave., via the property line between proposed Lots 3 & 4.
5. The existing City of Portland Easement is already established and will of course remain.

- In order to assure the capacity of the natural wetland soils to hold and transport surface water the following restrictions for the wetland area north of proposed Lot 4 should be established and placed on the recordable plat:

1. No additional cutting or disturbance, except that necessary to grade the land as shown on the approved plans.
2. No future permits be sought or applied for that entail disturbance of the wetland area after initial construction.
3. No fill material be added to the wetland area in the future, whether permitted or not, after that required to grade the ;land as shown on the approved plans.

Conclusion

The Applicant and his Engineers have submitted plans and calculations to date, given the density of the development, that are well thought out and executed.

With the aforementioned restrictions and easements placed on the land development it is not anticipated that there will be any future adverse impacts on your client, Charlie Esbach or his immediate neighbors.

If you, or any of the parties involved, have any questions please do not hesitate to call me at my office.

Sincerely,

RCG

Ross A. Cudlitz, PE

Cc: Alan Burnell, Pinkham & Greer

Department of Public Works

William J. Bray
Director

CITY OF PORTLAND

8 November 1999

Mr. Alan L. Burnell, C.S.S./L.S.E.
Pinkham & Greer, Consulting Engineers, Incorporated
170 U.S. Route One
Falmouth, Maine 04105

RE: The Capacity, of the City Sewer System, and The Portland Water District Sewage Treatment Facilities, to handle an Anticipated Increase in Wastewater Flows, from a Certain Proposed Residential Subdivision.

Dear Mr. Burnell:

The existing ten inch diameter asbestos concrete sanitary sewer pipe, located in Allen Avenue, City of Portland, and the Portland Water District sewage treatment facilities, located off Marginal Way, City of Portland, have adequate capacity to transport and treat the anticipated wastewater flows of 900 GPD, from your proposed subdivision, to be located off #696 +/- Allen Avenue, City of Portland.

Proposed Wastewater Flows from the Proposed Subdivision	
Proposed Two Single Family Units @ 270 GPD/Unit	= 540 GPD
Proposed One Single Family Unit @ 360 GPD/Unit	= 360 GPD
Total Proposed Increase in Wastewater Flows for this Project	**= 900 GPD**

If I can be of further assistance, please call me at 874-8832.

Sincerely,
CITY OF PORTLAND

Frank Brancely

Frank J. Brancely, BA, MA.
Senior Engineering Technician

FJB

cc: Joseph E. Gray, Director, Department of Planning, & Urban Development, City of Portland
Kandi Talbot, Planner, Dept. of Planning & Urban Development, City of Portland
Katherine A. Staples, PE, City Engineer, City of Portland
Bradley A. Roland, PE, Environmental Projects Engineer, City of Portland
Anthony W. Lombardo, PE, Project Engineer, City of Portland
Stephen K. Harris, Assistant Engineer, City of Portland
Desk File

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PINKHAM & GREER
CONSULTING ENGINEERS, INC.

170 U.S. Route One
Falmouth, Maine 04105
(207) 781-5242
(207) 781-4245

FAX MEMORANDUM

TO: Kandi Talbot

FAX #: 756-8258

FROM: Alan Burnell

DATE: November 17, 1999

RE: Scott McMullin Subdivision

FILE: 99161

# of Pages (including this one): 3

Dear Kandi, enclosed is the sewer capacity letter and the water capacity letter regarding the above captioned subdivision. Please let me know if you require further information.

Alan Burnell

Portland Water District

225 Douglass St. • P.O. Box 3553 • Portland, ME 04104-3553

(207) 774-5961
FAX (207) 761-8307
www.pwd.org

November 17, 1999

Alan Burnell
Pinkham & Greer
170 US Route One
Falmouth, Me 04105

Re: Allen Ave.-3/4 lot sub-division

Dear Alan

This letter is to confirm there should be an adequate supply of clean and healthful water to serve the needs of the proposed 3/4 lot sub-division off Allen Ave. North East of Summit St. in Portland. Checking District records, I find there is a 8" water main on the short side of the street in Allent Ave.

The current data from the nearest hydrant indicates there should be adequate capacity of water

Allen Ave. 500' North of Summit St.
Hydrant # 1430
Static pressure = 54 PSI
Flow = 805 GPM
Last Tested = 7/17/90

If the district can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

Jim Pandiscio
Means Coordinator

To: Alan Burnell
Co. Pinkham & Greer
Dept.
Fax No. 781-4245
Date 11/17/99
# of Pgs. 1
From Jim Pandiscio
Phone # 774-5961 Ext 3006
Portland Water District

Department of Public Works

William J. Bray
Director

CITY OF PORTLAND

8 November 1999

Mr. Alan L. Burnell, C.S.S./L.S.E.
Pinkham & Greer, Consulting Engineers, Incorporated
170 U.S. Route One
Falmouth, Maine 04105

RE: The Capacity, of the City Sewer System, and The Portland Water District Sewage Treatment Facilities, to handle an Anticipated Increase in Wastewater Flows, from a Certain Proposed Residential Subdivision.

Dear Mr. Burnell:

The existing ten inch diameter asbestos concrete sanitary sewer pipe, located in Allen Avenue, City of Portland, and the Portland Water District sewage treatment facilities, located off Marginal Way, City of Portland, have adequate capacity to transport and treat the anticipated wastewater flows of 900 GPD, from your proposed subdivision, to be located off #696 +/- Allen Avenue, City of Portland.

Proposed Wastewater Flows from the Proposed Subdivision	
Proposed Two Single Family Units @ 270 GPD/Unit	= 540 GPD
Proposed One Single Family Unit @ 360 GPD/Unit	= 360 GPD
Total Proposed Increase in Wastewater Flows for this Project	**= 900 GPD**

If I can be of further assistance, please call me at 874-8832.

Sincerely,
CITY OF PORTLAND

Frank J. Brancely, BA, MA.
Senior Engineering Technician

FJB

cc: Joseph E. Gray, Director, Department of Planning, & Urban Development, City of Portland
Kandi Talbot, Planner, Dept. of Planning & Urban Development, City of Portland
Katherine A. Staples, PE, City Engineer, City of Portland
Bradley A. Roland, PE, Environmental Projects Engineer, City of Portland
Anthony W. Lombardo, PE, Project Engineer, City of Portland
Stephen K. Harris, Assistant Engineer, City of Portland
Desk File

O:\Engshare\CSO\696Allen.Doc

COMMON ROADWAY AGREEMENT

SCOTT G. McMULLIN (the "DEVELOPER"), as owner of all lots and the proposed Roadway known as _____ (the "Roadway") all as shown on a plan prepared for Scott G. McMullin by _____ dated _____, _____ and recorded in the Cumberland County Registry of Deeds in Plan Book _____, Page _____, (the "Subdivision Plan"), hereby makes the Property subject to the following terms and conditions:

RECITALS

WHEREAS, the DEVELOPER is desirous of providing for the maintenance and repair of the Roadway; and

WHEREAS, the DEVELOPER will be selling some or all of the lots shown on the Subdivision Plan (the "Lots") to third parties and intends that the owner of each Lot share in the maintenance and repair of the Roadway; and

WHEREAS, the DEVELOPER intends that this writing evidence the agreement regarding the repair and maintenance of the Roadway;

NOW THEREFORE, in consideration of the above noted recitals and the conditions contained herein, it is agreed as follows:

A. MAINTENANCE: All Lot owners shall proportionally and equally share the maintenance, costs and responsibilities for the Roadway. Initially, the DEVELOPER as owner of all of the lots on the Roadway shall pay the total maintenance costs. Upon the conveyance by the DEVELOPER of any Lot and thereafter the Owner of each Lot shall pay annually 1/3 of the cost of total maintenance of the Roadway and be subject to the conditions below. If any Lot owner divides or subdivides their respective parcel of land, the fractional share of maintenance costs to be borne by each of the Lot owners shall be redetermined by dividing the total cost of maintaining the common road by the total number of parcels being served by the road, and the title holder(s) of each such parcel shall bear their fractional cost of maintaining the Roadway.

1. Snow Removal: The owners of all lots and the DEVELOPER shall meet annually on or about October 1st of each year to discuss snow removal. The parties, at that time, shall mutually agree on arrangements to remove snow from the Roadway for the ensuing winter.

In the event a third party contractor is hired to remove the snow, one party shall be responsible for initiating contact with the contractor and arranging for snow removal after each snowstorm. DEVELOPER shall be responsible for initiating contact and arranging for snow removal during the initial winter subsequent to the date of this agreement (for the purposes of this agreement, winter shall be defined as December 1st through March 15th). Every attempt shall be made to utilize the same third party contractor from year to year and to have the snow removed from the Roadway in the early morning after each snowfall of two or more inches.

2. Normal Maintenance: At their annual meeting on October 1st of each year, the parties shall discuss what annual maintenance, if any, is necessary to maintain the present condition of the Roadway. It is the understanding of the parties that the existing _____ (gravel/paved) Roadway shall continue to exist in its present condition and dimensions and that

future owners shall be bound to maintain the Roadway is such a state. In addition, the Roadway shall not be further improved (i.e., paved or widened), without the prior written consent of all parties.

B. OBSTRUCTION OF THE ROADWAY: No party hereto shall permanently or regularly hinder or obstruct passage along the Roadway.

C. UNPAID MAINTENANCE COSTS: If any amount due and owing under this Agreement, is not paid within thirty (30) days after such cost is incurred and written notice provided to the Lot owner at the mailing address found in the Tax Assessor's Office, Portland, Maine, the non-paying and defaulting Lot owner shall be responsible for interest on the unpaid balance at the rate of eighteen percent (18%) per annum. Any Lot owner who has advanced monies for maintenance pursuant to this Agreement, which monies remain unpaid after said notice, shall be entitled to initiate legal proceedings in a court of competent jurisdiction against such non-paying and defaulting Lot owner for collection and reimbursement of the same. This provision shall be in addition to the remedy set forth in Section D below.

D. LEGAL FEES: If any Lot owner shall be required to initiate legal proceedings to enforce any of the terms of this Agreement and shall be successful in having a court of competent jurisdiction enforce such terms, then such successful party shall be entitled to full and complete reimbursement of all costs, including, but not limited to, court costs and reasonable attorneys fees.

E. BINDING NATURE: This Agreement shall be binding on the parties hereto, their heirs, successors and assigns and the terms of this Agreement shall run with the land. Any future conveyance of any Lot hereby impacted by this Agreement shall include a specific reference to this document.

For title reference of the DEVELOPER see deed from _____ to Scott G. McMullin dated _____, 1999 and recorded in the Cumberland County Registry of Deeds in Book _____, Page _____.

Dated at _____, Maine, this ____ day of _____, 1999.

_____
Scott G. McMullin

STATE OF MAINE
COUNTY OF CUMBERLAND, SS. _____, 1999

Then personally appeared the above-named Scott G. McMullin and acknowledged the foregoing instrument to be his free act and deed.

Before me, _____
Notary Public/Attorney at Law
Print Name _____
My commission expires _____

E:\FILES\ADAM2\MCMULLIN\SUBDIV\ROAD-AGR.WPD

SCOTT G. McMULLIN

Date: November 13, 1999

To: ~~Kandi Talbot~~ Charley Lane

pages (including cover): 3

Re: 696 Allen Avenue

Enclosed is a proposed deed with the language you have requested to cover the City's right to access, repair and / or enforce repair of the drainage system and the wetlands as well as the rights to use the common driveway. The ultimate deed of transfer may not be the same but it will have these three clauses.

Your comments, please.

Thank you,

Scott

Charley Lane –

Kandi asked me to send these to you. She specifically said that they didn't want an easement for the drainage but just the right to come in.

She's leaving for vacation after tomorrow so I would really appreciate if you could address this quickly.

Thank you

Scott

PO Box 15400, Portland, ME 04112
Tel: 207-767-2073 Fax: 207-767-7553

WARRANTY DEED

For good consideration, I Scott G. McMullin of Cape Elizabeth, County of Cumberland, State of Maine, hereby bargain, deed and convey to _____, of _____, County of _____, State of _____, the following described land at 696 Allen Avenue, Portland, Cumberland County, State of Maine, free and clear with WARRANTY COVENANTS; to wit: a land parcel identified as Lot 1 (2, 3, or 4) on the McMullin Subdivision & Site Plan recorded in Book ___ Page __ in the Cumberland County Registry of Deeds dated November __, 1999, containing 10,446 SF of land area and described as below.

Grantor, for itself and its heirs, hereby covenants with Grantee, its heirs and assigns, that Grantor is lawfully seized in fee simple of the above-described premises; that it has a good right to convey; that the premises are free from all encumbrances; that Grantor and its heirs, and all persons acquiring any interest in the property granted, through or for Grantor, will, on demand of Grantee, or its heirs or assigns, and at the expense of Grantee, its heirs or assigns, execute any instrument necessary for the further assurance of the title to the premises that may be reasonably required; and that Grantor and its heirs will forever warrant and defend all of the property so granted to Grantee, its heirs and assigns, against every person lawfully claiming the same or any part thereof. The property so granted to Grantee, its heirs and assigns is subject to the following covenants, restrictions and conditions:

O.K.

Subject to the condition that the drainage system (contoured swale and ditch) as defined and noted on a Plot Plan entitled "McMullin Subdivision," recorded in Book ___ Page __ in the Cumberland County Registry of Deeds dated November __, 1999, is left in its existing contours; unimproved with structures, shrubbery, fill, trees or any other such obstructions; maintained in good repair and proper working order as a drainage system in perpetuity; and further that the City of Portland, and / or said persons in lawful possession of said premises, may enforce the continuation and maintenance of this drainage system by an action at law or equity in any court of competent jurisdiction, and further, that after giving the Owner written notice, and a reasonable time to perform, the said City of Portland may, by its authorized agents or representatives, enter upon and repair said premises or any of said surface water drainage system in the event or failure thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon demand.

O.K.

Subject to the condition that the wetlands area as defined and noted on a Plot Plan entitled "McMullin Subdivision," recorded in Book ___ Page __ in the Cumberland County Registry of Deeds dated November __, 1999, won't be disturbed or filled and is to be left in its existing contours and natural state as a wetlands area, in perpetuity; and further that the City of Portland, said persons in lawful possession of said premises and any abutters, or any of them, may enforce the continuation and maintenance of this wetlands area by an action at law or equity in any court of competent jurisdiction, and further, that after giving the Owner written notice, and a reasonable time to perform, the said City of Portland may, by its authorized agents or representatives, enter upon and repair said premises or any of said wetlands area in the event of any failure thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon

demand.

Subject to the condition that said Owner and successors and assigns have the perpetual right to use, cross, and maintain for all manner of transit purposes the common driveway area as defined and noted on a Plot Plan entitled "McMullin Subdivision," recorded in Book ___ Page __ in the Cumberland County Registry of Deeds dated November __, 1999, and further that said owner will not allow such common driveway to be blocked or encumbered in any way such that others so entitled to its use are inconvenienced or prevented from such use. Said common driveway is described as a strip of land of twenty five (25) feet in constant width commencing on the frontage of Lot 2 along Allen Avenue at a point seven (7) feet southwest of the pin defining Lot 2 from Lot 3 on Allen Avenue, then running thirty five (35) feet in a northwest direction to a pin located on the property line of Lots 2 and 3, then running along said property line in a westerly direction a distance of eighty (80') to a pin, and then running at perpendicularly to said property line in a southerly direction fifty (50) feet to the property line between Lots 1 and 2. The Owner of said premises, other users of said common driveway and the Owners of the fee simple land area of said common driveway have entered into and agree to abide by a separate Common Driveway Maintenance Agreement.

Being the same property conveyed to the Grantors by deed of _____, dated _____, 1999.

WITNESS the hands and seal of said Grantors this 12th day of November, 1999.

_____

_____

STATE OF _____

COUNTY OF _____

On November 12, 1999 before me, _____μ, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature_____

Affiant _ Known _ Produced ID

Type of ID _____

(Seal)

Planning Department
389 Congress Street
Portland, ME 04101
Phone: 207-874-8901
Fax: 207-756-8258

City of Portland

Fax

To:	Paul Vose	**From:**	Kandice Talbot
Fax:	799-2731	**Date:**	February 14, 2001
Phone:	799-2731	**Pages:**	~~2~~ 3
Re:	McMullin Subdivision	**CC:**	

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

•Comments:

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

February 14, 2001

Mr. Paul Vose
Cape Elizabeth, ME 04107

RE: McMullin Subdivision, Allen Avenue

Dear Mr. Vose:

After discussions with Public Works, it has been determined that there is an existing 30" diameter storm drain system within the City right-of-way on Allen Avenue. Therefore, connection into this storm drain main may be allowed for the purposes of discharging site foundation drains.

The connections into the Allen Avenue storm drain may be shown on the site plan application and no change needs to be made to the subdivision plan.

If you have any questions, please do not hesitate to contact me at 874-8901.

Sincerely,

Kandice Talbot

Kandice Talbot
Planner

CC: Jay Reynolds, Development Review Coordinator

O:\PLAN\DEVREVW\ALLEN696\Vose2-14.doc

From: Anthony Lombardo
To: Kandi Talbot
Date: Tue, Feb 13, 2001 1:37 PM
Subject: McMullin Subdivision..Allen Ave.

Kandi,
I was mistaken on the location of this development and, as a result, in appropriately identified the City's existing utilities within the Allen Ave. right of way. There is, in fact, an existing 30" diameter storm drain system within the City right of way. Therefore, the applicant can connect into this storm drain main, for purposes of discharging site foundation drains. I apologize an inconvenience this miscommunciation may have caused.

PBM1

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Carroll and Members of the Portland Planning Board

FROM: Kandice Talbot, Planner

DATE: August 24, 1999

RE: Four Lot Subdivision, Vicinity of 696 Allen Avenue

Introduction

Scott McMullin is requesting workshop review for a four lot subdivision. The project is located in the vicinity of 696 Allen Avenue. Attachment 1 is a vicinity map of the area. The single-family subdivision will consist of four lots, and the size of the lots will range from 10,346 sq. ft. to 25,702 sq. ft. Lot 1 will consist of the existing home and garage. The site is approximately 1.72 acres and is located in the R-3 and R-2 zones.

The applicant is proposing to split the 1.72 acres lot in to four single family lots. The lots would access from Allen Avenue. The site also contains an area of wetland in the northeasterly corner.

Landscaping

The applicant is proposing that a minimum of two trees per lot will be conserved or planted in the front yard of each lot. The subdivision plan shows that a number of maples and pines will be preserved around the site.

Drainage

Currently the drainage flows in a southeasterly direction to Allen Avenue and a ravine to the east of the site. A stormwater management report has been submitted and is included as Attachment 3. The stormwater report states that there will be a slight increase in peak flows after development, but will be no increases in peak elevations due to these increases, so no additional flooding will occur from the development.

The Development Review Coordinator has reviewed the plan and is recommending that a private drainage easement, with a drainage maintenance agreement with the city, be located along the common property line of lots 1 and 2 from the right-of-way of Allen Avenue to the northwesterly corner of lot 2. This parcel abuts Deepwoods Drive, where significant drainage problems exist. The upgradient area that will drain to the easement should be well investigated, defined and runoff calculations provided with any appropriate drainage infrastructure provided.

Also, because of the potential for significant drainage flows through the parcel, staff recommends that conceptual grading plans be prepared for each lot, along with finish first floor elevations.

The applicant will need to submit additional information regarding utility connections and capacity, erosion

control measures, and driveway locations.

Sidewalks and Granite Curb

As with all new projects within the City, granite curb and sidewalk is required as part of this subdivision. The applicant is requesting a waiver of this requirement. Sidewalk and granite curb do not exist along this portion of Allen Avenue, however sidewalks are intermittent along Allen Avenue. The applicant feels that there are a number of reasons to request a waiver. They are as follows: 1)that the City will be repaving Allen Avenue in the near future, however these plans do not include sidewalk and curb; 2)the financial impact for cost per house would be high; and 3)the width of Allen Avenue is sufficient for pedestrian and bike safety. Existing policy is to not grant such waivers except in unique conditions with significant hardship factors.

The applicant is proposing a onetime payment of $7,500 to the City in lieu of construction of sidewalks and curbs. Public Works is currently reviewing this request for waiver and the proposal of a contribution of sidewalks and curbs.

Attachments:

1. Vicinity Map
2. Letter from Applicant
3. Stormwater Management Plan
4. Wetland Report
5. Waiver Request
6. DRC's Memo
7. Plan

PBR1

PLANNING BOARD REPORT #61-99

4-LOT RESIDENTIAL SUBDIVISION
696 ALLEN AVENUE
SUBDIVISION REVIEW
SCOTT MCMULLEN, APPLICANT

Submitted to:

Portland Planning Board
Portland, Maine

November 9, 1999

I. INTRODUCTION

Scott McMullin is requesting review for a four lot subdivision. The project is located in the vicinity of 696 Allen Avenue. Attachment 1 is a vicinity map of the area. The single-family subdivision will consist of four lots, and the size of the lots will range from 10,346 sq. ft. to 25,702 sq. ft. Lot 1 will consist of the existing home and garage. The site is approximately 1.72 acres and is located in the R-3 and R-2 zones. The lots would access from Allen Avenue. The site also contains an area of wetland in the northeasterly corner.

263 notices were sent to area residents. A legal ad appeared in the November 1st and 2nd editions of the Portland Press Herald.

II. SUMMARY OF FINDINGS

Zone:	R-2/R-3
Parcel Size:	
Lot 1	10,446 sq. ft.
Lot 2	30,371 sq. ft.
Lot 3	15,332 sq. ft.
Lot 4	19,115 sq. ft.

III. STAFF REVIEW

The proposal has been reviewed for compliance with the Subdivision Ordinance of the Land Use Code.

IV. SUBDIVISION REVIEW

1. Water and Air Pollution

~~The development will not result in undue water or air pollution.~~

2/3. Water

It appears that the development has sufficient water available for reasonably foreseeable needs and will not cause an unreasonable burden on the existing water supply. A potential condition of approval is:

- that the applicant provide a letter from Portland Water District stating that there is water capacity in this area.

4. Soil Erosion

The applicant has included a sedimentation and erosion control plan with the proposed development.

5. Traffic

The applicant is proposing to have access to the sites from Allen Avenue. At the workshop, the plan had shown three curb cuts onto Allen Avenue. The existing house has two curb cuts and the applicant had proposed to utilize these curb cuts for Lots 1, 2, and 3. The Planning Board had recommended that the applicant eliminate the most southerly driveway to decrease the amount of pavement on site and the number of curb cuts on Allen Avenue. The applicant has revised the plans to show a common driveway easement for Lots 1, 2, and 3, with one access onto Allen Avenue. The applicant will need to provide the language for the common driveway easement to the City.

As with all new projects within the City, granite curb and sidewalk is required as part of this subdivision. The applicant is requesting a waiver of this requirement. Sidewalk and granite curb do not exist along this portion of Allen Avenue, however sidewalks are intermittent along Allen Avenue. The applicant feels there are a number of reasons to request a waiver. They are as follows: 1)that the City will be repaving Allen Avenue in the near future, however, these plans do not include sidewalk and curb; 2)the financial impact for cost per house would be high; and 3)the width of Allen Avenue is sufficient for pedestrian and bike safety. Existing policy is to not grant such waivers except in unique conditions with significant hardship factors.

The applicant is proposing a onetime payment of $7,500 to the City in lieu of construction of sidewalks and curbs. Public Works has reviewed this proposal and has agreed to recommend a waiver of sidewalk and curb in lieu of the applicant's financial contribution to future construction of the amenities on Allen Avenue, however feels that the contribution should be $10,000, which is approximately what the work would cost.

The Planning Board had asked staff to find out when the work on Allen Avenue may be completed to determine how long the City should hold the applicant's money. In the past, the Planning Board has required contributions for various infrastructure and has required that the City hold the money for five years and if work is not completed within that time, the City would return the contribution to the applicant after five years. Public Works is anticipating that the reconstruction of Allen Avenue, in this area, will occur within 4 to 6 years, however, that can change due to nature of the CIP program. It is Public Works' opinion that the applicant not be given a time frame for when the money could be returned and instead, grant the applicant a waiver not to build sidewalk and curb now, and allow the City to use the applicant's appropriate monetary contribution towards the reconstruction of Allen Avenue, whenever that CIP project begins. A potential condition of approval is:

- that the applicant make a contribution of $10,000 to the City for the installation of granite curb and sidewalk along Allen Avenue

6. Sanitary/Stormwater

Sanitary

The applicant is proposing to connect to the existing sewer line in Allen Avenue. The Sewer Division has stated that they do not foresee any sewer capacity issues in this area. The applicant shall request a sewer capacity letter from the Sewer Division. The applicant is also proposing a 15 ft. sewer easement on Lot 1 to Lot 2. The applicant would need to submit the executed utility easement to the staff.

Stormwater

Currently the drainage flows in a southeasterly direction to Allen Avenue and a ravine to the east of the site. A stormwater management report has been submitted and is included as Attachment 3. The stormwater report states that there will be a slight increase in peak flows after development, but will be no increases in peak elevations due to these increases, so no additional flooding will occur from the development.

The Development Review Coordinator reviewed the plan and recommended that a private drainage easement, with a drainage maintenance agreement with the city, be located along the common property line of lots 1 and 2 from the right-of-way of Allen Avenue to the northwesterly corner of lot 2. This parcel abuts Deepwoods Drive, where significant drainage problems exist. A drainage easement in this area would be for the benefit of the upgradient area that drains this way. The applicant has proposed the drainage easement and provided revised drainage calculations. The Development Review Coordinator has reviewed and approved the plan. The DRC's memos are included as Attachments 6, 9, 11 and 13.

7. Solid Waste Disposal

Curb side pickup is proposed.

8. Scenic Beauty

This development will not cause an undue adverse effect on the scenic or natural beauty of the area aesthetics, historic sites, significant wildlife habitat or rare and irreplaceable natural area.

9. Comprehensive Plan

This development meets the requirements of the City of Portland Comprehensive Plan.

10. Financial Capability

The applicant has submitted a Letter of Financial Capability which is included as Attachment 2a.

11. Groundwater

The development as proposed will not adversely affect the quality or quantity of groundwater.

12. Flood Hazard/Shoreline

The site is not located in the flood hazard or shoreland zones.

13. Wetlands

The site has approximately 15,600 sq. ft. of wetland vegetation on the northeast corner of the parcel.

14. Fire

The Fire Department has reviewed the subdivision plan and is requesting that the applicant show a fire hydrant within 800 ft. of travel. The applicant has stated that there is a fire hydrant directly across the street from the site.

V. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and material submitted by the applicant and on the basis of information contained in Planning Report #61-99 relevant to the standards of Site Plan and Subdivision Review, the Planning Board finds:

a. Extraordinary conditions do/do not exist (if yes, please specify those conditions); or

b. Undue hardship will/will not result (if yes, please specify the hardship).

The Board further finds that the granting of the waiver will/will not create potentially hazardous vehicle and pedestrian conflict or that it will/will not nullify the intent and purpose of the land development plan and the City ordinances.

As a result, the Board does/does not grant the request for a waiver of the curb and sidewalk requirements along Allen Avenue.

The Planning Board also finds:

i. That the proposed development is/is not in conformance with the Subdivision Ordinance of the Land Use Code

- that the applicant provide a letter from Portland Water District and Portland Sewer Department stating that there is water and sewer capacity in this area.

- that the applicant make a contribution of $10,000 to the City for the installation of granite curb and sidewalk along Allen Avenue

- that the applicant submit to Planning staff executed copies of the common driveway, drainage, and utility easements and a drainage maintenance agreement including maintenance prior to issuance of building permit.

- that the applicant revise the subdivision plan to show a fire hydrant within 800 ft. of travel.

→ that utilities should be located underground

Attachments:

1. Vicinity Map
2. Letter from Applicant
3. Stormwater Management Report
4. Wetland Report
5. Waiver Request
6. DRC's Memo dated 8/16/99
7. Public Works' Memo regarding Sidewalk and Curb
8. Applicant's Letter dated 9/29/99
9. DRC's Memo dated 10/5/99
10. Applicant's Response dated 10/14/99
11. DRC's Memo dated 10/18/99
12. Applicant's Response dated 10/21/99
13. DRC's Memo dated 10/25/99
14. Letters from Residents
15. Plans

require restriction w/i deed to be[?] wetland no filling

note on plan stating no[?]

of wetland

* note

* Robert Hart - represent Charles Esbach; concerns about whether easement will never be billed

wetlands

* that - restriction enforced by abutting owners

! Jack Humeniuk - buffering + landscaping

!! C/P - rebuilt Allen Avenue

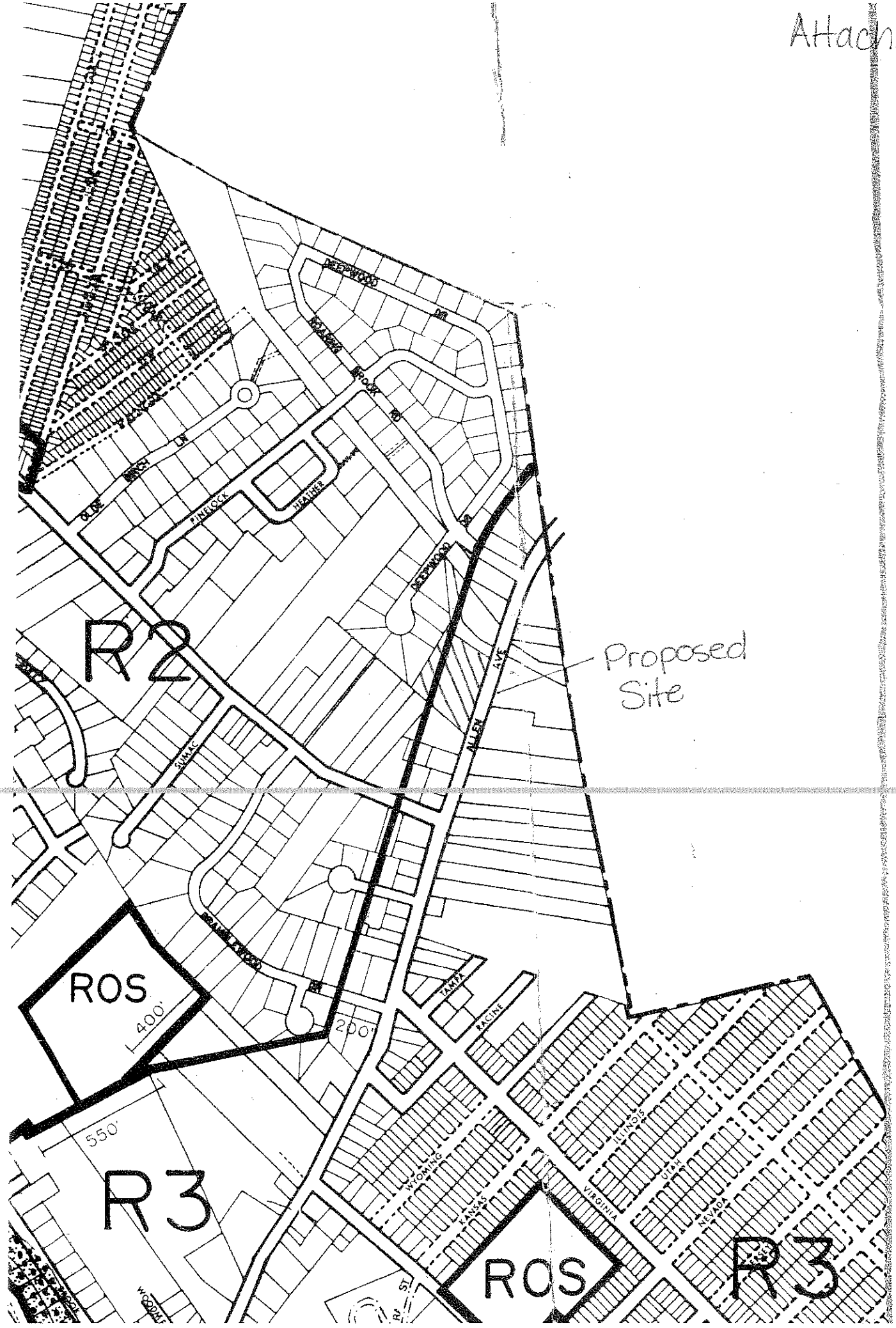
! Gary Donaldson

! Jim Beal - neighbors - wet basements

Running water through PWD

Bob Danielson, representing S. McMullin

Attachment 1



Att. 2

SCOTT G. McMULLIN

July 7, 1999

Planning Board
City of Portland
389 Congress Street
Portland, Maine 04101

Subject: Application for Subdivision
"McMullin Subdivision"
696 Allen Avenue

Dear Board Members:

This is the application for a four lot subdivision of a 75,501 SF (approximately 1.73 acre) land parcel with 321' of frontage on Allen Avenue. This is located just to the east of the intersection with Summit Street and abuts the Deep Wood Road portion of the Roaring Brook Subdivision. The property is currently improved with a two story, single family house that will sit on one of the four newly formed lots, as well as an existing garage and barn. The attached material has been prepared by Pinkham & Greer, Consulting Engineers of Falmouth, or by me.

Attached to this letter, please find the following documents submitted in accordance with the subdivision ordinance and a preliminary meeting with Rick Nolan of the Planning Staff:

1. Subdivision Plat with Vicinity Sketch (5 copies)
2. Recording Plat (5 copies)
3. Letter of evidence of applicant's financial capacity
4. Evidence of technical capacity to undertake the development
5. Storm water drainage plan and analysis
6. Wetlands description and analysis
7. Vehicular sight - distance analysis
8. Discussion on price range of houses to be built in the subdivision
9. Request for waiver of sections 14-498 and 14-499 pertaining to the provision and construction of curbs and sidewalks
10. Request for Waiver of Public Notice
11. Application fee of $100 for a four lot subdivision

Thank you for your consideration of this application for subdivision.

Respectfully submitted,

Scott G. McMullin

PO Box 15400, Portland, ME 04112
Tel: 207-828-4005 Fax: 207-871-0585

Peoples Heritage Bank

One Portland Square
P.O. Box 9540
Portland, ME 04112-9540

1-800-462-3666
Tel: 207-761-8500

2a

June 21, 1999

Mr. Joseph Gray
Planning Board
City of Portland
389 Congress Street
Portland, ME 04101

Dear Mr. Gray:

I am writing to inform you that Peoples Heritage Bank has reviewed the financial statement of Scott G. McMullin and, based on that review, we feel that Mr. McMullin has the necessary financial resources to complete the subdivision of the land located at 696 Allen Avenue, Portland, ME.

Sincerely,

Richard A. Blake
Senior Vice President

cc: Scott McMullin

mmoore\tempor\gray

Request for Waiver of Public Notice

Per the City of Portland Section 14-495 of the Land Use Ordinance, the applicant requests a waiver of the *Public Notice* requirement. Section 14-495 states that public notice will be "provided for any proposed subdivision that contains ten (10) or more lots or encompasses five (5) or more acres of land." This proposed subdivision is of four lots occupying approximately 1.73 acres of land.

But see 14-32

Price Range of Houses to be Built

Existing Neighborhood

The existing neighborhood is considered to consist of this portion of Allen Avenue and its side streets as well as the specific Roaring Brook Subdivision located adjacent and to the north of the property to be developed.

Allen Avenue and its side streets have a very diverse mix of homes. The more modest ones may sell for as little as close to $100,000 while the larger ones, such as that found at 696 Allen Avenue, may sell for amounts approaching $200,000.

The Roaring Brook Subdivision is mostly developed but has at least one vacant lot currently offered for sale at $69,000. The homes within the subdivision range in selling prices from $175,000 to $250,000, depending upon site and size and style of the home.

Proposed Subdivision

The defining price for this subdivision will be the selling price of the existing house and two car garage on a reduced in size lot. This price is estimated to be approximately $180,000. The layout of the remaining three lots, the nature of the entire site and its own and surrounding vegetation and proximity to other lots encourage the applicant to create a rather homogeneous cottage style enclave with prices within ten percent of the original house, say from $160,000 to $200,000. These prices are considered to be consistent with the neighborhood and reflective of current market conditions.

PINKHAM & GREER
CONSULTING ENGINEERS, INC.

170 U.S. Route One
Falmouth, Maine 04105
Tel: 207.781.5242
Fax: 207.781.4245

20

July 6, 1999
File: 99161

Planning Board
CITY OF PORTLAND
389 Congress St
Portland, ME 04101

RE: TRAFFIC SIGHT DISTANCE
MCMULLIN SUBDIVISION

Dear Board Members:

As required by City of Portland Ordinance, we have reviewed the sight distance along Allen Ave. at the above mentioned proposed subdivision. We have determined that at the required seated eye level height the sight distance to the east and west are in excess of 525'. Posted speed on this section of Allen Ave. is 35 mph making the observed sight distance well within accepted standards.

Sincerely,

PINKHAM & GREER

Alan L. Burnell
CSS #417, SE #267

ALB/lk

Applicant's Technical Capacity to Undertake the Development of 696 Allen Avenue

Scott G. McMullin, the applicant, has been involved in the Portland residential and commercial industry as a real estate appraiser since 1972. As an appraiser, he was constantly called on to understand zoning and subdivision regulatory controls, determine the highest and best use, marketability, and financial feasibility of a wide variety of real estate developments and conversions and explain these and resulting value conclusions in reports and orally before public boards and agencies and in the courtroom.

During this same time period, he oversaw the construction of two personal homes as general contractor and/or hands-on laborer. In the mid 1980's Scott was involved in three real estate developments, carrying each through the approval process and one through construction. Two of the developments were seven and twelve lot residential subdivisions in Falmouth, both sold to other developers. The third development was the acquisition of 185 Middle Street (a four story, brick, commercial building adjacent to Tommy's Park), its rehabilitation, and then division into and sale as a four unit commercial condominium.

Scott sold his appraisal business, Appraisal Associates, in early 1995 and has since been providing real estate and business consultation services. In doing so, the most frequent real estate consulting service has involved assisting property owners determine the highest and best use of the real estate and then overseeing the process of its sale, development, gifting and use.

Pinkham and Greer Consulting Engineers, Inc. have been retained by the applicant to meaningfully subdivide the subject property in accordance with the codes and specifications of the City of Portland. A brochure describing the history and services of Pinkham and Greer is attached. This company has historically worked successfully with the City of Portland and its Planning and Engineering professionals to effectively meet the needs of the developer, the City and the City's residents and is currently working on other such projects for Planning Board review and approval.

AH. 3

STORMWATER MANAGEMENT REPORT
SCOTT MCMULLIN

Introduction:

This project consists of the subdivision of a parcel of land, currently 695 Allen Ave, into four residential home lots. This existing house and garage will be located on one of the lots. Existing driveways and driveway openings will be utilized to the greatest extent possible. No road or utility construction will be necessary with the exception of individual home service connections. A sidewalk and curbing will be installed as per City of Portland design standards.

Methodology:

This analysis utilizes the Soil Conservation Service TR-20 method to model and predict stormwater flows. This method uses cover types, ground slope and hydrologic soil conditions to establish stormwater models and predict runoff conditions. Hydrocadd ver 5.11 as developed by Applied Microcomputer Systems of Chocoura N.H. was used to develop the technical report.

Peak flows from the 2-year, 10-year and 25-year stormwater were analyzed. There are 3.0, 4.7 and 5.5 inches of rain in a 24-hour period.

Site Conditions:

An area of approximately 12.14 acres was analyzed and broken into 3 subcatchments. These subcatchments are partially wooded but generally are developed into residential house lots of ¼ to ½ acre in size. Soil types range from sandy outwash hydrologic class B to very fine silt loam hydrologic class D. Subcatchment areas were split to recognize this difference in runoff. The runoff exits the site at a 30" SDR 35 culvert with a headwall that crosses under Allen Ave and outlets to a substantial drainage way south of Allen Ave.

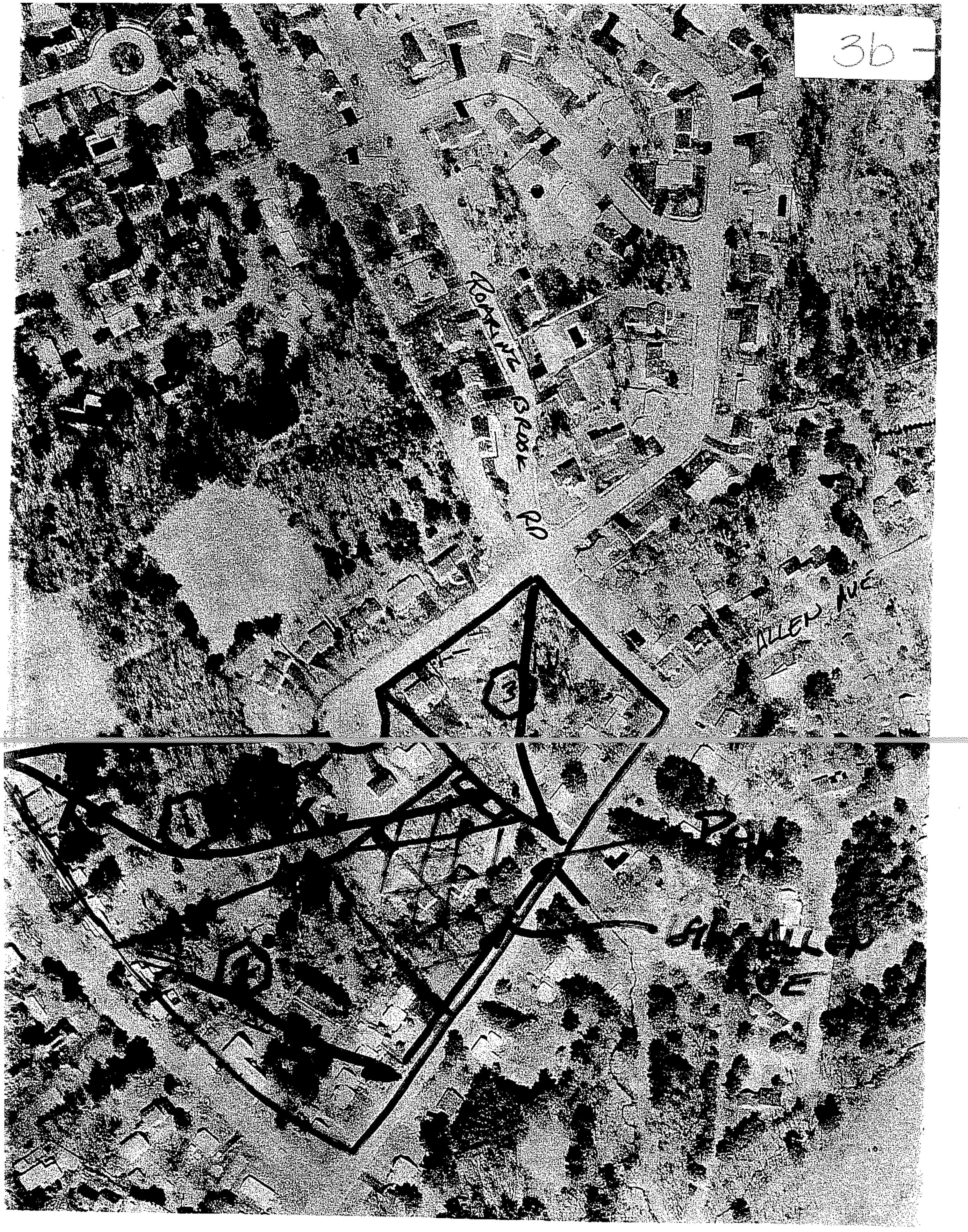
Analysis and Conclusions:

Existing and developed conditions were analyzed in order to compare the impact on the downstream drainage. The table below shows the change that occurred in both peak runoff and peak elevations at the culvert under Allen Avenue.

Table 1
Peak Flows and Peak Elevations

Storm Event	Peak Flows		Peak Elevations	
	Existing	Developed	Existing	Developed
2-year (3.0")	3.06 cfs	3.20	110.7	110.7
10-year (4.7")	10.92	11.18	111.5	111.5
25-year (5.5")	15.27	15.57	111.8	111.8

There is a slight increase in the peak flows after development of 0.14 cfs, 0.26 cfs and 0.30 cfs for the analyzed storms. However, there is no increase in peak elevations due to these slight increases, and therefore no additional flooding will occur from the development. The downstream channel appears capable of handling the slight increase in peak flows and therefore we expect no significant impact on adjacent or downstream properties.


3b
ROARING BROOK RD
ALLEN AVE
3

AH. 4

WETLAND EVALUATION

Prepared for:
Scott McMullin

July 1999

Prepared by:

Pinkham & Greer Consulting Engineers, Inc.
170 U.S. Route One
Falmouth, ME 04105

(207) 781-5242

PINKHAM & GREER
CONSULTING ENGINEERS, INC.

July 6, 1999
File: 99161

INTRODUCTION

Scott McMullin is proposing to create a 4-lot subdivision at what is currently 696 Allen Ave. The parcel contains approximately 1.7 acres of land and one single family residence. Vegetation consists of mowed lawn and approximately 15,600 sq. feet of scrub-shrub wetland vegetation on the northeast corner of the parcel.

METHODS

Wetland delineation was based on Tech Report Y-87-1, Army Corps of Engineers Wetland Delineation Manual. The manual contains the current accepted methodology utilized by the State of Maine D.E.P. and the Army Corps of Engineers for delineating wetland boundaries. The manual defines wetlands employing the three-parameter approach. Wetlands must posses three essential characteristics which are 1) hydric soils, 2) hydrophytic vegetation, and 3) wetland hydrology. It is necessary that all three of these criteria be present for an area to be classified as a wetland.

Generally, wetlands must be saturated with water (either inundated or saturated to within 7-18" of the surface depending on soil texture) for at least 7 days during the growing season in order to promote a predominance of hydrophytic vegetation. When these conditions are present, hydric soils develop, wetland hydrology is present and a predominance of hydrophytic vegetation is in evidence.

SOILS

Soils as determined by on-site visits and examination of the Cumberland County Soil Survey indicate poorly drained to somewhat poorly drained silt loam soils.

VEGETATION

Vegetation status was determined utilizing the publication "National List of Plant Species that Occur in Wetlands: 1988". This status, based on frequency of occurrence, is as follows:

Indicator Status	% Occur in Wetland
Obligate (Obl)	>99%
Facultative wetland (FACW)	67% - 99%
Facultative (FAC)	34% - 66%
Facultative Upland (FACU)	1% - 33%
Obligate Upland (UPL)	>99%

An area is considered to be a wetland when more than 50% of the species from these strata are either obligate, facultative wetland and/or facultative plant species.

HYDROLOGY

Wetland hydrology, the driving force behind a wetland, was noted along with soil sampling. A few examples of wetland hydrology indicators are drainage patterns within wetlands, soil oxidation characteristics, morphological plant adaptations, deposition of debris on the ground surface, inundation and standing surface water. Using these criteria, the wetland boundary was marked and located on the enclosed base map.

RESULTS AND DISCUSSION

Wetlands delineation indicated that a small area of approximately 15,000 sq. feet met the definition of wetland. Typical hydrophytic vegetation found in this area were red maple, alder, honeysuckle and sensitive fern.

4c

Wetlands are regulated federally by the Army Corps of Engineers and locally by the Maine Department of Environmental Protection. By agreement, a joint review process exists within the state. Projects that impact less than 4,300 square feet and do not occur within a municipal shoreland zone or within another type of protected natural resource are exempt under the Natural Resources Protection Act, 38 M.R.S.A. Section 480-Q(6). I would conclude that this area will not require permitting by local or federal agencies regarding impact from this development.

PINKHAM & GREER

Alan L. Burnell
CSS #417, SE #267

ALB/clb

Request for Waiver of Sections 14 - 498 and 14 - 499, sidewalks and curbs:

The Applicant requests that the requirements of Sections 14-498 and 14-499 for the construction of sidewalks and curbs along the Allen Avenue frontage be waived. This request is based on the availability of an alternative walking route at this point, the undue cost per house to this particular very small subdivision, the likelihood that there will be no sidewalk and curb continuity far into the distant future and the offer of a one time payment towards such future construction.

Intent of the Land Development Plan

It appears that the current policy of the Planning Board is to require developers to provide sidewalks and granite curbs along the frontages of existing roads as well as along newly constructed roads in a development. At the same time, the Board does not require such existing road sidewalk and curb construction in the event of a simple two lot division or for a new home constructed on an existing lot.

The proposed subdivision of 696 Allen Avenue is significantly different than most subdivisions coming before the Board in that it is of only four lots (one already improved) for which there already exists adequate Allen Avenue frontage. Were it two lots, no sidewalk / curb requirement would exist. Had the applicant divided out the lot with the existing house prior to applying for subdivision of the remaining "U" shaped land parcel into three lots, there would have been no sidewalk / curb requirement for the middle lot with the house. At four lots, it exists for all four.

Existing Conditions

Sidewalks and curbs do not currently exist along this portion of Allen Avenue, from Washington Street to the Town of Falmouth line. The exception to this is approximately 400LF on either side of the Bramblewood Subdivision, located south of the intersection with Summit Street and 100LF of sidewalk only at The Residences, condominiums located just short of the Northgate area.

Without major road realignment and reconstruction, sidewalks would not be logical or financially feasible for much of Allen Avenue, particularly towards Falmouth because of the presence and location of trees, ditches and man-made improvements.

Because of the variable width of Allen Avenue and its greater width in this immediate area, it would be very uncertain as to what ultimate street alignment may exist at the point in the future that the City undertakes a major street overhaul that would include providing sidewalks along its length. Any improvements made today may be eliminated tomorrow.

Discussions with Public Works indicate that re-paving of Allen Avenue between Washington Avenue and Ray Street is anticipated no sooner than in three or four years, and is not yet scheduled for the remainder towards the Falmouth line. Public Works

further states that there are no foreseeable plans to undertake any major street overhaul that would include continual sidewalks and curbs on Allen Avenue.

Alternative Walking Route
Allen Avenue becomes a relatively wide thoroughfare along this portion. It's width is sufficient to allow for the marking of bike paths on both sides of the street without infringing on traffic flow or pedestrian / bike safety. Thus, *an alternative walking route is reasonably available* along the entire length of the street frontage.

Financial Impact
The applicant believes that enforcement of these provisions places an *undue and somewhat unique financial hardship* on the subdivision. As shown below, the more typical and larger subdivision for which there is new internal road construction ends up with only a minor cost per house lot for sidewalks and curbs on the pre-existing arteries such as Allen Avenue.

With just four development lots, the cost of these improvements to the pre-existing road would be disproportionately high per house as opposed to similar requirements for a subdivision of 34 residences at the Bramblewood Subdivision and 26 residences at The Residences at 459 Allen Avenue. There, Allen Avenue sidewalks of 12 LF and 4 LF per residence, respectively, were required and no curbing was required for the latter.

Based on contractors' preliminary cost estimates, with no new storm water runoff control the curbs and sidewalks would cost $22,000 ($4,400 for City permitting, $11,200 for curbing and $6,400 for the sidewalk). This amounts to a cost of $5,500 per house. The average current cost for Allen Avenue equivalent improvements for Bramblewood and The Residences is about $490 per house.

At 696 Allen Avenue, each residence would bear the burden of about 80 LF. This is equivalent to asking any and all individual homeowners to now construct sidewalks in front of their homes.

Payment in Lieu of Construction
The applicant proposes the onetime payment of $7,500 in lieu of construction of the sidewalks and curbs of this ordinance. This is in recognition of

- the ultimate need for such street amenities,
- the reality of the future timing of rebuilding Allen Avenue and the provision of continual sidewalks and curbs, and
- the time value of this payment if deposited in an interest bearing account with a reasonable rate of return.

Att. 6

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

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- CONSTRUCTION ADMINISTRATION

MEMORANDUM

TO: Kandi Talbot, Planner

FROM: Jim Wendel, PE, Development Review Coordinator

DATE: August 16, 1999

RE: McMullin Subdivision Review
696 Allen Avenue

A review of the submission plan dated July 6, 1999 has been completed. We offer the following comments:

1. The plan should provide a set of appropriate erosion control notes that conform to the City's technical standards; a brief note referencing the State's BMP manual is not appropriate.

2. The plan should be clear on how power, telephone, etc. will service the lots. If underground, the layout should be shown.

3. We recommend a private drainage easement, with a drainage maintenance agreement with the City, be located along the common property line of lots 1 and 2 from the right-of-way of Allen Avenue to the northwesterly corner of lot 2. The parcel abuts the cul-de-sac of Deepwoods Drive, where significant drainage problems exist. The drainage course and associated wetlands at the easterly parcel corner are part of the historic drainage flow path of the drumlin that defines this area of the City. The parcel is likely subject to some level of intermittent drainage flow within and/or around it. The upgradient area that will drain to the easement should be well investigated, defined, and runoff calculations provided with any appropriate drainage infrastructure provided. The culvert for the drives for the lots will need to be appropriately sized.

4. Because of the potential for significant drainage flows through the parcel, we recommend that conceptual grading plans be prepared for each lot. This would include setting minimum finish first floor elevations; the daylighted invert of the foundation drain for lot 4 should not be any lower than 2' above the centerline elevation of Allen Avenue where the 30" culvert crosses the road.

5. Due to the road classification of Allen Avenue as a minor arterial, we recommend that combined lot access be considered. Larry Ash may have some thoughts on this issue.

6. There is an opportunity here for Public Works to acquire a grading and/or drainage easement of an appropriate width along the frontage of the parcel for future road infrastructure upgrades. Tony may have some thoughts on this issue.

Should you have any questions, please call.

AH. 7

From: Anthony Lombardo
To: Kandi Talbot
Date: Thu, Sep 16, 1999 6:53 AM
Subject: Re: Allen Avenue Subdivision

Kandi,
The applicant should be required to put in escrow an amount which would be equal to what the cost of curb and sidewalk would in when this area is rebuilt by the City. It is anticipated that the reconstruction of Allen Ave., in the project area, will occur within 4-6 years. However, that can change due to the nature of City Council and the CIP program. Therefore, it is my opinion that the applicant not be given a time frame when the money could be returned to him. Instead , grant the applicant a waiver not to build sidewalk and curb now, and allow the City to use the applicant's appropriate monetary contribution towards the reconstruction of Allen Ave., whenever that CIP project begins.

>>> Kandi Talbot 09/14 9:50 AM >>>
I need a memo from you regarding the sidewalk issue for the Allen Avenue Subdivision. You had previously stated that you wanted an escrow of $10,000. The Planning Board wanted to discuss how long to keep the contribution. Normally we say five years, although when talking with you, you had stated we should not have a time limit.

Can you write a memo discussing the time limit and what you think should be adequate time to hold on to the money or if you feel we should not give it back, than I would need to know the justification as to why we shouldn't give it back? Thanks.

AH. 8

PINKHAM & GREER
CONSULTING ENGINEERS, INC.

170 U.S. Route One
Falmouth, Maine 04105
Tel: 207.781.5242
Fax: 207.781.4245

September 29, 1999
File:99161

Kandi Talbot
Planning Department
City of Portland

RE: Scott McMullin Subdivision

Dear Kandi:

Enclosed please find material pertaining to the above proposed subdivision. The project is located in the vicinity of 696 Allen Avenue. The single-family subdivision will consist of four lots . The site is approximately 1.72 acres and is located in the R-3 and R-2 zone.

I have been in contact with the following regarding utility services to the lots;

Jim Pendicio at Portland Water District has been notified and has indicted water service is adequate and available

Lt. McDougle of the Portland Fire Department has indicted that it meets requirements for fire protection

Frank Brancely of the Department of Public Works has been contacted and plans forwarded to him regarding sewer service

Additionally, I have visited the site several times during the recent rainstorms to observe the overall conditions during storm events. I have modified the drainage calculations and drainage design in order to re-route on site runoff away from abutting properties. This has resulted in the stromwater getting to the culvert system quicker and thus not impacting the wetland located on the northwest corner of the property. We have reduced the flow into the wetland by about 1.5 cfs during large storm events. The site plan depicts the over all drainage and re-grading of the property.

Construction details as requested by Tony Lombardo at Public Works have been included on the detail sheet.

At the workshop meeting, the amount of paving that would be present on the area was questioned. I calculated the amount currently on the property to be

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8A

approximately 3450 sq. ft and the amount after development to be 3693 sq. ft. an increase of 243 sq. ft.

Foundation drains that relate to finished floor elevations have been included as part of the site plan. These relate to the comments of August 16, 1999 by Jim Wendel as part of his review.

We have provided a drainage easement as requested and denoted it on the site plan. The proper forms will be executed with the legal staff as soon as the project is accepted as adequate to insure proper maintenance.

Sincerely,

PINKHAM & GREER

Alan L. Burnell

A+.9

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

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MEMORANDUM

TO: Kandi Talbot, Planner

FROM: Steve Bushey, DeLuca-Hoffman Associates, Inc.

RE: Scott McMullin Subdivision Application

I have reviewed the application materials contained within the September 29, 1999 letter from Pinkham and Greer to the City of Portland and offer the following comments:

1. The Applicant has provided drainage computations for the 25-year storm event only. Computations for the 2 and 10-year storms should also be provided.

2. The predevelopment subarea 2 and postdevelopment subareas 21, 22 and 23 are approximately the same, at 6.0 acres. The predevelopment curve number is 70 for subarea 2, while the combined subarea 21, 22 and 23 curve number appears to be approximately 67 for the postdevelopment condition. The subdivision and site plan does not contain house and driveway layouts for Lot 1, Lot 2, Lot 3, or Lot 4; therefore, it is difficult to confirm this apparent lowering of runoff curve number despite an increased level of development across the property. The applicant should provide additional backup to support the curve number computation.

3. The time of concentration computations include the use of a Manning's n equal to 0.8. Per the MeDEP and local SCS practice, this value should not generally exceed 0.4 in the State of Maine.

4. The routing computations for the culvert and catch basin at Allen Avenue (Pond 200) use a 30" culvert and broad-crested weir for outlet control. The plans identify a 12" PVC inlet and 24" inlet into the catch basin, both of which are in the street right of way. The computations should be revised to use the culvert inlets as the controlling structures. I was also unable to confirm the available storage area associated with each elevation increment due to the incomplete topography in the vicinity of the catch basin. These items should be addressed by the Applicant.

5. The utility easement containing the sewer for Lot 2 should be defined more accurately and made a minimum of 15'.

6. Is some form of easement/agreement required for the shared common drive for Lots 1, 2 and 3?

c: Tony Lombardo, Public Works

AH. 10

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CONSULTING ENGINEERS, INC.

170 U.S. Route One
Falmouth, Maine 04105
Tel: 207.781.5242
Fax: 207.781.4245

MEMORANDUM

TO: Steve Bushey, DeLuca-Hoffman

FROM: Alan Burnell

DATE: October 14, 1999

RE: Scott McMullin Review Comments

FILE: 99161

Steve, I am in receipt of your comments regarding the above subdivision in Portland. I have revised the drainage calculations to reflect your comments regarding the routing computations at Allen Ave. You will notice that the existing 12" culvert will now be replaced with a 15" culvert. I have also completed the contours so that you may confirm the storage capacity above the culvert. I assumed a flood elevation of 114', the elevation of Allen Ave.

I have revised the Manning's number for Reach 100 from 0.08 (I am assuming that is what you meant not 0.8) to the standard for a grass/weed lined ditch to 0.033 as recommended in the Hydrocad manual.

The subcatchment areas 21, 22, and 23 are in fact part of the existing condition subcatchment 2. Subcatchment 21 is the remainder of 2 and 22 and 23 are that area to be developed. Additionally, because of grading some of the area (.07 acres) of subcatchment 1 is now in subcatchment 23. The small increases are due mostly because all of the development will take place on area that is currently mowed lawn on hyd. D soils. Curve numbers for hyd. D lawns are 80 and for ¼ acre developed lots is 87 so the expected increase is small to be with. This is reflected by the computer program that shows the following increases;

	Existing	Developed
2 yr storm	4.33 cfs	4.58 cfs
10 yr storm	11.58 cfs	12.87 cfs
25 yr storm	17.08 cfs	11.30 cfs

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This is using the catch basin located in Allen Ave. as the point of analysis(Pond 250).

The site plan reflects the building envelopes and I have used the standard curve numbers for a ¼ acre lot, which I believe includes house and driveway calculations. We do not anticipate any long driveways in fact the longest one will be around 200' in length. I have calculated the increase in actual driveway square footage to be around 350 sq. ft., certainly an insignificant amount.

I also feel that the small increase is also a reflection of increasing the Tc path by the grading that will be required for the individual house lots. Forcing the water to seek longer paths even though in a grassed ditch as opposed to shallow concentrated flow accounts for some attenuation. This coupled with the fact that most of the area is currently lawn to start with gives a clue that large increases are not to be expected.

Also, construction of lawns in conjunction with building houses can change hydrologic soil groups from D to C or even B since the top 6 to 8 inches is usually well draining material, certainly better than hyd D infiltrative capacity. However, since this is an uncertainty I prefer to leave the lawn area as the underlying hyd soil type and it builds a little conservation into the model.

I have also printed out sheets for all the storms as opposed to just summary sheets or tables as I had included before for two of the storms.

Regarding your remaining comments:

> I will better define the utility easement for sewer and water for lot 2
>
> An easement/agreement will be required. Please see note on the drawing as well as general note 8.

I hope that this answers any questions that you may have.

A-H. 11

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

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MEMORANDUM

TO: Kandi Talbot, Planner

FROM: Steve Bushey, DeLuca-Hoffman Associates, Inc.

RE: Scott McMullin Subdivision Application – Review Memo #2

I have reviewed the application materials contained within the October 14, 1999 memorandum from Pinkham and Greer to this office and unfortunately still find the stormwater review to be incomplete. I offer the following comments:

1. The Applicant's computations continue to show a slight reduction in the runoff curve number for the area identified as Subcatchment 2 in the predevelopment and Subcatchments 21, 22, and 23 in the postdevelopment. It seems unrealistic that an area which is undeveloped, except for a single home currently, and will be developed with a total of four houses in the future could have less runoff, notwithstanding changes in flow patterns and times of concentration. I continue to request further support for these computational assumptions.

2. The time of concentration computations continue to include the use of a Manning's n equal to 0.8. Per the MeDEP and local SCS practice, this value should not generally exceed 0.4 in the State of Maine. The Applicant should redo the computations with the correct value.

3. The Applicant's computations include a routing only one of three existing culverts along Allen Avenue. This is identified as Pond 201 which is an 8" pipe. The invert elevation for this pipe does not match the plan invert. In addition, a second 8" CMP is located at the southwest corner of the site. A third pipe of unknown size is also shown on the plans. Each of these culverts should be accounted for within the Subcatchment 2 flow regime.

4. The modeling of two separate ponds (#200 and #202) appears to be incorrect in that each of the two pipe inlets (24" and 12", respectively) share common storage areas. These inlets should be modeled as 1 pond with the 12", 24" and broad-crested weir outlet devices.

5. The Applicant should obtain drainage rights from the Portland Water District and any abutting owners to account for the impoundment of water which will occur off the Applicant's property.

c: Tony Lombardo, Public Works

AH. 12

PINKHAM & GREER
CONSULTING ENGINEERS, INC.

170 U.S. Route One
Falmouth, Maine 04105
Tel: 207.781.5242
Fax: 207.781.4245

MEMORANDUM

TO: Steve Bushey

FROM: Alan Burnell

DATE: October 21, 1999

RE: Scott McMullin Subdivision

FILE: 99161

Steve, enclosed are revised drainage figures for the project on Allen Ave. I hae incorporated your comments of 10/20/99. As requested please note the following:

Subcatchment 2 existing conditions CN 70

Subcatchment 21, 22, and 23 which is Subcatchment 2 in a developed state has a weighted CN 71. I calculated this by weighting the areas of each subcatchment to the total area. Total area 6.07 acres; 5.34 is 88% of the area; 0.36 acres is 6% of the total area; 0.37 is 6% of the total area. Therefore, 88% of 69 is 61; 6% of 83 is 5 and 6% of 82 is 5 for a CN of 71 in the developed conditions. This small increase is to be expected since all to the development is on HYD D soils which are currently lawn areas with a CN of 80. The developed CN for ¼ acre lots is 87, a relatively small increase. In fact, if you use all of Sub. 1 and Sub. 2 as one large subcatchment, and simply punch in 1.72 acres of CN 87 the increase in runoff is only 0.58 CFS and no corresponding increase in peak elevations. If you punch in the actual numbers there is no increase at all. This does not pass the straight face test for me. However, I think that this is an inherent problem with Hydrocad and the corresponding SCS TR-20 methodology on which it is based. We are dealing with a very small area, 1.72 acres over a watershed of about 12 acres. Since most of the watershed has a high CN to begin with it would take a large increase in developed area to show a significant increase. That is why I initially broke it down into smaller subcatchments to try and get the total effect of re-grading and re-routing the Tc paths. I think that no matter how you set up the model the increases are so minor that because of the extremely small area that we are trying to deal with that any change in the Tc path

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12a

will result in a lowering of the runoff numbers. The enclosed modeling does in fact show that lowering as expected. By re-grading and rerouting and changing the water flow patterns which detains some on site there is a slight lowering of the runoff numbers.

2. The Tc path Manning's number was generated because I was using a heavy dense underbrush cover that exists in the subcatchment 3 area. I believe that this is defenseable but I changed the number to light underbrush since there is no activity in that subcatchment.

3.The third culvert on the existing plan is not part of my Tc path in either condition which is why it is not modeled. I spent some time on the site during the last significant rainstorm last month verifying runoff conditons and I am comfortable with this design.

4. I have combined the two ponds into one, Pond 200, as you suggested and likewise combined the storage area.

5. The model predicts no increase in peak elevations behind the culvert at Allen Avenue. Since we are not contributing to the elevation behind the culvert we do not need drainage rights as you have suggested. All of the various models that I have used for this project have in fact shown no increase in peak elevation.

Since this project has been in the works since July and it is small to begin with we are in hopes of getting this resolved so that we might progress onward since part of the project is committed pending approval. I appreciate whatever you might be able to expedite this process.

Alan L. Burnell

Att. 13

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

MEMORANDUM

TO: Kandi Talbot, Planner

FROM: Steve Bushey

RE: Scott McMullin Subdivision Application – Review Memo #3

DATE: October 25, 1999

I have reviewed the application materials within the October 21, 1999 Memorandum from Pinkham and Greer to this office and find that my earlier comments have been substantially addressed. Based on my review I find the application materials to be in accordance with the City of Portland Standards for Stormwater Management and Erosion and Sedimentation Control. I do recommend that the Public Works Department review the proposed driveway culverts and the culvert inlets into the City's street drainage system. They should comment regarding the acceptability of the culvert inlet conditions.

If you have any questions, please call.

Stephen Bushey, P.E.

A:1359.95/memo10-25

A-H. 14

August 22, 1999

Mr. Joseph E. Gray
Director of Planning and Urban Development
Portland City Hall
389 Congress Street – 4th Floor
Portland, Maine 04101

RE: Proposed Residential Subdivision: 696 Allen Avenue Vicinity

Dear Mr. Gray:

We are writing with regard to the workshop session scheduled before the Portland Planning Board on Tuesday, August 24, 1999. We received notice that the agenda will include a proposal for a 4-lot subdivision located in the vicinity of 696 Allen Avenue. Scott McMullin will offer the subdivision plan. We are residents of 5 Deepwood Drive, and our property abuts the proposed subdivision.

We understand that the workshop session does not permit public comment. We assume, therefore, that this is not a final plan being submitted by Scott McMullin for final approval from the Board. Final plan approval would require a separate presentation before the Board during a regularly scheduled meeting. However, the notice we received stated that you are willing to accept written comments. We would like to raise some concerns regarding this proposed subdivision.

First, we are concerned about the potential flooding this subdivision would create on our property. The proposed area of subdivision includes substantial wetlands. Some of the wetlands are indicated on the plot layout. However, much of the remaining subdivision, particularly toward the back of the lots (away from Allen Avenue), is wet as well, even though it is not indicated as such on the plot layout. We would ask the Board to request an evaluation of the entire plot in order to define the total wetland area. Once the true wetland area is defined, we would also request that the board pay close attention to the developer's plans for drainage for the subdivision. We believe that specific steps should be required of the developer to insure that flooding of our lot will not occur.

Another concern is the plan for the antique barn in the back of the lot. It is unclear, per review of the plot plan, whether or not the barn will be razed. We feel that the City of Portland would be better served if the barn would remain, for historical purposes, instead of razed so that one more house could be squeezed into the plan. Given that there are many other large housing divisions currently being developed in the North Deering area, it is unnecessary to sacrifice a historical landmark for one more small lot.

We would appreciate receiving continued notice of all Board meetings that may involve consideration of this proposed development. Thank you for your attention and consideration.

Sincerely,

Gary Donaldson

Diane Donaldson

Gary and Diane Donaldson

14a

August 20, 1999

Mr. Joseph E. Gray
Director of Planning and Urban Development
Portland City Hall
389 Congress Street - 4th Floor
Portland, Maine 04101

RE: Proposed Residential Subdivision: 696 Allen Avenue Vicinity

Dear Mr. Gray:

I am writing with regard to the workshop session scheduled before the Portland Planning Board on Tuesday, August 24, 1999. I received notice that the agenda will include a 4-lot subdivision proposal to be located in the vicinity of 696 Allen Avenue. The subdivision plan will be offered by Scott McMullin. I am a resident of 9 Deepwood Drive, and my property abuts the proposed subdivision.

It's my understanding that the workshop session would not permit public comment, and no "final" subdivision plan is being presented for "approval" in any event. Final plan approval would require a separate presentation before the Board during a regularly scheduled meeting. Nevertheless, because you are willing to accept written comments, I did wish to raise my concern regarding potential flooding or drainage arising out of the proposed subdivision.

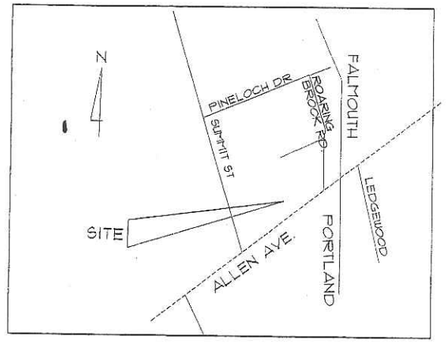
The proposed area of subdivision, and in particular the area immediately adjacent to my property, includes substantial wetland areas. This area poses a direct threat of flooding to my property. I would ask the Planning Board to pay close attention to the proposed use of this area, and the developer's plans for drainage for the subdivision in general. While I presume that wetland zoning restrictions would prevent actual development of the area adjacent to my property, I remain concerned that a plan for drainage from the developed subdivision into this wetland area would also result in the flooding of my property. I believe specific steps should be required of the developer to insure such flooding will not occur.

I would appreciate receiving continued notice of all Board meetings which may involve consideration of this proposed development. Thank you for your attention and consideration.

Sincerely,

Charles Eshbach

Att. 15



ZONING REQUIREMENTS

ZONE: R2 - RESIDENTIAL

1. MINIMUM LOT SIZE (RESIDENTIAL):	10,000 sq. ft.
2. MINIMUM AREA PER DWELLING UNIT:	10,000 sq. ft.
3. MINIMUM STREET FRONTAGE:	50 FEET
4. MINIMUM YARD DIMENSIONS:	
FRONT YARD (PRINCIPAL STRUCTURE)	25 FEET
REAR YARD (PRINCIPAL STRUCTURE)	25 FEET
SIDE YARD:	
1 STORY	12 FEET
1 1/2 STORIES	12 FEET
2 STORIES	14 FEET
2 1/2 STORIES	16 FEET
THE WIDTH OF ONE SIDE YARD MAY BE REDUCED ONE FOOT FOR EVERY FOOT THAT THE OTHER SIDE YARD IS CORRESPONDINGLY INCREASED, BUT NO SIDE YARD SHALL BE LESS THAN 12 FEET.	
5. MAXIMUM LOT COVERAGE:	20% OF AREA
6. MINIMUM LOT WIDTH:	80 FEET
7. MAXIMUM HEIGHT (PRINCIPAL STRUCTURE):	35 FEET

ZONE: R3 - RESIDENTIAL

1. MINIMUM LOT SIZE (RESIDENTIAL):	6500 sq. ft.
2. MINIMUM AREA PER DWELLING UNIT:	6500 sq. ft.
3. MINIMUM STREET FRONTAGE:	60 FEET
4. MINIMUM YARD DIMENSIONS:	
FRONT YARD (PRINCIPAL STRUCTURE)	25 FEET
REAR YARD (PRINCIPAL STRUCTURE)	25 FEET
SIDE YARD:	
1 STORY	8 FEET
1 1/2 STORIES	8 FEET
2 STORIES	14 FEET
2 1/2 STORIES	16 FEET
THE WIDTH OF ONE SIDE YARD MAY BE REDUCED ONE FOOT FOR EVERY FOOT THAT THE OTHER SIDE YARD IS CORRESPONDINGLY INCREASED, BUT NO SIDE YARD SHALL BE LESS THAN 12 FEET.	
5. MAXIMUM LOT COVERAGE:	25% OF AREA
6. MINIMUM LOT WIDTH:	75 FEET
7. MAXIMUM HEIGHT (PRINCIPAL STRUCTURE):	35 FEET

GENERAL NOTES

1. OWNER/DEVELOPER: SCOTT McMULLIN, P.O. BOX 15400, PORTLAND, MAINE
2. ENGINEER: PINKHAM AND GREER CONSULTING ENGINEERS FALMOUTH, MAINE
3. BOUNDARY AND TOPOGRAPHIC SURVEY BY MAINE SURVEY CONSULTANS, INC. HARRISON, MAINE
3. ELEVATIONS REFERENCED TO VERTICAL DATUM DERIVED FROM CITY ENGINEERS OFFICE
4. ZONE: R-2 AND R-3 SINGLE FAMILY RESIDENTIAL HOMES
5. PORTLAND TAX MAP 398 SECT. A, LOT13
6. TOTAL AREA OF PARCEL : 74686 SQ. FT.
7. HOUSE LOCATIONS TO BE WITHIN THE SETBACK LINES SHOWN ON PLAN
8. LOTS 1, 2, AND 3 TO HAVE COMMON DRIVEWAY ACCESS
9. POWER, TELEPHONE AND CABLE TO BE OVERHEAD
10. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT, DEP LATEST EDITION
11. TREES SHOWN ON PLAN TO BE PROTECTED AND RETAINED
12. DRAINAGE EASEMENT FOR MAINTENANCE TO CITY OF PORTLAND ON PARTS OF LOT 1, LOT 2 AND LOT 3
13. SEWER EASEMENT GRANTED FROM LOT 2 TO LOT 3

LEGEND

EXISTING		PROPOSED
●	IRON PIN FOUND	LOT LINE
○	5/8" IRON ROD W/CAP #1014 SET	
ooooo	STONEWALL	SETBACK
N/F	NOW OR FORMERLY	
TM. SECT, LOT C.C.R.D. 3200/618	TAX MAP #, SECTION, LOT # REGISTRY BOOK/PAGE	116 CONTOUR
(D)	EX STORM DRAIN MANHOLE	PAVEMENT TO BE REMOVED
(S)	EX SANITARY SEWER MANHOLE	
	EX WATER VALVE	
	UTILITY POLE	
112	CONTOUR LINE	SEWER LINE
	WETLANDS	WATER SERVICE
E5	EXISTING SEWER LINE	OHU OVERHEAD UTIL.
	ZONE CHANGE	FD FOUNDATION DRAIN
		CULVERT
		EASEMENT

PLAN REFERENCES:

1) PHASE I OF PINELOCH WOODS FOR THE GREATER PORTLAND DEVELOPMENT GROUP, INC. BY OWEN HASKELL, INC., DATED MARCH 5,1986 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.) PLAN BOOK 155, PAGE 31.

2) AMENDED SUBDIVISION PLAN PINELOCH WOODS MADE FOR JACK HUMENIUK BY TITCOMB ASSOCIATES, DATED OCTOBER 21, 1993 AND RECORDED IN THE C.C.R.D. PLAN BOOK 194, PAGE 1.

NOTES:

1) ELEVATIONS BASED ON VERTICAL DATUM DERIVED FROM SEWER ELEVATIONS AS PER THE CITY ENGINEER'S OFFICE.

LINE TABLE		
LINE	LENGTH	BEARING
L1	9.97	N43°23'08"W
L2	19.20	N43°23'08"W

SUBDIVISION PLAN, APPROVED BY THE CITY OF PORTLAND PLANNING BOARD

_____ DATE

STATE OF MAINE, CUMBERLAND REGISTRY OF DEEDS

RECEIVED _____, ____

at _____ h _____ m ___ M

AND RECORDED IN

PLAN BOOK _____ PAGE ____

_____ REGISTER

THIS PLAN IS THE RESULT OF A STANDARD BOUNDARY SURVEY CONFORMING TO THE STANDARDS OF THE MAINE BOARD OF LICENSURE FOR LAND SURVEYORS FOR CATEGORY I, CONDITION III.

_____

GRAPHIC SCALE

-20 0 10 20 40 60

(IN FEET)

1 inch = 20 ft.

REV.	DATE	DESCRIPTION
2	10/14/99	STAFF REVIEW COMMENTS
1	8/28/99	STAFF REVIEW COMMENTS

PINKHAM & GREER
CONSULTING ENGINEERS, INC.
FALMOUTH, MAINE

SCOTT McMULLIN
P.O. BOX 15400 PORTLAND, MAINE

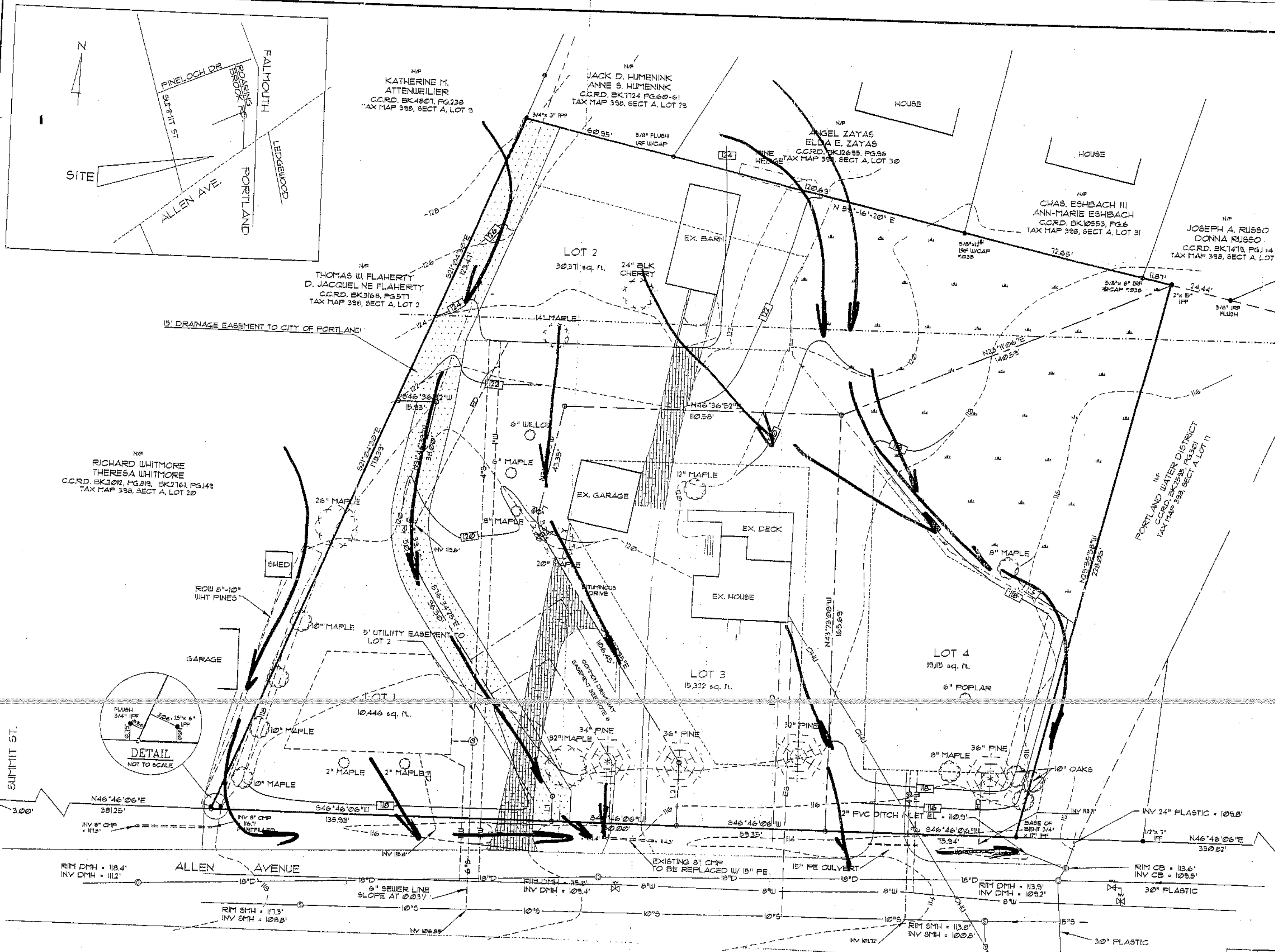
McMULLIN SUBDIVISION
696 ALLEN AVENUE

SUBDIVISION & SITE PLAN

SCALE:	AS SHOWN	DRN BY:	ALB
DATE:	SEPT. 28, 1999	DESG BY:	ALB
PROJECT:	99161	CHK BY:	TSG

C1

PLOT DATE: 10/14/99
FILE SCALE: 1"=20'
CAD FILE: 99161



ZONING REQUIREMENTS 159

ZONE: R2 - RESIDENTIAL

1. MINIMUM LOT SIZE (RESIDENTIAL): 10,000 sq. ft.
2. MINIMUM AREA PER DWELLING UNIT: 10,000 sq. ft.
3. MINIMUM STREET FRONTAGE: 50 FEET
4. MINIMUM YARD DIMENSIONS:
   - FRONT YARD (PRINCIPAL STRUCTURE): 25 FEET
   - REAR YARD (PRINCIPAL STRUCTURE): 25 FEET
   - SIDE YARD:
     - 1 STORY: 12 FEET
     - 1 1/2 STORIES: 12 FEET
     - 2 STORIES: 14 FEET
     - 2 1/2 STORIES: 16 FEET

   THE WIDTH OF ONE SIDE YARD MAY BE REDUCED ONE FOOT FOR EVERY FOOT THAT THE OTHER SIDE YARD IS COORESPONDINGLY INCREASED, BUT NO SIDE YARD SHALL BE LESS THAN 12 FEET.
5. MAXIMUM LOT COVERAGE: 20% OF AREA
6. MINIMUM LOT WIDTH: 80 FEET
7. MAXIMUM HEIGHT (PRINCIPAL STRUCTURE): 35 FEET

ZONE: R3 - RESIDENTIAL

1. MINIMUM LOT SIZE (RESIDENTIAL): 6500 sq. ft.
2. MINIMUM AREA PER DWELLING UNIT: 6500 sq. ft.
3. MINIMUM STREET FRONTAGE: 50 FEET
4. MINIMUM YARD DIMENSIONS:
   - FRONT YARD (PRINCIPAL STRUCTURE): 25 FEET
   - REAR YARD (PRINCIPAL STRUCTURE): 25 FEET
   - SIDE YARD:
     - 1 STORY: 8 FEET
     - 1 1/2 STORIES: 8 FEET
     - 2 STORIES: 14 FEET
     - 2 1/2 STORIES: 16 FEET

   THE WIDTH OF ONE SIDE YARD MAY BE REDUCED ONE FOOT FOR EVERY FOOT THAT THE OTHER SIDE YARD IS COORESPONDINGLY INCREASED, BUT NO SIDE YARD SHALL BE LESS THAN 12 FEET.
5. MAXIMUM LOT COVERAGE: 35% OF AREA
6. MINIMUM LOT WIDTH: 75 FEET
7. MAXIMUM HEIGHT (PRINCIPAL STRUCTURE): 35 FEET

GENERAL NOTES

1. OWNER/DEVELOPER: SCOTT McMULLIN, P.O. BOX 15400, PORTLAND, MAINE
2. ENGINEER: PINKHAM AND GREER CONSULTING ENGINEERS FALMOUTH, MAINE
3. BOUNDARY AND TOPOGRAPHIC SURVEY BY MAINE SURVEY CONSULTANS, INC. HARRISON, MAINE
3. ELEVATIONS REFERENCED TO VERTICAL DATUM DERIVED FROM CITY ENGINEERS OFFICE
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5. PORTLAND TAX MAP 398 SECT. A, LOT13
6. TOTAL AREA OF PARCEL : 74636 SQ. FT.
7. HOUSE LOCATIONS TO BE WITHIN THE SETBACK LINES SHOWN ON PLAN
8. LOTS 1, 2, AND 3 TO HAVE COMMON DRIVEWAY ACCESS
9. POWER, TELEPHONE AND CABLE TO BE OVERHEAD
10. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR [illegible] CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT, DEP LATEST EDITION
11. TREES SHOWN ON PLAN TO BE PROTECTED AND RETAINED
12. DRAINAGE EASEMENT FOR MAINTENANCE TO CITY OF PORTLAND ON PARTS OF LOT [illegible], LOT 2 AND LOT 3
13. SEWER EASEMENT GRANTED FROM LOT 2 TO LOT 3

LEGEND

EXISTING		PROPOSED	
	IRON PIN FOUND		LOT LINE
○	5/8" IRON ROD W/CAP #2014 SET		SETBACK
○○○○○	STONEWALL	118	CONTOUR
N/F	NOW OR FORMERLY		PAVEMENT TO BE REMOVED
TM, SECT, LOT	TAX MAP #, SECTION, LOT #		SEWER LINE
C.C.R.D. 3200/618	REGISTRY BOOK/PAGE	W	WATER SERVICE
Ⓓ	EX STORM DRAIN MANHOLE	OHU	OVERHEAD UTIL.
Ⓢ	EX SANITARY SEWER MANHOLE	FD	FOUNDATION DRAIN
WV	EX WATER VALVE		CULVERT
	UTILITY POLE		EASEMENT
112	CONTOUR LINE		
	WETLANDS		
ES	EXISTING SEWER LINE		
	ZONE CHANGE		

GRANITE MONUMENT FOUND AT SW INT. OF ALLEN AVE. & ROARING BROOK ROAD.

PROPOSED DRAINAGE AFTER GRADING.

PLAN REFERENCES:

1) PHASE I OF PINELOCH WOODS FOR THE GREATER PORTLAND DEVELOPMENT GROUP, INC. BY OWEN HASKELL, INC., DATED MARCH 5,1986 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.) PLAN BOOK 155, PAGE 31.

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NOTES:

1) ELEVATIONS BASED ON VERTICAL DATUM DERIVED FROM SEWER ELEVATIONS AS PER THE CITY ENGINEER'S OFFICE.

LINE TABLE

LINE	LENGTH	BEARING
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

SUBDIVISION PLAN, APPROVED BY THE CITY OF PORTLAND PLANNING BOARD

DATE

STATE OF MAINE, CUMBERLAND REGISTRY OF DEEDS

RECEIVED ______ , ______
at ______ h ______ m ______ M
AND RECORDED IN
PLAN BOOK ______ PAGE ______

REGISTER

THIS PLAN IS THE RESULT OF A STANDARD BOUNDARY SURVEY CONFORMING TO THE STANDARDS OF THE MAINE BOARD OF LICENSURE FOR LAND SURVEYORS FOR CATEGORY 1, CONDITION III.

GRAPHIC SCALE

(IN FEET)
1 inch = 20' ft.

STATE OF MAINE — THOMAS S. GREER — 4206 — REGISTERED PROFESSIONAL ENGINEER

REV.	DATE	DESCRIPTION
1	8/28/99	STAFF REVIEW COMMENTS

SCOTT McMULLIN
P.O. BOX 15400 PORTLAND, MAINE

McMULLIN SUBDIVISION
696 ALLEN AVENUE

SUBDIVISION & SITE PLAN

PINKHAM & GREER
CONSULTING ENGINEERS, INC.
FALMOUTH, MAINE

SCALE:	AS SHOWN	DRN BY:	ALB
DATE:	SEPT. 28, 1999	DESG BY:	ALB
PROJECT:	99161	CHK BY:	TSG

C1

CAD FILE: 99161 FILE SCALE: 1"=20' PLOT DATE: 8/28/99

EROSION CONTROL

GENERAL NOTES:

1. THE DRAWINGS DEPICT THE REQUIRED SOIL EROSION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION SITE IN SUCH A MANNER THAT:
   1. SOIL EROSION IS KEPT TO A MINIMUM.
   2. NO SEDIMENT LEAVES THE CONSTRUCTION SITE PROPER.
   3. ALL POSSIBLE MEASURES ARE EMPLOYED TO PREVENT SEDIMENT FROM ENTERING DRAINAGE COURSES AND WETLANDS EVEN BEYOND THE DETAILS SHOWN ON THIS PLAN IF NECESSARY.
2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND THE DEPARTMENT OF ENVIROMENTAL PROTECTION, MARCH 1991.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATERBODIES, OR WETLAND AS A RESULT OF THIS PROJECT.
4. LOAM AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER DISTURBANCE, BUT NO LONGER THAN 7 DAYS. USE WINTER SEED RATES AND SPECIFICATIONS IF APPROPRIATE.
5. INSPECT SOIL EROSION MEASURES WEEKLY AND AFTER SIGNIFICANT STORM EVENTS. MAKE ALL NECESSARY REPAIRS TO FACILITIES AS SOON AS POSSIBLE, BUT NO LONGER THAN 2 DAYS. CLEAN AND RESET SILT FENCES AND STONE CHECK DAMS WHICH ACCUMULATE SEDIMENT AND DEBRIS.
6. PROTECT AND STABILIZE ALL AREAS NOT SCHEDULED FOR EROSION PREVENTION OR STABILIZATION BUT THAT SHOW SIGNS OF EROSION. NOTIFY OWNER OF ANY SIGNIFICANT EROSION PROBLEM.
7. TEMPORARILY SEED WITHIN 7 DAYS ANY AREA WHICH WILL BE LEFT DISTURBED AND UNWORKED FOR MORE THAN 14 DAYS WITH THE TEMPORARY SEED MIX LISTED BELOW. PERMANENTLY SEED ANY AREA WHICH CAN BE LOAMED AS SOON AS POSSIBLE WITH THE PERMANENT SEED MIX LISTED BELOW. DO NOT USE PERMANENT SEED MIX AFTER SEPTEMBER 15.
8. MULCH ALL AREAS SEEDED SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. DURING THE GROWING SEASON (APRIL 15 - SEPT. 30) USE MATS (OR MULCH AND NETTING) ON:
   - -THE BASE OF GRASSED WATERWAYS
   - -SLOPES STEEPER THAN 15%
   - -WITHIN 100 FT. OF STREAMS AND WETLANDS

   BETWEEN OCT. 1 AND APRIL 14 USE MATS (OR MULCH AND NETTING) ON:
   - -SIDE SLOPES OF GRASSED WATERWAYS
   - -SLOPES STEEPER THAN 8%

   INSTALL MATS (OR NETTING) IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
9. INSTALL EROSION CONTROL MESH IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. MESH TO BE EQUAL TO NORTH AMERICAN GREEN PRODUCT C125BN.
10. FOLLOW SILT FENCE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS FOR INSTALLATION OF SILT FENCE. SECURE ENTIRE BOTTOM OF FENCE EITHER BY BURYING BOTTOM OF FENCE IN A TRENCH OR BERMING WITH SOIL OR CHIPPED GRUBBINGS. REFER TO SILT FENCE DETAILS.

SEEDING:

1. USE PERMANENT SEED MIXES AND RATES BETWEEN 5/15 AND 9/30.
2. USE TEMPORARY SEED MIXES FOR PERIODS LESS THAN 12 MONTHS. IF USING TEMPORARY SEED MIXES AND RATES BETWEEN 10/1 AND 5/14, RE-SEED WITH PERMANENT SEED MIX AFTER 5/15.

PERMANENT SEED:

MDOT 717.03(A) METHOD NUMBER 3

TEMPORARY SEED:

OATS	80.00 LBS/ACRE	4/01 - 5/14
ANNUAL RYEGRASS	40.00 LBS/ACRE	
SUDANGRASS	40.00 LBS/ACRE	5/15 - 8/14
ANNUAL RYEGRASS	80.00 LBS/ACRE	5/15 - 9/14
WINTER RYE	112.00 LBS/ACRE	9/15 - 11/30
WINTER RYE (PROTECT W/ MULCH COVER)	112.00 LBS/ACRE	12/01 - 3/31

LIME AND FERTILIZER:

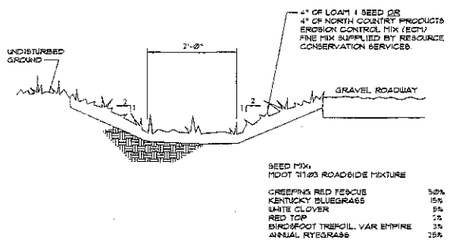
LIMING AND FERTILIZER RATES WILL BE BASED ON FIELD SOIL TESTING OF ON-SITE TOPSOILS BY A CERTIFIED LABORATORY. SUBMIT TEST RESULTS TO THE ENGINEER.

MULCH:

STRAW OR HAY (ANCHORED)	70 - 90 LBS	PROTECTED AREAS
STRAW OR HAY (ANCHORED)	185 - 275 LBS	WINDY AREAS
SHREDDED OR CHOPPED JUTE MESH	185 - 275 LBS AS REQUIRED	MODERATE TO HIGH VELOCITY AREAS & STEEP SLOPES
EXCELSIOR MAT	AS REQUIRED	

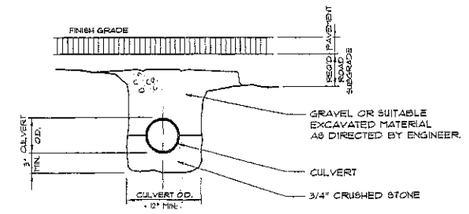
MULCH ANCHORING

PEG AND TWINE	LIQUID ASPHALT
MULCH NETTING	WOOD CELLULOSE FIBER
ASPHALT EMULSION	CHEMICAL TACK



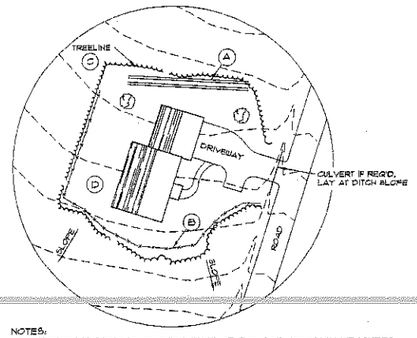
DITCH DETAIL

NOT TO SCALE



TYPICAL TRENCH SECTION – DRIVEWAYS

NOT TO SCALE



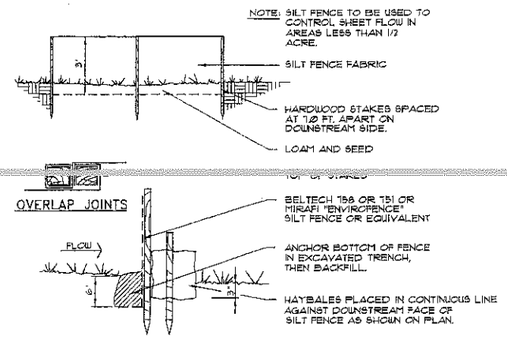
NOTES:
THIS SKETCH IS INDICATING THE INTENT OF THE SOIL EROSION MEASURES. ACTUAL SITE CONDITIONS AND LAYOUTS WILL VARY FROM SITE TO SITE.

BUILDING CONTRACTORS MUST COMPLY WITH THE EROSION CONTROL NOTES SHOWN ON THESE DRAWINGS AND WITH "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES".

A - CONSTRUCT DIVERSION DITCH TO KEEP UPSLOPE DRAINAGE FROM ENTERING SITE.
B - INSTALL SILT FENCE BELOW ALL DISTURBED AREAS.
C - KEEP CLEARING TO A MINIMUM.
D - RE-SEED ALL DISTURBED AREAS, SEE SEEDING NOTES.

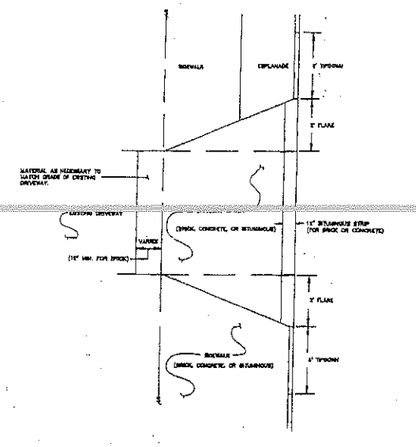
BUILDING SITE EROSION CONTROL

NOT TO SCALE



SILT FENCE DETAIL

NOT TO SCALE



SIDEWALK AND DRIVEWAY CONTINUATION

NOT TO SCALE

THIS SEQUENCE OF CONSTRUCTION IS A GENERAL GUIDE TO THE CONTRACTOR. ACTUAL CONSTRUCTION PRACTICES WILL DICTATE VARIATIONS IN THE ORDER OF MAJOR EVENTS.

1. INSTALL ALL PERIMETER SILT FENCE AND HAYBALE PROTECTION.
2. INSTALL SILTATION BASINS. (PRIOR TO ANY STRIPPING OF TOPSOIL OR OTHER EARTHWORK)
3. CLEAR AND GRUB WORK AREAS. TEMPORARILY SEED AREAS NOT TO BE WORKED ON WITHIN 14 DAYS.
4. STRIP AND STOCKPILE ON-SITE TOPSOIL. SEED STOCKPILES WITH TEMPORARY SEED MIX.
5. SUBMIT SAMPLES OF TOPSOIL/LOAM FOR LAB WORK. ADJUST LIME AND FERTILIZER ACCORDINGLY.
6. BEGIN EARTHWORK FOR ROADS, PARKING AND BUILDING FOUNDATION.
7. INSTALL AND PROTECT ALL STORM DRAINAGE SYSTEMS.
8. BEGIN BUILDING CONSTRUCTION.
9. ROUGH GRADE ROADS, PARKING AREAS, AND ROADWAY SIDE SLOPES.
10. FINE GRADE ALL PARKING LOTS AND DRIVEWAY SIDE SLOPES AND ROUGH GRADE REMAINDER OF SITE.
11. RESEED OR TEMPORARILY SEED ANY AREA WHICH WILL BE LEFT UNDISTURBED FOR MORE THAN 14 DAYS.
12. CLEAN SILTATION BASINS, LEVEL SPREADERS, TREATMENT POND, AND STORM DRAIN SYSTEM OF CONSTRUCTION SEDIMENTATION.
13. COMPLETE FINE GRADING AND PAVING OF ROADS, WALKS AND PARKING AREAS.
14. FINE GRADE, LOAM SEED AND FERTILIZE REMAINDER OF SITE.
15. REMOVE TEMPORARY SOIL EROSION MEASURES.

CAD FILE: 99161 FILE SCALE: AS NOTED PLOT DATE: 8/21/99

STATE OF MAINE THOMAS S. GREER 4206 REGISTERED PROFESSIONAL ENGINEER

REV.	DATE	DESCRIPTION

PINKHAM & GREER
CONSULTING ENGINEERS, INC. FALMOUTH, MAINE

SCOTT McMULLIN
PORTLAND, MAINE

McMULLIN SUBDIVISION
696 ALLEN AVENUE

DETAILS

SCALE:	AS NOTED	DRN BY:	ALB
DATE:	9/13/99	DESG BY:	ALB
PROJECT:	99161	CHK BY:	TSG

C2

DRC1

Engineer Review and Site Inspection Fee Invoice Worksheet

Address: *Durastone…..66 Milliken St.....DATE:8/5/99*

Engineering Review

To be filled out by Development Review Coordinator and Public Works at time of application.

Planning	**Public Works**
# of Hours Estimated: (Private Improvements) Improvements)	**# of Hours Estimated: (Public**
Field Work _____	Field Work *1.0*
Memos/Corresp. _____	Memos/Corresp. _____ *2.0*
Review/Analysis _____ *2.0*	Review/Analysis
Meetings/phone calls _____ *2.0*	Meetings/phone calls
Total Hours _____ at _____ per hour	Total Hours *7.0* at *$35* per hour
Review Fee (Private): $ _____	Review Fee (Public): $ *$245*

_____

Development Review Coordinator Signature — Public Works Engineer Signature

Site Inspection

To be filled out by DRC and Public Works at time of Performance Guarantee approval.

Planning	**Public Works**
____ Accept 1.7% of Private Improvements P.G. P.G.	**___ Accept 1.7% of Private Improvements**
$ _____ (dollar amount)	**$ _____ (dollar amount)**
# of Hours Estimated:	**# of Hours Estimated:**
Field Work _____ *6.0*	Field Work

Memos/Corresp. _____ Memos/Corresp.
1.0

Review/Analysis _____ Review/Analysis
_____

Meetings/phone calls _____ Meetings/phone calls
1.0

Total Hours _____ at _____ per hour Total Hours *8.0* at *$35* per hour

Alternate Inspection Fee (Private): $ _____ Alternate Inspection Fee (Public): $
$280

_____ _____

Development Review Coordinator Signature Public Works Engineer Signature

DUPLICATE

GENERAL RECEIPT

CITY OF PORTLAND, MAINE

DEPARTMENT Planning		DATE 12-1-99	
RECEIVED FROM Scott McMullen			
ADDRESS 15 Lydon Lane			
Cape Eliz. 04107			

UNIT	ITEM	REVENUE CODE	DOLLAR AMOUNT
	Insp. fee		111.35
	Eng. fee		460.—
	696 Allen Ave.		
	Job #19990089		

☐ CASH ☒ CHECK ☐ OTHER **TOTAL** 571.35

#2036

RECEIVED BY J. Dell

SCOTT G. McMULLIN
DIANNE H. McMULLIN
15 LYDON LANE
CAPE ELIZABETH, ME 04107
207-767-2073

2036

11/24/99

Peoples
PEOPLES HERITAGE BANK
52-7445/2112

PAY TO THE ORDER OF City of Portland $ 571.35

five hundred seventy-one and 35/100 DOLLARS

MEMO:

⑈002036⑈ ⑆211274450⑆ 0295 114921⑈

Infrastructure Financial Contribution Form

Obtain an Account Number from Paul Colpitts, Chief Acct., (ext. 8665) prior to the distribution of this form.

Amount $ 10,000.00

City Account Number: 710-0000-236-06-00

Project Name: Allen Ave Subdivision

Project Job Number: 19990089
(from Site Plan Application Form)

Project Location: 696 Allen Avenue

Project Description: contribution for sidewalk and granite curb
(attach approval letter)

Applicant's Name: Scott McMullin

Applicant's Address: P.O. Box 15400 Portland ME 04112

Expiration:

☐ If funds are not expended or encumbered for the intended purpose by _____, funds, or any balance of remaining funds, shall be returned to contributor within six months of said date.

☒ Funds shall be permanently retained by the City.

☐ Other (describe in detail) _____

Form of Contribution:

☐ Escrow Account

☒ Cash Contribution

Interest Disbursement: Interest on funds to be paid to contributor only if project is not commenced.

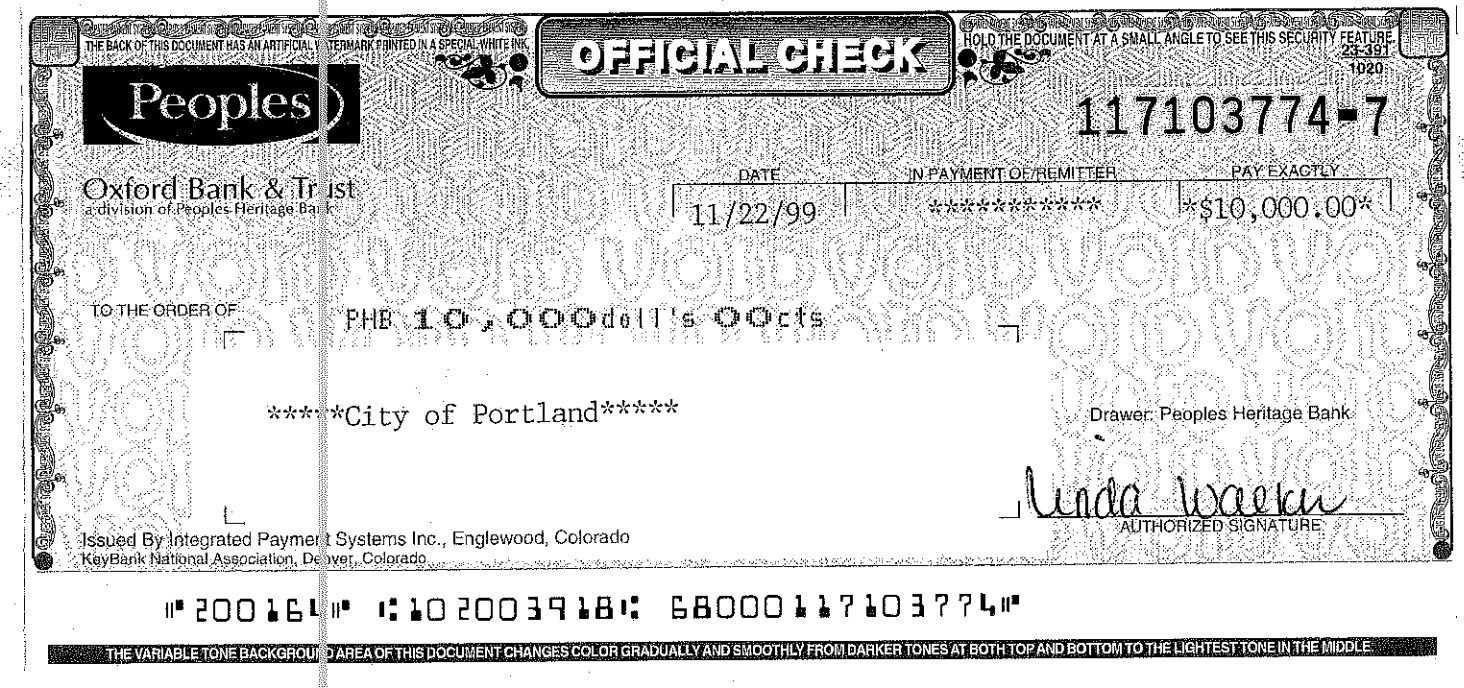
Terms of Draw Down of Funds: The City shall periodically draw down the funds via a payment requisition from Public Works, which form shall specify use of City Account # shown above.

Date of Form: 12/9/99

Planner: Kandice Talbot Person Completing Form: Kandice Talbot

- The original form, copy of the check and any attachments shall be given to Debbie Marquis.
- The original check, copy of the form and any attachments shall be given to Jennifer Dorr.
- A copy of this form, the check and any attachments shall also be given to the following people:

Paul Colpitts	Alexander Jaegerman	William Bray	Applicant
Jennifer Babcock	Planner	Tony Lombardo	Penny Littell


THE BACK OF THIS DOCUMENT HAS AN ARTIFICIAL WATERMARK PRINTED IN A SPECIAL WHITE INK.

OFFICIAL CHECK

HOLD THE DOCUMENT AT A SMALL ANGLE TO SEE THIS SECURITY FEATURE.

29-391
1020

Peoples

117103774-7

Oxford Bank & Trust
a division of Peoples Heritage Bank

DATE	IN PAYMENT OF/REMITTER	PAY EXACTLY
11/22/99	**********	*$10,000.00*

TO THE ORDER OF

PHB 10,000dollars 00cts

*****City of Portland*****

Drawer: Peoples Heritage Bank

Linda Waeker
AUTHORIZED SIGNATURE

Issued By Integrated Payment Systems Inc., Englewood, Colorado
KeyBank National Association, Denver, Colorado

⑈200161⑈ ⑆102003918⑆ 68000117103774⑈

THE VARIABLE TONE BACKGROUND AREA OF THIS DOCUMENT CHANGES COLOR GRADUALLY AND SMOOTHLY FROM DARKER TONES AT BOTH TOP AND BOTTOM TO THE LIGHTEST TONE IN THE MIDDLE

CITY OF PORTLAND
Planning and Urban Development Department

MEMORANDUM

TO: Duane Kline, Finance Department

FROM: Joseph E. Gray, Jr., Director of Planning and Urban Development

DATE: June 20, 2000

SUBJECT: Reduction of Performance Guarantee
McMullin Subdivision, 696 Allen Avenue

Please reduce Escrow Account #103802993 for the improvements at 696 Allen Avenue to $655.00.

Approved: _____
Joseph E. Gray, Jr.
Director of Planning and Urban Development

cc: Kandi Talbot, Planner
Code Enforcement
Jim Wendel, Development Review Coordinator

O:\PLAN\CORRESP\DRC\PERFORM\696ALLEN.WPD

Finance Department

Duane G. Kline
Director

CITY OF PORTLAND

July 5, 2000

Richard A. Blake, Sr. Vice President
Peoples Heritage Bank
P.O. Box 9540
Portland, ME 04112-9540

Re: Performance Guarantee for McMullin Subdivision at 696 Allen Avenue
Escrow Account #103802993, in the amount of $6,550.00

Dear Mr. Blake:

This is to inform you that I am authorizing the reduction of the above-named performance guarantee by the amount of $5,895.00 plus accrued interest, which should leave a balance remaining of $655.00.

If you require any further information, please let me know.

Sincerely,

Ellen Sanborn
Assistant Finance Director

ELS.jlb

cc: Kandi Talbot

Peoples Heritage Bank, N.A.

One Portland Square
P.O. Box 9540
Portland, ME 04112-9540

800-462-3666
Tel: 207-761-8500

APR

April 24, 2001

Peoples
A Banknorth Company

Joseph E. Gray, Jr., Director
Planning & Urban Development
City of Portland
389 Congress Street
Portland, ME 04101

RE: Scott McMullin – Performance Guaranty – Escrow Account #103802933
Improvements at 696 Allen Avenue, Portland, Maine

Dear Mr. Gray:

This letter will serve to notify you that the above noted Performance Guaranty expired April 16, 2001, and that there will not be an extension of the expiration date.

Please send us back the original Performance Guaranty for our files.

Thank you for your cooperation, and please call me at 761-8624 if you have any questions.

Very truly yours,

Richard A. Blake
Senior Vice President

Certified Mail #7099 3400 0003 9915 4698

Peoples Heritage Bank

One Portland Square
P.O. Box 9540
Portland, ME 04112-9540

1-800-462-3666
Tel: 207-761-8500
Internet: www.peoplesheritage.com

SITE PLANS / SUBDIVISION
PERFORMANCE GUARANTEE:
ESCROW ACCOUNT #103802993

November 22, 1999

Joseph E. Gray, Jr., Director
Planning and Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

RE: Application of **SCOTT G. MCMULLIN** for **MCMULLIN SUBDIVISION** Site Improvements at **696 Allen Avenue,** Portland, Maine

Dear Mr. Gray:

This will certify to you that Peoples Heritage Bank will hold the sum of **$6,550.00** in an interest-bearing escrow account in the name of the City of Portland established with the Bank. We will hold these funds as escrow agent for the benefit of the City of Portland on the following conditions:

1. These funds represent the estimated cost of installing site improvements as depicted on the site plan and estimated on Attachment 1.

2. The City of Portland may draw against this escrow account by presentation of a draft in the event that:

   (a) **SCOTT G. MCMULLIN** fails to satisfactorily complete by November 1, 2001, the work as stipulated in Paragraph 1. Said draft shall be accompanied by a written statement from the Director of Planning and Urban Development that **SCOTT G. MCMULLIN** has failed to satisfactorily complete such work, with a listing of improvements still to be completed, and the estimated cost of completing said improvements still to be completed as determined by the Department of Public Works;

   (b) **SCOTT G. MCMULLIN** fails to inform the City for all inspections in conjunction with the installation of public improvements noted in paragraph 1; or

(c) **SCOTT G. MCMULLIN** fails to post a ten percent (10%) Defect Bond or Guarantee as provided in Section 14-501 and 14-525.

3. The City of Portland may draw against this escrow for a period not to exceed 90 days after the expiration of this commitment; provided that **SCOTT G. MCMULLIN OR PEOPLES HERITAGE BANK** will give the City written notice, by certified mail, of the deadline of this escrow at least 90 days prior thereto to the Director of Planning & Urban Development; otherwise drafts must be submitted by the City of Portland no later than 90 days following written notice whenever given thereafter.

4. After all underground work in the public right of way has been completed and inspected to the satisfaction of the Department of Public Works, including but not limited to the installation of granite curbing, sidewalk, curb cut, electrical conduits, street trees, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or the City of Portland Director of Finance, as provided in Section 14-501 of the Portland City Code, may authorize Peoples Heritage Bank, by written certification, to reduce the available amount of the escrowed money by a specified amount.

5. **SCOTT G. MCMULLIN** will notify the City of Portland for inspections.

6. All costs associated with establishing, maintaining and disbursing funds from the escrow account shall be borne by **SCOTT G. MCMULLIN**.

7. This escrow account expires on April 16, 2001, or as automatically extended according to paragraph 3, but may expire prior to this date when the City of Portland acknowledges in writing to Peoples Heritage Bank or **SCOTT G. MCMULLIN** that said work as outlined has been completed in accordance with the City of Portland specifications.

Dated at Portland, Maine this 22nd day of November, 1999.

Very truly yours,

PEOPLES HERITAGE BANK

By: Richard A. Blake Date: November 22, 1999
Richard A. Blake
Title: Senior Vice President

Seen and Agreed to:

By:_____ Date: 11/22/99
Scott G. McMullin

Approved pursuant to § 14-501 and/or § 14-525 of the Portland City Code:

By:_____ Date: 11/24/99
Director of Planning and Urban Development

By_____ Date: 11 Jan 99
Corporation Counsel

By:_____ Date:_____

Department of Planning and Urban Development
SUBDIVISION/SITE DEVELOPMENT

COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

Date 11/12/99

Name of Project McMullin Subdivision

Address/Location 696 Allen Avenue Extension, Portland, Me

Developer SCOTT G. McMULLIN

Form of Performance Guarantee Letter of Credit

Type of Development: ✓ Subdivision _____ Site Plan (Major/Minor)

TO BE FILLED OUT BY APPLICANT:

Item	PUBLIC Quantity	PUBLIC Unit Cost	PUBLIC Subtotal	PRIVATE Quantity	PRIVATE Unit Cost	PRIVATE Subtotal
1. STREET/SIDEWALK	Planning to accept $10,000 contribution in lieu of sidewalks and curbs					
Road						10,000
Granite Curbing						
Sidewalks						
Esplanades						
Monuments						
Street Lighting						
Other new 15" culvert for common driveway, repave				1	650	~~10,650~~ 650.00
2. SANITARY SEWER						
Manholes						
Piping none required						
Connections						
Other						
3. STORM DRAINAGE						
Manholes						
Catchbasins						
Piping						
Detention Basin						
Other - See attached						5,900
4. SITE LIGTING none						
5. EROSION CONTROL included on attached sheet						
6. RECREATION AND OPEN SPACE AMENITIES none required						

Item	PUBLIC Quantity	PUBLIC Unit Cost	PUBLIC Subtotal	PRIVATE Quantity	PRIVATE Unit Cost	PRIVATE Subtotal
7. LANDSCAPING (Attach breakdown of plant materials, quantities, and unit costs)	included on attached sheet					
8. MISCELLANEOUS						
TOTAL:						
GRAND TOTAL:				~~$6,550~~ 6550.00		

INSPECTION FEE (to be filled out by City)

	PUBLIC	PRIVATE	TOTAL
A: 1.7% of totals:			
OR			
B: Alternative Assessment:			

Assessed by: (name)

McMullin Subdivision
696 Allen Avenue Extension

	Quantity		Unit Price		Subtotal
Storm Drainage					
Excavate 440 LF of drainage ditch	440	$	7.50	$	3,300
Loam ditched area (reuse existing material)	1	$	200.00	$	200
Seed and mulch ditch area	5,280	$	0.10	$	528
Furnish and place erosion control mesh	1	$	750.00	$	750
Re-grade approximately 4,500 SF near barn	4,500	$	0.25	$	1,125
				$	5,903

Finance Department

Duane G. Kline
Director

CITY OF PORTLAND

June 22, 2001

Richard A. Blake, Sr. Vice President
Peoples Heritage Bank
P.O. Box 9540
Portland, ME 04112-9540

Re: Escrow Account # 103802993
McMullin Subdivision

Dear Mr. Blake:

This is to inform you that I am authorizing the release and return of the above-named escrow account, including accrued interest.

If you require any further information, please contact Jennifer Babcock in the Finance Director's office at 874-8645.

Sincerely,

Dan C. Boutilier
Acting Finance Director

pc: Kandi Talbot, Planner

Planning & Urban Development

Joseph E. Gray Jr.
Director

CITY OF PORTLAND

TO: Duane Kline, Finance Department

FROM: Joseph E. Gray, Jr., Director of Planning and Urban Development

DATE: June 11, 2001

SUBJECT: Reduction of Performance Guarantee
McMullin Subdivision, 696 Allen Avenue

Please release the Escrow Account #103802993 in the amount of $655.00 for the McMullin Subdivision located at 696 Allen Avenue.

Approved: Alexander Jaegerman 6/11/01
Alexander Jaegerman
Chief Planner

cc: Kandice Talbot, Planner
Development Review Coordinator
Tony Lombardo, Public Works
Code Enforcement

O:\PLAN\CORRESP\DRC\PERFORM\696ALLENDEFECTRELEASE.DOC

Department of Planning and Urban Development
SUBDIVISION/SITE DEVELOPMENT

COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

Date 11/12/99

Name of Project McMullin Subdivision

Address/Location 696 Allen Avenue Extension, Portland, Me

Developer Scott G. McMullin

Form of Performance Guarantee Letter of Credit

Type of Development: ✓ Subdivision ____ Site Plan (Major/Minor)

TO BE FILLED OUT BY APPLICANT:

Item	PUBLIC Quantity	PUBLIC Unit Cost	PUBLIC Subtotal	PRIVATE Quantity	PRIVATE Unit Cost	PRIVATE Subtotal
1. STREET/SIDEWALK	Planning to accept $10,000 contribution in lieu of sidewalks and curbs					
Road						10,000
Granite Curbing						
Sidewalks						
Esplanades						
Monuments						
Street Lighting						
Other new 15" culvert 40' common driveway, repave				1	250	10,250
2. SANITARY SEWER						
Manholes						
Piping none required						
Connections						
Other						
3. STORM DRAINAGE						
Manholes						
Catchbasins						
Piping						
Detention Basin						
Other - See attached						5,905
4. SITE LIGTING none						
5. EROSION CONTROL included on attached sheet						
6. RECREATION AND OPEN SPACE AMENITIES none required						

Item	PUBLIC Quantity	PUBLIC Unit Cost	PUBLIC Subtotal	PRIVATE Quantity	PRIVATE Unit Cost	PRIVATE Subtotal
7. LANDSCAPING (Attach breakdown of plant materials, quantities, and unit costs)	included on attached sheet					
8. MISCELLANEOUS						
TOTAL:						
GRAND TOTAL:				$16,550		

INSPECTION FEE (to be filled out by City)

	PUBLIC	PRIVATE	TOTAL
A: 1.7% of total:			
OR			
B: Alternative Assessment:			
Assessed by:	(name)	(name)	

McMullin Subdivision
696 Allen Avenue Extension

	Quantity		Unit Price		Subtotal
Storm Drainage					
Excavate 440 LF of drainage ditch	440	$	7.50	$	3,300
Loam ditched area (reuse existing material)	1	$	200.00	$	200
Seed and mulch ditch area	5,280	$	0.10	$	528
Furnish and place erosion control mesh	1	$	750.00	$	750
Re-grade approximately 4,500 SF near barn	4,500	$	0.25	$	1,125
				$	5,903

1359.95

SCOTT G. McMULLIN

Date: November 18, 1999

To: Steve Bushey, Project Development Coordinator

pages (including cover): 4

Re: McMullin Subdivision....696 Allen Avenue

At the request of Kandi Talbot of the City's Planning Staff, I am sending directly to you the cost estimate of improvements to be covered by performance guarantee. These estimates are on the basis of proposals from Scott Dugas, Maine Earthmoving and Maineway Landscaping and Excavating. The proposals were all within $150 of each other, amazingly enough.

I am trying to get this reviewed by you, Tony Lombardo of Public Works and the Planning Staff prior to Kandi's vacation starting tomorrow afternoon. So, I would be greatly appreciative of a quick response from you to me if changes are needed or to her if this is acceptable.

Thank you.

Scott G. McMullin

PO Box 15400, Portland, ME 04112
Tel: 207-767-2073 Fax: 207-767-7553