supposing 4. f. of rain water to fall in the year, the following calculation shews how much the area of my whole buildings would furnish to cisterns

	square feet
area of the Dwelling house	6096
the 2. pavilions 484×2	968
2. covered ways, each 60.3 by 19.8	1922
2. ranges of offices, each 120.8 by 22.10	5497
the whole buildings	14483 = 1609. sq. yds

rain falling in one year   4

cub. feet falling on them in one year   57,932

$\frac{57,932}{365}$ gives for every day on average of 158.72 cub. feet

which, at 7.42 galls. p. cub. foot gives daily 1107.22 galls.

& at 126. galls. per pipe or butt gives daily 9. pipes or butts

[note a rain of 1. I. gives 91. 6 a 916. 06 cub. f. each, or 1207. cub. feet = 9026 galls. (9028. 36

make 4. cisterns of 8. f. cube each, or 3830. gallons. to wit, one on each side of each covered way, near it's angle with the offices & allot to them the water gutters as follows.

	area sq. feet	yearly fall cub. f.	gall.	daily gall.
to the Kitchen the South Western quarter, to wit				
S.W. spout of S.W. portico	1041	4164	31,147	85.33
S.W. do. of S. piazza	483	1932	14,451	39.59
internal moiety of S. covered way	450	1800	13,464	36.88
	1974	7896	59,062	162.
to the Garden the S. Eastern quarter, viz.				
S.E. spout of N.E. portico	1041	4164	31,147	85.33
S.E. do. of S. piazza	483	1932	14,451	39.59
external moiety of S. covered way	511	2044	15,289	41.88
	2035	8140	60,887	166.80
to the bathing room. the N.W. quarter, viz.				
N.W. spout of S.W. portico	1041	4164	31,147	85.33
N.W. spout of N. piazza	483	1932	14,451	39.59
internal moiety of N. covered way	450	1800	13,464	36.88
	1974	7896	59,062	162.
to the house & slope the N.E. quarter, viz.				
N.E. spout of N.E. portico	1041	4164	31,147	85.33
N.E. spout of N. piazza	483	1932	14,451	39.59
external moiety of N. covered way	511	2044	15,289	41.88
	2035	8140	60,887	166.80
to the South pond				
internal moiety of S. offices	1344	5375	40,205	110.15
N. side of S. pavilion	242	968	7,240	19.83
	1586	6343	47,445	130.
to the North pond				
internal moiety of N. offices	1344	5375	40,205	110.15
S. side of N. pavilion	242	968	7,240	19.83
	1586	6343	47,445	130.
for irrigating the slopes & for the garden				
external moiety of N. offices	1405	5620	42,030	115.15
do. of S. offices	1405	5620	42,030	115.15
N. side of N. pavilion	242	968	7,240	19.83
S. side of S. do.	242	968	7,240	19.83
	3294	13176	98,540	270.

the fish pond near the S. pavilion is an Ellipsis 5. yds wide, 10. yds long = 40. sq. yds. very nearly

1. yard deep = 40. cub. yds contents.

the Ice house is 16. f. diam. & 16. f. deep = 22.35 sq. yds surface & 120. cub. yds contents very nearly.

Ice of 1½ f. thick from a pond 50. yds square will fill it