

LEGEND

INLET

CATCH BASIN

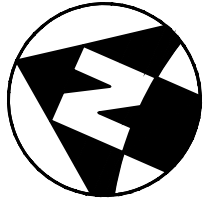
MANHOLE

STORM SEWER

ASPHALT

CONCRETE

LANDSCAPE



CENTRE PARK, LLC
O.R. 8765 PG 1212

UNION CENTRE INNKEEPERS, LLC
O.R. 8618 PG. 520
5.210 AC.
S.R. 45-116

Elevation (ft)	Planimeter (sq.in)	Area (sq.ft)	A1+A2+sq.(A1*A2) (sq.ft)	Volume (cu.ft)	Volume Sum (cu.ft)
596.00	1926	0	0	0	0
597.00	3063	7418	2473	2473	2473
598.00	4285	10971	3657	6129	6129
599.00	5765	15020	5007	11136	11136

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

Volume = (1/3) * (EL2-EL1) * (Areal + Area2 + sq.rt.(Areal*Area2))

where: EL1, EL2 = Lower and upper elevations of the increment
Areal,Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

DESIGNATION	HIGHWATER ELEVATION (FT. ABOVE MSL)	PRE-DEV Q1 (CFS)	PRE-DEV Q10 (CFS)	POST-DEV Q100 (CFS)	REQUIRED STORAGE VOLUME (CF)	AS-BUILT STORAGE VOLUME (CF)	WALL GRANULAR BACKFILL VOID SPACE (40%) (CF)	TOTAL AS-BUILT STORAGE VOLUME (CF)
REGIONAL DETENTION BASIN	599.60	2.91	8.37	3.57	74,731	72,351	1,188	73,539
60" REGIONAL PIPES (SEE LOCAL STORM AS-BUILT FOR PIPE LENGTHS AND SLOPES)	599.60	NA	NA	NA	10,544	10,448	NA	NA
NORTH DETENTION BASIN	599.60	0.642	0.86	1.04	8,904	11,136	NA	NA

COMPUTED VOLUMES FOR A PIPE

US Invert Elev.= 593.37 ft
DS Invert Elev.= 591.98 ft
Barrel Length = 532.12 ft
Computed Slope = .002612 ft/ft
Diameter = 5.0000 ft
of Barrels = 1.00
Slice Width = .50 ft
Vertical Incr. = .50 ft

Elevation (ft)	DS Depth (ft)	DS Area (sq.ft)	Wetted Length (ft)	Filled Length (ft)	DS Depth (ft)	US Area (sq.ft)	Total Volume (cu.ft)
591.98	.00	.0000	.00	.00	.00	.0000	0
592.48	.50	1.0180	191.41	.00	.00	.0000	79
592.98	1.00	2.7905	582.82	.00	.00	.0000	436
593.48	1.50	4.9494	535.12	.00	.11	1.0890	1172
593.98	2.00	7.3280	532.12	.00	.61	1.3672	2218
594.48	2.50	9.8111	532.12	.00	1.11	3.2443	3424
594.98	3.00	12.2945	532.12	.00	1.61	5.4633	4713
595.48	3.50	14.6749	532.12	.00	2.11	7.8754	6023
595.98	4.00	16.8343	532.12	.00	2.61	10.3673	7299
596.48	4.50	18.8093	532.12	.00	3.11	12.8369	8478
596.98	5.00	19.6350	532.12	.01	3.61	15.1793	9473
597.48	5.00	19.6350	532.12	191.41	4.11	17.2699	10120
597.98	5.00	19.6350	532.12	382.82	4.61	18.3261	10406
598.37	5.00	19.6350	532.12	532.13	5.00	19.6350	10448

Elevation (ft)	Planimeter (sq.in)	Area (sq.ft)	A1+A2+sq.(A1*A2) (sq.ft)	Volume (cu.ft)	Volume Sum (cu.ft)
592.00	514	0	0	0	0
593.00	5715	7942	2647	2647	2647
594.00	7467	19714	6371	9219	9219
595.00	8824	24408	8136	17354	17354
596.00	10110	28379	9460	26814	26814
597.00	11367	32197	10732	37547	37547
598.00	12794	36220	12073	49620	49620
599.00	14518	40941	13647	63267	63267
599.60	15771	45420	9084	72351	72351

POND VOLUME EQUATIONS

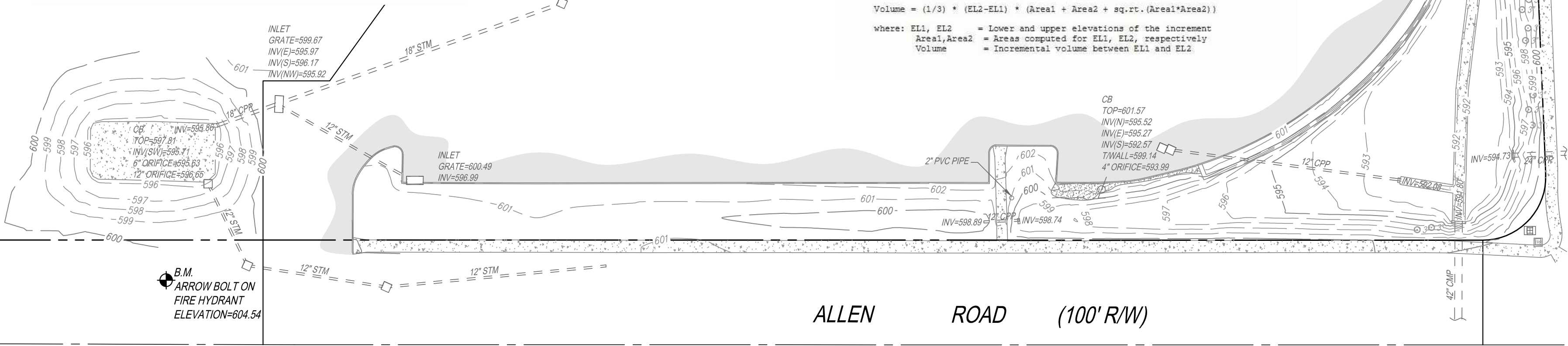
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Volume = (1/3) * (EL2-EL1) * (Areal + Area2 + sq.rt.(Areal*Area2))

where: EL1, EL2 = Lower and upper elevations of the increment
Areal,Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

ALLEN ROAD (100' R/W)

MUHLHAUSER ROAD (120' R/W)
P.E. 3040 PG. A



NOTE:
UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE EXISTENCE OR NON EXISTENCE OF UNDERGROUND UTILITIES CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY.



NOTES:

- BEARINGS ARE BASED ON BUTLER COUNTY ENGINEERS RECORD OF LAND SURVEYS VOLUME 44 PAGE 122.
- VERTICAL DATUM IS BASED ON THE OHIO DEPARTMENT OF TRANSPORTATION'S VIRTUAL REFERENCE STATIONING SYSTEM. (VRS)(NAVD 88)
- SITE BENCHMARK AS SHOWN HEREON.



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SEAL:



NO.	DATE	DESCRIPTION
1	10/15/15	BASEMAP - ARI

DETENTION AS-BUILT
SECTION 33, TOWN 3, RANGE 2
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO
FOR: HIFIVE DEVELOPMENT SERVICES

PROJECT NO: 110590VAB006

DATE: 10/15/2015

SCALE: 1" = 40'



SHEET NAME:

CENTRE PARK HOTEL

SHEET NO.

1 OF 1