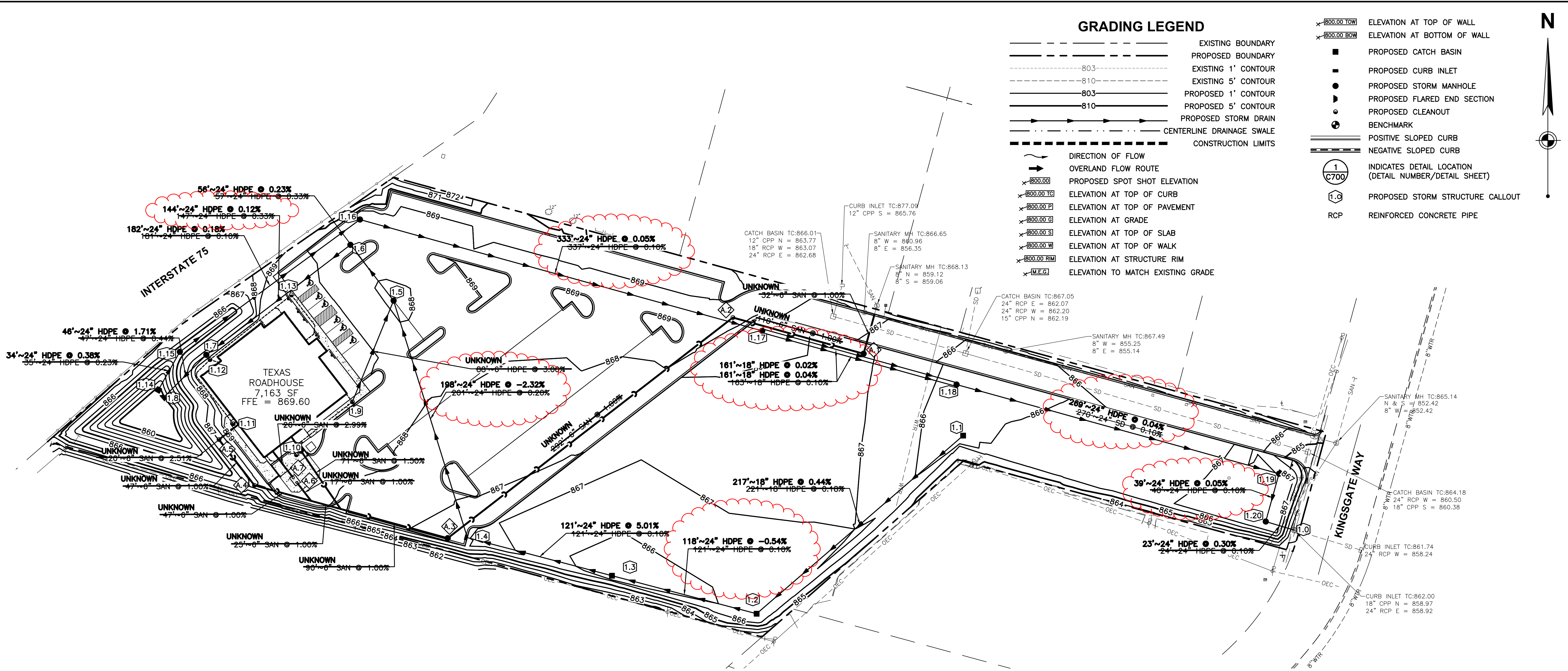


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G:\DE\Clients\American Capital Partners\075566 WoodSpring Suites, West Chester, OH\4.0 Disciplines\Civil\Cadd\Exhibits\As-built EXH\075566-ASBUILT-6.28.17.dwg Plotted By: wjwaniuk, Bran, Plotted: June 28, 2017, 5:19:55 PM



GRADING LEGEND

- EXISTING BOUNDARY
- PROPOSED BOUNDARY
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED 5' CONTOUR
- PROPOSED STORM DRAIN
- CENTERLINE DRAINAGE SWALE
- CONSTRUCTION LIMITS
- DIRECTION OF FLOW
- OVERLAND FLOW ROUTE
- PROPOSED SPOT SHOT ELEVATION
- ELEVATION AT TOP OF CURB
- ELEVATION AT TOP OF PAVEMENT
- ELEVATION AT GRADE
- ELEVATION AT TOP OF SLAB
- ELEVATION AT TOP OF WALK
- ELEVATION AT STRUCTURE RIM
- ELEVATION TO MATCH EXISTING GRADE

- ELEVATION AT TOP OF WALL
- ELEVATION AT BOTTOM OF WALL
- PROPOSED CATCH BASIN
- PROPOSED CURB INLET
- PROPOSED STORM MANHOLE
- PROPOSED FLARED END SECTION
- PROPOSED CLEANOUT
- BENCHMARK
- POSITIVE SLOPED CURB
- NEGATIVE SLOPED CURB
- INDICATES DETAIL LOCATION (DETAIL NUMBER/DETAIL SHEET)
- PROPOSED STORM STRUCTURE CALLOUT
- RCP
- REINFORCED CONCRETE PIPE

STORM STRUCTURE TABLE

STRUCTURE ID	DESCRIPTION	RIM/GRADE	INVERT
1.0	EXISTING STM INLET (SEE NOTE 4)	862.00	18" = 858.97 (N) 24" = 858.92 (E) 24" = 858.92 (W)
1.1	STORM CATCH BASIN WITH BASIN INSERT	865.00 865.20	18" = 862.02 (SW) 862.06
1.2	STORM CATCH BASIN WITH BASIN INSERT	865.30 866.21	18" = 861.62 (NE) 861.10 24" = 861.62 (W) 861.10
1.3	STORM CATCH BASIN WITH BASIN INSERT	865.60 866.41	24" = 861.50 (W) 861.86 24" = 861.50 (E) 861.74
1.4	OPEN GRATE 48" STORM MH WITH BASIN INSERT	861.04 866.00	24" = 861.30 (E) 855.79 24" = 861.30 (N) 855.79
1.5	OPEN GRATE 72" STORM MH WITH BASIN INSERT	867.74 867.00	24" = 860.00 (S) 860.39 24" = 860.70 (NW) 860.36 6" = 862.00 (S) 8" = 861.28 (S)
1.6	CLOSED GRATE 48" STORM MH	868.45 868.47	24" = 860.00 (SE) 860.23 24" = 860.00 (SW) 860.24
1.7	CLOSED GRATE 48" STORM MH	867.91 868.00	24" = 860.11 (NE) 860.07 24" = 860.11 (SW) 860.06 6" = 862.00 (SE)
1.8	24" F.E.S.		24" = 859.90 (NE) 859.28
1.9	RD CLEANOUT	869.27	6" = 864.65 (N) 6" = 866.02 (SW) UNKNOWN
1.10	DUMPSTER DRAIN	868.85	6" = 865.31 (NW) UNKNOWN

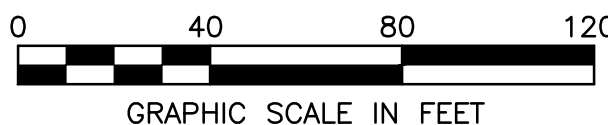
1.11	RD CLEANOUT	869.48	6" = 866.50 (NW) UNKNOWN
1.12	RD CLEANOUT	869.30	6" = 862.13 (NW) 6" = 865.78 (SW) 6" = 865.26 (NE) UNKNOWN
1.13	RD CLEANOUT	869.40	6" = 866.04 (SE) 6" = 866.04 (SW) UNKNOWN
1.14	RATE CONTROL STRUCTURE	866.10 866.25	24" = 860.00 (NE) 859.97
1.15	CLOSED GRATE 48" STM MANHOLE	864.59 864.60	24" = 859.92 (SW) 859.84 24" = 859.92 (NE) 859.84
1.16	CLOSED GRATE 48" STM MANHOLE	868.81 868.82	24" = 859.74 (SW) 859.51 24" = 859.74 (E) 859.42
1.17	CLOSED GRATE 60" STM MANHOLE	UNKNOWN 868.24	24" = 859.40 (W) 859.27 18" = 859.40 (E) 859.14 18" = 859.40 (E) 859.11
1.18	CLOSED GRATE 60" STM MANHOLE	865.70 865.00	18" = 859.25 (W) 859.08 24" = 859.25 (E) 859.02 18" = 859.25 (W) 859.08
1.19	CLOSED GRATE 48" STM MANHOLE	866.91 867.01	24" = 859.90 (W) 858.91 24" = 859.90 (S) 859.90
1.20	CLOSED GRATE 48" STM MANHOLE	867.28 867.40	24" = 858.04 (N) 858.88 24" = 858.04 (E) 858.85

SANITARY STRUCTURE TABLE

STRUCTURE ID	DESCRIPTION	RIM	INVERT
A.1	SANITARY CONTROL MANHOLE - BUTLER COUNTY STANDARD	867.41 867.17	6" = 856.67 (W) 860.87 6" = 856.57 (N) 856.80
A.2	CLEAN OUT	UNKNOWN 866.54	6" = 857.77 (SW) UNKNOWN 6" = 857.77 (E) UNKNOWN
A.3	SANITARY CONTROL MANHOLE - BUTLER COUNTY STANDARD	UNKNOWN 866.63	6" = 860.94 (W) 860.47 6" = 860.60 (NE) 860.42
A.4	CLEAN OUT	UNKNOWN 867.63	6" = 862.53 (NW) UNKNOWN 6" = 862.53 (E) UNKNOWN
A.5	CLEAN OUT	UNKNOWN 867.40	6" = 863.00 (NE) UNKNOWN 6" = 863.00 (SE) UNKNOWN
A.6	GREASE TRAP OUTLET		6" = 862.23 (SE) UNKNOWN
A.7	GREASE TRAP INLET		6" = 862.23 (NW) UNKNOWN

SURVEY DATA:

THE BEARINGS OF THIS SURVEY ARE BASED UPON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE NAD83 (ODOT VRS). SAID BEARINGS ORIGINATED FROM SAID COORDINATE SYSTEM BY GPS OBSERVATIONS AND OBSERVATIONS OF SELECTED STATIONS IN THE NATIONAL GEODETIC SURVEY CONTINUOUSLY OPERATING REFERENCE STATIONS (NGS CORS) NETWORK. THE BEARING ON THE WEST RIGHT OF WAY LINE OF KINGSGATE WAY, BEING S15°18'15"W, IS DESIGNATED THE 'BASIS OF BEARING' FOR THIS SURVEY.



REVISION

No. DATE

PROJECT No: 075566

DATE 06/15/16

DES. BI

DR. BI

CKD. TR

4454 Idea Center Blvd

Dayton, OH

45430-1500

937.461.5660

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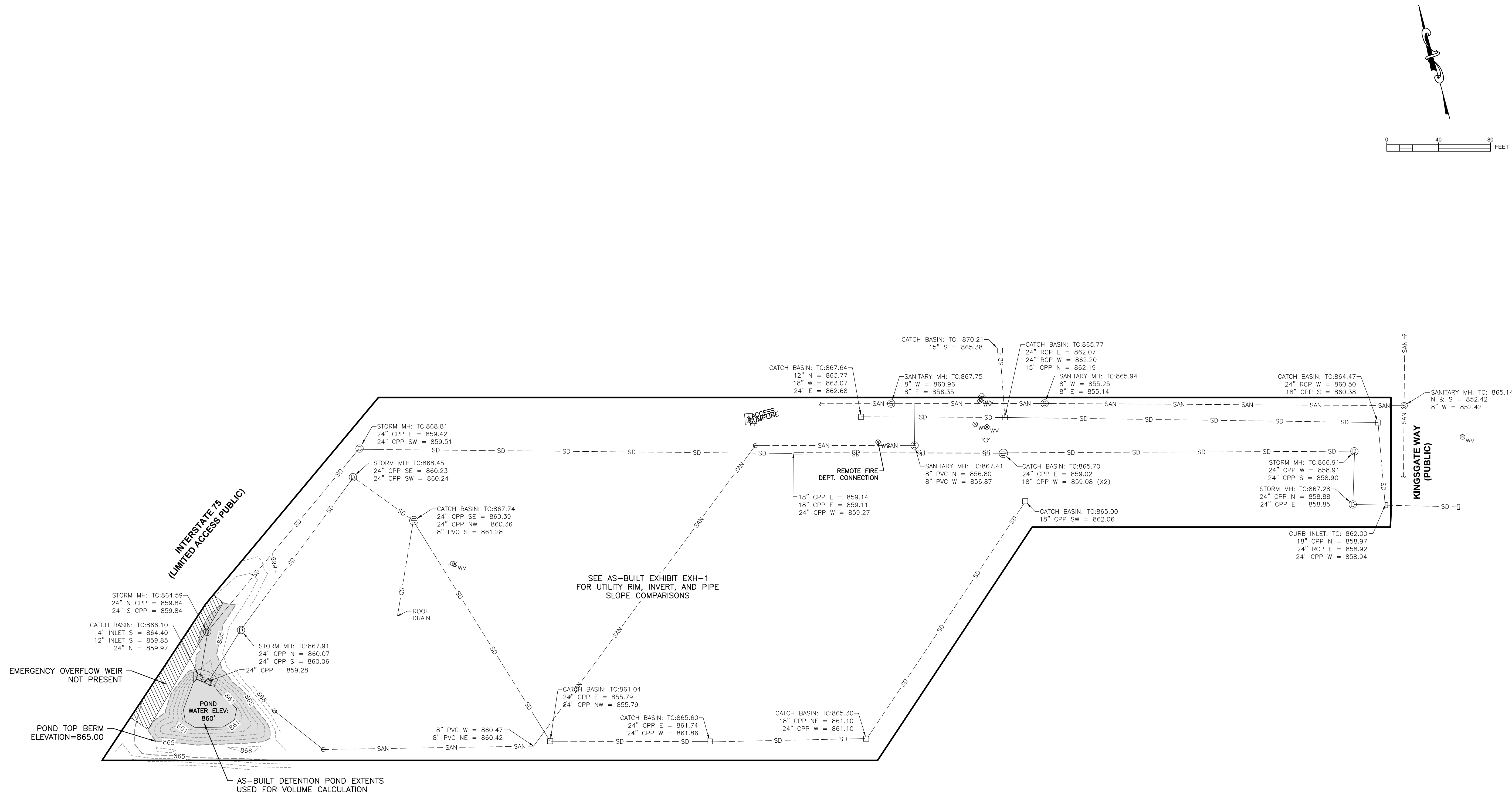
SITE IMPROVEMENT PLANS
TEXAS ROADHOUSE - WEST CHESTER

7313 KINGSGATE WAY
WEST CHESTER TOWNSHIP, BUTLER COUNTY, OHIO

AS-BUILT EXHIBIT

SHEET NO.

EXH-1



Detention Basin Storage (PROPOSED)

Surface Ponding

$$\text{Volume} = (1/3) * (\text{EL2} - \text{EL1}) * [\text{A1} + \text{A2} + \text{sqrt}(\text{A1} * \text{A2})]$$

DETENTION AREA ELEVATION (ft)	AREA (SF)	INCREMENTAL (SF)	INCREMENTAL VOLUME (CF)	TOTAL VOLUME (CF)	TOTAL VOLUME (AC-FT)
859.75	0.00	0.00	0.00	0.000	0.000
860.00	1087.50	1087.50	90.63	90.625	0.002
861.00	1614.77	4027.44	1342.48	1433.103	0.033
862.00	2260.39	5785.66	1928.55	3361.657	0.077
863.00	3028.06	7904.67	2634.89	5996.546	0.138
864.00	3908.85	10377.29	3459.10	9455.644	0.217
865.00	5296.09	13754.84	4584.95	14040.591	0.322
866.00	6770.64	18054.88	6018.29	20058.884	0.460

PROPOSED DETENTION BASIN VOLUME =	0.4605	AC-FT
	20058.88	CF

Detention Basin Storage (AS-BUILT CONDITION)

Surface Ponding

$$\text{Volume} = (1/3) * (\text{EL2} - \text{EL1}) * [\text{A1} + \text{A2} + \sqrt{\text{A1} * \text{A2}}]$$

DETENTION AREA ELEVATION (ft)	AREA (SF)	INCREMENTAL (SF)	INCREMENTAL VOLUME (CF)	TOTAL VOLUME (CF)	TOTAL VOLUME (AC-FT)
859.28	0.00	0.00	0.00	0.000	0.000
860.00	1054.69	1054.69	253.13	253.126	0.006
861.00	1362.57	3616.04	1205.35	1458.473	0.033
862.00	1858.66	4812.62	1604.21	3062.680	0.070
863.00	2437.82	6425.12	2141.71	5204.385	0.119
864.00	3128.76	8328.35	2776.12	7980.503	0.183
865.00	4567.77	11476.94	3825.65	11806.151	0.271

AS-BUILT DETENTION BASIN VOLUME = 0.2710 AC-FT

11806.15 CF

DESIGN DETENTION BASIN VOLUME=

0.4605 AC-FT

20058.88 CF

DEFICIT = 0.1895 AC-FT