



BURGESS & NIPLE
 10701 CORPORATE DR., SUITE 118
 STAFFORD, TEXAS 77477
 PHONE: (281) 980-7705
 TBE FIRM REGISTRATION NO. F-10884

BENCHMARK
 CITY: 861
 SITE B.M.: CROSS CUT ON TOP OF CURB AT THE NORTHEAST CORNER OF THE INTERSECTION OF JUSTIN ROAD AND NORTH T. L. TOWNSEND DRIVE FROM THE CENTER OF TOWNSEND BLVD. & 869 DRIVE
 N: 1023100.673 E: 2598900.421 ELEV. = 983.32
 SITE B.M. TWO: CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSEND BLVD. & 869 DRIVE
 N: 1022744.440 E: 2597331.250 ELEV. = 985.72

DRAINAGE AREA MAP (PRE)
 ALDERS AT ROCKWALL
 SENIOR INDEPENDENT LIVING COMMUNITY

NO.	REV/ISSIONS	DATE	CHK BY	TAL	
				TAL	TAL
	UPDATE WATERLINE LAYOUT	02/21/19			
	MINOR HUD/OWNER COMMENTS	05/17/19			
	REV. TO SIDEWALKS & COURTYARD (STORM) PER LANDSCAPE	07/17/19			

7/17/19
 12/25/18

THOMAS A. LUNZMAN
 122259
 PROFESSIONAL ENGINEER
 CIVIL

JOB NUMBER: 56211
 DESIGNED BY: TAL
 DRAWN BY: NRM/TAL
 APPROVED BY: TAL
 CHECKED BY: JTR
 DATE: 01/29/2019
 SCALE: 1" = 50'
 SHEET NUMBER: C.10 OF 23

BASIN 'A' EXISTING DRAINAGE AREA CALCULATIONS

AREA ID	AREA (acres)	C	Tc (min.)	I-5 (in/hr)	I-10 (in/hr)	I-25 (in/hr)	I100 (in/hr)	Q-5 (cfs)	Q-10 (cfs)	Q-25 (cfs)	Q100 (cfs)	NOTES
A-1	1.32	0.35	20.00	4.90	5.90	6.60	8.30	2.26	2.73	3.05	3.83	SHEET FLOW TO EX. CURB INLET N. PROP. CORNER
TOTAL AREA	1.32							TOTAL FLOW	2.26	2.73	3.05	TOTAL FLOW TO DESIGN PNT. 1 (TOWNSEND DR.)

BASIN 'B' EXISTING DRAINAGE AREA CALCULATIONS

AREA ID	AREA (acres)	C	Tc (min.)	I-5 (in/hr)	I-10 (in/hr)	I-25 (in/hr)	I100 (in/hr)	Q-5 (cfs)	Q-10 (cfs)	Q-25 (cfs)	Q100 (cfs)	NOTES
B-1	1.11	0.35	20	4.90	5.90	6.60	8.30	1.91	2.30	2.57	3.24	SHEET FLOW TO E. PROP CORNER & EX. DROP INLET
TOTAL AREA	1.11							TOTAL FLOW	1.91	2.30	2.57	TOTAL FLOW TO DESIGN PNT. 2 (DROP INLET)

BASIN 'C' EXISTING DRAINAGE AREA CALCULATIONS

AREA ID	AREA (acres)	C	Tc (min.)	I-5 (in/hr)	I-10 (in/hr)	I-25 (in/hr)	I100 (in/hr)	Q-5 (cfs)	Q-10 (cfs)	Q-25 (cfs)	Q100 (cfs)	NOTES
C-1	2.14	0.35	20	4.90	5.90	6.60	8.30	3.66	4.41	4.94	6.21	SHEET FLOW W. PROP. LINE TOWARD EX. FIRELANE
TOTAL AREA	2.14							TOTAL FLOW	3.66	4.41	4.94	TOTAL FLOW TO DESIGN PNT. 3 (FIRE LANE)

BASIN 'D' EXISTING DRAINAGE AREA CALCULATIONS

AREA ID	AREA (acres)	C	Tc (min.)	I-5 (in/hr)	I-10 (in/hr)	I-25 (in/hr)	I100 (in/hr)	Q-5 (cfs)	Q-10 (cfs)	Q-25 (cfs)	Q100 (cfs)	Q100** (cfs)	NOTES
OS-1	0.16	0.80	10	6.10	7.10	8.30	9.80	0.78	0.90	1.06	1.10	1.10	EX. OFF-SITE DETN. POND ORELEASE = 1.1 CFS
OS-2	0.41	0.90	10	6.10	7.10	8.30	9.80	2.25	2.62	3.06	3.62	3.62	EX. COMMERCIAL DEV. SHEET FLOWS TO DESIGN PNT. 4
OS-3	0.37	0.90	10	6.10	7.10	8.30	9.80	1.37	1.62	1.85	2.01	2.01	EX. COMM. DEV. DETN. POND ORELEASE = 2.01 CFS
OS-4	0.50	0.90	10	6.10	7.10	8.30	9.80	2.73	3.17	3.71	4.38	4.38	EX. COMMERCIAL DEV. SHEET FLOWS TO DESIGN PNT. 4
OS-5	3.02	0.35	20	4.90	5.90	6.60	8.30	5.18	6.24	6.98	8.78	8.78	SHEET FLOWS THROUGH SITE TO DESIGN PNT. 4
OS-6	0.64	0.90	10	6.10	7.10	8.30	9.80	1.07	1.22	1.43	1.68	1.68	EX. COMM. DEV. DETN. POND ORELEASE = 1.68 CFS
OS-7	0.37	0.35	10	6.10	7.10	8.30	9.80	0.79	0.92	1.07	1.27	1.27	EX. COMMERCIAL DEV. SHEET FLOWS TO DESIGN PNT. 4
D-1	7.82	0.35	20	4.90	5.90	6.60	8.30	13.42	16.16	18.07	22.73	22.73	ON-SITE UNDEVELOPED AREA FLOWS TO DESIGN PNT. 4
TOTAL AREA	13.29							TOTAL FLOW	27.58	32.85	37.24	45.56	TOTAL FLOW TO DESIGN PNT. 4 (DROP INLET)

Q100 INCLUDE REDUCED VALUES FROM OFFSITE DETENTION (TOTAL FLOW TO DESIGN POINT 4 = 45.56 CFS (OF WHICH 22.83 CFS IS FROM OFFSITE))

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGE BURGESS AND NIPLE, INC. 3 SUGAR CREEK CENTER BOULEVARD, SUITE 610 SUGAR LAND, TEXAS 77478, HEREBY STATES THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

Thomas A. Lunzman
 THOMAS A. LUNZMAN P.E. 02/08/2021
 DATE

NOTE: ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.