CONSTRUCTION PLANS

FOR

ALDERS AT ROCKWALL
LOT 1, BLOCK A

IN THE

CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS

ESTIMATED CONSTRUCTION START DATE: JANUARY 2019

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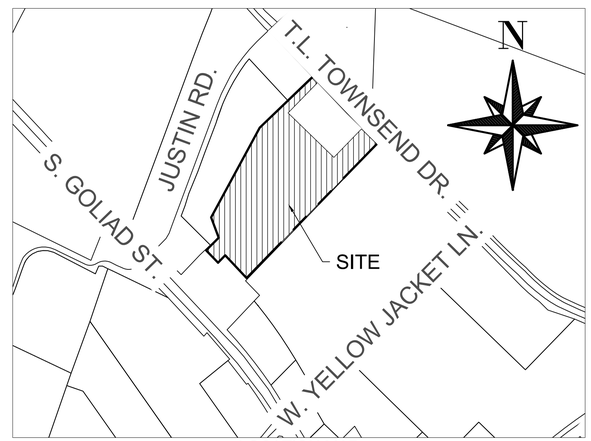


LOCATION MAP
N.T.S.

DEVELOPER:
ALDERS AT ROCKWALL
PROPERTY, LLC
1625 CLARK SPRINGS DR.
ALLEN, TEXAS 75002
(469) 446-1276
CONTACT: BART TINSLEY

ARCHITECT:
ARCHITECTTURA, INC.
808 18TH STREET
PLANO, TEXAS 75074
(972) 509-0088
CONTACT: FRANK POLLACIA

OWNER:
ALDERS AT ROCKWALL
PROPERTY, LLC
1625 CLARK SPRINGS DR.
ALLEN, TEXAS 75002
(469) 446-1276
CONTACT: BART TINSLEY

SURVEYOR:
MILLER SURVEYING, INC.
430 MID CITIES BLVD. HURST,
TEXAS 76054
(817) 577-1052
CONTACT: JASON RAWLINGS

CIVIL ENGINEER:

BURGESS & NIPLE

10701 CORPORATE DRIVE, SUITE 118
STAFFORD, TX 77477
PHONE: (281)980-7705
TBPE FIRM REGISTRATION NO. F-10834
CONTACT: JOSEPH T. REUE

11/13/20
01/27/20
12/06/19
11/13/19
9/19/19
7/17/19
5/17/19
2/21/19
1/29/19

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED
PROFESSIONAL ENGINEER

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

02/08/2021

THOMAS A. LUNZMAN P.E. — DATE

NO.	REVISIONS	DATE	BY	CHK.
1	UPDATE WATERLINE LAYOUT	02/21/19	TAL	TAL
2	MINOR HUD/OWNER COMMENTS	05/17/19	TAL	TAL
3	REV. TO SIDEWALKS & COURTYARD (STORM) PER LANDSCAPE	07/17/19	KTM	TAL
4	REV. TO EX. STORM TIE-IN ELEVATION AND SD LINE "A" (PUBLIC)	09/19/19	KTM	TAL
5	REV. CTYRD DRAINS, BF, SS, GAR	11/13/19	KTM	TAL
6	REV. GARAGE LOCATIONS EAST SIDE	12/06/19	NRM	TAL
7	REVISE GRADES @ MC ENTRANCE	01/27/20	NRM	TAL
8	REVISE GRADES @ SWALE ON SOUTH PL	11/13/20	TAL	TAL

Burgess & Niple, Inc. Stafford, TX

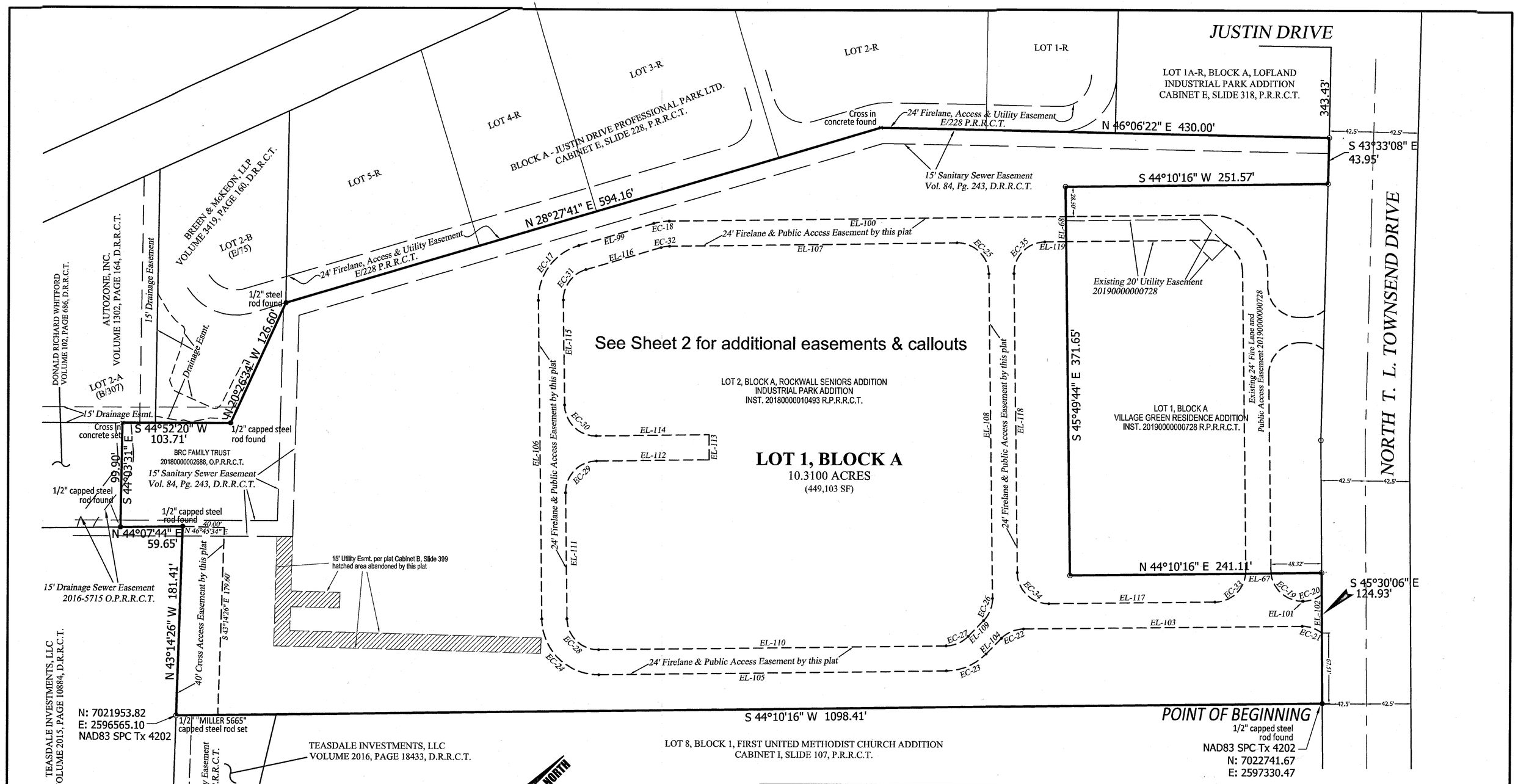
PLOTTED: 9/19/2019 2:36:05 PM

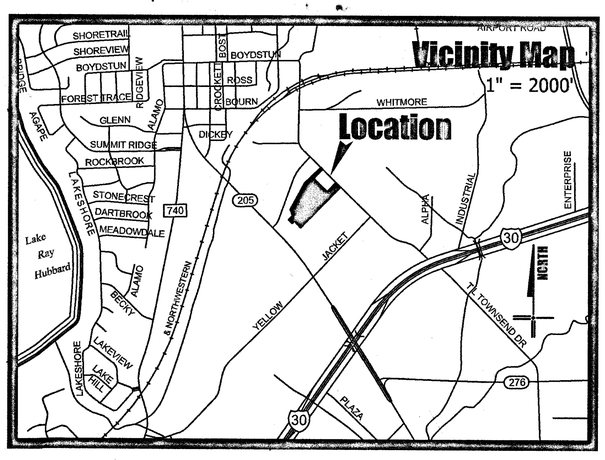
P:\PR56211\Cadd\Models\Civil\C-COVR01.dwg 9/19/2019 2:26:32 PM Mulvey, Kyle

JANUARY 2019

JOB No. 56211

ALDERS AT ROCKWALL





STATE OF TEXAS REGISTERED JASON B. RAWLINGS 5665 PROFESSIONAL LAND SURVEYOR

MILLER Surveying, Inc.
Commercial • Residential • Municipal
430 Mid Cities Blvd. 817-577-1052
Hurst, Texas 76054 TxLSF No. 10100400
millersurvey.net

Owner/Applicant:

Alders at Rockwall Property, LLC
1625 Clarke Springs Drive
Allen, Texas 75002
Bart Tinsley
469-446-1276
Email: bart@alder-group.com

Engineer:

Burgess & Niple
Joseph T. Reue, P.E.
10701 Corporate Drive, Suite 118
Stafford, Texas 77477
281-980-7705 x6301
Email: joseph.reue@burgessniple.com

RECOMMENDED FOR FINAL APPROVAL

Planning and Zoning Commission

Date 12/11/18

APPROVED

I hereby certify that the above and foregoing plat of an addition to the City of Rockwall, Texas, was approved by the City Council of the City of Rockwall on the 17 day of December, 20 18.

This approval shall be invalid unless the approved plat for such addition is recorded in the office of the County Clerk of Rockwall, County, Texas, within one hundred eighty (180) days from said date of final approval.

WITNESS OUR HANDS, this 18th day of June, 20 19.

Mayor, City of Rockwall

City Secretary

Amy Williams, P.E.
City Engineer

CITY OF ROCKWALL TEXAS SEAL

FINAL PLAT

ALDERS AT ROCKWALL

LOT 1, BLOCK A

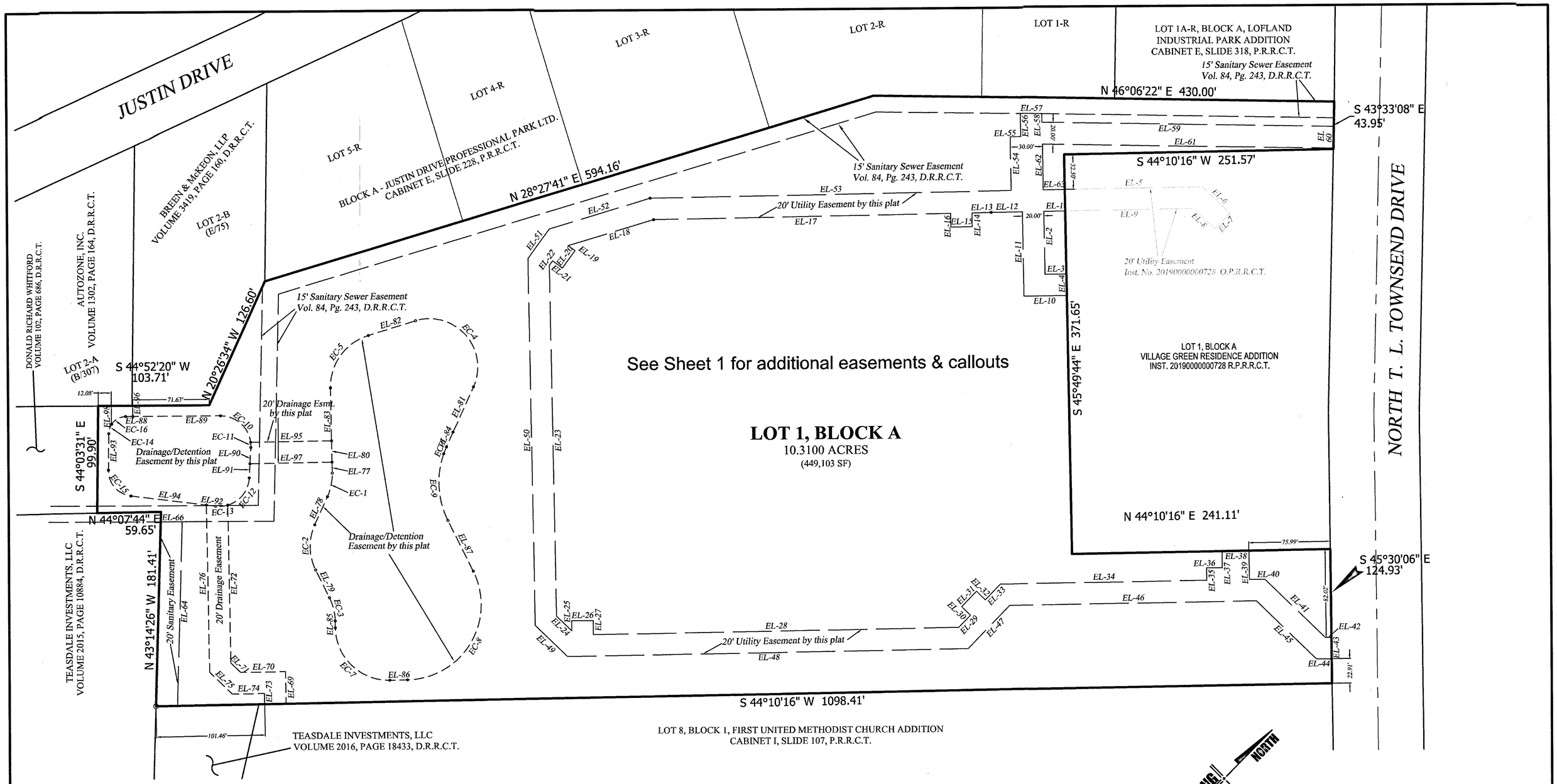
An addition to the City of Rockwall, Rockwall County, Texas

Being Lot 2, Block A, Rockwall Seniors Addition
An addition to the City of Rockwall, Texas according to the plat thereof recorded as Instrument No. 20180000010493 of the Real Property Records Rockwall County, Texas

And being 10.3100 acres of land out of the
B. J. LEWIS SURVEY, ABSTRACT NO. 325
Prepared September 2018

SHEET 1 OF 3
City Case No. P2018-035

Job No. 17062 • Plot File 17062 Alders 18x24



Curve	Arc	Radius	Central Angle	Chord	
EC-1	22.60'	51.00'	25°23'14"	S 33°08'11" E	22.41'
EC-2	43.42'	49.00'	50°46'27"	S 45°49'48" E	42.02'
EC-3	22.60'	51.00'	25°23'14"	S 58°31'25" E	22.41'
EC-4	102.96'	45.00'	131°05'45"	N 85°59'27" W	81.93'
EC-5	64.59'	50.00'	74°00'59"	S 08°49'19" E	60.19'
EC-6	6.81'	80.00'	4°52'49"	N 22°52'59" W	6.81'
EC-7	78.54'	50.00'	89°59'56"	N 89°10'14" E	70.71'
EC-8	140.97'	70.00'	115°23'17"	N 13°31'23" W	118.33'
EC-9	64.08'	80.00'	45°53'38"	N 48°16'13" W	62.38'
EC-10	40.87'	28.00'	83°38'16"	S 86°41'28" W	37.34'
EC-11	4.78'	28.00'	9°47'03"	N 46°35'52" W	4.78'
EC-12	34.42'	28.00'	70°25'54"	N 06°29'24" W	32.29'
EC-13	11.46'	28.00'	23°26'45"	N 40°26'56" E	11.38'
EC-14	9.26'	16.00'	33°08'50"	S 27°29'06" E	9.13'
EC-15	35.09'	24.00'	83°46'10"	S 85°56'36" E	32.05'
EC-16	15.58'	16.00'	55°47'01"	S 16°58'50" W	14.97'
EC-17	70.02'	54.00'	74°17'26"	S 08°41'01" E	65.21'
EC-18	14.81'	54.00'	15°42'34"	S 36°18'58" W	14.76'
EC-19	43.93'	30.00'	83°54'07"	N 86°07'19" E	40.11'
EC-20	19.11'	30.00'	36°30'01"	N 25°55'13" E	18.79'
EC-21	20.29'	30.00'	38°45'24"	S 63°32'57" W	19.91'
EC-22	23.56'	30.00'	45°00'00"	S 21°40'15" W	22.96'
EC-23	42.41'	54.00'	45°00'00"	N 21°40'15" E	41.33'
EC-24	84.82'	54.00'	90°00'00"	N 89°10'16" E	76.37'
EC-25	47.12'	30.00'	90°00'03"	S 89°10'15" W	42.43'
EC-26	23.56'	30.00'	45°00'00"	N 23°19'45" W	22.96'
EC-27	23.56'	30.00'	45°00'00"	N 21°40'15" E	22.96'
EC-28	47.12'	30.00'	90°00'00"	N 89°10'16" E	42.43'
EC-29	47.12'	30.00'	90°00'00"	S 00°49'44" E	42.43'
EC-30	47.12'	30.00'	90°00'00"	N 89°10'16" E	42.43'
EC-31	38.90'	30.00'	74°17'26"	S 08°41'01" E	36.23'
EC-32	8.23'	30.00'	15°42'34"	S 36°18'58" W	8.20'
EC-33	43.93'	30.00'	83°54'08"	N 02°13'11" E	40.11'
EC-34	47.12'	30.00'	90°00'00"	N 89°10'15" E	42.43'
EC-35	47.12'	30.00'	90°00'03"	S 00°49'44" E	42.43'

Line	Bearing	Distance
EL-1	S 44°10'16" W	19.94'
EL-2	S 45°49'44" E	58.63'
EL-3	N 44°10'16" E	19.94'
EL-4	S 45°49'44" E	20.00'
EL-5	N 44°10'16" E	128.66'
EL-6	N 89°10'15" E	35.58'
EL-7	S 00°49'45" E	20.00'
EL-8	S 89°10'15" W	27.29'
EL-9	S 44°10'16" W	120.37'
EL-10	S 44°10'16" W	39.94'
EL-11	N 45°49'44" W	78.63'
EL-12	S 44°10'16" W	29.06'
EL-13	S 44°10'16" W	17.90'
EL-14	S 45°49'44" E	12.76'
EL-15	S 44°10'16" W	20.00'
EL-16	N 45°49'44" W	12.76'
EL-17	S 44°10'16" W	277.43'
EL-18	S 28°27'41" W	83.33'
EL-19	N 81°18'59" E	7.92'
EL-20	S 08°41'01" E	20.00'
EL-21	S 81°18'59" W	11.34'
EL-22	S 08°41'01" E	5.15'
EL-23	S 45°49'44" E	326.90'
EL-24	N 89°10'16" E	19.89'
EL-25	N 45°49'44" W	9.35'
EL-26	N 44°10'16" E	20.00'
EL-27	S 45°49'44" E	13.26'
EL-28	N 44°10'16" E	341.48'
EL-29	N 00°49'45" W	15.62'
EL-30	S 89°10'15" W	11.50'
EL-31	N 00°49'45" W	20.00'
EL-32	N 89°10'15" E	11.50'
EL-33	N 00°49'45" W	20.18'
EL-34	N 44°10'15" E	192.87'
EL-35	N 45°49'45" W	11.50'

Line	Beasring	Distance
EL-36	N 44°10'15" E	14.72'
EL-37	N 45°49'45" W	15.31'
EL-38	N 44°10'15" E	25.00'
EL-39	S 45°49'45" E	26.81'
EL-40	N 44°10'15" E	14.42'
EL-41	N 89°10'15" E	77.90'
EL-42	N 45°19'35" E	6.02'
EL-43	S 45°30'06" E	20.00'
EL-44	S 45°19'35" W	14.36'
EL-45	S 89°10'15" W	77.66'
EL-46	S 44°10'15" W	230.45'
EL-47	S 00°49'45" E	55.79'
EL-48	S 44°10'16" W	374.14'
EL-49	S 89°10'16" W	41.98'
EL-50	N 45°49'44" W	341.91'
EL-51	N 08°41'01" W	34.07'
EL-52	N 28°27'41" E	98.48'
EL-53	N 44°10'16" E	337.15'
EL-54	N 45°49'44" W	49.86'
EL-55	N 44°10'16" E	10.00'
EL-56	N 45°49'44" W	21.45'
EL-57	N 46°06'22" E	20.01'
EL-58	S 45°49'44" E	8.00'
EL-59	N 46°06'22" E	272.50'
EL-60	S 43°44'24" E	20.00'
EL-61	S 46°06'22" W	271.77'
EL-62	S 45°49'44" E	42.62'
EL-63	N 44°10'16" E	19.94'
EL-64	S 43°14'26" E	171.70'
EL-66	S 45°00'00" W	15.02'
EL-67	N 44°10'16" E	24.34'
EL-68	S 45°49'44" E	24.00'
EL-69	S 45°49'44" E	30.00'
EL-70	N 44°10'16" E	41.67'

Line	Beasring	Distance
EL-71	N 89°10'16" E	12.93'
EL-72	S 45°49'44" E	147.12'
EL-73	S 45°49'44" E	10.00'
EL-74	N 44°10'16" E	29.96'
EL-75	N 89°10'16" E	29.50'
EL-76	S 45°49'44" E	155.88'
EL-77	S 45°49'48" E	10.21'
EL-78	S 20°26'34" E	28.85'
EL-79	S 71°13'02" E	28.85'
EL-80	S 45°49'48" E	20.00'
EL-81	N 20°26'34" W	46.22'
EL-82	S 28°11'11" W	46.21'
EL-83	S 45°49'48" E	49.22'
EL-84	N 20°26'34" W	15.19'
EL-85	S 45°49'48" E	6.33'
EL-86	N 44°10'16" E	16.57'
EL-87	N 71°13'02" W	52.81'
EL-88	S 44°52'20" W	6.69'
EL-89	S 44°52'20" W	81.88'
EL-90	N 41°42'20" W	15.26'
EL-91	N 41°42'20" W	13.20'
EL-92	N 52°10'19" E	8.73'
EL-93	S 44°03'31" E	34.12'
EL-94	N 52°10'19" E	70.91'
EL-95	N 44°10'16" E	75.67'
EL-96	S 45°49'44" E	10.00'
EL-97	N 44°10'16" E	76.70'
EL-98	S 45°49'44" E	17.00'
EL-99	S 28°27'41" W	75.07'
EL-100	S 44°10'16" W	380.20'
EL-101	S 44°10'15" W	0.53'
EL-102	N 45°30'06" W	36.49'
EL-103	N 44°10'15" E	267.11'
EL-104	N 00°49'45" W	21.00'
EL-105	N 44°10'16" E	333.12'

Line	Bearing	Distance
EL-106	S 45°49'44" E	305.09'
EL-107	S 44°10'16" W	275.70'
EL-108	N 45°49'44" W	310.57'
EL-109	N 00°49'45" W	21.00'
EL-110	N 44°10'16" E	333.12'
EL-111	S 45°49'44" E	120.65'
EL-112	S 44°10'16" W	108.00'
EL-113	S 45°49'44" E	24.00'
EL-114	N 44°10'16" E	108.00'
EL-115	S 45°49'44" E	100.44'
EL-116	S 28°27'41" W	75.07'
EL-117	N 44°10'15" E	159.12'
EL-118	S 45°49'44" E	285.96'
EL-119	S 44°10'16" W	20.50'

STATE OF TEXAS REGISTERED JASON B. RAWLINGS 5665 PROFESSIONAL LAND SURVEYOR

MILLER Surveying, Inc.
Commercial • Residential • Municipal
430 Mid Cities Blvd. 817-577-1052
Hurst, Texas 76054 TxLSF No. 10100400
millersurvey.net

FINAL PLAT

ALDERS AT ROCKWALL

LOT 1, BLOCK A

An addition to the City of Rockwall, Rockwall County, Texas

Being Lot 2, Block A, Rockwall Seniors Addition
An addition to the City of Rockwall, Texas according to the plat thereof recorded as Instrument No. 20180000010493 of the Real Property Records Rockwall County, Texas

And being 10.3100 acres of land out of the
B. J. LEWIS SURVEY, ABSTRACT NO. 325
Prepared September 2018

SHEET 2 OF 3

City Case No. P2018-035

Job No. 17062 • Plot File 17062 Alders 18x24

STATE OF TEXAS

COUNTY OF ROCKWALL

WHEREAS Alders Rockwall Property, LLC is the current sole owner of a tract of land out of the B. J. Lewis Survey, Abstract No. 225 and situated in the City of Rockwall, Rockwall County, Texas, and surveyed by Miller Surveying, Inc. of Hurst, Texas, in September of 2018, said tract being a portion of the same tract of land described in the deed to BRC Family Land Trust recorded in Document No. 2012-00480248, of the Official Public Records of Rockwall County, Texas, and being more particularly described as follows:

BEGINNING at a 1/2 inch capped steel rod found for the most easterly corner of said BRC tract, said rod being in the southwesterly right-of-way line of North T. L. Townsend Drive, and being the most northerly corner of Lot 8, Block 1, First United Methodist Church Addition, an addition to the City of Rockwall, Rockwall County, Texas, recorded in Cabinet I, Slide 107, of the Plat Records of Rockwall County, Texas;

THENCE South 44 degrees 10 minutes 16 seconds West with the northwesterly boundary line of said Lot 8 a distance of 1098.41 feet to a 1/2 inch capped "MILLER 5665" steel rod set for the most westerly corner thereof, and also being in the northeasterly boundary line of the same tract of land described in the deed to Teasdale Investments, LLC., recorded in Volume 2015, Page 10884, of the Deed Records of Rockwall County, Texas;

THENCE North 43 degrees 14 minutes 26 seconds West with the northeasterly boundary line of said Teasdale tract a distance of 181.41 feet to a 1/2 inch capped steel rod found for the most northerly corner of the said Teasdale tract;

THENCE South 44 degrees 07 minutes 44 seconds West a distance of 59.65 feet to a 1/2 inch capped steel rod found;

THENCE North 44 degrees 03 minutes 31 seconds West a distance of 99.90 feet to a cross in concrete set;

THENCE North 44 degrees 52 minutes 20 seconds East a distance of 103.71 feet to a 1/2 inch capped steel rod found;

THENCE North 20 degrees 26 minutes 34 seconds West a distance of 126.60 feet to a 1/2 inch capped steel rod found for the most southerly corner of Lot 5-R, Block A, Justin Drive Professional Park, LTD, an addition to the City of Rockwall, Rockwall County, Texas recorded in Cabinet E, Slide 228 of the Plat Records of Rockwall County, Texas;

THENCE North 28 degrees 27 minutes 41 seconds East with the southeasterly boundary line of said Block A a distance of 594.16 feet to a cross in concrete found for an angle point therein;

THENCE North 46 degrees 06 minutes 22 seconds East continuing with said southeasterly boundary line a distance of 430.00 feet to a 1/2 inch capped "MILLER 5665" steel rod set for the most easterly corner of Lot 1A-R, Block A, Lofton Industrial Park Addition, an addition to the City of Rockwall, Rockwall County, Texas recorded in Cabinet E, Slide 318 of the Plat Records of Rockwall County, Texas, said rod being in the said southwesterly right-of-way line of North T. L. Townsend Drive;

THENCE South 43 degrees 33 minutes 08 seconds East with said southwesterly right-of-way line a distance of 43.95 feet to a 1/2 inch capped "MILLER 5665" steel rod set;

THENCE South 44 degrees 10 minutes 16 seconds West a distance of 51.57 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

THENCE South 45 degrees 49 minutes 44 seconds East a distance of 371.65 feet to a 1/2 inch "MILLER 5665" capped steel rod set;

THENCE North 44 degrees 10 minutes 16 seconds East a distance of 51.57 feet to a 1/2 inch "MILLER 5665" capped steel rod set in said southwesterly right-of-way line;

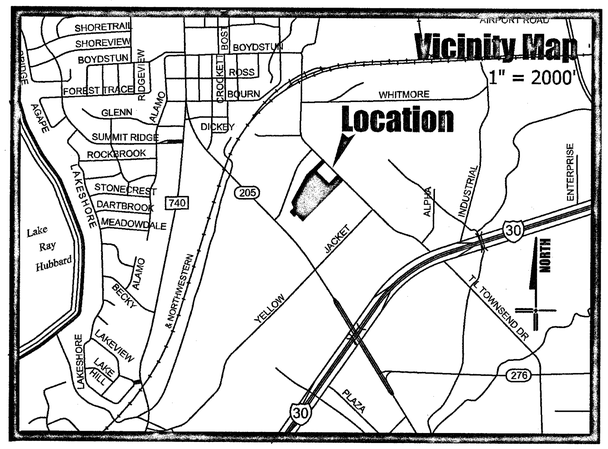
THENCE South 45 degrees 30 minutes 06 seconds East with said southwesterly right-of-way line a distance of 124.93 feet to the point of beginning and containing 10.3100 acres of land more or less.

Owner/Applicant:

Alders at Rockwall Property, LLC
1625 Clarke Springs Drive
Allen, Texas 75002
Bart Tinsley
469-446-1276
Email: bart@alder-group.com

Engineer:

Burgess & Niple
Joseph T. Reue, P.E.
10701 Corporate Drive, Suite 118
Stafford, Texas 77477
281-980-7705 x6301
Email: joseph.reue@burgessniple.com



SURVEYOR'S CERTIFICATE

NOW, THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT I, Jason B. Rawlings, do hereby certify that I prepared this plat from an actual and accurate survey of the land, and that the corner monuments shown thereon were properly placed under my personal supervision.

Jason B. Rawlings
Texas Registered Professional Land Surveyor No. 5665

STATE OF TEXAS REGISTERED JASON B. RAWLINGS 5665 PROFESSIONAL LAND SURVEYOR

Filed and Recorded
Official Public Records
Shelli Miller, County Clerk
Rockwall County, Texas
07/01/2019 08:59:47 AM
$150.00
20190000010606

COUNTY CLERK ROCKWALL COUNTY, TEXAS

MILLER Surveying, Inc.
Commercial • Residential • Municipal
430 Mid Cities Blvd. 817-577-1052
Hurst, Texas 76054 TxLSF No. 10100400
millersurvey.net

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

STATE OF TEXAS

COUNTY OF ROCKWALL

I (we) the undersigned owner(s) of the land shown on this plat, and designated herein as Lot 1, Block A, Alders at Rockwall, an addition to the City of Rockwall, Texas, and whose name is subscribed hereto, hereby dedicate to the use of the public forever all streets, alleys, parks, watercourses, drains, easements and public places thereon shown on the purpose and consideration therein expressed. I (we) further certify that all other parties who have a mortgage or lien interest in the subdivision have been notified and signed this plat.

I (we) understand and do hereby reserve the easement strips shown on this plat for the purposes stated and for the mutual use and accommodation of all utilities desiring to use or using same. I (we) also understand the following;

1. No buildings shall be constructed or placed upon, over, or across the utility easements as described herein.

2. Any public utility shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, or other growths or improvements which in any way endanger or interfere with construction, maintenance or efficiency of their respective system on any of these easement strips; and any public utility shall at all times have the right of ingress or egress to, from and upon the said easement strips for purpose of construction, reconstruction, inspecting, patrolling, maintaining, and either adding to or removing all or part of their respective system without the necessity of, at any time, procuring the permission of anyone.

3. The City of Rockwall will not be responsible for any claims of any nature resulting from or occasioned by the establishment of grade of streets in the subdivision.

4. The developer and subdivision engineer shall bear total responsibility for storm drain improvements.

5. The developer shall be responsible for the necessary facilities to provide drainage patterns and drainage controls such that properties within the drainage area are not adversely affected by storm drainage from the development.

6. No house dwelling unit, or other structure shall be constructed on any lot in this addition by the owner or any other person until the developer and/or owner has complied with all requirements of the Subdivision Regulations of the City of Rockwall regarding improvements with respect to the entire block on the street or streets on which property abuts, including the actual installation of streets with the required base and paving, curb and gutter, water and sewer, drainage structures, storm structures, storm sewers, and alleys, all according to the specifications of the City of Rockwall; or Until an escrow deposit, sufficient to pay for the cost of such improvements, as determined by the city's engineer and/or city administrator, computed on a private commercial rate basis, has been made with the city secretary, accompanied by an agreement signed by the developer and/or owner, authorizing the city to make such improvements at prevailing private commercial rates, or have the same made by a contractor and pay for the same out of the escrow deposit, should the developer and/or owner fail or refuse to install the required improvements within the time stated in such written agreement, but in no case shall the City be obligated to make such improvements itself. Such deposit may be used by the owner and/or developer as progress payments as the work progresses in making such improvements by making certified requisitions to the city secretary, supported by evidence of work done; or until the developer and/or owner files a corporate surety bond with the city secretary in a sum equal to the cost of such improvements for the designated area, guaranteeing the installation thereof within the time stated in the bond, which time shall be fixed by the city council of the City of Rockwall.

7. Property owner shall be responsible for all maintenance, repair and reconstruction of drainage and detention systems;

I (we) further acknowledge that the dedications and/or exaction's made herein are proportional to the impact of the Subdivision upon the public services required in order that the development will comport with the present and future growth needs of the City; I (we), my (our) successors and assigns hereby waive any claim, damage, or cause of action that I (we) may have as a result of the dedication of exactions made herein.

Bart Tinsley
"Alders Rockwall Property, LLC"

STATE OF TEXAS
COUNTY OF Collin

Before me, the undersigned authority, on this day personally appeared Bart Tinsley, of Alders Rockwall Property, LLC, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purpose and consideration therein stated.

Given upon my hand and seal of office this 20th day of MARCH, 20 19.

Notary Public in and for the State of Texas
My Commission Expires: 4/19/20

JASON GIPSON
NOTARY PUBLIC STATE OF TEXAS
MY COMM. EXP. 4/19/2020
NOTARY ID 128843704

NOTE: It shall be the policy of the City of Rockwall to withhold issuing building permits until all streets, water, sewer and storm drainage systems have been accepted by the City. The approval of a plat by the City does not constitute any representation, assurance or guarantee that any building within such plat shall be approved, authorized or permit therefore issued, nor shall such approval constitute any representation, assurance or guarantee by the City of the adequacy and availability for water for personal use and fire protection within such plat, as required under Ordinance 83-54.

FINAL PLAT

ALDERS AT ROCKWALL

LOT 1, BLOCK A

An addition to the City of Rockwall, Rockwall County, Texas

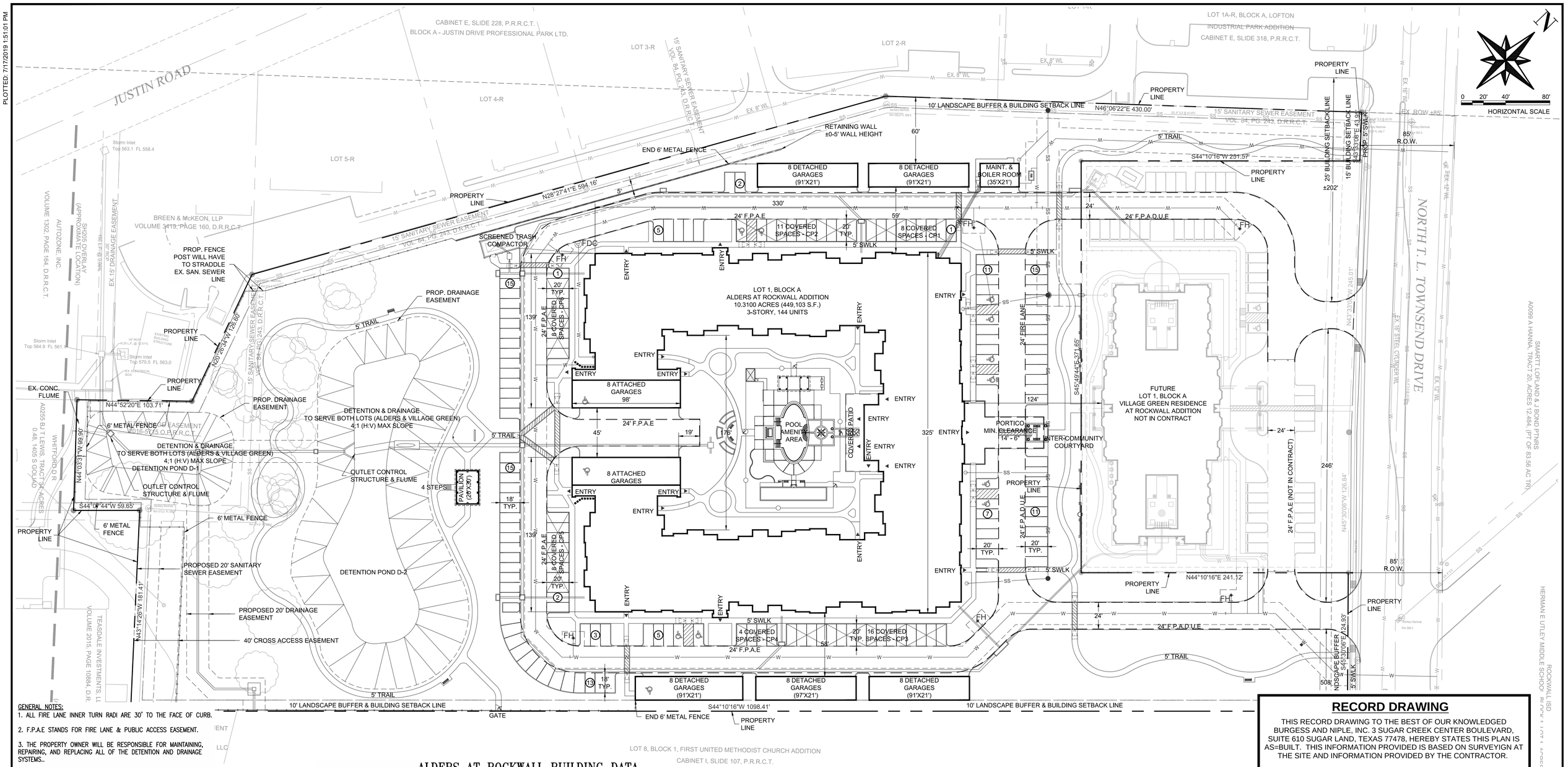
Being Lot 2, Block A, Rockwall Seniors Addition
An addition to the City of Rockwall, Texas according to the plat thereof recorded as Instrument No. 20180000010493 of the Real Property Records Rockwall County, Texas

And being 10.3100 acres of land out of the
B. J. LEWIS SURVEY, ABSTRACT NO. 325
Prepared September 2018

SHEET 3 OF 3

City Case No. P2018-035

Job No. 17062 • Plot File 17062 Alders 18x24



GENERAL NOTES:

1. ALL FIRE LANE INNER TURN RADI ARE 30' TO THE FACE OF CURB.
2. F.P.A.E STANDS FOR FIRE LANE & PUBLIC ACCESS EASEMENT.
3. THE PROPERTY OWNER WILL BE RESPONSIBLE FOR MAINTAINING, REPAIRING, AND REPLACING ALL OF THE DETENTION AND DRAINAGE SYSTEMS..
6. DUMPSTERS/TRASH COMPACTORS SHALL DRAIN TO AN OIL/WATER SEPARATOR PRIOR TO DISCHARGE INTO STORM DRAIN SYSTEM.
7. ALL PROPOSED UTILITY EASEMENTS ARE TO BE 20' WIDE.
8. ARCHITECTURAL STANDARDS TO MEET CITY OF ROCKWALL STANDARDS.
9. ALL FIRE LANES TO BE 6" THICK CLASS 'C' REINFORCED CONCRETE 6.5 SACK MINIMUM CEMENT, 3,600 PSI MINIMUM 28-DAY CONCRETE STRENGTH WITH #3 BARS AT 24" ON CENTER.
10. PARKING PAVEMENT TO BE MINIMUM 5" 3000 PSI CONCRETE. MINIMUM 5.5 SACK MIX.
11. 10.5' OF R.O.W. WAS DEDICATED TO THE CITY OF ROCKWALL IN 2007 FOR THE CONSTRUCTION OF TOWNSEND DRIVE (85' R.O.W.)
12. PROPOSED REGIONAL PONDS TO SERVE BOTH LOT 1, BLOCK A, ALDERS AT ROCKWALL AND LOT 2, BLOCK A VILLAGE GREEN RESIDENCE AT ROCKWALL.
13. ALL PUBLIC R.O.W.S TO BE SODDED.
14. SEE UTILITIES EXHIBIT FOR DETAILS.
15. HVAC UNITS TO BE PLACED ON ROOF OF BUILDING WITH SCREENING WALLS HIDING THEM FROM VIEW

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118, STAFFORD, TX 77477
PHONE: (281) 980 – 7705
TBPE FIRM REGISTRATION NO. F-10834
CONTACT: JOSEPH T. REUE

ALDERS AT ROCKWALL BUILDING DATA

PROJECT TABULATION 05/09/18

Site Acreage x
Project Density #VALUE!

UNIT DATA:

Unit Description	A2 1B/1B	A3 1B/1B	B1 2B/2B	B3n 2B/2B	B3 2B/2B	B5 2B/2B	Totals Average
Total Number	66	24	12	12	6	24	144
Net Square Footage (Boma)	731	802	1,284	973	973	968	859
Gross Square Footage	800	854	1,357	1,047	1,047	1,045	927
Percent of Total	45.83	16.67	8.33	8.33	4.17	16.67	100
Unit Net Totals	48,246	19,248	15,408	11,676	5,838	23,232	123,648
Unit Gross Totals	52,800	20,496	16,284	12,564	6,282	25,080	133,506

Net S.F. Net square footage includes all conditioned area included within the perimeter exterior walls of a unit. This number does not include private interior stairs and stair foyer.

Gross S.F. Gross square footage when applied to the unit data, includes all square footage associated with that unit including private stairs, balconies / patio and exterior storage closets. Private garages are not included in this number. Gross square footage when applied to the building data, includes the unit gross square footage, the garage square footage and misc. square footage (mechanical closets) to result in a total gross square footage per building.

BUILDING DATA:

		A2 1B/1B	A3 1B/1B	B1 2B/2B	B3n 2B/2B	B3 2B/2B	B5 2B/2B	Total Units per Buildin	Number of Buildings	Total Net S.F. per Building	Total Unit Gross S.F. per Building	Garage S.F. per Building	Misc. S.F. per Building	Total Gross S.F. per Building
Bldg. Number	Bldg. Type													
Type I		15	6		3		3	27	2	21,600				
	Elev. SR										22,395	0	0	44,790
Type II		12	6		3	3	3	27	2	22,326				
	Elev. SR										24,141	0	0	48,282
Type III		6		6			6	18	2	17,898				
	Elev. SR										19,212			38,424
Leasing Office	Club							0	1	14,102	18,017			18,017
T O T A L		Total A2 66	Total A3 24	Total B1 12	Total B3n 12	Total B3 6	Total B5 24	Unit Total 144	Total Buildings 7	Total Project Net S.F. 137,750	Total Unit Gross S.F. 149,513	Attached Total Garag Gross S.F. 0	Total Misc. Gross S.F. 0	Total Project Gross S.F. 149,513

SITE DATA

LOT DATA: LOT 1 (ALDERS AT ROCKWALL)

LOT I, BLOCK I (ALDERS AT ROCKWALL ADDITION)

LOT DATA

LOT AREA:	10.3100		ACRES
LOT DENSITY:	14		UNITS/ACRE
MAX NUMBER OF UNITS:	144		UNITS

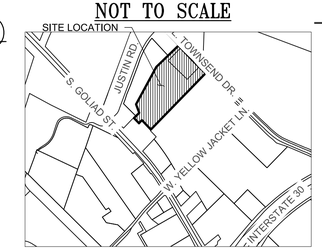
PARKING TABLE

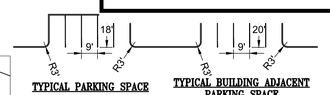
PARKING RATIO:	1.50		SPACES/UNIT
GARAGES:	56	25.8%	SPACES
COVERED:	55	25.3%	SPACES
SURFACE:	106	48.8%	SPACES
TOTAL PARKING PROVIDED:	217	100.0%	SPACES
ADA ACCESSIBLE (2% MIN.):	13	6.0%	SPACES

LOT COVERAGE

BUILDING COVERAGE:	1.89	18.3%	ACRES
PAVING COVERAGE:	1.93	18.7%	ACRES
TOTAL OPEN SPACE PROVIDED:	6.49	63.0%	ACRES

VICINITY MAP
NOT TO SCALE





ARCHITECT:
ARCHITETTURA, INC.
808 16TH STREET,
PLANO, TEXAS 75074
CONTACT: FRANK POLLACIA
PHONE: (972) 509-0088

SURVEYOR:
MILLER SURVEYING, INC.
430 MID CITIES BLVD.,
HURST, TEXAS 76054
CONTACT: JASON RAWLINGS
PHONE: (817) 577-1052

OWNER:
CAMERON & CAMERON
6808 DENALI DRIVE
McKINNEY, TEXAS 75070
CONTACT: ROB CAMERON
PHONE: (214) 789-9143

APPLICANT:
ALDERS ROCKWALL SIL PROPERTY, LLC
1625 CLARKE SPRINGS DRIVE
ALLEN, TEXAS 75002
CONTACT: BART TINSLEY
PHONE: (469) 446-1276

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF CLIENT/CITY REVIEW UNDER THE AUTHORITY OF THOMAS A. LUNZMAN, P.E. 122259 FEBRUARY 13, 2019 IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES.

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

THOMAS A. LUNZMAN P.E. — 02/08/2021 DATE

SITE PLAN
FOR
"ALDERS AT ROCKWALL"

LOT 1, BLOCK A
ALDERS AT ROCKWALL ADDITION
A 10.3100 ACRE TRACT IN
ROCKWALL, TEXAS
ROCKWALL COUNTY, TEXAS

NOVEMBER 15, 2018

CASE NUMBER: (SP2018-012)

PLOTTED: 7/17/2019 1:51:13 PM

GENERAL NOTES (PRIVATE):

1. SURVEYS: SURVEY LAYOUT, HORIZONTAL AND VERTICAL ALIGNMENT FOR CONSTRUCTION SHALL BE FURNISHED BY THE CONTRACTOR. THE ENGINEER WILL PROVIDE THE PROPERTY CORNERS AND ONE BENCH MARK.

2. EXISTING STRUCTURES: EVERY ATTEMPT HAS BEEN MADE TO SHOW ON THE PLANS THE LOCATIONS OF ALL KNOWN SURFACE AND SUBSURFACE STRUCTURES. HOWEVER, THE ENGINEER ASSUMES NO RESPONSIBILITY FOR FAILURE TO SHOW ANY OR ALL OF THESE STRUCTURES ON THE PLANS, OR TO SHOW THEM IN THEIR EXACT LOCATIONS. IT IS MUTUALLY AGREED THAT SUCH FAILURE SHALL NOT BE CONSIDERED SUFFICIENT BASIS FOR CLAIMS FOR ADDITIONAL COMPENSATION FOR EXTRA WORK OR FOR INCREASING THE PAY QUANTITIES IN ANY MANNER WHATSOEVER; UNLESS THE OBSTRUCTION ENCOUNTERED IS SUCH AS TO NECESSITATE CHANGES IN THE LINE OR GRADES, OR REQUIRES THE BUILDING OF SPECIAL WORK, PROVISIONS FOR WHICH ARE NOT MADE IN THE PLANS.

3. BARRICADES AND WARNING SIGNS: CONSTRUCTION OF SIGNING AND BARRICADES SHALL CONFORM WITH THE CURRENT "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, VOLUME 1."

4. SPECIFICATIONS: CONSTRUCTION OF GRADING, PAVING AND UTILITIES SHALL BE GOVERNED BY THE SITE GEOTECHNICAL DESIGN SPECIFICATIONS AND/OR THE CITY'S STANDARDS AND SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.

5. EXISTING STORM DRAIN INLETS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING STRUCTURAL INTEGRITY AND PROTECTING FROM ILLICIT RUNOFFS, ALL EXISTING STORM DRAIN INLETS.

6. VENDOR'S CERTIFICATION: ALL MATERIALS USED IN CONSTRUCTION SHALL HAVE A VENDOR'S CERTIFIED TEST REPORT. ALL VENDOR'S TEST REPORTS SHALL BE SUBJECT TO REVIEW BY THE ENGINEER, AND SHALL BE SUBJECT TO VERIFICATION BY TESTING OF SAMPLES OF MATERIALS AS RECEIVED FOR USE ON THE PROJECT. IN THE EVENT ADDITIONAL TESTS ARE REQUIRED, THEY SHALL BE PERFORMED BY AN APPROVED INDEPENDENT TESTING LABORATORY AND SHALL BE PAID FOR BY THE CONTRACTOR.

7. CLEANUP FOR FINAL ACCEPTANCE: THE CONTRACTOR SHALL MAKE A FINAL CLEAN UP OF ALL PARTS OF THE WORK AREA BEFORE ACCEPTANCE BY THE DEVELOPER OR HIS REPRESENTATIVE. THIS CLEAN UP SHALL INCLUDE REMOVAL OF ALL OBJECTIONABLE MATERIALS AND, IN GENERAL, PREPARING THE SITE OF WORK IN AN ORDERLY MANNER OF APPEARANCE.

8. PUBLIC CONVENIENCE AND SAFETY
   - 8.1. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
   - 8.2. MATERIAL STORED ABOUT THE WORK SITE SHALL BE SO PLACED, AND THE WORK SHALL AT ALL TIME BE SO CONDUCTED, AS TO LIMIT OBSTRUCTION TO THE TRAVELING PUBLIC. THE MATERIALS EXCAVATED SHALL BE PLACED SO AS NOT TO ENDANGER THE WORK OR PREVENT FREE ACCESS TO ALL FIRE HYDRANTS, WATER VALVES, GAS VALVES, MANHOLES (TELEPHONE OR ELECTRICAL CONDUITS, AND SANITARY SEWERS) AND FIRE ALARM OR POLICE CALL BOXES IN THE VICINITY.
   - 8.3. THE DEVELOPER RESERVES THE RIGHT TO REMEDY ANY NEGLECT ON THE PART OF THE CONTRACTOR IN REGARD TO THE PUBLIC CONVENIENCE AND SAFETY WHICH MAY COME TO THE DEVELOPER'S ATTENTION, AFTER 24 HOURS NOTICE IN WRITING TO THE CONTRACTOR, SAVE IN CASES OF EMERGENCY, WHEN THE DEVELOPER SHALL HAVE THE RIGHT TO REMEDY ANY NEGLECT WITHOUT NOTICE; AND, IN EITHER CASE, THE COST OF SUCH WORK DONE BY THE DEVELOPER SHALL BE DEDUCTED FROM THE MONEYS DUE OR TO BECOME DUE THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY WHEN ANY STREET IS TO BE CLOSED OR OBSTRUCTED; SUCH NOTICE SHALL IN THE CASE OF MAJOR THOROUGHFARES OR STREETS UPON WHICH TRANSIT BY THE DEVELOPER OR THE CITY, KEEP ANY STREET OR STREETS IN CONDITION FOR UNOBSTRUCTED USE BY EMERGENCY SERVICES. WHERE THE CONTRACTOR IS REQUIRED TO CONSTRUCT TEMPORARY BRIDGES OR TO MAKE OTHER ARRANGEMENTS FOR CROSSING OVER DITCHES OR STREAMS, HIS RESPONSIBILITY FOR ACCIDENTS SHALL INCLUDE THE ROADWAY APPROACHES AS WELL AS THE STRUCTURES OF SUCH CROSSINGS.

9. PROPERTY LINES AND MONUMENTS: THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS, AND WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING DISTURBED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET AT THE EXPENSE OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR PERMISSION TO ANY ADJACENT PROPERTIES AS NEEDED FOR ACCESS OR CONSTRUCTION.

10. WATER FOR CONSTRUCTION: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR PURCHASING WATER AND/OR METERS FROM THE CITY.

11. PARKING OF CONSTRUCTION EQUIPMENT: AT NIGHT AND DURING ALL OTHER PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED ON THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS, WHICH ARE APPROVED BY THE DEVELOPER. THE CONTRACTOR SHALL PROVIDE ADEQUATE BARRICADES, MARKERS AND LIGHTS TO PROTECT THE DEVELOPER, THE CITY, THE PUBLIC AND WORKERS. ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE REQUIREMENTS OF CITY, STATE AND FEDERAL REGULATIONS.

12. ACCESS ROUTES, STAGING AREAS AND STORAGE AREAS: ALL HAUL ROADS AND ACCESS ROUTES AND THE LOCATION OF ALL STAGING AREAS AND STORAGE AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND DEVELOPER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING ALL ROADS AND OTHER FACILITIES USED DURING CONSTRUCTION. UPON COMPLETION OF THE PROJECT ALL EXISTING ROADS SHALL BE LEFT IN A CONDITION EQUAL TO OR BETTER THAN THAT FOUND AT THE TIME THE CONTRACTOR COMMENCES WORK ON THIS PROJECT.

13. EXISTING UTILITIES: THE LOCATION AND DIMENSIONS SHOWN ON THE PLANS RELATIVE TO EXISTING UTILITIES ARE BASED ON THE BEST INFORMATION AVAILABLE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT HE MAY NEGOTIATE SUCH LOCAL ADJUSTMENTS AS NECESSARY IN THE CONSTRUCTION PROCESS TO PROVIDE ADEQUATE CLEARANCES. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS/HER EXPENSE.
   THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL EXISTING STRUCTURES, IMPROVEMENTS AND UTILITIES WHICH MAY BE ENCOUNTERED. CONTRACTOR SHALL ADJUST ALL UTILITIES TO FINAL GRADE.

14. SAFETY RESTRICTION-WORK NEAR HIGH VOLTAGE LINES: THE FOLLOWING PROCEDURES WILL BE FOLLOWED REGARDING THE SUBJECT ITEM ON THIS CONTRACT:
   - A. A WARNING SIGN NOT LESS THAN FIVE INCHES BY SEVEN INCHES PAINTED YELLOW WITH BLACK LETTERS THAT ARE LEGIBLE AT 12 FEET SHALL BE PLACED INSIDE AND OUTSIDE VEHICLES SUCH AS CRANES, DERRICKS, POWER SHOVELS, DRILLING RIGS, PILE DRIVER, HOISTING EQUIPMENT OR SIMILAR APPARATUS. THE WARNING SIGN SHALL READ AS FOLLOWS: "WARNING-UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES."
   - B. EQUIPMENT THAT MAY BE OPERATED WITHIN TEN FEET OF HIGH VOLTAGE LINES SHALL HAVE AN INSULTING CAGE-TYPE OF GUARD ABOUT THE BOOM OR ARM, EXCEPT BACKHOES OR DIPPERS, AND INSULATOR LINKS ON THE LIFT HOOK CONNECTIONS.
   - C. WHEN NECESSARY TO WORK WITHIN SIX FEET OF HIGH VOLTAGE ELECTRIC LINES, NOTIFY THE POWER PROVIDER, WHO WILL ERECT TEMPORARY MECHANICAL BARRIERS, DE-ENERGIZE THE LINE OR RAISE OR LOWER THE LINE. THE WORK DONE BY THE NOTIFYING DEPARTMENT SHALL MAINTAIN AN ACCURATE LOG OF ALL SUCH CALLS TO THE POWER PROVIDER AND SHALL RECORD ACTION TAKEN IN EACH CASE.
   - D. THE CONTRACTOR IS REQUIRED TO MAKE ARRANGEMENT WITH THE POWER COMPANY FOR THE TEMPORARY RELOCATION OR RISING OF HIGH VOLTAGE LINES AT THE CONTRACTOR'S SOLE COST AND EXPENSE.
   - E. NO PERSON SHALL WORK WITHIN SIX FEET OF A HIGH VOLTAGE LINE WITHOUT PROTECTION HAVING BEEN TAKEN AS OUTLINED IN PARAGRAPH C., ABOVE.

15. TRENCH SAFETY: IT SHALL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR TO PROVIDE AND MAINTAIN A VIABLE TRENCH SAFETY SYSTEM AT ALL TIMES DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS DIRECTED TO BECOME KNOWLEDGEABLE AND FAMILIAR WITH THE STANDARDS AS SET BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) FOR TRENCH SAFETY THAT WILL BE IN EFFECT DURING THE PERIOD OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRENCH SAFETY SYSTEM PLANS TO THE CITY OF FORT WORTH, IF NECESSARY. THE TRENCH SAFETY PLAN SHALL BE SPECIFIC TO THIS SITE.

16. COORDINATION WITH OTHERS: IN THE EVENT THAT OTHER CONTRACTORS ARE DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH THIS PROJECT, THE CONTRACTOR SHALL COORDINATE HIS PROPOSED CONSTRUCTION WITH THAT OF ANY OTHER CONTRACTORS.

17. COMPLIANCE WITH LAWS: THE CONTRACTOR SHALL FULLY COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS, INCLUDING ALL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS CONTRACT AND THE WORK TO BE DONE THEREUNDER, WHICH EXIST OR WHICH MAY BE ENACTED LATER BY GOVERNMENTAL BODIES HAVING JURISDICTION OR AUTHORITY FOR SUCH ENACTMENT. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, IMPACT AND INSPECTION FEES, ANY CITY FEES AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK AND SHALL FULLY COMPLY WITH ALL THEIR TERMS AND CONDITIONS. WHEREVER THE WORK UNDER THIS CONTRACT REQUIRES THE OBTAINING OF PERMITS FROM THE CITY OR OTHER PUBLIC AUTHORITIES, DUPLICATE COPIES OF SUCH PERMITS SHALL BE FURNISHED TO THE DEVELOPER AND OBTAINED.

18. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK: ALL WORK WHICH HAS BEEN REJECTED OR CONDEMNED SHALL BE REPAIRED, OR IF IT CANNOT BE REPAIRED SATISFACTORILY, IT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DEFECTIVE MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE WORK SITE. WORK DONE BEYOND THE LINE OR NOT IN CONFORMITY WITH THE GRADES SHOWN ON THE DRAWINGS OR AS PROVIDED, WORK DONE WITHOUT PROPER INSPECTION, OR ANY EXTRA OR UNCLASSIFIED WORK DONE WITHOUT WRITTEN AUTHORITY AND PRIOR AGREEMENT IN WRITING AS TO PRICES, SHALL BE AT THE CONTRACTOR'S RISK, AND WILL BE CONSIDERED UNAUTHORIZED, AND AT THE OPTION OF THE DEVELOPER MAY NOT BE MEASURED AND PAID FOR AND MAY BE ORDERED REMOVED AT THE CONTRACTOR'S EXPENSE. UPON FAILURE OF THE CONTRACTOR TO REPAIR SATISFACTORILY OR TO REMOVE AND REPLACE, IF SO DIRECTED, REJECTED, UNAUTHORIZED OR CONDEMNED WORK OR MATERIALS IMMEDIATELY AFTER RECEIVING NOTICE FROM THE DEVELOPER, THE DEVELOPER WILL, AFTER GIVING WRITTEN NOTICE TO THE CONTRACTOR, HAVE THE AUTHORITY TO CAUSE DEFECTIVE WORK TO BE REMEDIED OR REMOVED AND REPLACED, OR TO CAUSE UNAUTHORIZED WORK TO BE REMOVED AND TO DEDUCT THE COST THEREOF FROM ANY MONIES DUE OR TO BECOME DUE THE CONTRACTOR.

19. DURING CONSTRUCTION: DURING CONSTRUCTION OF THE WORK, THE CONTRACTOR SHALL AT ALL TIMES, KEEP THE SITE OF THE WORK AND ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS AND RUBBISH AS IS PRACTICABLE AND SHALL REMOVE SAME FROM ANY PORTION OF THE SITE IF, IN THE OPINION OF THE OWNER, SUCH MATERIAL, DEBRIS OR RUBBISH CONSTITUTES A NUISANCE OR IS OBJECTIONABLE. IN CASE OF FAILURE ON THE PART OF THE CONTRACTOR TO MAINTAIN A CLEAN SITE, THE DEVELOPER MAY, UPON 24 HOUR WRITTEN NOTICE, CLEAN THE SITE, AND THE COST THEREOF SHALL BE DEDUCTED FROM ANY MONIES DUE OR TO BECOME DUE TO THE CONTRACTOR UNDER HIS CONTRACT, OR WHERE SUFFICIENT CONTRACT FUNDS ARE UNAVAILABLE FOR THIS PURPOSE, THE CONTRACTOR OR HIS SURETY SHALL REIMBURSE THE DEVELOPER FOR ALL SUCH COSTS.

20. RECORD DRAWINGS: EACH CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEMS COVERED BY HIS CONTRACTUAL AGREEMENT. THESE RECORD PRINTS WILL BE REVIEWED BY THE DEVELOPER EACH MONTH PRIOR TO THE PRELIMINARY REVIEW OF CONTRACTOR'S REQUEST FOR PAYMENT. IF THE DRAWINGS ARE NOT COMPLETE, ACCURATE AND UP-TO-DATE, THE PAYMENT REQUEST WILL NOT BE ACCEPTED BY THE DEVELOPER. THE COMPLETED SET OF "RECORD" DRAWINGS MUST BE DELIVERED TO THE DEVELOPER BEFORE REQUESTING FINAL PAYMENT.

21. INSPECTION: INSPECTION OF THE PROPOSED CONSTRUCTION WILL BE PROVIDED BY THE DEVELOPER AND/OR THE CITY. COSTS FOR INSPECTION SERVICES WILL BE ASSUMED BY THE DEVELOPER.

22. DISPOSITION AND DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS: ALL MATERIALS TO BE REMOVED FROM THE SITE INCLUDING UNSUITABLE MATERIAL SUCH AS CONCRETE, LARGE ROCKS, REFUSE AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO DISPOSAL SITE.

23. STORM WATER POLLUTION PREVENTION PLAN (SWPPP): CONTRACTORS SHALL BE REQUIRED TO COMPLY WITH THE CONDITIONS OF THE SWPPP WHILE CONDUCTING HIS ACTIVITIES ON THIS PROJECT. IN ADDITION TO CONSTRUCTING THOSE ITEMS INDICATED ON THE PLAN SHEETS, COMPLIANCE WITH THE SWPPP INCLUDES CONFORMANCE TO CERTAIN PRACTICES AND PROCEDURES (IDENTIFIED IN THE SWPPP) DURING PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ALL EROSION CONTROL STRUCTURES INDICATED ON THE CONSTRUCTION PLANS. ALL EROSION CONTROL MEASURES SHALL BE IN STRICT ACCORDANCE WITH CITY, STATE AND FEDERAL REGULATIONS. SILT FENCES, ROCK BERMS, SEDIMENTATION BASINS AND SIMILARLY RECOGNIZED TECHNIQUES AND MATERIALS SHALL BE EMPLOYED DURING CONSTRUCTION TO PREVENT POINT SOURCE SEDIMENTATION LOADING OF DOWNSTREAM FACILITIES. SUCH INSTALLATION MAY BE REGULARLY INSPECTED BY THE CITY FOR EFFECTIVENESS. ADDITIONAL MEASURES MAY BE REQUIRED IF, IN THE OPINION OF THE CITY OR ENGINEER, THEY ARE WARRANTED.

24. SUBSURFACE EXPLORATION: PROFESSIONAL SERVICE INDUSTRIES, INC. HAS MADE AN INVESTIGATION OF SURFACE CONDITIONS FOR THIS PROJECT. THE RESULTS OF WHICH CAN BE FOUND IN THEIR GEOTECHNICAL ENGINEERING STUDY REFERENCED IN REPORT NO. 03421613 DATED SEPTEMBER 07, 2018.

25. ALL SITE PREPARATION, BUILDING PAD PREPARATION, BUILDING FOUNDATIONS, PAVEMENT SUBGRADE PREPARATION AND PAVEMENT SECTIONS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND REQUIREMENTS SET FORTH IN THE GEOTECHNICAL ENGINEERING STUDY AND/OR CITY STANDARDS, WHICHEVER IS MORE STRINGENT. ANY MODIFICATION OR REVISIONS TO THE SPECIFICATIONS SHALL BE APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER. ANY ALTERNATIVES SHALL BE REVIEWED AND APPROVED BY THE GEOTECHNICAL ENGINEER AND BY THE CITY ENGINEER IF NECESSARY.

26. CONTRACTORS SHALL MAKE ANY INVESTIGATION OF EXISTING SUBSURFACE CONDITIONS AS DEEMED NECESSARY. NO SEPARATE PAY ITEM WILL BE ALLOWED FOR THE INVESTIGATIONS PERFORMED BY THE CONTRACTOR.

27. NEITHER THE DEVELOPER NOR ENGINEER WILL BE RESPONSIBLE IN ANY WAY FOR ADDITIONAL COMPENSATION FOR EXCAVATION WORK PERFORMED UNDER THIS CONTRACT DUE TO CONTRACTOR'S ASSUMPTIONS REGARDING SUBSURFACE CONDITIONS.

28. PROPOSED PUBLIC AND PRIVATE IMPROVEMENTS: ALL PAVING, STORM SEWER LINES, WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THESE PLANS AND THE RULES, REGULATIONS, POLICIES AND PROCEDURES OF THE CITY, THE GEOTECHNICAL EVALUATION, AND THE T.C.E.Q.

29. MATERIALS AND CONSTRUCTION METHODS: ALL MATERIALS AND CONSTRUCTION METHODS FOR THIS PROJECT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THESE PLANS AND THE RULES, REGULATIONS, POLICIES AND PROCEDURES OF THE CITY, THE GEOTECHNICAL EVALUATION AND THE T.C.E.Q.

30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PERMISSION FROM ADJACENT PROPERTY OWNER(S) PRIOR TO COMMENCING ANY OFFSITE GRADING, UTILITY OR PAVING WORK.

31. DETENTION SYSTEM TO BE FULLY INSTALLED AND FUNCTIONING PER APPROVED PLAN PRIOR TO ANY CONCRETE/PAVING INSTALLATION INCLUDING SLABS. SIDES AND BOTTOM OF ALL DETENTION SYSTEMS TO HAVE EITHER SOD OR ANCHORED SEEDED CURLEX PRIOR TO CONCRETE INSTALLATION.

32. 75-80% OF ALL DISTURBED AREA TO HAVE 1" MIN. STAND OF GRASS (NOT WEEDS OR WINTER RYE) PRIOR TO CITY ACCEPTANCE.

33. **ANY AND ALL DETAILS NOT PROVIDED WITH THE CONSTRUCTION DRAWINGS, SHALL COME FROM CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION & NCTCOG PUBLIC WORKS CONSTRUCTION STANDARDS FOURTH EDITION.**

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

THOMAS A. LUNZMAN P.E. — DATE: 02/08/2021

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7706
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:
SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLIN PARKING FOR THE APPRASAL DISTRICT BUILDING, ABOUT 100' WEST FROM THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF SUGAR CREEK.
N 7003100.571 E 2596909.421 ELEV = 583.32'
SITE BM TWO, CROSS CUT IN SIDEWALK 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF JOB TRACE DRIVE.
N 7002744.149 E 2595313.589 ELEV = 589.72'

GENERAL NOTES

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING
COMMUNITY

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

△7/17/19
5/17/19
2/21/19

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED
PROFESSIONAL ENGINEER

JOB NUMBER:	56230
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	NONE
SHEET NUMBER:	C.04
OF	23

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PLOTTED: 12/6/2019 3:16:36 PM

HORIZONTAL SCALE 0 20' 40' 80'

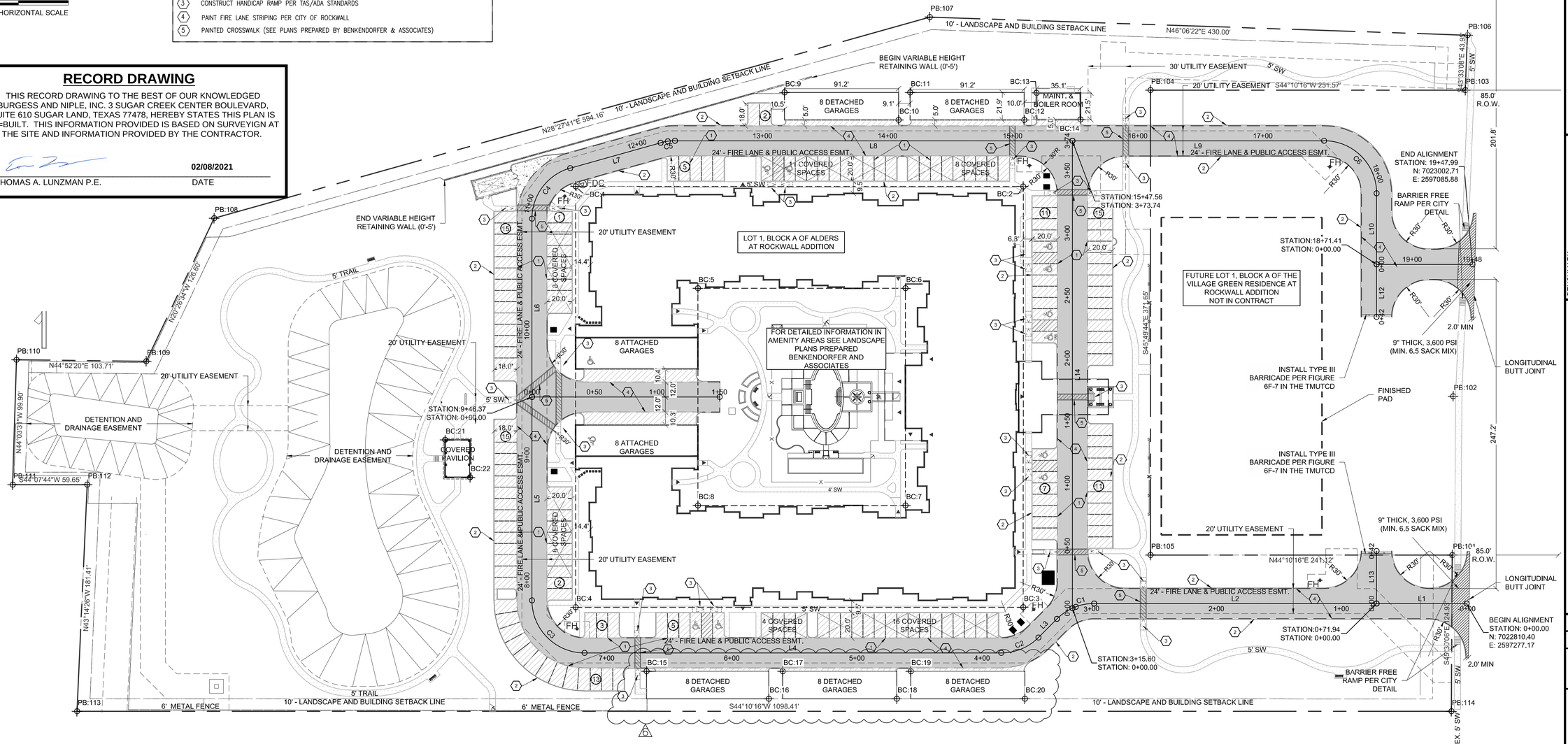
KEY NOTES

1. PAINT 4" WIDE SOLID PARKING STRIPE – WHITE
2. CONSTRUCT 6" CONCRETE CURB PER CITY OF ROCKWALL STANDARD DETAIL
3. CONSTRUCT HANDICAP RAMP PER TAS/ADA STANDARDS
4. PAINT FIRE LANE STRIPING PER CITY OF ROCKWALL
5. PAINTED CROSSWALK (SEE PLANS PREPARED BY BENKENDORFER & ASSOCIATES)

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

THOMAS A. LUNZMAN P.E. — DATE 02/08/2021



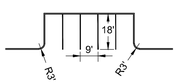
PRIVATE PAVEMENT LEGEND:

24' FIRE LANE: (±61,256.5 S.F.)
6" THICK REINFORCED CONCRETE, 6.5 SACK MINIMUM CEMENT, 3,600 PSI MINIMUM 28-DAY CONCRETE STRENGTH WITH #3 BARS AT 24" ON CENTER EACH WAY. 6" MINIMUM LIME STABILIZED SUBGRADE WITH A LIME CONTENT OF 27#/S.Y. EXTENDING 1' BEYOND THE BACK OF CURB. PER CITY OF ROCKWALL STANDARDS

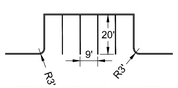
TRASH COMPACTOR AREA: (±995.3 S.F.)
7" THICK REINFORCED CONCRETE, 6.5 SACK MINIMUM CEMENT, 3,600 PSI MINIMUM 28-DAY CONCRETE STRENGTH WITH #3 BARS AT 18" ON CENTER EACH WAY. 6" MINIMUM DEPTH LIME STABILIZED SUBGRADE WITH A LIME CONTENT OF 41#/S.Y. EXTENDING 1' BEYOND THE EDGE OF PAVEMENT. PER GEOTECHNICAL REPORT DATED FEBRUARY 5, 2018

LIGHT VEHICULAR/ PARKING PAVEMENT AREAS: (±28,530 S.F.)
6" THICK REINFORCED CONCRETE, 5.5 SACK MINIMUM CEMENT, 3,000 PSI MINIMUM 28-DAY CONCRETE STRENGTH WITH #3 BARS AT 18" ON CENTER EACH WAY. SUBGRADE TO BE SCARIFIED 6" MINIMUM AND COMPACTSED TO 95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698)

SIDEWALK AREAS, 5.5 SACK MINIMUM CEMENT, 3,000 PSI PER CITY OF ROCKWALL SPECIFICATIONS



TYPICAL PARKING SPACE



TYPICAL BUILDING ADJACENT PARKING SPACE

BUILDING CORNER POINT TABLE		
POINT NO.	NORTHING	EASTING
BC:1	7022532.06	2596541.83
BC:2	7022788.60	2596791.09
BC:3	7022554.21	2597032.37
BC:4	7022297.65	2596783.13
BC:5	7022545.40	2596668.33
BC:6	7022664.36	2596783.90
BC:7	7022543.40	2596908.40
BC:8	7022424.44	2596792.83
BC:9	7022704.11	2596604.33
BC:10	7022754.26	2596683.60
BC:11	7022776.05	2596674.21

BUILDING CORNER POINT TABLE		
POINT NO.	NORTHING	EASTING
BC:12	7022826.20	2596753.49
BC:13	7022848.32	2596744.89
BC:14	7022858.68	2596784.57
BC:15	7022302.61	2596859.37
BC:16	7022357.42	2596943.17
BC:17	7022380.65	2596935.18
BC:18	7022430.80	2597014.45
BC:19	7022454.01	2597006.46
BC:20	7022516.16	2597085.73
BC:21	7022316.03	2596614.40
BC:22	7022309.47	2596649.86

PROPERTY BOUNDARY POINTS TABLE		
POINT NO.	NORTHING	EASTING
PB:101	7022829.23	2597241.36
PB:102	7022918.13	2597150.89
PB:103	7023095.70	2596982.07
PB:104	7022915.26	2596806.78
PB:105	7022656.29	2597073.35
PB:106	7023127.61	2596951.77
PB:107	7022829.43	2596641.92
PB:108	7022307.08	2596358.77
PB:109	7022188.45	2596402.99
PB:110	7022114.95	2596329.82
PB:111	7022043.16	2596399.28
PB:112	7022085.98	2596440.82
PB:113	7021953.82	2596565.10

LINE SEGMENTS TABLE				
LINE SEGMENT	LENGTH	BEARING	START STA.	END STA.
L1	71.94 L.F.	S44° 10' 15"W	-0+00.00	0+71.94
L2	225.72 L.F.	S44° 10' 15"W	0+71.94	2+97.66
L3	21.00 L.F.	S00° 49' 43"E	3+30.65	3+51.65
L4	333.12 L.F.	S44° 10' 16"W	3+84.64	7+17.75
L5	162.65 L.F.	N45° 49' 44"W	7+83.73	9+46.37
L6	142.44 L.F.	N45° 49' 44"W	9+46.37	10+88.82
L7	75.07 L.F.	N28° 27' 41"E	11+43.28	12+18.35
L8	317.70 L.F.	N44° 10' 16"E	12+29.86	15+47.56
L9	201.12 L.F.	N44° 10' 16"E	15+47.56	17+48.68
L10	56.75 L.F.	S45° 49' 44"E	18+14.66	18+71.41
L12	42.00 L.F.	S45° 49' 44"E	0+00.00	0+42.00
L13	42.00 L.F.	N45° 49' 44"W	0+00.00	0+42.00
L14	373.74 L.F.	N45° 49' 44"W	0+00.00	3+73.74

CURVE SEGMENT TABLE					
CURVE SEGMENT	RADIUS	LENGTH	CHORD BEARING	START STA.	END STA.
C1	42.00 L.F.	32.986	S21° 40' 16"W	2+97.66	3+30.65
C2	42.00 L.F.	32.986	S21° 40' 16"W	3+51.65	3+84.64
C3	42.00 L.F.	65.974	S89° 10' 16"W	7+17.75	7+83.73
C4	42.00 L.F.	54.458	N08° 41' 01"W	10+88.82	11+43.28
C5	42.00 L.F.	11.516	N36° 18' 58"E	12+18.35	12+29.86
C6	42.00 L.F.	65.973	N89° 10' 16"E	17+48.68	18+14.66

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.

NOTES:

1. ALL SITE SIGNAGE SHALL CONFORM TO CITY OF ROCKWALL CODES.
2. REFER TO THE LANDSCAPE PLANS FOR DETAILS OF PROPOSED LANDSCAPING, SIGNAGE AND AMENITIES FOR THIS PROJECT.
3. FOR SPECIFIC BUILDING SIZES SEE ARCHITECTURAL PLANS. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER AND PROJECT ARCHITECT IF THERE ARE ANY DISCREPANCIES WITH BUILDINGS.
4. ALL BUILDING CORNERS ARE TO THE OUTSIDE BRICK LEDGE.
5. ALL FIRE LANE INNER RADII TO BE 30' TO THE FACE OF THE CURB MINIMUM.
6. ALL PARKING ADJACENT TO THE BUILDING MUST BE MINIMUM OF 20' IN DEPTH.
7. **ANY & ALL DETAILS NOT PROVIDED WITH THESE CONSTRUCTION DRAWINGS. SHALL COME FROM CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION & NCTCOG PUBLIC WORKS CONSTRUCTION STANDARDS FOURTH EDITION.**

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7705
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:

SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLIN PARKING FOR THE APPRAISAL DISTRICT BUILDING, ABOUT 200' NORTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF FIRE HOUSE #2.
N: 7023103.979 E: 2596909.421 ELEV. = 583.32'

SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 995' SOUTHEASTERLY FROM THE CENTER OF CORPORATE DRIVE.
N: 7022744.149 E: 2597313.50 ELEV. = 585.72'

DIMENSION CONTROL & PAVING PLAN

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

NO.	REVISIONS	DATE	BY	CK
1	UPDATE WATERLINE LAYOUT	02/21/19	TAL	TAL
2	MINOR HUD/OWNER COMMENTS	05/17/19	TAL	TAL
3	REV. TO SW & CRYO(STRM) PER LNDSCPE	07/17/19	KTM	TAL
4	REV. EX. STRM TIE-IN EL. & SD "A" (PBLC)	09/19/19	KTM	TAL
5	REV. COURTYARD DRAINS, BACKFLOW, SS SERVICE, GARAGE FOOTPRINTS	11/13/19	KTM	TAL
6	REV. GARAGE LOCATIONS EAST SIDE	12/05/19	NRM	TAL

1 11/13/19 2 7/17/19 3 9/19/19 4 11/13/19 5 12/5/19

STATE OF TEXAS — THOMAS A. LUNZMAN — 122259 — LICENSED PROFESSIONAL ENGINEER

JOB NUMBER:	56230
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	1" = 40'
SHEET NUMBER:	C.05
OF	23

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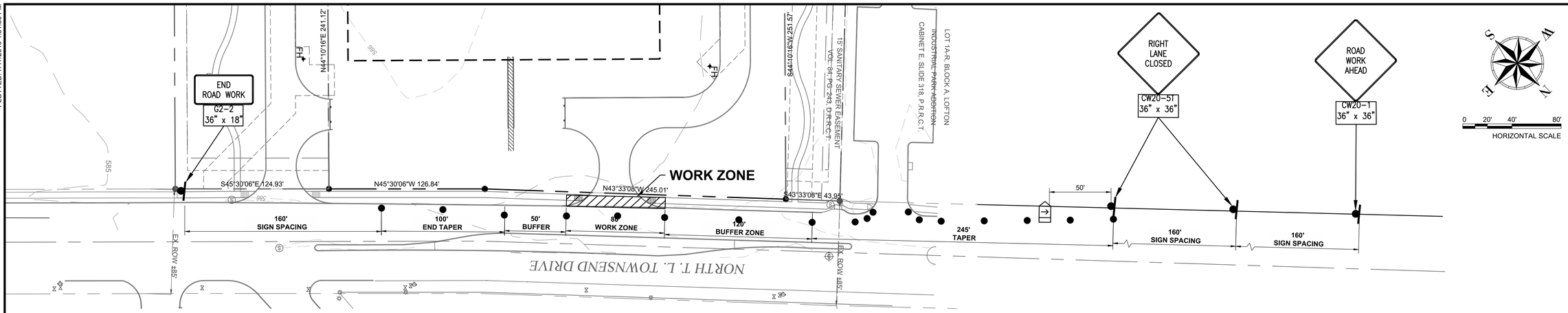
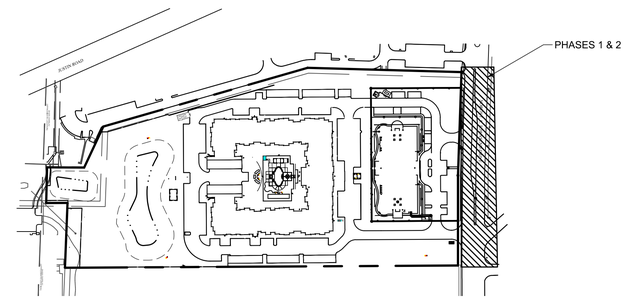


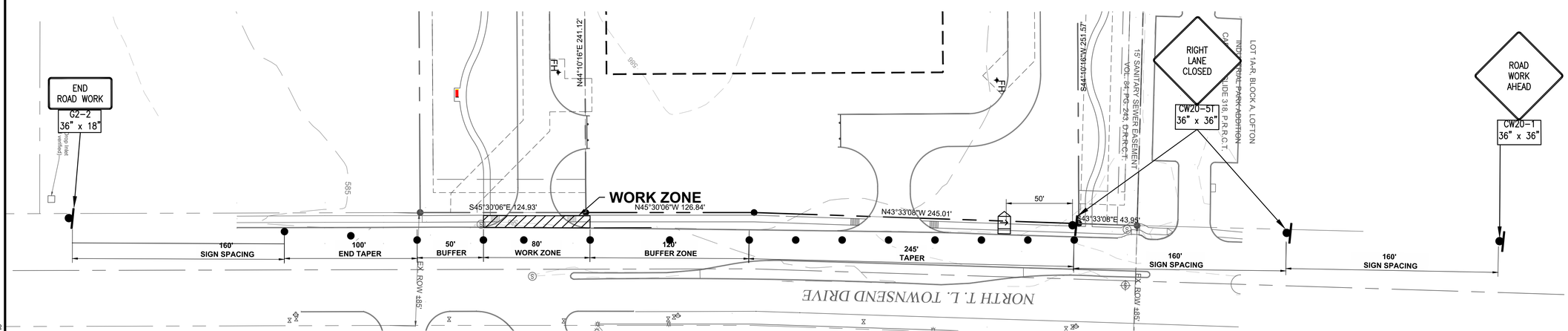
ENTRANCE CONSTRUCTION PHASE 1



RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

THOMAS A. LUNZMAN P.E. — DATE: 02/08/2021



ENTRANCE CONSTRUCTION PHASE 2

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.

L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS FOR IMPLEMENTING TRAFFIC CONTROL MEASURES NECESSARY FOR CONSTRUCTION WITHIN CITY RIGHT-OF-WAY OF T. L. TOWNSEND DRIVE.

THE POSTED SPEED LIMIT ON T. L. TOWNSEND DRIVE IS 35 MPH.

THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES AFTER WORKING HOURS.

FOR PUBLIC DRIVEWAYS/PAVEMENT LOCATED IN CITY OF ROCKWALL ROW, REF. STANDARD PAVING DETAILS WITHIN THIS PLAN SET.

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.

GENERAL NOTES:

1. FLAGS ATTACHED TO SIGNS WHERE SHOWN, ARE REQUIRED.
2. ALL TRAFFIC CONTROL DEVICES ILLUSTRATED ARE REQUIRED, EXCEPT THOSE DENOTED WITH THE TRIANGLE SYMBOL MAY BE OMITTED WHEN STATED ELSEWHERE IN THE PLANS, OR FOR ROUTINE MAINTENANCE WORK, WHEN APPROVED BY THE ENGINEER.
3. THE DOWNSTREAM TAPER IS OPTIONAL. WHEN USED, IT SHOULD BE 100 FEET MINIMUM LENGTH PER LANE.
4. FOR SHORT TERM APPLICATIONS, WHEN POST MOUNTED SIGNS ARE NOT USED, THE DISTANCE LEGEND MAY BE SHOWN ON THE SIGN FACE RATHER THAN ON A CW16-3AP SUPPLEMENTAL PLAQUE.
5. A SHADOW VEHICLE WITH A TMA SHOULD BE USED ANYTIME IT CAN BE POSITIONED 30 TO 100 FEET IN ADVANCE OF THE AREA OF CREW EXPOSURE WITHOUT ADVERSELY AFFECTING THE PERFORMANCE OF QUALITY OF THE WORK. IF WORKERS ARE NO LONGER PRESENT BUT ROAD OR WORK CONDITIONS REQUIRE THE TRAFFIC CONTROL TO REMAIN IN PLACE, TYPE 3 BARRICADES OR OTHER CHANNELIZING DEVICES MAY BE SUBSTITUTED FOR THE SHADOW VEHICLE AND TMA.
6. ADDITIONAL SHADOW VEHICLES WITH TMAS MAY BE POSITIONED IN EACH CLOSED LANE, ON THE SHOULDER OR OFF THE PAVED SURFACE, NEXT TO THOSE SHOWN IN ORDER TO PROTECT A WIDER WORK SPACE.

TCP (2-4A)

7. IF THIS TCP IS USED FOR A LEFT LANE CLOSURE, CW20-5TL "LEFT LANE CLOSED" SIGNS SHALL BE USED AND CHANNELIZING DEVICES SHALL BE PLACED ON THE CENTERLINE TO PROTECT THE WORK SPACE FROM OPPOSING TRAFFIC WITH THE ARROW BOARD PLACED ON THE CLOSED LANE NEAR THE END OF THE MERGING TAPER.

LEGEND

- CHANNELIZING DEVICE
- SIGN POST
- FLAG
- TRAILER MOUNTED FLASHING ARROW BOARD

THIS TRAFFIC CONTROL PLAN IS FOR REFERENCE ONLY. CONTRACTOR SHALL FOLLOW TXDOT, MUTCD, AND CITY OF FORT WORTH TRAFFIC CONTROL STANDARDS. CONTRACTOR IS SOLELY RESPONSIBLE FOR TRAFFIC CONTROL INSTALLATION AND IMPLEMENTATION.

CONTRACTOR IS RESPONSIBLE FOR OBTAINING A "PARKWAY PERMIT" FROM THE CITY OF FORT WORTH BEFORE BEGINNING WORK.

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7706
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:

SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLAN PARKING FOR THE APPRAISAL DISTRICT BUILDING, APPROXIMATELY 200' NORTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF TOWNSHEND DRIVE. ELEV. = 583.32'
N 7023100.571 E. 2596909.421

SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' NORTHWESTERLY FROM THE CENTER OF JUSTIN ROAD. ELEV. = 588.72'
N 7022744.148 E. 2597313.258

TRAFFIC CONTROL PLAN

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

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

A 7/17/19
B 5/17/19
C 2/21/19

STATE OF TEXAS — THOMAS A. LUNZMAN — 122259 — LICENSED PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	1" = 40'
SHEET NUMBER:	C.06
OF	23

PLOTTED: 7/17/2019 1:51:50 PM

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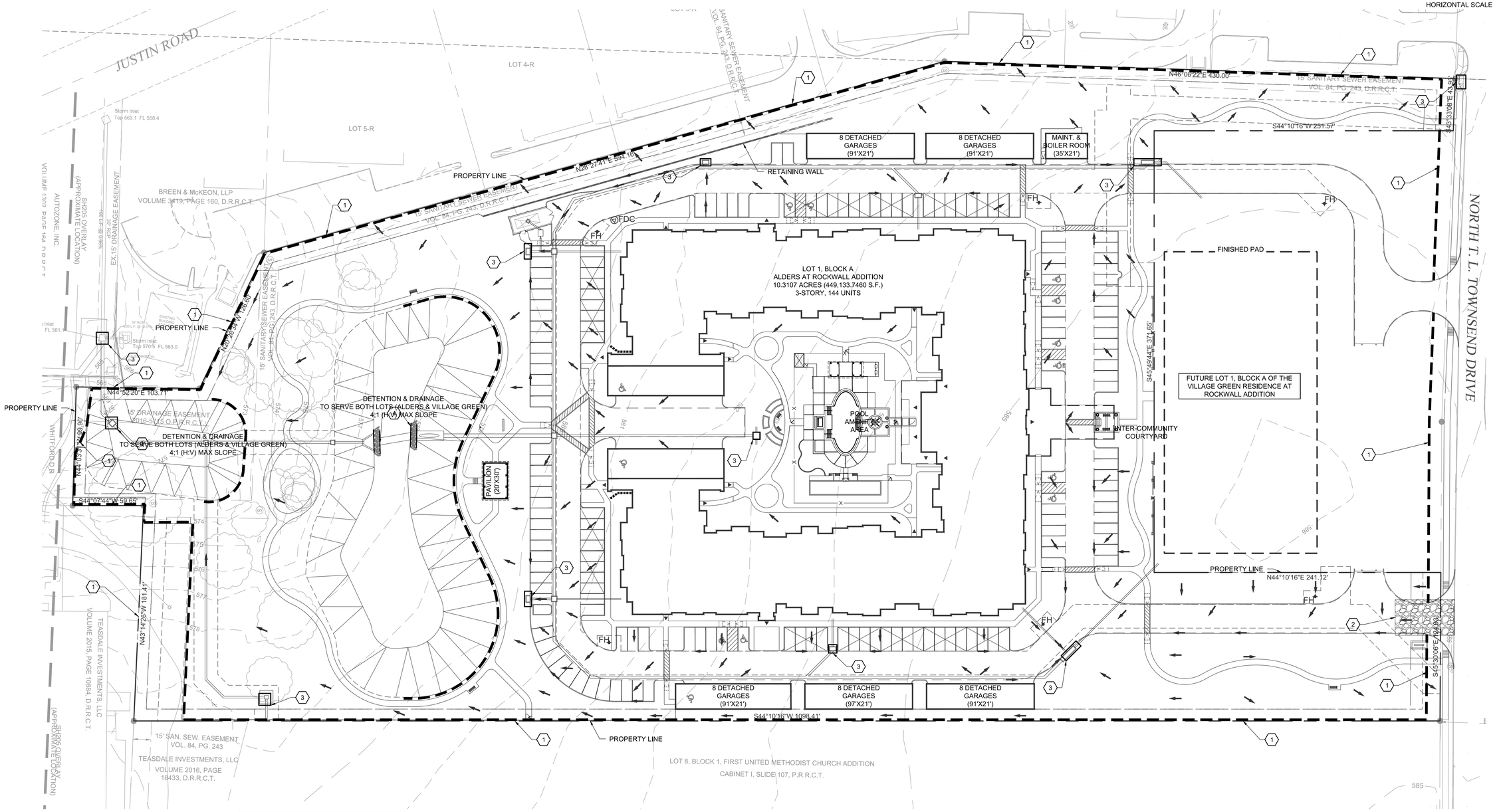
PLOTTED: 7/17/2019 1:52:09 PM

SITE ACREAGE: 12.40 AC (540,144 SQ. FT.)
TOTAL DISTURBED AREA: 12.40 AC (540,144 SQ. FT.)

0 20' 40' 80'
HORIZONTAL SCALE



LEGEND

- SILT FENCE
- CONSTRUCTION ENTRANCE
- INLET PROTECTION
- ROCK CHECK DAM (1060A)
- FLOW ARROW

GENERAL NOTES:

1.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.

2. ANY & ALL DETAILS NOT PROVIDED WITH THESE CONSTRUCTION DRAWINGS. SHALL COME FROM CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION & NCTCOG PUBLIC WORKS CONSTRUCTION STANDARDS FOURTH EDITION.

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

02/08/2021

THOMAS A. LUNZMAN P.E. DATE

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7704
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM

SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLAN PARKING FOR THE APPRAISAL DISTRICT BUILDING, ABOUT 100' WEST OF THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF FIRE STATION #3
N 7023103.571 E. 2596909.421 ELEV. = 583.32'

SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF JUSTIN DRIVE.
N 7022744.438 E. 2597313.128 ELEV. = 585.72'

EROSION CONTROL PLAN

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

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

7/17/19
5/17/19
2/21/19

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED
PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	1" = 40'
SHEET NUMBER:	C.07
OF	23

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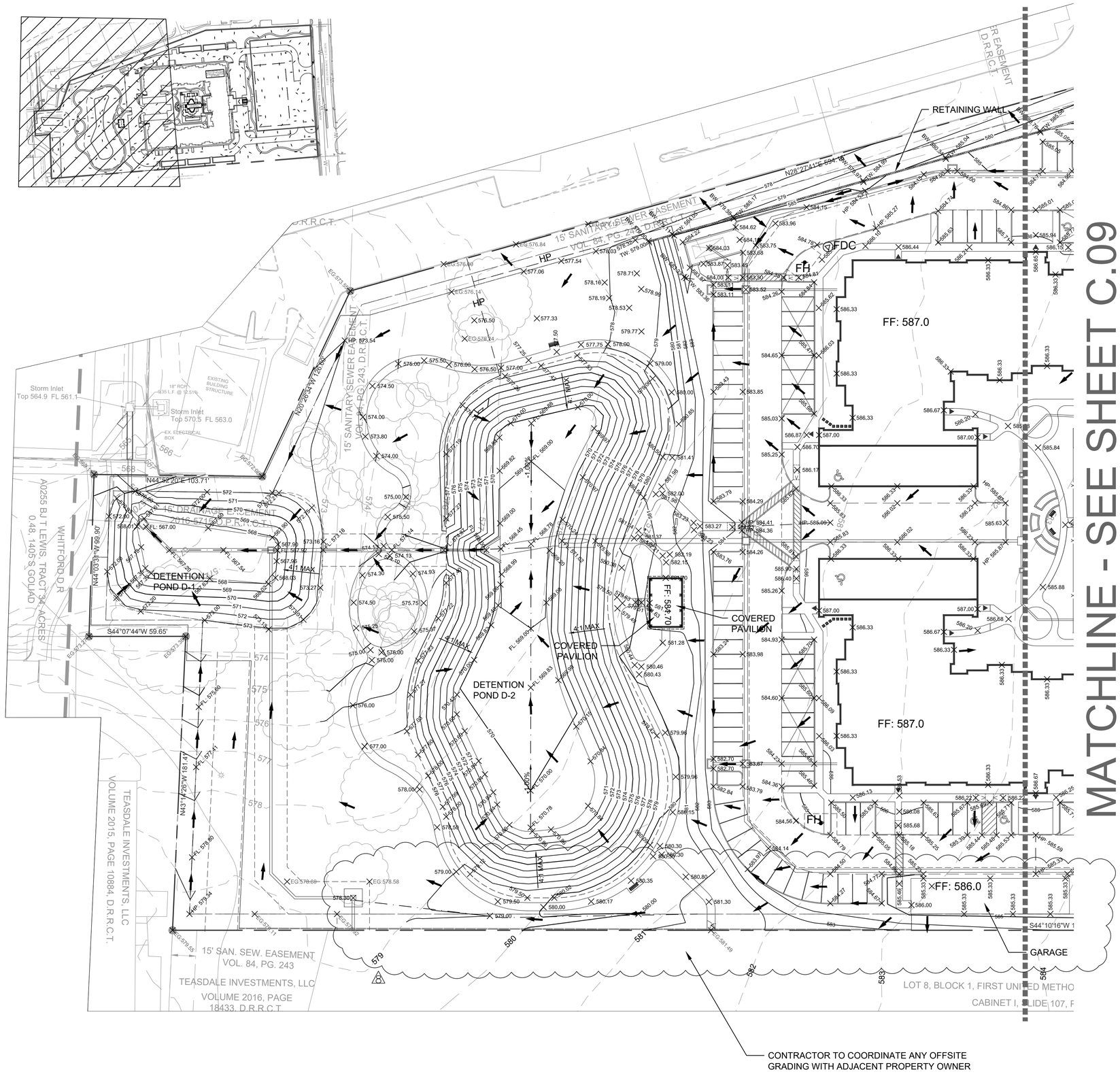

GENERAL NOTES:

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5. ALL SPOT GRADES SHOWN ARE TOP OF PAVEMENT OR FINISHED GRADE UNLESS OTHERWISE NOTED. ALL CURBS SHOWN ARE ASSUMED TO BE 6" STANDARD HEIGHT.
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LEGEND

× TC:XX.XX	TOP OF CURB SPOT GRADE
× XX.XX	TOP OF PAVEMENT SPOT GRADE
× XX.X	FINISHED GROUND SPOT GRADE
× TW:XX.X	TOP OF WALL SPOT GRADE
× BW:XX.X	BOTTOM OF WALL SPOT GRADE
× EB:XX.X	EXPOSED BEAM
FF:XXX.X	FINISHED FLOOR ELEVATION
× HP:XX.XX	HIGH POINT
× LP:XX.XX	LOW POINT
	PROPOSED CONDENSER
	FLOW ARROW
395	PROPOSED CONTOURS
395	EXISTING CONTOURS
	HIGH POINT
	SWALE CENTERLINE

0 30' 60'
HORIZONTAL SCALE

RECORD DRAWING

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10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7705
TBPE FIRM REGISTRATION NO. F-10834

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CITY BM:
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N 7023100.371 E. 2596909.421 ELEV = 583.32'
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N 7022744.449 E 2597313.529 ELEV = 585.72'

GRADING PLAN
(SHEET 1 OF 2)

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING
COMMUNITY

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4	REV. EX. STRM TIE-IN EL. & SD. 'A' (PBLC)	09/19/19	KTM	TAL
5	REV. CTYRD DRAINS, BF SS, GAR	11/13/19	KTM	TAL
6	REV. GARAGE LOCATIONS EAST SIDE	12/06/19	NRM	TAL
7	REVISE GRADES @ MC ENTRANCE	01/27/20	NRM	TAL
8	REVISE GRADES @ SWALE ON SOUTH PL	11/13/20	TAL	TAL

△8 11/13/20
△7 01/27/20
△6 12/06/19
△5 11/13/19
△4 9/19/19
△3 7/17/19
△2 5/17/19
△1 2/21/19

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED PROFESSIONAL ENGINEER

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DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	1" = 30'
SHEET NUMBER:	C.08
OF	23

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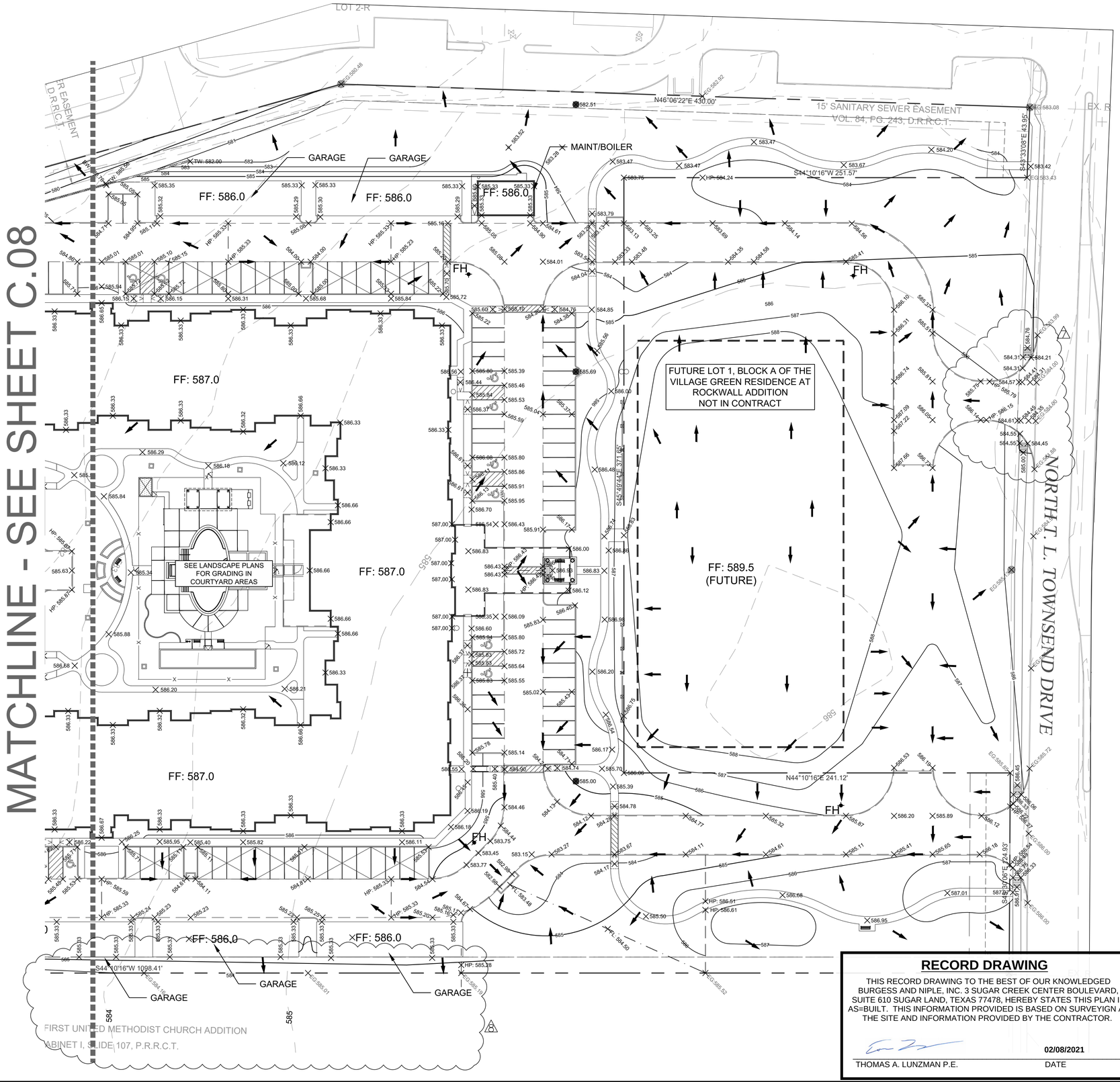

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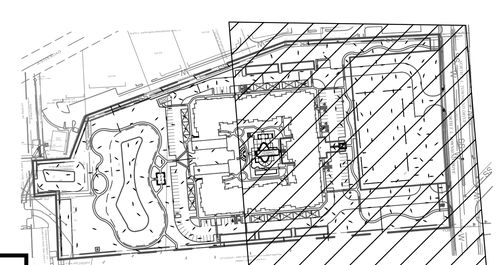

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N 7002744.449 E 2597313.529 ELEV = 583.72'

GRADING PLAN
(SHEET 2 OF 2)

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING
COMMUNITY

NO.	REVISIONS	DATE	BY	CHK
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8	REVISE GRADES @ SWALE ON SOUTH PL.	11/13/20	TAL	TAL

△1 11/13/19
△2 9/19/19
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△4 5/17/19
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△6 01/27/20
△7 11/13/20

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED
PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
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DATE:	01/29/2019
SCALE:	1" = 30'
SHEET NUMBER:	C.09
OF	23

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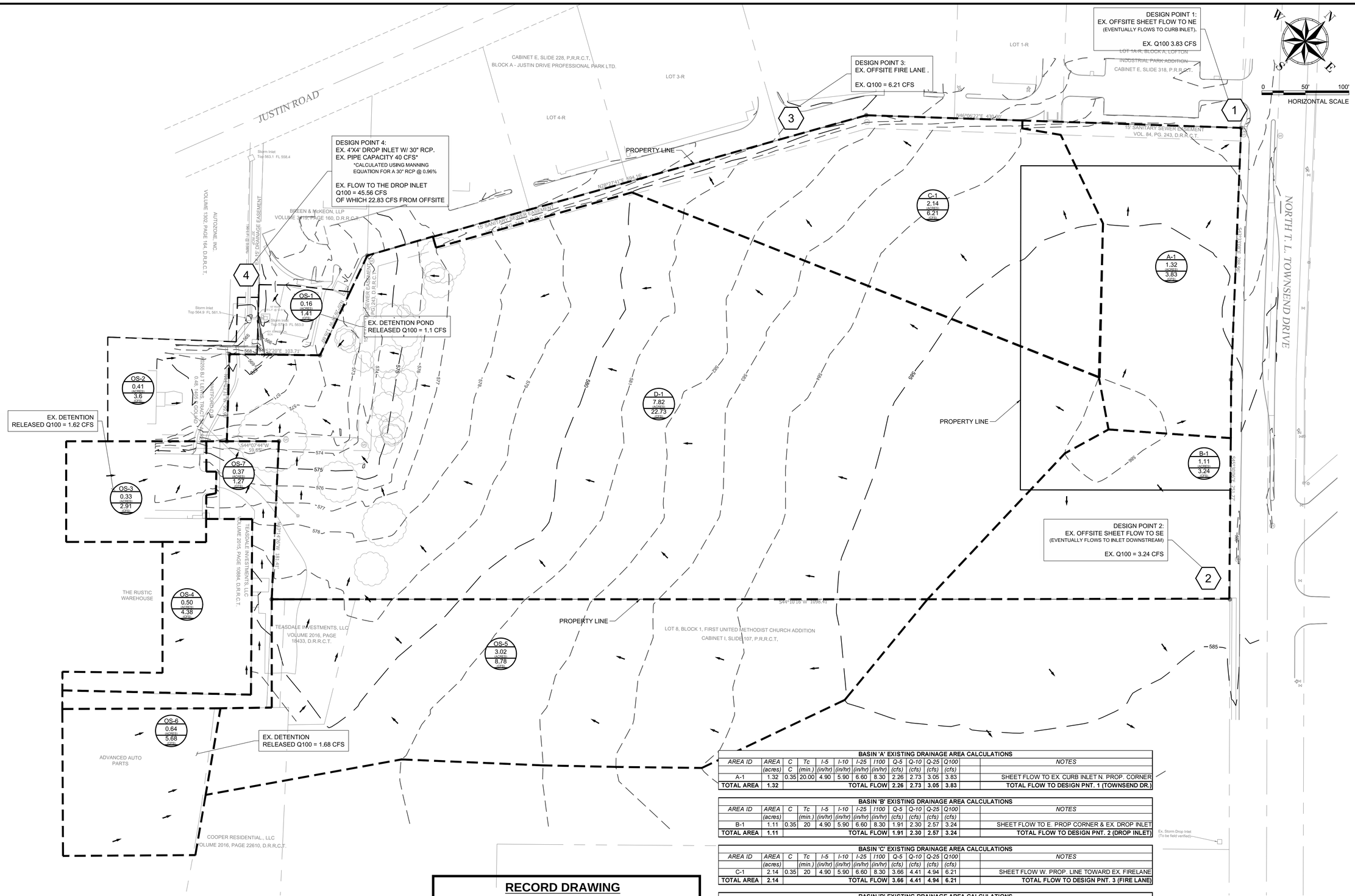

BASIN 'A' EXISTING DRAINAGE AREA CALCULATIONS												
AREA ID	*AREA*	*C*	*Tc*	*I-5*	*I-10*	*I-25*	*I100*	*Q-5*	*Q-10*	*Q-25*	*Q100*	*NOTES*
	(acres)	*C*	*(min.)*	*(in/hr)*	*(in/hr)*	*(in/hr)*	*(in/hr)*	*(cfs)*	*(cfs)*	*(cfs)*	*(cfs)*	
A-1	1.32	0.35	20.00	4.90	5.90	6.60	8.30	2.26	2.73	3.05	3.83	SHEET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

BASIN 'B' EXISTING DRAINAGE AREA CALCULATIONS												
AREA ID	*AREA*	*C*	*Tc*	*I-5*	*I-10*	*I-25*	*I100*	*Q-5*	*Q-10*	*Q-25*	*Q100*	*NOTES*
	(acres)		*(min.)*	*(in/hr)*	*(in/hr)*	*(in/hr)*	*(in/hr)*	*(cfs)*	*(cfs)*	*(cfs)*	*(cfs)*	
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**	**3.24**	**TOTAL FLOW TO DESIGN PNT. 2 (DROP INLET)**

BASIN 'C' EXISTING DRAINAGE AREA CALCULATIONS												
AREA ID	*AREA*	*C*	*Tc*	*I-5*	*I-10*	*I-25*	*I100*	*Q-5*	*Q-10*	*Q-25*	*Q100*	*NOTES*
	(acres)		*(min.)*	*(in/hr)*	*(in/hr)*	*(in/hr)*	*(in/hr)*	*(cfs)*	*(cfs)*	*(cfs)*	*(cfs)*	
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**	**6.21**	**TOTAL FLOW TO DESIGN PNT. 3 (FIRE LANE)**

BASIN 'D' EXISTING DRAINAGE AREA CALCULATIONS													
AREA ID	*AREA*	*C*	*Tc*	*I-5*	*I-10*	*I-25*	*I100*	*Q-5*	*Q-10*	*Q-25*	*Q100*	*Q100***	*NOTES*
	(acres)	*C*	*(min.)*	*(in/hr)*	*(in/hr)*	*(in/hr)*	*(in/hr)*	*(cfs)*	*(cfs)*	*(cfs)*	*(cfs)*	*(cfs)*	
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 QRELEASE = 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 QRELEASE = 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 QRELEASE = 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**	**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)

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STAFFORD, TEXAS 77477
PHONE: (281) 980-5706
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DRAINAGE AREA MAP (PRE)

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PLOTTED: 7/17/2019 2:24:32 PM

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	(acres)		(min.)	(in/hr)	(in/hr)	(in/hr)	(in/hr)	(cfs)	(cfs)	(cfs)	(cfs)	
TO DETENTION POND 'D-1'												
D-1	1.42	0.75	10	6.10	7.10	8.30	9.80	6.50	7.56	8.84	10.44	SHEET FLOW TO DETN. POND D-1
OS-6	0.64	0.90	10	6.10	7.10	8.30	9.80	0.99	1.16	1.41	1.68	EX. DETN. POND QRELEASE = 1.68 CFS TO POND 'D-1'
OS-7	0.37	0.35	10	6.10	7.10	8.30	9.80	0.79	0.92	1.07	1.27	EX. COMMERCIAL DEV. SHEET FLOWS TO POND ' D-1
OS-4	0.50	0.90	10	6.10	7.10	8.30	9.80	2.73	3.17	3.71	4.38	EX. COMMERCIAL DEV. SHEET FLOWS TO POND ' D-1
TOTAL AREA	**2.93**					**TOTAL FLOW**		**11.00**	**12.81**	**15.03**	**17.77**	**TOTAL FLOW TO DETENTION POND 'D-1'**
TOTAL AREA	**1.51**					**TOTAL FLOW**		**4.51**	**5.25**	**6.19**	**7.33**	**TOTAL FLOW FROM OFFSITE TO DETENTION POND 'D-1'**
TOTAL AREA	**1.42**					**TOTAL FLOW**		**6.50**	**7.56**	**8.84**	**10.44**	**TOTAL FLOW FROM ONSITE FLOW TO DETENTION POND 'D-1'**
TO DETENTION POND 'D-2'												
D-2	1.77	0.75	10	6.10	7.10	8.30	9.80	8.10	9.43	11.02	13.01	SHEET FLOW TO DETN. POND D-2
D-3	1.41	0.75	10	6.10	7.10	8.30	9.80	6.46	7.52	8.79	10.38	FLOWS TO C.Y. AREA DRAINS TO POND 'D-2'
D-4	0.56	0.75	10	6.10	7.10	8.30	9.80	2.58	3.00	3.51	4.15	SHEET FLOWS TO CURB INLET D-4 TO POND 'D-2'
D-5	0.38	0.75	10	6.10	7.10	8.30	9.80	1.76	2.05	2.40	2.83	SHEET FLOWS TO CURB INLET D-5 TO POND 'D-2'
D-6	0.25	0.75	10	6.10	7.10	8.30	9.80	1.15	1.34	1.56	1.85	SHEET FLOWS TO CURB INLET D-6 TO POND 'D-2'
D-7	1.72	0.75	10	6.10	7.10	8.30	9.80	7.87	9.16	10.71	12.65	SHEET FLOWS TO CURB INLET D-7 TO POND 'D-2'
D-8	2.03	0.75	10	6.10	7.10	8.30	9.80	9.28	10.80	12.63	14.91	SHEET FLOWS TO CURB INLET D-8 TO POND 'D-2'
D-9	0.44	0.75	10	6.10	7.10	8.30	9.80	2.02	2.35	2.74	3.24	SHEET FLOWS TO CURB INLET D-9 TO POND 'D-2'
D-10	0.84	0.75	10	6.10	7.10	8.30	9.80	3.83	4.46	5.21	6.15	SHEET FLOWS TO CURB INLET D-10 TO POND 'D-2'
TOTAL AREA	**9.41**					**TOTAL FLOW**		**43.06**	**50.11**	**58.58**	**69.17**	**TOTAL FLOW TO DETENTION POND 'D-2' (NO OFFSITE FLOW)**
BYPASS FLOW												
D-0	0.02	0.75	10	6.10	7.10	8.30	9.80	0.11	0.13	0.15	0.18	TO DROP INLET D-0 BYPASS POND TO DESIGN PNT. 4
D-11	0.15	0.75	10	6.10	7.10	8.30	9.80	0.69	0.80	0.93	1.10	TO DROP INLET D-0 BYPASS POND TO DESIGN PNT. 4
OS-1	0.16	0.80	10	6.10	7.10	8.30	9.80	0.78	0.90	1.06	1.10	EX. DETN. POND QRELEASE = 1.1 CFS TO DESIGN PNT. 4
OS-2	0.41	0.90	10	6.10	7.10	8.30	9.80	2.25	2.62	3.06	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	EX. DETN. POND QRELEASE = 2.01 CFS 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	BYPASS PIPE FLOW THROUGH SITE TO DESIGN PNT. 4
TOTAL AREA	**4.13**					**TOTAL FLOW**		**10.38**	**12.31**	**14.03**	**16.78**	**TOTAL FLOW TO BYPASS TO DESIGN PNT. 4**
TOTAL AREA	**16.48**					**TOTAL FLOW**		**54.43**	**75.24**	**87.65**	**103.72**	**TOTAL FLOW TO DESIGN PNT. 4**

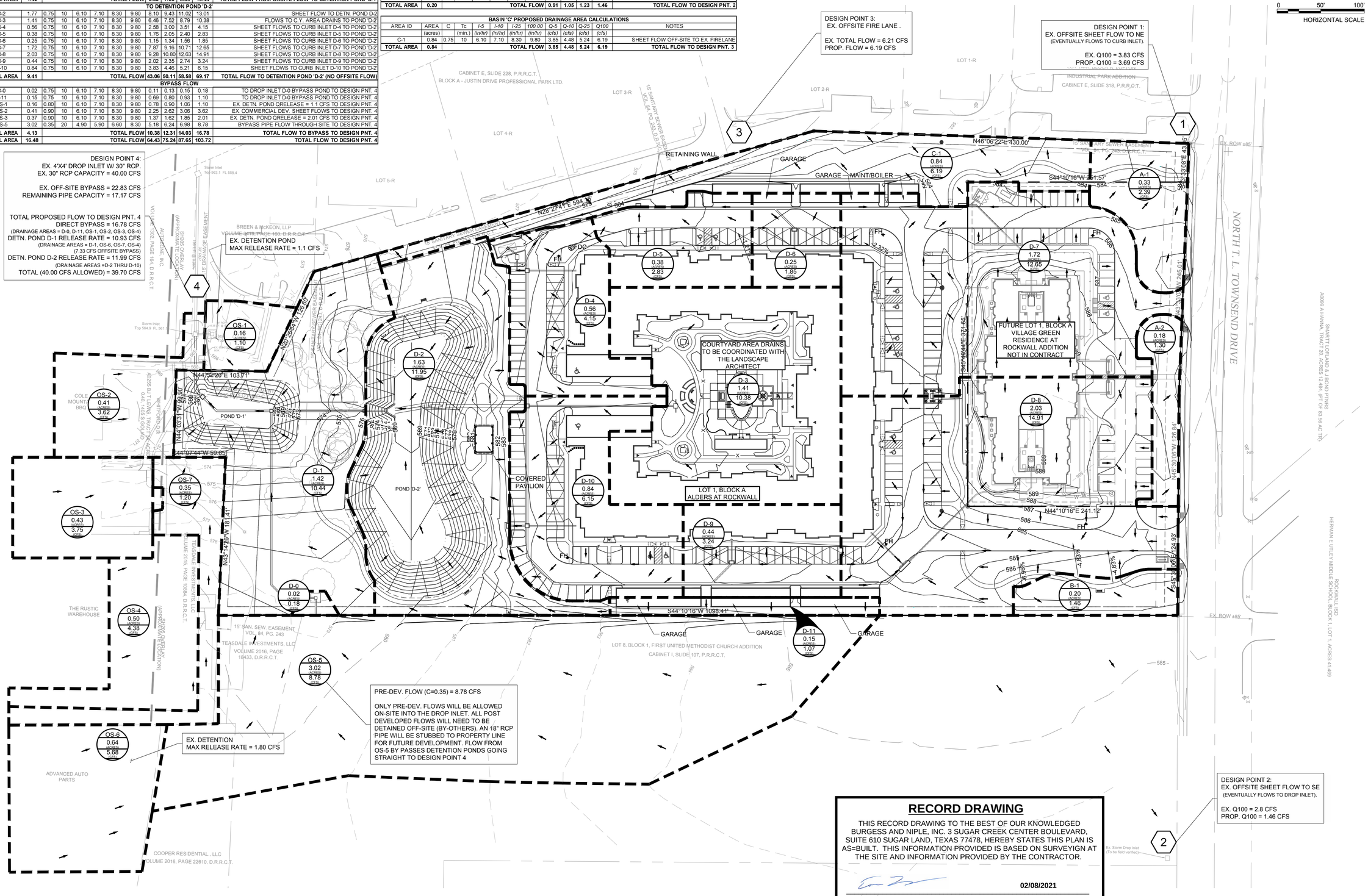
BASIN 'A' PROPOSED DRAINAGE AREA CALCULATIONS											
AREA ID	AREA	C	Tc	I-5	I-10	I-25	100.00	Q-5	Q-10	Q-25	Q100	NOTES
	(acres)		(min.)	(in/hr)	(in/hr)	(in/hr)	(in/hr)	(cfs)	(cfs)	(cfs)	(cfs)	
A-1	0.33	0.75	10	6.10	7.10	8.30	9.80	1.49	1.73	2.02	2.39	SHEET FLOW TO EX. CURB INLET
A-2	0.18	0.75	10	6.10	7.10	8.30	9.80	0.81	0.94	1.10	1.30	SHEET FLOW TO TOWNSEND DRIVE
TOTAL AREA	**0.50**					**TOTAL FLOW**		**2.30**	**2.67**	**3.13**	**3.69**	**TOTAL FLOW TO DESIGN PNT. 1**

BASIN 'B' PROPOSED DRAINAGE AREA CALCULATIONS											
AREA ID	AREA	C	Tc	I-5	I-10	I-25	100.00	Q-5	Q-10	Q-25	Q100	NOTES
	(acres)		(min.)	(in/hr)	(in/hr)	(in/hr)	(in/hr)	(cfs)	(cfs)	(cfs)	(cfs)	
B-1	0.20	0.75	10	6.10	7.10	8.30	9.80	0.91	1.05	1.23	1.46	SHEET FLOW OFF-SITE TO DROP INLET
TOTAL AREA	**0.20**					**TOTAL FLOW**		**0.91**	**1.05**	**1.23**	**1.46**	**TOTAL FLOW TO DESIGN PNT. 2**

BASIN 'C' PROPOSED DRAINAGE AREA CALCULATIONS											
AREA ID	AREA	C	Tc	I-5	I-10	I-25	100.00	Q-5	Q-10	Q-25	Q100	NOTES
	(acres)		(min.)	(in/hr)	(in/hr)	(in/hr)	(in/hr)	(cfs)	(cfs)	(cfs)	(cfs)	
C-1	0.84	0.75	10	6.10	7.10	8.30	9.80	3.85	4.48	5.24	6.19	SHEET FLOW OFF-SITE TO EX. FIRELANE
TOTAL AREA	**0.84**					**TOTAL FLOW**		**3.85**	**4.48**	**5.24**	**6.19**	**TOTAL FLOW TO DESIGN PNT. 3**

NOTES:
1. LOT 1, BLOCK 1 VILLAGE GREEN RESIDENCE AT ROCKWALL ADDITION TO BE DEVELOPED AT A LATER TIME.
2. DETENTION PONDS DESIGNED TO HANDLE STORM WATER FROM BOTH PROPOSED LOTS.
3. DETENTION IS ONLY PROVIDED FOR ONSITE DEVELOPMENT. EXISTING OFFSITE FLOW IS INCLUDED IN DESIGN CALCULATIONS.

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.



RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

THOMAS A. LUNZMAN P.E. — DATE: 02/08/2021

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-5704
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM

SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEAD-IN PARKING FOR THE APPRAISAL DISTRICT OFFICE, ON THE NORTHWESTERLY RIGHT-OF-WAY OF TOWNSEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF TOWNSHIND BLVD.
N 7023100.573 E. 2596909.421 ELEV = 583.32'

SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHIND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF ALDERS DRIVE.
N 7022744.448 E. 2597315.128 ELEV = 585.72'

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

DRAINAGE AREA MAP (POST)

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED PROFESSIONAL ENGINEER
△7/17/19
△5/17/19
△2/21/19

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.11
OF	23

P:\PR56211\Cadd\Models\Civil\C-DR0001.dwg 7/17/2019 2:21:33 PM Mulvey, Kyle

FROM	TO	PIPE LENGTH FEET	DRAINAGE AREA INCREMENTAL NO.	AREA	TOTAL AREA	RUNOFF "C"	INCR. CA	TOTAL CA	TIME OF CONCENTRATION INLET MIN.	TRAVEL MIN.	TOTAL MIN.	100-YEAR INTENSITY IN/HR	Q-100 RUNOFF CFS	INLETS BYPASS CFS	Q PIPE CFS	Qcap PIPE CFS	Slope ft/ft	PIPE SIZE IN.	N	Sf FT/FT	HGL D/S ELEV.	HGL U/S ELEV.	V1(IN) FT/SEC	V2(OUT) FT/SEC	HEAD LOSS CALCULATIONS V1^2/2G FT	V2^2/2G FT	Kj	KjV1^2/2G FT	Hj FT	DESIGN HGL ELEV.	INVERT ELEV. D/S FT	INVERT ELEV. U/S FT	PROP GND ELEV. FT	HGL BELOW T/C	COMMENTS
1	2	3	4	5	6	7	8	9	10	11	12	14	16	17	18	18		19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
SD LINE 'A' (PUBLIC)																																			
2+67.23	2+93.46	26.23	POND D-2 RELEASE RATE										11.99	0.00	11.99	14.86	0.0200	18	0.0130	0.013209	573.41	573.76	0.00	6.78	0.00	0.71	0.40	0.29	0.29	574.05	567.48	568.00	574.00	N/A	HEADWALL
1+60.61	2+67.23	106.62											11.99	0.00	11.99	17.52	0.0060	24	0.0130	0.002848	566.58	566.88	6.78	3.82	0.71	0.23	0.05	0.01	0.01	566.89	562.17	562.81	576.00	N/A	2'X2' J.B.
0+97.99	1+60.61	62.62	ALLOWED FLOW FROM OS-5										21.84	0.00	21.84	22.62	0.0100	24	0.0130	0.009449	565.29	565.88	3.82	6.95	0.23	0.75	0.25	0.19	0.69	566.58	561.54	562.17	567.00	N/A	3'X3' J.B.
0+75.27	0+97.99	22.72											21.84	0.00	21.84	22.62	0.0100	24	0.0130	0.009449	564.80	565.01	6.95	6.95	0.75	0.75	0.37	0.28	0.28	565.29	561.32	561.54	567.00	N/A	45 BEND
0+63.60	0+75.27	11.67	POND D-1 RELEASE RATE										32.77	0.00	32.77	34.32	0.0070	30	0.0130	0.006471	563.86	563.93	6.95	6.68	0.75	0.69	1.25	0.87	0.87	564.80	560.74	560.82	566.00	N/A	3'X3' OUTLET STRCT
0+00.00	0+63.60	63.60											32.77	0.00	32.77	34.32	0.0070	30	0.0130	0.006471	563.19	563.60	6.68	6.68	0.69	0.69	0.37	0.26	0.26	563.86	560.29	560.74	568.00	4.14	45 BEND
SD LAT 'A.1' (PUBLIC)																																			
2+56.43	2+76.43	20.00	OS-5, D-0	3.05	3.05	0.35	1.07	1.07	20.00		20.00	8.30	8.85	0.00	8.85	19.65	0.0350	18	0.0130	0.007191	569.18	569.32	0.00	5.01	0.00	0.39	0.00	0.00	0.00	569.32	572.30	573.00	578.99	9.67	18" RCP STUB
2+20.61	2+56.43	35.82			3.05	0.35	0.00	1.07	20.00	0.07	20.07	8.29	8.84	0.00	8.84	19.65	0.0350	18	0.0130	0.007175	568.44	568.69	5.01	5.00	0.39	0.39	1.25	0.49	0.49	569.18	570.62	571.87	577.50	8.32	2'X2' DROP INLET (D-0)
1+99.40	2+20.61	21.21			3.05	0.35	0.00	1.07	20.00	0.12	20.19	8.27	8.82	0.00	8.82	19.65	0.0350	18	0.0130	0.007146	568.14	568.29	5.00	4.99	0.39	0.39	0.37	0.14	0.14	568.44	569.88	570.62	578.89	10.46	45 BEND
0+00.00	1+99.40	199.40			3.05	0.35	0.00	1.07	20.00	0.07	20.26	8.26	8.81	0.00	8.81	19.65	0.0350	18	0.0130	0.007129	566.58	568.00	4.99	4.98	0.39	0.39	0.37	0.14	0.14	568.14	562.90	569.88	578.76	10.62	45 BEND
SD LINE 'B' (PRIVATE)																																			
1+13.38	2+83.38	170.00	D-3	1.41	1.41	0.75	1.06	1.06	10.00		10.00	9.80	10.38	0.00	10.38	12.72	0.0125	18	0.0120	0.008439	576.32	577.76		5.88	0.00	0.54	1.25	0.67	0.67	578.43	577.58	579.70	584.70	6.27	3'X3' INLET (D-3)
0+00.00	1+13.38	113.38	(D-4:10)	6.23	7.64	0.75	4.67	5.73	10.00	0.48	10.48	9.72	55.72	0.00	55.72	92.82	0.0165	36	0.0120	0.006028	575.40	576.08	5.88	7.88	0.54	0.96	0.25	0.24	0.24	576.32	569.55	571.42	584.30	7.98	4'X4' J.B.
SD LAT 'B.1'																																			
7+07.69	7+50.16	42.47	FUTURE VGR C.Y. (PART OF D-7)	0.05	0.05	0.75	0.04	0.04	10.00		10.00	9.80	0.38	0.00	0.38	2.73	0.0050	12	0.0120	0.000098	580.98	580.98		0.48	0.00	0.00	0.00	0.00	0.00	580.98	577.84	578.05	583.96	2.98	12" HDPE STUB
7+00.91	7+07.69	6.78			0.05	0.75	0.00	0.04	10.00	1.47	11.47	9.57	0.37	0.00	0.37	2.73	0.0050	12	0.0120	0.000093	580.98	580.98	0.48	0.47	0.00	0.00	0.37	0.00	0.00	580.98	577.80	577.84	583.41	2.43	45 BEND
6+92.19	7+00.91	8.72			0.05	0.75	0.00	0.04	10.00	0.24	11.70	9.53	0.37	0.00	0.37	2.73	0.0050	12	0.0120	0.000093	580.98	580.98	0.47	0.47	0.00	0.00	0.50	0.00	0.00	580.98	577.76	577.80	583.34	2.36	45 WYE
6+87.15	6+92.19	5.04	REMAINDER OF D-7	1.67	1.72	0.75	1.25	1.29	10.00	0.31	12.01	9.48	12.23	0.00	12.23	17.33	0.0050	24	0.0120	0.002526	580.67	580.68	0.47	3.89	0.00	0.24	1.25	0.29	0.29	580.98	576.74	576.76	583.30	2.32	10' CURB INLET (D-7)
4+74.25	6+87.15	212.90			1.72	0.75	0.00	1.29	10.00	0.02	12.04	9.47	12.23	0.00	12.23	17.33	0.0050	24	0.0120	0.002524	580.04	580.58	3.89	3.89	0.24	0.24	0.37	0.09	0.09	580.67	575.67	576.74	582.83	2.16	45° BEND
3+15.45	4+74.25	158.80	D-6	0.25	1.97	0.75	0.19	1.48	10.00	0.91	12.95	9.33	13.80	0.00	13.80	17.33	0.0050	24	0.0120	0.003213	579.35	579.86	3.89	4.39	0.24	0.30	0.50	0.15	0.18	580.04	574.88	575.67	583.50	3.46	45 WYE
3+07.78	3+15.45	7.67	D-5	0.38	2.36	0.75	0.29	1.77	10.00	0.60	13.55	9.23	16.32	0.00	16.32	17.33	0.0050	24	0.0120	0.004496	579.05	579.08	4.39	5.19	0.30	0.42	0.50	0.21	0.27	579.35	574.84	574.88	582.76	3.41	45 WYE
2+03.37	3+07.78	104.41			2.36	0.75	0.00	1.77	10.00	0.02	13.57	9.23	16.31	0.00	16.31	17.33	0.0050	24	0.0120	0.004492	578.42	578.89	5.19	5.19	0.42	0.42	0.37	0.15	0.15	579.05	574.32	574.84	582.64	3.59	45 BEND
1+70.89	2+03.37	32.48			2.36	0.75	0.00	1.77	10.00	0.34	13.91	9.17	16.22	0.00	16.22	17.33	0.0050	24	0.0120	0.004440	578.13	578.27	5.19	5.16	0.42	0.41	0.37	0.15	0.15	578.42	574.15	574.32	582.79	4.37	45 BEND
1+54.94	1+70.89	15.95			2.36	0.75	0.00	1.77	10.00	0.10	14.01	9.16	16.19	0.00	16.19	17.33	0.0050	24	0.0120	0.004424	577.90	577.98	5.16	5.15	0.41	0.41	0.37	0.15	0.15	578.13	574.07	574.15	582.39	4.26	45 BEND
0+00.00	1+54.94	154.94	D-4	0.56	2.92	0.75	0.42	2.19	10.00	0.05	14.07	9.15	20.05	0.00	20.05	24.51	0.0100	24	0.0120	0.006782	576.32	577.38	5.15	6.38	0.41	0.63	0.25	0.16	0.53	577.90	572.43	573.97	582.30		3'X3' J.B.
SD LAT 'B.1.A'																																			
0+00.00	0+22.00	22.00	D-4	0.56	0.56	0.75	0.42	0.42	10.00		10.00	9.80	4.15	0.00	4.15	11.38	0.0100	18	0.0120	0.001346	577.90	577.93	0.00	2.35	0.00	0.09	1.25	0.11	0.11	578.04	574.47	574.69	582.50	4.46	5' CURB INLET (D-4)
SD LAT 'B.1.B'																																			
0+00.00	0+05.04	5.04	D-5	0.38	0.38	0.75	0.29	0.29	10.00		10.00	9.80	2.83	0.00	2.83	11.38	0.0100	18	0.0120	0.000627	579.35	579.36	0.00	1.60	0.00	0.04	1.25	0.05	0.05	579.41	575.13	575.18	583.20	3.79	5' CURB INLET (D-5)
SD LAT 'B.1.C'																																			
0+00.00	0+31.82	31.82	D-6	0.25	0.25	0.75	0.19	0.19	10.00		10.00	9.68	1.82	0.00	1.82	26.15	0.0528	18	0.0120	0.000260	580.04	580.05	0.00	1.03	0.00	0.02	0.50	0.01	0.01	580.06	575.92	577.60	584.07	4.01	5' CURB INLET (D-6)
SD LAT 'B.2'																																			
6+25.65	7+32.94	107.29	FUTURE VGR C.Y. (PART OF D-8)	0.04	0.04	0.75	0.03	0.03	10.00		10.00	9.68	0.30	0.00	0.30	2.73	0.0050	12	0.0120	0.000063	580.42	580.43	0.00	0.39	0.00	0.00	0.50	0.00	0.00	580.43	578.46	579.00	586.57	6.14	12" HDPE STUB
5+97.61	6+25.65	28.04	D-8	1.99	2.03	0.75	1.49	1.52	10.00	4.63	14.63	8.92	13.59	0.00	13.59	18.18	0.0055	24	0.0120	0.003116	579.97	580.06	0.39	4.33	0.00	0.29	1.25	0.36	0.36	580.42	577.31	577.46	583.26	2.84	15' CURB INLET (D-8)
3+96.97	5+97.61	200.64			2.03	0.75	0.00	1.52	10.00	0.11	14.73	8.90	13.56	0.00	13.56	18.18	0.0055	24	0.0120	0.003105	579.24	579.86	4.33	4.32	0.29	0.29	0.37	0.11	0.11	579.97	576.21	577.31	584.67	4.70	45 BEND
2+16.16	3+96.97	180.81	D-9	0.44	2.47	0.75	0.33	1.85	10.00	0.77	15.51	8.78	16.28	0.00	16.28	18.18	0.0055	24	0.0120	0.004476	578.22	579.03	4.32	5.18	0.29	0.42	0.50	0.21	0.21	579.24	575.21	576.21	585.11	5.87	45 WYE
1+72.52	2+16.16	43.64			2.47	0.75	0.00	1.85	10.00	0.58	16.09	8.69	16.12	0.00	16.12	18.18	0.0055	24	0.0120	0.004386	577.88	578.07	5.18	5.13	0.42	0.41	0.37	0.15	0.15	578.22	574.97	575.21	584.59	6.37	45 BEND
1+37.38	1+72.52	35.14			2.47	0.75	0.00	1.85	10.00	0.14	16.23	8.67	16.08	0.00	16.08	18.18	0.0055	24	0.0120	0.004365	577.58	577.73	5.13	5.12	0.41	0.41	0.37	0.15	0.15	577.88	574.78	574.97	583.93	6.05	45 BEND
0+00.00	1+37.38	137.38	D-10	0.84	3.31	0.75	0.63	2.48	10.00	0.11	16.35	8.65	21.48	0.00	21.48	31.39	0.0164	24	0.0120	0.007790	576.32	577.39	5.12	6.84	0.41	0.73	0.25	0.18	0.18	577.58	572.43	574.68	584.40	6.82	4'X4' J.B.
SD LAT 'B.2.A'																																			
0+00.00	0+22.00	22.00	D-10	0.84	0.84	0.75	0.63	0.63	10.00		10.00	9.68	6.08	0.00	6.08	29.23	0.0660	18	0.0120	0.002893	577.58	577.64	0.00	3.44	0.00	0.18	1.25	0.23	0.23	577.87	575.28	576.73	583.23	5.36	5' CURB INLET (D-10)
SD LAT 'B.2.B'																																			
0+00.00	0+31.82	31.82	D-9	0.44	0.44	0.75	0.33	0.33	10.00		10.00	9.68	3.20	0.00	3.20	22.96	0.0407	18	0.0120	0.000802	579.24	579.27	0.00	1.81	0.00	0.05	1.25	0.06	0.06	579.33	576.46	577.75	584.25	4.92	5' CURB INLET (D-9)
SD LINE 'C'																																			
0+46.34	0+88.85	42.51	VGR C.Y. (PART OF D-7)	0.05	0.05	0.75	0.04	0.04	10.00		10.00	9.80	0.38	0.00	0.38	2.52	0.0050	12	0.0130	0.000115	580.99	581.00		0.48	0.00	0.00	1.25	0.00	0.00	581.00	578.28	578.49	587.80	6.80	2'X2' AREA DRIAN
0+00.00	0+46.34	46.34			0.05	0.75	0.00	0.04	10.00	1.47	11.47	9.57	0.37	0.00	0.37	2.73	0.0050	12	0.0120	0.000093	580.98	580.99	0.48	0.47	0.00	0.00	0.37	0.00	0.00	580.99	578.05	578.28	584.30	3.31	45 BEND
SD LINE 'D'																																			
0+74.40	0+99.32	24.92	VGR C.Y. (PART OF D-8)	0.04	0.04	0.75	0.03	0.03	10.00		10.00	9.68	0.30	0.00	0.30	2.52	0.0050	12	0.0130	0.000074	580.44	580.44	0.00	0.39	0.00	0.00	1.25	0.00	0.00	580.44	579.37	579.50	587.83	7.39	2'X2' AREA DRAIN
0+67.33	0+74.40	7.07			0.04	0.75	0.00	0.03	10.00	1.07	11.07	9.50	0.30	0.00	0.30	2.73	0.0050	12	0.0120	0.000060	580.43	580.43	0.39	0.38	0.00	0.00	0.37	0.00	0.00	580.44	579.34	579.37	588.63	8.19	45 BEND
0+17.35	0+67.33	49.98			0.04	0.75	0.00	0.03	10.00	0.31	11.39	9.44	0.30	0.00	0.30	2.73	0.0050	12	0.0120	0.000060	580.43	580.43	0.38	0.38	0.00	0.00	0.37	0.00	0.00	580.43	579.09	579.34	588.53	8.09	45 BEND
0+08.12	0+17.35	9.23			0.04	0.75	0.00	0.03	10.00	2.21	13.60	9.08	0.28	0.00	0.28	2.73	0.0050	12	0.0120	0.000055	580.43	580.43	0.38	0.36	0.00	0.00	0.37	0.00	0.00	580.43	579.04	579.09	587.72	7.29	22.5 BEND
0+00.00	0+08.12	8.12			0.04	0.75	0.00	0.03	10.00	0.42	14.02	9.01	0.28	0.00	0.28	2.73	0.0050	12	0.0120	0.000054	580.43	580.43	0.36	0.36	0.00	0.00	0.37	0.00	0.00	580.43	579.00	579.04	587.12	6.69	22.5 BEND

CURB INLETS (IN SAG) CALCULATIONS

INLET ID	LOCATION: ALIGNMENT	LOCATION: STATION	DESIGN FREQ	AREA RUNOFF: C	Area ID	TIME OF CONCENTRATION (TC)	INTENSITY I	AREA A	RUNOFF Q	GUTTER FLOW: THOROUGHFARE TYPE	ON-GRADE/ SAG	MANNING'S n	LONG SLOPE S	CROSS SLOPE Sx	DEPRESSION: DEPTH	DEPRESSION: WIDTH	INLET LENGTH: REQUIRED Lreq'd	INLET LENGTH: ACTUAL Lactual	INLET CAPCITY Qc
			(yr)	(5)	(6)	(8)	(9)	(10)	(11)	(14)	(15)	(16)	(17)	(19)	(20)	(21)	(35)	(36)	(37)
(1)	(2)	(3)			(7)		(in/hr)	(acres)	(cfs)				(ft/ft)	(ft/ft)	(ft)	(ft)	(ft)	(ft)	(cfs)
D-4	SD LAT 'B.1.A'	0+22.00	100	0.75	D-4	10	9.80	0.56	4.15	FIRE LANE	SAG	0.0175	0.0100	0.0100	0.5	2	1.50	5	6.99
D-5	SD LAT 'B.1.B'	0+05.04	100	0.75	D-5	10	9.80	0.38	2.83	FIRE LANE	SAG	0.0175	0.0100	0.0100	0.5	2	-0.12	5	6.99
D-6	SD LAT 'B.1.C'	0+33.32	100	0.75	D-6	10	9.80	0.25	1.85	FIRE LANE	SAG	0.0175	0.0100	0.0100	0.5	2	-1.33	5	6.99
D-7	SD LAT 'B.1'	6+92.19	100	0.75	D-7	10	9.80	1.72	12.65	FIRE LANE	SAG	0.0175	0.0100	0.0100	0.5	2	11.95	10	11.06
D-8	SD LAT 'B.2'	6+25.65	100	0.75	D-8	10	9.80	2.03	14.91	FIRE LANE	SAG	0.0175	0.0100	0.0100	0.5	2	14.74	15	15.13
D-9	SD LAT 'B.2.B'	0+31.82	100	0.75	D-9	10	9.80	0.44	3.24	FIRE LANE	SAG	0.0175	0.0100	0.0100	0.5	2	0.38	5	6.99
D-10	SD LAT 'B.2.A'	0+22.00	100	0.75	D-10	10	9.80	0.84	6.15	FIRE LANE	SAG	0.0175	0.0100	0.0100	0.5	2	3.97	5	6.99

DROP INLET CALCULATIONS

INLET ID	LOCATION: ALIGNMENT	LOCATION: STATION	DESIGN FREQ	AREA RUNOFF: C	Area ID	TIME OF CONCENTRATION (TC)	INTENSITY I	AREA A	RUNOFF Q	GUTTER FLOW: ON-GRADE/ SAG	MANNING'S n	DEPRESSION: DEPTH	DEPRESSION: WIDTH	INLET LENGTH: REQUIRED Lreq'd	INLET LENGTH: ACTUAL Lactual	INLET CAPCITY Qc
			(yr)			(min)	(in/hr)	(acres)	(cfs)			(ft)	(ft)	(ft)	(ft)	(cfs)
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(15)	(16)	(20)	(21)	(35)	(36)	(37)
OS-5	SD LAT 'A.1'	2+56.43	100	0.75	OS-5	10	9.80	3.02	8.78	SAG	0.0175	0.5	3	8.04	12	13.10
D-3	SD LINE 'B'	2+83.38	100	0.75	D-3	10	9.80	1.41	10.38	SAG	0.0175	0.5	3	9.51	12	13.10

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

THOMAS A. LUNZMAN P.E. — DATE: 02/08/2021

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.

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7706
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:
SITE BM ONE: CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLIN PARKING FOR THE APPRASAL DISTRICT BUILDING, ON THE SOUTHWESTERLY RIGHT OF WAY OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF TOWNSHEND BLVD. ELEV. = 583.32'
N: 7023100.575 E: 2596909.421
SITE BM TWO: CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF JOB TRACE DRIVE.
N:7022744.149 E:2597315.289 ELEV.= 585.72'

DRAINAGE CALCULATIONS (POST)

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

NO.	REVISIONS	DATE	BY	CHK
1	UPDATE WATERLINE LAYOUT	02/21/19	TAL	TAL
2	MINOR HUD/OWNER COMMENTS	05/17/19	TAL	TAL
3	REV. TO SIDEWALKS & COURTYARD (STORM) PER LANDSCAPE	07/17/19	KTM	TAL
4				
5				

△7/17/19
△5/17/19
△2/21/19

STATE OF TEXAS — THOMAS A. LUNZMAN — 122259 — LICENSED PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	NONE
SHEET NUMBER:	C.12
OF	23

PLOTTED: 7/17/2019 1:53:26 PM

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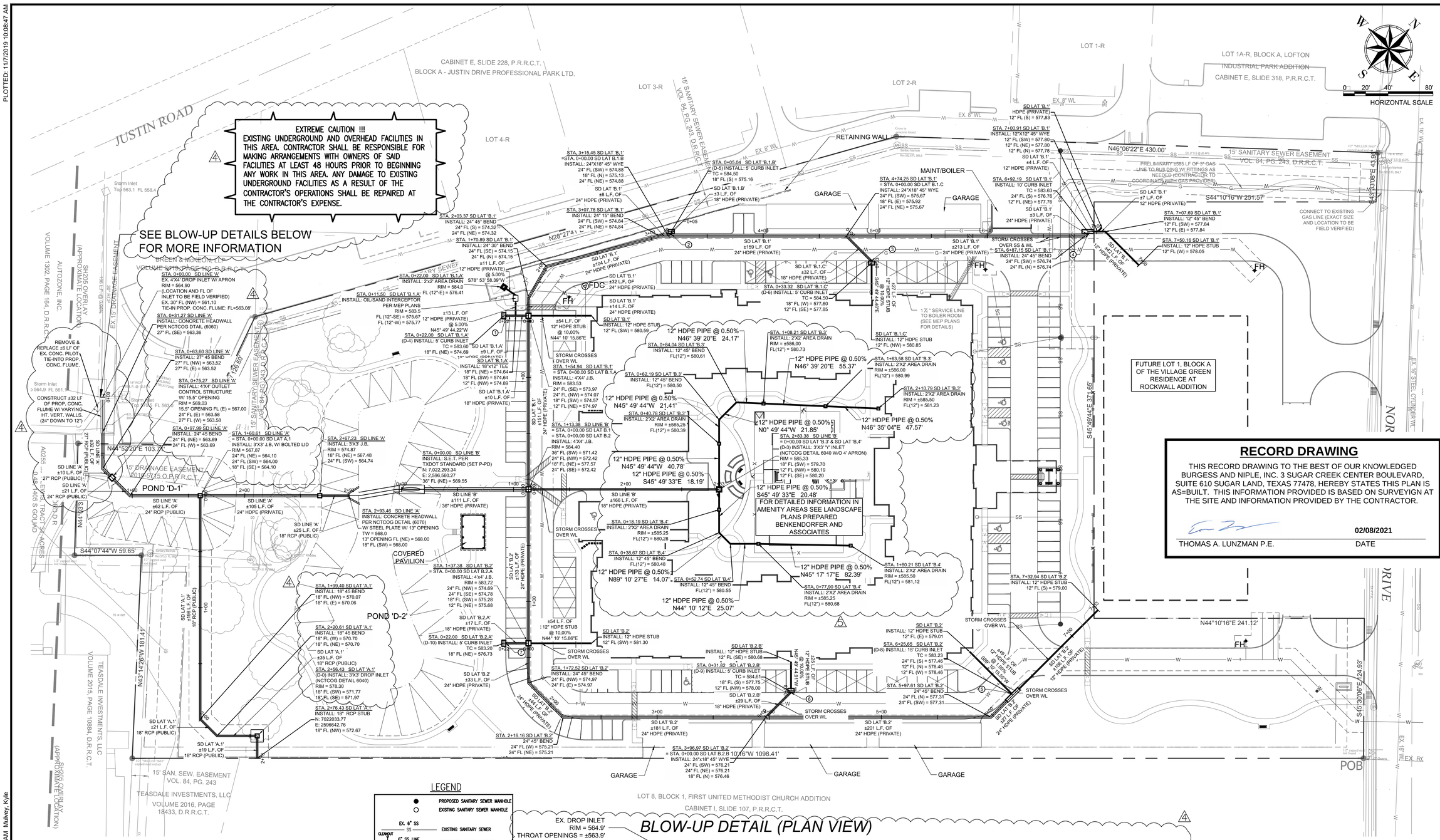
PLOTTED: 11/7/2019 10:08:47 AM



RECORD DRAWING

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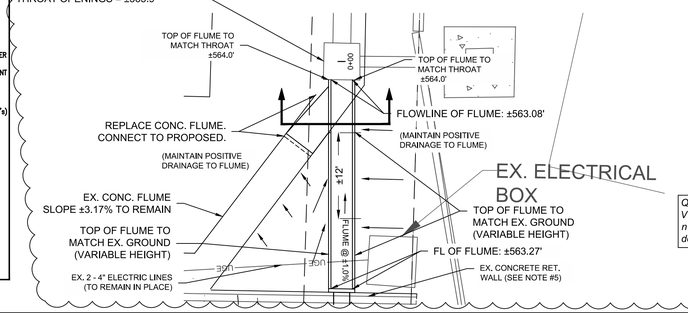
THOMAS A. LUNZMAN P.E. — DATE 02/08/2021

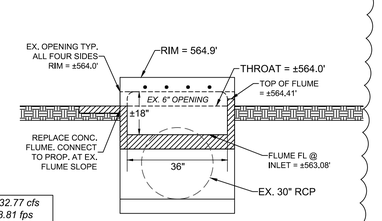
LEGEND

- PROPOSED SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EX. 6" SS — EXISTING SANITARY SEWER
- CLEANOUT — 6" SS LINE — PROPOSED SANITARY SEWER
- PROPOSED WATER SERVICE
- EXISTING WATER METER
- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- PROPOSED VALVE
- EXISTING VALVE
- PROPOSED WATER FITTINGS (11¼°, 22½°, 45°, T's)
- 6" WL — PROPOSED WATER LINE
- EX 6" WL — EXISTING WATER LINE
- PROPOSED CONDENSING UNIT
- PROPOSED 5' CURB INLET
- PROPOSED 10' CURB INLET
- PROPOSED 4'X4' J.B.
- PROPOSED 3'X3' J.B.
- PROPOSED 2'X2' J.B.

BLOW-UP DETAIL (PLAN VIEW)



CROSS-SECTION (BOX W/ FLUME)



Q100 = 32.77 cfs
V100 = 8.81 fps
n = 0.0130
depth = 1.24'

NOTES:

1. ALL PRIVATE STORM DRAIN LINES LOCATED WITHIN THE PROPERTY SHALL BE MAINTAINED BY PROPERTY OWNER.
2. ALL STORM DRAIN SYSTEMS ARE PRIVATE UNLESS OTHERWISE NOTED.
3. ALL PRIVATE STORM DRAIN SYSTEMS MAY BE HDPE PIPE UNLESS OTHERWISE NOTED. ACCEPTABLE HDPE PIPE SHALL BE EITHER (1) HANCOR BLUE SEAL PIPE OR (2) ADS N-12 (WATERTIGHT JOINTS).
4. IF APPLICABLE ALL PRIVATE STORM DRAIN PIPE IN A SUBMERGED CONDITION SHALL HAVE WATERTIGHT JOINTS PER MANUFACTURERS SPECIFICATIONS.
5. ALL PRIVATE STORM DRAIN PIPE EMBEDMENT AND TRENCH BACKFILL MATERIAL SHALL BE PER MANUFACTURERS SPECIFICATIONS.
6. MATERIAL SHALL BE PER MANUFACTURERS SPECIFICATIONS FOR HDPE PIPE.
7. ALL PUBLIC STORM DRAIN PIPE, EMBEDMENT AND TRENCH BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH THE CITY OF ROCKWALL & NCTCOG STANDARDS AND SPECIFICATIONS.
8. ALL PUBLIC STORM DRAIN PIPE SHALL BE CLASS III RCP.
9. ALL UTILITY LINE CROSSINGS SHALL BE INSTALLED PER CITY OF ROCKWALL AND TCEQ REGULATIONS.
10. REFERENCE PLANS LANDSCAPE ARCHITECT FOR DETAILS OF SECONDARY DRAINAGE SYSTEM DESIGN IN LANDSCAPE AREAS AND AROUND BUILDINGS.

NOTES REGARDING INLET MODIFICATIONS:

1. INCREASE OPENING ON SOUTH SIDE TO ±18"X 36" (MATCH FLUME FLOWLINE).
2. FLUME TO BE DOWELED INTO EX. INLET WALL.
3. EX. CONC. FLUME SHALL MAINTAIN POSITIVE FLOW DIRECTION TO NEW FLUME.
4. PRESERVE AND PROTECT EX. CONCRETE RETAINING WALL. IF NOT POSSIBLE, THE CONTRACTOR WILL NEED TO REMOVE/REPLACE ±8 FT OF EX. CONCRETE RETAINING WALL. WILL NEED STRUCTURAL PLANS IF MODIFYING WALL AND OVER 3FT IN HEIGHT.
5. PRESERVE AND PROTECT EX. ELECTRICAL BOX, LINES AND CONCRETE PAD.

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.

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-4704
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:
SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLAN PARKING FOR THE APPRAISAL DISTRICT OFFICE, ABOUT 200' WEST OF THE INTERSECTION OF TOWNSHIND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF TOWNSHIND BLVD.
N 7023103.571 E. 2596609.421 ELEV. = 583.32'
SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHIND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF JOSE TRUE DRIVE.
N 7022744.149 E. 2597313.128 ELEV. = 589.22'

NO.	REVISIONS	DATE	BY	CHK
1	UPDATE WATERLINE LAYOUT	02/21/19	TAL	TAL
2	MINOR HUD/OWNER COMMENTS	05/17/19	TAL	TAL
3	REV. TO SIDEWALKS & COURTYARD (STORM) PER LANDSCAPE	07/17/19	KTM	TAL
4	REV. TO EX. STORM TIE-IN ELEVATION AND SD LINE "A" (PUBLIC)	09/19/19	KTM	TAL
5	REV. COURTYARD DRAINS, BACKFLOW, SS SERVICE, GARAGE FOOTPRINTS	11/07/19	KTM	TAL

11/07/19 — 7/17/19 — 9/19/19 — 11/07/19

STATE OF TEXAS — THOMAS A. LUNZMAN — 122259 — LICENSED PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	1" = 40'
SHEET NUMBER:	C.13
OF	23

STORM DRAINAGE PLAN

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

P:\PR56211\Cadd\Models\Civil\C-STRM01.dwg 11/7/2019 10:02:10 AM Mulvey, Kyle

PLOTTED: 9/20/2019 10:54:46 AM

RECORD DRAWING

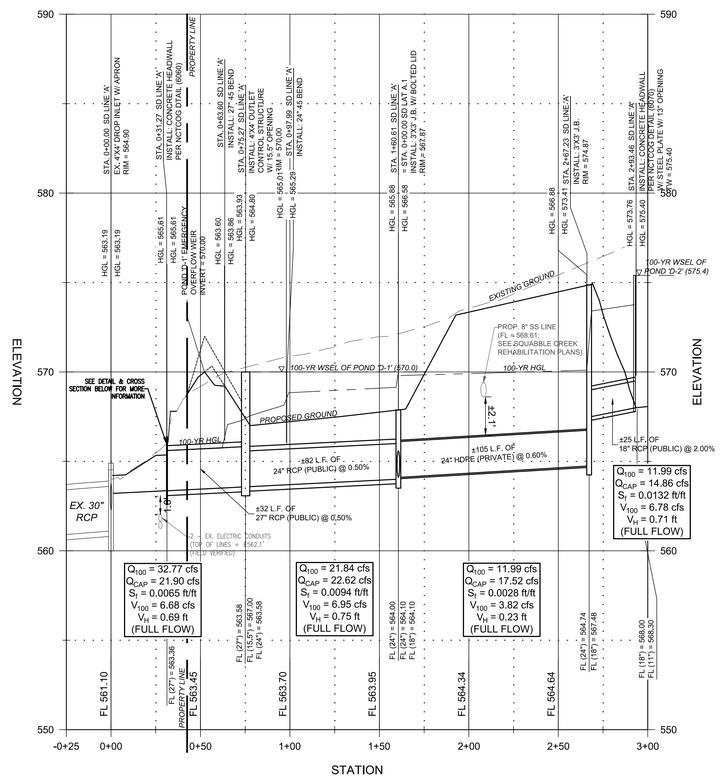
THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED BURGESS AND NIPLE, INC. 3 SUGAR CREEK CENTER BOULEVARD, SUITE 610 SUGAR LAND, TEXAS 77478, HEREBY STATES THIS PLAN IS AS=BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

THOMAS A. LUNZMAN P.E. — DATE: 02/08/2021

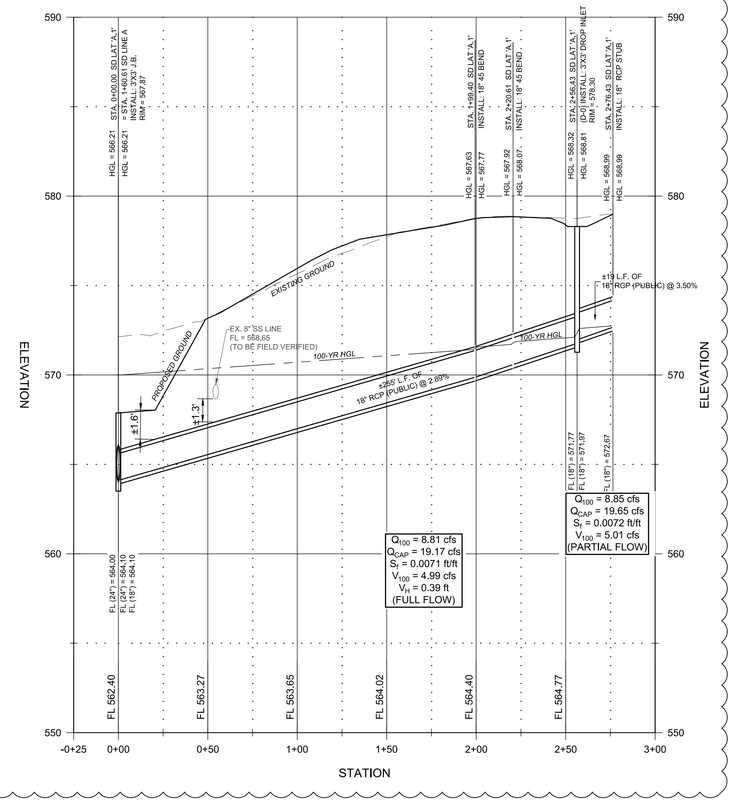
BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7700
TBPE FIRM REGISTRATION NO. F-10834

4

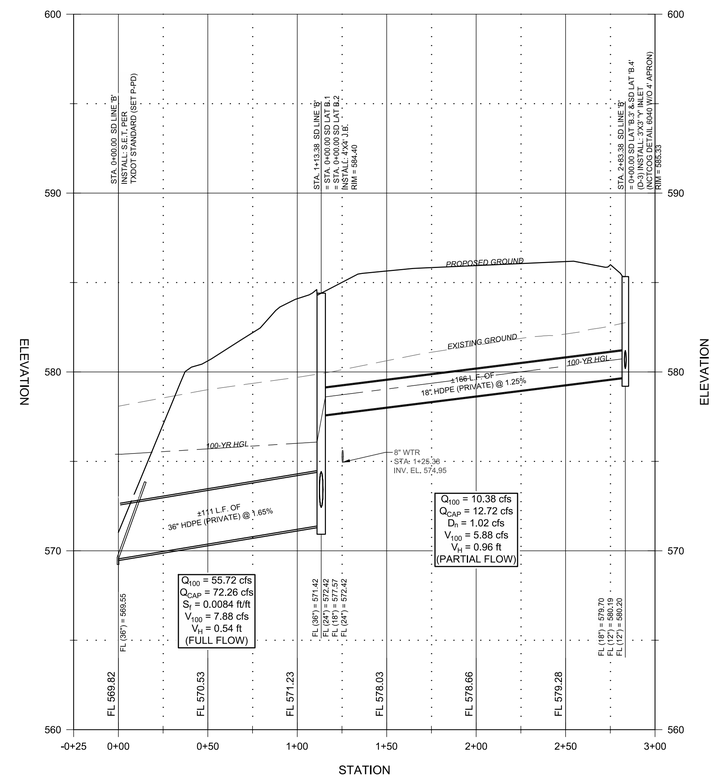
SD LINE 'A' PROFILE
PUBLIC



SD LAT 'A.1' PROFILE
PUBLIC



SD LINE 'B' PROFILE
PRIVATE



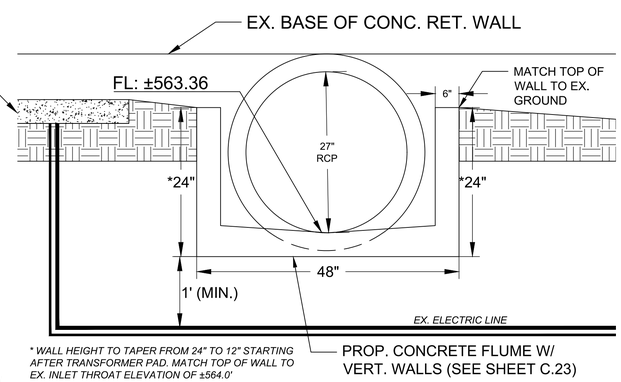
BENCHMARK
CITY BM:

SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLAN PARKING FOR THE APPRAISAL DISTRICT OFFICE BUILDING, ON THE NORTH SIDE OF THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF N. FOUNTAIN LAKE.
N. 7003100.571 E. 2596909.421 ELEV. = 583.32'

SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF 340' TO 77' DRIVE.
N. 7002744.149 E. 2595913.585 ELEV. = 583.72'

4

OUTFALL CROSS SECTION

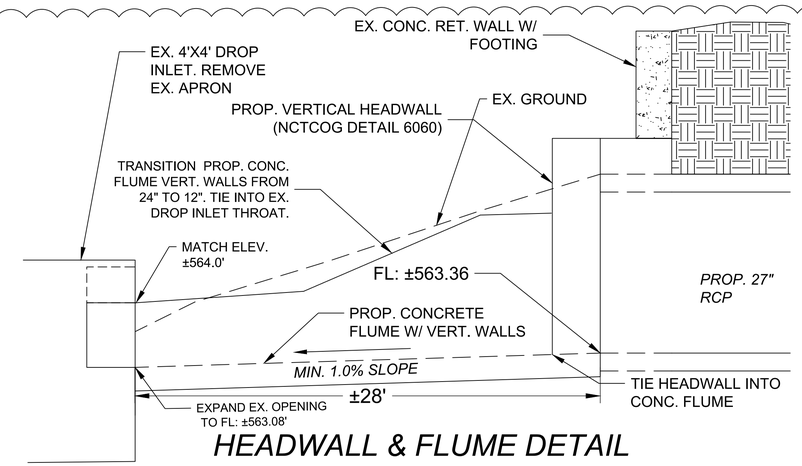


EXTREME CAUTION !!!
EXISTING UNDERGROUND AND OVERHEAD FACILITIES IN THIS AREA. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ARRANGEMENTS WITH OWNERS OF SAID FACILITIES AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK IN THIS AREA. ANY DAMAGE TO EXISTING UNDERGROUND FACILITIES AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

* WALL HEIGHT TO TAPER FROM 24" TO 12" STARTING AFTER TRANSFORMER PAD. MATCH TOP OF WALL TO EX. INLET THROAT ELEVATION OF ±564.0'

PRIOR TO BEGINNING WORK. CONTRACTOR TO FIELD VERIFY EXACT DEPTH/ LOCATION, FLOWLINES OF EXISTING STORM DRAIN INLETS AND PIPES. CONTRACTOR SHALL CONTACT ENGINEER IF THERE ARE ANY DISCREPANCIES.

HEADWALL & FLUME DETAIL
N.T.S



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2. ANY & ALL DETAILS NOT PROVIDED WITH THESE CONSTRUCTION DRAWINGS. SHALL COME FROM CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION & NCTCOG PUBLIC WORKS CONSTRUCTION STANDARDS FOURTH EDITION.

NO.	REVISIONS	DATE	BY	CHK
1	UPDATE WATERLINE LAYOUT	02/21/19	TAL	TAL
2	MINOR HUD/OWNER COMMENTS	05/17/19	TAL	TAL
3	REV. TO SIDEWALKS & COURTYARD (STORM) PER LANDSCAPE	07/17/19	KTM	TAL
4	REV. TO EX. STORM TIE-IN ELEVATION AND SD LINE "A" (PUBLIC)	09/19/19	KTM	TAL

9/19/19 7/17/19 5/17/19 2/21/19

STATE OF TEXAS — THOMAS A. LUNZMAN — 122259 — LICENSED PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	H: 1"=40', V: 1"=4'
SHEET NUMBER:	C.14
OF	23

STORM DRAINAGE PROFILES (SHEET 1 OF 3)

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

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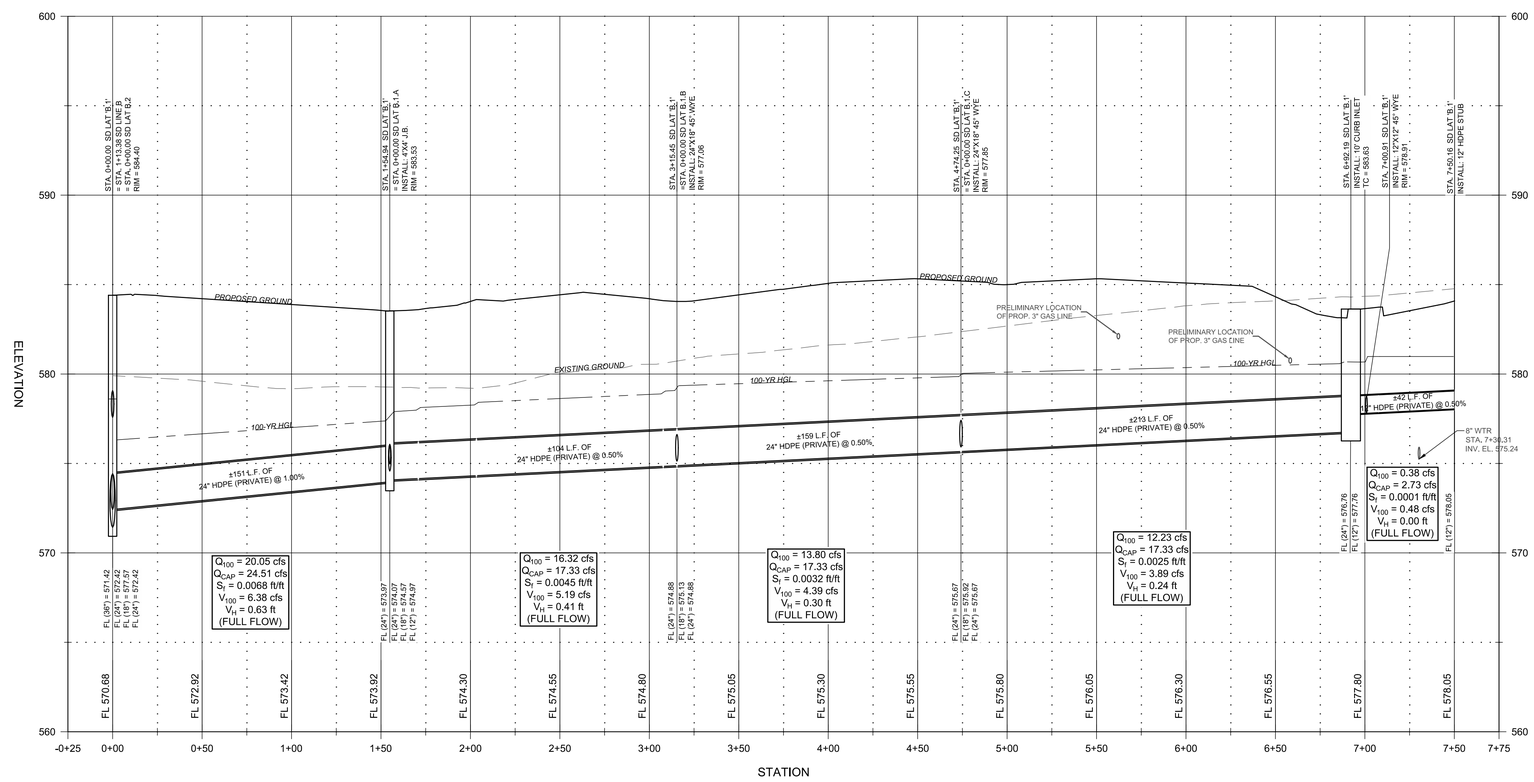

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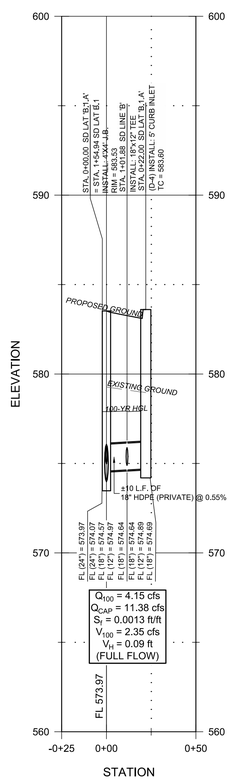

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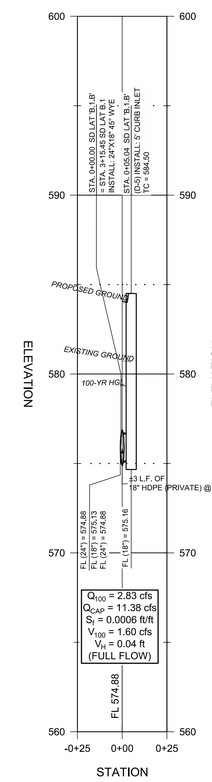

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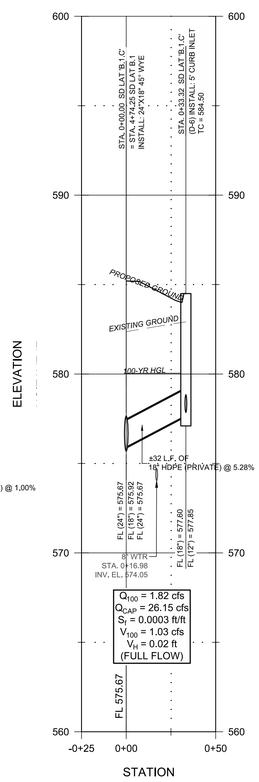

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

02/08/2021

THOMAS A. LUNZMAN P.E. — DATE

PRIOR TO BEGINNING WORK. CONTRACTOR TO FIELD VERIFY EXACT DEPTH/ LOCATION, FLOWLINES OF EXISTING STORM DRAIN INLETS AND PIPES. CONTRACTOR SHALL CONTACT ENGINEER IF THERE ARE ANY DISCREPANCIES.

NOTE:

1 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.

2. ANY & ALL DETAILS NOT PROVIDED WITH THESE CONSTRUCTION DRAWINGS, SHALL COME FROM CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION & NCTCOG PUBLIC WORKS CONSTRUCTION STANDARDS FOURTH EDITION.

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7704
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:

SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLIN PARKING FOR THE APPRAISAL DISTRICT OFFICE BUILDING, APPROXIMATELY 100' FROM THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF FIRE STATION
N: 7023103.571 E: 2596909.421 ELEV. = 583.32'

SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF FIRE STATION
N: 7022744.149 E: 2597313.589 ELEV. = 589.72'

STORM DRAINAGE PROFILES (SHEET 2 OF 3)

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

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

△7/17/19
△5/17/19
△2/21/19

STATE OF TEXAS — THOMAS A. LUNZMAN — 122259 — LICENSED — PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	H: 1" = 40' V: 1" = 4'
SHEET NUMBER:	C.15
OF	23

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PLOTTED: 7/17/2019 1:55:09 PM

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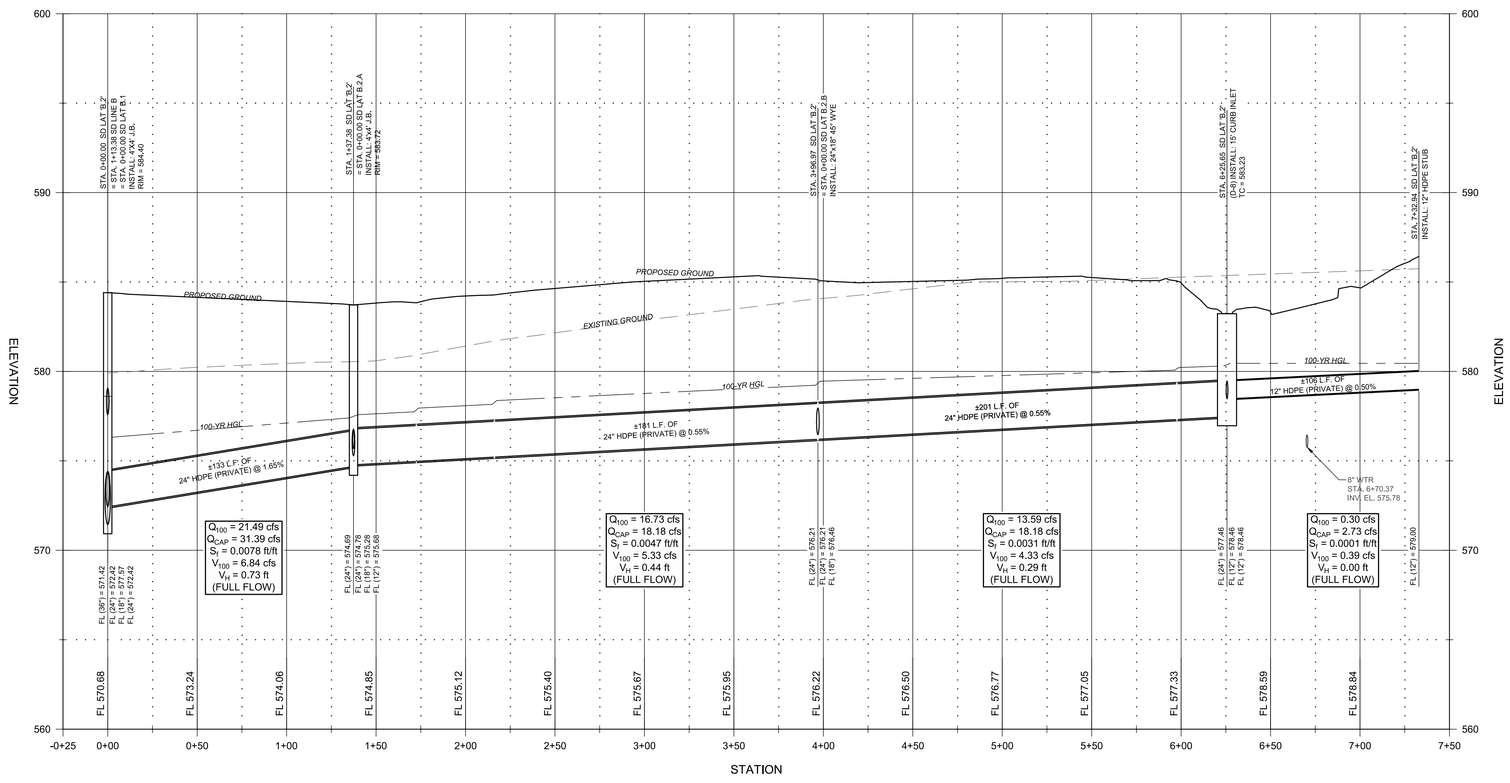
PRIVATE



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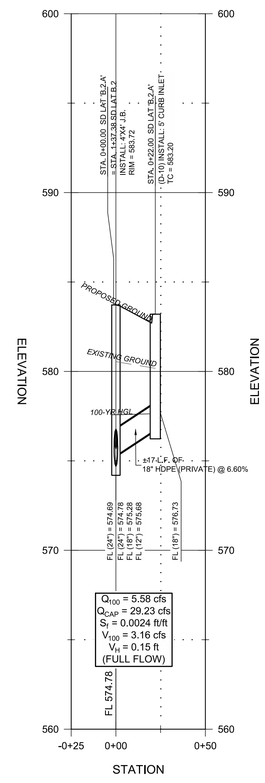

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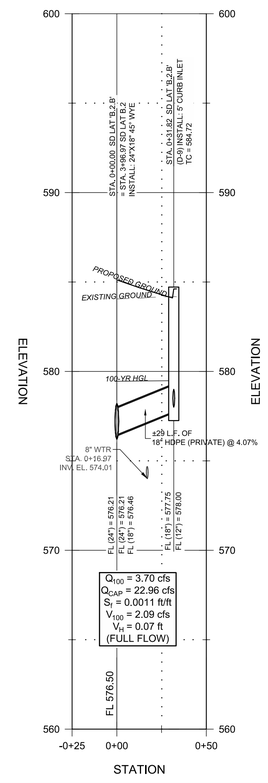

PRIOR TO BEGINNING WORK. CONTRACTOR TO FIELD VERIFY EXACT DEPTH/ LOCATION, FLOWLINES OF EXISTING STORM DRAIN INLETS AND PIPES. CONTRACTOR SHALL CONTACT ENGINEER IF THERE ARE ANY DISCREPANCIES.

RECORD DRAWING

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THOMAS A. LUNZMAN P.E. — DATE: 02/08/2021

NOTE:

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10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7706
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:

SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLIN PARKING FOR THE APPRAISAL DISTRICT BUILDING, ±50' NORTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF RIDGE ROAD.
N 7023100.571 E 2596909.421 ELEV. = 583.32'

SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' NORTHWESTERLY FROM THE CENTER OF JOHN King BLVD.
N 7022744.438 E 2597313.126 ELEV. = 585.72'

STORM DRAINAGE PROFILES (SHEET 3 OF 3)

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

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

7/17/19
5/17/19
2/21/19

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED
PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
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DATE:	01/29/2019
SCALE:	H: 1" = 40' V: 1" = 4'
SHEET NUMBER:	C.16
OF	23

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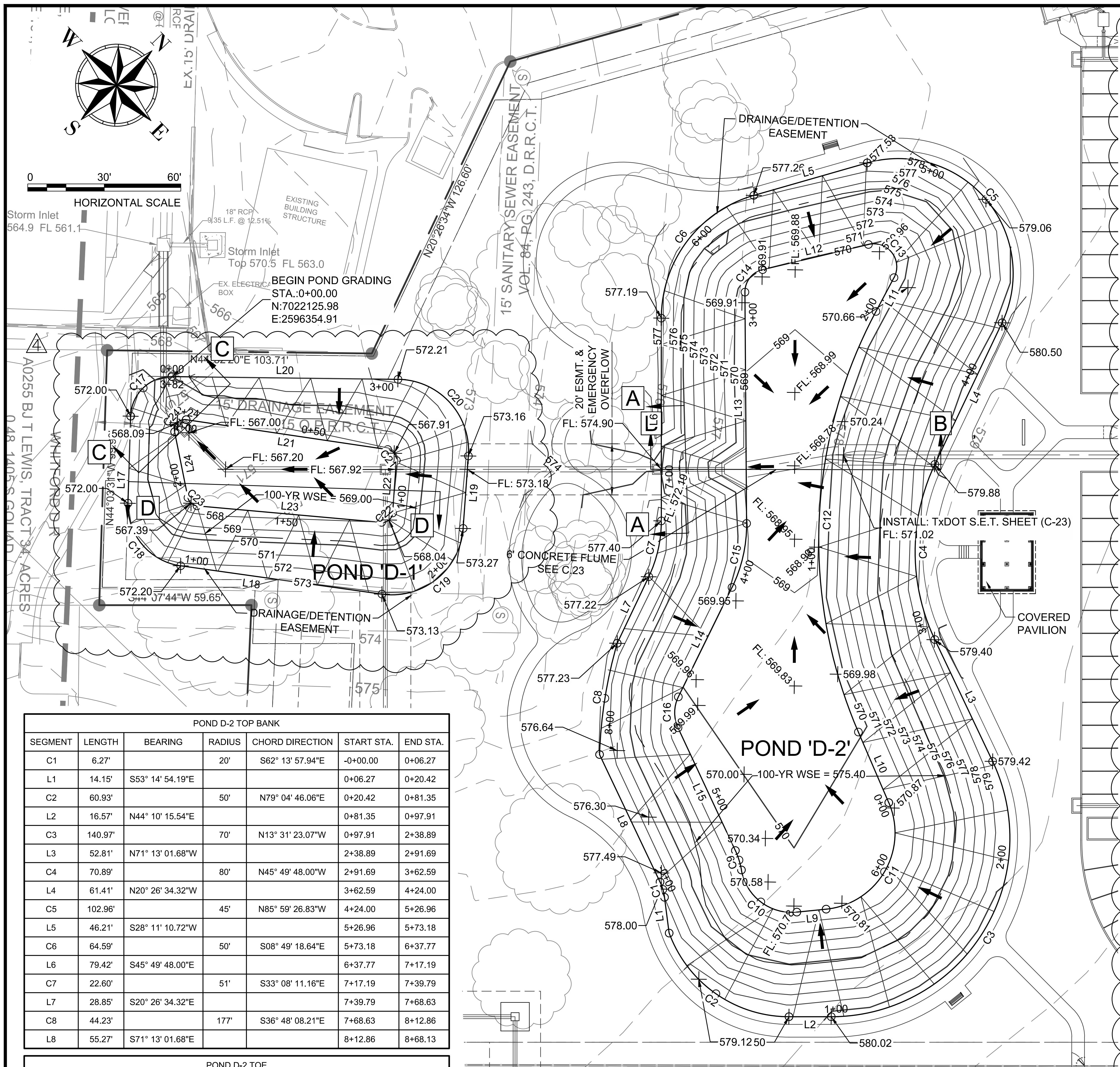


POND D-2 TOP BANK						
SEGMENT	LENGTH	BEARING	RADIUS	CHORD DIRECTION	START STA.	END STA.
C1	6.27'		20'	S62° 13' 57.94"E	-0+00.00	0+06.27
L1	14.15'	S53° 14' 54.19"E			0+06.27	0+20.42
C2	60.93'		50'	N79° 04' 46.06"E	0+20.42	0+81.35
L2	16.57'	N44° 10' 15.54"E			0+81.35	0+97.91
C3	140.97'		70'	N13° 31' 23.07"W	0+97.91	2+38.89
L3	52.81'	N71° 13' 01.68"W			2+38.89	2+91.69
C4	70.89'		80'	N45° 49' 48.00"W	2+91.69	3+62.59
L4	61.41'	N20° 26' 34.32"W			3+62.59	4+24.00
C5	102.96'		45'	N85° 59' 26.83"W	4+24.00	5+26.96
L5	46.21'	S28° 11' 10.72"W			5+26.96	5+73.18
C6	64.59'		50'	S08° 49' 18.64"E	5+73.18	6+37.77
L6	79.42'	S45° 49' 48.00"E			6+37.77	7+17.19
C7	22.60'		51'	S33° 08' 11.16"E	7+17.19	7+39.79
L7	28.85'	S20° 26' 34.32"E			7+39.79	7+68.63
C8	44.23'		177'	S36° 48' 08.21"E	7+68.63	8+12.86
L8	55.27'	S71° 13' 01.68"E			8+12.86	8+68.13

POND D-2 TOE						
SEGMENT	LENGTH	BEARING	RADIUS	CHORD DIRECTION	START STA.	END STA.
L10	30.10'	N69° 09' 03.87"W			0+00.00	0+30.10
C12	170.59'		190'	N43° 25' 49.21"W	0+30.10	2+00.69
L11	14.98'	N17° 42' 34.55"W			2+00.69	2+15.67
C13	20.65'		9'	N83° 27' 18.21"W	2+15.67	2+36.32
L12	42.61'	S30° 47' 58.13"W			2+36.32	2+78.93
C14	12.10'		9'	S07° 42' 54.87"E	2+78.93	2+91.03
L13	90.60'	S46° 13' 47.88"E			2+91.03	3+81.63
C15	25.92'		56'	S32° 58' 07.06"E	3+81.63	4+07.55
L14	47.76'	S19° 42' 26.24"E			4+07.55	4+55.32
C16	12.50'		14'	S45° 16' 48.25"E	4+55.32	4+67.81
L15	53.09'	S70° 51' 10.25"E			4+67.81	5+20.90
C9	7.99'		30'	S63° 13' 35.68"E	5+20.90	5+28.89
C10	30.00'		20'	N81° 25' 24.71"E	5+28.89	5+58.89
L9	11.53'	N38° 26' 50.52"E			5+58.89	5+70.43
C11	56.34'		30'	N15° 21' 06.67"W	5+70.43	6+26.77

POND 'D-1' - TOP BANK (EASEMENT)						
SEGMENT	LENGTH	BEARING	RADIUS	CHORD DIRECTION	START STA.	END STA.
C17	24.83'		16'	S00° 24' 24.69"W	0+00.00	0+24.83
L17	34.12'	S44° 03' 30.96"E			0+24.83	0+58.95
C18	35.09'		24'	S85° 56' 36.10"E	0+58.95	0+94.04
L18	79.64'	N52° 10' 18.76"E			0+94.04	1+73.68
C19	45.88'		28'	N05° 13' 59.16"E	1+73.68	2+19.56
L19	28.46'	N41° 42' 20.43"W			2+19.56	2+48.02
C20	45.65'		28'	N88° 25' 00.05"W	2+48.02	2+93.67
L20	88.56'	S44° 52' 20.33"W			2+93.67	3+82.23

POND 'D-1' TOE (EASEMENT)						
SEGMENT	LENGTH	BEARING	RADIUS	CHORD DIRECTION	START STA.	END STA.
L21	79.84'	N52° 35' 19.44"E			0+00.00	0+79.84
C21	5.98'		4'	S84° 33' 30.50"E	0+79.84	0+85.83
L22	20.64'	S41° 42' 20.43"E			0+85.83	1+06.46
C22	6.35'		4'	S03° 47' 43.53"W	1+06.46	1+12.82
L23	72.58'	S49° 17' 47.49"W			1+12.82	1+85.39
C23	5.13'		4'	S86° 01' 13.34"W	1+85.39	1+90.52
L24	26.31'	N57° 15' 20.80"W			1+90.52	2+16.83
C24	7.67'		4'	N02° 20' 00.68"W	2+16.83	2+24.50

BASIN 'D' POND 'D-1' REQUIRED STORAGE TABLE (5-YR MODIFIED RATIONAL)

STEP	Td	C	I	A	Qd	Qa	Vin	Vout	Vreq	Vreq	ELEV.
	(mins)		(in/hr)	(acres)	(cfs)	(cfs)	(cf)	(cf)	(cf)	(acre-ft)	(ft)
0	10	0.75	6.10	1.42	6.50	4.70	3,898	1,410	2,488	0.06	568.80
1	15	0.75	5.50	1.42	5.86	4.70	5,272	2,820	2,452	0.06	568.80
2	20	0.75	4.90	1.42	5.22	4.70	6,262	3,525	2,737	0.06	568.80
3	30	0.75	4.10	1.42	4.37	4.70	7,860	5,640	2,220	0.05	568.60
4	40	0.75	3.40	1.42	3.62	4.70	8,690	7,050	1,640	0.04	568.50
5	50	0.75	2.80	1.42	2.98	4.70	8,946	8,460	486	0.01	567.70
6	60	0.75	2.60	1.42	2.77	4.70	9,968	9,870	98	0.00	567.60
7	70	0.75	2.40	1.42	2.56	4.70	10,735	11,280		0.00	N/A
8	80	0.75	2.30	1.42	2.45	4.70	11,758	12,690		0.00	N/A
9	90	0.75	2.10	1.42	2.24	4.70	12,077	14,100		0.00	N/A
10	100	0.75	1.90	1.42	2.02	4.70	12,141	15,510		0.00	N/A
11	110	0.75	1.80	1.42	1.92	4.70	12,652	16,920		0.00	N/A
12	180	0.75	1.25	1.42	1.33	4.70	14,378	35,250		0.00	N/A
13	240	0.75	0.90	1.42	0.96	4.70	13,802	42,300		0.00	N/A
14	300	0.75	0.89	1.42	0.95	4.70	17,061	50,760		0.00	N/A
15	360	0.75	0.69	1.42	0.73	4.70	15,873	59,220		0.00	N/A
16	720	0.75	0.39	1.42	0.42	4.70	17,943	152,280		0.00	N/A
17	1440	0.75	0.24	1.42	0.26	4.70	22,084	304,560		0.00	N/A

BASIN 'D' POND 'D-1' REQUIRED STORAGE TABLE (10-YR MODIFIED RATIONAL)

STEP	Td	C	I	A	Qd	Qa	Vin	Vout	Vreq	Vreq	ELEV.
	(mins)		(in/hr)	(acres)	(cfs)	(cfs)	(cf)	(cf)	(cf)	(acre-ft)	(ft)
0	10	0.75	7.10	1.42	7.56	4.70	4,537	1,410	3,127	0.07	568.90
1	15	0.75	6.50	1.42	6.92	4.70	6,230	2,820	3,410	0.08	569.00
2	20	0.75	5.90	1.42	6.28	4.70	7,540	3,525	4,015	0.09	569.10
3	30	0.75	4.80	1.42	5.11	4.70	9,202	5,640	3,562	0.08	569.00
4	40	0.75	4.00	1.42	4.26	4.70	10,224	7,050	3,174	0.07	568.90
5	50	0.75	3.50	1.42	3.73	4.70	11,183	8,460	2,723	0.06	568.80
6	60	0.75	3.00	1.42	3.20	4.70	11,502	9,870	1,632	0.04	568.50
7	70	0.75	2.80	1.42	2.98	4.70	12,524	11,280	1,244	0.03	568.30
8	80	0.75	2.60	1.42	2.77	4.70	13,291	12,690	601	0.01	567.80
9	90	0.75	2.50	1.42	2.66	4.70	14,378	14,100	277	0.01	567.70
10	100	0.75	2.40	1.42	2.56	4.70	15,336	15,510		0.00	N/A
11	110	0.75	2.30	1.42	2.45	4.70	16,167	16,920		0.00	N/A
12	180	0.75	1.75	1.42	1.86	4.70	20,129	35,250		0.00	N/A
13	240	0.75	1.15	1.42	1.22	4.70	17,636	42,300		0.00	N/A
14	300	0.75	0.91	1.42	0.97	4.70	17,445	50,760		0.00	N/A
15	360	0.75	0.80	1.42	0.85	4.70	18,403	59,220		0.00	N/A
16	720	0.75	0.65	1.42	0.69	4.70	29,905	152,280		0.00	N/A
17	1440	0.75	0.28	1.42	0.30	4.70	25,764	304,560		0.00	N/A

BASIN 'D' POND 'D-1' REQUIRED STORAGE TABLE (25-YR MODIFIED RATIONAL)

STEP	Td	C	I	A	Qd	Qa	Vin	Vout	Vreq	Vreq	ELEV.
	(mins)		(in/hr)	(acres)	(cfs)	(cfs)	(cf)	(cf)	(cf)	(acre-ft)	(ft)
0	10	0.75	8.30	1.42	8.84	4.70	5,304	1,410	3,894	0.09	569.10
1	15	0.75	7.50	1.42	7.99	4.70	7,189	2,820	4,369	0.10	569.20
2	20	0.75	6.60	1.42	7.03	4.70	8,435	3,525	4,910	0.11	569.30
3	30	0.75	5.50	1.42	5.86	4.70	10,544	5,640	4,904	0.11	569.35
4	40	0.75	4.60	1.42	4.90	4.70	11,758	7,050	4,708	0.11	569.40
5	50	0.75	4.00	1.42	4.26	4.70	12,780	8,460	4,320	0.10	569.20
6	60	0.75	3.50	1.42	3.73	4.70	13,419	9,870	3,549	0.08	569.00
7	70	0.75	3.30	1.42	3.51	4.70	14,761	11,280	3,481	0.08	569.00
8	80	0.75	3.10	1.42	3.30	4.70	15,847	12,690	3,157	0.07	568.90
9	90	0.75	2.90	1.42	3.09	4.70	16,678	14,100	2,578	0.06	568.80
10	100	0.75	2.70	1.42	2.88	4.70	17,253	15,510	1,743	0.04	568.50
11	110	0.75	2.50	1.42	2.66	4.70	17,573	16,920	652	0.01	567.70
12	180	0.75	1.60	1.42	1.70	4.70	18,403	35,250		0.00	N/A
13	240	0.75	1.35	1.42	1.44	4.70	20,704	42,300		0.00	N/A
14	300	0.75	1.15	1.42	1.22	4.70	22,046	50,760		0.00	N/A
15	360	0.75	0.95	1.42	1.01	4.70	21,854	59,220		0.00	N/A
16	720	0.75	0.55	1.42	0.59	4.70	25,304	152,280		0.00	N/A
17	1440	0.75	0.32	1.42	0.34	4.70	29,445	304,560		0.00	N/A

BASIN 'D' POND 'D-1' REQUIRED STORAGE TABLE (100-YR MODIFIED RATIONAL)

STEP	Td	C	I	A	Qd	Qa	Vin	Vout	Vreq	Vreq	ELEV.
	(mins)		(in/hr)	(acres)	(cfs)	(cfs)	(cf)	(cf)	(cf)	(acre-ft)	(ft)
0	10	0.75	9.80	1.42	10.44	4.70	6,262	1,410	4,852	0.11	569.30
1	15	0.75	9.00	1.42	9.59	4.70	8,627	2,820	5,807	0.13	569.60
2	20	0.75	8.30	1.42	8.84	4.70	10,607	3,525	7,082	0.16	569.80
3	30	0.75	6.90	1.42	7.35	4.70	13,227	5,640	7,587	0.17	569.90
4	40	0.75	5.80	1.42	6.18	4.70	14,825	7,050	7,775	0.18	570.00
5	50	0.75	5.00	1.42	5.33	4.70	15,975	8,460	7,515	0.17	569.90
6	60	0.75	4.50	1.42	4.79	4.70	17,253	9,870	7,383	0.17	569.90
7	70	0.75	4.00	1.42	4.26	4.70	17,892	11,280	6,612	0.15	569.70
8	80	0.75	3.70	1.42	3.94	4.70	18,914	12,690	6,224	0.14	569.65
9	90	0.75	3.50	1.42	3.73	4.70	20,129	14,100	6,029	0.14	569.65
10	100	0.75	3.40	1.42	3.62	4.70	21,726	15,510	6,216	0.14	569.65
11	110	0.75	3.20	1.42	3.41	4.70	22,493	16,920	5,573	0.13	569.60
12	180	0.75	2.00	1.42	2.13	4.70	23,004	35,250	0	0.00	N/A
13	240	0.75	1.60	1.42	1.70	4.70	24,538	42,300	0	0.00	N/A
14	300	0.75	1.45	1.42	1.54	4.70	27,797	50,760	0	0.00	N/A
15	360	0.75	1.25	1.42	1.33	4.70	28,755	59,220	0	0.00	N/A
16	720	0.75	0.70	1.42	0.75	4.70	32,206	152,280	0	0.00	N/A
17	1440	0.75	0.40	1.42	0.43	4.70	36,806	304,560	0	0.00	N/A

← 100-YR MAX STORAGE REQUIRED (step 4, 570.00)

DETENTION POND 'D-1' REQUIRED STORAGE TABLE IS BASED ON AREA DRAINING TO POND FROM ONSITE AREAS (AREA THAT DETENTION IS REQUIRED FOR). D-1 DRAINS TO POND 'D-1'. OTHER OFFSITE DRAINAGE AREAS DRAIN TO POND 'D-1'(1.42 ACRES) AND THE ORIFICE IS SIZED FOR SUCH.

BASIN 'D' POND 'D-1' STAGE STORAGE / DISCHARGE TABLE

ELEV.	DEPTH	AREA	CONIC INTR. VOL.	CONIC CUM. VOL	VOL.	DISCHARGE	
(ft)	(ft)	(ft^2)	(ft^3)	(ft^3)	(ac-ft)	(cfs)	
567.00	0.00	48.97	N/A	0.00	0.00	0.00	
568.00	1.00	2989.65	288.36	1363.91	0.03	6.31	
569.00	2.00	4095.22	403.79	4903.47	0.11	8.92	
570.00	3.00	5338.99	525.89	9598.93	0.22	10.93	← MAX POND STORAGE, INVERT OF EMERGENCY OVERFLOW
572.00	5.00	6557.14	722.81	22856.18	0.52	N/A	←2' OF FREEBOARD

ORIFICE CALCULATION POND 'D-1'
(15.5" DIA. OPENING)

Q = CA√ 2gh C = 0.60
g = 32.2 FT/SEC A = 1.31 SQFT
h = varies

Pond WSE	Head (ft)	Q (cuft/sec)	
567.00	0	0.00	
568.00	1	6.31	
569.00	2	8.92	
570.00	3	10.93	100 yr WSE
572.00	5	14.11	2' FREEBOARD

NOTES:

1. ALL RESPONSIBILITY 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.

2. DETENTION PONDS SHALL HAVE A SIDE SLOPE 4:1 OR FLATTER.

3. DETENTION POND BOTTOM GRADE SHALL BE A MINIMUM OF 1% SLOPE. IF A MINIMUM 1% SLOPE CAN'T BE MET A 4-INCH THICK CONCRETE FLUME SHALL BE INSTALLED FROM THE INLETS OF THE PONDS TO THE OUTFALL.

4. THE DETENTION SYSTEMS ARE TO BE INSTALLED AND VERIFIED FOR DESIGN COMPLIANCE ALONG WITH THE ASSOCIATED STORM SEWER AND OUTFALL STRUCTURES AND DRAINAGE CHANNELS, PRIOR TO ANY PAVING OPERATIONS. ALL DETENTION PONDS, DRAIN WAYS, AND OPEN CHANNELS SHALL HAVE THE SIDES AND BOTTOM STABILIZED WITH SOD OR ANCHORED SEEDED MATTING PRIOR TO ANY PAVING CONSTRUCTION (INCLUDING BUILDING SLAB). THE MATTING OR SOD SHALL BE ANCHORED AT HIGH VELOCITY LOCATIONS IF DEEMED NECESSARY. EROSION PROTECTION IS TO BE PLACED AT THE PONDS OUTFLOW STRUCTURE ALONG WITH ANY ASSOCIATED EROSION BMP'S NOTED ON THE EROSION CONTROL PLAN.

5. **ANY & ALL DETAILS NOT PROVIDED WITH THESE CONSTRUCTION DRAWINGS. SHALL COME FROM CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION & NCTCOG PUBLIC WORKS CONSTRUCTION STANDARDS FOURTH EDITION.**

6. ALL SITE WORK TO BE DONE IN ACCORDANCE WITH THE CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION.

4

BASIN 'D' POND 'D-2' REQUIRED STORAGE TABLE (5-YR MODIFIED RATIONAL)

STEP	Td	C	I	A	Qd	Qa	Vin	Vout	Vreq	Vreq	ELEV.
	(mins)		(in/hr)	(acres)	(cfs)	(cfs)	(cf)	(cf)	(cf)	(acre-ft)	(ft)
0	10	0.75	6.10	9.41	43.05	8.50	25,830	2,550	23,280	0.53	571.00
1	15	0.75	5.50	9.41	38.82	8.50	34,935	5,100	29,835	0.68	571.40
2	20	0.75	4.90	9.41	34.58	8.50	41,498	6,375	35,123	0.81	571.72
3	30	0.75	4.10	9.41	28.94	8.50	52,084	10,200	41,884	0.96	572.08
4	40	0.75	3.40	9.41	24.00	8.50	57,589	12,750	44,839	1.03	572.24
5	50	0.75	2.80	9.41	19.76	8.50	59,283	15,300	43,983	1.01	572.20
6	60	0.75	2.60	9.41	18.35	8.50	66,058	17,850	48,208	1.11	572.42
7	70	0.75	2.40	9.41	16.94	8.50	71,140	20,400	50,740	1.16	572.52
8	80	0.75	2.30	9.41	16.23	8.50	77,915	22,950	54,965	1.26	572.74
9	90	0.75	2.10	9.41	14.82	8.50	80,032	25,500	54,532	1.25	572.72
10	100	0.75	1.90	9.41	13.41	8.50	80,456	28,050	52,406	1.20	572.62
11	110	0.75	1.80	9.41	12.70	8.50	83,843	30,600	53,243	1.22	572.64
12	180	0.75	1.25	9.41	8.82	8.50	95,276	63,750	31,526	0.72	571.50
13	240	0.75	0.90	9.41	6.35	8.50	91,465	76,500	14,965	0.34	570.43
14	300	0.75	0.89	9.41	6.28	8.50	113,061	91,800	21,261	0.49	570.88
15	360	0.75	0.69	9.41	4.87	8.50	105,185	107,100		0.00	N/A
16	720	0.75	0.39	9.41	2.75	8.50	118,905	275,400		0.00	N/A
17	1440	0.75	0.24	9.41	1.69	8.50	146,344	550,800		0.00	N/A

BASIN 'D' POND 'D-2' REQUIRED STORAGE TABLE (10-YR MODIFIED RATIONAL)

STEP	Td	C	I	A	Qd	Qa	Vin	Vout	Vreq	Vreq	ELEV.
	(mins)		(in/hr)	(acres)	(cfs)	(cfs)	(cf)	(cf)	(cf)	(acre-ft)	(ft)
0	10	0.75	7.10	9.41	50.11	8.50	30,065	2,550	27,515	0.63	571.28
1	15	0.75	6.50	9.41	45.87	8.50	41,286	5,100	36,186	0.83	571.78
2	20	0.75	5.90	9.41	41.64	8.50	49,967	6,375	43,592	1.00	572.18
3	30	0.75	4.80	9.41	33.88	8.50	60,977	10,200	50,777	1.17	572.56
4	40	0.75	4.00	9.41	28.23	8.50	67,752	12,750	55,002	1.26	572.74
5	50	0.75	3.50	9.41	24.70	8.50	74,104	15,300	58,804	1.35	572.92
6	60	0.75	3.00	9.41	21.17	8.50	76,221	17,850	58,371	1.34	572.90
7	70	0.75	2.80	9.41	19.76	8.50	82,996	20,400	62,596	1.44	573.12
8	80	0.75	2.60	9.41	18.35	8.50	88,078	22,950	65,128	1.50	573.32
9	90	0.75	2.50	9.41	17.64	8.50	95,276	25,500	69,776	1.60	573.42
10	100	0.75	2.40	9.41	16.94	8.50	101,628	28,050	73,578	1.69	573.60
11	110	0.75	2.30	9.41	16.23	8.50	107,133	30,600	76,533	1.76	573.72
12	180	0.75	1.75	9.41	12.35	8.50	133,387	63,750	69,637	1.60	573.42
13	240	0.75	1.15	9.41	8.12	8.50	116,872	76,500	40,372	0.93	572.00
14	300	0.75	0.91	9.41	6.42	8.50	115,602	91,800	23,802	0.55	571.04
15	360	0.75	0.80	9.41	5.65	8.50	121,954	107,100	14,854	0.34	570.42
16	720	0.75	0.65	9.41	4.59	8.50	198,175	275,400		0.00	N/A
17	1440	0.75	0.28	9.41	1.98	8.50	170,735	550,800		0.00	N/A

BASIN 'D' POND 'D-2' REQUIRED STORAGE TABLE (25-YR MODIFIED RATIONAL)

STEP	Td	C	I	A	Qd	Qa	Vin	Vout	Vreq	Vreq	ELEV.
	(mins)		(in/hr)	(acres)	(cfs)	(cfs)	(cf)	(cf)	(cf)	(acre-ft)	(ft)
0	10	0.75	8.30	9.41	58.58	8.50	35,146	2,550	32,596	0.75	571.59
1	15	0.75	7.50	9.41	52.93	8.50	47,638	5,100	42,538	0.98	572.11
2	20	0.75	6.60	9.41	46.58	8.50	55,895	6,375	49,520	1.14	572.48
3	30	0.75	5.50	9.41	38.82	8.50	69,869	10,200	59,669	1.37	572.98
4	40	0.75	4.60	9.41	32.46	8.50	77,915	12,750	65,165	1.50	573.22
5	50	0.75	4.00	9.41	28.23	8.50	84,690	15,300	69,390	1.59	573.40
6	60	0.75	3.50	9.41	24.70	8.50	88,925	17,850	71,075	1.63	573.48
7	70	0.75	3.30	9.41	23.29	8.50	97,817	20,400	77,417	1.78	573.76
8	80	0.75	3.10	9.41	21.88	8.50	105,016	22,950	82,066	1.88	573.94
9	90	0.75	2.90	9.41	20.47	8.50	110,520	25,500	85,020	1.95	574.05
10	100	0.75	2.70	9.41	19.06	8.50	114,332	28,050	86,282	1.98	574.11
11	110	0.75	2.50	9.41	17.64	8.50	116,449	30,600	85,849	1.97	574.10
12	180	0.75	1.60	9.41	11.29	8.50	121,954	63,750	58,204	1.34	572.90
13	240	0.75	1.35	9.41	9.53	8.50	137,198	76,500	60,698	1.39	573.00
14	300	0.75	1.15	9.41	8.12	8.50	146,090	91,800	54,290	1.25	572.72
15	360	0.75	0.95	9.41	6.70	8.50	144,820	107,100	37,720	0.87	571.88
16	720	0.75	0.55	9.41	3.88	8.50	167,686	275,400		0.00	N/A
17	1440	0.75	0.32	9.41	2.26	8.50	195,126	550,800		0.00	N/A

BASIN 'D' POND 'D-2' REQUIRED STORAGE TABLE (100-YR MODIFIED RATIONAL)

STEP	Td	C	I	A	Qd	Qa	Vin	Vout	Vreq	Vreq	ELEV.	
	(mins)		(in/hr)	(acres)	(cfs)	(cfs)	(cf)	(cf)	(cf)	(acre-ft)	(ft)	
0	10	0.75	9.80	9.43	69.31	8.50	41,586	2,550	39,036	0.90	571.90	
1	15	0.75	9.00	9.43	63.65	8.50	57,287	5,100	52,187	1.20	572.60	
2	20	0.75	8.30	9.43	58.70	8.50	70,442	6,375	64,067	1.47	573.15	
3	30	0.75	6.90	9.43	48.80	8.50	87,840	10,200	77,640	1.78	573.75	
4	40	0.75	5.80	9.43	41.02	8.50	98,449	12,750	85,699	1.97	574.05	
5	50	0.75	5.00	9.43	35.36	8.50	106,088	15,300	90,788	2.08	574.30	
6	60	0.75	4.50	9.43	31.83	8.50	114,575	17,850	96,725	2.22	574.50	
7	70	0.75	4.00	9.43	28.29	8.50	118,818	20,400	98,418	2.26	574.55	
8	80	0.75	3.70	9.43	26.17	8.50	125,608	22,950	102,658	2.36	574.75	
9	90	0.75	3.50	9.43	24.75	8.50	133,670	25,500	108,170	2.48	574.95	
10	100	0.75	3.40	9.43	24.05	8.50	144,279	28,050	116,229	2.67	575.25	
11	110	0.75	3.20	9.43	22.63	8.50	149,371	30,600	118,771	2.73	575.40	← 100-YR MAX STORAGE REQUIRED
12	180	0.75	2.00	9.43	14.15	8.50	152,766	63,750	89,016	2.04	574.25	
13	240	0.75	1.60	9.43	11.32	8.50	162,950	76,500	86,450	1.98	574.15	
14	300	0.75	1.45	9.43	10.26	8.50	184,592	91,800	92,792	2.13	574.35	
15	360	0.75	1.25	9.43	8.84	8.50	190,958	107,100	83,858	1.93	574.05	
16	720	0.75	0.70	9.43	4.95	8.50	213,872	275,400		0.00	N/A	
17	1440	0.75	0.40	9.43	2.83	8.50	244,426	550,800		0.00	N/A	

BASIN 'D' POND 'D-2' STAGE STORAGE / DISCHARGE TABLE

ELEV.	DEPTH	AREA	CONIC CUM. VOL	VOL.	DISCHARGE	
(ft)	(ft)	(ft^2)	(ft^3)	(ac-ft)	(cfs)*	
568.10	0.00	102	0	0.00	0.00	
569.00	0.90	3,214	1,492	0.03	4.21	
570.00	1.90	9,774	7,986	0.18	6.11	
571.00	2.90	16,495	21,121	0.48	7.55	
572.00	3.90	19,214	38,975	0.89	8.76	
573.00	4.90	22,029	59,597	1.37	9.82	
574.00	5.90	24,943	83,083	1.91	10.77	
575.00	6.90	27,958	109,533	2.51	11.65	
575.40	7.30	29,204	120,966	2.78	11.99	← MAX POND STORAGE, INVERT OF EMERGENCY OVERFLOW
577.40	9.30	35,674	185,844	4.27	N/A	←2' OF FREEBOARD

*DISCHARGE RATES BASED ON ORIFICE CALCULATION (Q = CA√ 2gh) (C=0.60, A = 0.922 sqft (13" OPENING), g=32.2 ft/s, h = Head/Depth)

ORIFICE CALCULATION POND 'D-2'
(13" DIA. OPENING)

Q = CA√ 2gh C = 0.60
g = 32.2 FT/SEC A = 0.92 SQFT
h = varies

Pond WSE	Head (ft)	Q (cuft/sec)	
568.10	0.00	0.00	
569.00	0.90	4.21	
570.00	1.90	6.11	
571.00	2.90	7.55	
572.00	3.90	8.76	
573.00	4.90	9.82	
574.00	5.90	10.77	
575.00	6.90	11.65	
575.40	7.30	11.99	100 yr WSE
577.40	9.30	13.53	2' FREEBOARD

ALLOWABLE RELEASE RATE TABLE - DESIGN POINT 4

	Qallow	*H ('D-1')*	*POND 'D-1' Qactual*	*H ('D-2')*	*POND 'D-2' Qactual*	*DIRECT BYPASS*	*TOTAL Qactual*
	(cfs)	*ft*	*(cfs)*	*ft*	*(cfs)*	*(cfs)*	(cfs)
5-YEAR	27.58	1.60	7.98	4.30	9.20	10.38	27.56
10-YEAR	32.85	2.10	9.14	5.60	10.50	12.31	31.95
25-YEAR	37.24	2.30	9.57	4.65	9.57	14.03	33.17
100-YEAR	45.56	3.00	10.93	7.30	11.99	16.78	39.70
PIPE CONSTRAINT	40.00	3.00	10.93	7.30	11.99	16.78	39.70

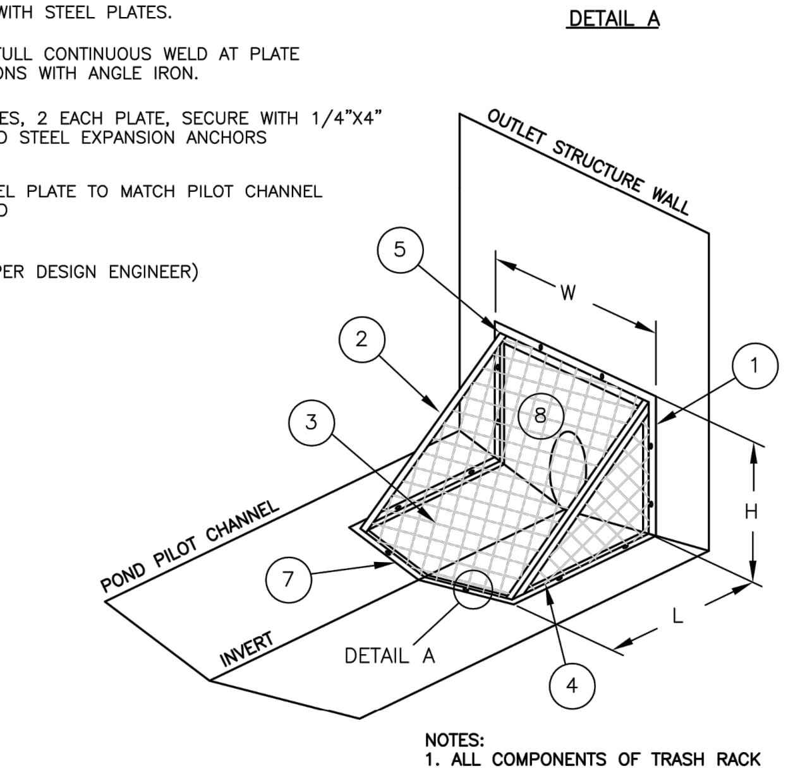
NOTE: ALLOWABLE RELEASE RATES FROM PRE-DEVELOPED DRAINAGE AREA MAP AND/OR PIPE CAPACITY OF TIE IN POINT EXISTING 30" RCP AT 0.96% SLOPE.
POND 'D-1' ORIFICE SIZE IS 15.5" AND POND 'D-2' ORIFCE SIZE IS 13".
POND 'D-1' RELEASE RATE INCLUDE DRAINAGE AREAS - D-1, OS-6, OS-7, OS-4
POND 'D-2" RELEASE RATE INCLUDES DRAINAGE AREAS - D-2, D-3, D-4, D-5, D-6, D-7, D-8, D-1(
DIRECT BYPASS INCLUDES AREAS - D-0,D-11,OS-1,OS-2, OS-3, & OS-5

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

02/08/2021

THOMAS A. LUNZMAN P.E. DATE

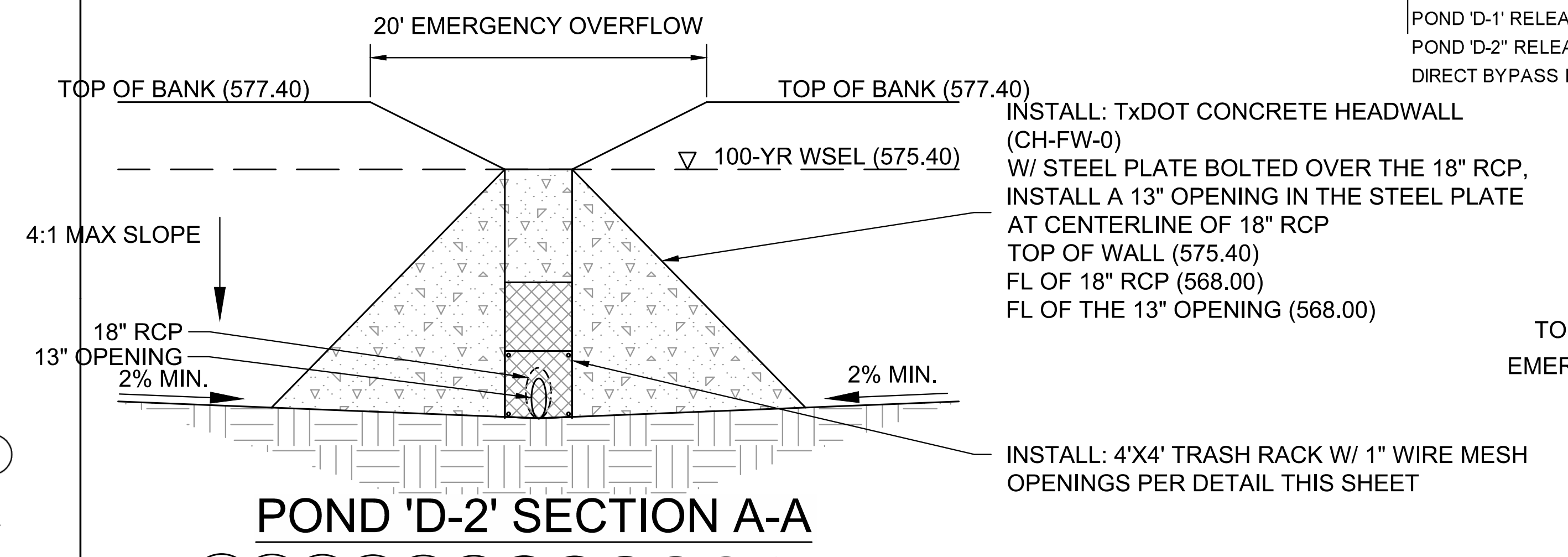


1. 1/4"x4" STEEL PLATE (TYP. ALL SIDES)
2. 1"X1" STEEL ANGLES ALONG TOP EDGES
3. EXPANDED METAL MESH TYPICAL 1" OR 2", #13 REGULAR (ENGINEER TO SPECIFY).
4. WELD EXPANDED METAL MESH TO INSIDE ANGLES, TOP AND SIDES. TACK WELD AT ALL POINTS OF CONTACT WITH STEEL PLATES.
5. PROVIDE FULL CONTINUOUS WELD AT PLATE CONNECTIONS WITH ANGLE IRON.
6. DRILL HOLES, 2 EACH PLATE, SECURE WITH 1/4"x4" GALVANIZED STEEL EXPANSION ANCHORS
7. BEND STEEL PLATE TO MATCH PILOT CHANNEL AS NEEDED
8. ORIFICE (PER DESIGN ENGINEER)

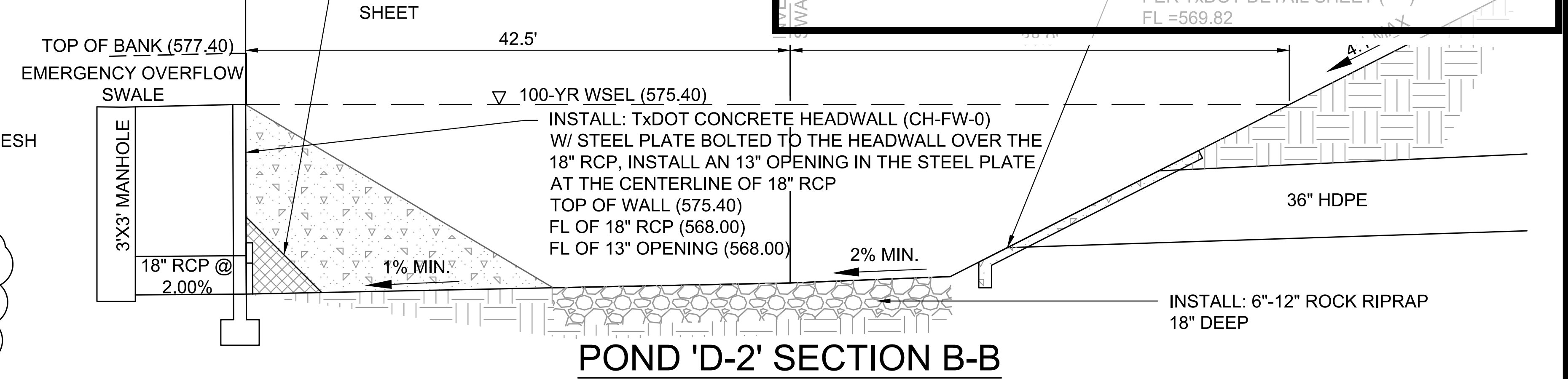
DISCLAIMER:
THIS DETAIL IS INTENDED AS AN EXAMPLE ONLY. THE DESIGN ENGINEER SHALL DESIGN AND SIZE A TRASH RACK SPECIFIC TO THE PROJECT. TRASH RACKS SHALL BE PRIVATELY MAINTAINED BY OWNER.

NOTES:
1. ALL COMPONENTS OF TRASH RACK SHALL BE GALVANIZED OR CONSTRUCTED OF APPROVED CORROSION RESISTANT MATERIALS.
2. DESIGN ENGINEER SHALL SPECIFY LENGTH(L), WIDTH(W), HEIGHT(H) AND MESH SIZE OF TRASH RACK.
3. TOP OR SIDES OF TRASH RACK MUST BE REMOVABLE BY HINGE OR OTHER METHOD TO ALLOW ACCESS INSIDE FOR CLEANING OF DEBRIS AND SEDIMENT.

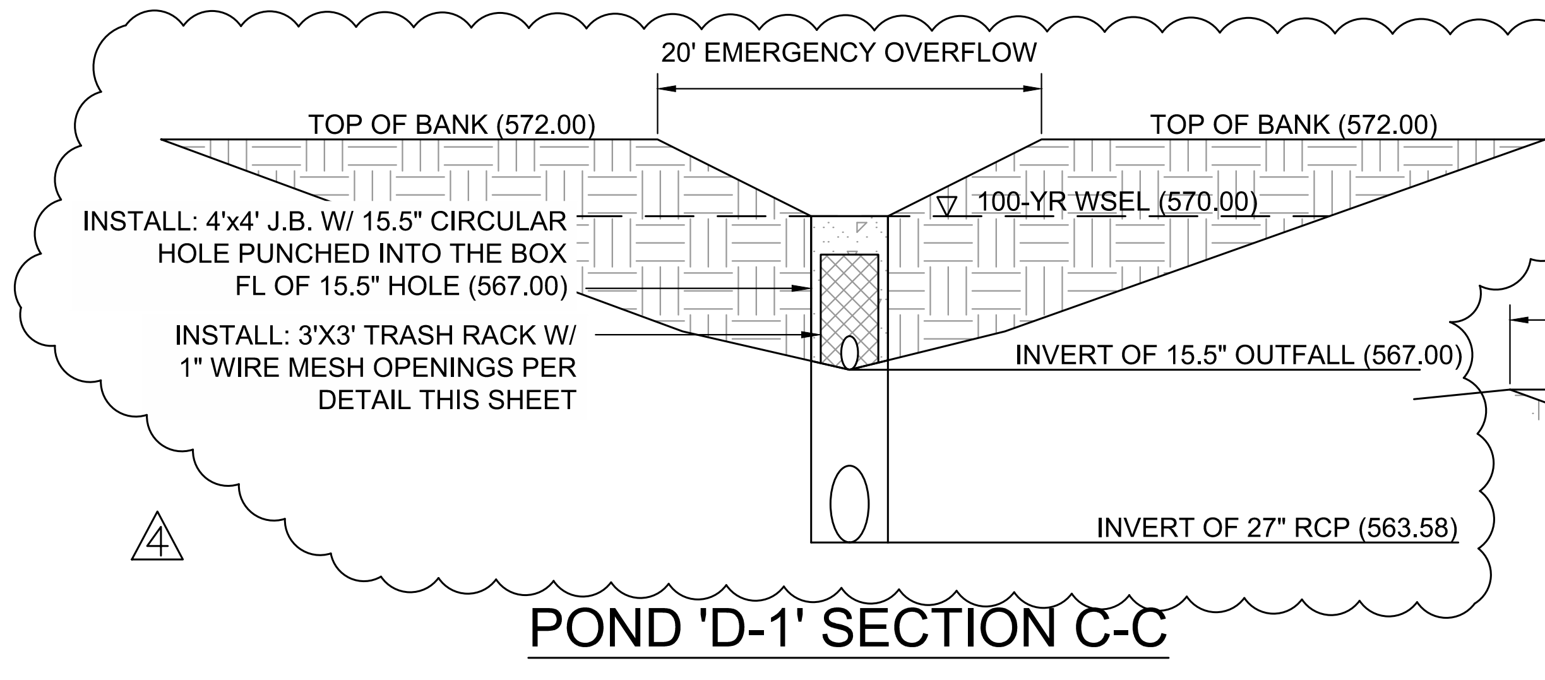
DETENTION POND TRASH RACK



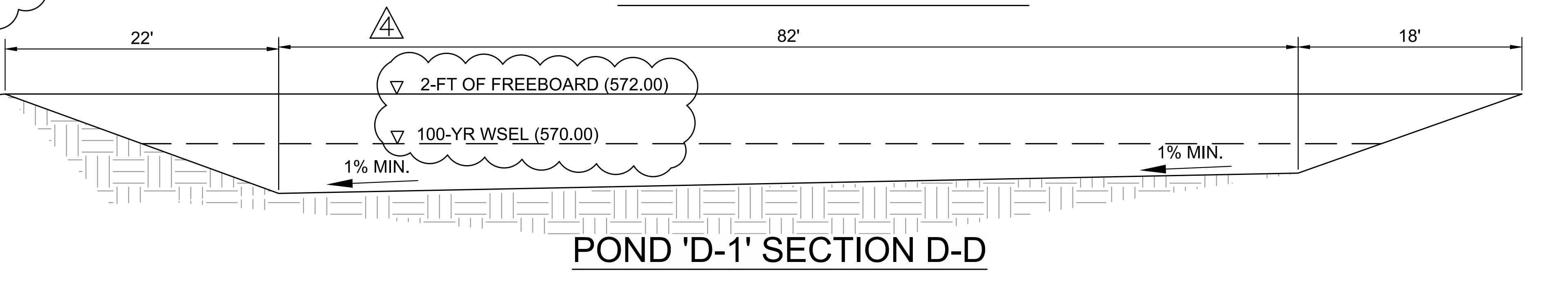
POND 'D-2' SECTION A-A



POND 'D-2' SECTION B-B



POND 'D-1' SECTION C-C



POND 'D-1' SECTION D-D

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7705
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:

SITE BM ONE: CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEAD-IN PARKING FOR THE APPRAISAL DISTRICT BUILDING, 95' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF JUSTIN DRIVE.
N: 7023100.573 E: 2596909.421 ELEV. = 583.32'

SITE BM TWO: CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF JUSTIN DRIVE.
N: 7022744.440 E: 2597331.250 ELEV. = 585.72'

STORM DETENTION PLAN

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING
COMMUNITY

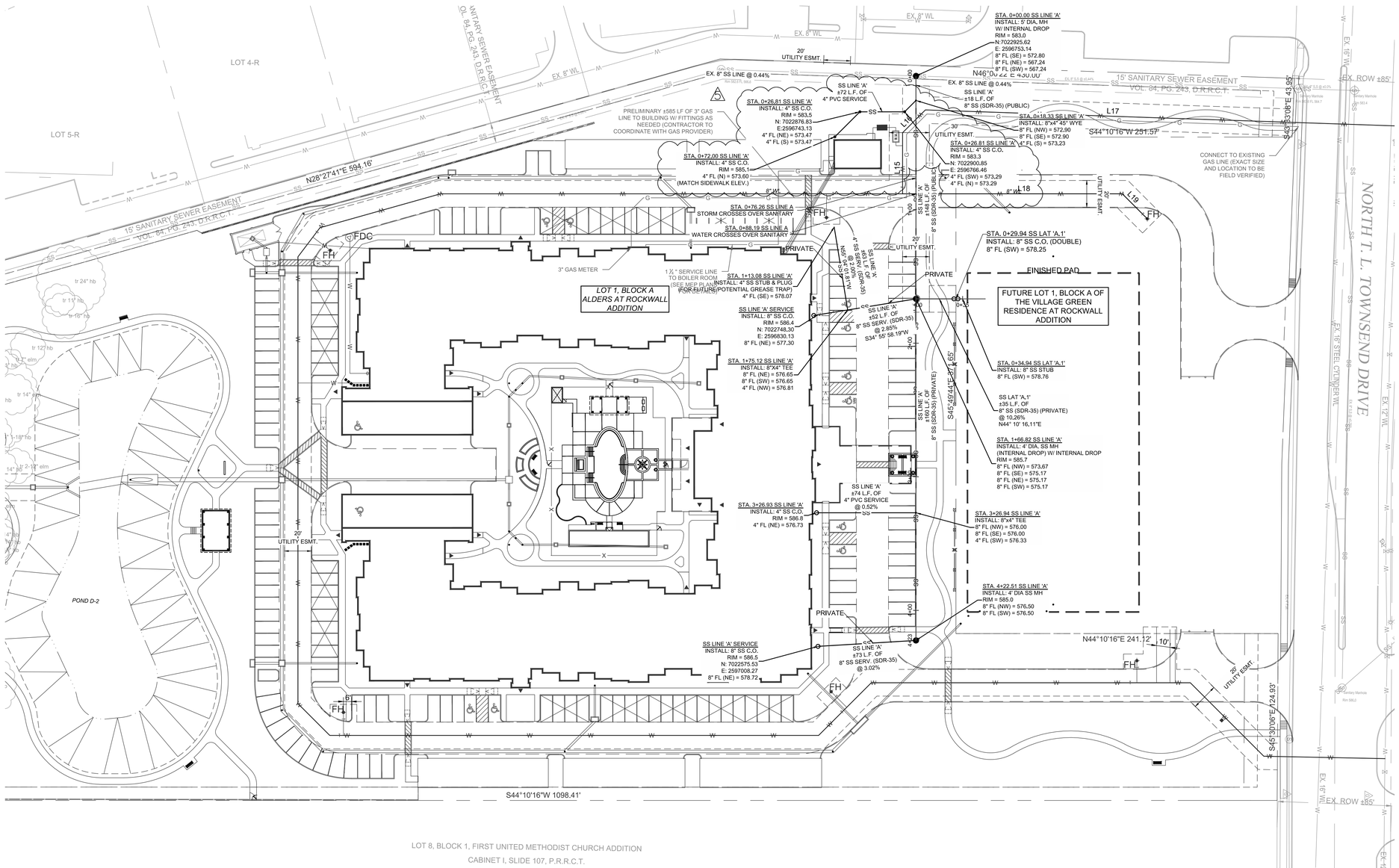
NO.	REVISIONS	DATE	BY	CHK
1	UPDATE WATERLINE LAYOUT	02/21/19	TAL	TAL
2	MINOR HUD/OWNER COMMENTS	05/17/19	TAL	TAL
3	REV. TO SIDEWALKS & COURTYARD (STORM) PER LANDSCAPE	07/17/19	KTM	TAL
4	REV. TO EX. STORM TIE-IN ELEVATION AND SD LINE 'A' (PUBLIC)	09/19/19	KTM	TAL

4 9/19/19
3 7/17/19
2 5/17/19
1/29/19

THOMAS A. LUNZMAN
122259

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	1" = 30'
SHEET NUMBER: C.17	OF 23

PLOTTED: 11/7/2019 10:09:14 AM



0 20' 40' 80'
HORIZONTAL SCALE

LEGEND

- PROPOSED SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EX. 8" SS — EXISTING SANITARY SEWER
- CLEANOUT / 8" SS LINE / SRVC — PROPOSED SANITARY SEWER
- PROPOSED WATER SERVICE
- EXISTING WATER METER
- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- PROPOSED VALVE
- EXISTING VALVE
- PROPOSED WATER FITTINGS (11¼°, 22½°, 45°, T's)
- PROPOSED WATER LINE
- EX 8" WL — EXISTING WATER LINE
- PROPOSED CONDENSING UNIT
- PROPOSED 5' CURB INLET
- PROPOSED 10' CURB INLET
- PROPOSED 4'X4' J.B.
- PROPOSED 2'X2' J.B.

NOTES:
1. PER CITY OF ROCKWALL STANDARDS, ALL 8" WATER MAINS SHALL HAVE 42" OF COVER.
2. ALL 8" WATER MAINS SHALL BE AWA C900 / DR14 PVC PIPE, MECHANICAL JOINT OR A JOINT OF THE TYPE WHICH PROVIDES A RECESSION IN THE BELL FOR THE EMPLOYMENT OF A SINGLE RUBBER GASKET TO BE PLACED BEFORE THE INSERTION OF THE SUCCEEDING SPIGOT. JOINT MATERIAL SHALL CONFORM TO ASTM F477.
3. REFER TO CITY OF ROCKWALL STANDARD CONSTRUCTION DETAILS - WATER PROVIDED BY DEPARTMENT OF ENGINEERING.
4. ALL WATER LINE AND SANITARY SEWER CROSSINGS SHALL BE INSTALLED PER CITY OF ROCKWALL AND TCEQ REGULATIONS.
5. NO SERVICES SHALL BE ALLOWED ON LINES 10-FEET OR DEEPER
6. MANHOLES TO BE SEALED AND RAVEN LINED OR APPROVED EQUAL.
7. A GREEN EMS DISK SHALL BE INSTALLED ON EVERY MANHOLE, CLEANOUT, AND SERVICE CONNECTION.

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.

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

THOMAS A. LUNZMAN P.E. — DATE: 02/08/2021

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-9703
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:

SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLIN PARKING FOR THE APPRAISAL DISTRICT OFFICE, ±50' WEST OF THE EAST CORNER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF TOWNSHEND BLVD.
N: 7023103.57' E: 2596609.421 ELEV. = 583.32'

SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF ABE TRAVERS DRIVE.
N: 7022744.149 E: 2597013.135 ELEV. = 589.22'

SANITARY SEWER PLAN

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

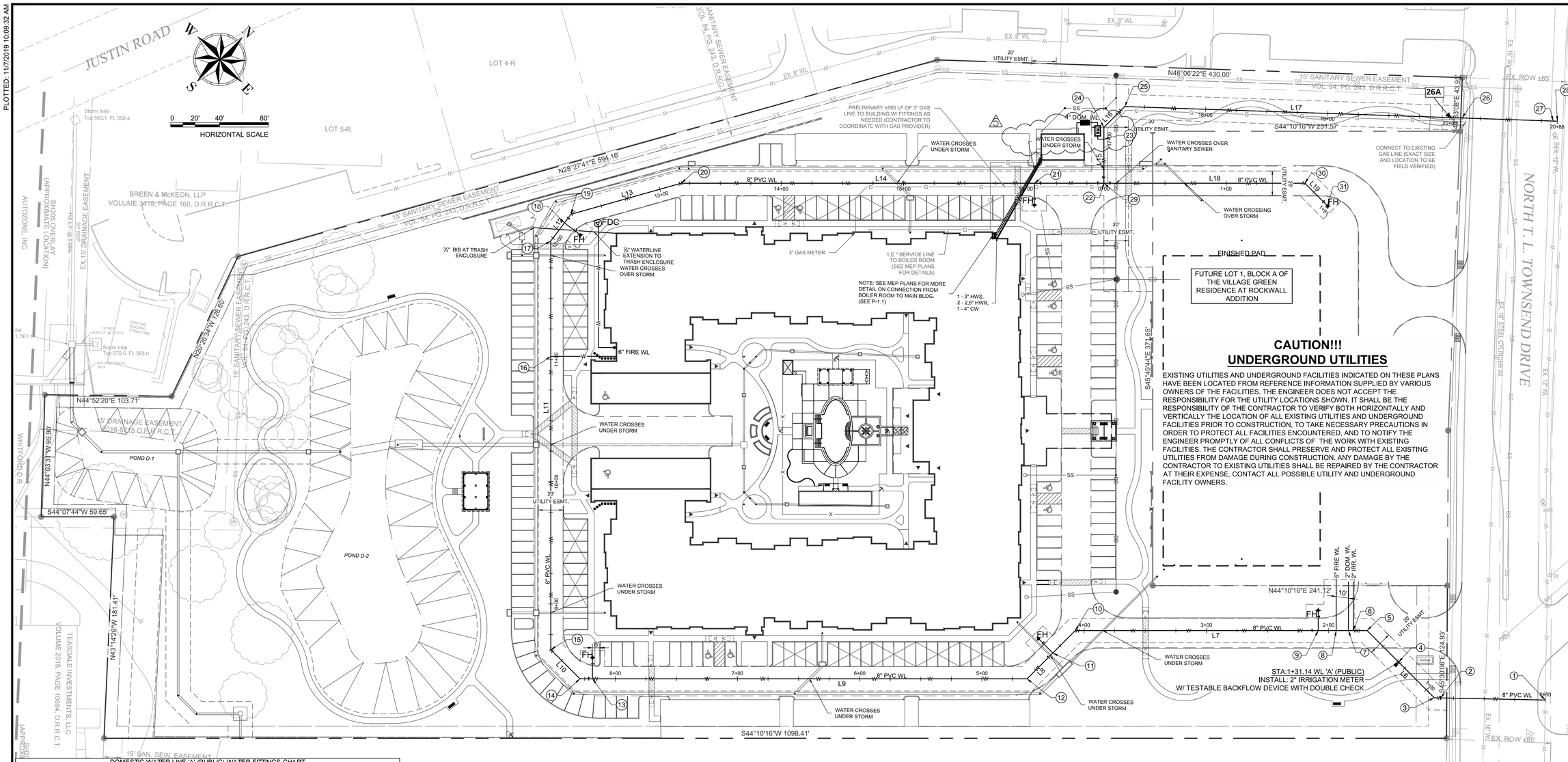
NO.	REVISIONS	DATE	BY	CHK
1	UPDATE WATERLINE LAYOUT	02/21/19	TAL	TAL
2	MINOR HUD/OWNER COMMENTS	05/17/19	TAL	TAL
3	REV. TO SIDEWALKS & COURTYARD (STORM) PER LANDSCAPE	07/17/19	KTM	TAL
4	REV. TO EX. STORM TIE-IN ELEVATION AND SD LINE "A" (PUBLIC)	09/19/19	KTM	TAL
5	REV. COURTYARD DRAINS, BACKFLOW, SS SERVICE, GARAGE FOOTPRINTS	11/07/19	KTM	TAL

11/07/19 9/19/19 7/17/19 5/17/19 2/21/19

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	1" = 40'
SHEET NUMBER:	C.18
OF	23

P:\PR56211\Cadd\Models\Civil\C-UTIL\S01.dwg 11/7/2019 10:05:07 AM Mulvey, Kyle



CAUTION!!!
UNDERGROUND UTILITIES

EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION SUPPLIED BY VARIOUS OWNERS OF THE FACILITIES. THE ENGINEER DOES NOT ACCEPT THE RESPONSIBILITY FOR THE UTILITY LOCATIONS SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED, AND TO NOTIFY THE ENGINEER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING FACILITIES. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE BY THE CONTRACTOR TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE. CONTACT ALL POSSIBLE UTILITY AND UNDERGROUND FACILITY OWNERS.

LOT 8, BLOCK 1, FIRST UNITED METHODIST CHURCH ADDITION
CABINET I, SLIDE 107, P.R.R.C.T.

DOMESTIC WATER LINE 'A' (PUBLIC) WATER FITTINGS CHART

POINT	STATION	DESCRIPTION
1	0+00.00'	BEGIN WL 'A' (PUBLIC), CONNECT TO EX. 12" WL, INSTALL: 1 - 12"X8" TEE, N: 7022821.38' E: 2597364.29' (CONTRACTOR TO VERIFY DEPTH AND LOCATION OF EX. 8" WL) BORE UNDER ROAD WITH 14" STEEL ENCASEMENT PER PROFILE.
2	0+84.68'	INSTALL: 1 - 8" GATE VALVE
3	0+89.87'	INSTALL: 1 - 8" 45° BEND
4	1+31.14'	INSTALL: 1 - 8"X2" SADDLE TAP, 1 - 2" IRR. METER W/ TESTABLE BACKFLOW DEVICE WITH DOUBLE CHECK, ±5 L.F. OF 2" IRR. SRV STUB
5	1+67.65'	INSTALL: 1 - 8" 45° BEND
6	1+78.94'	INSTALL: 1 - 8"X2" SADDLE TAP, ±42 L.F. OF 2" IRR. SRV STUB (FOR FUTURE 2" IRRIGATION METER)
7	1+82.93'	INSTALL: 1 - 8"X2" TEE, ±42 L.F. OF 2" DOM. SRV TO MEMORY CARE BLDG., 1 - 2" GATE VALVE
8	1+92.93'	INSTALL: 1 - 8"X6" TEE, ±42 L.F. OF 6" FIRE SRV STUB TO MEMORY CARE BLDG., 1 - 6" GATE VALVE
9	2+07.65'	INSTALL: 1 - 8" GATE VALVE (SW), 1 - 8"X6" TEE, ±16 L.F. OF 6" WL, 1 - FIRE HYDRANT ASSEMBLY
10	4+06.38'	INSTALL: 1 - 8" 45° BEND
11	4+32.41'	INSTALL: 1 - 8" GATE VALVE (S), 1 - 8"X6" TEE, ±16 L.F. OF 6" WL, 1 - FIRE HYDRANT ASSEMBLY
12	4+62.17'	INSTALL: 1 - 8" 45° BEND
13	8+17.80'	INSTALL: 1 - 8" GATE VALVE (SW), 1 - 8"X6" TEE, ±17 L.F. OF 6" WL, 1 - FIRE HYDRANT ASSEMBLY
14	8+28.03'	INSTALL: 1 - 8" 45° BEND
15	8+61.73'	INSTALL: 1 - 8" 45° BEND
16	11+01.72'	INSTALL: 1 - 8"X6" TEE, ±54 L.F. OF 6" FIRE SRV TO S.I.L BLDG., 1 - 6" GATE VALVE
17	11+96.13'	INSTALL: 1 - 8" 45° BEND
18	12+14.64'	INSTALL: 1 - 8" GATE VALVE (N), 1 - 8"X6" TEE, ±16 L.F. OF 6" WL, 1 - FIRE HYDRANT ASSEMBLY
19	12+23.49'	INSTALL: 1 - 8" 45° BEND
20	13+17.22'	INSTALL: 1 - 8" 11.25° BEND
21	16+06.03'	INSTALL: 1 - 8" GATE VALVE (NE), 1 - 8"X6" TEE, ±16 L.F. OF 6" WL, 1 - FIRE HYDRANT ASSEMBLY
22	16+62.99'	= WL 'B' (PUBLIC) POINT#23 (STA. 0+00.00), INSTALL: 1 - 8" TEE, 2 - 8" GATE VALVES (SW & NW)
23	16+99.04'	INSTALL: 1 - 8"X4" TEE, ±10 L.F. OF 4" DOM. SRV, 1 - 4" GATE VALVE, 1 - 4" METER IN VAULT BOX W/ TESTABLE BACKFLOW DEVICE W/ DOUBLE CHECK ±30 L.F. OF 4" DOM. SRV TO BOILER ROOM
24	17+08.73'	INSTALL: 1 - 8" 45° BEND
25	17+32.85'	INSTALL: 1 - 8" 45° BEND
26A	20+00.00'	INSTALL: 1 - 8" GATE VALVE
26	20+15.66'	BEGIN BORE UNDER ROAD WITH 14" STEEL ENCASEMENT PER PROFILE
27	20+83.67'	END BORE UNDER ROAD WITH 14" STEEL ENCASEMENT PER PROFILE
28	20+87.06'	END LINE 'A',CONNECT TO EX. 12" WL, INSTALL: 1 - 12"X8" TEE. 1 - 8" GATE VALVE (SW) N: 7023158.52' E: 2597031.58' (CONTRACTOR TO VERIFY DEPTH AND LOCATION OF EX. WL)

DOMESTIC WATER LINE 'B' WATER FITTINGS CHART

POINT	STATION	DESCRIPTION
29	0+00.00'	= WL 'A' (PUBLIC) POINT#22 (STA. 16+98.16'), INSTALL: 1 - 8" TEE, 1 - 8" GATE VALVES (NE)
30	1+64.46'	INSTALL: 1 - 8" 45° BEND
31	1+90.89'	INSTALL: ~~1 - 8" GATE VALVE~~, FH ASSEMBLY

LINE DATA TABLE

NO	BEARING	DISTANCE
L6	S89° 10' 15"W	77.78'
L7	S44° 10' 15"W	238.73'
L8	S0° 49' 45"E	55.79'
L9	S44° 10' 16"W	365.86'
L10	S89° 10' 16"W	33.70'
L11	N45° 49' 44"W	334.41'
L12	N8° 41' 01"W	27.35'
L13	N28° 27' 41"E	93.74'
L15	N45° 48' 56"W	45.73'
L16	N0° 49' 44"W	24.13'

LINE DATA TABLE

NO	BEARING	DISTANCE
L17	N46° 06' 59"E	354.20'
L18	N44° 10' 16"E	164.46'
L19	N89° 10' 15"E	26.44'

NOTES:
1. PER CITY OF ROCKWALL STANDARDS, ALL 8" WATER MAINS SHALL HAVE 48" OF COVER.
2. ALL 8" WATER MAINS SHALL BE AWA C900 / DR14 PVC PIPE, MECHANICAL JOINT OR A JOINT OF THE TYPE WHICH PROVIDES A RECESSION IN THE BELL FOR THE EMPLOYMENT OF A SINGLE RUBBER GASKET TO BE PLACED BEFORE THE INSERTION OF THE SUCCEEDING SPIGOT. JOINT MATERIAL SHALL CONFORM TO ASTM F477.
3. REFER TO CITY OF ROCKWALL STANDARD CONSTRUCTION DETAILS - WATER PROVIDED BY DEPARTMENT OF ENGINEERING.
4. ALL WATER LINE AND SANITARY SEWER CROSSINGS SHALL BE INSTALLED PER CITY OF ROCKWALL AND TCEQ REGULATIONS.
5. FIRE HYDRANT ASSEMBLY TO INCLUDE: 6" GATE VALVE, AND FIRE HYDRANT
6. **ANY & ALL DETAILS NOT PROVIDED WITH THESE CONSTRUCTION DRAWINGS. SHALL COME FROM CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION & NCTCOG PUBLIC WORKS CONSTRUCTION STANDARDS FOURTH EDITION.**
7. ALL SITE WORK MUST BE DONE IN ACCORDANCE TO THE CITY OF ROCKWALL'S STANDARDS OF DESIGN AND CONSTRUCTION.
8. CONTRACTOR TO INSTALL BLUE EMS DISKS ON THE WATER LINE EVERY 250', CHANGE IN DIRECTION, VALVE, FIRE HYDRANT, AND SERVICE CONNECTION.

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.

RECORD DRAWING

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THOMAS A. LUNZMAN P.E. — DATE: 03/24/2021

LEGEND

- PROPOSED SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER MANHOLE
- EX. 6" SS — EXISTING SANITARY SEWER
- CLEANOUT, 6" SS LINE, SRVC — PROPOSED SANITARY SEWER
- PROPOSED WATER SERVICE
- EXISTING WATER METER
- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- PROPOSED VALVE
- EXISTING VALVE
- PROPOSED WATER FITTINGS (11¼°, 22¾°, 45°, T's)
- 6" WL — PROPOSED WATER LINE
- EX 6" WL — EXISTING WATER LINE
- PROPOSED CONDENSING UNIT
- PROPOSED 5' CURB INLET
- PROPOSED 10' CURB INLET
- PROPOSED 4'X4' J.B.
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BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7704
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:
SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADIN PARKING FOR THE APPRAISAL DISTRICT BUILDING, ±50' NORTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF JUSTIN ROAD.
N: 7023100.579' E: 2596909.421' ELEV = 583.32'
SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF JUSTIN DRIVE.
N: 7022744.438' E: 2597313.128' ELEV = 589.27'

WATER PLAN

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

NO.	REVISIONS	DATE	BY	CHK
1	UPDATE WATERLINE LAYOUT	02/21/19	TAL	TAL
2	MINOR HUD/OWNER COMMENTS	05/17/19	TAL	TAL
3	REV. TO SIDEWALKS & COURTYARD (STORM) PER LANDSCAPE	07/17/19	KTM	TAL
4	REV. TO EX. STORM TIE-IN ELEVATION AND SD LINE 'A' (PUBLIC)	09/19/19	KTM	TAL
5	REV. COURTYARD DRAINS, BACKFLOW, SS SERVICE, GARAGE FOOTPRINTS	11/07/19	KTM	TAL

5 11/07/19
4 9/19/19
3 7/17/19
2 5/17/19
1 2/21/19

STATE OF TEXAS — THOMAS A. LUNZMAN — 122259 — LICENSED PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	1" = 40'
SHEET NUMBER:	C.19
OF	23

PLOTTED: 7/17/2019 1:56:19 PM

NOTES:
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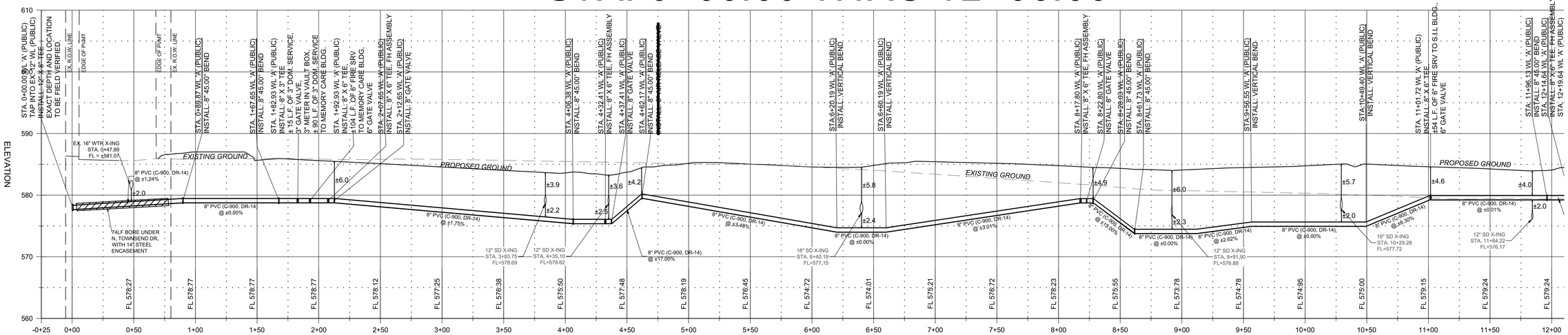
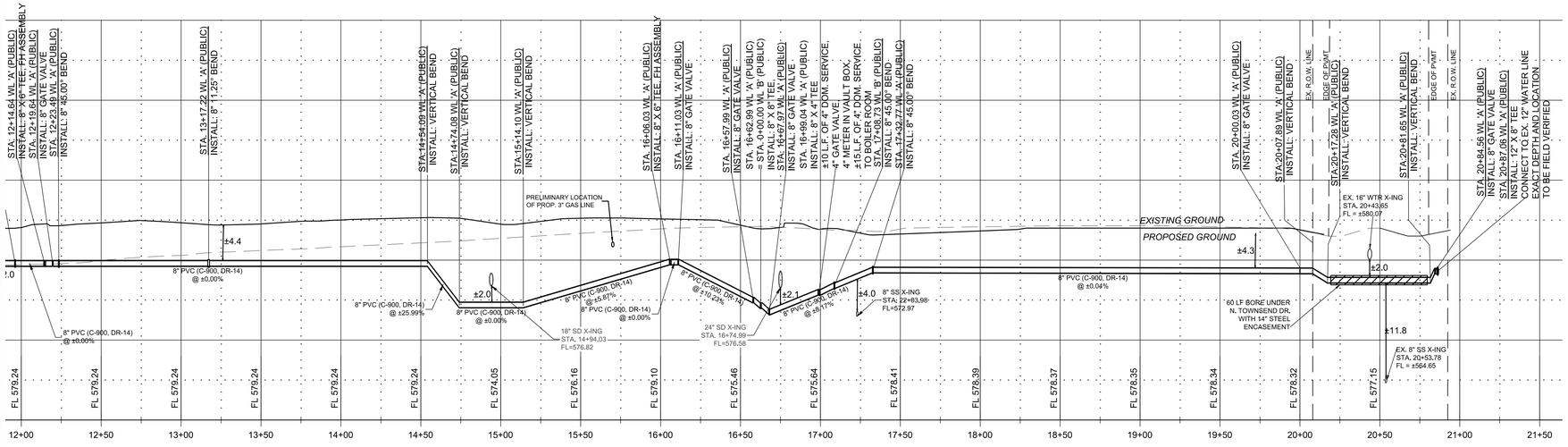
N W E S

0 20' 40' 80'
HORIZONTAL SCALE

8" WATER LINE 'A' (PUBLIC)
STA. 0+00.00 THRU 12+00.00



8" WATER LINE 'A' (PUBLIC)
STA. 12+00.00 THRU 20+87.06



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THOMAS A. LUNZMAN P.E. — DATE: 03/24/2021

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7700
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:
SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLIN PARKING FOR THE APPRAISAL DISTRICT OFFICE BUILDING, APPROXIMATELY 200' NORTH OF TOWNSEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF TOWNSEND DRIVE.
N 7025100.571 E. 2596909.421 ELEV. = 583.32'
SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF TOWNSEND DRIVE.
N 7027344.148 E. 2597313.128 ELEV. = 585.72'

UTILITY PROFILES
(SHEET 1 OF 2)

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING
COMMUNITY

NO.	REVISIONS	DATE	BY	CHK
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△7/17/19
△7/17/19
△7/23/19

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED
PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
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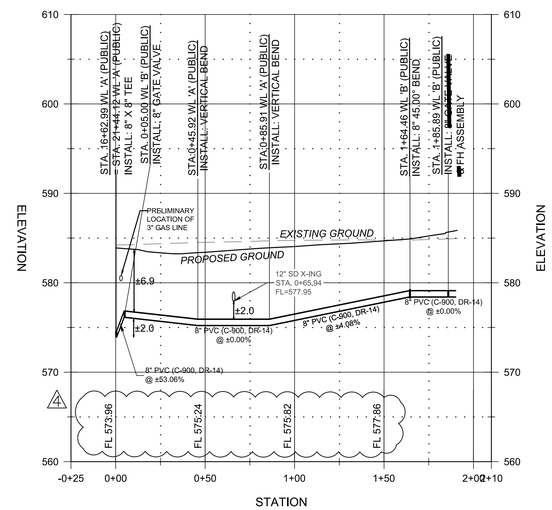
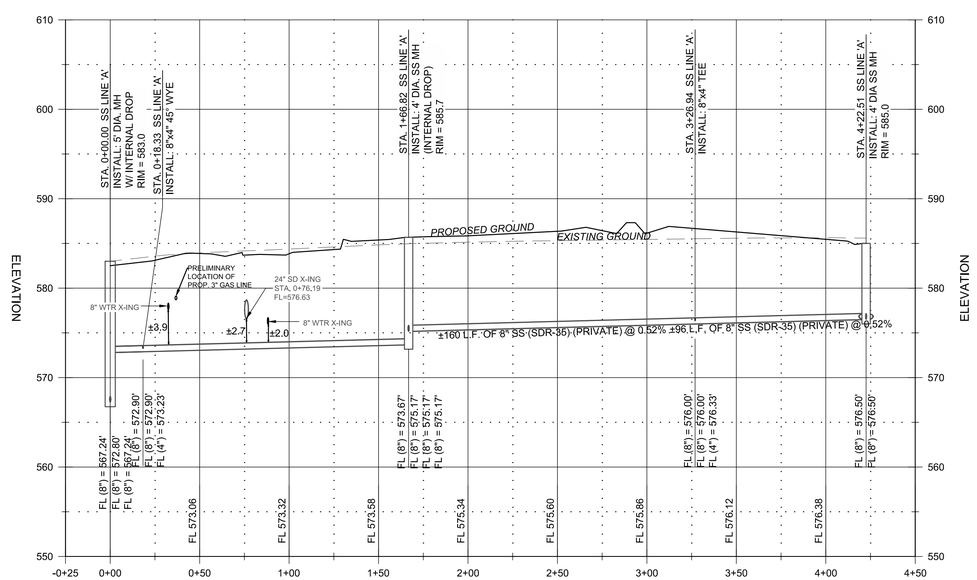
DATE:	01/29/2019
SCALE:	H: 1" = 40'; V: 1" = 4'
SHEET NUMBER:	C.20
OF	23

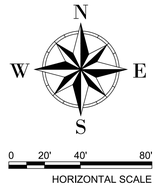
P:\PR56211\Cadd\Models\Civil\C-UTIL\01.dwg 5/23/2019 9:47:29 AM Mulvey, Kyle

8" WATER LINE 'B' (PUBLIC) DEAD-END



8" SS LINE 'A' (PUBLIC)





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03/24/2021

THOMAS A. LUNZMAN P.E. — DATE

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STAFFORD, TEXAS 77477
PHONE: (281) 980-7706
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:

SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLIN PARKING FOR THE APPRAISAL DISTRICT BUILDING, ABOUT 100' NORTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF CORPORATE DRIVE.
N 7003100.571 E. 2596909.421 ELEV. = 583.32'

SITE BM TWO, CROSS CUT IN SIDEWALK 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 895' SOUTHEASTERLY FROM THE CENTER OF CORPORATE DRIVE.
N 7002744.149 E. 2597313.529 ELEV. = 585.72'

UTILITY PROFILES
(SHEET 2 OF 2)

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING
COMMUNITY

NO.	REVISIONS	DATE	BY	CHK
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9/19/19 — 7/17/19 — 5/17/19 — 2/21/19

STATE OF TEXAS — THOMAS A. LUNZMAN — 122259 — LICENSED — PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	H: 1" 40' V: 1" = 4'
SHEET NUMBER:	C.21
OF	23

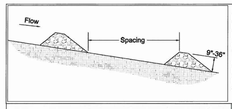
PLOTTED: 9/20/2019 10:56:03 AM

P:\PR56211\Cadd\Models\Civil\C-UTILS01.dwg 9/19/2019 2:25:42 PM Mulvey, Kyle

2.0 Erosion Controls

2.1 Check Dam

Erosion Control



Description: Check dams are small barriers consisting of loose rock, rock bags, or organic filter tubes placed across a drainage swale or ditch. They reduce the velocity of small concentrated flows, provide a limited barrier for sediment and reduce the potential for erosion of the swale or ditch.

KEY CONSIDERATIONS

DESIGN CRITERIA:
- Heights between 9 inches and 36 inches
- Top of the downstream dam should be at the same elevation as the toe of the upstream dam

ADVANTAGES / BENEFITS:
- Reduced velocities in long drainage swales or ditches
- May be used with other channel protection measures
- Provides some sediment removal

DISADVANTAGES / LIMITATIONS:
- Cannot be used in live stream channels
- Minor ponding upstream of the check dams
- Extensive maintenance or replacement of the dams required after heavy flows or high velocity flows
- Mowing hazard from loose rocks if all rock is not removed at end of construction

MAINTENANCE REQUIREMENTS:
- Inspect regularly
- Remove silt when it reaches approximately ⅓ the height of the dam or 12 inches, whichever is less

TARGETED POLLUTANTS

- ◒ Sediment
- ○ Nutrients & Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ○ Other Construction Wastes

APPLICATIONS

Perimeter Control
Slope Protection
Sediment Barrier
Channel Protection
Temporary Stabilization
Final Stabilization
Waste Management
Housekeeping Practices

Fe=0.30-0.50
(Depends on soil type)

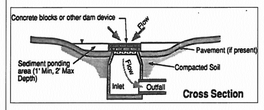
IMPLEMENTATION CONSIDERATIONS

- ◒ Capital Costs
- ● Maintenance
- ○ Training
- ◒ Suitability for Slopes > 5%

Other Considerations:
- *None*

3.4 Inlet Protection

Sediment Control



Description: Inlet protection consists of a variety of methods to intercept sediment at low point inlets through the use of depressed grading, filter stone, filter fabric, inlet inserts, organic filter tubes and other materials. The protection devices are placed around or across the inlet openings to provide localized detention or filtration of sediment and floatable materials in stormwater. Protection devices may be assembled onsite or purchased as manufactured assemblies.

KEY CONSIDERATIONS

DESIGN CRITERIA:
- Evaluate drainage patterns to ensure inlet protection will not cause flooding of roadway, property or structures
- Never block entire inlet opening
- Size according to drainage area and flow rates
- Include flow bypass for clogged controls and large storm events

ADVANTAGES / BENEFITS:
- May be the only feasible sediment control when all construction is located within rights-of-way

DISADVANTAGES / LIMITATIONS:
- Limited effectiveness and reliability
- High maintenance requirements
- Has potential to flood roadways or adjacent properties

MAINTENANCE REQUIREMENTS:
- Inspect regularly
- Check for and remove blockage of inlet after every storm event
- Remove sediment before it reaches half the design height or volume of the inlet protection, more frequently for curb inlets
- Repair or replace damaged materials
- Clean or replace filter stone and organic filter tubes is when clogged with sediment

TARGETED POLLUTANTS

- ◒ Sediment
- ○ Nutrients & Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ○ Other Construction Wastes

APPLICATIONS

Perimeter Control
Slope Protection
Sediment Barrier
Channel Protection
Temporary Stabilization
Final Stabilization
Waste Management
Housekeeping Practices

Fe=0.35-0.65
(Depends on soil type)

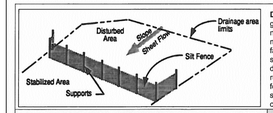
IMPLEMENTATION CONSIDERATIONS

- ◒ Capital Costs
- ● Maintenance
- ○ Training
- ○ Suitability for Slopes > 5%

Other Considerations:
- *Traffic hazards*
- *Passage of larger storm events without causing flooding*
- *Flow diversion to other inlets or drainage points*

3.10 Silt Fence

Sediment Control



Description: A silt fence consists of geotextile fabric supported by wire mesh netting or other backing stretched between metal posts with the lower edge of the fabric securely embedded six-inches in the soil. The fence is typically located downstream of disturbed areas to intercept runoff in the form of sheet flow. A silt fence provides both filtration and time for sediment settling by reducing the velocity of the runoff.

KEY CONSIDERATIONS

DESIGN CRITERIA:
- Maximum drainage area of 0.25 acre per 100 linear feet of silt fence
- Maximum 200 feet distance of flow to silt fence; 50 feet if slope exceeds 10 percent
- Minimum fabric overlap of 3 feet at abutting ends; join fabric to prevent leakage
- Turn end of silt fence line upslope a minimum of 10 feet
- Install stone overflow structure at low points or spaced at approximately 300 feet if no apparent low point

ADVANTAGES / BENEFITS:
- Economical means to treat sheet flow
- Most effective with coarse to silty soil types

DISADVANTAGES / LIMITATIONS:
- Limited effectiveness with clay soils due to clogging
- Localized flooding due to minor ponding at the upslope side of the silt fence
- Not for use as check dams in swales or low areas subject to concentrated flow
- Not for use where soil conditions prevent a minimum toe-in depth of 6 inches or installation of support posts to a depth of 12 inches
- Can fail structurally under heavy storm flows, creating maintenance problems and reducing effectiveness

MAINTENANCE REQUIREMENTS:
- Inspect regularly
- Repair undercutting, sags and other fence failures
- Remove sediment before it reaches half the height of the fence
- Repair or replace damaged or clogged filter fabric

TARGETED POLLUTANTS

- ● Sediment
- ○ Nutrients & Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ○ Other Construction Wastes

APPLICATIONS

Perimeter Control
Slope Protection
Sediment Barrier
Channel Protection
Temporary Stabilization
Final Stabilization
Waste Management
Housekeeping Practices

Fe=0.50-0.75
(Depends on soil type)

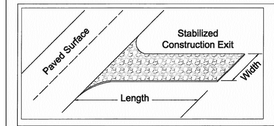
IMPLEMENTATION CONSIDERATIONS

- ◒ Capital Costs
- ● Maintenance
- ○ Training
- ◒ Suitability for Slopes > 5%

Other Considerations:
- *Effects of ponding or the redirection of flow onto adjacent areas and property*

3.11 Stabilized Construction Exit

Sediment Control



Description: A stabilized construction exit is a pad of crushed stone, recycled concrete or other rock material placed on geotextile filter cloth to dislodge soil and other debris from construction equipment and vehicle tires prior to exiting the construction site. The object is to minimize the tracking of soil onto public roadways where it will be suspended by stormwater runoff.

KEY CONSIDERATIONS

DESIGN CRITERIA:
- Slope exit away from offsite paved surface
- Minimum width and length dependent on size of disturbed area, which correlates to traffic volume
- 12 inches minimum thickness of stone layer
- Stone of 4 to 6 inches in size (no crushed/recycled concrete allowed)
- Add a wheel cleaning system when inspections reveal the stabilized exit does not prevent tracking

ADVANTAGES / BENEFITS:
- Reduces tracking of soil onto public streets
- Directs traffic to a controlled access point
- Protects other sediment controls by limiting the area disturbed

DISADVANTAGES / LIMITATIONS:
- Effectiveness dependent on limiting ingress and egress to the stabilized exit
- A wheel washing system may also be required to remove clay soil from tires, particularly in wet conditions

MAINTENANCE REQUIREMENTS:
- Inspect regularly
- Replace rock when sediment in the void area between the rocks is visible on the surface
- Periodically re-grade and top dress with additional stone to maintain efficiency

TARGETED POLLUTANTS

- ◒ Sediment
- ○ Nutrients & Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Wastes

APPLICATIONS

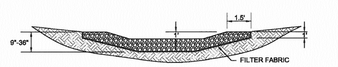
Perimeter Control
Slope Protection
Sediment Barrier
Channel Protection
Temporary Stabilization
Final Stabilization
Waste Management
Housekeeping Practices

Fe=N/A

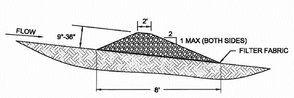
IMPLEMENTATION CONSIDERATIONS

- ◒ Capital Costs
- ◒ Maintenance
- ○ Training
- ○ Suitability for Slopes > 5%

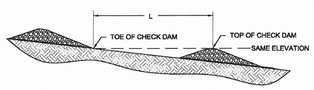
Other Considerations:
- *None*



ROCK CHECK DAM VIEW LOOKING UPSTREAM
N.T.S.



CROSS SECTION OF ROCK CHECK DAM
N.T.S.

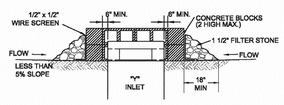


SPACING BETWEEN ROCK CHECK DAMS
N.T.S.

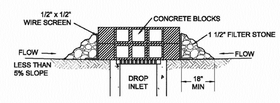
NOTES: ACTUAL DIMENSIONS OF THE CHECK DAMS SHALL BE DESIGNED BASED ON FLOW CONDITIONS IN THE DRAINAGE SWALE OR DITCH. PROVIDE CALCULATIONS THAT DOCUMENT THE FOLLOWING PARAMETERS USED TO DESIGN THE CHECK DAMS.

- HEIGHT OF CHECK DAMS BASED ON SWALE OR DITCH DIMENSIONS AND FLOW CONDITIONS.
- SPACING OF CHECK DAMS BASED ON GRADE OF THE SWALE OR DITCH. TOP OF DOWNSTREAM DAM SHALL BE AT SAME ELEVATION AS TOE OF UPSTREAM DAM

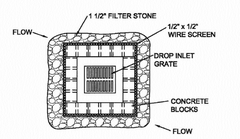
Figure 2.1 Schematics of Rock Check Dams
(Source: Modified from Stormwater Management Manual for Western Washington)



BLOCK AND GRAVEL "Y" INLET PROTECTION CROSS SECTION
N.T.S.

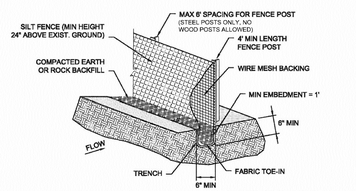


BLOCK AND GRAVEL DROP INLET PROTECTION CROSS SECTION
N.T.S.

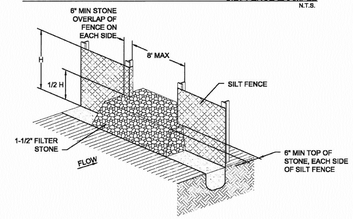


BLOCK AND GRAVEL AREA INLET PROTECTION PLAN VIEW
N.T.S.

Figure 3.12 Schematics of Block and Gravel Area Inlet Protection
(Source: Modified from City of Plano BMP SP-4)



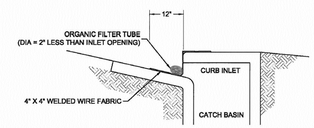
SILT FENCE EXAMPLE
N.T.S.



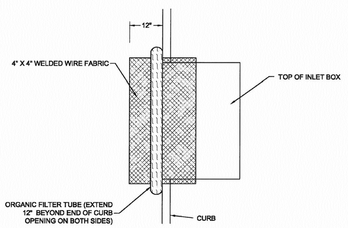
STONE OVERFLOW STRUCTURE EXAMPLE
N.T.S.

NOTES:
1. DESIGN SHALL SHOW ON THE DRAWINGS THE LOCATIONS WHERE OVERFLOW STRUCTURES SHALL BE INSTALLED. OVERFLOW STRUCTURES ARE REQUIRED AT ALL LOW POINTS AND AT A SPACING OF APPROXIMATELY 300 FT WHERE NO LOW POINT IS APPARENT.
2. DESIGNER SHALL ON THE DRAWINGS THE LOCATIONS WHERE SILT FENCE IS TO BE TURNED UPSLOPE. UPSLOPE LENGTHS SHALL BE A MINIMUM OF 10 FEET.

Figure 3.28 Schematics of Silt Fence



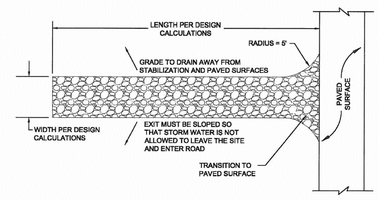
ORGANIC FILTER TUBE CURB INLET PROTECTION CROSS SECTION
N.T.S.



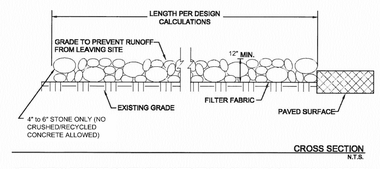
ORGANIC FILTER TUBE CURB INLET PROTECTION PLAN VIEW
N.T.S.

NOTE: THIS CONTROL WILL DECREASE THE CAPACITY OF THE INLET. IT SHALL ONLY BE USED WHEN AN ENGINEER HAS DETERMINED THERE IS ADEQUATE STORAGE OR POSITIVE OVERFLOW.

Figure 3.6 Schematics of Organic Filter Tube Curb Inlet Protection
(Source: Modified from City of Plano BMP SP-4)



PLAN VIEW
N.T.S.



CROSS SECTION
N.T.S.

NOTE: INSTALL SILT FENCE, CONSTRUCTION SAFETY FENCING, OR SIMILAR BARRIER ALONG THE EXIT TO DIRECT TRAFFIC INTO THE EXIT.

Figure 3.29 Schematics of Stabilized Construction Exit

RECORD DRAWING

THIS RECORD DRAWING TO THE BEST OF OUR KNOWLEDGED 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 SURVEYIGN AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

THOMAS A. LUNZMAN P.E. — DATE: 02/08/2021

BURGESS & NIPLE
10701 CORPORATE DR., SUITE 118
STAFFORD, TEXAS 77477
PHONE: (281) 980-7705
TBPE FIRM REGISTRATION NO. F-10834

BENCHMARK
CITY BM:
SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLAN PARKING FOR THE APPRAISAL DISTRICT BUILDING, ABOUT 1.5 MILES NORTHEASTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 340' SOUTHEASTERLY FROM THE CENTER OF ROCKWALL PKWY.
N. 7043150.979 E. 2596909.421 ELEV = 583.32'
SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 695' NORTHEASTERLY FROM THE CENTER OF ROCKWALL PKWY. DRIVE.
N. 7037744.149 E. 2599313.50 ELEV. = 588.72'

NCTCOG EROSION CONTROL DETAILS

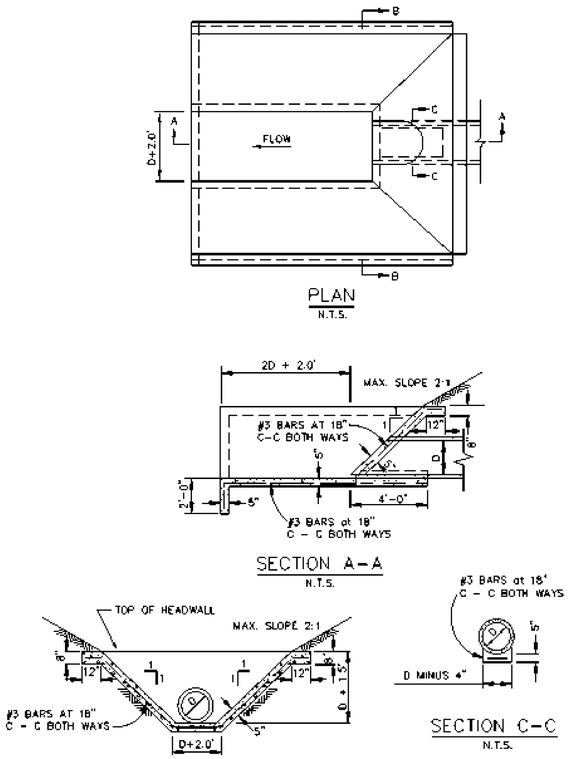
ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

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

△7/17/19
△5/17/19
△2/21/19

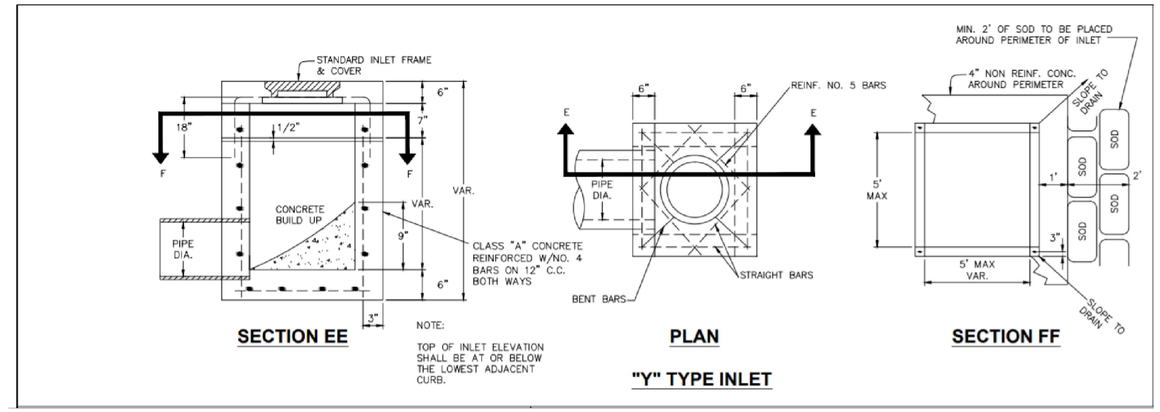
STATE OF TEXAS — THOMAS A. LUNZMAN — 122259 — LICENSED PROFESSIONAL ENGINEER

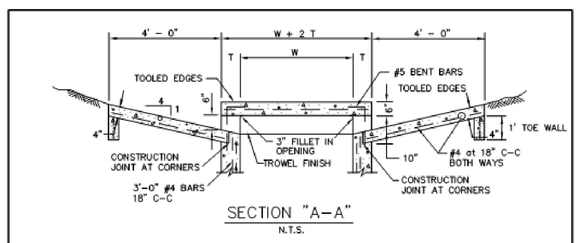
JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
DATE:	01/29/2019
SCALE:	NONE
SHEET NUMBER:	C.22
OF	23

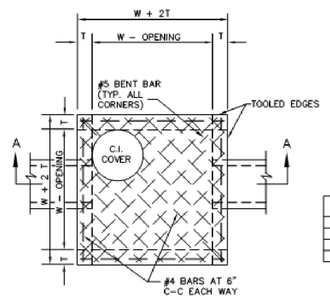


NOTE:
CONCRETE SHALL BE CLASS "A".
CONCRETE = 4,200 PSI (MIN. 6.5 SACK)

CONCRETE APRON	STANDARD SPECIFICATION REFERENCE 803.3	
SLOPING HEADWALL	DATE OCT '04	STANDARD DRAWING NO. 6070







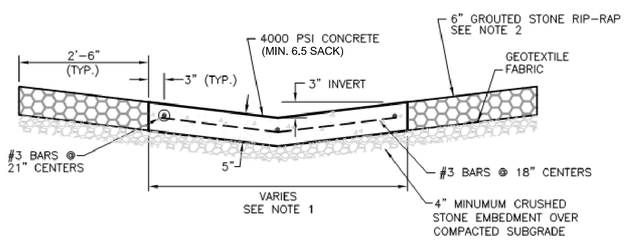
INLET SIZE	T	W
2' SQUARE	7"	2'-0"
4' SQUARE	7"	4'-0"
5' SQUARE	8"	5'-0"
6' SQUARE	9"	6'-0"

PLAN OF TOP SLAB
N.T.S.

NOTES:

1. MATERIAL AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF NCTCOG STANDARD SPECIFICATIONS FOR STANDARD CONCRETE MANHOLES. MINIMUM CLASS "A" CONCRETE.
2. LAYERS OF REINFORCING STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACES SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
3. FOR DETAILS OF REINFORCING OF LOWER PORTIONS OF INLET SEE APPROPRIATE SQUARE MANHOLE DETAILS.
4. DEPTH OF DROP INLET FROM FINISHED GRADE TO FLOW LINE OF INLET IS VARIABLE. APPROXIMATE DEPTH WILL BE SHOWN ON PLANS AT LOCATION OF INLET.
5. ALL STANDARD DROP INLETS SHALL HAVE ONE OPENING ON EACH SIDE UNLESS OTHERWISE SHOWN ON PLANS.
6. DECK MAY BE REINFORCED SAME AS 4' SQUARE MANHOLE.

DROP INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702	
2', 4', 5' OR 6' SQUARE		DATE OCT. '04	STANDARD DRAWING NO. 6040



TYPICAL FLUME (NO CURB)

NOTES:

1. **WIDTH AS SPECIFIED IN PLANS. (3' MIN. WIDTH, 6' MAX WIDTH)**
2. **RIP-RAP TO BE USED ADJACENT TO FLUME AT HEADWALLS, FLUME INTERSECTIONS AND WHERE VELOCITIES IN FLUME EXCEED 6 fps. GROUT SHALL BE NO DEEPER THAN 1/2 THE STONE HEIGHT.**

RECORD DRAWING

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BENCHMARK
CITY BM:
SITE BM ONE, CROSS CUT ON TOP OF CURB AT THE NORTHEAST END OF THE SOUTH HEADLIN PARKING FOR THE APPRAISAL DISTRICT BUILDING, 1.5' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 347' SOUTHEASTERLY FROM THE CENTER OF CAMPBELL RD.
N 7063150.979 E 2596609.421 ELEV. = 583.32'
SITE BM TWO, CROSS CUT IN SIDEWALK, 41' SOUTHWESTERLY FROM THE CENTER OF TOWNSHEND BLVD. & 995' SOUTHEASTERLY FROM THE CENTER OF ALDERS DRIVE.
N 7027744.149 E 2597313.129 ELEV. = 589.72'

NCTCOG STORMWATER DETAILS

ALDERS AT ROCKWALL
SENIOR INDEPENDENT LIVING COMMUNITY

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

7/17/19
5/17/19
2/21/19

STATE OF TEXAS
THOMAS A. LUNZMAN
122259
LICENSED
PROFESSIONAL ENGINEER

JOB NUMBER:	56211
DESIGNED BY:	TAL
DRAWN BY:	NRM/TAL
APPROVED BY:	TAL
CHECKED BY:	JTR
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SCALE:	NONE
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OF	23