LEGAL DESCRIPTION

LEGAL DESCRIPTION FOR LOT 2A-1. NORTHEAST PORTION OF BLACK RANCH: (AS PROVIDED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY) LOT 2A-1 OF THE NORTHEAST PORTION OF BLACK RANCH, BERNALILLO COUNTY, NEW MEXICO, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT THEREOF FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON MAY 5, 1995, IN VOLUME 95C, FOLIO 164 AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 1/2" REBAR FOUND FOR THE NORTHWEST CORNER OF SAID LOT 2A-1, A POINT ON THE EASTERLY RIGHT OF WAY LINE OF COORS BOULEVARD N.W.; THENCE SOUTH 57 DEG. 19'43" E, A MEASURED DISTANCE OF 270.47 FEET (SOUTH 57 DEG. 18'00" EAST 270.70 FEET OF RECORD) TO A 1/2" REBAR FOUND FOR THE NORTHEAST CORNER OF SAID LOT 2A-1, SAID POINT LYING ON THE WESTERLY RIGHT OF WAY LINE OF THE CORRALES ACEQUIA CANAL; THENCE SOUTH 41 DEG. 42'17" WEST ALONG SAID RIGHT OF WAY, A MEASURED DISTANCE OF 52.33 FEET (SOUTH 41 DEG. 41'06" WEST A DISTANCE OF 52.20 FEET OF RECORD) TO A FOUND 1/2" REBAR; THENCE SOUTH 43 DEG. 48'02" WEST, CONTINUING ALONG SAID RIGHT OF WAY, A MEASURED DISTANCE OF 159.71 FEET (SOUTH 41 DEG. 41'06" WEST A DISTANCE OF 159.84 FEET OF RECORD) TO A FOUND 1/2" REBAR; THENCE SOUTH 37 DEG. 22'13"WEST, CONTINUING ALONG SAID RIGHT OF WAY, A MEASURED DISTANCE OF 7.62 FEET (SOUTH 37 DEG. 07'39" WEST A DISTANCE OF 7.59 FEET OF RECORD) TO A 1/2" REBAR FOUND FOR THE SOUTHEAST CORNER OF SAID LOT 2A-1; THENCE NORTH 57 DEG. 18'46"WEST, A MEASURED DISTANCE OF 231.82 FEET (NORTH 57 DEG. 18'00" WEST A DISTANCE OF 231.68 FEET OF RECORD) TO A 5/8" REBAR WITH CAP SET FOR THE SOUTHWEST CORNER OF SAID LOT 2A-1, SAID POINT LIES ON THE EASTERLY RIGHT OF WAY LINE OF COORS BOULEVARD N.W. AND SAID POINT BEARS NORTH 32 DEG. 42'00" EAST A DISTANCE OF 182.23 FEET FROM A 1/2" REBAR FOUND FOR THE SOUTHWEST CORNER OF LOT 1A OF THE SAID NORTHEAST PORTION OF BLACK RANCH; THENCE NORTH 32 DEG. 42'00" EAST, ALONG SAID RIGHT OF WAY A DISTANCE OF 172.77 FEET TO A FOUND 1/2" REBAR FOR A POINT OF CURVATURE, THENCE A DISTANCE OF 43.16 FEET ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 1281.84 FEET, A CENTRAL ANGLE OF 1 DEG. 55'45" AND A CHORD BEARING OF NORTH 33 DEG. 54'17" EAST A DISTANCE OF 43.16 FEET (A DISTANCE OF 43.21 FEET ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 1281.84 FEET, A CENTRAL ANGLE OF 1 DEG. 55'53" AND A CHORD BEARING OF NORTH 33 DEG. 40'12" EAST A DISTANCE OF 43.21 FEET OF RECORD) TO THE POINT OF BEGINNING.

TOGETHER WITH

EASEMENTS FOR INGRESS/EGRESS AS SET FORTH IN THE CERTAIN RECIPROCAL EASEMENT AGREEMENT RECORDED IN BOOK MISC. 790A, PAGE 676 AS DOCUMENT NUMBER 89-81278, RECORDS OF BERNALILLO COUNTY, NEW MEX

BASIS OF ELEVATIONS

NAVD 88

BASIS OF BEARING

THE BASIS OF BEARINGS FOR THE PREMISES SURVEYED ARE NAD 83 NEW MEXICO CENTRAL ZONE GRID BEARINGS BEING BASED ON A LINE BETWEEN THE AGRS CONTROL STATIONS LISTED ABOVE BEARING = N34°50'06"E.

BENCHMARKS

SITE BENCH MARK 1: NEW MEXICO STATE HIGHWAY CONTROL STATION "NM448-N12" DATA FOUND STANDARD BRASS DISC NAD 83 NEW MEXICO CENTRAL ZONE STATE PLANE COORDINATES NORTHING: 1,528,973.229 US SURVEY FEET EASTING: 1,521,354.471 US SURVEY FEET ELEV. = 5,026.132 US SURVEY FEET (NAVD 1988) SITE BENCH MARK 2: AGRS STATION "8-B14 2003" DATA FOUND STANDARD 3 ¹/₄ INCH ALUMINUM DISC NAD 83 NEW MEXICO CENTRAL ZONE STATE PLANE COORDINATES NORTHING: 1,528,602.961 US SURVEY FEET EASTING: 1,521,096.792 US SURVEY FEET

FLOODPLAIN STATEMENT

ELEV. = 5,025.358 US SURVEY FEET (NAVD 1988)

AREA LIES WITHIN FLOOD ZONE X (OTHER AREAS). AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN ACCORDING TO THE FLOOD INSURANCE RATE MAP PER FIRM MARP PANEL 109 OR 825, MAP NO. 35001C0109H, MAP REVISED DATE 08/16/2021, BERNILILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS.

DRANINAGE CONDITIONS

EXISTING

THE EXISTING SITE IS A DEVELOPED LOT BORDERED BY COORS BLVD. AND THE CORRALES LATERAL. THE SITE CURRENTLY DRAINS DRAINS TO THE SOUTH EAST AND IS COLLECTS BY TWO AREA DRAINS. THESE AREA DRAINS ARE CONNECTED TO AN UNDERGROUND STORM DRAIN SYSTEM THAT DISCHARGERS TO A CONCRETE CHANNEL WHICH EVENTUALLY DRAINS TO THE CORRALES CANAL.

EXISING CONDITIONS SHOWN ARE PER SURVEY OF ACTUAL CONDITIONS AND THE COTTONNWOOD VILLAGE GRADING AND DRAINAGE PLAN PREPARED BY DMG CONSULTING ENGINEERS DATED 10/95 2. PROPOSED

THE PROPOSED SITE WILL MAINTAIN THE SAME SOUTH EAST DRAINAGE PATTERN AS THE EXISTING SITE. HOWEVER AFTER REVIEW, IT WAS DETERMINED THAT THE CURRENT STORM DRAIN SYSTEM OUTLET IS NOT FUNCTIONING IN AN ACCEPTABLE MANNER. THE PROPOSED SYSTEM IS AN UNDERGROUND DETENTION SYSTEM, CONSISTING OF TWO CHAMBERS, THAT DIRECTLY DISCHARGES INTO THE CORRALES LATERAL, A RESTRICTOR STRUCTURE AND OVERFLOW STRUCTURE. THE PROPOSED UNDERGROUND DETENTION SYSTEM ADDRESSES THE WATER QUALITY, STORAGE AND OUTLET REQUIREMENTS FOR ALL THREE LOTS

<u>100-Year Detention Volume Required</u>

Requirements:	Detention Allowable	n Volume Required for the 100-year event e Release Rate = 5.07 CFS		
Method:	Rational			
Watershed Area:	2.92	Acres (impervious)		
	0.32	_Acres (pervious)		
	3.24	Acres (total)		

Runoff Coefficients (C):

Runoff Coefficient (C_{como}) 0.87

Release Rate (Q_{out}):

5.07 Max Allow Rel Rate

Total Required Storage Volume

Storm Duration	Rainfall Intensity	Pond Inflow	Storage Rate	Required Storage	Required Storage
t	I	Q _{in} =CIA	\mathbf{Q}_{in} - \mathbf{Q}_{out}		
	100-yr				
hr	(in/hr)	cfs	cf	cf	ac-ft
0.08	6.46	18.21	13.14	3942	0.09
0.17	4.91	13.84	8.77	5262	0.12
0.20	4.58	12.91	7.84	5645	0.13
0.25	4.08	11.50	6.43	5788	0.13
0.50	2.74	7.72	2.65	4776	0.11
1.00	1.69	4.76	-0.31	-1102	-0.03
2.00	0.96	2.71	-2.36	-17020	-0.39
3.00	0.67	1.89	-3.18	-34359	-0.79
6.00	0.36	1.01	-4.06	-87593	-2.01

cfs

100-Yr Required Storage Volume =

				Orifice Sizing		
Storm	Max	Discharge	Orifice	Orifice	Orifice	
Event	Release	Coeff	Dia	Dia	Area	
	Rate					
	Q_{\circ}	C _d	D	D	А	
	cfs		in	ft	sf	
.00-yr	5.07	0.6	8	0.667	0.349	
Basin	Area	Land Treatn	nent A (C=0.34) %	Land Treatr	nent B (C=0.4)	

Basin	Area AC	Land Treatn	nent A (C=0.34) %	Land Treatr	ment B (C=0.47 %
Basin A	1.15	0	0	0	0
Basin B	1.21	0	0	0	0
Basin C	0.88	0	0	0	0
Total=	3.24				

Max. Allowable Discharge = 5.07 CFS Required Storage Volume = 5,788 CF

20' NEW MÉXICO UTILITY EASEMENT

O' NEW MEXI

(SEWER)

Max. 100-year Discharge = 3.76 CFS Total Volume Provided = 6,012 CF

Isolator Row Volume = 6,012 CF/2 = 3,006 CF Required Water Quality Volume Met at Elevation 5006.5 with culm. Volume of 975 CF

