



March 25, 2024
AVO 37449.004

Ms. Ramie Hammonds
Development Services Director/Building Official
City of Sanger
201 Bolivar Street
P.O. Box 1729
Sanger, Texas 76266

Re: **Lakeside Estates Final Plat and Drainage Study -Review #1**

Dear Ms. Hammonds,

Halff Associates, Inc. (Halff) was requested by the City of Sanger to review the final plat and drainage study in support of the engineering plans for the Lakeside Estates located near the intersection of McReynolds Road and FM 455 E. The subject tract is located within the City of Sanger's ETJ. The submittal was prepared by Kirkman Engineering and dated March, 2024. The preliminary plat and drainage comments were found acceptable by Halff in September 2023.

We have completed our review and offer the following comments. Please address comments on attached markups and in the Drainage Study and provide annotated responses on markups. Please note, not all comments are written on letter since some comments are easier to show and explain on the markups. Please annotate markup with responses. Please note, an accepted drainage study is required prior to plans acceptance.

Final Plat

1. Text is illegible in the vicinity map.
2. A small portion of the site lies within the floodplain. Revise plat and notes as such
3. Show centerline of existing street. Dimensions from centerline to edges of existing and proposed right-of-way on both sides of the centerline per ordinance 10.104(d)(10)(H).
4. Per the grading plans, additional drainage easements are required for swales.
5. Provide a drainage easement for the proposed pond including access.

Civil Plans

Cover

1. Provide drainage area maps for the proposed culverts along with drainage area calculations and hydraulic calculations.
2. Based on the grading plan, many properties will require driveway culverts for access. Provide calculations and sizes for each future driveway culvert.
3. Culverts shall meet the requirements outline in ordinance 10.106(d)(7).
4. Provide water and sanitary sewer plans.

Grading Plans

1. Proposed swales between properties do not have any proposed grading.

2. Add drainage easements to the plat for proposed swales.
3. Revise wall line style for clarity in the plans. The wall will require a Structural Engineer's approval.
4. Point discharges onto USACE property will require approval.
5. A maintenance agreement will be needed for any proposed pond.
6. Maintenance access must be provided for proposed detention areas.
7. Drainage easement is needed for proposed pond.
8. The Hillside Pond outfall plan is unclear. It appears this will direct concentrated flow onto the adjacent property. Clarify.

Paving Plans

1. Ditch profiles with 100-year HGL shall be shown on all road profiles.
2. Vertical curves do not meet minimum K values or minimum length throughout the paving plans. Reconcile.
3. It is suggested to round vertical curve lengths to whole numbers.
4. Provide missing ROW lines on Sunrise Drive.
5. Show all culvert crossings in the paving profiles.
6. Revise leaders on Hillside.
7. Provide vertical curves where the algebraic difference in grade is greater than 1%.

Culvert Plan and profiles

1. 100-year HGL shall be shown on all culvert profiles
2. A minimum of 2' of cover is desired for the sunrise culvert. Provide the class of concrete pipe to be used and/or deload calculations.
3. Provide drainage area maps for the proposed culverts along with drainage area calculations and hydraulic calculations.
4. Based on the grading plan, many properties will require driveway culverts for access. Provide calculations and sizes for each future driveway culvert.

If you have any questions or need additional information, please do not hesitate to call me at (214) 937-3928.

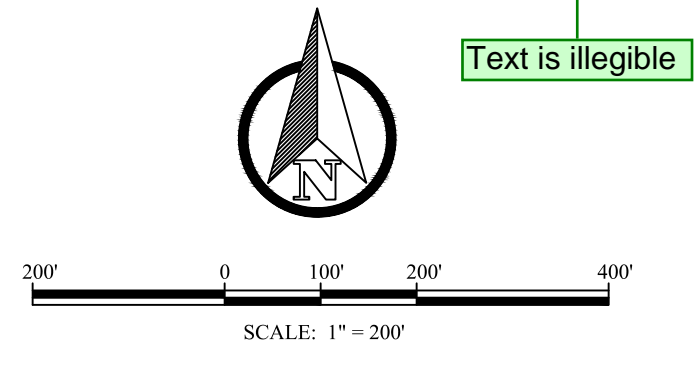
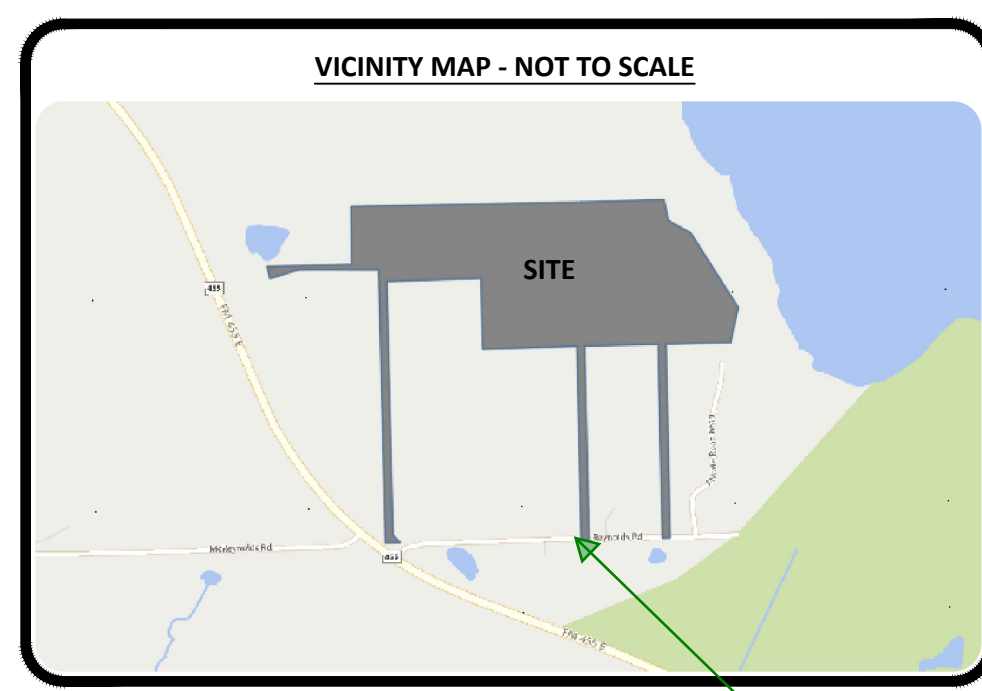
Sincerely,
HALFF
TBPELS Firm No. 312

A handwritten signature in black ink, appearing to read "Jamie Akomer".

Jamie Akomer, PE, PMP

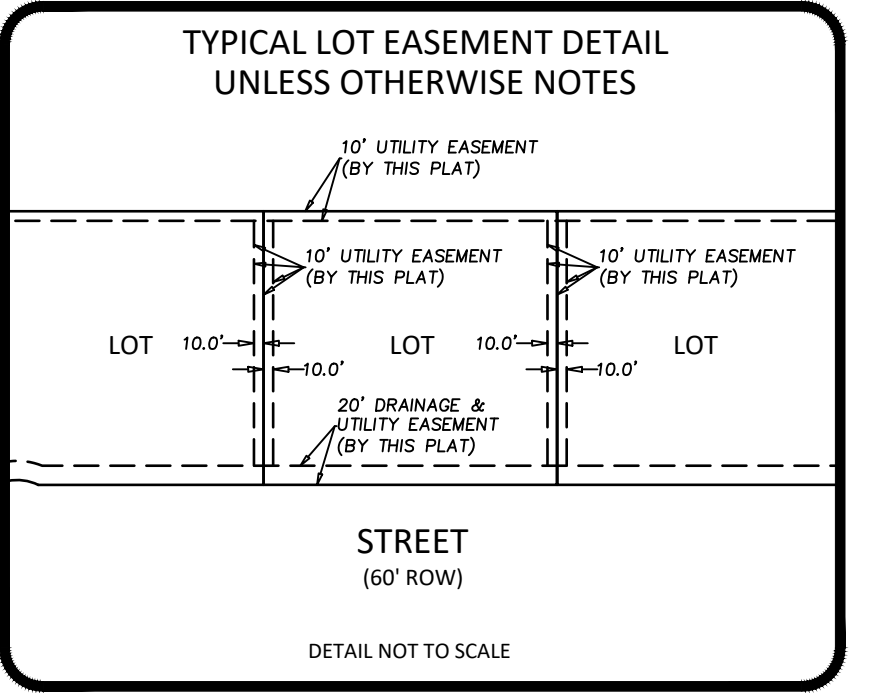
Attachments:

- Plans markups



- PLAT NOTES**
- 1) All lots comply with the minimum size requirements of the zoning district.
 - 2) This property may be subject to charges related to impact fees and the applicant should contact the City regarding any applicable fees due.
 - 3) All common areas, drainage easements, and detention facilities will be owned and maintained by the HOA/POA. Any common area within the City's right-of-way will require a facilities agreement, to be reviewed and approved by the City.
 - 4) Notice - selling a portion of this addition by metes and bounds is a violation of City ordinance and State Law and is subject to fines and withholding of utilities and building permits.
 - 5) This plat does not alter or remove existing deed restrictions, if any, on this property.
 - 6) Minimum finished floor elevations are at least 2 feet above the 100 year flood plain.
 - 7) The subject property does not lie within a 100 - year floodplain according to Community Panel No. 481210230G, date April 18, 2011, of the National Flood Insurance Rate Maps for Denton County, Texas.
 - 8) The purpose of the plat is to subdivide the subject tract for future development.
 - 9) Bearings are based on State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83).

- SURVEYOR'S NOTES:**
1. Bearings are based on the State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83), distances are surface with a combined scale factor of 1.00015063.
 2. This property lies within Zone "X" of the Flood Insurance Rate Map for Denton County, Texas and Incorporated Areas, map no. 481210230G, with an effective date of April 18, 2011, via scaled map location and graphic plotting.
 3. Monuments are found unless specifically designated as set.



CERTIFICATE OF APPROVAL CITY OF SANGER

APPROVED AND ACCEPTED _____

CHAIRMAN, PLANNING & ZONING COMMISSION
CITY OF SANGER _____ DATE _____

MAYOR, CITY OF SANGER _____ DATE _____

CITY SECRETARY, CITY OF SANGER _____ DATE _____

CERTIFICATE OF APPROVAL DENTON COUNTY

REVIEWED AND APPROVED ON _____

COUNTY JUDGE, DENTON COUNTY, TEXAS _____

STATE OF TEXAS §
COUNTY OF DENTON §

WHEREAS AUSTIN LANDS, LLC is the owner of a tract of land out of the C. Manchaca Survey, Abstract Number 790, in Denton County, Texas, said tract being conveyed by deed to Austin Lands, LLC as recorded under Document Number 2023-11966, Official Public Records, Denton County, Texas, (O.P.R.D.C.T.) and being previously described as all of "Tract 1" and "Tract 2" of that tract of land described by deed to Ryan G. Williams and Amber N. Williams as recorded under Document Number 2017-151962, (O.P.R.D.C.T.), the subject tract being more particularly described by metes and bounds as follows (bearings are based on State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83')):

BEGINNING at a 1/2 inch rebar with an illegible cap for the southernmost southwest corner of said "Tract 1" and the herein described tract;

THENCE with the perimeter and to the corners of said Tract 1, the following calls:

1. North 01 degrees 23 minutes 13 seconds East, a distance of 2,154.80 feet to a 3 inch metal fence corner post found;
2. North 89 degrees 48 minutes 23 seconds West, a distance of 547.06 feet to a 1/2 inch rebar found;
3. South 88 degrees 52 minutes 40 seconds West, a distance of 91.01 feet to a 1/2 inch rebar with an illegible cap found;
4. South 72 degrees 31 minutes 56 seconds West, a distance of 228.19 feet to a point from which an 11 inch hackberry serving as a corner for a wire fence bears South 25 degrees West, a distance of 0.70 feet;
5. North 13 degrees 45 minutes 44 seconds West, a distance of 98.90 feet to a point from which a T-post fence corner found bears North 26 degrees West, a distance of 3.70 feet;
6. North 88 degrees 41 minutes 53 seconds East, a distance of 666.82 feet to a point from which a 3 inch metal fence corner post found bears South 01 degrees West, a distance of 1.11 feet;
7. North 00 degrees 37 minutes 37 seconds West, a distance of 456.94 feet to a point from which a 3 inch metal fence corner post found bears South 01 degrees West, a distance of 1.50 feet;
8. North 88 degrees 53 minutes 46 seconds East, a distance of 1,104.96 feet;
9. North 88 degrees 56 minutes 51 seconds East, a distance of 706.65 feet to a point for the northeast corner of said "Tract 1", same being the northwest corner of said "Tract 2";

THENCE with the perimeter and to the corners of said "Tract 2", the following calls:

1. North 88 degrees 20 minutes 48 seconds East, a distance of 650.68 feet to a United State Army Corp of Engineers concrete monument found;
2. South 11 degrees 58 minutes 16 seconds East, a distance of 167.26 feet to point from which a 5 inch wood post found bears North 65 degrees East, a distance of 1.29 feet;
3. South 61 degrees 06 minutes 38 seconds East, a distance of 201.89 feet to a 1/2 inch rebar with cap stamped, "METROPLEX" found;
4. South 32 degrees 24 minutes 33 seconds East, a distance of 696.71 feet to a point from which a 7 inch wood post found bears North 47 degrees West, a distance of 0.54 feet;
5. South 12 degrees 23 minutes 06 seconds West, a distance of 283.05 feet to a 1/2 inch rebar with cap stamped, "H&H" found;
6. South 88 degrees 45 minutes 17 seconds West, a distance of 508.83 feet to a point from which a nail found in a 4 inch wood post bears South 03 degrees East, a distance of 0.86 feet;
7. South 01 degrees 14 minutes 43 seconds East, a distance of 1,529.72 feet to a "PK" nail found in asphalt;
8. South 88 degrees 40 minutes 15 seconds West, a distance of 60.05 feet to a "PK" nail found in asphalt;
9. North 01 degrees 14 minutes 54 seconds West, a distance of 1,529.52 feet to a 1/2 inch rebar with an illegible cap found;
10. South 88 degrees 41 minutes 03 seconds West, a distance of 579.63 feet to a 1/2 inch rebar with an illegible cap found for the westernmost southwest corner of said "Tract 2", same being a re-entrant corner of said "Tract 1";

THENCE with the perimeter and to the corners of said "Tract 1", the following calls:

1. South 01 degrees 13 minutes 43 seconds East, a distance of 508.75 feet to a 1/2 inch rebar found;
2. South 01 degrees 17 minutes 52 seconds East, a distance of 1,019.71 feet to a "PK" nail found in asphalt;
3. South 88 degrees 08 minutes 46 seconds West, a distance of 60.00 feet to a "PK" nail found in asphalt;
4. North 01 degrees 17 minutes 52 seconds West, a distance of 1,528.45 feet to a 1/2 inch rebar found;
5. South 88 degrees 08 minutes 48 seconds West, a distance of 742.21 feet to a point from which a wood post found bears North 49 degrees East, a distance of 1.01 feet;
6. North 01 degrees 17 minutes 52 seconds West, a distance of 557.90 feet to a point from which a 5 inch wood post found

bears South 06 degrees West, a distance of 0.81 feet;

7. South 88 degrees 08 minutes 48 seconds West, a distance of 743.08 feet to a point from which a 3 inch metal post found bears South 31 degrees East, a distance of 0.59 feet;
8. South 01 degrees 23 minutes 13 seconds East, a distance of 2,001.67 feet to a 1/2 inch rebar with an illegible cap found;
9. South 46 degrees 33 minutes 46 seconds East, a distance of 84.59 feet to a 1/2 inch rebar with an illegible cap found;
10. South 88 degrees 15 minutes 42 seconds West, a distance of 120.00 feet, returning to the **POINT OF BEGINNING** and enclosing 68.028 acres (2,963,298 square feet) of land, more or less.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS THAT AUSTIN LANDS, LLC does hereby adopt this final plat designated herein as **LAKE SIDE ESTATES, LOTS 1-12 & LOT 13X, BLOCK A; LOTS 1-4 & LOT 5X, BLOCK B; AND LOTS 1-7 & LOT 8X, BLOCK C**, or easements for sidewalks, storm drainage facilities, utilities and any other property necessary to serve the plat and to implement the requirements of the subdivision regulations and other City codes and do hereby bind ourselves, our heirs, successors and assigns to warrant and to forever defend the title on the land so dedicated. Further, the undersigned covenants and agrees that he/she shall maintain all easements and facilities in a state of good repair and functional condition at all times in accordance with City codes and regulations. No buildings, fences, trees, shrubs, or other improvements or growths shall be constructed or placed upon, over, or across the easements as shown, except that landscape improvements may be installed, if approved by the City of Sanger. The City of Sanger and public utility entities shall have the right to access and maintain all respective easements without the necessity at any time of procuring permission from anyone.

WITNESS, my hand, this _____ day of _____, 20____.

AUSTIN LANDS, LLC (OWNER) _____
(authorized signatory/title)

STATE OF TEXAS §
COUNTY OF _____ §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared _____, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____ day of _____, 20____.

Notary Public in and for the State of Texas

SURVEYOR'S CERTIFICATE

This is to certify that I, John H. Barton III, a Registered Professional Land Surveyor of the State of Texas, have prepared this map from an actual survey on the ground, and that this map correctly represents that survey made by me or under my direction and supervision.

John H. Barton III, RPLS# 6737
STATE OF TEXAS §
COUNTY OF _____ §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared _____, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____ day of _____, 20____.

Notary Public in and for the State of Texas

Text is illegible

NA small area within floodplain

grading plan suggests there are swales between lots, however no grading is provided. Reconcile and dedicate drainage easement for the swales

These areas denote needing clarification. Are these swales? If so dedicate drainage easements

Provide a drainage easement for the proposed pond including access

Show centerline of existing street. Dimensions from centerline to edges of existing and proposed right-of-way on both sides of the centerline 10.104(d)(10)(H)

Line Data Table

Line #	Distance	Bearing
L1	34.00'	S88°53'46"W

Curve Data Table

Curve #	Arc	Radius	Delta	Chord Bearing	Chord
C1	61.45'	39.00'	090°16'59"	N43°45'16"E	55.29'
C2	235.62'	150.00'	090°00'00"	S46°06'14"E	212.13'
C3	206.10'	290.00'	040°43'08"	N88°32'12"E	201.79'
C4	164.93'	105.00'	090°00'00"	S86°49'23"E	148.49'
C5	109.76'	155.00'	040°34'29"	S21°32'08"E	107.49'
C6	33.18'	180.00'	010°33'45"	S06°23'06"E	33.14'
C7	32.57'	180.00'	010°22'07"	S06°28'55"E	32.53'
C8	13.52'	9.00'	086°04'19"	S41°55'55"W	12.28'

- LEGEND OF ABBREVIATIONS**
- D.R.D.C.T. DEED RECORDS, DENTON COUNTY, TEXAS
 - P.R.D.C.T. PLAT RECORDS, DENTON COUNTY, TEXAS
 - O.P.R.D.C.T. OFFICIAL PUBLIC RECORDS, DENTON COUNTY, TEXAS
 - DOC.# DOCUMENT NUMBER
 - C.M. CONTROLLING MONUMENT
 - SQ. FT. SQUARE FEET
 - ROW RIGHT OF WAY
 - CRS CAPPED REBAR SET

**FINAL PLAT
LAKE SIDE ESTATES
LOTS 1-12 & LOT 13X, BLOCK 1;
LOTS 1-4 & LOT 5X, BLOCK B;
LOTS 1-7 & LOT 8X, BLOCK C
(3 TOTAL HOA/OPEN SPACE LOTS)
68.028 ACRES SITUATED IN THE
C. MANCHACA SURVEY, ABSTRACT #790
8.070 ACRES DEDICATED AS PUBLIC RIGHT-OF-WAY
CITY OF SANGER, EXTRATERRITORIAL JURISDICTION
DENTON COUNTY COUNTY, TEXAS
PREPARED FEBRUARY 13, 2024**

ENGINEER/PREPARER

5200 State Highway 121
Colleyville, TX 76034
Phone: 817-488-4960
Contact: Jeremy Nelson

SURVEYOR

BARTON CHAPA SURVEYING

5200 State Highway 121
Colleyville, TX 76034
Phone: 817-864-1957
info@bcdfw.com
TBPLS Firm #10194474

OWNER

AUSTIN LANDS, LLC
803 WEST SOUTHLAKE BOULEVARD, STE. 100
SOUTHLAKE, TX 76092
PH: 312.206.8673

JOB NO. 2022.001.293
DRAWN: BCS
CHECKED: JHB

TABLE OF REVISIONS

DATE	SUMMARY

SANGER 68

DENTON COUNTY TEXAS

PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND NOT INTENDED FOR THE PURPOSES OF CONSTRUCTION, BIDDING OR PERMIT. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF: JEREMY B. NELSON P.E.# 138740 DATE: 03/13/2024

AUSTIN LANDS, LLC

803 W SOUTHLAKE BLVD, SUITE 100 SOUTHLAKE, TX 76092 312-206-8673

LAKESIDE ESTATES TRACTS 1 & 2 (68.0 AC.) C. MANCHACA SURVEY ABS. NO. 790 CITY OF SANGER ETJ DENTON COUNTY, TEXAS

REV.	DATE	DESCRIPTION

KE
kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121 COLLEYVILLE, TX 76034 TEXAS FIRM NO. 15874

JOB NUMBER: SR322002
ISSUE DATE: 03/13/2024

LOT GRADING PLAN

SHEET:
C2.3

LEGEND	
PROPOSED CONTOUR	500
EXISTING CONTOUR	500
GRADE BREAK	---
PROPOSED SWALE	---
PROPOSED FINISHED GRADE	FG 700.00
PROPOSED TOP OF CURB/GUTTER	TC 700.50 G 700.00
PROPOSED TOP OF WALL/ BOTTOM OF WALL	TW 700.00 BW 699.00
PROPOSED TOP OF INLET	TI 700.00
EXISTING SPOT GRADE	EX 700.5+
EXISTING TOP OF CURB/GUTTER	TC 700.5+ G 700.0+
PROPOSED FINISHED FLOOR & PAD ELEVATION	FFE = XXX.XX FP = XXX.XX
PROPOSED DRAINAGE FLOW ARROW	→
EXISTING DRAINAGE FLOW ARROW	→
PROPERTY BOUNDARY	---

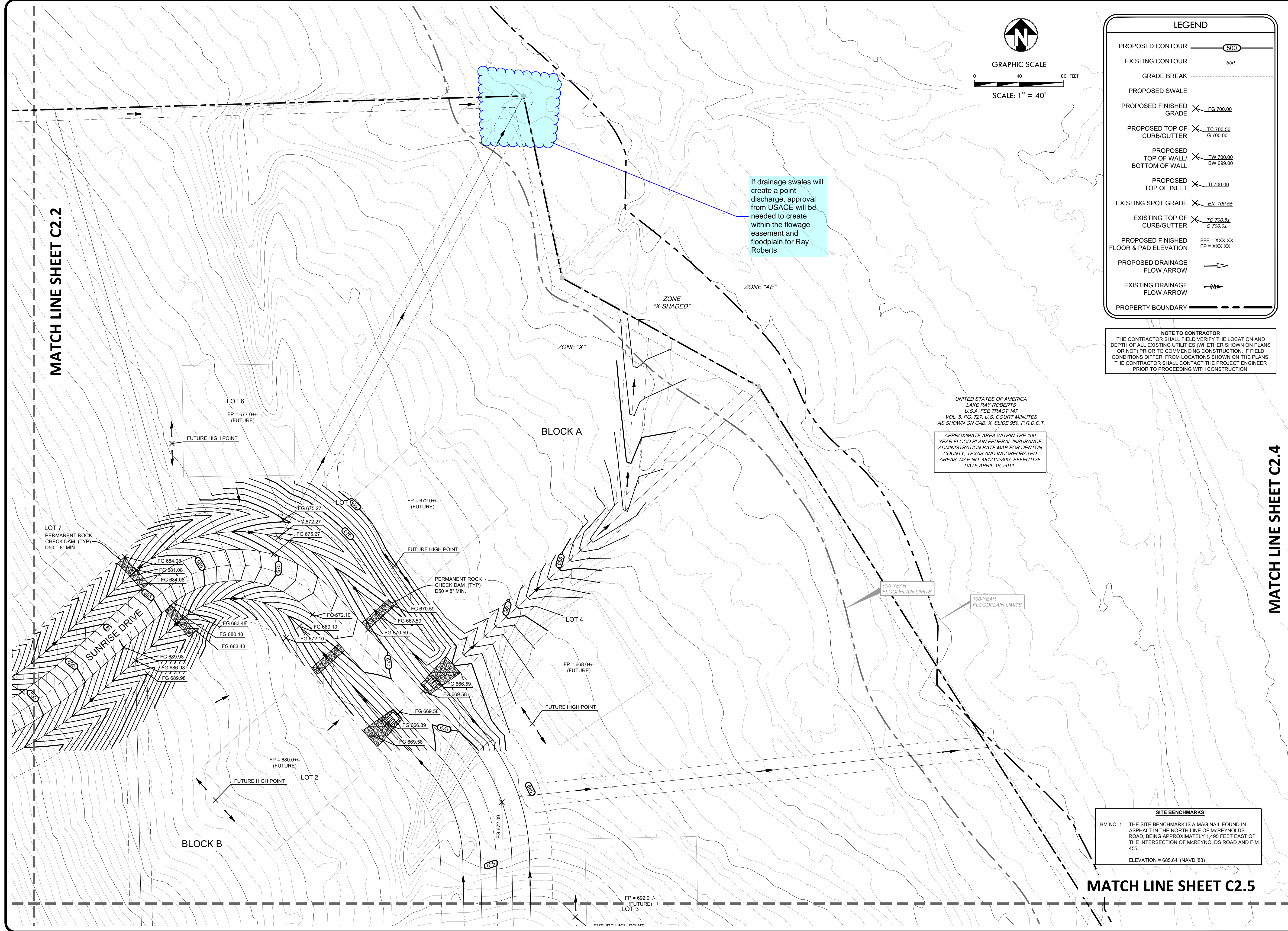
NOTE TO CONTRACTOR
THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES (WHETHER SHOWN ON PLANS OR NOT) PRIOR TO COMMENCING CONSTRUCTION. IF FIELD CONDITIONS DIFFER FROM LOCATIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

UNITED STATES OF AMERICA
LAKE RAY ROBERTS
U.S.A. FEE TRACT 147
VOL. 5, PG. 727, U.S. COURT MINUTES
AS SHOWN ON CAB. X, SLIDE 959, P.R.D.C.T.

APPROXIMATE AREA WITHIN THE 100 YEAR FLOOD PLAIN FEDERAL INSURANCE ADMINISTRATION RATE MAP FOR DENTON COUNTY, TEXAS AND INCORPORATED AREAS, MAP NO. 491210230G, EFFECTIVE DATE APRIL 18, 2011.

SITE BENCHMARKS
BM NO. 1 THE SITE BENCHMARK IS A MAG NAIL FOUND IN ASPHALT IN THE NORTH LINE OF McREYNOLDS ROAD, BEING APPROXIMATELY 1,495 FEET EAST OF THE INTERSECTION OF McREYNOLDS ROAD AND F.M. 455.
ELEVATION = 685.64' (NAVD '83)

If drainage swales will create a point discharge, approval from USACE will be needed to create within the flowage easement and floodplain for Ray Roberts



MATCH LINE SHEET C2.2

MATCH LINE SHEET C2.4

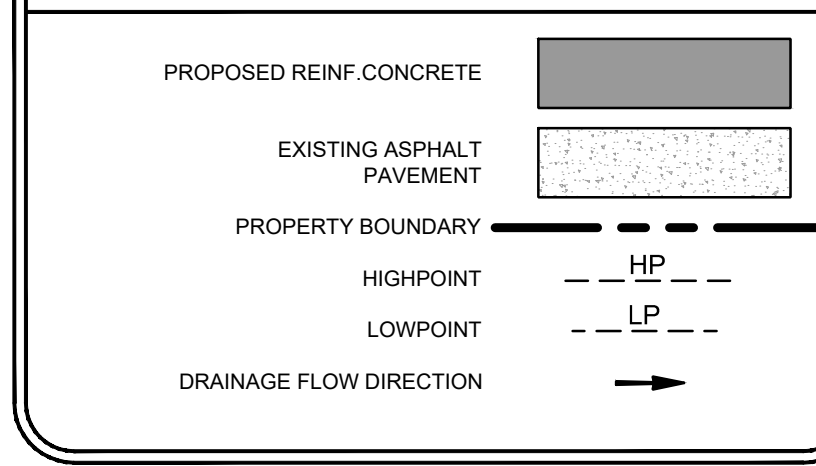
MATCH LINE SHEET C2.5

PLANS: GRADING PLAN, 03/20/2024, PLOTTED BY: JEREMY B. NELSON, PLOTTED DATE: 3/22/2024

PAVING NOTES

1. PAVING RECOMMENDATIONS ARE MADE BY XXX REPORT No. XXX DATED XXX 2022.
2. CONTRACTOR SHALL OBTAIN A COPY OF SAID GEOTECHNICAL ENGINEERING REPORT AND FAMILIARIZE THEMSELVES PRIOR TO BIDDING AND CONSTRUCTING THE IMPROVEMENTS OF THE PROJECT.
3. ALL PROPOSED PUBLIC PAVEMENT TO BE PER THE CITY OF SANGER STANDARDS & SPECIFICATIONS.
4. REFER TO SHEET C6.0 FOR PAVING DETAILS.

LEGEND



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SITE BENCHMARKS

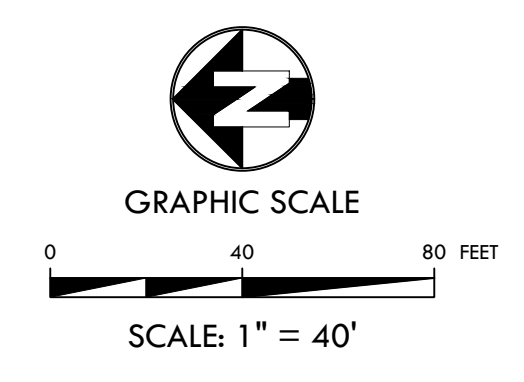
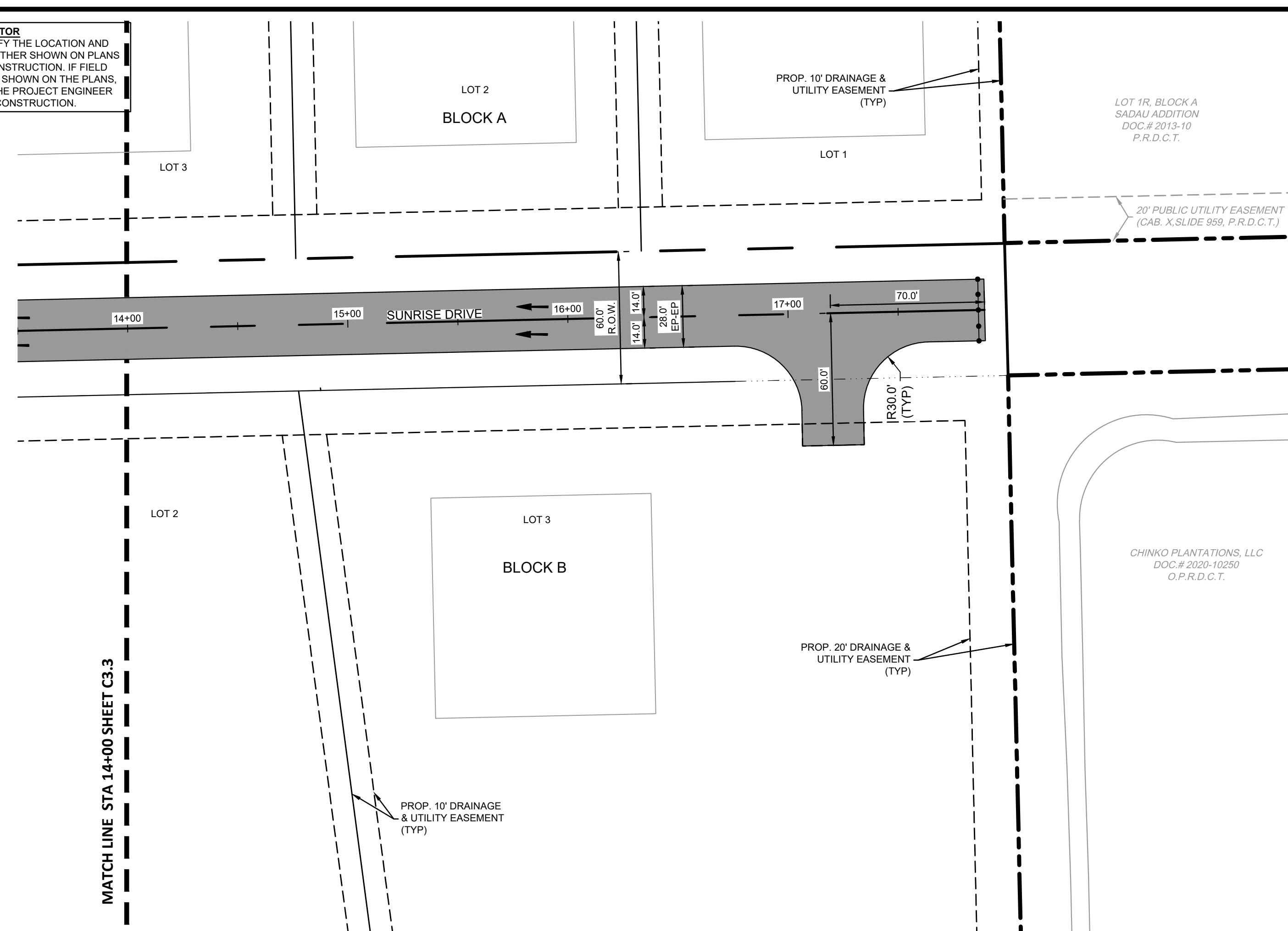
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JEREMY B. NELSON
P.E.# 138740
DATE: 03/13/2024

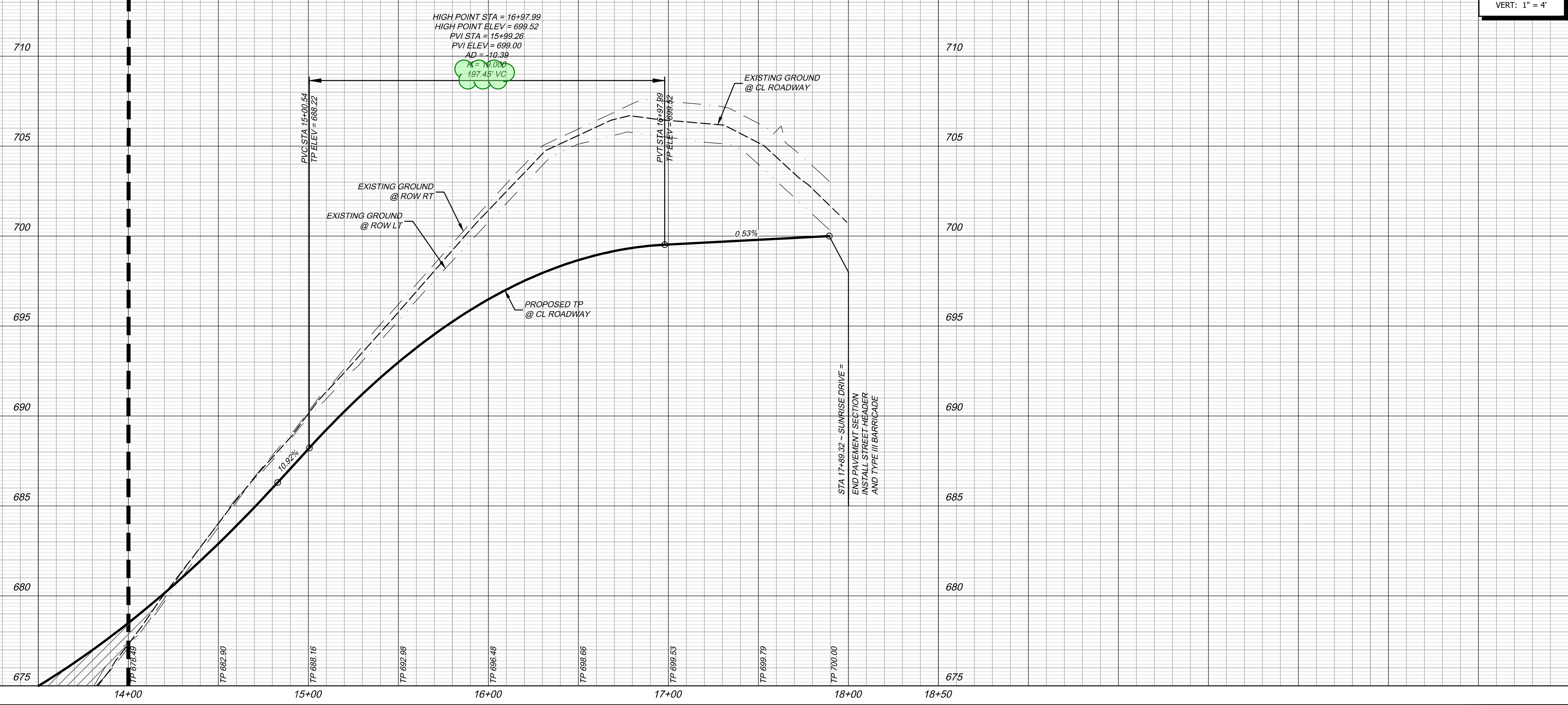
AUSTIN LANDS, LLC

803 W SOUTHLAKE BLVD, SUITE 100
SOUTHLAKE, TX 76092
312-206-8673

LAKESIDE ESTATES
TRACTS 1 & 2
(68.0 AC.)
C. MANCHACA SURVEY
ABS. NO. 790
CITY OF SANGER ETJ
DENTON COUNTY, TEXAS



SUNRISE DRIVE [STA 14+00 - STA 18+50]



PROFILE SCALE
HORIZ: 1" = 40'
VERT: 1" = 4'

REV.	DATE	DESCRIPTION

JOB NUMBER: SR322002
ISSUE DATE: 03/13/2024

**SUNRISE DRIVE
PLAN & PROFILE
STA 14+00 TO 18+50**

SHEET:
C3.5

FULL PATH: K:\Users\jordan\OneDrive\Documents\Projects\SR322002\11000\Drawings\02_Elev\03_Productions\Profile\Revised\SR322002_PAVING PLAN & PROFILE_C3.5.dwg
 FILENAME: C:\Paving Plan & Profile_C3.5.dwg

