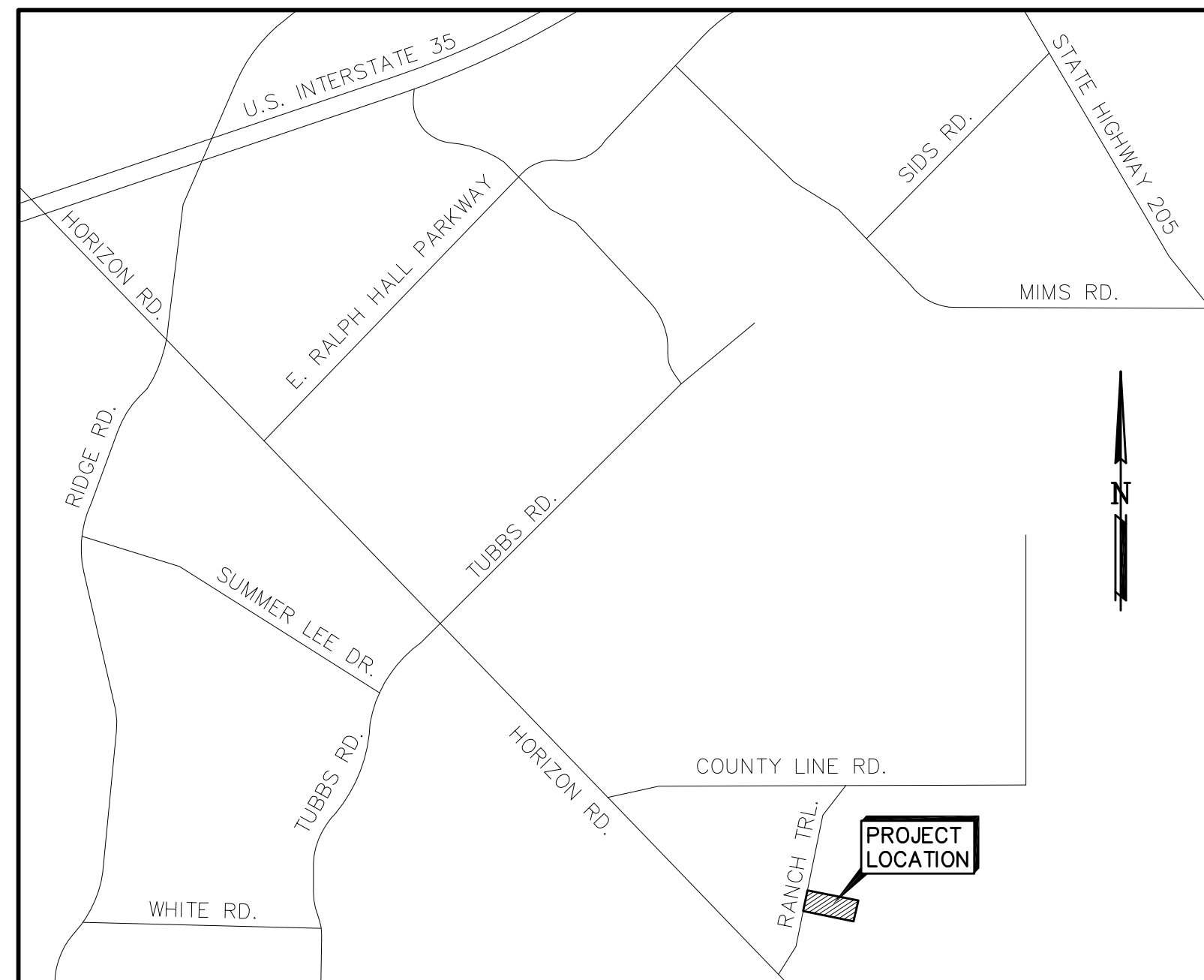


**R.D. MOORMAN, INC.**  
**RAINBO ACRES - LOT 22**  
**259 RANCH TRAIL**  
**ROCKWALL, TEXAS 75032**

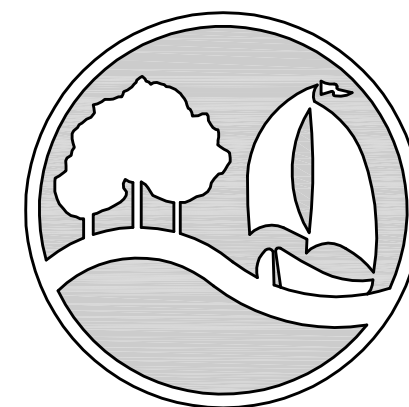
**SITE IMPROVEMENTS**  
**OCTOBER 2019**

**SHEET INDEX**

- 1 COVER SHEET
- 2 SITE PLAN
- 3 LANDSCAPE PLAN
- 4 DIMENSIONAL CONTROL PLAN
- 5 GRADING PLAN
- 6 DRAINAGE AREA MAP
- 7 UTILITY PLAN
- 8 PAVING PLAN
- 9 EROSION CONTROL PLAN



**VICINITY MAP**  
 N.T.S.



**City of Rockwall**  
 The New Horizon

PREPARED BY :

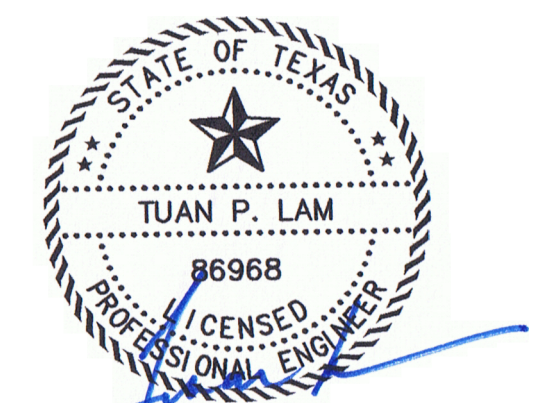
**LAM CONSULTING ENGINEERING**  
 6804 WILHELMINA DRIVE  
 SACHSE, TEXAS 75048  
 (214) 766-1011  
 www.lamcivil.com  
 Firm# F-9763

**NOTE:**  
 CITY OF ROCKWALL ENGINEERING DEPARTMENT LATEST STANDARD DETAILS AND NCTCOG 4TH EDITION SHALL BE USED FOR CONSTRUCTION OF THIS PROJECT UNLESS OTHERWISE NOTED WITHIN THESE PLANS. THE CONTRACTOR SHALL OBTAIN THE STANDARD DETAIL BOOK FROM THE CITY'S ENGINEERING DEPARTMENT.

**R.D. MOORMAN, INC.**  
 259 RANCH TRAIL  
 ROCKWALL, TEXAS 75032  
 (972) 722-2408

**AS-BUILT PLANS**  
 TO THE BEST OF OUR KNOWLEDGE LAM CONSULTING ENGINEERING, HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON THE CITY INSPECTOR INFORMATION AND SITE VISIT ON 11/15/2022

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.



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TUAN P. LAM, P.E. 86968 ON 10/16/19. ALTERATION OF A SEALED DOCUMENT WITHOUT THE PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

SURVEY INFORMATION ON THIS DRAWING WAS PROVIDED BY OTHERS. LAM CONSULTING ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF THE TOPOGRAPHIC MAPPING NOR BENCHMARK DATUM.

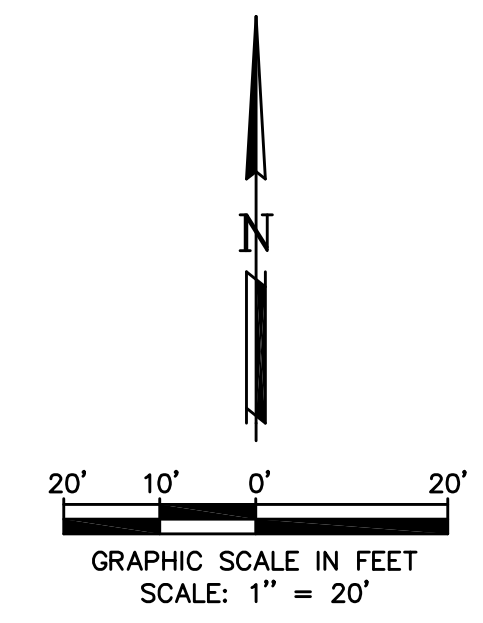
THE INFORMATION SHOWN ON THIS PLAN IS FROM RECORD DRAWINGS. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION SHOWN ON THIS DRAWING. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES AND CONTACT ALL UTILITY COMPANIES 48 HRS PRIOR TO ANY EXCAVATION. 1-800-DIG TESS

R.D. MOORMAN, INC.  
 259 RANCH TRAIL - ROCKWALL, TEXAS  
 RAINBO ACRES  
 LAM CONSULTING ENGINEERING  
 PROJECT #0643-19

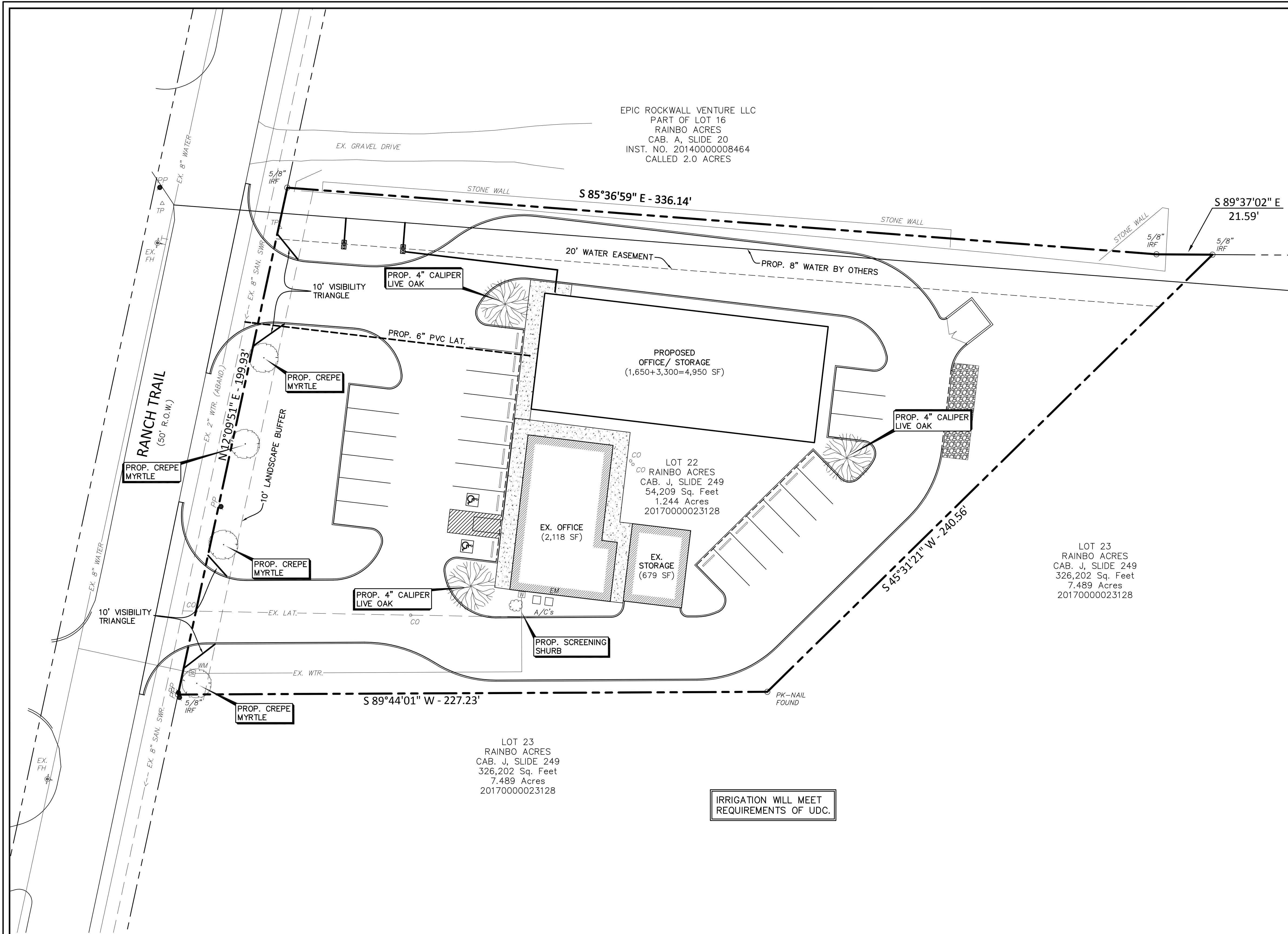








EPIC ROCKWALL VENTURE LLC  
PART OF LOT 16  
RAINBO ACRES  
CAB. A, SLIDE 20  
INST. NO. 2014000008464  
CALLED 2.0 ACRES



**SITE DATA**

LOT AREA	54,210 SF ~ 1.244 AC
ZONING	COMMERCIAL
IMPERVIOUS AREA - BUILDING	7,747 SF
IMPERVIOUS AREA - PAVING	24,100 SF
TOTAL IMPERVIOUS AREA	31,847 SF (58.75%)
LANDSCAPE AREA	22,363 SF (41.25%)

**LANDSCAPE TABLE**

1 TREE PER 50' OF FRONTAGE	200'/50 = 4 TREES
1 TREE PER 20,000 SF PARKING	4,680/20,000 = 1 TREE
TOTAL TREE REQUIRED	5 TREES
TOTAL TREE PROVIDED	3 TREES (LIVE OAK)
	4 TREES (CREPE MYRTLE)
TOTAL LANDSCAPE REQUIRED	5,421 SF (10.0%)
TOTAL LANDSCAPE PROVIDED	22,363 SF (41.25%)

LOT 23  
RAINBO ACRES  
CAB. J, SLIDE 249  
326,202 Sq. Feet  
7.489 Acres  
20170000023128

LOT 22  
RAINBO ACRES  
CAB. J, SLIDE 249  
54,209 Sq. Feet  
1.244 Acres  
20170000023128

LOT 23  
RAINBO ACRES  
CAB. J, SLIDE 249  
326,202 Sq. Feet  
7.489 Acres  
20170000023128

IRRIGATION WILL MEET  
REQUIREMENTS OF UDC.

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.



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED  
BY TUAN P. LAM, P.E. 86968 ON 10/16/19. ALTERATION OF  
A SEALED DOCUMENT WITHOUT THE PROPER NOTIFICATION TO  
THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE  
TEXAS ENGINEERING PRACTICE ACT.

OWNER:  
R.D. MOORMAN, INC.  
259 RANCH TRAIL  
ROCKWALL, TEXAS 75032  
(972) 722-2408

**AS-BUILT PLANS**  
TO THE BEST OF OUR KNOWLEDGE LAM CONSULTING  
ENGINEERING, HEREBY STATES THAT THIS PLAN IS  
AS-BUILT. THIS INFORMATION PROVIDED IS BASED  
ON THE CITY INSPECTOR INFORMATION AND SITE VISIT  
ON 11/15/2022

SURVEY INFORMATION ON THIS DRAWING WAS  
PROVIDED BY OTHERS. LAM CONSULTING ENGINEERING  
IS NOT RESPONSIBLE FOR THE ACCURACY OF THE  
TOPOGRAPHIC MAPPING NOR BENCHMARK DATUM.

THE INFORMATION SHOWN ON THIS PLAN IS FROM  
RECORD DRAWINGS. THE ENGINEER IS NOT  
RESPONSIBLE FOR THE ACCURACY OF THE  
INFORMATION SHOWN ON THIS DRAWING.  
CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES  
AND CONTACT ALL UTILITY COMPANIES 48 HRS  
PRIOR TO ANY EXCAVATION. 1-800-DIG TESS

CASE# SP2019-031

**LANDSCAPE PLAN**

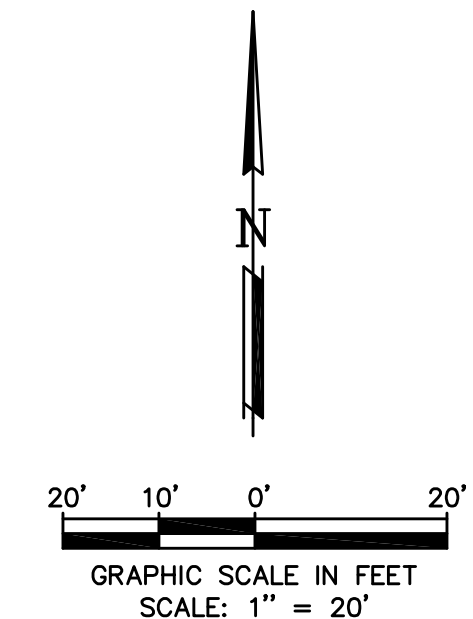
**RAINBO ACRES - LOT 22**  
**R.D. MOORMAN, INC.**  
**259 RANCH TRAIL**  
**ROCKWALL, TEXAS 75032**

**LAM CONSULTING ENGINEERING**  
6804 WILHELMINA DRIVE  
SACHSE, TEXAS 75048  
Phone (214) 766-1011  
www.lamcivil.com  
Firm #F-9763

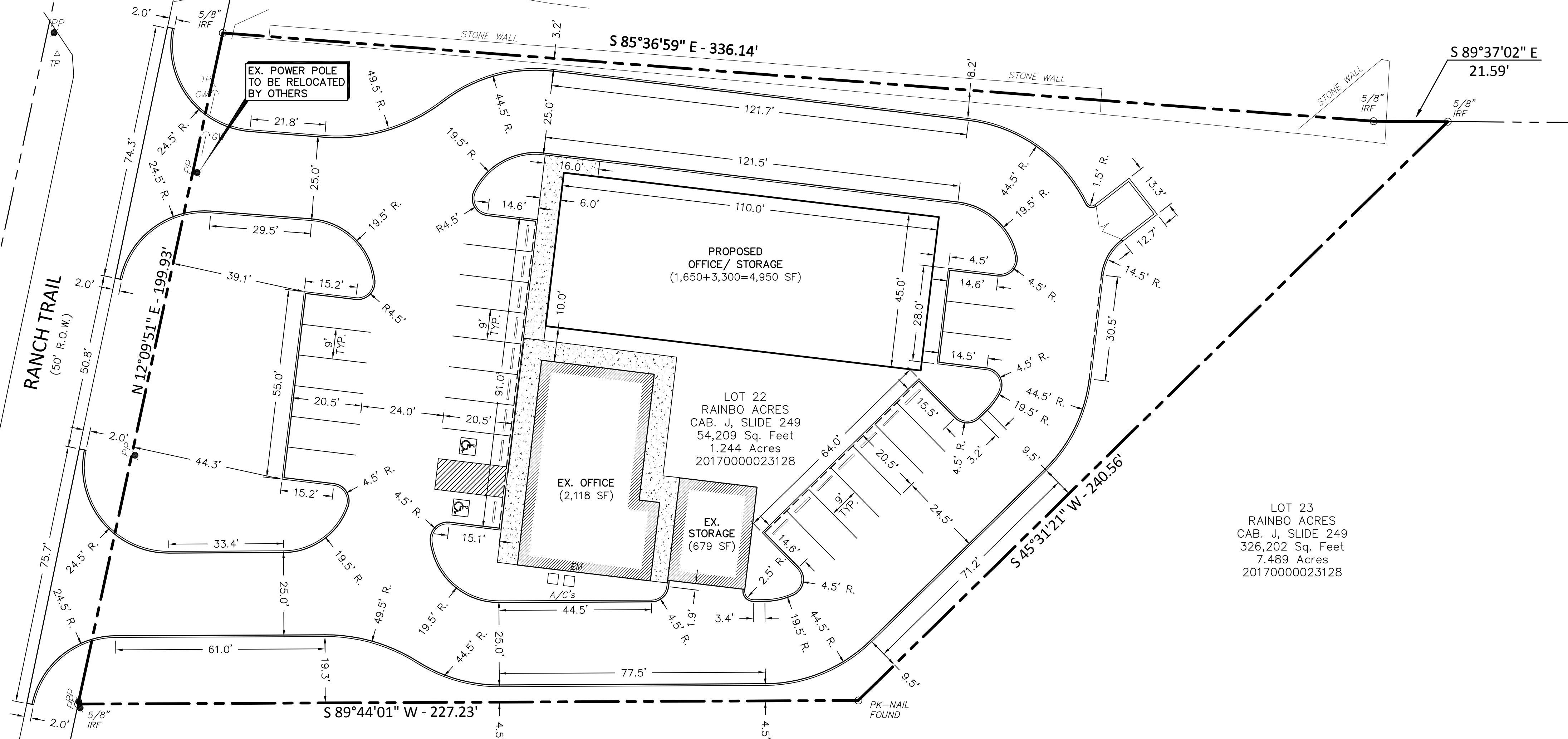
DESIGN: LCE	CHECK: LCE	SCALE: AS NOTED
DRAWN: CTL	DATE: AUGUST 2019	PROJECT: 0643-19

3 of 9





EPIC ROCKWALL VENTURE LLC  
 PART OF LOT 16  
 RAINBO ACRES  
 CAB. A, SLIDE 20  
 INST. NO. 2014000008464  
 CALLED 2.0 ACRES



LOT 23  
 RAINBO ACRES  
 CAB. J, SLIDE 249  
 326,202 Sq. Feet  
 7.489 Acres  
 20170000023128

ALL DIMENSIONS ARE FROM  
 THE BACK OF THE CURB,  
 UNLESS OTHERWISE NOTED.

LOT 23  
 RAINBO ACRES  
 CAB. J, SLIDE 249  
 326,202 Sq. Feet  
 7.489 Acres  
 20170000023128

**AS-BUILT PLANS**  
 TO THE BEST OF OUR KNOWLEDGE LAM CONSULTING  
 ENGINEERING, HEREBY STATES THAT THIS PLAN IS  
 AS-BUILT. THIS INFORMATION PROVIDED IS BASED  
 ON THE CITY INSPECTOR INFORMATION AND SITE VISIT  
 ON 11/15/2022

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.



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED  
 BY TUAN P. LAM, P.E. 86968 ON 10/16/19. ALTERATION OF  
 A SEALED DOCUMENT WITHOUT THE PROPER NOTIFICATION TO  
 THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE  
 TEXAS ENGINEERING PRACTICE ACT.

CONTRACTOR SHALL PAY ALL PERMIT FEES  
 AND WILL SETUP PRE-CONSTRUCTION  
 MEETING PRIOR TO COMMENCING ANY WORK.

SURVEY INFORMATION ON THIS DRAWING WAS  
 PROVIDED BY OTHERS. LAM CONSULTING ENGINEERING  
 IS NOT RESPONSIBLE FOR THE ACCURACY OF THE  
 TOPOGRAPHIC MAPPING NOR BENCHMARK DATUM.

THE INFORMATION SHOWN ON THIS PLAN IS FROM  
 RECORD DRAWINGS. THE ENGINEER IS NOT  
 RESPONSIBLE FOR THE ACCURACY OF THE  
 INFORMATION SHOWN ON THIS DRAWING.  
 CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES  
 AND CONTACT ALL UTILITY COMPANIES 48 HRS  
 PRIOR TO ANY EXCAVATION. 1-800-DIG TESS

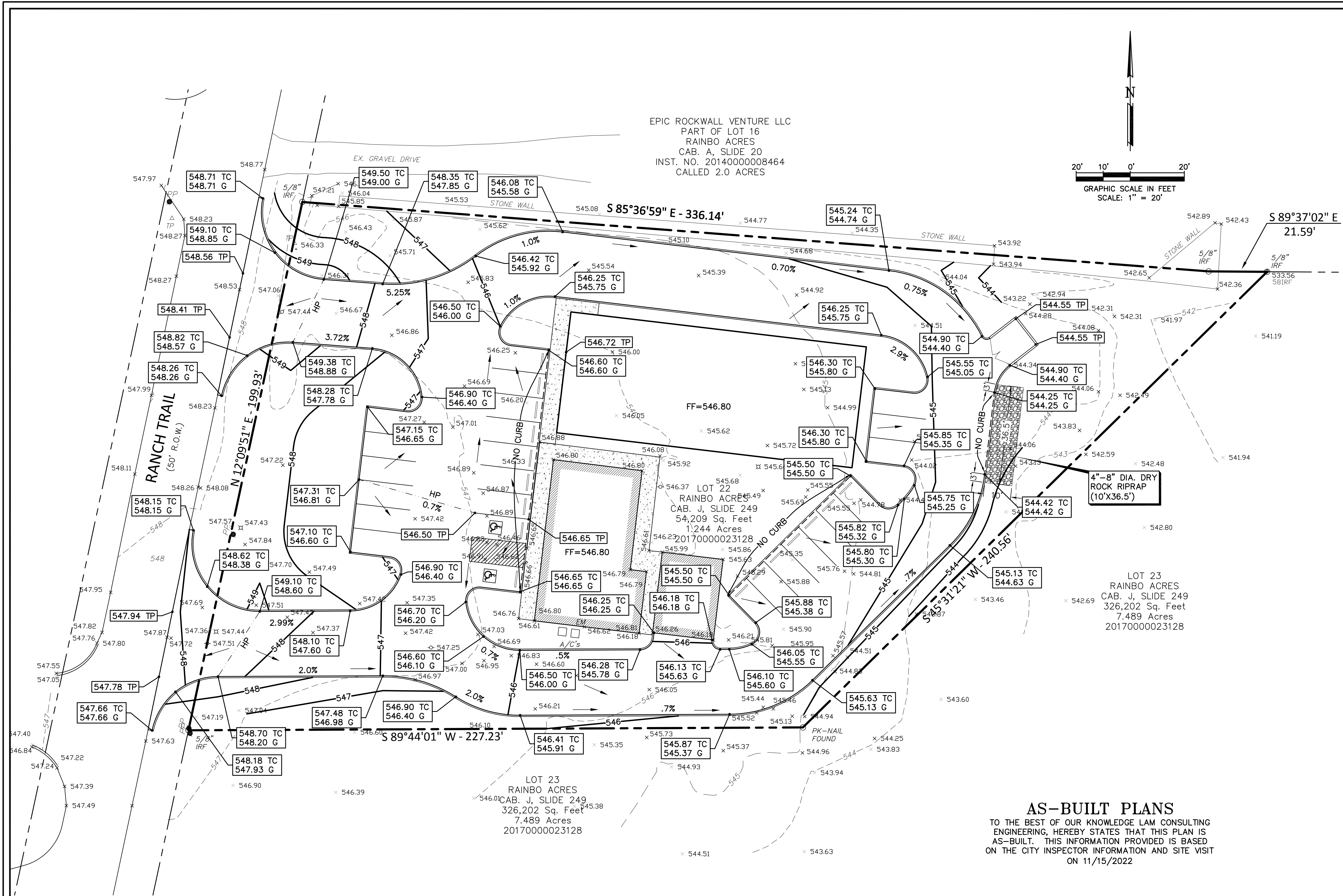
**DIMENSIONAL CONTROL PLAN**

**RAINBO ACRES - LOT 22**  
**R.D. MOORMAN, INC.**  
**259 RANCH TRAIL**  
**ROCKWALL, TEXAS 75032**

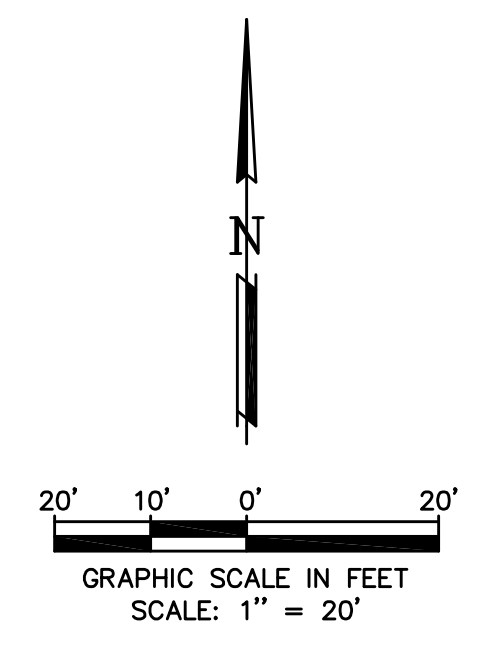
**LAM CONSULTING ENGINEERING**  
 6804 WILHELMINA DRIVE  
 SACHSE, TEXAS 75048  
 Phone (214) 766-1011  
 www.lamcivil.com  
 Firm #F-9783

DESIGN: LCE	CHECK: LCE	SCALE: AS NOTED	4 of 9
DRAWN: CTL	DATE: AUGUST 2019	PROJECT: 0643-19	





EPIC ROCKWALL VENTURE LLC  
 PART OF LOT 16  
 RAINBO ACRES  
 CAB. A, SLIDE 20  
 INST. NO. 2014000008464  
 CALLED 2.0 ACRES



- GRADING NOTES:**
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY'S PLANS AND SPECIFICATIONS, EXCEPT AS NOTED HEREIN AND APPROVED BY THE CITY AND NCTCOG 4TH EDITION.
  2. THE LOCATION OF ALL UTILITIES LOCATED ON THESE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL PUBLIC UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.
  3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. ALL MANHOLES, CLEAN-OUTS, VALVE BOXES, FIRE HYDRANTS, ETC. MUST BE ADJUSTED TO PROPER LINE AND GRADE BY THE CONTRACTOR PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING CONSTRUCTION OF THE PAVING FOR THIS DEVELOPMENT.
  4. DRAINAGE SHOULD BE MAINTAINED AWAY FROM THE FOUNDATIONS, BOTH DURING AND AFTER CONSTRUCTION.
  5. THE SUBGRADE IN AREAS TO BE FILLED SHOULD BE STRIPPED OF VEGETATION AND ANY MAJOR ROOT SYSTEMS. IT SHOULD THEN BE PROOFROLLED WITH SHEEPSFOOT ROLLER. ANY SOFT PUMPING AREAS SHOULD BE UNDERCUT AND PROPERLY BACKFILLED. THE SUBGRADE SHOULD THEN BE SCARIFIED TO A MINIMUM +2 PERCENTAGE POINTS ABOVE THE SOIL'S OPTIMUM MOISTURE DETERMINED BY THAT TEST.
  6. ALL BACKFILL SHALL BE COMPACTED TO 95% PROCTOR DENSITY. BACKFILL SHOULD BE STRIPPED OF VEGETATION AND ANY MAJOR ROOT SYSTEMS. IT SHOULD THEN BE PROOFROLLED WITH SHEEPSFOOT ROLLER. ANY SOFT PUMPING AREAS SHOULD BE UNDERCUT AND PROPERLY BACKFILLED. THE BACKFILL SHOULD THEN BE SCARIFIED TO A MINIMUM +2 PERCENTAGE POINTS ABOVE THE SOIL'S OPTIMUM MOISTURE DETERMINED BY THAT TEST. THE FILL MATERIALS SHOULD THEN BE SPREAD IN LOOSE LIFTS, LESS THAN 8 INCHES THICK, AND UNIFORMLY COMPACTED TO THE SAME CRITERIA. IF FILLING IS SUSPENDED AND THE SUBGRADE BECOMES DESICCATED OR RUTTED, IT SHOULD BE REWORKED PRIOR TO PLACEMENT OF A SUBSEQUENT LIFT. ALL FILL TO BE COMPACTED USING A SHEEP FOOT ROLLER.
  7. COMPACTION TEST SHALL BE DONE FOR EACH 8" OF FILL, BUT NOT LESS THAN ONE TEST FOR EVERY CUBIC YARDS, OR MORE FREQUENTLY IF REQUIRED BY THE SOILS ENGINEER.
  8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COSTS INCURRED FOR THE INSPECTION AND TESTING OF SOILS DUE TO FAILURE TO COMPLY WITH THE MINIMUM REQUIREMENTS OF THE SOILS REPORT.
  9. ALL PROPOSED SPOT SHOTS ARE TOP OF PAVEMENT ELEVATIONS UNLESS OTHERWISE SPECIFIED.
  10. ALL DISTURBED AREAS SHALL BE STABILIZED WITH BROADCAST SEED AND FERTILIZER UPON COMPLETION OF GRADING AND PAVING. CONTRACTOR SHALL PROVIDE WATER AS NECESSARY TO ESTABLISH PERMANENT VEGETATION. 75%-80% OF ALL DISTURBED AREA TO HAVE 1" TALL ESTABLISHED GRASS PRIOR TO ENGINEERING ACCEPTANCE. ALL RIGHT-OF-WAYS TO BE SODDED.

**AS-BUILT PLANS**  
 TO THE BEST OF OUR KNOWLEDGE LAM CONSULTING ENGINEERING, HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON THE CITY INSPECTOR INFORMATION AND SITE VISIT ON 11/15/2022

LOT AREA = 54,188 Sq. Ft.  
 DISTURBED AREA = 51,479 Sq. Ft.

Bench Mark: Benchmark is the City of Heath Monument COH-5 an aluminum disk stamped (City of Heath, Control Monument, Station No. 5, in the top of a curb inlet, on the north side of Country Club west of Horizon Road (FM 3097). Posted Elevation = 532.13

Site Benchmark: A railroad spike in power pole near the north side of the drive for this site.  
 Elevation = 548.92

- LEGEND**
- 450.00 FG FINISHED GRADE ELEVATION
  - 450.00 TP TOP OF PAVING ELEVATION
  - 450.00 TC TOP OF CURB ELEVATION
  - 450.00 G GUTTER ELEVATION
  - 485 EXISTING CONTOUR
  - 485 PROPOSED CONTOUR
  - HP PROPOSED GRADE HIGH POINT
  - PROPOSED FLOW ARROW
  - PROPOSED VALLEY GUTTER

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.

SURVEY INFORMATION ON THIS DRAWING WAS PROVIDED BY OTHERS. LAM CONSULTING ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF THE TOPOGRAPHIC MAPPING NOR BENCHMARK DATUM.

THE INFORMATION SHOWN ON THIS PLAN IS FROM RECORD DRAWINGS. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION SHOWN ON THIS DRAWING. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES AND CONTACT ALL UTILITY COMPANIES 48 HRS PRIOR TO ANY EXCAVATION. 1-800-DIG TESS

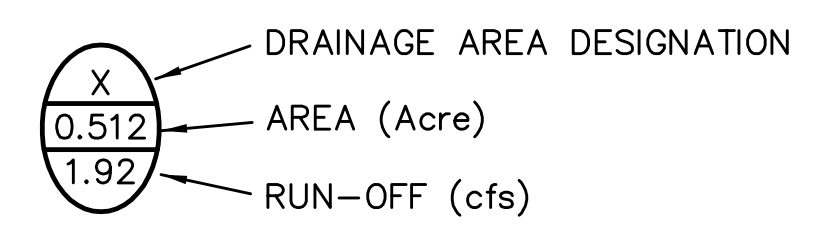
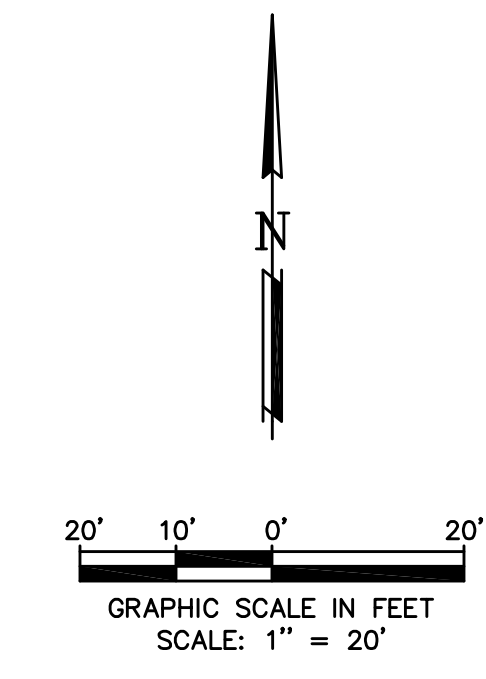


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TUAN P. LAM, P.E. 86968 ON 10/16/19. ALTERATION OF A SEALED DOCUMENT WITHOUT THE PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

<b>GRADING PLAN</b>			
<b>RAINBO ACRES - LOT 22</b>			
<b>R.D. MOORMAN, INC.</b>			
<b>259 RANCH TRAIL</b>			
<b>ROCKWALL, TEXAS 75032</b>			
<b>LAM CONSULTING ENGINEERING</b>			
6804 WILHELMINA DRIVE SACHSE, TEXAS 75048 Phone (214) 766-1011 www.lamcivil.com Firm #F-9763			
DESIGN: LCE	CHECK: LCE	SCALE: AS NOTED	5 of 9
DRAWN: CTL	DATE: AUGUST 2019	PROJECT: 0643-19	



EPIC ROCKWALL VENTURE LLC  
 PART OF LOT 16  
 RAINBO ACRES  
 CAB. A, SLIDE 20  
 INST. NO. 2014000008464  
 CALLED 2.0 ACRES



CITY OF ROCKWALL "I"		CITY OF ROCKWALL "C"	
10 MIN.	9.8	PARK / OPEN AREA	.35
15 MIN.	9.0	RESIDENTIAL	.50
20 MIN.	8.3	DUPLEX	
30 MIN.	6.9	SCHOOL	.70
40 MIN.	5.8	APARTMENT	.75
50 MIN.	5.0	TOWNHOUSE	.80
60 MIN.	4.5	CHURCHES	.80
70 MIN.	4.0	INDUSTRIAL	.90
80 MIN.	3.7	COMMERCIAL	.90
90 MIN.	3.5	MERCANTILE	.90
		RETAIL	.90
		STREET	.90

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.



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TUAN P. LAM, P.E. 86968 ON 10/16/19. ALTERATION OF A SEALED DOCUMENT WITHOUT THE PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DRAINAGE CALCULATION - PRE-DEVELOPED

DRAINAGE AREA	ACRES	TIME (MIN.)	RUN-OFF COEF. (C)	I5	Q5 (cfs)	I10	Q10 (cfs)	I25	Q25 (cfs)	I100	Q100 (cfs)
A	0.552	10	0.50	6.1	1.68	7.1	1.96	8.3	2.29	9.8	2.70
B	0.451	10	0.50	6.1	1.38	7.1	1.60	8.3	1.87	9.8	2.21
C	0.055	10	0.50	6.1	0.17	7.1	0.20	8.3	0.23	9.8	0.27
D	0.159	10	0.50	6.1	0.49	7.1	0.57	8.3	0.66	9.8	0.78

DRAINAGE CALCULATION - POST DEVELOPED

DRAINAGE AREA	ACRES	TIME (MIN.)	RUN-OFF COEF. (C)	I5	Q5 (cfs)	I10	Q10 (cfs)	I25	Q25 (cfs)	I100	Q100 (cfs)
A	0.552	10	0.90	6.1	3.03	7.1	3.52	8.3	4.12	9.8	4.86
B	0.451	10	0.90	6.1	2.48	7.1	2.88	8.3	3.37	9.8	3.98
C	0.055	10	0.90	6.1	0.30	7.1	0.35	8.3	0.41	9.8	0.49
D	0.159	10	0.90	6.1	0.87	7.1	1.02	8.3	1.19	9.8	1.40

SELF-STORAGE LOCATED ON LOT 23 WILL DETAIN THIS SITE'S STORM DRAINAGE PER LETTER DATED AUGUST 21, 2019

**AS-BUILT PLANS**  
 TO THE BEST OF OUR KNOWLEDGE LAM CONSULTING ENGINEERING, HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON THE CITY INSPECTOR INFORMATION AND SITE VISIT ON 11/15/2022

SURVEY INFORMATION ON THIS DRAWING WAS PROVIDED BY OTHERS. LAM CONSULTING ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF THE TOPOGRAPHIC MAPPING NOR BENCHMARK DATUM.

THE INFORMATION SHOWN ON THIS PLAN IS FROM RECORD DRAWINGS. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION SHOWN ON THIS DRAWING. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES AND CONTACT ALL UTILITY COMPANIES 48 HRS PRIOR TO ANY EXCAVATION. 1-800-DIG TESS

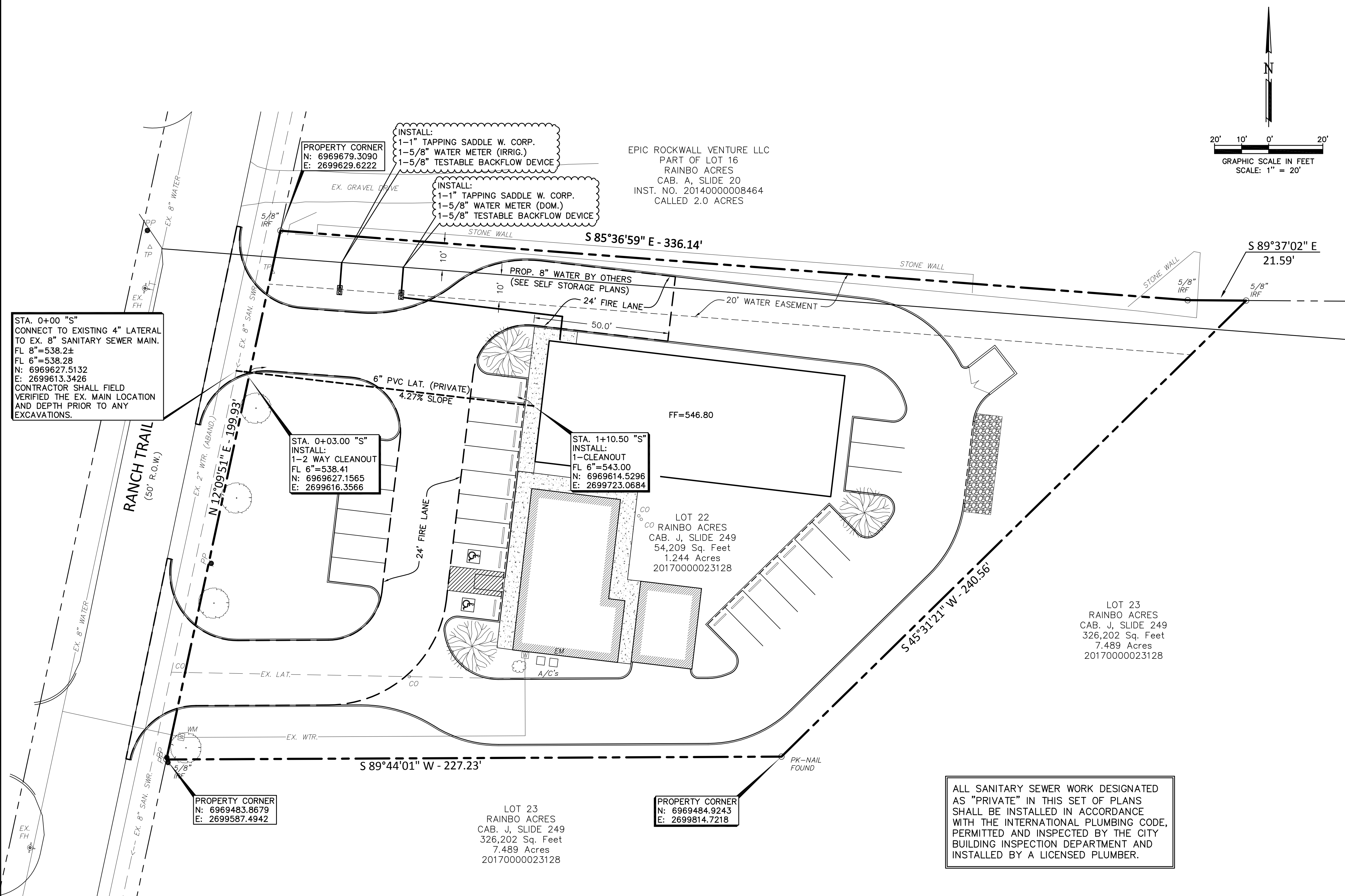
**DRAINAGE AREA MAP**  
**RAINBO ACRES - LOT 22**  
**R.D. MOORMAN, INC.**  
**259 RANCH TRAIL**  
**ROCKWALL, TEXAS 75032**

**LAM CONSULTING ENGINEERING**  
 6804 WILHELMINA DRIVE  
 SACHSE, TEXAS 75048  
 Phone (214) 766-1011  
 www.lamcivil.com  
 Firm #F-9763

DESIGN: LCE	CHECK: LCE	SCALE: AS NOTED
DRAWN: CTL	DATE: AUGUST 2019	PROJECT: 0643-19

6 of 9





- WATER & SANITARY SEWER NOTES:**
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY'S STANDARDS AND SPECIFICATIONS.
  2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY STANDARDS, TEXAS STATE LAW, AND O.S.H.A. STANDARDS FOR ALL EXCAVATION IN EXCESS OF FIVE FEET IN DEPTH.
  3. THE LOCATION OF ALL UTILITIES LOCATED ON THESE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL PUBLIC UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.
  4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL PUBLIC INFRASTRUCTURE IN THE CONSTRUCTION OF THIS PROJECT.
  5. ANY UTILITY INSTALLED OUTSIDE OF AN EASEMENT SHALL BE INSTALLED BY A PLUMBER AND INSPECTED BY BUILDING DEPT.
  6. BACKFILL FOR UTILITY LINES SHOULD BE CAREFULLY PLACED SO THAT THE UTILITY WILL BE STABLE. WHERE UTILITY LINES CROSS THE PARKING LOT, THE TOP 6" SHOULD BE COMPACTED SIMILARLY TO THE REMAINDER OF THE LOT. UTILITY DITCHES SHOULD BE VISUALLY INSPECTED DURING THE EXCAVATION PROCESS TO ENSURE THAT UNDESIRABLE FILL IS NOT USED.
  7. IF ROCK IS ENCOUNTERED IN THE TRENCH, ROCK SPOIL SHALL NOT BE USED IN THE UPPER 1.5 FEET OF THE TRENCH. THE UPPER 1.5 FEET OF THE TRENCH IS TO BE BACKFILLED ONLY WITH QUALITY TOPSOIL.
  8. ALL WATER MAINS SHALL MEET AWWA C-900, PVC DR-14 CLASS 200. ALL FITTINGS SHALL MEET ASTM F477 SPECIFICATIONS.
  9. ALL DUCTILE IRON FITTINGS SHALL BE OF THE MECHANICAL JOINT TYPE OR SLIP JOINT AND SHALL BE CLASS D, OR CLASS 250 ON SIZES 12" AND SMALLER IN ACCORDANCE WITH A.W.W.A. SPECIFICATION C-110-64 AND C-111-64.
  10. EMBEDMENT FOR PVC WATER MAIN SHALL COMPLY WITH THE CITY DETAILS AND SPECIFICATIONS.
  11. ALL WATER METERS TO BE PLACED IN A NON-TRAFFIC AREA.
  12. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 42", OR SUFFICIENT COVER TO CLEAR OTHER UTILITIES AS MEASURED FROM TOP OF PIPE TO EXISTING GROUND LEVEL OR FINISHED GRADE, WHICHEVER IS GREATER.
  13. ALL WATER AND SANITARY SEWER MAINS AND SERVICES SHALL HAVE A 10' MIN. LATERAL SEPARATION DISTANCE.
  14. ALL SANITARY SEWER PIPES AND FITTINGS SHALL MEET ASTM D 3034, PVC SEWER PIPE SDR35. PIPE OVER 10' IN DEPTH, USE ASTM D 2241, PVC PIPE, SDR 26 (160).
  15. ALL WATER AND SANITARY SEWER TESTINGS SHALL BE ACCOMPLISHED BY A TESTING LAB APPROVED BY THE CITY AND PAID BY CONTRACTOR.
  16. REFER TO MECHANICAL PLANS FOR EXACT WATER AND SEWER SERVICE LOCATIONS.
  17. CONTRACTOR TO INSTALL BLUE EMS DISKS ON THE WATER LINE EVERY 250', VALVES, SERVICE CONNECTIONS, AND FIRE HYDRANTS.
  18. CONTRACTOR TO INSTALL GREEN EMS DISK ON SANITARY SEWER AT SERVICE CONNECTION AND DOUBLE CLEANOUT.

STA. 0+00 "S"  
CONNECT TO EXISTING 4" LATERAL  
TO EX. 8" SANITARY SEWER MAIN.  
FL 6"=538.28  
N: 6969627.5132  
E: 2699613.3426  
CONTRACTOR SHALL FIELD  
VERIFIED THE EX. MAIN LOCATION  
AND DEPTH PRIOR TO ANY  
EXCAVATIONS.

STA. 0+03.00 "S"  
INSTALL:  
1-2 WAY CLEANOUT  
FL 6"=538.41  
N: 6969627.1565  
E: 2699616.3566

STA. 1+10.50 "S"  
INSTALL:  
1-CLEANOUT  
FL 6"=543.00  
N: 6969614.5296  
E: 2699723.0684

PROPERTY CORNER  
N: 6969483.8679  
E: 2699587.4942

LOT 23  
RAINBO ACRES  
CAB. J, SLIDE 249  
326,202 Sq. Feet  
7.489 Acres  
20170000023128

PROPERTY CORNER  
N: 6969484.9243  
E: 2699814.7218

ALL SANITARY SEWER WORK DESIGNATED  
AS "PRIVATE" IN THIS SET OF PLANS  
SHALL BE INSTALLED IN ACCORDANCE  
WITH THE INTERNATIONAL PLUMBING CODE,  
PERMITTED AND INSPECTED BY THE CITY  
BUILDING INSPECTION DEPARTMENT AND  
INSTALLED BY A LICENSED PLUMBER.

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.

SURVEY INFORMATION ON THIS DRAWING WAS  
PROVIDED BY OTHERS. LAM CONSULTING ENGINEERING  
IS NOT RESPONSIBLE FOR THE ACCURACY OF THE  
TOPOGRAPHIC MAPPING NOR BENCHMARK DATUM.

THE INFORMATION SHOWN ON THIS PLAN IS FROM  
RECORD DRAWINGS. THE ENGINEER IS NOT  
RESPONSIBLE FOR THE ACCURACY OF THE  
INFORMATION SHOWN ON THIS DRAWING.  
CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES  
AND CONTACT ALL UTILITY COMPANIES 48 HRS  
PRIOR TO ANY EXCAVATION. 1-800-DIG TESS

**AS-BUILT PLANS**  
TO THE BEST OF OUR KNOWLEDGE LAM CONSULTING  
ENGINEERING, HEREBY STATES THAT THIS PLAN IS  
AS-BUILT. THIS INFORMATION PROVIDED IS BASED  
ON THE CITY INSPECTOR INFORMATION AND SITE VISIT  
ON 11/15/2022



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED  
BY TUAN P. LAM, P.E. 86968 ON 1/15/20. ALTERATION OF  
A SEALED DOCUMENT WITHOUT THE PROPER NOTIFICATION TO  
THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE  
TEXAS ENGINEERING PRACTICE ACT.

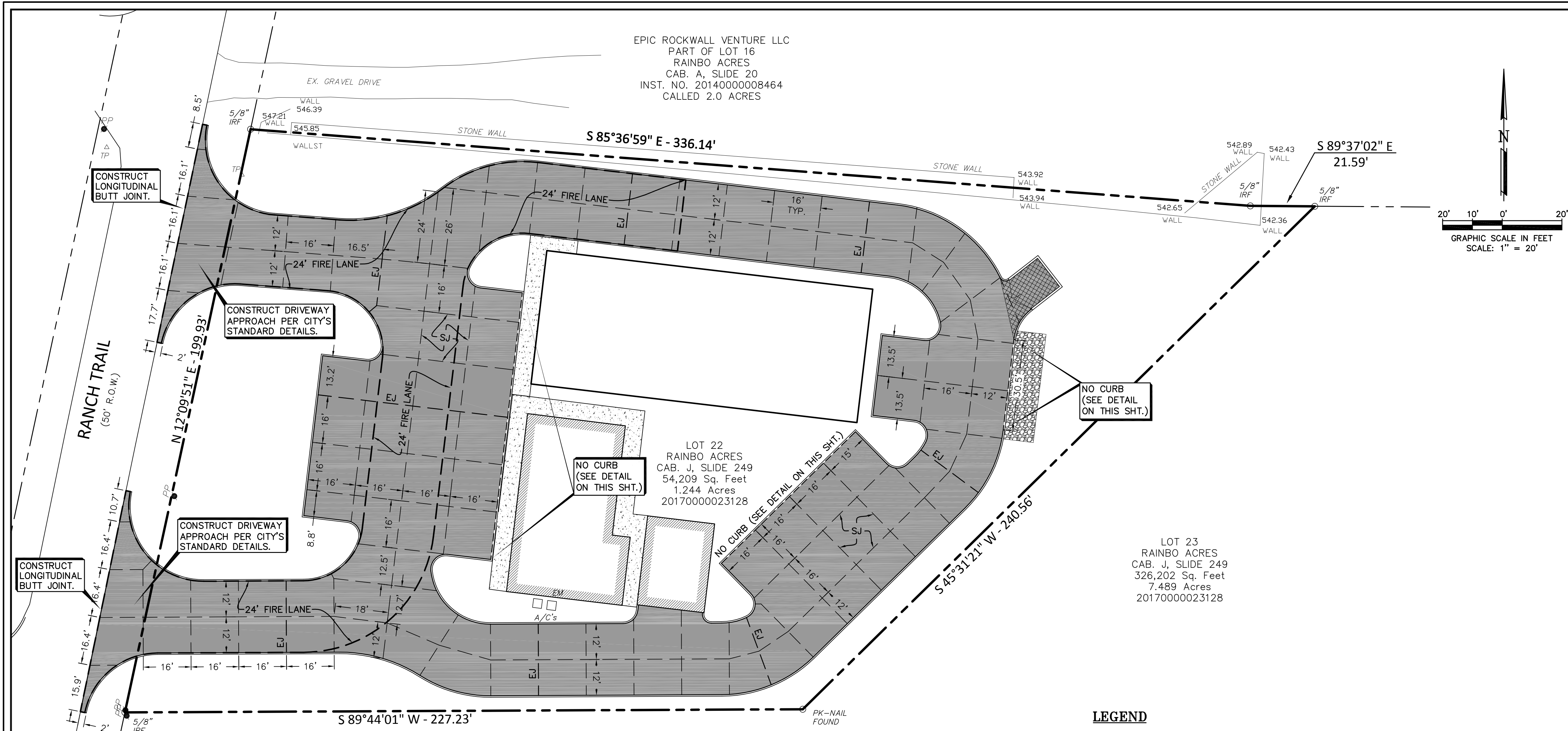
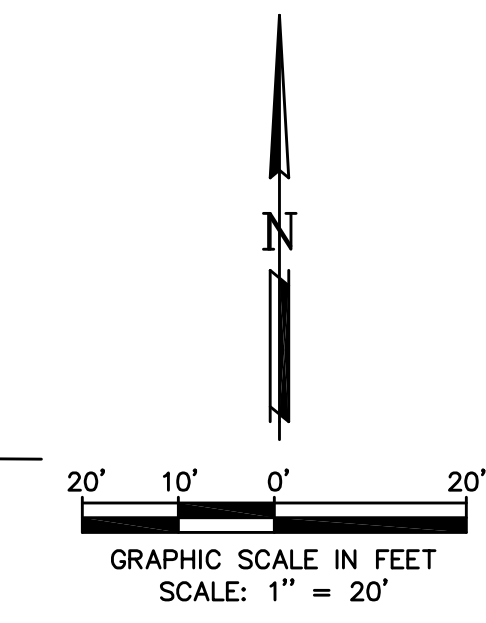
<b>UTILITY PLAN</b>		
<b>RAINBO ACRES - LOT 22</b>		
<b>R.D. MOORMAN, INC.</b>		
<b>259 RANCH TRAIL</b>		
<b>ROCKWALL, TEXAS 75032</b>		
<b>LAM CONSULTING ENGINEERING</b>		
6804 WILHELMINA DRIVE SACHSE, TEXAS 75048 Phone (214) 766-1011 www.lamcivil.com Firm #F-9763		
DESIGN: LCE	CHECK: LCE	SCALE: AS NOTED
DRAWN: CTL	DATE: AUGUST 2019	PROJECT: 0643-19



EPIC ROCKWALL VENTURE LLC  
 PART OF LOT 16  
 RAINBO ACRES  
 CAB. A, SLIDE 20  
 INST. NO. 2014000008464  
 CALLED 2.0 ACRES

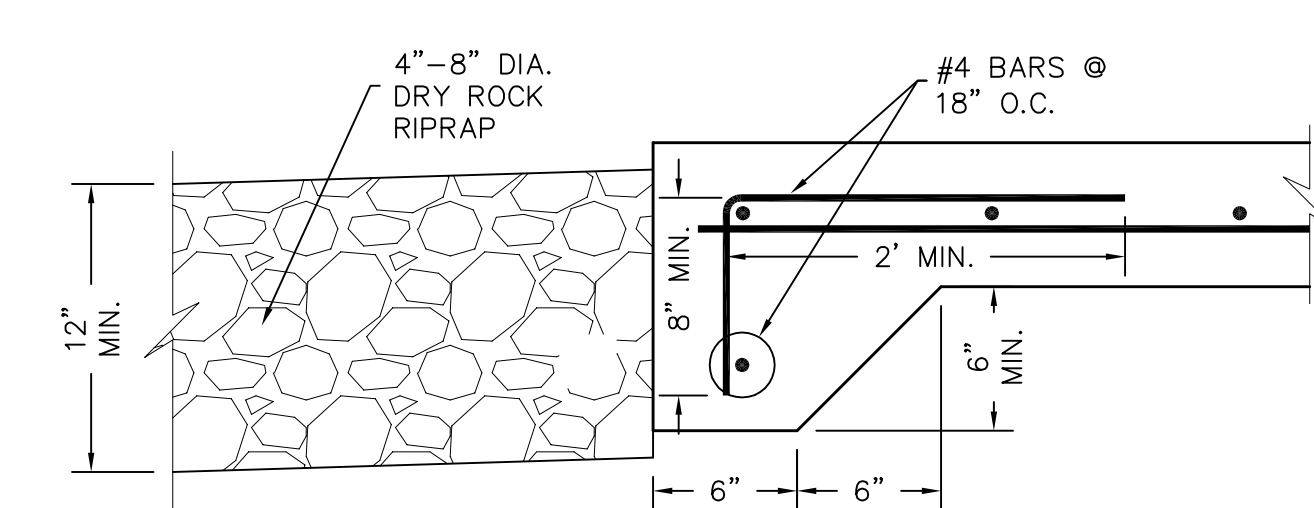
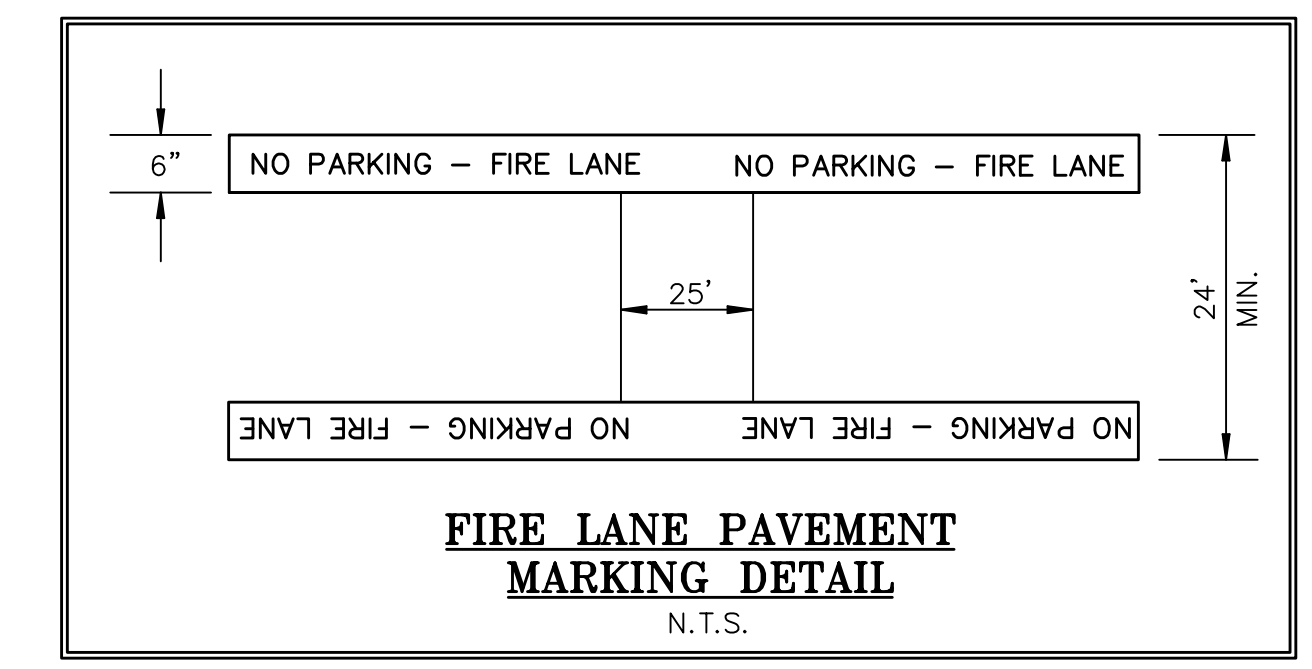
**PAVING NOTES**

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY'S STANDARDS AND SPECIFICATIONS AND NCTCOG 4TH EDITION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. ALL MANHOLES, CLEANOUTS, VALVE BOXES, FIRE HYDRANTS, ETC. MUST BE ADJUSTED TO PROPER LINE AND GRADE BY THE CONTRACTOR PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING CONSTRUCTION OF THIS PROJECT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL THE APPROPRIATE UTILITY COMPANIES FOR THE LOCATION OF ALL UTILITIES WITHIN THE CONSTRUCTION AREA. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HRS PRIOR TO ANY EXCAVATIONS. DIG TESS (1-800-545-6005)
4. THE PAVING CONTRACTOR SHALL COORDINATE WITH THE UTILITY CONTRACTOR TO INSURE ALL CONDUIT FOR IRRIGATION HAS BEEN INSTALLED PRIOR TO PLACEMENT OF PERMANENT PAVEMENT.
5. TRAFFIC BARRICADES WILL BE REQUIRED FOR PAVING AND UTILITY CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY. BARRICADES SHALL CONFORM TO THE INSTALLATION SHOWN IN THE LATEST TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS CURRENTLY AMENDED BY THE TEXAS DEPARTMENT OF TRANSPORTATION. CONTACT CITY TRANSPORTATION DEPARTMENT PRIOR TO SETTING BARRICADES IN THE RIGHT OF WAY.
6. ALL DRIVE AREAS AND ISLANDS SHALL HAVE 6" CONCRETE CURB, UNLESS OTHERWISE NOTED ON PLANS.
7. CONCRETE PAVING SHALL HAVE A CONSTRUCTION JOINT OR SAWED CONTROL JOINT EVERY 15 FEET TRANSVERSELY AND LONGITUDINALLY WITH EXPANSION JOINTS AS SHOWN IN THE DRAWINGS. JOINTS SHALL INTERSECT ALL PAVEMENT EDGES AT 90° INCLUDING RADIUS RETURNS. EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM SPACING OF 100' CENTER TO CENTER. ALL JOINTS SHALL BE SEALED WITH HOT POURED RUBBER JOINT SEALING COMPOUND.
8. CONTRACTOR SHALL INSTALL ALL CONDUITS PRIOR TO THE PLACEMENT OF PAVEMENT. ALL SLEEVES SHOWN ON PLANS SHALL BE SCHEDULE 40 PVC WITH PULLED WIRES & CAPPED. REFER TO LANDSCAPE & MECHANICAL PLANS FOR LOCATIONS AND SIZE OF CONDUITS.
9. FIRE LANE PAVEMENT MARKINGS SHALL BE PAINTED LINES OF RED TRAFFIC PAINT, 6" WIDE, TO SHOW THE EXACT BOUNDARY LINES OF THE FIRE LANE. THESE BOUNDARY LINES MAY BE ON THE CURB OR FLAT PAVEMENT. THE LINES SHALL BE MARKED BY PAINTED 4" HIGH LETTERING USING A 1" WIDE STROKE OF WHITE TRAFFIC PAINT ON THE CONTRASTING RED BACKGROUND STATING "NO PARKING - FIRE LANE". THIS MARKING SHALL BE PLACED AT 25' INTERVALS ALONG EACH BOUNDARY LINE -SEE DIMENSIONAL CONTROL PLAN FOR DETAILS AND LOCATION.

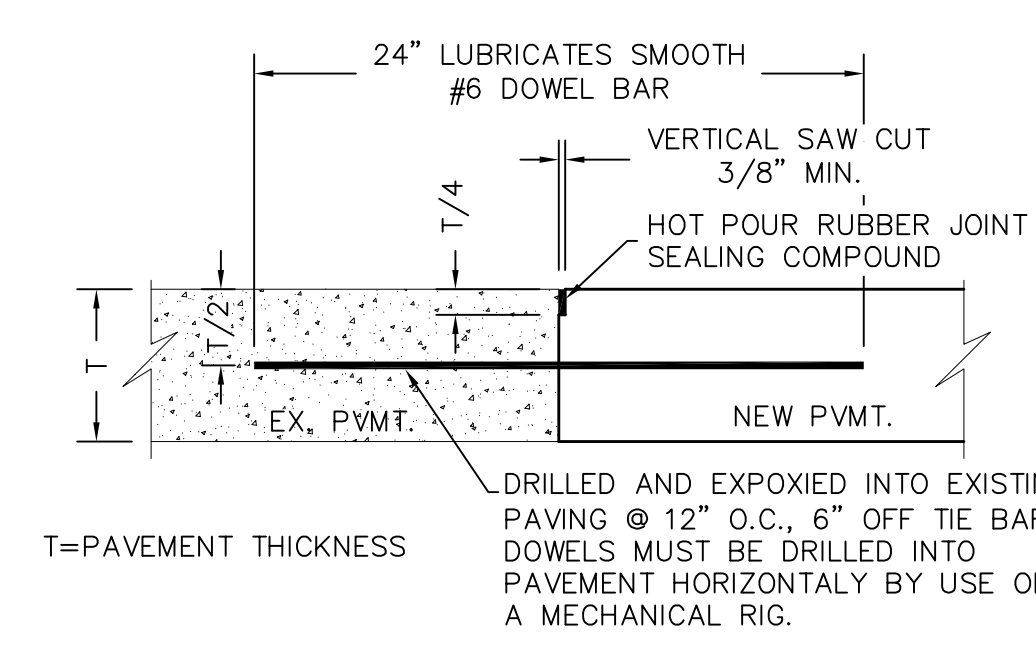


- LEGEND**
- 7" REINF. CONC. PAVEMENT (6.5 SACK-3600 psi) W/ #3 BARS @ 24" O.C.E.W. OVER 6" SUBGRADE, SCARIFIED AND COMPACTED TO 95% STD. PROCTOR DENSITY (ASTM-D698). W/ +2% to +4% OPTIMUM MOISTURE CONTENT. (DUMPSTER) - NO SAND CUSHION UNDER PAVING
  - 6" REINF. CONC. PAVEMENT (6.5 SACK-3600 psi) W/ #3 BARS @ 24" O.C.E.W. OVER 6" SUBGRADE, SCARIFIED AND COMPACTED TO 95% STD. PROCTOR DENSITY (ASTM-D698). W/ +2% to +4% OPTIMUM MOISTURE CONTENT. (DRIVE) - NO SAND CUSHION UNDER PAVING
  - 4" REINF. CONC. SIDEWALK (5.5 SACK-3000 psi) W/ #3 BARS @ 24" O.C.E.W. OVER SCARIFIED AND COMPACTED SUBGRADE TO 95% STD. PROCTOR DENSITY (ASTM-D698). W/ +2% to +4% OPTIMUM MOISTURE CONTENT. (SIDEWALK)- NO SAND CUSHION UNDER SIDEWALK
  - SJ SAWED CONTRACTION JOINT
  - EJ EXPANSION JOINT

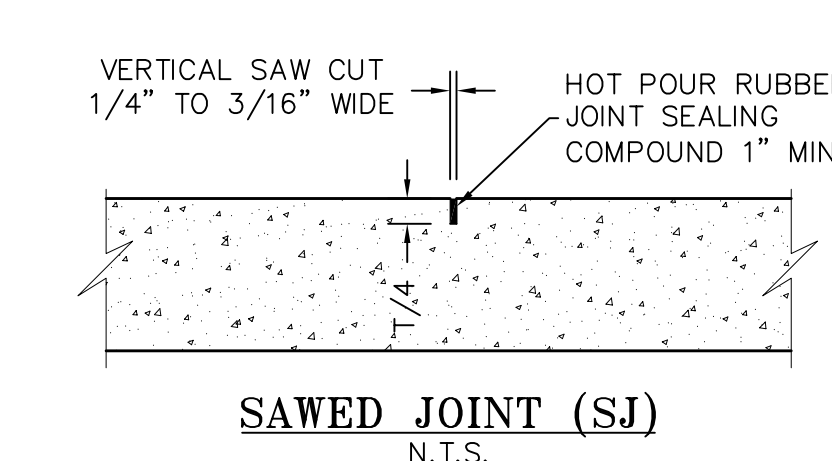
DETENTION FOR THIS DEVELOPMENT (LOT 22) WILL BE DESIGNED AND PART OF LOT 23 DEVELOPMENT, PER OWNERS AGREEMENT. ALL DETENTION SHALL BE IN PLACE BEFORE PAVING SHALL BE CONSTRUCTED.



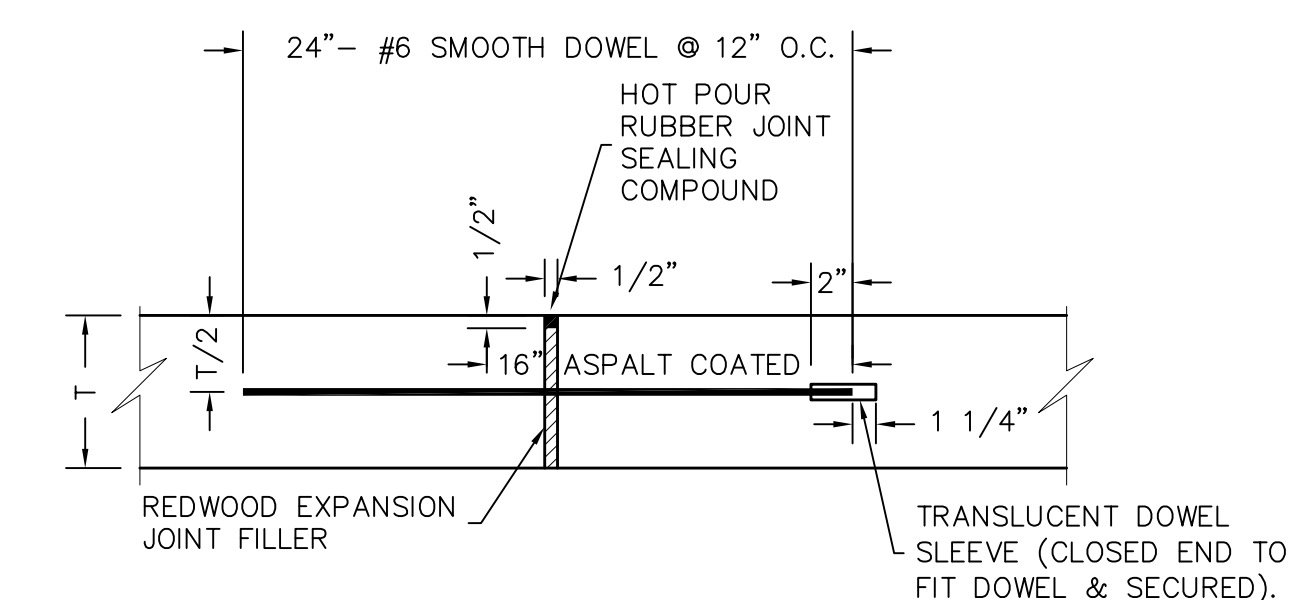
**NO CURB DETAIL**  
N.T.S.



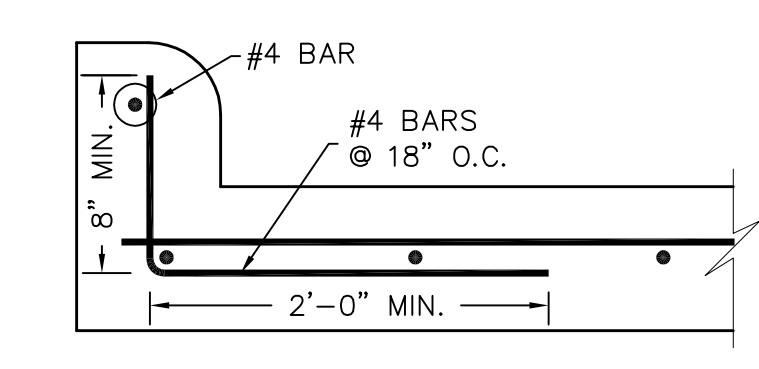
**BUTT JOINT (LONGITUDINAL OR TRANSVERSE)**  
N.T.S.



**SAWED JOINT (SJ)**  
N.T.S.



**EXPANSION JOINT (EJ)**  
N.T.S.



**CURB DETAIL**  
N.T.S.

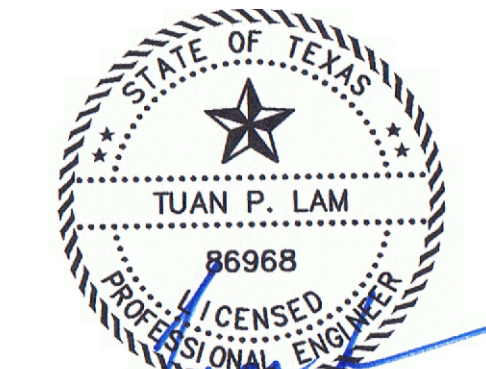
**AS-BUILT PLANS**

TO THE BEST OF OUR KNOWLEDGE LAM CONSULTING ENGINEERING, HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON THE CITY INSPECTOR INFORMATION AND SITE VISIT ON 11/15/2022

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.

SURVEY INFORMATION ON THIS DRAWING WAS PROVIDED BY OTHERS. LAM CONSULTING ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF THE TOPOGRAPHIC MAPPING NOR BENCHMARK DATUM.

THE INFORMATION SHOWN ON THIS PLAN IS FROM RECORD DRAWINGS. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION SHOWN ON THIS DRAWING. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES AND CONTACT ALL UTILITY COMPANIES 48 HRS PRIOR TO ANY EXCAVATION. 1-800-DIG TESS



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TUAN P. LAM, P.E. 86968 ON 10/16/19. ALTERATION OF A SEALED DOCUMENT WITHOUT THE PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

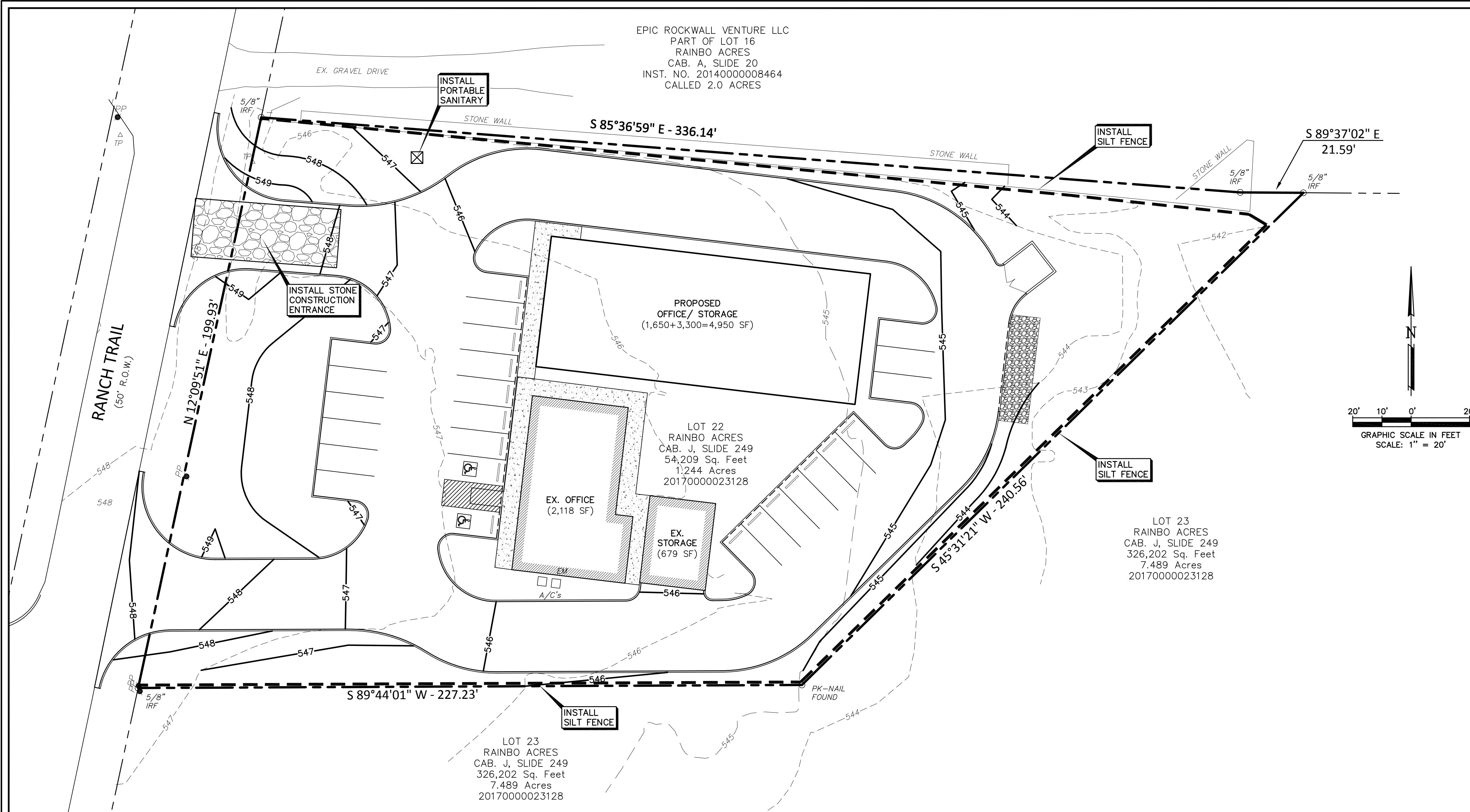
**PAVING PLAN**  
**RAINBO ACRES - LOT 22**  
**R.D. MOORMAN, INC.**  
**259 RANCH TRAIL**  
**ROCKWALL, TEXAS 75032**

**LAM CONSULTING ENGINEERING**  
 6804 WILHELMINA DRIVE  
 SACHSE, TEXAS 75048  
 Phone (214) 766-1011  
 www.lamcivil.com  
 Firm #F-9763

DESIGN: LCE	CHECK: LCE	SCALE: AS NOTED
DRAWN: CTL	DATE: AUGUST 2019	PROJECT: 0643-19

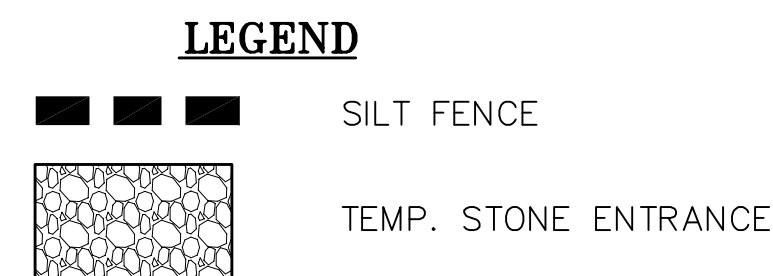
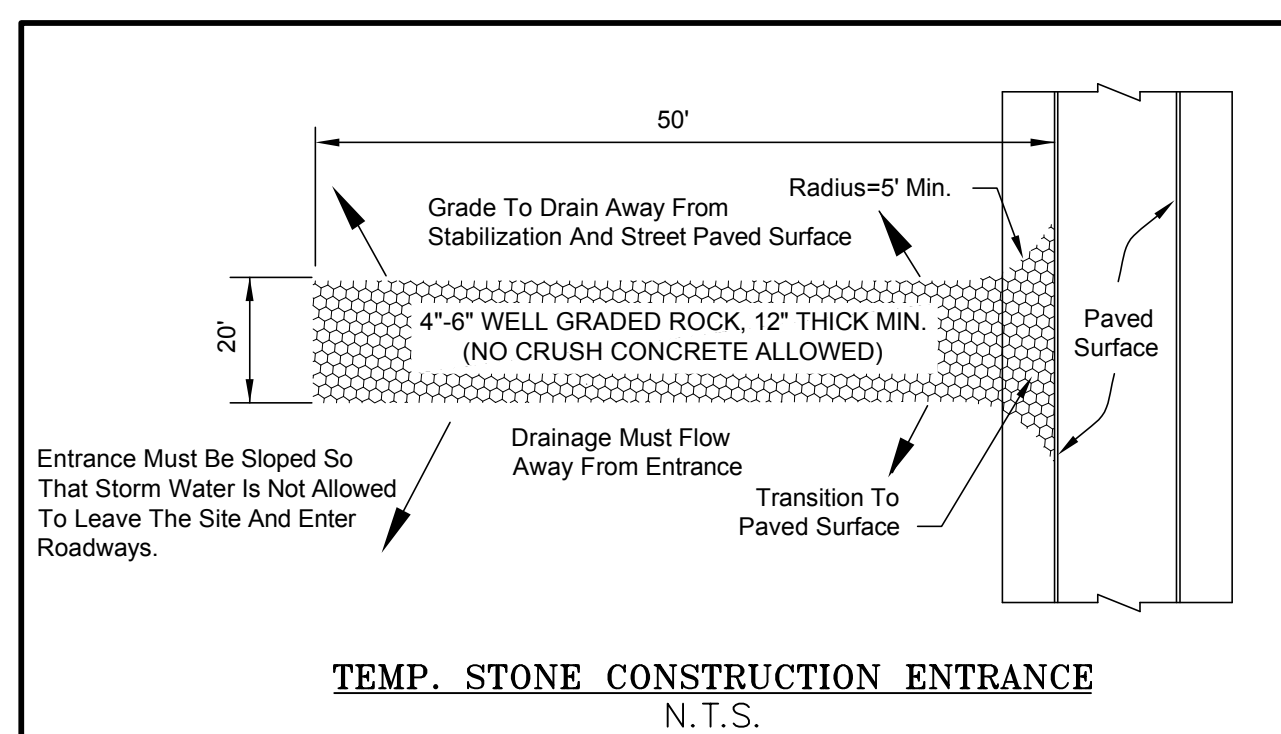
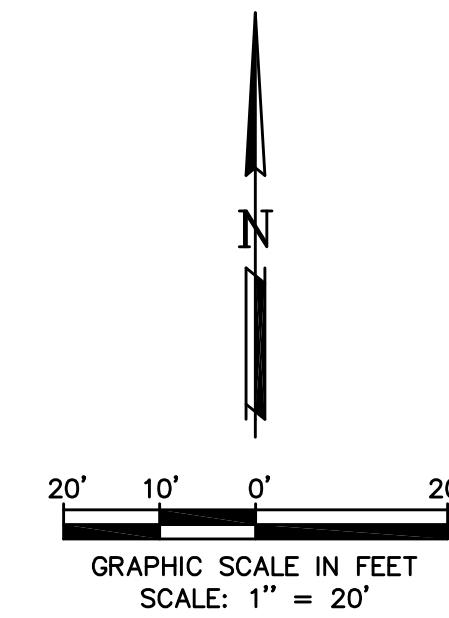
8 of 9





**GENERAL NOTES:**

1. EROSION CONTROL DEVICES AS SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBING ACTIVITIES ON THE PROJECT.
2. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT. CHANGES ARE TO BE APPROVED BEFORE CONSTRUCTION BY THE DESIGN ENGINEER AND THE CITY ENGINEERING DIVISION.
3. IF THE EROSION CONTROL PLAN AS APPROVED CANNOT CONTROL EROSION AND OFF-SITE SEDIMENTATION FROM THE PROJECT THE EROSION CONTROL PLAN WILL BE REQUIRED TO BE REVISED AND/OR ADDITIONAL EROSION CONTROL DEVICES WILL BE REQUIRED ON SITE.
4. IF OFF-SITE SOIL BORROW OR SPOIL SITES ARE USED IN CONJUNCTION WITH THIS PROJECT, THIS INFORMATION SHALL BE DISCLOSED AND SHOWN ON THE EROSION CONTROL PLAN. OFF-SITE BORROW AND SPOIL AREAS ARE CONSIDERED A PART OF THE PROJECT SITE AND THEREFORE SHALL COMPLY WITH THE CITY'S EROSION CONTROL REQUIREMENTS. THESE AREAS SHALL BE STABILIZED WITH PERMANENT GROUND COVER PRIOR TO FINAL APPROVAL OF THE PROJECT.
5. EROSION CONTROL MEASURES SHALL BE INSPECTED AND REPAIRED, IF NECESSARY, AT THE EARLIEST POSSIBLE DATE BUT NO LATER THAN SEVEN (7) CALENDAR DAYS AFTER EACH RAIN. ANY ITEM DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED.
6. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING DOWNSTREAM CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD AND WILL CLEAN ANY DEBRIS AND SEDIMENT CAUSED BY CONSTRUCTION.
7. THE CONTRACTOR SHALL PREVENT EROSION OF THE SITE AND PROTECT ALL DRAINAGE STRUCTURES BY THE USE OF SILT FENCING OR OTHER APPROVED EROSION CONTROL PRODUCTS AS NEEDED. TEMPORARY EROSION CONTROL DEVICES INSTALLED BY THE CONTRACTOR ON THIS PROJECT SHALL ALSO BE REMOVED BY THE CONTRACTOR AT THE APPROPRIATE TIME AS INCIDENTAL TO THE RESPECTIVE EROSION CONTROL DEVICE ITEM.
8. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY THE PROJECT ENGINEER DURING ON-SITE INSPECTIONS.
9. WETLANDS ARE NOT PRESENT ON-SITE NOR ADJACENT TO THIS PROJECT.
10. ALL POLLUTION PREVENTION CONTROL DEVICES SHALL CONFORM TO THE CITY'S EROSION AND SEDIMENT CONTROL MANUAL.
11. CONTRACTOR SHALL ADD OR REMOVE EROSION CONTROL DEVICES AS NEEDED DURING THE CONSTRUCTION PHASES.

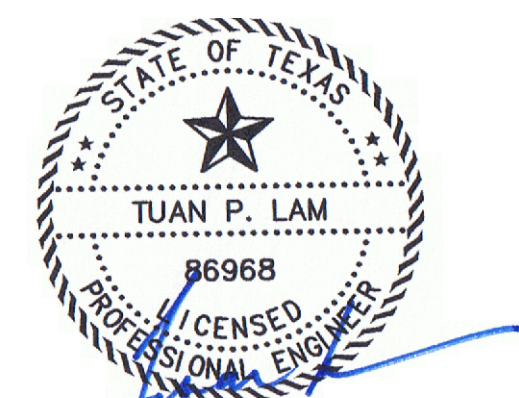


CONTRACTOR SHALL KEEP EXISTING STREET, ADJACENT TO THE CONSTRUCTION SITE, CLEAN OF MUD AND DIRT AT ALL TIME.

LOT AREA = 54,188 Sq. Ft.  
DISTURBED AREA = 51,479 Sq. Ft.

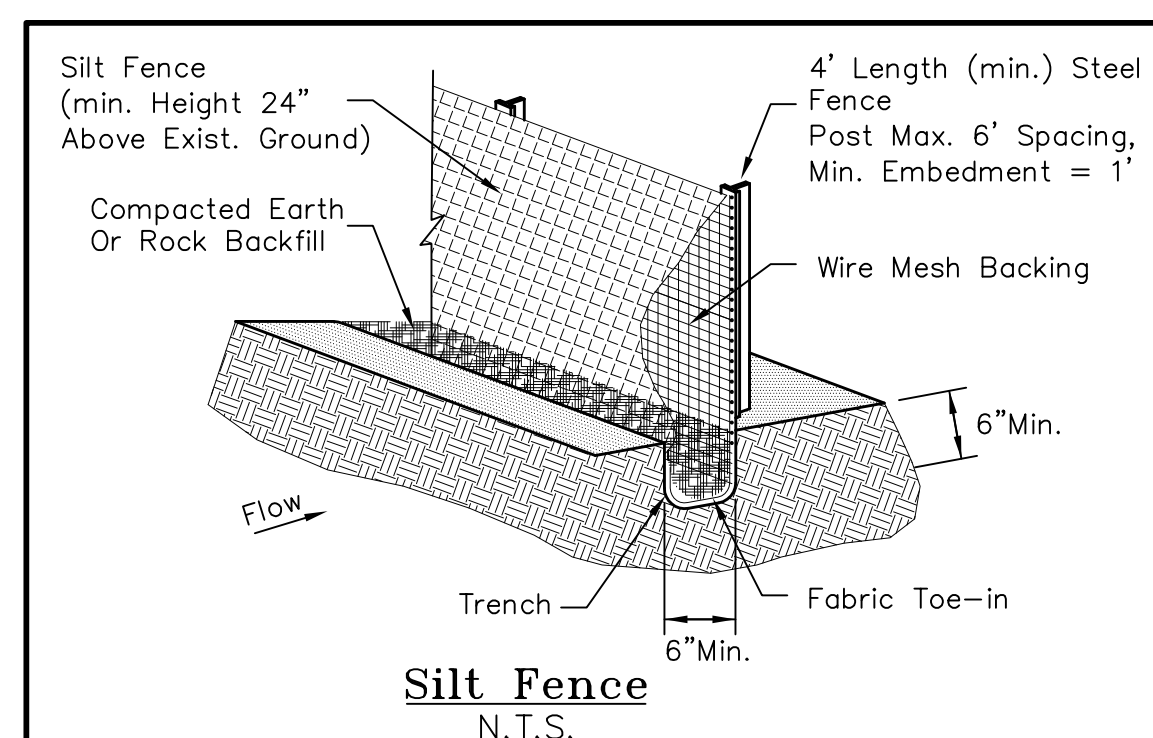
**OWNER:**  
R.D. MOORMAN, INC.  
259 RANCH TRAIL  
ROCKWALL, TEXAS 75032  
(972) 722-2408

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.



**AS-BUILT PLANS**  
TO THE BEST OF OUR KNOWLEDGE LAM CONSULTING ENGINEERING, HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON THE CITY INSPECTOR INFORMATION AND SITE VISIT ON 11/15/2022

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TUAN P. LAM, P.E. 86968 ON 10/16/19. ALTERATION OF A SEALED DOCUMENT WITHOUT THE PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.



- CONSTRUCTION SCHEDULE & PHASING**
- PHASE 1: INSTALL SILT FENCE AND STONE CONSTRUCTION ENTRANCE FOR ROUGH GRADING.
  - PHASE 2: PAVE PARKING LOT AND DRIVEWAY.
  - PHASE 3: CONSTRUCT BUILDING FOUNDATION.
  - PHASE 4: ESTABLISH GROUND COVER AND REMOVE EROSION CONTROL DEVICES

**B.M.P. MAINT. SCHED.**

BMP	MAINT. FREQ.	BY:

SURVEY INFORMATION ON THIS DRAWING WAS PROVIDED BY OTHERS. LAM CONSULTING ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF THE TOPOGRAPHIC MAPPING NOR BENCHMARK DATUM.

THE INFORMATION SHOWN ON THIS PLAN IS FROM RECORD DRAWINGS. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION SHOWN ON THIS DRAWING. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES AND CONTACT ALL UTILITY COMPANIES 48 HRS PRIOR TO ANY EXCAVATION. 1-800-DIG TESS

**EROSION CONTROL PLAN**

**RAINBO ACRES - LOT 22**  
**R.D. MOORMAN, INC.**  
**259 RANCH TRAIL**  
**ROCKWALL, TEXAS 75032**

**LAM CONSULTING ENGINEERING**  
6804 WILHELMINA DRIVE  
SACHSE, TEXAS 75048  
Phone (214) 766-1011  
www.lamcivil.com  
Firm #F-9763

DESIGN: LCE	CHECK: LCE	SCALE: AS NOTED
DRAWN: CTL	DATE: AUGUST 2019	PROJECT: 0643-19

9 of 9