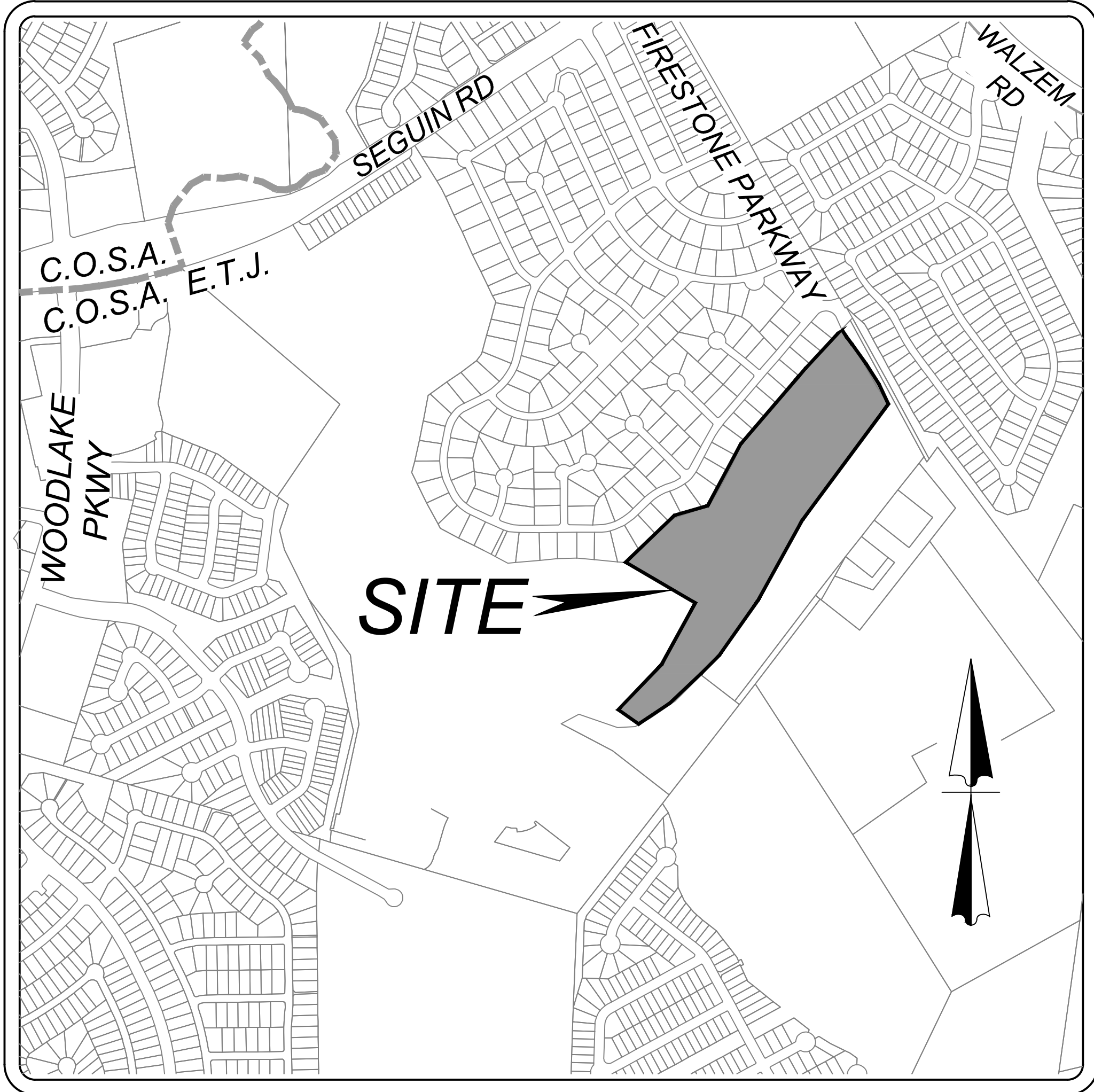


WOODLAKE SUBDIVISION TREE PRESERVATION PLAN

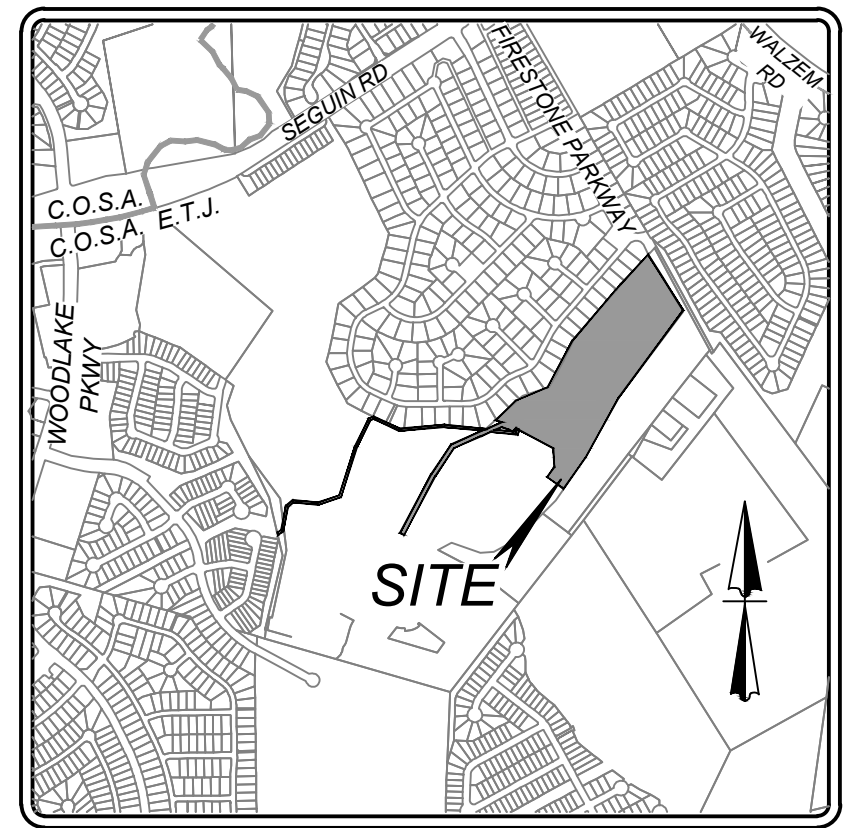
BEXAR COUNTY, TX



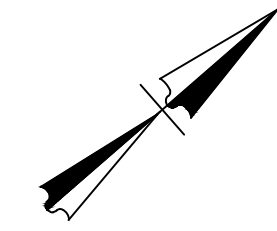
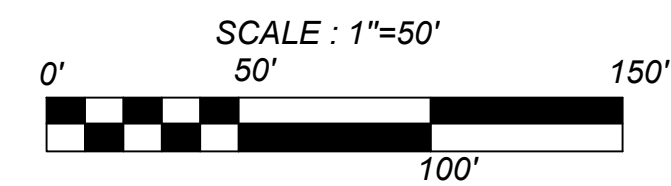
LOCATION MAP
NOT-TO-SCALE

SHEET LIST TABLE	
SHEET TITLE	SHEET NO.
COVER SHEET	TPP 1.0
TREE PRESERVATION PLAN (SHEET 1 OF 4)	TPP 1.1
TREE PRESERVATION PLAN (SHEET 2 OF 4)	TPP 1.2
TREE PRESERVATION PLAN (SHEET 3 OF 4)	TPP 1.3
TREE PRESERVATION PLAN (SHEET 4 OF 4)	TPP 1.4

KFW
ENGINEERS + SURVEYING
 3921 Paesanos Pkwy., Suite 200, San Antonio, TX 78232
 Phone #: (210) 979-8444 • Fax #: (210) 979-8441
 TBPE Firm #: 9513 • TBPLS Firm #: 10122300

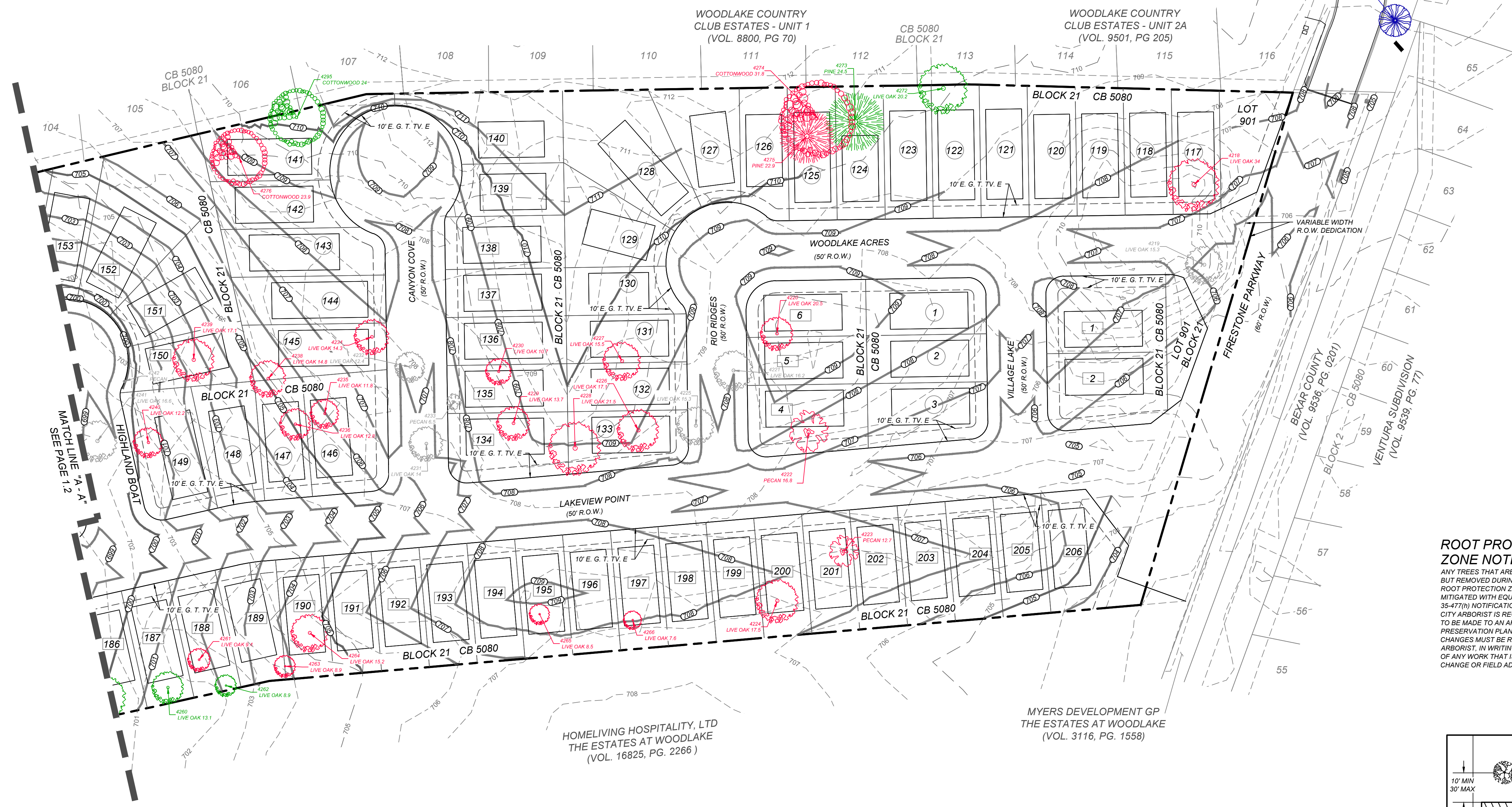


LOCATION MAP
 NOT-TO-SCALE



LEGEND

- PROJECT LIMITS
- ▬ 100 YEAR FLOODPLAIN BOUNDARY
- - - EXISTING CONTOUR
- PROTECTED/HERITAGE TREES PRESERVED
- PROTECTED/HERITAGE TREES REMOVED
- PROTECTED TREES (NOT WITHIN PLATTED LIMITS)
- RIPARIAN BUFFER TREES REMOVED
- EXEMPT TREES (WITHIN R.O.W. EASEMENTS, NON-PROTECTED OR DYING)
- FLOODPLAIN TREES REMOVED
- E.G.T.&T.V.E. ELECTRIC, GAS, TELEPHONE, CABLE T.V. EASEMENT
- ▭ LOT PAD
- ▨ RIPARIAN BUFFER

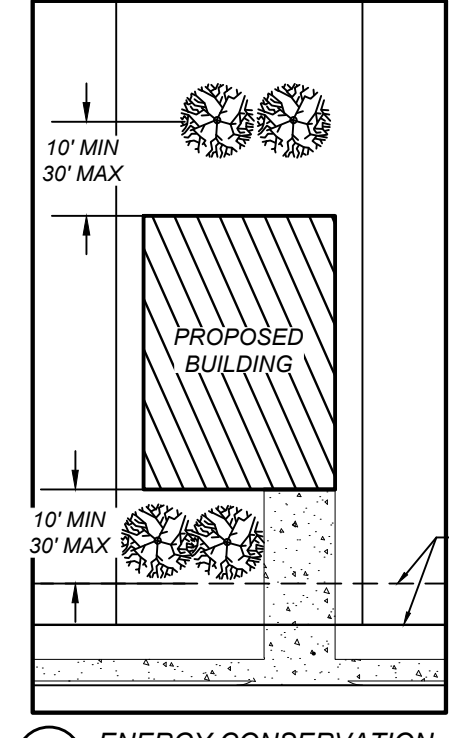


ROOT PROTECTION ZONE NOTE:

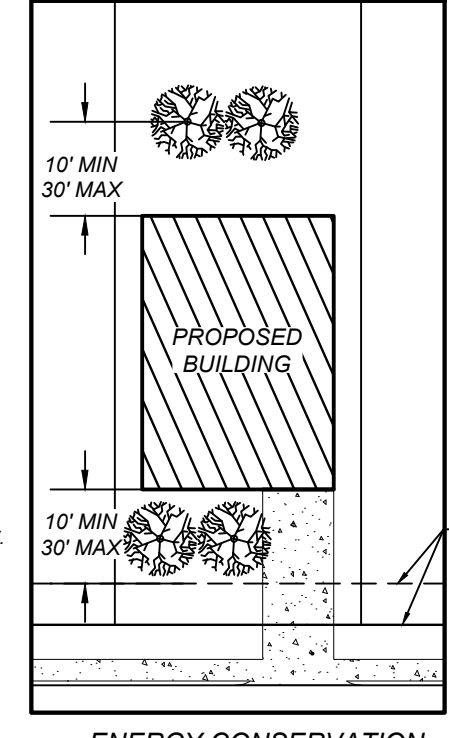
ANY TREES THAT ARE SHOWN TO BE PRESERVED BUT REMOVED DURING CONSTRUCTION DUE TO ROOT PROTECTION ZONE CONFLICT SHALL BE MITIGATED WITH EQUAL INCHES. AS PER SECTION 35-477(N) NOTIFICATION AND APPROVAL OF THE CITY ARBORIST IS REQUIRED IF CHANGES NEED TO BE MADE TO AN APPROVED TREE PRESERVATION PLAN. APPROVAL OF THE CHANGES MUST BE RECEIVED FROM THE CITY ARBORIST IN WRITING, BEFORE COMMENCEMENT OF ANY WORK THAT IS THE SUBJECT OF THE CHANGE OR FIELD ADJUSTMENT.

IMPORTANT NOTE:

2 - MINIMUM - 1.5 INCH CALIPER MEDIUM TO LARGE CANOPY SHADE TREES TO BE PLANTED PER LOT AS PER CITY OF SAN ANTONIO UNIFIED DEVELOPMENT CODE. FOR MITIGATION PURPOSES THE TWO 1.5 INCH TREES WILL BE UPSIZED TO 2.5 INCH TREES. REFERENCE THE ENERGY CONSERVATION DETAIL FOR TREE LOCATION. FOR MITIGATION PURPOSES TWO ADDITIONAL MINIMUM - 2.5 INCH CALIPER MEDIUM TO LARGE CANOPY SHADE TREE TO BE PLANTED IN ALL LOTS.



1 ENERGY CONSERVATION CREDIT LOT DETAIL N.T.S.

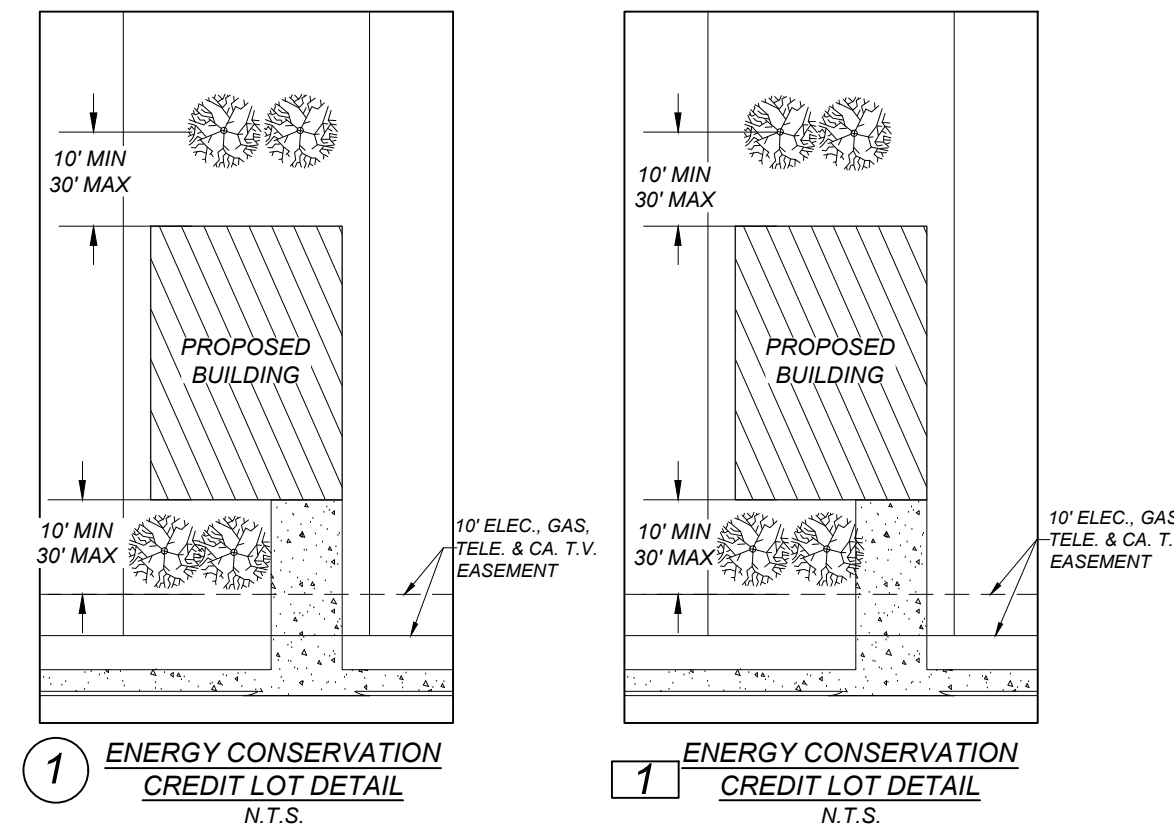


1 ENERGY CONSERVATION CREDIT LOT DETAIL N.T.S.

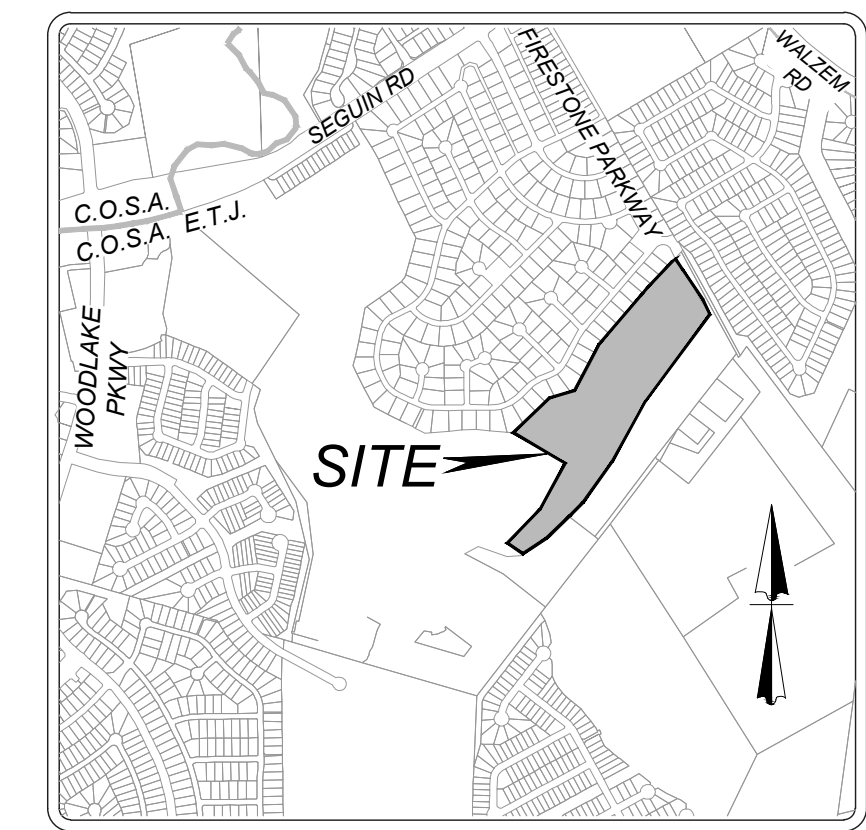
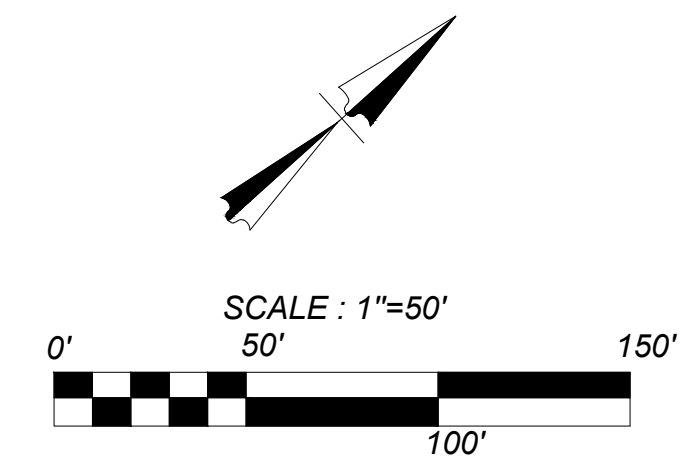
- 1 LOT NUMBERS WITH CIRCLE SHALL HAVE TWO MEDIUM SPECIES TREES LOCATED IN THE FRONT YARD WITHIN THE ENERGY CONSERVATION LIMITS. SEE DETAIL THIS SHEET
- 1 LOT NUMBERS WITH RECTANGLE SHALL HAVE TWO MEDIUM SPECIES TREES LOCATED IN THE BACK YARD WITHIN THE ENERGY CONSERVATION LIMITS. SEE DETAIL THIS SHEET

WOODLAKE SUBDIVISION
 SAN ANTONIO, TX
TREE PRESERVATION PLAN (SHEET 1 OF 4)

PLAT NO.
 21-11800582
 JOB NO. 823-03-01
 DATE: MAY 2022
 DRAWN/BE CHECKED/CS
SHEET NUMBER:
TPP 1.1



- ① LOT NUMBERS WITH CIRCLE SHALL HAVE TWO MEDIUM SPECIES TREES LOCATED IN THE FRONT YARD WITHIN THE ENERGY CONSERVATION LIMITS. SEE DETAIL THIS SHEET
- ① LOT NUMBERS WITH RECTANGLE SHALL HAVE TWO MEDIUM SPECIES TREES LOCATED IN THE BACK YARD WITHIN THE ENERGY CONSERVATION LIMITS. SEE DETAIL THIS SHEET

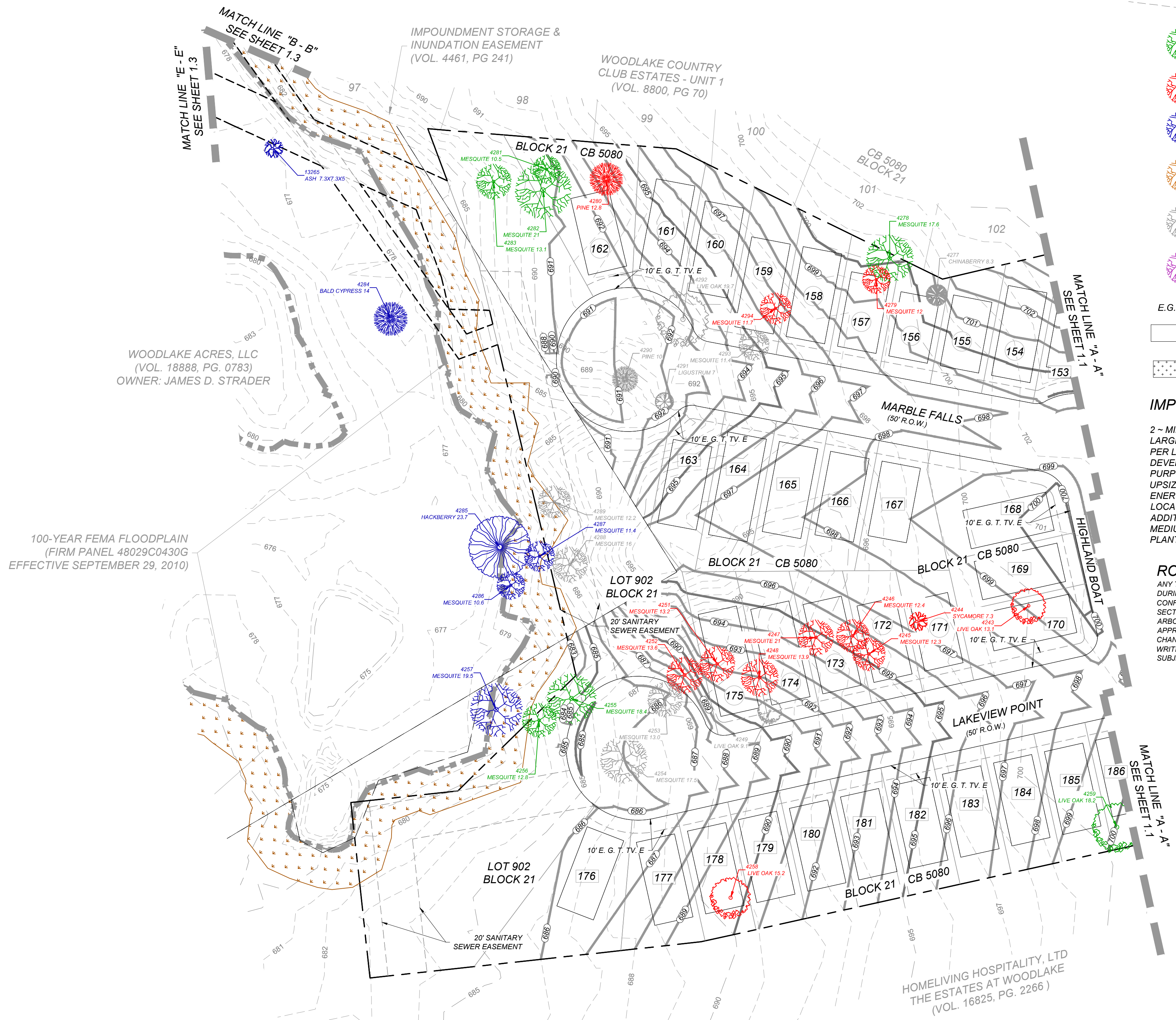


LOCATION MAP NOT-TO-SCALE LEGEND

- PROJECT LIMITS
- 100 YEAR FLOODPLAIN BOUNDARY
- EXISTING CONTOUR
- PROTECTED/HERITAGE TREES PRESERVED
- PROTECTED/HERITAGE TREES REMOVED
- PROTECTED TREES (NOT WITHIN PLATTED LIMITS)
- RIPARIAN BUFFER TREES REMOVED
- EXEMPT TREES (WITHIN R.O.W., EASEMENTS, NON-PROTECTED OR DYING)
- FLOODPLAIN TREES REMOVED
- E.G.T.&T.V.E. ELECTRIC, GAS, TELEPHONE, CABLE T.V. EASEMENT
- LOT PAD
- RIPARIAN BUFFER

IMPORTANT NOTE:
 2 - MINIMUM - 1.5 INCH CALIPER MEDIUM TO LARGE CANOPY SHADE TREES TO BE PLANTED PER LOT AS PER CITY OF SAN ANTONIO UNIFIED DEVELOPMENT CODE. FOR MITIGATION PURPOSES THE TWO 1.5 INCH TREES WILL BE UPSIZED TO 2.5 INCH TREES. REFERENCE THE ENERGY CONSERVATION DETAIL FOR TREE LOCATION. FOR MITIGATION PURPOSES TWO ADDITIONAL, MINIMUM - 2.5 INCH CALIPER MEDIUM TO LARGE CANOPY SHADE TREE TO BE PLANTED IN ALL LOTS.

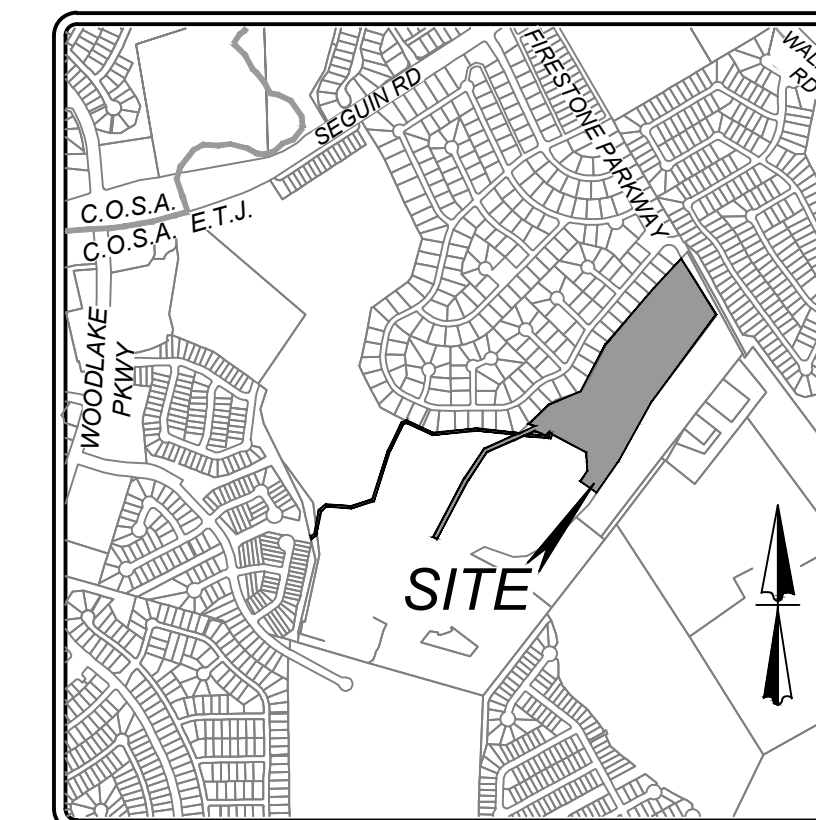
ROOT PROTECTION ZONE NOTE:
 ANY TREES THAT ARE SHOWN TO BE PRESERVED BUT REMOVED DURING CONSTRUCTION DUE TO ROOT PROTECTION ZONE CONFLICT SHALL BE MITIGATED WITH EQUAL INCHES. AS PER SECTION 35-477(N) NOTIFICATION AND APPROVAL OF THE CITY ARBORIST IS REQUIRED IF CHANGES NEED TO BE MADE TO AN APPROVED TREE PRESERVATION PLAN. APPROVAL OF THE CHANGES MUST BE RECEIVED FROM THE CITY ARBORIST IN WRITING, BEFORE COMMENCEMENT OF ANY WORK THAT IS THE SUBJECT OF THE CHANGE OR FIELD ADJUSTMENT.



**WOODLAKE SUBDIVISION
 SAN ANTONIO, TX
 TREE PRESERVATION PLAN (SHEET 2 OF 4)**

PLAT NO.
 21-11800582
 JOB NO. 823-03-01
 DATE: MAY 2022
 DRAWN: BE CHECKED: CS
 SHEET NUMBER:

TPP 1.2



**LOCATION MAP
NOT-TO-SCALE
LEGEND**

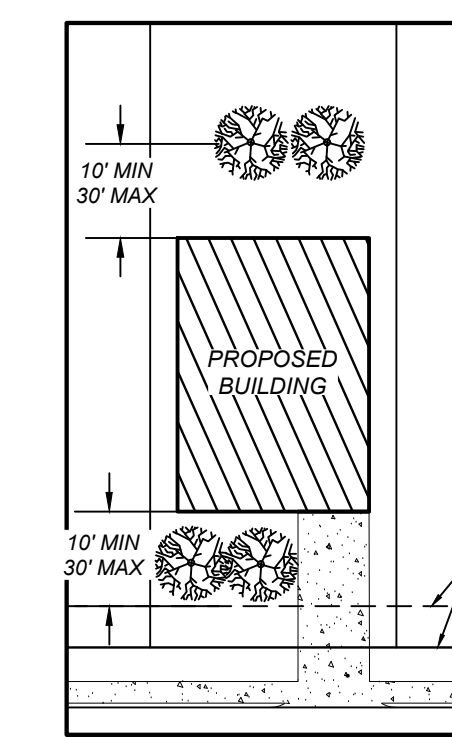
- PROJECT LIMITS
- 100 YEAR FLOODPLAIN BOUNDARY
- EXISTING CONTOUR
- PROTECTED/HERITAGE TREES PRESERVED
- PROTECTED/HERITAGE TREES REMOVED
- PROTECTED TREES (NOT WITHIN PLATTED LIMITS)
- RIPARIAN BUFFER TREES REMOVED
- EXEMPT TREES (WITHIN R.O.W. EASEMENTS, NON-PROTECTED OR DYING)
- FLOODPLAIN TREES REMOVED
- ELECTRIC, GAS, TELEPHONE, CABLE T.V. EASEMENT
- LOT PAD
- RIPARIAN BUFFER

IMPORTANT NOTE:

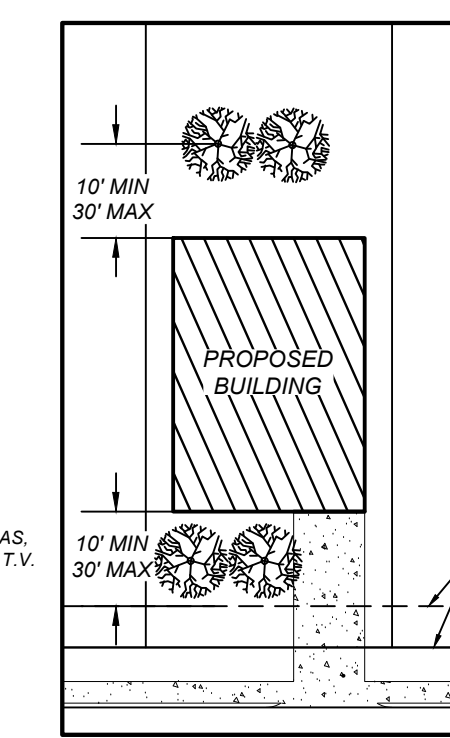
2 - MINIMUM - 1.5 INCH CALIPER MEDIUM TO LARGE CANOPY SHADE TREES TO BE PLANTED PER LOT AS PER CITY OF SAN ANTONIO UNIFIED DEVELOPMENT CODE. FOR MITIGATION PURPOSES THE TWO 1.5 INCH TREES WILL BE UPSIZED TO 2.5 INCH TREES. REFERENCE THE ENERGY CONSERVATION DETAIL FOR TREE LOCATION. FOR MITIGATION PURPOSES TWO ADDITIONAL, MINIMUM - 2.5 INCH CALIPER MEDIUM TO LARGE CANOPY SHADE TREE TO BE PLANTED IN ALL LOTS.

ROOT PROTECTION ZONE NOTE:

ANY TREES THAT ARE SHOWN TO BE PRESERVED BUT REMOVED DURING CONSTRUCTION DUE TO ROOT PROTECTION ZONE CONFLICT SHALL BE MITIGATED WITH EQUAL INCHES AS PER SECTION 35-477(h) NOTIFICATION AND APPROVAL OF THE CITY ARBORIST IS REQUIRED IF CHANGES NEED TO BE MADE TO AN APPROVED TREE PRESERVATION PLAN. APPROVAL OF THE CHANGES MUST BE RECEIVED FROM THE CITY ARBORIST, IN WRITING, BEFORE COMMENCEMENT OF ANY WORK THAT IS THE SUBJECT OF THE CHANGE OR FIELD ADJUSTMENT.

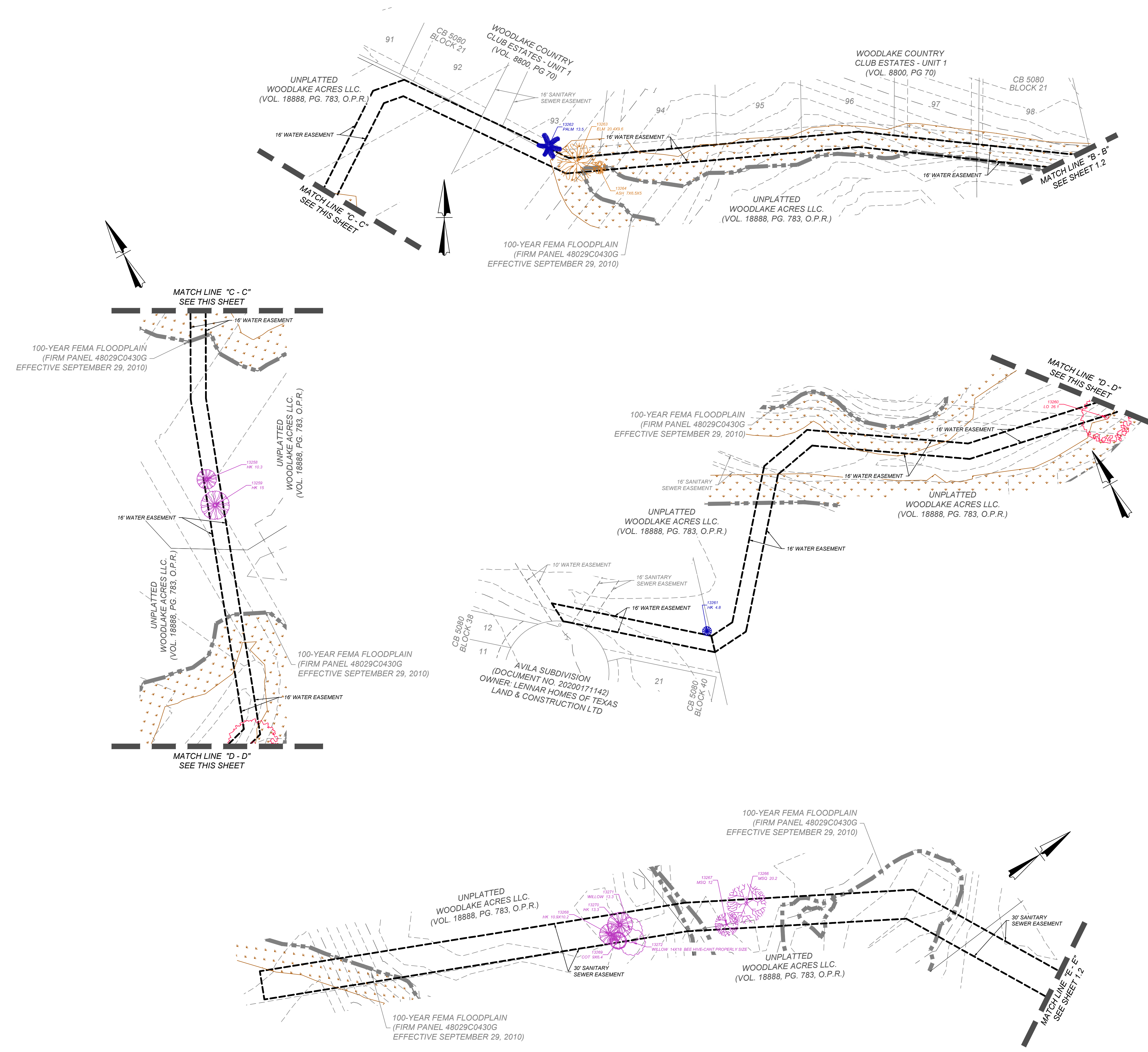


1 ENERGY CONSERVATION CREDIT LOT DETAIL N.T.S.



1 ENERGY CONSERVATION CREDIT LOT DETAIL N.T.S.

- 1 LOT NUMBERS WITH CIRCLE SHALL HAVE TWO MEDIUM SPECIES TREES LOCATED IN THE FRONT YARD WITHIN THE ENERGY CONSERVATION LIMITS. SEE DETAIL THIS SHEET
- 1 LOT NUMBERS WITH RECTANGLE SHALL HAVE TWO MEDIUM SPECIES TREES LOCATED IN THE BACK YARD WITHIN THE ENERGY CONSERVATION LIMITS. SEE DETAIL THIS SHEET



KIEWIT
ENGINEERS + SURVEYING
 Phone #: (210) 979-8444 • Fax #: (210) 979-8441
 TBPE Firm #: 9513 • TBPE S Firm #: 1012300

ISSUE DATE
 REVISIONS

WOODLAKE SUBDIVISION
 SAN ANTONIO, TX

TREE PRESERVATION PLAN (SHEET 3 OF 4)

PLAT NO.
 21-11800582

JOB NO.: 823-03-01
 DATE: MAY 2022
 DRAWN: BE CHECKED: CS

SHEET NUMBER:
 TPP 1.3

SIGNIFICANT TREE (6" - 23.5") INVENTORY TABLE				
TAG #	SPECIES	REMOVED	PRESERVED	FINAL CANOPY (SQFT)
Woodlake Subdivision				
4220	LO	20.5		
4223	PCN	12.7		
4224	LO	17.5		
4226	LO	17.1		
4227	LO	15.5		
4228	LO	21.5		
4230	LO	10.7		
4234	LO	14.3		
4235	LO	11.8		
4236	LO	12.8		
4238	LO		14.8	875
4238	LO	14.8		
4239	LO	17.1		
4240	LO	12.2		
4243	LO	13.1		
4244	SYC	7.3		
4258	LO	15.2		
4259	LO		18.2	875
4260	LO		13.1	875
4261	LO	9.4		
4262	LO		8.9	875
4263	LO	8.9		
4264	LO	15.2		
4265	LO	8.5		
4266	LO	7.6		
4272	LO		20.2	875
4280	PINE	12.8		
13263	ELM	20.4		
13264	ASH	7		
SUB. TOT. INCHES		323.9	75.2	
TOTAL INCHES BY CATEGORY			399.1	TOTAL SOFT FINAL CANOPY COVER
PRESERVATION PERCENTAGE			19%	
MITIGATION REQUIRED (RESIDENTIAL)		64		4375

SIGNIFICANT TREE (10" - 23.5") INVENTORY TABLE				
TAG #	SPECIES	REMOVED	PRESERVED	FINAL CANOPY (SQFT)
Woodlake Subdivision				
4245	MSQ	12.3		
4247	MSQ	21		
4248	MSQ	13.9		
4251	MSQ	13.2		
4252	MSQ	13.6		
4255	MSQ		18.4	550
4256	MSQ		12.8	550
4278	MSQ		17.6	550
4279	MSQ	12		
4281	MSQ		10.5	550
4282	MSQ		21	550
4283	MSQ		13.1	550
4294	MSQ	11.7		
SUB. TOT. INCHES		97.70	93.40	
TOTAL INCHES BY CATEGORY			191.10	TOTAL SOFT FINAL CANOPY COVER
PRESERVATION PERCENTAGE			49%	
MITIGATION REQUIRED (RESIDENTIAL)		(27.00)		3,300.00

EXEMPT INVENTORY TABLE		
TAG #	SPECIES	INCHES
Woodlake Subdivision		
4221	LO	16.2
4219	LO	15.3
4222	PCN	16.8
4225	LO	15.3
4229	LO	13.7
4231	LO	14
4232	LO	12.4
4233	CHINESE PISTACHE	6.5
4234	LO	14.3
4241	LO	16.6
4242	PECAN	
4246	MSQ	12.4
4249	LO	9.1
4253	MSQ	13
4254	MSQ	17.5
4275	PINE	22.9
4277	CB	8.3
4288	MSQ	16
4289	MSQ	12.2
4290	PINE	10
4291	LIG	7
4292	LO	19.7
4293	MSQ	11.4

RIPARIAN BUFFER INVENTORY TABLE				
TAG #	SPECIES	REMOVED	PRESERVED	FINAL CANOPY (SQFT)
Woodlake Subdivision				
13623	ELM	20.4		
13264	ASH	7		
SUB. TOT. INCHES		27.40	0.00	
TOTAL INCHES BY CATEGORY			27.40	TOTAL SOFT FINAL CANOPY COVER
PRESERVATION PERCENTAGE			0%	
MITIGATION REQUIRED (RESIDENTIAL)		22.00		0.00

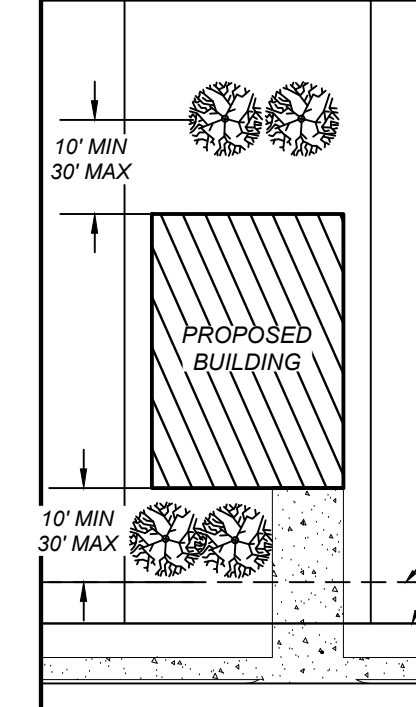
FLOODPLAIN INVENTORY TABLE				
TAG #	SPECIES	REMOVED	PRESERVED	FINAL CANOPY (SQFT)
Woodlake Subdivision				
13258	HK	10.3		
13259	HK	15		
13266	MSQ	20.2		
13267	MSQ	12		
13268	HK	10.9		
13269	COT	9		
13270	HK	13.3		
13271	WILLOW	13.3		
13272	WILLOW	18		
SUB. TOT. INCHES		122.00	0.00	
TOTAL INCHES BY CATEGORY			122.00	TOTAL SOFT FINAL CANOPY COVER
PRESERVATION PERCENTAGE			0%	
MITIGATION REQUIRED (RESIDENTIAL)		98.00		0.00

HERITAGE 3-1 INVENTORY TABLE				
TAG #	SPECIES	REMOVED	PRESERVED	FINAL CANOPY (SQFT)
Woodlake Subdivision				
4218	LIVE OAK	34		
4273	PINE		24.5	550
4274	COT	31.8		
4276	COT	23.9		
4295	COT		24	1200
13260	LO	26.1		
SUB. TOT. INCHES		115.80	48.50	
TOTAL INCHES BY CATEGORY			164.3	TOTAL SOFT FINAL CANOPY COVER
HERITAGE PRESERVATION PERCENTAGE			30%	
HERITAGE MITIGATION (INCHES)		347.40		1750.00

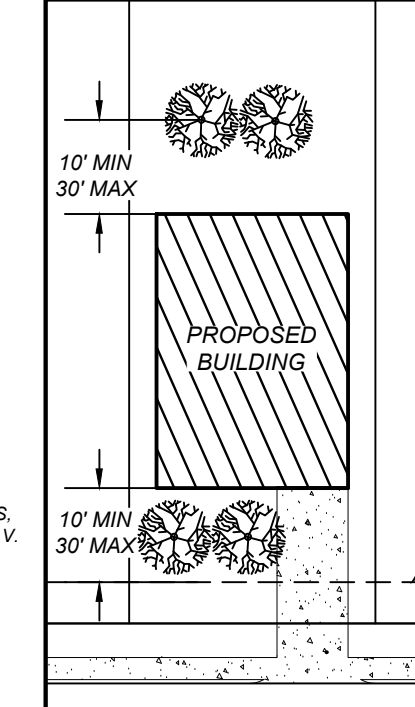
Woodlake Subdivision - TREE PRESERVATION CALCULATIONS		
SIGNIFICANT TREE (6" - 23.5")		
-PRESERVATION PERCENTAGE	19%	
-MITIGATION REQUIRED	64.00	INCHES
SIGNIFICANT TREE (10" - 23.5")		
-PRESERVATION PERCENTAGE	49%	
-MITIGATION REQUIRED	(27.00)	INCHES
HERITAGE (3-1)		
-PRESERVATION PERCENTAGE	30%	
-MITIGATION REQUIRED	347.40	INCHES
RIPARIAN BUFFER		
-PRESERVATION PERCENTAGE	0%	
-MITIGATION REQUIRED	22.00	INCHES
FLOODPLAIN		
-PRESERVATION PERCENTAGE	0%	
-MITIGATION REQUIRED	98.00	INCHES
TOTAL INCHES MITIGATION REQUIRED	504.40	INCHES

WOODLAKE SUBDIVISION - PROPOSED MITIGATION		
-NO OF LOTS RECEIVING TREES	98	LOTS
-NO OF LOTS UPSIZING TO 2.5 INCH TREES	98	LOTS
-NO OF LOTS RECEIVING TREES 4 TREES/LOT	98	LOTS
-TOTAL INCHES PROVIDED (98 LOTS * 4 MEDIUM SPECIES * 2.5 INCH)	980.00	INCHES
-MINUS 1.5" PER TREE FOR COSA UDC REQUIREMENT (98 LOTS * 2 MEDIUM SPECIES * 1.5 INCH)	294.00	INCHES
-TOTAL INCHES PROVIDED FOR MITIGATION	686.00	INCHES
TOTAL INCHES MITIGATION REQUIRED	(181.60)	INCHES

WOODLAKE SUBDIVISION - TREE CANOPY CALCULATIONS		
PROJECT DATA		
-PROJECT AREA (ACRES)	17.52	ACRES
-FINAL TREE CANOPY REQUIREMENT	38%	
-FINAL TREE CANOPY AREA REQUIRED	290,005.06	SQFT
EXISTING TREES		
-EXISTING CANOPY	9,425.00	SQFT
PROPOSED TREES		
-NO OF LOTS RECEIVING ENERGY CREDIT	98	LOTS
-NO OF LOTS RECEIVING 4 TREES/LOT	98	LOTS
-PROPOSED CANOPY (2 TREES * 98 LOTS * 875 SQ-FT * 1.5) + (2 TREES * 98 LOTS * 875 SQ-FT)	428,750.00	SQFT
-PROPOSED CANOPY COVER (90%)	385,875.00	SQFT
TOTAL FINAL CANOPY PROVIDED (EXISTING AND PROPOSED)	395,300.00	SQFT
TOTAL TREE CANOPY MITIGATION REQUIRED	(105,294.94)	SQFT



1 ENERGY CONSERVATION CREDIT LOT DETAIL N.T.S.



1 ENERGY CONSERVATION CREDIT LOT DETAIL N.T.S.

- 1 LOT NUMBERS WITH CIRCLE SHALL HAVE TWO MEDIUM SPECIES TREES LOCATED IN THE FRONT YARD WITHIN THE ENERGY CONSERVATION LIMITS. SEE DETAIL THIS SHEET
- 1 LOT NUMBERS WITH RECTANGLE SHALL HAVE TWO MEDIUM SPECIES TREES LOCATED IN THE BACK YARD WITHIN THE ENERGY CONSERVATION LIMITS. SEE DETAIL THIS SHEET

ROOT PROTECTION ZONE NOTE:

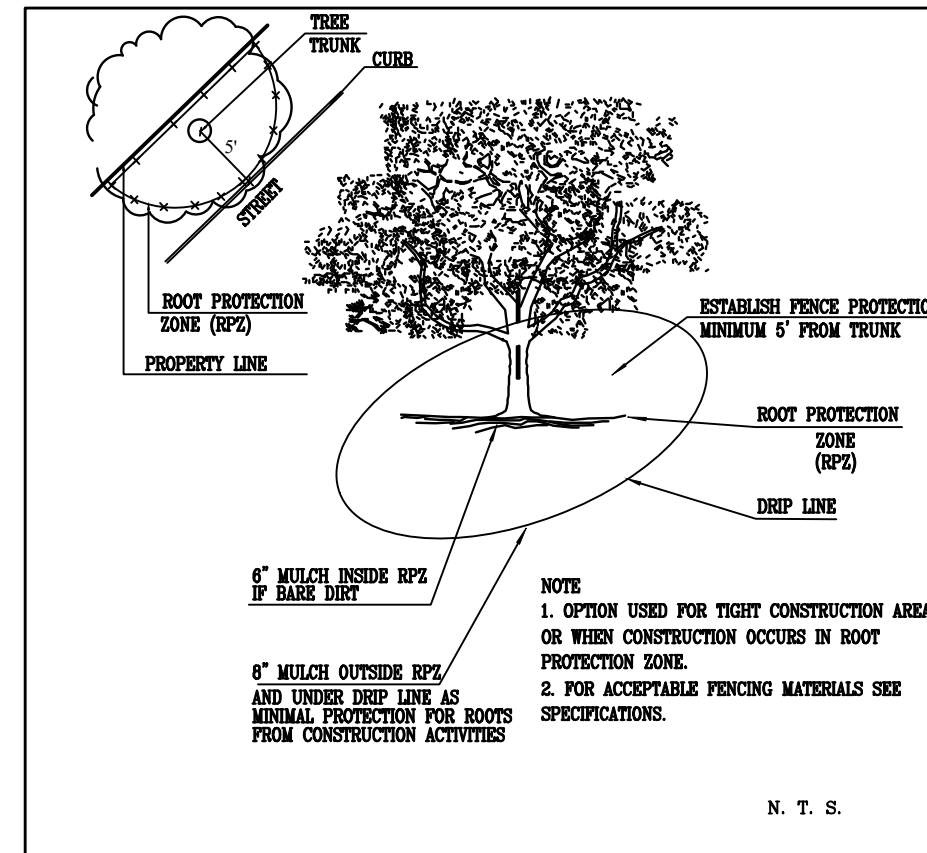
ANY TREES THAT ARE SHOWN TO BE PRESERVED BUT REMOVED DURING CONSTRUCTION DUE TO ROOT PROTECTION ZONE CONFLICT SHALL BE MITIGATED WITH EQUAL INCHES AS PER SECTION 35-477(h) NOTIFICATION AND APPROVAL OF THE CITY ARBORIST IS REQUIRED IF CHANGES NEED TO BE MADE TO AN APPROVED TREE PRESERVATION PLAN. APPROVAL OF THE CHANGES MUST BE RECEIVED FROM THE CITY ARBORIST, IN WRITING, BEFORE COMMENCEMENT OF ANY WORK THAT IS THE SUBJECT OF THE CHANGE OR FIELD ADJUSTMENT.

IMPORTANT NOTE:

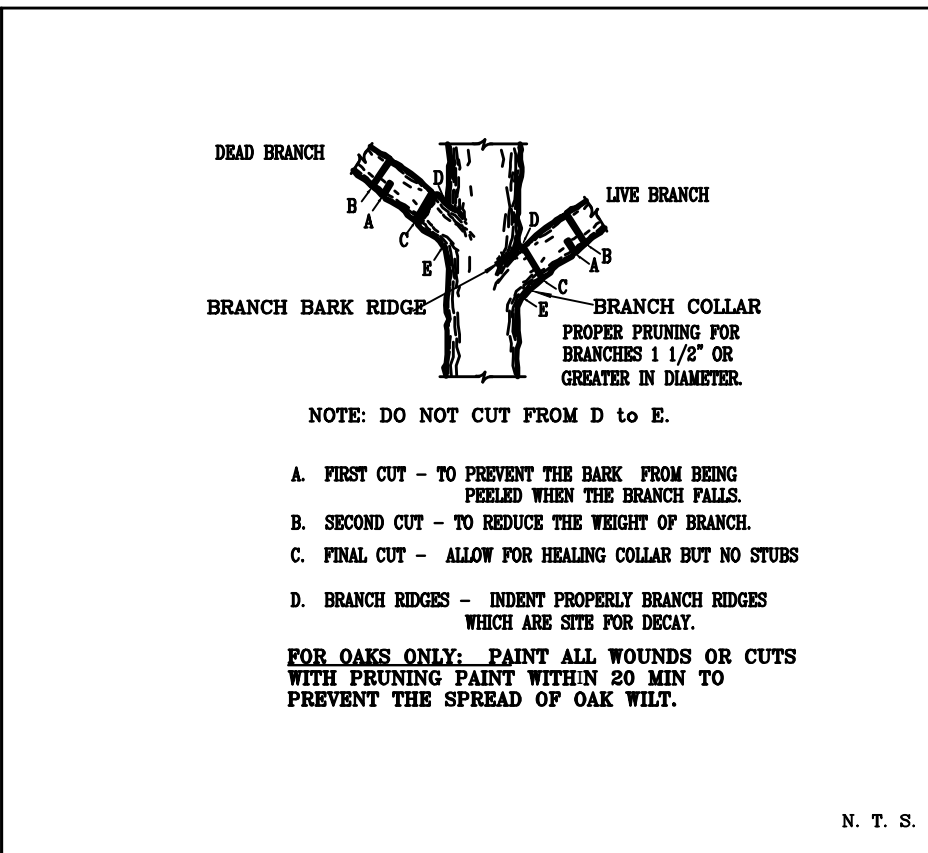
2 - MINIMUM - 1.5 INCH CALIPER MEDIUM TO LARGE CANOPY SHADE TREES TO BE PLANTED PER LOT AS PER CITY OF SAN ANTONIO UNIFIED DEVELOPMENT CODE. FOR MITIGATION PURPOSES THE TWO 1.5 INCH TREES WILL BE UPSIZED TO 2.5 INCH TREES. REFERENCE THE ENERGY CONSERVATION DETAIL FOR TREE LOCATION. FOR MITIGATION PURPOSES TWO ADDITIONAL, MINIMUM - 2.5 INCH CALIPER MEDIUM TO LARGE CANOPY SHADE TREE TO BE PLANTED IN ALL LOTS.

TREE PROTECTION NOTES

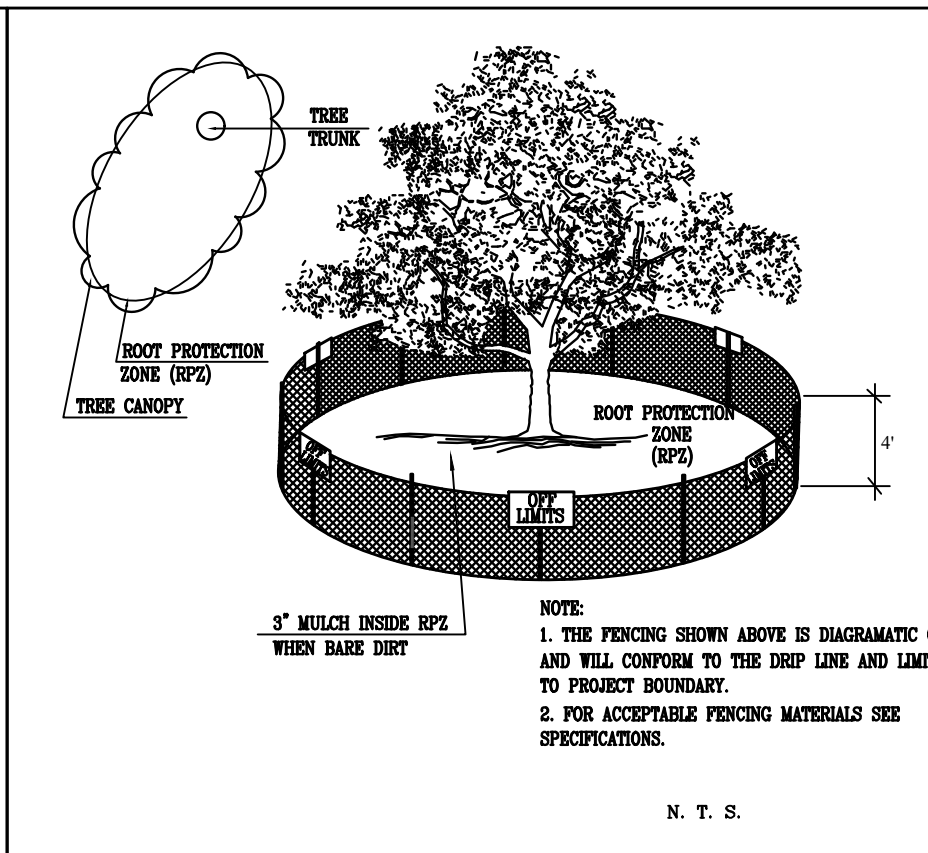
- A ROOT PROTECTION ZONE WILL BE ESTABLISHED AROUND EACH TREE OR ANY VEGETATION TO BE PRESERVED TO MEET THE LANDSCAPE OR TREE PRESERVATION ORDINANCES. THE ROOT PROTECTION ZONE SHALL BE AN AREA DEFINED BY THE RADIUS EXTENDING OUTWARD FROM THE TRUNK OF THE TREE A DISTANCE OF ONE (1) LINEAR FOOT FOR EACH INCH DIAMETER INCH AT BREAST HEIGHT (4.5') OF THE TREE. A 10-INCH DIAMETER TREE WILL HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE.
- NO WORK SHALL BEGIN WHERE TREE PROTECTION FENCING HAS NOT BEEN COMPLETED AND APPROVED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING CONSTRUCTION. THE FENCING WILL BE A MINIMUM OF 4' HEIGHT.
- ALL ROOTS LARGER THAN ONE-INCH IN DIAMETER ARE TO BE CUT CLEANLY AND OAK WOUNDS PAINTED WITHIN 30 MINUTES.
- EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE WORK DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.
- NO EQUIPMENT, VEHICLES OR MATERIALS SHALL BE OPERATED OR STORED WITHIN THE ROOT PROTECTION ZONE. NO CLEAN-OUT AREAS WILL BE CONSTRUCTED SO THAT THE MATERIAL WILL BE IN OR MIGRATE TO THE ROOT PROTECTION ZONE.
- NO GRADE CHANGE MORE THAN 3" IS ALLOWED WITHIN THE ROOT PROTECTION ZONE.
- ROOTS OR BRANCHES IN CONFLICT WITH CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. ALL OAK WOUNDS SHALL BE PAINTED WITHIN 30 MINUTES TO PREVENT OAK WILT INFECTION.
- ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY OF SAN ANTONIO.
- TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED.
- TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE WATERING THE ROOT PROTECTION ZONE AND OR WASHING FOLIAGE.
- NO WIRES, NAILS OR OTHER MATERIALS MAY BE ATTACHED TO PROTECTED TREES.



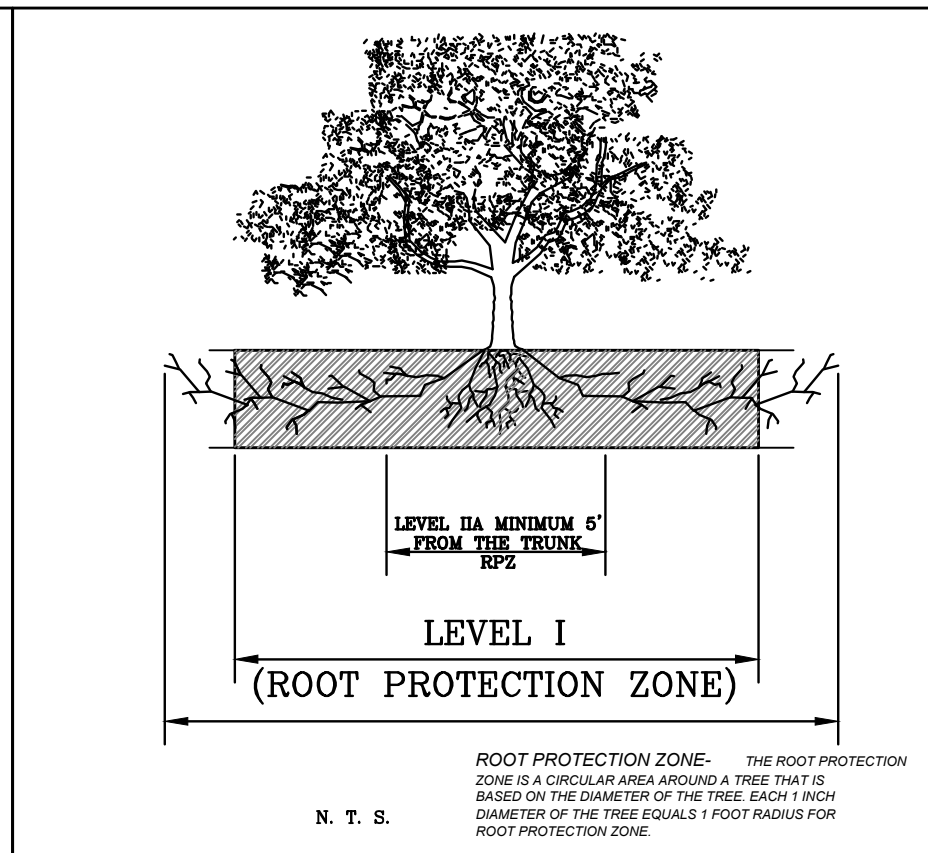
N. T. S.



N. T. S.



N. T. S.



N. T. S.