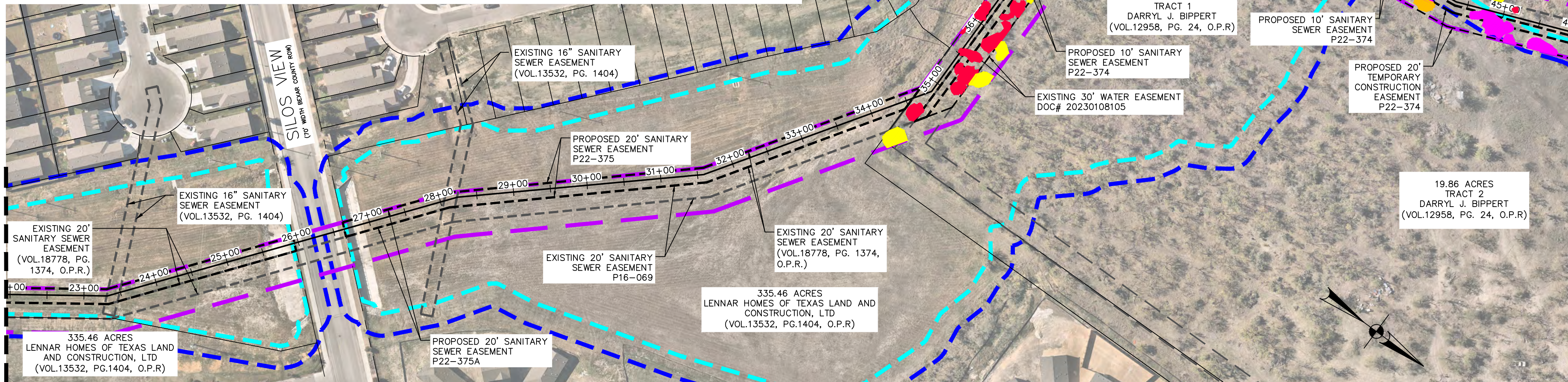


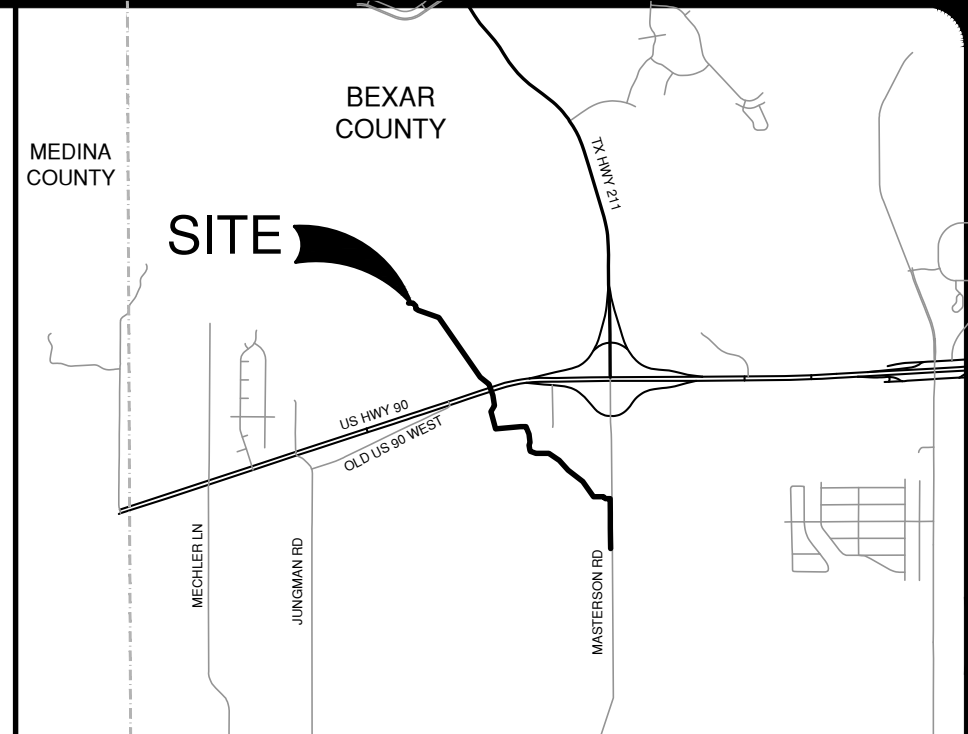
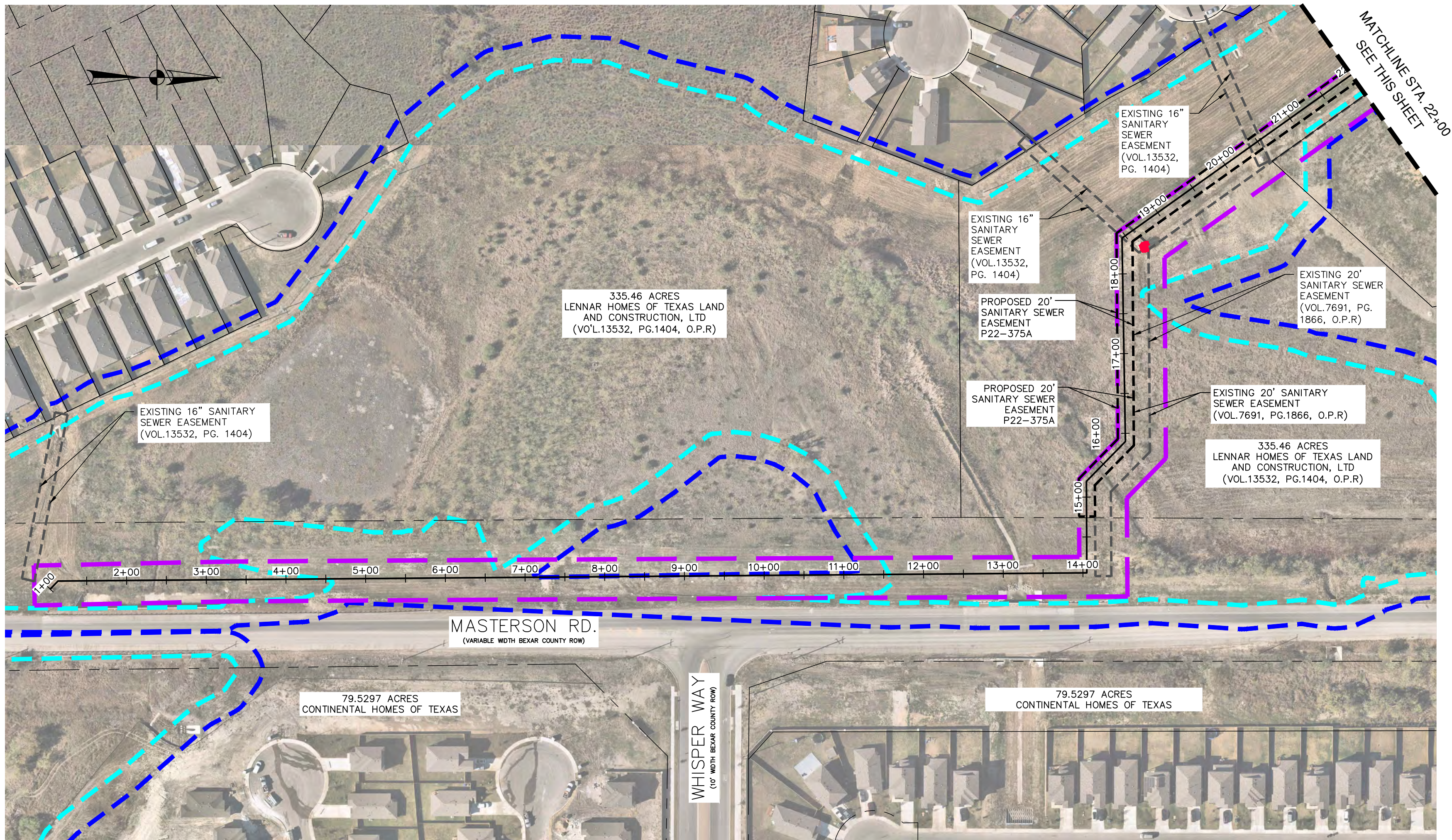
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MATCHLINE STA. 22+00
SEE THIS SHEET



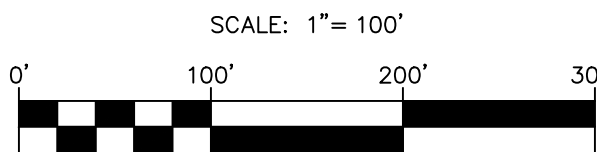
MATCHLINE STA. 46+00
SEE SHEET C6.01



LOCATION MAP
NOT-TO-SCALE

LEGEND

- PROPOSED SEWER LINE
- PROPERTY LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- 1% ANNUAL-CHANCE FEMA FLOODPLAIN
- 30' WIDE FLOODPLAIN BUFFER
- PROJECT LIMITS
- CANOPY TO BE REMOVED INSIDE FLOODPLAIN
- CANOPY TO BE PRESERVED INSIDE FLOODPLAIN
- CANOPY TO BE REMOVED OUTSIDE FLOODPLAIN
- CANOPY TO BE PRESERVED OUTSIDE FLOODPLAIN
- CANOPY TO BE REMOVED INSIDE 30' WIDE BUFFER
- CANOPY TO BE PRESERVED INSIDE 30' WIDE BUFFER



SEWER: SOUTH WATERSHED - DOS RIOS W.R.C.
STONEHILL OFF-SITE SEWER EXTENSION PHASE II

Developer's Name: DR. HORTON	
Address: 5419 NORTH LOOP 1604 E	
City: SAN ANTONIO	State: TEXAS ZIP: 78247
Phone: (210) 496-2668	FAX: N/A
SAWS Block Map# 066558, 066560, 066556, 066558, 070554, 070556 Total Acreage 2X	
Total Linear Footage of Pipe 9,789 LF ~ 18" PVC SEWER Plat No. N/A	
Number of Lots: N/A	TOTAL EDU'S: N/A SAWS JOB NO. 24-4402

NO.	REVISION	DATE



PAPE-DAWSON ENGINEERS
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028890

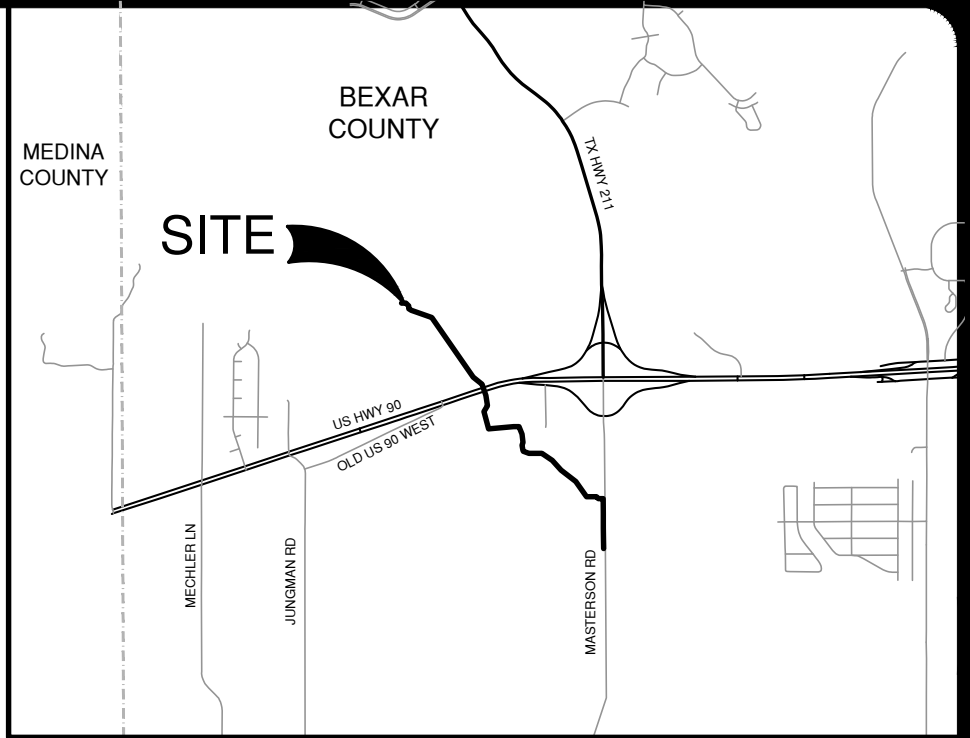
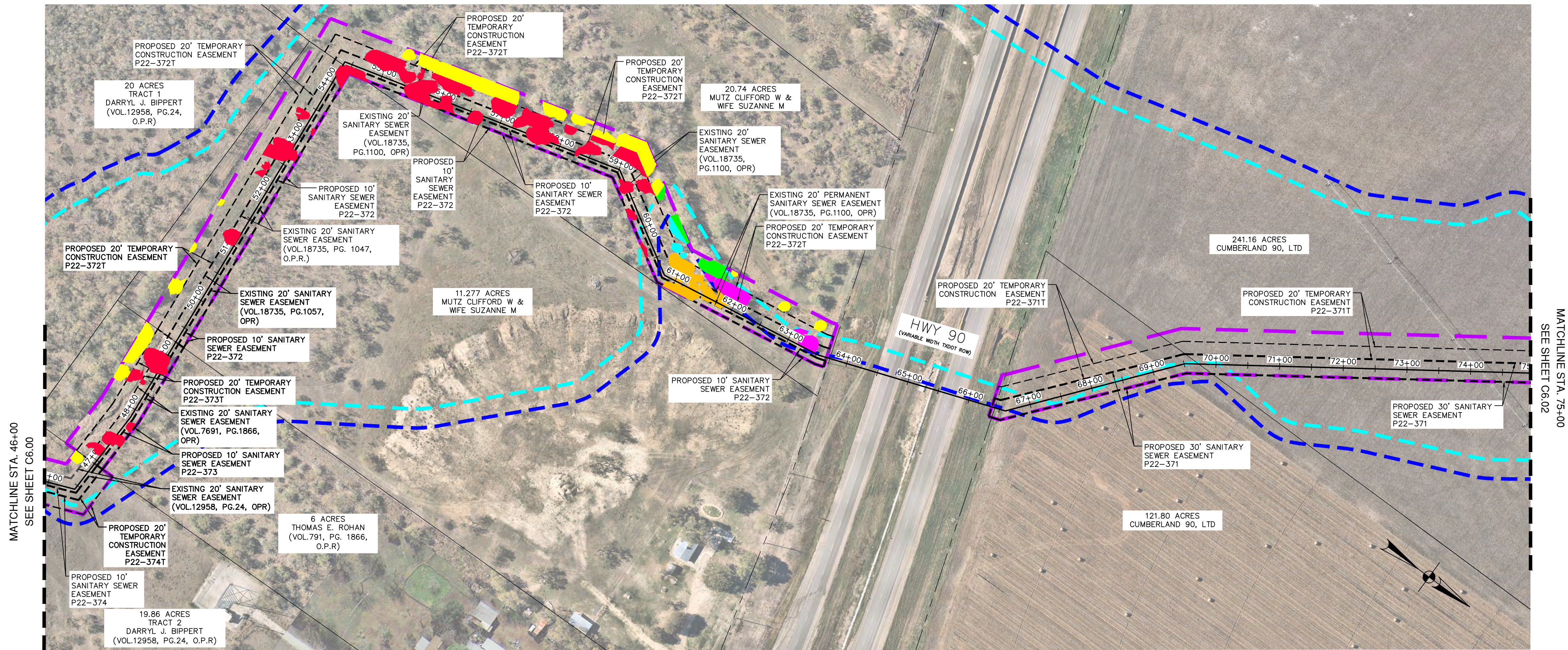
STONEHILL OFF-SITE SEWER EXTENSION PHASE II
BEXAR COUNTY, TEXAS
TREE PRESERVATION PLAN

PLAT NO.	12747-04
JOB NO.	12747-04
DATE	SEPTEMBER 2024
DESIGNER	AM
CHECKED	MP
DRAWN	RJ
SHEET	C6.00

100% SUBMITTAL

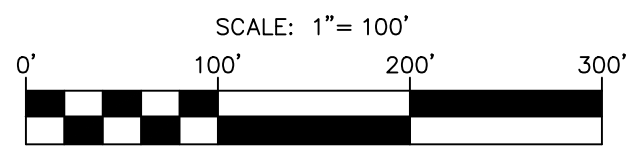
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LEGEND

- PROPOSED SEWER LINE: Solid black line
- PROPERTY LINE: Dashed black line
- PROPOSED EASEMENT: Dashed black line
- EXISTING EASEMENT: Dashed black line
- 1% ANNUAL-CHANCE FEMA FLOODPLAIN: Dashed cyan line
- 30' WIDE FLOODPLAIN BUFFER: Dashed blue line
- PROJECT LIMITS: Dashed purple line
- CANOPY TO BE REMOVED INSIDE FLOODPLAIN: Red fill
- CANOPY TO BE PRESERVED INSIDE FLOODPLAIN: Yellow fill
- CANOPY TO BE REMOVED OUTSIDE FLOODPLAIN: Orange fill
- CANOPY TO BE PRESERVED OUTSIDE FLOODPLAIN: Cyan fill
- CANOPY TO BE REMOVED INSIDE 30' WIDE BUFFER: Magenta fill
- CANOPY TO BE PRESERVED INSIDE 30' WIDE BUFFER: Green fill



SEWER: SOUTH WATERSHED - DOS RIOS W.R.C.
STONEHILL OFF-SITE SEWER EXTENSION PHASE II

Developer's Name:	DR. HORTON
Address:	5419 NORTH LOOP 1804 E
City:	SAN ANTONIO
State:	TEXAS
ZIP:	78247
Phone#:	(210) 496-2668
FAX#:	N/A
SAWS Block Map#:	066558,066560,068556,068558,070554,070556
Total Acreage:	XX
Total Linear Footage of Pipe:	9,789 LF ~ 18" PVC SEWER
Plat No.:	N/A
Number of Lots:	N/A
TOTAL EDU'S:	N/A
SAWS JOB NO.:	24-4402

NO.	REVISION	DATE



PAPE-DAWSON ENGINEERS
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 HW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

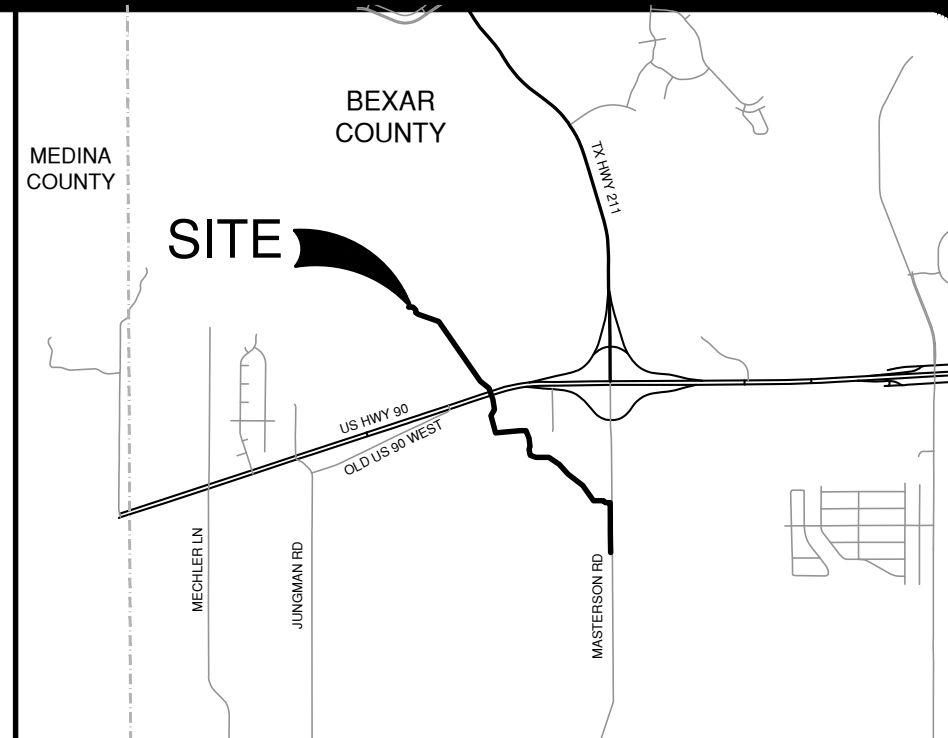
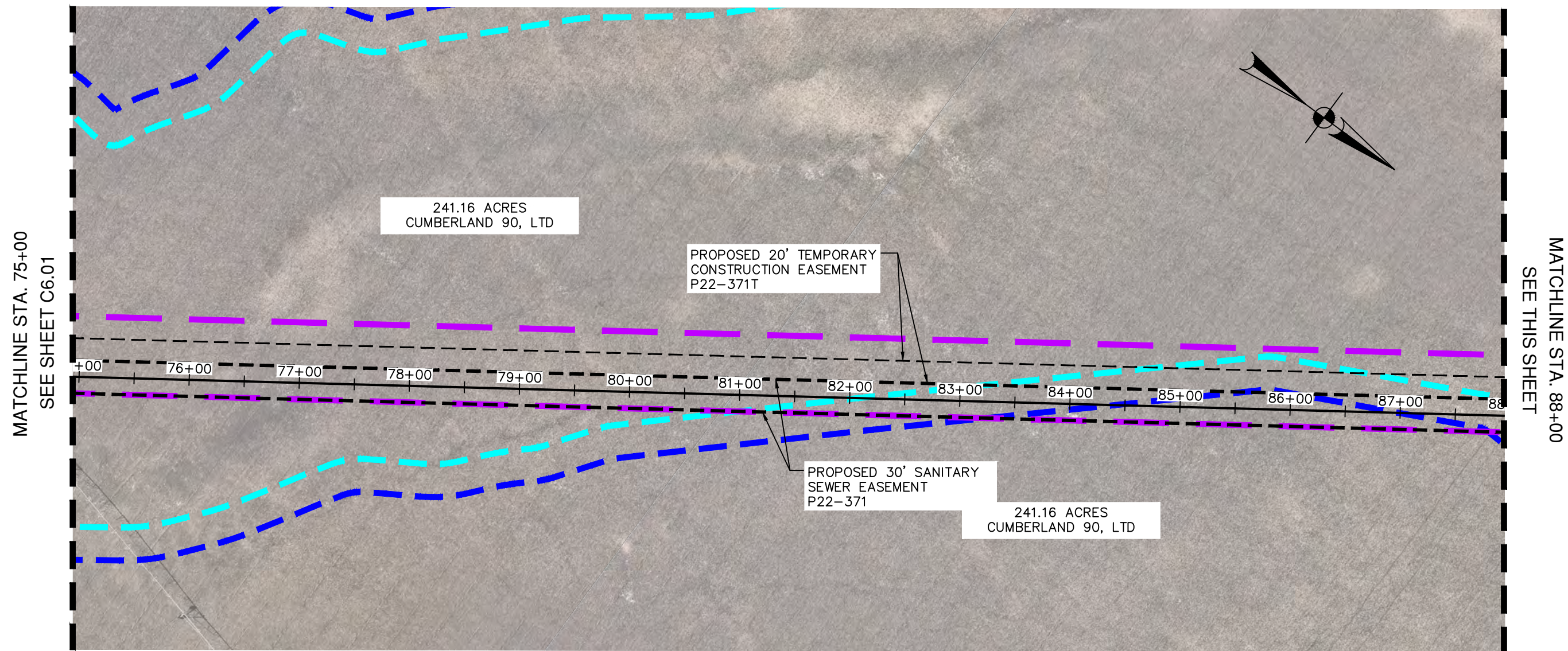
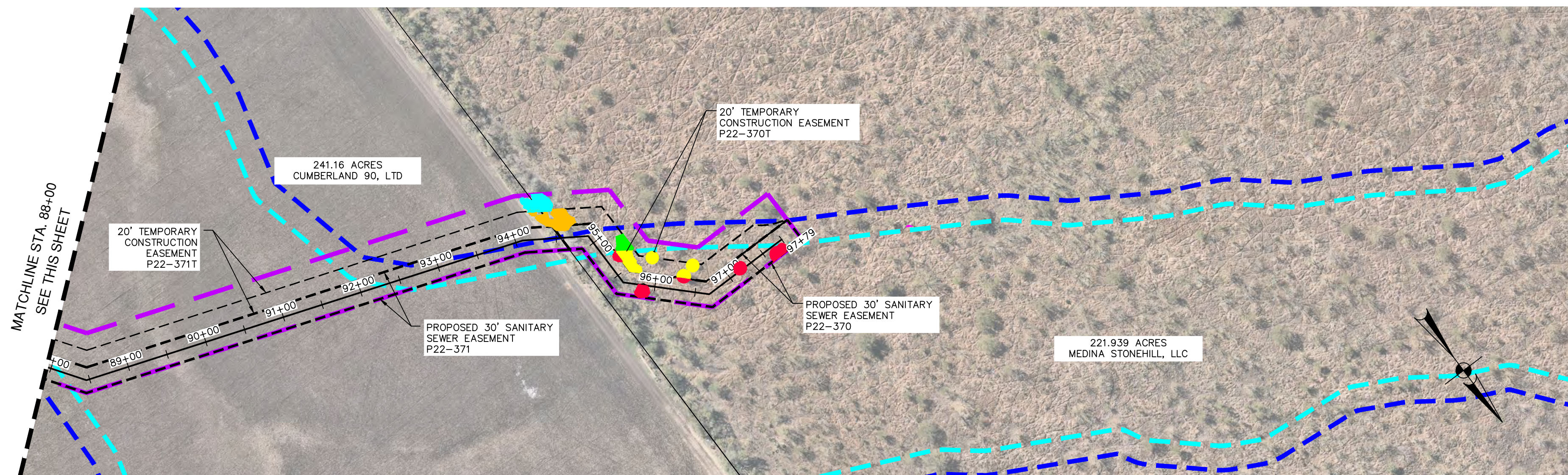
STONEHILL OFF-SITE SEWER EXTENSION PHASE II
BEXAR COUNTY, TEXAS
TREE PRESERVATION PLAN

PLAT NO.	
JOB NO.	12747-04
DATE	SEPTEMBER 2024
DESIGNER	AM
CHECKED	MP
DRAWN	RJ
SHEET	C6.01

100% SUBMITTAL

Date: Oct 28, 2024, 4:39pm User: JD_Fordhede
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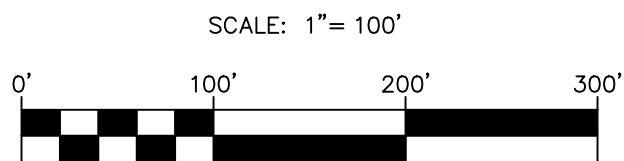
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LOCATION MAP
NOT-TO-SCALE

LEGEND

PROPOSED SEWER LINE	
PROPERTY LINE	
PROPOSED EASEMENT	
EXISTING EASEMENT	
1% ANNUAL-CHANCE FEMA FLOODPLAIN	
30' WIDE FLOODPLAIN BUFFER	
PROJECT LIMITS	
CANOPY TO BE REMOVED INSIDE FLOODPLAIN	
CANOPY TO BE PRESERVED INSIDE FLOODPLAIN	
CANOPY TO BE REMOVED OUTSIDE FLOODPLAIN	
CANOPY TO BE PRESERVED OUTSIDE FLOODPLAIN	
CANOPY TO BE REMOVED INSIDE 30' WIDE BUFFER	
CANOPY TO BE PRESERVED INSIDE 30' WIDE BUFFER	



SEWER: SOUTH WATERSHED - DOS RIOS W.R.C.
STONEHILL OFF-SITE SEWER EXTENSION PHASE II

Developer's Name: DR HORTON
Address: 5419 NORTH LOOP 1604 E
City: SAN ANTONIO State: TEXAS ZIP: 78247
Phone# (210) 496-2668 FAX# N/A
SAWS Block Map# 066558,066560,068556,068558,070554,070556 Total Acreage 2X
Total Linear Footage of Pipe 9,789 LF ~ 18" PVC SEWER Plat No. N/A
Number of Lots N/A TOTAL EDU'S N/A SAWS JOB NO. 24-4402

NO.	REVISION	DATE



PAPE-DAWSON ENGINEERS
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

STONEHILL OFF-SITE SEWER EXTENSION PHASE II
BEXAR COUNTY, TEXAS
TREE PRESERVATION PLAN

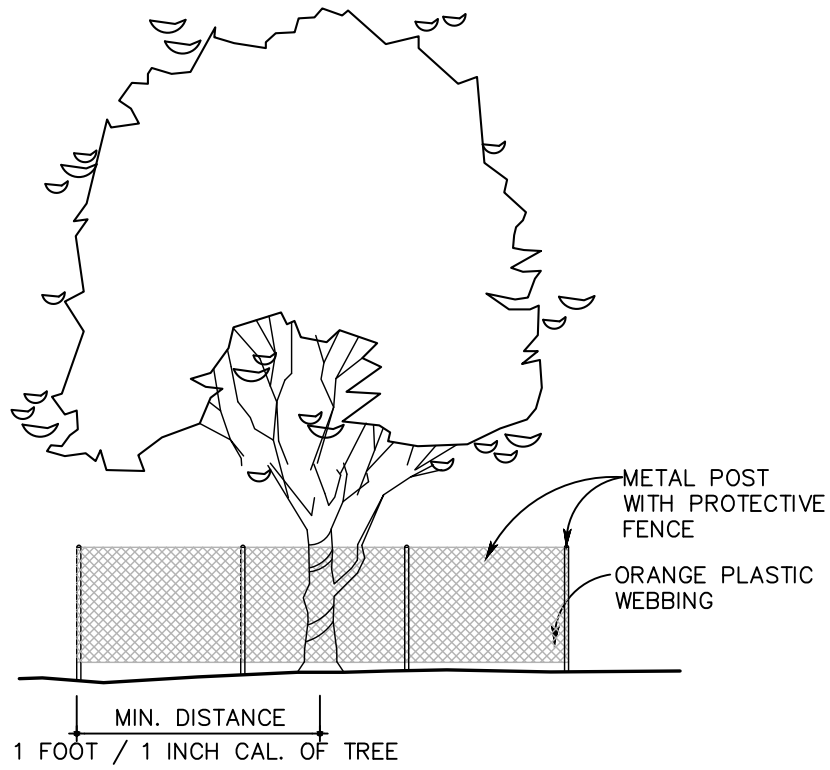
PLAT NO.	
JOB NO.	12747-04
DATE	SEPTEMBER 2024
DESIGNER	AM
CHECKED	MP DRAWN RJ
SHEET	C6.02

100% SUBMITTAL

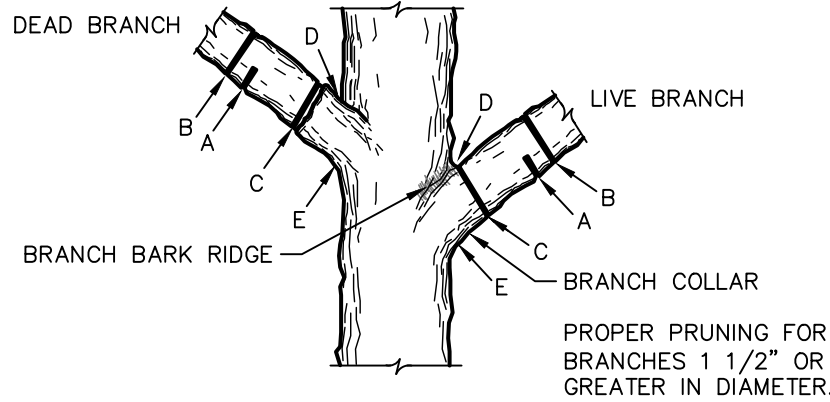
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TREE PRESERVATION GENERAL NOTES

- ALL TREES SHALL REMAIN UNLESS NOTED ON THE CITY OF SAN ANTONIO APPROVED PLANS.
- NO UTILITY EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
- THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR GUIDANCE.
- EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.
- NO EQUIPMENT, VEHICLES OR MATERIALS SHALL OPERATE OR BE STORED WITHIN THE ROOT PROTECTION ZONE OF ANY TREE NEAR THE PROJECT. ROOT PROTECTION ZONE IS ONE FOOT RADIUS PER DIAMETER INCH OF THE TRUNK OF THE TREE. A TEN INCH TREE SHALL REQUIRE A TEN FOOT ROOT PROTECTION ZONE. ROOTS OR BRANCHES IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. ALL WOUNDS TO OAK TREES SHALL BE PAINTED WITHIN 20 MINUTES TO PREVENT THE SPREAD OF OAK WILT.
- THE CITY ARBORIST, 207-0278, SHALL APPROVE ANY TREE REMOVED.
- TREES, TREE LIMBS, BUSHES AND SHRUBS LOCATED IN THE PERMANENT EASEMENTS WHICH INTERFERE WITH PROPOSED CONSTRUCTION ACTIVITIES MAY BE NEATLY TRIMMED BY THE CONTRACTOR ONLY AFTER APPROVAL FROM THE CITY INSPECTOR.
- TREES THAT ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
- SAPLINGS, SHRUBS OR BUSHES TO BE REMOVED FROM THE PROTECTED ROOT ZONE AREA OF PROTECTED TREES SHALL BE REMOVED BY HAND AS DESIGNATED BY THE INSPECTOR.
- ALL DEBRIS GENERATED BY THE PRUNING OR TRIMMING OF THE TREES AND/OR BUSHES SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY.
- 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.
- PRIOR TO START OF WORK, CALL 207-1111 TO SCHEDULE A PRE-CONSTRUCTION & FENCING INSPECTION (PER SECTION 35-477 OF THE UDC, SUBSECTION TREE PERMITS (5)(C)).
- FAILURE TO SCHEDULE A FENCING INSPECTION PRIOR TO START OF WORK MAY RESULT IN A STOP WORK ORDER OR A PENALTY OF \$2,000 OR BOTH (PER SECTION 35-523 OF THE UDC, SUBSECTION (K)(2), THE BARRIER SHALL BE IN PLACE BEFORE ANY SITE WORK IS INITIATED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS).
- TREE PLANTING AND MAINTENANCE: ALL PRESERVED AND PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATING, FERTILIZING, PRUNING, AND OTHER MAINTENANCE AS NEEDED. TREES THAT DIE WITHIN TWELVE MONTHS SHALL BE REPLACED WITH A TREE OF COMPARABLE SIZE AND SPECIES. REGARDING REPLACEMENT OF PRESERVED TREES, SIGNIFICANT TREES SHALL BE REPLACED WITH A 1:1 RATIO (OR INCH-FOR-INCH) AND HERITAGE TREES SHALL BE REPLACED AT A 3:1 RATIO (OR THREE-TO-ONE INCH).



TREE PROTECTION DETAIL
EXISTING TREES
N.T.S.



TREE PRUNING DETAIL
N.T.S.

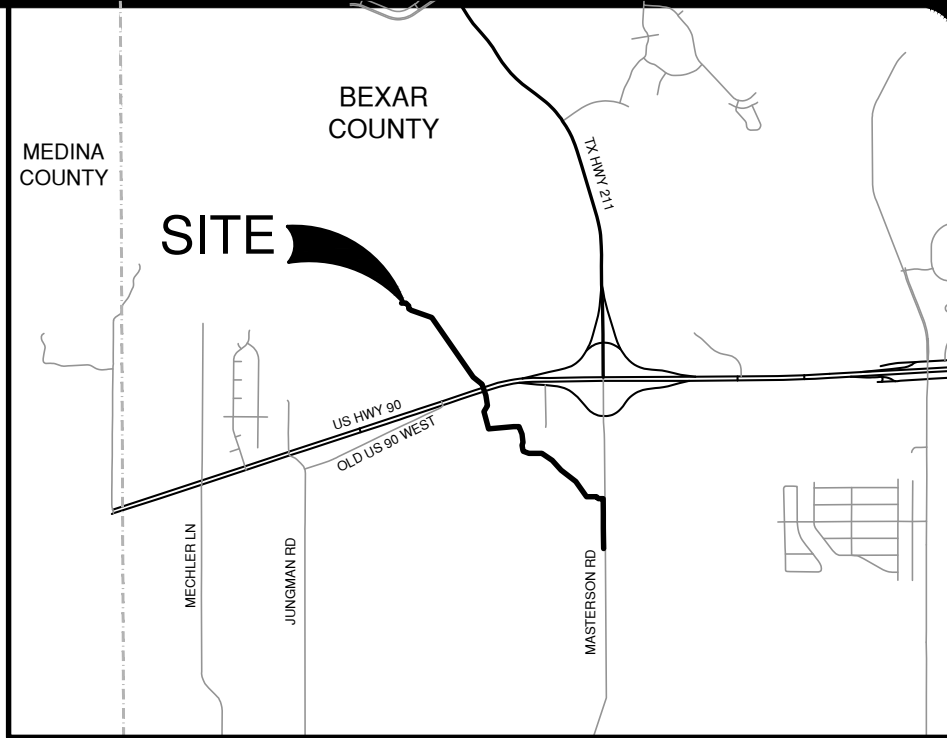
TREE PRESERVATION NOTES

- ALL TREES TO REMAIN ON SITE REQUIRE PROTECTIVE FENCING, PRUNING, WATERING, AND FERTILIZATION AS DIRECTED BY A QUALIFIED ARBORIST.
- PROTECTIVE FENCING CONSISTS OF 4'-0" HIGH FENCE.
- FENCE TO EXTEND FROM TRUNK ONE FOOT FOR EVERY CALIPER INCH OF TREE (MINIMUM). THE OPTIMUM DISTANCE IS TO INSTALL FENCE DIRECTLY BENEATH DRIPLINE OF TREE TO REMAIN AS SHOWN.
- DURING CONSTRUCTION, NO EXCESS SOIL, FILL MATERIAL, EQUIPMENT, LIQUIDS, OR CONSTRUCTION DEBRIS SHALL BE PLACED WITHIN THE PROTECTIVE FENCING, NOR SHALL ANY SOIL BE REMOVED FROM WITHIN THE FENCING.
- ALL TREE PROTECTION MUST BE IN PLACE BEFORE CONSTRUCTION BEGINS.
- INSTALL 4" MINIMUM DEPTH OF SHREDDED MULCH BENEATH THE DRIPLINE OF THE TREE.

NOTE: DO NOT CUT FROM D TO E

- FIRST CUT** - TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
- SECOND CUT** - TO REDUCE THE WEIGHT OF BRANCH.
- FINAL CUT** - ALLOW FOR HEALING COLLAR BUT NO STUBS
- BRANCH RIDGES** - INDENT PROPERLY BRANCH RIDGES WHICH ARE SITE FOR DECAY.

FOR OAKS ONLY: PAINT ALL WOUNDS OR CUTS WITH PRUNING PAINT WITHIN 20 MIN. TO PREVENT THE SPREAD OF OAK WILT.



LOCATION MAP
NOT-TO-SCALE

NO.	REVISION	DATE



**PAPE-DAWSON
ENGINEERS**
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028800

STONEHILL OFF-SITE SEWER EXTENSION PHASE II
BEXAR COUNTY, TEXAS
TREE PRESERVATION PLAN AND DETAILS

PLAT NO. _____
JOB NO. 12747-04
DATE SEPTEMBER 2024
DESIGNER AM
CHECKED MP DRAWN RJ
SHEET C6.03

OUTSIDE FLOODPLAIN	
EXISTING CANOPY	4941 SF
REQUIRED TO REMAIN (25%)	1235 SF
EXISTING TREE CANOPY TO BE REMOVED	3826 SF
EXISTING TREE CANOPY TO REMAIN	1115 SF
PERCENTAGE AREA PRESERVED	23%
CANOPY REQUIRED TO BE MITIGATED	120.25 SF

INSIDE FLOODPLAIN	
EXISTING CANOPY	41449 SF
REQUIRED TO REMAIN (80%)	33159.2 SF
EXISTING TREE CANOPY TO BE REMOVED	26770 SF
EXISTING TREE CANOPY TO REMAIN	14679 SF
PERCENTAGE AREA PRESERVED	35%
CANOPY REQUIRED TO BE MITIGATED	18480.2 SF

INSIDE 30' FLOODPLAIN BUFFER	
EXISTING CANOPY	5251 SF
REQUIRED TO REMAIN (80%)	4200.8 SF
EXISTING TREE CANOPY TO BE REMOVED	3769 SF
EXISTING TREE CANOPY TO REMAIN	1482 SF
PERCENTAGE AREA PRESERVED	28%
CANOPY REQUIRED TO BE MITIGATED	2718.8 SF

TREE CANOPY MITIGATION CALCULATIONS

OUTSIDE FLOODPLAIN

- A. EXISTING CANOPY AREA PRESERVED: 1,115 SF
B. EXISTING CANOPY AREA REQUIRED TO BE PRESERVED: 25% x 4,941 SF = 1,235 SF

** TREE CANOPY AREA BEING PRESERVED DOES NOT EXCEED THE REQUIRED CANOPY AREA; THEREFORE, MITIGATION IS REQUIRED.

INSIDE FLOODPLAIN

- A. EXISTING CANOPY AREA PRESERVED: 14,679 SF
B. EXISTING CANOPY AREA REQUIRED TO BE PRESERVED: 80% x 41,449 SF = 33,159 SF

** TREE CANOPY AREA BEING PRESERVED DOES NOT EXCEED THE REQUIRED CANOPY AREA; THEREFORE, MITIGATION IS REQUIRED.

INSIDE 30' WIDE BUFFER

- A. EXISTING CANOPY AREA PRESERVED: 1,482 SF
B. EXISTING CANOPY AREA REQUIRED TO BE PRESERVED: 80% x 5,251 SF = 4,200.8 SF

** TREE CANOPY AREA BEING PRESERVED DOES NOT EXCEED THE REQUIRED CANOPY AREA; THEREFORE, MITIGATION IS NOT REQUIRED.

MITIGATION REQUIREMENTS

OUTSIDE FLOODPLAIN

NUMBER OF TREES REQUIRED TO BE PLANTED = 120 SF ÷ (875 SF/TREE) = 1 TREE
INCHES OF CANOPY REQUIRED TO BE MITIGATED = 1 TREES x 16.7 INCHES = 16.7 INCHES

INSIDE FLOODPLAIN

NUMBER OF TREES REQUIRED TO BE PLANTED = 18480 SF ÷ (875 SF/TREE) = 22 TREES
INCHES OF CANOPY REQUIRED TO BE MITIGATED = 22 TREES x 16.7 INCHES = 367.4 INCHES

INSIDE 30' WIDE BUFFER

NUMBER OF TREES REQUIRED TO BE PLANTED = 2718.8 SF ÷ (875 SF/TREE) = 4 TREES
INCHES OF CANOPY REQUIRED TO BE MITIGATED = 4 TREES x 16.7 INCHES = 66.8 INCHES

TOTAL MITIGATION

INSIDE FLOODPLAIN CANOPY MITIGATION INCHES = 367.4 INCHES

OUTSIDE FLOODPLAIN CANOPY MITIGATION INCHES = 16.7 INCHES

INSIDE 30' WIDE BUFFER CANOPY MITIGATION INCHES = 66.8 INCHES

MITIGATION FEE @ \$200.00/INCH

INSIDE FLOODPLAIN CANOPY FEE = 367.4 INCHES x \$200 = \$73,480
OUTSIDE FLOODPLAIN CANOPY FEE = 16.7 INCHES x \$200 = \$3,340
INSIDE 30' WIDE BUFFER CANOPY FEE = 66.8 INCHES x \$200 = \$13,360

TOTAL MITIGATION FEE = \$90,180

SEWER: SOUTH WATERSHED - DOS RIOS W.R.C.
STONEHILL OFF-SITE SEWER EXTENSION PHASE II

Developer's Name: DR HORTON	
Address: 5419 NORTH LOOP 1604 E	
City: SAN ANTONIO	State: TEXAS ZIP: 78247
Phone# (210) 496-2668	FAX# N/A
SAWS Block Map# D66558,066560,068556,068558,070554,070556 Total Acreage XX	
Total Linear Footage of Pipe 9,789 LF ~ 18" PVC SEWER Plat No. N/A	
Number of Lots N/A	TOTAL EDU'S N/A SAWS JOB NO. 24-4402

100% SUBMITTAL