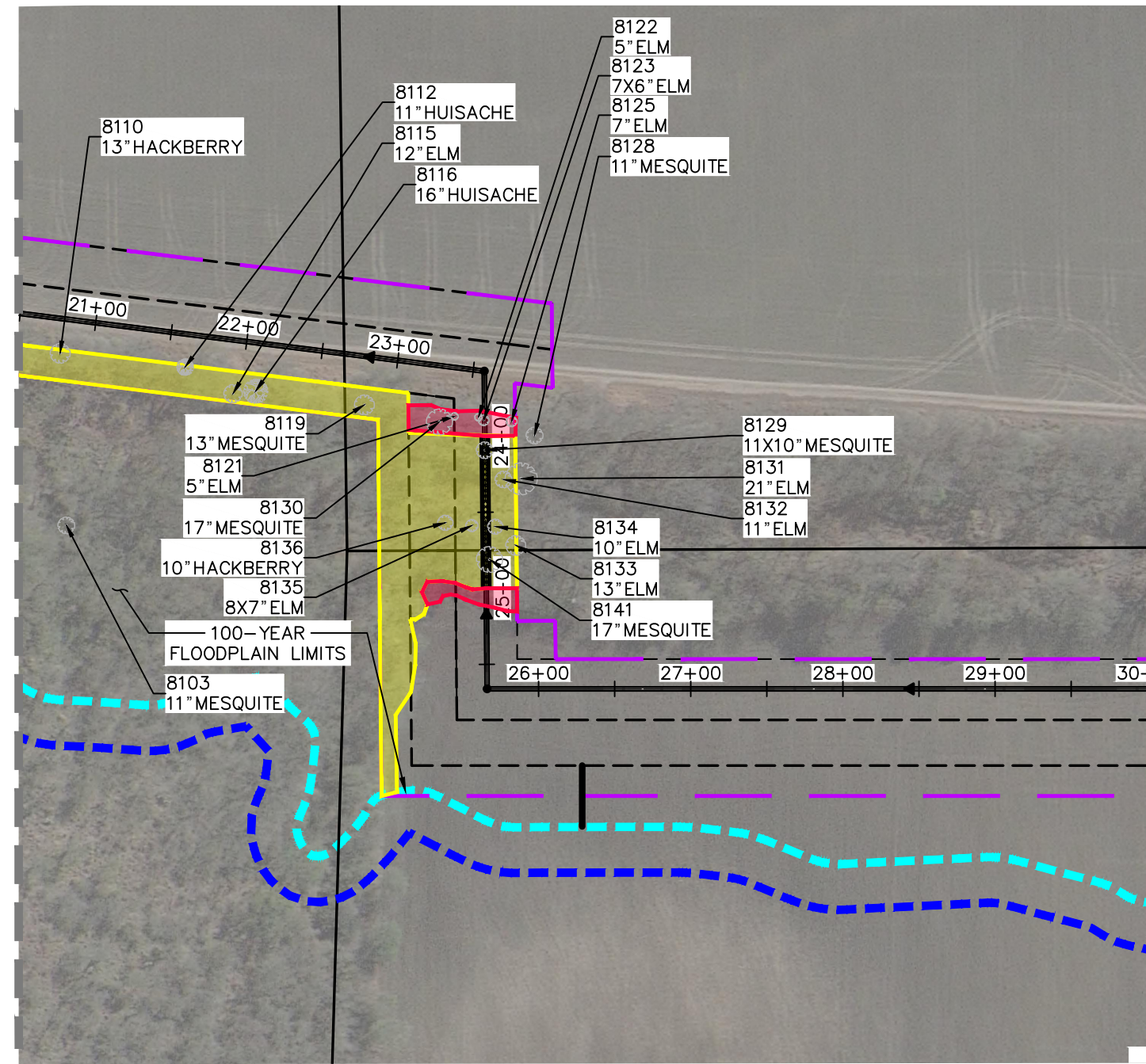


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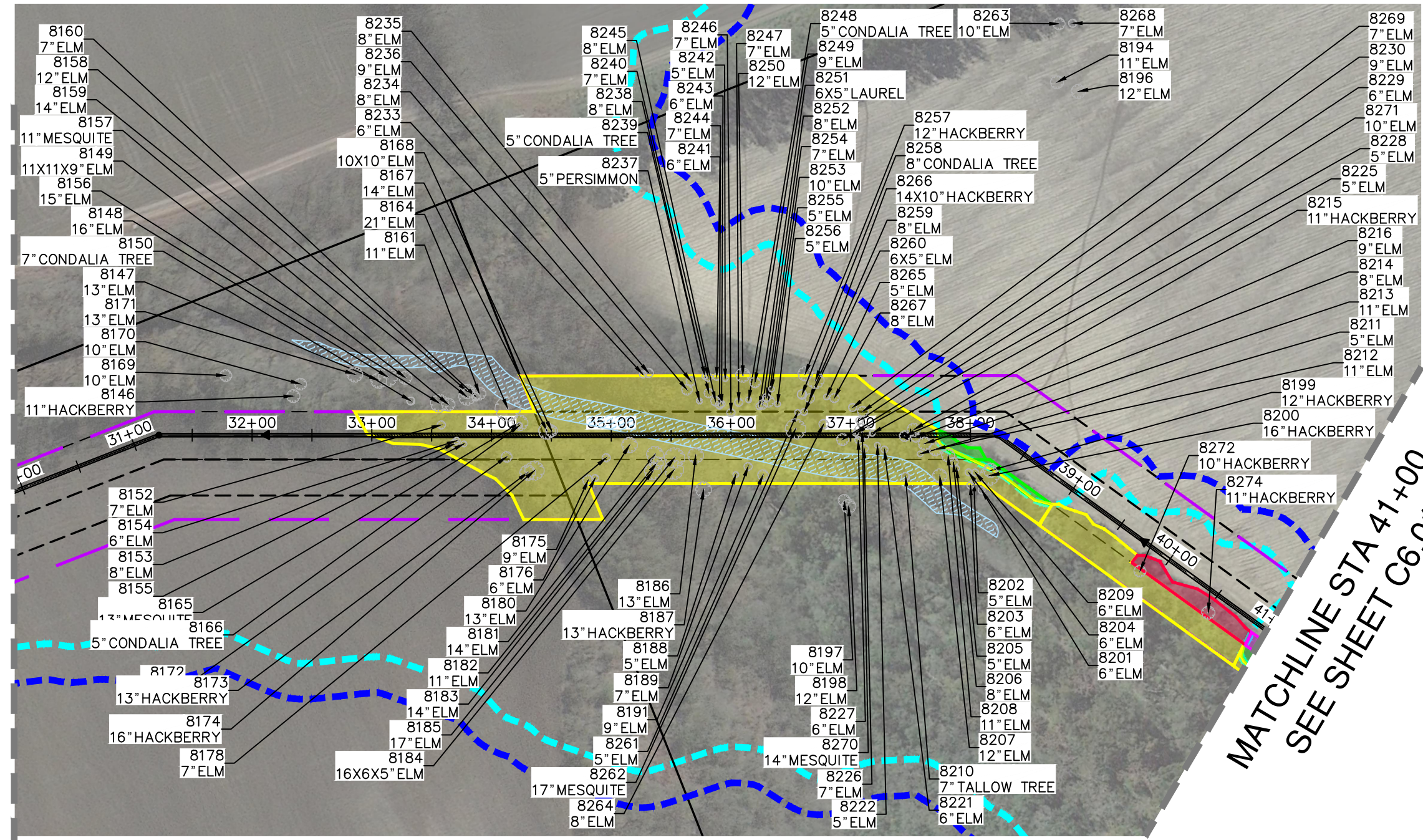
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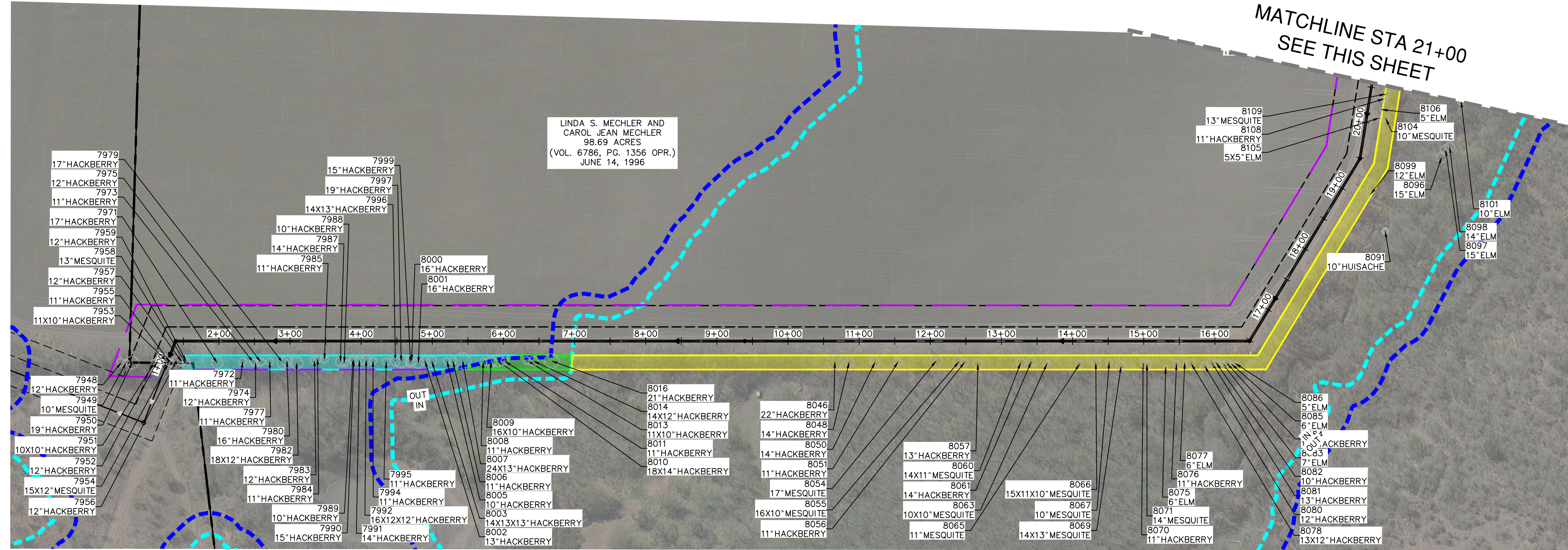


MATCHLINE STA 30+00  
SEE THIS SHEET

MATCHLINE STA 30+00  
SEE THIS SHEET



MATCHLINE STA 41+00  
SEE SHEET C6.01

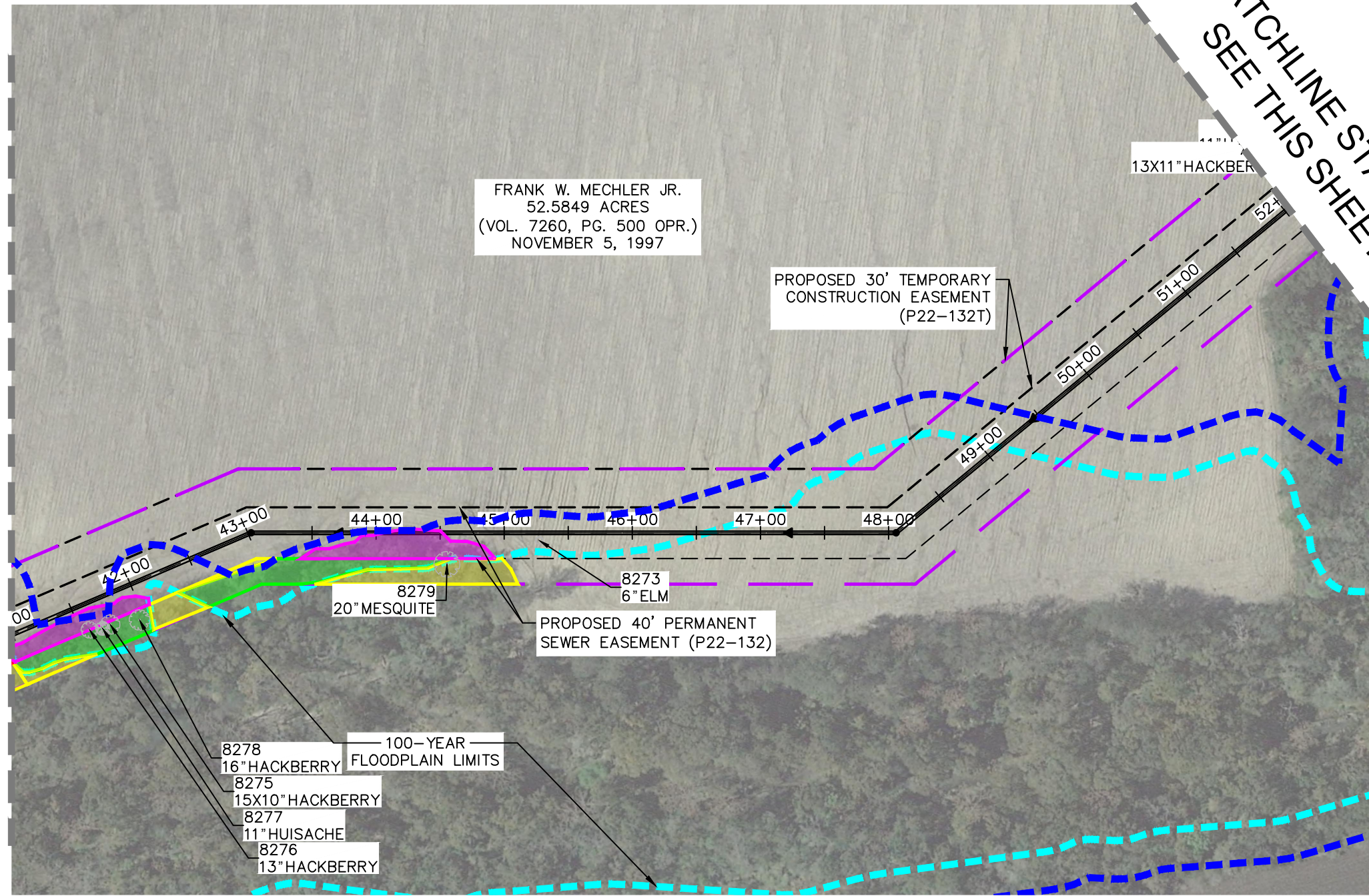




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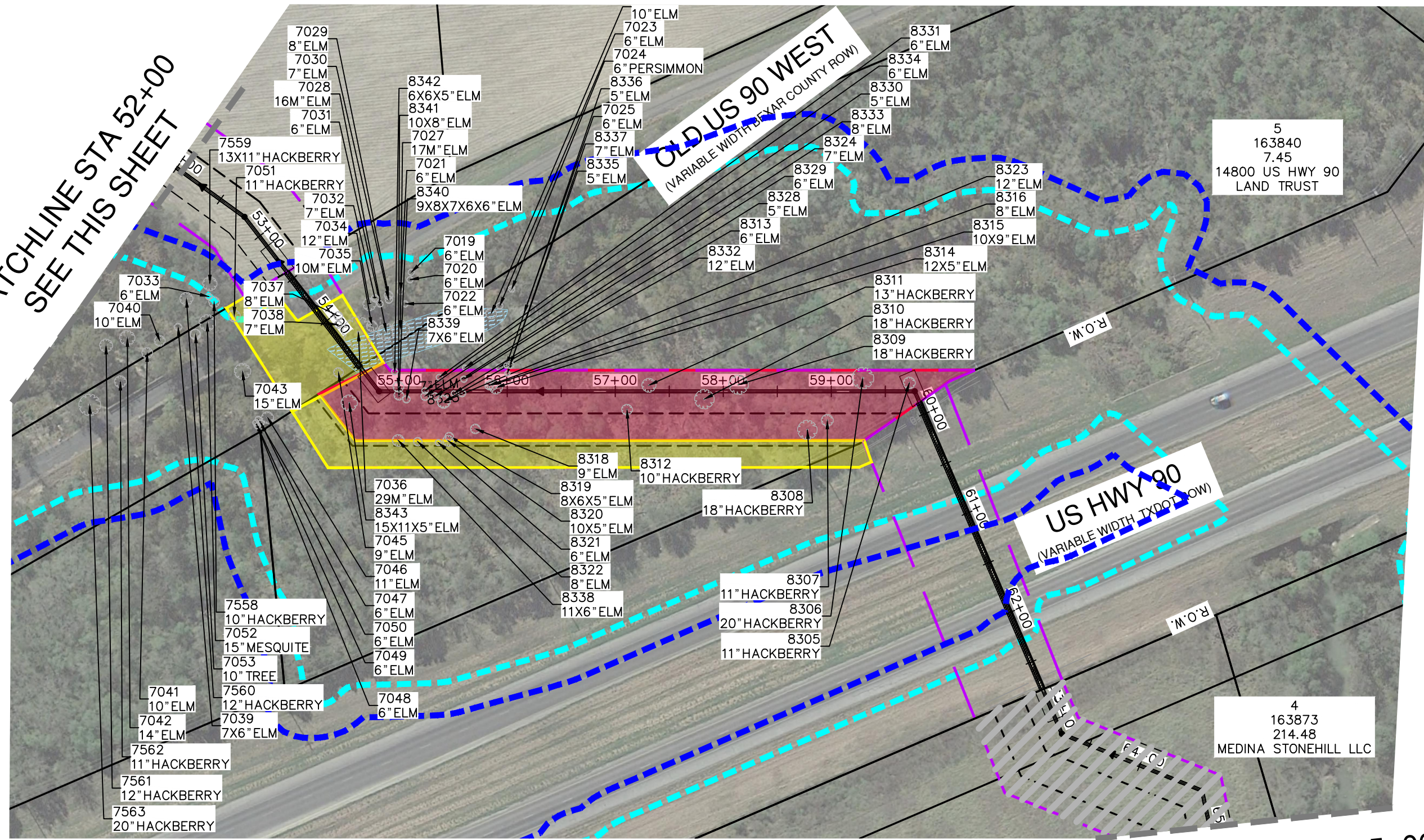
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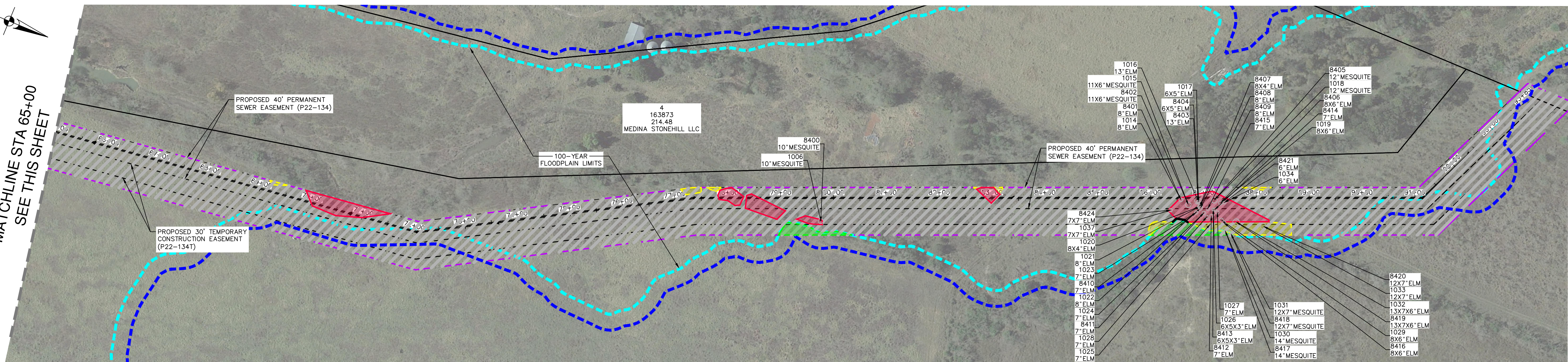
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MATCHLINE STA 52+00  
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MATCHLINE STA 65+00  
SEE THIS SHEET

MATCHLINE STA 65+00  
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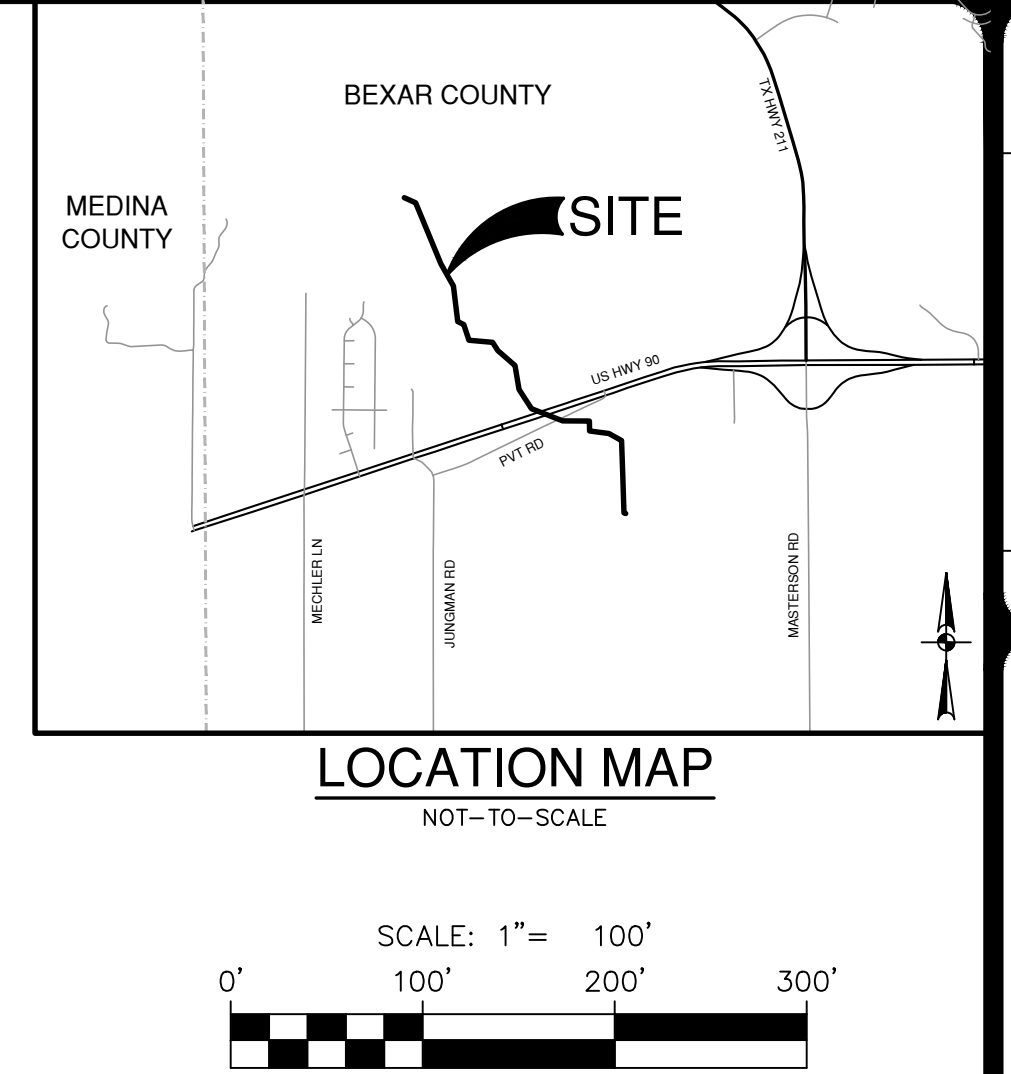


SEWER: SOUTH WATERSHED - DOS RIOS W.R.C.  
STONEHILL OFF-SITE SEWER EXTENSION - PHASE 1

Developer's Name: DR HORTON	
Address: 211 NORTH LOOP 1604, SUITE 130	
City: SAN ANTONIO	State: TEXAS ZIP: 78232
Phone# (210) 496-2868	FAX# N/A
SAWS Block Map# 066558, 066560, 068556, 068558, 070554, 070556 Total Acreage 8.19	
Total Linear Footage of Pipe 9,285 LF ~ 30" FRP SEWER Plat No. N/A	
Number of Lots N/A	TOTAL EDU'S N/A SAWS JOB NO. 23-4518

#### LEGEND

PROPOSED SEWER LINE	
PROPERTY LINE	
PROPOSED EASEMENT	
EXISTING EASEMENT	
EXISTING OVERHEAD ELECTRIC	
EXISTING 1' CONTOURS	
EXISTING 5' CONTOURS	
1% ANNUAL-CHANCE FEMA FLOODPLAIN	
50' 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 50' WIDE BUFFER	
CANOPY TO BE PRESERVED INSIDE 50' WIDE BUFFER	
PROJECT AREA ACCOUNTED FOR IN STONEHILL MDP TREE PLAN	



DATE	
NO.	REVISION
10/19/2023	

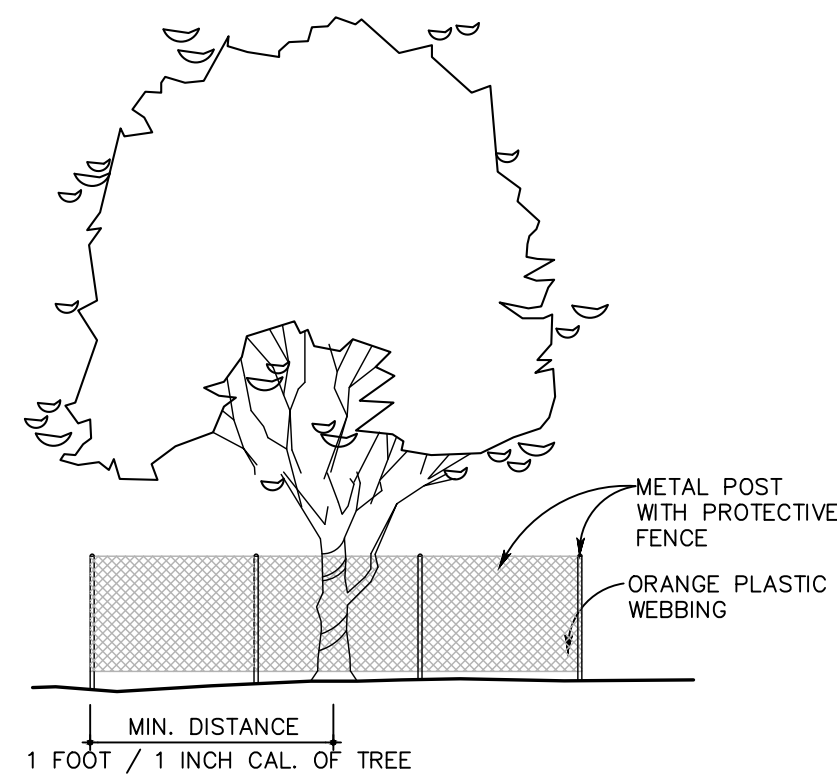
**PAPE-DAWSON ENGINEERS**  
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS  
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000  
TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028600

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

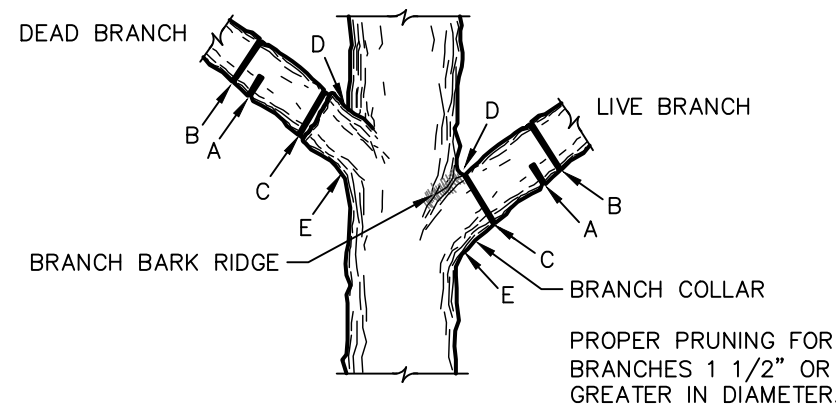
PLAT NO.	
JOB NO.	12747-02
DATE	SEPTEMBER 2023
DESIGNER	CD
CHECKED	MP DRAWN RJ
SHEET	C6.01



1. ALL TREES SHALL REMAIN UNLESS NOTED ON THE CITY OF SAN ANTONIO APPROVED PLANS.
2. NO UTILITY EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
3. 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.
4. EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.
5. 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. EXISTING BIRCHES SHALL COME WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. ALL WOUNDS TO OAK TREE SHALL BE PAINTED WITHIN 20 MINUTES TO PREVENT THE SPREAD OF OAK WILT.
6. THE CITY ARBORIST, 207-0278, SHALL APPROVE ANY TREE REMOVED.
7. 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.
8. TREES THAT ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
9. 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.
10. 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.
11. TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE WATERING THE ROOT PROTECTION ZONE AND/OR WASHING FOILAGE.
12. NO WIRES, NAILS OR OTHER MATERIALS MAY BE ATTACHED TO PROTECTED TREES.
13. 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)).
14. FAILURE SCHEDULE A FENCING INSPECTION PRIOR TO START OF WORK MAY RESULT IN A STOP WORK ORDER OR 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).
15. 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 TREES OF THE SAME OR BETTER SPECIES, RATIO, SIZE AND AGE. ALL 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 (THREE-TO-ONE INCH).



N.T.S.



N.T.S.

1. ALL TREES TO REMAIN ON SITE REQUIRE PROTECTIVE FENCING, PRUNING, WATERING, AND FERTILIZATION AS DIRECTED BY A QUALIFIED ARBORIST.
2. PROTECTIVE FENCING CONSISTS OF 4'-0" HIGH FENCE.
3. FENCE TO EXTEND FROM TRUNK ONE FOOT FOR EVERY CALIPER INCH OF TREE (MINIMUM). THE OPTIMUM DISTANCE IS TO INSTALL FENCE DIRECTLY BENEATH DRILLPIE OF TREE TO REMAIN AS SHOWN.
4. DURING CONSTRUCTION, NO EXCESS SOIL, FILL MATERIAL, EQUIPMENT, LIQUIDS, OR CONSTRUCTION DEBRIS SHALL BE PLACED WITHIN THE PROTECTIVE FENCING. NO CORRAL ANY SOIL BE REMOVED FROM WITHIN THE FENCING.
5. ALL TREE PROTECTION MUST BE IN PLACE BEFORE CONSTRUCTION BEGINS.
6. INSTALL 4" MINIMUM DEPTH OF SHREDDED MULCH BENEATH THE DRILLPIE OF THE TREE.

- A. FIRST CUT - TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
- B. SECOND CUT - TO REDUCE THE WEIGHT OF BRANCH.
- C. FINAL CUT - ALLOW FOR HEALING COLLAR BUT NO STUBS
- D. 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.

OUTSIDE FLOODPLAIN:	
EXISTING CANOPY =	8,772 SF
REQUIRED TO REMAIN (25%) =	0 SF
EXISTING TREE CANOPY TO BE REMOVED =	0 SF
EXISTING TREE CANOPY TO REMAIN =	8,772 SF
PERCENTAGE AREA PRESERVED =	100%
CANOPY REQUIRED TO BE MITIGATED =	0 SF

INSIDE FLOODPLAIN

- A. EXISTING CANOPY AREA PRESERVED: 118,860 SF  
B. EXISTING CANOPY AREA REQUIRED TO BE PRESERVED: 80% x 118,860 SF = 136,936 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: 11,707 SF  
B. EXISTING CANOPY AREA REQUIRED TO BE PRESERVED:  $80\% \times 11,707 \text{ SF} = \underline{9,366 \text{ SF}}$   
\*\* TREE CANOPY AREA BEING PRESERVED DOES NOT EXCEED THE REQUIRED CANOPY AREA;  
THEREFORE, MITIGATION IS REQUIRED.

INSIDE FLOODPLAIN

NUMBER OF TREES REQUIRED TO BE PLANTED =  $18,076 \text{ SF} \div (875 \text{ SF/TREE}) = 21 \text{ TREES}$   
 INCHES OF CANOPY REQUIRED TO BE MITIGATED =  $21 \text{ TREES} \times 16.7 \text{ INCHES} = 351 \text{ INCHES}$

INSIDE 30' WIDE BUFFER

NUMBER OF TREES REQUIRED TO BE PLANTED =  $653 \text{ SF} \div (875 \text{ SF/TREE}) = 1 \text{ TREE}$   
INCHES OF CANOPY REQUIRED TO BE MITIGATED =  $1 \text{ TREE} \times 16.7 \text{ INCHES} = 16.7 \text{ INCHES}$

INSIDE FLOODPLAIN CANOPY MITIGATION INCHES = 351 INCHES  
 BUFFER CANOPY MITIGATION INCHES = 17 INCHES

MITIGATION FEE @ \$200.00/INCH

FLOODPLAIN CANOPY FEE = 351 INCHES x \$200 = \$70,200  
 BUFFER CANOPY FEE = 17 INCHES x \$200 = \$3,400

TOTAL MITIGATION FEE = \$73,600

INSIDE FLOODPLAIN:	
EXISTING CANOPY =	171,170 SF
REQUIRED TO REMAIN (80%) =	136,936 SF
EXISTING TREE CANOPY TO BE REMOVED =	52,310 SF
EXISTING TREE CANOPY TO REMAIN =	118,860 SF
PERCENTAGE AREA PRESERVED =	69%
CANOPY REQUIRED TO BE MITIGATED =	18,076 SF

INSIDE 30' FLOODPLAIN BUFFER:	
EXISTING CANOPY =	15,451 SF
REQUIRED TO REMAIN (80%) =	12,361 SF
EXISTING TREE CANOPY TO BE REMOVED =	3,743 SF
EXISTING TREE CANOPY TO REMAIN =	11,707 SF
PERCENTAGE AREA PRESERVED =	76%
CANOPY REQUIRED TO BE MITIGATED =	653 SF

SEWER: SOUTH WATERSHED - DOS RIOS W.R.C.  
STONEHILL OFF-SITE SEWER EXTENSION - PHASE 1

Developer's Name: DR. HORTON		
Address: 211 NORTH LOOP 1604, SUITE 130		
City: SAN ANTONIO	State: TEXAS	ZIP: 78232
Phone: (210) 496-2868		FAX# N/A
SAWS Block Map# 066558,066556,068556,068558,070554,070556		Total Acreage 8.19
Total Linear Footage of Pipe 9,285 LF ~ 30" FRP SEWER		Plot No. N/A
Number of Lots N/A	TOTAL EDU'S N/A	SAWS JOB NO. 23-4518

PLAT NO. \_\_\_\_\_  
JOB NO. 12747-02  
DATE SEPTEMBER 2023  
DESIGNER CD  
CHECKED MP DRAWN RJ  
SHEET C6.02

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TEXAS ENGINEERING FIRM #470 | TEXAS SURVEYING FIRM #10028600

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

[illegible]