

December 27, 2017

Kasi Miles  
Caldwell County  
1700 FM 2720  
Lockhart, TX 78644

**RE: 130 Environmental Park- Flood Plain Development Permit  
Technical Review Complete  
BCG Project No. 070004-02-003**

Ms. Miles,

Bowman Consulting Group has completed our 1<sup>st</sup> Technical Review of the Drainage Report and Construction Plans submitted by Biggs & Matthews, Inc. for a Floodplain Development Permit for the 130 Environmental Park, LLC-site plan. This site plan proposes three (3) private culvert crossings of water courses in a 1,229 acre tract. Also included in the Plans is a 1.77 mile private access road, to be permitted at a later date. Information required for the Flood Plain Development Permit was contained in the Drainage Report and Construction Plans.

The road crosses three water courses (either Dry Creek or its tributaries) at locations within Special Flood Hazard Area "A" zones. Base flood elevations (BFEs) and a regulatory floodway, have not been designated for the subject water courses.

A Flood Plain Development Permit is required to ensure conformance with the Caldwell County Flood Damage Prevention Ordinance (CCFDPO).

We have reviewed the Drainage Report and Plans submitted and find that they meet the requirements of the CCFDPO and the Caldwell County Development Ordinance (CCDO) and found no deficiencies in the hydrologic and hydraulic calculations contained in it.

The Drainage Report addresses the three private road crossings of SPHA Zone "A" water courses. The crossings are proposed to be constructed as pre-cast concrete box culverts using TxDOT standards.

Applicable requirements contained in the Caldwell County Flood Damage Prevention Ordinance (CCFDPO) are addressed as follows:

1. Revision to FIRM [*CCFDPO Appendix H.A, C*]  
A revision to the FIRM is not mandatory for modifications in Zone A unless structures or other properties are affected.

Applicable requirements contained in the Caldwell County Development Code (CCDO) are addressed as follows:

1. Hydrologic Methods [*CCDO Appendix E.2.D*]  
The submitted report complies.
2. Hydraulic Methods [*CCDO Appendix E.2.E*]  
The submitted report complies.
3. Bridges and Culverts [*CCDO Appendix E.2.L*]  
The submitted report and plans comply. According to the report, water surface elevations upstream of the proposed crossings will be increased by 0.73 ft., 0.86 ft. and 2.42 ft. immediately upstream of the crossings. The increases moderate upstream and do not continue onto adjacent properties.

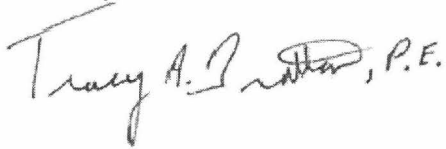
Two of the crossings will be designed such that the runoff from the 100 year storm will not overtop the proposed road. The other shows the proposed road being overtopped by 0.01 ft. The Caldwell County Development Ordinance requires that "for bridges and culverts constructed on streets other than in residential neighborhoods, runoff from the 100 year frequency storm shall not overtop the roadway crown or adjacent top of curb by more than six (6") inches".

Other than the culvert crossings, alteration or relocation of a watercourse is not proposed.

The Applicant has addressed all technical comments for issuance of a Flood Plain Development Permit. The Report and Plans appear to be in general conformance with the Caldwell County Flood Damage Prevention and Development Ordinances. The proposed construction is also subject to a Commercial Development Permit application. A separate letter has been issued related to that permit. As soon as those comments are addressed, we recommend approval of a flood plain permit.

It is our pleasure to be of assistance to the County on this project.

Sincerely,



Tracy A. Bratton, P.E.  
Bowman Consulting Group

cc: Jacque Thomas

# 130 ENVIRONMENTAL PARK, LLC

130 ENVIRONMENTAL PARK  
CALDWELL COUNTY, TEXAS  
TCEQ PERMIT NO. 2383

## ENTRANCE AND ACCESS ROAD DRAINAGE STRUCTURES

NOVEMBER 2017

PREPARED FOR

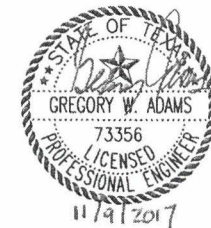
### 130 ENVIRONMENTAL PARK, LLC

NORTH OF FM 185 IN CALDWELL COUNTY, BETWEEN U.S.  
HIGHWAY 183 AND HOMANVILLE TRAIL

PREPARED BY



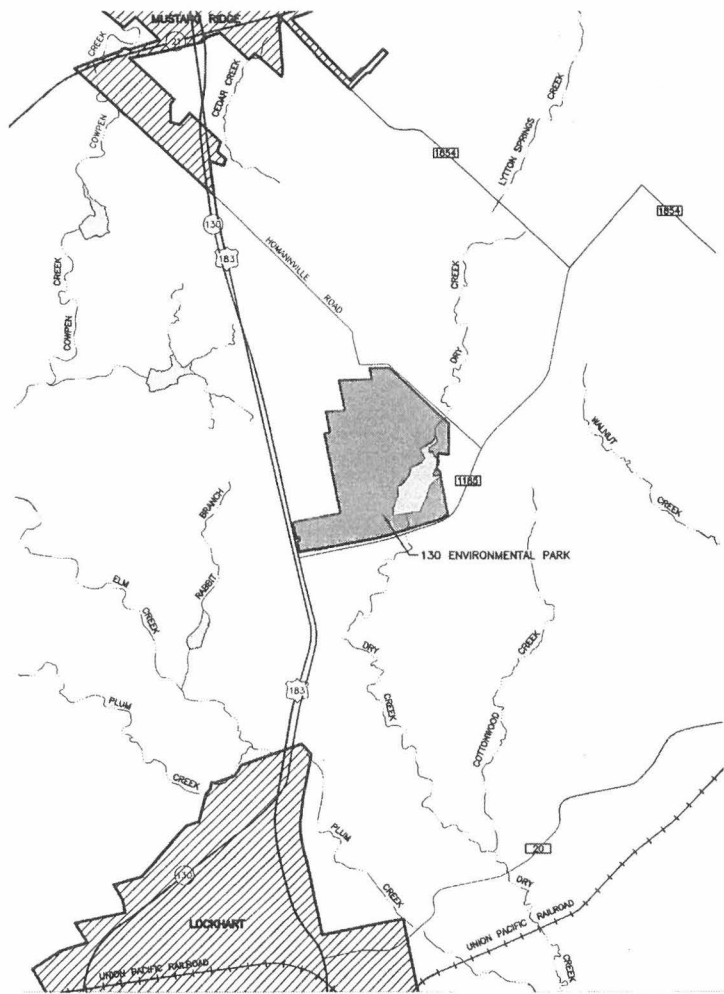
BIGGS & MATHEWS  
ENVIRONMENTAL  
CONSULTING ENGINEERS  
1700 ROBERT ROAD  
MANSFIELD, TEXAS 76063  
(817) 563-1144



TBPE FIRM NO. F-256

ISSUED FOR CONSTRUCTION

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VICINITY MAP

**DRAWING INDEX**

DRAWING NO.	TITLE
G1	COVER SHEET
G2	VICINITY/DRAWING INDEX/GENERAL NOTES
G3	SITE PLAN

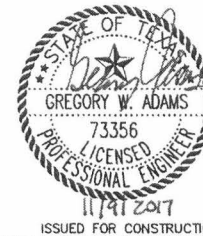
PAVING PLANS	
P1	STATION 8+00 THROUGH 11+00
P2	STATION 58+00 THROUGH 60+00
P3	STATION 84+00 THROUGH 92+00
P4	PAVEMENT DETAILS

DRAINAGE STRUCTURES	
D1	DRAINAGE STRUCTURES SITE PLAN
D2	DRAINAGE STRUCTURE A PLAN AND PROFILE
D3	DRAINAGE STRUCTURE B PLAN AND PROFILE
D4	DRAINAGE STRUCTURE C PLAN AND PROFILE

EROSION AND SEDIMENT CONTROL	
E1	EROSION AND SEDIMENT CONTROL PLAN
E2	EROSION AND SEDIMENT CONTROL DETAILS

**GENERAL NOTES:**

- EXISTING CONTOURS GENERATED BY BIGGS & MATHEWS ENVIRONMENTAL, INC. FROM LIDAR DATA COLLECTED IN 2007 PROVIDED BY THE CAPITAL AREA COUNCIL OF GOVERNMENTS.
- UTILITIES SHOWN ON THE PLANS WERE TAKEN FROM FIELD SURVEYS, RECORD DRAWINGS AND INFORMATION PROVIDED BY UTILITY COMPANIES. THE COMPLETENESS AND ACCURACY OF THIS DATA IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES AND PROTECTING THEM FROM DAMAGE DURING CONSTRUCTION.
- WORK MAY NOT BE BACKFILLED OR COVERED UNTIL IT HAS BEEN APPROVED BY THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR MUST OBTAIN A TPDES CONSTRUCTION PERMIT AND CONDUCT ALL ACTIVITIES IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES PROVIDED IN THE CONSTRUCTION PERMIT.
- UNLESS OTHERWISE NOTED, ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT.
- ALL AREAS TO BE FILLED OR EXCAVATED SHALL BE STRIPPED OF VEGETATION.
- ALL DISTURBED AREAS SHALL BE HYDROMULCHED OR SEEDDED PER THE PROJECT STORMWATER POLLUTION PREVENTION PLAN.



VICINITY / DRAWING INDEX /  
GENERAL NOTES  
**130 ENVIRONMENTAL PARK, LLC**  
**130 ENVIRONMENTAL PARK**  
**ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES**

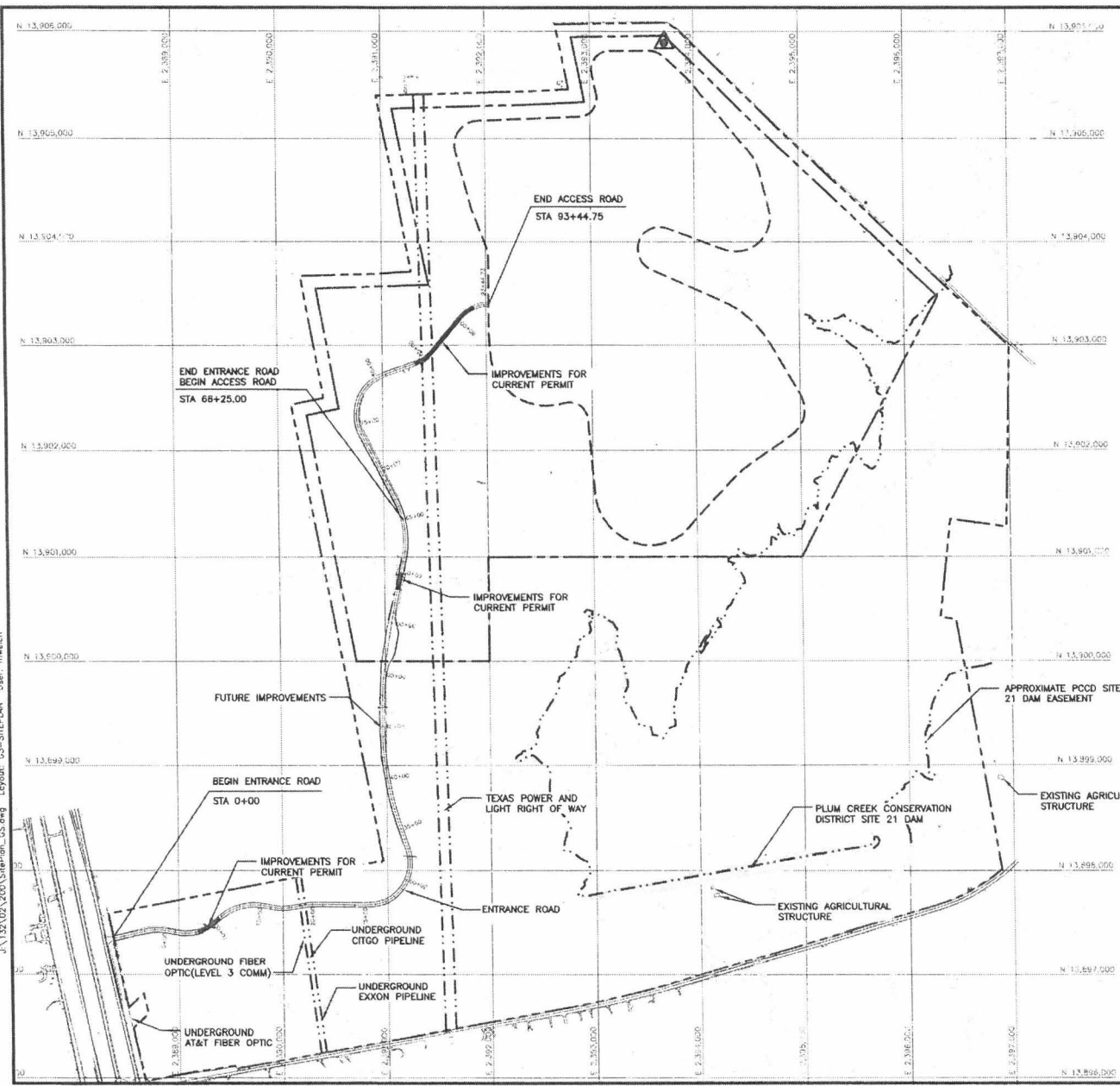


**BIGGS & MATHEWS**  
ENVIRONMENTAL  
CONSULTING ENGINEERS  
MANSFIELD • WICHTA FALLS  
817-563-1144

REVISIONS		DATE	BY	CHK	APP	DESCRIPTION

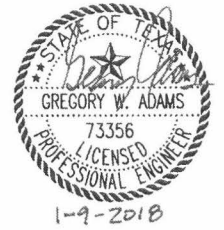
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CHK. GWA	DWG : GenVicinity.dwg	

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- LEGEND**
- PROPERTY BOUNDARY
  - FACILITY BOUNDARY
  - - - FUTURE LANDFILL FOOTPRINT
  - ~ EXISTING CONTOUR
  - 11 675.3000 STATE PLANE GRID (NAD 83 CENTRAL ZONE)
  - EASEMENT/RIGHT OF WAY
  - ▲ BENCHMARK

- NOTES:**
- EXISTING CONTOURS GENERATED BY BIGGS & MATHEWS ENVIRONMENTAL, INC. FROM LIDAR DATA COLLECTED IN 2007 PROVIDED BY THE CAPITAL AREA COUNCIL OF GOVERNMENTS.
  - PROPERTY BOUNDARY, FACILITY BOUNDARY, EASEMENT LOCATIONS, AND PERMANENT BENCHMARK PROVIDED BY HODDE & HODDE LAND SURVEYING, INC.
  - PERMANENT BENCHMARK INFORMATION:  
TEXAS STATE PLANE (NAD 83): N 13805896.44  
E 2393722.33  
EL: 592.37 FT-MSL



**SITE PLAN**

**130 ENVIRONMENTAL PARK, LLC**  
**130 ENVIRONMENTAL PARK**  
**ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES**

**BIGGS & MATHEWS**  
ENVIRONMENTAL  
CONSULTING ENGINEERS  
MANSFIELD • WICHITA FALLS  
817-563-1144

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DATE: 06/17

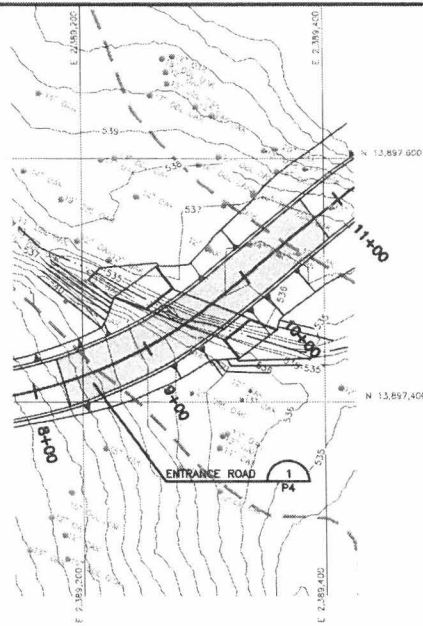
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**ISSUED FOR CONSTRUCTION**

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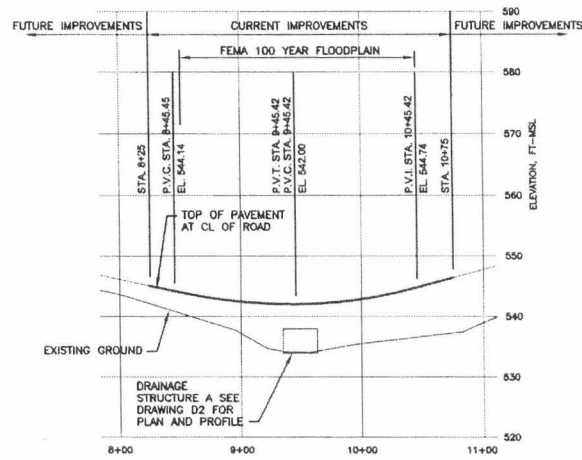


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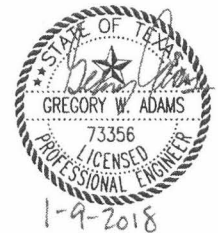
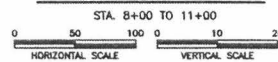
- FEMA 100 YEAR FLOODPLAIN (ZONE A)
- EXISTING 1' CONTOUR
- STATE PLANE GRID (NAD 83 CENTRAL ZONE)
- TREE
- EXISTING STREAM CENTERLINE

**NOTE:**

1. EXISTING CONTOURS PROVIDED BY HODDE & HODDE LAND SURVEYING, INC. FROM GROUND SURVEY DATED OCTOBER 26, 2017.



**ENTRANCE ROAD PROFILE**



STATION 8+00 THROUGH 11+00

130 ENVIRONMENTAL PARK, LLC  
130 ENVIRONMENTAL PARK  
ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES



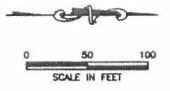
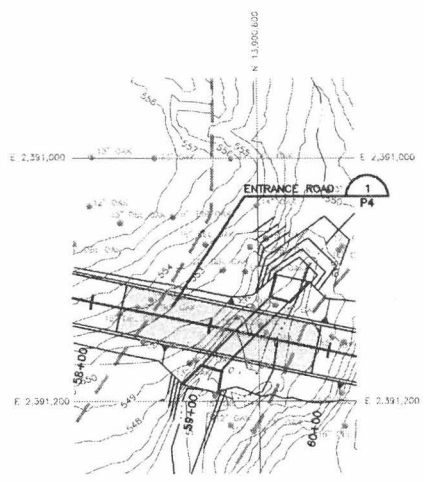
**BIGGS & MATHEWS**  
ENVIRONMENTAL  
CONSULTING ENGINEERS  
MANSFIELD • WICHTA FALLS  
817-563-1144

ISSUED FOR CONSTRUCTION

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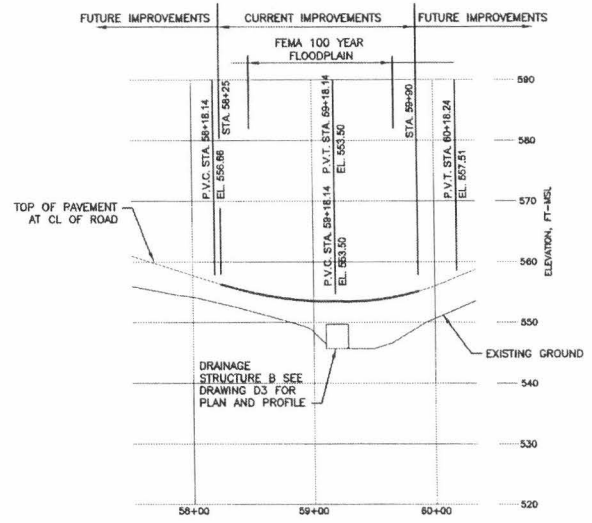


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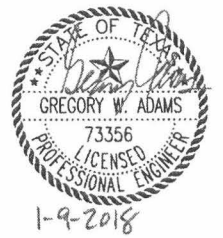
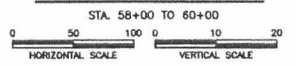
- FEMA 100 YEAR FLOODPLAIN (ZONE A)
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**NOTE:**

1. EXISTING CONTOURS PROVIDED BY HODGE & HODGE LAND SURVEYING, INC. FROM GROUND SURVEY DATED OCTOBER 26, 2017.



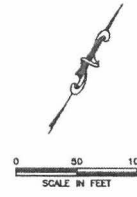
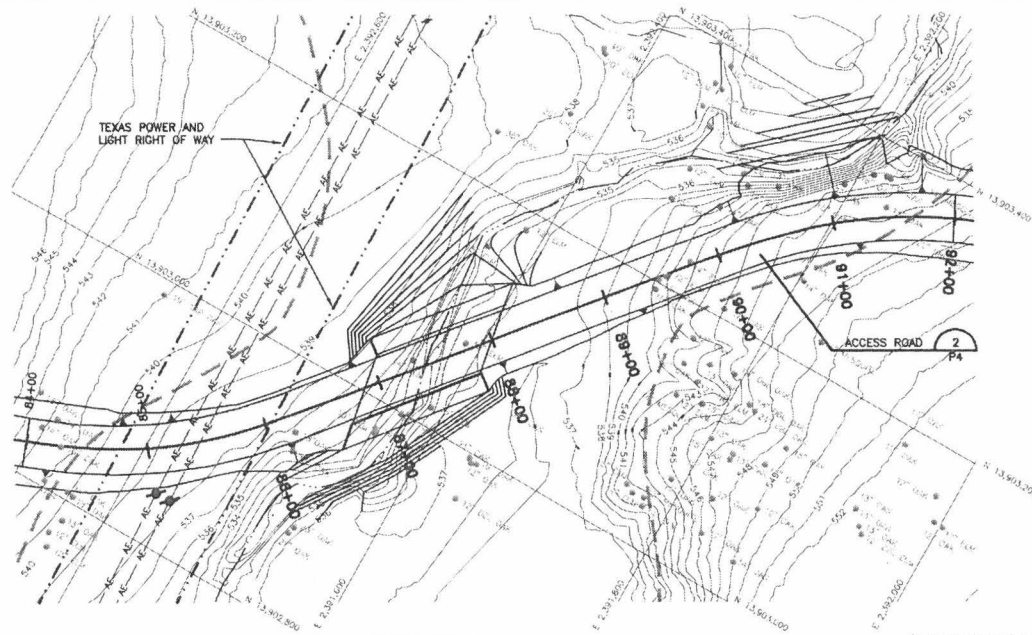
**ENTRANCE ROAD PROFILE**



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130 ENVIRONMENTAL PARK, LLC 130 ENVIRONMENTAL PARK ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES	
 <b>BIGGS &amp; MATHEWS ENVIRONMENTAL CONSULTING ENGINEERS</b> MANSFIELD • MONITA FALLS 817-563-1144	
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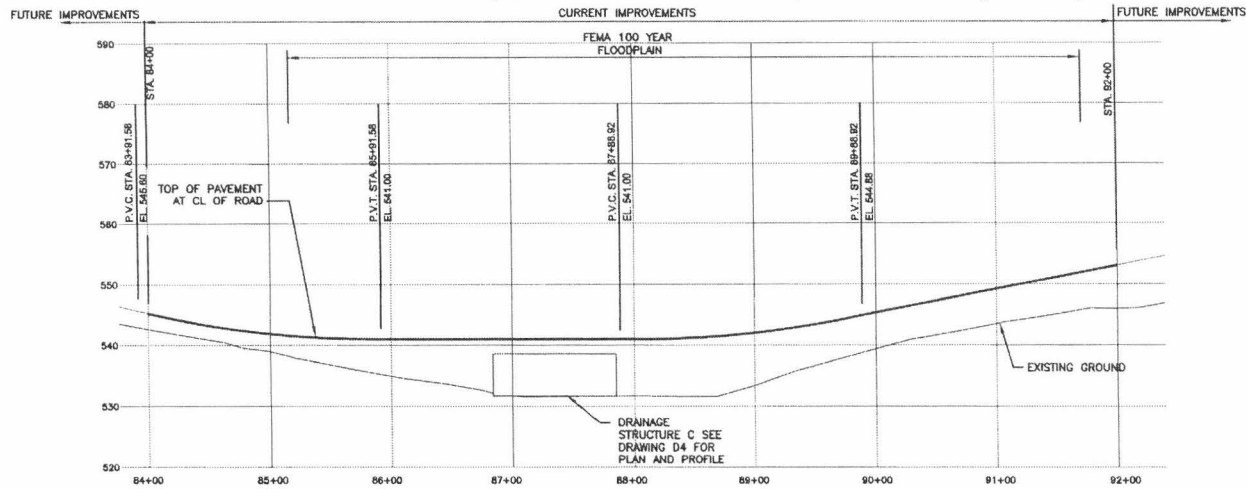


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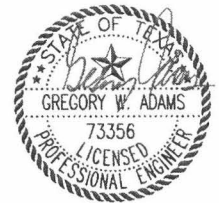
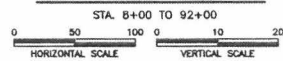
- FEMA 100 YEAR FLOODPLAIN (ZONE A)
- EXISTING 1' CONTOUR
- STATE PLANE GRID (NAD 83 CENTRAL ZONE)
- TREE
- EXISTING STREAM CENTERLINE

**NOTE:**

1. EXISTING CONTOURS PROVIDED BY HODDE & HODDE LAND SURVEYING, INC. FROM GROUND SURVEY DATED OCTOBER 26, 2017.



**ACCESS ROAD PROFILE**



1-9-2018

STATION 84+00 THROUGH 92+00

130 ENVIRONMENTAL PARK, LLC  
130 ENVIRONMENTAL PARK  
ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES



**BIGGS & MATHEWS**  
ENVIRONMENTAL  
CONSULTING ENGINEERS  
MANFIELD • WICHITA FALLS  
817-563-1144

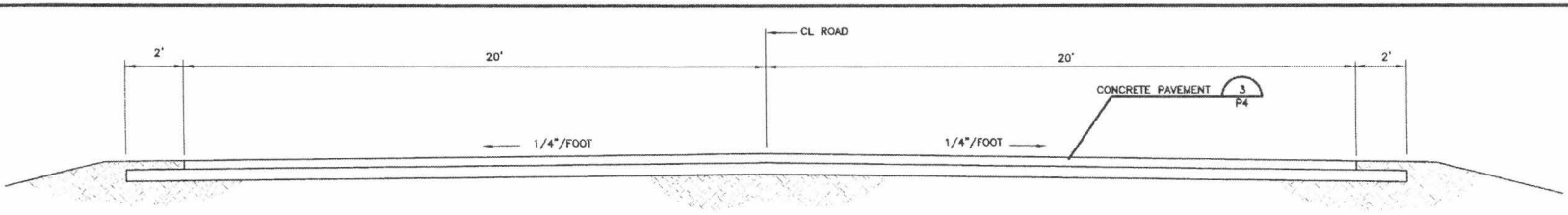
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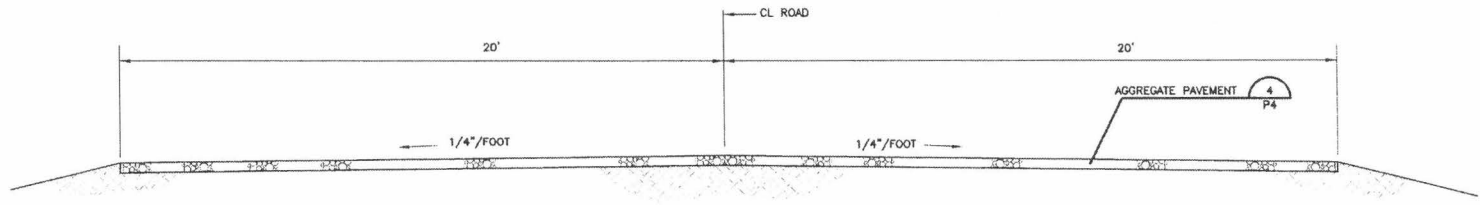
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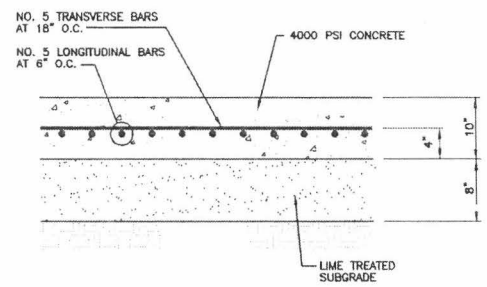
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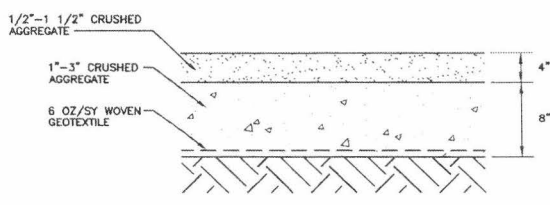
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NTS P4



**ACCESS ROAD** 2  
NTS P4



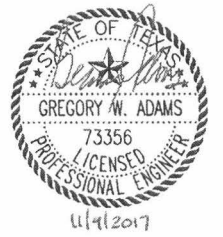
**CONCRETE PAVEMENT** 3  
NTS P4



**AGGREGATE PAVEMENT** 4  
NTS P4

**NOTES**

- SUBRADE:**
1. THE SUBGRADE AND ALL EARTHFILL SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DENSITY BY THE STANDARD PROCTOR TEST (ASTM D698) AT A -2 TO +2 OPTIMUM MOISTURE.
  2. THE SUBGRADE SHALL BE GRADED TO THE DESIGN GRADES WITH A TOLERANCE OF -0.05 TO +0.05 FT.
  3. THE TOP 8 INCHES OF SUBGRADE UNDER ASPHALT/CONCRETE PAVING SHALL BE LIME TREATED AT A RATE OF 36 LBS/SY.
- CONCRETE PAVING:**
1. CONCRETE PAVING SHALL BE CLASS P CONCRETE DESIGNED TO HAVE AN AVERAGE COMPRESSIVE STRENGTH OF 4,400 PSI AT 28 DAYS IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED.
  2. REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS, UNLESS OTHERWISE NOTED.
  3. FLEXIBLE BASE SHALL BE TYPE D GRADE 3 IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS.
- AGGREGATE PAVING:**
1. AGGREGATE PAVING SURFACE COURSE SHALL BE 1/2 TO 1 1/2 INCH RECYCLED CONCRETE, OR CRUSHED AGGREGATE.
  2. AGGREGATE PAVING BASE COURSE SHALL BE 1 INCH TO 3 INCH RECYCLED CONCRETE, OR CRUSHED AGGREGATE.
  3. AGGREGATE PAVING SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DENSITY DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557)
  4. GEOTEXTILE SHALL BE 6 OZ/SY WOVEN FABRIC AND SHALL EXTEND ONE FOOT BEYOND THE LIMITS OF PAVING EACH DIRECTION.



**PAVEMENT DETAILS**

**130 ENVIRONMENTAL PARK, LLC**  
**130 ENVIRONMENTAL PARK**  
**ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES**

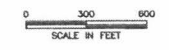
**BIGGS & MATHEWS**  
**ENVIRONMENTAL**  
 CONSULTING ENGINEERS

MANSFIELD • WORTH FALLS  
 817-563-1144

ISSUED FOR CONSTRUCTION

REVISIONS		DATE	BY

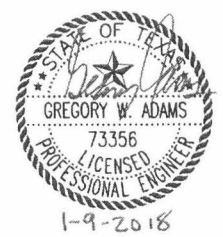
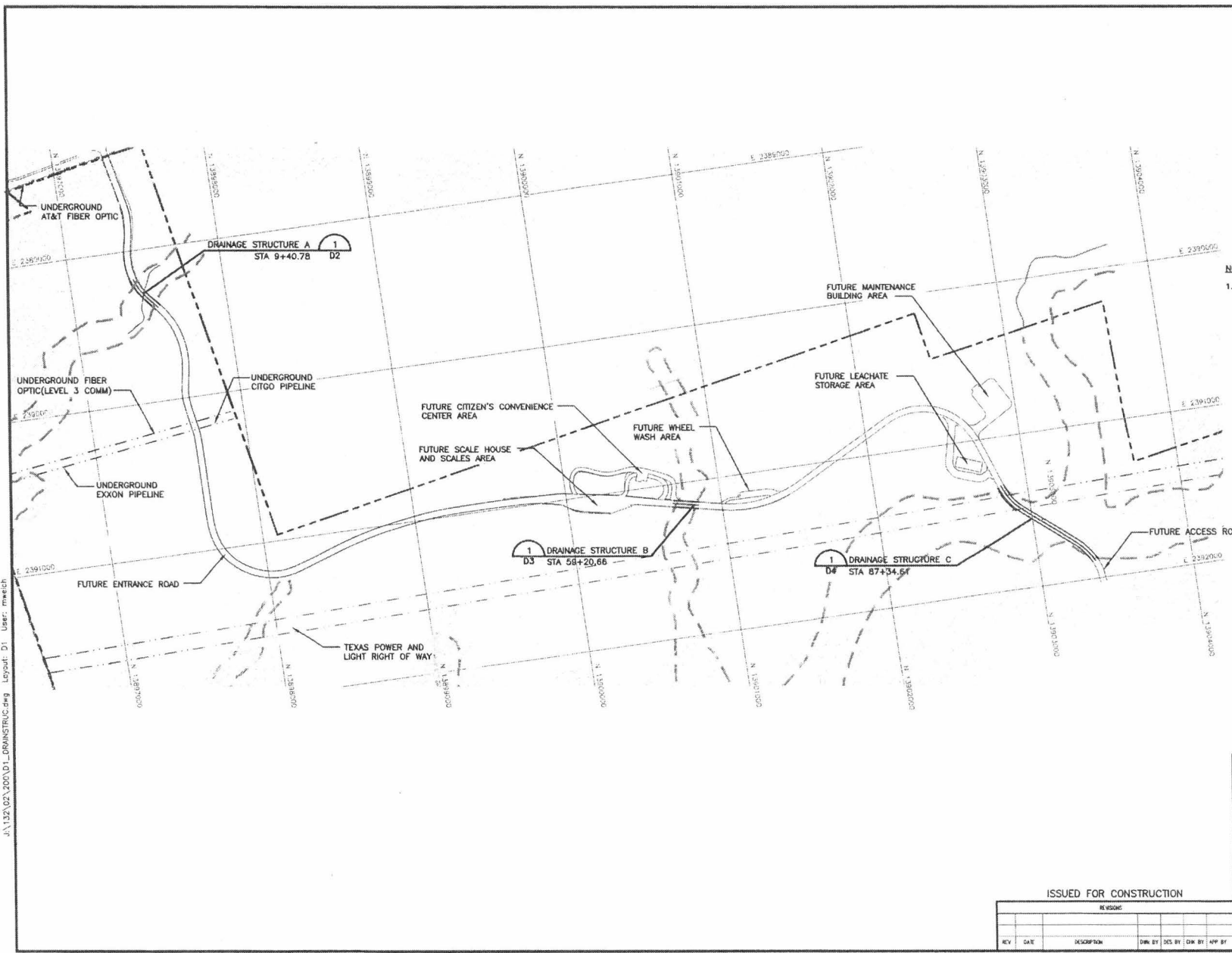
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DWN: MJW	SCALE: GRAPHIC			<b>P4</b>	
CHK: GWA	DWG: P4_PaveDetails.dwg				



- LEGEND**
- PROPERTY BOUNDARY
  - N. 13902050 STATE PLANE GRID (NAD 83 CENTRAL ZONE)
  - - - FEMA 100 YEAR FLOODPLAIN (ZONE A)

**NOTES:**

- EXISTING CONTOURS GENERATED BY BIGGS & MATHEWS ENVIRONMENTAL, INC. FROM LIDAR DATA COLLECTED IN 2007 PROVIDED BY THE CAPITAL AREA COUNCIL OF GOVERNMENTS.



**DRAINAGE STRUCTURES  
 SITE PLAN**

**130 ENVIRONMENTAL PARK, LLC  
 130 ENVIRONMENTAL PARK  
 ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES**

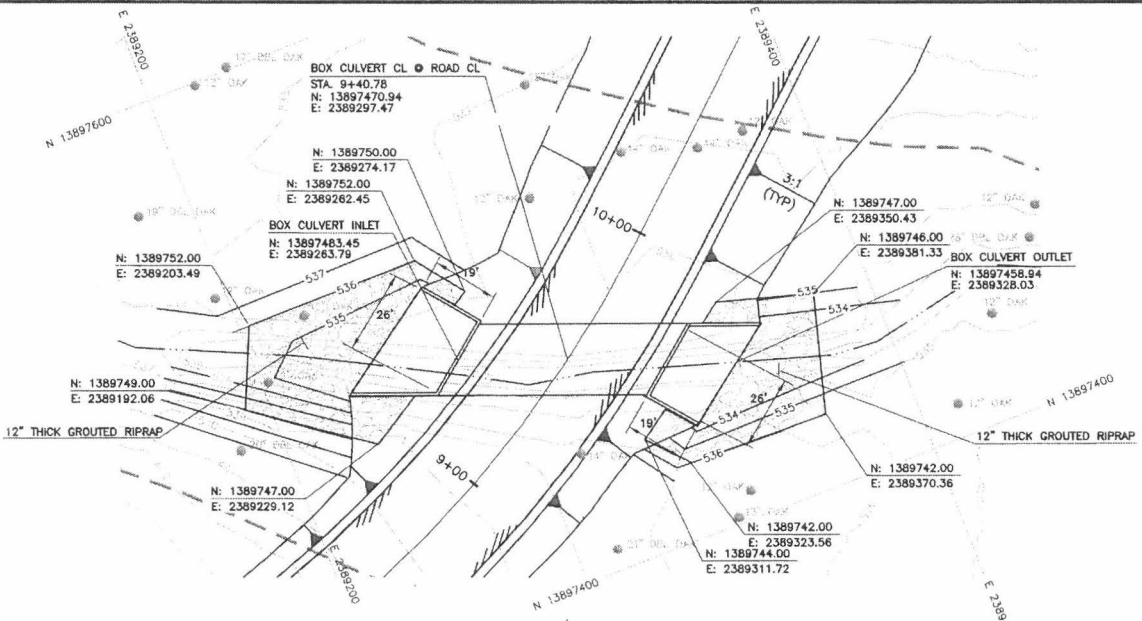

**BIGGS & MATHEWS  
 ENVIRONMENTAL  
 CONSULTING ENGINEERS**  
 MANSFIELD • WICHITA FALLS  
 817-563-1144

ISSUED FOR CONSTRUCTION

REVISIONS						TBPE FIRM NO. F-258		TBPG FIRM NO. 50222	
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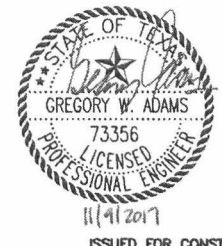
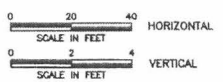
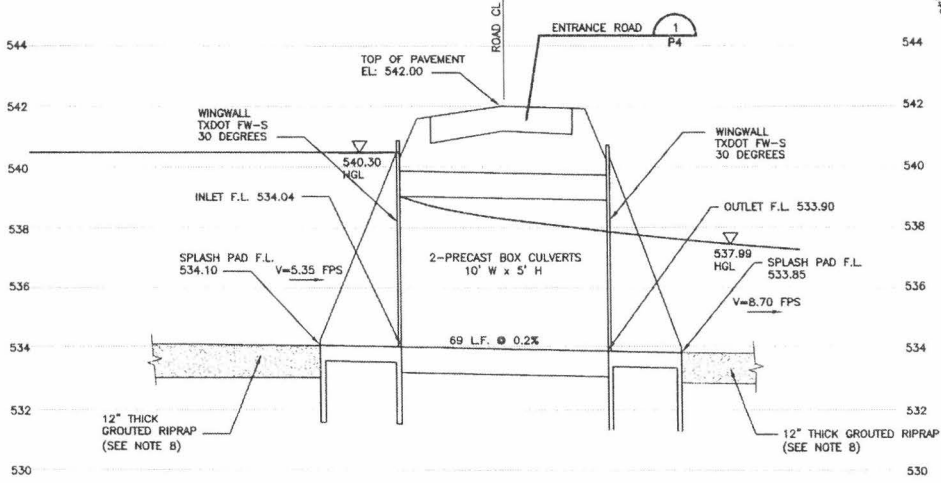
**D1**

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- LEGEND**
- N 13897400 STATE PLANE GRID (NAD 83 CENTRAL ZONE)
  - 5:36 EXISTING CONTOUR
  - EDGE OF PAVEMENT
  - FEMA 100 YEAR FLOODPLAIN (ZONE A)
  - EXISTING STREAM CENTERLINE
  - TREE

- NOTES:**
- EXISTING CONTOURS PROVIDED BY HODDE & HODDE LAND SURVEYING, INC. FROM GROUND SURVEY DATED OCTOBER 26, 2017.
  - UTILITIES SHOWN ON THE PLANS WERE TAKEN FROM FIELD SURVEYS, RECORD DRAWINGS AND INFORMATION PROVIDED BY UTILITY COMPANIES. THE COMPLETENESS AND ACCURACY OF THIS DATA IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL UNDERGROUND UTILITIES AND STRUCTURES AND PROTECTING THEM FROM DAMAGE DURING CONSTRUCTION.
  - TREE LOCATIONS, DESCRIPTIONS AND STREAM CENTERLINES WERE PROVIDED BY HODDE & HODDE LAND SURVEYING, INC.
  - DRAINAGE STRUCTURES SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES, NOVEMBER 1, 2014.
  - REFER TO TXDOT BRIDGE DIVISION STANDARD DRAWING SCP DATED FEBRUARY 2010 FOR PRECAST BOX CULVERT DETAILS.
  - REFER TO TXDOT BRIDGE DIVISION STANDARD DRAWING FW-S DATED FEBRUARY 2010 FOR WINGWALL DETAILS.
  - REFER TO TXDOT BRIDGE DIVISION STANDARD DRAWING SCP-MD FOR PRECAST BOX CULVERTS MISCELLANEOUS DETAILS.
  - GROUDED RIPRAP SHALL BE COMMON STONE RIPRAP IN ACCORDANCE WITH TXDOT ITEM 432.



ISSUED FOR CONSTRUCTION

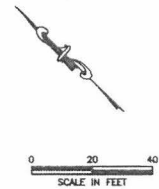
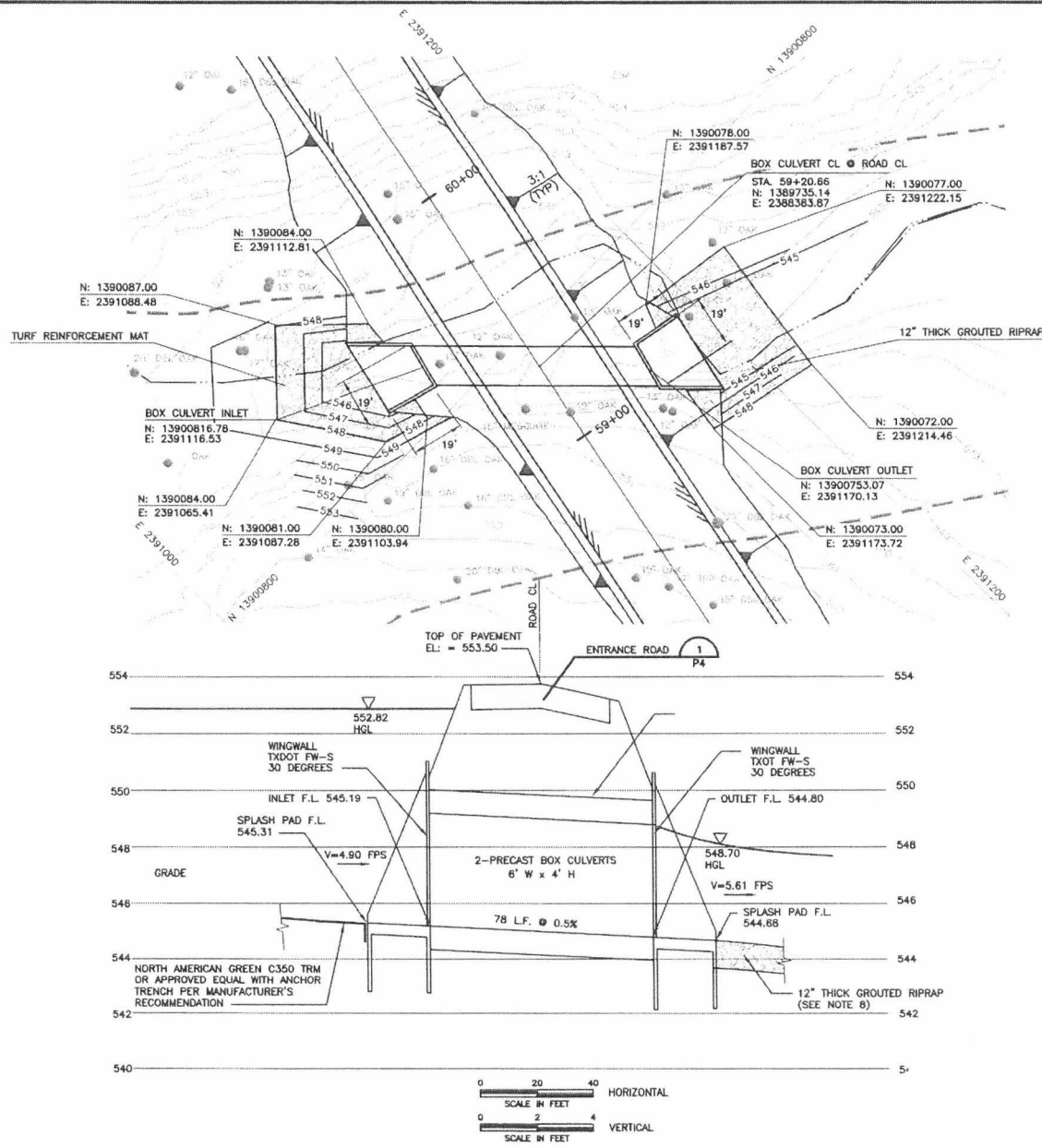
<b>DRAINAGE STRUCTURE A PLAN AND PROFILE</b>	
<b>130 ENVIRONMENTAL PARK, LLC 130 ENVIRONMENTAL PARK ENTRANCE &amp; ACCESS ROAD DRAINAGE STRUCTURES</b>	
	BIGGS & MATHEWS ENVIRONMENTAL CONSULTING ENGINEERS MANSFIELD • WICHITA FALLS 817-563-1144

REVISION				DATE	BY	CHK.	APP.

DSN: GLW	DATE: 06/17	DRAWING
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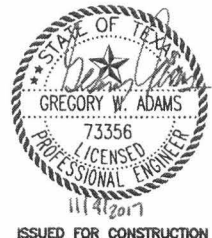
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- LEGEND**
- N 13897400 STATE PLANE GRID (NAD 83 CENTRAL ZONE)
  - 5.56 EXISTING CONTOUR
  - EDGE OF PAVEMENT
  - FEMA 100 YEAR FLOODPLAIN (ZONE A)
  - EXISTING STREAM CENTERLINE
  - TREE

- NOTES:**
1. EXISTING CONTOURS PROVIDED BY HODDE & HODDE LAND SURVEYING, INC. FROM GROUND SURVEY DATED OCTOBER 26, 2017.
  2. UTILITIES SHOWN ON THE PLANS WERE TAKEN FROM FIELD SURVEYS, RECORD DRAWINGS AND INFORMATION PROVIDED BY UTILITY COMPANIES. THE COMPLETENESS AND ACCURACY OF THIS DATA IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL UNDERGROUND UTILITIES AND STRUCTURES AND PROTECTING THEM FROM DAMAGE DURING CONSTRUCTION.
  3. TREE LOCATIONS, DESCRIPTIONS AND STREAM CENTERLINES WERE PROVIDED BY HODDE & HODDE LAND SURVEYING, INC.
  4. DRAINAGE STRUCTURES SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES, NOVEMBER 1, 2014.
  5. REFER TO TXDOT BRIDGE DIVISION STANDARD DRAWING SCP DATED FEBRUARY 2010 FOR PRECAST BOX CULVERT DETAILS.
  6. REFER TO TXDOT BRIDGE DIVISION STANDARD DRAWING FW-S DATED FEBRUARY 2010 FOR WINGWALL DETAILS.
  7. REFER TO TXDOT BRIDGE DIVISION STANDARD DRAWING SCP-MD FOR PRECAST BOX CULVERTS MISCELLANEOUS DETAILS.
  8. GROUDED RIPRAP SHALL BE COMMON STONE RIPRAP IN ACCORDANCE WITH TXDOT ITEM 432.

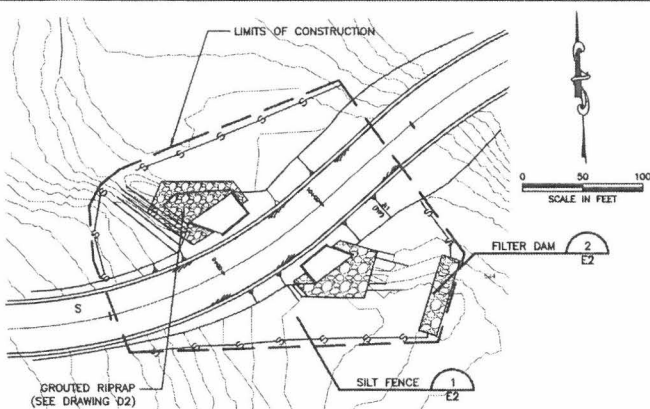


ISSUED FOR CONSTRUCTION

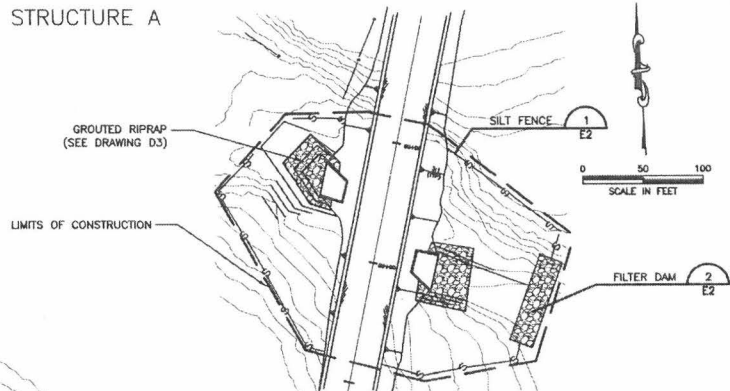
<b>DRAINAGE STRUCTURE B PLAN AND PROFILE</b>	
130 ENVIRONMENTAL PARK, LLC 130 ENVIRONMENTAL PARK ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES	
	BIGGS & MATHEWS ENVIRONMENTAL CONSULTING ENGINEERS MANSFIELD • WICHITA FALLS 817-563-1144
TPBC FIRM NO. F-256	TPBC FIRM NO. 50222
DSN: GLW DATE: 05/17	DRAWING
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REV	DATE	DESCRIPTION	DES BY	CHK BY	APP BY

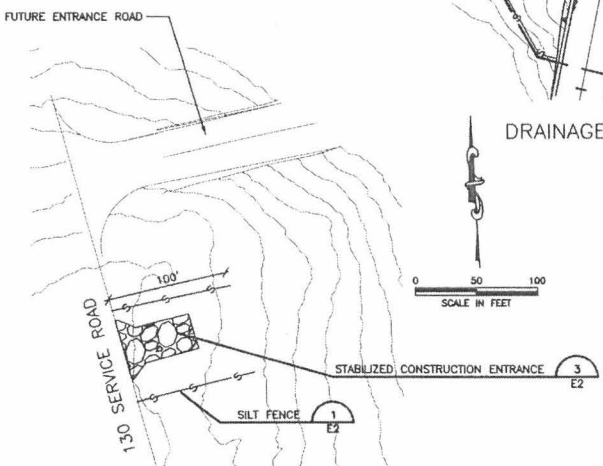




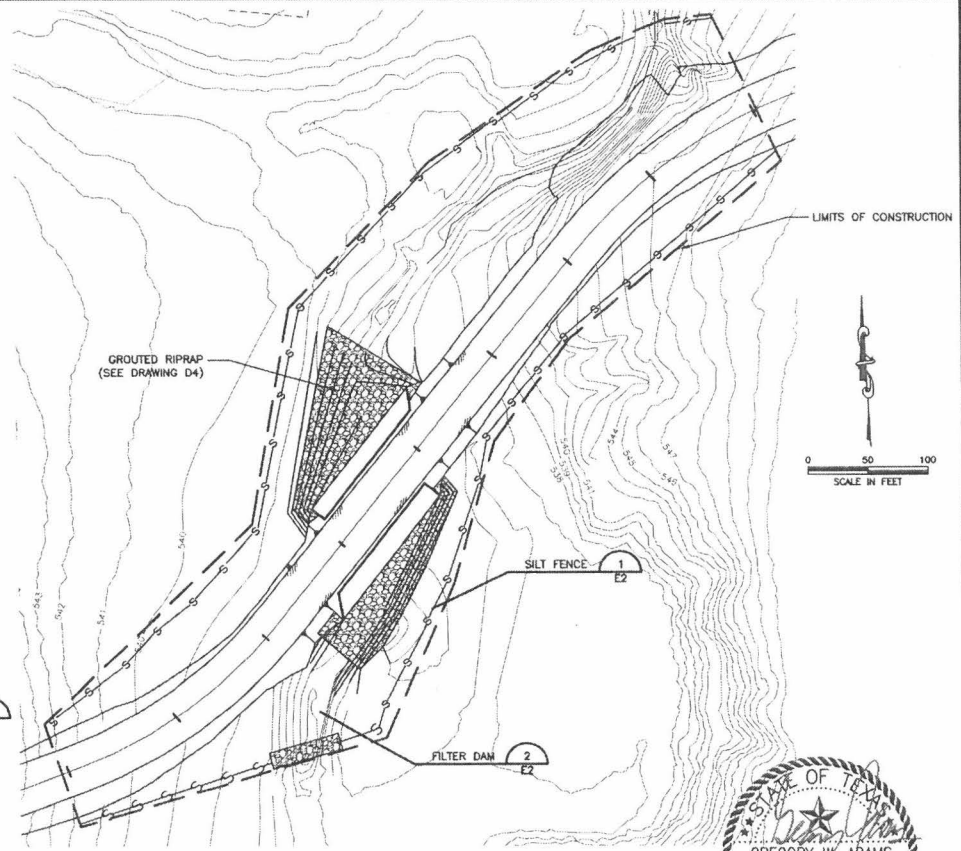
DRAINAGE STRUCTURE A



DRAINAGE STRUCTURE B



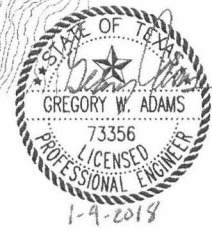
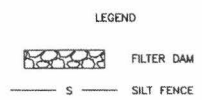
CONSTRUCTION ENTRANCE



DRAINAGE STRUCTURE C

NOTES:

- EXISTING CONTOURS GENERATED BY BIGGS & MATHEWS ENVIRONMENTAL, INC. FROM LIDAR DATA COLLECTED IN 2007 PROVIDED BY THE CAPITAL AREA COUNCIL OF GOVERNMENTS.
- ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE TPDES GENERAL PERMIT. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL FILE A NOTICE OF INTENT AND PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- TEMPORARY EROSION CONTROL MEASURES: AT A MINIMUM, TEMPORARY EROSION CONTROL MEASURES WILL INCLUDE SILT FENCES AND FILTER DAMS AS SHOWN. ADDITIONAL TEMPORARY EROSION CONTROL MEASURES SUCH AS HAY BALES AND EROSION CONTROL MAT SHALL BE INSTALLED AS NEEDED IN ACCORDANCE WITH THE APPROVED SWPPP.
- PERMANENT EROSION CONTROL MEASURES: PERMANENT EROSION CONTROL MEASURES WILL INCLUDE CONCRETE END TREATMENTS AND GROUDED RIPRAP AS SHOWN. ADDITIONALLY, ALL DISTURBED AREAS SHALL BE REVEGETATED UPON COMPLETION OF CONSTRUCTION ACTIVITIES.



**EROSION AND SEDIMENT CONTROL PLAN**  
**130 ENVIRONMENTAL PARK, LLC**  
**130 ENVIRONMENTAL PARK**  
**ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES**

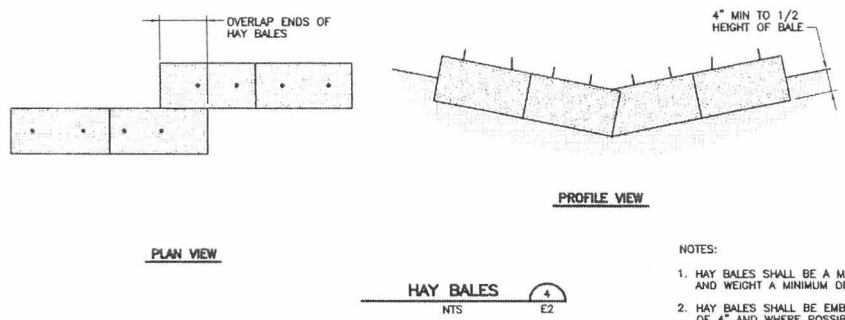
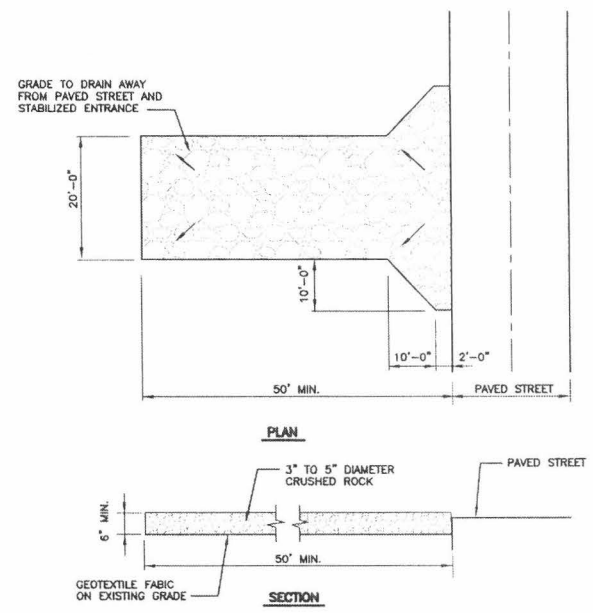
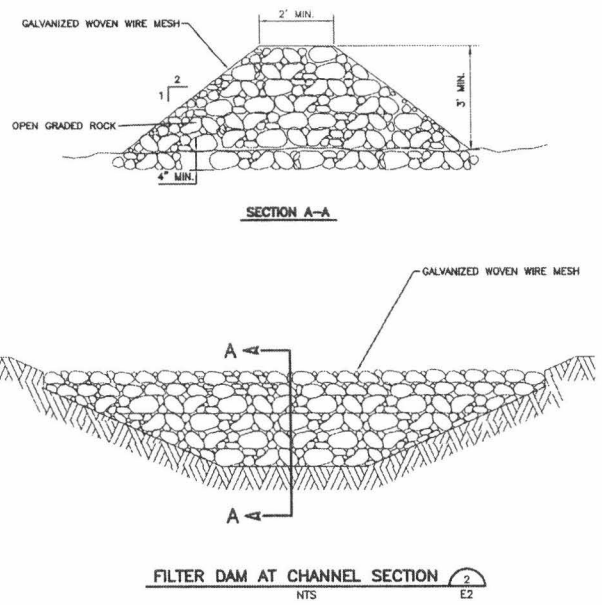
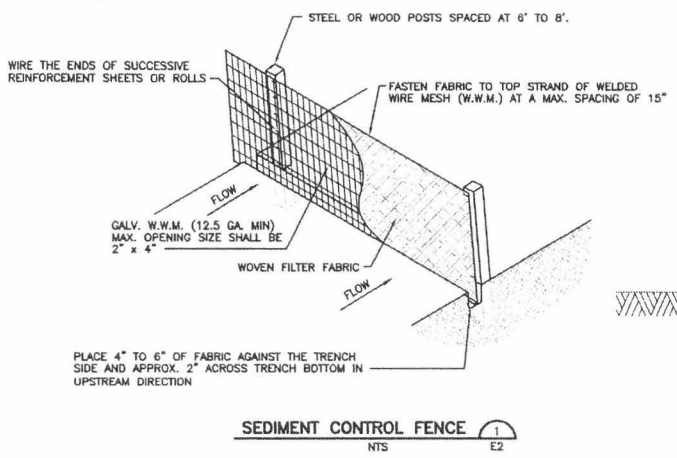


**BIGGS & MATHEWS ENVIRONMENTAL CONSULTING ENGINEERS**  
 MANSFIELD • WICHITA FALLS  
 817-563-1144

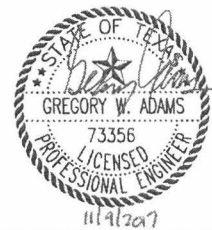
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DWN BY					NES BY		DWN BY	
APP BY					APP BY		APP BY	
TPDC FIRM NO. F-256					TPDC FIRM NO. 50222		DATE: 06/17	
DRAWING					E1		DRAWING	

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- NOTES:
- HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGHT A MINIMUM OF 50 LBS.
  - HAY BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND WHERE POSSIBLE 1/2 THE HEIGHT OF THE BALE.



**STORMWATER CONTROL DETAILS**

130 ENVIRONMENTAL PARK, LLC  
130 ENVIRONMENTAL PARK  
ENTRANCE & ACCESS ROAD DRAINAGE STRUCTURES

**BIGGS & MATTHEWS**  
ENVIRONMENTAL CONSULTING ENGINEERS  
MANSFIELD • MICHITA FALLS  
817-563-1144

ISSUED FOR CONSTRUCTION

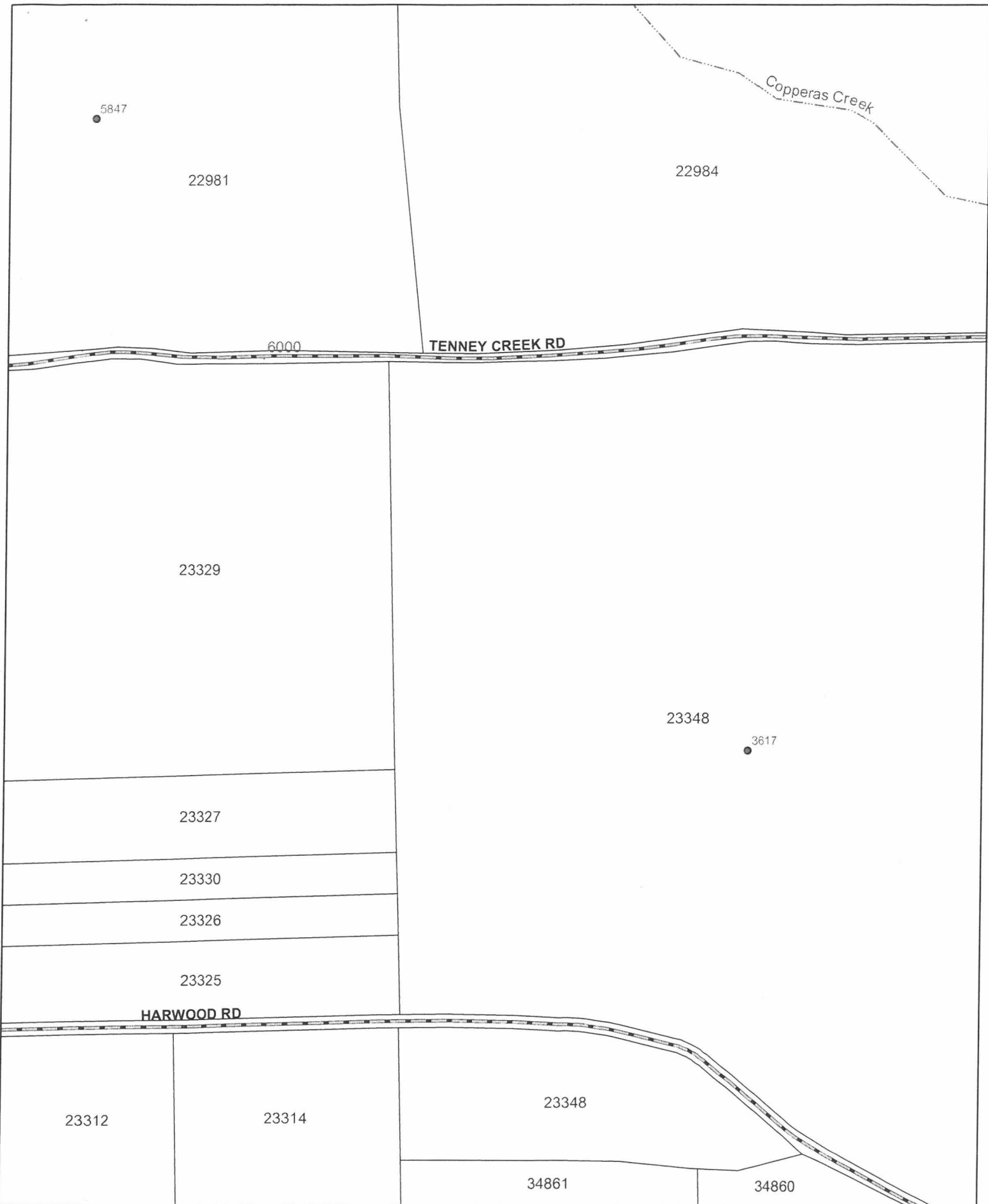
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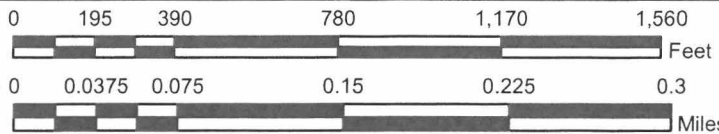


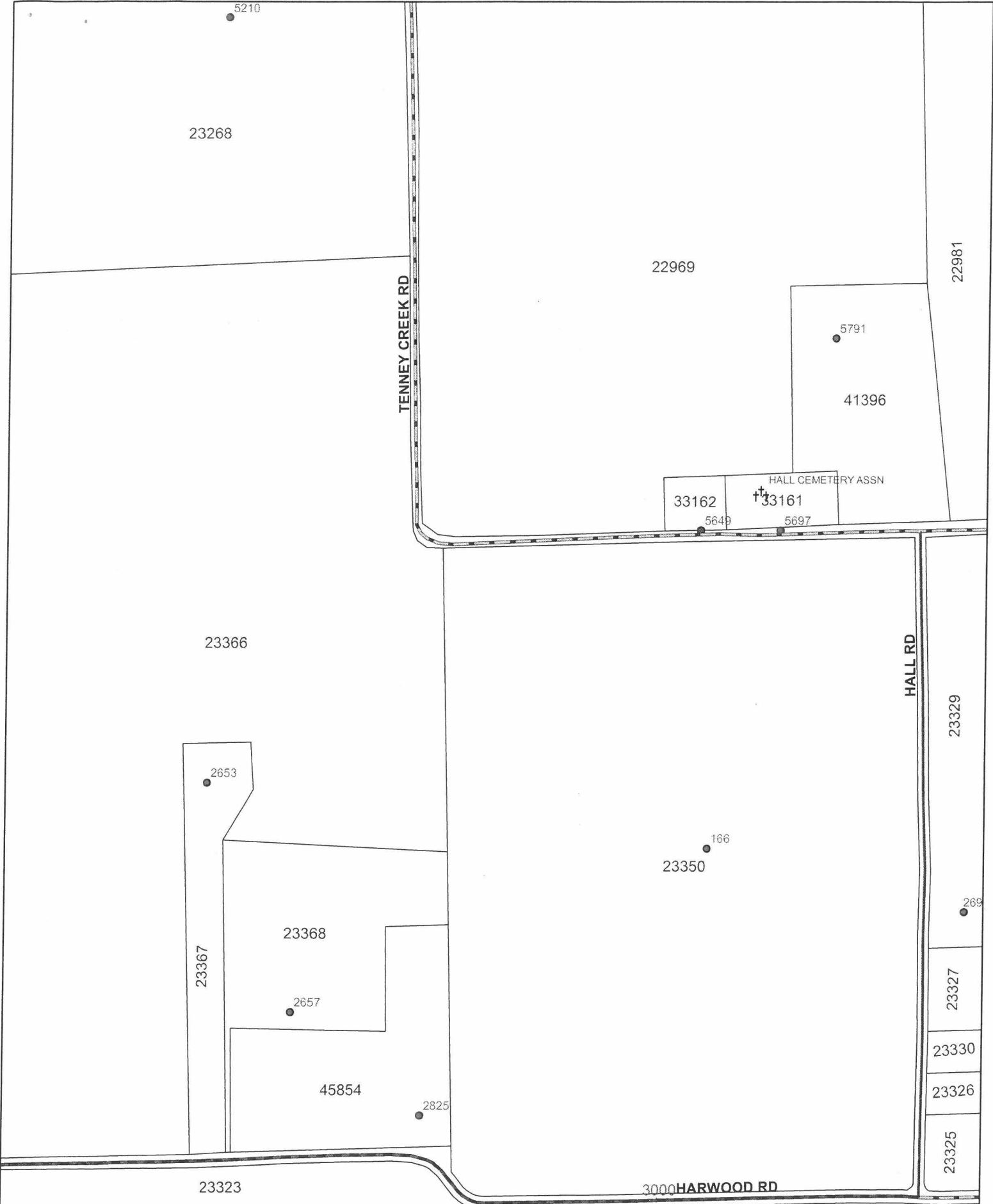
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