

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE OF THE CITY OF DENTON, TEXAS APPROVING AN ALTERNATIVE ENVIRONMENTALLY SENSITIVE AREA PLAN TO OFFSET THE REMOVAL OF 0.23 ACRE OF ENVIRONMENTALLY SENSITIVE AREAS (ESAS) ON APPROXIMATELY 53.89 ACRES OF LAND LOCATED NORTH OF SPENCER ROAD AND APPROXIMATELY 1,200 FEET WEST OF THE INTERSECTION OF SPENCER ROAD AND LOOP 288 IN THE CITY OF DENTON, DENTON COUNTY, TEXAS; ADOPTING AN AMENDMENT TO THE CITY'S OFFICIAL ENVIRONMENTALLY SENSITIVE AREAS MAP; PROVIDING FOR A PENALTY IN THE MAXIMUM AMOUNT OF \$2,000.00 FOR VIOLATIONS THEREOF; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE. (AES25-0001C)

WHEREAS, the property owner, IDI Logistics, LLC "Owner" seeks to develop the approximately 53.89 acres described in **Exhibit "A"**, attached hereto and incorporated herein by reference (the "Property"); and

WHEREAS, the Property is depicted on the map in **Exhibit "B"**, attached hereto and incorporated herein by reference; and

WHEREAS, Owner has applied for an Alternative Environmentally Sensitive Area Plan, attached hereto as **Exhibit "E"** and incorporated by reference, pursuant to Section 2.8.4 of the Denton Development Code (the "AES Plan"); and

WHEREAS, the Owner proposes to mitigate by improving approximately 3.48 acres of Environmentally Sensitive Areas described in **Exhibit "C"** and depicted on the map provided in **Exhibit "D"**, each attached hereto and incorporated by reference (the "AES Property"); and

WHEREAS, the purpose of the AES Plan is to provide a procedure for mitigating the ecological impact of the proposed development on water-related habitat located on the AES Property; and

WHEREAS, on August 13, 2025, the Planning and Zoning Commission, in compliance with the laws of the State of Texas, gave requisite notices by publication and otherwise, afforded full and fair hearings to property owners and interested citizens, and recommended approval of the AES Plan on the AES Property (5 – 0) with conditions; and

WHEREAS, on September 16, 2025, the City Council conducted a public hearing as required by law; and

WHEREAS, the City Council finds that the proposed AES Plan satisfies all substantive and procedural standards set forth in Section 2.8.4. of the Denton Development Code and is consistent with the Denton 2040 Comprehensive Plan; and

WHEREAS, the City Council, in considering the proposed AES Plan for the Property and the factors and goals in Subsection 2.8.4.D of the Denton Development Code, has determined that

the proposed use for the Property and adoption of the AESA Plan is in the best interest of the health, safety, and general welfare of the City of Denton; and

WHEREAS, the City Council finds that said AESA Plan is in the public interest and should be granted as set forth herein.

NOW THEREFORE, THE COUNCIL OF THE CITY OF DENTON HEREBY ORDAINS:

SECTION 1. The findings and recitations contained in the preamble of this ordinance are incorporated herein by reference and found to be true.

SECTION 2. The AESA Plan mitigates the ecological impact of development of the Property and is hereby approved with the following conditions:

1. Land disturbances within Environmentally Sensitive Areas are limited to the Property described on **Exhibit “A”** and depicted on the map provided on **Exhibit “B”**;
2. Clearing on the AESA Property described in **“Exhibit “C”** and depicted on the map provided on **Exhibit “D”** shall comply with the AESA Plan in **Exhibit “E”** and immediately commence upon issuance of the clear and grade permit for the development;
3. All improvements described in the Mitigation Activities portion of the AESA Plan in **Exhibit “E”** must commence prior to the issuance of the first building permit;
4. Notwithstanding Condition No. 2 and with prior approval from the Director of Environmental Services and Sustainability, the Property Owner may begin the improvements described in the Mitigation Activities portion of the AESA Plan in **Exhibit “E”** on a date certain within the next appropriate growing season;
5. Invasive plants removed as a part of the approved AESA Plan shall continue to be monitored and targeted for removal for a minimum of three (3) years from the time of their initial removal and until the conditions of the AESA Plan have been met;
6. Upon receipt of the third annual report, City of Denton staff will perform an inspection. If the inspection confirms that the conditions of the AESA Plan have been met, Director of Environmental Services and Sustainability will issue a letter of acceptance;
7. All perpetual maintenance activities in the AESA Plan shall be recorded on corresponding platting for the Property; and
8. The Property Owner retains all responsibility and shall bear all costs and liabilities related to (i) ownership, operation, upkeep, and maintenance of the AESA Property; (ii) implementation and enforcement of the requirements of the AESA Plan; and (iii) any actions needed to cure any defaults of the AESA Plan.

SECTION 3. The City’s official ESA map is hereby amended to show permanent removal of the Riparian Buffer in accordance with the AESA Plan.

SECTION 4. If any provision of this ordinance or the application thereof to any person or circumstance is held invalid by any court, such invalidity shall not affect the validity of the provisions or applications, and to this end the provisions of this ordinance are severable.

SECTION 5. Any person, firm, partnership, or corporation violating any provision of this ordinance shall, upon conviction, be deemed guilty of a misdemeanor and shall be punished by

fine in a sum not exceeding \$2,000.00 for each offense. Each day that a provision of this ordinance is violated shall constitute a separate and distinct offense.

**SECTION 6.** In compliance with Section 2.09(c) of the Denton Charter, this ordinance shall become effective fourteen (14) days from the date of its passage, and the City Secretary is hereby directed to cause the caption of this ordinance to be published twice in the Denton Record-Chronicle, a daily newspaper published in the City of Denton, Texas, within ten (10) days of the date of its passage.

The motion to approve this ordinance was made by \_\_\_\_\_ and seconded by \_\_\_\_\_, the ordinance was passed and approved by the following vote [\_\_\_\_ - \_\_\_\_]:

	<b>Aye</b>	<b>Nay</b>	<b>Abstain</b>	<b>Absent</b>
Mayor Gerard Hudspeth:	_____	_____	_____	_____
Vicki Byrd, District 1:	_____	_____	_____	_____
Brian Beck, District 2:	_____	_____	_____	_____
Suzi Rumohr, District 3:	_____	_____	_____	_____
Joe Holland, District 4:	_____	_____	_____	_____
Brandon Chase McGee, At Large Place 5:	_____	_____	_____	_____
Jill Jester, At Large Place 6:	_____	_____	_____	_____

PASSED AND APPROVED this the \_\_\_\_\_ day of \_\_\_\_\_, 2025.

\_\_\_\_\_  
GERARD HUDSPETH, MAYOR

ATTEST:  
INGRID REX, INTERIM CITY SECRETARY

BY: \_\_\_\_\_

APPROVED AS TO LEGAL FORM:  
MACK REINWAND, CITY ATTORNEY

BY: Christopher Mullins



Exhibit A  
Description of Property



LEGAL DESCRIPTION OF  
**DIA TRACT**

All that certain lot, tract, or parcel of land, situated in a portion of the Mary L. Austin Survey, Abstract No. 4, City of Denton, Denton County, Texas, being part of that certain called 53.865 net acre tract described in a deed to Neil A. Bickley and Ronald W. Atkins recorded in Document No. 2024-128262 of the Deed Records of Denton County, Texas (DRDCT), and being more completely described as follows, to-wit:

**COMMENCING** at a 1/2" iron rod found (bent) for the Northeast corner of said 53.865 net acre tract, the Southeast corner of a called 24.14 acre tract described as Tract 1 in a deed to Madanjo Partners, LTD recorded in Document No. 2018-75291 (DRDCT), the Northeast corner of a called 17 acre tract described in deed to American Legion Post #71 recorded in Volume 561, Page 464 (DRDCT) and for the Southwest corner of Brinker Road (an unimproved variable width right-of-way) described in deed to the City of Denton, Texas recorded in Document No. 2008-21943 (DRDCT);

**THENCE** South 02 deg. 08 min. 02 sec. East along the East line of said 53.865 net acre tract and the West line of said 17 acre tract a distance of 75.20 feet to the **TRUE POINT OF BEGINNING**;

**THENCE** South 02 deg. 08 min. 02 sec. East continuing along said East and West lines, a distance of 649.63 feet;

**THENCE** South 62 deg. 19 min. 44 sec. West departing said East and West lines, a distance of 6.87 feet;

**THENCE** South 57 deg. 51 min. 21 sec. West, a distance of 12.14 feet;

**THENCE** South 60 deg. 57 min. 00 sec. West, a distance of 23.25 feet;

**THENCE** South 87 deg. 51 min. 58 sec. West, a distance of 58.50 feet;

**THENCE** South 52 deg. 47 min. 54 sec. West, a distance of 4.42 feet;

**THENCE** South 45 deg. 51 min. 08 sec. West, a distance of 6.57 feet;

**THENCE** South 82 deg. 03 min. 45 sec. West, a distance of 5.85 feet;



**THENCE** North 76 deg. 18 min. 11 sec. West, a distance of 5.69 feet;  
**THENCE** North 51 deg. 29 min. 28 sec. West, a distance of 9.30 feet;  
**THENCE** South 87 deg. 44 min. 10 sec. West, a distance of 33.98 feet;  
**THENCE** North 17 deg. 24 min. 24 sec. West, a distance of 9.54 feet;  
**THENCE** North 44 deg. 30 min. 53 sec. West, a distance of 16.25 feet;  
**THENCE** North 78 deg. 54 min. 52 sec. West, a distance of 10.57 feet;  
**THENCE** South 84 deg. 09 min. 56 sec. West, a distance of 77.02 feet;  
**THENCE** South 69 deg. 28 min. 32 sec. West, a distance of 12.17 feet;  
**THENCE** South 54 deg. 28 min. 48 sec. West, a distance of 8.57 feet;  
**THENCE** South 15 deg. 25 min. 27 sec. West, a distance of 19.12 feet;  
**THENCE** South 27 deg. 11 min. 43 sec. West, a distance of 21.02 feet;  
**THENCE** South 31 deg. 17 min. 13 sec. West, a distance of 14.13 feet;  
**THENCE** South 30 deg. 37 min. 33 sec. West, a distance of 35.86 feet;  
**THENCE** South 29 deg. 06 min. 02 sec. West, a distance of 26.88 feet;  
**THENCE** South 06 deg. 57 min. 34 sec. West, a distance of 19.74 feet;  
**THENCE** South 11 deg. 08 min. 49 sec. East, a distance of 28.66 feet;  
**THENCE** South 20 deg. 16 min. 39 sec. East, a distance of 18.89 feet;  
**THENCE** South 45 deg. 00 min. 00 sec. East, a distance of 137.65 feet;  
**THENCE** North 90 deg. 00 min. 00 sec. East, a distance of 192.11 feet;

**THENCE** South 44 deg. 14 min. 18 sec. East, a distance of 24.25 feet;



**THENCE** South 89 deg. 59 min. 15 sec. East, a distance of 9.03 feet;

**THENCE** South 30 deg. 22 min. 45 sec. East, a distance of 3.54 feet;

**THENCE** South 20 deg. 15 min. 23 sec. East, a distance of 12.73 feet to a point in the North right-of-way line of Spencer Road (variable width right-of-way), from which a 1/2" capped iron rod found stamped "GMCIVIL" in the East line of said 53.865 net acre tract and the West line of said 17 acre tract bears South 89 deg. 59 min. 15 sec. East – 9.50 feet;

**THENCE** in a westerly direction along said North right-of-way line the following two (2) calls:

North 89 deg. 59 min. 15 sec. West, a distance of 348.92 feet to a 1/2" capped iron rod found stamped "GMCIVIL";

North 89 deg. 28 min. 20 sec. West, a distance of 9.54 feet;

**THENCE** North 04 deg. 39 min. 07 sec. West departing said North right-of-way line, a distance of 38.46 feet;

**THENCE** North 34 deg. 41 min. 13 sec. West, a distance of 64.50 feet;

**THENCE** North 89 deg. 28 min. 20 sec. West, a distance of 62.46 feet;

**THENCE** North 16 deg. 08 min. 09 sec. West, a distance of 53.09 feet;

**THENCE** North 88 deg. 23 min. 14 sec. West, a distance of 23.67 feet;

**THENCE** North 01 deg. 52 min. 24 sec. West, a distance of 3.08 feet;

**THENCE** North 05 deg. 37 min. 40 sec. West, a distance of 3.27 feet;

**THENCE** North 08 deg. 29 min. 03 sec. West, a distance of 1.71 feet;

**THENCE** North 09 deg. 27 min. 42 sec. West, a distance of 17.63 feet;

**THENCE** in a northerly direction along said line, a distance of 0.18 feet;



**THENCE** North 10 deg. 21 min. 28 sec. West, a distance of 1.56 feet;  
**THENCE** North 13 deg. 07 min. 40 sec. West, a distance of 3.27 feet;  
**THENCE** North 16 deg. 52 min. 33 sec. West, a distance of 3.27 feet;  
**THENCE** North 20 deg. 37 min. 29 sec. West, a distance of 3.27 feet;  
**THENCE** North 24 deg. 22 min. 13 sec. West, a distance of 3.27 feet;  
**THENCE** North 28 deg. 07 min. 48 sec. West, a distance of 3.27 feet;  
**THENCE** North 31 deg. 52 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** North 35 deg. 28 min. 06 sec. West, a distance of 3.00 feet;  
**THENCE** North 37 deg. 11 min. 04 sec. West, a distance of 16.66 feet;  
**THENCE** North 26 deg. 33 min. 54 sec. West, a distance of 3.51 feet;  
**THENCE** North 43 deg. 40 min. 06 sec. East, a distance of 10.52 feet;  
**THENCE** North 49 deg. 53 min. 56 sec. East, a distance of 11.82 feet;  
**THENCE** North 49 deg. 19 min. 32 sec. East, a distance of 1.00 feet;  
**THENCE** North 46 deg. 52 min. 23 sec. East, a distance of 3.27 feet;  
**THENCE** North 43 deg. 07 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** North 39 deg. 22 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** North 35 deg. 37 min. 23 sec. East, a distance of 3.27 feet;  
**THENCE** North 33 deg. 59 min. 22 sec. East, a distance of 0.05 feet;  
**THENCE** North 33 deg. 41 min. 22 sec. East, a distance of 21.11 feet;  
**THENCE** North 31 deg. 50 min. 38 sec. East, a distance of 3.22 feet;



**THENCE** North 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;  
**THENCE** North 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;  
**THENCE** North 20 deg. 37 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** North 16 deg. 52 min. 27 sec. East, a distance of 3.27 feet;  
**THENCE** North 13 deg. 07 min. 20 sec. East, a distance of 3.27 feet;  
**THENCE** North 09 deg. 22 min. 42 sec. East, a distance of 3.27 feet;  
**THENCE** North 05 deg. 37 min. 19 sec. East, a distance of 3.27 feet;  
**THENCE** North 01 deg. 52 min. 44 sec. East, a distance of 3.27 feet;  
**THENCE** North 01 deg. 52 min. 45 sec. West, a distance of 3.27 feet;  
**THENCE** North 03 deg. 54 min. 59 sec. West, a distance of 0.29 feet;  
**THENCE** North 04 deg. 05 min. 06 sec. West, a distance of 16.44 feet;  
**THENCE** North 05 deg. 47 min. 46 sec. West, a distance of 2.98 feet;  
**THENCE** North 08 deg. 03 min. 33 sec. West, a distance of 0.97 feet;  
**THENCE** North 08 deg. 36 min. 54 sec. West, a distance of 19.54 feet;  
**THENCE** North 09 deg. 56 min. 08 sec. West, a distance of 2.30 feet;  
**THENCE** North 13 deg. 07 min. 40 sec. West, a distance of 3.27 feet;  
**THENCE** North 16 deg. 52 min. 13 sec. West, a distance of 3.27 feet;  
**THENCE** North 20 deg. 37 min. 29 sec. West, a distance of 3.27 feet;  
**THENCE** North 24 deg. 22 min. 32 sec. West, a distance of 3.27 feet;  
**THENCE** North 28 deg. 07 min. 30 sec. West, a distance of 3.27 feet;



**THENCE** North 31 deg. 52 min. 41 sec. West, a distance of 3.27 feet;  
**THENCE** North 35 deg. 37 min. 35 sec. West, a distance of 3.27 feet;  
**THENCE** North 39 deg. 22 min. 20 sec. West, a distance of 3.27 feet;  
**THENCE** North 41 deg. 33 min. 14 sec. West, a distance of 0.55 feet;  
**THENCE** North 41 deg. 52 min. 42 sec. West, a distance of 22.80 feet;  
**THENCE** North 42 deg. 19 min. 49 sec. West, a distance of 0.83 feet;  
**THENCE** North 42 deg. 49 min. 32 sec. West, a distance of 32.73 feet;  
**THENCE** North 43 deg. 54 min. 52 sec. West, a distance of 1.90 feet;  
**THENCE** North 46 deg. 52 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** North 50 deg. 37 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** North 54 deg. 22 min. 37 sec. West, a distance of 3.27 feet;  
**THENCE** North 57 deg. 16 min. 27 sec. West, a distance of 1.80 feet;  
**THENCE** North 58 deg. 18 min. 27 sec. West, a distance of 33.52 feet;  
**THENCE** North 54 deg. 49 min. 10 sec. West, a distance of 17.66 feet;  
**THENCE** North 01 deg. 25 min. 01 sec. West, a distance of 206.24 feet;  
**THENCE** North 44 deg. 11 min. 54 sec. West, a distance of 7.71 feet;  
**THENCE** North 56 deg. 58 min. 08 sec. West, a distance of 12.55 feet;  
**THENCE** North 32 deg. 04 min. 33 sec. West, a distance of 10.05 feet;  
**THENCE** North 24 deg. 58 min. 12 sec. West, a distance of 16.30 feet;  
**THENCE** North 43 deg. 46 min. 24 sec. West, a distance of 25.92 feet;



**THENCE** North 65 deg. 58 min. 31 sec. West, a distance of 15.30 feet;

**THENCE** North 64 deg. 54 min. 58 sec. West, a distance of 10.31 feet;

**THENCE** North 35 deg. 37 min. 35 sec. West, a distance of 2.88 feet;

**THENCE** North 39 deg. 22 min. 36 sec. West, a distance of 3.27 feet;

**THENCE** North 42 deg. 32 min. 17 sec. West, a distance of 2.25 feet;

**THENCE** North 43 deg. 49 min. 51 sec. West, a distance of 41.39 feet;

**THENCE** North 43 deg. 27 min. 09 sec. West, a distance of 8.83 feet;

**THENCE** North 43 deg. 35 min. 48 sec. East, a distance of 0.84 feet;

**THENCE** North 42 deg. 25 min. 44 sec. East, a distance of 2.05 feet;

**THENCE** North 39 deg. 22 min. 20 sec. East, a distance of 3.27 feet;

**THENCE** North 36 deg. 14 min. 41 sec. East, a distance of 2.19 feet;

**THENCE** North 34 deg. 59 min. 31 sec. East, a distance of 8.68 feet;

**THENCE** North 35 deg. 13 min. 06 sec. East, a distance of 9.88 feet;

**THENCE** North 34 deg. 29 min. 17 sec. East, a distance of 1.28 feet;

**THENCE** North 31 deg. 52 min. 24 sec. East, a distance of 3.27 feet;

**THENCE** North 28 deg. 07 min. 38 sec. East, a distance of 3.27 feet;

**THENCE** North 24 deg. 22 min. 21 sec. East, a distance of 3.27 feet;

**THENCE** North 20 deg. 37 min. 29 sec. East, a distance of 3.27 feet;

**THENCE** North 17 deg. 13 min. 47 sec. East, a distance of 2.65 feet;

**THENCE** North 15 deg. 42 min. 34 sec. East, a distance of 7.97 feet;





**THENCE** North 15 deg. 20 min. 54 sec. East, a distance of 0.62 feet;  
**THENCE** North 13 deg. 07 min. 40 sec. East, a distance of 3.27 feet;  
**THENCE** North 09 deg. 47 min. 20 sec. East, a distance of 2.55 feet;  
**THENCE** North 08 deg. 19 min. 59 sec. East, a distance of 15.63 feet;  
**THENCE** North 26 deg. 22 min. 18 sec. East, a distance of 11.03 feet;  
**THENCE** North 00 deg. 12 min. 38 sec. West, a distance of 121.53 feet;  
**THENCE** North 74 deg. 23 min. 58 sec. West, a distance of 5.34 feet;  
**THENCE** North 87 deg. 55 min. 22 sec. West, a distance of 83.62 feet;  
**THENCE** North 53 deg. 27 min. 53 sec. West, a distance of 3.31 feet;  
**THENCE** North 74 deg. 16 min. 25 sec. West, a distance of 3.53 feet;  
**THENCE** North 74 deg. 52 min. 35 sec. West, a distance of 4.22 feet;  
**THENCE** North 83 deg. 08 min. 51 sec. West, a distance of 1.79 feet;  
**THENCE** South 88 deg. 44 min. 41 sec. West, a distance of 1.59 feet;  
**THENCE** South 78 deg. 43 min. 24 sec. West, a distance of 1.40 feet;  
**THENCE** South 65 deg. 06 min. 08 sec. West, a distance of 2.96 feet;  
**THENCE** South 49 deg. 59 min. 15 sec. West, a distance of 3.06 feet;  
**THENCE** North 87 deg. 55 min. 22 sec. West, a distance of 90.93 feet;  
**THENCE** South 14 deg. 44 min. 58 sec. West, a distance of 1.82 feet;  
**THENCE** South 35 deg. 37 min. 35 sec. East, a distance of 0.15 feet;  
**THENCE** South 37 deg. 35 min. 55 sec. East, a distance of 0.19 feet;



**THENCE** South 37 deg. 43 min. 05 sec. East, a distance of 11.26 feet;

**THENCE** South 20 deg. 35 min. 22 sec. East, a distance of 12.67 feet;

**THENCE** South 21 deg. 32 min. 16 sec. East, a distance of 1.67 feet;

**THENCE** South 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;

**THENCE** South 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;

**THENCE** South 31 deg. 52 min. 41 sec. East, a distance of 3.27 feet;

**THENCE** South 35 deg. 37 min. 35 sec. East, a distance of 3.27 feet;

**THENCE** South 39 deg. 22 min. 20 sec. East, a distance of 3.27 feet;

**THENCE** South 43 deg. 07 min. 37 sec. East, a distance of 3.27 feet;

**THENCE** South 46 deg. 52 min. 09 sec. East, a distance of 3.27 feet;

**THENCE** South 50 deg. 37 min. 40 sec. East, a distance of 3.27 feet;

**THENCE** South 53 deg. 12 min. 55 sec. East, a distance of 1.24 feet;

**THENCE** South 53 deg. 55 min. 03 sec. East, a distance of 12.73 feet;

**THENCE** South 48 deg. 12 min. 45 sec. East, a distance of 24.63 feet;

**THENCE** South 48 deg. 27 min. 35 sec. East, a distance of 0.47 feet;

**THENCE** South 50 deg. 37 min. 24 sec. East, a distance of 3.27 feet;

**THENCE** South 54 deg. 22 min. 37 sec. East, a distance of 3.27 feet;

**THENCE** South 58 deg. 07 min. 36 sec. East, a distance of 3.27 feet;

**THENCE** South 61 deg. 52 min. 30 sec. East, a distance of 3.27 feet;

**THENCE** South 65 deg. 37 min. 28 sec. East, a distance of 3.27 feet;



**THENCE** South 69 deg. 22 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** South 73 deg. 07 min. 33 sec. East, a distance of 3.27 feet;  
**THENCE** South 76 deg. 17 min. 41 sec. East, a distance of 2.26 feet;  
**THENCE** South 77 deg. 35 min. 24 sec. East, a distance of 3.26 feet;  
**THENCE** South 74 deg. 56 min. 06 sec. East, a distance of 1.44 feet;  
**THENCE** South 37 deg. 07 min. 43 sec. East, a distance of 6.38 feet;  
**THENCE** South 37 deg. 17 min. 58 sec. East, a distance of 0.32 feet;  
**THENCE** South 37 deg. 44 min. 48 sec. East, a distance of 0.39 feet;  
**THENCE** South 37 deg. 56 min. 28 sec. East, a distance of 9.65 feet;  
**THENCE** South 08 deg. 07 min. 49 sec. East, a distance of 12.74 feet;  
**THENCE** South 09 deg. 41 min. 34 sec. East, a distance of 2.72 feet;  
**THENCE** South 12 deg. 04 min. 53 sec. East, a distance of 1.46 feet;  
**THENCE** South 12 deg. 55 min. 22 sec. East, a distance of 1.59 feet;  
**THENCE** South 05 deg. 17 min. 18 sec. West, a distance of 7.30 feet;  
**THENCE** South 08 deg. 20 min. 01 sec. West, a distance of 14.05 feet;  
**THENCE** South 35 deg. 13 min. 48 sec. West, a distance of 0.29 feet;  
**THENCE** South 35 deg. 05 min. 37 sec. West, a distance of 0.20 feet;  
**THENCE** South 34 deg. 59 min. 33 sec. West, a distance of 3.31 feet;  
**THENCE** South 57 deg. 08 min. 36 sec. West, a distance of 6.68 feet;  
**THENCE** South 56 deg. 41 min. 51 sec. West, a distance of 0.78 feet;



**THENCE** South 54 deg. 22 min. 37 sec. West, a distance of 3.27 feet;  
**THENCE** South 50 deg. 37 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** South 46 deg. 52 min. 38 sec. West, a distance of 3.27 feet;  
**THENCE** South 43 deg. 07 min. 22 sec. West, a distance of 3.27 feet;  
**THENCE** South 39 deg. 22 min. 36 sec. West, a distance of 3.27 feet;  
**THENCE** South 35 deg. 37 min. 35 sec. West, a distance of 3.27 feet;  
**THENCE** South 32 deg. 21 min. 22 sec. West, a distance of 2.43 feet;  
**THENCE** South 30 deg. 57 min. 45 sec. West, a distance of 8.39 feet;  
**THENCE** South 30 deg. 28 min. 37 sec. West, a distance of 0.84 feet;  
**THENCE** South 28 deg. 07 min. 48 sec. West, a distance of 3.27 feet;  
**THENCE** South 25 deg. 27 min. 01 sec. West, a distance of 1.37 feet;  
**THENCE** South 24 deg. 40 min. 39 sec. West, a distance of 9.77 feet;  
**THENCE** South 23 deg. 35 min. 23 sec. West, a distance of 1.90 feet;  
**THENCE** South 20 deg. 37 min. 29 sec. West, a distance of 3.27 feet;  
**THENCE** South 16 deg. 52 min. 33 sec. West, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 20 sec. West, a distance of 3.27 feet;  
**THENCE** South 09 deg. 22 min. 38 sec. West, a distance of 3.27 feet;  
**THENCE** South 05 deg. 37 min. 19 sec. West, a distance of 3.27 feet;  
**THENCE** South 03 deg. 36 min. 53 sec. West, a distance of 0.28 feet;  
**THENCE** South 03 deg. 26 min. 03 sec. West, a distance of 12.01 feet;



**THENCE** South 01 deg. 42 min. 48 sec. West, a distance of 3.00 feet;  
**THENCE** South 01 deg. 52 min. 23 sec. East, a distance of 3.27 feet;  
**THENCE** South 05 deg. 37 min. 21 sec. East, a distance of 3.27 feet;  
**THENCE** South 09 deg. 22 min. 38 sec. East, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 40 sec. East, a distance of 3.27 feet;  
**THENCE** South 16 deg. 52 min. 07 sec. East, a distance of 3.27 feet;  
**THENCE** South 20 deg. 37 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** South 22 deg. 38 min. 47 sec. East, a distance of 0.22 feet;  
**THENCE** South 22 deg. 45 min. 01 sec. East, a distance of 8.06 feet;  
**THENCE** South 24 deg. 29 min. 58 sec. East, a distance of 3.05 feet;  
**THENCE** South 28 deg. 07 min. 48 sec. East, a distance of 3.27 feet;  
**THENCE** South 31 deg. 52 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** South 35 deg. 37 min. 35 sec. East, a distance of 3.27 feet;  
**THENCE** South 39 deg. 22 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** South 43 deg. 07 min. 22 sec. East, a distance of 3.27 feet;  
**THENCE** South 46 deg. 33 min. 42 sec. East, a distance of 2.72 feet;  
**THENCE** South 48 deg. 07 min. 21 sec. East, a distance of 7.50 feet;  
**THENCE** South 43 deg. 53 min. 53 sec. East, a distance of 15.60 feet;  
**THENCE** South 43 deg. 27 min. 07 sec. East, a distance of 12.36 feet;  
**THENCE** South 43 deg. 35 min. 35 sec. East, a distance of 0.33 feet;



**THENCE** South 43 deg. 49 min. 52 sec. East, a distance of 30.90 feet;  
**THENCE** South 19 deg. 46 min. 39 sec. East, a distance of 8.78 feet;  
**THENCE** South 12 deg. 20 min. 14 sec. East, a distance of 4.61 feet;  
**THENCE** South 13 deg. 40 min. 01 sec. East, a distance of 2.32 feet;  
**THENCE** South 16 deg. 52 min. 27 sec. East, a distance of 3.27 feet;  
**THENCE** South 20 deg. 37 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** South 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;  
**THENCE** South 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;  
**THENCE** South 31 deg. 52 min. 41 sec. East, a distance of 3.27 feet;  
**THENCE** South 35 deg. 37 min. 23 sec. East, a distance of 3.27 feet;  
**THENCE** South 38 deg. 42 min. 59 sec. East, a distance of 2.13 feet;  
**THENCE** South 39 deg. 56 min. 13 sec. East, a distance of 10.99 feet;  
**THENCE** South 06 deg. 35 min. 23 sec. East, a distance of 1.50 feet;  
**THENCE** South 07 deg. 35 min. 59 sec. East, a distance of 0.25 feet;  
**THENCE** South 07 deg. 47 min. 21 sec. East, a distance of 5.62 feet;  
**THENCE** North 86 deg. 58 min. 51 sec. West, a distance of 7.90 feet;  
**THENCE** North 88 deg. 29 min. 13 sec. West, a distance of 2.63 feet;  
**THENCE** South 88 deg. 07 min. 15 sec. West, a distance of 3.27 feet;  
**THENCE** South 84 deg. 22 min. 41 sec. West, a distance of 3.27 feet;  
**THENCE** South 80 deg. 37 min. 22 sec. West, a distance of 3.27 feet;



**THENCE** South 76 deg. 52 min. 40 sec. West, a distance of 3.27 feet;  
**THENCE** South 73 deg. 07 min. 33 sec. West, a distance of 3.27 feet;  
**THENCE** South 71 deg. 06 min. 50 sec. West, a distance of 0.12 feet;  
**THENCE** South 71 deg. 06 min. 51 sec. West, a distance of 14.03 feet;  
**THENCE** South 69 deg. 18 min. 28 sec. West, a distance of 3.15 feet;  
**THENCE** South 65 deg. 37 min. 28 sec. West, a distance of 3.27 feet;  
**THENCE** South 61 deg. 52 min. 30 sec. West, a distance of 3.27 feet;  
**THENCE** South 58 deg. 07 min. 36 sec. West, a distance of 3.27 feet;  
**THENCE** South 54 deg. 22 min. 25 sec. West, a distance of 3.27 feet;  
**THENCE** South 50 deg. 37 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** South 46 deg. 52 min. 38 sec. West, a distance of 3.27 feet;  
**THENCE** South 43 deg. 07 min. 37 sec. West, a distance of 3.27 feet;  
**THENCE** South 39 deg. 22 min. 20 sec. West, a distance of 3.27 feet;  
**THENCE** South 35 deg. 37 min. 23 sec. West, a distance of 3.27 feet;  
**THENCE** South 31 deg. 52 min. 52 sec. West, a distance of 3.27 feet;  
**THENCE** South 28 deg. 07 min. 20 sec. West, a distance of 3.27 feet;  
**THENCE** South 24 deg. 22 min. 13 sec. West, a distance of 3.27 feet;  
**THENCE** South 20 deg. 37 min. 36 sec. West, a distance of 3.27 feet;  
**THENCE** South 16 deg. 52 min. 27 sec. West, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 40 sec. West, a distance of 3.27 feet;



**THENCE** South 09 deg. 22 min. 21 sec. West, a distance of 3.27 feet;

**THENCE** South 05 deg. 37 min. 40 sec. West, a distance of 3.27 feet;

**THENCE** South 01 deg. 52 min. 23 sec. West, a distance of 3.27 feet;

**THENCE** South 01 deg. 52 min. 24 sec. East, a distance of 3.27 feet;

**THENCE** South 05 deg. 14 min. 00 sec. East, a distance of 2.58 feet;

**THENCE** South 06 deg. 42 min. 34 sec. East, a distance of 8.97 feet;

**THENCE** South 07 deg. 06 min. 17 sec. East, a distance of 0.69 feet;

**THENCE** South 09 deg. 22 min. 18 sec. East, a distance of 3.27 feet;

**THENCE** South 13 deg. 07 min. 40 sec. East, a distance of 3.27 feet;

**THENCE** South 16 deg. 52 min. 33 sec. East, a distance of 3.27 feet;

**THENCE** South 20 deg. 37 min. 29 sec. East, a distance of 3.27 feet;

**THENCE** South 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;

**THENCE** South 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;

**THENCE** South 31 deg. 52 min. 24 sec. East, a distance of 3.27 feet;

**THENCE** South 35 deg. 37 min. 35 sec. East, a distance of 3.27 feet;

**THENCE** South 39 deg. 22 min. 36 sec. East, a distance of 3.27 feet;

**THENCE** South 43 deg. 07 min. 22 sec. East, a distance of 3.27 feet;

**THENCE** South 46 deg. 52 min. 38 sec. East, a distance of 3.27 feet;

**THENCE** South 50 deg. 37 min. 24 sec. East, a distance of 3.27 feet;

**THENCE** South 54 deg. 22 min. 25 sec. East, a distance of 3.27 feet;





**THENCE** South 57 deg. 56 min. 41 sec. East, a distance of 2.96 feet;  
**THENCE** South 59 deg. 38 min. 48 sec. East, a distance of 10.70 feet;  
**THENCE** South 41 deg. 35 min. 29 sec. West, a distance of 23.80 feet;  
**THENCE** South 43 deg. 33 min. 55 sec. West, a distance of 22.96 feet;  
**THENCE** South 29 deg. 11 min. 24 sec. West, a distance of 3.57 feet;  
**THENCE** South 01 deg. 08 min. 47 sec. West, a distance of 6.90 feet;  
**THENCE** South 02 deg. 10 min. 49 sec. West, a distance of 21.03 feet;  
**THENCE** South 04 deg. 06 min. 04 sec. East, a distance of 7.82 feet;  
**THENCE** South 41 deg. 21 min. 10 sec. East, a distance of 4.62 feet;  
**THENCE** South 82 deg. 11 min. 58 sec. East, a distance of 8.81 feet;  
**THENCE** North 88 deg. 52 min. 58 sec. East, a distance of 11.65 feet;  
**THENCE** South 86 deg. 52 min. 01 sec. East, a distance of 43.61 feet;  
**THENCE** South 85 deg. 56 min. 54 sec. East, a distance of 34.94 feet;  
**THENCE** South 42 deg. 23 min. 51 sec. East, a distance of 31.30 feet;  
**THENCE** South 34 deg. 54 min. 07 sec. East, a distance of 16.37 feet;  
**THENCE** South 36 deg. 12 min. 17 sec. East, a distance of 2.27 feet;  
**THENCE** South 39 deg. 22 min. 20 sec. East, a distance of 3.27 feet;  
**THENCE** South 43 deg. 07 min. 37 sec. East, a distance of 3.27 feet;  
**THENCE** South 46 deg. 52 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** South 50 deg. 37 min. 24 sec. East, a distance of 3.27 feet;



**THENCE** South 53 deg. 39 min. 48 sec. East, a distance of 2.02 feet;  
**THENCE** South 54 deg. 49 min. 10 sec. East, a distance of 27.97 feet;  
**THENCE** South 55 deg. 32 min. 14 sec. East, a distance of 1.25 feet;  
**THENCE** South 57 deg. 16 min. 27 sec. East, a distance of 1.80 feet;  
**THENCE** South 58 deg. 18 min. 25 sec. East, a distance of 28.24 feet;  
**THENCE** South 42 deg. 49 min. 32 sec. East, a distance of 25.52 feet;  
**THENCE** South 41 deg. 52 min. 35 sec. East, a distance of 6.68 feet;  
**THENCE** South 49 deg. 53 min. 55 sec. West, a distance of 4.21 feet;  
**THENCE** South 49 deg. 19 min. 32 sec. West, a distance of 1.00 feet;  
**THENCE** South 46 deg. 52 min. 38 sec. West, a distance of 3.27 feet;  
**THENCE** South 44 deg. 19 min. 32 sec. West, a distance of 1.16 feet;  
**THENCE** South 43 deg. 40 min. 05 sec. West, a distance of 17.81 feet;  
**THENCE** South 42 deg. 27 min. 36 sec. West, a distance of 2.11 feet;  
**THENCE** South 39 deg. 22 min. 36 sec. West, a distance of 3.27 feet;  
**THENCE** South 35 deg. 37 min. 23 sec. West, a distance of 3.27 feet;  
**THENCE** South 33 deg. 41 min. 24 sec. West, a distance of 25.38 feet;  
**THENCE** South 31 deg. 50 min. 49 sec. West, a distance of 3.22 feet;  
**THENCE** South 28 deg. 07 min. 30 sec. West, a distance of 3.27 feet;  
**THENCE** South 24 deg. 22 min. 32 sec. West, a distance of 3.27 feet;  
**THENCE** South 20 deg. 37 min. 29 sec. West, a distance of 3.27 feet;



**THENCE** South 16 deg. 52 min. 33 sec. West, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 15 sec. West, a distance of 3.27 feet;  
**THENCE** South 09 deg. 22 min. 42 sec. West, a distance of 3.27 feet;  
**THENCE** South 05 deg. 37 min. 19 sec. West, a distance of 3.27 feet;  
**THENCE** South 01 deg. 52 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** South 00 deg. 00 min. 00 sec. East, a distance of 12.88 feet;  
**THENCE** South 01 deg. 52 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** South 05 deg. 37 min. 19 sec. East, a distance of 3.27 feet;  
**THENCE** South 09 deg. 22 min. 42 sec. East, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 15 sec. East, a distance of 3.27 feet;  
**THENCE** South 16 deg. 52 min. 33 sec. East, a distance of 3.27 feet;  
**THENCE** South 20 deg. 30 min. 05 sec. East, a distance of 3.05 feet;  
**THENCE** South 22 deg. 14 min. 55 sec. East, a distance of 13.92 feet;  
**THENCE** South 22 deg. 22 min. 32 sec. East, a distance of 0.22 feet;  
**THENCE** South 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;  
**THENCE** South 26 deg. 26 min. 34 sec. East, a distance of 0.27 feet;  
**THENCE** South 26 deg. 33 min. 50 sec. East, a distance of 7.31 feet;  
**THENCE** South 53 deg. 24 min. 48 sec. West, a distance of 0.86 feet;  
**THENCE** South 50 deg. 37 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** South 46 deg. 52 min. 38 sec. West, a distance of 3.27 feet;



**THENCE** South 43 deg. 07 min. 22 sec. West, a distance of 3.27 feet;  
**THENCE** South 39 deg. 22 min. 36 sec. West, a distance of 3.27 feet;  
**THENCE** South 35 deg. 46 min. 39 sec. West, a distance of 3.01 feet;  
**THENCE** South 34 deg. 03 min. 09 sec. West, a distance of 3.60 feet;  
**THENCE** South 84 deg. 31 min. 50 sec. West, a distance of 11.44 feet;  
**THENCE** North 86 deg. 20 min. 10 sec. West, a distance of 20.77 feet;  
**THENCE** South 78 deg. 28 min. 37 sec. West, a distance of 22.01 feet;  
**THENCE** South 38 deg. 01 min. 10 sec. West, a distance of 8.82 feet;  
**THENCE** South 00 deg. 42 min. 56 sec. West, a distance of 33.41 feet;  
**THENCE** South 14 deg. 15 min. 42 sec. East, a distance of 15.08 feet;  
**THENCE** South 18 deg. 16 min. 07 sec. East, a distance of 29.66 feet;  
**THENCE** South 24 deg. 43 min. 51 sec. East, a distance of 14.83 feet;  
**THENCE** South 72 deg. 13 min. 34 sec. East, a distance of 27.81 feet;  
**THENCE** North 78 deg. 19 min. 04 sec. East, a distance of 16.16 feet;  
**THENCE** South 39 deg. 22 min. 20 sec. East, a distance of 0.73 feet;  
**THENCE** South 43 deg. 07 min. 51 sec. East, a distance of 3.27 feet;  
**THENCE** South 45 deg. 17 min. 25 sec. East, a distance of 0.55 feet;  
**THENCE** South 45 deg. 37 min. 47 sec. East, a distance of 24.11 feet;  
**THENCE** South 47 deg. 11 min. 34 sec. East, a distance of 2.72 feet;  
**THENCE** South 50 deg. 37 min. 24 sec. East, a distance of 3.27 feet;



**THENCE** South 52 deg. 32 min. 58 sec. East, a distance of 0.12 feet;

**THENCE** South 52 deg. 25 min. 48 sec. West, a distance of 14.30 feet;

**THENCE** South 82 deg. 20 min. 00 sec. West, a distance of 52.95 feet to a point in the North right-of-way line of said Spencer Road, from which a 5/8" iron rod found for an angle point in said North right-of-way line bears North 89 deg. 47 min. 15 sec. East – 64.23 feet;

**THENCE** in a westerly direction along said North right-of-way line the following six (6) calls:

South 89 deg. 47 min. 15 sec. West, a distance of 424.74 feet to a 5/8" iron rod found ;

North 89 deg. 11 min. 13 sec. West, a distance of 253.16 feet to a 5/8" iron rod found for Point of Curvature of a circular curve to the left, having a radius of 950.00 feet, a central angle of 05 deg. 57 min. 23 sec., and being subtended by a chord which bears South 87 deg. 50 min. 05 sec. West - 98.72 feet;

Continue in a westerly direction along said curve to the left, a distance of 98.76 feet to a 5/8" iron rod found from which a 60D nail found bears North 62 deg. 49 min. 28 sec. West – 0.36 feet;

South 84 deg. 51 min. 24 sec. West tangent to said curve, a distance of 107.31 feet to a 5/8" iron rod found for a Point of Curvature of a circular curve to the right, having a radius of 2,943.50 feet, a central angle of 07 deg. 12 min. 27 sec., and being subtended by a chord which bears South 88 deg. 27 min. 37 sec. West - 370.03 feet;

Continue in a westerly direction along said curve to the right, a distance of 370.28 feet to a 5/8" iron rod found;

North 87 deg. 56 min. 09 sec. West tangent to said curve, a distance of 156.66 feet to a point from which a 5/8" iron rod found in the West line of said 53.865 net acre tract, an ell corner in the North right-of-way line of said Spencer Road and in the West line of Lot 2, Block 2 of Municipal Utility Addition recorded in Document No. 2009-139 of the Plat Records of



Denton County, Texas (PRDCT) bears North 87 deg. 56 min. 09 sec. West – 75.02 feet;

**THENCE** North 03 deg. 22 min. 10 sec. East departing said North right-of-way line, a distance of 681.36 feet;

**THENCE** North 39 deg. 15 min. 05 sec. West, a distance of 11.43 feet;

**THENCE** North 03 deg. 22 min. 10 sec. East, a distance of 80.40 feet;

**THENCE** North 61 deg. 24 min. 53 sec. West, a distance of 1.87 feet;

**THENCE** North 61 deg. 20 min. 58 sec. West, a distance of 8.16 feet;

**THENCE** North 36 deg. 03 min. 55 sec. West, a distance of 9.12 feet;

**THENCE** North 04 deg. 09 min. 37 sec. West, a distance of 6.48 feet;

**THENCE** North 08 deg. 03 min. 13 sec. East, a distance of 5.74 feet;

**THENCE** North 27 deg. 20 min. 11 sec. East, a distance of 5.97 feet;

**THENCE** North 10 deg. 59 min. 47 sec. East, a distance of 50.38 feet;

**THENCE** North 02 deg. 09 min. 29 sec. West, a distance of 20.27 feet;

**THENCE** North 10 deg. 43 min. 42 sec. East, a distance of 30.42 feet;

**THENCE** North 00 deg. 10 min. 52 sec. East, a distance of 41.01 feet;

**THENCE** North 25 deg. 02 min. 09 sec. East, a distance of 8.40 feet;

**THENCE** North 63 deg. 21 min. 10 sec. East, a distance of 12.83 feet;

**THENCE** North 03 deg. 22 min. 10 sec. East, a distance of 24.99 feet;

**THENCE** North 37 deg. 05 min. 48 sec. West, a distance of 5.74 feet;

**THENCE** North 00 deg. 26 min. 47 sec. East, a distance of 4.94 feet;



**THENCE** North 30 deg. 21 min. 02 sec. East, a distance of 8.77 feet;  
**THENCE** North 03 deg. 22 min. 10 sec. East, a distance of 57.86 feet;  
**THENCE** North 76 deg. 49 min. 11 sec. East, a distance of 23.01 feet;  
**THENCE** North 82 deg. 55 min. 00 sec. East, a distance of 16.54 feet;  
**THENCE** South 85 deg. 40 min. 02 sec. East, a distance of 56.72 feet;  
**THENCE** South 85 deg. 48 min. 43 sec. East, a distance of 80.91 feet;  
**THENCE** North 89 deg. 30 min. 35 sec. East, a distance of 19.89 feet;  
**THENCE** North 82 deg. 24 min. 20 sec. East, a distance of 11.77 feet;  
**THENCE** South 83 deg. 39 min. 02 sec. East, a distance of 47.11 feet;  
**THENCE** South 78 deg. 17 min. 58 sec. East, a distance of 16.14 feet;  
**THENCE** South 87 deg. 57 min. 07 sec. East, a distance of 494.91 feet;  
**THENCE** North 69 deg. 11 min. 12 sec. East, a distance of 14.72 feet;  
**THENCE** North 78 deg. 43 min. 51 sec. East, a distance of 12.40 feet;  
**THENCE** South 77 deg. 53 min. 14 sec. East, a distance of 8.58 feet;  
**THENCE** South 65 deg. 36 min. 38 sec. East, a distance of 11.49 feet;  
**THENCE** South 74 deg. 24 min. 42 sec. East, a distance of 11.66 feet;  
**THENCE** South 87 deg. 55 min. 54 sec. East, a distance of 158.21 feet;  
**THENCE** North 73 deg. 37 min. 43 sec. East, a distance of 88.48 feet;  
**THENCE** South 87 deg. 55 min. 22 sec. East, a distance of 210.66 feet;  
**THENCE** South 47 deg. 29 min. 36 sec. East, a distance of 49.45 feet;



**THENCE** South 77 deg. 33 min. 56 sec. East, a distance of 31.35 feet;  
**THENCE** South 78 deg. 34 min. 21 sec. East, a distance of 39.50 feet;  
**THENCE** South 79 deg. 30 min. 09 sec. East, a distance of 21.48 feet;  
**THENCE** South 82 deg. 24 min. 34 sec. East, a distance of 29.64 feet;  
**THENCE** North 84 deg. 07 min. 50 sec. East, a distance of 13.60 feet;  
**THENCE** North 71 deg. 39 min. 52 sec. East, a distance of 17.78 feet;  
**THENCE** North 56 deg. 29 min. 29 sec. East, a distance of 28.92 feet;  
**THENCE** North 73 deg. 44 min. 52 sec. East, a distance of 14.21 feet;  
**THENCE** North 84 deg. 51 min. 33 sec. East, a distance of 20.05 feet;  
**THENCE** South 79 deg. 10 min. 23 sec. East, a distance of 18.04 feet;  
**THENCE** South 74 deg. 43 min. 24 sec. East, a distance of 33.08 feet;  
**THENCE** South 79 deg. 12 min. 52 sec. East, a distance of 34.28 feet;  
**THENCE** South 79 deg. 29 min. 03 sec. East, a distance of 41.23 feet;  
**THENCE** South 83 deg. 32 min. 04 sec. East, a distance of 13.61 feet;  
**THENCE** North 82 deg. 49 min. 25 sec. East, a distance of 39.42 feet;  
**THENCE** North 88 deg. 21 min. 00 sec. East, a distance of 91.31 feet;  
**THENCE** North 81 deg. 59 min. 51 sec. East, a distance of 47.46 feet;  
**THENCE** North 78 deg. 44 min. 20 sec. East, a distance of 33.58 feet;  
**THENCE** North 79 deg. 58 min. 17 sec. East, a distance of 35.61 feet;  
**THENCE** South 89 deg. 49 min. 31 sec. East, a distance of 18.26 feet;





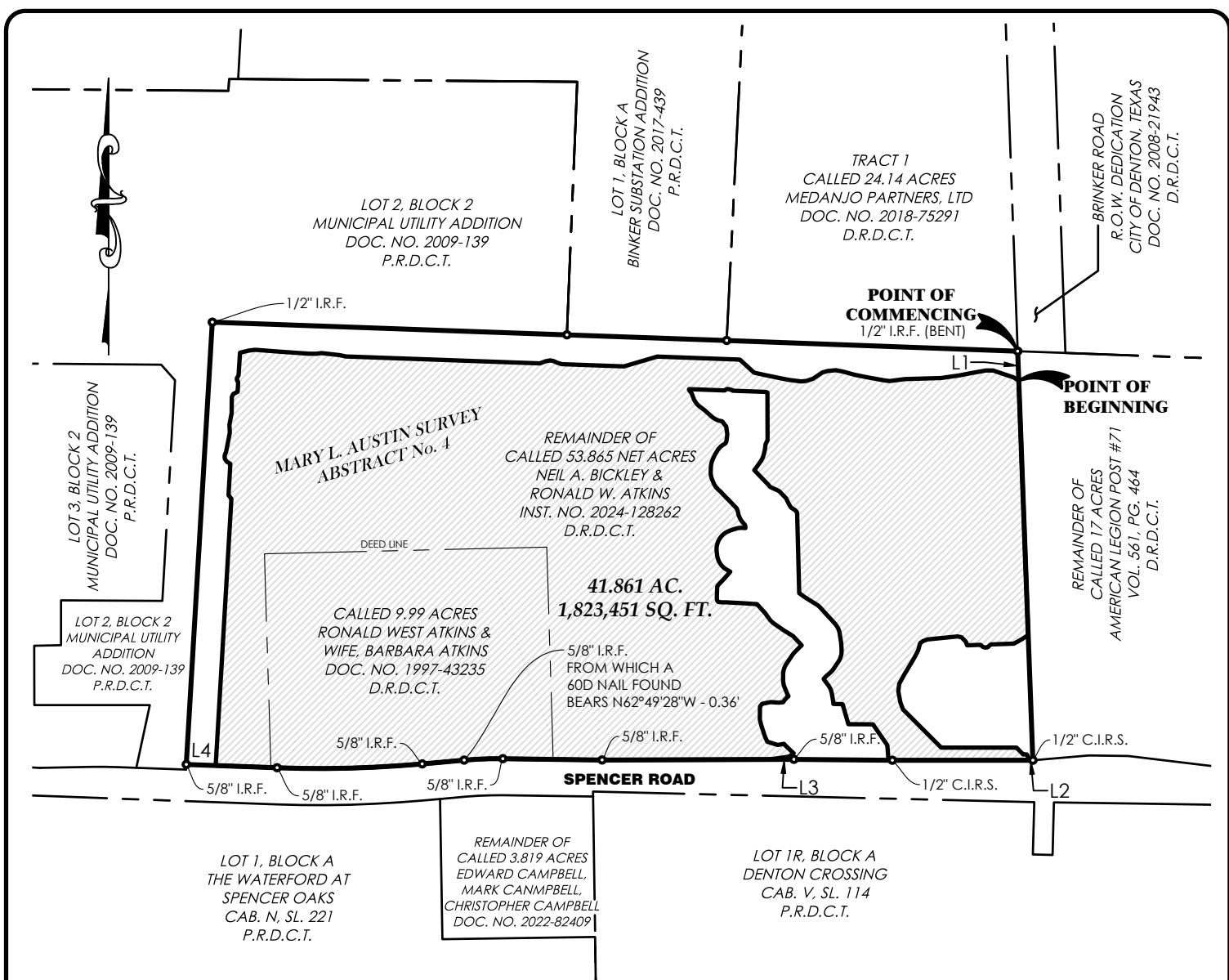
**THENCE** South 71 deg. 50 min. 32 sec. East, a distance of 27.03 feet;

**THENCE** South 71 deg. 21 min. 57 sec. East, a distance of 28.37 feet;

**THENCE** South 56 deg. 48 min. 28 sec. East, a distance of 15.55 feet to the **POINT OF BEGINNING**, containing 1,823,451 square feet or 41.861 acres of land, more or less.



Exhibit B  
Depiction of Property



LINE TABLE		
LINE #	BEARING	DISTANCE
L1	S02°08'02"E	75.20'
L2	S89°59'15"E	9.50'

LINE TABLE		
LINE #	BEARING	DISTANCE
L3	N89°47'02"E	64.23'
L4	N87°56'09"W	75.02'

EXHIBIT "A" MAP SHOWING  
DEVELOPMENT IMPACT AREA  
SITUATED IN A PORTION OF THE  
MARY L. AUSTIN SURVEY, ABSTRACT NO. 4  
CITY OF DENTON, DENTON COUNTY, TEXAS



Job No.:	10960	Scale:	N.T.S.
Drafted:	J.H.M.	Checked:	J.N.R.
Surveyed on the Ground:	04/01/2024		
Date Prepared:	07/31/2025		
Revised:	.	Revised:	.

Sheet	1 of 1	NOTE: THE INTENT OF THIS EXHIBIT IS TO PICTORIALLY SHOW LOCATIONS OF THE DEVELOPMENT IMPACT AREA. IT IS NOT INTENDED AS AN ACTUAL SURVEY. CALLS SHOWN ARE REFERENCES ONLY. NO STATEMENT IS MADE TO THE VALIDITY OF THESE CALLS

Exhibit C  
Description of AESA Mitigation Property



LEGAL DESCRIPTION OF  
**ESA TRACT 1**

All that certain lot, tract, or parcel of land, situated in a portion of the Mary L. Austin Survey, Abstract No. 4, City of Denton, Denton County, Texas, being part of that certain called 53.865 net acre tract described in a deed to Neil A. Bickley and Ronald W. Atkins recorded in Instrument No. 2024-128262 of the Deed Records of Denton County, Texas (DRDCT), and being more completely described as follows, to-wit:

**COMMENCING** at a 1/2" capped iron rod found stamped "GMCIVIL" at an angle point in the North right-of-way line of Spencer Road (variable width right-of-way);

**THENCE** North 89 deg. 28 min. 20 sec. West along said North right-of-way line, a distance of 55.47 feet to the **TRUE POINT OF BEGINNING**;

**THENCE** North 89 deg. 28 min. 20 sec. West continuing along said North right-of-way line, a distance of 32.91 feet;

**THENCE** North 08 deg. 28 min. 39 sec. West departing said North right-of-way line, a distance of 4.67 feet;

**THENCE** North 08 deg. 33 min. 02 sec. West, a distance of 10.80 feet;

**THENCE** North 20 deg. 30 min. 44 sec. West, a distance of 8.31 feet;

**THENCE** North 27 deg. 20 min. 53 sec. West, a distance of 10.56 feet;

**THENCE** North 50 deg. 49 min. 18 sec. West, a distance of 9.20 feet;

**THENCE** North 80 deg. 18 min. 53 sec. West, a distance of 15.42 feet;

**THENCE** South 57 deg. 11 min. 28 sec. West, a distance of 5.38 feet;

**THENCE** South 50 deg. 56 min. 05 sec. West, a distance of 11.28 feet;

**THENCE** South 22 deg. 28 min. 33 sec. West, a distance of 10.16 feet;

**THENCE** South 34 deg. 25 min. 49 sec. West, a distance of 12.57 feet;



**THENCE** South 42 deg. 41 min. 18 sec. West, a distance of 5.27 feet;

**THENCE** South 42 deg. 08 min. 42 sec. West, a distance of 4.79 feet;

**THENCE** South 75 deg. 57 min. 17 sec. West, a distance of 10.30 feet;

**THENCE** South 08 deg. 41 min. 09 sec. West, a distance of 0.49 feet to a point in the North right-of-way line of said Spencer Road (variable width right-of-way);

**THENCE** North 89 deg. 28 min. 20 sec. West along said North right-of-way line, a distance of 87.94 feet to a point from which a 5/8" iron rod found at an angle point in said North right-of-way line bears North 89 deg. 28 min. 20 sec. West – 1.03 feet;

**THENCE** North 58 deg. 57 min. 35 sec. West departing said North right-of-way line, a distance of 9.89 feet;

**THENCE** North 46 deg. 46 min. 32 sec. West, a distance of 15.58 feet;

**THENCE** North 57 deg. 51 min. 32 sec. West, a distance of 43.19 feet;

**THENCE** North 51 deg. 36 min. 13 sec. West, a distance of 23.96 feet;

**THENCE** North 21 deg. 44 min. 47 sec. West, a distance of 10.46 feet;

**THENCE** North 18 deg. 43 min. 05 sec. West, a distance of 40.33 feet;

**THENCE** North 02 deg. 12 min. 39 sec. East, a distance of 67.05 feet;

**THENCE** North 00 deg. 01 min. 32 sec. East, a distance of 13.93 feet;

**THENCE** North 21 deg. 45 min. 48 sec. East, a distance of 6.95 feet;

**THENCE** North 34 deg. 25 min. 45 sec. East, a distance of 6.29 feet;

**THENCE** North 52 deg. 08 min. 09 sec. East, a distance of 11.07 feet;

**THENCE** North 65 deg. 47 min. 23 sec. East, a distance of 14.20 feet;



**THENCE** North 82 deg. 17 min. 37 sec. East, a distance of 26.45 feet;  
**THENCE** North 86 deg. 36 min. 52 sec. East, a distance of 6.86 feet;  
**THENCE** North 00 deg. 00 min. 00 sec. East, a distance of 4.89 feet;  
**THENCE** North 01 deg. 52 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** North 05 deg. 37 min. 19 sec. East, a distance of 3.27 feet;  
**THENCE** North 09 deg. 22 min. 42 sec. East, a distance of 3.27 feet;  
**THENCE** North 13 deg. 07 min. 15 sec. East, a distance of 3.27 feet;  
**THENCE** North 16 deg. 52 min. 33 sec. East, a distance of 3.27 feet;  
**THENCE** North 20 deg. 37 min. 29 sec. East, a distance of 3.27 feet;  
**THENCE** North 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;  
**THENCE** North 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;  
**THENCE** North 31 deg. 50 min. 49 sec. East, a distance of 3.22 feet;  
**THENCE** North 33 deg. 41 min. 24 sec. East, a distance of 25.38 feet;  
**THENCE** North 35 deg. 37 min. 23 sec. East, a distance of 3.27 feet;  
**THENCE** North 39 deg. 22 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** North 42 deg. 27 min. 36 sec. East, a distance of 2.11 feet;  
**THENCE** North 43 deg. 40 min. 05 sec. East, a distance of 17.81 feet;  
**THENCE** North 44 deg. 19 min. 32 sec. East, a distance of 1.16 feet;  
**THENCE** North 46 deg. 52 min. 38 sec. East, a distance of 3.27 feet;  
**THENCE** North 49 deg. 19 min. 32 sec. East, a distance of 1.00 feet;



**THENCE** North 49 deg. 53 min. 55 sec. East, a distance of 4.21 feet;  
**THENCE** North 41 deg. 52 min. 35 sec. West, a distance of 6.68 feet;  
**THENCE** North 42 deg. 49 min. 32 sec. West, a distance of 25.52 feet;  
**THENCE** North 58 deg. 18 min. 25 sec. West, a distance of 16.13 feet;  
**THENCE** South 78 deg. 00 min. 09 sec. West, a distance of 0.90 feet;  
**THENCE** South 61 deg. 33 min. 15 sec. West, a distance of 0.92 feet;  
**THENCE** South 64 deg. 13 min. 55 sec. West, a distance of 1.35 feet;  
**THENCE** South 60 deg. 27 min. 29 sec. West, a distance of 0.71 feet;  
**THENCE** South 55 deg. 46 min. 41 sec. West, a distance of 1.29 feet;  
**THENCE** South 59 deg. 06 min. 56 sec. West, a distance of 1.14 feet;  
**THENCE** South 62 deg. 03 min. 12 sec. West, a distance of 1.19 feet;  
**THENCE** South 66 deg. 51 min. 29 sec. West, a distance of 1.35 feet;  
**THENCE** South 59 deg. 05 min. 06 sec. West, a distance of 1.19 feet;  
**THENCE** South 64 deg. 58 min. 45 sec. West, a distance of 1.74 feet;  
**THENCE** South 71 deg. 43 min. 09 sec. West, a distance of 1.23 feet;  
**THENCE** South 66 deg. 03 min. 08 sec. West, a distance of 1.30 feet;  
**THENCE** South 75 deg. 11 min. 07 sec. West, a distance of 1.88 feet;  
**THENCE** South 74 deg. 10 min. 13 sec. West, a distance of 2.63 feet;  
**THENCE** South 72 deg. 28 min. 40 sec. West, a distance of 1.98 feet;  
**THENCE** South 77 deg. 41 min. 16 sec. West, a distance of 0.86 feet;





**THENCE** South 62 deg. 58 min. 58 sec. West, a distance of 1.10 feet;

**THENCE** South 76 deg. 20 min. 06 sec. West, a distance of 5.37 feet;

**THENCE** South 75 deg. 25 min. 55 sec. West, a distance of 0.84 feet;

**THENCE** South 60 deg. 29 min. 28 sec. West, a distance of 0.71 feet;

**THENCE** South 59 deg. 09 min. 20 sec. West, a distance of 1.08 feet;

**THENCE** South 53 deg. 19 min. 50 sec. West, a distance of 4.09 feet;

**THENCE** South 58 deg. 29 min. 03 sec. West, a distance of 1.40 feet;

**THENCE** South 68 deg. 07 min. 14 sec. West, a distance of 1.03 feet;

**THENCE** South 79 deg. 35 min. 18 sec. West, a distance of 2.04 feet;

**THENCE** North 77 deg. 51 min. 23 sec. West, a distance of 2.04 feet;

**THENCE** North 68 deg. 36 min. 28 sec. West, a distance of 2.88 feet;

**THENCE** South 84 deg. 20 min. 03 sec. West, a distance of 2.34 feet;

**THENCE** South 70 deg. 02 min. 07 sec. West, a distance of 1.04 feet;

**THENCE** South 44 deg. 56 min. 40 sec. West, a distance of 1.68 feet;

**THENCE** South 43 deg. 13 min. 31 sec. West, a distance of 1.07 feet;

**THENCE** South 47 deg. 14 min. 56 sec. West, a distance of 1.19 feet;

**THENCE** South 46 deg. 06 min. 08 sec. West, a distance of 1.09 feet;

**THENCE** South 50 deg. 50 min. 03 sec. West, a distance of 1.10 feet;

**THENCE** South 50 deg. 49 min. 05 sec. West, a distance of 1.38 feet;

**THENCE** South 43 deg. 40 min. 52 sec. West, a distance of 1.20 feet;



**THENCE** South 42 deg. 25 min. 26 sec. West, a distance of 1.68 feet;

**THENCE** South 39 deg. 16 min. 44 sec. West, a distance of 1.38 feet;

**THENCE** South 39 deg. 18 min. 32 sec. West, a distance of 1.08 feet;

**THENCE** South 37 deg. 03 min. 05 sec. West, a distance of 1.41 feet;

**THENCE** South 40 deg. 07 min. 48 sec. West, a distance of 1.25 feet;

**THENCE** South 44 deg. 36 min. 20 sec. West, a distance of 1.58 feet;

**THENCE** South 41 deg. 54 min. 59 sec. West, a distance of 1.20 feet;

**THENCE** South 44 deg. 29 min. 39 sec. West, a distance of 1.42 feet;

**THENCE** South 43 deg. 51 min. 39 sec. West, a distance of 0.92 feet;

**THENCE** South 41 deg. 33 min. 16 sec. West, a distance of 1.85 feet;

**THENCE** South 39 deg. 18 min. 26 sec. West, a distance of 1.34 feet;

**THENCE** South 37 deg. 10 min. 59 sec. West, a distance of 2.50 feet;

**THENCE** South 44 deg. 07 min. 57 sec. West, a distance of 1.09 feet;

**THENCE** South 35 deg. 10 min. 27 sec. West, a distance of 1.02 feet;

**THENCE** South 34 deg. 15 min. 19 sec. West, a distance of 1.25 feet;

**THENCE** South 37 deg. 00 min. 06 sec. West, a distance of 2.31 feet;

**THENCE** South 39 deg. 04 min. 07 sec. West, a distance of 4.65 feet;

**THENCE** South 46 deg. 26 min. 44 sec. West, a distance of 1.47 feet;

**THENCE** South 57 deg. 02 min. 38 sec. West, a distance of 0.55 feet;

**THENCE** North 09 deg. 29 min. 25 sec. West, a distance of 5.66 feet;



**THENCE** North 07 deg. 50 min. 47 sec. West, a distance of 5.96 feet;  
**THENCE** North 07 deg. 50 min. 40 sec. West, a distance of 6.04 feet;  
**THENCE** South 82 deg. 09 min. 16 sec. West, a distance of 0.98 feet;  
**THENCE** South 82 deg. 09 min. 02 sec. West, a distance of 4.52 feet;  
**THENCE** South 07 deg. 50 min. 50 sec. East, a distance of 12.00 feet;  
**THENCE** South 08 deg. 02 min. 38 sec. East, a distance of 7.99 feet;  
**THENCE** South 64 deg. 28 min. 21 sec. West, a distance of 0.71 feet;  
**THENCE** South 55 deg. 15 min. 00 sec. West, a distance of 1.74 feet;  
**THENCE** South 64 deg. 00 min. 58 sec. West, a distance of 1.27 feet;  
**THENCE** South 62 deg. 01 min. 42 sec. West, a distance of 1.00 feet;  
**THENCE** South 64 deg. 48 min. 56 sec. West, a distance of 1.45 feet;  
**THENCE** South 62 deg. 43 min. 19 sec. West, a distance of 1.66 feet;  
**THENCE** South 63 deg. 46 min. 59 sec. West, a distance of 1.33 feet;  
**THENCE** South 65 deg. 34 min. 29 sec. West, a distance of 1.49 feet;  
**THENCE** South 58 deg. 31 min. 29 sec. West, a distance of 0.78 feet;  
**THENCE** South 78 deg. 01 min. 12 sec. West, a distance of 0.88 feet;  
**THENCE** South 53 deg. 55 min. 18 sec. West, a distance of 1.38 feet;  
**THENCE** South 67 deg. 35 min. 54 sec. West, a distance of 1.24 feet;  
**THENCE** South 36 deg. 29 min. 44 sec. West, a distance of 1.51 feet;  
**THENCE** South 33 deg. 29 min. 07 sec. West, a distance of 1.45 feet;



**THENCE** South 34 deg. 36 min. 14 sec. West, a distance of 1.58 feet;

**THENCE** South 28 deg. 50 min. 12 sec. West, a distance of 1.21 feet;

**THENCE** South 35 deg. 34 min. 12 sec. West, a distance of 1.42 feet;

**THENCE** South 35 deg. 49 min. 05 sec. West, a distance of 1.21 feet;

**THENCE** South 47 deg. 02 min. 35 sec. West, a distance of 1.36 feet;

**THENCE** South 54 deg. 53 min. 51 sec. West, a distance of 1.37 feet;

**THENCE** South 75 deg. 41 min. 21 sec. West, a distance of 1.83 feet;

**THENCE** South 78 deg. 01 min. 23 sec. West, a distance of 1.61 feet;

**THENCE** South 72 deg. 39 min. 32 sec. West, a distance of 0.70 feet;

**THENCE** South 71 deg. 45 min. 10 sec. West, a distance of 0.86 feet;

**THENCE** South 57 deg. 56 min. 39 sec. West, a distance of 1.26 feet;

**THENCE** South 46 deg. 38 min. 59 sec. West, a distance of 1.43 feet;

**THENCE** South 51 deg. 13 min. 28 sec. West, a distance of 1.07 feet;

**THENCE** South 48 deg. 41 min. 14 sec. West, a distance of 1.80 feet;

**THENCE** South 44 deg. 56 min. 20 sec. West, a distance of 1.31 feet;

**THENCE** South 44 deg. 28 min. 31 sec. West, a distance of 1.42 feet;

**THENCE** South 44 deg. 14 min. 36 sec. West, a distance of 1.49 feet;

**THENCE** South 42 deg. 48 min. 21 sec. West, a distance of 1.50 feet;

**THENCE** South 25 deg. 14 min. 27 sec. West, a distance of 1.59 feet;

**THENCE** South 17 deg. 18 min. 00 sec. West, a distance of 2.01 feet;



**THENCE** South 14 deg. 54 min. 00 sec. West, a distance of 1.16 feet;

**THENCE** South 02 deg. 55 min. 14 sec. West, a distance of 1.49 feet;

**THENCE** South 02 deg. 57 min. 03 sec. West, a distance of 1.12 feet;

**THENCE** South 24 deg. 46 min. 58 sec. West, a distance of 1.39 feet;

**THENCE** South 48 deg. 10 min. 56 sec. West, a distance of 1.30 feet;

**THENCE** South 68 deg. 19 min. 12 sec. West, a distance of 1.44 feet;

**THENCE** South 64 deg. 28 min. 50 sec. West, a distance of 1.29 feet;

**THENCE** South 69 deg. 29 min. 31 sec. West, a distance of 1.61 feet;

**THENCE** South 62 deg. 25 min. 35 sec. West, a distance of 1.08 feet;

**THENCE** South 66 deg. 24 min. 09 sec. West, a distance of 1.25 feet;

**THENCE** South 68 deg. 14 min. 43 sec. West, a distance of 2.39 feet;

**THENCE** South 65 deg. 01 min. 35 sec. West, a distance of 1.18 feet;

**THENCE** South 62 deg. 58 min. 00 sec. West, a distance of 1.42 feet;

**THENCE** South 72 deg. 28 min. 57 sec. West, a distance of 2.08 feet;

**THENCE** South 81 deg. 43 min. 46 sec. West, a distance of 0.87 feet;

**THENCE** South 68 deg. 01 min. 07 sec. West, a distance of 1.26 feet;

**THENCE** South 74 deg. 55 min. 06 sec. West, a distance of 0.69 feet;

**THENCE** South 74 deg. 25 min. 08 sec. West, a distance of 1.34 feet;

**THENCE** North 85 deg. 58 min. 23 sec. West, a distance of 1.71 feet;

**THENCE** North 78 deg. 52 min. 13 sec. West, a distance of 2.35 feet;



**THENCE** South 89 deg. 14 min. 11 sec. West, a distance of 0.94 feet;

**THENCE** North 85 deg. 25 min. 19 sec. West, a distance of 1.23 feet;

**THENCE** North 56 deg. 20 min. 15 sec. West, a distance of 0.76 feet;

**THENCE** North 61 deg. 01 min. 29 sec. West, a distance of 1.38 feet;

**THENCE** North 31 deg. 40 min. 33 sec. West, a distance of 2.20 feet;

**THENCE** North 07 deg. 09 min. 17 sec. West, a distance of 1.72 feet;

**THENCE** North 04 deg. 05 min. 46 sec. East, a distance of 2.55 feet;

**THENCE** North 22 deg. 34 min. 42 sec. East, a distance of 1.15 feet;

**THENCE** North 17 deg. 49 min. 29 sec. East, a distance of 1.66 feet;

**THENCE** North 04 deg. 27 min. 12 sec. East, a distance of 1.32 feet;

**THENCE** North 02 deg. 33 min. 48 sec. East, a distance of 0.83 feet;

**THENCE** North 40 deg. 36 min. 14 sec. East, a distance of 0.80 feet;

**THENCE** North 19 deg. 25 min. 15 sec. East, a distance of 1.46 feet;

**THENCE** North 08 deg. 46 min. 24 sec. East, a distance of 1.16 feet;

**THENCE** North 82 deg. 26 min. 04 sec. East, a distance of 0.73 feet;

**THENCE** North 13 deg. 23 min. 08 sec. East, a distance of 0.88 feet;

**THENCE** North 71 deg. 55 min. 42 sec. East, a distance of 2.11 feet;

**THENCE** North 70 deg. 46 min. 39 sec. East, a distance of 1.44 feet;

**THENCE** North 70 deg. 09 min. 38 sec. East, a distance of 1.40 feet;

**THENCE** South 68 deg. 22 min. 56 sec. East, a distance of 1.35 feet;



**THENCE** South 87 deg. 52 min. 06 sec. East, a distance of 1.13 feet;  
**THENCE** North 89 deg. 14 min. 28 sec. East, a distance of 0.77 feet;  
**THENCE** North 60 deg. 59 min. 04 sec. East, a distance of 0.84 feet;  
**THENCE** North 00 deg. 25 min. 03 sec. East, a distance of 1.17 feet;  
**THENCE** North 19 deg. 29 min. 29 sec. West, a distance of 1.87 feet;  
**THENCE** North 14 deg. 16 min. 38 sec. West, a distance of 1.44 feet;  
**THENCE** North 31 deg. 08 min. 58 sec. West, a distance of 1.42 feet;  
**THENCE** North 09 deg. 43 min. 23 sec. West, a distance of 0.92 feet;  
**THENCE** North 35 deg. 47 min. 38 sec. West, a distance of 1.25 feet;  
**THENCE** North 02 deg. 04 min. 15 sec. East, a distance of 0.97 feet;  
**THENCE** North 64 deg. 11 min. 40 sec. East, a distance of 0.74 feet;  
**THENCE** North 50 deg. 30 min. 51 sec. East, a distance of 1.41 feet;  
**THENCE** North 51 deg. 16 min. 43 sec. East, a distance of 1.86 feet;  
**THENCE** North 50 deg. 49 min. 27 sec. East, a distance of 2.48 feet;  
**THENCE** North 70 deg. 29 min. 32 sec. East, a distance of 0.71 feet;  
**THENCE** North 47 deg. 29 min. 58 sec. East, a distance of 1.42 feet;  
**THENCE** North 46 deg. 39 min. 01 sec. East, a distance of 1.43 feet;  
**THENCE** North 45 deg. 39 min. 36 sec. East, a distance of 1.49 feet;  
**THENCE** North 45 deg. 39 min. 08 sec. East, a distance of 1.33 feet;  
**THENCE** North 45 deg. 50 min. 10 sec. East, a distance of 1.29 feet;



**THENCE** North 60 deg. 50 min. 26 sec. East, a distance of 2.70 feet;  
**THENCE** North 71 deg. 02 min. 03 sec. East, a distance of 1.19 feet;  
**THENCE** North 77 deg. 39 min. 07 sec. East, a distance of 0.71 feet;  
**THENCE** North 74 deg. 49 min. 27 sec. East, a distance of 3.10 feet;  
**THENCE** North 54 deg. 49 min. 53 sec. East, a distance of 0.96 feet;  
**THENCE** North 38 deg. 33 min. 28 sec. East, a distance of 1.44 feet;  
**THENCE** North 23 deg. 36 min. 06 sec. East, a distance of 0.81 feet;  
**THENCE** North 15 deg. 22 min. 10 sec. East, a distance of 0.95 feet;  
**THENCE** North 03 deg. 21 min. 52 sec. East, a distance of 2.66 feet;  
**THENCE** North 14 deg. 26 min. 22 sec. East, a distance of 1.92 feet;  
**THENCE** North 16 deg. 05 min. 50 sec. East, a distance of 1.82 feet;  
**THENCE** North 42 deg. 20 min. 01 sec. East, a distance of 2.42 feet;  
**THENCE** North 64 deg. 20 min. 59 sec. East, a distance of 1.08 feet;  
**THENCE** North 75 deg. 41 min. 52 sec. East, a distance of 2.07 feet;  
**THENCE** North 76 deg. 31 min. 48 sec. East, a distance of 0.91 feet;  
**THENCE** North 50 deg. 12 min. 05 sec. East, a distance of 1.36 feet;  
**THENCE** North 60 deg. 40 min. 13 sec. East, a distance of 1.61 feet;  
**THENCE** North 57 deg. 56 min. 39 sec. East, a distance of 1.26 feet;  
**THENCE** North 44 deg. 44 min. 32 sec. East, a distance of 0.77 feet;  
**THENCE** North 38 deg. 36 min. 06 sec. East, a distance of 1.51 feet;





**THENCE** North 41 deg. 34 min. 04 sec. East, a distance of 0.93 feet;  
**THENCE** North 37 deg. 36 min. 33 sec. East, a distance of 2.51 feet;  
**THENCE** North 34 deg. 33 min. 31 sec. East, a distance of 2.45 feet;  
**THENCE** North 40 deg. 15 min. 13 sec. East, a distance of 1.10 feet;  
**THENCE** North 49 deg. 49 min. 46 sec. East, a distance of 1.71 feet;  
**THENCE** North 52 deg. 18 min. 57 sec. East, a distance of 1.14 feet;  
**THENCE** North 57 deg. 14 min. 27 sec. East, a distance of 1.13 feet;  
**THENCE** North 60 deg. 36 min. 22 sec. East, a distance of 1.67 feet;  
**THENCE** North 36 deg. 07 min. 02 sec. East, a distance of 1.00 feet;  
**THENCE** North 40 deg. 11 min. 17 sec. East, a distance of 1.21 feet;  
**THENCE** North 17 deg. 08 min. 39 sec. East, a distance of 1.17 feet;  
**THENCE** North 26 deg. 35 min. 31 sec. East, a distance of 1.25 feet;  
**THENCE** North 16 deg. 54 min. 31 sec. East, a distance of 0.87 feet;  
**THENCE** North 13 deg. 56 min. 58 sec. East, a distance of 0.94 feet;  
**THENCE** North 11 deg. 50 min. 35 sec. East, a distance of 2.31 feet;  
**THENCE** North 14 deg. 53 min. 04 sec. East, a distance of 0.98 feet;  
**THENCE** North 12 deg. 17 min. 11 sec. East, a distance of 0.85 feet;  
**THENCE** North 19 deg. 03 min. 37 sec. East, a distance of 1.27 feet;  
**THENCE** North 24 deg. 54 min. 09 sec. East, a distance of 1.33 feet;  
**THENCE** North 35 deg. 09 min. 33 sec. East, a distance of 1.02 feet;



**THENCE** North 45 deg. 50 min. 35 sec. East, a distance of 3.86 feet;  
**THENCE** North 51 deg. 47 min. 38 sec. East, a distance of 2.21 feet;  
**THENCE** North 49 deg. 57 min. 53 sec. East, a distance of 1.49 feet;  
**THENCE** North 56 deg. 47 min. 14 sec. East, a distance of 3.30 feet;  
**THENCE** North 56 deg. 22 min. 23 sec. East, a distance of 2.31 feet;  
**THENCE** North 59 deg. 56 min. 59 sec. East, a distance of 1.46 feet;  
**THENCE** North 51 deg. 59 min. 12 sec. East, a distance of 1.09 feet;  
**THENCE** North 40 deg. 30 min. 20 sec. East, a distance of 0.87 feet;  
**THENCE** North 24 deg. 10 min. 01 sec. East, a distance of 1.20 feet;  
**THENCE** North 25 deg. 03 min. 45 sec. East, a distance of 1.05 feet;  
**THENCE** North 24 deg. 21 min. 14 sec. East, a distance of 1.64 feet;  
**THENCE** North 11 deg. 20 min. 22 sec. East, a distance of 1.37 feet;  
**THENCE** North 17 deg. 49 min. 35 sec. East, a distance of 1.81 feet;  
**THENCE** North 28 deg. 01 min. 46 sec. East, a distance of 1.69 feet;  
**THENCE** North 46 deg. 21 min. 25 sec. East, a distance of 1.05 feet;  
**THENCE** North 66 deg. 13 min. 25 sec. East, a distance of 1.82 feet;  
**THENCE** North 60 deg. 19 min. 03 sec. East, a distance of 1.54 feet;  
**THENCE** North 65 deg. 32 min. 23 sec. East, a distance of 2.20 feet;  
**THENCE** North 59 deg. 39 min. 28 sec. East, a distance of 1.21 feet;  
**THENCE** North 54 deg. 18 min. 41 sec. East, a distance of 1.35 feet;



**THENCE** North 36 deg. 20 min. 59 sec. East, a distance of 1.43 feet;  
**THENCE** North 29 deg. 42 min. 29 sec. East, a distance of 1.32 feet;  
**THENCE** North 17 deg. 38 min. 40 sec. East, a distance of 1.44 feet;  
**THENCE** North 31 deg. 09 min. 01 sec. East, a distance of 1.82 feet;  
**THENCE** North 84 deg. 14 min. 31 sec. East, a distance of 0.99 feet;  
**THENCE** South 83 deg. 02 min. 52 sec. East, a distance of 1.07 feet;  
**THENCE** North 84 deg. 15 min. 40 sec. East, a distance of 2.96 feet;  
**THENCE** North 60 deg. 28 min. 48 sec. East, a distance of 1.07 feet;  
**THENCE** North 36 deg. 37 min. 35 sec. East, a distance of 1.98 feet;  
**THENCE** North 24 deg. 22 min. 35 sec. East, a distance of 1.36 feet;  
**THENCE** North 17 deg. 23 min. 49 sec. East, a distance of 1.23 feet;  
**THENCE** North 09 deg. 31 min. 38 sec. East, a distance of 2.15 feet;  
**THENCE** North 16 deg. 15 min. 17 sec. East, a distance of 0.98 feet;  
**THENCE** North 29 deg. 38 min. 19 sec. East, a distance of 1.75 feet;  
**THENCE** North 49 deg. 47 min. 22 sec. East, a distance of 0.81 feet;  
**THENCE** North 63 deg. 47 min. 38 sec. East, a distance of 0.80 feet;  
**THENCE** North 68 deg. 22 min. 03 sec. East, a distance of 1.76 feet;  
**THENCE** North 43 deg. 07 min. 37 sec. West, a distance of 3.08 feet;  
**THENCE** North 39 deg. 22 min. 20 sec. West, a distance of 3.27 feet;  
**THENCE** North 36 deg. 12 min. 17 sec. West, a distance of 2.27 feet;



**THENCE** North 34 deg. 54 min. 07 sec. West, a distance of 16.37 feet;

**THENCE** North 42 deg. 23 min. 51 sec. West, a distance of 31.74 feet;

**THENCE** North 41 deg. 49 min. 31 sec. West, a distance of 1.00 feet;

**THENCE** North 39 deg. 22 min. 36 sec. West, a distance of 3.27 feet;

**THENCE** North 35 deg. 37 min. 35 sec. West, a distance of 3.27 feet;

**THENCE** North 31 deg. 52 min. 24 sec. West, a distance of 3.27 feet;

**THENCE** North 29 deg. 45 min. 01 sec. West, a distance of 0.44 feet;

**THENCE** North 29 deg. 30 min. 02 sec. West, a distance of 28.55 feet;

**THENCE** North 39 deg. 02 min. 50 sec. West, a distance of 36.30 feet;

**THENCE** North 38 deg. 37 min. 14 sec. West, a distance of 0.75 feet;

**THENCE** North 38 deg. 11 min. 30 sec. West, a distance of 13.31 feet;

**THENCE** North 59 deg. 52 min. 31 sec. West, a distance of 12.88 feet;

**THENCE** North 59 deg. 44 min. 37 sec. West, a distance of 0.20 feet;

**THENCE** North 59 deg. 38 min. 48 sec. West, a distance of 15.64 feet;

**THENCE** North 57 deg. 56 min. 41 sec. West, a distance of 2.96 feet;

**THENCE** North 54 deg. 22 min. 25 sec. West, a distance of 3.27 feet;

**THENCE** North 50 deg. 37 min. 24 sec. West, a distance of 3.27 feet;

**THENCE** North 46 deg. 52 min. 38 sec. West, a distance of 3.27 feet;

**THENCE** North 43 deg. 07 min. 22 sec. West, a distance of 3.27 feet;

**THENCE** North 39 deg. 22 min. 36 sec. West, a distance of 3.27 feet;



**THENCE** North 35 deg. 37 min. 35 sec. West, a distance of 3.27 feet;

**THENCE** North 31 deg. 52 min. 24 sec. West, a distance of 3.27 feet;

**THENCE** North 28 deg. 07 min. 30 sec. West, a distance of 3.27 feet;

**THENCE** North 24 deg. 22 min. 32 sec. West, a distance of 3.27 feet;

**THENCE** North 20 deg. 37 min. 29 sec. West, a distance of 3.27 feet;

**THENCE** North 16 deg. 52 min. 33 sec. West, a distance of 3.27 feet;

**THENCE** North 13 deg. 07 min. 40 sec. West, a distance of 3.27 feet;

**THENCE** North 09 deg. 22 min. 18 sec. West, a distance of 3.27 feet;

**THENCE** North 07 deg. 06 min. 17 sec. West, a distance of 0.69 feet;

**THENCE** North 06 deg. 42 min. 34 sec. West, a distance of 6.58 feet;

**THENCE** North 69 deg. 28 min. 46 sec. West, a distance of 0.21 feet;

**THENCE** North 79 deg. 48 min. 09 sec. West, a distance of 1.05 feet;

**THENCE** North 79 deg. 09 min. 45 sec. West, a distance of 0.71 feet;

**THENCE** North 69 deg. 59 min. 35 sec. West, a distance of 1.21 feet;

**THENCE** North 75 deg. 37 min. 48 sec. West, a distance of 1.09 feet;

**THENCE** North 70 deg. 29 min. 28 sec. West, a distance of 0.74 feet;

**THENCE** North 45 deg. 56 min. 12 sec. West, a distance of 2.47 feet;

**THENCE** North 48 deg. 53 min. 00 sec. West, a distance of 1.97 feet;

**THENCE** North 57 deg. 31 min. 22 sec. West, a distance of 1.41 feet;

**THENCE** North 24 deg. 02 min. 42 sec. West, a distance of 2.61 feet;



**THENCE** North 46 deg. 01 min. 23 sec. West, a distance of 1.01 feet;

**THENCE** North 27 deg. 03 min. 01 sec. West, a distance of 2.55 feet;

**THENCE** North 41 deg. 37 min. 52 sec. West, a distance of 1.28 feet;

**THENCE** North 60 deg. 01 min. 32 sec. West, a distance of 2.12 feet;

**THENCE** North 70 deg. 20 min. 31 sec. West, a distance of 3.35 feet;

**THENCE** North 56 deg. 37 min. 48 sec. West, a distance of 2.90 feet;

**THENCE** North 52 deg. 37 min. 07 sec. West, a distance of 1.62 feet;

**THENCE** North 42 deg. 14 min. 04 sec. West, a distance of 1.49 feet;

**THENCE** North 46 deg. 01 min. 29 sec. West, a distance of 1.62 feet;

**THENCE** North 57 deg. 36 min. 31 sec. West, a distance of 1.46 feet;

**THENCE** North 44 deg. 18 min. 36 sec. West, a distance of 1.81 feet;

**THENCE** North 40 deg. 49 min. 42 sec. West, a distance of 0.97 feet;

**THENCE** North 56 deg. 41 min. 15 sec. West, a distance of 1.48 feet;

**THENCE** North 21 deg. 45 min. 06 sec. West, a distance of 1.41 feet;

**THENCE** North 27 deg. 32 min. 34 sec. West, a distance of 0.80 feet;

**THENCE** North 12 deg. 29 min. 59 sec. East, a distance of 1.47 feet;

**THENCE** North 28 deg. 56 min. 59 sec. East, a distance of 1.74 feet;

**THENCE** North 66 deg. 24 min. 14 sec. East, a distance of 0.81 feet;

**THENCE** North 61 deg. 07 min. 10 sec. East, a distance of 1.33 feet;

**THENCE** North 68 deg. 51 min. 02 sec. East, a distance of 1.64 feet;



**THENCE** North 65 deg. 11 min. 02 sec. East, a distance of 1.47 feet;  
**THENCE** North 06 deg. 05 min. 04 sec. East, a distance of 1.01 feet;  
**THENCE** North 14 deg. 32 min. 56 sec. East, a distance of 1.27 feet;  
**THENCE** North 25 deg. 38 min. 52 sec. East, a distance of 1.40 feet;  
**THENCE** North 08 deg. 25 min. 19 sec. East, a distance of 1.50 feet;  
**THENCE** North 15 deg. 21 min. 27 sec. West, a distance of 1.24 feet;  
**THENCE** North 60 deg. 40 min. 01 sec. West, a distance of 1.08 feet;  
**THENCE** North 77 deg. 01 min. 02 sec. West, a distance of 0.84 feet;  
**THENCE** North 66 deg. 17 min. 20 sec. West, a distance of 0.90 feet;  
**THENCE** North 76 deg. 07 min. 55 sec. West, a distance of 2.03 feet;  
**THENCE** North 30 deg. 02 min. 12 sec. West, a distance of 1.37 feet;  
**THENCE** North 33 deg. 25 min. 22 sec. East, a distance of 1.79 feet;  
**THENCE** North 26 deg. 11 min. 31 sec. East, a distance of 1.22 feet;  
**THENCE** North 49 deg. 19 min. 17 sec. East, a distance of 3.69 feet;  
**THENCE** North 68 deg. 12 min. 55 sec. East, a distance of 1.67 feet;  
**THENCE** North 59 deg. 26 min. 01 sec. East, a distance of 0.75 feet;  
**THENCE** North 89 deg. 14 min. 07 sec. East, a distance of 1.01 feet;  
**THENCE** North 68 deg. 35 min. 45 sec. East, a distance of 1.54 feet;  
**THENCE** North 63 deg. 22 min. 36 sec. East, a distance of 0.72 feet;  
**THENCE** North 87 deg. 26 min. 39 sec. East, a distance of 0.91 feet;



**THENCE** North 84 deg. 31 min. 37 sec. East, a distance of 2.43 feet;

**THENCE** North 75 deg. 36 min. 47 sec. East, a distance of 2.67 feet;

**THENCE** South 65 deg. 52 min. 39 sec. East, a distance of 1.08 feet;

**THENCE** North 53 deg. 43 min. 36 sec. East, a distance of 3.39 feet;

**THENCE** North 74 deg. 16 min. 19 sec. East, a distance of 2.21 feet;

**THENCE** South 82 deg. 43 min. 26 sec. East, a distance of 1.02 feet;

**THENCE** North 86 deg. 50 min. 24 sec. East, a distance of 1.37 feet;

**THENCE** North 68 deg. 58 min. 31 sec. East, a distance of 0.74 feet;

**THENCE** South 81 deg. 20 min. 24 sec. East, a distance of 2.09 feet;

**THENCE** North 81 deg. 11 min. 26 sec. East, a distance of 1.02 feet;

**THENCE** North 83 deg. 19 min. 36 sec. East, a distance of 1.11 feet;

**THENCE** South 88 deg. 55 min. 14 sec. East, a distance of 0.89 feet;

**THENCE** South 82 deg. 54 min. 31 sec. East, a distance of 1.04 feet;

**THENCE** South 76 deg. 58 min. 25 sec. East, a distance of 0.84 feet;

**THENCE** South 79 deg. 34 min. 09 sec. East, a distance of 1.03 feet;

**THENCE** South 85 deg. 38 min. 41 sec. East, a distance of 0.96 feet;

**THENCE** South 84 deg. 08 min. 38 sec. East, a distance of 1.98 feet;

**THENCE** South 85 deg. 20 min. 43 sec. East, a distance of 1.20 feet;

**THENCE** South 84 deg. 18 min. 08 sec. East, a distance of 1.01 feet;

**THENCE** South 85 deg. 57 min. 51 sec. East, a distance of 2.05 feet;





**THENCE** South 82 deg. 52 min. 14 sec. East, a distance of 1.04 feet;  
**THENCE** South 83 deg. 49 min. 38 sec. East, a distance of 0.94 feet;  
**THENCE** South 86 deg. 26 min. 21 sec. East, a distance of 1.52 feet;  
**THENCE** North 89 deg. 13 min. 45 sec. East, a distance of 1.49 feet;  
**THENCE** South 89 deg. 07 min. 26 sec. East, a distance of 0.70 feet;  
**THENCE** North 50 deg. 37 min. 24 sec. East, a distance of 1.69 feet;  
**THENCE** North 54 deg. 22 min. 25 sec. East, a distance of 3.27 feet;  
**THENCE** North 58 deg. 07 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** North 61 deg. 52 min. 30 sec. East, a distance of 3.27 feet;  
**THENCE** North 65 deg. 37 min. 28 sec. East, a distance of 3.27 feet;  
**THENCE** North 69 deg. 18 min. 28 sec. East, a distance of 3.15 feet;  
**THENCE** North 71 deg. 06 min. 51 sec. East, a distance of 14.03 feet;  
**THENCE** North 71 deg. 06 min. 50 sec. East, a distance of 0.12 feet;  
**THENCE** North 73 deg. 07 min. 33 sec. East, a distance of 3.27 feet;  
**THENCE** North 76 deg. 52 min. 40 sec. East, a distance of 3.27 feet;  
**THENCE** North 80 deg. 37 min. 22 sec. East, a distance of 3.27 feet;  
**THENCE** North 84 deg. 22 min. 41 sec. East, a distance of 3.27 feet;  
**THENCE** North 88 deg. 07 min. 15 sec. East, a distance of 3.27 feet;  
**THENCE** South 88 deg. 29 min. 13 sec. East, a distance of 2.63 feet;  
**THENCE** South 86 deg. 58 min. 51 sec. East, a distance of 7.90 feet;



**THENCE** North 07 deg. 47 min. 21 sec. West, a distance of 5.62 feet;  
**THENCE** North 07 deg. 35 min. 59 sec. West, a distance of 0.25 feet;  
**THENCE** North 06 deg. 35 min. 23 sec. West, a distance of 1.50 feet;  
**THENCE** North 39 deg. 56 min. 13 sec. West, a distance of 10.99 feet;  
**THENCE** North 38 deg. 42 min. 59 sec. West, a distance of 2.13 feet;  
**THENCE** North 35 deg. 37 min. 23 sec. West, a distance of 3.27 feet;  
**THENCE** North 31 deg. 52 min. 41 sec. West, a distance of 3.27 feet;  
**THENCE** North 28 deg. 07 min. 30 sec. West, a distance of 3.27 feet;  
**THENCE** North 24 deg. 22 min. 32 sec. West, a distance of 3.27 feet;  
**THENCE** North 20 deg. 37 min. 36 sec. West, a distance of 3.27 feet;  
**THENCE** North 16 deg. 52 min. 27 sec. West, a distance of 3.27 feet;  
**THENCE** North 13 deg. 40 min. 01 sec. West, a distance of 2.32 feet;  
**THENCE** North 12 deg. 20 min. 14 sec. West, a distance of 4.61 feet;  
**THENCE** North 19 deg. 46 min. 39 sec. West, a distance of 8.78 feet;  
**THENCE** North 43 deg. 49 min. 52 sec. West, a distance of 30.90 feet;  
**THENCE** North 43 deg. 35 min. 35 sec. West, a distance of 0.33 feet;  
**THENCE** North 43 deg. 27 min. 07 sec. West, a distance of 12.36 feet;  
**THENCE** North 43 deg. 53 min. 53 sec. West, a distance of 15.60 feet;  
**THENCE** North 48 deg. 07 min. 21 sec. West, a distance of 7.50 feet;  
**THENCE** North 46 deg. 33 min. 42 sec. West, a distance of 2.72 feet;



**THENCE** North 43 deg. 07 min. 22 sec. West, a distance of 3.27 feet;  
**THENCE** North 39 deg. 22 min. 36 sec. West, a distance of 3.27 feet;  
**THENCE** North 35 deg. 37 min. 35 sec. West, a distance of 3.27 feet;  
**THENCE** North 31 deg. 52 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** North 28 deg. 07 min. 48 sec. West, a distance of 3.27 feet;  
**THENCE** North 24 deg. 29 min. 58 sec. West, a distance of 3.05 feet;  
**THENCE** North 22 deg. 45 min. 01 sec. West, a distance of 8.06 feet;  
**THENCE** North 22 deg. 38 min. 47 sec. West, a distance of 0.22 feet;  
**THENCE** North 20 deg. 37 min. 36 sec. West, a distance of 3.27 feet;  
**THENCE** North 16 deg. 52 min. 07 sec. West, a distance of 3.27 feet;  
**THENCE** North 13 deg. 07 min. 40 sec. West, a distance of 3.27 feet;  
**THENCE** North 09 deg. 22 min. 38 sec. West, a distance of 3.27 feet;  
**THENCE** North 05 deg. 37 min. 21 sec. West, a distance of 3.27 feet;  
**THENCE** North 01 deg. 52 min. 23 sec. West, a distance of 3.27 feet;  
**THENCE** North 01 deg. 42 min. 48 sec. East, a distance of 3.00 feet;  
**THENCE** North 03 deg. 26 min. 03 sec. East, a distance of 12.01 feet;  
**THENCE** North 03 deg. 36 min. 53 sec. East, a distance of 0.28 feet;  
**THENCE** North 05 deg. 37 min. 19 sec. East, a distance of 3.27 feet;  
**THENCE** North 09 deg. 22 min. 38 sec. East, a distance of 3.27 feet;  
**THENCE** North 13 deg. 07 min. 20 sec. East, a distance of 3.27 feet;



**THENCE** North 16 deg. 52 min. 33 sec. East, a distance of 3.27 feet;

**THENCE** North 20 deg. 37 min. 29 sec. East, a distance of 3.27 feet;

**THENCE** North 23 deg. 35 min. 23 sec. East, a distance of 1.90 feet;

**THENCE** North 24 deg. 40 min. 39 sec. East, a distance of 9.77 feet;

**THENCE** North 25 deg. 27 min. 01 sec. East, a distance of 1.37 feet;

**THENCE** North 28 deg. 07 min. 48 sec. East, a distance of 3.27 feet;

**THENCE** North 30 deg. 28 min. 37 sec. East, a distance of 0.84 feet;

**THENCE** North 30 deg. 57 min. 45 sec. East, a distance of 8.39 feet;

**THENCE** North 32 deg. 21 min. 22 sec. East, a distance of 2.43 feet;

**THENCE** North 35 deg. 37 min. 35 sec. East, a distance of 3.27 feet;

**THENCE** North 39 deg. 22 min. 36 sec. East, a distance of 3.27 feet;

**THENCE** North 43 deg. 07 min. 22 sec. East, a distance of 3.27 feet;

**THENCE** North 46 deg. 52 min. 38 sec. East, a distance of 3.27 feet;

**THENCE** North 50 deg. 37 min. 24 sec. East, a distance of 3.27 feet;

**THENCE** North 54 deg. 22 min. 37 sec. East, a distance of 3.27 feet;

**THENCE** North 56 deg. 41 min. 51 sec. East, a distance of 0.78 feet;

**THENCE** North 57 deg. 08 min. 36 sec. East, a distance of 6.68 feet;

**THENCE** North 34 deg. 59 min. 33 sec. East, a distance of 3.31 feet;

**THENCE** North 35 deg. 05 min. 37 sec. East, a distance of 0.20 feet;

**THENCE** North 35 deg. 13 min. 48 sec. East, a distance of 0.29 feet;



**THENCE** North 08 deg. 20 min. 01 sec. East, a distance of 14.05 feet;

**THENCE** North 05 deg. 17 min. 18 sec. East, a distance of 7.30 feet;

**THENCE** North 12 deg. 55 min. 22 sec. West, a distance of 1.59 feet;

**THENCE** North 12 deg. 04 min. 53 sec. West, a distance of 1.46 feet;

**THENCE** North 09 deg. 41 min. 34 sec. West, a distance of 2.72 feet;

**THENCE** North 08 deg. 07 min. 49 sec. West, a distance of 12.74 feet;

**THENCE** North 37 deg. 56 min. 28 sec. West, a distance of 5.76 feet;

**THENCE** South 44 deg. 35 min. 09 sec. West, a distance of 0.64 feet;

**THENCE** South 46 deg. 07 min. 39 sec. West, a distance of 2.00 feet;

**THENCE** South 36 deg. 21 min. 57 sec. West, a distance of 1.07 feet;

**THENCE** South 20 deg. 02 min. 27 sec. West, a distance of 2.23 feet;

**THENCE** South 12 deg. 19 min. 39 sec. West, a distance of 1.38 feet;

**THENCE** South 17 deg. 29 min. 32 sec. West, a distance of 1.53 feet;

**THENCE** South 10 deg. 32 min. 49 sec. West, a distance of 1.22 feet;

**THENCE** South 16 deg. 49 min. 24 sec. West, a distance of 1.83 feet;

**THENCE** South 12 deg. 20 min. 06 sec. West, a distance of 1.38 feet;

**THENCE** South 06 deg. 23 min. 04 sec. West, a distance of 1.93 feet;

**THENCE** South 12 deg. 28 min. 18 sec. West, a distance of 1.47 feet;

**THENCE** South 04 deg. 44 min. 42 sec. West, a distance of 1.00 feet;

**THENCE** South 02 deg. 29 min. 10 sec. West, a distance of 1.69 feet;



**THENCE** South 14 deg. 32 min. 14 sec. East, a distance of 1.41 feet;  
**THENCE** South 76 deg. 02 min. 04 sec. West, a distance of 1.87 feet;  
**THENCE** North 88 deg. 12 min. 45 sec. West, a distance of 1.27 feet;  
**THENCE** North 69 deg. 07 min. 21 sec. West, a distance of 1.24 feet;  
**THENCE** North 74 deg. 12 min. 47 sec. West, a distance of 0.70 feet;  
**THENCE** North 56 deg. 47 min. 47 sec. West, a distance of 0.87 feet;  
**THENCE** North 61 deg. 18 min. 53 sec. West, a distance of 1.10 feet;  
**THENCE** North 57 deg. 59 min. 16 sec. West, a distance of 1.74 feet;  
**THENCE** North 67 deg. 45 min. 31 sec. West, a distance of 1.46 feet;  
**THENCE** North 55 deg. 54 min. 35 sec. West, a distance of 1.20 feet;  
**THENCE** North 59 deg. 05 min. 44 sec. West, a distance of 1.52 feet;  
**THENCE** North 60 deg. 53 min. 56 sec. West, a distance of 1.61 feet;  
**THENCE** North 53 deg. 51 min. 20 sec. West, a distance of 1.71 feet;  
**THENCE** North 55 deg. 15 min. 05 sec. West, a distance of 1.92 feet;  
**THENCE** North 58 deg. 06 min. 18 sec. West, a distance of 0.74 feet;  
**THENCE** North 67 deg. 45 min. 31 sec. West, a distance of 1.46 feet;  
**THENCE** North 55 deg. 47 min. 11 sec. West, a distance of 1.49 feet;  
**THENCE** North 78 deg. 54 min. 09 sec. West, a distance of 0.83 feet;  
**THENCE** North 62 deg. 03 min. 16 sec. West, a distance of 1.72 feet;  
**THENCE** North 68 deg. 39 min. 45 sec. West, a distance of 1.06 feet;



**THENCE** North 72 deg. 20 min. 43 sec. West, a distance of 1.26 feet;

**THENCE** North 68 deg. 35 min. 11 sec. West, a distance of 3.63 feet;

**THENCE** North 83 deg. 12 min. 25 sec. West, a distance of 0.87 feet;

**THENCE** North 70 deg. 42 min. 07 sec. West, a distance of 3.24 feet;

**THENCE** North 55 deg. 55 min. 10 sec. West, a distance of 1.55 feet;

**THENCE** North 40 deg. 21 min. 50 sec. West, a distance of 2.26 feet;

**THENCE** North 39 deg. 51 min. 40 sec. West, a distance of 2.21 feet;

**THENCE** North 35 deg. 47 min. 08 sec. West, a distance of 1.46 feet;

**THENCE** North 26 deg. 50 min. 04 sec. West, a distance of 1.75 feet;

**THENCE** North 13 deg. 59 min. 56 sec. West, a distance of 1.47 feet;

**THENCE** North 17 deg. 34 min. 16 sec. West, a distance of 1.16 feet;

**THENCE** North 12 deg. 51 min. 58 sec. West, a distance of 1.37 feet;

**THENCE** North 08 deg. 31 min. 06 sec. East, a distance of 1.04 feet;

**THENCE** North 04 deg. 22 min. 59 sec. West, a distance of 3.80 feet;

**THENCE** North 02 deg. 42 min. 36 sec. East, a distance of 2.37 feet;

**THENCE** North 06 deg. 06 min. 03 sec. East, a distance of 1.01 feet;

**THENCE** North 05 deg. 35 min. 27 sec. West, a distance of 0.86 feet;

**THENCE** North 05 deg. 02 min. 28 sec. West, a distance of 1.29 feet;

**THENCE** North 05 deg. 42 min. 45 sec. West, a distance of 5.56 feet;

**THENCE** North 13 deg. 10 min. 42 sec. West, a distance of 1.23 feet;



**THENCE** North 18 deg. 25 min. 47 sec. West, a distance of 1.11 feet;

**THENCE** North 15 deg. 55 min. 07 sec. West, a distance of 1.74 feet;

**THENCE** North 15 deg. 05 min. 45 sec. West, a distance of 1.36 feet;

**THENCE** North 06 deg. 16 min. 11 sec. West, a distance of 1.00 feet;

**THENCE** North 08 deg. 10 min. 09 sec. West, a distance of 2.79 feet;

**THENCE** North 15 deg. 44 min. 10 sec. West, a distance of 1.95 feet;

**THENCE** North 06 deg. 05 min. 26 sec. West, a distance of 1.29 feet;

**THENCE** North 13 deg. 43 min. 53 sec. West, a distance of 0.24 feet;

**THENCE** North 48 deg. 12 min. 45 sec. West, a distance of 7.29 feet;

**THENCE** North 53 deg. 55 min. 03 sec. West, a distance of 0.62 feet;

**THENCE** North 63 deg. 20 min. 50 sec. West, a distance of 0.73 feet;

**THENCE** North 63 deg. 16 min. 00 sec. West, a distance of 1.30 feet;

**THENCE** North 64 deg. 35 min. 32 sec. West, a distance of 2.01 feet;

**THENCE** North 53 deg. 56 min. 00 sec. West, a distance of 1.62 feet;

**THENCE** North 58 deg. 38 min. 50 sec. West, a distance of 1.02 feet;

**THENCE** North 58 deg. 57 min. 39 sec. West, a distance of 2.65 feet;

**THENCE** North 54 deg. 44 min. 50 sec. West, a distance of 2.67 feet;

**THENCE** North 47 deg. 49 min. 19 sec. West, a distance of 0.75 feet;

**THENCE** North 55 deg. 15 min. 02 sec. West, a distance of 5.16 feet;

**THENCE** North 52 deg. 09 min. 50 sec. West, a distance of 2.24 feet;





**THENCE** North 48 deg. 31 min. 16 sec. West, a distance of 1.23 feet;

**THENCE** North 56 deg. 39 min. 26 sec. West, a distance of 2.09 feet;

**THENCE** North 64 deg. 08 min. 58 sec. West, a distance of 1.53 feet;

**THENCE** North 80 deg. 29 min. 02 sec. West, a distance of 1.44 feet;

**THENCE** North 80 deg. 14 min. 27 sec. West, a distance of 1.56 feet;

**THENCE** North 72 deg. 34 min. 00 sec. West, a distance of 1.19 feet;

**THENCE** North 83 deg. 36 min. 12 sec. West, a distance of 0.92 feet;

**THENCE** North 80 deg. 15 min. 23 sec. West, a distance of 2.66 feet;

**THENCE** North 81 deg. 36 min. 24 sec. West, a distance of 2.33 feet;

**THENCE** North 84 deg. 19 min. 15 sec. West, a distance of 1.01 feet;

**THENCE** North 81 deg. 56 min. 57 sec. West, a distance of 1.68 feet;

**THENCE** North 74 deg. 11 min. 16 sec. West, a distance of 1.20 feet;

**THENCE** North 64 deg. 24 min. 10 sec. West, a distance of 1.29 feet;

**THENCE** North 45 deg. 53 min. 51 sec. West, a distance of 1.66 feet;

**THENCE** North 34 deg. 08 min. 52 sec. West, a distance of 1.26 feet;

**THENCE** North 44 deg. 31 min. 58 sec. West, a distance of 1.42 feet;

**THENCE** North 34 deg. 25 min. 26 sec. West, a distance of 0.99 feet;

**THENCE** North 31 deg. 29 min. 04 sec. West, a distance of 2.49 feet;

**THENCE** North 47 deg. 22 min. 29 sec. West, a distance of 1.29 feet;

**THENCE** North 34 deg. 40 min. 39 sec. West, a distance of 1.20 feet;



**THENCE** North 36 deg. 56 min. 27 sec. West, a distance of 2.44 feet;  
**THENCE** North 25 deg. 23 min. 18 sec. West, a distance of 1.04 feet;  
**THENCE** North 13 deg. 24 min. 16 sec. West, a distance of 2.19 feet;  
**THENCE** North 16 deg. 24 min. 57 sec. West, a distance of 0.89 feet;  
**THENCE** North 11 deg. 48 min. 43 sec. West, a distance of 2.88 feet;  
**THENCE** North 12 deg. 09 min. 01 sec. West, a distance of 2.80 feet;  
**THENCE** North 14 deg. 16 min. 19 sec. West, a distance of 1.64 feet;  
**THENCE** North 13 deg. 31 min. 37 sec. West, a distance of 1.52 feet;  
**THENCE** North 11 deg. 37 min. 57 sec. West, a distance of 2.03 feet;  
**THENCE** North 10 deg. 51 min. 01 sec. West, a distance of 1.51 feet;  
**THENCE** North 21 deg. 53 min. 16 sec. West, a distance of 1.13 feet;  
**THENCE** North 00 deg. 45 min. 49 sec. West, a distance of 3.94 feet;  
**THENCE** North 13 deg. 28 min. 10 sec. East, a distance of 1.56 feet;  
**THENCE** North 08 deg. 05 min. 21 sec. East, a distance of 1.56 feet;  
**THENCE** North 06 deg. 05 min. 11 sec. East, a distance of 0.62 feet;  
**THENCE** South 88 deg. 21 min. 01 sec. East, a distance of 8.62 feet;  
**THENCE** North 14 deg. 44 min. 58 sec. East, a distance of 1.82 feet;  
**THENCE** South 87 deg. 55 min. 22 sec. East, a distance of 90.93 feet;  
**THENCE** North 49 deg. 59 min. 15 sec. East, a distance of 0.88 feet;  
**THENCE** North 49 deg. 59 min. 16 sec. East, a distance of 0.47 feet;



**THENCE** North 49 deg. 59 min. 15 sec. East, a distance of 1.72 feet;  
**THENCE** North 65 deg. 06 min. 08 sec. East, a distance of 2.96 feet;  
**THENCE** North 78 deg. 43 min. 24 sec. East, a distance of 1.40 feet;  
**THENCE** North 89 deg. 02 min. 08 sec. East, a distance of 1.64 feet;  
**THENCE** South 83 deg. 08 min. 51 sec. East, a distance of 1.73 feet;  
**THENCE** South 74 deg. 36 min. 05 sec. East, a distance of 7.75 feet;  
**THENCE** South 53 deg. 27 min. 53 sec. East, a distance of 3.31 feet;  
**THENCE** South 87 deg. 55 min. 22 sec. East, a distance of 40.04 feet;  
**THENCE** South 42 deg. 58 min. 08 sec. East, a distance of 4.12 feet;  
**THENCE** South 42 deg. 06 min. 37 sec. East, a distance of 1.50 feet;  
**THENCE** South 39 deg. 22 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** South 37 deg. 20 min. 45 sec. East, a distance of 0.32 feet;  
**THENCE** South 37 deg. 07 min. 41 sec. East, a distance of 17.83 feet;  
**THENCE** South 37 deg. 56 min. 31 sec. East, a distance of 22.61 feet;  
**THENCE** South 37 deg. 44 min. 49 sec. East, a distance of 0.39 feet;  
**THENCE** South 35 deg. 37 min. 35 sec. East, a distance of 3.27 feet;  
**THENCE** South 31 deg. 52 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** South 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;  
**THENCE** South 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;  
**THENCE** South 20 deg. 37 min. 29 sec. East, a distance of 3.27 feet;



**THENCE** South 16 deg. 52 min. 33 sec. East, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 35 sec. East, a distance of 3.27 feet;  
**THENCE** South 09 deg. 41 min. 09 sec. East, a distance of 2.72 feet;  
**THENCE** South 08 deg. 07 min. 50 sec. East, a distance of 23.95 feet;  
**THENCE** South 12 deg. 55 min. 33 sec. East, a distance of 7.51 feet;  
**THENCE** South 12 deg. 04 min. 53 sec. East, a distance of 1.46 feet;  
**THENCE** South 09 deg. 22 min. 42 sec. East, a distance of 3.27 feet;  
**THENCE** South 05 deg. 37 min. 19 sec. East, a distance of 3.27 feet;  
**THENCE** South 01 deg. 52 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** South 01 deg. 52 min. 23 sec. West, a distance of 3.27 feet;  
**THENCE** South 04 deg. 31 min. 23 sec. West, a distance of 1.34 feet;  
**THENCE** South 05 deg. 17 min. 22 sec. West, a distance of 16.65 feet;  
**THENCE** South 06 deg. 23 min. 50 sec. West, a distance of 1.93 feet;  
**THENCE** South 07 deg. 54 min. 51 sec. West, a distance of 0.73 feet;  
**THENCE** South 08 deg. 19 min. 59 sec. West, a distance of 21.45 feet;  
**THENCE** South 09 deg. 47 min. 20 sec. West, a distance of 2.55 feet;  
**THENCE** South 13 deg. 07 min. 40 sec. West, a distance of 3.27 feet;  
**THENCE** South 15 deg. 20 min. 54 sec. West, a distance of 0.62 feet;  
**THENCE** South 15 deg. 42 min. 34 sec. West, a distance of 7.97 feet;  
**THENCE** South 17 deg. 13 min. 47 sec. West, a distance of 2.65 feet;



**THENCE** South 20 deg. 37 min. 29 sec. West, a distance of 3.27 feet;  
**THENCE** South 24 deg. 22 min. 21 sec. West, a distance of 3.27 feet;  
**THENCE** South 28 deg. 07 min. 38 sec. West, a distance of 3.27 feet;  
**THENCE** South 31 deg. 52 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** South 34 deg. 29 min. 17 sec. West, a distance of 1.28 feet;  
**THENCE** South 35 deg. 13 min. 06 sec. West, a distance of 9.61 feet;  
**THENCE** South 17 deg. 40 min. 03 sec. East, a distance of 0.62 feet;  
**THENCE** South 19 deg. 47 min. 28 sec. East, a distance of 1.84 feet;  
**THENCE** South 03 deg. 20 min. 34 sec. West, a distance of 1.35 feet;  
**THENCE** South 08 deg. 15 min. 10 sec. East, a distance of 1.84 feet;  
**THENCE** South 10 deg. 27 min. 02 sec. East, a distance of 3.71 feet;  
**THENCE** South 01 deg. 13 min. 14 sec. West, a distance of 1.37 feet;  
**THENCE** South 16 deg. 27 min. 01 sec. West, a distance of 2.27 feet;  
**THENCE** South 19 deg. 15 min. 25 sec. West, a distance of 0.91 feet;  
**THENCE** South 19 deg. 49 min. 30 sec. West, a distance of 1.43 feet;  
**THENCE** South 15 deg. 56 min. 55 sec. West, a distance of 0.83 feet;  
**THENCE** South 41 deg. 32 min. 02 sec. West, a distance of 2.82 feet;  
**THENCE** South 39 deg. 59 min. 00 sec. West, a distance of 1.54 feet;  
**THENCE** South 55 deg. 01 min. 53 sec. West, a distance of 1.94 feet;  
**THENCE** South 43 deg. 27 min. 09 sec. East, a distance of 0.10 feet;



**THENCE** South 43 deg. 49 min. 51 sec. East, a distance of 41.39 feet;

**THENCE** South 42 deg. 32 min. 17 sec. East, a distance of 2.25 feet;

**THENCE** South 39 deg. 22 min. 36 sec. East, a distance of 3.27 feet;

**THENCE** South 35 deg. 37 min. 35 sec. East, a distance of 3.27 feet;

**THENCE** South 31 deg. 52 min. 24 sec. East, a distance of 3.27 feet;

**THENCE** South 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;

**THENCE** South 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;

**THENCE** South 21 deg. 08 min. 05 sec. East, a distance of 2.38 feet;

**THENCE** South 19 deg. 46 min. 35 sec. East, a distance of 22.68 feet;

**THENCE** South 19 deg. 15 min. 30 sec. East, a distance of 0.90 feet;

**THENCE** South 16 deg. 53 min. 23 sec. East, a distance of 0.66 feet;

**THENCE** South 39 deg. 55 min. 52 sec. East, a distance of 0.69 feet;

**THENCE** South 42 deg. 18 min. 57 sec. East, a distance of 12.60 feet;

**THENCE** South 41 deg. 46 min. 58 sec. East, a distance of 0.93 feet;

**THENCE** South 39 deg. 22 min. 36 sec. East, a distance of 3.27 feet;

**THENCE** South 35 deg. 37 min. 23 sec. East, a distance of 3.27 feet;

**THENCE** South 31 deg. 52 min. 24 sec. East, a distance of 3.27 feet;

**THENCE** South 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;

**THENCE** South 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;

**THENCE** South 20 deg. 37 min. 36 sec. East, a distance of 3.27 feet;



**THENCE** South 16 deg. 52 min. 27 sec. East, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 40 sec. East, a distance of 3.27 feet;  
**THENCE** South 09 deg. 22 min. 18 sec. East, a distance of 3.27 feet;  
**THENCE** South 05 deg. 37 min. 42 sec. East, a distance of 3.27 feet;  
**THENCE** South 03 deg. 06 min. 23 sec. East, a distance of 1.11 feet;  
**THENCE** South 02 deg. 28 min. 51 sec. East, a distance of 12.80 feet;  
**THENCE** South 07 deg. 47 min. 13 sec. East, a distance of 14.94 feet;  
**THENCE** South 33 deg. 00 min. 26 sec. East, a distance of 0.33 feet;  
**THENCE** South 21 deg. 16 min. 31 sec. East, a distance of 0.82 feet;  
**THENCE** South 07 deg. 04 min. 22 sec. East, a distance of 2.18 feet;  
**THENCE** South 07 deg. 36 min. 34 sec. East, a distance of 1.01 feet;  
**THENCE** South 05 deg. 05 min. 20 sec. West, a distance of 1.18 feet;  
**THENCE** South 10 deg. 37 min. 16 sec. East, a distance of 0.84 feet;  
**THENCE** South 26 deg. 09 min. 31 sec. West, a distance of 0.15 feet;  
**THENCE** South 07 deg. 47 min. 13 sec. East, a distance of 4.67 feet;  
**THENCE** South 07 deg. 36 min. 34 sec. East, a distance of 0.25 feet;  
**THENCE** South 05 deg. 37 min. 40 sec. East, a distance of 3.27 feet;  
**THENCE** South 01 deg. 52 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** South 01 deg. 16 min. 11 sec. West, a distance of 2.22 feet;  
**THENCE** South 02 deg. 32 min. 43 sec. West, a distance of 10.80 feet;



**THENCE** South 03 deg. 08 min. 50 sec. West, a distance of 1.05 feet;

**THENCE** South 05 deg. 37 min. 21 sec. West, a distance of 3.27 feet;

**THENCE** South 09 deg. 22 min. 38 sec. West, a distance of 3.27 feet;

**THENCE** South 12 deg. 20 min. 38 sec. West, a distance of 1.92 feet;

**THENCE** South 13 deg. 26 min. 58 sec. West, a distance of 4.78 feet;

**THENCE** South 35 deg. 47 min. 10 sec. East, a distance of 0.50 feet;

**THENCE** South 09 deg. 35 min. 15 sec. East, a distance of 3.76 feet;

**THENCE** South 10 deg. 08 min. 45 sec. East, a distance of 5.01 feet;

**THENCE** South 18 deg. 52 min. 50 sec. East, a distance of 1.08 feet;

**THENCE** South 18 deg. 33 min. 51 sec. East, a distance of 2.67 feet;

**THENCE** South 29 deg. 36 min. 33 sec. East, a distance of 0.95 feet;

**THENCE** South 01 deg. 29 min. 54 sec. East, a distance of 3.74 feet;

**THENCE** South 34 deg. 00 min. 59 sec. West, a distance of 0.80 feet;

**THENCE** South 27 deg. 34 min. 44 sec. West, a distance of 2.17 feet;

**THENCE** South 55 deg. 02 min. 45 sec. West, a distance of 1.63 feet;

**THENCE** South 41 deg. 58 min. 51 sec. West, a distance of 1.56 feet;

**THENCE** South 47 deg. 55 min. 58 sec. West, a distance of 0.73 feet;

**THENCE** South 44 deg. 03 min. 25 sec. West, a distance of 4.43 feet;

**THENCE** South 54 deg. 57 min. 20 sec. West, a distance of 2.79 feet;

**THENCE** South 57 deg. 02 min. 43 sec. West, a distance of 1.45 feet;





**THENCE** South 57 deg. 18 min. 24 sec. West, a distance of 1.19 feet;  
**THENCE** South 55 deg. 30 min. 05 sec. West, a distance of 1.64 feet;  
**THENCE** South 52 deg. 43 min. 57 sec. West, a distance of 1.34 feet;  
**THENCE** South 45 deg. 47 min. 47 sec. West, a distance of 1.62 feet;  
**THENCE** South 50 deg. 25 min. 14 sec. West, a distance of 0.38 feet;  
**THENCE** South 24 deg. 38 min. 50 sec. West, a distance of 4.04 feet;  
**THENCE** South 17 deg. 56 min. 32 sec. East, a distance of 8.10 feet;  
**THENCE** South 17 deg. 23 min. 26 sec. East, a distance of 0.98 feet;  
**THENCE** South 16 deg. 49 min. 13 sec. East, a distance of 26.15 feet;  
**THENCE** South 29 deg. 30 min. 00 sec. East, a distance of 21.51 feet;  
**THENCE** South 42 deg. 23 min. 50 sec. East, a distance of 29.36 feet;  
**THENCE** South 41 deg. 49 min. 31 sec. East, a distance of 1.00 feet;  
**THENCE** South 39 deg. 22 min. 36 sec. East, a distance of 3.27 feet;  
**THENCE** South 36 deg. 11 min. 53 sec. East, a distance of 2.27 feet;  
**THENCE** South 34 deg. 54 min. 10 sec. East, a distance of 10.87 feet;  
**THENCE** South 54 deg. 49 min. 10 sec. East, a distance of 17.66 feet;  
**THENCE** South 58 deg. 18 min. 27 sec. East, a distance of 33.52 feet;  
**THENCE** South 57 deg. 16 min. 27 sec. East, a distance of 1.80 feet;  
**THENCE** South 54 deg. 22 min. 37 sec. East, a distance of 3.27 feet;  
**THENCE** South 50 deg. 37 min. 24 sec. East, a distance of 3.27 feet;



**THENCE** South 46 deg. 52 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** South 43 deg. 54 min. 52 sec. East, a distance of 1.90 feet;  
**THENCE** South 42 deg. 49 min. 32 sec. East, a distance of 32.73 feet;  
**THENCE** South 42 deg. 19 min. 49 sec. East, a distance of 0.83 feet;  
**THENCE** South 41 deg. 52 min. 42 sec. East, a distance of 22.80 feet;  
**THENCE** South 41 deg. 33 min. 14 sec. East, a distance of 0.55 feet;  
**THENCE** South 39 deg. 22 min. 20 sec. East, a distance of 3.27 feet;  
**THENCE** South 35 deg. 37 min. 35 sec. East, a distance of 3.27 feet;  
**THENCE** South 31 deg. 52 min. 41 sec. East, a distance of 3.27 feet;  
**THENCE** South 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;  
**THENCE** South 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;  
**THENCE** South 20 deg. 37 min. 29 sec. East, a distance of 3.27 feet;  
**THENCE** South 16 deg. 52 min. 13 sec. East, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 40 sec. East, a distance of 3.27 feet;  
**THENCE** South 09 deg. 56 min. 08 sec. East, a distance of 2.30 feet;  
**THENCE** South 08 deg. 36 min. 54 sec. East, a distance of 7.29 feet;  
**THENCE** South 89 deg. 52 min. 18 sec. East, a distance of 15.01 feet;  
**THENCE** South 04 deg. 27 min. 14 sec. East, a distance of 1.49 feet;  
**THENCE** South 01 deg. 23 min. 15 sec. East, a distance of 8.85 feet;  
**THENCE** South 02 deg. 14 min. 42 sec. West, a distance of 4.57 feet;



**THENCE** South 05 deg. 45 min. 35 sec. West, a distance of 7.81 feet;  
**THENCE** South 05 deg. 37 min. 44 sec. West, a distance of 2.15 feet;  
**THENCE** South 09 deg. 20 min. 55 sec. West, a distance of 10.52 feet;  
**THENCE** South 11 deg. 28 min. 10 sec. West, a distance of 5.55 feet;  
**THENCE** South 13 deg. 36 min. 45 sec. West, a distance of 11.40 feet;  
**THENCE** South 15 deg. 52 min. 01 sec. West, a distance of 11.32 feet;  
**THENCE** South 02 deg. 40 min. 24 sec. East, a distance of 2.88 feet;  
**THENCE** South 02 deg. 20 min. 10 sec. East, a distance of 7.88 feet;  
**THENCE** South 11 deg. 20 min. 45 sec. East, a distance of 7.32 feet;  
**THENCE** South 07 deg. 17 min. 24 sec. East, a distance of 17.52 feet;  
**THENCE** South 00 deg. 00 min. 33 sec. East, a distance of 14.56 feet;  
**THENCE** South 08 deg. 59 min. 53 sec. West, a distance of 12.45 feet;  
**THENCE** South 24 deg. 01 min. 31 sec. West, a distance of 9.56 feet;  
**THENCE** South 51 deg. 42 min. 46 sec. West, a distance of 11.53 feet;  
**THENCE** South 72 deg. 42 min. 50 sec. West, a distance of 16.64 feet;  
**THENCE** South 09 deg. 27 min. 42 sec. East, a distance of 17.63 feet;  
**THENCE** South 08 deg. 29 min. 03 sec. East, a distance of 1.71 feet;  
**THENCE** South 05 deg. 37 min. 40 sec. East, a distance of 3.27 feet;  
**THENCE** South 01 deg. 52 min. 24 sec. East, a distance of 3.27 feet;  
**THENCE** South 01 deg. 52 min. 23 sec. West, a distance of 3.27 feet;



**THENCE** South 05 deg. 37 min. 42 sec. West, a distance of 3.27 feet;  
**THENCE** South 09 deg. 22 min. 18 sec. West, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 40 sec. West, a distance of 3.27 feet;  
**THENCE** South 16 deg. 52 min. 27 sec. West, a distance of 3.27 feet;  
**THENCE** South 20 deg. 37 min. 36 sec. West, a distance of 3.27 feet;  
**THENCE** South 24 deg. 22 min. 32 sec. West, a distance of 3.27 feet;  
**THENCE** South 28 deg. 07 min. 30 sec. West, a distance of 3.27 feet;  
**THENCE** South 31 deg. 52 min. 24 sec. West, a distance of 3.27 feet;  
**THENCE** South 35 deg. 37 min. 23 sec. West, a distance of 3.27 feet;  
**THENCE** South 38 deg. 15 min. 05 sec. West, a distance of 1.30 feet;  
**THENCE** South 38 deg. 59 min. 29 sec. West, a distance of 5.16 feet;  
**THENCE** South 44 deg. 06 min. 53 sec. East, a distance of 8.11 feet;  
**THENCE** South 47 deg. 00 min. 28 sec. East, a distance of 19.93 feet;  
**THENCE** South 47 deg. 22 min. 34 sec. East, a distance of 16.25 feet;  
**THENCE** South 55 deg. 32 min. 50 sec. East, a distance of 12.57 feet;  
**THENCE** South 58 deg. 13 min. 34 sec. East, a distance of 28.92 feet;  
**THENCE** South 52 deg. 59 min. 39 sec. East, a distance of 16.64 feet;  
**THENCE** South 53 deg. 24 min. 44 sec. East, a distance of 10.87 feet;  
**THENCE** South 48 deg. 00 min. 07 sec. East, a distance of 13.07 feet;  
**THENCE** South 30 deg. 59 min. 33 sec. East, a distance of 7.53 feet;



**THENCE** South 21 deg. 31 min. 35 sec. East, a distance of 11.51 feet;

**THENCE** South 10 deg. 01 min. 01 sec. East, a distance of 12.55 feet to the **POINT OF BEGINNING**, containing 145,655 square feet or 3.344 acres of land, more or less.





LEGAL DESCRIPTION OF  
**ESA TRACT 2**

All that certain lot, tract, or parcel of land, situated in a portion of the Mary L. Austin Survey, Abstract No. 4, City of Denton, Denton County, Texas, being part of that certain called 53.865 net acre tract described in a deed to Neil A. Bickley and Ronald W. Atkins recorded in Instrument No. 2024-128262 of the Deed Records of Denton County, Texas (DRDCT), and being more completely described as follows, to-wit:

**COMMENCING** at a 1/2" iron rod found (bent) for an angle point in the North line of said 53.865 net acre tract, the Southeast corner of Lot 2, Block 2 of Municipal Utility Addition recorded in Document No. 2009-139 Plat Records of Denton County, Texas (PRDCT) and the Southwest corner of Lot 1, Block A of Binker Substation Addition recorded in Document No. 2017-439 (PRDCT);

**THENCE** South 87 deg. 58 min. 49 sec. East along said North line and the South line of said Lot 1, Block A, a distance of 243.21 feet to the **TRUE POINT OF BEGINNING**;

**THENCE** South 87 deg. 58 min. 49 sec. East continuing along said North and South lines, a distance of 119.16 feet to a point, from which a 1/2" iron rod found (bent) for an angle point in the North line of said 53.865 net acre tract, the Southeast corner of said Lot 1, Block A and the Southwest corner of called 24.14 acre Tract 1 described in Deed to Medanho Partners, LTD recorded in Document No. 2018-75291 (DRDCT) bears South 87 deg. 58 min. 49 sec. East – 45.44 feet;

**THENCE** South 28 deg. 07 min. 11 sec. East departing said North and South lines, a distance of 2.91 feet;

**THENCE** South 24 deg. 22 min. 40 sec. East, a distance of 3.27 feet;

**THENCE** South 20 deg. 37 min. 01 sec. East, a distance of 0.76 feet;

**THENCE** South 39 deg. 22 min. 05 sec. East, a distance of 4.30 feet;

**THENCE** South 38 deg. 25 min. 51 sec. East, a distance of 1.63 feet;

**THENCE** South 35 deg. 37 min. 35 sec. East, a distance of 3.27 feet;



**THENCE** South 31 deg. 52 min. 41 sec. East, a distance of 3.27 feet;  
**THENCE** South 28 deg. 07 min. 30 sec. East, a distance of 3.27 feet;  
**THENCE** South 24 deg. 22 min. 32 sec. East, a distance of 3.27 feet;  
**THENCE** South 20 deg. 37 min. 09 sec. East, a distance of 3.27 feet;  
**THENCE** South 16 deg. 52 min. 33 sec. East, a distance of 3.27 feet;  
**THENCE** South 13 deg. 07 min. 35 sec. East, a distance of 3.27 feet;  
**THENCE** South 10 deg. 32 min. 32 sec. East, a distance of 1.22 feet;  
**THENCE** South 09 deg. 50 min. 51 sec. East, a distance of 8.68 feet;  
**THENCE** South 08 deg. 40 min. 22 sec. East, a distance of 2.05 feet;  
**THENCE** South 07 deg. 17 min. 45 sec. East, a distance of 0.38 feet;  
**THENCE** South 07 deg. 03 min. 31 sec. East, a distance of 4.40 feet;  
**THENCE** North 87 deg. 55 min. 22 sec. West, a distance of 113.70 feet;  
**THENCE** North 46 deg. 31 min. 28 sec. West, a distance of 0.15 feet;  
**THENCE** North 45 deg. 45 min. 33 sec. West, a distance of 1.33 feet;  
**THENCE** North 43 deg. 07 min. 51 sec. West, a distance of 3.27 feet;  
**THENCE** North 40 deg. 17 min. 51 sec. West, a distance of 1.64 feet;  
**THENCE** North 39 deg. 22 min. 01 sec. West, a distance of 7.81 feet;  
**THENCE** North 43 deg. 11 min. 47 sec. West, a distance of 1.97 feet;  
**THENCE** North 42 deg. 13 min. 18 sec. West, a distance of 1.70 feet;  
**THENCE** North 39 deg. 22 min. 20 sec. West, a distance of 3.27 feet;



**THENCE** North 35 deg. 37 min. 35 sec. West, a distance of 3.27 feet;

**THENCE** North 31 deg. 52 min. 41 sec. West, a distance of 3.27 feet;

**THENCE** North 28 deg. 07 min. 30 sec. West, a distance of 3.27 feet;

**THENCE** North 24 deg. 22 min. 32 sec. West, a distance of 3.27 feet;

**THENCE** North 20 deg. 37 min. 29 sec. West, a distance of 3.27 feet;

**THENCE** North 16 deg. 52 min. 33 sec. West, a distance of 3.27 feet;

**THENCE** North 13 deg. 07 min. 20 sec. West, a distance of 3.27 feet;

**THENCE** North 09 deg. 22 min. 38 sec. West, a distance of 3.27 feet;

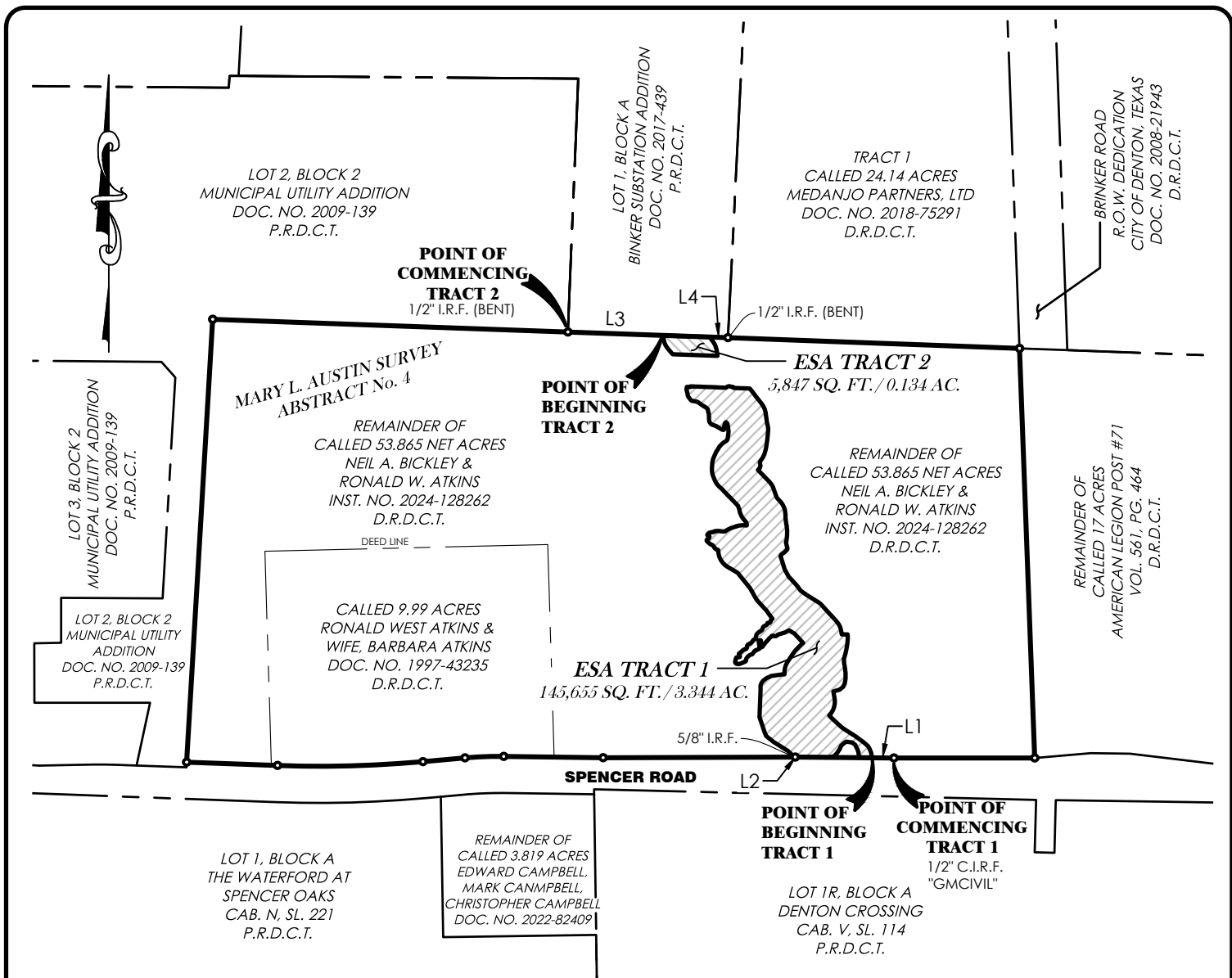
**THENCE** North 05 deg. 37 min. 19 sec. West, a distance of 3.27 feet;

**THENCE** North 01 deg. 52 min. 24 sec. West, a distance of 3.27 feet;

**THENCE** North 01 deg. 39 min. 54 sec. East, a distance of 1.77 feet to the **POINT OF BEGINNING**, containing 5,847 square feet or 0.134 acres of land, more or less.



Exhibit D  
Depiction of the AESA Mitigation Property



LINE TABLE		
LINE #	BEARING	DISTANCE
L1	N89°28'20"W	55.47'
L2	N89°28'20"W	1.03'

LINE TABLE		
LINE #	BEARING	DISTANCE
L3	S87°58'49"E	243.21'
L4	S87°58'49"E	45.44'

EXHIBIT "A" MAP SHOWING  
ENVIRONMENTALLY SENSITIVE AREA'S  
SITUATED IN A PORTION OF THE  
MARY L. AUSTIN SURVEY, ABSTRACT NO. 4  
CITY OF DENTON, DENTON COUNTY, TEXAS



Job No.:	23035	Scale:	N.T.S.
Drafted:	J.H.M.	Checked:	J.N.R.
Surveyed on the Ground:	04/01/2024		
Date Prepared:	07/31/2025		
Revised:	.	Revised:	.

Sheet	1 of 1	NOTE: THE INTENT OF THIS EXHIBIT IS TO PICTORIALLY SHOW LOCATIONS OF THE ENVIRONMENTALLY SENSITIVE AREA. IT IS NOT INTENDED AS AN ACTUAL SURVEY. CALLS SHOWN ARE REFERENCES ONLY. NO STATEMENT IS MADE TO THE VALIDITY OF THESE CALLS

Exhibit E  
Alternative ESA Plan

# ALTERNATIVE ENVIRONMENTALLY SENSITIVE AREA REPORT

IDI Logistics

Spencer Road Industrial Project Site



June 2025

**For compliance with:**

City of Denton Environmentally Sensitive Areas Assessment  
(ESA# 25-0001)

**Prepared by:**

Integrated Environmental Solutions, LLC  
301 W. Eldorado Parkway, Ste. 101  
McKinney, Texas 75069

**Prepared for:**

IDI Logistics  
2300 N. Field Street, Suite 2060  
Dallas, Texas 75201

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## APPENDICES

### Appendix A - Figures

- Figure 1 – General Location Map
- Figure 2 – City of Denton Mapped ESAs
- Figure 3 – On-site ESA Determinations
- Figure 4 – Proposed ESA Impacts
- Figure 5 – Site Plan and Impacts
- Figure 6 – Sewer Line Location and Boring Zone

### Appendix B – ESA Assessment Forms

### Appendix C – Tree Inventory Data

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## INTRODUCTION AND AUTHORITY/ PURPOSE AND NEED FOR ACTION

Integrated Environmental Solutions, LLC (IES) was retained by IDI Logistics for environmental services for the Spencer Road Industrial project site. This Alternative Environmentally Sensitive Area (AESA) Report is being submitted to the City of Denton under the Denton Development Code (DDC) Section 2.8.4 to request approval for impacts to Environmentally Sensitive Areas (ESA). This AESA Report proposes mitigation measures for two impact areas within the Riparian Buffer and Undeveloped Floodplain ESA which are required to construct an internal roadway and detention outfall for the proposed industrial development. The report also details that a region of the Cross Timbers ESA identified on site will be retained, meeting the preservation percentage requirements.

### DESCRIPTION OF OVERALL DEVELOPMENT

The proposed Spencer Road Industrial project site is approximately 53.5 acres located at 2201 and 2203 Spencer Road in the City of Denton, Denton County, Texas (**Appendix A, Figure 1**).

The proposed development will consist of four industrial buildings and all associated infrastructure including sidewalks, interior roads, detention, and necessary utilities. The development impact area is approximately 42.9 acres. The current zoning for the tract is General Office (GO), which allows for the proposed development.

### EXISTING SITE DESCRIPTION

The survey area was characterized by three distinct vegetation communities, **grassland**, **forested upland**, and **forested riparian corridor**. The **grassland** community dominated the site and consisted of grasses and forbs such as Johnsongrass (*Sorghum halepense*), spreading hedge parsley (*Torilis arvensis*), pinkladies (*Oenothera speciosa*), common sunflower (*Helianthus annuus*), white tridens (*Tridens albescens*), sumpweed (*Iva annua*), Indian blanket (*Gaillardia pulchella*), Illinois bundleflower (*Desmanthus illinoensis*), red seed plantain (*Plantago rhodosperma*), perennial ryegrass (*Lolium perenne*), white clover (*Trifolium repens*), Bermudagrass (*Cynodon dactylon*), silver leaf nightshade (*Solanum elaeagnifolium*), western ragweed (*Ambrosia psilostachya*), field brome (*Bromus arvensis*), and tall goldenrod (*Solidago gigantea*). The **forested upland** was identified scattered along fence lines and in patches across the site. It was comprised of post oak (*Quercus stellata*), eastern red cedar (*Juniperus virginiana*), and pecan (*Carya illinoensis*), with an understory of Chinese privet (*Ligustrum sinense*) and sawbrier (*Smilax bona-nox*). The **forested riparian corridor** was identified along the central drainage and consisted of woody species such as Osage-orange (*Maclura pomifera*), American elm (*Ulmus americana*), sycamore (*Platanus occidentalis*), and pecan, with an understory comprised of Chinese privet and sawbrier.

IES Environmental staff conducted a site visit on 09 May 2024 to confirm ESAs mapped by the City of Denton. Prior to the site visit, IES reviewed the previously mapped and assessed ESAs as depicted on the Official ESA Map of the City of Denton Online Map Viewer. The ESAs, as depicted on the Online Map Viewer, are shown on **Appendix A, Figure 2**. ESAs associated with an assessment completed in 2025 were depicted as follows:

ESA25-0001: The assessment reviewed the status of a section of an unnamed tributary to Pecan Creek bisecting the project site centrally. The assessment confirmed the Undeveloped Floodplain, Zone AE and Floodway, and most of the Riparian Buffer-50 Habitat associated with the unnamed tributary of Pecan Creek. The field investigation identified Cross Timbers Upland Habitat along the eastern boundary within a contiguous tract that extended east, outside of the boundary. The assessment was unable to confirm the Cross Timbers Upland Habitat along the northern and western boundaries, the Riparian Buffer-50 Habitat along the southern boundary, and the Water Related Habitat along the northern boundary as the areas lacked the basic characteristics of each ESA habitat.

During the site visit, an intermittent stream was identified within the project site, entering via a culvert under Spencer Road and meandering through the site before exiting to the north. A 50-foot Riparian Buffer ESA and Floodplain ESA were identified along the stream. The ESAs identified during the site visit are shown in **Appendix A, Figure 3**. The habitats within the ESAs are as follows:

### Stream

An intermittent stream meanders through the central region of the ESA before exiting the site to the north. The intermittent stream was, on average, 7-feet wide and incised 1 to 3 feet. Overall, the stream was in *Good* condition based on the Rapid Stream Assessment Technique (RSAT) performed during the ESA assessment.

### Riparian Buffer ESA

A 50-foot Riparian Buffer was identified along the intermittent stream meandering through the central region. The Riparian Buffer ESA along the southern boundary was removed through the ESA assessment completed in May 2024 due to a lack of canopy cover. The Riparian Buffer was dominated by American elm and pecan trees with common greenbrier (*Smilax glauca*), eastern red cedar, Chinese privet, and poison ivy observed in the understory. **Table 1** below summarizes the trees measured and identified within the Riparian Buffer and Undeveloped Floodplain ESA. A full ESA tree inventory completed in June 2024 is included as **Appendix B**. Trees were recorded on a Juniper Systems Geode GNS3S Global Positioning System (GPS) unit capable of sub-meter accuracy.

**Table 1. Summary of Trees Identified Within the Riparian Buffer and Undeveloped Floodplain ESA Area.**

Tree Species	No. Healthy Trees (total caliper inches)	No. Declining/ Hazard Trees (total caliper inches)
American elm	59 (663.3)	2 (43.9)
Black walnut	1 (19.8)	1 (21.9)
Black willow	1 (18.6)	---
Blackjack oak	32 (342.3)	---
Boxelder	4(36.9)	---
Bradford pear	---	1 (7.9)
Cedar elm	19 (171.1)	---
Chinaberry	7 (65.7)	---
Common persimmon	5 (38.3)	---
Eastern red cedar	29 (309.3)	---
Green ash	18 (173.2)	1 (12.3)
Gum bumelia	2 (20.7)	---
Osage-orange	6 (50.3)	1 (8.3)
Pecan	51 (517.1)	---
Post oak	65 (732.4)	2 (33.1)
Sugarberry	2 (13.3)	---
Sycamore	4 (54.9)	1 (11.8)
Total Trees	305 (3,227.2)	9 (139.2)

### Undeveloped Floodplain ESA

Undeveloped Floodplain ESA was mapped around the stream channel and associated buffer. The ESA is associated with Federal Emergency Management Agency (FEMA) 100-year floodplain Zone AE. **Table 1** above summarizes the trees measured and tagged within the Undeveloped Floodplain and Riparian Buffer ESA.

### Cross Timbers Upland ESA

The site survey was unable to confirm the Cross Timbers Upland habitat along the northern and western boundaries. The region was previously cleared for a utility line between 2022 and 2023, and no canopy cover was present. Therefore, the northern and western boundary regions did not meet the requirements to be verified as an ESA. A post oak overstory with scattered eastern red cedar trees and saplings was identified along the eastern boundary with Chinese privet overgrown in understory. Recent aerial photography indicates that the forested area has remained forested for several decades. The area was previously part of a larger, contiguous forest but a portion was removed between 2007 and 2008 for



development to the east. Based on aerial photography in Google Earth, the current contiguous canopy cover is 12.9 acres. Therefore, the eastern region met the minimum 10-acre requirement to be verified as an ESA.

### *AESA PURPOSE*

The AESA purpose is to propose mitigation for the impacts to the Riparian Buffer and Undeveloped Floodplain ESAs due to the proposed industrial development construction. The proposed project would involve constructing a connecting road, and detention outfall within the limits of the Riparian Buffer and Undeveloped Floodplain ESAs. The road crossing was placed over the northern section of the intermittent stream due to engineering constraints and transportation requirements, resulting in unavoidable impacts to the ESA. Grading required for the construction would be limited to the minimum necessary for the roadway and detention outfall totaling approximately 0.23 acre (7 percent of 3.13-acre total) within the Riparian Buffer ESA and 0.16 acre (6 percent of 2.75-acre total) within the Undeveloped Floodplain ESA. **Appendix A, Figure 4** shows the proposed impacts to the ESA.

The Cross Timbers ESA to the east will also be impacted for the construction of a warehouse building, parking, internal roadways and grading. Per Section 4.2.4.2.1 of the Denton ESA Primer, the proposed development will retain over 30 percent of the Cross Timbers ESA area within the site, which meets the preservation requirements. The industrial complex construction will impact 2.10 acres (65.8 percent) of the total 3.19 acres of Cross Timbers ESA within the site. As 34.2 percent of the total Cross Timbers ESA identified on site will be retained, the development meets the preservation requirements, and no additional mitigation is required or proposed for the Cross Timbers ESA.

### *Site Access & Interior Design Layout*

The Spencer Road Industrial site was designed to maximize building size while limiting impacts to the ESAs and complying with tree preservation requirements. The current design provides 554,552 square feet of warehouse space, internal roadways, detention, and utilities (**Appendix A, Figure 5**). The easternmost building was shifted north and the size was reduced to limit impacts to the Cross Timbers Upland ESA. To provide two access points to the easternmost building, an internal connection road was necessary in the northern region to ensure access requirements were met. The access road could not be shifted north along the boundary due to the utility line easement, which is present along the western and northern boundaries. Multiple utility lines will be installed across the central and southern Riparian Buffer and Undeveloped Floodplain reaches; however, the segments below the ESA will be bored, resulting in no additional ESA impacts (**Appendix A, Figure 6**). Fire lanes were required around each building for emergency vehicle access, which resulted in additional Cross Timbers Upland ESA impacts; however, walls were strategically placed throughout the project site to minimize the removal of trees and impacts to the ESA. Given the design and environmental constraints, the project design only impacts 0.23 acre of Riparian Buffer ESA, 0.16 acre of Undeveloped Floodplain ESA, and 2.10 acres of Cross Timbers Upland ESA.

## **NOTIFICATION AND REVIEW**

This AESA Report explains the mitigation measures for ESA impacts that will be provided to the City of Denton for formal notification of the activity and review of the proposed restoration activity.

## **AFFECTED ENVIRONMENT AND SUMMARY OF IMPACTS**

**Appendix A, Figure 5** shows the observed Riparian Buffer and Undeveloped Floodplain associated with the stream channel through the central region. The total Riparian Buffer ESA covers 3.13 acres, and the Undeveloped Floodplain ESA covers 2.75 acre within the property boundary.

The project is proposing to construct a roadway and detention outfall within the on-site Riparian Buffer and Undeveloped Floodplain ESAs. All vegetation within the impact areas will be permanently removed during the initial construction; however, the impacts will be limited to the extent necessary to fulfill the needs of the industrial development. The proposed impacts from the construction of the roadway and detention outfall are limited to 0.23 acre within the Riparian Buffer ESA and 0.16 acre within the Undeveloped Floodplain ESA. The total impacts and site plan are shown on **Appendix A, Figure 5**.

Based on the tree inventory completed in June 2024 by IES, tree species within the Riparian Buffer and Undeveloped Floodplain impact areas include American elm, blackjack oak (*Quercus marilandica*), black walnut (*Juglans nigra*), cedar elm, eastern red cedar, Osage-orange, and pecan. The understory within the riparian buffer was overgrown with Chinese privet. The trees to be removed are described in **Table 2**. The proposed trees to be removed within the Riparian Buffer and Undeveloped Floodplain ESAs total 316.5-caliper inches from 28 trees, 26 of which were all identified as healthy. The 26 healthy trees make up approximately 8.5 percent of the total healthy trees within the on-site Riparian Buffer and Undeveloped Floodplain ESAs.

**Table 2. Identified Trees Within the Proposed Riparian Buffer and Undeveloped Floodplain ESA Impact Area.**

ID #	DBH (caliper inches)	Common Name	Scientific Name	Condition	Multi-Trunk
206	12.9	eastern red cedar	<i>Juniperus virginiana</i>	Healthy	No
207	10.6	eastern red cedar	<i>Juniperus virginiana</i>	Healthy	No
208	7.3	eastern red cedar	<i>Juniperus virginiana</i>	Healthy	No
209	14.1	pecan	<i>Carya illinoensis</i>	Healthy	No
210	7.9	eastern red cedar	<i>Juniperus virginiana</i>	Healthy	No
211	13.3	eastern red cedar	<i>Juniperus virginiana</i>	Healthy	No
212	16	eastern red cedar	<i>Juniperus virginiana</i>	Healthy	No
6864	13.9	American elm	<i>Ulmus americana</i>	Healthy	No
6865	17.4	American elm	<i>Ulmus americana</i>	Healthy	No
6866	8.3	Osage-orange	<i>Maclura pomifera</i>	Damaged	No
6867	7.1	American elm	<i>Ulmus americana</i>	Healthy	No
6868	19.8	black walnut	<i>Juglans nigra</i>	Healthy	No
6869	21.9	black walnut	<i>Juglans nigra</i>	Damaged	No
6870	12.8	American elm	<i>Ulmus americana</i>	Healthy	No
6871	6.3	cedar elm	<i>Ulmus crassifolia</i>	Healthy	No
7334	7.8	eastern red cedar	<i>Juniperus virginiana</i>	Healthy	No
7335	16.6	American elm	<i>Ulmus americana</i>	Healthy	No
7336	16	American elm	<i>Ulmus americana</i>	Healthy	No
7337	7.8	American elm	<i>Ulmus americana</i>	Healthy	No
7338	11.5	American elm	<i>Ulmus americana</i>	Healthy	No
7961	11.1	eastern red cedar	<i>Juniperus virginiana</i>	Healthy	No
7962	6.4	blackjack oak	<i>Quercus marilandica</i>	Healthy	No
7963	7.4	post oak	<i>Quercus stellata</i>	Healthy	No
7964	6.5	blackjack oak	<i>Quercus marilandica</i>	Healthy	No
7965	13.9	eastern red cedar	<i>Juniperus virginiana</i>	Healthy	No
7966	8.1	blackjack oak	<i>Quercus marilandica</i>	Healthy	No
7967	6.8	American elm	<i>Ulmus americana</i>	Healthy	No
7968	7.0	pecan	<i>Carya illinoensis</i>	Healthy	No
Total	316.5				

## MITIGATION ACTIVITIES

The impacts to the Riparian Buffer and Undeveloped Floodplain ESA shown in **Appendix A, Figure 5** are primarily limited to the northern reach where impacts are required to construct a roadway to provide a second access point for the easternmost building. A relatively small, additional impact is necessary in the southern region for a detention pond outfall to convey flow downslope. Vegetation will be removed during the initial grading for the development. Retaining walls were strategically placed throughout the project to minimize the removal of trees and impacts to the ESA. A pre-construction meeting will be held to notify contractors of ESA mitigation area limits and a visual barrier such as a temporary chain link fence will be installed to ensure construction remains within the development impact area (DIA) boundary. No additional adverse impacts to the stream or the remainder of the ESAs are expected from the construction.

Concurrent or following the industrial development construction, a contractor will be instructed by IDI Logistics to remove invasive, understory Chinese privet growth from the unimpacted Riparian Buffer and Undeveloped Floodplain ESA regions. Once the Chinese privet has been removed, the resulting AESA will provide additional native habitat while also aiding in stormwater management for the industrial development. In addition, all appropriate best management practices (BMPs) will be in place as required by the General Construction Permit and site-specific Stormwater Pollution Prevention Plan, which may include the installation of silt fencing or a rock check dam prior to construction activity discharges to the ESA.

## PROPOSED IMPROVEMENT OF UNAFFECTED AREAS

A mitigation plan executed over a year-long period is proposed to effectively restore and improve the unimpacted Riparian Buffer and Undeveloped Floodplain ESAs. A contractor, such as IES, will be contracted to complete the privet removal and monitoring. The developer is proposing to mechanically remove Chinese privet, an invasive species, from the understory of the unimpacted Riparian Buffer and Undeveloped Floodplain ESAs as well as from non-graded areas immediately surrounding the ESA to help prevent the reintroduction of Chinese privet. The removal approach is a targeted mechanism to eliminate invasive species and will result in no ground disturbing activities that could harm overstory trees. The initial privet removal will occur the first winter after construction has commenced to reduce sprouting.

**Figure 1** illustrates that invasive Chinese privet currently dominates the canopy understory within the ESA. Mechanical removal will consist of the use of a hydro-axe for most of the area, supplemented with hand clearing to remove Chinese privet immediately surrounding existing trees. The hydro-axe will remove the aboveground portion of the Chinese privet plant but does not remove the root system and sprouting will occur. The regrowth will be spot treated with triclopyr, a pesticide from the City's Integrated Pest Management list, the following spring at the recommended label rate. An additional spot treatment of seedlings will be conducted, if necessary. Debris from the privet removal will be mulched and spread within the mitigation area. The eradication of Chinese privet will open the understory and improve opportunities for diverse native species to thrive with limited invasive competition. A successful eradication will allow for no more than 5 percent of remaining Chinese privet understory cover. Seedlings and regrowth will be monitored and removed seasonally during the 3-year monitoring period within the mitigation area as needed to ensure Chinese privet remains eradicated.





**Figure 1.** The photographs illustrated above depict the understory of invasive Chinese Privet throughout the mitigation area.

A seed mixture will be seeded throughout the unimpacted Riparian Buffer and Undeveloped Floodplain ESA regions once the understory has been cleared of Chinese privet to provide a protective ground cover and functional understory strata. The seed mix is intended to aid in rebuilding the stream bank buffer zone. The seed mix will include native species such as Virginia wildrye (*Elymus virginicus*), Canada wildrye (*Elymus canadensis*), inland sea oats (*Chasmanthium latifolium*), purpletop tridens (*Tridens flavus*), purple coneflower (*Echinacea purpurea*), bergamont (*Monarda fistulosa*), red columbine (*Aquilegia canadensis*), black-eyed Susan (*Rudbeckia hirta*), swamp sunflower (*Helianthus angustifolius*), American beautyberry (*Callicarpa americana*), butterfly weed (*Asclepias tuberosa*), frostweed (*Verbesina virginica*), and blue mistflower (*Conoclinium coelestinum*). The native seed mix will contain no more than 20 percent of a single species. The proposed seeding goal is to develop an AESA with a quality, diverse, functioning habitat that will not need additional maintenance beyond the initial seeding.

The seed mix will be sown at the recommended amount of 9 pounds per acre in the spring following the Chinese privet management. As the mitigation area is within a forested riparian buffer, shade tolerant species have been selected for planting. The initial seeding will be implemented in conjunction with the hydromulching and involves applying a mixture of water, wood fiber mulch, soil stabilizer, and seed to prevent erosion and provide an optimal environment conducive to plant growth. The seeding will be conducted once and due to the forested overstory and minimal impacts within the Riparian Buffer ESA on site, a specified final coverage rate will not be required.

The unimpacted Riparian Buffer ESA (approximately 2.90 acre) and Undeveloped Floodplain ESA (approximately 2.59 acre) areas encompass a combined total of 3.48 acre as a result of overlap. No tree planting is proposed within the mitigation area as only 8.5 percent of the existing trees within the Riparian Buffer and Undeveloped Floodplain ESAs will be removed because of the development, resulting in 80 stems per acre (with a DBH of 6 inches or greater) within the mitigation area. Most of the recorded trees within the mitigation area are mature and will naturally propagate within regions where Chinese privet has been cleared.

Data to determine Chinese privet coverage rates during site visits will be manually collected using appropriate vegetation monitoring and classification techniques, such as total count and point-intercept methods. A site visit by IES staff will be performed following the completion of the initial privet removal and prior to the first annual reporting event. IES will perform additional site visits as necessary during the first annual monitoring period.

### COMPLIANCE WITH AUTHORITIES

The City of Denton is the authority over compliance with this AESA mitigation plan. Once the Spencer Road Industrial development has been constructed and the AESA mitigation activities have been completed, the City of Denton will be notified that the mitigation activities have been completed.

### ANNUAL REPORTING

The applicant will prepare an annual report each year for three consecutive years, beginning 12 months following the mitigation activities implementation to report on the effectiveness of the Chinese privet removal. These annual reports will be submitted to the City for review and comment.

The first two annual reports will contain action items that may include, removing weeds and invasive species from within the mitigation area, or removal of construction debris within the Riparian Buffer and Undeveloped Floodplain ESA.

Upon completion of the 3-year monitoring and reporting period, the City of Denton Environmental Services shall inspect the mitigation area and determine whether the Chinese privet understory cover eradication goal of no more than 5 percent Chinese privet understory cover has been met. After city inspection, if invasive plants have been reestablished, the applicant shall be notified to clear the problematic areas. If the applicant does not take remedial steps to bring the property into compliance, the City may use all legal remedies to enforce this provision. If it is determined that the eradication goal has been met, the City will issue the final project acceptance.

If changes need to be made to the mitigation plan during the 3-year monitoring period, the City of Denton will be notified prior to making the plan modifications.

### *MAINTENANCE PLAN*

The remaining Riparian Buffer ESA will be maintained differently than all other common area lots. The following specifications will be used for future maintenance contractors that are contracted by the current and future owners and managers of the site. This approach is specified separately due to the environmentally sensitive nature of the riparian corridor.

- Mowing – No mowing will be allowed within the Riparian Buffer mitigation area.
- Leaf Removal – There will be no leaf removal within the Riparian Buffer mitigation area.
- Fertilizer and Pesticide – There will be no fertilizer or pesticide within the Riparian Buffer mitigation area.
- Tree Removal – No trees will be cut, trimmed, thinned, raised, or altered without the approval of the City of Denton's specific written permission.
- Any ground disturbing activity, such as erosion control or maintenance associated with infrastructure surrounding the Riparian Buffer mitigation area will only occur after designs have been approved by the City of Denton.

In the event that the property is sold in the future, the new owners must adhere to the maintenance plan to retain the natural state and integrity of the ecosystem.

Regions between the mitigation area and DIA will remain vegetated and Chinese privet may be removed to further prevent re-establishment within the mitigation area. Mowing, fertilizer application, and ground disturbing activities will be minimized within the region between the mitigation area and DIA to serve as a protective buffer.

### *CRITERIA FOR APPROVAL*

The following lists the criteria for approval of an AESA Plan and the project aspects that meet each criterion.

1. Create, expand, and/ or improve non-impacted areas.

The proposed AESA plans to mitigate the impacts to the Riparian Buffer and Undeveloped Floodplain ESAs by removing Chinese privet, an invasive species, which improves opportunities for diverse, native vegetation to thrive throughout the existing buffer.

2. Improve encroached habitat and the surrounding environment.

The impacted areas will be mitigated by removing Chinese privet throughout the remainder of the on-site Riparian Buffer and Undeveloped Floodplain ESAs as well as from non-graded areas surrounding the ESA to prevent reseeding. A seed mixture will be seeded throughout the unimpacted Riparian Buffer and Undeveloped Floodplain ESA regions once the understory has been cleared of Chinese privet to provide a protective ground cover and functional understory strata.

3. Create continuity.

The impacted area and proposed AESA mitigation area are located within a larger mapped Undeveloped Floodplain ESA which extends north along the continuation of the drainage. The impact area is a fraction of the overall ESA on site, and the undisturbed Riparian Buffer and Undeveloped Floodplain ESAs on site will be improved.

4. Maximize access and utilization.

Sidewalks will be constructed along the industrial buildings to improve access. The mitigation area will be visible from Spencer Road as well as the internal roadway and parking areas.

5. Create a conservation easement.

As most of the ESA will remain intact and improvements will be made to remove invasive species, the ESA designation will remain and therefore be subject to use restrictions set forth in the DDC.

6. High quality development.

The AESA has been designed to minimize the impacts to the ESA necessary to meet the design standards and infrastructure necessary for the overall development. The AESA proposes to mitigate for the impacts by removing invasive understory growth from within and surrounding the remaining Riparian Buffer and Undeveloped Floodplain ESA. As Chinese privet currently dominates the ESA understory, the proposed improvements in the unimpacted regions will allow native species to reestablish and enrich the overall quality of the region. As such, the proposed development meets the criteria for approval for an AESA.

## SUMMARY

The proposed impact areas include 0.23 acre within the Riparian Buffer ESA, 0.16 acre within the Undeveloped Floodplain ESA, and 2.10 acre within the Cross Timbers ESA resulting from the construction of roadways, sidewalks, lots, parking, and utilities necessary for the industrial development. The 2.90-acre Riparian Buffer and 2.59-acre Floodplain ESA mitigation areas to offset the impact areas will consist of removing invasive Chinese privet from the remaining on-site ESA understory to improve opportunities for diverse, native vegetation to thrive throughout the remaining ESAs. As 34.2 percent of the total Cross Timbers Upland ESA identified on site will be retained, the development meets the preservation requirements, and no additional mitigation is required or proposed for the Cross Timbers Upland ESA.

## ANNUAL REPORTING CONTACTS

### ***Developer/Owner:***

IDI Logistics  
2300 N. Field Street, Suite 2060  
Dallas, Texas 75201  
Contact: Mr. Tony Maclin  
Phone: 972-560-7009  
Email: tony.maclin@idilogistics.com

### ***Environmental Scientist:***

Integrated Environmental Solutions, LLC  
301 W Eldorado Parkway, Suite 101  
McKinney, Texas 75069  
Contact: Rudi Reinecke  
Phone: 972-562-7672  
Email: rreinecke@intenvsol.com

### ***Engineer:***

GM Civil  
2559 SW Grapevine Parkway  
Grapevine, Texas 76051  
Contact: Jason Weaver, P.E.  
Phone: 817-329-4373  
Email: JWeaver@gmcivil.com

## Appendix A

### Figures



**Figure 1.**  
**General Location Map**

Spencer Road Industrial  
City of Denton  
Denton County, Texas

1 in = 1,500 ft

Feet

01,500

N


W

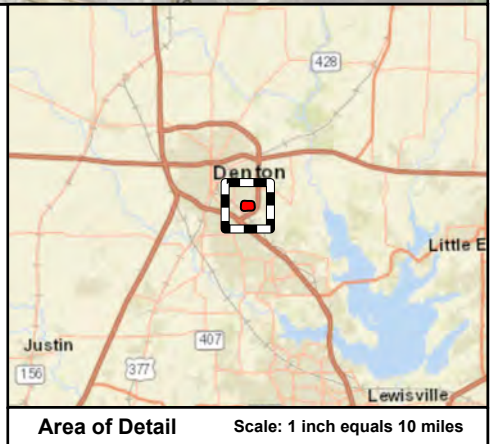
S

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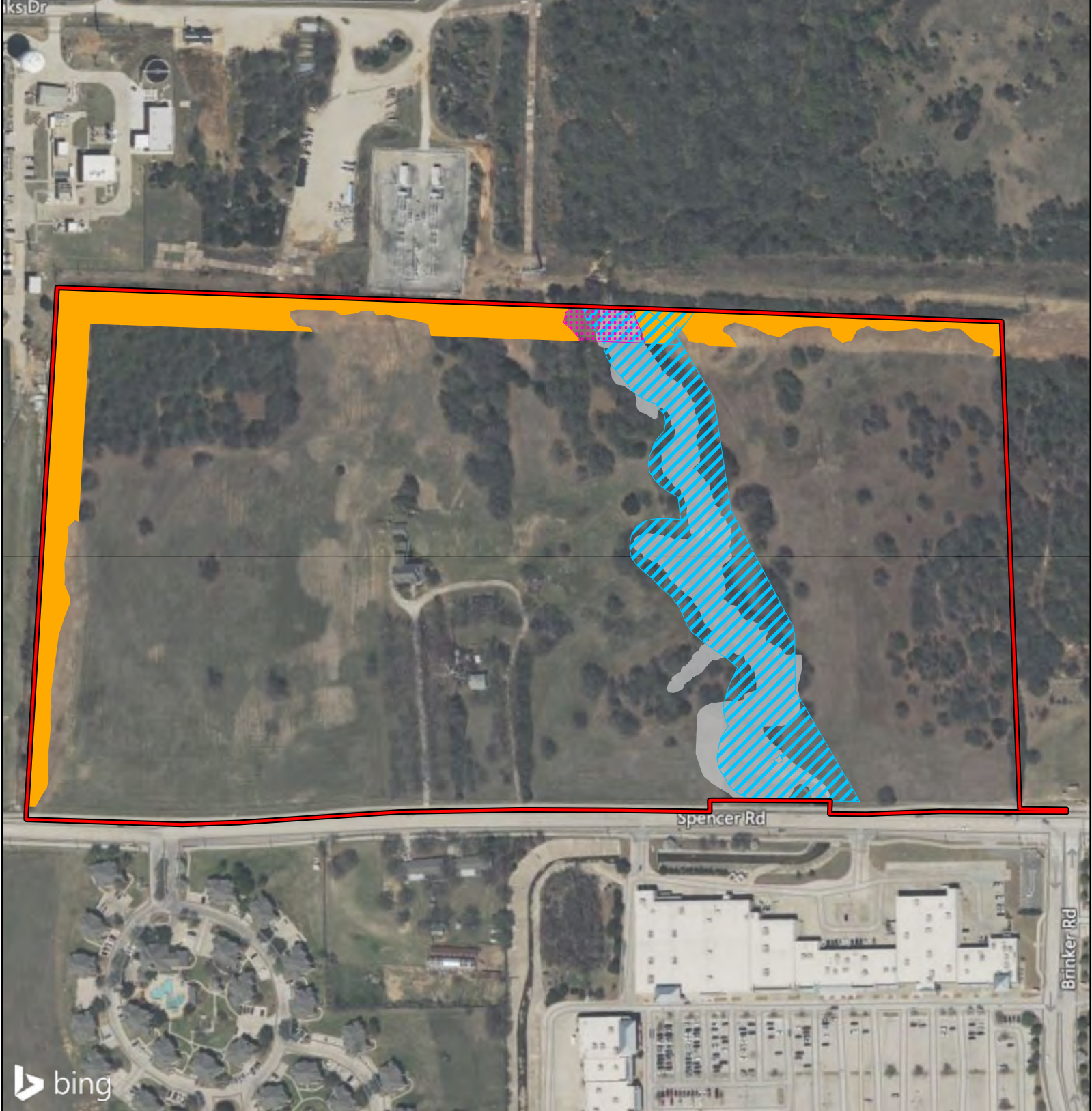
File Ref. 04.110.165

Date: 3/27/2025

 Survey Area

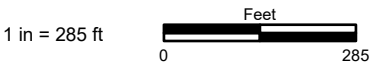






**Figure 2.**  
**City of Denton Environmentally Sensitive Areas (ESA)**

Spencer Road Industrial  
City of Denton  
Denton County, Texas



File Ref. 04.110.165  
Date: 3/27/2025

- Survey Area
- Riparian Buffer ESA**
  - Not Assessed
- Cross Timbers ESA**
  - Not Assessed
- Undeveloped Floodplain ESA**
  - Not Assessed
- Water Related Habitat ESA**
  - Not Assessed



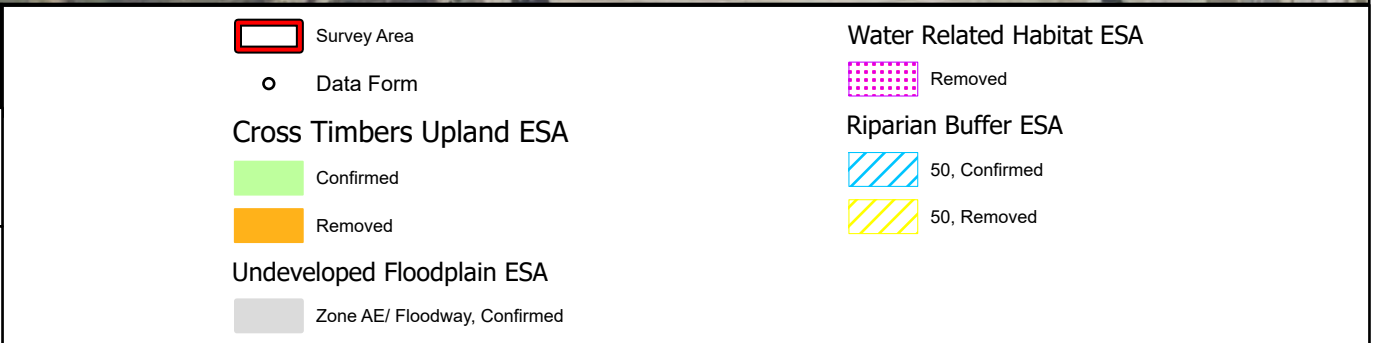


**Figure 3.**  
**Onsite ESA Determinations**

Spencer Road Industrial  
City of Denton  
Denton County, Texas

1 in = 220 ft

File Ref. 04.110.165  
Date: 3/27/2025







**Figure 4.  
Proposed ESA Impacts**

Spencer Road Industrial  
City of Denton  
Denton County, Texas

1 in = 135 ft

Feet  
0 135

File Ref. 04.110.165  
Date: 5/23/2025



- Survey Area
- Cross Timbers Upland ESA
- Riparian Buffer ESA
- Undeveloped Floodplain ESA

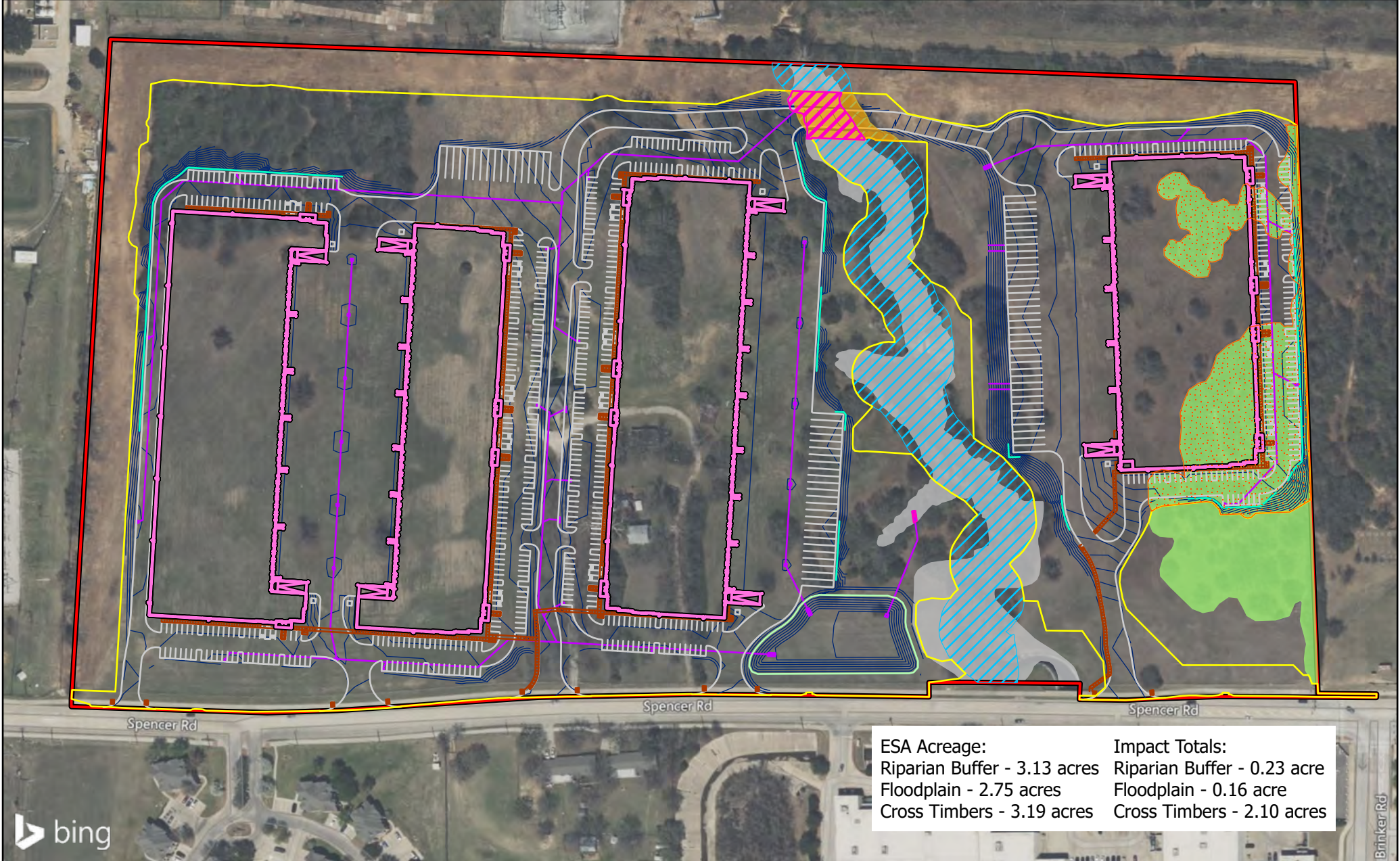
**Direct/ Permanent Impacts**

- Cross Timbers
- Floodplain
- Riparian Buffer

**Mitigation/ Preservation Area**

- Riparian Buffer
- Floodplain
- Cross Timbers Preservation





<b>ESA Acreage:</b>	<b>Impact Totals:</b>
Riparian Buffer - 3.13 acres	Riparian Buffer - 0.23 acre
Floodplain - 2.75 acres	Floodplain - 0.16 acre
Cross Timbers - 3.19 acres	Cross Timbers - 2.10 acres

**Figure 5.**  
**Site Plan and Impacts Map**

Spencer Road Industrial  
City of Denton  
Denton County, Texas

1 in = 225 ft

0 225

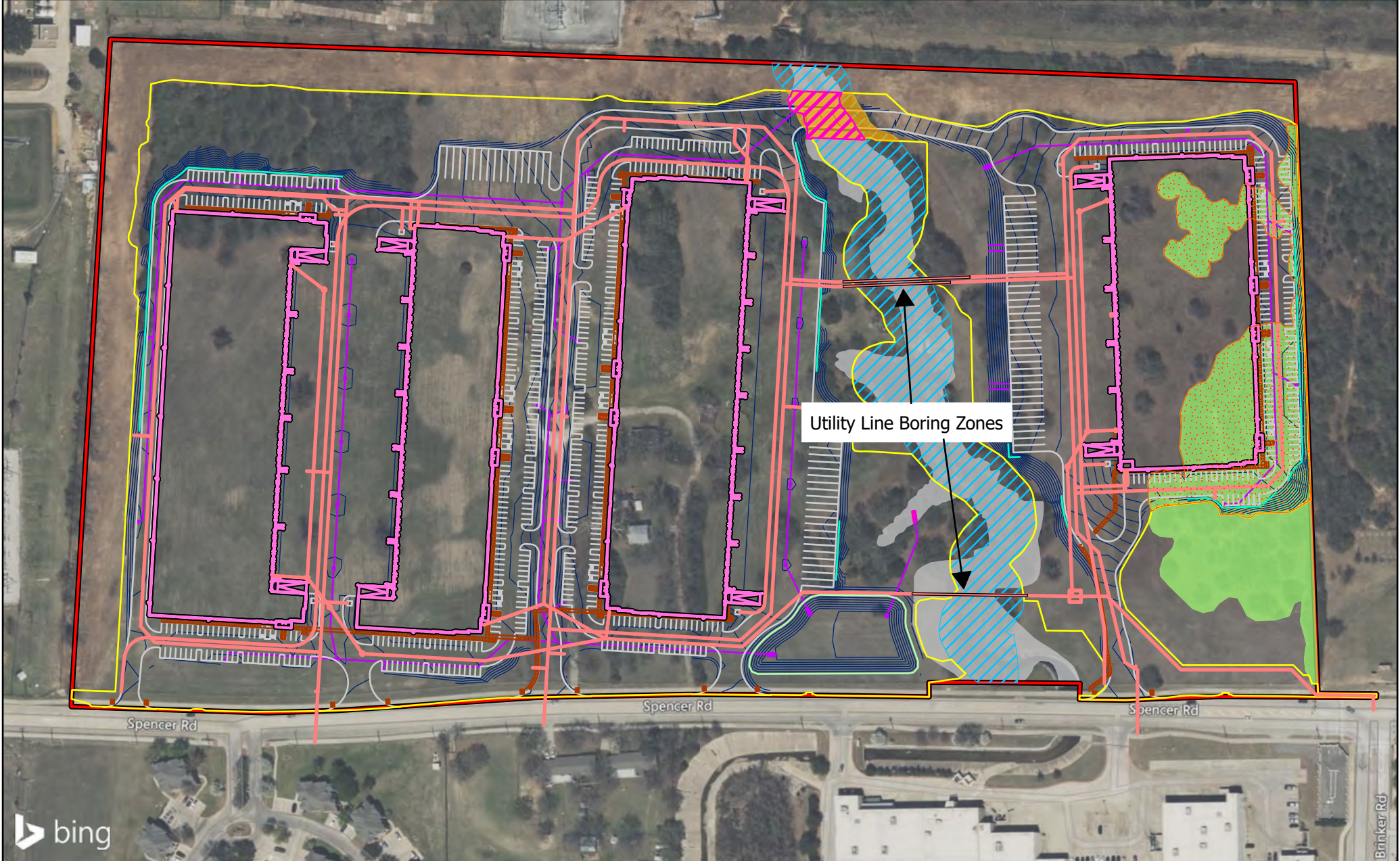
File Ref. 04.022.037  
Date: 5/23/2025



- Survey Area
- Undeveloped Floodplain ESA
- Riparian Buffer ESA
- Cross Timbers Upland ESA
- Direct/ Permanent Impacts**
- Cross Timbers
- Floodplain
- Riparian Buffer

- Site Plan**
- Building
- Development Impact Area
- Grading
- Pavement
- Retaining Wall
- Stormwater
- Sidewalk
- Detention Pond

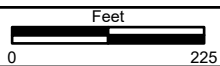




**Figure 6.**  
**Sewer Line Location and Boring Zones**

Spencer Road Industrial  
City of Denton  
Denton County, Texas

1 in = 225 ft



File Ref. 04.022.037  
Date: 5/23/2025

- Survey Area
- Undeveloped Floodplain ESA
- Riparian Buffer ESA
- Cross Timbers Upland ESA
- Direct/ Permanent Impacts**
- Cross Timbers
- Floodplain
- Riparian Buffer
- Site Plan**
- Building

- Development Impact Area
- Grading
- Pavement
- Retaining Wall
- Stormwater
- Sidewalk
- Detention Pond
- Boring Zone
- Utility Line

## **Appendix B**

ESA Assessment Forms

**Floodplain ESA Assessment Form**

Environmental Services and Sustainability

A Floodplain ESA Assessment Form is to be completed for each feature identified as potentially to exist on the Official ESA Map. Features of substantially similar characteristics and location may be grouped together on one form. More information about Undeveloped Floodplains and assessing this feature may be found on the [City of Denton webpage](#).

<b>Property Address or Property ID:</b>	2201 & 2203 Spencer Road R 34406, 191269	<b>Feature ID(s):</b>	Data Form 1
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Property ID can be found through Denton Central Appraisal District      Provide a unique ID for each feature when multiple features are assessed

**Hydrologic Segment Information:**

<b>Name:</b>	Unnamed tributary of Pecan Creek	<b>Width</b>	7	<b>Order</b>	1
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When available, stream segment name.      Approximate stream width.      Stream order.

**Assessment Conclusion:**

Select one of the following.

- ☒ IS an ESA. Based upon this assessment the area is an Undeveloped Floodplain ESA. I recommend the Official ESA Map be updated to confirm the ESA designation in this area.
- ☐ NOT an ESA. Based upon this assessment the floodplain is developed. I recommend the Official ESA Map be updated to remove the ESA designation from this area.

**Assessment Comments:**

Provide a summary of details found in the field to support the conclusion selected above.

The riparian vegetation in the floodplain contained hardwood trees, eastern red cedar, and an understory of poison ivy and sawbriar. Based on a review of aerial photography, the floodplain is in its natural state and has not been previously modified aside from a utility ROW along the northern boundary which was cleared between 2022 and 2023, and a portion of the channel immediately north of Spencer Road which was stabilized between 2001 and 2005. The ROW has partially re-vegetated and there did not appear to be significant cut or fill in the region to install the utility line. The southern portion of the tributary has also re-vegetated and it appears only minor adjustments were made to the topography. As such, the ROW

**Attachments Provided:**

<b>Required:</b>	<input checked="" type="checkbox"/> overall site map <input checked="" type="checkbox"/> current map of feature <input checked="" type="checkbox"/> proposed map of feature <input checked="" type="checkbox"/> soils map <input checked="" type="checkbox"/> photographs representative of feature
<b>Other:</b>	FEMA

**Field Assessor:**

Name of Field Assessor: Tyler Frohlich	
Affiliation of Field Assessor (Organization): Integrated Environmental Solutions	
Date the assessment was performed: 09 May 2024	
I certify that the information provided here is an accurate description of the area(s) assessed.	<b>Karisa Fenton</b> Digitally signed by Karisa Fenton Date: 2024.05.20 15:08:10 -05'00'

**Environmental Services Representative:**

I concur with the description of this ESA and conclusion of this assessment.	
--	--

## Section 1. General Information

### General Land Use:

Provide description of land hydrologically influencing feature. Select all that apply and provide more details as appropriate.

<input checked="" type="checkbox"/> Forest	Briefly describe: Hardwoods/ scattered Eastern red cedar
<input checked="" type="checkbox"/> Agricultural:	<input type="checkbox"/> Pasture <input type="checkbox"/> Fallow <input checked="" type="checkbox"/> Crop, crop type:
<input checked="" type="checkbox"/> Residential:	<input checked="" type="checkbox"/> Low Intensity <input type="checkbox"/> High Intensity
<input checked="" type="checkbox"/> Commercial/Industrial	
<input type="checkbox"/> Recreational	
<input type="checkbox"/> Other:	

### Soil Map Unit Name(s):

Provide soil classification types where feature occurs.

Callisburg fine sandy loam, 1 to 3 percent slopes	
Gasil fine sandy loam, 1 to 3 percent slopes	

## Section 2. Floodplain Conditions

Are there modifications (cut/fill) of the floodplain?	<input type="checkbox"/> yes (answer question below) <input checked="" type="checkbox"/> no
Describe:	
Are there structures in the floodplain?	<input type="checkbox"/> yes (answer question below) <input checked="" type="checkbox"/> no
Describe:	Utility Line, bank reinforcements (gabion structures)

**Waterway present:** ☒ yes (complete the table below and Riparian Buffer ESA form) ☐ no

Waterway	<input checked="" type="checkbox"/> natural <input type="checkbox"/> channelized <input type="checkbox"/> impounded
Sinuosity	<input checked="" type="checkbox"/> meandering <input type="checkbox"/> braided <input type="checkbox"/> straight

## Section 3. Soil Erosion and Deposition

Is there evidence of sheet flow across the floodplain?	<input type="checkbox"/> yes (answer question below) <input checked="" type="checkbox"/> no
Active sheet flow erosion is:	<input type="checkbox"/> slight <input type="checkbox"/> moderate <input type="checkbox"/> severe
Is there evidence of concentrated flow?	<input checked="" type="checkbox"/> yes (answer question below) <input type="checkbox"/> no
Active concentrated flow erosion is:	<input type="checkbox"/> slight <input checked="" type="checkbox"/> moderate <input type="checkbox"/> severe

**Does the floodplain slope to the waterway or is a natural levee present?**

☒ toward ☐ natural levee. Complete the table below.

Does natural levee create conditions for water-related habitat?	<input type="checkbox"/> yes (complete Water-Related Habitat form)
	<input checked="" type="checkbox"/> no

## Section 4. Brief Vegetation Survey

List all vegetative species covering >10% of the feature area.

Scientific name	Common name	% Cover
Carya illinoensis	Pecan	30
Juniperus virginiana	Eastern red cedar	15
Smilax bona-nox	Sawbrier	15
Ulmus americana	American Elm	30
Toxicodendron radicans	Poison Ivy	15



Project Number: ESA

## Riparian Buffer ESA Assessment Form

Environmental Services and Sustainability

A Riparian Buffer ESA Assessment Form is to be completed for each feature identified as potentially to exist on the Official ESA Map. Additionally, any feature identified onsite that potentially has characteristics of a riparian buffer is to be identified, described and documented through this form. Features of substantially similar characteristics and location may be grouped together on one form. More information about riparian buffers and assessing this feature may be found on the [City of Denton webpage](#).

<b>Property Address or Property ID:</b>	2201 & 2203 Spencer Road R 34406, 191269	<b>Feature ID:</b>	Data Form 2
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*Property ID can be found through Denton Central Appraisal District* *Provide a unique ID when multiple features are assessed*

### Hydrologic Segment Information:

<b>Name:</b>	Unnamed tributary of Pecan Creek	<b>Width:</b>	7	<b>Order:</b>	1
--------------	----------------------------------	---------------	---	---------------	---

*When available, stream or tributary to segment name* *Approximate stream width* *Stream order*

### Assessment Conclusion:

Select one of the following.

- ☒ IS an ESA. Based upon this assessment the area is a Riparian Buffer ESA. I recommend the Official ESA Map be updated to confirm the ESA designation in this area.
- ☐ NOT an ESA. Based upon this assessment the area is not a Riparian Buffer ESA. I recommend the Official ESA Map be updated to remove the ESA designation from this area.

### Assessment Comments:

Provide a summary and discussion of details found in the field to support the conclusion selected above. Include a discussion of the Rapid Stream Assessment Techniques and the final verbal score (Section 5).

The unnamed tributary of Pecan Creek was confirmed to be present in the field. The creek held flowing water at the time of evaluation and conditions on site indicated that flow would be intermittent. The riparian vegetation was comprised of an over story of American elm, and sycamore with an under story comprised of Chinese privet shrubs, and greenbrier. The RSAT indicated that the stream was classified as Good with a final verbal score of 32.

### Attachments Provided:

<b>Required:</b>	<input checked="" type="checkbox"/> overall site map <input checked="" type="checkbox"/> current map of feature <input checked="" type="checkbox"/> proposed map of feature <input checked="" type="checkbox"/> soils map <input checked="" type="checkbox"/> photographs representative of feature
<b>Other:</b>	FEMA FIRM

### Field Assessor:

Name of Field Assessor:	Tyler Frohlich
Affiliation of Assessor (Organization):	Integrated Environmental Solutions, LLC.
Date the assessment was performed:	09 May 2024

I certify that the information provided here is an accurate description of the area(s) assessed.

**Karisa Fenton** Digitally signed by Karisa Fenton  
Date: 2024.05.20 15:08:36 -05'00'

### Environmental Services Representative:

I concur with the description of this ESA and conclusion of this assessment.

## Section 1. General Information

### General Land Use:

Provide description of land hydrologically influencing feature. Select all that apply and provide more details as appropriate.

<input checked="" type="checkbox"/> Forest	Briefly describe: Forested along creek
<input type="checkbox"/> Agricultural:	<input checked="" type="checkbox"/> Pasture <input type="checkbox"/> Fallow <input checked="" type="checkbox"/> Crop, crop type:
<input checked="" type="checkbox"/> Residential:	<input checked="" type="checkbox"/> Low Intensity <input type="checkbox"/> High Intensity
<input checked="" type="checkbox"/> Commercial/Industrial	
<input type="checkbox"/> Recreational	
<input type="checkbox"/> Other:	

### Potential pollutants from current drainage area:

<input checked="" type="checkbox"/> urban/suburban landscape maintenance	<input type="checkbox"/> urban/suburban parking lots or roads
<input type="checkbox"/> intensive agricultural use	<input type="checkbox"/> grazing animals have access to water feature
<input type="checkbox"/> water feature has steep slopes	<input type="checkbox"/> plant or animal species of concern present
<input type="checkbox"/> water feature used for recreation	<input type="checkbox"/> waterway a drinking water source/adjacent to well
<input type="checkbox"/> other:	

### Proposed construction activity in the drainage area of the water feature:

- ☐ Low impact potential (parks, low density residential)  
☐ High impact potential (high density residential, commercial development)  
☐ Gas well plat

### Benefit(s) current Riparian Buffer offers to the water feature:

<input type="checkbox"/> intercepts sediment	<input type="checkbox"/> provides fish habitat
<input type="checkbox"/> intercepts nutrients	<input type="checkbox"/> improves wildlife habitat
<input type="checkbox"/> intercepts pesticides	<input type="checkbox"/> stabilizes streambank
<input type="checkbox"/> intercepts other pollutants	<input type="checkbox"/> unique aesthetics / privacy
<input type="checkbox"/> other:	

### Soil Map Unit Name(s):

Provide soil classification types where feature occurs.

Callisburg fine sandy loam, 1 to 3 percent slopes	
Gasil fine sandy loam, 1 to 3 percent slopes	

## Section 2. System Conditions

### Stream Bank:

Evidence of frequent water level changes	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Slope of bank	.30 %
Soil class	<input checked="" type="checkbox"/> clay <input checked="" type="checkbox"/> sand <input type="checkbox"/> loam <input checked="" type="checkbox"/> gravel <input type="checkbox"/> ledge
Active erosion	<input type="checkbox"/> slight <input checked="" type="checkbox"/> moderate <input type="checkbox"/> severe
Existing plant cover	<input type="checkbox"/> little to none <input checked="" type="checkbox"/> moderate <input type="checkbox"/> well vegetated
Dominant cover	<input type="checkbox"/> cement <input type="checkbox"/> bare <input type="checkbox"/> grass <input type="checkbox"/> shrub <input checked="" type="checkbox"/> young forest <input checked="" type="checkbox"/> mature forest
Large leaning trees	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Invasive exotics present	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no If yes, species: Chinese privet % infestation: 20

### Top of Bank:

Existing plant cover	<input type="checkbox"/> little to none <input checked="" type="checkbox"/> moderate <input type="checkbox"/> well vegetated
Dominant cover	<input type="checkbox"/> cement <input type="checkbox"/> bare <input type="checkbox"/> grass <input checked="" type="checkbox"/> shrub <input checked="" type="checkbox"/> young forest <input checked="" type="checkbox"/> mature forest
Invasive exotics present	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no If yes, species: Chinese privet % infestation: 50

**Above the Bank:**

Slope	<input checked="" type="checkbox"/> .30 %		
Direction of slope	<input checked="" type="checkbox"/> toward the water feature <input type="checkbox"/> away from water feature		
Runoff flow	<input type="checkbox"/> sheet flow across the land <input checked="" type="checkbox"/> concentrated flow		
Active erosion	<input type="checkbox"/> slight <input checked="" type="checkbox"/> moderate <input type="checkbox"/> severe		
Existing plant cover	<input type="checkbox"/> little to none <input checked="" type="checkbox"/> moderate <input type="checkbox"/> well vegetated		
Dominant cover	<input type="checkbox"/> cement <input type="checkbox"/> bare <input type="checkbox"/> grass <input type="checkbox"/> shrub <input checked="" type="checkbox"/> young forest <input type="checkbox"/> mature forest		
Invasive exotics present	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	If yes, species: Chinese privet	% infestation: 50

**Section 3. Brief Vegetation Survey**

List all vegetative species where feature occurs for species covering >10% of the feature area and provide hydrophytic vegetation indicator of the species.

**Bank:**

Scientific name	Common name	% Cover	Indicator
Ligustrum sinense	Chinese privet	20	FACU

**Bank Hydrophytic Vegetation Indicator:**  :

(Number of plant species that are OBL, FACW and FAC to number of plant species that are FACU and UPL)

**Buffer:**

Scientific name	Common name	% Cover	Indicator
Ligustrum sinense	Chinese privet	25	FACU
Ulmus americana	American Elm	15	FAC
Platanus occidentalis	Sycamore	10	FAC
Smilax rotundifolia	Common Greenbrier	10	FAC

**Buffer Hydrophytic Vegetation Indicator:**  :

(Number of plant species that are OBL, FACW and FAC to number of plant species that are FACU and UPL)

**Section 4. Hydrology and Hydric Soils Indicators****Hydrology Indicators:**

<b>Primary</b>	<b>Secondary</b>
<input type="checkbox"/> inundated	<input type="checkbox"/> oxidized root channels in upper 12"
<input type="checkbox"/> soil saturated in upper 12"	<input type="checkbox"/> water-stained leaves
<input type="checkbox"/> water marks	<input type="checkbox"/> county soil survey
<input type="checkbox"/> drift lines	<input type="checkbox"/> fac-neutral test
<input type="checkbox"/> sediment deposits	
<input type="checkbox"/> evidence of drainage pattern	
<b>Comments:</b>	

**Hydric Soil Indicators:**

<input type="checkbox"/> histosol	<input type="checkbox"/> concretions
<input type="checkbox"/> histic epipendon	<input type="checkbox"/> high surface organic content
<input type="checkbox"/> sulfidic odor	<input type="checkbox"/> organic streaking in sandy soils
<input type="checkbox"/> aquic moisture regime	<input type="checkbox"/> listed on local hydric soil list
<input checked="" type="checkbox"/> reducing conditions	<input type="checkbox"/> listed on national hydric soil list
<input type="checkbox"/> gleyed or low chroma colors	<input type="checkbox"/> other:
<b>Comments:</b>	

**Section 5. Rapid Stream Assessment Techniques (RSAT)**

The Rapid Stream Assessment Techniques is adapted from the Texas Commission on Environmental Quality's Surface Water Quality Monitoring Procedures, Chapter 9. Physical Habitat of Aquatic Systems. To complete the RSAT provide a score for each table, as applicable. Sum Tables 1 – 6 scores and provide the average using a whole number. Complete Table 7 with these scores. Provide a total RSAT score and a verbal score. Please note, the order of tables 4 and 5 were switched at Version 5 of this form.

**Table 1: Channel Stability**

Indicative of hydrological flow regime alteration and general condition of physical / aquatic habitat and provides insight into the past, present, and possible future changes in stream channel morphometry.

	Score Selection:				Score
	Excellent (11 – 9)	Good (8 – 6)	Fair (5 – 3)	Poor (2 – 0)	
Stability of bank network	> 80% is stable, no evidence of bank sloughing or failure	71-80% is stable, infrequent signs of bank sloughing, slumping or failure	50-70% is stable, some signs of bank sloughing, slumping or failure	< 50% is stable, recent or frequent signs of bank sloughing, slumping	7
Stream bends at study site or immediate vicinity of study site	Very stable: outer bank height is slightly above stream level, bank overhang minimal	Stable: outer bank height 2-3 ft. above stream level, bank overhang slight to moderate	Unstable: outer bank height is substantially above stream level, substantial bank overhang	Highly unstable: outer bank height significantly above stream level, overhangs large and deep.	7
Exposed tree roots	Old, large, and woody exposed roots, generally 0-1 recent large tree falls / stream mile	Old and large exposed roots, some smaller young roots, 2- 3 recent large tree falls / stream mile	Young exposed tree roots are common, 4-5 recent large tree falls per stream mile	No trees exist, or young exposed tree roots are abundant, 6 or more recent large tree falls per stream mile.	7
Presence of highly erosion-resistant plant/soil matrix or material in bottom 1/3 of bank	dominant	present	compromised	severely compromised or nonexistent.	4
Channel crossing section shape	generally, V or U-shaped	"wide" U	generally trapezoid shaped	wide trapezoid to rectangle shape	7
Table 1 score (average of points given, rounded to nearest whole number)					6

**Table 2: Channel Scouring and Sediment Deposition**

Relates to the level of uncontrolled storm water runoff, sediment load, and transport and degradation of in-stream habitat.

	<i>Score Selection:</i>				<i>Score</i>
	<i>Excellent (8 – 7)</i>	<i>Good (6 – 5)</i>	<i>Fair (4 – 3)</i>	<i>Poor (2 – 0)</i>	
Riffle embeddedness with sand/silt	small stream order: <25% embeddedness  larger stream order: <35% embeddedness	25 – 49%  35 – 59%	50 – 79%  60 – 85%	>75%  >85%	5
Potential for deep pools 2 ft or greater, substrate condition	High number of pools  Pool substrate <30% sand/silt	Moderate number  30-59% sand/silt	Low number  60-80% sand/silt	Few, if any  >80% sand/silt	5
Frequency of streak marks and/or banana-shaped deposits	Absent	Uncommon	Common	Very Common	5
Fresh, large sand deposits in channel and on overbank areas	Rare or absent	Uncommon, fresh localized deposits along top of low banks	Common, fresh deposits along top of low banks	Large deposits in channel and along major portion of overbank area	8
Frequency and condition of point bars	Few, small, stable, and vegetated	Small and stable, well vegetated, moderate fresh sand	Large and unstable, high amount of fresh sand	Moderate to large, unstable, high amount of fresh sand	6
Table 2 score (average of points given, rounded to nearest whole number)					6

**Table 3: Physical In-Stream Habitat**

Relates to the ability of the stream to meet basic physical requirements necessary for the support of a well-balanced aquatic community (i.e., water temperature, water velocity, substrate type and quality).

	Score Selection:				Score
	Excellent (8 – 7)	Good (6 – 5)	Fair (4 – 3)	Poor (2 – 0)	
Percent wetted perimeter of channel bottom during base flow events	>85%	61 – 85%	40 – 60%	<40%	5
Frequency of diverse habitat (riffles, runs and pools) and flow when water is present	Highly diverse habitat and flows	Good mix of habitat types and relatively diverse flows	Low diversity of habitat types, depth and flow relatively uniform	One habitat type dominates, velocity and flow uniform	5
Percent of riffle composition from larger material (cobble or gravel)	>50%	49 – 25%	24 – 5%	Dominated by sand or silt	4
Typical base flow riffle depth (non-stormwater base flows)	>6"	5.9 – 4.0"	3.9 – 2.0"	<2"	5
Typical depth of large pools	>24"	24 – 18"	18 – 12"	<12"	4
Channel alterations at study site	No evidence	Minor	Moderate	Extensive	4
Summer afternoon water temperature (estimated using tree canopy coverage)	<82 degrees F	82 – 89	89 – 94	>94	4
Table 3 score (average of points given, rounded to nearest whole number)					4

**Table 4: Riparian Habitat**

Provides insight into changes in stream energetics, temperature regimes, and both aquatic and terrestrial habitat conditions.

	Score Selection:				Score
	Excellent (7 – 6)	Good (5 – 4)	Fair (3 – 2)	Poor (1 – 0)	
Width of forested buffer along both banks	Wide (>200 ft)	> 100 ft along major portion of both banks	Predominantly wooded, major gaps in one or both banks	Mostly non-woody vegetation with narrow riparian zones	3
Canopy coverage	small stream order: >80%	79 – 65%	64 – 45%	<45%	5
	large stream order: >60%	59 – 45%	44 – 30%	<30%	
Table 4 score (average of points given, rounded to nearest whole number)					4

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**Is the water feature actively flowing?**

- ☒ Yes, surface water is flowing and there are connects pools. Complete Tables 5 and 6.
- ☐ No, standing water, waterway is dry, or there are dry beds are seen between pools. Skip Tables 5 and 6.

**Table 5: Water Quality**

Indicative of watershed perturbations and general level of human activity, point and nonpoint source pollutant loadings, and aquatic habitat conditions.

	Score Selection:				Score
	Excellent (8 – 7)	Good (6 – 5)	Fair (4 – 3)	Poor (2 – 0)	
Percent substrate fouling on underside of cobble	Minimal, 0 – 10%	Light, 11 – 20%	Moderate, 21 – 50%	High, >50%	6
Total Dissolved Solids	350 – 399 mg/L	400 – 449	450 – 500	>500	6
Water odor	No odor	Slight organic odor	Slight – moderate organic odor	Strong organic odor	6
Table 5 score (average of points given, rounded to nearest whole number)					6

**Table 6: Biological Indicators**

Considered to be the best overall indication of stream health and the level of watershed perturbation.

	Score Selection:				Score
	Excellent (8 – 7)	Good (6 – 5)	Fair (4 – 3)	Poor (2 – 0)	
Macroinvertebrate community diversity	High diversity of good water quality indicator species. Few snails, leeches, aquatic worms.	Good diversity of good water quality indicator species. Mayflies and caddisflies present.	Low diversity of good water quality indicator species.	Low diversity, predominantly pollution-tolerant species.	6
Number of organisms	High to moderate	Moderate	Moderate to low	Very low number	6
Table 6 score (average of points given, rounded to nearest whole number)					6

**Table 7: RSAT Summary**

	Score – flow	Score – no flow
1. Channel Stability	6	
2. Channel Scouring/Deposition	6	
3. Physical In-Stream Habitat	4	
4. Riparian Habitat	4	
5. Water Quality	6	
6. Biological Indicators	6	
Total Score:	32	
Verbal Score from Total Score:	<input type="checkbox"/> Excellent (42-50) <input checked="" type="checkbox"/> Good (30-41) <input type="checkbox"/> Fair (16-29) <input type="checkbox"/> Poor (<16)	<input type="checkbox"/> Excellent (29-34) <input type="checkbox"/> Good (20-28) <input type="checkbox"/> Fair (11-19) <input type="checkbox"/> Poor (<11)



Project Number: ESA

## Riparian Buffer ESA Assessment Form

Environmental Services and Sustainability

A Riparian Buffer ESA Assessment Form is to be completed for each feature identified as potentially to exist on the Official ESA Map. Additionally, any feature identified onsite that potentially has characteristics of a riparian buffer is to be identified, described and documented through this form. Features of substantially similar characteristics and location may be grouped together on one form. More information about riparian buffers and assessing this feature may be found on the [City of Denton webpage](#).

<b>Property Address or Property ID:</b>	2201 & 2203 Spencer Road R 34406, 191269	<b>Feature ID:</b>	Data Form 3
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*Property ID can be found through Denton Central Appraisal District* *Provide a unique ID when multiple features are assessed*

### Hydrologic Segment Information:

<b>Name:</b>	Unnamed tributary of Pecan Creek	<b>Width:</b>	25	<b>Order:</b>	6
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*When available, stream or tributary to segment name* *Approximate stream width* *Stream order*

### Assessment Conclusion:

Select one of the following.

- ☐ IS an ESA. Based upon this assessment the area is a Riparian Buffer ESA. I recommend the Official ESA Map be updated to confirm the ESA designation in this area.
- ☒ NOT an ESA. Based upon this assessment the area is not a Riparian Buffer ESA. I recommend the Official ESA Map be updated to remove the ESA designation from this area.

### Assessment Comments:

Provide a summary and discussion of details found in the field to support the conclusion selected above. Include a discussion of the Rapid Stream Assessment Techniques and the final verbal score (Section 5).

The unnamed tributary of Pecan Creek was confirmed to be present in the field. The creek held flowing water at the time of evaluation and conditions on site indicated that flow would be intermittent. No riparian vegetation was present in the region where the erosion control was installed along the Spencer Road bridge to the south. The RSAT along the southern region indicated that the stream was classified as Fair with a final verbal score of 27.

### Attachments Provided:

<b>Required:</b>	<input checked="" type="checkbox"/> overall site map <input checked="" type="checkbox"/> current map of feature <input checked="" type="checkbox"/> proposed map of feature <input checked="" type="checkbox"/> soils map <input checked="" type="checkbox"/> photographs representative of feature
<b>Other:</b>	FEMA FIRM

### Field Assessor:

Name of Field Assessor:	Tyler Frohlich
Affiliation of Assessor (Organization):	Integrated Environmental Solutions, LLC.
Date the assessment was performed:	09 May 2024

I certify that the information provided here is an accurate description of the area(s) assessed.

**Karisa Fenton** Digitally signed by Karisa Fenton  
Date: 2024.05.20 15:08:56 -05'00'

### Environmental Services Representative:

I concur with the description of this ESA and conclusion of this assessment.

## Section 1. General Information

### General Land Use:

Provide description of land hydrologically influencing feature. Select all that apply and provide more details as appropriate.

<input type="checkbox"/> Forest	Briefly describe:
<input type="checkbox"/> Agricultural:	<input checked="" type="checkbox"/> Pasture <input type="checkbox"/> Fallow <input type="checkbox"/> Crop, crop type:
<input checked="" type="checkbox"/> Residential:	<input checked="" type="checkbox"/> Low Intensity <input type="checkbox"/> High Intensity
<input checked="" type="checkbox"/> Commercial/Industrial	
<input type="checkbox"/> Recreational	
<input type="checkbox"/> Other:	

### Potential pollutants from current drainage area:

<input checked="" type="checkbox"/> urban/suburban landscape maintenance	<input type="checkbox"/> urban/suburban parking lots or roads
<input type="checkbox"/> intensive agricultural use	<input type="checkbox"/> grazing animals have access to water feature
<input type="checkbox"/> water feature has steep slopes	<input type="checkbox"/> plant or animal species of concern present
<input type="checkbox"/> water feature used for recreation	<input type="checkbox"/> waterway a drinking water source/adjacent to well
<input type="checkbox"/> other:	

### Proposed construction activity in the drainage area of the water feature:

- ☐ Low impact potential (parks, low density residential)  
☐ High impact potential (high density residential, commercial development)  
☐ Gas well plat

### Benefit(s) current Riparian Buffer offers to the water feature:

<input type="checkbox"/> intercepts sediment	<input type="checkbox"/> provides fish habitat
<input type="checkbox"/> intercepts nutrients	<input type="checkbox"/> improves wildlife habitat
<input type="checkbox"/> intercepts pesticides	<input type="checkbox"/> stabilizes streambank
<input type="checkbox"/> intercepts other pollutants	<input type="checkbox"/> unique aesthetics / privacy
<input type="checkbox"/> other:	

### Soil Map Unit Name(s):

Provide soil classification types where feature occurs.

Callisburg fine sandy loam, 1 to 3 percent slopes	
Gasil fine sandy loam, 1 to 3 percent slopes	

## Section 2. System Conditions

### Stream Bank:

Evidence of frequent water level changes	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Slope of bank	.30 %
Soil class	<input checked="" type="checkbox"/> clay <input checked="" type="checkbox"/> sand <input type="checkbox"/> loam <input checked="" type="checkbox"/> gravel <input type="checkbox"/> ledge
Active erosion	<input type="checkbox"/> slight <input checked="" type="checkbox"/> moderate <input type="checkbox"/> severe
Existing plant cover	<input type="checkbox"/> little to none <input checked="" type="checkbox"/> moderate <input type="checkbox"/> well vegetated
Dominant cover	<input type="checkbox"/> cement <input type="checkbox"/> bare <input checked="" type="checkbox"/> grass <input type="checkbox"/> shrub <input type="checkbox"/> young forest <input type="checkbox"/> mature forest
Large leaning trees	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Invasive exotics present	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no If yes, species: % infestation:

### Top of Bank:

Existing plant cover	<input type="checkbox"/> little to none <input checked="" type="checkbox"/> moderate <input type="checkbox"/> well vegetated
Dominant cover	<input type="checkbox"/> cement <input type="checkbox"/> bare <input checked="" type="checkbox"/> grass <input type="checkbox"/> shrub <input type="checkbox"/> young forest <input type="checkbox"/> mature forest
Invasive exotics present	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no If yes, species: % infestation:

**Above the Bank:**

Slope	<input type="text" value=".30"/> %		
Direction of slope	<input checked="" type="checkbox"/> toward the water feature <input type="checkbox"/> away from water feature		
Runoff flow	<input type="checkbox"/> sheet flow across the land <input checked="" type="checkbox"/> concentrated flow		
Active erosion	<input type="checkbox"/> slight <input checked="" type="checkbox"/> moderate <input type="checkbox"/> severe		
Existing plant cover	<input type="checkbox"/> little to none <input checked="" type="checkbox"/> moderate <input type="checkbox"/> well vegetated		
Dominant cover	<input type="checkbox"/> cement <input type="checkbox"/> bare <input checked="" type="checkbox"/> grass <input type="checkbox"/> shrub <input type="checkbox"/> young forest <input type="checkbox"/> mature forest		
Invasive exotics present	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	If yes, species: <input type="text"/>	% infestation: <input type="text"/>

**Section 3. Brief Vegetation Survey**

List all vegetative species where feature occurs for species covering >10% of the feature area and provide hydrophytic vegetation indicator of the species.

**Bank:**

Scientific name	Common name	% Cover	Indicator
Spreading Hedgeparsley	Torilis arvensis	25	NL
Prickly Lettuce	Lactuca serriola	20	FAC
Climbing Hempvine	Mikania scandens	15	FACW
Swamp Smartweed	Polygonum hydropiperoides	10	OBL
Pinkladies	Oenothera speciosa	10	NL

**Bank Hydrophytic Vegetation Indicator:**  :

(Number of plant species that are OBL, FACW and FAC to number of plant species that are FACU and UPL)

**Buffer:**

Scientific name	Common name	% Cover	Indicator
Virginia Pepperweed	Lepidium virginicum	30	FACU
Perennial Ryegrass	Lolium perenne	25	FACU
Field Brome	Bromus arvensis	15	FACU
Pinkladies	Oenothera speciosa	15	NL

**Buffer Hydrophytic Vegetation Indicator:**  :

(Number of plant species that are OBL, FACW and FAC to number of plant species that are FACU and UPL)

**Section 4. Hydrology and Hydric Soils Indicators****Hydrology Indicators:**

<b>Primary</b>	<b>Secondary</b>
<input type="checkbox"/> inundated	<input type="checkbox"/> oxidized root channels in upper 12"
<input type="checkbox"/> soil saturated in upper 12"	<input type="checkbox"/> water-stained leaves
<input type="checkbox"/> water marks	<input type="checkbox"/> county soil survey
<input type="checkbox"/> drift lines	<input type="checkbox"/> fac-neutral test
<input type="checkbox"/> sediment deposits	
<input type="checkbox"/> evidence of drainage pattern	
<b>Comments:</b> <input type="text"/>	

**Hydric Soil Indicators:**

<input type="checkbox"/> histosol	<input type="checkbox"/> concretions
<input type="checkbox"/> histic epipendon	<input type="checkbox"/> high surface organic content
<input type="checkbox"/> sulfidic odor	<input type="checkbox"/> organic streaking in sandy soils
<input type="checkbox"/> aquic moisture regime	<input type="checkbox"/> listed on local hydric soil list
<input checked="" type="checkbox"/> reducing conditions	<input type="checkbox"/> listed on national hydric soil list
<input type="checkbox"/> gleyed or low chroma colors	<input type="checkbox"/> other:
<b>Comments:</b>	

**Section 5. Rapid Stream Assessment Techniques (RSAT)**

The Rapid Stream Assessment Techniques is adapted from the Texas Commission on Environmental Quality's Surface Water Quality Monitoring Procedures, Chapter 9. Physical Habitat of Aquatic Systems. To complete the RSAT provide a score for each table, as applicable. Sum Tables 1 – 6 scores and provide the average using a whole number. Complete Table 7 with these scores. Provide a total RSAT score and a verbal score. Please note, the order of tables 4 and 5 were switched at Version 5 of this form.

**Table 1: Channel Stability**

Indicative of hydrological flow regime alteration and general condition of physical / aquatic habitat and provides insight into the past, present, and possible future changes in stream channel morphometry.

	Score Selection:				Score
	Excellent (11 – 9)	Good (8 – 6)	Fair (5 – 3)	Poor (2 – 0)	
Stability of bank network	> 80% is stable, no evidence of bank sloughing or failure	71-80% is stable, infrequent signs of bank sloughing, slumping or failure	50-70% is stable, some signs of bank sloughing, slumping or failure	< 50% is stable, recent or frequent signs of bank sloughing, slumping	7
Stream bends at study site or immediate vicinity of study site	Very stable: outer bank height is slightly above stream level, bank overhang minimal	Stable: outer bank height 2-3 ft. above stream level, bank overhang slight to moderate	Unstable: outer bank height is substantially above stream level, substantial bank overhang	Highly unstable: outer bank height significantly above stream level, overhangs large and deep.	7
Exposed tree roots	Old, large, and woody exposed roots, generally 0-1 recent large tree falls / stream mile	Old and large exposed roots, some smaller young roots, 2- 3 recent large tree falls / stream mile	Young exposed tree roots are common, 4-5 recent large tree falls per stream mile	No trees exist, or young exposed tree roots are abundant, 6 or more recent large tree falls per stream mile.	7
Presence of highly erosion-resistant plant/soil matrix or material in bottom 1/3 of bank	dominant	present	compromised	severely compromised or nonexistent.	4
Channel crossing section shape	generally, V or U-shaped	"wide" U	generally trapezoid shaped	wide trapezoid to rectangle shape	2
Table 1 score (average of points given, rounded to nearest whole number)					5

**Table 2: Channel Scouring and Sediment Deposition**

Relates to the level of uncontrolled storm water runoff, sediment load, and transport and degradation of in-stream habitat.

	<i>Score Selection:</i>				<i>Score</i>
	<i>Excellent (8 – 7)</i>	<i>Good (6 – 5)</i>	<i>Fair (4 – 3)</i>	<i>Poor (2 – 0)</i>	
Riffle embeddedness with sand/silt	small stream order: <25% embeddedness  larger stream order: <35% embeddedness	25 – 49%  35 – 59%	50 – 79%  60 – 85%	>75%  >85%	5
Potential for deep pools 2 ft or greater, substrate condition	High number of pools  Pool substrate <30% sand/silt	Moderate number  30-59% sand/silt	Low number  60-80% sand/silt	Few, if any  >80% sand/silt	5
Frequency of streak marks and/or banana-shaped deposits	Absent	Uncommon	Common	Very Common	5
Fresh, large sand deposits in channel and on overbank areas	Rare or absent	Uncommon, fresh localized deposits along top of low banks	Common, fresh deposits along top of low banks	Large deposits in channel and along major portion of overbank area	8
Frequency and condition of point bars	Few, small, stable, and vegetated	Small and stable, well vegetated, moderate fresh sand	Large and unstable, high amount of fresh sand	Moderate to large, unstable, high amount of fresh sand	6
Table 2 score (average of points given, rounded to nearest whole number)					6

**Table 3: Physical In-Stream Habitat**

Relates to the ability of the stream to meet basic physical requirements necessary for the support of a well-balanced aquatic community (i.e., water temperature, water velocity, substrate type and quality).

	Score Selection:				Score
	Excellent (8 – 7)	Good (6 – 5)	Fair (4 – 3)	Poor (2 – 0)	
Percent wetted perimeter of channel bottom during base flow events	>85%	61 – 85%	40 – 60%	<40%	6
Frequency of diverse habitat (riffles, runs and pools) and flow when water is present	Highly diverse habitat and flows	Good mix of habitat types and relatively diverse flows	Low diversity of habitat types, depth and flow relatively uniform	One habitat type dominates, velocity and flow uniform	5
Percent of riffle composition from larger material (cobble or gravel)	>50%	49 – 25%	24 – 5%	Dominated by sand or silt	5
Typical base flow riffle depth (non-stormwater base flows)	>6"	5.9 – 4.0"	3.9 – 2.0"	<2"	5
Typical depth of large pools	>24"	24 – 18"	18 – 12"	<12"	4
Channel alterations at study site	No evidence	Minor	Moderate	Extensive	3
Summer afternoon water temperature (estimated using tree canopy coverage)	<82 degrees F	82 – 89	89 – 94	>94	2
Table 3 score (average of points given, rounded to nearest whole number)					4

**Table 4: Riparian Habitat**

Provides insight into changes in stream energetics, temperature regimes, and both aquatic and terrestrial habitat conditions.

	Score Selection:				Score
	Excellent (7 – 6)	Good (5 – 4)	Fair (3 – 2)	Poor (1 – 0)	
Width of forested buffer along both banks	Wide (>200 ft)	> 100 ft along major portion of both banks	Predominantly wooded, major gaps in one or both banks	Mostly non-woody vegetation with narrow riparian zones	1
Canopy coverage	small stream order: >80% large stream order: >60%	79 – 65% 59 – 45%	64 – 45% 44 – 30%	<45% <30%	1
Table 4 score (average of points given, rounded to nearest whole number)					1

---

**Is the water feature actively flowing?**

- ☒ Yes, surface water is flowing and there are connects pools. Complete Tables 5 and 6.
- ☐ No, standing water, waterway is dry, or there are dry beds are seen between pools. Skip Tables 5 and 6.

**Table 5: Water Quality**

Indicative of watershed perturbations and general level of human activity, point and nonpoint source pollutant loadings, and aquatic habitat conditions.

	Score Selection:				Score
	Excellent (8 – 7)	Good (6 – 5)	Fair (4 – 3)	Poor (2 – 0)	
Percent substrate fouling on underside of cobble	Minimal, 0 – 10%	Light, 11 – 20%	Moderate, 21 – 50%	High, >50%	6
Total Dissolved Solids	350 – 399 mg/L	400 – 449	450 – 500	>500	6
Water odor	No odor	Slight organic odor	Slight – moderate organic odor	Strong organic odor	6
Table 5 score (average of points given, rounded to nearest whole number)					6

**Table 6: Biological Indicators**

Considered to be the best overall indication of stream health and the level of watershed perturbation.

	Score Selection:				Score
	Excellent (8 – 7)	Good (6 – 5)	Fair (4 – 3)	Poor (2 – 0)	
Macroinvertebrate community diversity	High diversity of good water quality indicator species. Few snails, leeches, aquatic worms.	Good diversity of good water quality indicator species. Mayflies and caddisflies present.	Low diversity of good water quality indicator species.	Low diversity, predominantly pollution-tolerant species.	6
Number of organisms	High to moderate	Moderate	Moderate to low	Very low number	6
Table 6 score (average of points given, rounded to nearest whole number)					6

**Table 7: RSAT Summary**

	Score – flow	Score – no flow
1. Channel Stability	5	
2. Channel Scouring/Deposition	6	
3. Physical In-Stream Habitat	4	
4. Riparian Habitat	1	
5. Water Quality	6	
6. Biological Indicators	6	
Total Score:	27	
Verbal Score from Total Score:	<input type="checkbox"/> Excellent (42-50) <input type="checkbox"/> Good (30-41) <input checked="" type="checkbox"/> Fair (16-29) <input type="checkbox"/> Poor (<16)	<input type="checkbox"/> Excellent (29-34) <input type="checkbox"/> Good (20-28) <input type="checkbox"/> Fair (11-19) <input type="checkbox"/> Poor (<11)





# Riparian Buffer ESA Assessment Form

Environmental Services and Sustainability

A Riparian Buffer ESA Assessment Form is to be completed for each feature identified as potentially to exist on the Official ESA Map. Additionally, any feature identified onsite that potentially has characteristics of a riparian buffer is to be identified, described and documented through this form. Features of substantially similar characteristics and location may be grouped together on one form. More information about riparian buffers and assessing this feature may be found on the [City of Denton webpage](#).

<b>Property Address or Property ID:</b>	2201 & 2203 Spencer Road R 34406, 191269	<b>Feature ID:</b>	Data Form 4
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*Property ID can be found through Denton Central Appraisal District* *Provide a unique ID when multiple features are assessed*

**Hydrologic Segment Information:**

<b>Name:</b>	Unnamed tributary of Pecan Creek	<b>Width:</b>	7	<b>Order:</b>	1
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*When available, stream or tributary to segment name* *Approximate stream width* *Stream order*

**Assessment Conclusion:**

Select one of the following.

- ☒ IS an ESA. Based upon this assessment the area is a Riparian Buffer ESA. I recommend the Official ESA Map be updated to confirm the ESA designation in this area.
- ☐ NOT an ESA. Based upon this assessment the area is not a Riparian Buffer ESA. I recommend the Official ESA Map be updated to remove the ESA designation from this area.

**Assessment Comments:**

Provide a summary and discussion of details found in the field to support the conclusion selected above. Include a discussion of the Rapid Stream Assessment Techniques and the final verbal score (Section 5).

The unnamed tributary of Pecan Creek was confirmed to be present in the field. The creek held flowing water at the time of evaluation and conditions on site indicated that flow would be intermittent. The riparian vegetation was comprised of an over story of American elm, and Osage orange with an under story comprised of Chinese privet shrubs, and greenbrier. The RSAT indicated that the stream was classified as Good with a final verbal score of 30.

**Attachments Provided:**

<b>Required:</b>	<input checked="" type="checkbox"/> overall site map <input checked="" type="checkbox"/> current map of feature <input checked="" type="checkbox"/> proposed map of feature <input checked="" type="checkbox"/> soils map <input checked="" type="checkbox"/> photographs representative of feature
<b>Other:</b>	FEMA FIRM

**Field Assessor:**

Name of Field Assessor:	Tyler Frohlich
Affiliation of Assessor (Organization):	Integrated Environmental Solutions, LLC.
Date the assessment was performed:	09 May 2024

I certify that the information provided here is an accurate description of the area(s) assessed.

**Karisa Fenton** Digitally signed by Karisa Fenton  
Date: 2024.05.20 15:09:17 -05'00'

**Environmental Services Representative:**

I concur with the description of this ESA and conclusion of this assessment.

## Section 1. General Information

### General Land Use:

Provide description of land hydrologically influencing feature. Select all that apply and provide more details as appropriate.

<input checked="" type="checkbox"/> Forest	Briefly describe: Forested along creek
<input type="checkbox"/> Agricultural:	<input checked="" type="checkbox"/> Pasture <input type="checkbox"/> Fallow <input checked="" type="checkbox"/> Crop, crop type:
<input checked="" type="checkbox"/> Residential:	<input checked="" type="checkbox"/> Low Intensity <input type="checkbox"/> High Intensity
<input checked="" type="checkbox"/> Commercial/Industrial	
<input type="checkbox"/> Recreational	
<input type="checkbox"/> Other:	

### Potential pollutants from current drainage area:

<input checked="" type="checkbox"/> urban/suburban landscape maintenance	<input type="checkbox"/> urban/suburban parking lots or roads
<input type="checkbox"/> intensive agricultural use	<input type="checkbox"/> grazing animals have access to water feature
<input type="checkbox"/> water feature has steep slopes	<input type="checkbox"/> plant or animal species of concern present
<input type="checkbox"/> water feature used for recreation	<input type="checkbox"/> waterway a drinking water source/adjacent to well
<input type="checkbox"/> other:	

### Proposed construction activity in the drainage area of the water feature:

- ☐ Low impact potential (parks, low density residential)  
☐ High impact potential (high density residential, commercial development)  
☐ Gas well plat

### Benefit(s) current Riparian Buffer offers to the water feature:

<input type="checkbox"/> intercepts sediment	<input type="checkbox"/> provides fish habitat
<input type="checkbox"/> intercepts nutrients	<input type="checkbox"/> improves wildlife habitat
<input type="checkbox"/> intercepts pesticides	<input type="checkbox"/> stabilizes streambank
<input type="checkbox"/> intercepts other pollutants	<input type="checkbox"/> unique aesthetics / privacy
<input type="checkbox"/> other:	

### Soil Map Unit Name(s):

Provide soil classification types where feature occurs.

Callisburg fine sandy loam, 1 to 3 percent slopes	
Gasil fine sandy loam, 1 to 3 percent slopes	

## Section 2. System Conditions

### Stream Bank:

Evidence of frequent water level changes	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Slope of bank	.30 %
Soil class	<input checked="" type="checkbox"/> clay <input checked="" type="checkbox"/> sand <input type="checkbox"/> loam <input checked="" type="checkbox"/> gravel <input type="checkbox"/> ledge
Active erosion	<input type="checkbox"/> slight <input checked="" type="checkbox"/> moderate <input type="checkbox"/> severe
Existing plant cover	<input type="checkbox"/> little to none <input checked="" type="checkbox"/> moderate <input type="checkbox"/> well vegetated
Dominant cover	<input type="checkbox"/> cement <input type="checkbox"/> bare <input type="checkbox"/> grass <input type="checkbox"/> shrub <input checked="" type="checkbox"/> young forest <input checked="" type="checkbox"/> mature forest
Large leaning trees	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Invasive exotics present	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no If yes, species: Chinese privet % infestation: 20

### Top of Bank:

Existing plant cover	<input type="checkbox"/> little to none <input checked="" type="checkbox"/> moderate <input type="checkbox"/> well vegetated
Dominant cover	<input type="checkbox"/> cement <input type="checkbox"/> bare <input type="checkbox"/> grass <input checked="" type="checkbox"/> shrub <input checked="" type="checkbox"/> young forest <input checked="" type="checkbox"/> mature forest
Invasive exotics present	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no If yes, species: Chinese privet % infestation: 60

**Above the Bank:**

Slope	<input checked="" type="checkbox"/> .30 %		
Direction of slope	<input checked="" type="checkbox"/> toward the water feature <input type="checkbox"/> away from water feature		
Runoff flow	<input type="checkbox"/> sheet flow across the land <input checked="" type="checkbox"/> concentrated flow		
Active erosion	<input type="checkbox"/> slight <input checked="" type="checkbox"/> moderate <input type="checkbox"/> severe		
Existing plant cover	<input type="checkbox"/> little to none <input checked="" type="checkbox"/> moderate <input type="checkbox"/> well vegetated		
Dominant cover	<input type="checkbox"/> cement <input type="checkbox"/> bare <input type="checkbox"/> grass <input type="checkbox"/> shrub <input checked="" type="checkbox"/> young forest <input type="checkbox"/> mature forest		
Invasive exotics present	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	If yes, species: Chinese privet	% infestation: 50

**Section 3. Brief Vegetation Survey**

List all vegetative species where feature occurs for species covering >10% of the feature area and provide hydrophytic vegetation indicator of the species.

**Bank:**

Scientific name	Common name	% Cover	Indicator
American Elm	Ulmus americana	15	FAC
Chinese Privet	Ligustrum sinense	20	UPL
Swamp Smartweed	Polygonum hydropiperoides	10	OBL

**Bank Hydrophytic Vegetation Indicator:** 2 : 1

(Number of plant species that are OBL, FACW and FAC to number of plant species that are FACU and UPL)

**Buffer:**

Scientific name	Common name	% Cover	Indicator
American Elm	Ulmus americana	10	FAC
Chinese privet	Ligustrum sinense	60	UPL
Mustang Grape	Vitis mustangensis	10	NL
Osage Orange	Maclura pomifera	45	FACU

**Buffer Hydrophytic Vegetation Indicator:** 1 : 2

(Number of plant species that are OBL, FACW and FAC to number of plant species that are FACU and UPL)

**Section 4. Hydrology and Hydric Soils Indicators****Hydrology Indicators:**

<b>Primary</b>	<b>Secondary</b>
<input type="checkbox"/> inundated	<input type="checkbox"/> oxidized root channels in upper 12"
<input type="checkbox"/> soil saturated in upper 12"	<input type="checkbox"/> water-stained leaves
<input type="checkbox"/> water marks	<input type="checkbox"/> county soil survey
<input type="checkbox"/> drift lines	<input type="checkbox"/> fac-neutral test
<input type="checkbox"/> sediment deposits	
<input type="checkbox"/> evidence of drainage pattern	
<b>Comments:</b>	

**Hydric Soil Indicators:**

<input type="checkbox"/> histosol	<input type="checkbox"/> concretions
<input type="checkbox"/> histic epipendon	<input type="checkbox"/> high surface organic content
<input type="checkbox"/> sulfidic odor	<input type="checkbox"/> organic streaking in sandy soils
<input type="checkbox"/> aquic moisture regime	<input type="checkbox"/> listed on local hydric soil list
<input checked="" type="checkbox"/> reducing conditions	<input type="checkbox"/> listed on national hydric soil list
<input type="checkbox"/> gleyed or low chroma colors	<input type="checkbox"/> other:
<b>Comments:</b>	

**Section 5. Rapid Stream Assessment Techniques (RSAT)**

The Rapid Stream Assessment Techniques is adapted from the Texas Commission on Environmental Quality's Surface Water Quality Monitoring Procedures, Chapter 9. Physical Habitat of Aquatic Systems. To complete the RSAT provide a score for each table, as applicable. Sum Tables 1 – 6 scores and provide the average using a whole number. Complete Table 7 with these scores. Provide a total RSAT score and a verbal score. Please note, the order of tables 4 and 5 were switched at Version 5 of this form.

**Table 1: Channel Stability**

Indicative of hydrological flow regime alteration and general condition of physical / aquatic habitat and provides insight into the past, present, and possible future changes in stream channel morphometry.

	Score Selection:				Score
	Excellent (11 – 9)	Good (8 – 6)	Fair (5 – 3)	Poor (2 – 0)	
Stability of bank network	> 80% is stable, no evidence of bank sloughing or failure	71-80% is stable, infrequent signs of bank sloughing, slumping or failure	50-70% is stable, some signs of bank sloughing, slumping or failure	< 50% is stable, recent or frequent signs of bank sloughing, slumping	7
Stream bends at study site or immediate vicinity of study site	Very stable: outer bank height is slightly above stream level, bank overhang minimal	Stable: outer bank height 2-3 ft. above stream level, bank overhang slight to moderate	Unstable: outer bank height is substantially above stream level, substantial bank overhang	Highly unstable: outer bank height significantly above stream level, overhangs large and deep.	7
Exposed tree roots	Old, large, and woody exposed roots, generally 0-1 recent large tree falls / stream mile	Old and large exposed roots, some smaller young roots, 2- 3 recent large tree falls / stream mile	Young exposed tree roots are common, 4-5 recent large tree falls per stream mile	No trees exist, or young exposed tree roots are abundant, 6 or more recent large tree falls per stream mile.	7
Presence of highly erosion-resistant plant/soil matrix or material in bottom 1/3 of bank	dominant	present	compromised	severely compromised or nonexistent.	4
Channel crossing section shape	generally, V or U-shaped	"wide" U	generally trapezoid shaped	wide trapezoid to rectangle shape	7
Table 1 score (average of points given, rounded to nearest whole number)					6

**Table 2: Channel Scouring and Sediment Deposition**

Relates to the level of uncontrolled storm water runoff, sediment load, and transport and degradation of in-stream habitat.

	<i>Score Selection:</i>				<i>Score</i>
	<i>Excellent (8 – 7)</i>	<i>Good (6 – 5)</i>	<i>Fair (4 – 3)</i>	<i>Poor (2 – 0)</i>	
Riffle embeddedness with sand/silt	small stream order: <25% embeddedness  larger stream order: <35% embeddedness	25 – 49%  35 – 59%	50 – 79%  60 – 85%	>75%  >85%	5
Potential for deep pools 2 ft or greater, substrate condition	High number of pools  Pool substrate <30% sand/silt	Moderate number  30-59% sand/silt	Low number  60-80% sand/silt	Few, if any  >80% sand/silt	5
Frequency of streak marks and/or banana-shaped deposits	Absent	Uncommon	Common	Very Common	5
Fresh, large sand deposits in channel and on overbank areas	Rare or absent	Uncommon, fresh localized deposits along top of low banks	Common, fresh deposits along top of low banks	Large deposits in channel and along major portion of overbank area	8
Frequency and condition of point bars	Few, small, stable, and vegetated	Small and stable, well vegetated, moderate fresh sand	Large and unstable, high amount of fresh sand	Moderate to large, unstable, high amount of fresh sand	6
Table 2 score (average of points given, rounded to nearest whole number)					6

**Table 3: Physical In-Stream Habitat**

Relates to the ability of the stream to meet basic physical requirements necessary for the support of a well-balanced aquatic community (i.e., water temperature, water velocity, substrate type and quality).

	Score Selection:				Score
	Excellent (8 – 7)	Good (6 – 5)	Fair (4 – 3)	Poor (2 – 0)	
Percent wetted perimeter of channel bottom during base flow events	>85%	61 – 85%	40 – 60%	<40%	5
Frequency of diverse habitat (riffles, runs and pools) and flow when water is present	Highly diverse habitat and flows	Good mix of habitat types and relatively diverse flows	Low diversity of habitat types, depth and flow relatively uniform	One habitat type dominates, velocity and flow uniform	5
Percent of riffle composition from larger material (cobble or gravel)	>50%	49 – 25%	24 – 5%	Dominated by sand or silt	4
Typical base flow riffle depth (non-stormwater base flows)	>6"	5.9 – 4.0"	3.9 – 2.0"	<2"	5
Typical depth of large pools	>24"	24 – 18"	18 – 12"	<12"	4
Channel alterations at study site	No evidence	Minor	Moderate	Extensive	4
Summer afternoon water temperature (estimated using tree canopy coverage)	<82 degrees F	82 – 89	89 – 94	>94	4
Table 3 score (average of points given, rounded to nearest whole number)					4

**Table 4: Riparian Habitat**

Provides insight into changes in stream energetics, temperature regimes, and both aquatic and terrestrial habitat conditions.

	Score Selection:				Score
	Excellent (7 – 6)	Good (5 – 4)	Fair (3 – 2)	Poor (1 – 0)	
Width of forested buffer along both banks	Wide (>200 ft)	> 100 ft along major portion of both banks	Predominantly wooded, major gaps in one or both banks	Mostly non-woody vegetation with narrow riparian zones	2
Canopy coverage	small stream order: >80% large stream order: >60%	79 – 65% 59 – 45%	64 – 45% 44 – 30%	<45% <30%	1
Table 4 score (average of points given, rounded to nearest whole number)					2

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**Is the water feature actively flowing?**

- ☒ Yes, surface water is flowing and there are connects pools. Complete Tables 5 and 6.
- ☐ No, standing water, waterway is dry, or there are dry beds are seen between pools. Skip Tables 5 and 6.

**Table 5: Water Quality**

Indicative of watershed perturbations and general level of human activity, point and nonpoint source pollutant loadings, and aquatic habitat conditions.

	Score Selection:				Score
	Excellent (8 – 7)	Good (6 – 5)	Fair (4 – 3)	Poor (2 – 0)	
Percent substrate fouling on underside of cobble	Minimal, 0 – 10%	Light, 11 – 20%	Moderate, 21 – 50%	High, >50%	6
Total Dissolved Solids	350 – 399 mg/L	400 – 449	450 – 500	>500	6
Water odor	No odor	Slight organic odor	Slight – moderate organic odor	Strong organic odor	6
Table 5 score (average of points given, rounded to nearest whole number)					6

**Table 6: Biological Indicators**

Considered to be the best overall indication of stream health and the level of watershed perturbation.

	Score Selection:				Score
	Excellent (8 – 7)	Good (6 – 5)	Fair (4 – 3)	Poor (2 – 0)	
Macroinvertebrate community diversity	High diversity of good water quality indicator species. Few snails, leeches, aquatic worms.	Good diversity of good water quality indicator species. Mayflies and caddisflies present.	Low diversity of good water quality indicator species.	Low diversity, predominantly pollution-tolerant species.	6
Number of organisms	High to moderate	Moderate	Moderate to low	Very low number	6
Table 6 score (average of points given, rounded to nearest whole number)					6

**Table 7: RSAT Summary**

	Score – flow	Score – no flow
1. Channel Stability	6	
2. Channel Scouring/Deposition	6	
3. Physical In-Stream Habitat	4	
4. Riparian Habitat	2	
5. Water Quality	6	
6. Biological Indicators	6	
Total Score:	30	
Verbal Score from Total Score:	<input type="checkbox"/> Excellent (42-50) <input checked="" type="checkbox"/> Good (30-41) <input type="checkbox"/> Fair (16-29) <input type="checkbox"/> Poor (<16)	<input type="checkbox"/> Excellent (29-34) <input type="checkbox"/> Good (20-28) <input type="checkbox"/> Fair (11-19) <input type="checkbox"/> Poor (<11)





# Water-Related Habitat Assessment Form

Environmental Services and Sustainability

A Water-Related Habitat Assessment Form is to be completed for each feature identified as potentially existing on the Official ESA Map. Additionally, any feature identified onsite that potentially has characteristics of a water-related habitat is to be identified, described and documented through this form. Features of substantially similar characteristics and location may be grouped together on one form. More information about water-related habitats and assessing this feature may be found on the [City of Denton webpage](#).

<b>Property Address or Property ID:</b>	2201 & 2203 Spencer Road R 34406, 191269	<b>Feature ID:</b>	Data Form 5
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*Property ID can be found through Denton Central Appraisal District* *Provide a unique ID when multiple features are assessed*

**Type of Water-Related Habitat**

Select the type. Complete assessment Section 1 and the appropriate section below.

- |   |  |
|---|--|
| <input type="checkbox"/> Isolated and Adjacent Wetland(s) (Section 2) | <input checked="" type="checkbox"/> Bottomland Hardwood Forest (Section 3) |
| <input type="checkbox"/> Spring(s) (Section 4)                        | <input type="checkbox"/> Deep Water Habitat (Section 5)                    |

**Assessment Conclusion:**

Select one of the following.

- ☐ IS an ESA. Based upon this assessment the area is a Water-Related Habitat. I recommend the Official ESA Map be updated to confirm the ESA designation in this area.
- ☒ NOT an ESA. Based upon this assessment the area is not a Water-Related Habitat. I recommend the Official ESA Map be updated to remove the ESA designation from this area.

**Assessment Comments:**

Provide a summary of details found in the field to support the conclusion selected above.

A region surrounding the unnamed tributary of Pecan Creek was identified on the City of Denton ESA map as water related habitat - not assessed or assessment expired. Bottomland hardwood habitat was not identified in the region as it had been previously cleared for a utility line ROW between 2022 and 2023. The region was observed with no existing canopy cover and was removed from the Water Related Habitat - Bottomland Hardwood ESA designation.

**Attachments Provided:**

<b>Required:</b>	<input checked="" type="checkbox"/> overall site map <input checked="" type="checkbox"/> current map of feature <input checked="" type="checkbox"/> proposed map of feature <input checked="" type="checkbox"/> soils map <input checked="" type="checkbox"/> photographs representative of feature
<b>Other:</b>	FEMA FIRM

**Field Assessor:**

Name of Field Assessor:	Tyler Frohlich
Affiliation of Assessor (Organization):	Integrated Environmental Solutions, LLC.
Date the assessment was performed:	09 May 2024

I certify that the information provided here is an accurate description of the area(s) assessed.

**Karisa Fenton** Digitally signed by Karisa Fenton  
Date: 2024.05.20 15:09:40  
-05'00'

**Environmental Services Representative:**

I concur with the description of this ESA and conclusion of this assessment.

## Section 1. General Information

### General Land Use

Provide description of land hydrologically influencing feature. Select all that apply and provide more details as appropriate.

<input type="checkbox"/> Forest	Briefly describe:		
<input type="checkbox"/> Agricultural:	<input type="checkbox"/> Pasture	<input type="checkbox"/> Fallow	<input type="checkbox"/> Crop, crop type:
<input checked="" type="checkbox"/> Residential:	<input checked="" type="checkbox"/> Low Intensity	<input type="checkbox"/> High Intensity	
<input checked="" type="checkbox"/> Commercial/Industrial			
<input type="checkbox"/> Recreational			
<input type="checkbox"/> Other:			

### Soil Map Unit Name(s):

Provide soil classification types where feature occurs.

Callisburg fine sandy loam, 1 to 3 percent slopes	
Gasil fine sandy loam, 1 to 3 percent slopes	

## Section 2. Isolated and Adjacent Wetland(s)

### Hydrology Indicators

<b>Primary</b>	<b>Secondary</b>
<input type="checkbox"/> inundated	<input type="checkbox"/> oxidized root channels in upper 12"
<input type="checkbox"/> soil saturated in upper 12"	<input type="checkbox"/> water-stained leaves
<input type="checkbox"/> water marks	<input type="checkbox"/> county soil survey
<input type="checkbox"/> drift lines	<input type="checkbox"/> fac-neutral test
<input type="checkbox"/> sediment deposits	
<input type="checkbox"/> evidence of drainage pattern	
<b>Comments:</b>	

### Hydric Soil Indicators

<input type="checkbox"/> histosol	<input type="checkbox"/> concretions
<input type="checkbox"/> histic epipendon	<input type="checkbox"/> high surface organic content
<input type="checkbox"/> sulfidic odor	<input type="checkbox"/> organic streaking in sandy soils
<input type="checkbox"/> aquic moisture regime	<input type="checkbox"/> listed on local hydric soil list
<input type="checkbox"/> reducing conditions	<input type="checkbox"/> listed on national hydric soil list
<input type="checkbox"/> gleyed or low chroma colors	<input type="checkbox"/> other:
<b>Comments:</b>	

### Brief Vegetation Survey:

List all vegetative species where feature occurs for species covering >10% of the feature area and provide hydrophytic vegetation indicator of the species.

Scientific name	Common name	% Cover	Indicator

Hydrophytic Vegetation Indicator: ☐ : ☐

(Number of plant species that are OBL, FACW and FAC to number of plant species that are FACU and UPL)

---

### Section 3. Bottomland Hardwood Forest

List vegetative species covering >10% of the feature area.

Bottomland hardwood forests are deciduous forested wetlands and river bottoms with alluvial soil deposition. Periodic to constant wet conditions support certain species of trees such as pecan, Texas hickory, American elm, Chinkapin oak, Chittamwood, Green ash, Black walnut, Indigo bush, Texas persimmon, Shumard oak, sycamore, and Carolina buckthorn.

#### Old growth canopy trees

Scientific name	Common name	% Cover

#### Re-growth canopy trees

Scientific name	Common name	% Cover

#### Small trees / understory trees

Scientific name	Common name	% Cover

#### Understory vegetation – shrub / vine / forb / grass

Scientific name	Common name	% Cover
Ligustrum sinense	Chinese privet	70
Sorghum halepense	Johnson Grass	10
Vitis mustangensis	Mustang Grape	10
Smilax bona-nox	Saw Greenbrier	10

#### Forest floor conditions:

Select all that apply.

☐ Standing dead timber   ☐ Fallen dead timber   ☒ Detritus / leaf litter   ☐ fungi

#### Comments:

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## Section 4. Spring(s)

List vegetative species covering >10% of the feature area.

### Brief Vegetation Survey:

Scientific name	Common name	% Cover

Comments:

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## Section 5. Deep Water Habitat

Deep water habitats are permanently flooded lands lying below the deep water boundaries of wetlands. The boundary between wetland and deep water habitat in the riverine and lacustrine systems lies at a depth of 2 meters (6.6 feet) below low water; however, if emergent, shrubs or trees grow beyond this depth at any time, their deep water edge is the boundary.

### Functions

<input type="checkbox"/> intercept sediment	<input type="checkbox"/> provide fish habitat
<input type="checkbox"/> intercept nutrients	<input type="checkbox"/> evidence of wildlife use
<input type="checkbox"/> intercept pesticides	<input type="checkbox"/> unique aesthetics

### Impairments

<input type="checkbox"/> trash or litter / evidence of dumping	<input type="checkbox"/> livestock has access
--	---

### Vegetation in water and on bank

<input type="checkbox"/> submerged aquatic vegetation	<input type="checkbox"/> moist soil grasses and forbs
<input type="checkbox"/> floating-leaf	<input type="checkbox"/> tree cover (shade)
<input type="checkbox"/> emergent vegetation	

### Brief Vegetation Survey:

List vegetative species covering >10% of the feature area.

Scientific name	Common name	% Cover

Comments:



# Cross Timbers Upland Habitat Assessment Form

Environmental Services and Sustainability

A Cross Timbers Upland Habitat Assessment Form is to be completed for each feature identified as potentially existing on the Official ESA Map. Additionally, any feature identified onsite that potentially has characteristics of upland habitat is to be identified, described and documented through this form. Features of substantially similar characteristics and location may be grouped together on one form. More information about upland habitats and assessing this feature may be found on the [City of Denton ESA webpage](#).

Property Address or Property ID:	2201 & 2203 Spencer Road R 34406, 191269	Feature ID(s):	Data Form 6
-------------------------------------	---	----------------	-------------

Property ID can be found through Denton Central Appraisal District

Provide a feature ID when multiple features are assessed

## Assessment Conclusion:

Select one of the following.

- ☐ IS an ESA. Based upon this assessment the area meets the criteria of Cross Timbers Upland Habitat. I recommend the Official ESA Map be updated to confirm the ESA designation in this area.
- ☒ NOT an ESA. Based upon this assessment the area is not Cross Timbers Upland Habitat. I recommend the Official ESA Map be updated to remove the ESA designation from this area.

## Assessment Comments:

Provide a summary and discussion of details found in the field to support the conclusion selected above.

The region is dominated by herbaceous species. The area lacks the basic characteristics of a cross timbers upland forest. Therefore, this area does not meet the requirements to be verified as an ESA.

## Attachments Provided:

Required:	<input checked="" type="checkbox"/> overall site map <input checked="" type="checkbox"/> current map of feature <input checked="" type="checkbox"/> proposed map of feature <input checked="" type="checkbox"/> soils map <input checked="" type="checkbox"/> photographs representative of feature
Other:	FEMA FIRM, aerial photographs

## Field Assessor:

Name of Field Assessor:	Tyler Frohlich
Affiliation of Assessor (Organization):	Integrated Environmental Solutions, LLC.
Date the assessment was performed:	09 May 2024

I certify that the information provided here is an accurate description of the area(s) assessed.

**Karisa Fenton** Digitally signed by Karisa Fenton  
Date: 2024.05.20 15:07:20 -05'00'

## Environmental Services Representative:

I concur with the description of this ESA and conclusion of this assessment.

---

## Section 1. General Information

### Soil Map Unit Name(s):

*Provide soil classification types where feature occurs.*

Callisburg fine sandy loam, 1 to 3 percent slopes	
Gasil fine sandy loam, 1 to 3 percent slopes	

Alfisol or Ultisol soil type present: ☒ yes ☐ no

### Trails, Utility Clearings and Forest Openings within the Tree Stand:

Are there existing drive aisles, trails, utility clearings or canopy openings interior to the tree stand?

*(roadways and similar hard breaks do not apply)*

☐ yes: complete Section 3. ☒ no

---

## Section 2. Forest Vegetation Survey

*List all vegetative species covering >10% of the feature area*

### Old Growth Canopy Trees

Scientific name	Common name	% Cover

### Re-Growth Canopy Trees

Are tree(s) present >6" DBH: ☐ yes ☒ no

Scientific name	Common name	% Cover

### Small Trees/Saplings

Scientific name	Common name	% Cover

### Understory Vegetation (shrubs/vines/grasses/forbs)

Scientific name	Common name	% Cover
Lolium perenne	Perennial Ryegrass	40
Lolium arundinaceum	Tall Fescue	25
Heterotheca subaxillaris	Camphorweed	15
Hordeum pusillum	Little Barley	10

**Forest floor conditions:**

Select all that apply.

☐ standing dead timber    ☒ fallen dead timber    ☒ detritus/leaf litter    ☐ fungi

**Section 3. Interior Forest Opening(s)**

Interior forest openings or canopy gaps have traditionally served important roles in Cross Timbers Upland Habitats. Characterized by limited canopy cover and increased light penetration, these areas support native forbs, grasses, and shrubs that enhance wildlife habitat and biodiversity. They can also be important areas of regrowth for *Quercus* species. Common vegetative species seen in these areas include American beautyberry, plum or sumac thickets, Coralberry, Little bluestem, Big bluestem, Indiangrass, Switchgrass, Coneflower, and Indian blanket.

List all vegetative species covering >10% of the feature area.

**Vegetation Survey**

Scientific name	Common name	% Cover

**Supports forest habitat:**

Does the vegetation of the forest opening(s) provide wildlife resources, such as food or shelter?	<input type="checkbox"/> yes <input type="checkbox"/> no
Is wildlife able to traverse the habitat through the forest opening(s)?	<input type="checkbox"/> yes <input type="checkbox"/> no
Do(es) the forest opening(s) increase species richness?	<input type="checkbox"/> yes <input type="checkbox"/> no

**Comments:**

Provide a supporting discussion on interior forest openings included or not included as part of the overall habitat. Labeling on the map may be needed if more than one area is considered.



# Cross Timbers Upland Habitat Assessment Form

Environmental Services and Sustainability

A Cross Timbers Upland Habitat Assessment Form is to be completed for each feature identified as potentially existing on the Official ESA Map. Additionally, any feature identified onsite that potentially has characteristics of upland habitat is to be identified, described and documented through this form. Features of substantially similar characteristics and location may be grouped together on one form. More information about upland habitats and assessing this feature may be found on the [City of Denton ESA webpage](#).

Property Address or Property ID:	2201 & 2203 Spencer Road R 34406, 191269	Feature ID(s):	Data Form 7
-------------------------------------	---	----------------	-------------

Property ID can be found through Denton Central Appraisal District

Provide a feature ID when multiple features are assessed

## Assessment Conclusion:

Select one of the following.

- ☒ IS an ESA. Based upon this assessment the area meets the criteria of Cross Timbers Upland Habitat. I recommend the Official ESA Map be updated to confirm the ESA designation in this area.
- ☐ NOT an ESA. Based upon this assessment the area is not Cross Timbers Upland Habitat. I recommend the Official ESA Map be updated to remove the ESA designation from this area.

## Assessment Comments:

Provide a summary and discussion of details found in the field to support the conclusion selected above.

Post oak overstory with scattered eastern red cedar trees and saplings. Chinese privet overgrown in understory. Recent aerial photography indicates that the forested area has remained forested for several decades. The area was previously part of a larger, contiguous forest but a portion was removed between 2007 and 2008 for a development to the east. Based on aerial photography in Google Earth, the current contiguous canopy cover is 12.5 acres. Therefore, this area meets the minimum 10-acre requirement to be verified as an ESA.

## Attachments Provided:

Required:	<input checked="" type="checkbox"/> overall site map <input checked="" type="checkbox"/> current map of feature <input checked="" type="checkbox"/> proposed map of feature <input checked="" type="checkbox"/> soils map <input checked="" type="checkbox"/> photographs representative of feature
Other:	FEMA FIRM, aerial photographs

## Field Assessor:

Name of Field Assessor:	Tyler Frohlich
Affiliation of Assessor (Organization):	Integrated Environmental Solutions, LLC.
Date the assessment was performed:	09 May 2024

I certify that the information provided here is an accurate description of the area(s) assessed.

**Karisa Fenton** Digitally signed by Karisa Fenton  
Date: 2024.05.20 15:07:48  
-05'00'

## Environmental Services Representative:

I concur with the description of this ESA and conclusion of this assessment.



---

## Section 1. General Information

### Soil Map Unit Name(s):

*Provide soil classification types where feature occurs.*

Siltid loamy fine sand, 1 to 5 percent slopes	

Alfisol or Ultisol soil type present: ☒ yes ☐ no

### Trails, Utility Clearings and Forest Openings within the Tree Stand:

Are there existing drive aisles, trails, utility clearings or canopy openings interior to the tree stand?

*(roadways and similar hard breaks do not apply)*

☐ yes: complete Section 3. ☒ no

---

## Section 2. Forest Vegetation Survey

*List all vegetative species covering >10% of the feature area*

### Old Growth Canopy Trees

<i>Scientific name</i>	<i>Common name</i>	<i>% Cover</i>
Quercus stellata	Post Oak	50

### Re-Growth Canopy Trees

Are tree(s) present >6" DBH: ☒ yes ☐ no

<i>Scientific name</i>	<i>Common name</i>	<i>% Cover</i>
Quercus stellata	Post Oak	30

### Small Trees/Saplings

<i>Scientific name</i>	<i>Common name</i>	<i>% Cover</i>
Quercus stellata	Post Oak	20
Juniperus virginiana	Eastern red cedar	10

### Understory Vegetation (shrubs/vines/grasses/forbs)

<i>Scientific name</i>	<i>Common name</i>	<i>% Cover</i>
Ligustrum sinense	Chinese privet	60
Smilax bona-nox	Saw Greenbrier	10

**Forest floor conditions:**

Select all that apply.

☐ standing dead timber    ☒ fallen dead timber    ☒ detritus/leaf litter    ☐ fungi

---

**Section 3. Interior Forest Opening(s)**

Interior forest openings or canopy gaps have traditionally served important roles in Cross Timbers Upland Habitats. Characterized by limited canopy cover and increased light penetration, these areas support native forbs, grasses, and shrubs that enhance wildlife habitat and biodiversity. They can also be important areas of regrowth for *Quercus* species. Common vegetative species seen in these areas include American beautyberry, plum or sumac thickets, Coralberry, Little bluestem, Big bluestem, Indiangrass, Switchgrass, Coneflower, and Indian blanket.

List all vegetative species covering >10% of the feature area.

**Vegetation Survey**

Scientific name	Common name	% Cover

**Supports forest habitat:**

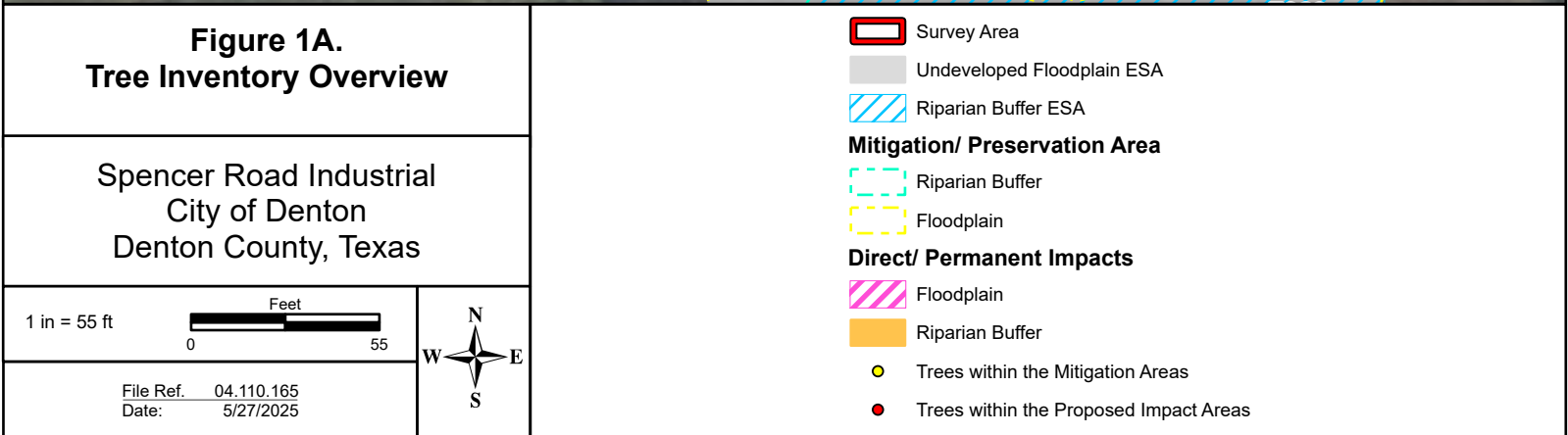
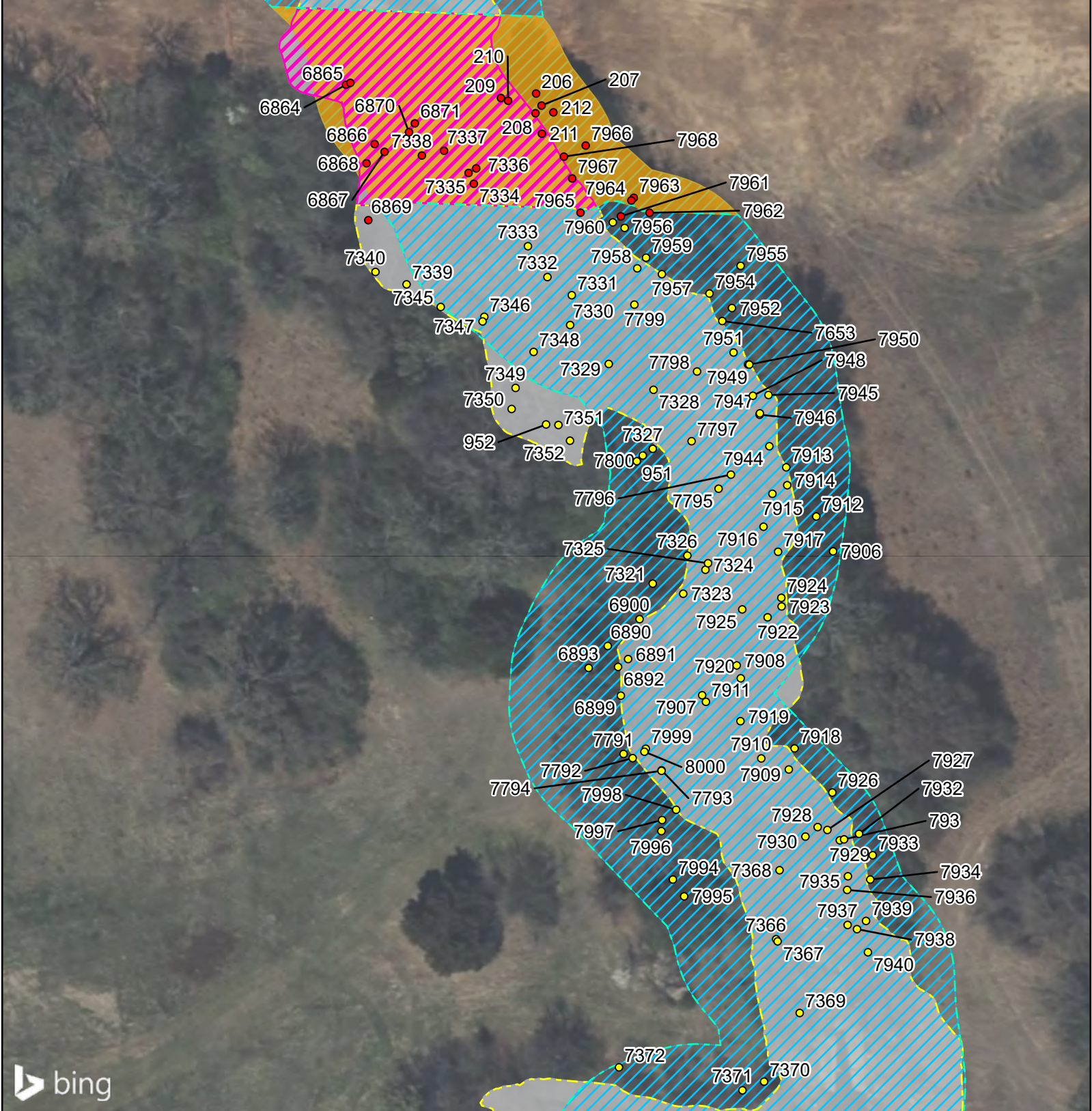
Does the vegetation of the forest opening(s) provide wildlife resources, such as food or shelter?	<input type="checkbox"/> yes <input type="checkbox"/> no
Is wildlife able to traverse the habitat through the forest opening(s)?	<input type="checkbox"/> yes <input type="checkbox"/> no
Do(es) the forest opening(s) increase species richness?	<input type="checkbox"/> yes <input type="checkbox"/> no

**Comments:**

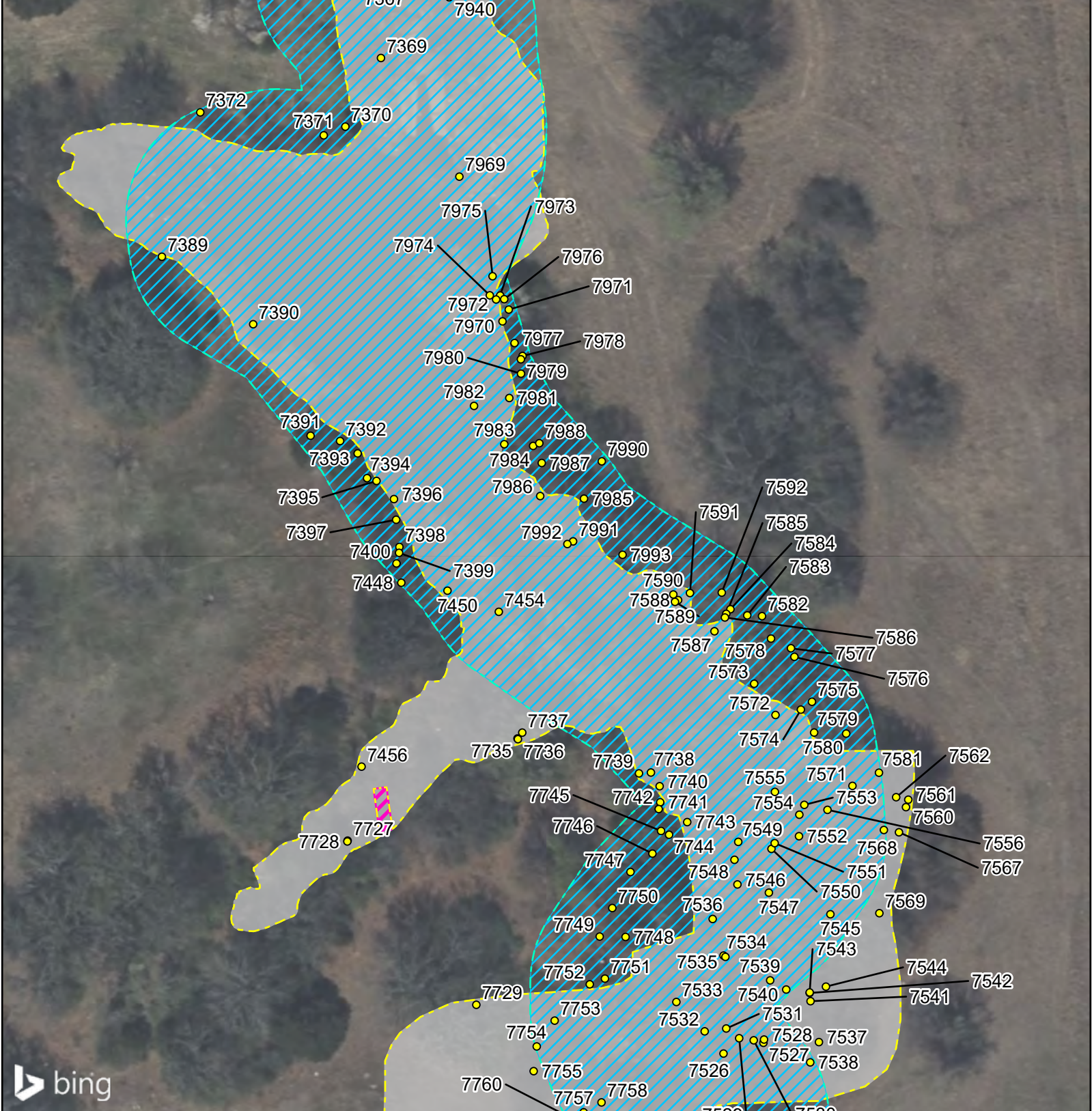
Provide a supporting discussion on interior forest openings included or not included as part of the overall habitat. Labeling on the map may be needed if more than one area is considered.

## **APPENDIX C**

### Tree Inventory Data

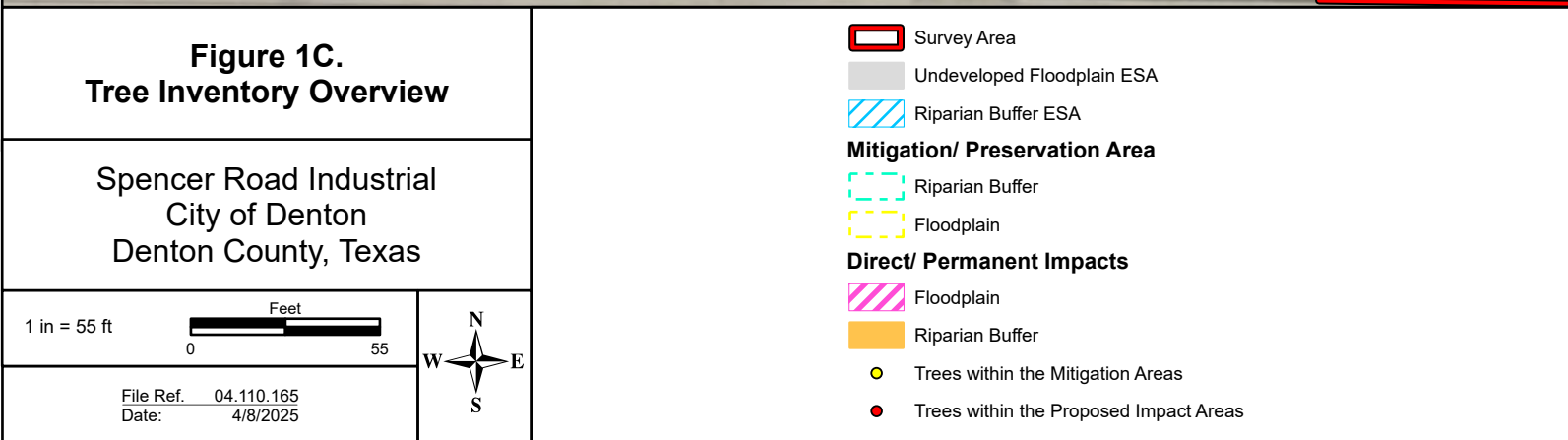




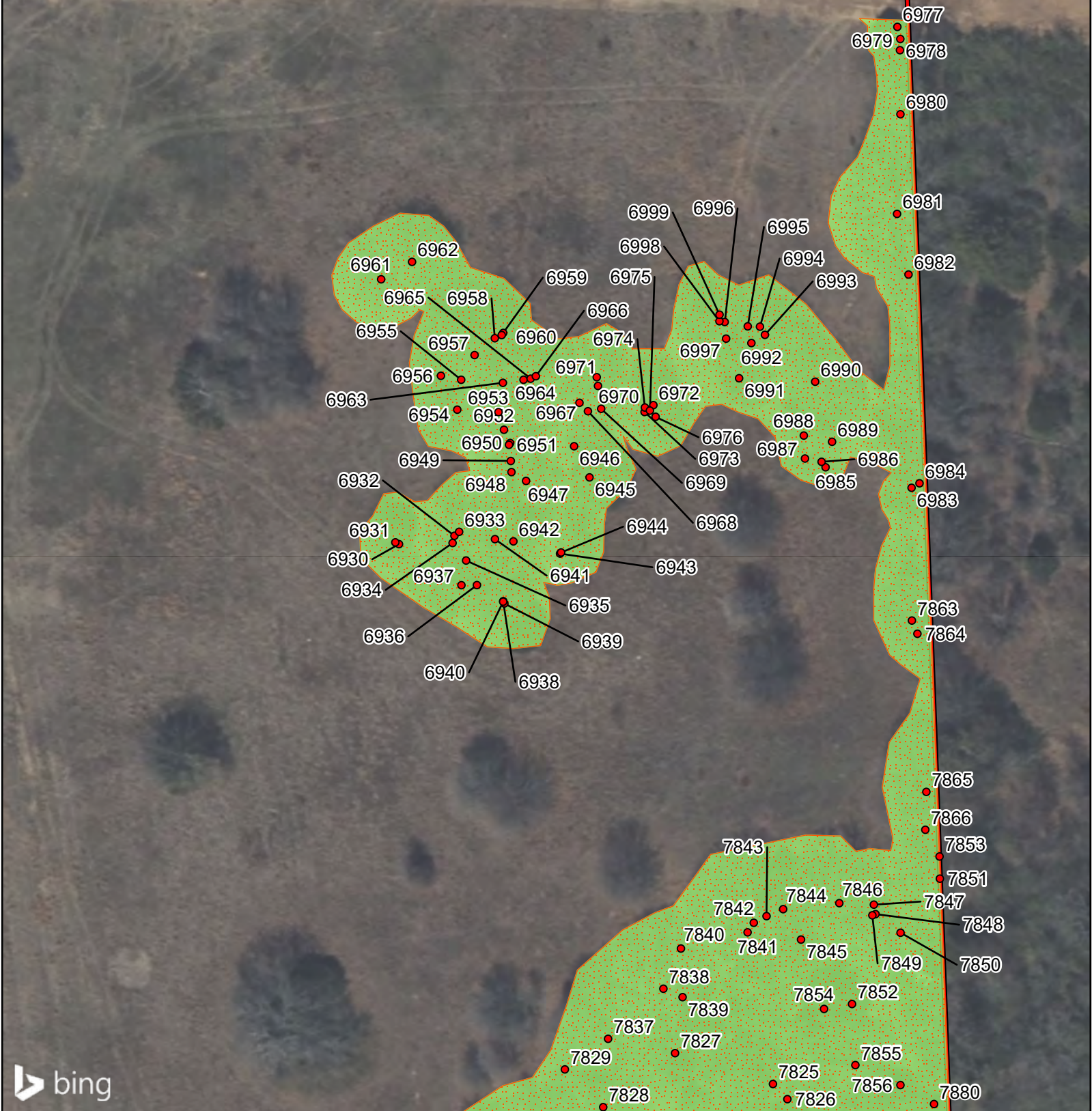


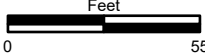

<p><b>Figure 1B.</b> <b>Tree Inventory Overview</b></p>		<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Survey Area</li> <li><span style="background-color: lightgray; display: inline-block; width: 20px; height: 10px;"></span> Undeveloped Floodplain ESA</li> <li><span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, lightblue 2px, lightblue 4px); display: inline-block; width: 20px; height: 10px;"></span> Riparian Buffer ESA</li> <li><b>Mitigation/ Preservation Area</b> <ul style="list-style-type: none"> <li><span style="border: 2px dashed lightblue; display: inline-block; width: 20px; height: 10px;"></span> Riparian Buffer</li> <li><span style="border: 2px dashed yellow; display: inline-block; width: 20px; height: 10px;"></span> Floodplain</li> </ul> </li> <li><b>Direct/ Permanent Impacts</b> <ul style="list-style-type: none"> <li><span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, pink 2px, pink 4px); display: inline-block; width: 20px; height: 10px;"></span> Floodplain</li> <li><span style="background-color: orange; display: inline-block; width: 20px; height: 10px;"></span> Riparian Buffer</li> </ul> </li> <li><span style="color: yellow;">●</span> Trees within the Mitigation Areas</li> <li><span style="color: red;">●</span> Trees within the Proposed Impact Areas</li> </ul>
<p>Spencer Road Industrial City of Denton Denton County, Texas</p>		
<p>1 in = 55 ft</p> <p>0 55</p> <p>Feet</p> <p>N W E S</p>	<p>File Ref. 04.110.165 Date: 4/8/2025</p>	













<b>Figure 1D.</b> <b>Tree Inventory Overview</b>	
Spencer Road Industrial City of Denton Denton County, Texas	
1 in = 55 ft 	
File Ref. 04.110.165 Date: 4/9/2025	


 Survey Area


 Cross Timbers Upland ESA

 Cross Timbers Preservation

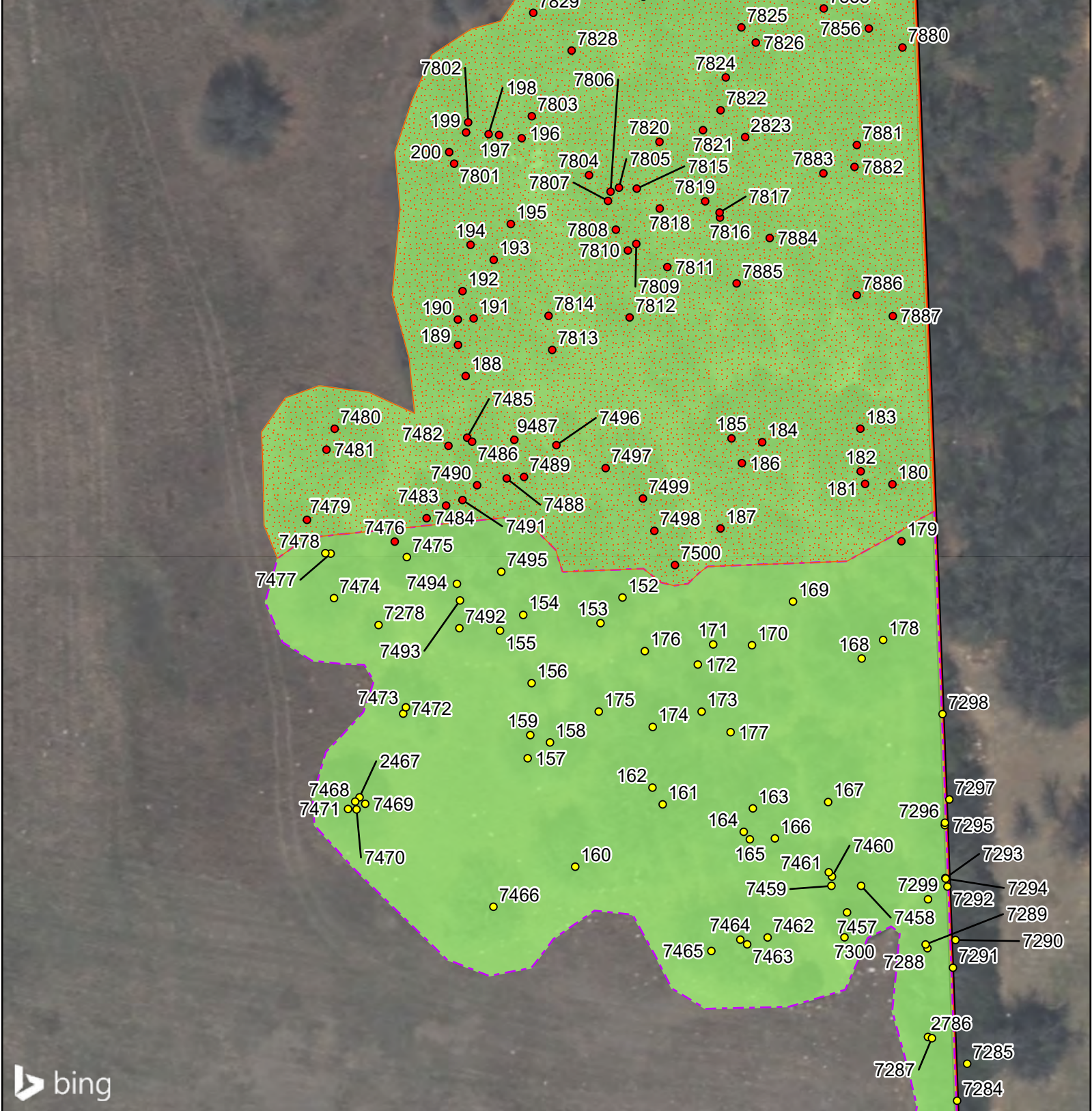
**Direct/ Permanent Impacts**

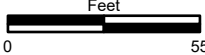
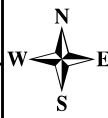
 Cross Timbers


 Trees within the Mitigation Areas


 Trees within the Proposed Impact Areas







<b>Figure 1E.</b> <b>Tree Inventory Overview</b>	
Spencer Road Industrial City of Denton Denton County, Texas	
1 in = 55 ft 	
File Ref. 04.110.165 Date: 4/9/2025	


 Survey Area


 Cross Timbers Upland ESA

 Cross Timbers Preservation

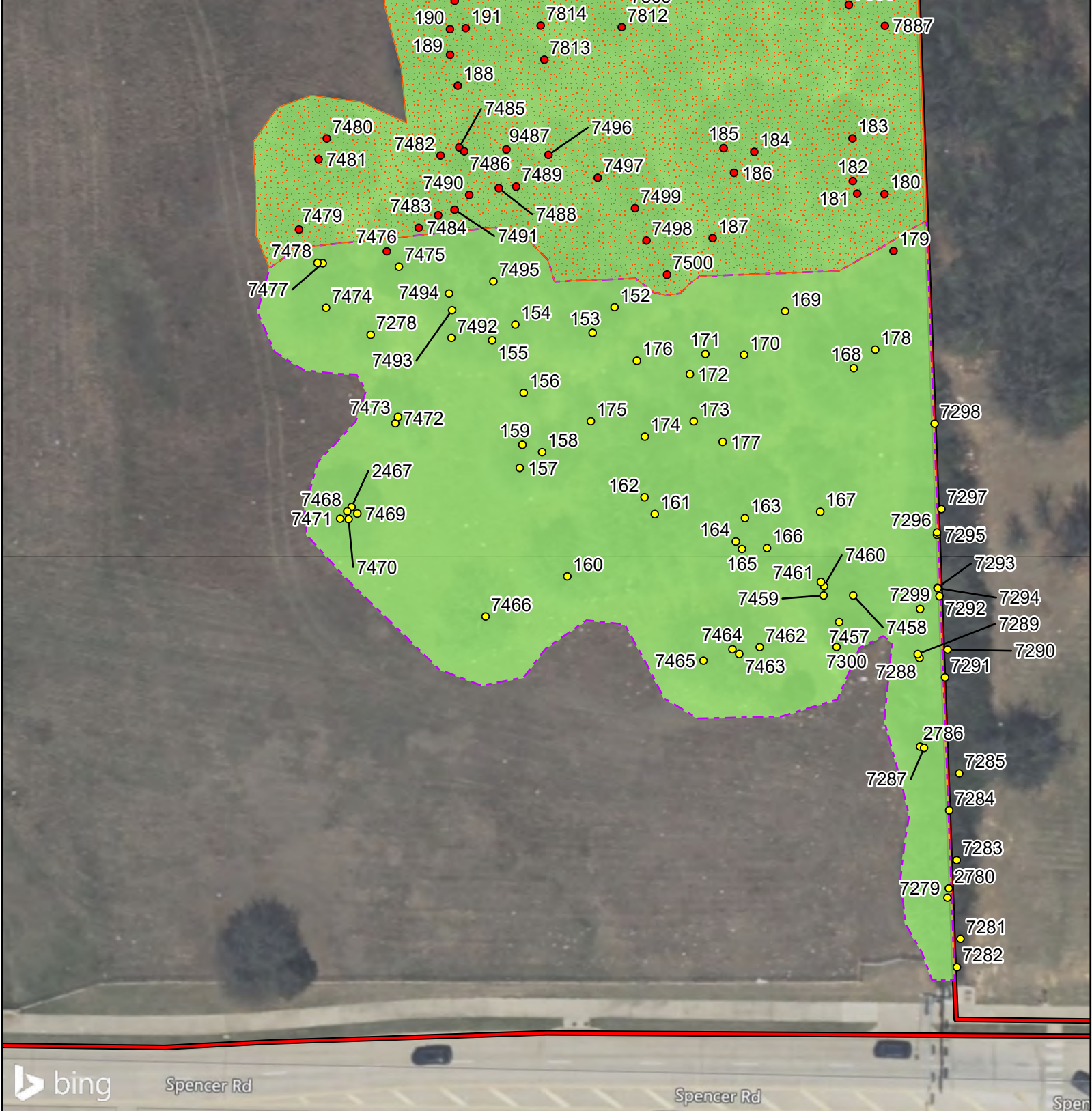
**Direct/ Permanent Impacts**

 Cross Timbers

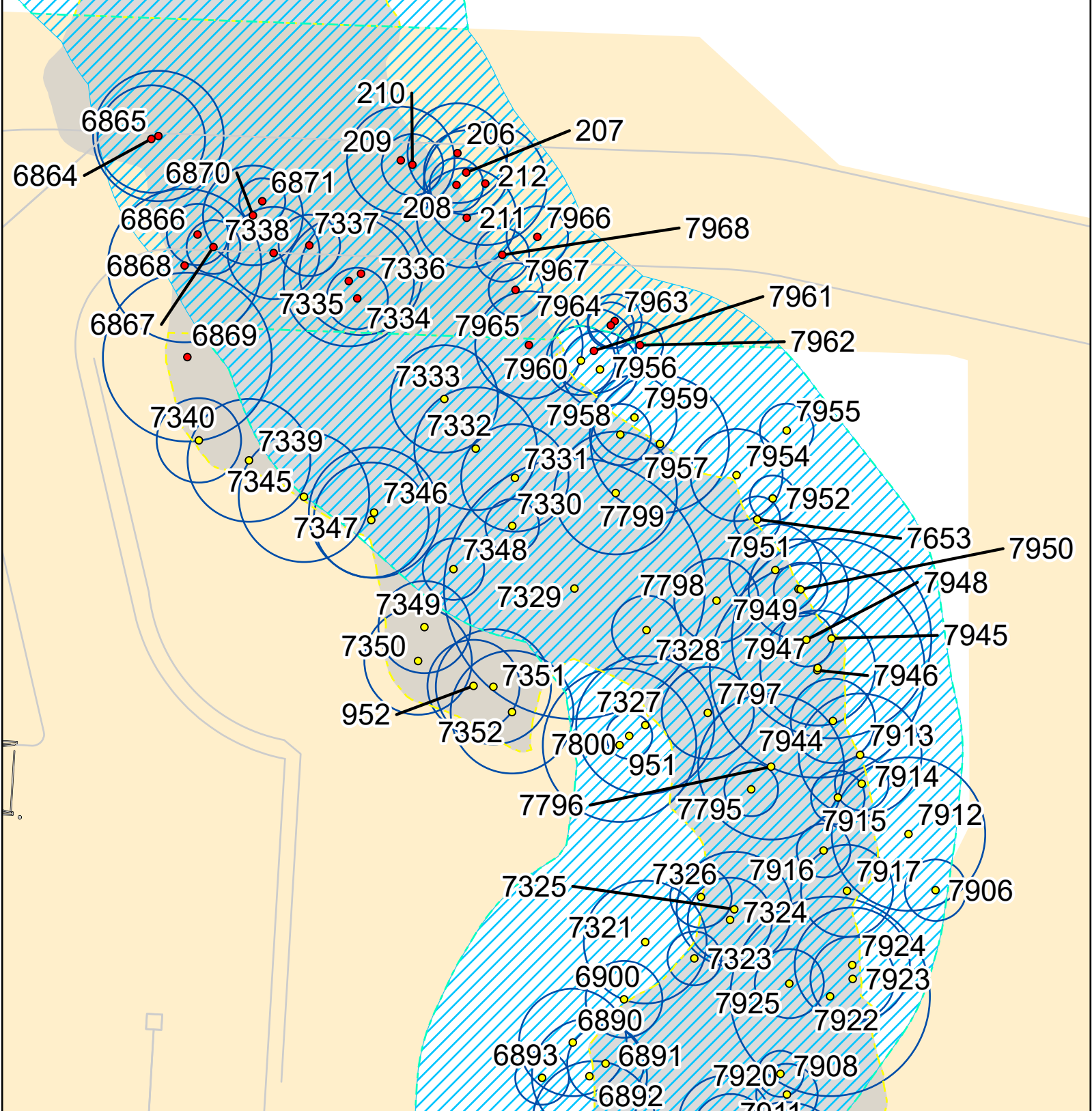
 Trees within the Mitigation Areas

 Trees within the Proposed Impact Areas





<p><b>Figure 1F.</b> <b>Tree Inventory Overview</b></p>		<p> Survey Area</p> <p> Cross Timbers Upland ESA</p> <p> Cross Timbers Preservation</p> <p><b>Direct/ Permanent Impacts</b></p> <p> Cross Timbers</p> <p> Trees within the Mitigation Areas</p> <p> Trees within the Proposed Impact Areas</p>	
<p>Spencer Road Industrial City of Denton Denton County, Texas</p>			
<p>1 in = 55 ft</p> <p>0 55</p>	<p>Feet</p> <p>0 55</p>	<p>N W E S</p>	
<p>File Ref. 04.110.165 Date: 4/9/2025</p>			



**Figure 2A.**  
**Tree Inventory**

Spencer Road Industrial  
City of Denton  
Denton County, Texas

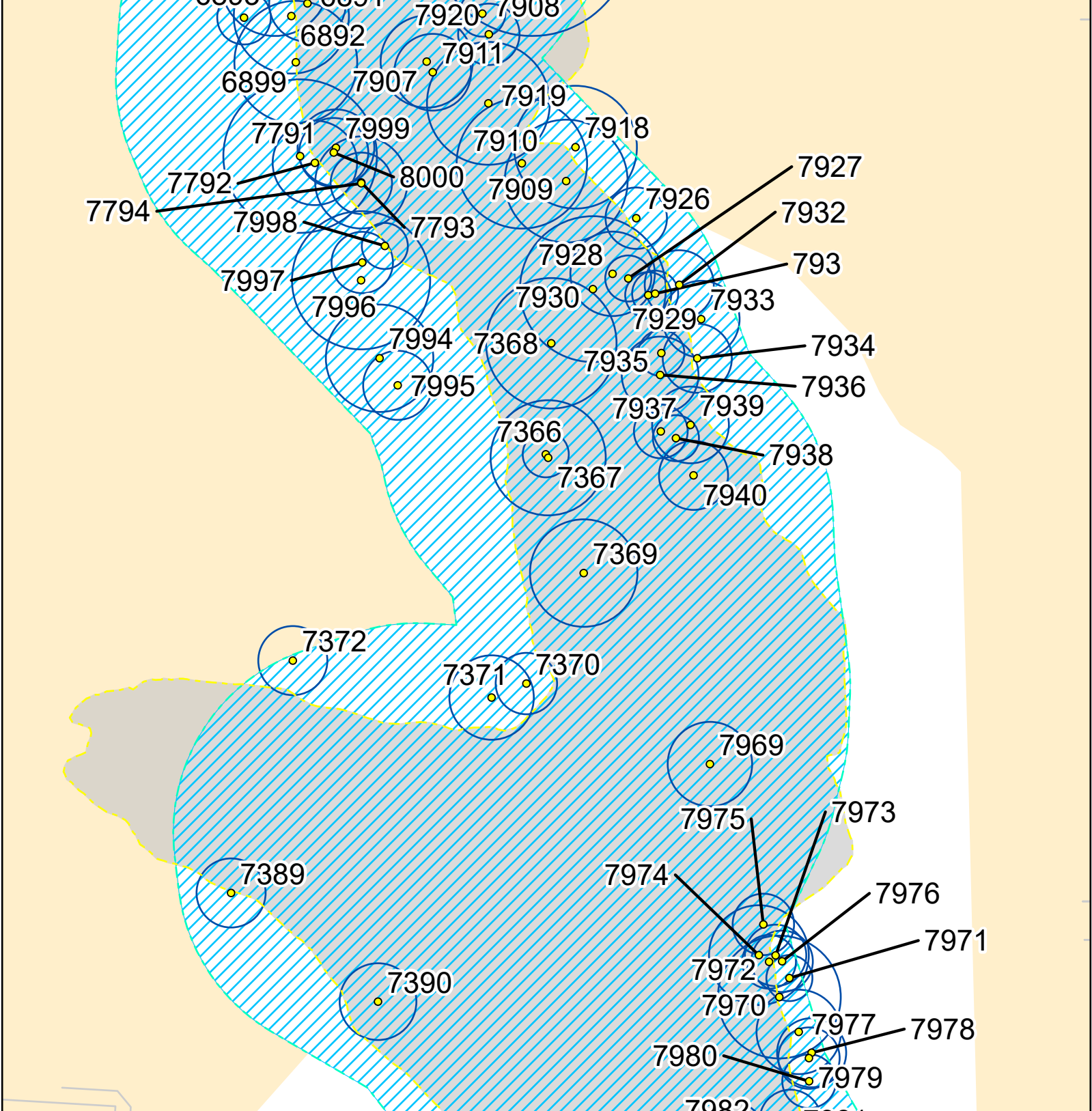
1 in = 34 ft

Feet  
0 34

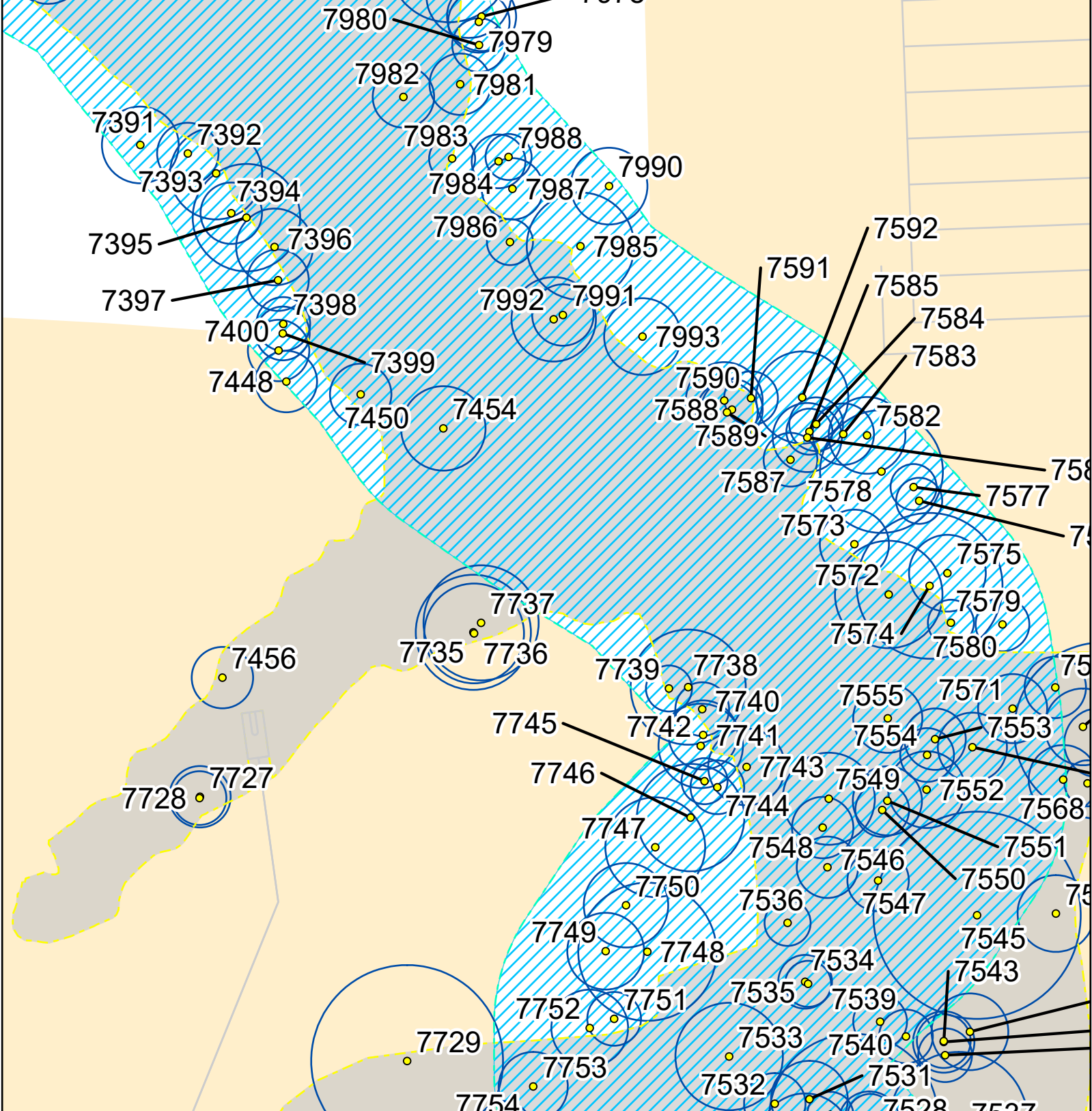
File Ref. 04.110.165  
Date: 5/27/2025

- Survey Area
- Riparian Buffer ESA
- Undeveloped Floodplain ESA
- Riparian Buffer
- Floodplain
- Trees within the Mitigation Areas
- Trees within the Proposed Impact Areas
- Critical Root Zone
- Site Plan Structures
- Development Impact Area

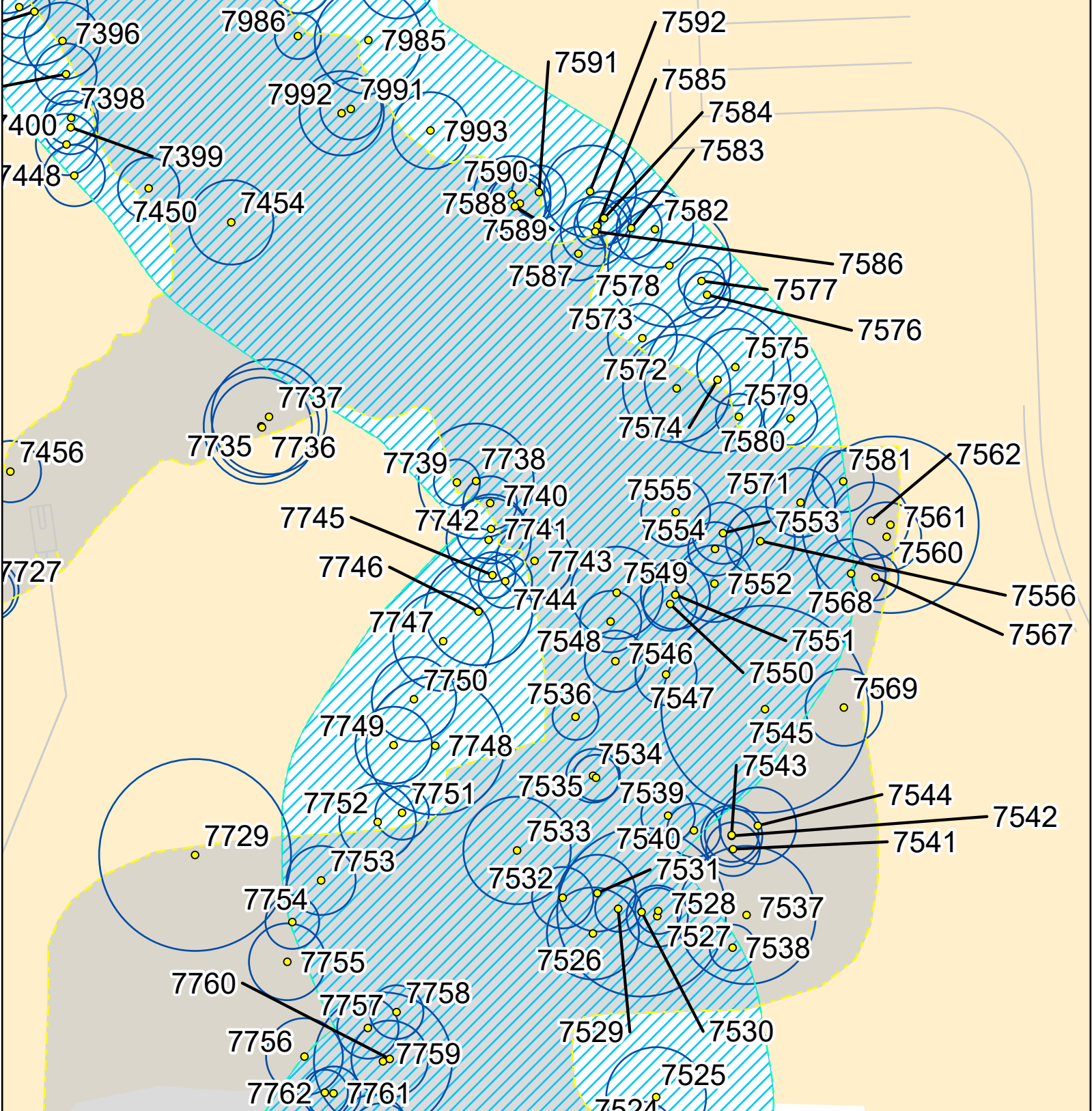




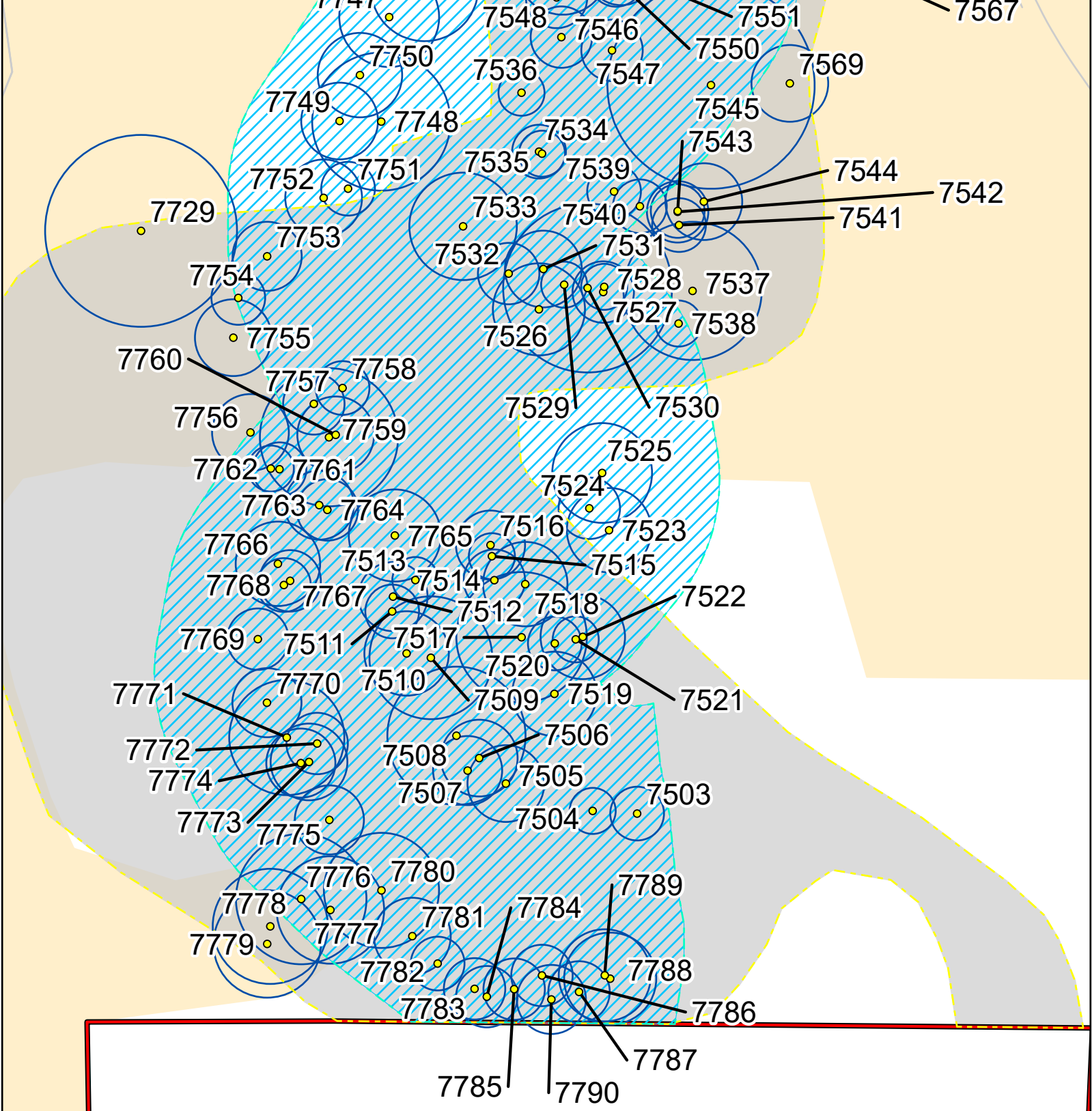
<p><b>Figure 2B.</b> <b>Tree Inventory</b></p>	<p> Survey Area</p> <p> Riparian Buffer ESA</p> <p> Undeveloped Floodplain ESA</p>	<p> Trees within the Mitigation Areas</p> <p> Trees within the Proposed Impact Areas</p> <p> Critical Root Zone</p> <p> Site Plan Structures</p> <p> Development Impact Area</p>
<p>Spencer Road Industrial City of Denton Denton County, Texas</p>	<p><b>Mitigation/ Preservation Area</b></p> <p> Riparian Buffer</p> <p> Floodplain</p>	
<p>1 in = 34 ft</p> <p>Feet 0 34</p> <p>File Ref. 04.110.165 Date: 5/27/2025</p>		



<p><b>Figure 2C.</b> <b>Tree Inventory</b></p>		<p> Survey Area</p> <p> Riparian Buffer ESA</p> <p> Undeveloped Floodplain ESA</p>	<p> Trees within the Mitigation Areas</p> <p> Trees within the Proposed Impact Areas</p> <p> Critical Root Zone</p> <p> Site Plan Structures</p> <p> Development Impact Area</p>
<p>Spencer Road Industrial City of Denton Denton County, Texas</p>		<p><b>Mitigation/ Preservation Area</b></p> <p> Riparian Buffer</p> <p> Floodplain</p>	
<p>1 in = 34 ft</p> <p>0 34</p> <p>Feet</p>		<p>N W E S</p>	
<p>File Ref. 04.110.165 Date: 5/27/2025</p>			

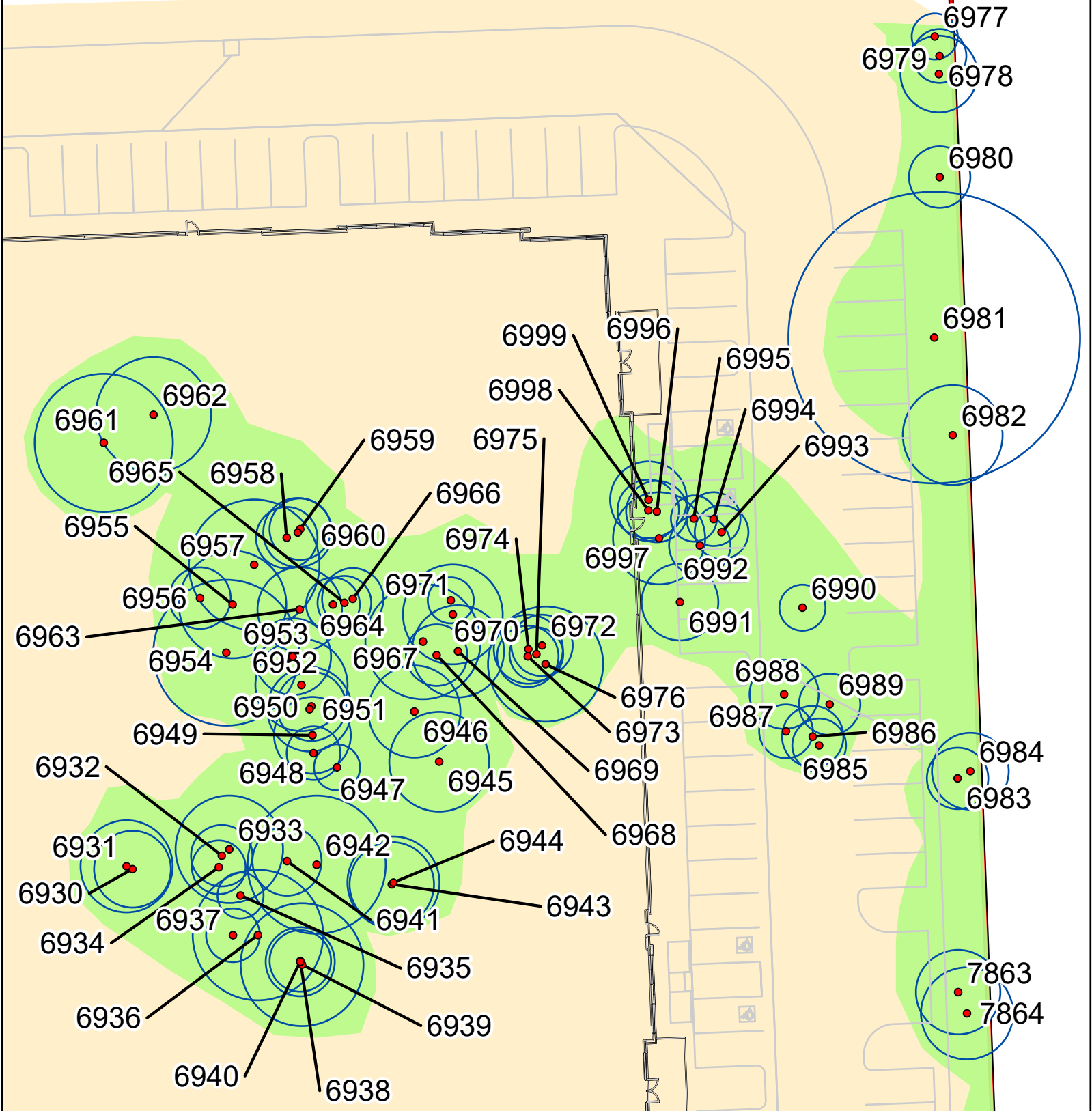


<p><b>Figure 2D.</b> <b>Tree Inventory</b></p>		<p> Survey Area</p> <p> Riparian Buffer ESA</p> <p> Undeveloped Floodplain ESA</p>		<p> Trees within the Mitigation Areas</p> <p> Trees within the Proposed Impact Areas</p> <p> Critical Root Zone</p> <p> Site Plan Structures</p> <p> Development Impact Area</p>	
<p>Spencer Road Industrial City of Denton Denton County, Texas</p>		<p><b>Mitigation/ Preservation Area</b></p> <p> Riparian Buffer</p> <p> Floodplain</p>			
<p>1 in = 34 ft</p> <p>0 34</p>		<p>Feet</p> <p>0 34</p>		<p>N W E S</p>	
<p>File Ref. 04.110.165 Date: 5/27/2025</p>					



<p><b>Figure 2E.</b> <b>Tree Inventory</b></p>	<p> Survey Area</p> <p> Riparian Buffer ESA</p> <p> Undeveloped Floodplain ESA</p> <p><b>Mitigation/ Preservation Area</b></p> <p> Riparian Buffer</p> <p> Floodplain</p>	<p> Trees within the Mitigation Areas</p> <p> Trees within the Proposed Impact Areas</p> <p> Critical Root Zone</p> <p> Site Plan Structures</p> <p> Development Impact Area</p>
<p>Spencer Road Industrial City of Denton Denton County, Texas</p>		
<p>1 in = 34 ft</p> <p>0 34</p> <p>File Ref. 04.110.165 Date: 5/27/2025</p>		





<b>Figure 2F.</b> <b>Tree Inventory</b>		<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="border: 2px solid red; width: 20px; height: 10px; margin-bottom: 5px;"></div> Survey Area</div> <div style="background-color: #90EE90; width: 20px; height: 10px; margin-bottom: 5px;"></div> Cross Timbers Upland ESA</div> <div style="border: 2px solid blue; width: 20px; height: 10px; margin-bottom: 5px;"></div> Riparian Buffer ESA	
--	--	--	--

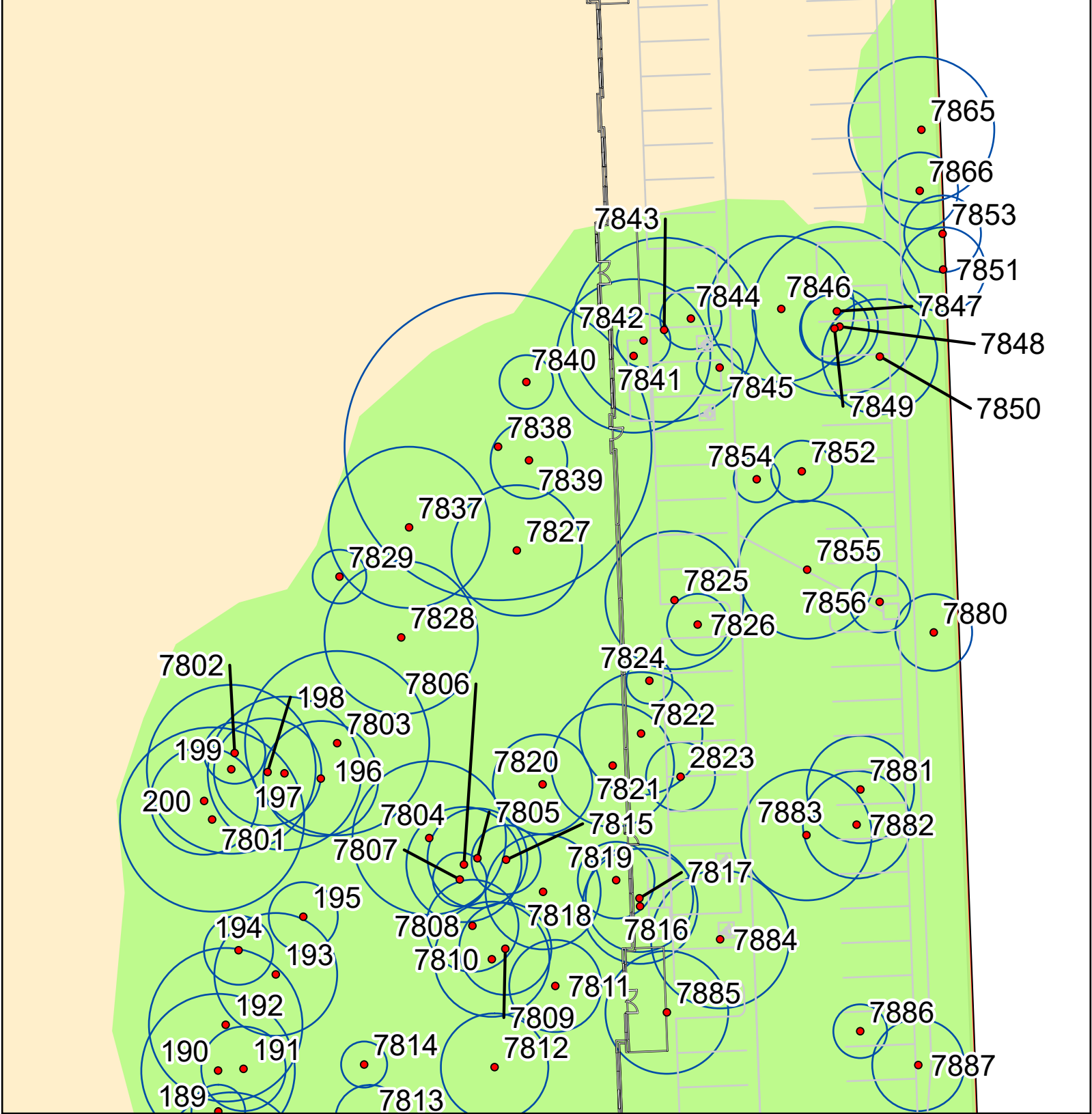
○ Trees within the Mitigation Areas

● Trees within the Proposed Impact Areas

Critical Root Zone

Site Plan Structures

Development Impact Area



**Figure 2G.**  
**Tree Inventory**

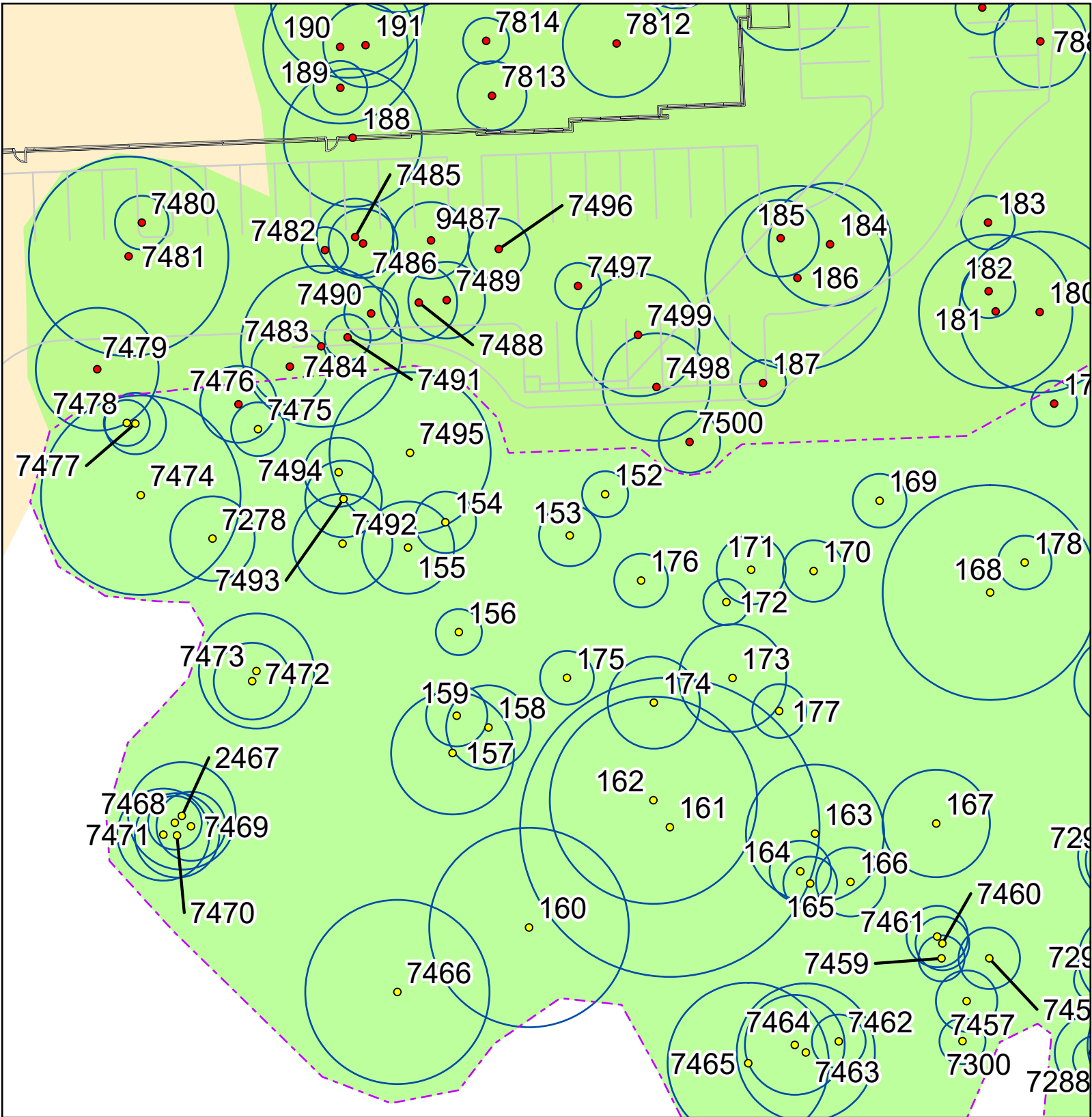
Spencer Road Industrial  
City of Denton  
Denton County, Texas

1 in = 34 ft



File Ref. 04.110.165  
Date: 5/27/2025

- Survey Area
- Cross Timbers Upland ESA
- Riparian Buffer ESA
- Undeveloped Floodplain ESA
- Cross Timbers Preservation
- Trees within the Mitigation Areas
- Trees within the Proposed Impact Areas
- Critical Root Zone
- Site Plan Structures
- Development Impact Area



**Figure 2H.**  
**Tree Inventory**

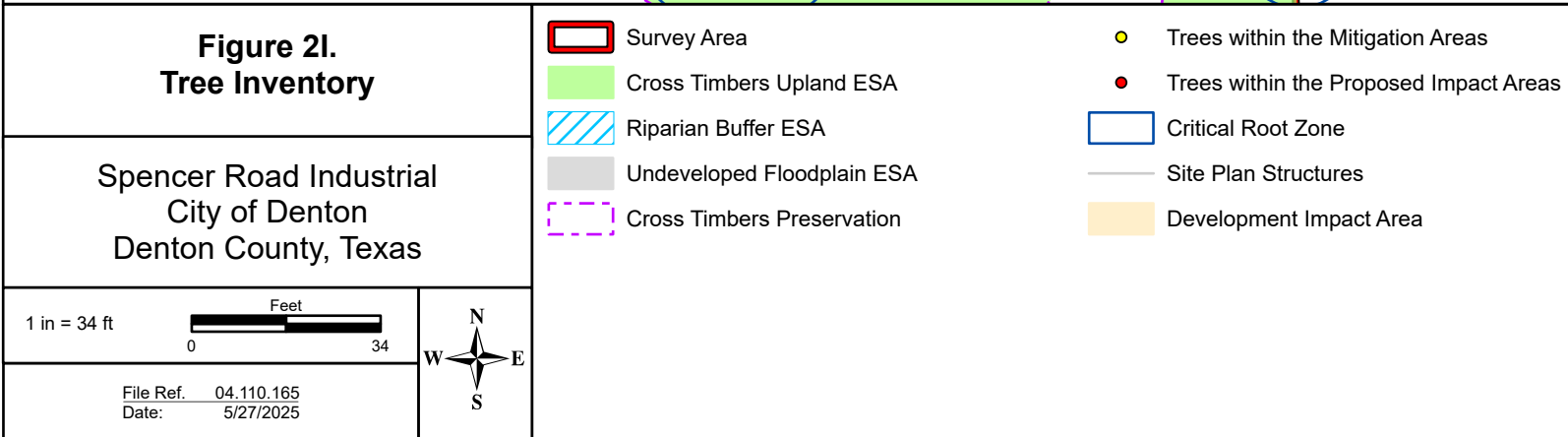
Spencer Road Industrial  
City of Denton  
Denton County, Texas

1 in = 34 ft

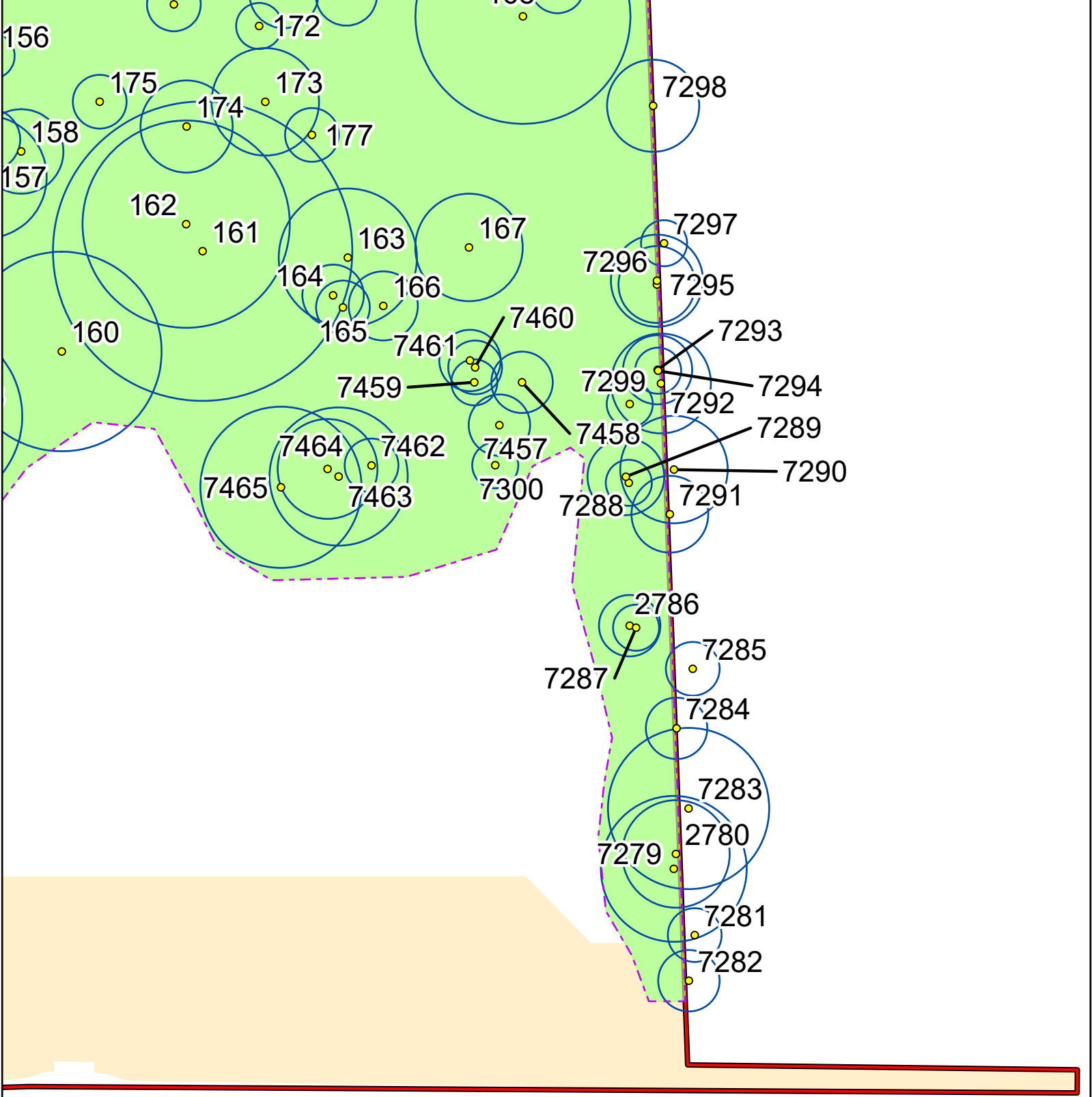


File Ref. 04.110.165  
Date: 5/27/2025

- Survey Area
- Cross Timbers Upland ESA
- Riparian Buffer ESA
- Undeveloped Floodplain ESA
- Cross Timbers Preservation
- Trees within the Mitigation Areas
- Trees within the Proposed Impact Areas
- Critical Root Zone
- Site Plan Structures
- Development Impact Area







**Figure 2J.**  
**Tree Inventory**

Spencer Road Industrial  
City of Denton  
Denton County, Texas

1 in = 34 ft

File Ref. 04.110.165  
Date: 5/27/2025

Survey Area
 Cross Timbers Upland ESA
 Riparian Buffer ESA
 Undeveloped Floodplain ESA
 Cross Timbers Preservation

Trees within the Mitigation Areas
 Trees within the Proposed Impact Areas
 Critical Root Zone
 Site Plan Structures
 Development Impact Area

**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
**City of Denton, Denton County, Texas**

Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead		Vine	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		Branches (%)	Lean				
152	6	eastern red cedar	6	No	Healthy	0	61-90	No	No	No	No
153	8.4	post oak	8	No	Healthy	0	61-90	No	No	No	No
154	7.6	blackjack oak	8	No	Healthy	0	61-90	No	No	No	No
155	12.5	blackjack oak	8	Yes	Healthy	0	61-90	No	No	No	No
156	6.5	post oak	7	No	Healthy	0	61-90	No	No	No	No
157	15.9	blackjack oak	15	Yes	Healthy	0	61-90	No	No	No	No
158	10.6	post oak	11	No	Healthy	0	61-90	No	No	No	No
159	8.3	post oak	8	No	Healthy	0	61-90	No	No	No	No
160	25.5	post oak	20	Yes	Healthy	0	61-90	No	No	No	No
161	39.2	post oak	36	Yes	Healthy	0	61-90	No	No	No	No
162	27.2	post oak	28	No	Healthy	0	61-90	No	No	No	No
163	18.4	post oak	18	No	Healthy	0	61-90	No	No	No	No
164	8	gum bumelia	7	No	Healthy	0	61-90	No	No	No	No
165	7.2	gum bumelia	7	No	Healthy	0	61-90	No	No	No	No
166	8.7	blackjack oak	9	Yes	Healthy	0	61-90	No	No	No	No
167	14	post oak	14	No	Healthy	0	61-90	No	No	No	No
168	28.4	post oak	29	No	Healthy	0	61-90	No	No	No	No
169	6.6	post oak	7	No	Healthy	0	61-90	No	No	No	No
170	7.5	blackjack oak	8	Yes	Healthy	0	61-90	No	No	No	No
171	8.9	blackjack oak	7	Yes	Healthy	0	61-90	No	No	No	No
172	6.4	blackjack oak	6	No	Healthy	0	61-90	No	No	No	No
173	14	blackjack oak	14	No	Healthy	0	61-90	No	No	No	No
174	12.2	post oak	12	No	Healthy	0	61-90	No	No	No	No
175	7	post oak	6	No	Healthy	0	61-90	No	No	No	No
176	7.2	post oak	7	No	Healthy	0	61-90	No	No	No	No
177	7.1	post oak	7	No	Healthy	0	61-90	No	No	No	No
178	6.9	Ashe juniper	7	No	Healthy	0	61-90	No	No	No	No
179	6	blackjack oak	6	Yes	Healthy	0	61-90	No	No	No	No
180	20.9	post oak	21	No	Healthy	0	61-90	No	No	No	No
181	19.7	post oak	21	Yes	Healthy	0	61-90	No	No	No	No
182	7.1	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
183	7.1	eastern red cedar	6	No	Damaged	60	61-90	No	No	No	No
184	16	post oak	17	No	Healthy	0	61-90	No	No	No	No
185	9.7	eastern red cedar	9	Yes	Healthy	0	61-90	No	No	No	No
186	24.5	post oak	25	Yes	Healthy	25	61-90	No	No	No	No
187	6.2	blackjack oak	6	No	Healthy	0	61-90	No	No	No	No
188	18.4	post oak	18	No	Healthy	0	61-90	No	No	No	No



**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead Branches		Vine Shrouded	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		(%)	Lean				
189	6.7	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
190	19.7	post oak	20	No	Healthy	0	61-90	No	No	No	No
191	11.3	post oak	11	No	Healthy	0	61-90	No	No	No	No
192	20.1	post oak	20	No	Healthy	0	61-90	No	No	No	No
193	16.2	post oak	16	No	Healthy	0	61-90	No	No	No	No
194	9.4	post oak	9	No	Healthy	0	61-90	No	No	No	No
195	8.9	cedar elm	9	No	Healthy	0	61-90	No	No	No	No
196	14.6	post oak	15	No	Healthy	0	61-90	No	No	No	No
197	20.3	post oak	20	Yes	Healthy	0	61-90	No	Trunk	Trunk	Trunk
198	13.5	post oak	12	No	Healthy	0	61-90	No	No	No	No
199	21.7	post oak	22	No	Healthy	0	61-90	No	No	No	No
200	14.4	post oak	14	No	Healthy	0	61-90	No	No	No	No
206	12.9	eastern red cedar	11	No	Healthy	0	61-90	No	No	No	No
207	10.6	eastern red cedar	10	No	Healthy	0	61-90	No	No	No	No
208	7.3	eastern red cedar	8	No	Healthy	0	61-90	No	No	No	No
209	14.1	pecan	11	No	Healthy	0	61-90	No	No	No	No
210	7.9	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
211	13.3	eastern red cedar	11	No	Healthy	0	61-90	No	No	No	No
212	16	eastern red cedar	14	No	Healthy	0	61-90	No	No	No	No
793	6.2	American elm	6	No	Healthy	0	61-90	No	No	No	No
951	20.2	American elm	20	No	Healthy	0	61-90	No	No	No	No
952	11.8	sycamore	7	No	Damaged	75	61-90	No	No	No	No
2467	14	blackjack oak	15	Yes	Healthy	0	61-90	No	No	No	No
2780	14.4	post oak	15	No	Healthy	0	61-90	No	No	No	No
2786	8.1	post oak	8	No	Healthy	0	61-90	No	No	No	No
2823	9.4	post oak	10	No	Healthy	0	61-90	No	No	No	No
6864	13.9	American elm	17	No	Healthy	0	61-90	No	No	No	No
6865	17.4	American elm	20	No	Healthy	0	61-90	No	No	No	No
6866	8.3	Osage-orange	8	No	Damaged	40	61-90	No	No	No	No
6867	7.1	American elm	7	No	Healthy	0	61-90	No	No	No	No
6868	19.8	black walnut	17	No	Healthy	0	61-90	No	No	No	No
6869	21.9	black walnut	23	No	Damaged	0	61-90	No	Trunk	Trunk	Trunk
6870	12.8	American elm	13	No	Healthy	0	61-90	No	No	No	No
6871	6.3	cedar elm	7	No	Healthy	0	61-90	No	No	No	No
6890	14.5	post oak	15	No	Healthy	0	61-90	No	No	No	No
6891	10.5	eastern red cedar	10	No	Healthy	0	61-90	No	No	No	No
6892	15.3	post oak	15	No	Healthy	0	61-90	No	No	No	No

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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead		Vine	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		Branches (%)	Lean				
6893	7.2	eastern red cedar	6	No	Healthy	0	61-90	No	No	No	No
6899	15.5	post oak	15	No	Healthy	0	61-90	No	No	No	No
6900	9.8	pecan	10	No	Healthy	0	61-90	No	No	No	No
6930	9.5	post oak	11	No	Healthy	0	61-90	No	No	No	No
6931	12.1	post oak	14	No	Healthy	0	61-90	No	No	No	No
6932	7.5	post oak	8	No	Healthy	0	61-90	No	No	No	No
6933	13.7	post oak	15	No	Healthy	0	61-90	No	No	No	No
6934	6.6	post oak	6	No	Healthy	0	61-90	No	No	No	No
6935	6	post oak	6	No	Healthy	0	61-90	No	No	No	No
6936	16.9	post oak	13	No	Damaged	80	61-90	No	No	No	No
6937	7.1	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
6938	7.8	post oak	7	No	Healthy	0	61-90	No	No	No	No
6939	16.1	post oak	18	No	Healthy	0	61-90	No	No	No	No
6940	9.1	post oak	9	No	Healthy	0	61-90	No	No	No	No
6941	9.4	post oak	10	No	Healthy	0	61-90	No	No	No	No
6942	18.1	post oak	16	No	Damaged	80	61-90	No	No	No	No
6943	10.8	post oak	12	No	Healthy	0	61-90	No	No	No	No
6944	11.6	post oak	12	No	Healthy	0	61-90	No	No	No	No
6945	13.1	eastern red cedar	14	No	Healthy	0	61-90	No	No	No	No
6946	11.5	post oak	12	No	Healthy	0	61-90	No	No	No	No
6947	6.5	post oak	6	No	Healthy	0	61-90	No	No	No	No
6948	7.2	post oak	6	No	Healthy	0	61-90	No	No	No	No
6949	9.8	post oak	8	No	Healthy	0	61-90	No	No	No	No
6950	8.6	post oak	6	No	Healthy	0	61-90	No	No	No	No
6951	11.3	post oak	14	No	Healthy	0	61-90	No	No	No	No
6952	12.3	post oak	14	Yes	Healthy	0	61-90	No	No	No	No
6953	10	post oak	12	No	Healthy	0	61-90	No	No	No	No
6954	19.3	post oak	17	Yes	Healthy	0	61-90	No	No	No	No
6955	14.2	post oak	12	No	Healthy	0	61-90	No	No	No	No
6956	8.3	post oak	7	No	Healthy	0	61-90	No	No	No	No
6957	17.1	post oak	20	No	Healthy	0	61-90	No	No	No	No
6958	7.8	eastern red cedar	8	Yes	Healthy	0	61-90	No	No	No	No
6959	7.7	post oak	7	No	Healthy	0	61-90	No	No	No	No
6960	8.8	post oak	9	Yes	Healthy	0	61-90	No	No	No	No
6961	18.3	post oak	20	No	Healthy	0	61-90	No	No	No	No
6962	15.4	post oak	20	No	Healthy	0	61-90	No	No	No	No
6963	10.8	post oak	9	No	Healthy	0	61-90	No	No	No	No

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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead Branches		Vine Shrouded	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		(%)	Lean				
6964	7.2	post oak	7	No	Healthy	0	61-90	No	No	No	No
6965	6.7	post oak	6	No	Healthy	0	61-90	No	No	No	No
6966	8.5	post oak	7	No	Healthy	0	61-90	No	No	No	No
6967	15.1	post oak	12	Yes	Healthy	0	61-90	No	No	No	No
6968	7.5	post oak	8	No	Healthy	0	61-90	No	No	No	No
6969	11.6	post oak	10	Yes	Healthy	0	61-90	No	No	No	No
6970	12.6	post oak	12	No	Healthy	0	61-90	No	No	No	No
6971	6.5	post oak	7	No	Healthy	0	61-90	No	No	No	No
6972	8	post oak	9	No	Healthy	0	61-90	No	No	No	No
6973	7.6	post oak	8	No	Healthy	0	61-90	No	No	No	No
6974	8.6	post oak	9	Yes	Healthy	0	61-90	No	No	No	No
6975	7.2	post oak	8	No	Healthy	0	61-90	No	No	No	No
6976	14.6	post oak	15	Yes	Healthy	0	61-90	No	No	No	No
6977	6.2	pecan	7	No	Healthy	0	61-90	No	No	No	No
6978	7.2	eastern red cedar	8	No	Healthy	0	61-90	No	No	No	No
6979	10.1	post oak	12	No	Healthy	0	61-90	No	No	No	No
6980	8.3	post oak	9	No	Healthy	0	61-90	No	No	No	No
6981	38	post oak	28	No	Healthy	0	61-90	No	No	No	No
6982	12.7	post oak	14	No	Healthy	0	61-90	No	No	No	No
6983	8.3	eastern red cedar	9	No	Healthy	0	61-90	No	No	No	No
6984	9.5	post oak	8	No	Healthy	0	61-90	No	No	No	No
6985	7.1	post oak	8	No	Healthy	0	61-90	No	No	No	No
6986	7.9	post oak	8	No	Healthy	0	61-90	No	No	No	No
6987	7.4	post oak	0	Yes	Damaged	60	61-90	No	No	No	No
6988	9	post oak	11	No	Healthy	0	61-90	No	No	No	No
6989	8.4	post oak	10	No	Healthy	0	61-90	No	No	No	No
6990	6.4	post oak	6	No	Healthy	0	61-90	No	No	No	No
6991	10	post oak	10	No	Healthy	0	61-90	No	No	No	No
6992	8.2	eastern red cedar	6	No	Healthy	0	61-90	No	No	No	No
6993	6.8	post oak	8	No	Healthy	0	61-90	No	No	No	No
6994	7.1	post oak	8	No	Healthy	0	61-90	No	No	No	No
6995	6.1	post oak	7	No	Healthy	0	61-90	No	No	No	No
6996	8.2	post oak	10	No	Healthy	0	61-90	No	No	No	No
6997	12.4	post oak	14	No	Healthy	0	61-90	No	No	No	No
6998	7.6	post oak	8	No	Healthy	0	61-90	No	No	No	No
6999	10.4	post oak	12	No	Healthy	0	61-90	No	No	No	No
7278	11.1	post oak	8	Yes	Healthy	0	61-90	No	No	No	No

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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead		Vine	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		Branches (%)	Lean				
7279	18.6	post oak	18	No	Healthy	0	61-90	No	No	No	No
7281	7.4	post oak	7	No	Healthy	0	61-90	No	No	No	No
7282	7.7	sugarberry	6	Yes	Healthy	0	61-90	No	No	No	No
7283	21	post oak	22	No	Healthy	0	61-90	No	No	No	No
7284	8.4	post oak	8	No	Healthy	0	61-90	No	No	No	No
7285	7.1	gum bumelia	8	No	Healthy	0	61-90	No	No	No	No
7287	6	post oak	7	No	Healthy	0	61-90	No	No	No	No
7288	6.5	post oak	7	No	Healthy	0	61-90	No	No	No	No
7289	9.9	blackjack oak	10	Yes	Healthy	0	61-90	No	No	No	No
7290	14.1	post oak	15	Yes	Healthy	0	61-90	No	No	No	No
7291	10.5	post oak	11	No	Healthy	0	61-90	No	No	No	No
7292	13.1	post oak	13	No	Healthy	0	61-90	No	No	No	No
7293	8.6	post oak	9	No	Healthy	0	61-90	No	No	No	No
7294	6.1	post oak	6	No	Healthy	0	61-90	No	No	No	No
7295	10	post oak	11	No	Healthy	0	61-90	No	No	No	No
7296	12.1	post oak	11	Yes	Healthy	0	61-90	No	No	No	No
7297	6.5	blackjack oak	7	No	Healthy	0	61-90	No	No	No	No
7298	11.7	blackjack oak	12	No	Healthy	0	61-90	No	No	No	No
7299	6	post oak	6	No	Healthy	0	61-90	No	No	No	No
7300	6.5	post oak	7	No	Healthy	0	61-90	No	No	No	No
7321	16.1	post oak	15	No	Healthy	0	61-90	No	No	No	No
7323	6.7	post oak	6	No	Healthy	0	61-90	No	No	No	No
7324	11.3	pecan	10	No	Healthy	0	61-90	No	No	No	No
7325	14.7	post oak	15	No	Healthy	0	61-90	No	No	No	No
7326	8.2	eastern red cedar	6	No	Healthy	0	61-90	No	No	No	No
7327	18.5	post oak	20	No	Healthy	0	61-90	No	No	No	No
7328	9	eastern red cedar	10	No	Healthy	0	61-90	No	No	No	No
7329	33.9	American elm	30	Yes	Damaged	0	61-90	No	No	Trunk	Trunk
7330	7	common persimmon	7	No	Healthy	0	61-90	No	No	No	No
7331	14.2	American elm	15	No	Healthy	0	61-90	No	No	No	No
7332	16	American elm	15	No	Healthy	0	61-90	No	No	No	No
7333	13.9	American elm	15	No	Healthy	0	61-90	No	No	No	No
7334	7.8	eastern red cedar	10	No	Healthy	0	61-90	No	No	No	No
7335	16.6	American elm	15	No	Healthy	0	61-90	No	No	No	No
7336	16	American elm	12	No	Healthy	0	31-60	No	No	No	No
7337	7.8	American elm	8	No	Healthy	0	61-90	No	No	No	No
7338	11.5	American elm	10	No	Healthy	0	61-90	Yes	No	No	No

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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead		Vine	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		Branches (%)	Lean				
7339	15.8	American elm	15	No	Healthy	0	61-90	No	No	No	No
7340	11.4	American elm	10	No	Healthy	0	31-60	No	No	No	No
7345	17.1	American elm	20	Yes	Healthy	0	61-90	No	No	No	No
7346	16.7	American elm	20	No	Healthy	0	61-90	No	No	No	No
7347	15	American elm	15	No	Healthy	0	61-90	No	No	No	No
7348	8	sycamore	8	No	Healthy	0	61-90	No	No	No	No
7349	12.1	pecan	12	No	Healthy	0	61-90	Yes	No	No	No
7350	13.8	post oak	20	No	Healthy	0	61-90	No	No	No	No
7351	15.1	post oak	15	No	Healthy	0	61-90	No	No	No	No
7352	16.3	pecan	16	No	Healthy	0	61-90	No	No	No	No
7366	6.5	American elm	6	No	Healthy	0	61-90	No	No	No	No
7367	14.7	American elm	15	No	Healthy	0	61-90	No	No	No	No
7368	16.7	pecan	20	No	Healthy	0	61-90	No	No	No	No
7369	13.7	American elm	15	No	Healthy	0	61-90	No	No	No	No
7370	8.2	gum bumelia	10	No	Healthy	0	61-90	No	No	No	No
7371	10.8	pecan	10	Yes	Healthy	0	61-90	No	No	No	No
7372	8.8	common persimmon	10	No	Healthy	0	61-90	No	No	No	No
7389	9	eastern red cedar	8	No	Healthy	0	61-90	No	No	No	No
7390	9.9	eastern red cedar	10	Yes	Healthy	0	61-90	No	No	No	No
7391	9.8	eastern red cedar	10	No	Healthy	0	61-90	No	No	No	No
7392	8	pecan	10	No	Healthy	0	61-90	No	No	No	No
7393	12.3	eastern red cedar	10	No	Healthy	0	61-90	No	No	No	No
7394	7.5	post oak	6	No	Healthy	0	61-90	No	No	No	No
7395	13.6	eastern red cedar	10	No	Healthy	0	61-90	No	No	No	No
7396	10.2	post oak	10	No	Healthy	0	61-90	No	No	No	No
7397	8	post oak	8	No	Healthy	0	0-30	No	No	No	No
7398	6.8	cedar elm	6	No	Healthy	0	61-90	No	No	No	No
7399	6.7	cedar elm	5	No	Healthy	0	61-90	No	No	No	No
7400	7.9	blackjack oak	10	No	Healthy	0	61-90	No	No	No	No
7448	7.7	American elm	12	No	Healthy	0	61-90	No	No	No	No
7450	8.2	pecan	12	No	Healthy	0	61-90	No	No	No	No
7454	11.3	green ash	12	No	Healthy	0	61-90	No	No	No	No
7456	8.5	pecan	5	No	Healthy	0	61-90	No	No	No	No
7457	8.1	Ashe juniper	8	No	Healthy	0	61-90	No	No	No	No
7458	7.5	Ashe juniper	8	No	Healthy	0	61-90	No	No	No	No
7459	6	post oak	7	No	Healthy	0	61-90	No	No	No	No
7460	6.9	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No

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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead Branches		Vine Shrouded	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		(%)	Lean				
7461	7.5	cedar elm	8	No	Healthy	0	61-90	No	No	No	No
7462	7.2	post oak	7	No	Healthy	0	61-90	No	No	No	No
7463	17.5	post oak	18	No	Healthy	0	61-90	No	No	No	No
7464	13.4	post oak	13	No	Healthy	0	61-90	No	No	No	No
7465	21	post oak	20	Yes	Healthy	0	61-90	No	No	No	No
7466	24.5	post oak	26	No	Healthy	0	61-90	No	No	No	No
7468	7.4	blackjack oak	7	No	Healthy	0	61-90	No	No	No	No
7469	8.7	post oak	9	No	Healthy	0	61-90	No	No	No	No
7470	10.7	post oak	12	No	Healthy	0	61-90	No	No	No	No
7471	11.5	post oak	12	No	Healthy	0	61-90	No	No	No	No
7472	10.4	blackjack oak	10	No	Healthy	0	61-90	No	No	No	No
7473	15	post oak	16	Yes	Healthy	0	61-90	No	No	No	No
7474	25.9	blackjack oak	26	Yes	Healthy	0	61-90	No	No	No	No
7475	7.4	eastern red cedar	7	Yes	Healthy	0	61-90	No	No	No	No
7476	10.5	blackjack oak	11	Yes	Healthy	0	61-90	No	No	No	No
7477	8.2	post oak	8	No	Healthy	0	61-90	No	No	No	No
7478	6.5	post oak	7	Yes	Healthy	0	61-90	No	No	No	No
7479	16	blackjack oak	16	No	Healthy	0	61-90	No	No	No	No
7480	7.4	blackjack oak	7	No	Healthy	0	61-90	No	No	No	No
7481	25.5	post oak	26	No	Healthy	0	61-90	No	No	No	No
7482	6.5	post oak	7	No	Healthy	0	61-90	No	No	No	No
7483	20.6	eastern red cedar	18	Yes	Healthy	0	61-90	No	No	No	No
7484	9.7	blackjack oak	10	Yes	Healthy	0	61-90	No	No	No	No
7485	9.7	blackjack oak	10	No	Healthy	0	61-90	No	No	No	No
7486	9.2	eastern red cedar	8	No	Damaged	50	61-90	No	No	No	No
7488	9.8	blackjack oak	10	Yes	Healthy	0	61-90	No	No	No	No
7489	10.1	blackjack oak	7	Yes	Healthy	0	61-90	No	No	No	No
7490	6.6	blackjack oak	7	Yes	Healthy	0	61-90	No	No	No	No
7491	6.1	blackjack oak	6	No	Healthy	0	61-90	No	No	No	No
7492	13	blackjack oak	13	Yes	Healthy	0	61-90	No	No	No	No
7493	9.5	blackjack oak	10	No	Healthy	0	61-90	No	No	No	No
7494	9	blackjack oak	9	No	Healthy	0	61-90	No	No	No	No
7495	21	post oak	22	No	Healthy	0	61-90	No	No	No	No
7496	7.6	blackjack oak	8	Yes	Healthy	0	61-90	No	No	No	No
7497	6.3	post oak	6	No	Healthy	0	61-90	No	No	No	No
7498	13.5	blackjack oak	14	Yes	Healthy	0	61-90	No	No	No	No
7499	15.8	post oak	16	No	Healthy	0	61-90	No	No	No	No



**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
**City of Denton, Denton County, Texas**

Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead		Vine	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		Branches (%)	Lean				
7500	7.6	blackjack oak	8	No	Healthy	0	61-90	No	No	No	No
7503	7	pecan	10	Yes	Healthy	0	61-90	No	No	No	No
7504	6	pecan	8	No	Healthy	0	61-90	No	No	No	No
7505	10.2	pecan	12	No	Healthy	0	61-90	No	No	No	No
7506	10.2	pecan	10	Yes	Healthy	0	61-90	No	No	No	No
7507	8.7	green ash	15	No	Healthy	0	61-90	No	No	No	No
7508	17.7	green ash	18	Yes	Healthy	0	61-90	No	No	No	No
7509	16.5	pecan	20	No	Healthy	0	61-90	No	No	No	No
7510	11	green ash	14	Yes	Healthy	0	61-90	No	No	No	No
7511	7.4	green ash	8	No	Healthy	0	61-90	No	No	No	No
7512	8.8	green ash	10	No	Healthy	0	61-90	No	No	No	No
7513	6.3	Osage-orange	0	No	Healthy	0	61-90	No	No	No	No
7514	7.5	green ash	8	No	Healthy	0	61-90	No	No	No	No
7515	6.2	green ash	6	No	Healthy	0	61-90	No	No	No	No
7516	9.4	green ash	15	No	Healthy	0	61-90	No	No	No	No
7517	16.8	American elm	22	No	Healthy	10	61-90	No	No	No	No
7518	10.6	pecan	16	No	Healthy	0	61-90	No	No	No	No
7519	11.3	post oak	15	Yes	Healthy	0	61-90	No	No	No	No
7520	6.6	cedar elm	10	No	Healthy	0	61-90	No	No	No	No
7521	6.4	pecan	8	No	Healthy	0	61-90	No	No	No	No
7522	10.6	blackjack oak	12	No	Healthy	0	61-90	No	No	No	No
7523	10.9	American elm	14	Yes	Healthy	0	61-90	No	No	No	No
7524	8.1	pecan	10	No	Healthy	0	61-90	No	No	No	No
7525	13.1	blackjack oak	18	No	Healthy	0	61-90	No	No	No	No
7526	12.5	blackjack oak	16	No	Healthy	0	61-90	No	No	No	No
7527	8.5	blackjack oak	12	No	Healthy	0	61-90	No	No	No	No
7528	6.5	blackjack oak	8	No	Healthy	0	61-90	No	No	No	No
7529	6.5	pecan	8	No	Healthy	0	31-60	No	No	No	No
7530	21.9	pecan	25	No	Healthy	0	61-90	No	No	No	No
7531	9.5	pecan	12	No	Healthy	0	61-90	No	No	No	No
7532	8	green ash	14	No	Healthy	0	61-90	No	No	No	No
7533	14	green ash	22	Yes	Healthy	0	31-60	No	No	No	No
7534	7.2	green ash	12	No	Healthy	0	61-90	No	No	No	No
7535	6.3	pecan	10	No	Healthy	0	61-90	No	No	No	No
7536	6	common persimmon	14	Yes	Healthy	0	61-90	No	No	No	No
7537	17.9	pecan	20	No	Healthy	10	61-90	No	No	No	No
7538	6.1	American elm	14	Yes	Healthy	0	61-90	No	No	No	No

**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead		Vine	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		Branches (%)	Lean				
7539	6.9	cedar elm	10	No	Healthy	0	61-90	No	No	No	No
7540	7.3	sugarberry	15	No	Healthy	0	61-90	No	No	No	No
7541	6.9	post oak	10	No	Healthy	0	61-90	No	No	No	No
7542	8.5	post oak	8	No	Healthy	0	61-90	No	No	No	No
7543	7.2	post oak	8	No	Healthy	0	61-90	No	No	No	No
7544	10.5	post oak	10	No	Healthy	0	61-90	No	No	No	No
7545	26.6	pecan	30	No	Healthy	0	61-90	No	No	No	No
7546	7.6	Osage-orange	15	No	Healthy	20	31-60	No	No	No	No
7547	8.2	Osage-orange	15	No	Healthy	0	61-90	No	Trunk	Trunk	No
7548	7.8	common persimmon	12	No	Healthy	0	61-90	No	No	No	No
7549	12.5	Osage-orange	10	Yes	Healthy	10	61-90	No	No	No	No
7550	7.3	green ash	12	No	Healthy	0	61-90	No	No	No	No
7551	8.7	Osage-orange	10	No	Healthy	40	61-90	No	Trunk	Trunk	Trunk
7552	10.5	green ash	15	No	Healthy	0	61-90	No	No	No	No
7553	8.5	green ash	12	No	Healthy	0	61-90	No	No	No	No
7554	7	Osage-orange	12	No	Healthy	10	61-90	No	Trunk	Trunk	Trunk
7555	9.3	green ash	20	No	Healthy	0	61-90	No	No	No	No
7556	8.7	common persimmon	12	Yes	Healthy	0	61-90	No	No	No	No
7560	9	post oak	10	No	Healthy	0	61-90	No	No	No	No
7561	23.3	post oak	22	Yes	Healthy	0	61-90	No	No	No	No
7562	10	blackjack oak	15	No	Healthy	0	61-90	No	No	No	No
7567	6.4	pecan	8	No	Healthy	0	61-90	No	No	No	No
7568	8.6	American elm	12	No	Healthy	0	31-60	No	No	No	No
7569	9.5	blackjack oak	10	No	Healthy	20	61-90	No	No	No	No
7571	9.4	pecan	15	No	Healthy	0	61-90	No	No	No	No
7572	14.4	green ash	20	Yes	Healthy	0	61-90	No	No	No	No
7573	8.6	blackjack oak	10	No	Healthy	0	61-90	No	No	No	No
7574	19	blackjack oak	23	No	Healthy	0	61-90	No	No	No	No
7575	9.9	blackjack oak	12	No	Healthy	0	61-90	No	No	No	No
7576	6.3	pecan	6	No	Healthy	0	61-90	No	No	No	No
7577	6	green ash	8	No	Healthy	0	61-90	No	No	No	No
7578	16	American elm	18	No	Healthy	0	61-90	No	No	No	No
7579	6.2	pecan	7	No	Healthy	0	61-90	No	No	No	No
7580	6.6	American elm	8	No	Healthy	0	61-90	No	No	No	No
7581	8.3	blackjack oak	10	No	Healthy	0	61-90	No	No	No	No
7582	9.5	post oak	10	No	Healthy	0	61-90	No	No	No	No
7583	7.5	American elm	10	No	Healthy	0	61-90	No	No	No	No

**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead		Vine	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		Branches (%)	Lean				
7584	6.7	pecan	8	No	Healthy	0	61-90	No	No	No	No
7585	6	American elm	8	No	Healthy	0	61-90	No	No	No	No
7586	9.3	cedar elm	8	No	Healthy	0	61-90	No	No	No	No
7587	7	pecan	8	No	Healthy	0	61-90	No	No	No	No
7588	8.5	pecan	8	No	Healthy	0	61-90	No	No	Trunk	No
7589	8.5	American elm	10	No	Healthy	0	61-90	No	No	Trunk	No
7590	10	American elm	10	No	Healthy	0	61-90	No	No	Trunk	No
7591	7	pecan	8	No	Healthy	0	61-90	No	No	No	No
7592	11.7	blackjack oak	14	No	Healthy	0	61-90	No	No	No	No
7653	6.5	post oak	6	No	Healthy	0	61-90	No	No	No	No
7727	7.6	American elm	8	No	Healthy	0	61-90	No	No	No	No
7728	7.4	eastern red cedar	9	No	Healthy	0	61-90	No	No	No	No
7729	25	post oak	30	No	Damaged	50	61-90	No	No	No	No
7735	15.4	post oak	18	No	Healthy	0	61-90	No	No	No	No
7736	13.3	American elm	13	No	Healthy	0	61-90	No	No	No	No
7737	14.6	American elm	15	No	Healthy	0	61-90	No	No	No	No
7738	14.8	American elm	19	No	Healthy	0	61-90	No	No	No	No
7739	6.2	post oak	5	No	Healthy	0	61-90	No	No	No	No
7740	6.7	blackjack oak	8	No	Healthy	0	61-90	No	No	No	No
7741	8.6	American elm	7	No	Healthy	0	61-90	No	No	No	No
7742	11.2	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
7743	9.9	American elm	11	No	Healthy	0	61-90	No	No	No	No
7744	7	American elm	7	No	Healthy	0	61-90	No	No	No	No
7745	6.3	American elm	6	No	Healthy	0	61-90	No	No	No	No
7746	14	American elm	15	No	Healthy	0	61-90	No	No	No	No
7747	12.6	eastern red cedar	11	No	Healthy	0	61-90	No	No	No	No
7748	17.9	blackjack oak	17	No	Healthy	0	61-90	No	No	No	No
7749	10.2	American elm	10	No	Healthy	0	31-60	No	No	No	No
7750	11.3	post oak	11	No	Healthy	0	61-90	No	No	No	No
7751	7.2	blackjack oak	6	No	Healthy	0	61-90	No	No	No	No
7752	10	American elm	8	No	Healthy	0	61-90	No	No	No	No
7753	8.7	blackjack oak	9	No	Healthy	0	61-90	No	No	No	No
7754	7.3	blackjack oak	9	Yes	Healthy	0	61-90	No	No	No	No
7755	10	post oak	9	No	Healthy	0	61-90	No	No	No	No
7756	10	post oak	8	No	Healthy	0	61-90	No	No	No	No
7757	8	cedar elm	8	No	Healthy	0	61-90	No	No	No	No
7758	6.9	cedar elm	7	No	Healthy	0	61-90	No	No	No	No

**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead Branches		Vine Shrouded	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		(%)	Lean				
7759	17.7	post oak	18	No	Healthy	0	61-90	No	No	No	No
7760	9.5	post oak	10	No	Healthy	0	61-90	No	No	No	No
7761	7	post oak	6	No	Healthy	0	61-90	No	No	No	No
7762	6.2	post oak	6	No	Healthy	0	61-90	No	No	No	No
7763	9.1	post oak	8	No	Healthy	0	61-90	No	No	No	No
7764	7.7	post oak	6	No	Healthy	0	61-90	No	No	No	No
7765	12.3	green ash	5	No	Damaged	80	61-90	No	No	No	No
7766	11.4	post oak	11	No	Healthy	0	61-90	No	No	No	No
7767	7.7	post oak	9	No	Healthy	0	61-90	No	No	No	No
7768	7	post oak	7	No	Healthy	0	61-90	No	No	No	No
7769	8.5	post oak	8	No	Healthy	0	61-90	No	No	No	No
7770	8.6	blackjack oak	9	No	Healthy	0	61-90	No	No	No	No
7771	15.1	pecan	18	No	Healthy	0	61-90	No	No	No	No
7772	8.1	pecan	8	No	Healthy	0	61-90	No	No	No	No
7773	9.7	cedar elm	10	No	Healthy	0	61-90	No	No	No	No
7774	9.2	cedar elm	8	No	Healthy	0	61-90	No	No	No	No
7775	8.9	post oak	8	No	Healthy	0	61-90	No	No	No	No
7776	17	blackjack oak	19	No	Healthy	0	61-90	No	No	No	No
7777	13.8	cedar elm	12	No	Healthy	0	61-90	No	No	No	No
7778	14.6	cedar elm	13	No	Healthy	0	61-90	No	No	No	No
7779	13.8	cedar elm	13	No	Healthy	0	61-90	No	No	No	No
7780	14.7	American elm	14	No	Healthy	0	61-90	No	No	No	No
7781	9.8	post oak	9	No	Healthy	0	61-90	No	No	No	No
7782	7.1	blackjack oak	7	No	Healthy	0	61-90	No	No	No	No
7783	8	blackjack oak	8	No	Healthy	0	61-90	No	No	No	No
7784	8.5	Chinaberry	7	No	Healthy	0	61-90	No	No	No	No
7785	7.6	Chinaberry	7	Yes	Healthy	0	61-90	No	No	No	No
7786	8.3	Chinaberry	6	No	Healthy	0	61-90	No	No	No	No
7787	8.3	Chinaberry	7	No	Healthy	0	61-90	No	No	No	No
7788	12.3	Chinaberry	12	Yes	Healthy	0	61-90	No	No	No	No
7789	11.8	Chinaberry	8	Yes	Healthy	0	61-90	No	No	No	No
7790	8.9	Chinaberry	7	No	Healthy	0	61-90	No	No	No	No
7791	20.5	post oak	20	No	Healthy	0	61-90	No	No	No	No
7792	11	eastern red cedar	11	No	Healthy	0	61-90	No	No	No	No
7793	12	post oak	12	No	Healthy	0	61-90	No	No	No	No
7794	8.3	post oak	8	No	Healthy	0	61-90	No	No	No	No
7795	6.6	cedar elm	6	No	Healthy	0	61-90	No	No	No	No

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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead		Vine	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		Branches (%)	Lean				
7796	18.8	sycamore	18	No	Healthy	0	61-90	No	No	No	No
7797	11.7	sycamore	11	No	Healthy	0	61-90	No	No	No	No
7798	10.7	American elm	10	Yes	Healthy	0	61-90	No	No	No	No
7799	16.4	sycamore	16	No	Healthy	0	61-90	No	No	No	No
7800	6.4	eastern red cedar	6	No	Healthy	0	61-90	No	No	No	No
7801	24.5	post oak	25	No	Healthy	0	61-90	No	No	No	No
7802	8.5	eastern red cedar	9	No	Healthy	0	61-90	No	No	No	No
7803	23.9	post oak	24	No	Healthy	0	61-90	No	No	No	No
7804	19.7	post oak	20	Yes	Healthy	0	61-90	No	No	No	No
7805	12.6	post oak	13	No	Healthy	0	61-90	No	No	No	No
7806	15.2	post oak	15	No	Healthy	0	61-90	No	No	No	No
7807	7.2	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
7808	11.9	post oak	13	No	Damaged	90	61-90	No	No	No	No
7809	12	post oak	14	No	Healthy	0	61-90	No	No	No	No
7810	15.3	post oak	12	No	Healthy	0	61-90	No	No	No	No
7811	12.5	post oak	12	No	Healthy	10	61-90	No	No	No	No
7812	13.5	post oak	13	No	Healthy	0	61-90	No	No	No	No
7813	8.6	blackjack oak	9	No	Healthy	0	61-90	No	No	No	No
7814	6.5	blackjack oak	7	No	Healthy	0	61-90	No	No	No	No
7815	8.9	post oak	9	No	Healthy	0	61-90	No	No	No	No
7816	14.8	post oak	13	No	Damaged	30	61-90	No	Trunk	Trunk	Trunk
7817	14.2	post oak	13	No	Healthy	0	61-90	No	No	No	No
7818	15	post oak	11	No	Damaged	40	61-90	No	No	No	No
7819	10.5	post oak	11	No	Healthy	0	61-90	No	No	No	No
7820	12.9	post oak	13	No	Healthy	0	61-90	No	No	No	No
7821	15.9	post oak	16	No	Healthy	0	61-90	No	No	No	No
7822	15.5	post oak	12	No	Healthy	0	61-90	No	No	No	No
7824	6	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
7825	17.6	post oak	18	No	Healthy	0	61-90	No	No	No	No
7826	7.6	eastern red cedar	8	No	Healthy	0	61-90	No	No	No	No
7827	17.1	post oak	17	No	Healthy	0	61-90	No	No	No	No
7828	20.4	post oak	22	No	Healthy	0	61-90	No	No	No	No
7829	6.6	blackjack oak	7	No	Healthy	0	61-90	No	No	No	No
7837	20.8	post oak	20	No	Healthy	0	61-90	No	No	No	No
7838	40.3	post oak	30	Yes	Healthy	0	61-90	No	No	No	No
7839	9.6	eastern red cedar	10	No	Healthy	0	61-90	No	No	No	No
7840	6.6	blackjack oak	7	No	Healthy	0	61-90	No	No	No	No

**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead		Vine	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		Branches (%)	Lean				
7841	20.1	post oak	21	No	Healthy	0	61-90	No	No	No	No
7842	7.3	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
7843	24.2	post oak	24	No	Healthy	0	61-90	No	No	No	No
7844	7.5	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
7845	6.4	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
7846	19.3	post oak	20	No	Healthy	25	61-90	No	No	No	No
7847	21.8	post oak	23	Yes	Healthy	0	61-90	No	No	No	No
7848	10.3	post oak	10	No	Healthy	0	61-90	No	No	No	No
7849	9.3	post oak	9	No	Healthy	0	61-90	No	No	No	No
7850	14.9	post oak	15	No	Healthy	0	61-90	No	No	No	No
7851	10.6	blackjack oak	10	No	Healthy	0	61-90	No	No	No	No
7852	8.2	eastern red cedar	8	No	Healthy	0	61-90	No	No	No	No
7853	9.7	blackjack oak	10	No	Healthy	0	61-90	No	No	No	No
7854	6.2	eastern red cedar	6	No	Healthy	0	61-90	No	No	No	No
7855	17.8	blackjack oak	18	No	Damaged	60	61-90	No	No	No	No
7856	7.6	eastern red cedar	9	No	Healthy	0	61-90	No	No	No	No
7863	11.1	post oak	10	No	Healthy	0	31-60	No	No	No	No
7864	12.5	post oak	14	No	Healthy	0	61-90	No	No	No	No
7865	18.9	post oak	18	No	Healthy	0	61-90	No	No	No	No
7866	10.1	post oak	11	No	Healthy	0	61-90	No	No	No	No
7880	10.5	blackjack oak	10	Yes	Healthy	0	61-90	No	No	No	No
7881	14.1	post oak	14	No	Healthy	0	61-90	No	No	No	No
7882	13.6	post oak	14	No	Healthy	0	61-90	No	No	No	No
7883	17.2	post oak	17	No	Healthy	0	61-90	No	No	No	No
7884	18	post oak	18	No	Healthy	0	61-90	No	No	No	No
7885	15.7	post oak	16	No	Healthy	0	61-90	No	No	No	No
7886	6.6	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
7887	11.9	blackjack oak	10	No	Healthy	0	61-90	No	No	No	No
7906	8.2	eastern red cedar	7	No	Healthy	0	61-90	No	No	No	No
7907	12.5	gum bumelia	12	No	Healthy	0	61-90	No	No	No	No
7908	6	sugarberry	7	No	Healthy	0	61-90	No	No	No	No
7909	16.2	American elm	16	No	Healthy	0	61-90	No	No	No	No
7910	17	post oak	18	No	Healthy	0	61-90	No	No	No	No
7911	10	pecan	10	No	Healthy	0	61-90	No	No	No	No
7912	20	eastern red cedar	12	Yes	Healthy	0	61-90	No	No	No	No
7913	15.5	post oak	14	No	Healthy	0	61-90	No	No	No	No
7914	7.1	post oak	7	No	Healthy	0	61-90	No	No	No	No



**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
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Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead Branches		Vine Shrouded	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		(%)	Lean				
7915	6.7	American elm	6	No	Healthy	0	61-90	No	No	No	No
7916	7.2	American elm	7	No	Healthy	0	61-90	No	No	No	No
7917	11.6	post oak	11	No	Healthy	0	61-90	No	No	No	No
7918	16.1	American elm	16	No	Healthy	0	61-90	No	No	No	No
7919	16	post oak	16	No	Healthy	0	61-90	No	No	No	No
7920	8.1	post oak	8	No	Damaged	0	61-90	No	Trunk	Trunk	Trunk
7922	26	pecan	18	No	Healthy	0	61-90	No	No	No	No
7923	11	American elm	10	No	Healthy	0	61-90	No	No	No	No
7924	15.3	post oak	14	No	Healthy	0	61-90	No	No	No	No
7925	9.3	American elm	9	No	Healthy	0	61-90	No	No	No	No
7926	8.3	post oak	8	No	Healthy	0	61-90	No	No	No	No
7927	6.1	cedar elm	6	No	Healthy	0	61-90	No	No	No	No
7928	11.4	eastern red cedar	11	No	Healthy	0	61-90	No	No	No	No
7929	6.3	American elm	6	No	Healthy	0	61-90	No	No	No	No
7930	18.6	black willow	18	No	Healthy	0	61-90	No	No	No	No
7932	8.7	American elm	8	Yes	Healthy	0	61-90	No	No	No	No
7933	9.7	post oak	9	No	Healthy	0	61-90	No	No	No	No
7934	8.8	American elm	8	No	Healthy	0	61-90	No	No	No	No
7935	6.4	cedar elm	6	No	Healthy	0	31-60	No	No	No	No
7936	10	cedar elm	10	No	Healthy	0	61-90	No	No	No	No
7937	7.1	American elm	7	No	Healthy	0	61-90	No	No	No	No
7938	6.5	American elm	6	No	Healthy	0	61-90	No	No	No	No
7939	10	pecan	10	No	Healthy	0	61-90	No	No	No	No
7940	9	American elm	9	No	Healthy	0	61-90	No	No	No	No
7944	10.6	pecan	10	No	Healthy	0	61-90	No	No	No	No
7945	26.5	blackjack oak	20	No	Healthy	0	61-90	No	No	No	No
7946	28	blackjack oak	25	No	Healthy	0	61-90	No	No	No	No
7947	14.7	post oak	14	No	Healthy	0	61-90	No	No	No	No
7948	7	cedar elm	8	No	Healthy	0	61-90	No	No	No	No
7949	13	post oak	12	No	Healthy	0	61-90	No	No	No	No
7950	7	post oak	6	No	Healthy	0	61-90	No	No	No	No
7951	12.5	post oak	12	No	Healthy	0	61-90	No	No	No	No
7952	6.4	blackjack oak	6	No	Healthy	0	0-30	No	No	No	No
7954	12	post oak	12	No	Healthy	0	61-90	No	No	No	No
7955	6.8	blackjack oak	6	No	Healthy	0	0-30	No	No	No	No
7956	9.9	post oak	10	No	Healthy	0	61-90	No	No	No	No
7957	18	post oak	22	No	Healthy	0	61-90	No	No	No	No

**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
**City of Denton, Denton County, Texas**

Tree Number	Diameter at Breast Height (Inches)	Species	Canopy		General Condition	Dead Branches		Vine Shrouded	Dead/ Missing Bark	Sapwood Damage/ Decay	Heartwood Damage/ Decay
			Radius (Feet)	Multiple Trunks		(%)	Lean				
7958	8.4	blackjack oak	8	No	Healthy	0	61-90	No	No	No	No
7959	11.2	post oak	11	No	Healthy	0	61-90	No	No	No	No
7960	9.1	post oak	9	No	Healthy	0	61-90	No	No	No	No
7961	11.1	eastern red cedar	11	No	Healthy	0	61-90	No	No	No	No
7962	6.4	blackjack oak	6	No	Healthy	0	61-90	No	No	No	No
7963	7.4	post oak	7	No	Healthy	0	61-90	No	No	No	No
7964	6.5	blackjack oak	6	No	Healthy	0	61-90	No	No	No	No
7965	13.9	eastern red cedar	14	No	Healthy	0	61-90	No	No	No	No
7966	8.1	blackjack oak	8	No	Healthy	0	61-90	No	No	No	No
7967	6.8	American elm	6	No	Healthy	0	61-90	No	No	No	No
7968	7	pecan	7	No	Healthy	0	61-90	No	No	No	No
7969	11.3	boxelder	10	Yes	Healthy	0	61-90	No	No	No	No
7970	16.4	cedar elm	16	Yes	Healthy	0	61-90	No	No	No	No
7971	6.5	pecan	6	No	Healthy	0	61-90	No	No	No	No
7972	7.3	pecan	7	No	Healthy	0	61-90	No	No	No	No
7973	7.7	pecan	7	No	Healthy	0	61-90	No	No	No	No
7974	12.7	American elm	13	No	Healthy	0	61-90	No	No	No	No
7975	8	pecan	8	No	Healthy	0	61-90	No	No	No	No
7976	7.9	Bradford pear	8	No	Damaged	0	61-90	No	Trunk	No	No
7977	11.2	post oak	11	No	Healthy	0	61-90	No	No	No	No
7978	8.6	pecan	8	No	Healthy	0	61-90	No	No	No	No
7979	8.3	pecan	8	No	Healthy	0	61-90	No	No	No	No
7980	7.4	pecan	7	No	Healthy	0	61-90	No	No	No	No
7981	8.3	eastern red cedar	8	No	Healthy	0	61-90	No	No	No	No
7982	8	boxelder	8	No	Healthy	0	61-90	No	No	No	No
7983	6.3	pecan	6	No	Healthy	0	61-90	No	No	No	No
7984	7.4	pecan	7	No	Healthy	0	61-90	No	No	No	No
7985	14.5	blackjack oak	14	No	Healthy	0	61-90	No	No	No	No
7986	6.5	boxelder	6	No	Healthy	0	61-90	No	No	No	No
7987	8.1	pecan	7	No	Healthy	0	61-90	No	No	No	No
7988	6.1	blackjack oak	6	No	Healthy	0	61-90	No	No	No	No
7990	10	American elm	6	No	Damaged	0	61-90	No	No	Trunk	Trunk
7991	8.4	pecan	8	No	Healthy	0	61-90	No	No	No	No
7992	11.1	boxelder	11	No	Healthy	0	61-90	No	No	No	No
7993	10.3	post oak	10	No	Healthy	0	61-90	No	No	No	No
7994	14.1	eastern red cedar	14	Yes	Healthy	0	61-90	No	No	No	No
7995	9.3	pecan	9	No	Healthy	0	61-90	No	No	No	No

**Spencer Road Industrial Project Site - Tree Inventory within Confirmed ESA**  
**City of Denton, Denton County, Texas**

<b>Tree Number</b>	<b>Diameter at Breast Height (Inches)</b>	<b>Species</b>	<b>Canopy Radius (Feet)</b>	<b>Multiple Trunks</b>	<b>General Condition</b>	<b>Dead Branches (%)</b>	<b>Lean</b>	<b>Vine Shrouded</b>	<b>Dead/ Missing Bark</b>	<b>Sapwood Damage/ Decay</b>	<b>Heartwood Damage/ Decay</b>
7996	18.4	post oak	25	No	Healthy	0	61-90	No	No	No	No
7997	8.4	eastern red cedar	8	No	Healthy	0	61-90	No	No	No	No
7998	6.1	post oak	6	No	Healthy	0	61-90	No	No	No	No
7999	9.5	post oak	9	No	Healthy	0	61-90	No	No	No	No
8000	8.8	post oak	9	No	Healthy	0	61-90	No	No	No	No
9487	10.4	blackjack oak	8	Yes	Healthy	0	61-90	No	No	No	No