



April 7, 2025
AVO 37449.004

Ms. Ramie Hammonds
Development Services Director/Building Official
City of Sanger
201 Bolivar Street
P.O. Box 1729
Sanger, Texas 76266

Re: **Sanger Daycare - Review #1**

Dear Ms. Hammonds,

Halff was requested by the City of Sanger to review the Construction Plans for the Sanger Day Care development. The submittal was prepared by the Allison Engineering Group and was received March 25, 2025.

We have completed our review and offer the following comments:

Please address comments on attached markups and provide annotated responses on markups. Please note, not all comments are written on letter since some comments are easier to show and explain on the markups. Please annotate markup with responses. Please address all Hydrology and Hydraulics comments provided in a separate letter.

Overall

1. Provide embedment details for water, sanitary sewer services, and storm drain lines installations.
2. Provide pavement repair details for water line and sanitary sewer service connections in the existing concrete Second Street.
3. Confirm sheet names and sheet numbers are labelled correctly.

Site and Paving Plan

1. Consider installing "fire lane no parking" paint along this pavement edge to prevent parking from interfering with fire trucks / emergency vehicles.
2. What will keep vehicle overhang from encroaching into sidewalk? Consider widening sidewalk and/or adding wheel stops.
3. Provide geotech report to verify pavement needed.
4. Clarify where curbs are being placed!

Utility Plan



1. Per ordinance 10.106(e)(2)(B)(v) Eight-inch (8") diameter or larger mains shall be installed in zoning districts commonly referred to as "commercial", "industrial", or "multifamily".... Where dead-ends must exist, eight-inch (8") diameter or larger mains shall be installed.
2. Confirm this existing 6" SS have the capacity to handle sanitary sewer demand from these lots?

If you have any questions or need additional information, please do not hesitate to call me at (817) 764-7468.

Sincerely,

Keith L. Freeman

Keith Freeman, PE

HALFF

Firm No. 0312

Attachments: Final Plat markups

CONSTRUCTON PLANS FOR SANGER DAY CARE

CITY OF SANGER, DENTON COUNTY, TEXAS

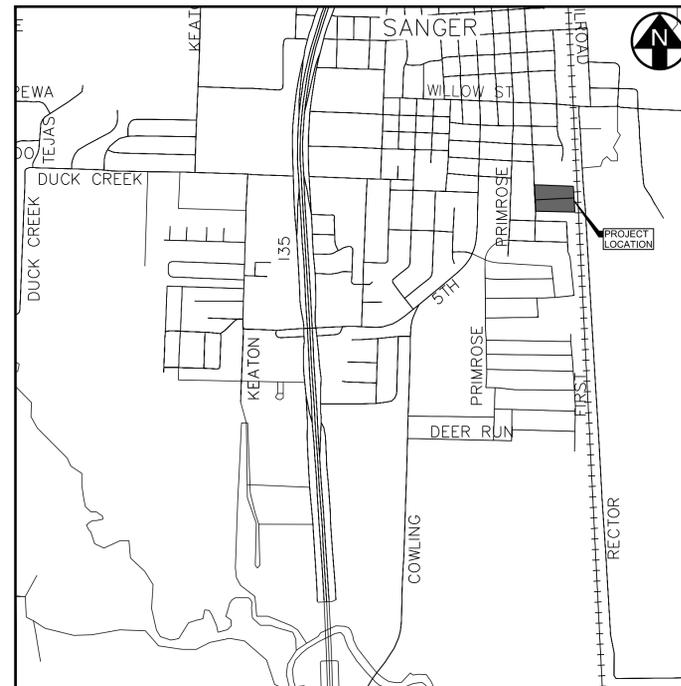
MARCH 2025

OWNER:
 SPRINGER FAMILY RENTALS, LLC
 1807 WESTMINSTER STREET
 DENTON, TX 76205
 (940) 387-0404
 CONTACT: JEFF SPRINGER

ENGINEER:
 2415 N. ELM STREET
 DENTON, TEXAS 76201
 (940) 380-9453
 WWW.AE-GRP.COM
 TBPE FIRM REG # 7898
 CONTACT: WILLIAM TODD ESTES, P.E.



SURVEYOR:
 KAZ SURVEYING
 4321 I-35, SUITE 575
 SANGER, TX 76240
 (940) 382-3446
 CONTACT: KENNETH A. ZOLLINGER, R.P.L.S.



VICINITY MAP
 1" = 2000'

Inlet calculations and
 STM line sheets are
 not included. Please
 provide.

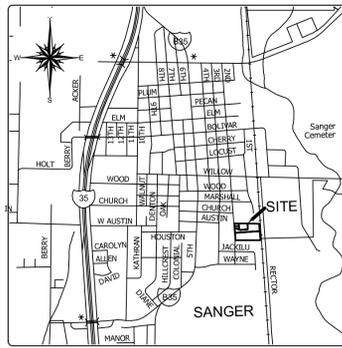
SHEET INDEX	
NO.	SHEET TITLE
00	COVER SHEET
01	FINAL PLAT
02	GENERAL NOTES
04	DRAINAGE AREA MAP
05	GRADING PLAN
06	SITE & PAVING PLAN
07	UTILITY PLAN
08	EROSION CONTROL PLAN
09	EROSION CONTROL DETAILS
10	STANDARD DETAILS - PAVING
11	STANDARD DETAILS - WATER
12	STANDARD DETAILS - SEWER



502 ELM STREET | SANGER, TX 76266 | (940) 458-7930



SUBMITTAL LOG		
NO.	DATE	SUBMITTAL
1.	12/09/2024	1ST SUBMITTAL - TO CITY FOR REVIEW NOT FOR CONSTRUCTION
2.	03/19/2025	2ND SUBMITTAL - TO CITY FOR REVIEW NOT FOR CONSTRUCTION



VICINITY MAP
NOT TO SCALE

GENERAL NOTES:

- ALL LOTS COMPLY WITH THE MINIMUM SIZE REQUIREMENTS OF THE ZONING DISTRICT.
- THIS PROPERTY MAY BE SUBJECT TO CHARGES RELATED TO IMPACT FEES AND THE APPLICANT SHOULD CONTACT THE CITY REGARDING ANY APPLICABLE FEES DUE.
- ALL COMMON AREAS, DRAINAGE EASEMENTS, AND DETENTION FACILITIES WILL BE OWNED AND MAINTAINED BY THE HOA/POA. ANY COMMON AREA WITHIN THE CITY'S RIGHT-OF-WAY WILL REQUIRE A FACILITIES AGREEMENT, TO BE REVIEWED AND APPROVED BY THE CITY.
- NOTICE- SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF CITY ORDINANCE AND STATE LAW, AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
- THIS PLAT DOES NOT REMOVE EXISTING DEED RESTRICTION, IF ANY, ON THIS PROPERTY.
- MINIMUM FINISHED FLOOR ELEVATIONS ARE TO BE AT LEAST 2 FEET ABOVE THE 100-YEAR FLOOD PLAIN.
- FLOOD STATEMENT:** I HAVE REVIEWED THE F.E.M.A. FLOOD INSURANCE RATE MAP FOR THE CITY OF SANGER, COMMUNITY NUMBER 480786 EFFECTIVE DATE 04-18-2011 AND THAT MAP INDICATES AS SCALED, THAT THIS PROPERTY IS WITHIN "NON-SHADED ZONE X" DEFINED AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD (500-YEAR)" AS SHOWN ON PANEL 210 G OF SAID MAP.
- THE PURPOSE OF THIS PLAT IS TO CREATE 5 LOTS OF RECORD FROM A 5.070 ACRE PARCEL OF LAND.
- BEARINGS SHOWN HEREON ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, NORTH CENTRAL ZONE (4202), AND ARE BASED ON THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT.
- THE EXISTING CREEKS OR DRAINAGE CHANNELS TRAVERSING ALONG OR ACROSS THE ADDITION WILL REMAIN AS OPEN CHANNELS AND WILL BE MAINTAINED BY THE INDIVIDUAL PROPERTY OWNERS.
- PRIVATE IMPROVEMENTS MAY NOT BE BUILT UPON OR ENCROACH ONTO EXISTING PUBLIC OR PRIVATE EASEMENTS.

Closure Report Thu Dec 5 09:37:08 2024

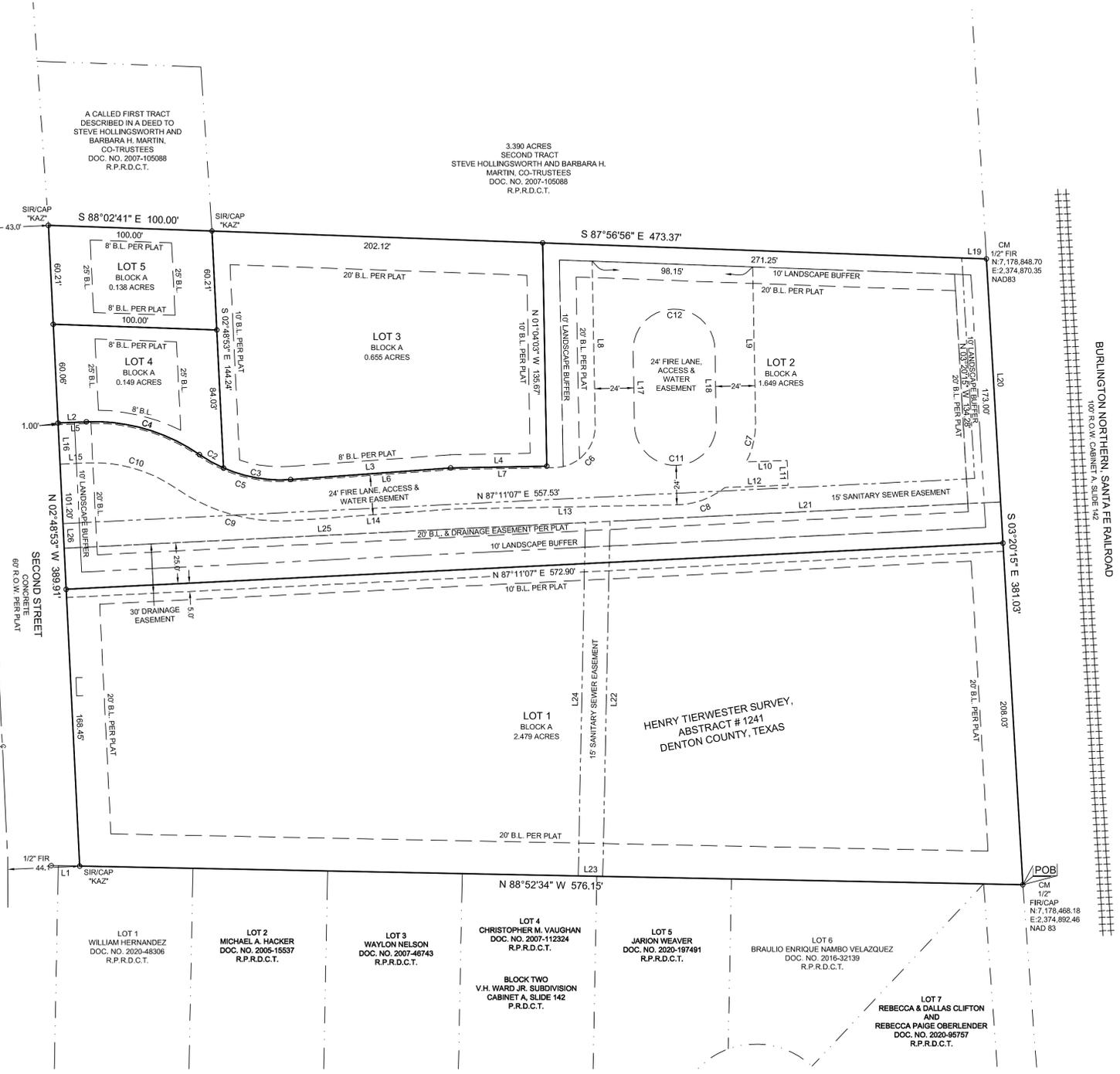
Northing	Easting	Bearing	Distance
7178468.316	2374892.537	N 88°52'34" W	576.154
7178479.616	2374316.493	N 02°48'53" W	389.910
7178869.055	2374297.347	S 88°02'41" E	100.000
7178655.643	2374397.289	S 87°56'56" E	473.369
7178485.700	2374870.354	S 03°20'15" E	381.030
7178468.316	2374892.537		

Closure Error Distance > 0.00000
Total Distance > 1920.463
Polyline Area: 220854 sq ft, 5.070 acres

4321 I-35 SUITE 575
GAINESVILLE, TX 76205
(940)382-3446
JOB NUMBER: 230464-02
DRAWN BY: TEP
DATE: 1-14-2025
R.P.L.S.
KENNETH A. ZOLLINGER

SURVEYOR:
KAZ SURVEYING, INC.
4321 I-35 SUITE 575
DENTON, TEXAS 76205
PHONE: 940-382-3446
TBPLS FIRM# 10002100

OWNER:
SPRINGER FAMILY RENTALS LTD.
P.O. BOX 248
SANGER, TEXAS 76286
CONTACT: (940) 458-7758



BOUNDARY LINE TABLE

LINE	BEARING	DISTANCE
L1	N 88°52'34" W	17.40
L2	N 87°31'38" E	17.31
L3	N 85°51'46" E	156.72
L4	N 88°55'57" E	155.74

24' FIRE LANE, ACCESS & WATER EASEMENT LINE TABLE

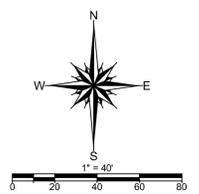
LINE	BEARING	DISTANCE
L5	N 87°31'38" E	17.30
L6	N 85°51'46" E	157.97
L7	N 88°55'57" E	63.72
L8	N 01°04'03" W	103.02
L9	S 01°04'03" E	84.68
L10	N 87°48'56" E	25.02
L11	S 01°06'21" E	115.05
L12	S 87°56'46" W	38.44
L13	S 86°55'57" W	137.07
L14	S 85°51'46" W	197.33
L15	S 87°31'38" W	17.16
L16	N 02°48'53" W	24.00
L17	N 01°04'03" W	45.00
L18	S 01°04'03" E	45.00

15' SANITARY SEWER EASEMENT LINE TABLE

LINE	BEARING	DISTANCE
L19	S 87°56'56" E	115.07
L20	S 03°20'15" E	148.00
L21	S 87°11'07" W	1238.88
L22	S 01°10'16" W	215.92
L23	N 88°49'44" W	15.00
L24	N 01°10'16" E	1214.88
L25	S 87°11'07" W	518.75
L26	N 02°48'53" W	15.00

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	113.00	13.16	N 73°55'33" W	71.89
C2	87.00	16.90	S 60°56'37" E	16.87
C3	87.00	41.95	N 80°19'22" W	41.55
C4	112.00	12.51	N 74°55'53" W	71.29
C5	88.00	59.53	N 74°45'29" W	58.40
C6	25.00	39.27	S 43°55'57" W	35.36
C7	49.00	24.91	S 13°26'14" W	24.65
C8	49.00	31.88	N 70°17'45" E	31.32
C9	112.00	75.76	N 74°45'29" W	74.33
C10	88.00	166.07	S 73°26'53" E	65.88
C11	25.00	78.54	S 88°55'57" E	50.00
C12	25.00	78.54	N 88°55'57" E	50.00



LEGEND

- R.O.W. = RIGHT-OF-WAY
- FIR = FOUND IRON ROD
- FIR/CAP = FOUND IRON ROD W/CAP
- SIR/CAP = SET IRON ROD W/CAP
- CM = CONTROLLING MONUMENT
- () = PLAT OR DEED CALL
- POB = POINT OF BEGINNING
- = BOUNDARY LINE
- - - = BUILDING LINE
- · - · - = EASEMENT LINE
- · - · - = ADJOINER LINE
- - - = CENTERLINE
- ++++ = RAILROAD

*APPROVED AND ACCEPTED

CHAIRMAN, PLANNING & ZONING COMMISSION
CITY OF SANGER, TEXAS

MAYOR
CITY OF SANGER

ATTESTED BY

CITY SECRETARY
CITY OF SANGER, TEXAS

DATE

DATE

DATE

FINAL PLAT
LOTS 1-5, BLOCK A
SANGER DAYCARE ADDITION
BEING 5.070 ACRES
IN THE HENRY TIERWESTER SURVEY,
ABSTRACT NUMBER 1241,
IN THE CITY OF SANGER,
DENTON COUNTY, TEXAS

DATE OF PLAT 1-14-2025

OWNERS CERTIFICATION

WHEREAS SPRINGER FAMILY RENTALS LTD. IS THE OWNER OF ALL THAT CERTAIN TRACT OR PARCEL OF LAND SITUATED IN THE HENRY TIERWESTER SURVEY, ABSTRACT NUMBER 1241 DENTON COUNTY, TEXAS AND BEING ALL OF A CALLED 5.062 ACRE TRACT OF LAND DESCRIBED IN DEED TO SPRINGER FAMILY RENTALS, LTD RECORDED IN DOCUMENT NUMBER 2015-68194, REAL PROPERTY RECORDS, DENTON COUNTY, TEXAS AND BEING MORE FULLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 1/2 INCH CAPPED IRON ROD FOUND MAINTAINING THE SOUTHEAST CORNER OF SAID 5.062 ACRE TRACT, THE NORTHEAST CORNER OF V.H. WARD JR. SUBDIVISION, BLOCK 2, AN ADDITION IN THE CITY OF SANGER, TEXAS AS SHOWN BY PLAT OF RECORD IN CABINET A, SLIDE 142, PLAT RECORDS, DENTON COUNTY, TEXAS, AND IN THE WEST LINE OF BURLINGTON NORTHERN, SANTA FE RAILROAD;

THENCE NORTH 88 DEGREES 52 MINUTES 34 SECONDS WEST, ALONG THE SOUTH LINE OF SAID 5.062 ACRE TRACT, AND THE NORTH LINE OF SAID BLOCK 2, A DISTANCE OF 576.15 FEET TO A CAPPED IRON ROD SET STAMPED "KAZ" FOR THE SOUTHWEST CORNER OF SAID 5.062 ACRE TRACT, IN THE EAST RIGHT OF WAY LINE OF SECOND STREET, FROM WHICH A 1/2 INCH IRON ROD FOUND FOR THE NORTHWEST CORNER OF LOT 1, BLOCK 2, OF SAID V.H. WARD JR. SUBDIVISION, BEARS NORTH 88 DEGREES 52 MINUTES 34 SECONDS WEST, A DISTANCE OF 17.40 FEET;

THENCE NORTH 02 DEGREES 48 MINUTES 53 SECONDS WEST, ALONG THE WEST LINE OF SAID 5.062 ACRE TRACT AND SAID EAST RIGHT-OF-WAY LINE, DISTANCE OF 389.91 FEET TO A CAPPED IRON ROD SET STAMPED "KAZ" FOR THE NORTHWEST CORNER OF SAID "FIRST TRACT" AND THE SOUTHWEST CORNER OF A "FIRST TRACT" OF LAND CONVEYED TO STEVE HOLLINGSWORTH AND BARARA H. MARTIN, CO TRUSTEES IN DOCUMENT NUMBER 1007-105088 OF SAID REAL PROPERTY RECORDS;

THENCE SOUTH 88 DEGREES 02 MINUTES 41 SECONDS EAST, ALONG THE NORTH LINE OF SAID 5.062 ACRE TRACT AND THE SOUTH LINE OF SAID "FIRST TRACT", A DISTANCE OF 100.00 FEET TO A 1/2 INCH CAPPED IRON ROD SET STAMPED "KAZ" FOR THE SOUTHWEST CORNER OF SAID "FIRST TRACT" AND THE SOUTHWEST CORNER OF A 3.390 ACRE "SECOND TRACT" OF LAND CONVEYED TO STEVE HOLLINGSWORTH AND BARARA H. MARTIN, CO TRUSTEES IN DOCUMENT NUMBER 1007-105088 OF SAID REAL PROPERTY RECORDS;

THENCE SOUTH 87 DEGREES 56 MINUTES 56 SECONDS EAST, ALONG THE NORTH LINE OF SAID 5.062 ACRE TRACT AND THE SOUTH LINE OF SAID 3.390 ACRE "SECOND TRACT", A DISTANCE OF 473.37 FEET TO A 1/2 INCH IRON ROD FOUND MAINTAINING THE NORTHEAST CORNER OF SAID 5.062 ACRE TRACT, THE SOUTHEAST CORNER OF SAID 3.390 ACRE "SECOND TRACT", AND IN THE WEST LINE OF SAID BURLINGTON NORTHERN, SANTA FE RAILROAD;

THENCE SOUTH 03 DEGREES 20 MINUTES 15 SECONDS EAST, ALONG THE EAST LINE OF SAID 5.062 ACRE TRACT AND THE WEST LINE OF SAID BURLINGTON NORTHERN, SANTA FE RAILROAD, A DISTANCE OF 381.03 FEET TO THE **POINT OF BEGINNING** AND CONTAINING 5.070 ACRES OF LAND, MORE OR LESS.

OWNER'S DEDICATION

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

That, SPRINGER FAMILY RENTALS, LTD., through its duly sworn representative, does hereby adopt this Final Plat, designating the hereinabove described property as SANGER DAYCARE ADDITION, an addition to the City of Sanger, Texas, and do hereby dedicate to public use forever by fee simple title, free and clear of all liens and encumbrances, all streets, thoroughfares, alleys, fire lanes, dive aisles, parks, and watercourses, and to the public use forever easements for sidewalks, storm drainage facilities, utilities and any other property necessary to serve the plat and to implement the requirements of the subdivision regulations and other City codes and do hereby bind ourselves, our heirs, successors and assigns to warrant and to forever defend the title on the land so dedicated. Further, the undersigned covenants and agrees that he/she shall maintain all easements and facilities in a state of good repair and functional condition at all times in accordance with City codes and regulations. No buildings, fences, trees, shrubs, or other improvements or growths shall be constructed or placed upon, over or across the easements as shown, except that landscape improvements may be installed, if approved by the City of Sanger. The City of Sanger and public utility entities shall have the right to a access and maintain all respective easements without the necessity at any time of procuring permission from anyone.

JEFF SPRINGER _____ DATE _____
REPRESENTATIVE SPRINGER FAMILY RENTALS, LTD.

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED JEFF SPRINGER, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE THIS _____ DAY OF _____, 20__.

NOTARY PUBLIC, DENTON COUNTY, TEXAS.

MY COMMISSION EXPIRES _____.

CERTIFICATE OF SURVEYOR

STATE OF TEXAS
COUNTY OF DENTON

I, KENNETH A. ZOLLINGER, REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND AND THAT THE MONUMENTS SHOWN HEREON WERE FOUND OR PLACED WITH 1/2" IRON RODS CAPPED "KAZ" UNDER MY DIRECTION AND SUPERVISION IN ACCORDANCE WITH THE ORDINANCES OF THE CITY OF SANGER, DENTON COUNTY, TEXAS.

KENNETH A. ZOLLINGER, L.S. # 5312 DATE _____

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED KENNETH A. ZOLLINGER, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE THIS _____ DAY OF _____, 20__.

NOTARY PUBLIC, DENTON COUNTY, TEXAS.

MY COMMISSION EXPIRES _____.



FOR REVIEW ONLY

APPROVAL BLOCK

GRADING NOTES

1. A GRADING PERMIT IS REQUIRED FROM THE CITY PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THIS PERMIT AND PAYING ALL ASSOCIATED FEES.
2. CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT THEIR OWN EXPENSE.
3. ALL SPOT ELEVATIONS SHOWN ARE TO TOP OF PAVING SURFACE OR FINISHED EARTH GRADE UNLESS NOTED OTHERWISE. ADD 6-INCHES TO SPOT GRADES SHOWN FOR TOP OF CURB ELEVATIONS.
4. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS AND NO PONDING IN PAVED AREAS. CONTRACTOR FIELD ADJUSTMENTS TO SPOT GRADES TO MAINTAIN POSITIVE DRAINAGE ARE ALLOWED WITH THE PRIOR APPROVAL OF THE ENGINEER. CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO PAVING. IF ANY AREAS OF POOR DRAINAGE ARE ENCOUNTERED.
5. THE CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES WHICH ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.
6. ALL EXISTING CONCRETE PAVING, CHANNEL IMPROVEMENTS, SIDEWALK, STRUCTURES AND CURB DEMOLITION SHALL BE REMOVED IN THEIR ENTIRETY, AND DISPOSED OF BY THE CONTRACTOR, OFF SITE UNLESS OTHERWISE DIRECTED BY THE OWNER OR ENGINEER.
7. ALL AREAS DISTURBED BY GRADING OPERATIONS SHALL BE SEEDED, TEMPORARILY IRRIGATED AND MAINTAINED UNTIL A UNIFORM COVERAGE OF 70% MINIMUM DENSITY, AS DETERMINED BY THE OWNER OR OWNER'S REPRESENTATIVE, IS ACHIEVED.
8. THE GRADING CONTRACTOR SHALL COORDINATE WITH THE FRANCHISE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS.
9. THE CONTRACTOR SHALL CALCULATE THEIR OWN EARTHWORK QUANTITIES TO DETERMINE THEIR BID. ANY DEVIATION FROM A BALANCED CUT AND FILL SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER AND ANY VARIANCE SHALL BE SPECIFICALLY ITEMIZED ON THE BID.

WATER AND SANITARY SEWER NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES WHERE PROPOSED UTILITIES ARE BEING CONNECTED, PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF A CONFLICT IS DISCOVERED.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS SHOWN, COORDINATING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY SERVICES ENTERING THE BUILDING AND/OR CROSSING OTHER UTILITIES.
3. ALL WATER AND SANITARY SEWER SERVICES SHALL TERMINATE 5 FEET OUTSIDE THE BUILDING UNLESS OTHERWISE NOTED AND THE END OF THESE SERVICES SHALL BE TIGHTLY PLUGGED OR CAPPED. SEE M.E.P. OR ARCHITECTURAL PLANS FOR CONTINUATION.
4. ALL FIRE LINES SHALL CONFORM TO THE CITY DESIGN CRITERIA.
5. ALL APPURTENANCES USED FOR FIRE PROTECTION SHALL CONFORM TO THE CURRENT CITY DESIGN STANDARDS.
6. FOR PIPES 12" AND SMALLER IN THE PROPOSED OR EXISTING PAVEMENT, DEPTH OF COVER SHALL BE 42". FOR 12" AND SMALLER WATER MAIN IN AREAS WITHOUT PERMANENT PAVING SURFACES WITH BASE, THE MINIMUM DEPTH OF COVER SHALL BE 5 FEET.
7. ALL SANITARY SEWER LINES SHALL BE A MINIMUM OF PVC (SDR-35) PIPE. ALL SANITARY SEWER LINES DEEPER THAN 12 FEET SHALL BE SDR-26. ALL WATER LINES 12" AND SMALLER SHALL BE C900, DR-14 PVC.
8. THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION TO AVOID INTERRUPTION OF WATER AND SANITARY SEWER SERVICE TO SURROUNDING AREAS.
9. EXISTING AND/OR PROPOSED WATER MAINS SHALL BE LOWERED BELOW OR ABOVE PROPOSED SANITARY AND STORM SEWER LINES TO MAINTAIN A MINIMUM OF 2.0 FEET OR VERTICAL SEPARATION. CONTRACTOR TO MAINTAIN MINIMUM 9'-FEET (OUTSIDE TO OUTSIDE) SEPARATION BETWEEN SANITARY SEWER, WATER AND STORM SEWER MAIN. FIRE HYDRANTS ARE NOT TO BE INSTALLED CLOSER THAN 9 FEET TO ANY WASTEWATER MAIN OR APPURTENANCE.
10. EXISTING MANHOLE TOPS, VALVE BOXES, FIRE HYDRANTS AND ALL OTHER UTILITY APPURTENANCES SHALL BE ADJUSTED, AS REQUIRED, TO MATCH PROPOSED GRADES AS SHOWN ON GRADING PLAN.
11. CONTRACTOR SHALL CONTACT NECESSARY FRANCHISE UTILITY COMPANIES PRIOR TO CONSTRUCTION, IN ORDER TO LOCATE AND/OR DISCONNECT SERVICES.
12. FOR EACH SEWER AND WATER CROSSING, CENTER ONE JOINT OF SEWER PIPE ON THE EXISTING OR PROPOSED WATER MAIN.
13. ALL VALVES AND FITTINGS SHALL HAVE MEGALUG ANCHORS.
14. ALL CONNECTIONS TO EXISTING WATER MAINS SHALL BE DONE BY CITY PERSONNEL AT THE CONTRACTOR'S EXPENSE.
15. CONTRACTOR TO COORDINATE WATER SERVICES AND METERS WITH THE MEP PLANS FOR EACH BUILDING.
16. CONTRACTOR TO COORDINATE IRRIGATION SERVICES AND METERS WITH THE LANDSCAPE AND IRRIGATION PLANS.

TRAFFIC CONTROL NOTES

1. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS, AT LEAST 48 HOURS PRIOR TO ANY WORK IN A CITY RIGHT-OF-WAY.
2. ALL TRAFFIC CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST VERSION.
3. THE CONTRACTOR SHALL COVER EXISTING SIGNS AND OBLITERATE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE INTENT OF THESE TRAFFIC CONTROL PLANS TO AVOID CONFUSION TO THE TRAVELING PUBLIC.
4. THE CONTRACTOR SHALL UNCOVER EXISTING SIGNS AND REPLACE PAVEMENT MARKINGS IN-KIND AS ORIGINALLY CONFIGURED AT THE END OF CONSTRUCTION OPERATIONS AND PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
5. ALL TEMPORARY SIGNS, BARRICADES, WARNING LIGHTS AND OTHER MISCELLANEOUS TRAFFIC CONTROL MEASURES SHALL BE REMOVED AND ORIGINAL TRAFFIC CONTROL MEASURES REPLACED AT THE END OF THE CONTRACTOR'S CONSTRUCTION OPERATIONS.
6. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
7. APPROVED COPIES OF "TRAFFIC CONTROL PLANS" AND LANE/SIDEWALK CLOSURE PERMITS SHALL BE AVAILABLE FOR INSPECTION AT JOB SITE AT ALL TIMES.

EROSION CONTROL NOTES

1. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE AND SHALL REMAIN IN PLACE UNTIL FINAL GRADING AND PAVING IS COMPLETE AND A STAND OF GRASS IS ESTABLISHED WITH 70% COVERAGE ACHIEVED.
2. CONSTRUCTION OPERATIONS SHALL BE MANAGED SO THAT AS MUCH OF THE SITE AS POSSIBLE IS LEFT COVERED WITH TOPSOIL AND VEGETATION.
3. ALL AREAS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE SEEDED AND IRRIGATED UNTIL A PERMANENT STAND OF GRASS IS ACHIEVED WITH A MINIMUM OF 70% COVERAGE.
4. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES AND OBTAIN APPROPRIATE PERMITS ASSOCIATED WITH THE PROJECT. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE AND THE ESTABLISHMENT OF A STAND OF GRASS WITH 70% COVERAGE TO PREVENT EROSION. THE CONTRACTOR SHALL USE SEDIMENT FILTERS OR OTHER MEASURES APPROVED BY THE ENGINEER AND CONSTRUCTION MANAGER OR EXISTING INLETS, OR FROM BEING TRANSPORTED TO ADJACENT PROPERTIES AND STREET RIGHT-OF-WAYS.
5. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION TRAFFIC UTILIZES THE STABILIZED ENTRANCE AT ALL TIMES FOR INGRESS/EGRESS TO THE SITE.
6. CONSTRUCTION ENTRANCE:
MINIMUM SIZE STONE: 3 INCH DIAMETER
THICKNESS: NOT LESS THAN 8 INCHES
A: NOT LESS THAN 50 FEET
B: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS AND EGRESS.
MAINTENANCE REQUIREMENTS: AS NECESSARY TO PREVENT TRACKING OR FLOWING MUD INTO PUBLIC RIGHT-OF-WAY OR PARKING AREAS
7. SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON A PUBLIC ROADWAY SHALL BE REMOVED IMMEDIATELY. WASHING IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE TO A PUBLIC ROADWAY. IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN. ALL FINES IMPOSED FOR TRACKING ONTO PUBLIC ROADS SHALL BE PAID BY THE CONTRACTOR.
8. CONTRACTOR IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE REQUIRED EROSION CONTROL DEVICES THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EROSION CONTROLS SHALL BE REPAIRED OR REPLACED AS INSPECTION DEEMS NECESSARY, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ACCUMULATED SILT IN ANY EROSION CONTROL DEVICE SHALL BE REMOVED AND SHALL BE DISTRIBUTED ON SITE IN A MANNER NOT CONTRIBUTING TO ADDITIONAL SILTATION.
9. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING ANY EROSION CONTROL DEVICE WHICH THEY DISTURB. EACH CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DEFICIENCIES IN THE ESTABLISHED EROSION CONTROL MEASURES WHICH MAY LEAD TO UNAUTHORIZED DISCHARGE OR STORM WATER POLLUTION, SEDIMENTATION OR OTHER POLLUTANTS. UNAUTHORIZED POLLUTANTS INCLUDE, BUT ARE NOT LIMITED TO, EXCESS CONCRETE DUMPING OR CONCRETE RESIDUE, PAINTS, SOLVENTS, GREASES, FUEL AND LUBE OIL, PESTICIDES, AND SOLID WASTE MATERIALS.
10. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL USE FILTER BARRIER (OR OTHER METHOD APPROVED BY THE ENGINEER AND CITY) AS REQUIRED TO PREVENT ADVERSE OFF SITE IMPACTS OR STORM WATER QUALITY FROM SILT AND CONSTRUCTION DEBRIS FLOWING ONTO ADJACENT PROPERTIES AS REQUIRED BY THE CITY.
11. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS OFF SITE FROM THE EXISTING ROADWAYS AND PROJECT SITE THAT ARE A RESULT OF THE PROPOSED CONSTRUCTION AS REQUESTED BY THE CITY.
12. BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF CONSTRUCTION AND OTHER ITEMS ESTABLISHED BY THE PLANS. THE CONTRACTOR SHALL PROTECT AND PRESERVE CONTROL POINTS AT ALL TIMES DURING THE COURSE OF THE PROJECT. THE GRADING CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
13. CONTRACTOR STAGING AREA TO BE AGREED UPON BY OWNER PRIOR TO BEGINNING CONSTRUCTION.
14. CONTRACTOR SHALL PROMOTE AND PROVIDE FOR A HEALTHY ESTABLISHMENT OF TURF GRASSES WHILE KEEPING IRRIGATION TO A MINIMUM IN ORDER TO REDUCE EROSION FROM SURFACE RUNOFF.
15. SOD OR SEED MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES AFTER FINAL GRADING AND AT ANY OTHER TIME AS NECESSARY TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
16. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY THE T.C.E.Q.
17. THE CONTRACTOR MUST CONSTRUCT AND MAINTAIN A PERMANENT STABLE PROTECTIVE COVER (GRASS) FOR EROSION AND SEDIMENT CONTROL ON ALL LAND SURFACES EXPOSED OR DISTURBED BY CONSTRUCTION OF THE PERMITTED PROJECT. A PERMANENT STABLE COVER MUST BE ESTABLISHED WITHIN 60 DAYS OF ITS INSTALLATION.

PAVING AND STRIPING NOTES

1. ALL WORK AND MATERIALS ON SITE SHALL BE IN ACCORDANCE WITH THE CITY DESIGN STANDARDS.
2. ALL PAVEMENT TO BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL REPORT.
3. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN AGENCY, APPROVED BY THE OWNER. FOR TESTING MATERIALS, PROCUREMENT OF THE TESTING LABORATORY AND THE PAYMENT OF SUCH TESTING SERVICES SHALL BE MADE BY THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE, BY THE STANDARD TESTING PROCEDURES, THAT THE WORK CONSTRUCTED MEETS THE REQUIREMENTS OF THE CITY AND PROJECT SPECIFICATIONS.
4. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
5. RAISED PAVEMENT MARKERS SHALL BE BONDED TO THE ROADWAY SURFACE WITH ADHESIVE CONFORMING WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. THE PAVEMENT UPON WHICH THE LANE AND PAVEMENT MARKERS ARE TO BE PLACED SHALL BE PREPARED TO THE APPROVAL OF THE INSPECTOR TO ENSURE PROPER CLEANING OF THE PAVEMENT SURFACE.
7. ALL TRAFFIC STRIPING AT ENTRANCE SHALL BE EXTRUDED THERMOPLASTIC MARKING MATERIAL. STANDARD PARKING STRIPING SHALL BE PAINTED WHITE.
8. SIGN LOCATIONS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CITY. THE CONTRACTOR SHALL REVIEW LOCATION OF ALL TRAFFIC CONTROL DEVICES WITH THE CITY PRIOR TO INSTALLATION.
9. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LINES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN THE PARKING LOT AND AROUND THE BUILDING AS SHOWN ON THE PLANS.
10. CURBS ADJACENT TO FIRE LANES SHALL BE PAINTED BRIGHT RED IN COLOR FROM THE CURB'S OUTER LINE TO THE TOP, BACK OF CURB.
11. FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PAINTED LINES OF RED TRAFFIC PAINT SIX INCHES (6") IN WIDTH TO SHOW BOUNDARIES OF THE LANE. THE WORDS "NO PARKING FIRE LANE" OR "FIRE LANE NO PARKING" SHALL APPEAR IN FOUR INCH (4") WHITE LETTERS AT 20 FEET INTERVALS ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANES. CITY ORDINANCE CHAPTER 29-2 SECTION 503.3 AMENDING THE 2006 INTERNATIONAL FIRE CODE.
12. ALL HANDICAP RAMPING, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT OF 1994 AND THE TEXAS ARCHITECTURAL BARRIERS ACT OF 1994, AND ALL ADDENDA OR UPDATES.
13. ALL EXISTING CONCRETE OR ASPHALT SHOWN TO BE REMOVED SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR OFF SITE.
14. CONTRACTOR SHALL CONDUCT STABILIZATION ANALYSIS OF SUBGRADE & PROVIDE A REPORT TO THE CITY AND THE CITY ENGINEER DETAILING THE RECOMMENDED AMOUNT OF LIME OR CEMENT TO BE ADDED AND THE APPROPRIATE APPLICATION & COMPACTION METHODS.

GENERAL CONSTRUCTION NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY DESIGN STANDARDS.
2. THE CONTRACTOR SHALL CONTACT ALL FRANCHISE UTILITY COMPANIES TO HAVE THEM LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION AND DEPTH OF ALL FRANCHISE UTILITY SERVICES AND ANY REQUIRED RELOCATION AND/OR EXTENSIONS. SERVICES SHOWN ON THE PLANS ARE CONCEPTUAL.
3. THE CONTRACTOR SHALL SALVAGE AND PROTECT ALL PUBLIC AND PRIVATE UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. ALL MANHOLES, CLEANOUTS, VALVE BOXES, POWER POLES, SIGNS, FIRE HYDRANTS, ETC., MUST BE ADJUSTED TO PROPER GRADE BY THE CONTRACTOR PRIOR TO AND AFTER PLACING OF PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING CONSTRUCTION OF THE PAVING FOR THIS PROJECT.
4. BRACING OF UTILITY POLES MAY BE REQUIRED BY UTILITY COMPANIES WHEN TRENCHING OR EXCAVATION IS IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR. THERE IS NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE VARIOUS PAY ITEMS FOR INSTALLATION OF PIPE.
5. THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY RECORDS AND PLANS AND ARE CONSIDERED APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION IN ORDER THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL PRESERVE AND PROTECT PUBLIC UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES RESULTING FROM CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE. THE ENGINEER SHALL BE NOTIFIED WHEN PROPOSED FACILITY GRADES CONFLICT WITH EXISTING UTILITY GRADES.
6. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY, INCLUDING, BUT NOT LIMITED TO FENCES, WALLS, PAVEMENT, GRASS, TREES, AND LAWN SPRINKLER AND IRRIGATION SYSTEMS AT NO COST TO THE OWNER. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT (UNLESS OTHERWISE NOTED) AND IS NOT A SEPARATE PAY ITEM.
7. THE CONTRACTOR SHALL REMOVE SURPLUS MATERIAL FROM THE PROJECT AREA. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT AND IS NOT A SEPARATE PAY ITEM.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
9. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
10. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
11. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS SHALL BE SENT TO THE CIVIL ENGINEER, CONTRACTOR AND OWNER DIRECTLY FROM THE TESTING AGENCY.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF TEXAS DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
13. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
14. CONTRACTOR SHALL VERIFY BENCHMARKS AND DATUM PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS.
15. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
16. ALL HORIZONTAL DIMENSIONS GIVEN ARE TO FACE OF CURB AND TO PIPE CENTERLINES UNLESS OTHERWISE NOTED ON PLANS.
17. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELOCATION AND INSTALLATION OF FRANCHISE UTILITIES NECESSARY FOR ON AND OFF SITE CONSTRUCTION. PAYMENT FOR RELOCATION AND INSTALLATION WILL BE NEGOTIATED ONCE IDENTIFIED.
18. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH. THE AREAS SHALL THEN BE SEEDED, IRRIGATED, AND STABILIZED AS SPECIFIED IN THE PLANS, AND MAINTAINED UNTIL SOIL IS STABILIZED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE STABILIZED AND MULCHED AS SHOWN ON THE LANDSCAPE, GRADING, AND EROSION CONTROL PLANS.
19. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE SHOWN.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
21. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY THE T.C.E.Q.
22. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE CIVIL ENGINEER A COPY OF RECORD DRAWINGS IDENTIFYING ALL DEVIATIONS OR VARIATIONS FROM THE ORIGINAL PLANS.
23. ALL WORK ON STATE RIGHT-OF-WAY (ROW) SHALL COMPLY WITH THE TXDOT PERMIT PROVISIONS AND TXDOT STANDARDS.
24. CONTRACTOR SHALL GIVE NOTICE TO ALL AFFECTED PARTIES AND ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES OR RAILROADS AFFECTED BY HIS OPERATIONS, AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
25. ALL "RECORD" DIMENSIONS SHALL CONFORM TO THE DESIGN DIMENSIONS PLUS OR MINUS 0.02 FEET. ALL "RECORD" SLOPES SHALL CONFORM TO THE DESIGNED SLOPES PLUS OR MINUS 0.005 FOOT/FOOT.
26. CONTRACTOR SHALL COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS AND REGULATIONS, AS WELL AS ANY OTHER APPLICABLE FEDERAL, STATE, OR LOCAL HEALTH AND SAFETY STANDARDS, LAWS, OR REGULATIONS. FAILURE TO COMPLY WITH THE REQUIREMENTS SPECIFIED SHALL BE CONSIDERED JUST AND SUFFICIENT CAUSE FOR OWNER TO STOP WORK, PROVISION OF A SAFE AND HEALTHFUL WORK ENVIRONMENT INCLUDES PROVISION OF A TRENCH SAFETY SYSTEM.
27. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH ALL MATERIALS AND LABOR TO CONSTRUCT THE PROJECT AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THIS PROJECT.
28. THE CONTRACTOR SHALL SEED AND FERTILIZE ALL AREAS DISTURBED BY CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE NECESSARY MEASURES INCLUDING TEMPORARY IRRIGATION TO ENSURE FULL COVERAGE OF VEGETATION. UNLESS OTHERWISE NOTED, PRIVATE LAWN AREAS AND PARKWAYS IN FRONT OF PRIVATE LAWN AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLACED WITH BLOCK SOD SIMILAR TO THAT EXISTING.

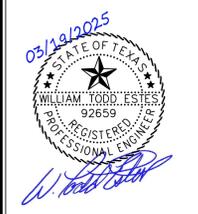
MATERIAL NOTES

1. ALL MATERIALS FURNISHED AND INSTALLED SHALL EITHER:
 - a) BE AMONGST THOSE LISTED ON CITY'S PROJECT MATERIAL SUBMITTAL CHECKLISTS (IN WHICH CASE APPLICANT NEED NOT PROVIDE MATERIAL SUBMITTALS); OR
 - b) BE "OR-EQUAL" MATERIALS, CONFORMING TO THE SPECIFICATIONS ON THAT CHECKLIST (IN WHICH CASE APPLICANT SHALL PROVIDE CORRESPONDING MATERIAL SUBMITTALS TO PUBLIC WORKS INSPECTION DEPT. FOR CITY'S REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.)

REV. 1
REV. 2
REV. 3
REV. 4
REV. 5

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Phone (940) 380-9453
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Registration Number: E-7998
info@ae-grp.com



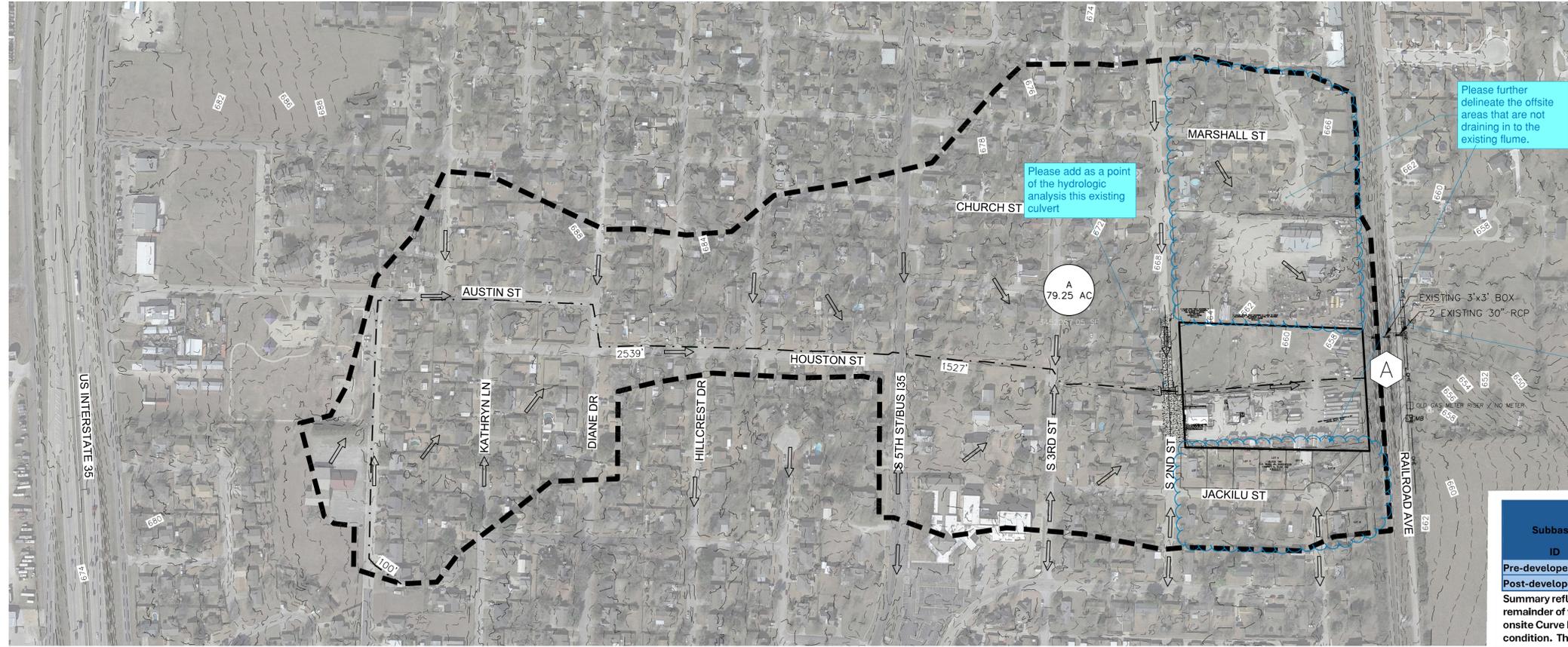
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Checked by: WTE

JEFF SPRINGER
CONSTRUCTION PLANS
SANGER DAY CARE
CITY OF SANGER, DENTON COUNTY, TEXAS

GENERAL NOTES

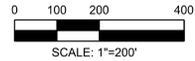
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BENCHMARK TABLE

- BM #1
 1/2" FIR/CAP
 N: 7,178,468.18
 E: 2,374,892.46
 Z: 662.29
 NAD 83
- BM #2 SOUTHEAST CORNER HEADWALL
 N: 7,178,642.13
 E: 2,374,242.47
 Z: 664.62
 NAD 83



LEGEND

- PROPERTY BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DRAINAGE DIVIDE MAJOR BASIN
- TIME OF CONCENTRATION LINE WITH LENGTH
- FLOW ARROW
- DRAINAGE AREA LABEL
- DESIGN POINT

Calculations should be provided for existing culverts showing that appropriate capacity exists.

WATERSHED RESPONSE SUMMARY (HEC-HMS RESULTS)

Subbasin ID	Total Area (acres)	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 (cfs)
Pre-developed	79.25	143.80	189.94	229.12	284.95	328.37	374.32
Post-developed	79.25	143.80	189.94	229.12	284.95	328.37	374.32

Summary reflects the change in Curve Number for the onsite area only as the remainder of the watershed is currently in the ultimate developed condition. The onsite Curve Number changed from 86 in the existing condition to 92 in the proposed condition. The entire watershed is in soils with a hydrologic soil group of D.

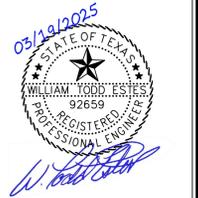
NOTE:
 ENGINEER USED HEC HMS UNIT HYDROGRAPH METHODOLOGY (SCS SYNTHETIC STORM) TO CONFIRM THAT DETENTION IS NOT REQUIRED. PRE AND POST DEVELOPED FLOW FOR THE ENTIRE BASIN SHOW NO INCREASE IN PEAK FLOW TO THE CROSSING UNDER THE RAILROAD AND DOWNSTREAM. THIS IS DUE TO THE DIFFERENTIAL TIMING OF THE HYDROGRAPHS. THE OFFSITE PEAK FLOWS ARRIVE AT THE CULVERT UNDER THE RAILROAD SIGNIFICANTLY LATER THAN THE ONSITE PEAK FLOWS, WHICH GIVE NO NET INCREASE IN PEAK DISCHARGE DOWNSTREAM OF THE RAILROAD

Approval pending. A drainage study should be included showing all the appropriate calculations. The hydrology model and all appropriate supporting files should be included with the submittal package.



REV. 1
REV. 2
REV. 3
REV. 4
REV. 5

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Drawn by: JSM
 Checked by: WTE

JEFF SPRINGER
 CONSTRUCTION PLANS
SANGER DAY CARE
 CITY OF SANGER, DENTON COUNTY, TEXAS
 DRAINAGE AREA MAP

Job: SFP2301

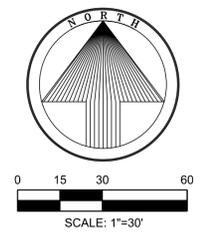
SHEET
04

SITE RUNOFF CALCULATIONS FOR MODIFIED RATIONAL METHOD STORAGE CALCULATIONS															
	Area	Ca	Td	I2	Q2	I5	Q5	I10	Q10	I25	Q25	I50	Q50	I100	Q100
	(acres)		(min)	(in/hr)	(cfs)										
Pre-developed	2.6701	0.3	12	4.05	3.25	5.23	4.19	6.11	4.89	7.24	5.80	8.07	6.47	8.89	7.12
Post-developed	2.6701	0.75	10	4.35	8.71	5.62	11.25	6.56	13.14	7.79	15.60	8.69	17.40	9.57	19.16

NOTE:
ENGINEER USED HEC HMS UNIT HYDROGRAPH METHODOLOGY (SCS SYNTHETIC STORM) TO CONFIRM THAT DETENTION IS NOT REQUIRED. PRE AND POST DEVELOPED FLOW FOR THE ENTIRE BASIN SHOW NO INCREASE IN PEAK FLOW TO THE CROSSING UNDER THE RAILROAD AND DOWNSTREAM. THIS IS DUE TO THE DIFFERENTIAL TIMING OF THE HYDROGRAPHS. THE OFFSITE PEAK FLOWS ARRIVE AT THE CULVERT UNDER THE RAILROAD SIGNIFICANTLY LATER THAN THE ONSITE PEAK FLOWS, WHICH GIVE NO NET INCREASE IN PEAK DISCHARGE DOWNSTREAM OF THE RAILROAD

CAUTION!! 

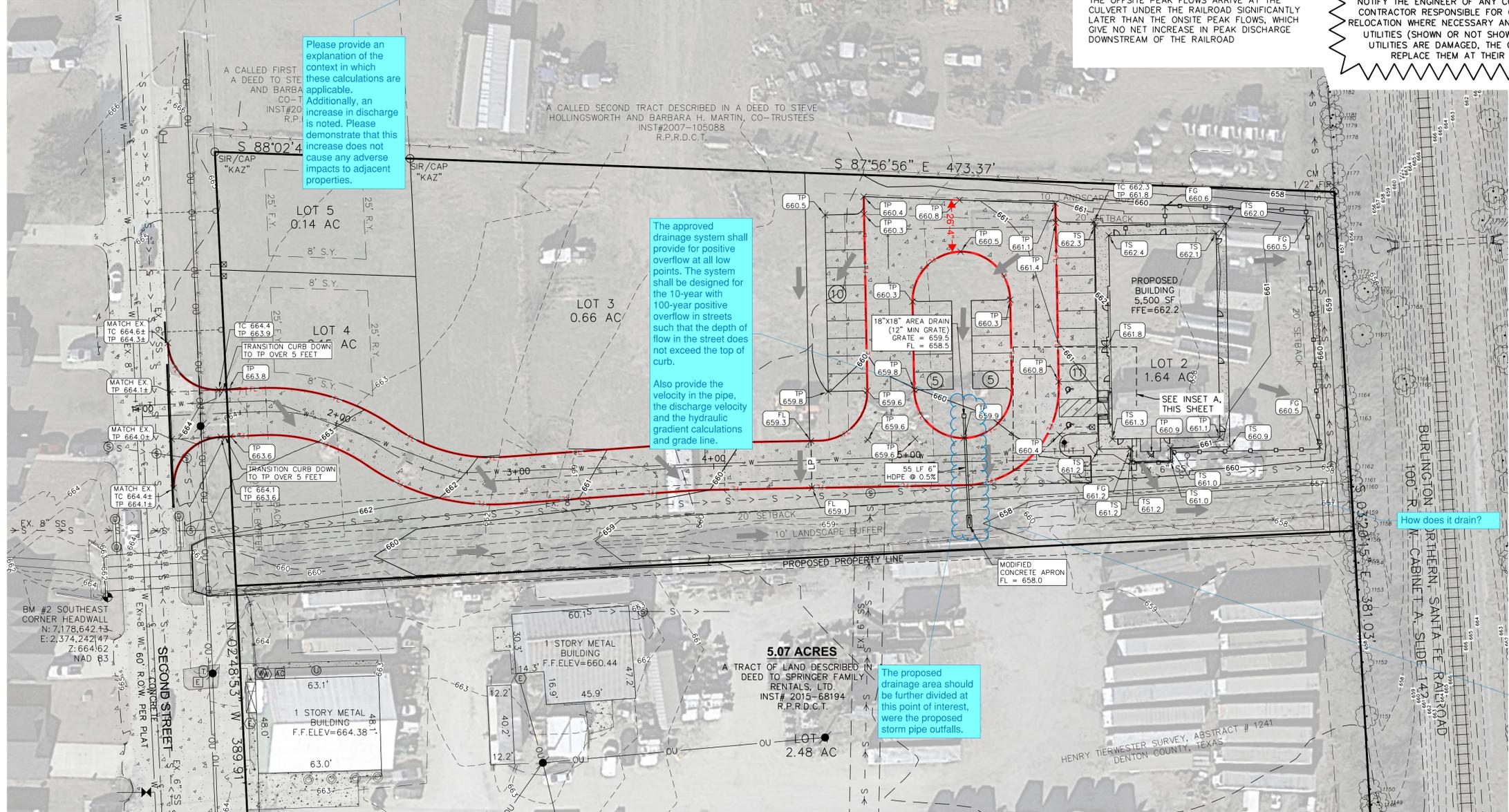
EXISTING UNDERGROUND UTILITIES. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO START OF ANY CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR RESPONSIBLE FOR COORDINATING UTILITY RELOCATION (WHERE NECESSARY) AND PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN). IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT THEIR OWN EXPENSE.



BENCHMARK TABLE

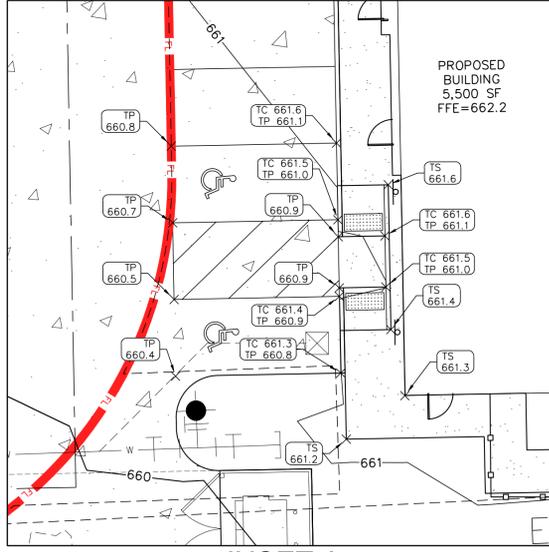
BM #1	1/2" FIR/CAP	N: 7,178,468.18	E: 2,374,892.46	Z: 662.29	NAD 83
BM #2 SOUTHEAST CORNER HEADWALL		N: 7,178,642.13	E: 2,374,242.47	Z: 664.62	NAD 83

- LEGEND**
- 700 — PROPERTY LINE
 - - - 700 - - - EXISTING CONTOUR
 - 700 — PROPOSED CONTOUR
 - - - HP - - - HIGH POINT LINE
 - - - LP - - - LOW POINT LINE
 - DRAINAGE FLOW ARROW
 - TP 700.0 TOP OF PAVEMENT ELEVATION
 - TS 700.0 TOP OF SIDEWALK ELEVATION
 - TC 700.0 FINISHED GROUND ELEVATION
 - FL 700.0 FLOWLINE ELEVATION
 - TC 700.5 TOP OF CURB ELEVATION/ TOP OF PAVEMENT ELEVATION
 - MATCH EX EG 700.0+ MATCH EXISTING GROUND



How does it drain?

If the natural channel is to be replaced by an improved channel, the flow from the 100-year design flood must be contained within the improved channel while allowing for one (1) foot of freeboard. Hydraulic calculations should be included for existing ditch, showing no adverse impacts from proposed site.



INSET A
SCALE: 1"=10'

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REV. 1
REV. 2
REV. 3
REV. 4
REV. 5

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Allison Engineering Group
Planning Communities - Designing the Systems That Serve Them

05/19/2025
STATE OF TEXAS
WILLIAM TODD ESTES
92659
REGISTERED PROFESSIONAL ENGINEER
W. Todd Estes

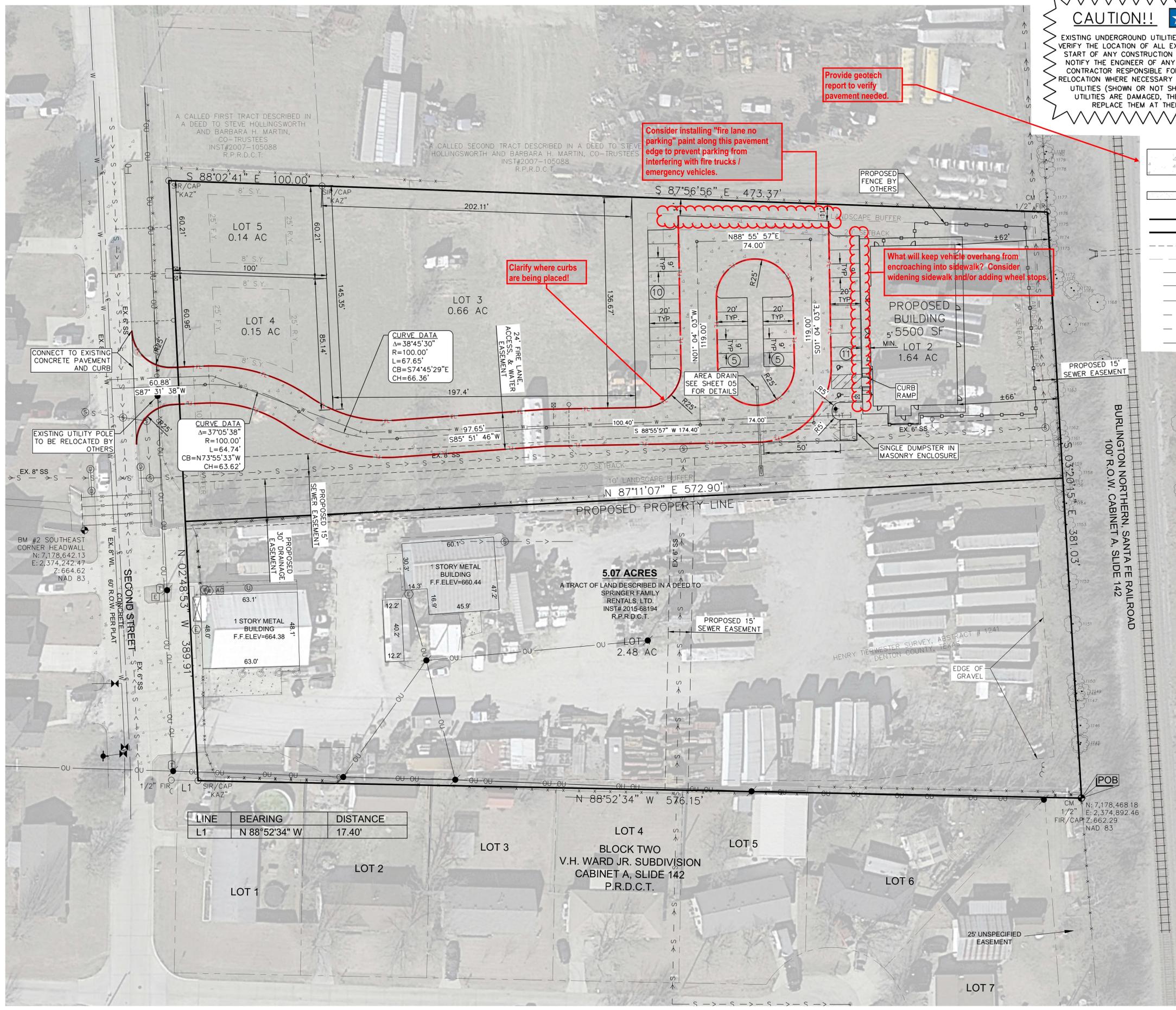
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CONSTRUCTION PLANS
SANGER DAY CARE
CITY OF SANGER, DENTON COUNTY, TEXAS

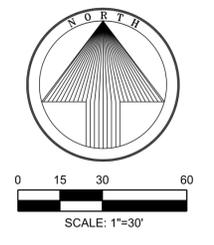
GRADING PLAN

Job: SFP2301
SHEET 05

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CAUTION!! 
 EXISTING UNDERGROUND UTILITIES. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO START OF ANY CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR RESPONSIBLE FOR COORDINATING UTILITY RELOCATION (WHERE NECESSARY) AND PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN). IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT THEIR OWN EXPENSE.



- LEGEND**
- PROPOSED 6" 3,600 PSI CONCRETE PAVEMENT REINF. WITH #3 BARS @ 18" O.C.E.W. ON COMPACTED SUB-BASE (PER CITY STD. OR PER GEOTECH)
 - PROPOSED 4" 3,000 PSI CONCRETE SIDEWALK WITH #3 BARS @ 24" O.C.E.W. (PER CITY STD. OR PER GEOTECH)
 - PROPERTY LINE
 - PROPOSED FIRE LANE STRIPING
 - PROPOSED EASEMENT
 - PROPOSED SETBACK
 - EXISTING WATER LINE
 - EXISTING WATER VALVE
 - EXISTING FIRE HYDRANT
 - EXISTING SANITARY SEWER LINE
 - EXISTING SANITARY SEWER MANHOLE
 - EXISTING OVERHEAD UTILITIES

BENCHMARK TABLE

BM #1	1/2" FIR/CAP	N: 7,178,468.18	E: 2,374,892.46	Z: 662.29	NAD 83
BM #2	SOUTHEAST CORNER HEADWALL	N: 7,178,642.13	E: 2,374,242.47	Z: 664.62	NAD 83

REV. 1
 REV. 2
 REV. 3
 REV. 4
 REV. 5

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 info@ae-grp.com

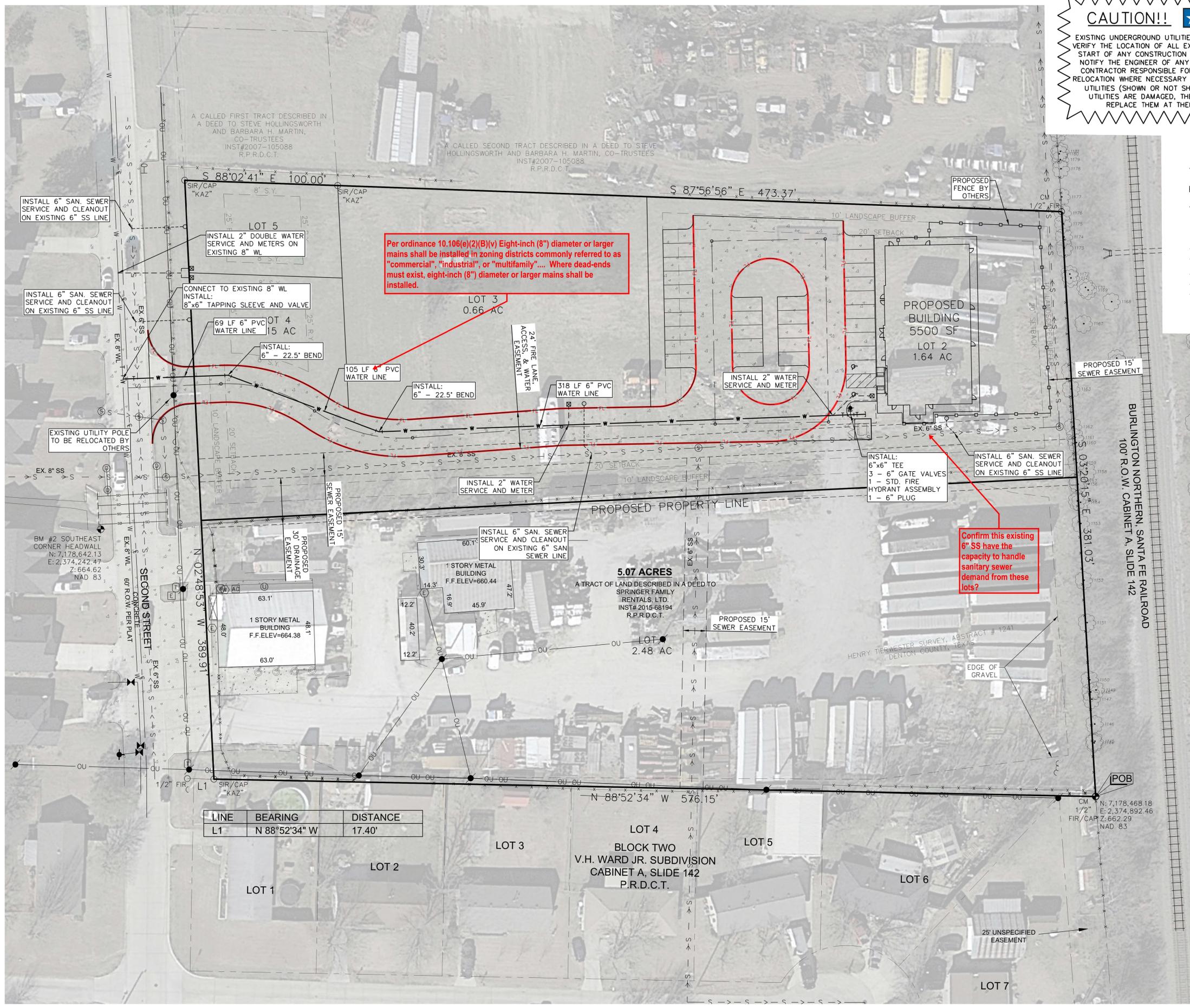


Drawn by: JSM
 Checked by: WTE

JEFF SPRINGER
 CONSTRUCTION PLANS
SANGER DAY CARE
 CITY OF SANGER, DENTON COUNTY, TEXAS

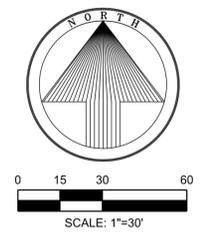
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CAUTION!! **TEXAS 811**

EXISTING UNDERGROUND UTILITIES. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO START OF ANY CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR RESPONSIBLE FOR COORDINATING UTILITY RELOCATION WHERE NECESSARY AND PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN). IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT THEIR OWN EXPENSE.



- LEGEND**
- PROPOSED WATER LINE WITH GATE VALVE
 - PROPOSED WATER LINE PLUG AND TEE
 - PROPOSED FIRE HYDRANT
 - PROPOSED WATER SERVICE WITH METER
 - PROPOSED SANITARY SEWER SERVICE WITH CLEANOUT
 - EXISTING WATER LINE
 - EXISTING WATER VALVE
 - EXISTING FIRE HYDRANT
 - EXISTING SANITARY SEWER LINE
 - EXISTING SANITARY SEWER MANHOLE

BENCHMARK TABLE

BM #1	1/2" FIR/CAP	N: 7,178,468.18	E: 2,374,892.46	Z: 662.29	NAD 83
BM #2	SOUTHEAST CORNER HEADWALL	N: 7,178,642.13	E: 2,374,242.47	Z: 664.62	NAD 83

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Allison Engineering Group
 Planning Communities - Designing the Systems That Serve Them

05/19/2025
 STATE OF TEXAS
 WILLIAM TODD ESTES
 92659
 REGISTERED PROFESSIONAL ENGINEER
 W. Todd Estes

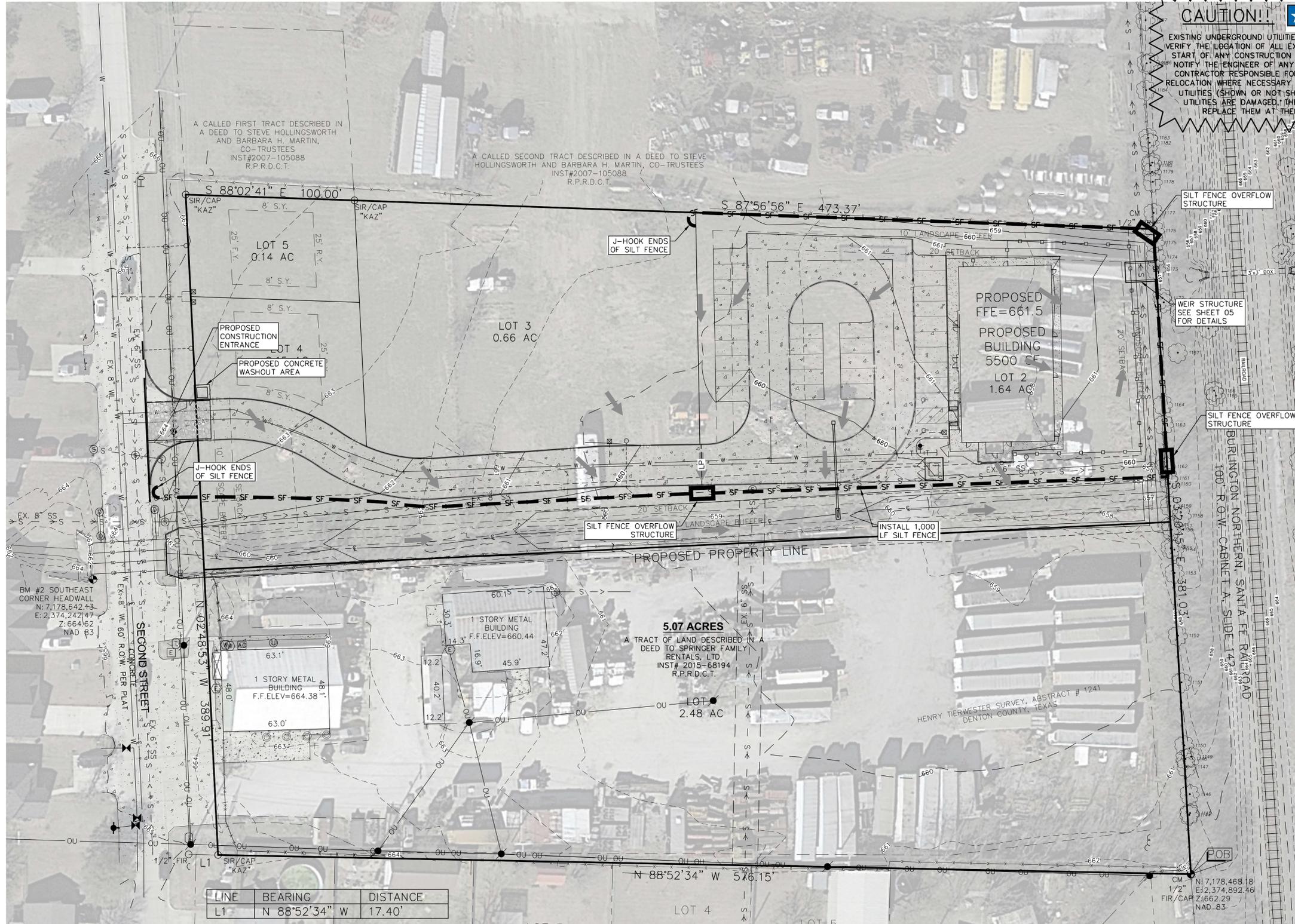
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JEFF SPRINGER
 CONSTRUCTION PLANS
SANGER DAY CARE
 CITY OF SANGER, DENTON COUNTY, TEXAS

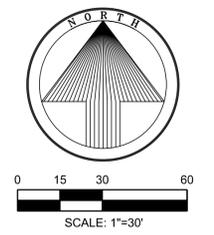
UTILITY PLAN

Job: SFP2301
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07

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CAUTION!! **EXISTING UNDERGROUND UTILITIES. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO START OF ANY CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR RESPONSIBLE FOR COORDINATING UTILITY RELOCATION WHERE NECESSARY AND PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN). IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT THEIR OWN EXPENSE.**



BENCHMARK TABLE

BM #1	1/2" FIR/CAP	N: 7,178,468.18	E: 2,374,892.46	Z: 662.29	NAD 83
BM #2	SOUTHEAST CORNER HEADWALL	N: 7,178,642.13	E: 2,374,242.47	Z: 664.62	NAD 83

LEGEND

	PROPERTY BOUNDARY
	ADJACENT LOT LINE
	GREEK-CENTERLINE
	PAVEMENT CENTERLINE
	EXISTING EASEMENT
	EXISTING OVERHEAD UTILITY
	EXISTING SANITARY SEWER
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED SILT FENCE
	EXISTING TREE

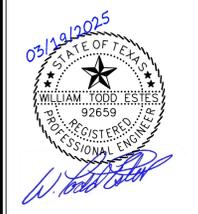
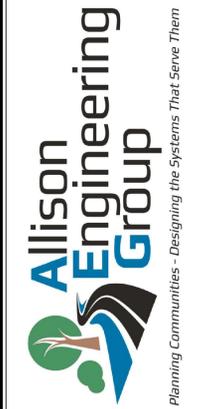
LINE	BEARING	DISTANCE
L1	N 88°52'34" W	17.40'

EROSION CONTROL NOTES

1. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE AND SHALL REMAIN IN PLACE UNTIL FINAL GRADING AND PAVING IS COMPLETE AND A STAND OF GRASS IS ESTABLISHED WITH 70% COVERAGE ACHIEVED.
2. CONSTRUCTION OPERATIONS SHALL BE MANAGED SO THAT AS MUCH OF THE SITE AS POSSIBLE IS LEFT COVERED WITH TOPSOIL AND VEGETATION.
3. ALL AREAS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE SEEDED AND IRRIGATED UNTIL A PERMANENT STAND OF GRASS IS ACHIEVED WITH A MINIMUM OF 70% COVERAGE.
4. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES AND OBTAIN APPROPRIATE PERMITS ASSOCIATED WITH THE PROJECT. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE AND THE ESTABLISHMENT OF A STAND OF GRASS WITH 70% COVERAGE TO PREVENT EROSION. THE CONTRACTOR SHALL USE SEDIMENT FILTERS OR OTHER MEASURES APPROVED BY THE ENGINEER AND CONSTRUCTION MANAGER OR EXISTING INLETS, OR FROM BEING TRANSPORTED TO ADJACENT PROPERTIES AND STREET RIGHT-OF-WAYS.
5. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION TRAFFIC UTILIZES THE STABILIZED ENTRANCE AT ALL TIMES FOR INGRESS/EGRESS TO THE SITE.
6. CONSTRUCTION ENTRANCE:
 MINIMUM SIZE STONE: 3 INCH DIAMETER
 THICKNESS: NOT LESS THAN 8 INCHES
 NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS AND EGRESS.
 MAINTENANCE REQUIREMENTS: AS NECESSARY TO PREVENT TRACKING OR FLOWING MUD INTO PUBLIC RIGHT-OF-WAY OR PARKING AREAS
7. SITE ENTRY AND EXIT LOCATIONS SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON A PUBLIC ROADWAY SHALL BE REMOVED IMMEDIATELY. WHEN WASHING IS REQUIRED TO REMOVE SEDIMENT PRIOR TO ENTRANCE TO A PUBLIC ROADWAY, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN. ALL FINES IMPOSED FOR TRACKING ONTO PUBLIC ROADS SHALL BE PAID BY THE CONTRACTOR.
8. CONTRACTOR IS RESPONSIBLE FOR PROPER MAINTENANCE OF THE REQUIRED EROSION CONTROL DEVICES THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EROSION CONTROLS SHALL BE REPAIRED OR REPLACED AS INSPECTION DEEMS NECESSARY, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ACCUMULATED SILT IN ANY EROSION CONTROL DEVICE SHALL BE REMOVED AND SHALL BE DISTRIBUTED ON SITE IN A MANNER NOT CONTRIBUTING TO ADDITIONAL SILTATION.
9. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING ANY EROSION CONTROL DEVICE WHICH THEY DISTURB. EACH CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DEFICIENCIES IN THE ESTABLISHED EROSION CONTROL MEASURES WHICH MAY LEAD TO UNAUTHORIZED DISCHARGE OR STORM WATER POLLUTION, SEDIMENTATION OR OTHER POLLUTANTS. UNAUTHORIZED POLLUTANTS INCLUDE, BUT ARE NOT LIMITED TO, EXCESS CONCRETE DUMPING OR CONCRETE RESIDUE, PAINTS, SOLVENTS, GREASES, FUEL AND LUBE OIL, PESTICIDES, AND SOLID WASTE MATERIALS.
10. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL USE FILTER BARRIER (OR OTHER METHOD APPROVED BY THE ENGINEER AND CITY) AS REQUIRED TO PREVENT ADVERSE OFF SITE IMPACTS OR STORM WATER QUALITY FROM SILT AND CONSTRUCTION DEBRIS FLOWING ONTO ADJACENT PROPERTIES AS REQUESTED BY THE CITY.
11. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS OFF SITE FROM THE EXISTING ROADWAYS AND PROJECT SITE THAT ARE A RESULT OF THE PROPOSED CONSTRUCTION AS REQUESTED BY THE CITY.
12. BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF CONSTRUCTION AND OTHER ITEMS ESTABLISHED BY THE PLANS. THE CONTRACTOR SHALL PROTECT AND PRESERVE CONTROL POINTS AT ALL TIMES DURING THE COURSE OF THE PROJECT. THE GRADING CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
13. CONTRACTOR STAGING AREA TO BE AGREED UPON BY OWNER PRIOR TO BEGINNING CONSTRUCTION.
14. CONTRACTOR SHALL PROMOTE AND PROVIDE FOR A HEALTHY ESTABLISHMENT OF TURF GRASSES WHILE KEEPING IRRIGATION TO A MINIMUM IN ORDER TO REDUCE EROSION FROM SURFACE RUNOFF.
15. SOD OR SEED MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES AFTER FINAL GRADING AND AT ANY OTHER TIME AS NECESSARY TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
16. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY THE T.C.E.Q.
17. THE CONTRACTOR MUST CONSTRUCT AND MAINTAIN A PERMANENT STABLE PROTECTIVE COVER (GRASS) FOR EROSION AND SEDIMENT CONTROL ON ALL LAND SURFACES EXPOSED OR DISTURBED BY CONSTRUCTION OF THE PERMITTED PROJECT. A PERMANENT STABLE COVER MUST BE ESTABLISHED WITHIN 60 DAYS OF ITS INSTALLATION.
18. IN AREAS WHERE TREE FENCING AND SILT FENCING IS PROPOSED, BOTH FENCES CAN USE THE SAME T-POSTS, BUT THE SPACING BETWEEN POSTS SHALL FOLLOW THE 6 FOOT MAXIMUM SPACING OF THE SILT FENCE.

REV. 1
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REV. 3
REV. 4
REV. 5

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Drawn by: JSM
 Checked by: WTE

JEFF SPRINGER
 CONSTRUCTION PLANS
SANGER DAY CARE
 CITY OF SANGER, DENTON COUNTY, TEXAS
 GRADING PLAN

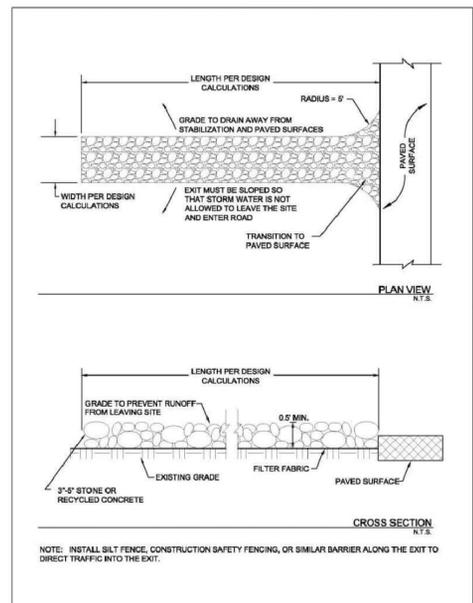
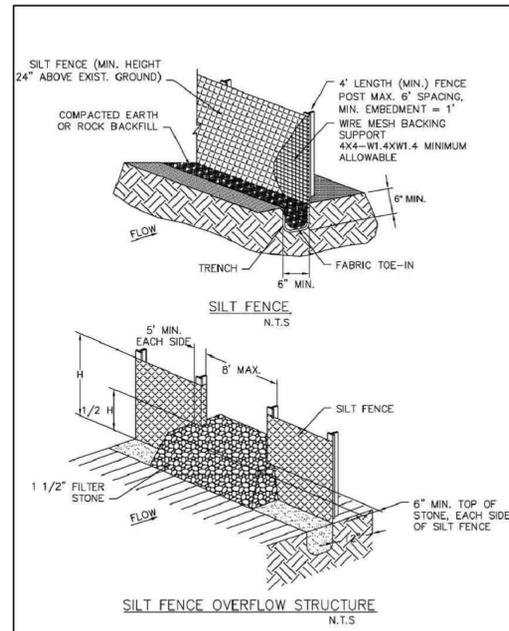
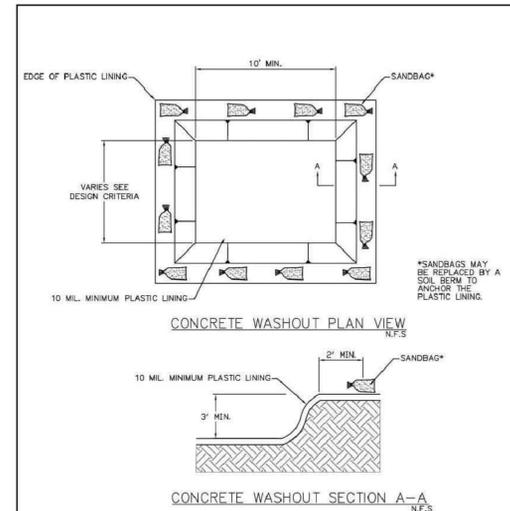


Figure 3.29 Schematics of Stabilized Construction Exit

Stabilized Construction Exit
Revised 04/10 CC-151



SILT FENCE
North Dallas Area Council of Governments
STANDARD SPECIFICATION REFERENCE: 202.5
DATE: AUG '23 STANDARD DRAWING NO: 1020A



CONCRETE WASHOUT
CONCRETE WASHOUT NOTES:
1. WASHOUT AREA MUST BE CLEARLY MARKED WITH SIGNAGE NOTING THE WASHOUT AREA.
2. WASHOUT STRUCTURES SHALL BE CLEANED OUT WHEN THE STRUCTURE IS 75% FULL. TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY.
CONCRETE WASHOUT
North Dallas Area Council of Governments
STANDARD SPECIFICATION REFERENCE: N/A
DATE: AUG '23 STANDARD DRAWING NO: 1240

REVISED IN 2018

STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES:
1. SEE NCTCOG STANDARD SPECIFICATIONS (2017), SECTION 202.11
2. THE THICKNESS SHALL NOT BE LESS THAN 6 INCHES.
3. STONE SHALL BE 3 TO 5 INCH DIAMETER COURSE AGGREGATE, NO CRUSHED PORTLAND CEMENT CONCRETE ALLOWED.
4. LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM LENGTH OF 50 FEET.
5. THE WIDTH SHALL BE NO LESS THAN 20' FOR SITES LESS THAN 5 AC, AND 30' FOR SITES GREATER THAN 5 AC, AT ALL POINTS OF INGRESS OR EGRESS.
6. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.
8. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
9. INSPECTION SHALL BE SPECIFIED IN THE SWPPP.

FIGURE 3.29 NOTES FOR STABILIZED CONSTRUCTION EXIT (2 OF 2)

STABILIZED CONSTRUCTION ENTRANCE

SILT FENCE GENERAL NOTES:
1. DESIGN SHALL SHOW ON THE DRAWINGS THE LOCATIONS WHERE OVERFLOW STRUCTURES SHALL BE INSTALLED. OVERFLOW STRUCTURES ARE REQUIRED AT ALL LOW POINTS AND AT A SPACING OF APPROXIMATELY 300 FEET WHERE NO LOW POINT IS APPARENT.
2. DESIGNER SHALL SHOW ON THE DRAWINGS THE LOCATIONS WHERE SILT FENCE IS TO BE TURNED UPSLOPE AT THE ENDS. UPSLOPE LENGTHS SHALL BE A MINIMUM OF 10 FEET.
3. POST WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
4. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
5. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 8 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
6. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WIRE BACKING, WHICH IN TURN IS ATTACHED TO THE FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
7. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
8. SILT FENCE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.
9. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
10. SEE NCTCOG STANDARD SPECIFICATIONS (2017), SECTION 202.5

SILT FENCE
GENERAL NOTES
North Dallas Area Council of Governments
STANDARD SPECIFICATION REFERENCE: 202.5
DATE: AUG '23 STANDARD DRAWING NO: 1020B

NOTE:
DETAILS ARE FROM iSWM MANUAL. SIZE AND PLACEMENT MUST BE IN ACCORDANCE WITH CITY SPECIFICATIONS AND THE INTENT OF THE ISWM MANUAL.

REV. 1
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REV. 3
REV. 4
REV. 5

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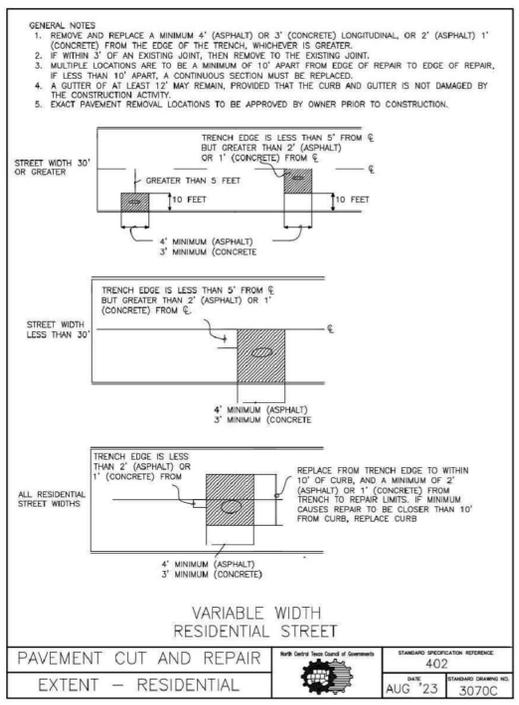
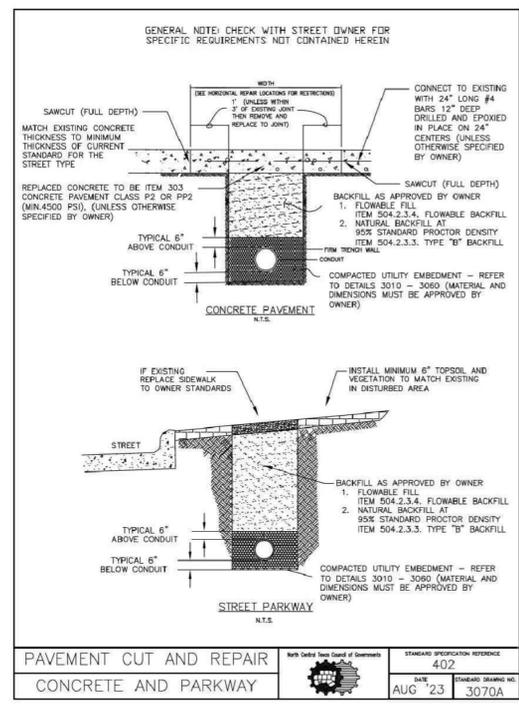
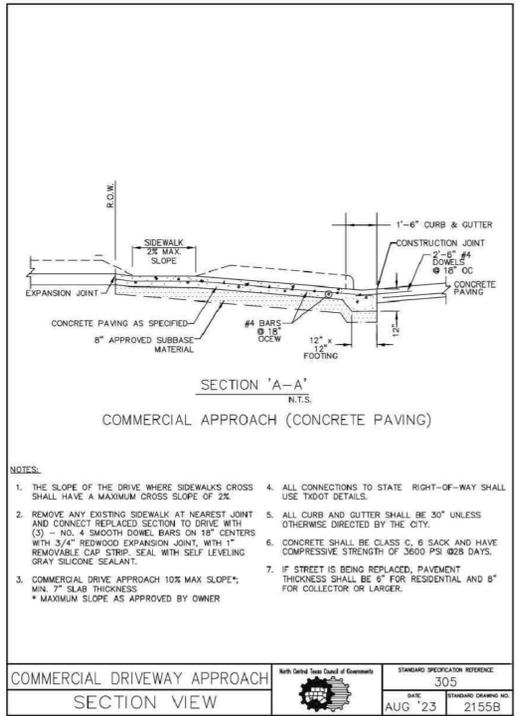
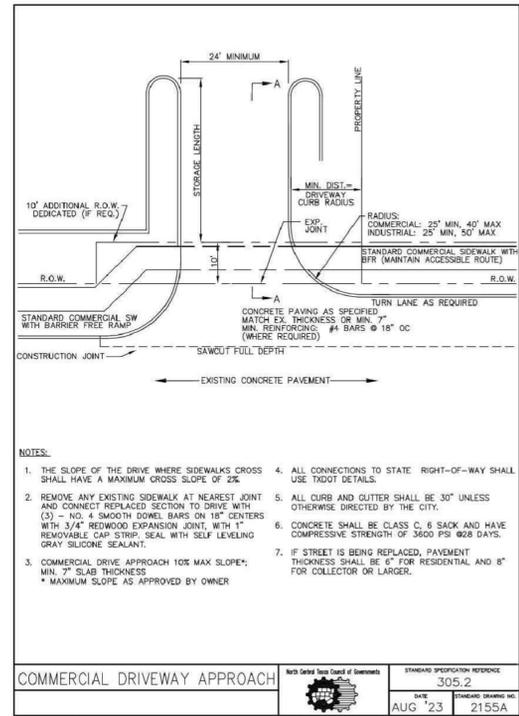


Drawn by: JSM
Checked by: WTE

JEFF SPRINGER
CONSTRUCTION PLANS
SANGER DAY CARE
CITY OF SANGER, DENTON COUNTY, TEXAS
GRADING PLAN

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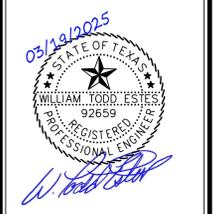


REV. 1
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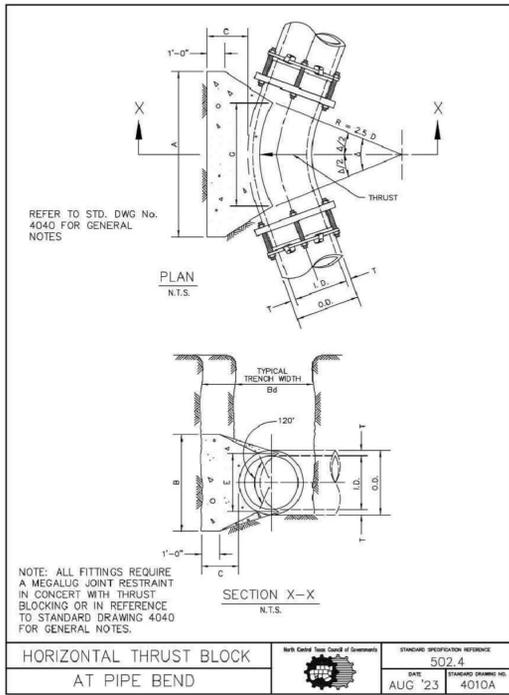
info@aegrp.com



Drawn by: JSM
 Checked by: WTE

JEFF SPRINGER
 CONSTRUCTION PLANS
SANGER DAY CARE
 CITY OF SANGER, DENTON COUNTY, TEXAS

STANDARD DETAILS - PAVING



HORIZONTAL THRUST BLOCK AT PIPE BEND
 With Detail from Council of Governments
 STANDARD SPECIFICATION REFERENCE: 502.4
 DATE: AUG '23
 STANDARD DRAWING NO.: 4010A

TABLES OF DIMENSIONS AND QUANTITIES

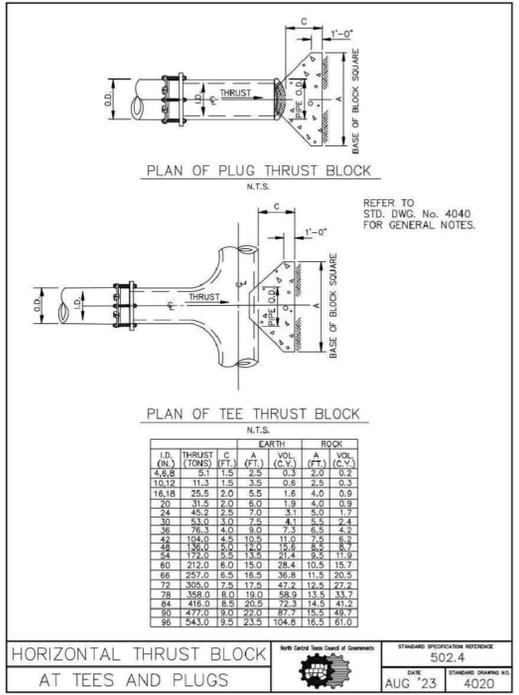
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I.D. (N.)	G (FT.)	EARTH			ROCK			I.D. (N.)	G (FT.)	EARTH			ROCK										
		THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)			VOL. (C.Y.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)									
4.6,8	0.4	1.0	1.5	0.1	1.0	1.0	0.1	4.6,8	0.8	2.0	1.5	0.1	1.0	1.0	0.1								
10,12	0.6	2.2	1.5	0.1	1.0	1.0	1.1	4.4	2.0	2.5	0.3	1.5	1.5	0.1	0.1								
16,18	0.8	3.0	2.0	0.3	1.5	2.0	0.2	16,18	1.6	3.0	3.5	0.6	2.0	2.5	0.3								
20	0.9	3.2	2.0	0.3	1.5	2.0	0.3	20	1.8	3.5	3.5	0.7	2.0	3.0	0.4								
24	1.1	3.9	3.0	0.5	1.5	3.0	0.3	24	2.2	4.0	4.5	1.0	3.0	3.5	0.5								
30	1.4	4.8	4.0	0.8	2.0	4.0	0.5	30	2.7	5.0	5.5	1.5	4.0	4.0	0.8								
36	1.7	5.8	5.0	1.2	2.5	5.0	0.8	36	3.3	6.0	6.5	2.0	5.0	4.0	1.3								
42	1.9	7.0	6.0	1.8	3.0	6.0	1.2	42	3.8	7.0	7.5	2.5	6.0	5.0	2.1								
48	2.2	8.4	7.0	2.5	3.5	7.0	1.8	48	4.4	8.0	8.5	3.5	7.0	6.0	2.8								
54	2.5	10.0	8.0	3.5	4.0	8.0	2.5	54	4.9	9.0	9.5	4.5	8.0	7.0	4.1								
60	2.7	11.8	9.0	4.8	4.5	9.0	3.5	60	5.5	10.0	10.5	6.0	9.0	8.0	5.3								
66	3.0	13.8	10.0	6.5	5.0	10.0	4.8	66	6.0	11.0	11.5	8.0	10.0	9.0	7.2								
72	3.3	16.0	11.0	9.0	5.5	11.0	6.5	72	6.6	12.0	12.5	10.0	11.0	10.0	9.1								
78	3.6	18.4	12.0	12.0	6.0	12.0	9.0	78	7.1	13.0	13.5	12.0	12.0	11.0	11.7								
84	3.8	21.0	13.0	15.0	6.5	13.0	12.0	84	7.6	14.0	14.5	13.0	13.0	11.5	14.8								
90	4.1	23.8	14.0	18.0	7.0	14.0	15.0	90	8.2	15.0	15.5	14.0	14.0	12.0	17.7								
96	4.4	26.8	15.0	21.0	7.5	15.0	18.0	96	8.7	16.0	16.5	15.0	15.0	13.0	21.8								

HORIZONTAL THRUST BLOCK AT PIPE BEND
 With Detail from Council of Governments
 STANDARD SPECIFICATION REFERENCE: 502.4
 DATE: AUG '23
 STANDARD DRAWING NO.: 4010B

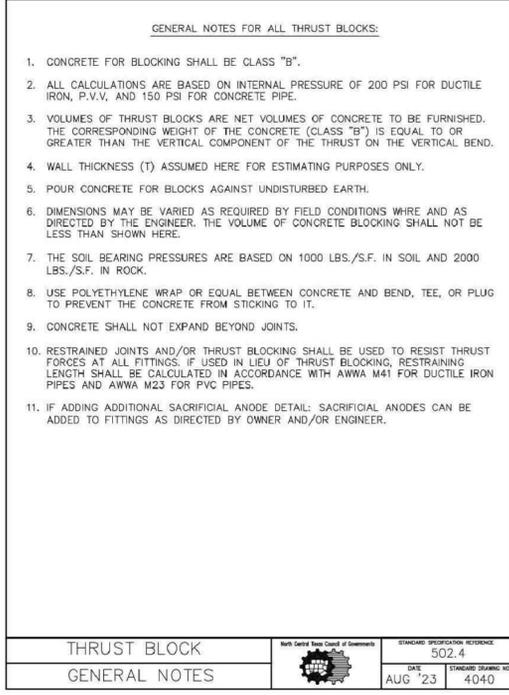
TABLE OF DIMENSIONS AND QUANTITIES

Δ = 30°												Δ = 45°											
I.D. (N.)	G (FT.)	EARTH			ROCK			I.D. (N.)	G (FT.)	EARTH			ROCK										
		THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)			VOL. (C.Y.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)									
4.6,8	1.0	2.6	2.0	1.5	0.2	1.0	1.5	0.1	4.6,8	1.5	3.9	2.0	1.0	0.2	1.5	1.5	0.1						
10,12	1.5	3.9	2.5	2.0	0.3	1.5	2.0	0.2	10,12	2.2	5.7	3.5	2.5	0.3	2.0	2.5	0.3						
16,18	2.2	5.2	3.5	3.0	0.4	2.0	3.0	0.4	16,18	3.2	7.5	4.5	4.5	1.2	3.0	3.5	0.6						
20	2.4	6.0	4.0	3.0	0.5	2.5	3.5	0.5	20	3.6	8.4	5.5	4.5	1.5	3.5	4.0	0.7						
24	2.9	7.4	5.0	4.0	0.7	3.0	4.5	0.7	24	4.3	9.6	6.5	5.5	2.0	4.5	5.0	1.1						
30	3.6	9.0	6.0	5.0	1.0	3.5	6.0	1.0	30	5.4	11.1	7.5	6.5	2.5	5.5	6.0	1.6						
36	4.4	10.8	7.0	6.0	1.4	4.0	7.5	1.4	36	6.5	12.8	8.5	7.5	3.0	6.5	7.0	2.2						
42	5.1	12.8	8.0	7.0	1.8	4.5	9.0	1.8	42	7.5	14.7	9.5	8.5	3.5	7.5	8.0	2.9						
48	5.8	15.0	9.0	8.0	2.3	5.0	10.5	2.3	48	8.5	16.8	10.5	9.5	4.0	8.5	9.0	3.7						
54	6.5	17.4	10.0	9.0	2.8	5.5	12.0	2.8	54	9.7	19.0	11.5	10.5	4.5	9.5	10.0	4.6						
60	7.3	20.0	11.0	10.0	3.3	6.0	13.5	3.3	60	10.7	21.3	12.5	11.5	5.0	10.5	11.0	5.6						
66	8.0	22.8	12.0	11.0	3.8	6.5	15.0	3.8	66	11.8	23.8	13.5	12.5	5.5	11.5	12.0	6.6						
72	8.7	25.8	13.0	12.0	4.3	7.0	16.5	4.3	72	12.9	26.4	14.5	13.5	6.0	12.5	13.0	7.7						
78	9.4	29.0	14.0	13.0	4.8	7.5	18.0	4.8	78	13.9	29.1	15.5	14.5	6.5	13.5	14.0	8.9						
84	10.1	32.4	15.0	14.0	5.3	8.0	19.5	5.3	84	15.0	31.8	16.5	15.5	7.0	14.5	15.0	10.2						
90	10.9	36.0	16.0	15.0	5.8	8.5	21.0	5.8	90	16.1	34.3	17.5	16.5	7.5	15.5	16.0	11.6						
96	11.6	39.8	17.0	16.0	6.3	9.0	22.5	6.3	96	17.1	36.9	18.5	17.5	8.0	16.5	17.0	13.1						

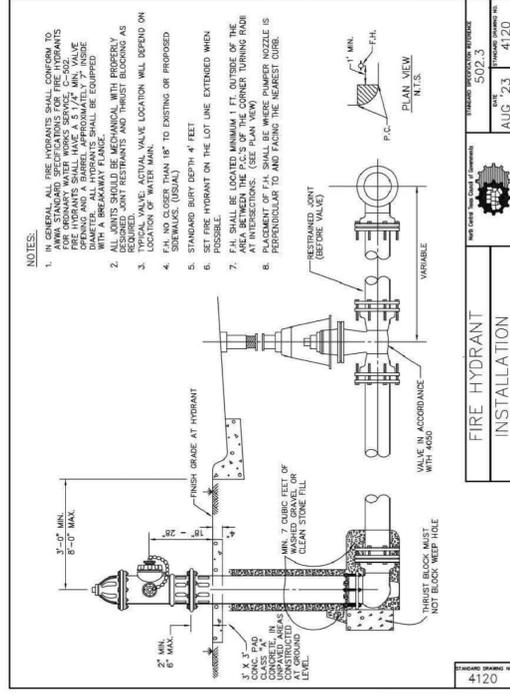
HORIZONTAL THRUST BLOCK AT PIPE BEND
 With Detail from Council of Governments
 STANDARD SPECIFICATION REFERENCE: 502.4
 DATE: AUG '23
 STANDARD DRAWING NO.: 4010C



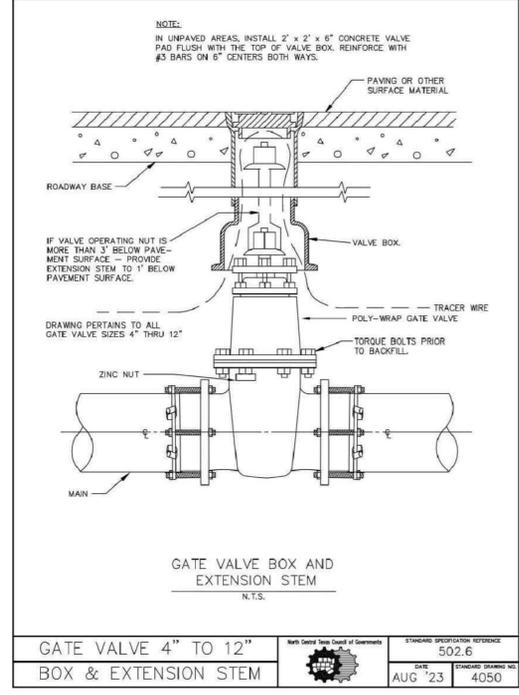
HORIZONTAL THRUST BLOCK AT TEES AND PLUGS
 With Detail from Council of Governments
 STANDARD SPECIFICATION REFERENCE: 502.4
 DATE: AUG '23
 STANDARD DRAWING NO.: 4020



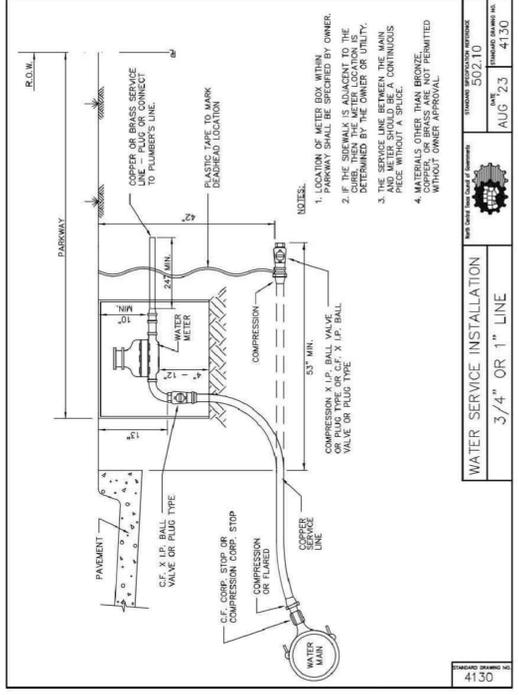
THRUST BLOCK GENERAL NOTES
 With Detail from Council of Governments
 STANDARD SPECIFICATION REFERENCE: 502.4
 DATE: AUG '23
 STANDARD DRAWING NO.: 4040



FIRE HYDRANT INSTALLATION
 With Detail from Council of Governments
 STANDARD SPECIFICATION REFERENCE: 502.3
 DATE: AUG '23
 STANDARD DRAWING NO.: 4120



GATE VALVE 4" TO 12" BOX & EXTENSION STEM
 With Detail from Council of Governments
 STANDARD SPECIFICATION REFERENCE: 502.6
 DATE: AUG '23
 STANDARD DRAWING NO.: 4050



WATER SERVICE INSTALLATION 3/4" OR 1" LINE
 With Detail from Council of Governments
 STANDARD SPECIFICATION REFERENCE: 502.10
 DATE: AUG '23
 STANDARD DRAWING NO.: 4130

REV. 1
REV. 2
REV. 3
REV. 4
REV. 5

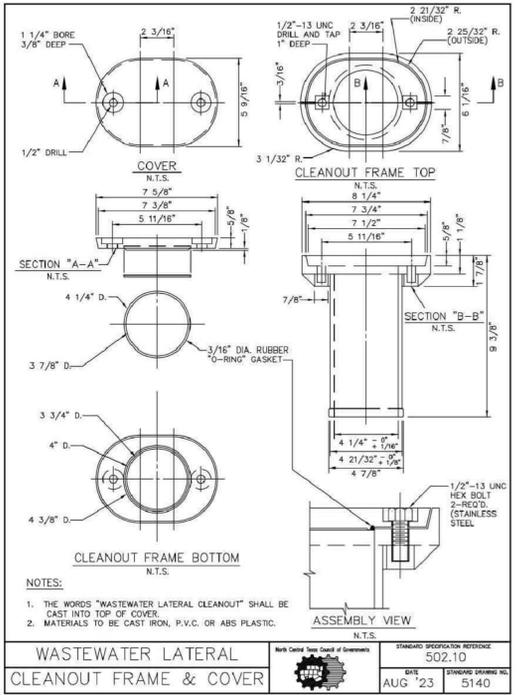
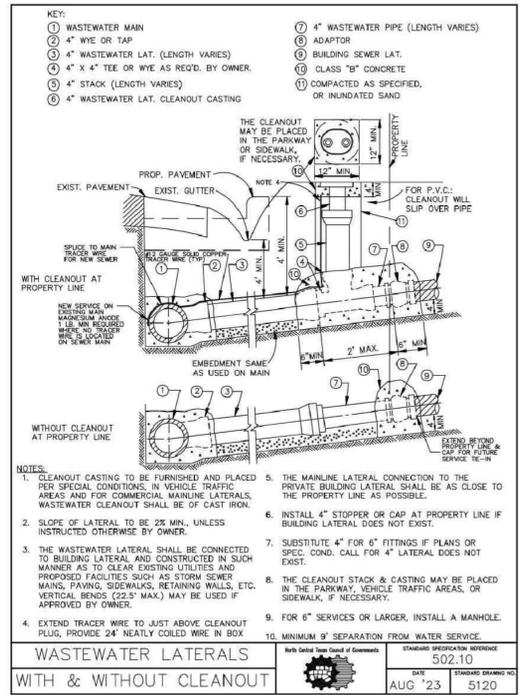
2415 N. ELM STREET
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Drawn by: JSM
 Checked by: WTE

JEFF SPRINGER
 CONSTRUCTOR PLANS
SANGER DAY CARE
 CITY OF SANGER, DENTON COUNTY, TEXAS
 STANDARD DETAILS - WATER

Plotted By: Jason Monk
 Plot Date: Wednesday, March 19, 2025 12:46:53 PM
 File Name: P:\Projects\SFP2301 - Sanger Daycare Center\DWG\COVER SHEET.dwg
 Save Date: Tuesday, March 18, 2025 4:24:55 PM
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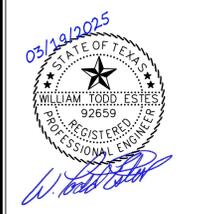


REV. 1
REV. 2
REV. 3
REV. 4
REV. 5

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 CONSTRUCTOR PLANS
SANGER DAY CARE
 CITY OF SANGER, DENTON COUNTY, TEXAS

STANDARD DETAILS - SEWER