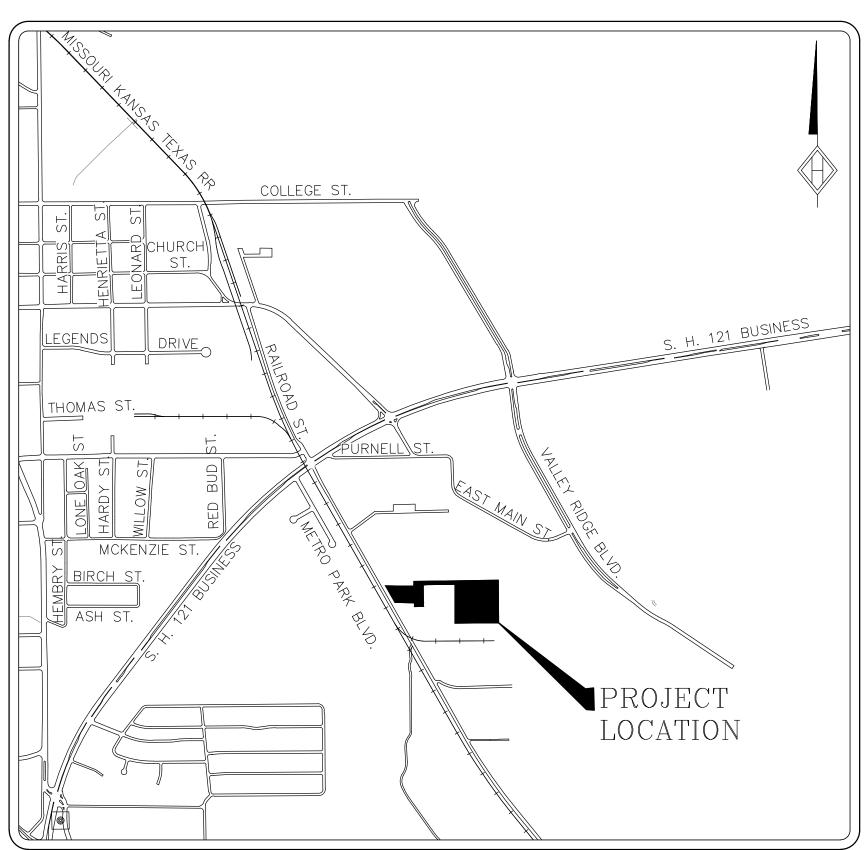


<u>ENGINEER</u> HOMEYER ENGINEERING, INC P.O. BOX 294527 LEWISVILLE, TEXAS 75029 CONTACT: STEVEN R. HOMEYER, PE *PHONE:* 972-906-9985

ENGINEERING SITE PLAN for BURNS OFFICE 121 Railroad Addition S Railroad Street Lot 2, Block A, 6.58 Acres, HI Zoning City of Lewisville Denton County, Texas September 2021 Ordinance # -SUP



Vicinity Map 1"=1000'

<u>DEVELOPER</u> JOHN BURNS CONSTRUCTION COMPANY OF TEXAS, INC. P.O. BOX 1117 LEWISVILLE, TEXAS 75057 CONTACT: DAVID JONES PHONE: 972-434-6789

CITY PLANNIN ENGINE BUILDIN **FIRE PRI** PARKS PUBLIC HR / ADA

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SHEET INDEX

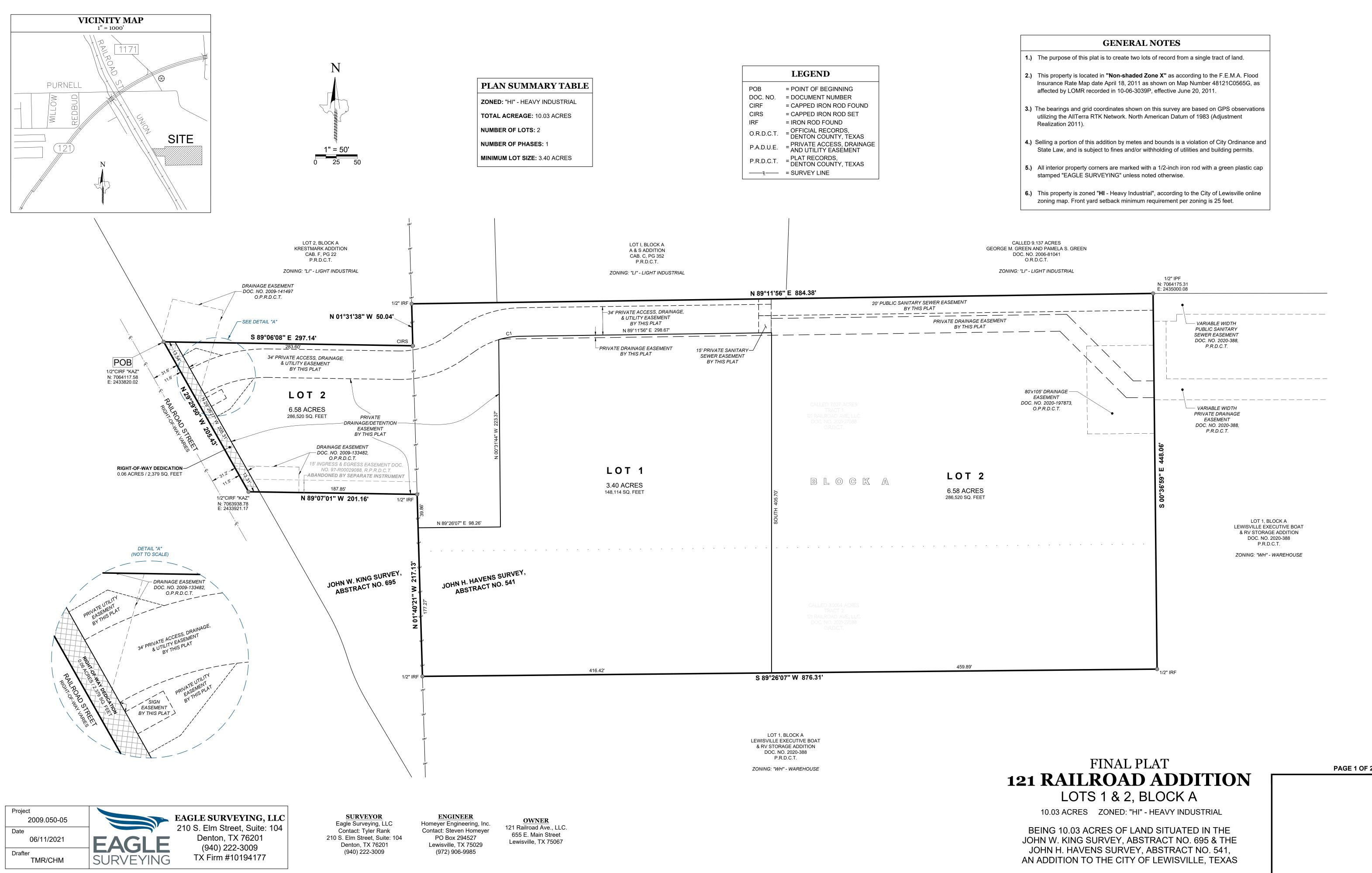
	Cover
	Final Plat
C1	General Notes
C2	Engineering Site Plan
C3	Demolition Plan
C4	Grading Plan West
C4.1	Grading Plan East
C5	Erosion Control Plan
C6	Existing Drainage Area Map
C6.1	Proposed Drainage Area Map
C7	Water Plan West
C7.1	Water Plan East
C8	Saniaty Sewer Plan
C8.1	Sanitary Sewer Profile
C9	Storm Drain Plan
C9.1	Storm Drain Profile Line "SD-1"
C10	Detention Plan
C11	Paving Details
C11.1	Paving Details
C11.2	Paving Details
C12	Water Details
C12.1	Water Details
C13	Sewer Details
C13.1	Sewer Details
C14	Storm Water Details
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C16	ADA Details
C16.1	ADA Ramp Details
C16.2	ADA Ramp Details
C17	Miscellaneous Details
LP1	Landscape Plan
LP2	Landscape Plan
LP3	Landscape Details
LP4	Tree Disposition Plan
LP5	Tree Disposition Details

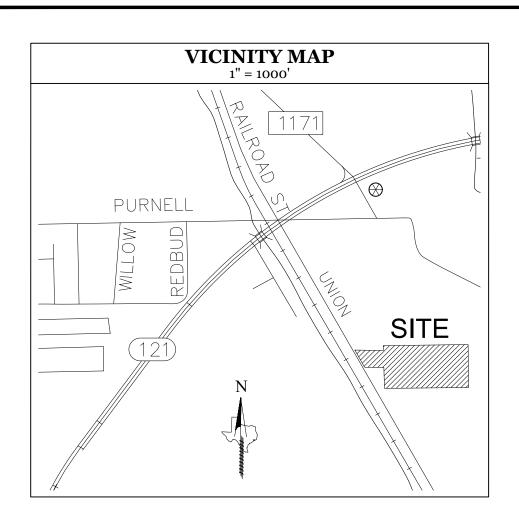
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PRELIMINARY PLANS
THIS DOCUMENT IS FOR INTERIM REVIEW AND IS NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
DATE: 09/23/2021

BURNS OFFICE		ITE PLAN	ENGINEERING SITE
HORAN CARANA HORAN CARANA ENGINE ERING, INC. TBPE FIRM REGISTRATION NO. F-8440 P.O. BOX 294527 • LEWISVILLE • TEXAS • 75029 P.O. BOX 294527 • LEWISVILLE • TEXAS • 75029 P.O. BOX 294527 • LEWISVILLE • TEXAS • 75029 P.O. BOX 294527 • LEWISVILLE • TEXAS • 75029 P.O. BOX 294527 • LEWISVILLE • TEXAS • 75029	BURNS OFFICE 121 RAILROAD ADDITION LOT 2, BLOCK A 6.58 ACRES CITY OF LEWISVILLE DENTON COUNTY, TEXAS	COVER SHEET	DRAWN: DCU DATE: 10/06/2020 HEI #: 20-0803





STATE OF TEXAS COUNTY OF DENTON

WHEREAS 121 RAILROAD AVE., LLC. is the owner of a 10.03 acre tract of land out of the J. W. KING SURVEY, Abstract Number 695 and the J. H. HAVENS SURVEY, Abstract Number 541, situated in the City of Lewisville, Denton County, Texas and being all of Tract 1, being a called 7.027 acre tract of land described in deed to 121 Railroad Ave., LLC. by deed of record in Document No. 2019-73754 of the Official Records of Denton County, Texas, also being all of Tract 2, being a called 3.0064 acre tract of land of said deed, and being more particularly described by metes and bounds as follows: BEGINNING, at a 1/2 inch iron rod with orange plastic cap stamped "KAZ" found in the East right-of-way line of Railroad Street (60' right-of-way), being the Southwest corner of Lot 2, Block A of Krestmark Addition, a subdivision of record in Cabinet F, Page 22 of the Plat Records of Denton County, Texas, also being the Northwest corner of said 7.027 acre tract and hereof;

THENCE, leaving the East right-of-way line of Railroad Street, along the North line of said 7.027 acre tract, being in part, the common South line of said Lot 2, in part, the common South line of Lot 1, Block A of A & S Addition, a subdivision of record in Cabinet C, Page 352 of said Plat Records and in part, the common South line of a called 9.137 acre tract of land conveyed to George and Pamela Green by Deed of record in Document No. 2006-81041 of said Official Records, the following three (3) courses and distances:

1. S89°06'08"E, a distance of 297.14 feet to a 1/2 inch iron rod with green plastic cap stamped "EAGLE SURVEYING" set;

2. N01°31'38"W, a distance of 50.04 feet to a 1/2 inch iron rod found;

to a 1/2 inch iron rod found for the Southwest corner of said 3.0064 acre tract and hereof; common West line of said 7.027 acre tract, a distance of 217.13 feet to a 1/2 inch iron rod found; of 10.03 Acres, or (437,014 Square Feet) of land, more or less.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT, **121 RAILROAD AVE.**, LLC, does hereby adopt this plat, designating herein described property as **121 RAILROAD ADDITION**, an addition to the City of Lewisville, Texas, and does hereby dedicate to the public use forever the streets and alleys shown hereon; and do hereby dedicate the easement strips shown on the plat for mutual use and accommodation of the City of Lewisville and all public utilities desiring to use, or using same. no buildings, fences, trees, shrubs, signs, or other improvements shall be constructed or placed upon, over, or across the easement strips on said plat. The City of Lewisville, any public utility shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, signs, or other improvements or growths which in any way endanger or interfere with the construction, maintenance, or efficiencies of its respective system on any of these easement strips, and the City of Lewisville and any public utility shall at all times have the right of ingress and egress to and from and upon any of said easement strips for the purpose of construction, reconstruction, inspecting, patrolling, maintaining, and adding to or removing all or part of its respective system without the necessity at any time of procuring the permission of anyone. A blanket easement of five (5) foot radius from the center point of all fire hydrants and a five (5) foot radius from the center point of all other appurtenances (fire hydrant valves, water meters, meter boxes, street lights, manholes and clean outs) is hereby granted to the City of Lewisville for the purpose of construction, reconstruction, inspecting and maintaining the above name appurtenances. Water mains and waste water easements shall also include additional areas of working space for construction and maintenance of the systems.

We do further dedicate, subject to the exceptions and reservations set forth hereinafter, to the public use forever, all public use spaces shown on the face of the plat.

All lots in the subdivision shall be sold and developed subject to the building lines shown on the plat.

OWNER: **121 RAILROAD AVE.**, LLC, a Texas limited liability company

STATE OF TEXAS	§	
COUNTY OF	§	

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared ______, and 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 _____, 2021.

Notary Public, in and for the State of Texas

STATE OF TEXAS COUNTY OF DENTON §

I, MATTHEW RAABE, Registered Professional Land Surveyor, do hereby certify that this plat was prepared from and actual survey made on the ground and that the monuments shown hereon were found or placed with 1/2-inch iron rods with green plastic cap stamped "EAGLE SURVEYING" under my direction and supervision in accordance with the current provisions of the Texas Administrative Code and the Ordinances of the City of Lewisville, Texas.

Matthew Raabe, R.P.L.S. # 6402

Date

STATE OF TEXAS COUNTY OF DENTON §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared MATTHEW RAABE, 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 _____, 2021.

Notary Public in and for the State of Texas

2009.050-05

Project

Date 06/11/2021

Drafter TMR/CHM



EAGLE SURVEYING, LLC 210 S. Elm Street, Suite: 104 Denton, TX 76201 (940) 222-3009 TX Firm #10194177

SURVEYOR Eagle Surveying, LLC Contact: Tyler Rank 210 S. Elm Street, Suite: 104 Denton, TX 76201 (940) 222-3009

ENGINEER Homeyer Engineering, Inc. Contact: Steven Homeyer PO Box 294527 Lewisville, TX 75029 (972) 906-9985

OWNER'S CERTIFICATE & DEDICATION

3. N89°11'56"E, a distance of 884.38 feet to a 1/2 inch iron pipe found at the most Northerly Northwest corner of Lot 1, Block A, Lewisville Executive Boat & RV Storage Addition, a subdivision of record in Document No. 2020-388 of the Plat Records of Denton County, Texas, being the Northeast corner of said 7.027 acre tract and hereof;

THENCE, S00°36'59"E, leaving the South line of said 9.137 acre tract, along the irregular North line of said Lot 1, Block A, Lewisville Executive Boat & RV Storage Addition, being in part, the common East line of said 7.027 acre tract and in part, the common East line of said 3.0064 acre tract, a distance of 448.06 feet to a 1/2 inch iron rod found for the Southeast corner of said 3.0064 acre tract and hereof; THENCE, S89°26'07"W, along the irregular North line of said Lot 1, Block A, Lewisville Executive Boat & RV Storage Addition and the common South line of said 3.0064 acre tract, a distance of 876.31 feet

THENCE, N01°40'21"W, along the irregular North line of said Lot 1, Block A, Lewisville Executive Boat & RV Storage Addition, being in part, the common West line of said 3.0064 acre tract and in part, the

THENCE, N89°07'01"W, along the South line of said 7.027 acre tract, being in part the irregular North line of said Lot 1, Block A, Lewisville Executive Boat & RV Storage Addition, a distance of 201.16 feet to a 1/2 inch iron rod with orange plastic cap stamped "KAZ" found in the East right-of-way line of Railroad Street, being the most Westerly Southwest corner of said 7.027 acre tract and hereof; THENCE, N29°29'50"W, along the East right-of-way line of Railroad Street and the common West line of said 7.027 acre tract, a distance of 205.43 feet to the POINT OF BEGINNING and containing an area

This plat approved subject to all platting ordinances, rules, regulations, and resolutions of the City of Lewisville, Texas.

CERTIFICATE OF SURVEYOR

All variances (if any) fr MaryEllen Miksa Chairman, Planning ar City of Lewisville, Texa The undersigned, the (121 RAILROAD ADDI Commission or City Co alleys, parks, easemer said body further author

OWNER 121 Railroad Ave., LLC. 655 E. Main Street Lewisville, TX 75067

	GENERAL NOTES
1.)	The purpose of this plat is to create two lots of record from a single tract of land.
2.)	This property is located in "Non-shaded Zone X" as according to the F.E.M.A. Flood Insurance Rate Map date April 18, 2011 as shown on Map Number 48121C0565G, as affected by LOMR recorded in 10-06-3039P, effective June 20, 2011.
3.)	The bearings and grid coordinates shown on this survey are based on GPS observations utilizing the AllTerra RTK Network. North American Datum of 1983 (Adjustment Realization 2011).
4.)	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/or withholding of utilities and building permits.

- 5.) All interior property corners are marked with a 1/2-inch iron rod with a green plastic cap stamped "EAGLE SURVEYING" unless noted otherwise.
- 6.) This property is zoned "HI Heavy Industrial", according to the City of Lewisville online zoning map. Front yard setback minimum requirement per zoning is 25 feet.

CITY OF LEWISVILLE APPROVAL		
All variances (if any) from the General Development Ordinance approved by City Council.		
MaryEllen Miksa Date Chairman, Planning and Zoning Commission City of Lewisville, Texas		
The undersigned, the City Secretary of the City of Lewisville, Texas hereby certifies that the foregoing Final Plat of the 121 RAILROAD ADDITION , an addition to the City of Lewisville was submitted to the appropriate Planning & Zoning Commission or City Council as required by the Ordinances of the City of Lewisville on the day of, 2021, and such body by formal actions, then and there accepted the dedication of streets, alleys, parks, easements, public places, and water and sewer lines, as shown and set forth in and upon said plat, and said body further authorized the acceptance thereof by signing as herein subscribed in the capacity stated.		
WITNESS MY HAND this day of, 2021.		
Julie Worster		
City Secretary		
City of Lewisville, Texas		



10.03 ACRES ZONED: "HI" - HEAVY INDUSTRIAL

BEING 10.03 ACRES OF LAND SITUATED IN THE JOHN W. KING SURVEY, ABSTRACT NO. 695 & THE JOHN H. HAVENS SURVEY, ABSTRACT NO. 541, AN ADDITION TO THE CITY OF LEWISVILLE, TEXAS PAGE 2 OF 2

GENERAL NOTES:

- 1. The proposed project is located in the City of Lewisville, Texas, hereinafter called "City"
- 2. Prior to any construction, the Contractor shall familiarize himself with the Contract Documents and Specifications, the Plans, including all notes, the City Standard Details and Specifications and any other applicable standards or specifications relevant to the proper completion of the work specified. Failure on the part of the Contractor to familiarize himself with all Standards and Specifications pertaining to this work shall in no way relieve the Contractor of responsibility for performing the work in accordance with all such applicable Standards and Specifications.
- 3. The Contractor shall have in his possession, prior to construction, all necessary permits, licenses, etc. The Contractor shall have at least one set of approved Engineering Plans and Specifications on-site at all times. The Contractor shall notify the City 48 hours prior to the commencement of any work.
- 4. All materials and construction shall conform to the City Standard Construction Details for Paving, Drainage, Water and Sanitary Sewer Facilities and be installed in accordance with the City Specifications and the North Central Texas Council of Governments Standard Specifications for Public Works Construction. These specifications shall be made part of these plans.
- 5. In the event an item of work is not covered in the City Construction Standards, Specifications and Details; or the North Central Texas Council of Governments Standard Specifications for Public Works Construction; the City Engineer shall have the final decision on all materials, methods and procedures.
- 6. Construction inspection may be performed by representatives of the Owner, Engineer, City, Geotechnical Engineer and Reviewing Authorities and Agencies. Unrestricted access shall be provided to them at all times. The Contractor is responsible for understanding and scheduling required inspections.
- 7. All contractors must confine their activities to the work area. No encroachments outside of the defined work area will be allowed, unless specifically noted on the plans. Any damage resulting therefrom shall be the Contractor's responsibility to repair.
- 8. It will be the responsibility of each contractor to protect all existing public and private utilities throughout the construction of this project. The Contractor shall contact the appropriate utility companies for line locations prior to commencement of construction and shall assume full liability to those companies for any damages caused to their facilities.
- 9. The Contractor shall be responsible for providing the required construction staking necessary to complete the construction in accordance with the plans and specifications. If CAD files of the project provided to the contractor, they shall in no way supercede the contractor's reliance on the signed and sealed drawings for the purposes of construction. The use of the CAD files are at the contractor's risk.
- 10. The Contractor shall be responsible for providing and maintaining all necessary barricading and all other warning and safety devices to protect the public safety and health until all work has been completed and accepted.
- 11. If unforeseen problems or conflicts are encountered in the course of construction, for which an immediate solution is not apparent, the Engineer and Owner shall be notified immediately.
- 12. The Contractor shall be responsible for field locating existing utilities and improvements prior to construction. The locations of existing utilities shown on these plans are approximate. The Contractor shall call 1-800-344-8377 (DIG-TESS), other utility locating services or the underground utility companies a minimum of 48 hours prior to beginning work.
- 13. The Contractor shall employ an Owner approved engineering testing laboratory for all required density, construction and materials testing and water bacteria testing. The testing laboratory shall make tests necessary to insure that construction is in accordance with the approved plans and specifications. Any retesting necessary to insure that a prior failing test meets the plan requirements, shall be at the Contractor's expense. The testing laboratory shall submit testing reports to the Engineer, the Owner and the City.
- 14. The existing utilities shown on these plans have been located from reference information obtained from the respective owner of the utility. The Engineer and Owner do not accept responsibility for the utility locations as shown. It shall be the responsibility of the Contractor to verify the location of all existing utilities prior to construction, to take necessary precautions to protect all facilities encountered and to notify the Engineer promptly of any conflicts with existing facilities.
- 15. The Contractor shall be responsible for removing any existing structures, fences, debris or trees that are located within the boundaries of this project, unless otherwise noted on the plans.
- 16. The Contractor shall remove and dispose of all unsuitable excavated materials and construction debris at no additional cost to the Owner.
- 17. The Contractor shall be solely responsible for maintaining trench safety requirements in accordance with the trench safety plan prepared by others and in accordance with City Standards, Texas State Law and the Occupational Safety and Health Administration Standards.
- 18. All concrete other than paving, shall meet the minimum compressive strengths as noted and specified on the plans or other specifications. As a minimum, no concrete other than paving shall have a compressive strength less than 3,000 psi at 28 days.
- 19. Refer to the architectural plans for building and foundation dimensions.
- 20. The Contractor shall be responsible for providing a two (2) year, 100% maintenance bond to the Owner for all improvements associated with the approved plans.

GRADING NOTES:

- 1. All grading shall be performed in accordance with these plans and the geotechnical report prepared by others.
- 2. New finished contours shown are top of paving in areas to receive pavement and top of soil in areas to be seeded.
- 3. Areas outside of parking lot perimeter shown to be sodded or seeded shall receive a minimum of four (4) inches of top soil (or to depth identified on the Landscaping Plans). This topsoil to be placed and leveled by the grading contractor. This material may be stockpiled during stripping operations.
- 4. Rough grading elevations shall be as follows: A. Four (4) inches below finished contours in seeded

unless noted otherwise.

areas B. Six (6) inches below finished contours in paved areas,

- 5. Dimensions on buildings are for grading purposes only and are not intended for use in laying out the building foundation.
- 6. Contractor shall pay all costs associated with raising or lowering existing utility appurtenances as required to match finished grades in conformance with Cities Standards and these plans.
- 7. The Contractor shall use whatever measures are required to prevent silt and construction debris from leaving the site. Contractor shall comply with all Federal, State and Local erosion, conservation and siltation regulations. Contractor shall remove all temporary erosion control devices upon completion of permanent drainage facilities and the establishment of vegetation sufficient to prevent erosion. Any damage to adjacent properties; downstream channels, ponds or lakes; or wildlife shall be corrected by the Contractor at his expense.
- 8. The Contractor shall take all available precautions to control dust at no additional cost to owner.
- 9. All excavation is unclassified and shall include all materials encountered.
- 10. All areas not covered by the building, paving or proposed landscaping shall be grassed on this lot including disturbed adjacent street parkways.
- 11. Prior to the commencement of construction activities, the Contractor shall stake out and mark the items established by the site plan.
- 12. Temporary erosion control devices shall be installed prior to the commencement of grading activities. Contractor shall inspect and maintain all temporary erosion control devices as required.
- 13. All disturbed areas shall be seeded with hydromulch unless otherwise noted. The Contractor shall maintain as much existing vegetation as possible. Grass buffer strips shall remain around the perimeter of the property to aid in the filtering of sedimentation. Sufficient temporary or permanent groundcover shall be established on all slopes, berms and swales to prevent erosion
- 14. All site grading and earthwork shall comply to the geotechnical report recommendations.
- 15. These specifications do not include grading and preparation of the building foundation area. The Contractor shall confirm the foundation compaction, moisture control, select fill and/or treatment with the Owner, the project geotechnical engineer and structural engineer.
- 16. Areas within five (5) feet horizontally of the parking pavement and/or embankment slopes adjacent to the parking area shall be constructed as per the project geotechnical engineer's recommendations. The specifications identified below are minimum requirements and shall be superseded by the project geotechnical engineer's recommendations if in conflict. The specifications are as follows:
- A. The area shall be stripped of vegetation a minimum of six (6) inches or as directed by the project geotechnical engineer and proof rolled. Proof rolling consists of rolling the entire area of prepared subgrade with a heavy (25 ton or greater total weight) pneumatic tired roller. The roller shall make several passes over the area. Any soft, wet or weak areas which do not compact by proof rolling shall be removed and recompacted as outlined herein. The proof rolling operation must be performed under the observation of a qualified geotechnical engineer or his representative and density control tested.
- B. On-site soils with plasticity index (PI) anticipated to be greater than 15 and less than 20, which includes any dark colored surface clay soils, can be used as grade raise fill outside the proposed building area. These clay soils shall be compacted to a dry density of at least 95 percent of standard proctor density. The compacted moisture content of the clays during placement shall be between optimum and four (4) percentage points above optimum.
- C. Compaction shall be accomplished by placing the fill in six (6) to eight (8) inch thick lifts and compacting each lift to at least the minimum specified dry density. It is imperative that the fill particle sizes be less than six (6) inches in diameter. If larger clods are encountered during grading, these clods must be broken down or removed prior to final placement of the fill.
- D. In order for the fill materials to perform as intended, the fill material must be placed in a manner which produces a good uniform fill that is compacted within the density and moisture ranges outlined above. Field density tests shall be performed to confirm this performance as construction progresses. For the proposed parking and driveway areas, testing at a frequency of no less than one (1) test per each lift per each 5,000 square feet shall be provided.
- 17. All underground work shall be completed prior to subgrade preparation and placement of paving.

WATER AND SEWER NOTES:

- 1. All materials, devices and components used for dispensing potable water shall conform to NSF/ANSI Standard 61 and NSF/ANSI Standard 372 in accordance with the Reduction of Lead in Drinking Water Act.
- 2. All water pipe less than 12 inches in diameter shall be C900, CL 150 (DR 18) PVC unless shown otherwise.
- 3. All sewer pipe less than 12 inches in diameter and less than 10 feet in depth shall be SDR-35 PVC. When the depth exceeds 10 feet, the pipe material shall be SDR-26 PVC.
- 4. All water line appurtenances (valves, fire hydrants, tees, etc.) shall utilize mechanically restrained joints and concrete thrust blocking.
- 5. The contractor shall adjust any valve covers, manholes, etc. to proposed grades. Refer to grading plans, paving plans and landscaping plans for final grades for determining manhole rim elevations.
- 6. Water mains shall have a minimum cover of 48 inches below the proposed finished grade.
- 7. All public pipe, structures and fittings shall be inspected by the City inspector prior to the trench being backfilled.
- 8. Water jetting is not allowed.
- 9. All embedment and backfill shall be wetted to approximate optimum moisture and compacted in 8 inch lifts to 95% Standard Proctor Density or as directed by the Geotechnical Engineer. Density tests shall be obtained for each lift and for each 150 lineal feet of trench or increment thereof or as directed by the Geotechnical Engineer.
- 10. The location of all existing utilities indicated on the plans are taken from existing records. The exact location and elevation of all public utilities shall be determined by the Contractor. It shall be the responsibility of the Contractor to determine whether additional facilities, other than those shown, may be present.
- 11. When installing water lines at sanitary sewer crossings, no joint of water pipe shall be within 9 feet of the centerline of the sanitary sewer pipe.
- 12. A minimum clearance of 2 feet shall be provided between water lines and storm drainage inlets.
- 13. All road bores shall be made using dry bore equipment. No wet bores will be allowed.
- 14. Fire hydrants shall be located a minimum of 3 feet and a maximum of 5 feet behind the back of curb. If the fire hydrant is located within or adjacent to a public right-of-way, the Contractor shall place a blue reflector in the center of the lane adjacent to the fire hydrant.
- 15. Fire hydrants shall be painted in accordance with City Standards.
- 16. Proposed water lines shall be tested and disinfected in accordance with AWWA C601 prior to acceptance.
- 17. Proposed sewer lines shall be subjected to an air test and/or leakage test prior to acceptance.
- 18. The Contractor shall provide a TV inspection for all public sewer mains at Contractor's expense.
- 19. All excavation is unclassified and shall include all materials encountered.
- STORM DRAINAGE NOTES:
- 1. All storm drainage pipe shall be Class III RCP, C-76, unless shown otherwise.
- 2. The Contractor shall use Forterra "B-2" (Radius Pipe) or equal for all horizontal or vertical curves with a radius greater than 100 feet. Pre-fabricated bends shall be used if the radius is less than 100 feet.
- 3. Use pre-fabricated Wyes at all pipe intersections and concrete collars at pipe size changes if a junction device (manhole, junction box, inlet, etc.) is not used.
- 4. Open ends of storm drainage pipes shall be adequately protected at the end of each day by the contractor.
- 5. Water jetting is not allowed.
- 6. All embedment and backfill shall be wetted to approximate optimum moisture and compacted in 8 inch lifts to 95% Standard Proctor Density or as directed by the Geotechnical Engineer. Density tests shall be obtained for each lift and for each 150 lineal feet of trench or increment thereof or as directed by the Geotechnical Engineer.
- 7. All excavation is unclassified and shall include all materials encountered.
- FIRE LANE NOTES:
- 1. The fire lane shall be striped on a paved surface and be clearly marked on the pavement with a "red" painted line at least four (4) inches wide. "NO PARKING" and "FIRE LANE" in not less than four (4) inch letters in "white" paint shall be placed every other fifteen (15) feet on the stripe. Where the fire lane is adjacent to a curb, the entire curb shall be painted. All paint referred to shall be a traffic marking paint.
- 2. All fire lanes shall connect to a dedicated street or be constructed with turn-around areas at the dead-end with a minimum radius of fifty (50) feet.

EROSION CONTROL NOTES:

1. Erosion control design and specifications are included in these drawings in accordance with the minimum requirements of the City. Responsibility for compliance with State and Federal Best Management Practices (BMPs), the implementation of erosion control BMP measures and/or the filing of permits or notices shall solely rest with the Contractor(s) and Owner(s). The Texas Commission on Environmental Quality (TCEQ) requires permits for both small and large construction sites under the authority of the Texas Pollution Discharge Elimination System (TPDES) General Permit. General Permit requirements will require the developer/owner and responsible Contractor(s) to complete the following:

> Small Construction Sites - will disturb (alone or as part of a larger development) between 1 acre and 5 acres of land.

- A. Must develop and implement a Storm Water
- Pollution Prevention Plan (SWPPP) B. Must post copy of the TCEQ Construction Site
- Notice at the project site. C. Must submit a copy of the Construction Site Notice to the City.

Large Construction Sites - will disturb (alone or as part of a larger development) 5 acres or more of land.

- A. Must develop and implement a SWPPP
- B. Must submit Notice of Intent (NOI) with
- application fee to TCEQ at least 2 days prior to commencing construction activities.
- C. Must post copy of the NOI at the project site. D. Must submit a copy of the NOI to the City.

Homeyer Engineering, Inc. assumes no responsibility or liability for failure to do so by the Owner, Developer or Contractor.

- 2. The Contractor shall obtain a TPDES General Permit in compliance with TCEQ and implement a SWPPP according to permit requirements and applicable laws.
- 3. The Contractor shall preserve existing vegetation when possible and must stabilize any disturbed area where construction activity has temporarily or permanently ceased. The stabilization must take place within 14 days of the end of activities unless construction will resume within 21 days.
- 4. All of the erosion control devices shown on the erosion control plan for the project shall be installed prior to the start of land disturbing activities.
- 5. If the erosion control plan as approved cannot control erosion and off-site sedimentation from the project, then the erosion control plan will be required to be revised and/or additional erosion control devices will be required on-site.
- 6. The Contractor shall use whatever measures are required to prevent silt and construction debris from leaving the site. Contractor shall comply with all Federal, State and Local erosion, conservation and siltation regulations. Contractor shall remove all temporary erosion control devices upon completion of permanent drainage facilities and the establishment of vegetation sufficient to prevent erosion. Any damage to adjacent properties; downstream channels, ponds or lakes; or wildlife shall be corrected by the Contractor at his expense.
- 7. The Contractor shall take all available precautions to control dust at no additional cost to owner.

PAVING NOTES:

- 1. All dimensions are to the face of curb unless shown otherwise
- 2. All proposed curb radii are 2.0 feet unless shown otherwise.
- 3. The Contractor shall remove and replace any concrete pavement within five (5) days of saw cutting the existing pavement.
- 4. The use of fly ash is not allowed in the concrete mix design.
- 5. All subgrade shall be tested for sulfates prior to the placement of concrete pavement. If sulfates are found, any treatments shall be in accordance with the recommendations of the geotechnical engineer.
- 6. All concrete shall meet the minimum compressive strengths as noted and specified on the plans or other specifications.
- 7. It is the Contractor's responsibility to ensure compliance with all handicapped accessibility requirements, including signage, textures, colorings, markings and slopes of ADA accessible routes and parking spaces.
- 8. All signs, pavement markings and other traffic control devices shall conform to the Texas Manual on Uniform Traffic Control Devices.
- 9. All existing signs within the limits of the proposed pavement shall be relocated a minimum of five (5) feet from the proposed back of curb.
- 10. The contractor shall submit a pavement jointing plan to the Engineer for approval prior to the placement of concrete paving.
- 11. Saw joints shall be made as soon as the new concrete can support the weight of the machine and operator without tracking. New concrete shall be saw cut within 24-hours of placement. Any concrete not saw cut within 24-hours is subject to removal and replacement without additional compensation.

CITY OF LEWISVILLE GENERAL NOTES:

1. The City of Lewisville's Inspector overtime policy allows the Contractor to work from 7:00 a.m. to 7:00 p.m., Monday through Saturday. Any request to work on a Saturday must be made prior to 12:00 p.m. on Thursday afternoon and will require a minimum four (4) hour charge. The Contractor shall pay overtime charges of \$45.00 per hour to the City of Lewisville for work outside the normal work week (8:00 a.m. to 5:00 p.m. Monday through Friday). No work is allowed on Sundays or City holidays without written approval from the City Engineer or Designee.

2. The Contractor shall be responsible for submitting a copy of the bid proposal for all public improvements to the City of Lewisville at the pre-construction meeting. This proposal shall include unit costs, quantities and amounts.

3. The Owner/Contractor shall be responsible for paying a 3.5% inspection fee to the City of Lewisville at the pre-construction meeting for all public improvements.

4. The Contractor shall be responsible for providing a two (2) year, 100% Maintenance Bond to the City of Lewisville for all public improvements (water, sanitary sewer, storm drainage, pavement, sidewalk, screening walls, traffic signals, pavement markings, and excavation/fill) within right-of-ways or easements.

5. No water jetting is allowed for water, sanitary sewer and storm sewer drainage construction.

6. All trenches that are excavated to a depth in excess of five (5) feet shall be excavated and maintained in a manner that meets all Occupational Safety and Health Administration (OSHA) standards. Prior to the excavation and construction of the trench(es), the Contractor shall be responsible for submitting two (2) copies of the trench safety plans prepared by a Licensed Professional Engineer in accordance with OSHA standards.

7. All embedment and backfill shall be wetted to approximate optimum moisture and compacted in twelve (12) inch lifts to 95% Standard Proctor density. Density tests shall be obtained for each lift and for each 150 lineal feet of trench or increment thereof. The Contractor shall be responsible for submitting a copy of all geotechnical laboratory reports/test results to the City of Lewisville.

8. There shall be no filling in the floodplain or dumping within the City of Lewisville without an approved grading plan and/or fill permit.

9. The Contractor shall be responsible for recording all field changes to the plans. The project engineer shall incorporate these changes in "Record Drawings".

10. The Contractor shall be responsible for providing erosion control in accordance with the Erosion Control Plan prepared by the engineer and/or as identified on the Storm Water Pollution Prevention Plan (S.W.P.P.P.). The Contractor shall install additional erosion control devices when field conditions warrant or as directed by the City of Lewisville or the Engineer.

11. The permitted operator shall submit copies of the Notice of Intent (N.O.I.) and the Notice of Termination (N.O.T.) to the City of Lewisville Engineering Division as part of the submittal to the Texas Commission on Environmental Quality (TCEQ).

12. The Contractor shall remove and replace any concrete pavement (drive approaches/street panels) within five (5) days of saw cutting the pavement. Concrete pavement subject to vehicular traffic shall have a compressive strength of 4,200 PSI at 3 days.

13. The use of fly ash is not allowed in the concrete mix design.

14. All subgrades for public street improvements shall be tested for sulfates prior to subgrade treatment. Fill materials containing sulfates will not be allowed for use within public easements or rights-of-ways.

15. The developer is responsible for providing a preliminary geotechnical report at the time of the submittal of the construction drawings. The developer/contractor is responsible for providing a geotechnical report upon completion of the subgrade treatment for comparison.

16. The maximum P.I. allowed for a treated subgrade is 25.

17. The developer is responsible for all third party costs associated with the construction of this project (i.e., inspections, flaggers, traffic control performed by police officers and etc.)

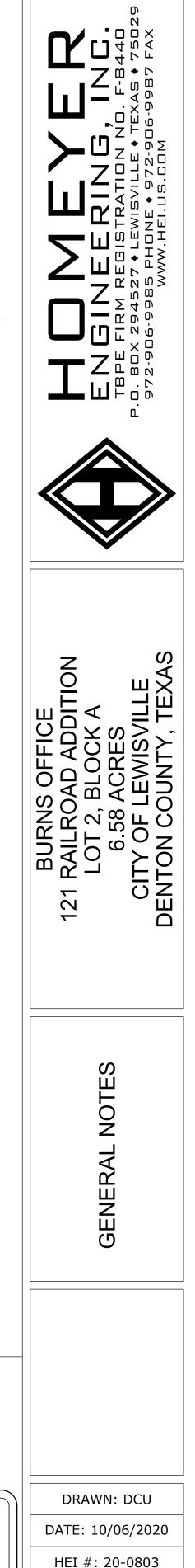
<u>atmos energy</u> 5420 LBJ FREEWAY, SUITE 1800 DALLAS, TX 75240 CONTACT: GARY WOOLSEY PHONE: 214-206-2717

TEXAS NEW MEXICO POWER 815 OFFICE PARK CIRCLE LEWISVILLE, TX 7057 CONTACT: CARLOS ESTRADA PHONE: 972-353-5006

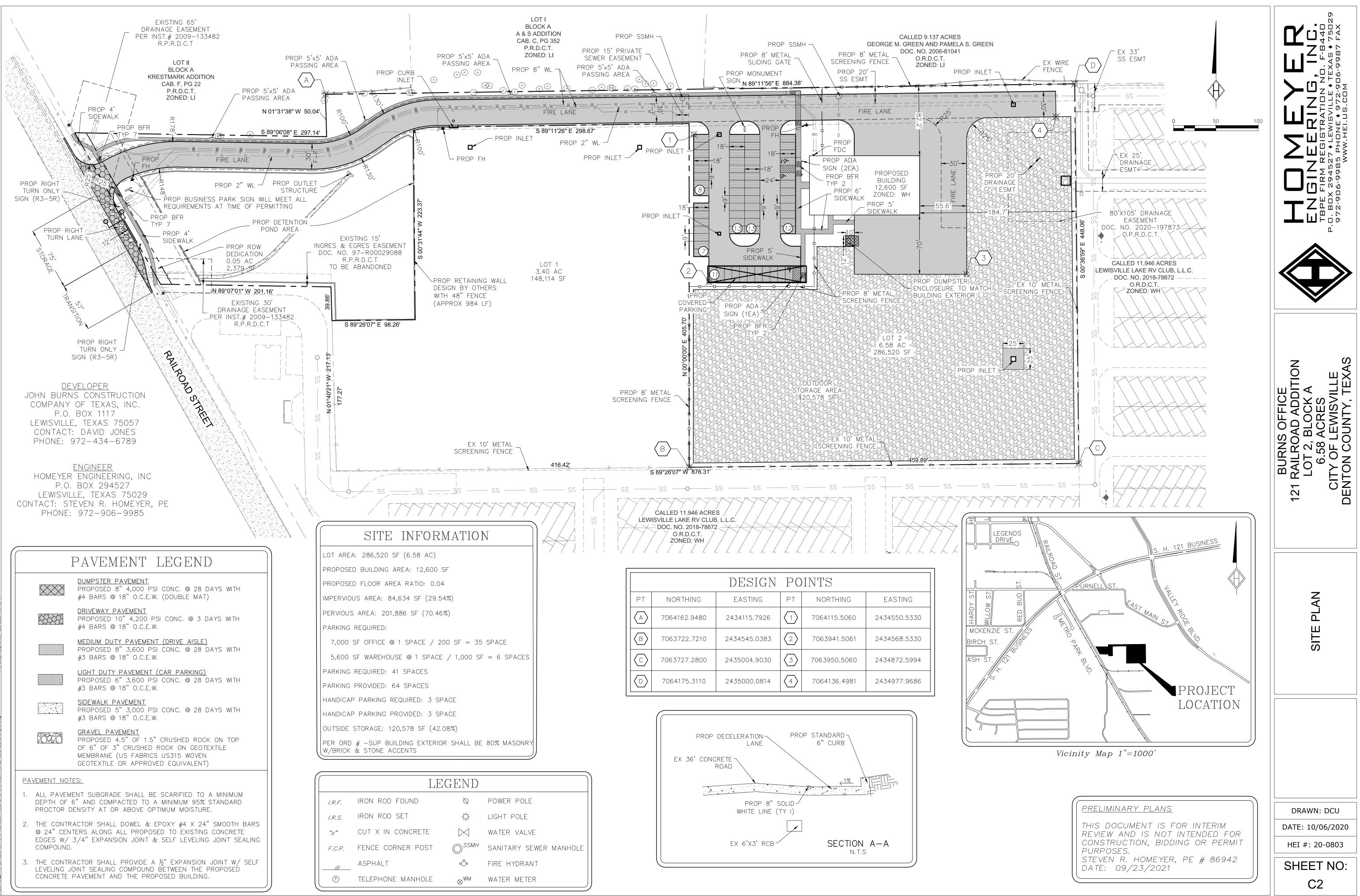
TIME WARNER CABLE HOUSTON STREET LEWISVILLE, TX CONTACT: PHILLIP GWIN PHONE: 214-869-9038

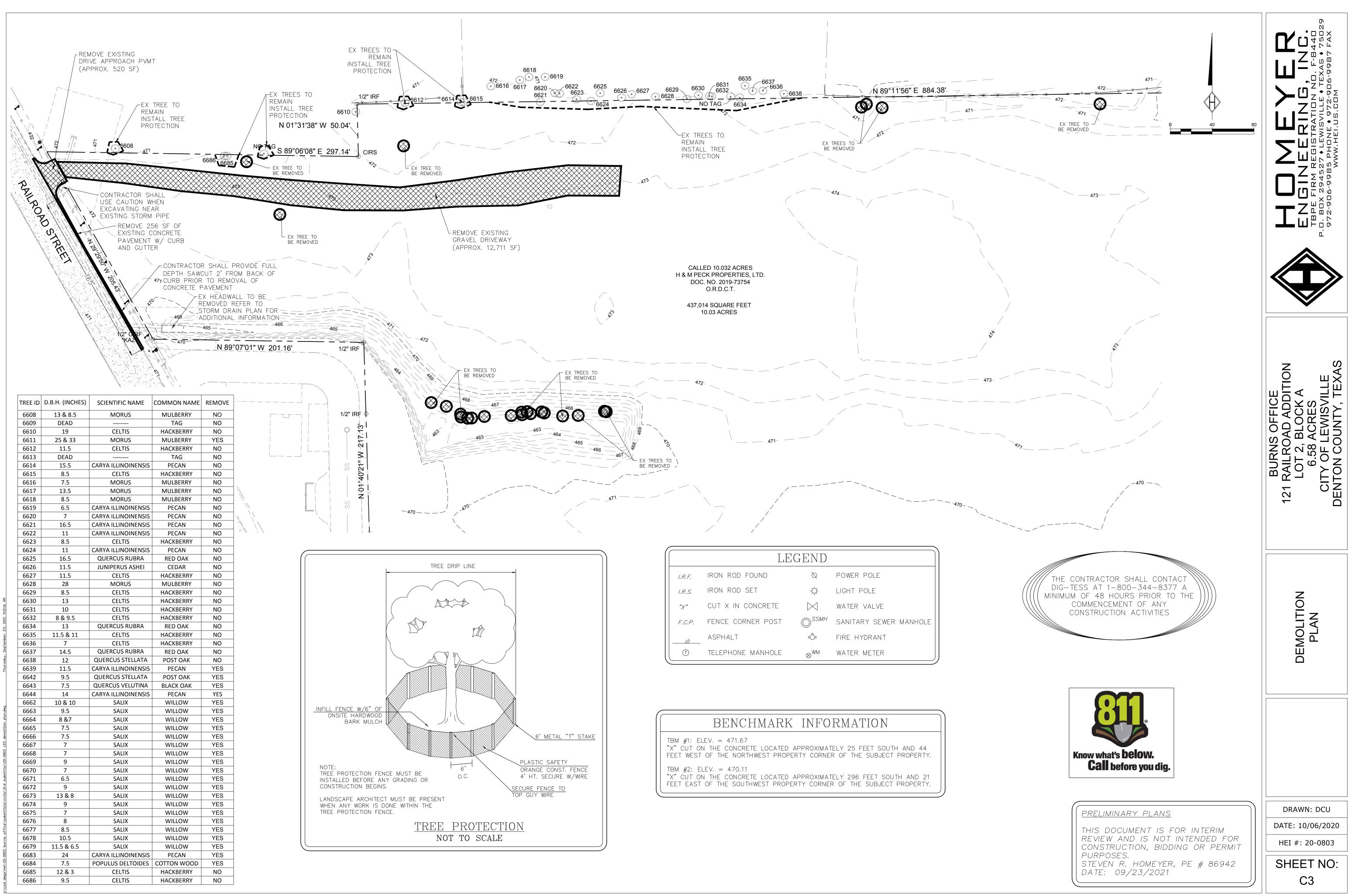
FRONTIER COMMUNICATION 3827 MORSE ST. DENTON, TX 76208 CONTACT: DARIN BOX PHONE: 940-381-9273

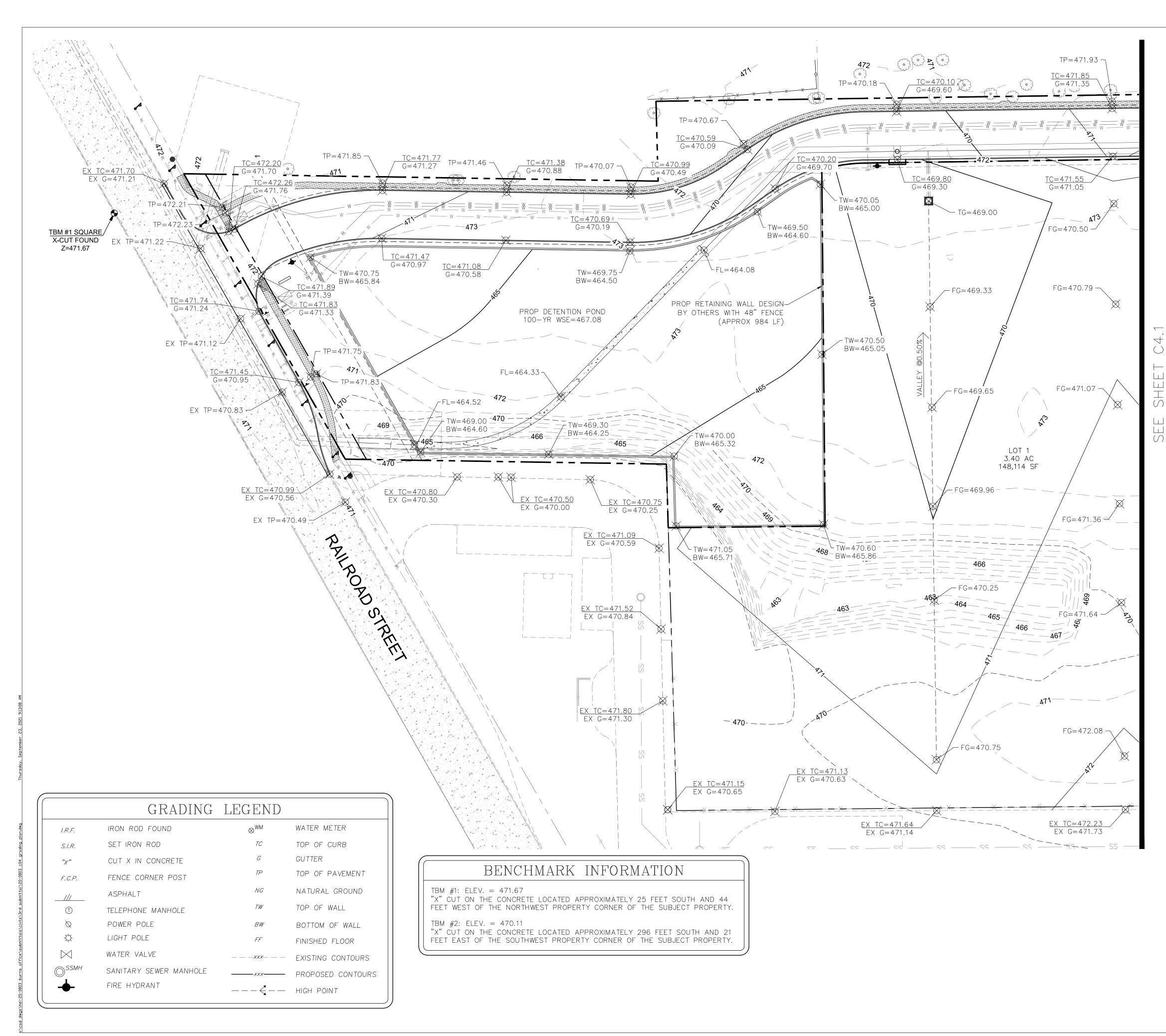
PRELIMINARY PLANS THIS DOCUMENT IS FOR INTERIM REVIEW AND IS NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. STEVEN R. HOMEYER, PE # 86942 DATE: 09/23/2021

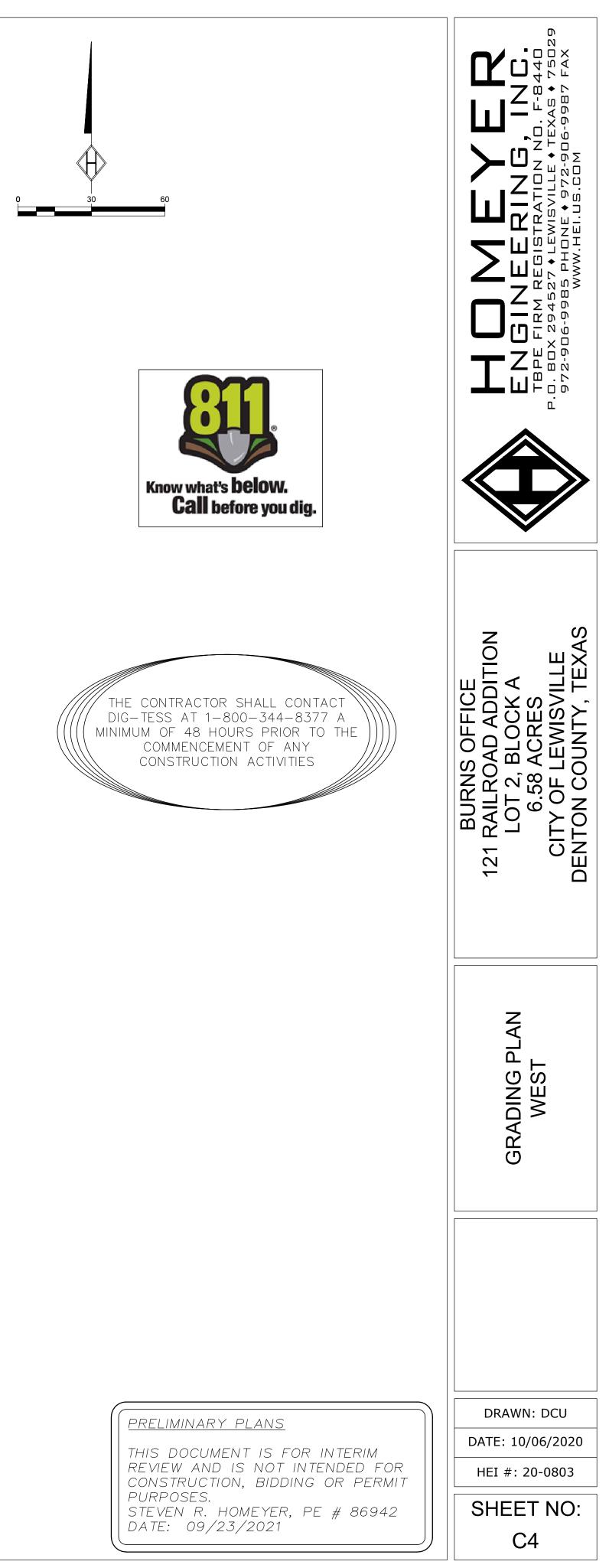


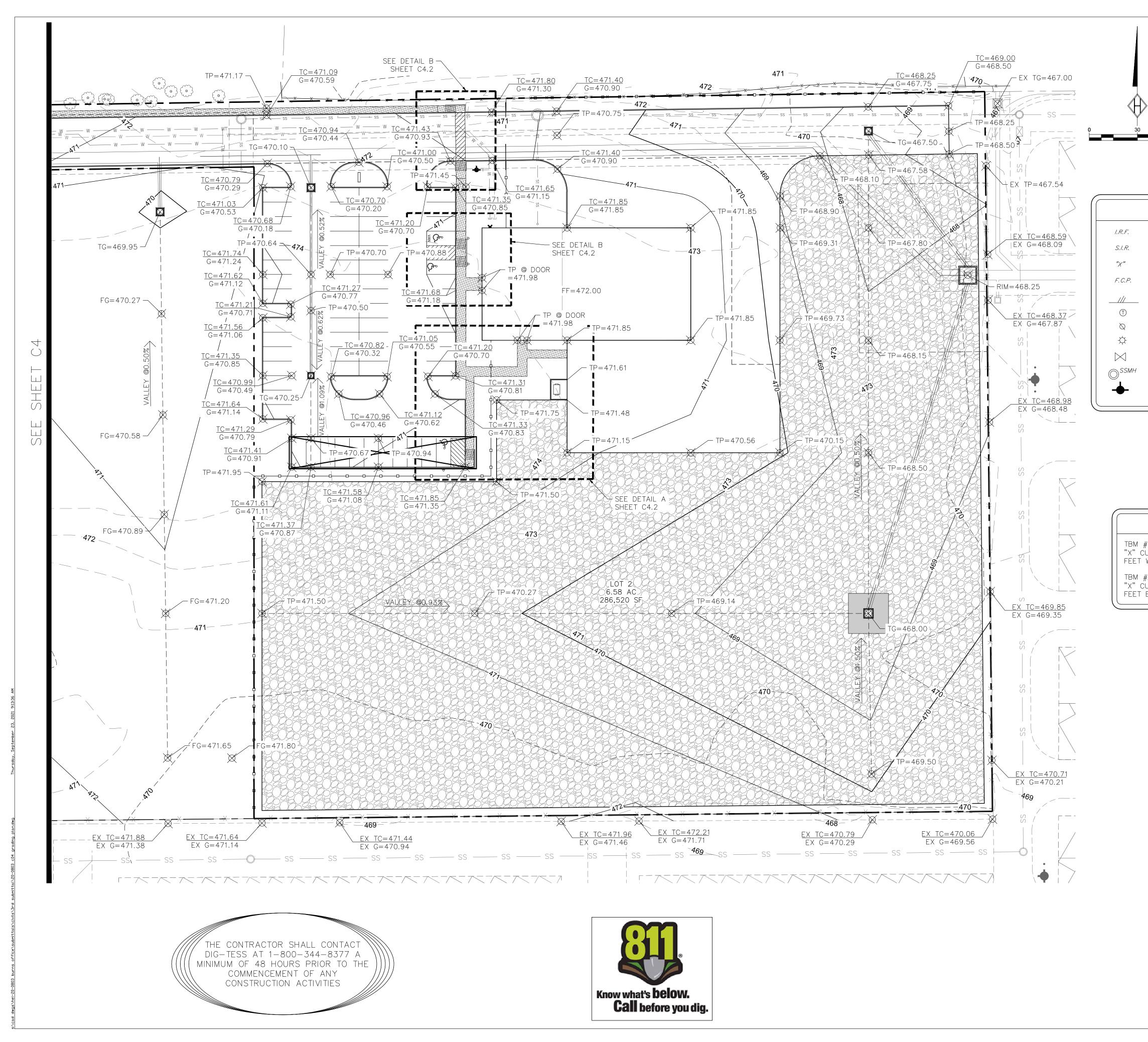
SHEET NO: C1







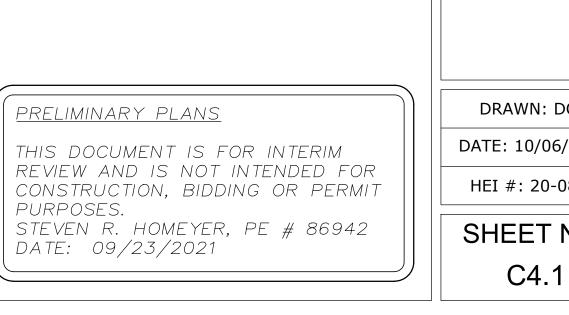




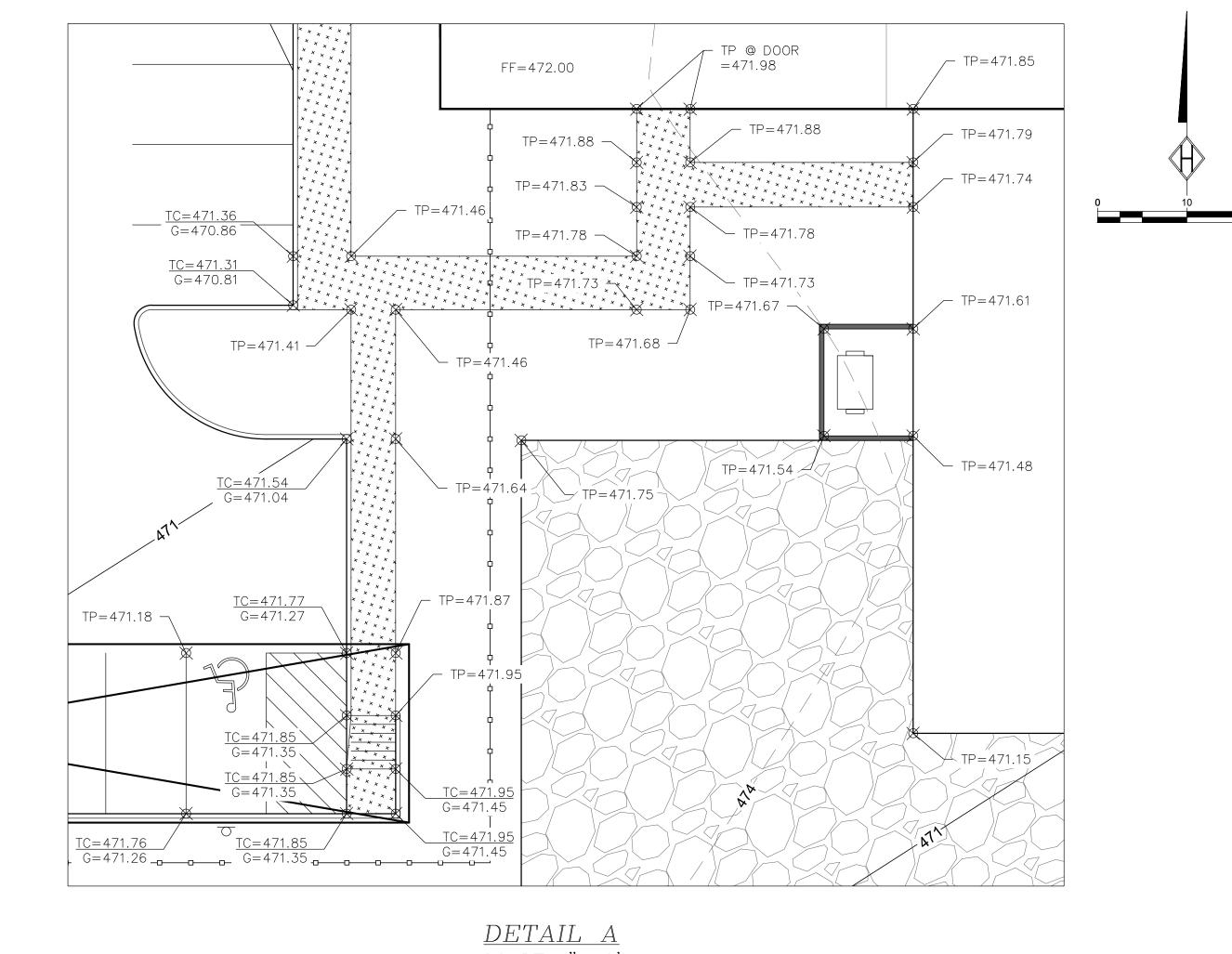
IR	ON ROD FOUND	\otimes^{WM}	WATER METER
SE	T IRON ROD	ТС	TOP OF CURB
CL	JT X IN CONCRETE	G	GUTTER
FE	NCE CORNER POST	TP	TOP OF PAVEMENT
AS	SPHALT	NG	NATURAL GROUND
TE	LEPHONE MANHOLE	TW	TOP OF WALL
PC)WER POLE	BW	BOTTOM OF WALL
LIC	GHT POLE	FF	FINISHED FLOOR
WA	TER VALVE	XXX	EXISTING CONTOURS
SA	NITARY SEWER MANHOLE		PROPOSED CONTOURS
FIF	RE HYDRANT	<	HIGH POINT

TBM #1: ELEV. = 471.67 "X" CUT ON THE CONCRETE LOCATED APPROXIMATELY 25 FEET SOUTH AND 44 FEET WEST OF THE NORTHWEST PROPERTY CORNER OF THE SUBJECT PROPERTY.

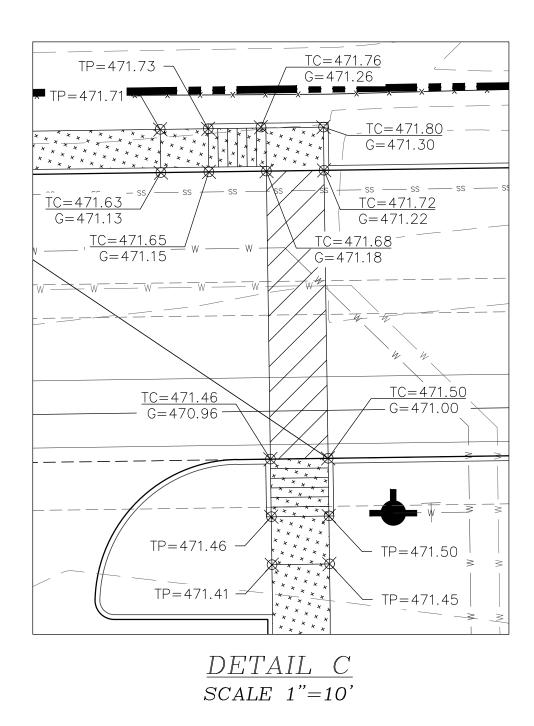
TBM #2: ELEV. = 470.11"X" CUT ON THE CONCRETE LOCATED APPROXIMATELY 296 FEET SOUTH AND 21FEET EAST OF THE SOUTHWEST PROPERTY CORNER OF THE SUBJECT PROPERTY.

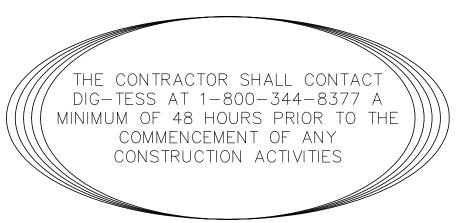


	P.O. BOX 294527 • LEWISVILLE • TEXAS • 75029 WWW.HEI.US.COM
	BURNS OFFICE 121 RAILROAD ADDITION LOT 2, BLOCK A 6.58 ACRES CITY OF LEWISVILLE DENTON COUNTY, TEXAS
	GRADING PLAN EAST
-	DRAWN: DCU DATE: 10/06/2020 HEI #: 20-0803
	SHEET NO:

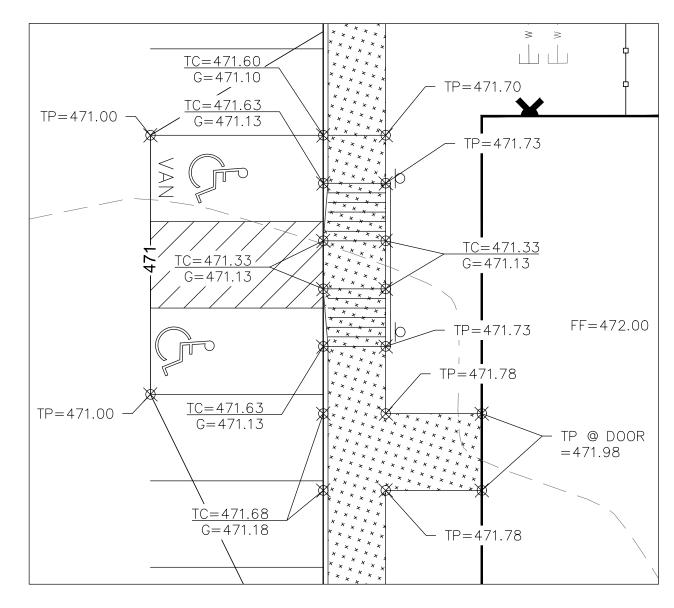


SCALE 1"=10'





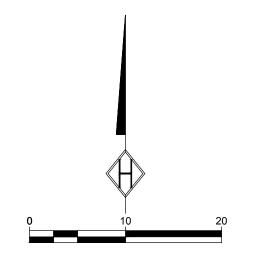




<u>DETAIL B</u> SCALE 1"=10'

	GRADING	LEGEND	
I.R.F.	IRON ROD FOUND	\otimes^{WM}	WATER METER
<i>S.I.R.</i>	SET IRON ROD	TC	TOP OF CURB
"X "	CUT X IN CONCRETE	G	GUTTER
F.C.P.	FENCE CORNER POST	TP	TOP OF PAVEMENT
//	ASPHALT	NG	NATURAL GROUND
 	TELEPHONE MANHOLE	ΤW	TOP OF WALL
Ø	POWER POLE	BW	BOTTOM OF WALL
ф.	LIGHT POLE	FF	FINISHED FLOOR
\bowtie	WATER VALVE	XXX	EXISTING CONTOURS
© ^{SSMH}	SANITARY SEWER MANHOLE		PROPOSED CONTOURS
	FIRE HYDRANT	<	HIGH POINT

BENCHMARK
TBM #1: ELEV. = 471.67 "X" CUT ON THE CONCRETE LOCATED AF FEET WEST OF THE NORTHWEST PROPERT
TBM #2: ELEV. = 470.11 "X" CUT ON THE CONCRETE LOCATED AF FEET EAST OF THE SOUTHWEST PROPERT



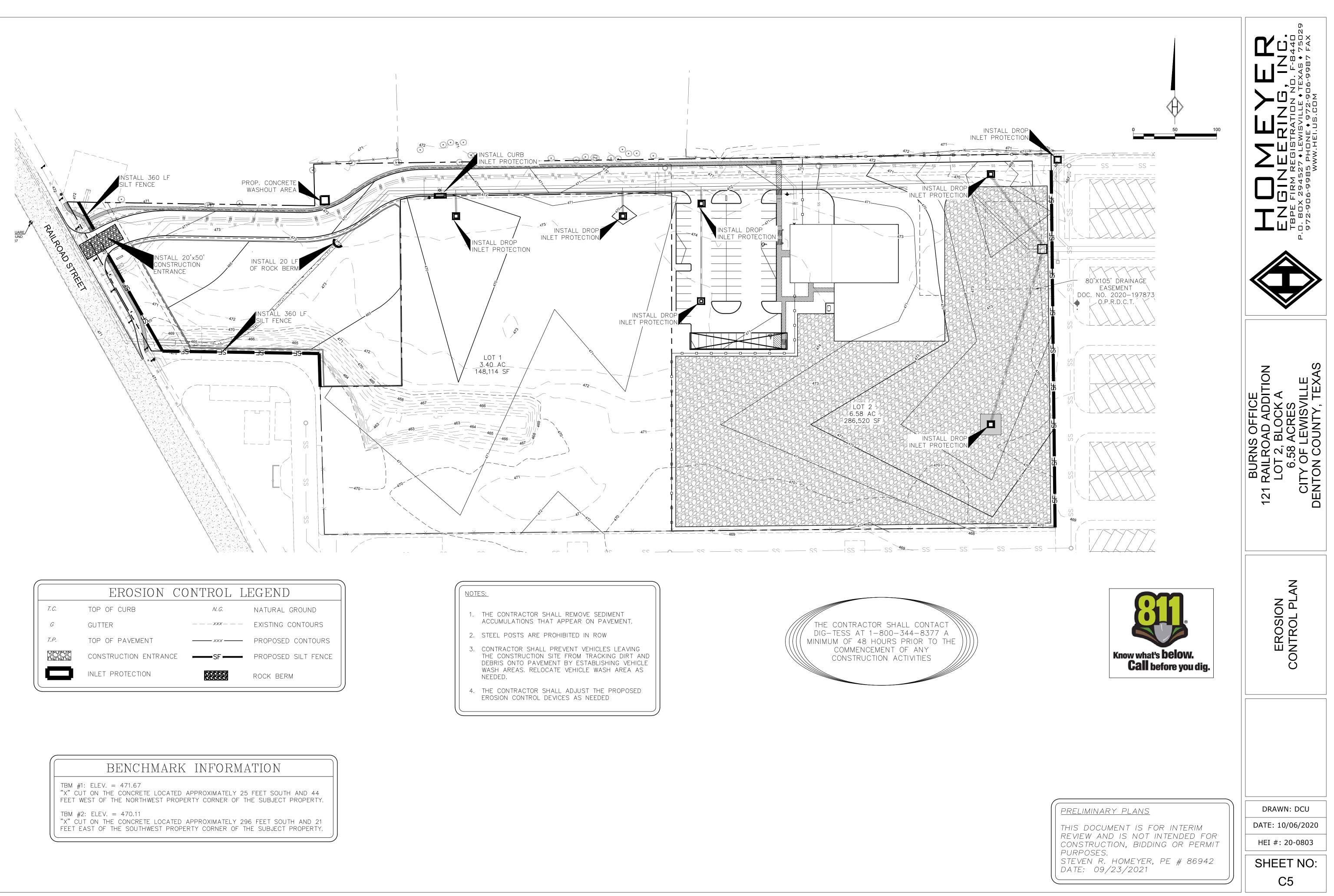
INFORMATION

APPROXIMATELY 25 FEET SOUTH AND 44 ERTY CORNER OF THE SUBJECT PROPERTY.

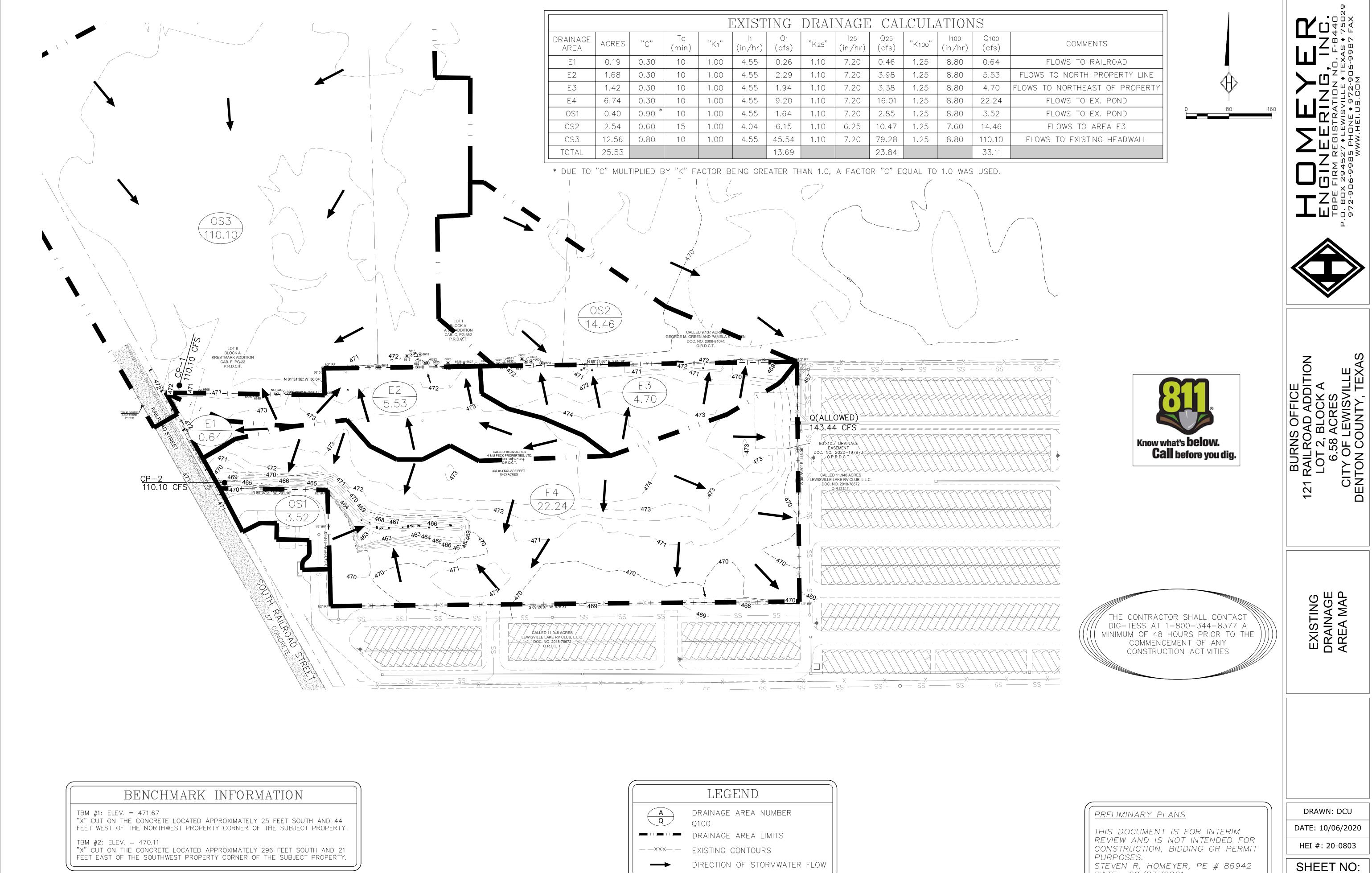
APPROXIMATELY 296 FEET SOUTH AND 21 TRTY CORNER OF THE SUBJECT PROPERTY.

PRELIMINARY PLANS
THIS DOCUMENT IS FOR INTERIM REVIEW AND IS NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
STEVEN R. HOMEYER, PE # 86942 DATE: 09/23/2021

FOR THE FIRM REGISTRATION NO. F-8440 972-906-9985 PHONE + 972-906-9987 FAX WW.HEI.US.COM
BURNS OFFICE 121 RAILROAD ADDITION LOT 2, BLOCK A 6.58 ACRES CITY OF LEWISVILLE DENTON COUNTY, TEXAS
GRADING DETAILS
DRAWN: DCU DATE: 10/06/2020 HEI #: 20-0803 SHEET NO: C4.2



	EROSION CO	ONTROL L	EGEND
Т.С.	TOP OF CURB	N. G.	NATURAL GROUND
G	GUTTER	XXX	EXISTING CONTOURS
Т.Р.	TOP OF PAVEMENT	xxx	PROPOSED CONTOURS
	CONSTRUCTION ENTRANCE	SF	PROPOSED SILT FENCE
	INLET PROTECTION	88888	ROCK BERM

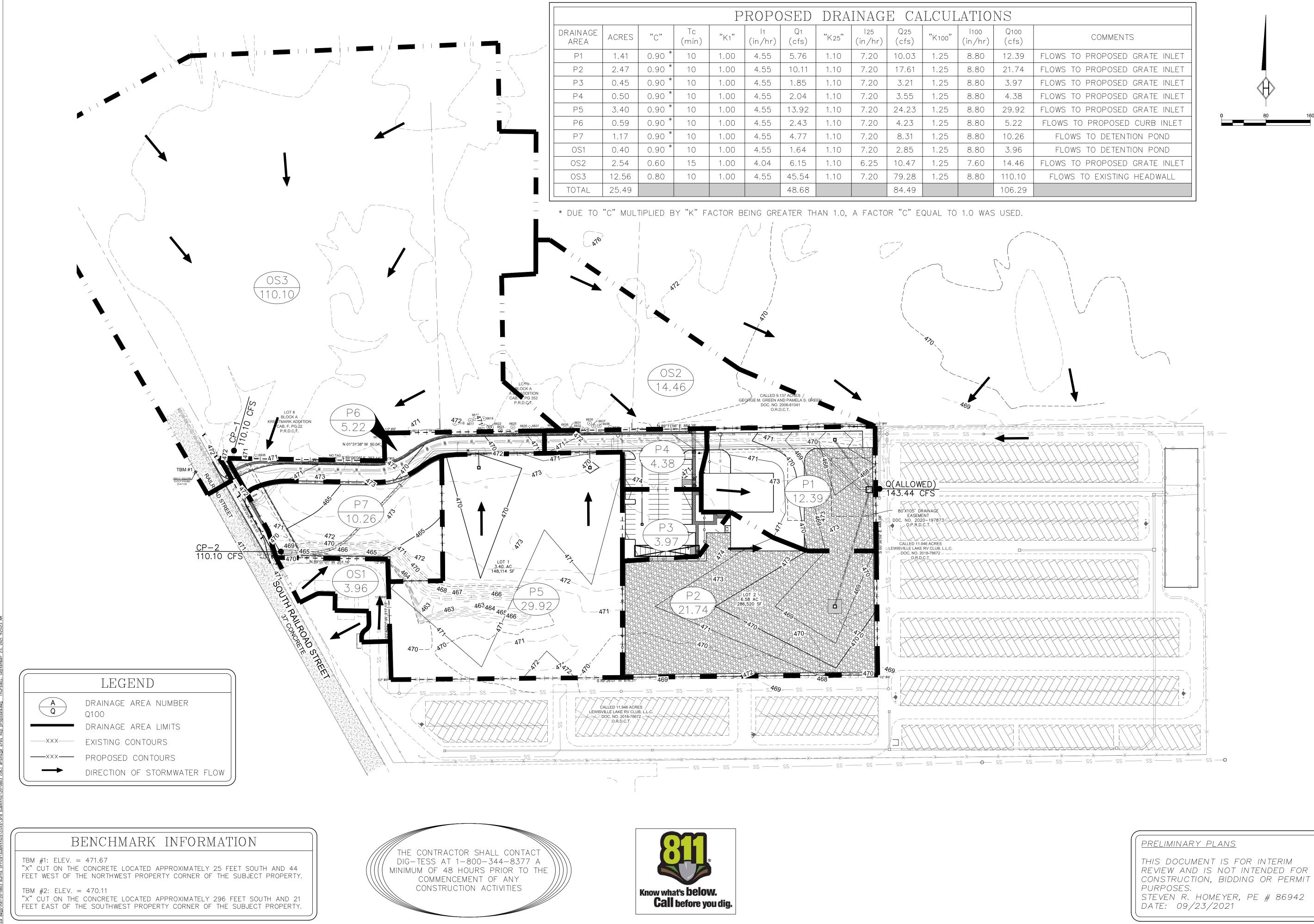


]	EXIST	ING	DRAI	NAGE	CAI	LCUL	ATION	IS
DRAINAGE AREA	ACRES	"С"	Tc (min)	"K1"	lı (in/hr)	Q1 (cfs)	"K25"	l25 (in/hr)	Q25 (cfs)	"K100"	100 (in/hr)	Q100 (cfs)
E1	0.19	0.30	10	1.00	4.55	0.26	1.10	7.20	0.46	1.25	8.80	0.64
E2	1.68	0.30	10	1.00	4.55	2.29	1.10	7.20	3.98	1.25	8.80	5.53
E3	1.42	0.30	10	1.00	4.55	1.94	1.10	7.20	3.38	1.25	8.80	4.70
E4	6.74	0.30	10	1.00	4.55	9.20	1.10	7.20	16.01	1.25	8.80	22.24
0S1	0.40	0.90 *	10	1.00	4.55	1.64	1.10	7.20	2.85	1.25	8.80	3.52
OS2	2.54	0.60	15	1.00	4.04	6.15	1.10	6.25	10.47	1.25	7.60	14.46
0S3	12.56	0.80	10	1.00	4.55	45.54	1.10	7.20	79.28	1.25	8.80	110.10
TOTAL	25.53					13.69			23.84			33.11

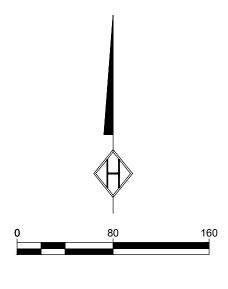
	LEGEND
A Q	DRAINAGE AREA NUMBER Q100
	DRAINAGE AREA LIMITS
XX—	EXISTING CONTOURS
	DIRECTION OF STORMWATER FLOW

DATE: 09/23/2021

C6

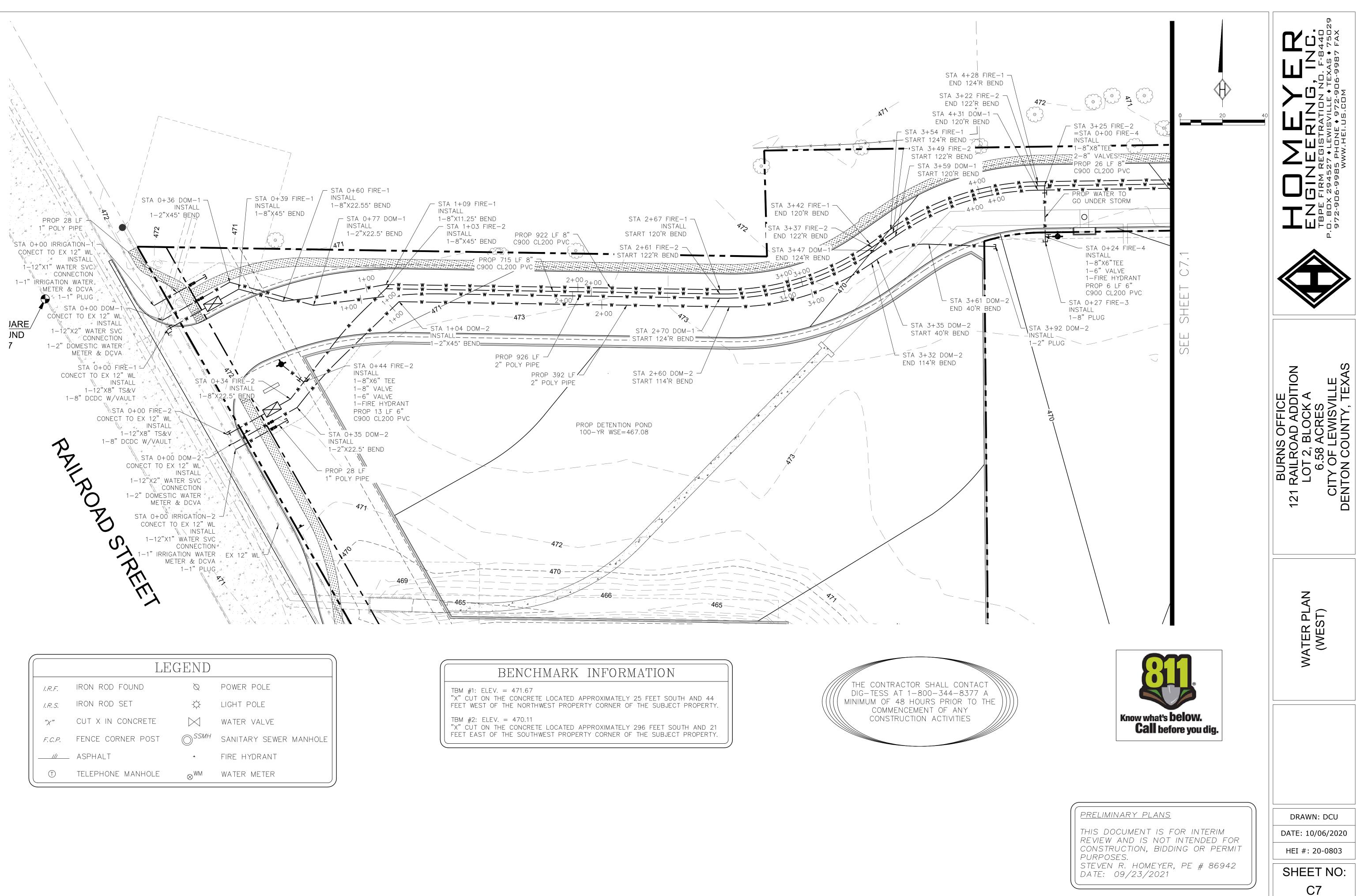


			_		ROPC								
DRAINAGE AREA	ACRES	"C"	Tc (min)	"K1"	l1 (in/hr)	Q1 (cfs)	"K25"	l25 (in/hr)	Q25 (cfs)	"K100"	100 (in/hr)	Q100 (cfs)	COMMENTS
P1	1.41	0.90 *	10	1.00	4.55	5.76	1.10	7.20	10.03	1.25	8.80	12.39	FLOWS TO PROPOSED GRATE
P2	2.47	0.90 *	10	1.00	4.55	10.11	1.10	7.20	17.61	1.25	8.80	21.74	FLOWS TO PROPOSED GRATE
P3	0.45	0.90 *	10	1.00	4.55	1.85	1.10	7.20	3.21	1.25	8.80	3.97	FLOWS TO PROPOSED GRATE
P4	0.50	0.90 *	10	1.00	4.55	2.04	1.10	7.20	3.55	1.25	8.80	4.38	FLOWS TO PROPOSED GRATE
P5	3.40	0.90 *	10	1.00	4.55	13.92	1.10	7.20	24.23	1.25	8.80	29.92	FLOWS TO PROPOSED GRATE
P6	0.59	0.90 *	10	1.00	4.55	2.43	1.10	7.20	4.23	1.25	8.80	5.22	FLOWS TO PROPOSED CURB I
P7	1.17	0.90 *	10	1.00	4.55	4.77	1.10	7.20	8.31	1.25	8.80	10.26	FLOWS TO DETENTION PON
OS1	0.40	0.90 *	10	1.00	4.55	1.64	1.10	7.20	2.85	1.25	8.80	3.96	FLOWS TO DETENTION PON
OS2	2.54	0.60	15	1.00	4.04	6.15	1.10	6.25	10.47	1.25	7.60	14.46	FLOWS TO PROPOSED GRATE
OS3	12.56	0.80	10	1.00	4.55	45.54	1.10	7.20	79.28	1.25	8.80	110.10	FLOWS TO EXISTING HEADW
* DUE TO	25.49 "C" MUL	TIPLIED B	Y "K" F <i>i</i>	ACTOR B	EING GRE	48.68 ATER TH	IAN 1.0,	A FACTC	84.49 R "C" E	QUAL TC	1.0 WAS	106.29 5 USED.	
		TIPLIED B	Y "K" FA	ACTOR B	EING GRE		IAN 1.0,	A FACTC		QUAL TO	1.0 WAS		



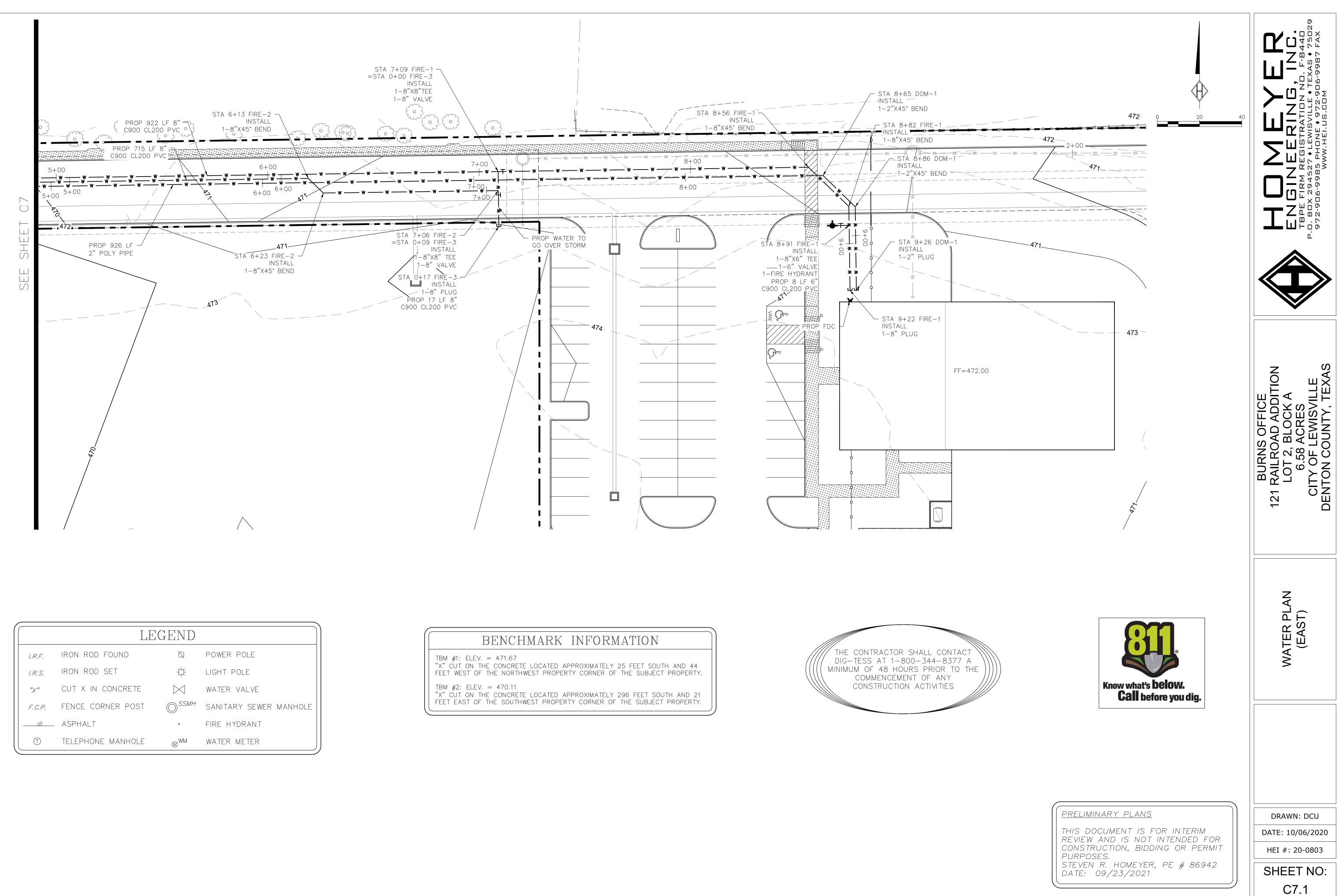
	HORA HORA HORA HORA HORA PLO PACA PACA PACA PACA PACA PACA PACA PACA PACA
	BURNS OFFICE 121 RAILROAD ADDITION LOT 2, BLOCK A 6.58 ACRES GTY OF LEWISVILLE DENTON COUNTY, TEXAS
	PROPOSED DRAINAGE AREA MAP
M FOR ERMIT 5942	DRAWN: DCU DATE: 10/06/2020 HEI #: 20-0803 SHEET NO: C6.1

ס



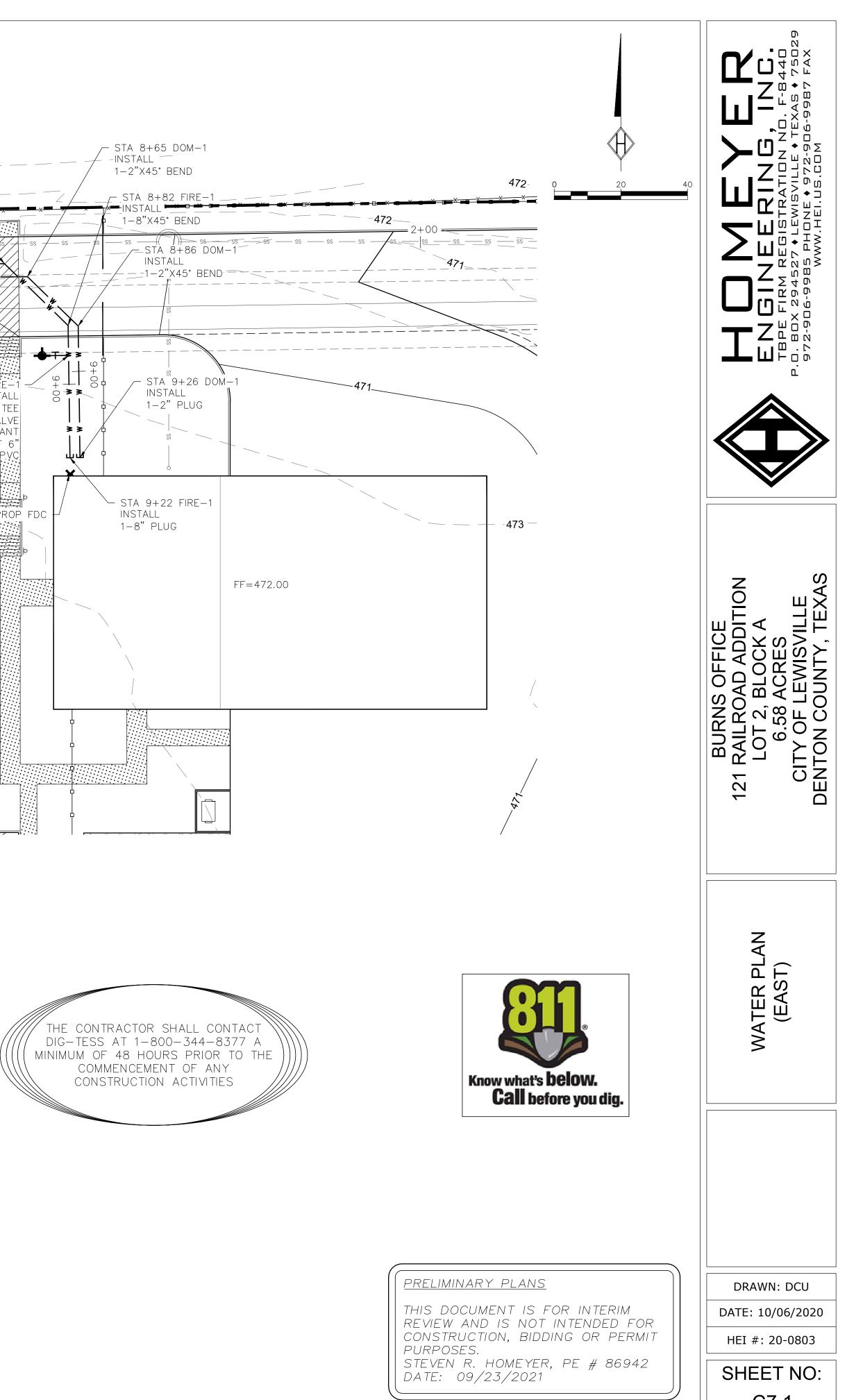
	LE(GEND	
I.R.F.	IRON ROD FOUND	Ø	POWER POLE
I.R.S.	IRON ROD SET	-¢-	LIGHT POLE
"X"	CUT X IN CONCRETE	\bowtie	WATER VALVE
<i>F.C.P.</i>	FENCE CORNER POST	O ^{SSMH}	SANITARY SEWER MANHOLE
	ASPHALT	٠	FIRE HYDRANT
T	TELEPHONE MANHOLE	\otimes^{WM}	WATER METER

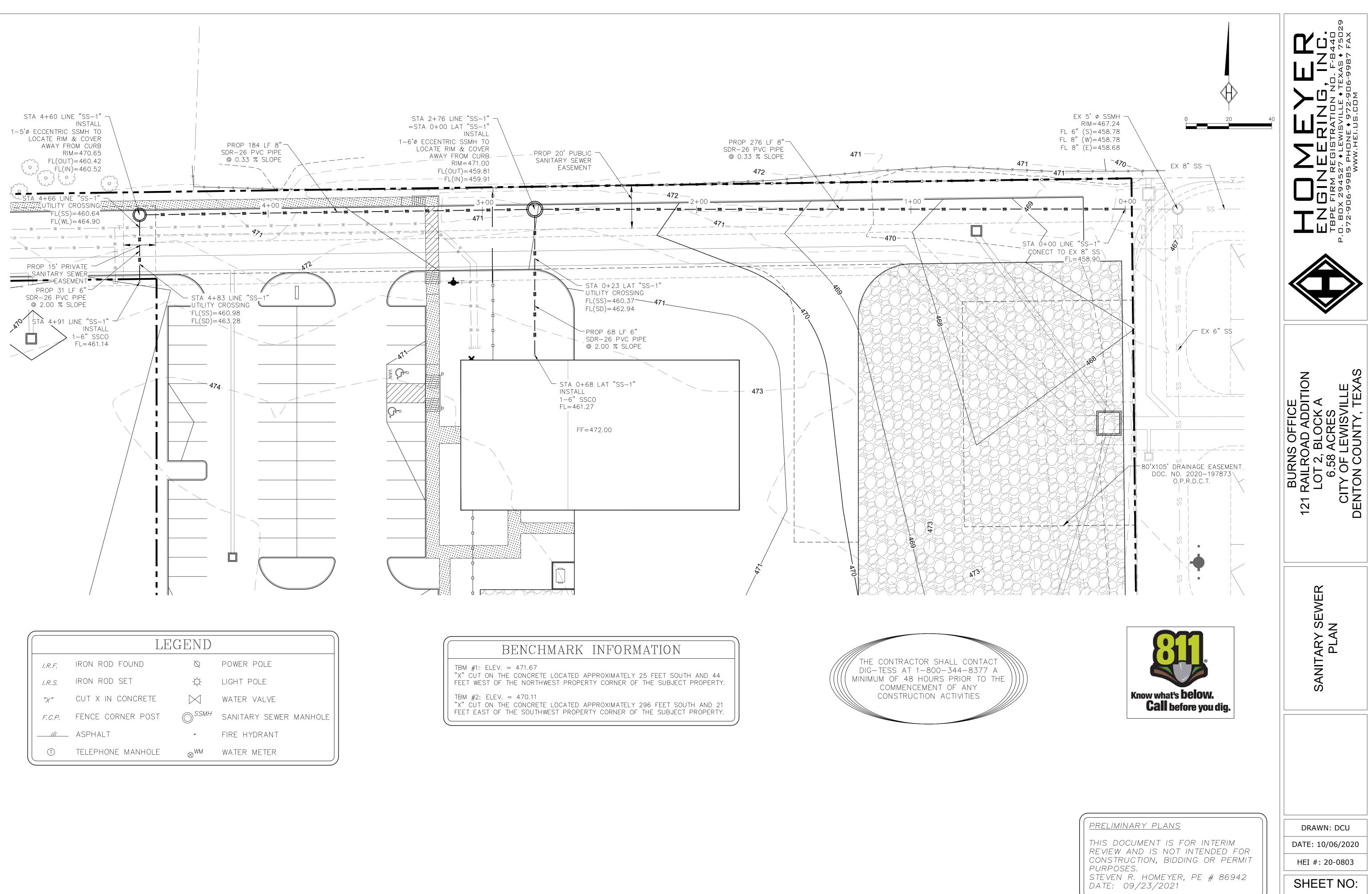
/		
	TBN "X" FEE	(
	TBN "X" FEE	C



	LE	GEND	
I.R.F.	IRON ROD FOUND	Ø	POWER POLE
I.R.S.	IRON ROD SET	-¢-	LIGHT POLE
" <u>×</u> "	CUT X IN CONCRETE	\bowtie	WATER VALVE
F.C.P.	FENCE CORNER POST	© ^{SSMH}	SANITARY SEWER MANHOLE
///	ASPHALT	۵	FIRE HYDRANT
	TELEPHONE MANHOLE	\otimes^{WM}	WATER METER

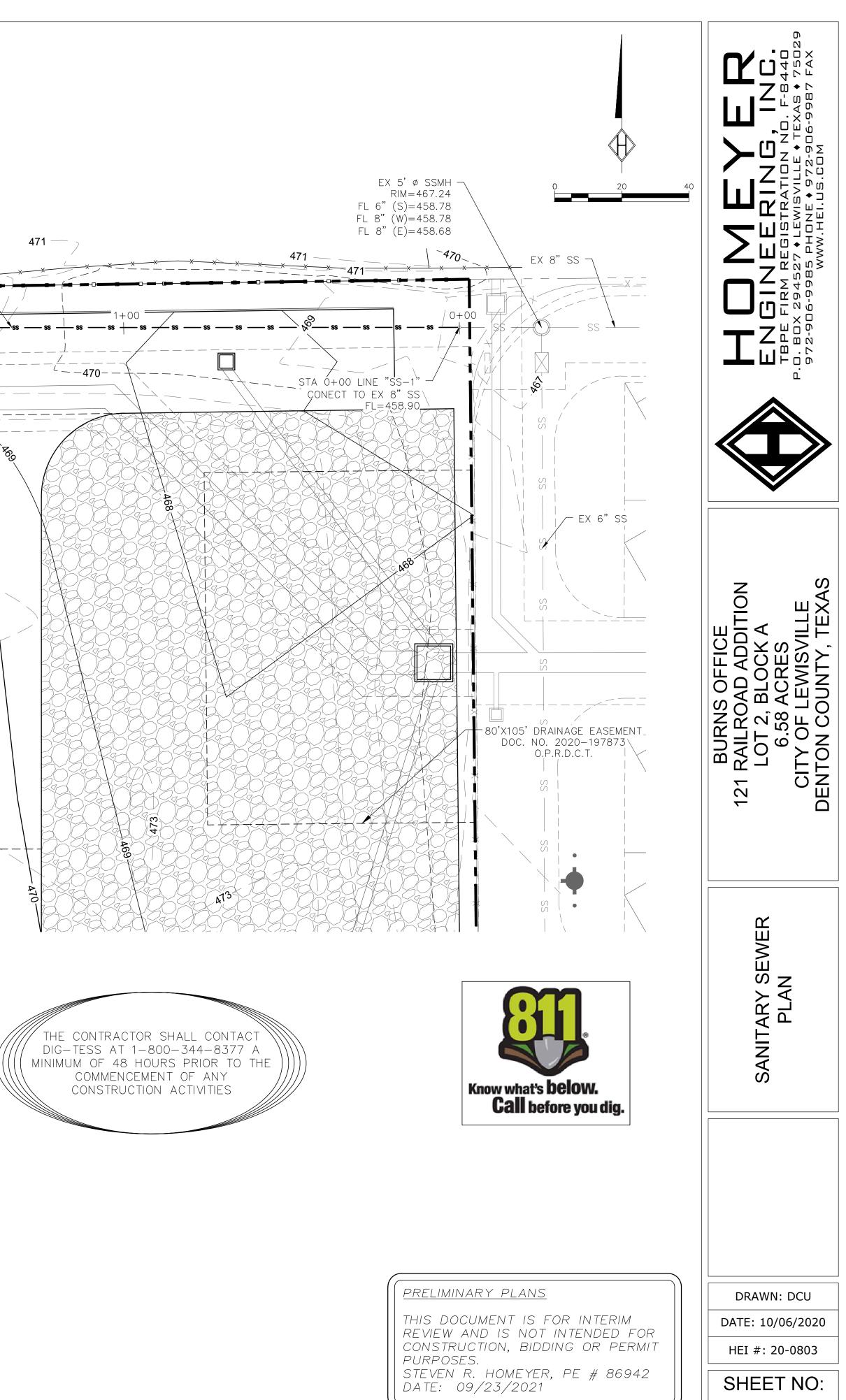
TBM "X" FEET
TBM "X" FEET





	LE	GEND	
I.R.F.	IRON ROD FOUND	Q	POWER POLE
I.R.S.	IRON ROD SET	-¢-	LIGHT POLE
" <i>X</i> "	CUT X IN CONCRETE	\bowtie	WATER VALVE
F.C.P.	FENCE CORNER POST	◯ ^{SSMH}	SANITARY SEWER MANHOLE
///	ASPHALT	۵	FIRE HYDRANT
Ū	TELEPHONE MANHOLE	\otimes^{WM}	WATER METER

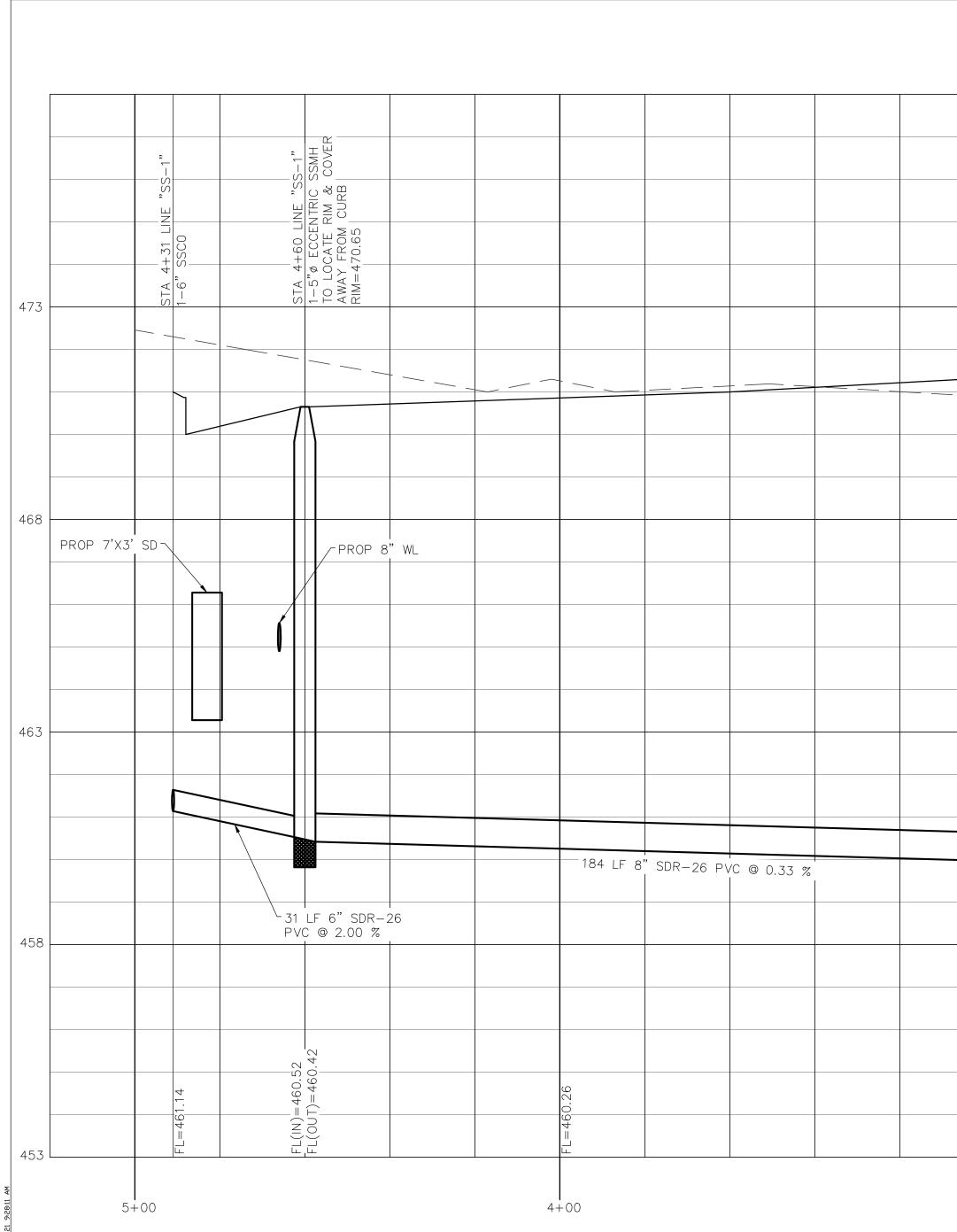
(
	TBM "×"
	FEET
	TBM "X"
	FEET



C8

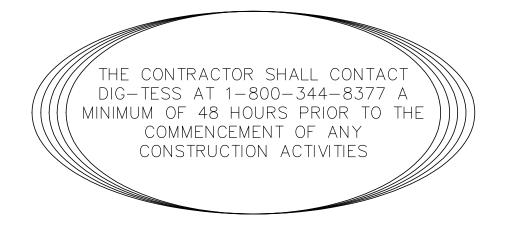
TBM #1: ELEV. = 471.67 "X" CUT ON THE CONCRETE LOCATED APPROXIMATELY 25 FEET SOUTH AND 44 FEET WEST OF THE NORTHWEST PROPERTY CORNER OF THE SUBJECT PROPERTY. TBM #2: ELEV. = 470.11 "X" CUT ON THE CONCRETE LOCATED APPROXIMATELY 296 FEET SOUTH AND 21 FEET EAST OF THE SOUTHWEST PROPERTY CORNER OF THE SUBJECT PROPERTY.

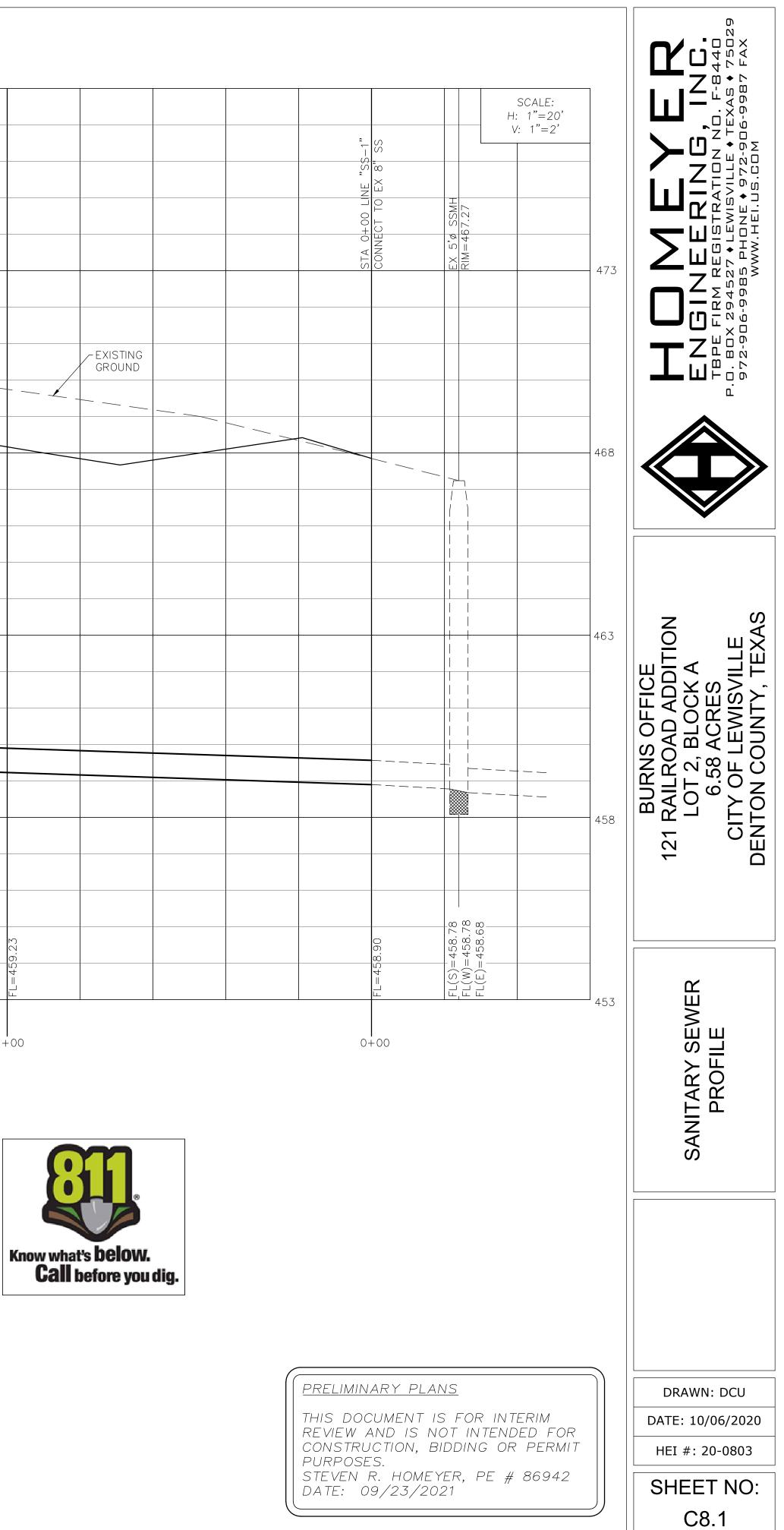


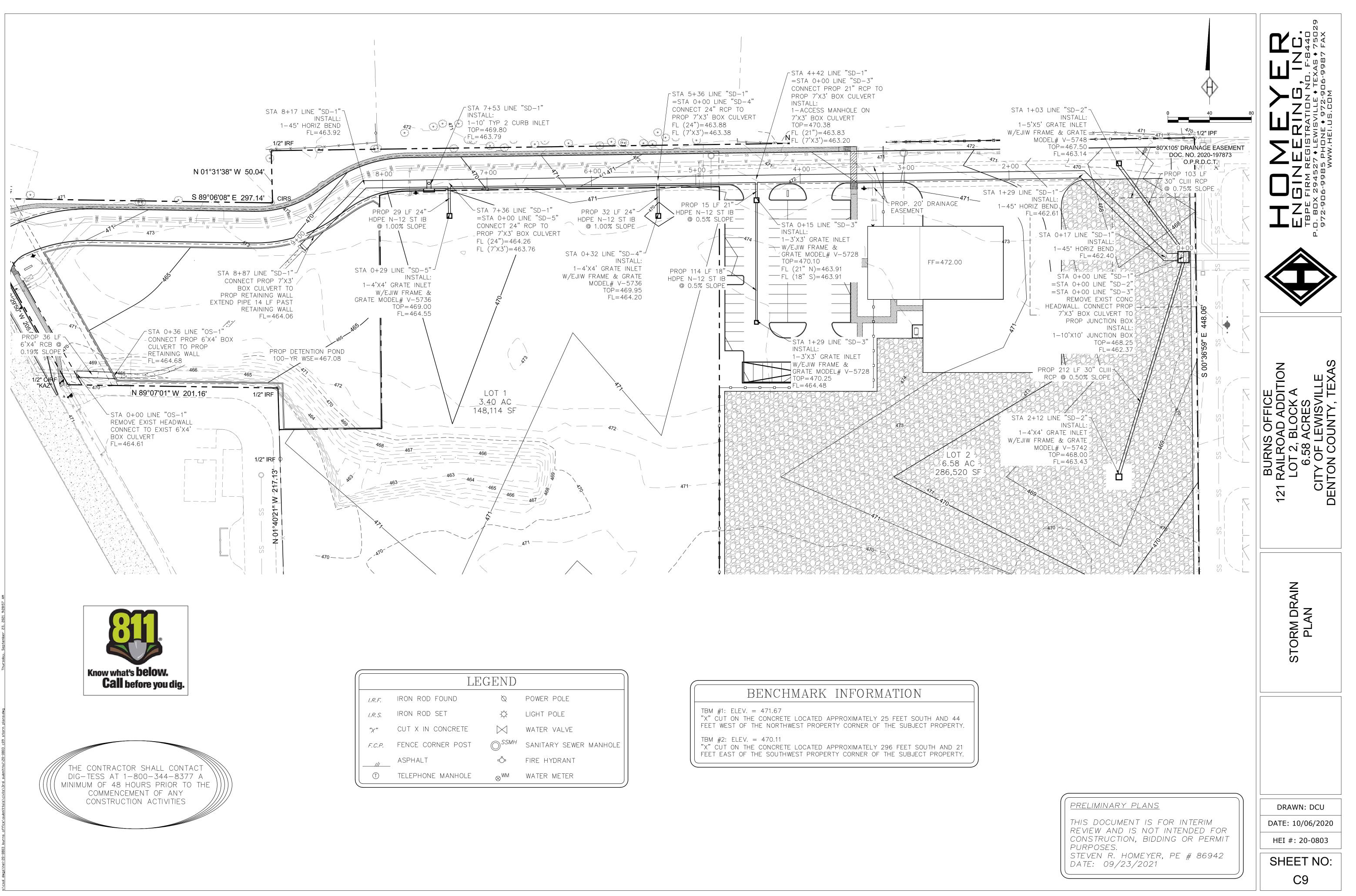


SANITARY SEWER LINE SS-1

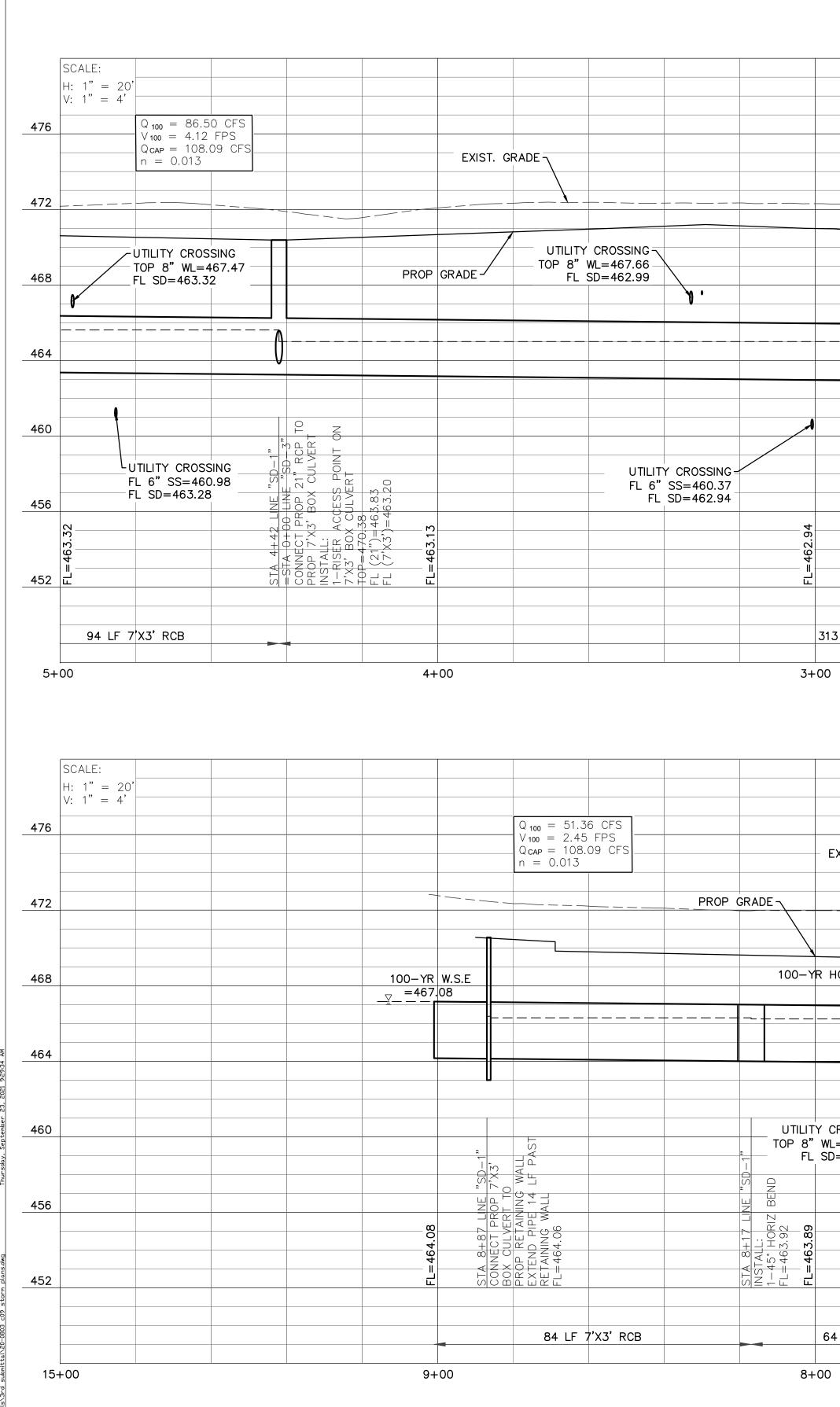
									_
	STA 2+76 LINE "SS-1" =STA 0+00 LAT "SS-1" 1-6"¢ ECCENTRIC SSMH TO LOCATE RIM & COVER AWAY FROM CURB RIM=471.00								
	M & S								
	2+7 % EC -0CA +71.								
	STA = ST = ST = ST = ST = ST = ST = ST = ST								
					\ \				
								- EXISTING GROUND	
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				PROPOSED - GROUND					-
			273 LF 8" SDR-	26 PVC @ 0 3	3 97				
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	-00 -00 -00 -00 -00 -00 -00 -00 -00 -00								
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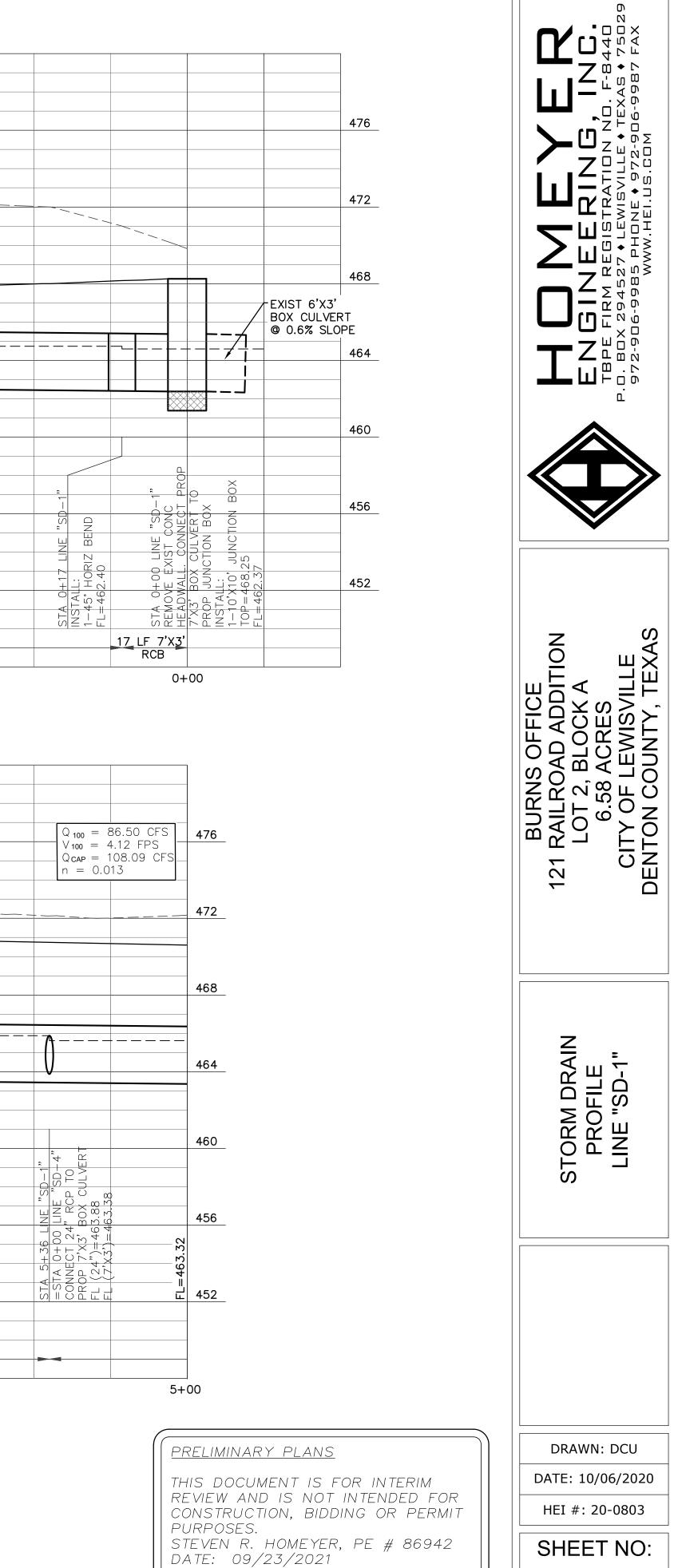
LE(GEND	
	Ø	POWER POLE
	÷¢÷	LIGHT POLE
TE	\bowtie	WATER VALVE
DST	© ^{SSMH}	SANITARY SEWER MANHOLE
	ц.	FIRE HYDRANT
OLE	\otimes^{WM}	WATER METER

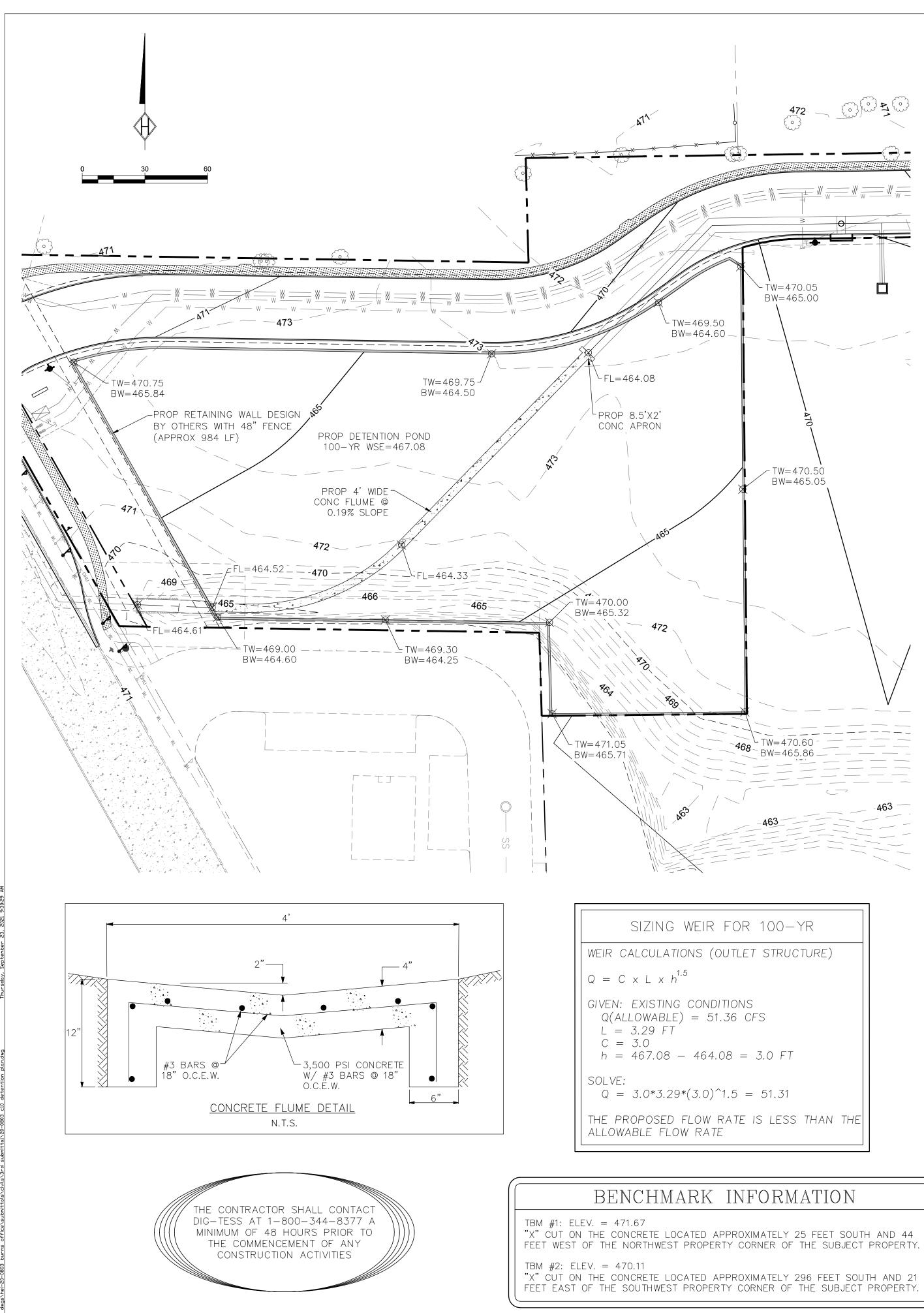


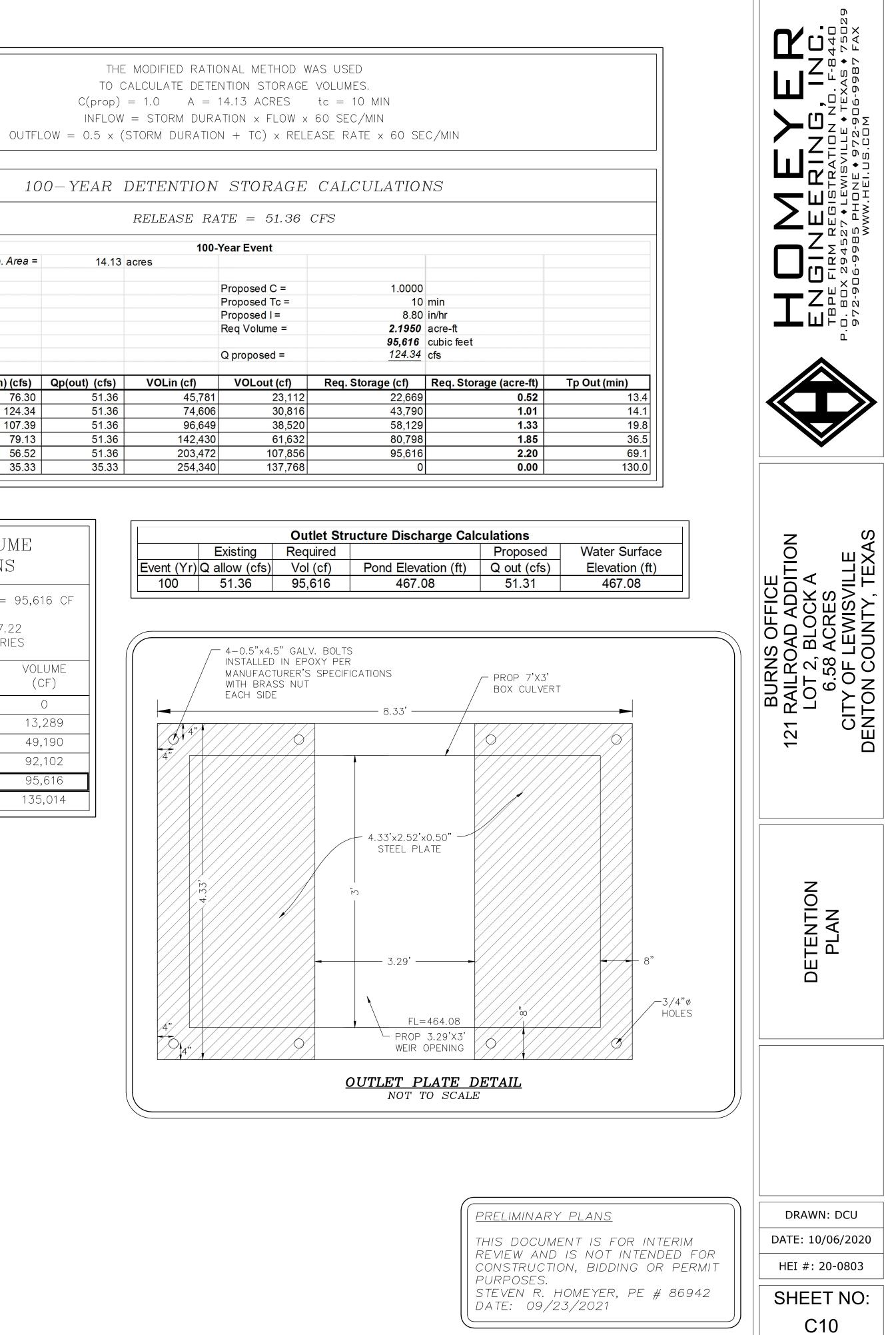
STORM DRAIN LINE "SD-1"					
	$Q_{100} = 94.$	85 CFS			
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 FF3 3.09 CFS			
	n = 0.013				
		- EXIST. GRADE			
		<u> </u>			
100-YR HGL		PROP GRADE			
+	+				
7'X3' RCB @ 0.19% SLOPE					
			S Z		
			BEND "SC		
	FL=462.75		09 99	= 462.56	
	+62			162	
7' DOD				110	
3' RCB				112	LF 7'X3' RCB

STORM DRAIN LINE "SD-1"

		$Q_{100} = 56.5$	58 CFS	$Q_{100} = 71.50$	0 CFS						
EXIST. GRA		$V_{100} = 2.69$ $Q_{CAP} = 108.$	09 CFS	$\begin{array}{rcl} Q_{100} &=& 71.50 \\ V_{100} &=& 3.40 \\ Q_{CAP} &=& 108.0 \\ n &=& 0.013 \end{array}$	69 CFS						
		n = 0.013		n = 0.013							
										 <u> </u>	
HGL 🔨											
			1							 	
			V								
	<u>لر</u>					7X3 RCB	@ 0.19% SLC	DPE			
CROSSING-	/										
WL=462.83)1"	"-5"								
SD=463.83											
		S B S B B B B B B B B B B B B B B B B B	CP "S	0							
		C N N L	N N N N N N N N N N N N N N N N N N N								
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		0,11 146 146 146 146 146 146 146 1		46.3					.463.51		
		STA 7+ STA 7+ INSTALL 10-10' T TOP=46	ENTROP	FL=463.70							
		STA 7+ STA 7+ INSTALL 1-10' T TOP=463	STA 7+36 LINE "SD-1" =STA 0+00 LINE "SD-5" CONNECT 24" RCP TO PROP 7'X3' BOX CULVERT FL (24")=464.26	FL= 463					FL=463		
		STA 7+ STA 7+ INSTALL 1-10' T TOP=463 FI = 463	STA 74 STA 74 CONNECONNECONNECONNECONNECONNECONNECONN	FL= 463							
64 LF 7'X3	RCB			FL=463			200 LI	F 7'X3' RCB			
64 LF 7'X3	' RCB	+L VI-L +T		FL=463			200 LI	F 7'X3' RCB			







				100-	Year Event	
		Trib. Area =	14.13	acres		
Existing C =	0.9483				Proposed C =	
Existing Tc =	10	min			Proposed Tc =	
Tc Intensity =	8.80	in/hr			Proposed I =	
Q Calculated=	117.92	cfs			Req Volume =	
Q allowable=	51.36	cfs			-	
					Q proposed =	
100-Year Event					-	
Duration	Intensity	Qp(in) (cfs)	Qp(out) (cfs)	VOLin (cf)	VOLout (cf)	Req
5	10.80	76.30	51.36	45,781	23,112	
10	8.80	124.34	51.36	74,606	30,816	
15	7.60	107.39	51.36	96,649	38,520	
30	5.60	79.13	51.36	142,430	61,632	
60	4.00	56.52	51.36	203,472	107,856	
120	2.50	35.33	35.33	254,340	137,768	

STORAGE VOLUME CALCULATIONS

100-YR Volume required = 95,616 CF

100 - YR WSE = 467.22TOP OF WALL = VARIES

ELEVATION	DEPTH (FT)	VOLUME (CF)
464.08	0.00	0
465.00	0.92	13,289
466.00	1.92	49,190
467.00	2.92	92,102
467.08 100-YR	3.00	95,616
468.00	3.92	135,014

		Outlet St
	Existing	Required
Event (Yr)	Q allow (cfs)	Vol (cf)
100	51.36	95,616

