CITY OF EL PASO, TEXAS
AGENDA SUMMARY FORM

DEPARTMENT / COUNCIL OFFICE: Capital Improvement - Grant Funded Prrograms

AGENDA DATE: 5/12/26

PUBLIC HEARING DATE:

CONTACT PERSON NAME: Joaquin Rodriguez, AICP **PHONE NUMBER:** 915-212-0065

2nd CONTACT PERSON NAME: **PHONE NUMBER:** 1-915-555-5555

DISTRICT(S) AFFECTED: 4

AGENDA ITEM:

A resolution that the City Manager, or designee, is authorized to sign a Landscape Maintenance Agreement between the City of El Paso ("City") and the State of Texas, acting by and through the Texas Department of Transportation ("State"), whereby the City agrees to maintain landscape improvements on US 54, a non-controlled access state highway, limited to the portions of US 54 from Kenworthy Street to FM 2529 (McCombs Street), and State agrees to install landscape elements, including but not limited to trees, shrubs, irrigation systems, and hardscape features.

ISSUE STATEMENT:

This item is to execute a Landscape Maintenance Agreement with TxDOT for the landscape improvements and shared use path to be installed by TxDOT along US54 from Kenworthy Street to McCombs Street.

BACKGROUND:

TxDOT received Green Ribbon Funding to install a 2.5 mile shared use path with landscaping along US54 from Kenworthy to McCombs as part of the US 54 (Patriot Freeway) Improvements project. This agreement is for the City to maintain the landscaping, irrigation, and shared use path.

COUNCIL OPTIONS:

1. Approve the resolution

COMMITTEE REVIEW AND/OR RECOMMENDATION:

n/a

COMMUNITY AND STAKEHOLDER OUTREACH (if applicable, as an attachment) – please include:

n/a

RELATED CITY POLICIES:

n/a

PRIOR COUNCIL ACTION:

n/a

LEGAL REVIEW:

☐ *Legal counsel reviewed as a part of Council packet*

☑ *Legal counsel reviewed in advance of packet as an individual item*

AMOUNT AND SOURCE OF FUNDING:

n/a

REPORTING OF CONTRIBUTION OR DONATION TO CITY COUNCIL:

Report any contributions or donations made to City Council of an accumulated total of $500 or more. Report the name of the elected official and the amount.

NAME	AMOUNT ($)

ATTACHMENTS:

A. Resolution
B. Landscape Maintenance Agreement

FOR MORE INFORMATION:

Joaquin Rodriguez, AICP 915-212-0065 rodriguezj2@elpasotexas.gov

**********REQUIRED AUTHORIZATION**********

SIGNATURE: _____

(If Agenda Summary Form is initiated by Purchasing, client department should sign also)

RESOLUTION

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF EL PASO:

That the City Manager, or designee, is authorized to sign a Landscape Maintenance Agreement between the City of El Paso ("City") and the State of Texas, acting by and through the Texas Department of Transportation ("State"), whereby the City agrees to maintain landscape improvements on US 54, a non-controlled access state highway, limited to the portions of US 54 from Kenworthy Street to FM 2529 (McCombs Street), and State agrees to install landscape elements, including but not limited to trees, shrubs, irrigation systems, and hardscape features.

APPROVED this _____ day of _____, 2026.

CITY OF EL PASO:

_____
Renard U. Johnson
Mayor

ATTEST:

_____
Laura D. Prine
City Clerk

APPROVED AS TO FORM:

Roberta Brito
Senior Assistant City Attorney

APPROVED AS TO CONTENT:

Joaquin Rodriguez
CID Grant Funded Program Director

THE STATE OF TEXAS

THE COUNTY OF TRAVIS

This AGREEMENT made this _____ day of _____, 20___ , by and between the Texas Department of Transportation, hereinafter referred to as the "State," and the City of **El Paso** , **El Paso** County, Texas, acting by and through its duly authorized officers, hereinafter called the "City".

WITNESSETH

WHEREAS, Chapter 311 of the Transportation Code gives the City exclusive dominion, control, and jurisdiction over and under the public streets within its corporate limits and authorizes the City to enter into agreements with the State to fix responsibilities for maintenance, control, supervision, and regulation of State highways within and through its corporate limits; and

WHEREAS, Section 221.002 of the Transportation Code authorizes the State, at its discretion, to enter into agreements with cities to fix responsibilities for maintenance, control, supervision, and regulation of State highways within and through the corporate limits of such cities; and

WHEREAS, the State and the City have entered into a Municipal Maintenance Agreement dated **21st day of March 2006** , **the provisions of which are incorporated herein by reference**, and wherein the City has agreed to retain all functions and responsibilities for maintenance and operations which are not specifically described as the responsibility of the department; and

WHEREAS, the State has existing and proposed landscape improvements, such as, but not limited to, the installation of tree, shrub, and turf plantings, irrigation systems, and other aesthetic elements for areas within the right of way of state highway routes within the City as shown on Attachment “A”; and

WHEREAS, the State will provide such landscape improvements, provided that the City agrees to be responsible for all required maintenance of the landscape improvements.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements of the parties hereto to be by them respectively kept and performed, it is agreed as follows:

Contract Period

This Agreement becomes effective upon the date of final execution by the State, and shall remain in effect until terminated or modified as hereinafter provided.

Coverage

This Agreement prescribes the responsibilities of the state and the City relating to the maintenance of the **LANDSCAPE (PLANTS, HARDSCAPE & IRRIGATION SYTEM)** project which is located on **US54** non-controlled access state highway, as defined in the Municipal Maintenance Agreement. The maintenance is further described in Attachment A, the location map for this project, and limited to the portions along (IHxx, FMxx, SHxx) **US54** from **KENWORTHY** to **FM 2529**.

Amendment

The parties agree that this agreement may be amended. Such amendments, to be effective, must be in writing and signed by both parties.

State's Responsibilities

The State shall install landscape elements including but not limited to trees, shrubs, grasses, sidewalks, irrigation systems, and hardscape features through its employees or duly appointed agents.

City's Responsibilities

The City may install landscape elements including but not limited to trees, shrubs, grasses, sidewalks, irrigation systems, and hardscape features through its employees or duly appointed agents. Any installations shall be performed in accordance with Texas Department of Transportation specifications and standards, and must be approved by the State in writing prior to any work being performed.

The City shall maintain all landscape elements within the limits of the right of way including all median and island areas but excluding paved areas intended for vehicular travel. Landscape maintenance shall include but not be limited to plant maintenance, plant replacement, mowing and trimming, hardscape element maintenance, and irrigation system operation and maintenance. The City will be responsible for all utility costs associated with maintaining landscape elements. All landscape elements must be maintained in a functional and aesthetically pleasing condition.

TERMINATION

It is understood and agreed between the parties hereto that should either party fail to properly fulfill its obligations as herein outlined, the other party may terminate this agreement upon thirty days written notice. Additionally, this agreement may be terminated by mutual agreement and consent of both parties.

Should the City terminate this agreement, as prescribed here above, the City shall, at the option of the State, reimburse any reasonable costs incurred by the State.

IN WITNESS WHEREOF, the parties have hereunto affixed their signatures, the City of _____ **El Paso** _____ on the _____ day of _____ , year _____ , and the Texas Department of Transportation, on the _____ day of _____ , year _____ .

ATTEST:

_____

CITY OF _____

By _____
(Title of Signing Official)

APPROVE AS TO CONTENT:

_____

CITY OF El Paso

By Joaquin Rodriguez, AICP
CID Grant Funded Programs Director
(Title of Signing Official)

APPROVE AS TO FORM:

Roberta Brito

CITY OF EL PASO

By Roberta Brito, Senior Assistant City Attorney
(Title of Signing Official)

THE STATE OF TEXAS

Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, and the established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By _____
District Engineer

_____
District

Attachment A (CON'T)
Scope of Work and Plans

Work Responsibilities

The Local Government will maintain the Project in accordance with State standards. The local Government shall maintain the landscape elements and site amenities within the project limits of the Right of Way on Hwy US 54 between Kenworthy Street and FM 2529 (McCombs Street).

A. Local Government agrees to:

1. Furnish the State in writing overall clearance with all appropriate regulatory agencies prior to beginning maintenance activities.

2. Verify location of all utilities within project area. Utility considerations shall include, but not limited to, the following: gas, water, electricity, fiber optics, telephone, signals, lighting, CTMS, sanitary sewer, etc.

3. Furnish the State any revisions or modifications mutually agreed upon between the Local Government and the State.

4. Furnish all labor, equipment, materials, and incidentals to provide for maintenance activities that shall include but not be limited to the following:

Hardscape Landscape and Plant Maintenance
For the work of plant maintenance, all reasonable means shall be employed to preserve the plants and vegetative material existing within the project limits in a healthy and vigorous growing condition. This maintenance activity shall include but not be limited to the following:

A. Plant health monitoring. Removal and replacement of dead plants or tree with same kind as originally installed within the next scheduled work following notification for replacement.
B. Plant bed and rock layer (ground cover) maintenance including shaping, and rock replacement/replenishment.
C. Insects, disease, and animal control.
D. Fertilizer application as needed.
E. Prune and trim planted stock to maintain proper visibility, vertical & horizontal clearance, observe clear-zone, traffic safety, avoid hazards, and utility line clearance.
F. Herbicide treatments for weed control.
G. Maintenance and removal of tree support (staking, guying, bracing) and dispose as per City's disposal regulations.
H. Litter pick-up: remove bagged litter the same day it is collected and disposed in accordance with federal, state, and local regulations.

Irrigation System Operation and Maintenance
Permanent irrigation system operation and maintenance shall include, but not be limited to:

A. Monitor water schedule as needed to ensure adequate moisture to the planted material.
B. Perform regular inspection to ensure proper function, test backflow preventer, ensure efficient water usage, adjust water schedule according to season to include parts or leak repairs.
C. Maintenance and repairs of the system shall be under the supervision of a person possessing an irrigator's license issued by the TCEQ.

D. Replace stolen or broken parts with the same manufacturer brand or model number as originally installed. Substitute parts may be allowed with the approval of the City of El Paso prior to replacement.
E. Properly winterize the irrigation system to prevent freeze, damage, and leaks.
F. Perform regular inspections to ensure full functionality of the irrigation system.
G. Bear the cost of water consumption and electricity.

Hike and Bike Trail and Amenities:
Trail and site amenities maintenance shall include, but not be limited to:

A. Garbage disposal of all trash receptacles and pet waste stations.
B. Repair site amenities due to damage or vandalism and replace with same kind as necessary.
C. Repair or replace broken section of the concrete pads to comply with ADA regulations.
D. Maintain, repair and replace pedestrian lighting and the components to ensure adequate lighting during the night.
E. Perform asphalt pavement repairs following proper repair standards to ensure a smooth surface of the shared use path.
F. Maintain proper stripping.
G. Perform debris, snow and ice removal to include removal of other safety hazards.
H. Bear the cost of electricity consumption.

5. Provide inspection of all maintenance work performed to ensure that the work is accomplished in accordance with the approved plans and specifications.

6. Submit for approval a traffic control plan and provide, erect and maintain barricades, signs and traffic handling devices necessary to protect the safety of the traveling public. All placements of barricades, signs and traffic handling devices must conform to the Texas Manual on Uniform Traffic Control Devices, and shall be approved by the State prior to placement.

Contact:

Eduardo Perales, P.E.
Director of Transportation Ops
Eduardo.Perales@txdot.gov
Office (915) 790-4488
Fax (915) 790-4330
TXDOT – ELP
13301 Gateway West
El Paso, TX 79928-5410

7. Furnish all labor, equipment, material and incidentals as may be required to repair or replace structures or surfaces damaged by Local Government or its agent(s) (contractor) during any maintenance phase of the project to the satisfaction of the State.

B. State agrees to:

1. Allow Local Government and its agent(s) or contractor(s) to utilize the right-of-way for all aspects of the Project described in this Agreement.

2. Coordinate with Local Government plans of the Project, with limits of maintenance defined, attached hereto and made a part of this agreement.

3. Coordinate with Local Government landscape maintenance operations consistent with District policy and the Roadside Vegetation Management Manual.

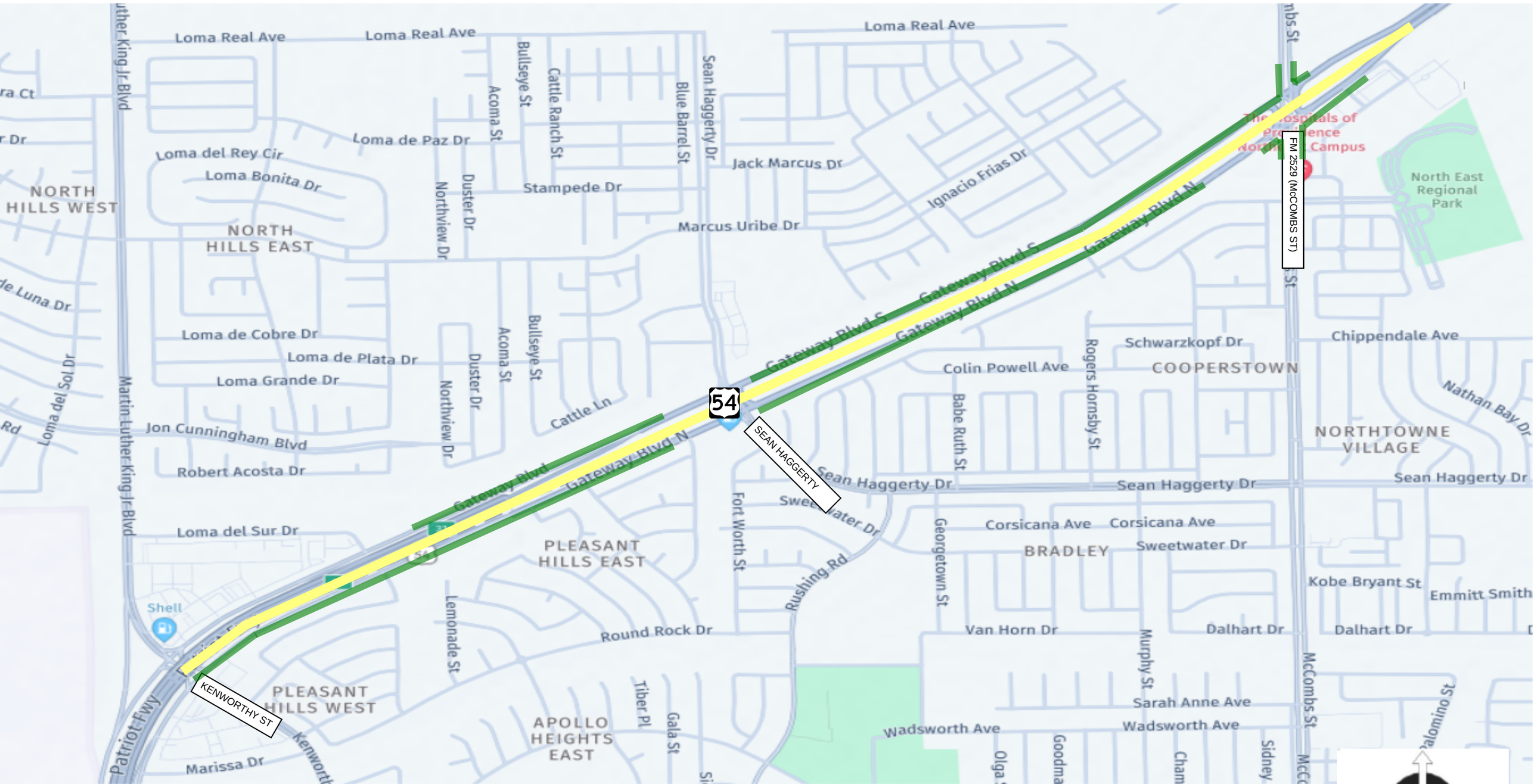
4. Perform review and inspections, as appropriate, of the project.

5. Coordinate with Local Government in determining the requirements for barricades, signs and traffic handling devices necessary to protect the safety of the traveling public for the project.

LOCATION MAP

LANDSCAPE AREA

US 54 FROM KENWORTHTY ST TO FM 2529 (MCCOMBS ST)

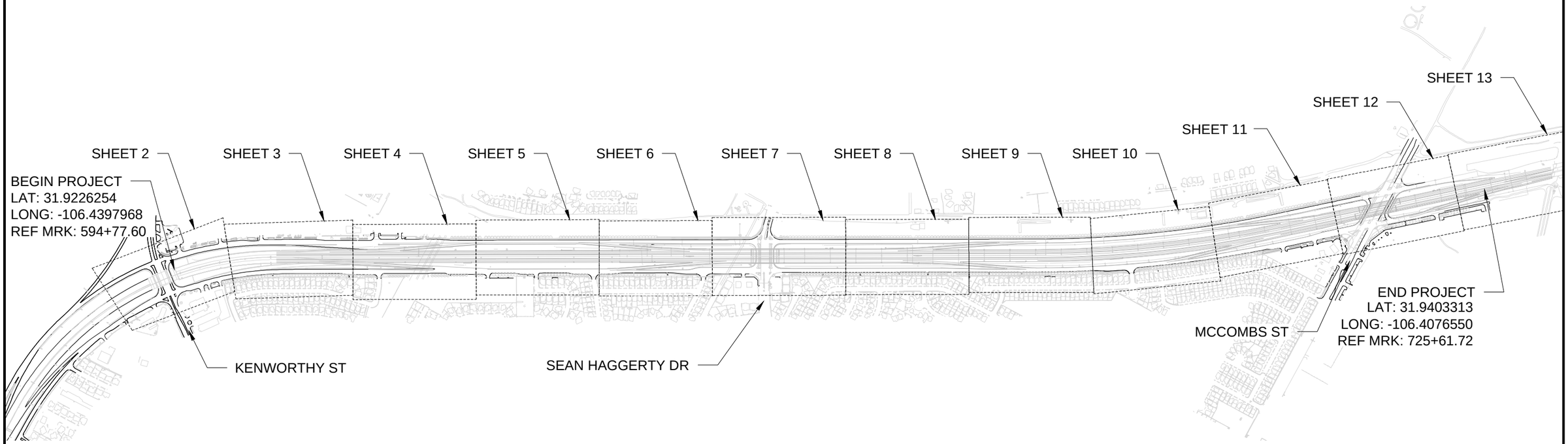


US 54 PROJECT LIMITS

GATEWAY BLVD LANDSCAPE AREA/LIMITS

CK:
DW:
CK:
DN:

SCALE: NTS



1 OVERALL LANDSCAPE PLAN

SCALE: NTS

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE

3716
LICENSE NO.

12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

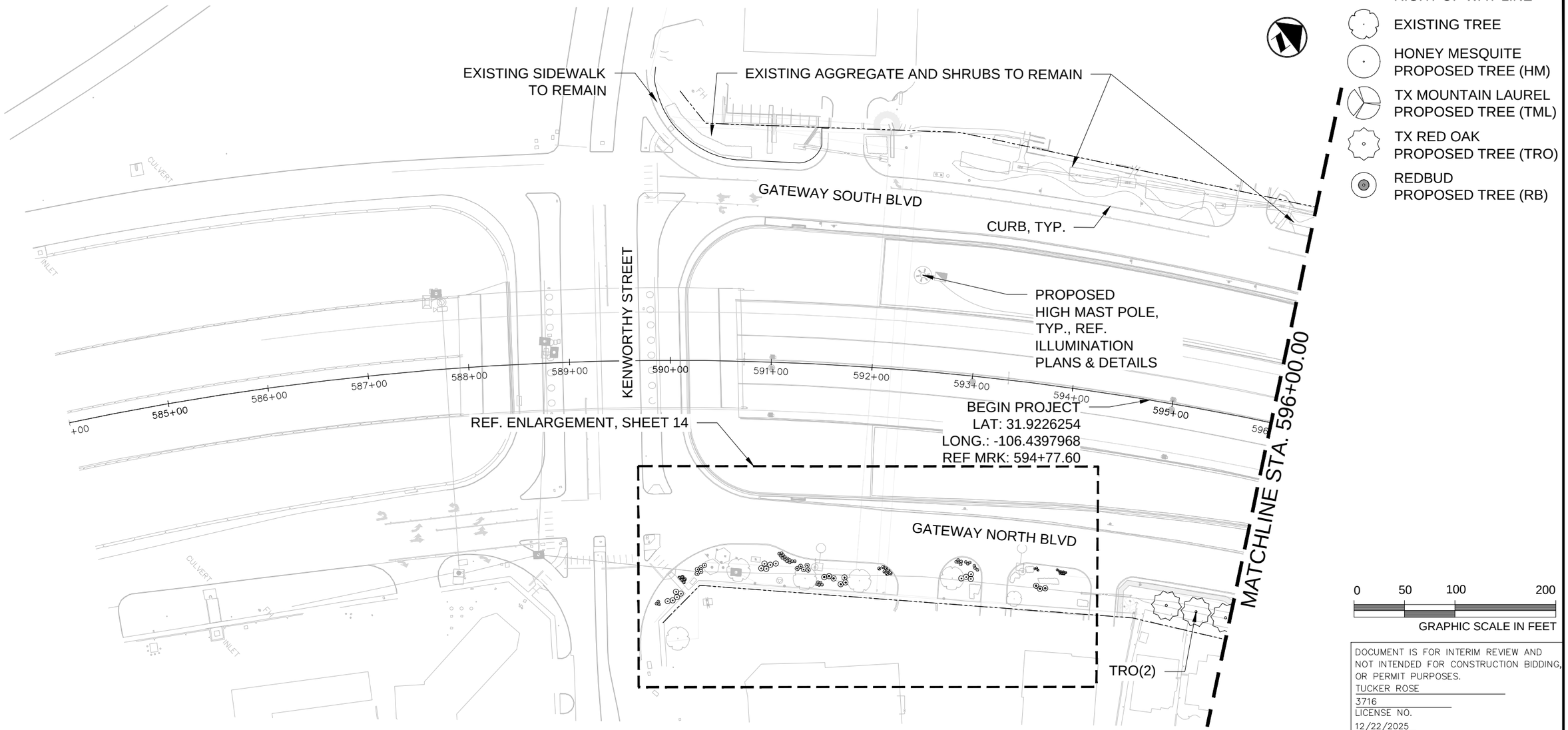
Texas Department of Transportation

OVERALL LANDSCAPE PLAN

SHEET 1 OF 1

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		862

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
0	HONEY MESQUITE
2	TX RED OAK
	SOIL
10 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

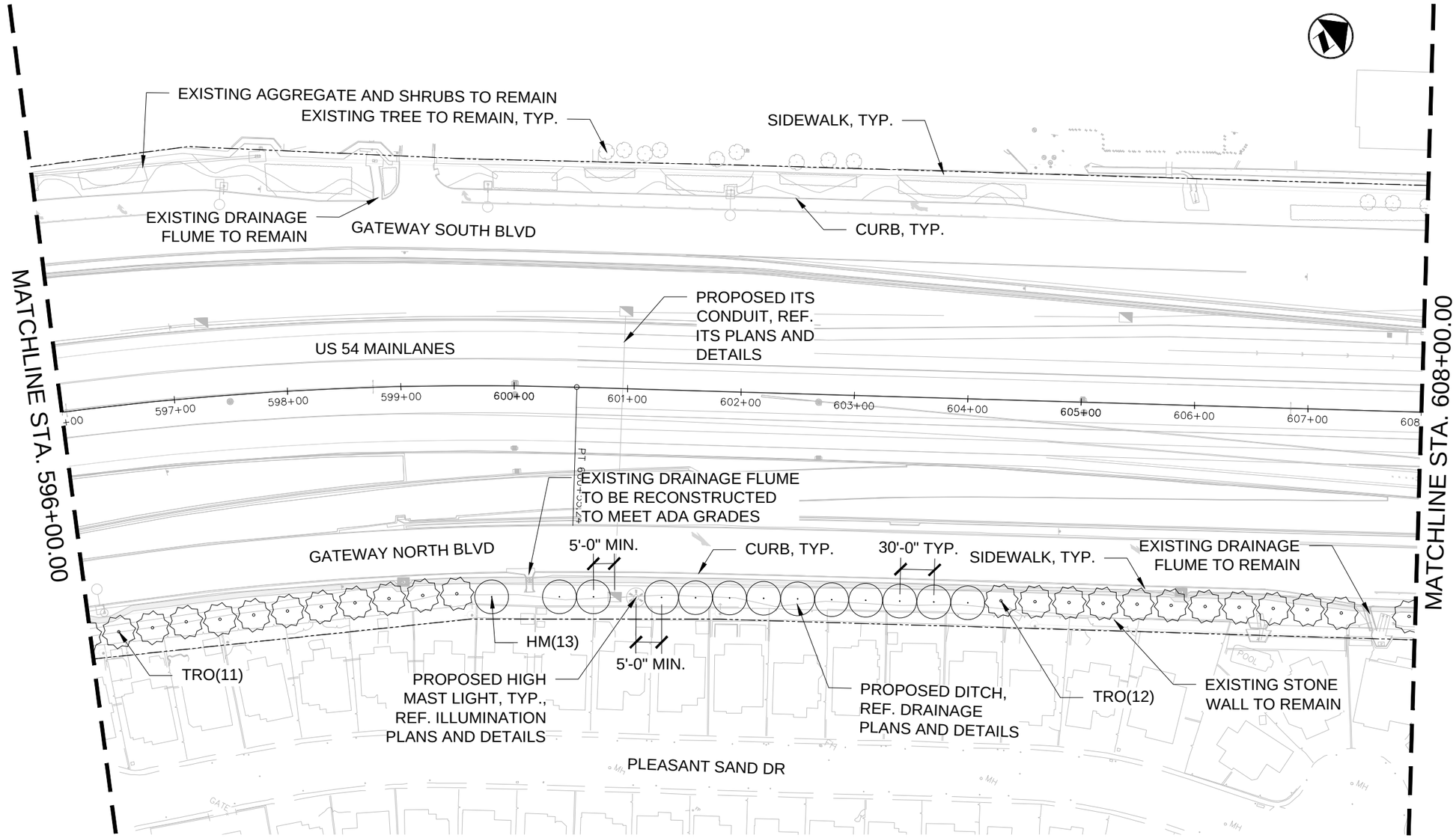
LANDSCAPE LAYOUT
BEGIN TO STA 596+00

SHEET 1 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		863

CK:
DW:
CK:
DN:

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

0 50 100 200
GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
13	HONEY MESQUITE
23	TX RED OAK
	SOIL
180 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

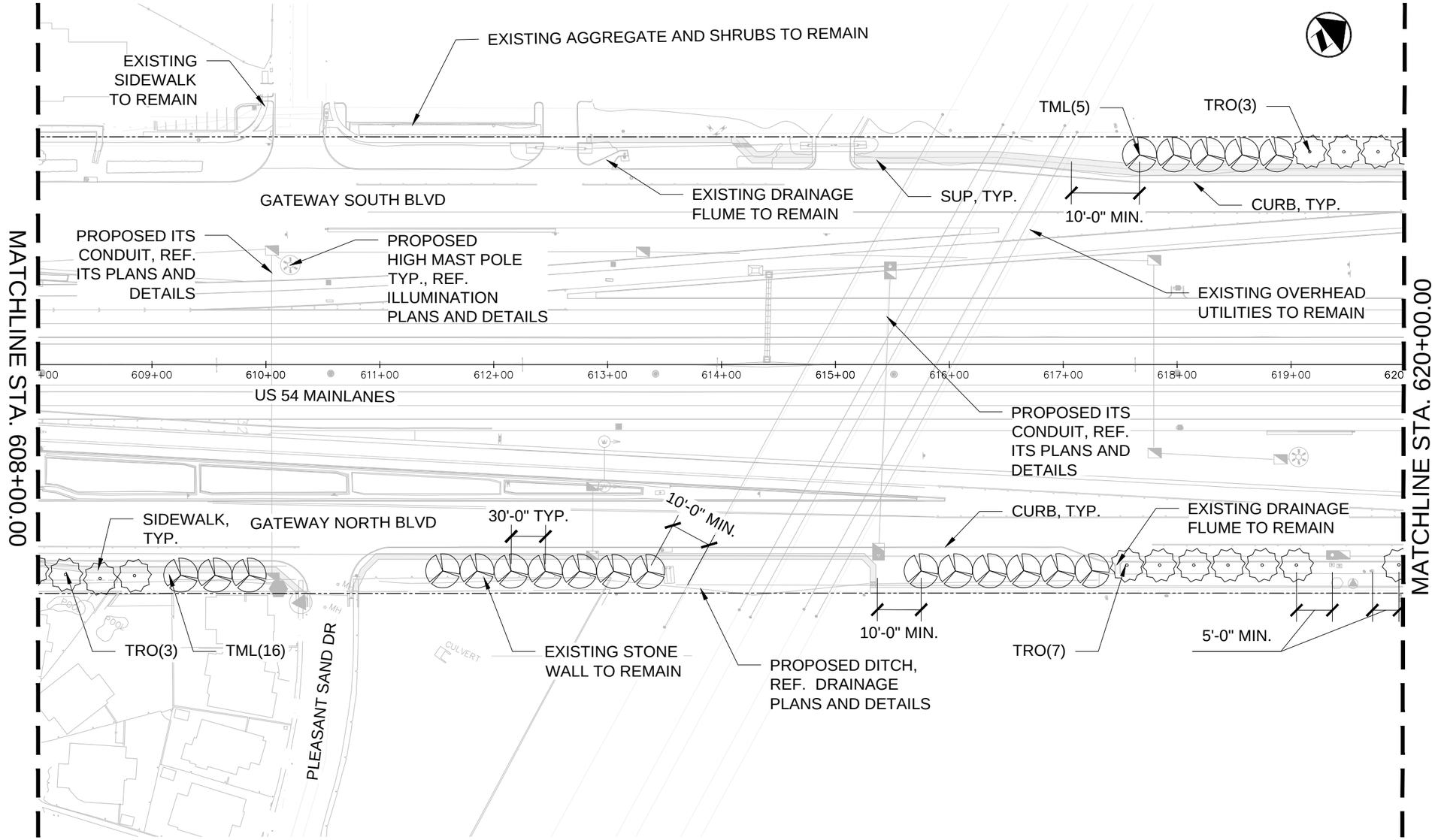
LANDSCAPE LAYOUT
STA 596+00 TO STA 608+00

SHEET 2 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		864

CK: DW: CK: DN:

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
21	TX MOUNTAIN LAUREL
13	TX RED OAK
	SOIL
170 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE

3716
LICENSE NO.

12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

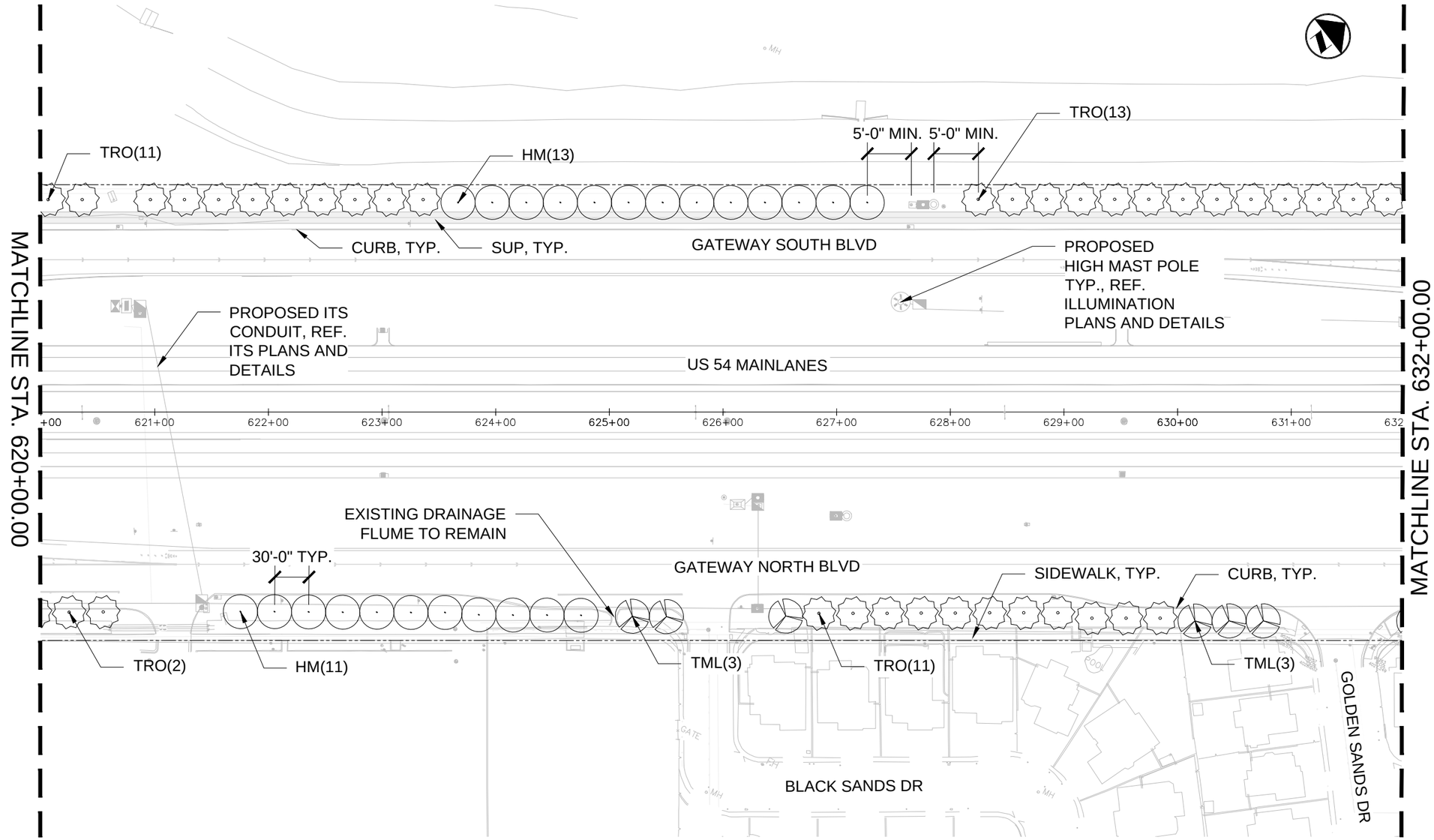
LANDSCAPE LAYOUT
STA 608+00 TO STA 620+00

SHEET 3 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		865

CK: DW: CK: DN:

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
24	HONEY MESQUITE
6	TX MOUNTAIN LAUREL
37	TX RED OAK
	SOIL
335 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

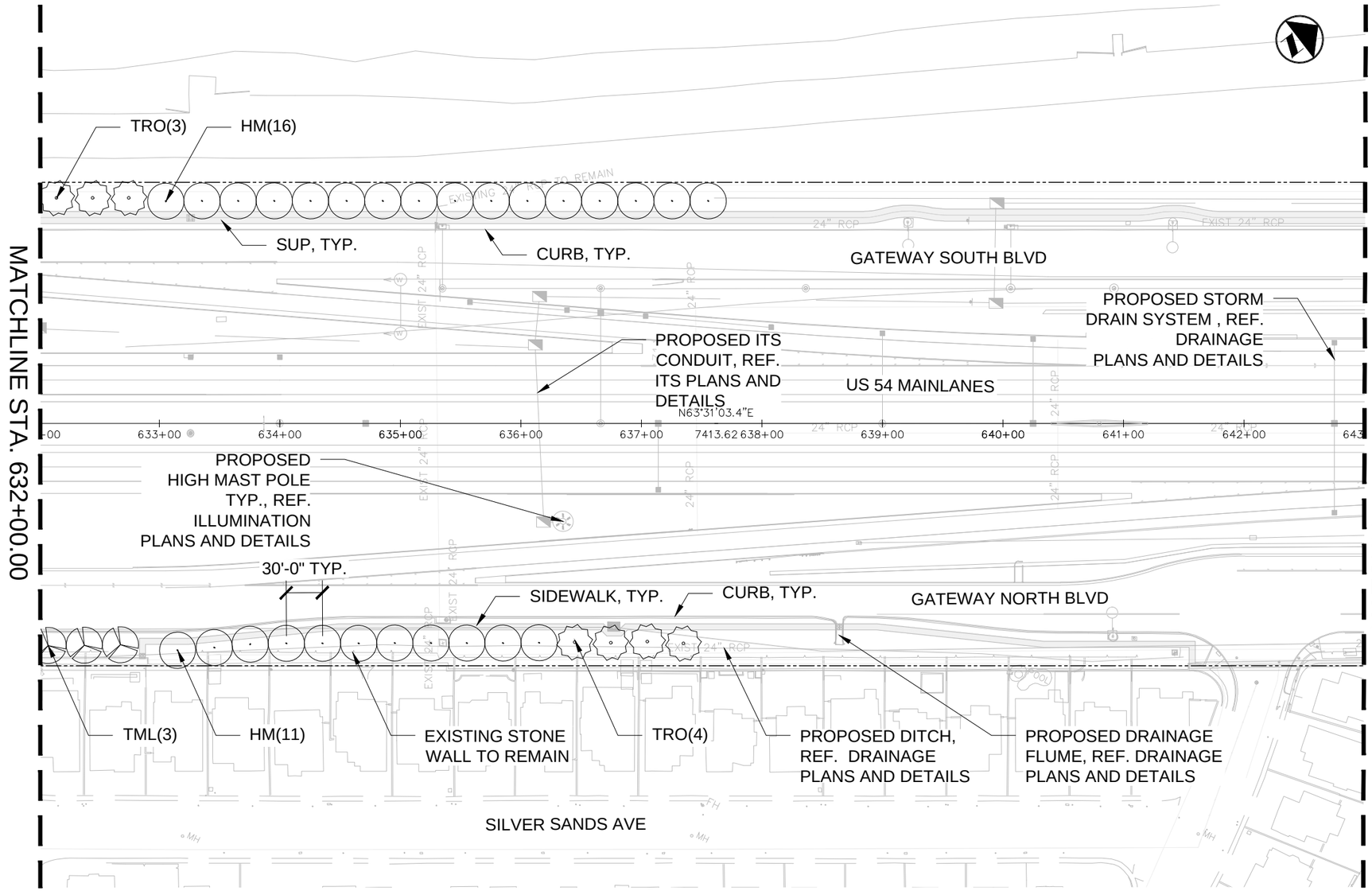
LANDSCAPE LAYOUT
STA 620+00 TO STA 632+00

SHEET 4 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		866

CK:
DW:
CK:
DN:

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
27	HONEY MESQUITE
3	TX MOUNTAIN LAUREL
7	TX RED OAK
	SOIL
185 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

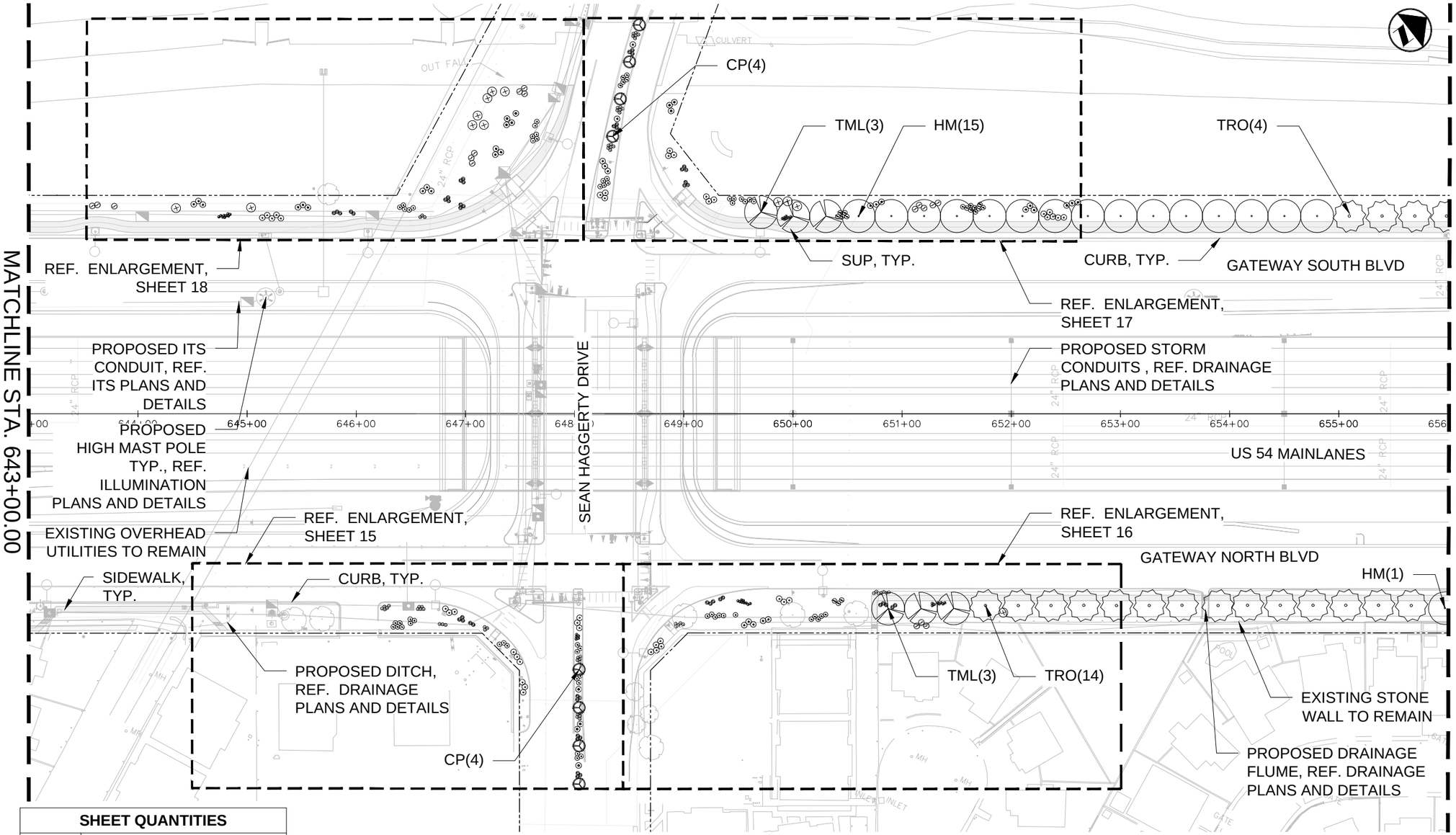
US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 632+00 TO STA 643+00

SHEET 5 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		867

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- CHINESE PISTACHE PROPOSED TREE (CP)

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
16	HONEY MESQUITE
6	TX MOUNTAIN LAUREL
18	TX RED OAK
8	CHINESE PISTACHE
	SOIL
240 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE

3716
LICENSE NO.

12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

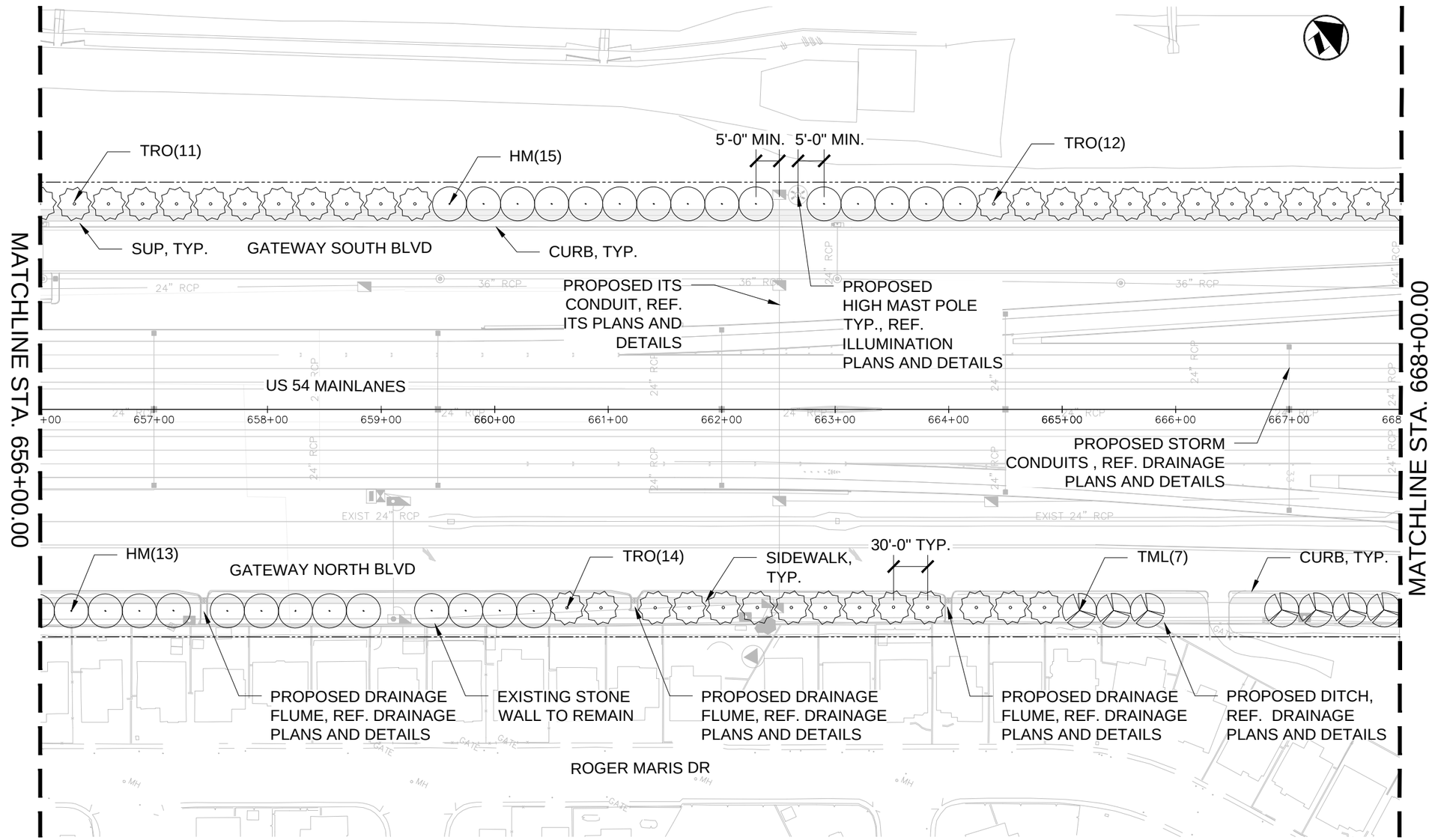
US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 643+00 TO STA 656+00

SHEET 6 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		868

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
28	HONEY MESQUITE
7	TX MOUNTAIN LAUREL
37	TX RED OAK
	SOIL
360 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

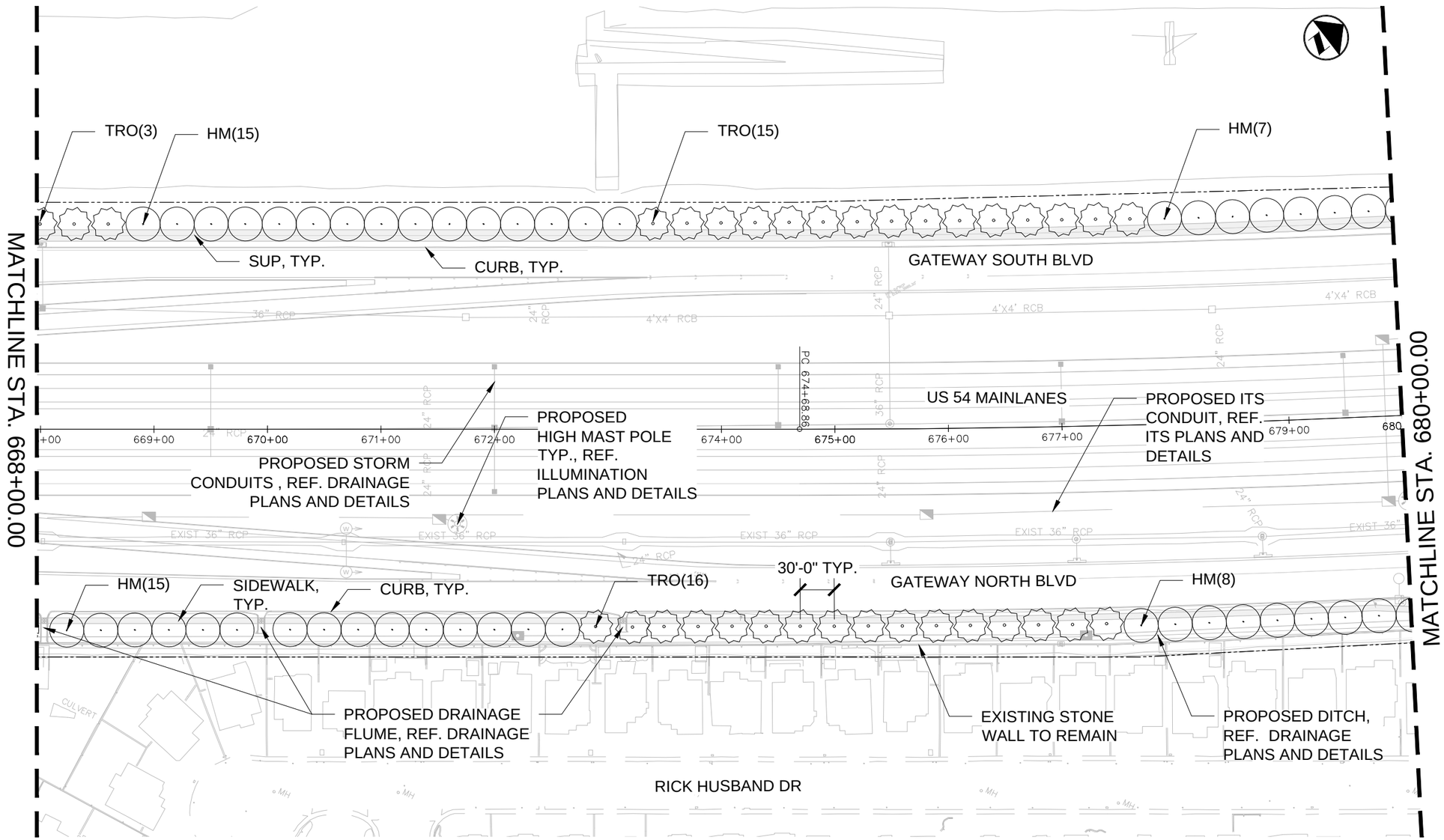
LANDSCAPE LAYOUT
STA 656+00 TO STA 668+00

SHEET 7 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		869

CK:
DW:
CK:
DN:

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
45	HONEY MESQUITE
34	TX RED OAK
	SOIL
395 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

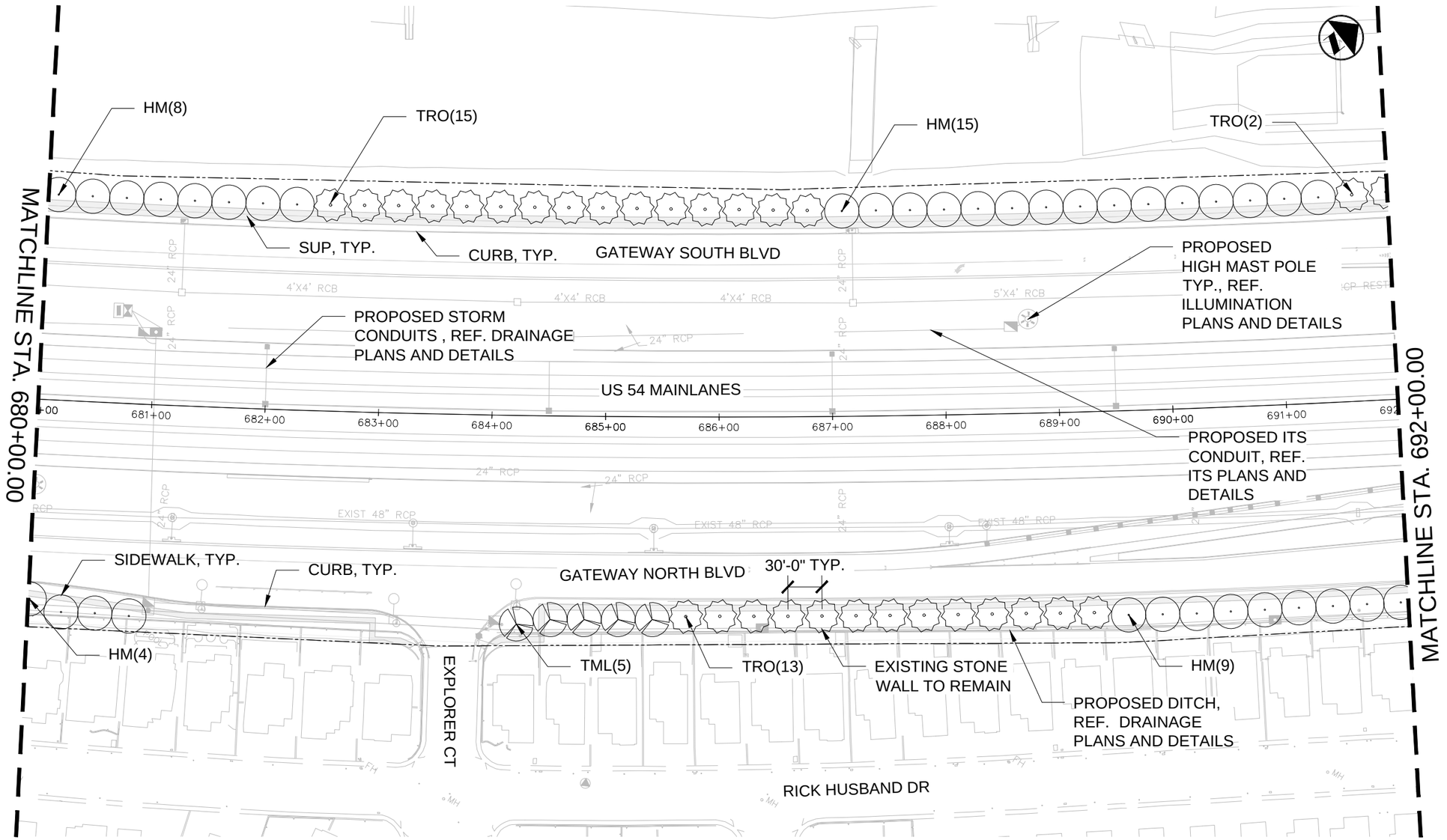
LANDSCAPE LAYOUT
STA 668+00 TO STA 680+00

SHEET 8 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		870

CK: DW: CK: DN:

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
36	HONEY MESQUITE
5	TX MOUNTAIN LAUREL
30	TX RED OAK
	SOIL
355 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE

3716
LICENSE NO.

12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

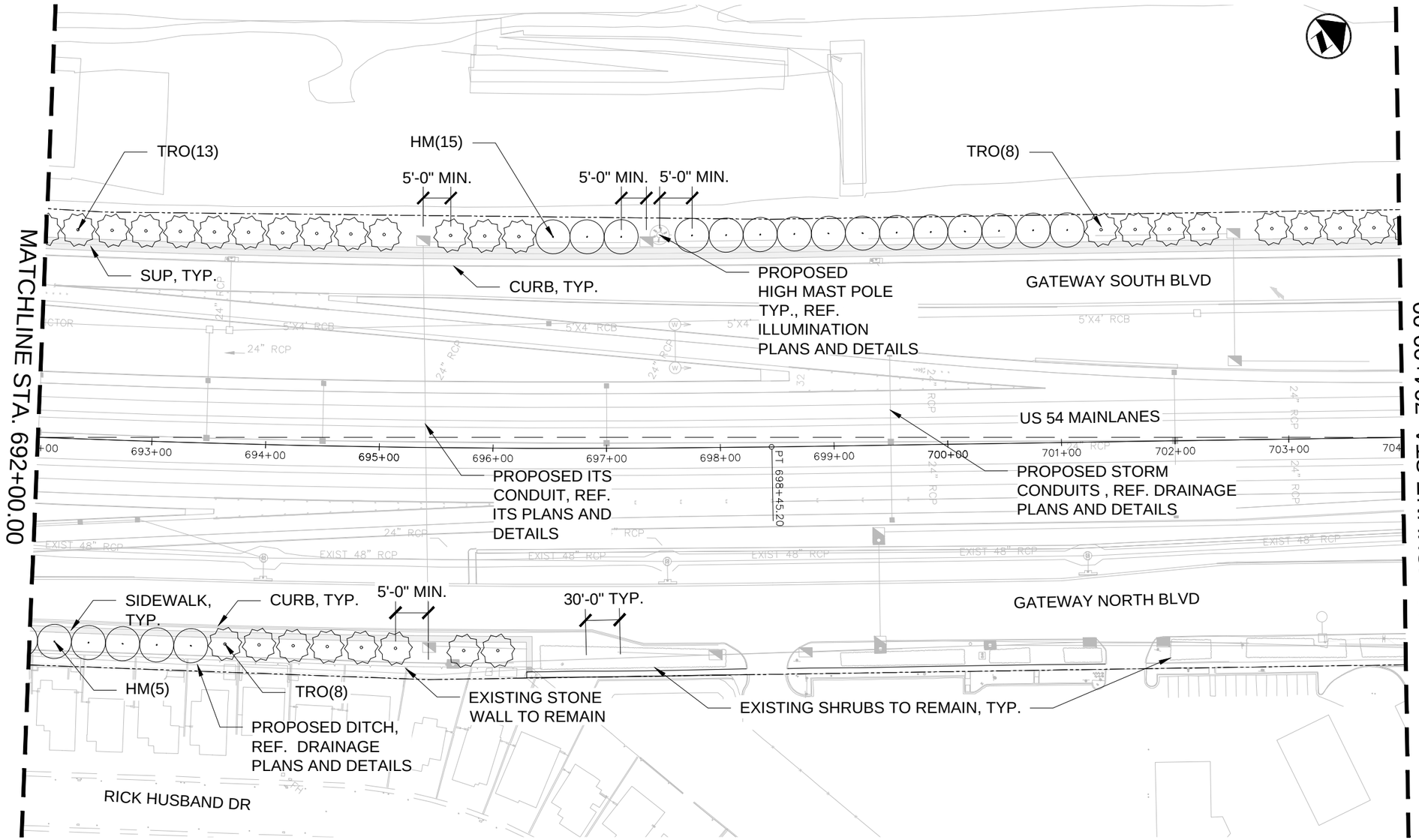
LANDSCAPE LAYOUT
STA 680+00 TO STA 692+00

SHEET 9 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		871

CK: CK
DW: DW
CK: CK
DN: DN

DATE: $DATE$
FILE: $FILE$
$TIME$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
20	HONEY MESQUITE
29	TX RED OAK
	SOIL
245 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

0 50 100 200

GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

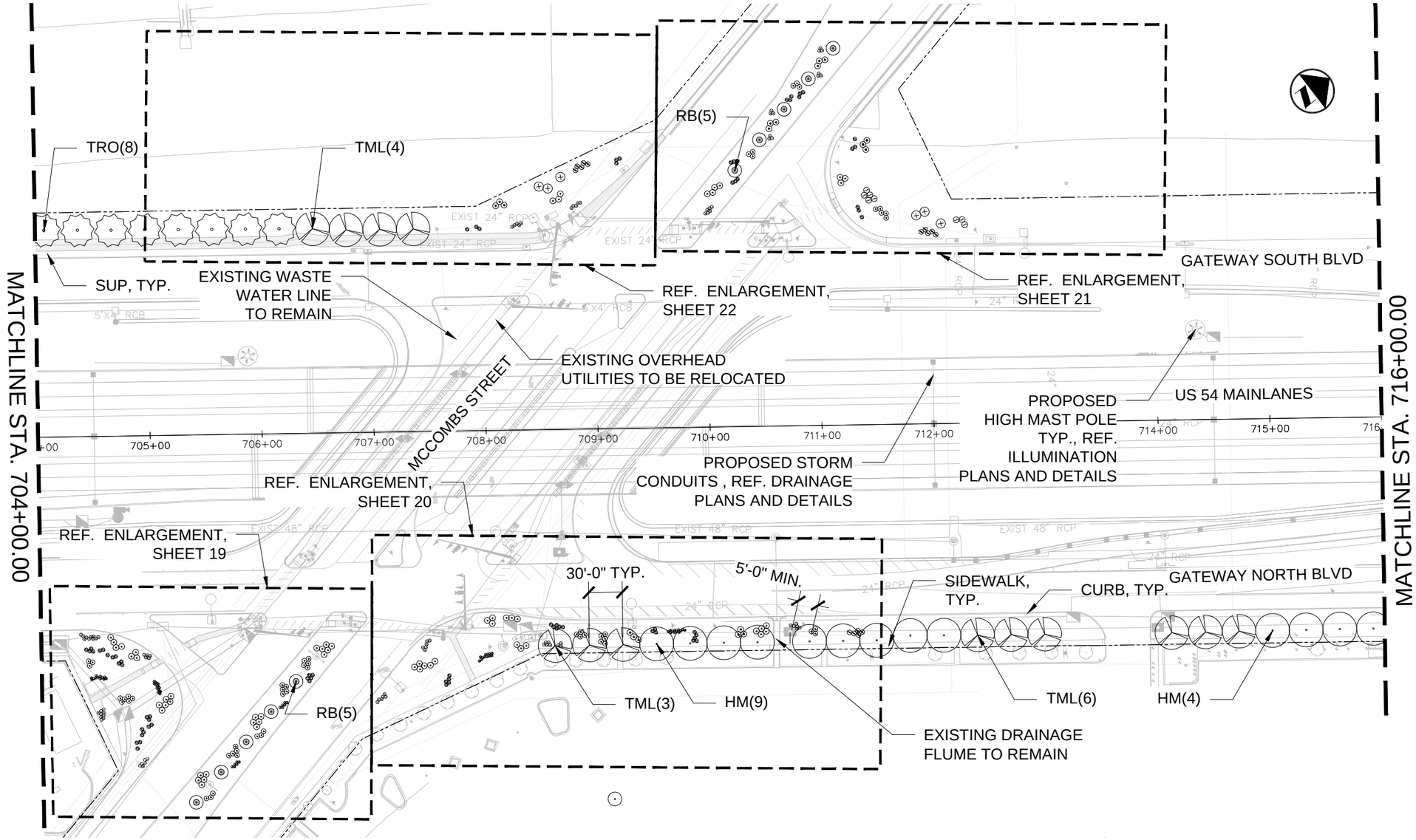
LANDSCAPE LAYOUT
STA 692+00 TO STA 704+00

SHEET 10 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		872

CK: CK: DW: DN:

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
13	HONEY MESQUITE
13	TX MOUNTAIN LAUREL
8	TX RED OAK
10	REDBUD
	SOIL
220 CY	SPECIFIED PLANTING SOIL MIX

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES.

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK, SUP, AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS.

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

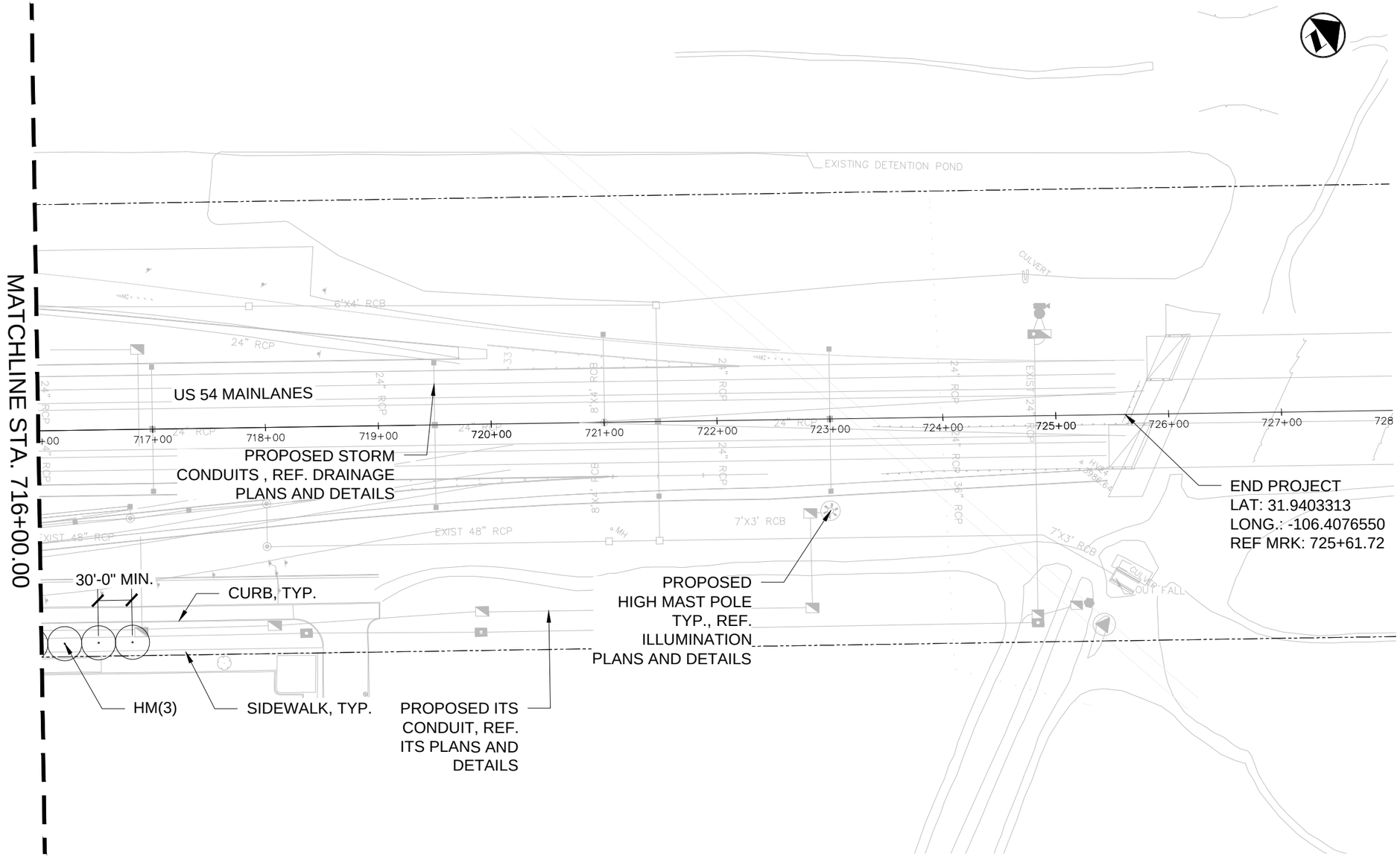
LANDSCAPE LAYOUT
STA 704+00 TO STA 716+00

SHEET 11 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		873

CK
DW
CK
DN

DATE: $DATE$ $TIME$
FILE: $FILE$



LEGEND

- RIGHT OF WAY LINE
- EXISTING TREE
- HONEY MESQUITE PROPOSED TREE (HM)
- TX MOUNTAIN LAUREL PROPOSED TREE (TML)
- TX RED OAK PROPOSED TREE (TRO)
- REDBUD PROPOSED TREE (RB)

NOTES:

1. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR LOOSE AGGREGATE, WEED BARRIER, AND COLORED TEXTURE CONCRETE PAY ITEMS AND QUANTITIES

2. REFER TO ROADWAY INTERSECTION LAYOUT SHEETS FOR SIDEWALK AND CURB RAMP TYPES, LOCATIONS AND PAY ITEMS

3. REFER TO AESTHETIC DETAILS SHEET 32 FOR CONCRETE TEXTURE AND COLOR DETAILS AND INFORMATION.

0 50 100 200

GRAPHIC SCALE IN FEET

SHEET QUANTITIES	
QTY	COMMON NAME
	PROPOSED TREES
3	HONEY MESQUITE
	SOIL
15 CY	SPECIFIED PLANTING SOIL MIX

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE

3716
LICENSE NO.

12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

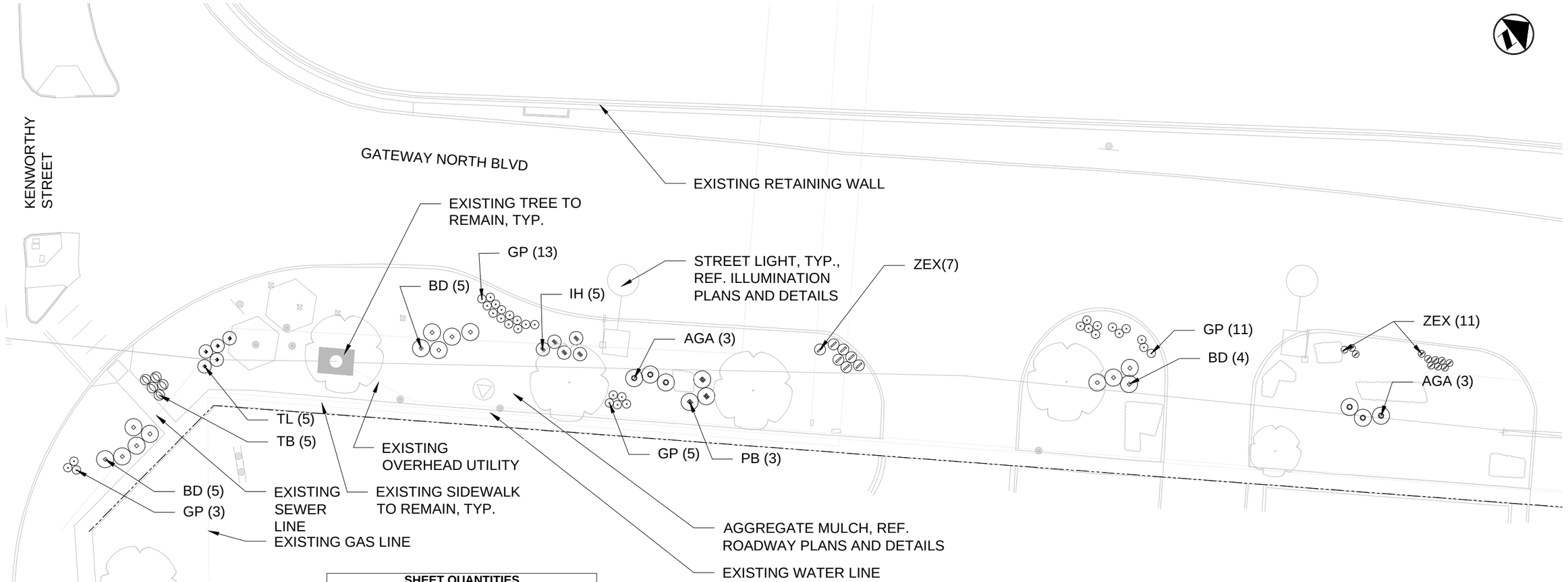
LANDSCAPE LAYOUT
STA 716+00 TO END

SHEET 12 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		874

CK
DW
CK
DN

DATE: $DATE$ $TIME$
FILE: $FILE$



SHEET QUANTITIES	
QTY	COMMON NAME/ BOTANICAL NAME
SHRUBS	
3	PRIDE OF BARBADOS (PB) *Caesalpinia pulcherrima*
EVERGREEN SHRUBS	
6	AGARITA (AGA) *Mahonia trifoliolata*
5	INDIAN HAWTHORN (IH) *Raphiolepsis indica*
5	TURPENTINE BUSH (TB) *Ericameria laricifolia*
PERENNIALS	
14	BLACK DALEA (BD) *Dalea frutescens*
32	GOPHER PLANT *Euphorbia rigida*
18	ZEXMENIA (ZE) *Wedelia texana*
5	TEXAS LANTANA (TL) *Lantana urticoides*
SOIL	
22 CY	SPECIFIED PLANTING SOIL MIX

LEGEND

- (ZEX) - ZEXMENIA
- (GP) - GOPHER PLANT
- (TB) - TURPENTINE BUSH
- (BD) - BLACK DALEA
- (TL) - TEXAS LANTANA
- (IH) - INDIAN HAWTHORN
- (UR) - UPRIGHT ROSEMARY
- (FA) - FLAME ACANTHUS
- (YB) - YELLOW BELLS
- (AGA) - AGARITA
- (LLS) - LYNN'S LEGACY SAGE
- (PB) - PRIDE OF BARBADOS
- (ES) - EVERGREEN SUMAC

- RIGHT OF WAY LINE
- EXISTING TREE
- (HM) - HONEY MESQUITE
- (TML) - TX MOUNTAIN LAUREL
- (TRO) - TX RED OAK
- (RB) - REDBUD

NOTE:
REF. SHEET 1 FOR PROPOSED TREE IDENTIFICATION AND QUANTITIES

0 15 30 60

GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

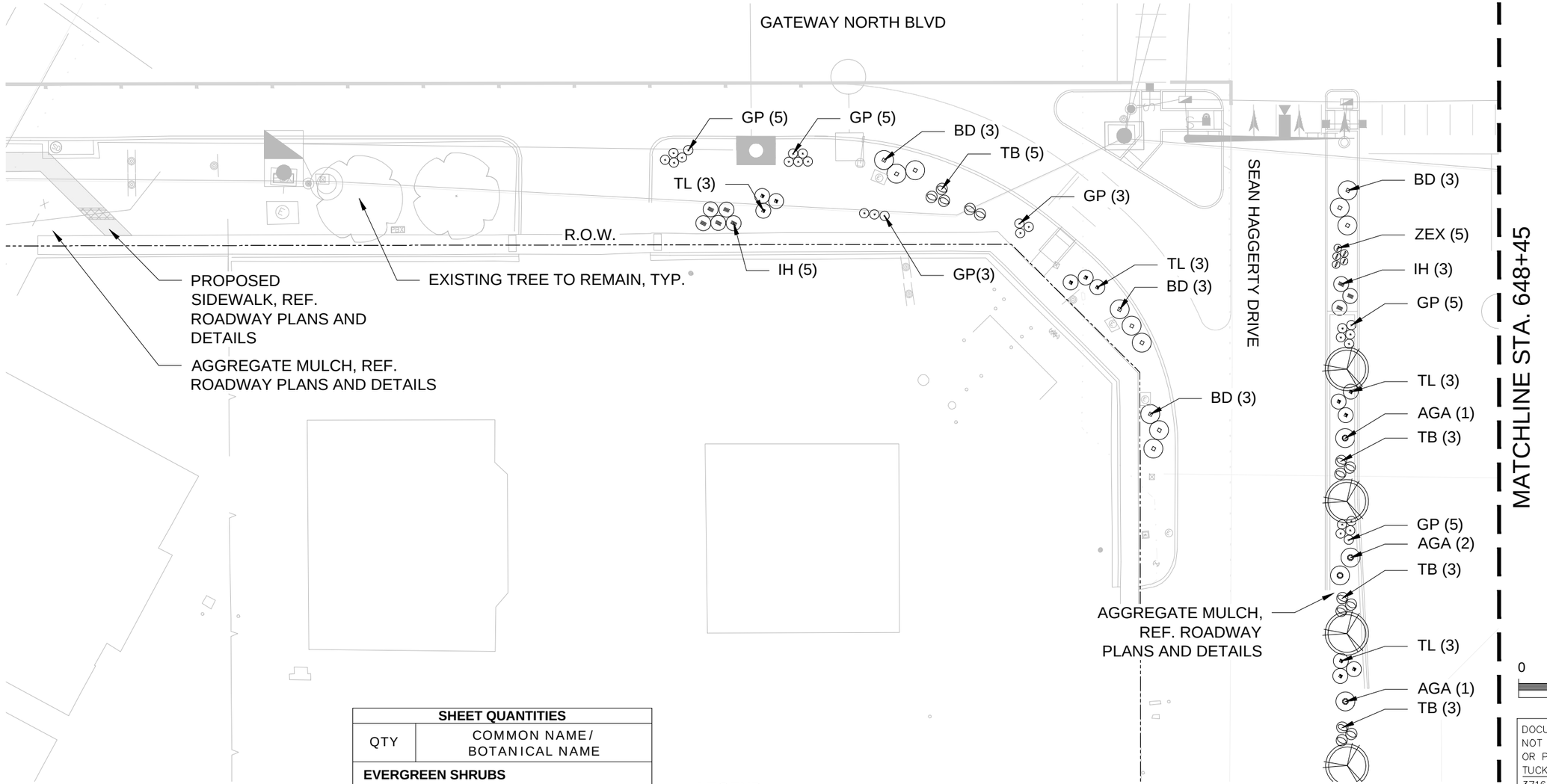
US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 589+69 TO STA 594+26

SHEET 13 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		875

DATE: $DATE$ $TIME$
FILE: $FILE$



SHEET QUANTITIES	
QTY	COMMON NAME/ BOTANICAL NAME
EVERGREEN SHRUBS	
4	AGARITA (AGA) *Mahonia trifoliolata*
8	INDIAN HAWTHORN (IH) *Raphiolepsis indica*
14	TURPENTINE BUSH (TB) *Ericameria laricifolia*
PERENNIALS	
12	BLACK DALEA (BD) *Dalea frutescens*
26	GOPHER PLANT (GP) *Euphorbia rigida*
12	TEXAS LANTANA (TL) *Lantana urticoides*
5	ZEXMENIA (ZE) *Wedelia texana*
SOIL	
20.25 CY	SPECIFIED PLANTING SOIL MIX

LEGEND

- (ZEX) - ZEXMENIA
- (GP) - GOPHER PLANT
- (TB) - TURPENTINE BUSH
- (BD) - BLACK DALEA
- (TL) - TEXAS LANTANA
- (IH) - INDIAN HAWTHORN
- (UR) - UPRIGHT ROSEMARY
- (FA) - FLAME ACANTHUS
- (YB) - YELLOW BELLS
- (AGA) - AGARITA
- (LLS) - LYNN'S LEGACY SAGE
- (PB) - PRIDE OF BARBADOS
- (ES) - EVERGREEN SUMAC

- RIGHT OF WAY LINE
- EXISTING TREE
- (HM) - HONEY MESQUITE
- (TML) - TX MOUNTAIN LAUREL
- (TRO) - TX RED OAK
- (RB) - REDBUD

NOTE:
REF. SHEET 7 FOR PROPOSED TREE IDENTIFICATION AND QUANTITIES

0 15 30 60
GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

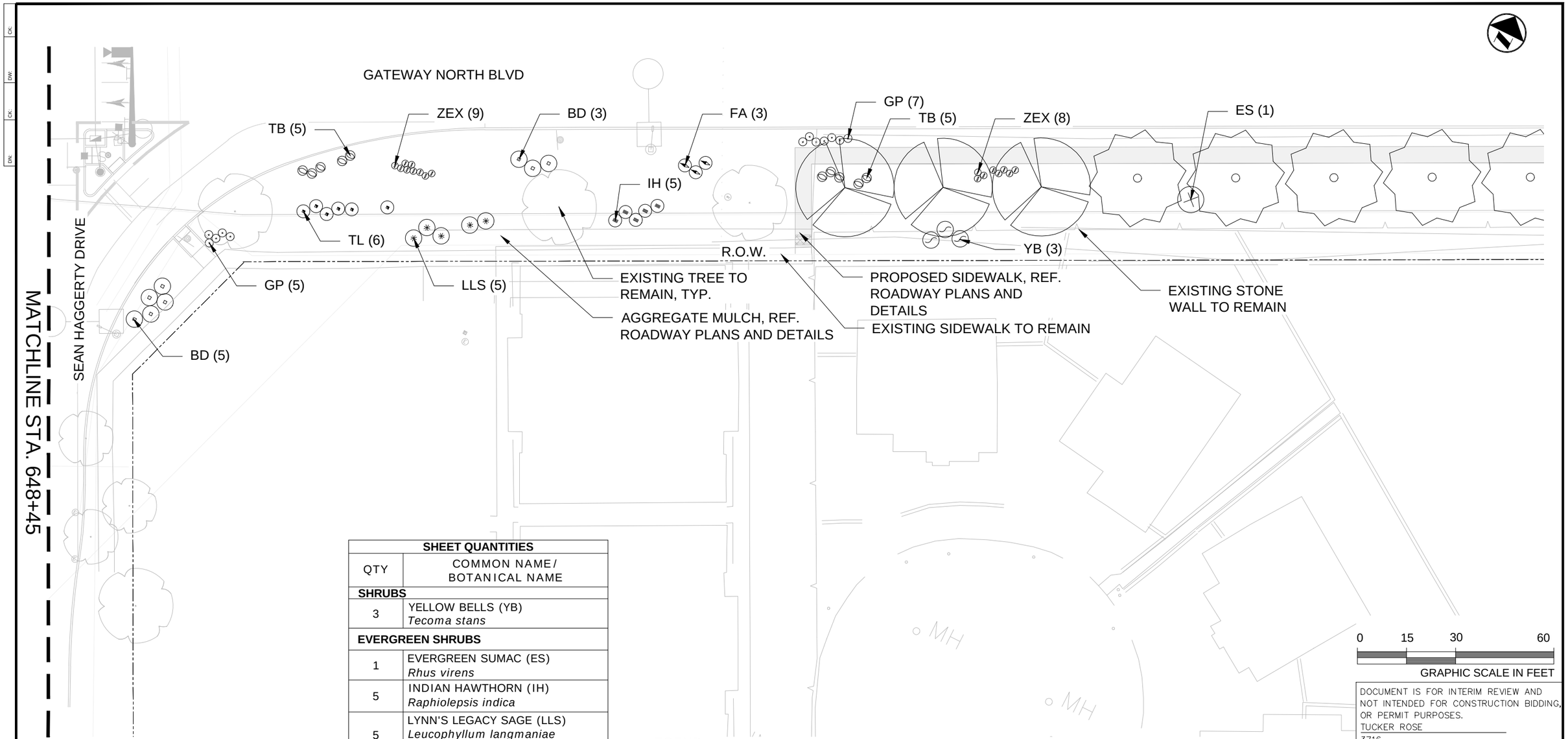
LANDSCAPE LAYOUT
STA 644+50 TO STA 648+45

SHEET 14 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		876

CK
DW
CK
DN

DATE: $DATE$ $TIME$
FILE: $FILE$



SHEET QUANTITIES	
QTY	COMMON NAME/ BOTANICAL NAME
SHRUBS	
3	YELLOW BELLS (YB) *Tecoma stans*
EVERGREEN SHRUBS	
1	EVERGREEN SUMAC (ES) *Rhus virens*
5	INDIAN HAWTHORN (IH) *Raphiolepsis indica*
5	LYNN'S LEGACY SAGE (LLS) *Leucophyllum langmaniae 'Lynn's Legacy'*
10	TURPENTINE BUSH (TB) *Ericameria laricifolia*
PERENNIALS	
8	BLACK DALEA (BD) *Dalea frutescens*
3	FLAME ACANTHUS (FA) *Anisacanthus quadrifidus* var. *wrightii*
12	GOPHER PLANT (GP) *Euphorbia rigida*
6	TEXAS LANTANA (TL) *Lantana urticoides*
17	ZEXMENIA (ZE) *Wedelia texana*
SOIL	
17.5 CY	SPECIFIED PLANTING SOIL MIX

LEGEND

- (ZEX) - ZEXMENIA
- (GP) - GOPHER PLANT
- (TB) - TURPENTINE BUSH
- (BD) - BLACK DALEA
- (TL) - TEXAS LANTANA
- (IH) - INDIAN HAWTHORN
- (UR) - UPRIGHT ROSEMARY
- (FA) - FLAME ACANTHUS
- (YB) - YELLOW BELLS
- (AGA) - AGARITA
- (LLS) - LYNN'S LEGACY SAGE
- (PB) - PRIDE OF BARBADOS
- (ES) - EVERGREEN SUMAC

- RIGHT OF WAY LINE
- EXISTING TREE
- (HM) - HONEY MESQUITE
- (TML) - TX MOUNTAIN LAUREL
- (TRO) - TX RED OAK
- (RB) - REDBUD

NOTE:
REF. SHEET 7 FOR PROPOSED TREE IDENTIFICATION AND QUANTITIES

0 15 30 60

GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE

3716
LICENSE NO.

12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

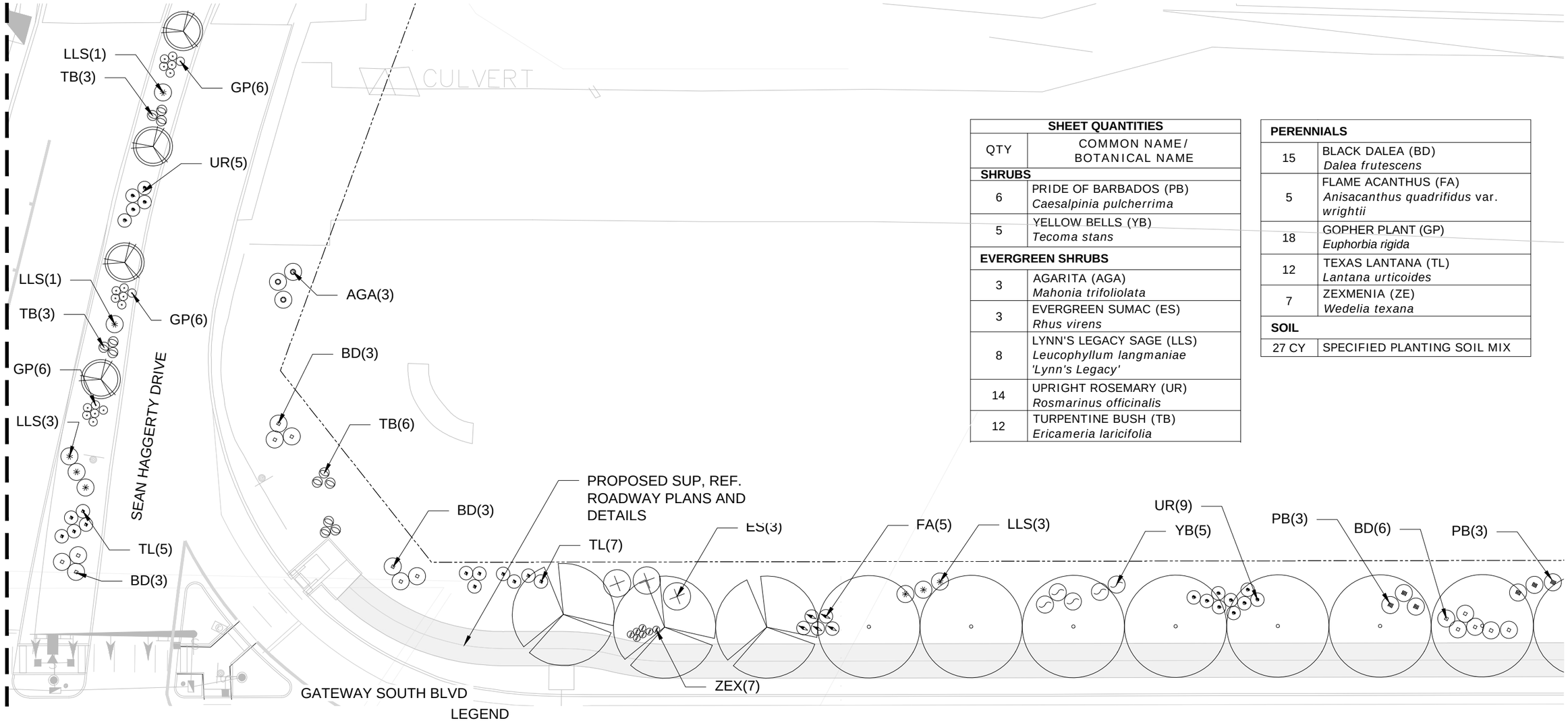
US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 648+45 TO STA 653+00

SHEET 15 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		877

DATE: $DATE$ $TIME$
FILE: $FILE$



SHEET QUANTITIES	
QTY	COMMON NAME/ BOTANICAL NAME
SHRUBS	
6	PRIDE OF BARBADOS (PB) *Caesalpinia pulcherrima*
5	YELLOW BELLS (YB) *Tecoma stans*
EVERGREEN SHRUBS	
3	AGARITA (AGA) *Mahonia trifoliolata*
3	EVERGREEN SUMAC (ES) *Rhus virens*
8	LYNN'S LEGACY SAGE (LLS) *Leucophyllum langmaniae 'Lynn's Legacy'*
14	UPRIGHT ROSEMARY (UR) *Rosmarinus officinalis*
12	TURPENTINE BUSH (TB) *Ericameria laricifolia*

PERENNIALS	
15	BLACK DALEA (BD) *Dalea frutescens*
5	FLAME ACANTHUS (FA) *Anisacanthus quadrifidus* var. *wrightii*
18	GOPHER PLANT (GP) *Euphorbia rigida*
12	TEXAS LANTANA (TL) *Lantana urticoides*
7	ZEXMENIA (ZE) *Wedelia texana*
SOIL	
27 CY	SPECIFIED PLANTING SOIL MIX

LEGEND

- (ZEX) - ZEXMENIA
- (GP) - GOPHER PLANT
- (TB) - TURPENTINE BUSH
- (BD) - BLACK DALEA
- (TL) - TEXAS LANTANA
- (IH) - INDIAN HAWTHORN
- (UR) - UPRIGHT ROSEMARY
- (FA) - FLAME ACANTHUS
- (YB) - YELLOW BELLS
- (AGA) - AGARITA
- (LLS) - LYNN'S LEGACY SAGE
- (PB) - PRIDE OF BARBADOS
- (ES) - EVERGREEN SUMAC

- RIGHT OF WAY LINE
- EXISTING TREE
- (HM) - HONEY MESQUITE
- (TML) - TX MOUNTAIN LAUREL
- (TRO) - TX RED OAK
- (RB) - REDBUD

NOTE:
REF. SHEET 7 FOR PROPOSED TREE IDENTIFICATION AND QUANTITIES

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

0 15 30 60
GRAPHIC SCALE IN FEET

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 648+08 TO STA 652+64

SHEET 16 OF 21

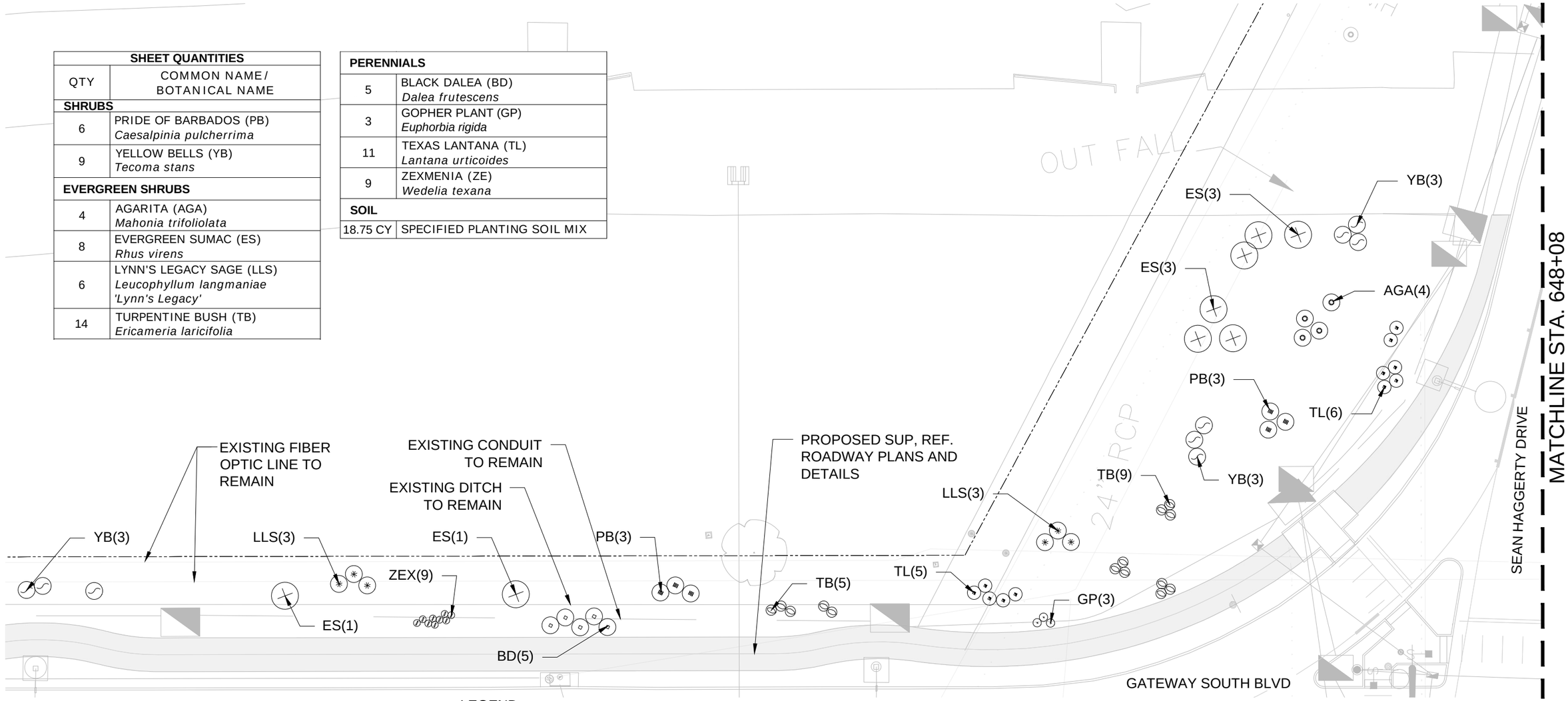
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		878

CK:
DW:
CK:
DN:

DATE: $DATE$ $TIME$
FILE: $FILE$

SHEET QUANTITIES	
QTY	COMMON NAME/ BOTANICAL NAME
SHRUBS	
6	PRIDE OF BARBADOS (PB) *Caesalpinia pulcherrima*
9	YELLOW BELLS (YB) *Tecoma stans*
EVERGREEN SHRUBS	
4	AGARITA (AGA) *Mahonia trifoliolata*
8	EVERGREEN SUMAC (ES) *Rhus virens*
6	LYNN'S LEGACY SAGE (LLS) *Leucophyllum langmaniae 'Lynn's Legacy'*
14	TURPENTINE BUSH (TB) *Ericameria laricifolia*

PERENNIALS	
5	BLACK DALEA (BD) *Dalea frutescens*
3	GOPHER PLANT (GP) *Euphorbia rigida*
11	TEXAS LANTANA (TL) *Lantana urticoides*
9	ZEXMENIA (ZE) *Wedelia texana*
SOIL	
18.75 CY	SPECIFIED PLANTING SOIL MIX



LEGEND

- (ZEX) - ZEXMENIA
- (GP) - GOPHER PLANT
- (TB) - TURPENTINE BUSH
- (BD) - BLACK DALEA
- (TL) - TEXAS LANTANA
- (IH) - INDIAN HAWTHORN
- (UR) - UPRIGHT ROSEMARY
- (FA) - FLAME ACANTHUS
- (YB) - YELLOW BELLS
- (AGA) - AGARITA
- (LLS) - LYNN'S LEGACY SAGE
- (PB) - PRIDE OF BARBADOS
- (ES) - EVERGREEN SUMAC

- RIGHT OF WAY LINE
- EXISTING TREE
- (HM) - HONEY MESQUITE
- (TML) - TX MOUNTAIN LAUREL
- (TRO) - TX RED OAK
- (RB) - REDBUD

NOTE:
REF. SHEET 7 FOR PROPOSED TREE IDENTIFICATION AND QUANTITIES

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

0 15 30 60
GRAPHIC SCALE IN FEET

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 643+53 TO STA 648+08

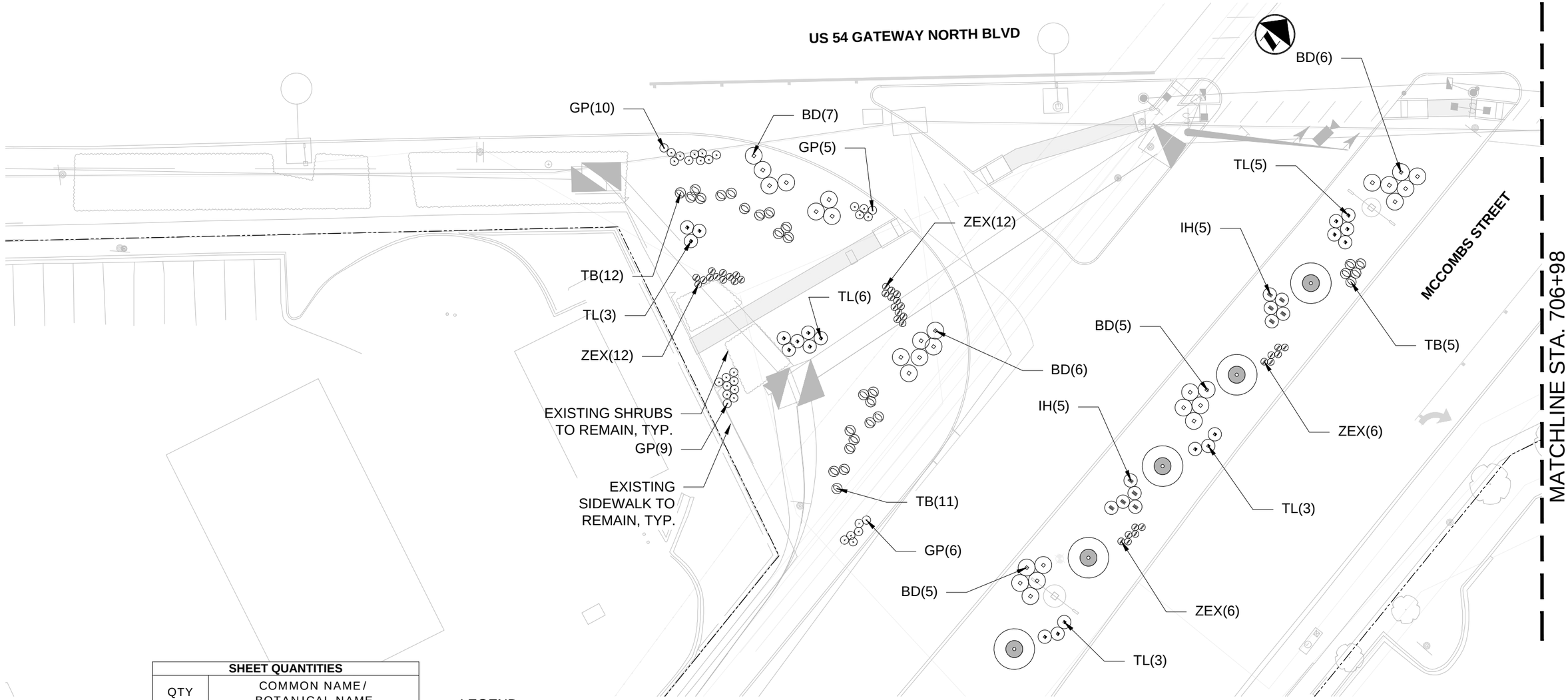
SHEET 17 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		879

CK
DW
CK
DN

DATE: $DATE$ $TIME$
FILE: $FILE$

CK
DW
CK
DN



SHEET QUANTITIES	
QTY	COMMON NAME/ BOTANICAL NAME
EVERGREEN SHRUBS	
10	INDIAN HAWTHORN (IH) *Raphiolepsis indica*
28	TURPENTINE BUSH (TB) *Ericameria laricifolia*
PERENNIALS	
29	BLACK DALEA (BD) *Dalea frutescens*
30	GOPHER PLANT (GP) *Euphorbia rigida*
20	TEXAS LANTANA (TL) *Lantana urticoides*
36	ZEXMENIA (ZE) *Wedelia texana*
SOIL	
38.25 CY	SPECIFIED PLANTING SOIL MIX

LEGEND

- (ZEX) - ZEXMENIA
- (GP) - GOPHER PLANT
- (TB) - TURPENTINE BUSH
- (BD) - BLACK DALEA
- (TL) - TEXAS LANTANA
- (IH) - INDIAN HAWTHORN
- (UR) - UPRIGHT ROSEMARY
- (FA) - FLAME ACANTHUS
- (YB) - YELLOW BELLS
- (AGA) - AGARITA
- (LLS) - LYNN'S LEGACY SAGE
- (PB) - PRIDE OF BARBADOS
- (ES) - EVERGREEN SUMAC

- RIGHT OF WAY LINE
- EXISTING TREE
- (HM) - HONEY MESQUITE
- (TML) - TX MOUNTAIN LAUREL
- (TRO) - TX RED OAK
- (RB) - REDBUD

NOTE:
REF. SHEET 12 FOR PROPOSED TREE IDENTIFICATION AND QUANTITIES

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

0 15 30 60
GRAPHIC SCALE IN FEET

HNTB
HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

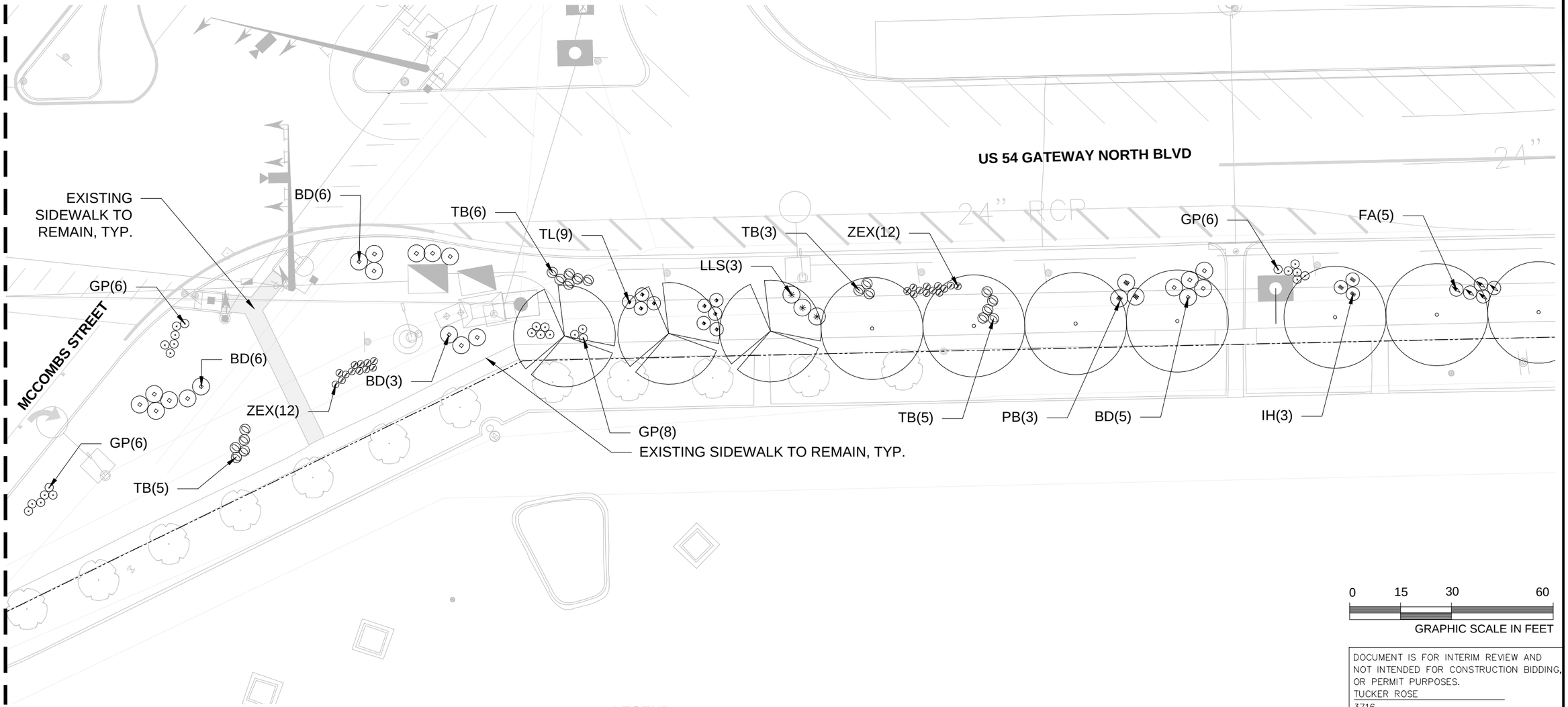
US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 702+37 TO STA 706+98

SHEET 18 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		880

DATE: $DATE$ $TIME$
FILE: $FILE$



SHEET QUANTITIES	
QTY	COMMON NAME / BOTANICAL NAME
SHRUBS	
3	PRIDE OF BARBADOS (PB) *Caesalpinia pulcherrima*
EVERGREEN SHRUBS	
3	INDIAN HAWTHORN (IH) *Raphiolepsis indica*
3	LYNN'S LEGACY SAGE (LLS) *Leucophyllum langmaniae 'Lynn's Legacy'*
19	TURPENTINE BUSH (TB) *Ericameria laricifolia*

PERENNIALS	
20	BLACK DALEA (BD) *Dalea frutescens*
5	FLAME ACANTHUS (FA) *Anisacanthus quadrifidus* var. *wrightii*
26	GOPHER PLANT (GP) *Euphorbia rigida*
9	TEXAS LANTANA (TL) *Lantana urticoides*
24	ZEXMENIA (ZE) *Wedelia texana*
SOIL	
28 CY	SPECIFIED PLANTING SOIL MIX

LEGEND

- (ZEX) - ZEXMENIA
- (GP) - GOPHER PLANT
- (TB) - TURPENTINE BUSH
- (BD) - BLACK DALEA
- (TL) - TEXAS LANTANA
- (IH) - INDIAN HAWTHORN
- (UR) - UPRIGHT ROSEMARY
- (FA) - FLAME ACANTHUS
- (YB) - YELLOW BELLS
- (AGA) - AGARITA
- (LLS) - LYNN'S LEGACY SAGE
- (PB) - PRIDE OF BARBADOS
- (ES) - EVERGREEN SUMAC

- RIGHT OF WAY LINE
- EXISTING TREE
- (HM) - HONEY MESQUITE
- (TML) - TX MOUNTAIN LAUREL
- (TRO) - TX RED OAK
- (RB) - REDBUD

NOTE:
REF. SHEET 12 FOR PROPOSED TREE IDENTIFICATION AND QUANTITIES

0 15 30 60
GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

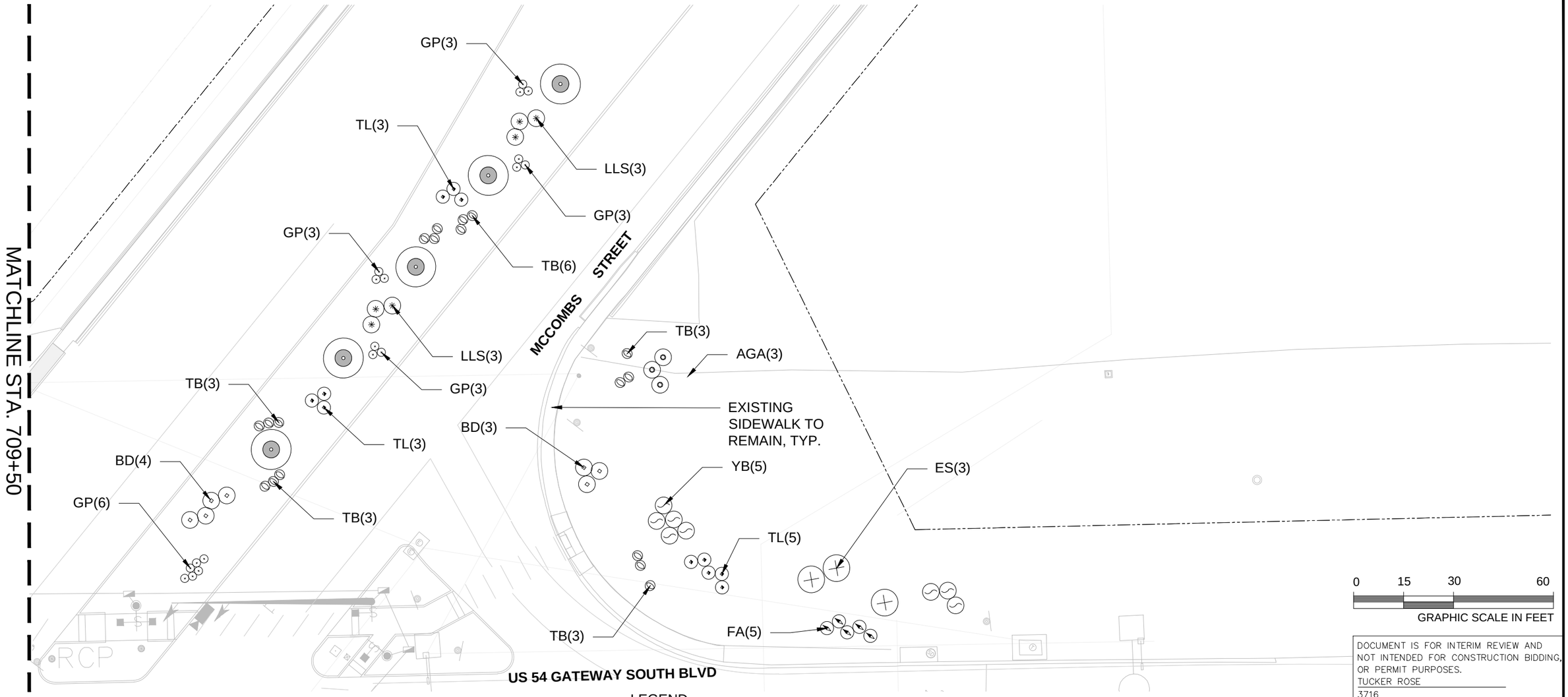
US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 706+98 TO STA 711+54

SHEET 19 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		881

DATE: $DATE$ $TIME$
FILE: $FILE$
DN: CK: DW: CK:



SHEET QUANTITIES	
QTY	COMMON NAME / BOTANICAL NAME
SHRUBS	
8	YELLOW BELLS (YB) *Tecoma stans*
EVERGREEN SHRUBS	
3	AGARITA (AGA) *Mahonia trifoliolata*
3	EVERGREEN SUMAC (ES) *Rhus virens*
6	LYNN'S LEGACY SAGE (LLS) *Leucophyllum langmaniae 'Lynn's Legacy'*
18	TURPENTINE BUSH (TB) *Ericameria laricifolia*

PERENNIALS	
7	BLACK DALEA (BD) *Dalea frutescens*
5	FLAME ACANTHUS (FA) *Anisacanthus quadrifidus* var. *wrightii*
18	GOPHER PLANT (GP) *Euphorbia rigida*
11	TEXAS LANTANA (TL) *Lantana urticoides*
SOIL	
19.75 CY	SPECIFIED PLANTING SOIL MIX

LEGEND

- (ZEX) - ZEXMENIA
- (GP) - GOPHER PLANT
- (TB) - TURPENTINE BUSH
- (BD) - BLACK DALEA
- (TL) - TEXAS LANTANA
- (IH) - INDIAN HAWTHORN
- (UR) - UPRIGHT ROSEMARY
- (FA) - FLAME ACANTHUS
- (YB) - YELLOW BELLS
- (AGA) - AGARITA
- (LLS) - LYNN'S LEGACY SAGE
- (PB) - PRIDE OF BARBADOS
- (ES) - EVERGREEN SUMAC

- RIGHT OF WAY LINE
- EXISTING TREE
- (HM) - HONEY MESQUITE
- (TML) - TX MOUNTAIN LAUREL
- (TRO) - TX RED OAK
- (RB) - REDBUD

NOTE:
REF. SHEET 12 FOR PROPOSED TREE IDENTIFICATION AND QUANTITIES

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 709+50 TO STA 714+05

SHEET 20 OF 21

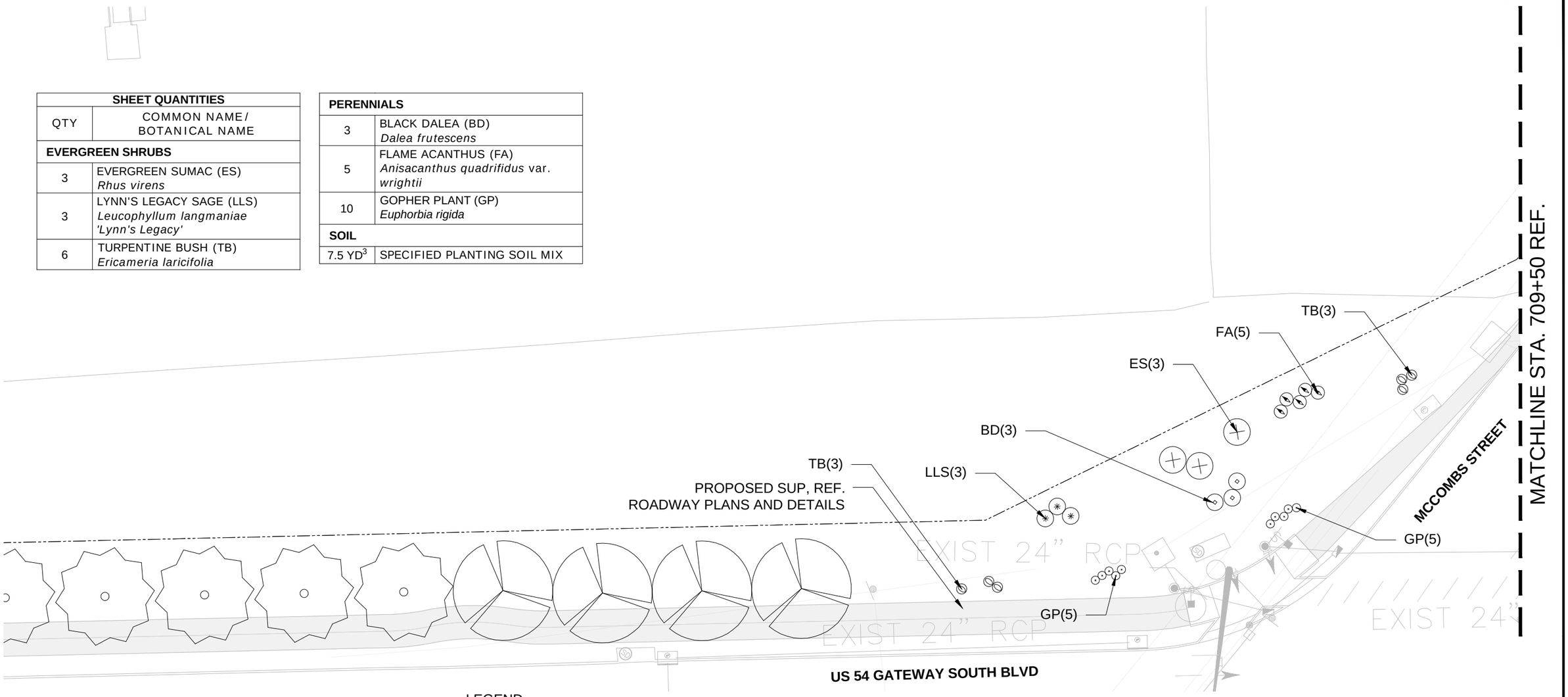
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		882

DATE: $DATE$ $TIME$
FILE: $FILE$

CK
DW
CK
DN

SHEET QUANTITIES	
QTY	COMMON NAME/ BOTANICAL NAME
EVERGREEN SHRUBS	
3	EVERGREEN SUMAC (ES) *Rhus virens*
3	LYNN'S LEGACY SAGE (LLS) *Leucophyllum langmaniae 'Lynn's Legacy'*
6	TURPENTINE BUSH (TB) *Ericameria laricifolia*

PERENNIALS	
3	BLACK DALEA (BD) *Dalea frutescens*
5	FLAME ACANTHUS (FA) *Anisacanthus quadrifidus* var. *wrightii*
10	GOPHER PLANT (GP) *Euphorbia rigida*
SOIL	
7.5 YD^3	SPECIFIED PLANTING SOIL MIX



LEGEND

- (ZEX) - ZEXMENIA
- (GP) - GOPHER PLANT
- (TB) - TURPENTINE BUSH
- (BD) - BLACK DALEA
- (TL) - TEXAS LANTANA
- (IH) - INDIAN HAWTHORN
- (UR) - UPRIGHT ROSEMARY
- (FA) - FLAME ACANTHUS
- (YB) - YELLOW BELLS
- (AGA) - AGARITA
- (LLS) - LYNN'S LEGACY SAGE
- (PB) - PRIDE OF BARBADOS
- (ES) - EVERGREEN SUMAC

- RIGHT OF WAY LINE
- EXISTING TREE
- (HM) - HONEY MESQUITE
- (TML) - TX MOUNTAIN LAUREL
- (TRO) - TX RED OAK
- (RB) - REDBUD

NOTE:
REF. SHEET 12 FOR PROPOSED TREE IDENTIFICATION AND QUANTITIES

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

0 15 30 60
GRAPHIC SCALE IN FEET

HNTB
HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

LANDSCAPE LAYOUT
STA 704+94 TO STA 709+50

SHEET 21 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		883

DATE: $DATE$ $TIME$
FILE: $FILE$

CK
DW
CK
DN

PLANTING NOTES :

1. CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF THESE UTILITIES.

2. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED, WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING THE DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT UP TO THE ATTENTION OF THE OAR AND EOR.

3. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH PLANTING OPERATION.

5. CONTRACTOR SHALL NOTIFY OWNER'S AUTHORIZED REPRESENTATIVE 72 HOURS (WEEKENDS NOT INCLUDED) PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT OBSERVATION SCHEDULE.

6. IF CONFLICTS ARISE BETWEEN SIZE OF AREAS ON PLANS OR LAYOUT OF PLANS, CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO THE LANDSCAPE ARCHITECT WILL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE THE MATERIAL.

7. ALL PLANTS SHALL BE SELECTED AND INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS.

8. THE CONTRACTOR SHALL HAND-WATER PLANT MATERIAL UNTIL ACCEPTANCE OR THE END OF THE 45 DAY ESTABLISHMENT PERIOD, WHICHEVER DURATION LASTS LONGER.

9. CONTRACTOR SHALL SUBMIT PHOTOS OF REPRESENTATIVE PLANT MATERIAL WITH ASSOCIATED PLANT SPECIFICATIONS INCLUDING SPECIES (COMMON AND SCIENTIFIC NAME), NURSERY STOCK SIZE, HEIGHT, WIDTH, AND CALIPER. SHOULD CONTRACTOR INSTALL PLANT MATERIAL INFERIOR TO INDUSTRY STANDARD, IT IS AT THEIR OWN RISK. ALL PHOTO SUBMITTALS ARE TO BE ACCEPTED BY LANDSCAPE ARCHITECT PRIOR TO PLANTING. NO UNACCEPTED MATERIAL IS TO BE INSTALLED.

10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH PLANT MATERIALS FREE OF PESTS AND DISEASES. PRE-SELECTED OR "TAGGED" MATERIAL MUST BE INSPECTED BY THE CONTRACTOR AND CERTIFIED PEST AND DISEASE FREE. IT IS THE CONTRACTOR'S OBLIGATION TO GUARANTEE ALL PLANT MATERIALS PER THE SPECIFICATIONS.

11. CONTRACTOR SHALL STAKE ALL FINAL PLANTING BED, SEED MIX, AND TURF LIMITS IN THE FIELD FOR ACCEPTANCE BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

12. CONTRACTOR SHALL COORDINATE A DATE FOR PLANT MATERIAL LAYOUT INSPECTION AND ACCEPTANCE PRIOR TO PLANT INSTALLATION OF PLANTING BEDS AND APPLICATION OF SEED MIXES AND TURF.

13. STEEL EDGING SHALL BE PLACED BETWEEN SHRUB BEDS AND SEED MIX AREAS AS NOTED ON PLANS, AS WELL AS BETWEEN DECOMPOSED GRANITE AREA AND PLANTING BEDS.

14. ALL PLANTS SHALL BE TRIANGULARLY SPACED UNLESS OTHERWISE INDICATED. REFERENCE PLAN FOR PLANT SPACING.

15. ALL PLANTING BEDS SHALL RECEIVE A MINIMUM OF 3" OF APPROVED PINE BARK MULCH. MULCH SHALL BE LOOSE, ORGANIC, AND FREE OF EXCESSIVE AMOUNTS OF LEAVES, STICKS, SOIL, AND OTHER FOREIGN MATTER.

16. CONTRACTOR SHALL FINE GRADE ALL DISTURBED AREAS TO PROVIDE FOR PROPER DRAINAGE.

DATE: $DATE$ $TIME$
FILE: $FILE$

PLANT LIST

QTY	COMMON NAME/BOTANICAL NAME	CALIPER / CONT.SIZE	COMMENTS
	TREES		
223	THORNLESS HONEY MESQUITE *Prosopis glandulosa* v. *glandulosa* Maverick	30 GAL	CONTAINER GROWN, STRONG CENTRAL LEADER, FULL & WELL ROOTED, PLANTED 30 O.C. OR PER PLAN
236	TEXAS RED OAK *Quercus buckleyi*	30 GAL	CONTAINER GROWN, STRONG CENTRAL LEADER, FULL & WELL ROOTED, PLANTED 30 O.C. OR PER PLAN
60	TEXAS MOUNTAIN LAUREL *Sophora secundiflora*	30 GAL	CONTAINER GROWN, STRONG CENTRAL LEADER, FULL & WELL ROOTED, PLANTED 30 O.C. OR PER PLAN
	ORNAMENTAL TREES		
8	CHINESE PISTACHE *Pistacia chinensis*	30 GAL	CONTAINER GROWN, STRONG CENTRAL LEADER, FULL & WELL ROOTED, PLANTED 30 O.C. OR PER PLAN
8	MEXICAN REDBUD *Cercis canadensis* var. *mexicana*	30 GAL	CONTAINER GROWN, STRONG CENTRAL LEADER, FULL & WELL ROOTED, PLANTED 30 O.C. OR PER PLAN
	SHRUBS		
20	PRIDE OF BARBADOS (PB) *Caesalpinia pulcherrima*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 60" O.C., SPACING PER PLAN
	EVERGREEN SHRUBS		
22	AGARITA (AGA) *Mahonia trifoliolata*	5 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 60" O.C., SPACING PER PLAN
20	EVERGREEN SUMAC (ES) *Rhus virens*	5 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 108" O.C., SPACING PER PLAN
33	INDIAN HAWTHORN (IH) *Raphiolepsis indica*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 48" O.C., SPACING PER PLAN
33	LYNN'S LEGACY SAGE (LLS) *Leucophyllum langmaniae 'Lynn's Legacy'*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 60" O.C., SPACING PER PLAN
16	UPRIGHT ROSEMARY (UR) *Rosmarinus officinalis*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 48" O.C., SPACING PER PLAN
128	TURPENTINE BUSH (TB) *Ericameria laricifolia*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 36" O.C., SPACING PER PLAN
	PERENNIALS		
115	BLACK DALEA (BD) *Dalea frutescens*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 60" O.C., SPACING PER PLAN
25	FLAME ACANTHUS (FA) *Anisacanthus quadrifidus* var. *wrightii*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 48" O.C., SPACING PER PLAN
177	GOPHER PLANT *Euphorbia rigida*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 30" O.C., SPACING PER PLAN
88	TEXAS LANTANA (TL) *Lantana urticoides*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 48" O.C., SPACING PER PLAN
118	ZEXMENIA (ZE) *Wedelia texana*	3 GAL	CONTAINER GROWN, FULL & WELL ROOTED, PLANTED MIN. 24" O.C., SPACING PER PLAN
	MULCH		
NA	AGGREGATE MULCH	NA	REF. CIVIL PLANS AND DETAILS
	SOIL		
2963 CY	SPECIFIED PLANTING SOIL MIX	NA	5 CY TOTAL AT EACH TREE, 0.25 CY TOTAL AT EACH SHRUB. REF. DETAILS AND SPECIFICATIONS.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB
HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

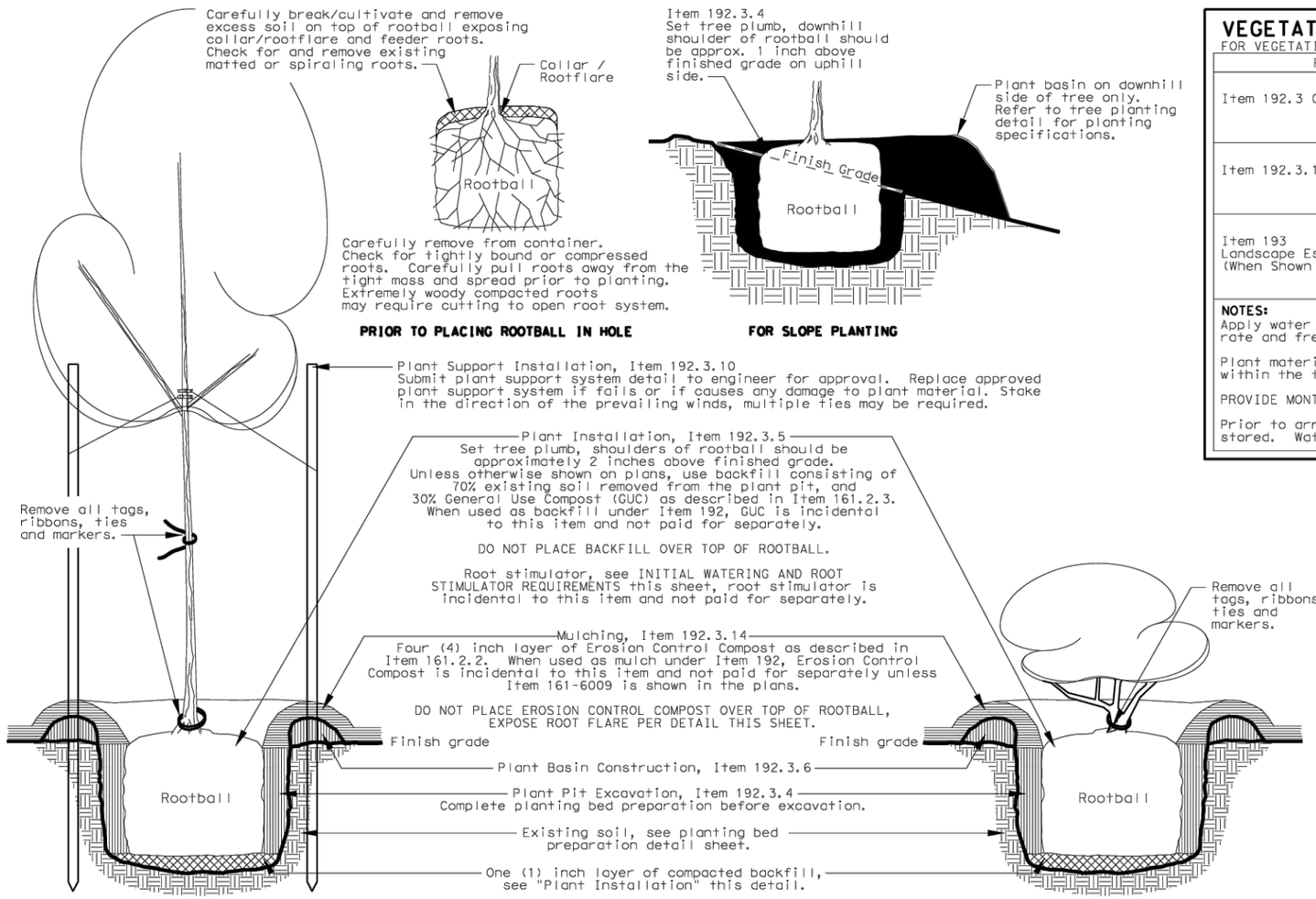
Texas Department of Transportation

US 54
LANDSCAPE

LANDSCAPE DETAILS

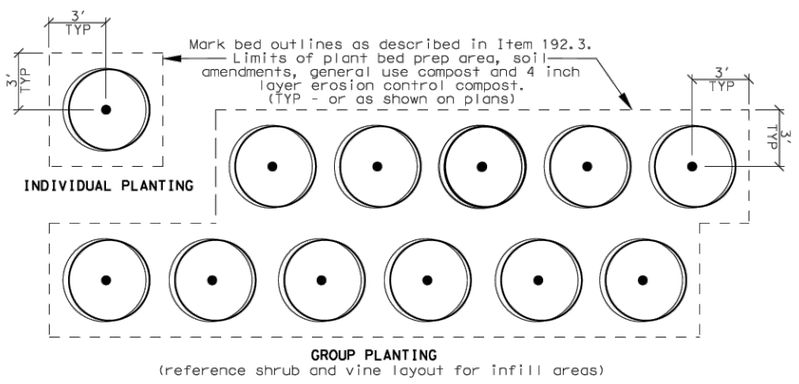
SHEET 1 OF 2

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		884



TREE PLANTING DETAIL

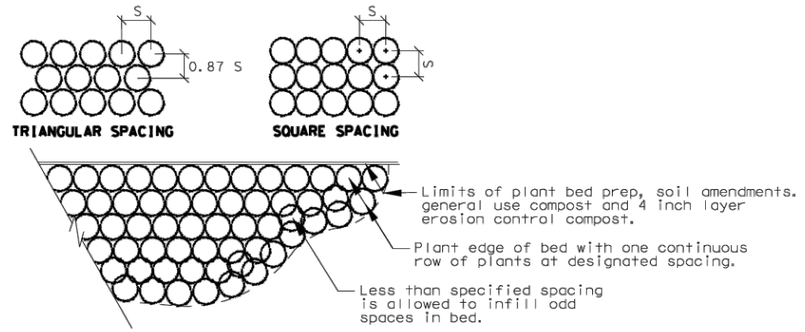
FOR PALM TREE PLANTING DETAIL SEE PLANTING AND ESTABLISHMENT SHEET 2 of 8



TREE PLACEMENT WITHIN PLANTING BED PREP AREA, LAYOUT AND SPACING SHOWN ON PLANS

SHRUB AND VINE PLANTING DETAIL

S= Spacing as indicated on the plans. Square or triangular spacing will be shown by the placement of the plants on the drawing and/or be called out in the plant label.



SHRUB AND VINE PLACEMENT WITHIN PLANTING BED PREP AREA LAYOUT AND SPACING SHOWN ON PLANS

VEGETATIVE WATERING SCHEDULE FOR TREES, SHRUBS, VINES

FOR VEGETATIVE WATERING FOR PALMS ONLY SEE PLANTING AND ESTABLISHMENT SHEET 2 of 8

PHASE	ITEM DESCRIPTION	FREQUENCY	RATE / PLANT
Item 192.3 Construction	Item 192.3.7. Watering is incidental to Item 192 and is not paid for separately **See Initial Watering note**	Begin same day as planting then: 3 times per week with 1 day minimum between waterings **See Initial Watering note**	CNTR SIZE / WATER QTY 30 GAL = 16 gallons 15 GAL = 10 gallons 5 GAL = 4 gallons 3 GAL = 2 gallons 1 GAL = 2 gallons (1/2 X plant CNTR gallon size per plant for sizes not shown, one (1) gallon minimum) **See Initial Watering Note**
Item 192.3.15 Maintenance	Item 192.3.15.1. Watering is incidental to Item 192 and is not paid for separately		
Item 193 Landscape Establishment (When Shown In Plans)	Item 193.3.3. Watering is incidental to Item 193 and is not paid for separately	2 times per week with 2 days minimum between waterings	

NOTES:
Apply water over the rootball within the tree well only, unless otherwise shown on plans. Adjust rate and frequency to meet site conditions and weather as approved or directed by engineer.

Plant material in poor condition due to the failure to apply the specified amount of water within the time allowed or overwatering will be replaced at contractor's expense.

PROVIDE MONTHLY METER READINGS OF WATER APPLIED.

Prior to arrival at project or storage area, provide watering plan(s) of plants to be installed or stored. Watering plan(s) must be approved by engineer prior to delivery to project or storage area.

INITIAL WATERING AND ROOT STIMULATOR REQUIREMENTS

PHASE	Item 192.3 Construction. Initial watering.
ITEM DESCRIPTION	Item 192.3.5. Plant Installation. Root stimulator material is incidental to Item 192 and is not paid for separately.
MATERIALS and SOLUTION	Two (2) ounces of root stimulator concentrate per one (1) gallon water. Root stimulator must be commercially available and labeled as an all organic/non-chemical liquid concentrate Bio-Stimulant and Root Stimulator. Use the following product or an approved equal: Super Seaweed, San Jacinto Environmental Supplies, 713-957-0909.
FREQUENCY and RATE	At the time of planting, provide initial watering at rate shown in Vegetative Watering Schedule this sheet. Use root stimulator solution for initial watering.

GENERAL NOTES

1. Reference Item 192 of the Texas Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges 2024 for specifications, dimensions, volumes, and measurements not shown.
2. Reference Item 192.3, mark plant locations and bed outlines.
3. Locate and stake all underground conduits and utilities associated with but not limited to: CTMS, CTMS power supply, lighting, signal wires and detectors, gas, electric, telephone, fiber optics, etc.
4. Locate and stake existing ground boxes, inlets, culverts, manholes, etc. within the project area with a 4' wooden stake painted orange. Maintain the stakes in place for duration of the contract. Remove stakes when directed by engineer.
5. Reference Item 5.10 Inspection of the Texas Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges 2024. At any time during all phases of the contract, any materials or work performed not in accordance with the plans and specifications will be replaced and/or reworked until in compliance.
6. Any adjustments due to the failure to comply with plans and specifications shown will be at contractor's expense.

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

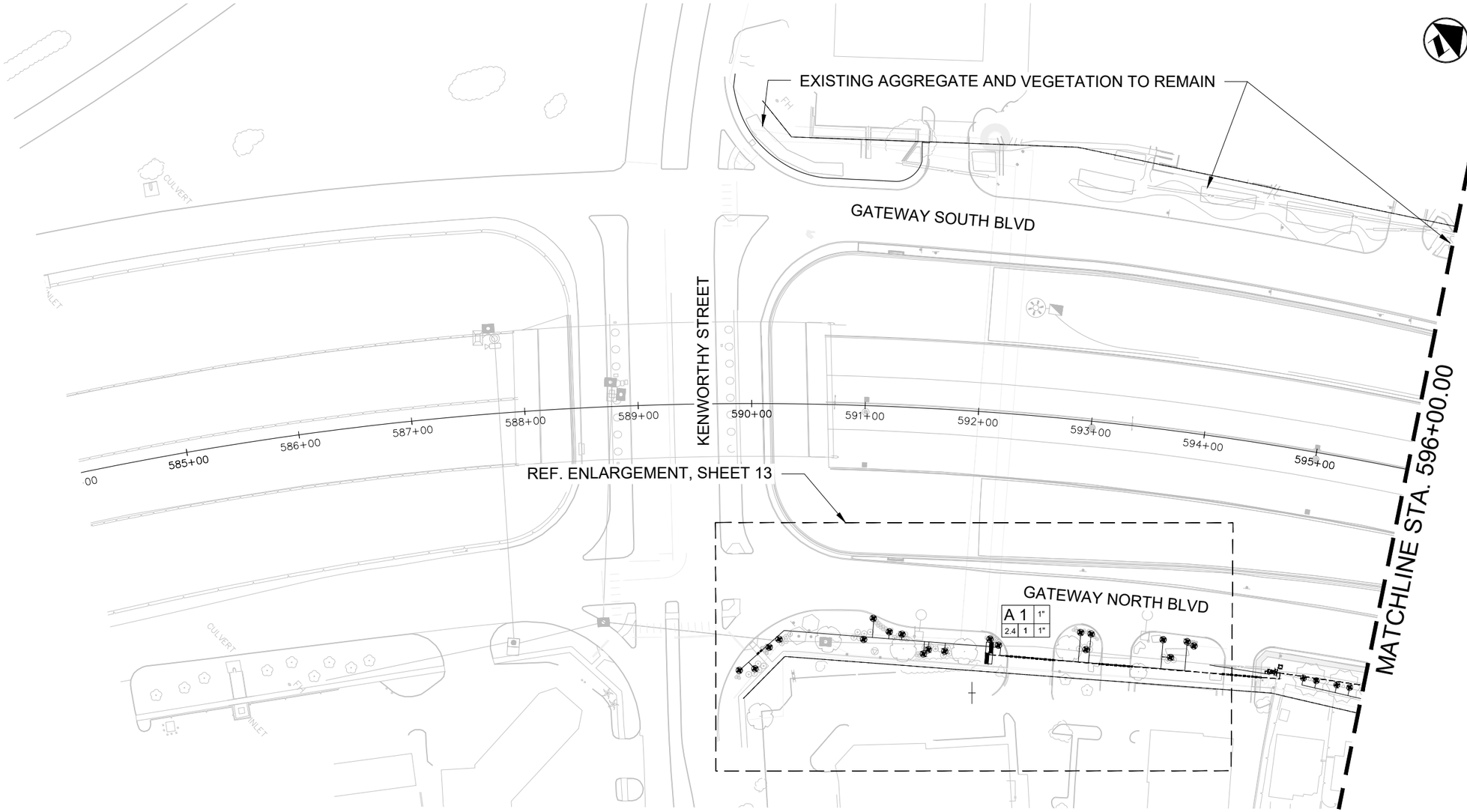
US 54
LANDSCAPE

LANDSCAPE DETAILS
TxDOT STANDARDS

SHEET 2 OF 2

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		885

DATE: $DATE$ $TIME$
FILE: $FILE$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

METER DESIGNATION
ZONE DESIGNATION
Y FILTER SIZE
VALVE SIZE
CONTROLLER
ACTUAL VALVE GPM

A 01		0
0.0	0	0

0 50 100 200
GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7054	CONDT (PVC) (SCH 80) (2")	LF	371
618	7055	CONDT (PVC) (SCH 80) (2") (BORE)	LF	108
		CLASS 200 PVC, 3/4"	LF	509
618	7017	CONDT (PVC) (SCH 40) (1/2")	LF	183

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

NOTES:
1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

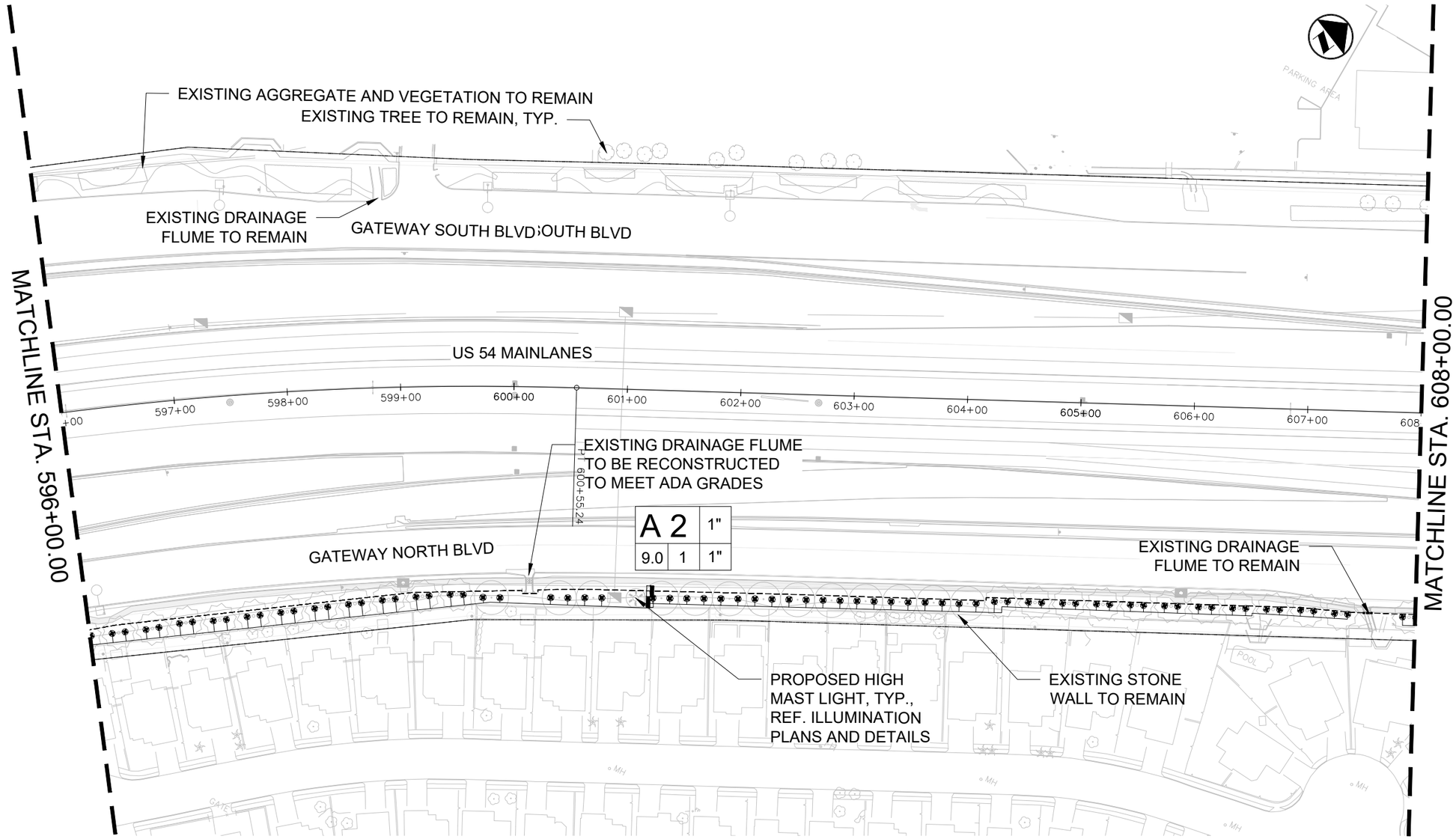
IRRIGATION LAYOUT
BEGIN TO STA 596+00

SHEET 1 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		886

DK DW CK DN

$TIME$
$DATE$
$FILE$
DATE:
FILE:



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

A 01	0
0.0	0	0

METER DESIGNATION
ZONE DESIGNATION
Y FILTER SIZE
VALVE SIZE
CONTROLLER
ACTUAL VALVE GPM

0 50 100 200
GRAPHIC SCALE IN FEET

NOTES:
1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7054	CONDT (PVC) (SCH 80) (2")	LF	1181
618	7055	CONDT (PVC) (SCH 80) (2") (BORE)	LF	9
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	1133

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

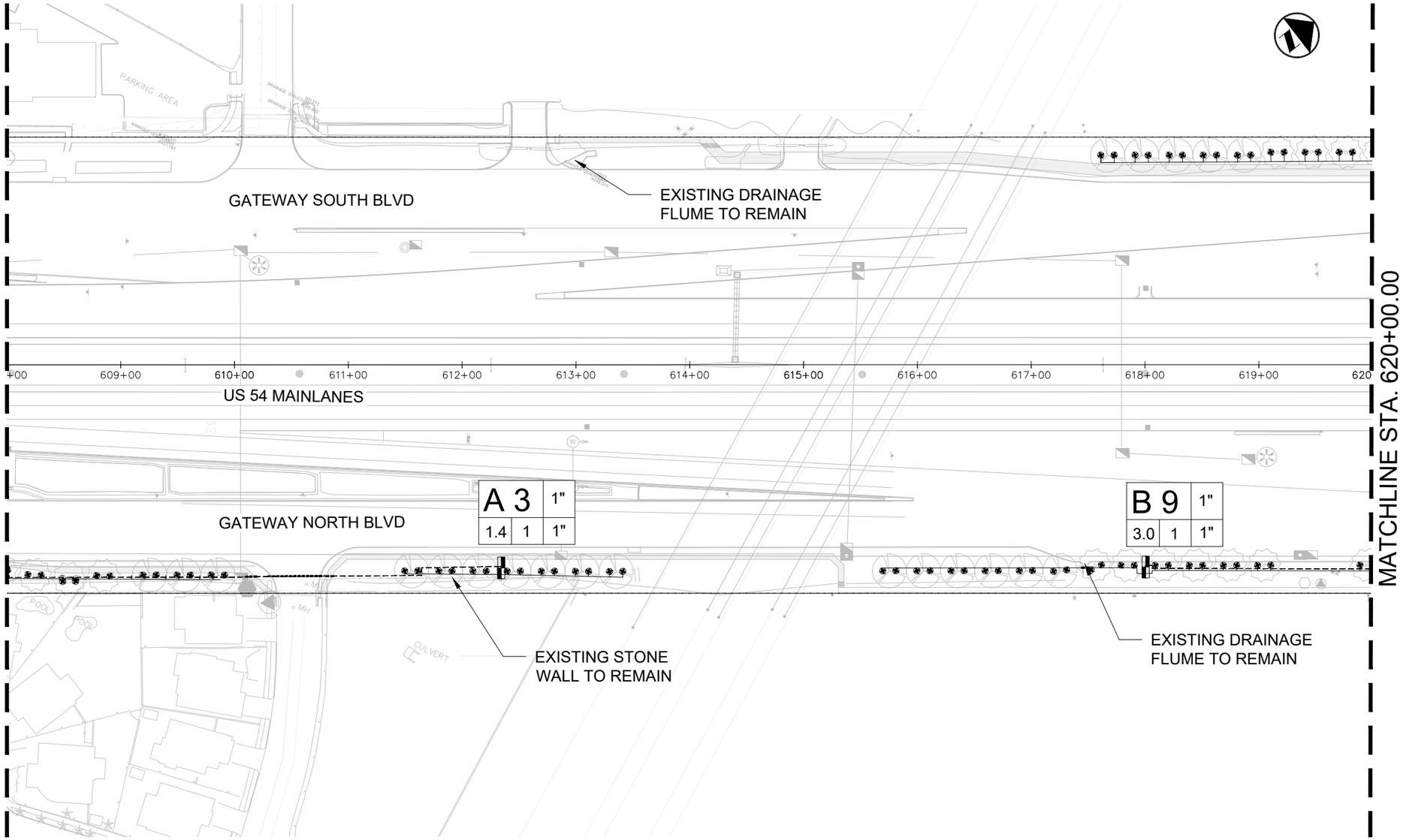
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 596+00 TO STA 608+00

SHEET 2 OF 21

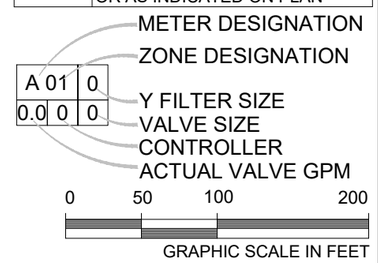
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		887

DATE: $DATE$ $TIME$
FILE: $FILE$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
———	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN



SHEET QUANTITIES				
ITEM	**CODE**	**DESCRIPTION**	**UNIT**	**QTY**
618	7054	CONDT (PVC) (SCH 80) (2")	LF	449
618	7055	CONDT (PVC) (SCH 80) (2") (BORE)	LF	65
618	7060	CONDT (PVC) (SCH 80) (3")	LF	203
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	1096

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

NOTES:
1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

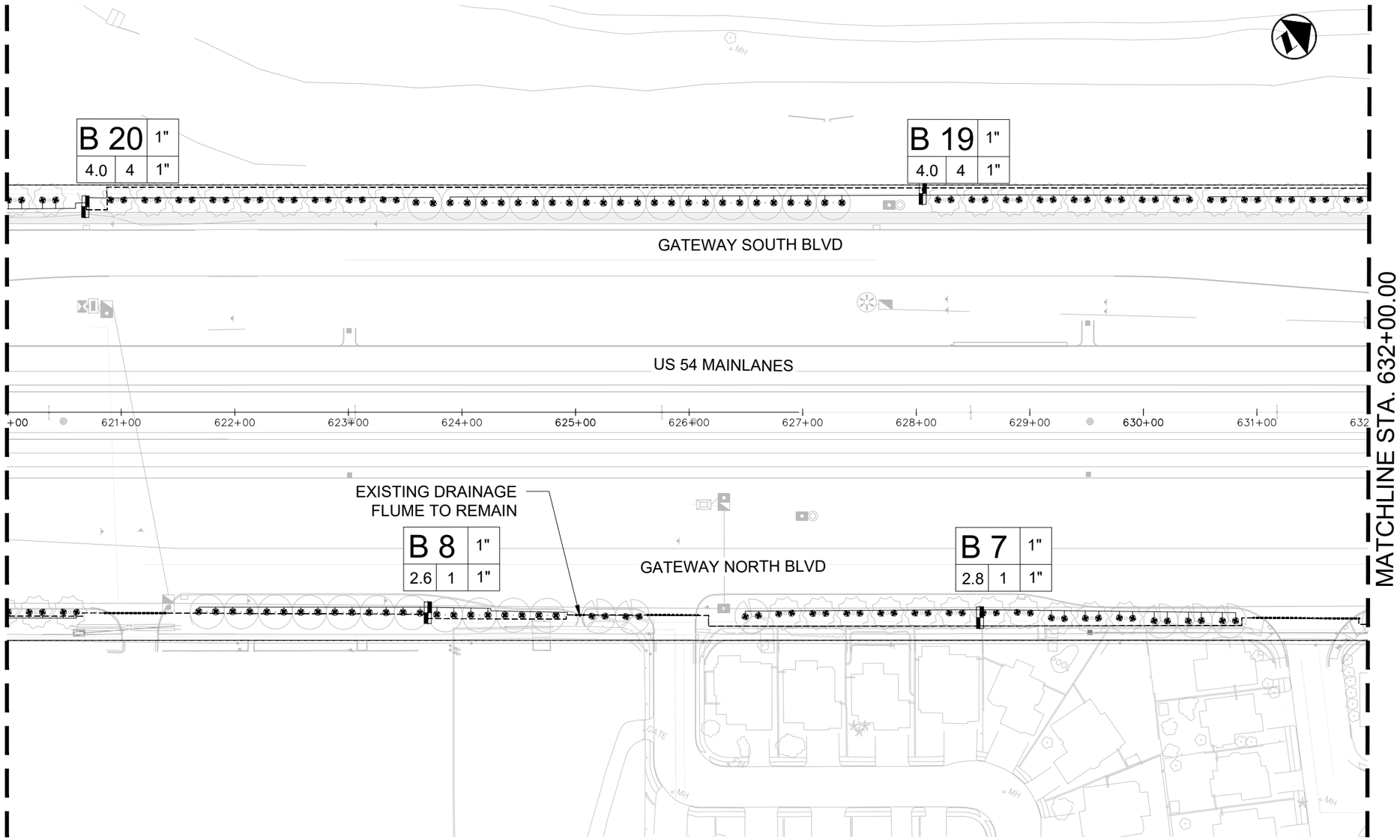
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 608+00 TO STA 620+00

SHEET 3 OF 21

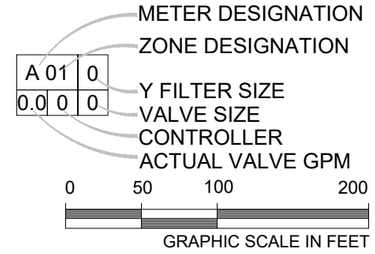
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		888

DATE: $DATE$
FILE: $FILE$
$TIME$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN



SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7060	CONDT (PVC) (SCH 80) (3")	LF	2365
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	203
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	2104

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

NOTES:
1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

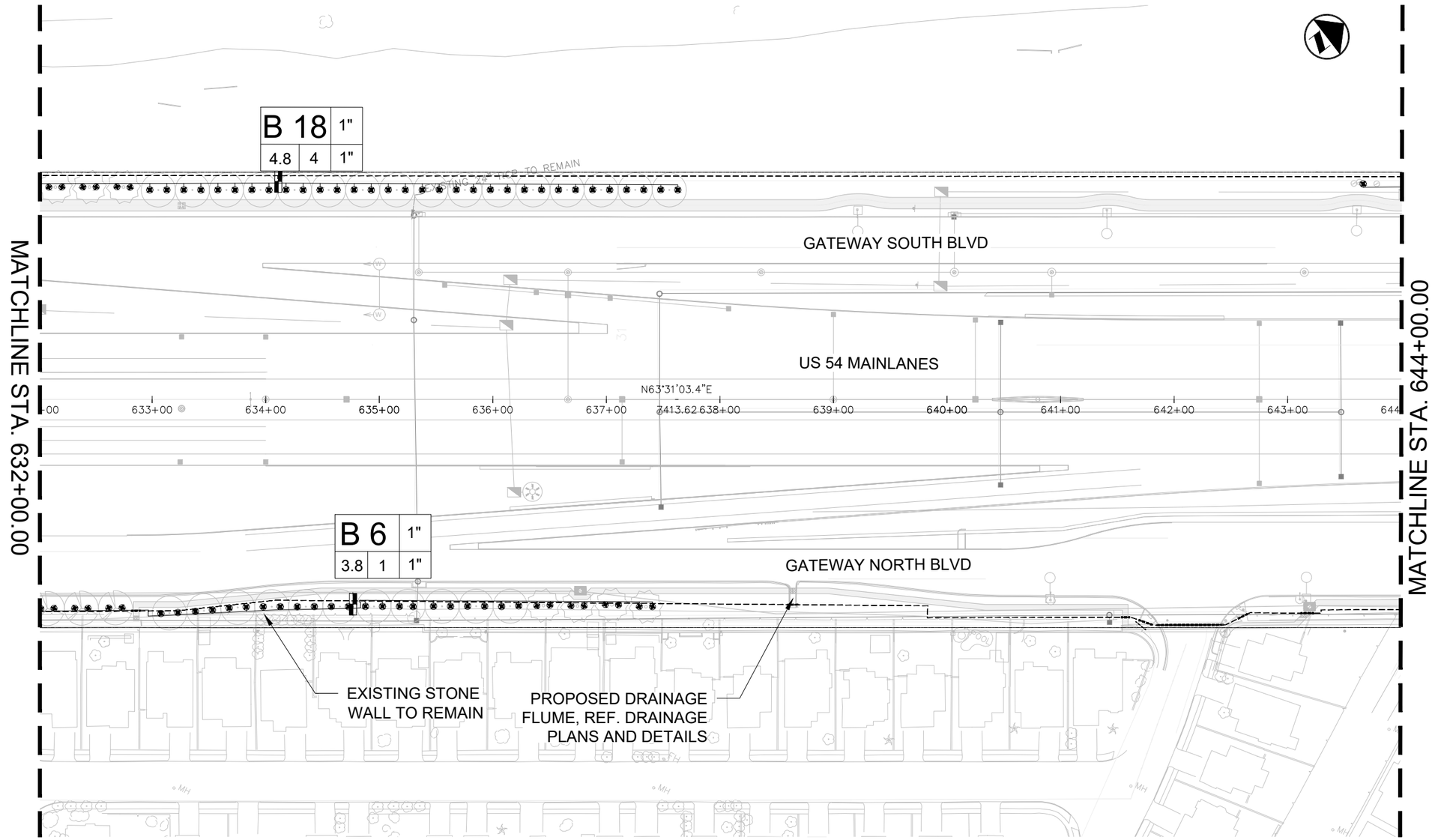
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 620+00 TO STA 632+00

SHEET 4 OF 21

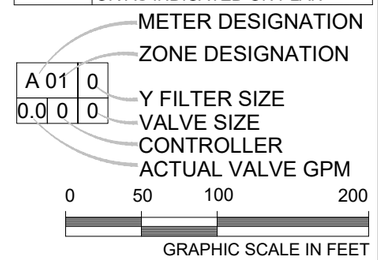
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		889

DATE: $DATE$
FILE: $FILE$
$TIME$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN



DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

NOTES:

1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7060	CONDT (PVC) (SCH 80) (3")	LF	2433
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	113
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	1208

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

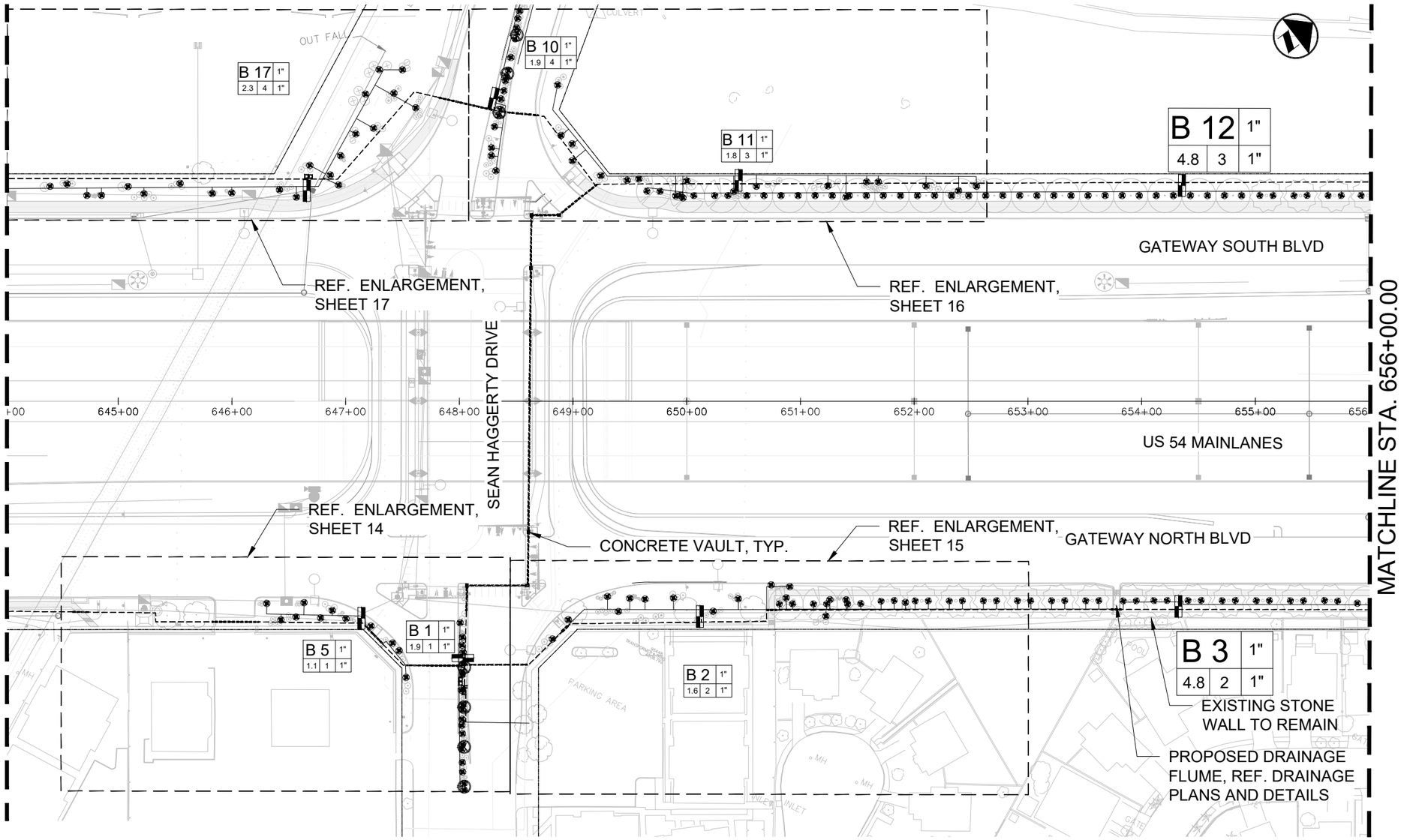
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 632+00 TO STA 644+00

SHEET 5 OF 21

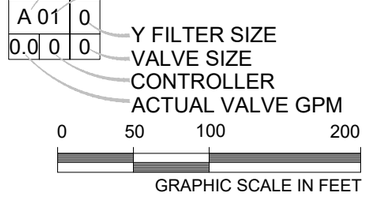
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		890

DATE: $DATE$
FILE: $FILE$
$TIME$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN



SHEET QUANTITIES				
ITEM	**CODE**	**DESCRIPTION**	**UNIT**	**QTY**
618	7054	CONDT (PVC) (SCH 80) (2")	LF	349
618	7055	CONDT (PVC) (SCH 80) (2") (BORE)	LF	75
618	7060	CONDT (PVC) (SCH 80) (3")	LF	2758
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	656
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	3477

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

NOTES:
1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

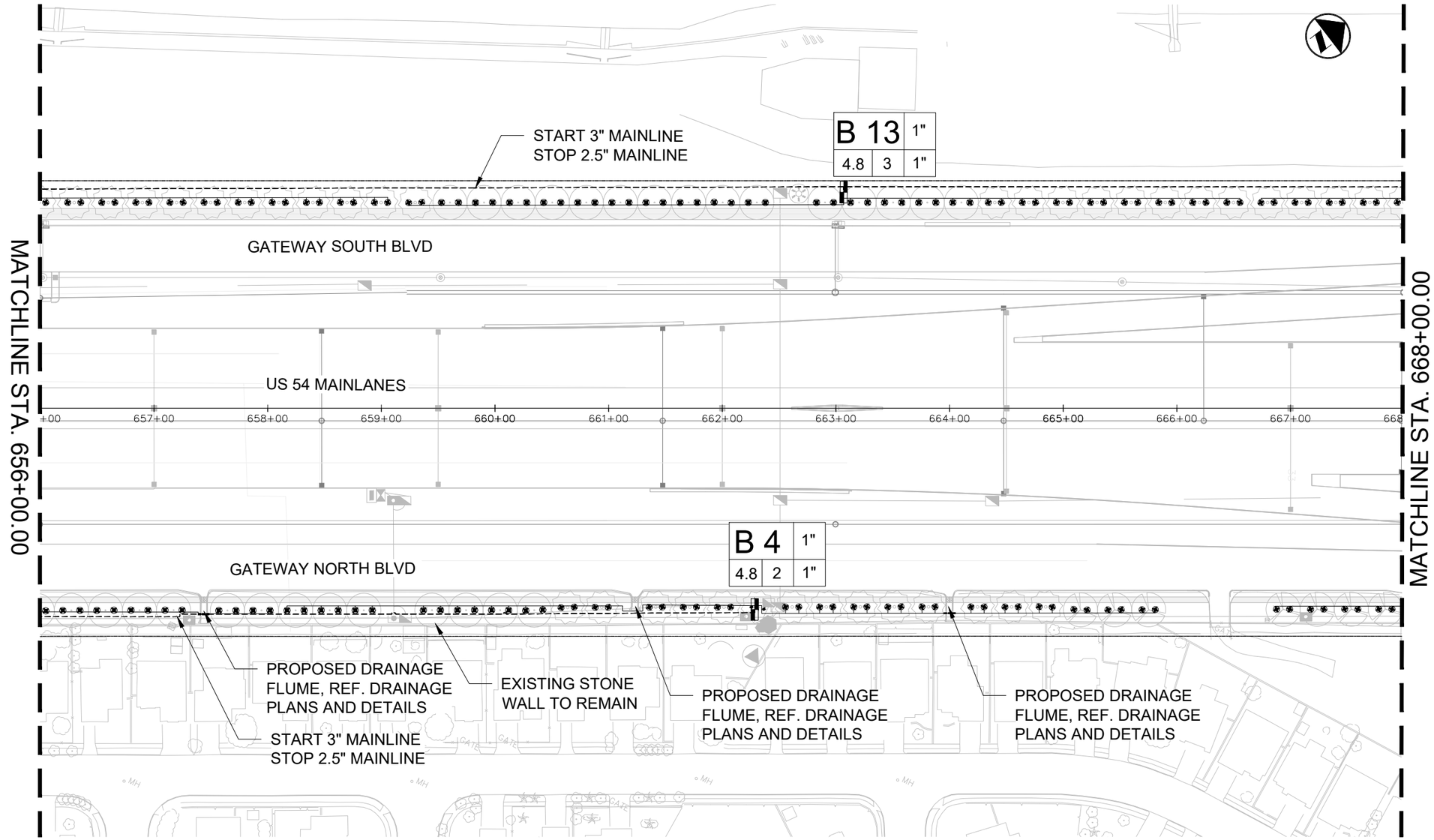
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 644+00 TO STA 656+00

SHEET 6 OF 21

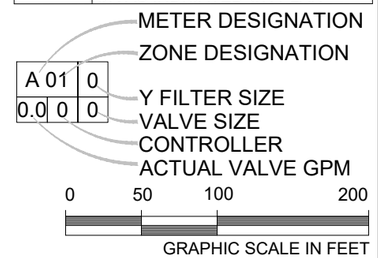
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		891

DATE: $DATE$ $TIME$
FILE: $FILE$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN



DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

NOTES:
1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7060	CONDT (PVC) (SCH 80) (3")	LF	1834
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	10
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	2384

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

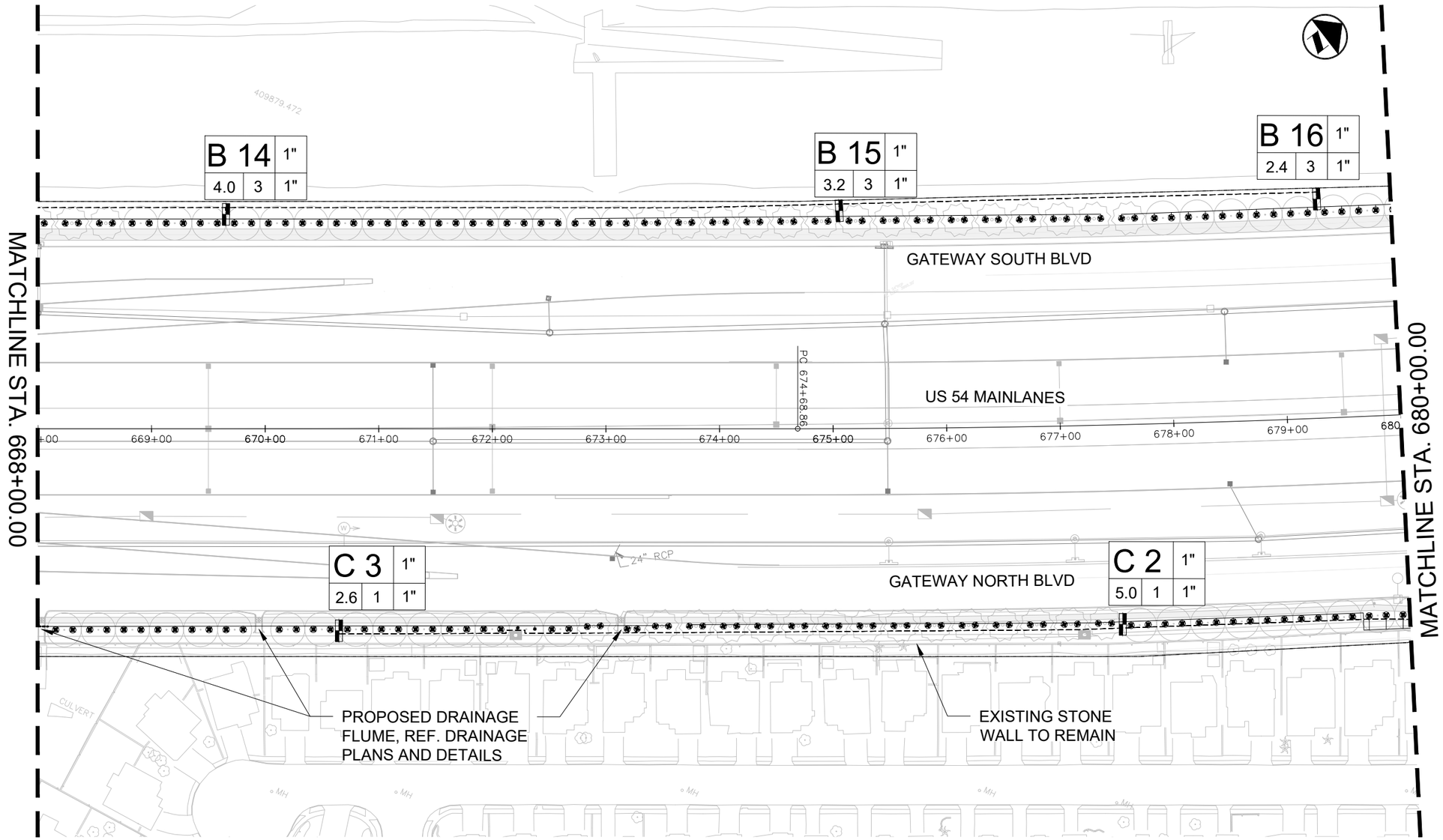
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 656+00 TO STA 668+00

SHEET 7 OF 21

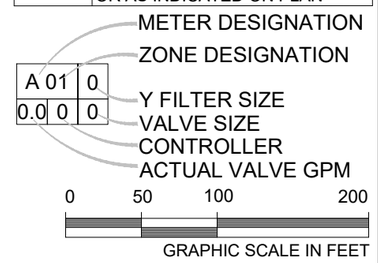
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		892

DATE: $DATE$ $TIME$
FILE: $FILE$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN



DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

NOTES:
1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7060	CONDT (PVC) (SCH 80) (3")	LF	2080
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	2624

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

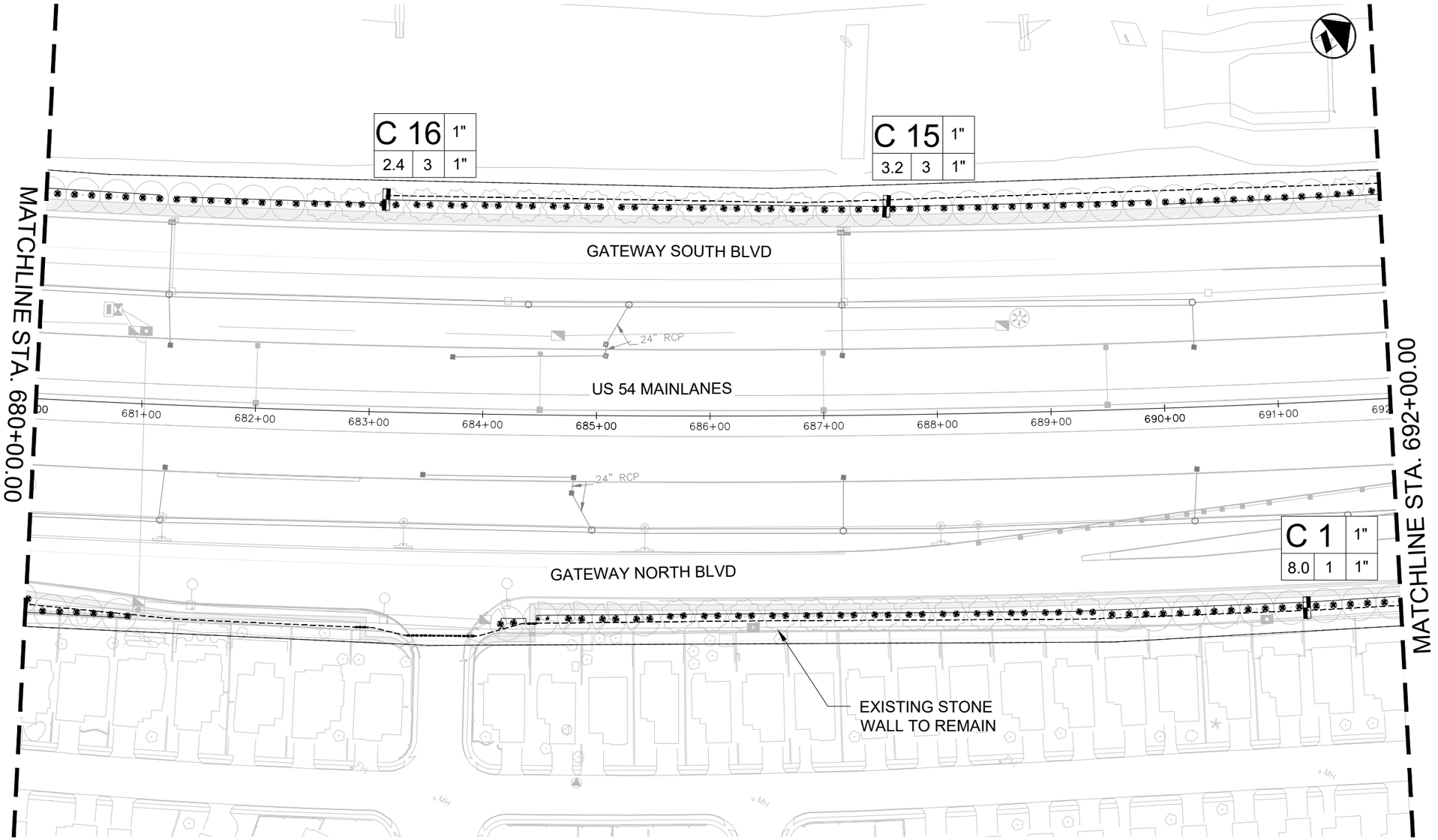
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 668+00 TO STA 680+00

SHEET 8 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		893

DATE: $DATE$
FILE: $FILE$
$TIME$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
____	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

A 01	0	METER DESIGNATION
0.0	0	ZONE DESIGNATION
		Y FILTER SIZE
		VALVE SIZE
		CONTROLLER
		ACTUAL VALVE GPM

0 50 100 200

GRAPHIC SCALE IN FEET

NOTES:

1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7060	CONDT (PVC) (SCH 80) (3")	LF	2103
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	81
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	2072

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

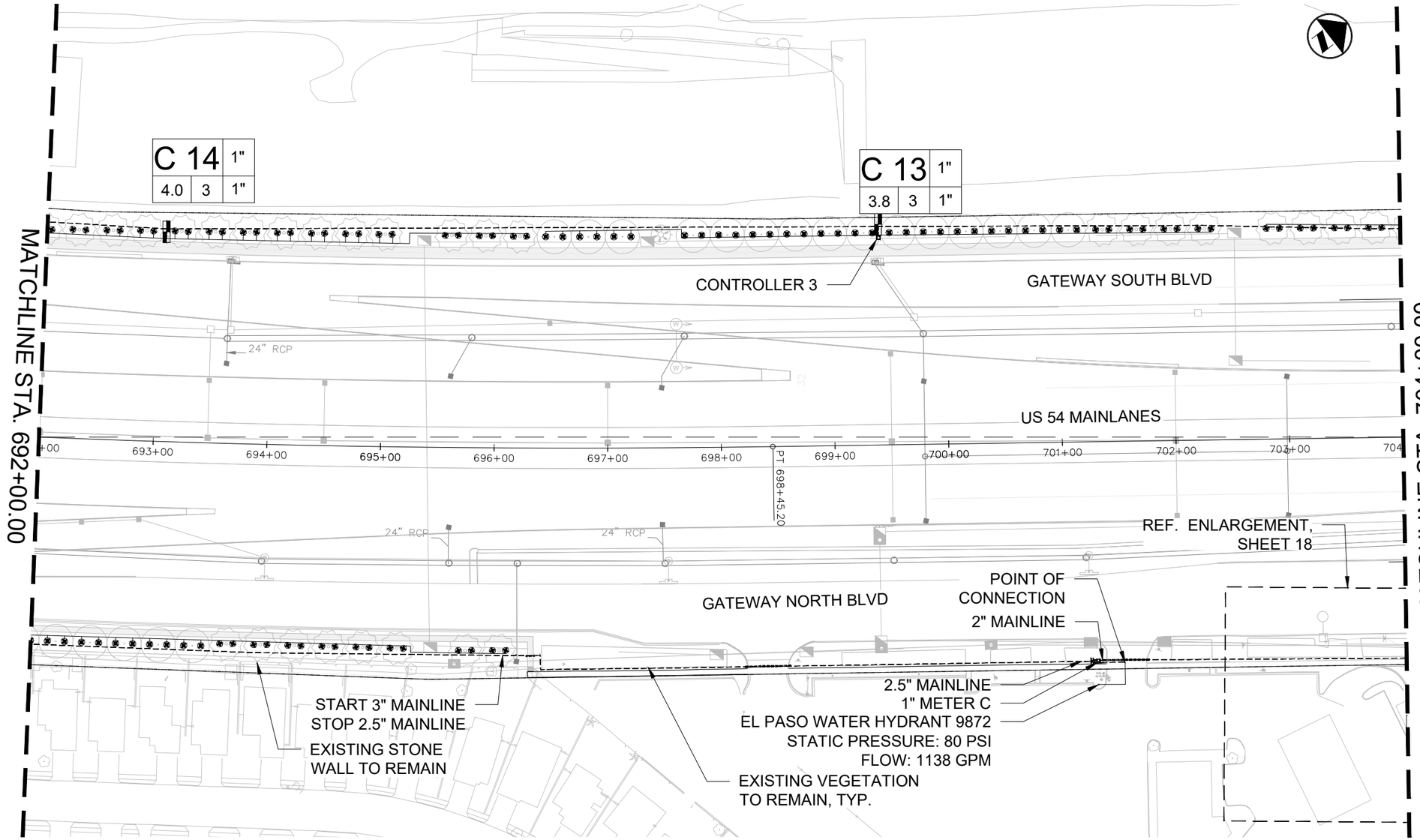
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 680+00 TO STA 692+00

SHEET 9 OF 21

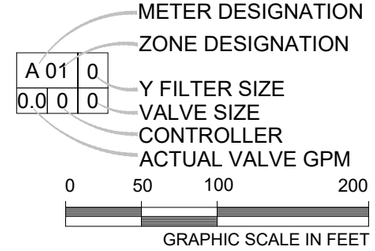
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		894

DATE: $DATE$
FILE: $FILE$
$TIME$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN



DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7054	CONDT (PVC) (SCH 80) (2")	LF	290
618	7055	CONDT (PVC) (SCH 80) (2") (BORE)	LF	41
618	7060	CONDT (PVC) (SCH 80) (3")	LF	2143
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	40
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	1896

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

NOTES:
1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

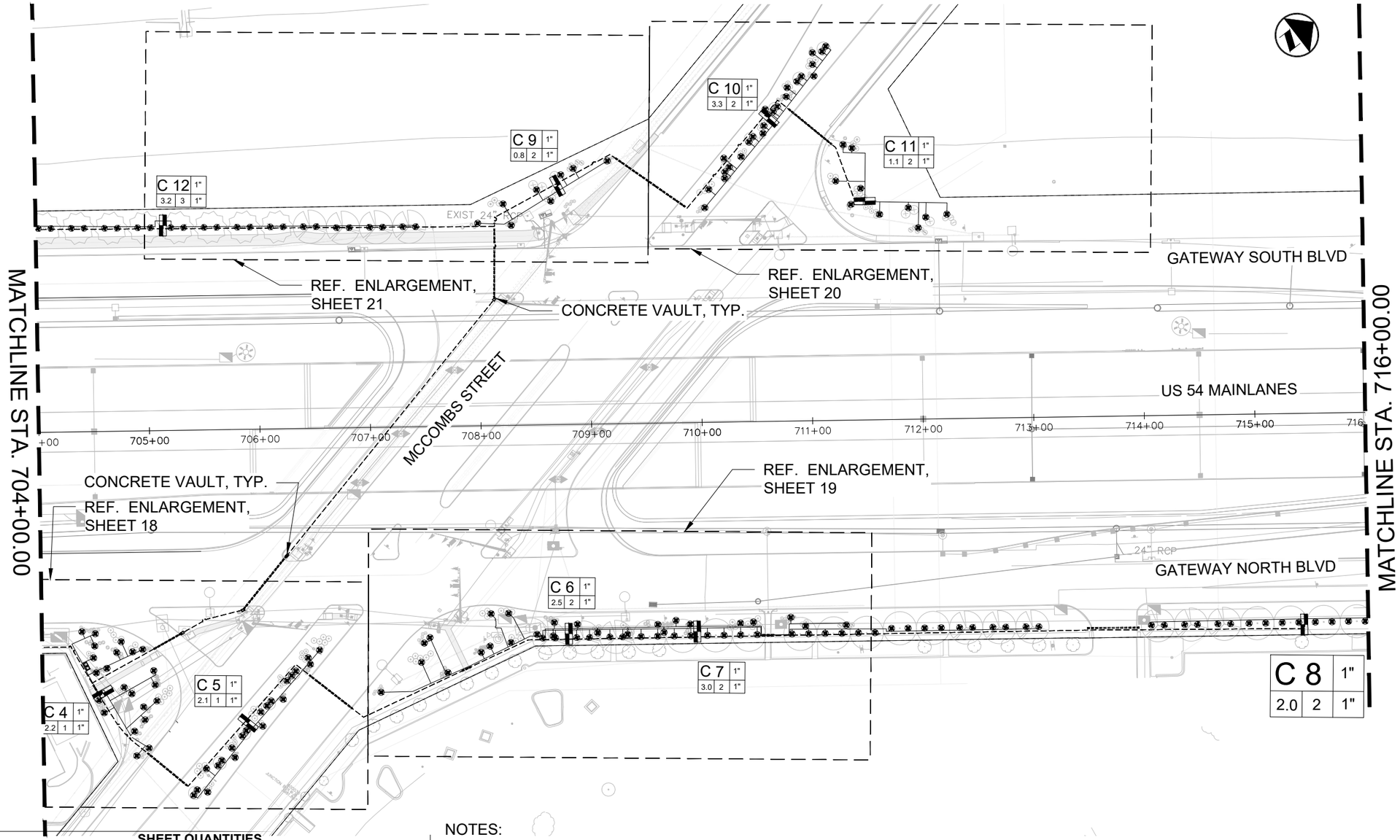
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 692+00 TO STA 704+00

SHEET 10 OF 21

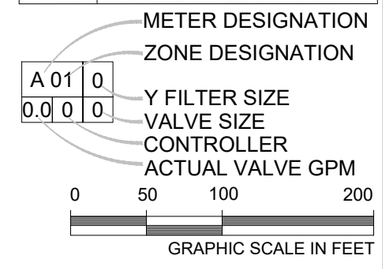
CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		895

DK
DW
CK
DN
$TIME$
$DATE$
$FILE$
DATE:
FILE:



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN



DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7054	CONDT (PVC) (SCH 80) (2")	LF	340
618	7055	CONDT (PVC) (SCH 80) (2") (BORE)	LF	55
618	7060	CONDT (PVC) (SCH 80) (3")	LF	2418
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	393
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	3113

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

NOTES:
1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

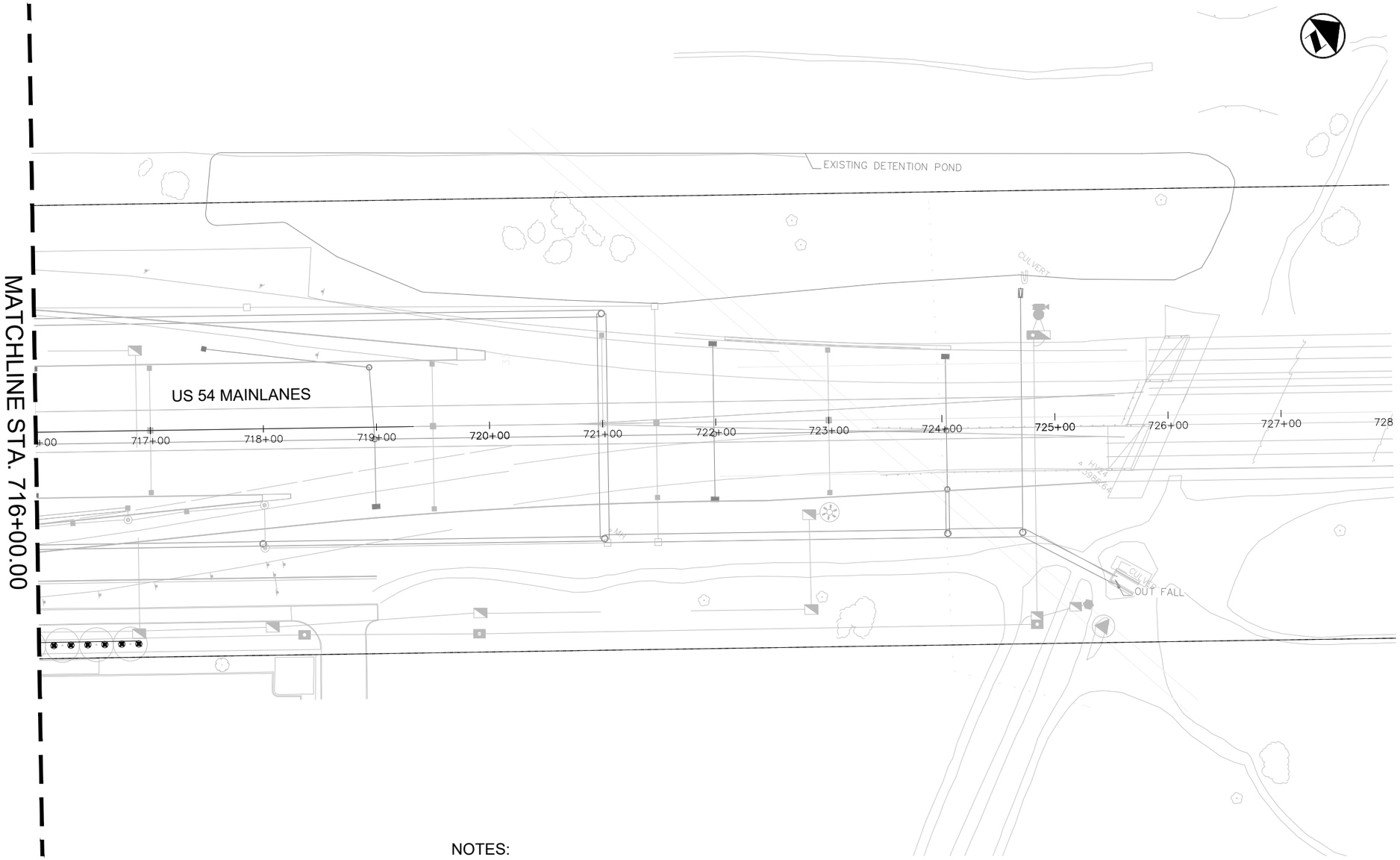
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 704+00 TO STA 716+00

SHEET 11 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		896

DATE: $DATE$
FILE: $FILE$
$TIME$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

A 01	0
0.0	0	0

METER DESIGNATION
ZONE DESIGNATION
Y FILTER SIZE
VALVE SIZE
CONTROLLER
ACTUAL VALVE GPM

0 50 100 200

GRAPHIC SCALE IN FEET

NOTES:

1. REFERENCE IRRIGATION DETAIL SHEETS FOR IRRIGATION NOTES AND DETAILS.
2. REFERENCE ENLARGEMENTS FOR SHRUB ZONE LAYOUTS.
3. EXISTING VEGETATION LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. EXISTING VEGETATION SHALL NOT BE DISTURBED.
4. SHRUBS OF 3 GAL SIZE SHALL HAVE ONE (1) 1GPH EMITTER. SHRUBS OF 5 GAL SIZE. SHALL HAVE THREE (3) 1GPH EMITTERS. REFER TO THE PLANTING SCHEDULE FOR MIN. O.C.
5. ALL NEW TREES SHALL HAVE TWO (2) 6 OUTLET MANIFOLDS EACH. EACH 6 OUTLET MANIFOLD SHALL HAVE TWO (2) 2GPH EMITTERS.

SHEET QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
SUBSIDIARY		CLASS 200 PVC, 3/4"	LF	90

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

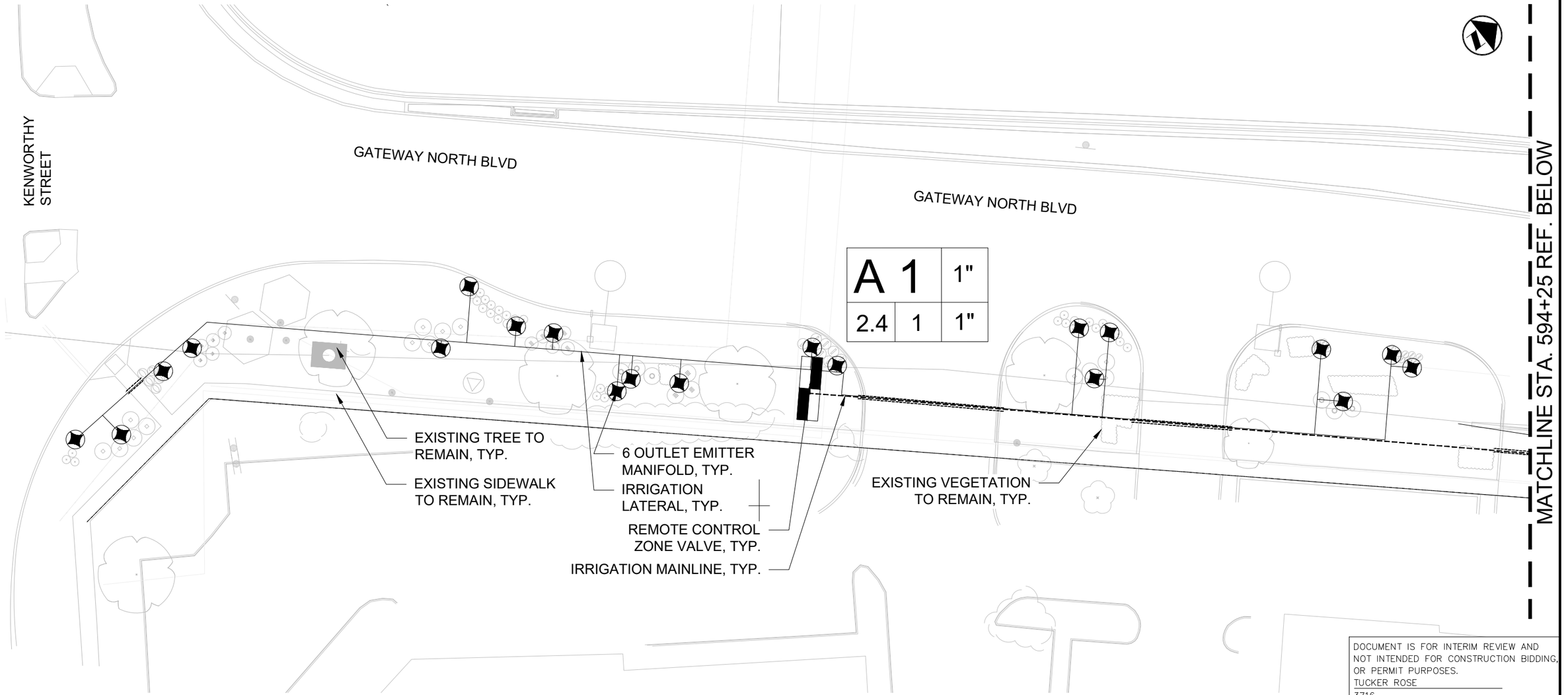
IRRIGATION LAYOUT
STA 716+00 TO END

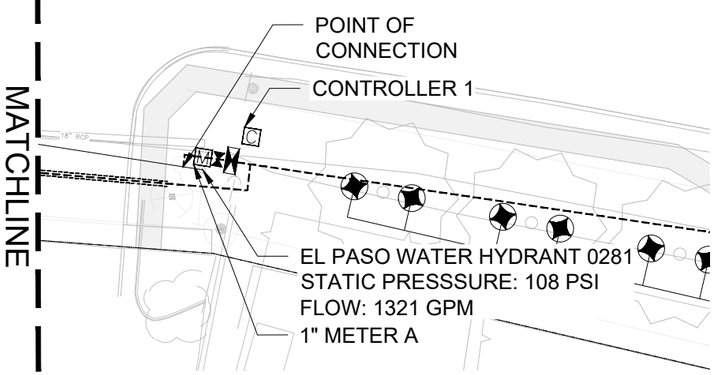
SHEET 12 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		897

DK
DW
CK
DN

$TIME$
$DATE$
$FILE$
DATE:
FILE:





IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.

	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
-------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

0 15 30 60

GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE

3716
LICENSE NO.

12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

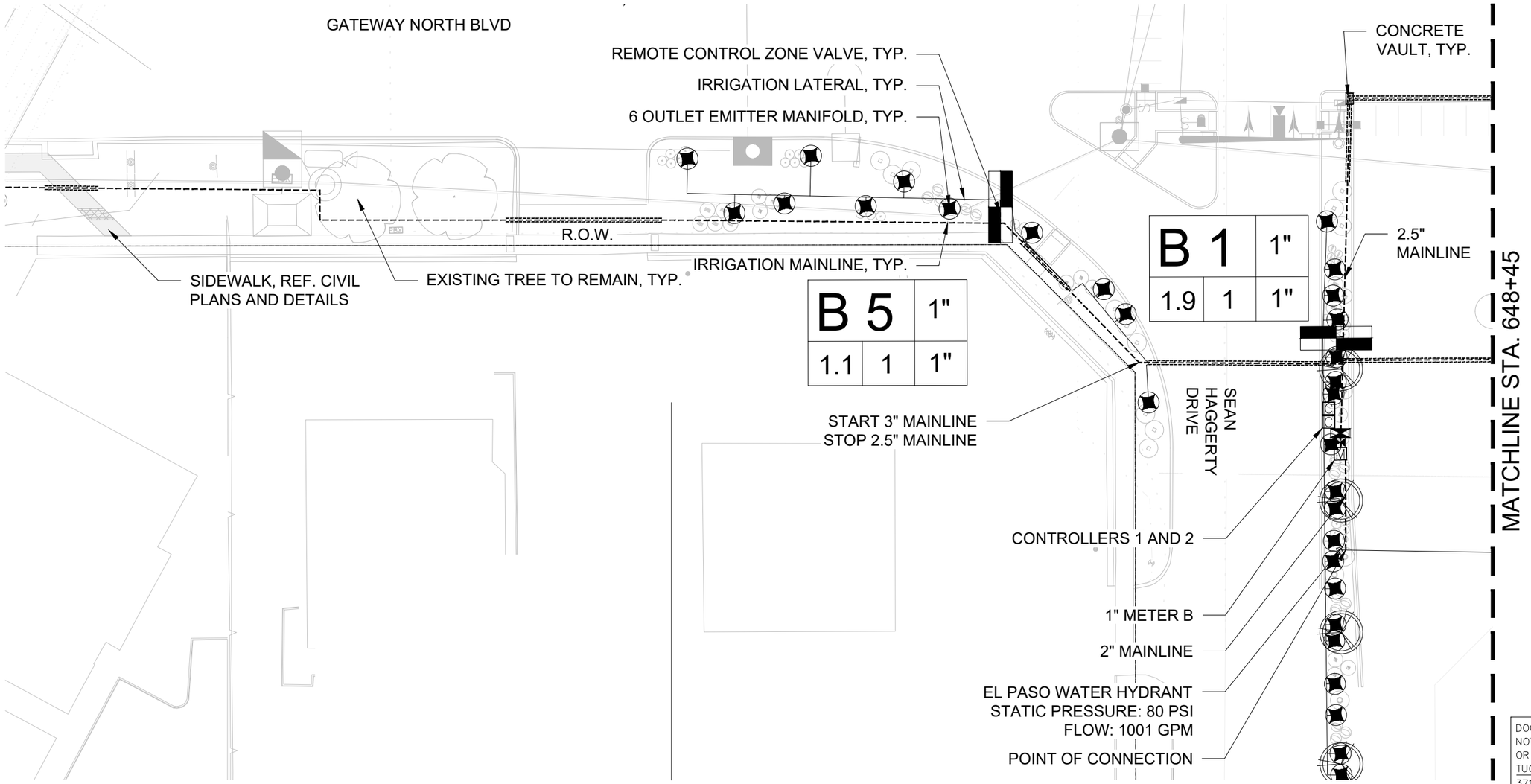
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 589+69 TO STA 594+25

SHEET 13 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		898

DATE: $DATE$ $TIME$
FILE: $FILE$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
-------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

0 15 30 60

GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

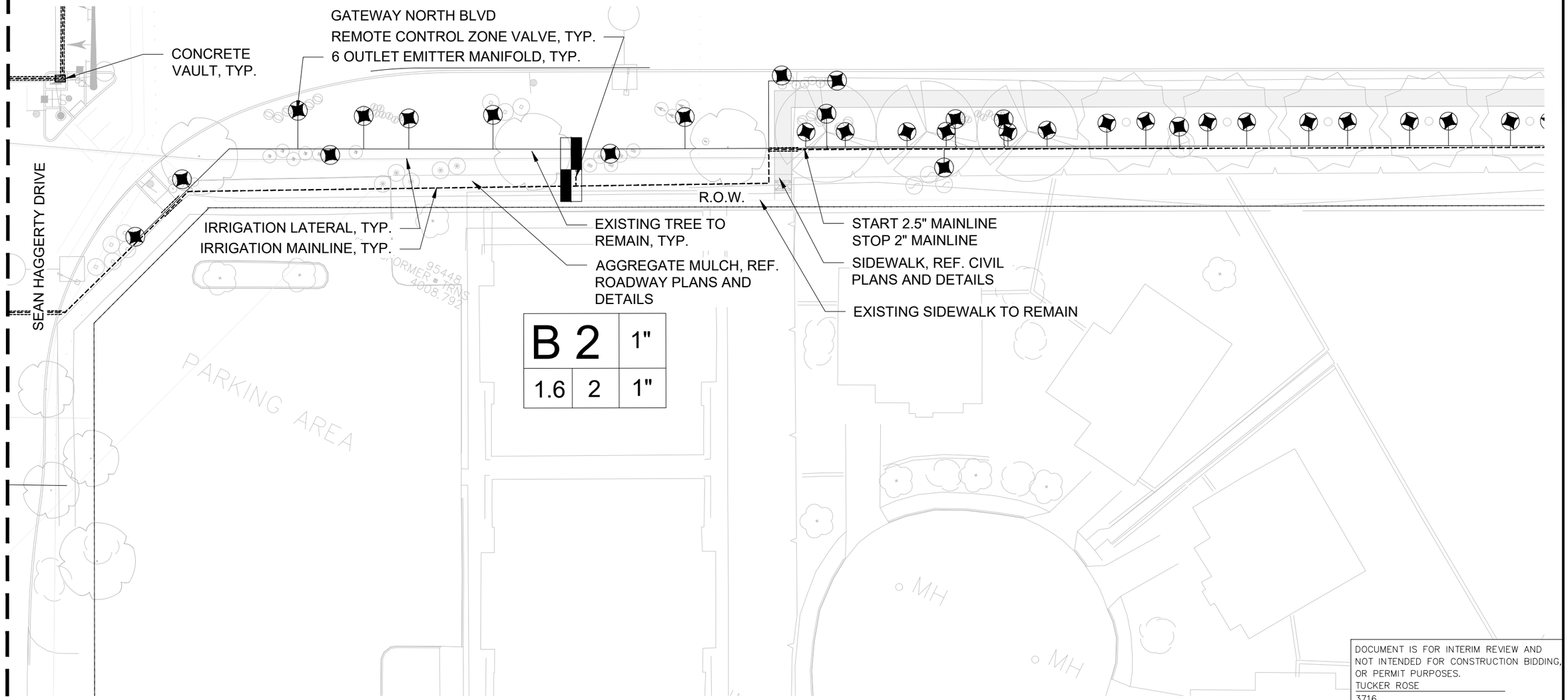
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 644+50 TO STA 648+45

SHEET 14 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		899

DATE: $DATE$ $TIME$
FILE: $FILE$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.

	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
———	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
-------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

0 15 30 60

GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

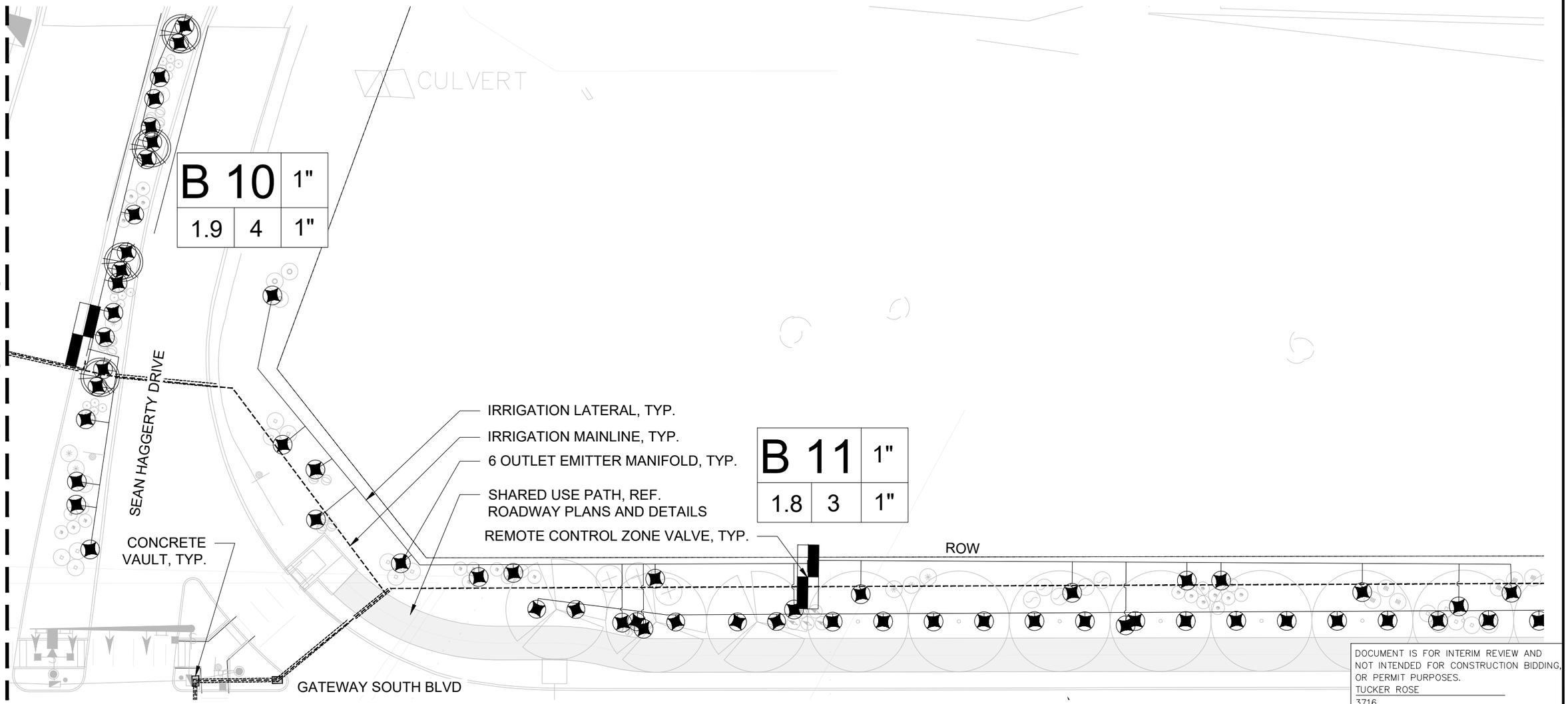
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 648+45 TO STA 653+00

SHEET 15 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		900

DATE: $DATE$ $TIME$
FILE: $FILE$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.
	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
-------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

0 15 30 60

GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

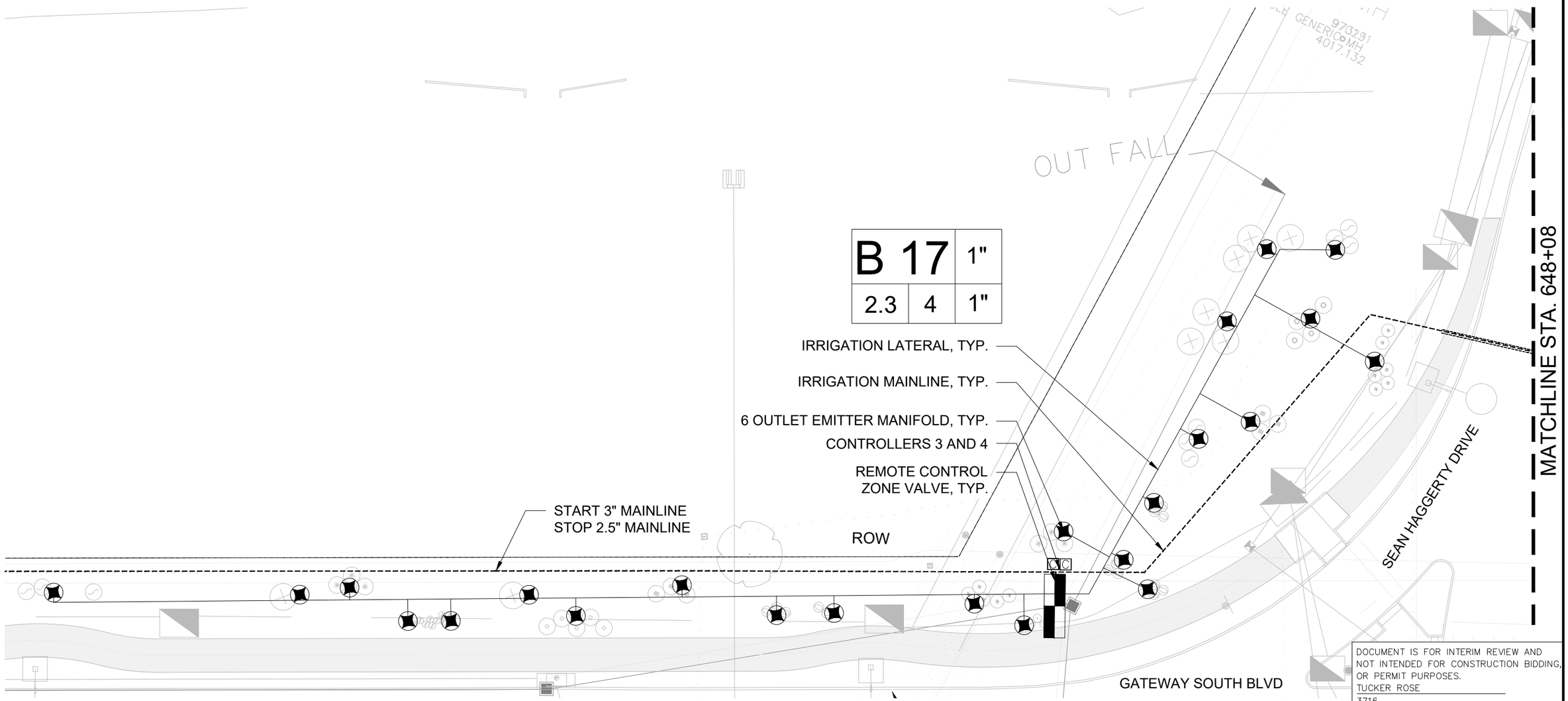
IRRIGATION LAYOUT
STA 648+08 TO STA 652+64

SHEET 16 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		901

DATE: $DATE$ $TIME$
FILE: $FILE$

B 17		1"
2.3	4	1"



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.

	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
-------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

0 15 30 60

GRAPHIC SCALE IN FEET

TUCKER ROSE

3716
LICENSE NO.

12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 643+53 TO STA 648+08

SHEET 17 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		902

DATE: $DATE$ $TIME$
FILE: $FILE$

DK
DW
CK
DN

US 54 GATEWAY NORTH BLVD

EXISTING VEGETATION TO REMAIN, TYP.

CONCRETE VAULT, TYP.

START 2.5" MAINLINE
STOP 2" MAINLINE

ROW
EXISTING SIDEWALK TO REMAIN, TYP.
CONTROLLERS 1 AND 2
EXISTING VEGETATION TO REMAIN, TYP.
START 2.5" MAINLINE
STOP 2" MAINLINE
REMOTE CONTROL ZONE VALVE, TYP.

C 4		1"
2.2	1	1"

C 5		1"
2.1	1	1"

IRRIGATION LATERAL, TYP.
6 OUTLET EMITTER MANIFOLD, TYP.
IRRIGATION MAINLINE, TYP.

MATCHLINE STA. 706+98

JUNCTION

IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.

	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
———	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
-------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

0 15 30 60
GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

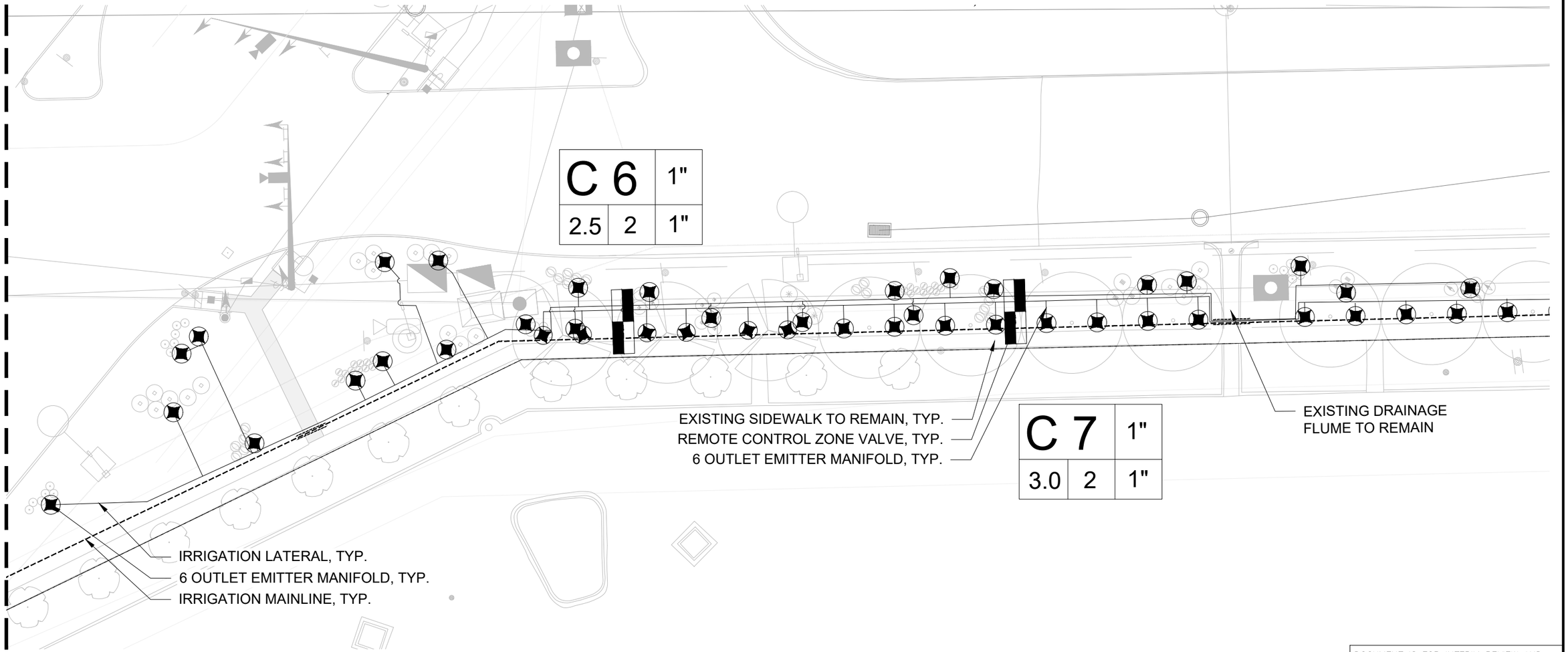
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 702+37 TO STA 706+98

SHEET 18 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		903

DATE: $DATE$ $TIME$
FILE: $FILE$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.

	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

0 15 30 60

GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

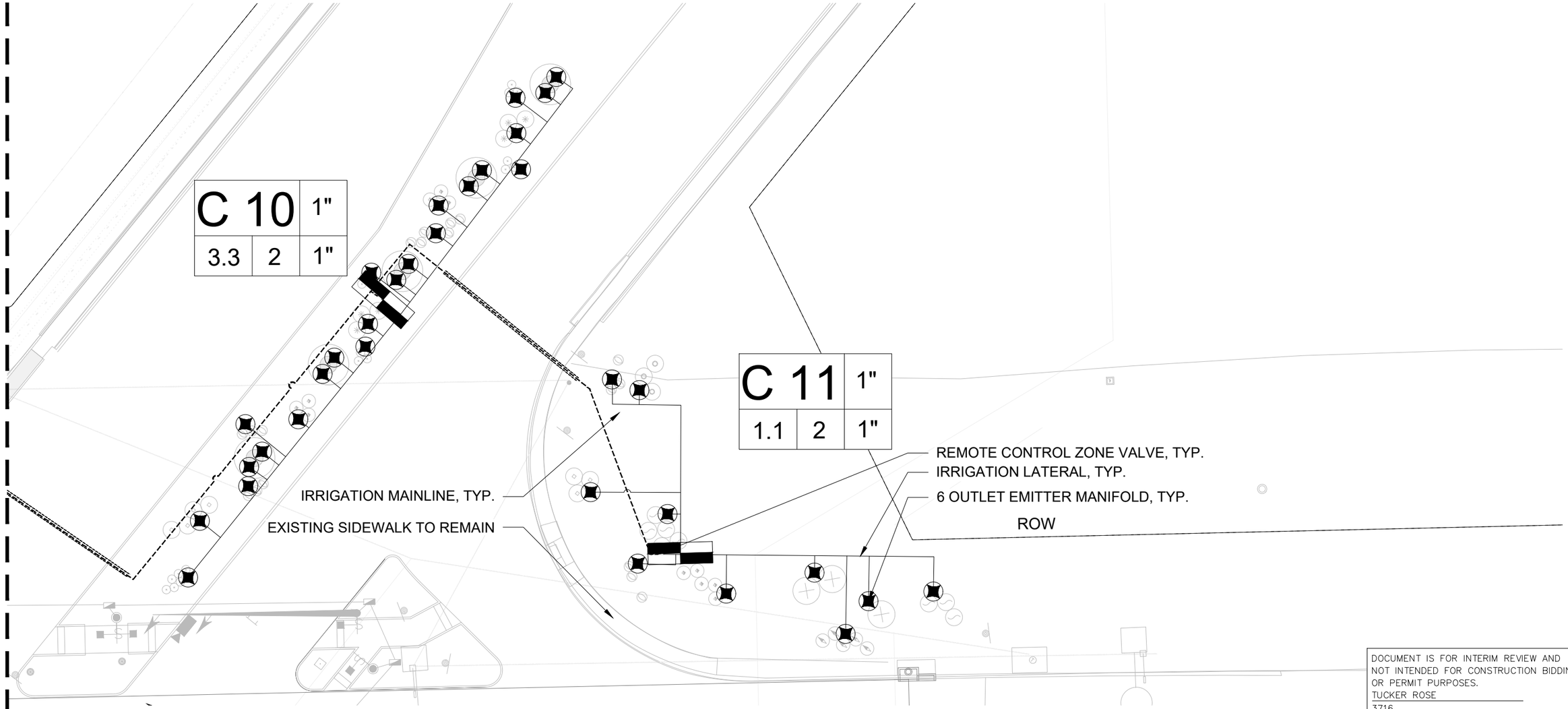
US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 706+98 TO STA 711+54

SHEET 19 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		904

DATE: $DATE$ $TIME$
FILE: $FILE$



IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.

	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
____	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
-------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

0 15 30 60

GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 709+50 TO STA 714+05

SHEET 20 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		905

DATE: $DATE$ $TIME$
FILE: $FILE$

C 12		1"
3.2	3	1"

ROW

C 9		1"
0.8	2	1"

REMOTE CONTROL ZONE VALVE, TYP.
6 OUTLET EMITTER MANIFOLD, TYP.
IRRIGATION LATERAL, TYP.
IRRIGATION MAINLINE, TYP.
SHARED USE PATH, REF. ROADWAY PLANS AND DETAILS
4" RCP
START 3" MAINLINE
STOP 2.5" MAINLINE

MATCHLINE STA. 709+50

IRRIGATION LEGEND

SYM.	COMPONENT
M	1" WATER METER, PER CITY CODES AND REGULATIONS
	ISOLATION VALVE
	1" REDUCED PRESSURE BACKFLOW PREVENTER ABOVE GROUND IN INSULATED ABOVE GROUND BOX
	CONTROL ZONE KIT - REMOTE CONTROL VALVE, Y FILTER, AND ISOLATION VALVE
C	BATTERY POWERED CONTROL MODULE IN VALVE BOX, ONE PER METER. ONE FIELD TRANSMITTER PER METER.

	6 OUTLET MANIFOLD ON A PRESSURE REGULATOR W/ EMITTER (1 OR 2GPH) FOR SHRUBS AND TREES, 1/4" TUBING AND STAKE
	CONCRETE VAULT, 24"X36"
----	MAIN LINE PVC SCH 80, 2 1/2" OR AS INDICATED ON PLAN
——	LATERAL PVC CLASS 200, 3/4" OR AS INDICATED ON PLAN
-------	PROPOSED BORE LOCATION WITH SLEEVE, PVC SCH 40, 2" FOR LATERAL, 3" FOR MAIN LINE, OR AS INDICATED ON PLAN

0 15 30 60
GRAPHIC SCALE IN FEET

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB
HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

IRRIGATION LAYOUT
STA 704+94 TO STA 709+50

SHEET 21 OF 21

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		906

DATE: $DATE$ $TIME$
FILE: $FILE$

CK
DW
CK
DN

GENERAL IRRIGATION NOTES

IRRIGATION SYSTEM(S) GENERAL DESIGN INTENT

1. SYSTEM(S) SHALL BE COMPRISED OF PRESSURE COMPENSATING DRIP EMITTERS TO AUTOMATICALLY IRRIGATE DISPERSED PLANTING. SYSTEM(S) UTILIZE BATTERY POWERED IRRIGATION CONTROLLERS AS SHOWN IN THE DRAWINGS. SYSTEM(S) OBTAIN WATER FROM THE CITY POTABLE WATER SUPPLY USING WATER METERS APPROVED BY THE CITY AT VARIOUS LOCATIONS REQUIRED FOR THE IRRIGATION SYSTEM(S) PLANNED FOR THE PROJECT.

2. SEPARATE REMOTE CONTROLLED ZONES ARE PROVIDED FOR SHRUBS AND TREES TO ALLOW SPECIFIC SCHEDULING NEEDS UNLESS OTHERWISE INDICATED ON PLANS. IRRIGATION MAIN LINE PIPING HAS CONTINUOUS WATER PRESSURE. LATERAL PIPING HAS PRESSURE WHEN REMOTE CONTROL VALVE (RCV) OPENS AND CLOSES BASED ON CONTROLLER SIGNAL.

3. EMITTERS SHALL BE CONNECTED USING 1/4" FLEX TUBING TO MULTI-OUTLET DEVICE INSTALLED IN VALVE BOX AS SHOWN IN THE DRAWINGS. 1/4" FLEX TUBE SHALL BE INSTALLED BENEATH AGGREGATE SURFACE UNTIL IN CLOSE PROXIMITY TO STAKE/EMITTER LOCATION. AN IN-LINE PRESSURE REGULATOR SHALL BE INSTALLED AT THE BASE OF EACH MULTI-OUTLET DEVICE. MULTI-OUTLET DEVICES SHALL BE CONNECTED TO PVC LATERAL PIPING (1" MIN.). THE EMITTERS SHALL INDEPENDENTLY REGULATE CONSTANT DISCHARGE RATES AND SHALL CONTINUOUSLY CLEAN THEMSELVES WHILE IN OPERATION.

4. NUMBER OF EMITTERS AND EMITTER FLOW RATES ARE SELECTED SPECIFIC TO THE PLANT SPECIES/SIZE AS SHOWN IN GREATER DETAIL ON THE DRAWINGS.

5. THE SYSTEM(S) AT TIME OF INSTALLATION SHALL BE FULLY FUNCTIONAL FOR THE NUMBER OF EMITTERS AND EMITTER FLOW RATES ACTUALLY INSTALLED AND AS INDICATED AT EACH RCV AS THE "ACTUAL FLOW" RATE.

6. THE DESIGN OF THE SYSTEM(S) HAS BEEN DESIGNED TO ALLOW A LIMITED INCREASE IN THE NUMBER OF EMITTERS AND/OR FLOW RATES OF EMITTERS IN THE FUTURE AS PLANT GROWTH OCCURS, NOT TO EXCEED THE "DESIGN FLOW" SHOWN ON THE DRAWINGS. ALL FUTURE MODIFICATIONS TO THE SYSTEM SHALL BE CAREFULLY REVIEWED AT THE TIME OF THE CHANGE, TAKING INTO CONSIDERATION THE AS-BUILT SYSTEM AND EQUIPMENT OPERATING REQUIREMENTS.

IRRIGATION SYSTEM(S) GENERAL EQUIPMENT NOTES

1. EQUIPMENT OF A PARTICULAR MODEL AND/OR MANUFACTURER ARE INDICATED THROUGHOUT THE PLANS AND NOTES. CONTRACTOR MAY REQUEST SUBSTITUTIONS WITH OTHER EQUIPMENT AND BY OTHER MANUFACTURERS FOR APPROVAL. SUBSTITUTION REQUESTS SHALL INCLUDE SUPPORTING DATA DEMONSTRATING EQUIVALENT OR BETTER PERFORMANCE. CONTRACTOR SHALL PROVIDE STATEMENT IN WRITING FROM LICENSED IRRIGATOR THAT THE SUBSTITUTION DOES NOT REQUIRE CHANGES TO THE DESIGN PLANS, OR WHEN CHANGES ARE REQUIRED SHALL FURNISH SIGNED AND SEALED PLAN REVISIONS AS PART OF THE APPROVAL PROCESS.

2. PVC IRRIGATION PIPING SHALL BE SCHEDULE 80 PVC, WITH SOLVENT WELD JOINTS AND SHALL CONFORM TO ASTM D-1785. UTILIZE PURPLE COLORED PRIMER AND SOLVENT CEMENT IN STRICT ACCORDANCE WITH PRODUCT DIRECTIONS AND OF THE TYPE RECOMMENDED BY THE PIPE MANUFACTURER.

3. PVC FITTINGS FOR SOLVENT WELD PIPE SHALL BE SCHEDULE 80 PVC, STANDARD WEIGHT, AS MANUFACTURED BY LASCO, SPEARS OR APPROVED EQUAL TO MEET ASTM D-2467-73. THREADED PVC NIPPLES SHALL BE SCHEDULE 80 PVC.

4. ENCASEMENT PIPE FOR IRRIGATION SLEEVING SHALL BE SCHEDULE 40 PVC OF THE SIZES INDICATED ON THE PLANS.

5. IRRIGATION VALVE BOXES SHALL BE MACLEAN HIGHLINE ACCESS BOXES OR APPROVED EQUAL OF THE SIZES SHOWN ON THE PLANS AND AS REQUIRED FOR THE EQUIPMENT TO BE ACCOMMODATED. CONTRACTOR IS RESPONSIBLE FOR PREPARING MOCK-UP OF EACH VALVE TYPE WITH VALVE BOX FOR APPROVAL BY OWNER PRIOR TO ORDERING EQUIPMENT.
   - 5.1. VALVE BOXES SHALL BE BLACK WITH BROWN MULCH COLORED LIDS MARKED "CONTROL VALVE"
   - 5.2. ROUND VALVE BOXES SHALL BE 10" DIAMETER WITH 1/4 TURN LOCKING LID (T-TOP). STANDARD DEPTH IS 12" WITH 3" TOP EXTENSION, WHEN REQUIRED. ALL DIMENSIONS ARE APPROXIMATE, SEE MANUFACTURER LITERATURE.
   - 5.3. RECTANGULAR VALVE BOXES SHALL HAVE DROP-IN LIDS WITH SNAP LOCKS.
   - 5.4. STANDARD TURF BOXES ARE 16"X10"X12" DEEP WITH 3" AND 6" TOP EXTENSIONS. ALL DIMENSIONS ARE APPROXIMATE, SEE MANUFACTURER LITERATURE.
   - 5.5. JUMBO BOXES ARE 20"X14"X 12" DEEP WITH 6" TOP EXTENSION. ALL DIMENSIONS ARE APPROXIMATE, SEE MANUFACTURER LITERATURE.
   - 5.6. LUB BOXES ARE 27"X14"X15" DEEP. ALL DIMENSIONS ARE APPROXIMATE, SEE MANUFACTURER LITERATURE.
   - 5.7. XLUB BOXES ARE 30"X17"X15" OR 18" DEEP WITH 8" TOP EXTENSION.ALL DIMENSIONS ARE APPROXIMATE, SEE MANUFACTURER LITERATURE.

6. THE METAL COMPONENTS OF BRONZE VALVES MUST NOT CONTAIN MORE THAN 15% ZINC IN THEIR CHEMICAL MAKEUP. ALL BRONZE VALVES SHALL BE LEAD FREE.

1. IRRIGATION SYSTEMS TO BE CONSTRUCTED IN ACCORDANCE WITH TXDOT ITEM 170, "IRRIGATION SYSTEM" AND AS INDICATED ON THE DRAWINGS. IRRIGATION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE IRRIGATION EQUIPMENT MANUFACTURER, THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, THE EL PASO PLUMBING CODE, AS MAY BE AMENDED, AND ALL APPLICABLE REGULATIONS AND LAWS.
2. ALL ENCASEMENT PIPE WILL BE INSTALLED PRIOR TO PAVING AND PAID FOR DIRECTLY AS TXDOT ITEM 618. IF BORING IS REQUIRED, IT WILL BE CONSTRUCTED IN ACCORDANCE WITH AND PAID FOR DIRECTLY AS TXDOT ITEM 618.
3. REFER TO THE GENERAL NOTES FOR PROCEDURES OF INSTALLATION OF ALL WATER SERVICES INCLUDING METERS, FEES AND OTHER CHARGES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED, AND FOR THE PAYMENT OF ALL FEES NECESSARY FOR THE INSTALLATION AND OPERATION OF THE IRRIGATION SYSTEM.
5. EITHER A LICENSED IRRIGATOR OR A LICENSED IRRIGATION TECHNICIAN SHALL BE ON-SITE AT ALL TIMES WHILE THE LANDSCAPE IRRIGATION SYSTEM IS BEING INSTALLED. WHEN AN IRRIGATOR IS NOT ONSITE, THE IRRIGATOR SHALL BE RESPONSIBLE FOR ENSURING THAT A LICENSED IRRIGATION TECHNICIAN IS ON-SITE TO SUPERVISE THE INSTALLATION OF THE IRRIGATION SYSTEM.
6. PIPE, SLEEVES, AND COMPONENT LOCATIONS SHOWN ARE DIAGRAMMATIC. MINOR ADJUSTMENTS MAY BE REQUIRED FOR SITE LAYOUT IN ORDER TO AVOID UTILITY CONFLICTS AND PRESERVE EXISTING PLANT MATERIALS/LANDSCAPE FEATURES.
7. INDIVIDUAL EMITTERS AND 1/4" DISTRIBUTION TUBING RUNS ARE NOT SHOWN BUT SHALL BE FIELD LOCATED BASED ON ACTUAL PLANT LOCATIONS.
8. THE DRAWINGS ARE SCHEMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ACTUAL SITE CONDITIONS MAY REQUIRE ADJUSTMENTS TO THE PLANS. THE CONTRACTOR SHALL SUBMIT PROPOSED REVISIONS TO THE IRRIGATION PLANS FOR APPROVAL PRIOR TO PROCEEDING. MODIFICATIONS MADE TO THE IRRIGATION PLANS SHALL BE DOCUMENTED ON THE REQUIRED AS-BUILT DRAWINGS BY THE CONTRACTOR.
9. THE CONTRACTOR SHALL NOT INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DISCREPANCIES IN AREA DIMENSIONS EXIST. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT WHO WILL APPROVE NECESSARY CHANGES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY REVISIONS.
10. ALL ABOVE GROUND PIPE, INCLUDING BURIED RISERS AND SWING JOINT COMPONENTS, SHALL BE SCHEDULE 80 PVC PIPE RATED FOR DIRECT SUNLIGHT EXPOSURE.
11. SYSTEM CONTROLLERS SHALL BE RAIN BIRD ESP-9V6, 6-ZONE CONTROLLER, WITH CONTROL MODULE MOUNTED IN VALVE BOX. ALL COMPONENTS SHALL BE AS SPECIFIED OR APPROVED EQUAL.
12. ALL REMOTE CONTROL VALVES SHALL BE AS INDICATED IN PLANS AND DETAILS, OR APPROVED EQUAL IN THE SIZES INDICATED ON THE PLANS. THE CONTRACTOR SHALL FURNISH VALVE DATA TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING THE WORK.
13. ALL ISOLATION VALVES, CONTROL VALVES, AND QUICK COUPLING VALVES SHALL BE MOUNTED BELOW GRADE IN APPROVED VALVE BOXES INSTALLED WITH THE TOP 1/8" ABOVE FINISHED GRADE/TOP OF AGGREGATE. WHERE MORE THAN ONE VALVE OR FILTER IS TO OCCUPY THE SAME BOX, THE SIZE OF THE BOX SHALL BE INCREASED TO ALLOW EASY ACCESS TO VALVES AND OTHER EQUIPMENT TO ALLOW FOR EASY ACCESS FOR MAINTENANCE AS DIRECTED.
14. ALL CONNECTIONS TO A POTABLE WATER SUPPLY SHALL BE PROTECTED BY A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTER IN THE SIZES SHOWN ON THE PLANS. RPZ SHALL BE INSTALLED AT A MINIMUM OF 12 INCHES ABOVE GROUND IN A LOCATION THAT WILL ENSURE THAT THE ASSEMBLY WILL NOT BE SUBMERGED AND SO THAT DRAINAGE IS PROVIDED FOR ANY WATER THAT MAY BE DISCHARGED THROUGH THE ASSEMBLY RELIEF VALVE. BACKFLOW PREVENTION DEVICES USED IN APPLICATIONS DESIGNATED AS HEALTH HAZARDS MUST BE TESTED UPON INSTALLATION AND ANNUALLY THEREAFTER.
15. BACKFLOW PREVENTION IN ALL CASES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF EL PASO PLUMBING CODE AND MEET THE REQUIREMENTS AND SPECIFICATIONS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). THE BACKFLOW PREVENTION DEVICE MUST BE APPROVED BY THE AMERICAN SOCIETY OF SANITARY ENGINEERS; OR THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH, UNIVERSITY OF SOUTHERN CALIFORNIA. THE BACKFLOW PREVENTION DEVICE MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S CURRENT PUBLISHED RECOMMENDATIONS.
16. NO IRRIGATION DESIGN OR INSTALLATION SHALL REQUIRE THE USE OF ANY COMPONENT, INCLUDING THE WATER METER, IN A WAY WHICH EXCEEDS THE MANUFACTURER'S PUBLISHED PERFORMANCE LIMITATIONS FOR THE COMPONENT.
17. THE CONTRACTOR SHALL ENSURE THE BACKFLOW PREVENTION DEVICE IS TESTED BY A LICENSED BACKFLOW PREVENTION ASSEMBLY TESTER PRIOR TO BEING PLACED IN SERVICE AND THE TEST RESULTS PROVIDED TO THE LOCAL WATER PURVEYOR AND THE IRRIGATION SYSTEM'S OWNER OR OWNER'S REPRESENTATIVE WITHIN TEN BUSINESS DAYS OF TESTING OF THE BACKFLOW PREVENTION DEVICE.
18. WATER METERS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF EL PASO AND TCEQ.
19. THE CONTRACTOR SHALL ENSURE THAT THE IRRIGATION SYSTEM PROVIDES DEEP PERIODIC WATERING. CONTRACTOR SHALL SCHEDULE WATERING AS REQUIRED FOR PLANTS TO THRIVE AND SHALL INPUT WATERING SCHEDULE SET UP AND COORDINATE CHANGES WITH OWNER.
20. A PAPER COPY OF THE IRRIGATION PLAN MUST BE ON THE JOB SITE AT ALL TIMES DURING THE INSTALLATION OF THE IRRIGATION SYSTEM. THE CONTRACTOR SHALL FURNISH THE OWNER A SET OF 11"X17" AS-BUILT DRAWINGS. DRAWINGS ARE TO BE PREPARED BY A QUALIFIED DRAFTSPERSON AND SHALL BE REPRODUCED LEGIBLY. THE DRAWINGS SHALL SHOW ALL SYSTEM CHANGES AND REROUTING OF ANY MAIN AND/OR DISTRIBUTION/LATERAL LINES. THE LANDSCAPE ARCHITECT WILL CHECK AND ENSURE THE CORRECTNESS OF THESE DRAWINGS.
21. UPON COMPLETION OF THE IRRIGATION SYSTEM, THE IRRIGATOR OR IRRIGATION TECHNICIAN WHO PROVIDED SUPERVISION FOR THE ON-SITE INSTALLATION SHALL BE REQUIRED TO COMPLETE THE FOLLOWING:
    - 21.1. A FINAL "WALK THROUGH" WITH THE IRRIGATION SYSTEM'S OWNER OR THE OWNER'S REPRESENTATIVE TO EXPLAIN THE OPERATION OF THE SYSTEM;
    - 21.2. THE MAINTENANCE CHECKLIST ON WHICH THE IRRIGATOR SHALL OBTAIN THE SIGNATURE OF THE IRRIGATION SYSTEM'S OWNER OR OWNER'S REPRESENTATIVE AND SHALL SIGN, DATE, AND SEAL THE CHECKLIST. THE IRRIGATION SYSTEM OWNER OR OWNER'S REPRESENTATIVE WILL BE GIVEN THE ORIGINAL MAINTENANCE CHECKLIST AND A DUPLICATE COPY OF THE MAINTENANCE CHECKLIST SHALL BE MAINTAINED BY THE IRRIGATOR. THE ITEMS ON THE MAINTENANCE CHECKLIST SHALL INCLUDE BUT ARE NOT LIMITED TO:
        - 21.2.1. THE MANUFACTURER'S MANUAL FOR THE AUTOMATIC CONTROLLER;
        - 21.2.2. A SEASONAL (SPRING, SUMMER, FALL, WINTER) WATERING SCHEDULE BASED ON EITHER CURRENT/REAL TIME EVAPOTRANSPIRATION OR MONTHLY HISTORICAL REFERENCE EVAPOTRANSPIRATION (HISTORICAL ET) DATA, MONTHLY EFFECTIVE RAINFALL ESTIMATES, PLANT LANDSCAPE COEFFICIENT FACTORS, AND SITE FACTORS;
        - 21.2.3. A LIST OF COMPONENTS, SUCH AS THE NOZZLE, OR PUMP FILTERS, AND OTHER SUCH COMPONENTS; THAT REQUIRE MAINTENANCE AND THE RECOMMENDED FREQUENCY FOR THE SERVICE; AND
        - 21.2.4. THE STATEMENT, "THIS IRRIGATION SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL LAWS, ORDINANCES, RULES, REGULATIONS OR ORDERS. I HAVE TESTED THE SYSTEM AND DETERMINED THAT IT HAS BEEN INSTALLED ACCORDING TO THE IRRIGATION PLAN AND IS PROPERLY ADJUSTED FOR THE MOST EFFICIENT APPLICATION OF WATER AT THIS TIME."
    - 21.3. A PERMANENT STICKER WHICH CONTAINS THE IRRIGATOR'S NAME, LICENSE NUMBER, COMPANY NAME, TELEPHONE NUMBER AND THE DATES OF THE WARRANTY PERIOD SHALL BE AFFIXED TO EACH AUTOMATIC CONTROLLER INSTALLED BY THE IRRIGATOR. THE INFORMATION CONTAINED ON THE STICKER MUST BE PRINTED WITH WATERPROOF INK.
    - 21.4. THE IRRIGATION PLAN INDICATING THE ACTUAL INSTALLATION OF THE SYSTEM MUST BE PROVIDED TO THE IRRIGATION SYSTEM'S OWNER OR OWNER REPRESENTATIVE.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

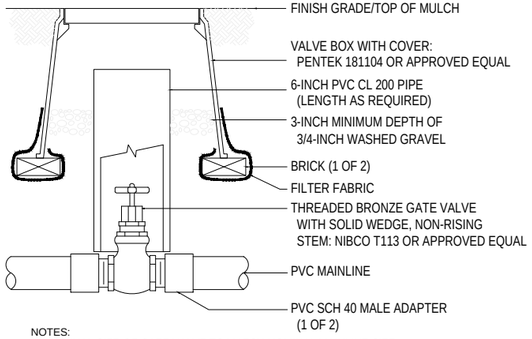
US 54
LANDSCAPE

IRRIGATION NOTES

SHEET 1 OF 1

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		907

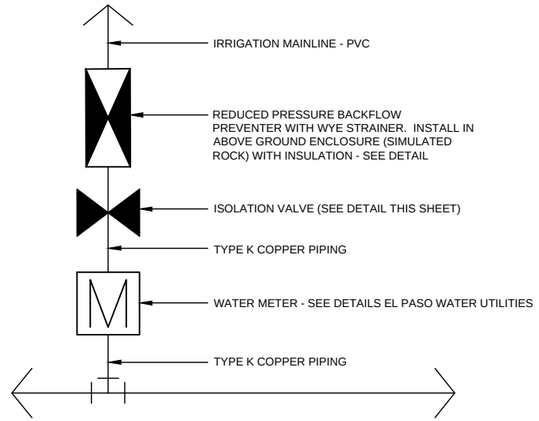
DATE: $DATE$ $TIME$
FILE: $FILE$



NOTES:
1. NOMINAL SIZE OF GATE VALVE TO MATCH NOMINAL MAINLINE SIZE.
2. PROVIDE BROWN/TAN VALVE BOX LID WHEN INSTALLED IN SHRUB/PLANTING BED.

2 ISOLATION GATE VALVE ASSEMBLY

SCALE: N.T.S.

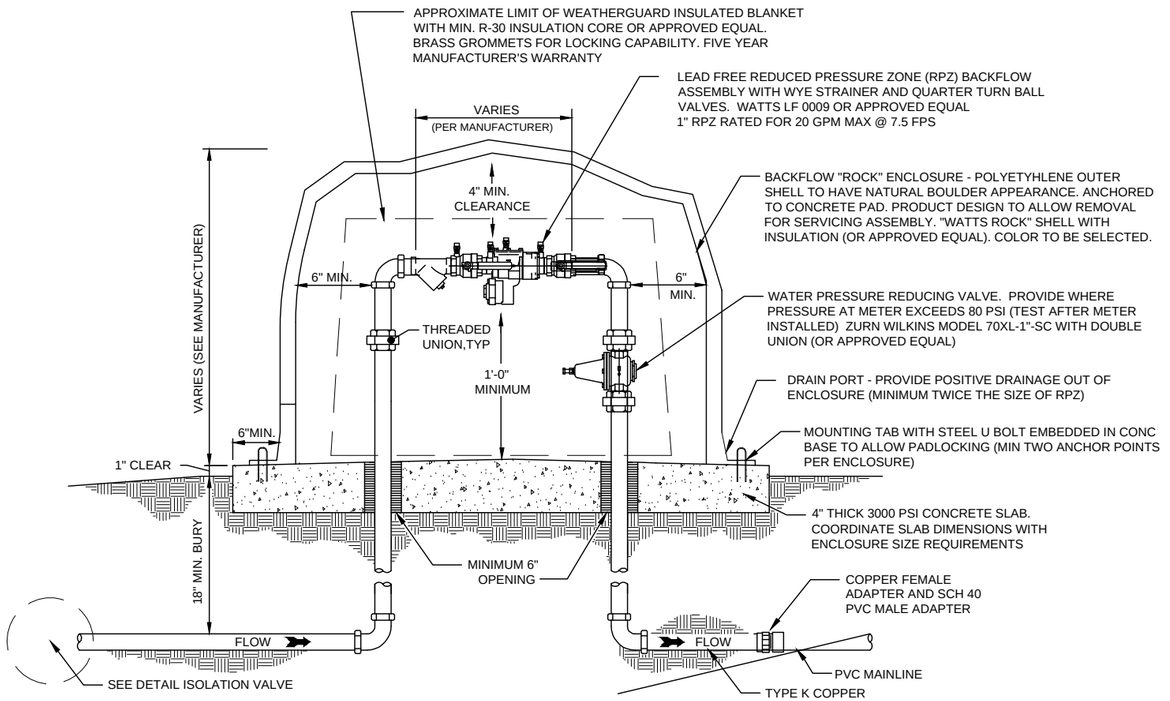


3 POINT OF CONNECTION, TYPICAL

SCALE: N.T.S.

TEST NOTES :

1. REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1013 & AWWA C511.
2. SIZE OF RPZ SAME AS WATER METER SIZE.
3. BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED WITHIN 5-FT OF THE METER BOX.
4. BACKFLOW PREVENTION ASSEMBLY SHALL BE CENTERED ON CONCRETE PAD AND CENTERED WITHIN ENCLOSURE.
5. INSULATED, WEATHERPROOF ENCLOSURE SHALL COMPLY WITH ASSE STANDARD 1060 B.
6. PIPE SHALL BE TYPE K COPPER FROM METER TO LOCATION SHOW ON DETAIL
7. INSTALLATION SHALL BE IN COMPLIANCE WITH CITY OF EL PASO CODES, ORDINANCES AND REGULATIONS.
8. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF BACKFLOW ASSEMBLY AND COMPLIANCE WITH REPORTING AND TESTING REQUIREMENTS FOLLOWING PROJECT ACCEPTANCE.
9. ALL COMPONENTS SHALL BE 'NO LEAD' MEETING UNS C89833 AS PER ASTM B584.
10. DRAIN PORT FOR ENCLOSURE SHALL BE HINGED ONE WAY-OUT OR SCREENED TO PREVENT DEBRIS OR RODENTS FROM ENTERING.



1 RPZ BACKFLOW ASSEMBLY

SCALE: N.T.S.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

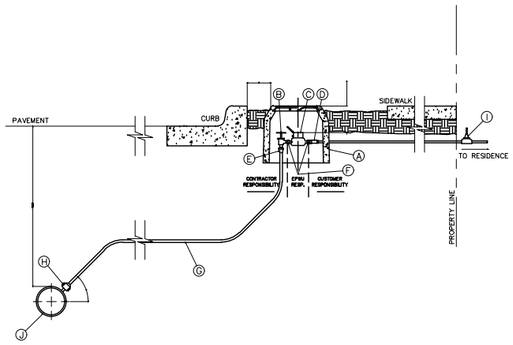
IRRIGATION DETAILS

SHEET 1 OF 4

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		908

CK
DW
CK
DN

DATE: $DATE$ $TIME$
FILE: $FILE$



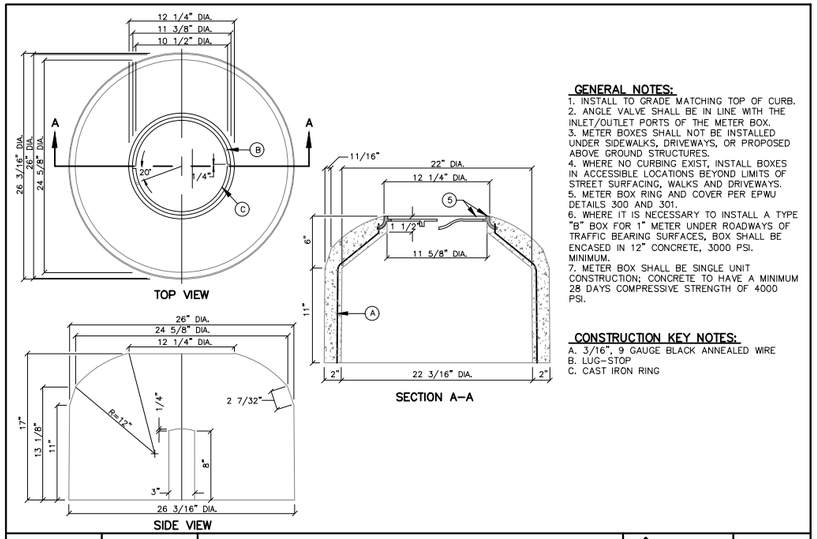
GENERAL NOTES:

1. DETAIL SHOWN FOR A 3/4" SERVICE, 1" SERVICE INSTALLATION IS SIMILAR EXCEPT FOR SIZES OF PIPE, FITTING, METER AND BOX (TYPE "B").
2. WHERE NO CURB EXISTS, METER IS TO BE SET NEAR PROPERTY LINE OR AT DESIGNATED LOCATION.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY PIPE, FITTINGS, AND METER BOXES REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE PRIVATE OWNER TO HAVE A CERTIFIED PLUMBER INSTALL A BACKFLOW PREVENTER AND EXTEND SERVICE LINE ON DISCHARGE SIDE OF METER.
4. NO SPLICING SHALL BE ALLOWED. FULL LENGTH OF PIPING SERVICE SHALL BE INSTALLED.
5. THE EPWU WILL FURNISH AND INSTALL THE METER.

CONSTRUCTION KEY NOTES:

A. METER BOX TYPE "A" (SEE DETAILS 291 & 292) SHALL BE SET SLIGHTLY HIGHER THAN SURROUNDING GROUND OR AT CURB LEVEL.
B. 3/4" ANGLE SERVICE VALVE.
C. WATER METER (CENTER INSIDE METER BOX).
D. WHEN REQUIRED BY EPWU, A DUAL CHECK BACKFLOW PREVENTER SHALL BE INSTALLED ON THE OUTLET SIDE OF THE METER.
E. END FLARE OF SERVICE LINE.
F. INLET AND OUTLET COUPLING.
G. 3/4" COPPER SERVICE LINE (SEE NOTE 4).
H. 5/8" X 3/4" CORPORATION STOP
I. PRESSURE REGULATOR SOMETIMES LOCATED NEAR THE RESIDENCE.
J. WATER MAIN

STANDARD DETAIL	DATE: 10/20/2000 REV: 5/24/2007	SERVICE LINE ¾" AND 1" INSTALLATION BY CONTRACTOR N.T.S.	el paso WATER	DETAIL No. 290-4



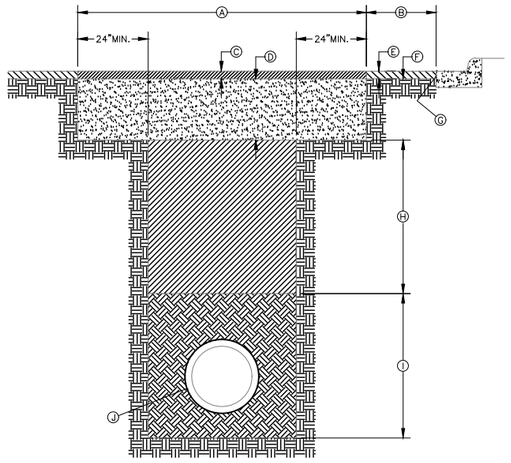
GENERAL NOTES:

1. INSTALL TO GRADE MATCHING TOP OF CURB.
2. ANGLE VALVE SHALL BE IN LINE WITH THE INLET/OUTLET PORTS OF THE METER BOX.
3. METER BOXES SHALL NOT BE INSTALLED UNDER SIDEWALKS, DRIVEWAYS, OR PROPOSED ABOVE GROUND STRUCTURES.
4. WHERE NO CURBING EXIST, INSTALL BOXES IN ACCESSIBLE LOCATIONS BEYOND LIMITS OF STREET SURFACING, WALKS AND DRIVEWAYS.
5. METER BOX RING AND COVER PER EPWU DETAILS 300 AND 301.
6. WHERE IT IS NECESSARY TO INSTALL A TYPE "B" BOX FOR 1" METER UNDER ROADWAYS OF TRAFFIC BEARING SURFACES, BOX SHALL BE ENCASED IN 12" CONCRETE, 3000 PSI. MINIMUM.
7. METER BOX SHALL BE SINGLE UNIT CONSTRUCTION; CONCRETE TO HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 4000 PSI.

CONSTRUCTION KEY NOTES:

A. 3/16", 9 GAUGE BLACK ANNEALED WIRE
B. LUG–STOP
C. CAST IRON RING

STANDARD DETAIL	DATE: 4/1994 REV: 8/24/2006	METER BOX TYPE "B" FOR 1" SERVICE INSTALLATION N.T.S.	el paso WATER	DETAIL No. 292



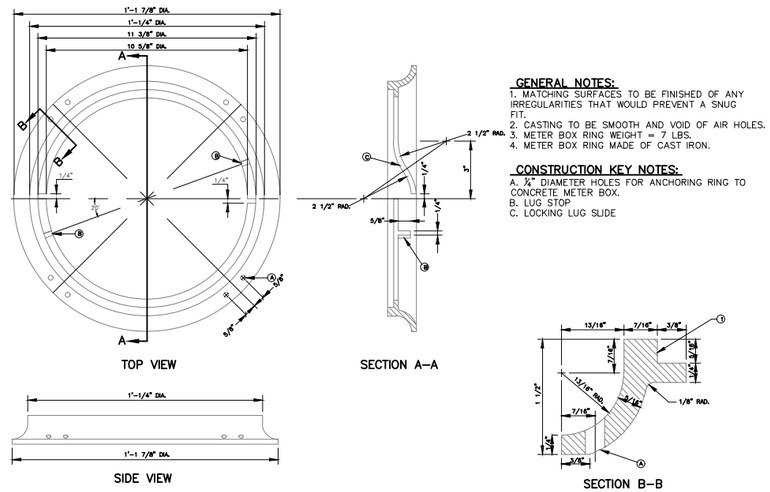
GENERAL NOTES:

1. ALL ASPHALT CUTS MUST BE SAW CUT.
2. SOIL CEMENT SLURRY SHALL BE ALLOWED TO CURE BEFORE PAVING OR OPENING TO ALL TRAFFIC.

CONSTRUCTION KEY NOTES:

A. REFER TO SPECS FOR LIMIT OF PAVING WIDTH.
B. DIMENSION VARIES. WHERE GUTTER FACE, ETC. IS WITHIN 3' OF SAW CUT EDGE, CONTRACTOR SHALL REMOVE & REPLACE EXISTING HMAC IN THIS AREA.
C. 2" ASPHALT MIN.
D. 12" THICK SOIL CEMENT BACKFILL (2 SACK PER C.Y. OF SOIL).
E. EXISTING HMAC–THICKNESS MAY VARY.
F. EXISTING BASE COURSE–THICKNESS MAY VARY.
G. EXISTING GUTTER FACE, EDGE OF PAVEMENT OR BEGINNING OF SHOULDER.
H. BACKFILL DEPTH VARIES, REFER TO REQUIREMENTS LISTED IN EMBEDMENT DETAILS (DETAIL 171 THRU DETAIL 173).
I. PIPE BEDDING AS SPECIFIED, REFER TO APPROPRIATE EMBEDMENT DETAIL (DETAIL 171 THRU DETAIL 173).
J. APPROVED PIPE.

STANDARD DETAIL	DATE: 10/1992 REV: 5/9/2011	PAVEMENT REPLACEMENT N.T.S.	el paso WATER	DETAIL No. 179



GENERAL NOTES:

1. MATCHING SURFACES TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH AND VOID OF AIR HOLES.
3. METER BOX RING WEIGHT = 7 LBS.
4. METER BOX RING MADE OF CAST IRON.

CONSTRUCTION KEY NOTES:

A. ¾" DIAMETER HOLES FOR ANCHORING RING TO CONCRETE METER BOX.
B. LUG STOP
C. LOCKING LUG SLIDE

STANDARD DETAIL	DATE: 1/1995 REV: 8/10/2006	METER BOX RING FOR TYPE "A" & "B" METER BOXES N.T.S.	el paso WATER	DETAIL No. 300

1 WATER METER AND SERVICE DETAILS, EL PASO WATER AND UTILITIES

SCALE: N.T.S.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB
HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

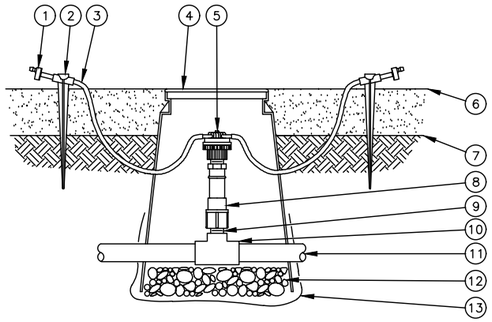
IRRIGATION DETAILS

SHEET 2 OF 4

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		909

CK
DW
CK
DN

DATE: $DATE$ $TIME$
FILE: $FILE$



NOTES:
1. SHOULD THE EMITTER BECOME DISLODGED UNREGULATED FLOW WILL OCCUR.

2. THE 6 OUTLET MANIFOLD PROVIDES A CENTRALIZED WATER DISTRIBUTION CONNECTION FOR UP TO 6 EMISSION DEVICES. THE FOLLOWING EMITTERS CAN BE INSERTED INTO THE ¼" TUBING FROM THE EMT-6XERI (OR APPROVED EQUAL):

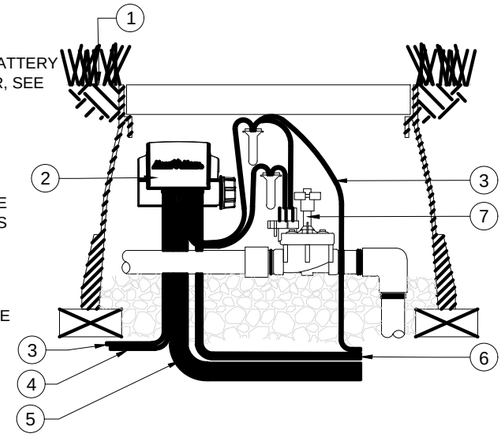
   RAIN BIRD XERI-BUG BARB X BARB EMITTERS (OR APPROVED EQUAL):
   XB-10PC 1.0 GPH XB-20PC 2.0 GPH
   XB EMITTER FLOWS REQUIRE OPERATING BETWEEN 15-50 PSI

1. SINGLE-OUTLET BARB INLET X BARB OUTLET EMITTER: RAIN BIRD XERI-BUG (OR APPROVED EQUAL) (1 OF 2 SHOWN, 6 POSSIBLE)
2. UNIVERSAL ¼" TUBING STAKE: RAIN BIRD TS-025 (OR APPROVED EQUAL) (1 OF 2 SHOWN, 6 POSSIBLE)
3. ¼" DISTRIBUTION TUBING: RAIN BIRD XQ TUBING (OR APPROVED EQUAL) (LENGTH AS REQUIRED) (1 OF 2 SHOWN, 6 POSSIBLE)
4. SUBTERRANEAN EMITTER BOX: 10" DIA VALVE BOX WITH 3" EXTENSION
5. SIX OUTLET MANIFOLD: RAIN BIRD EMT-6XERI (OR APPROVED EQUAL)
6. TOP OF AGGREGATE
7. SUBGRADE
8. PRESSURE REGULATOR: HENDRICKSON PR 5520PP RATED FOR FLOWS 0.02 GPM - 14 GPM.
   SET TO 20 PSI OUTLET PRESSURE
9. PVC SCH 80 CLOSE NIPPLE
10. PVC SCH 40 TEE OR ELL
11. PVC LATERAL PIPE
12. 3" MINIMUM DEPTH OF ¾" WASHED GRAVEL
13. FILTER FABRIC

2 6 OUTLET MANIFOLD ON A PRESSURE REGULATOR WITH EMITTER, 1/4" TUBING, AND STAKE

SCALE: N.T.S.

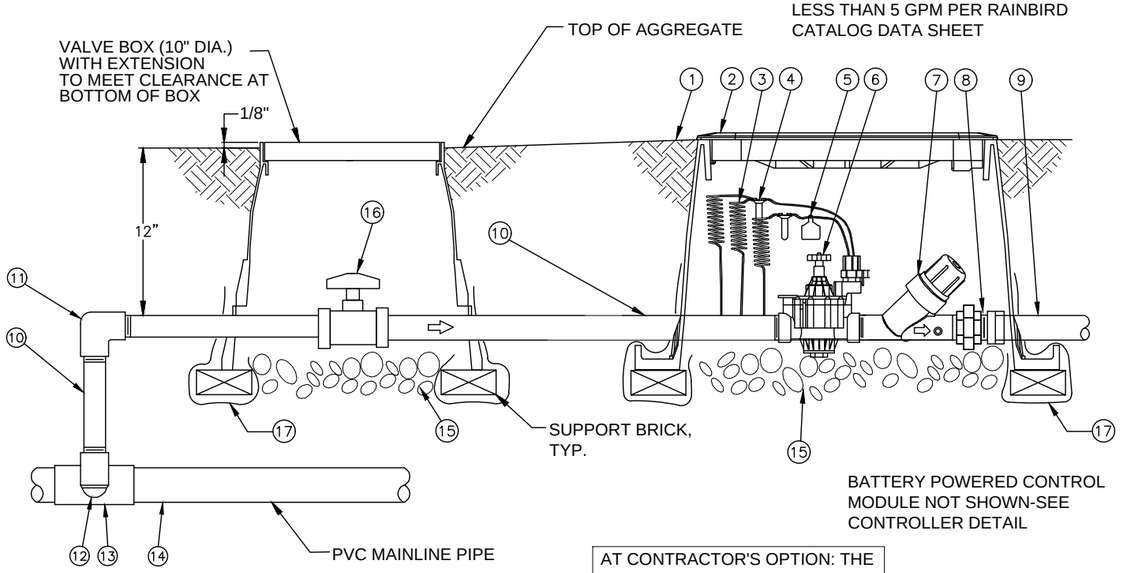
1. FINISH GRADE
2. RAIN BIRD ESP-BAT-BT BATTERY OPERATED CONTROLLER, SEE LEGEND FOR MODEL
3. BLACK COMMON WIRE
4. ORANGE WIRE TO MASTER VALVE
5. RED WIRES TO ALL VALVE DC LATCHING SOLENOIDS
6. YELLOW WIRES TO RAIN SENSOR
7. RAIN BIRD VALVE W/ DC LATCHING SOLENOID, SEE LEGEND FOR MODEL



NOTES:
1. ALL WIRE CONNECTIONS SHOULD BE MADE USING APPROPRIATE WATER-PROOF SPLICE KITS.
2. ESP-BAT-BT CAN BE MOUNTED USING ONE OF 3 METHODS: MOUNTING PEG, CABLE TIE, OR SCREW MOUNT. (REF. INSTALLATION MANUAL.)
3. INSTALL THE BAT-BT AS CLOSE TO THE SURFACE LEVEL AS POSSIBLE TO OPTIMIZE BLUETOOTH SIGNAL STRENGTH AND RANGE.
4. REQUIRES 4 ALKALINE LR6 (AA) BATTERIES.

3 BATTERY-POWERED CONTROLLER

SCALE: N.T.S.



AT CONTRACTOR'S OPTION: THE BALL VALVE MAY BE LOCATED IN AN OVERSIZED VALVE BOX WITH RCV AND FILTER

1 REMOTE CONTROL VALVE AND INLINE "Y" FILTER ASSEMBLY

SCALE: N.T.S.

1. FINISH GRADE/TOP OF AGGREGATE
2. VALVE BOX WITH COVER-SIZE AS REQUIRED
3. 30-INCH LINEAR LENGTH OF WIRE, COILED
4. WATERPROOF CONNECTION:
   RAIN BIRD DB SERIES (OR APPROVED EQUAL)
5. ID TAG
6. REMOTE CONTROL VALVE:RAIN BIRD 100-PESB WITH LATCHING SOLENOID (OR APPROVED EQUAL)
   100-PESB FLOW 0.25 - 20.0 GPM
7. INLINE "Y" FILTER:SEE PLANS FOR SIZE
   RAINBIRD RBY OR APPROVED EQUAL
   100 MPTX -1" : 0.20 - 18.0 GPM (200 MESH)
8. PVC SCH 40 ADAPTORS (AS REQUIRED)
9. LATERAL PIPE
10. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
11. PVC SCH 40 ELL
12. PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. MAINLINE PIPE
15. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
16. PVC BALL VALVE
    SAME SIZE AS CONTROL VALVE
17. FILTER FABRIC

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

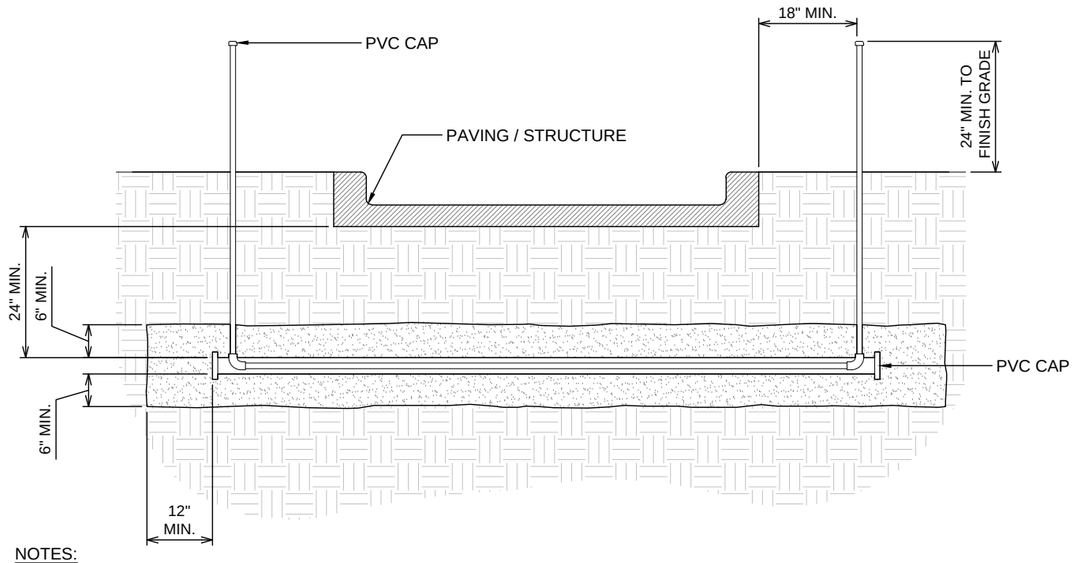
IRRIGATION DETAILS

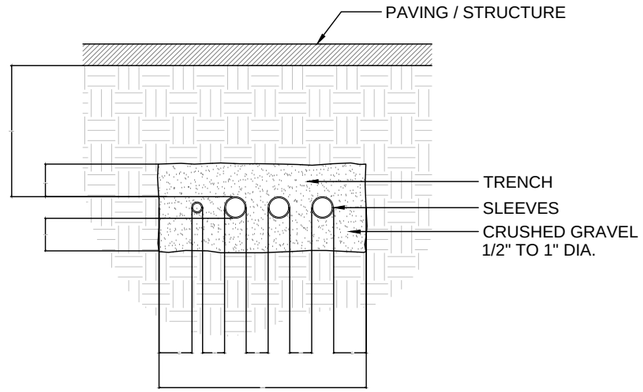
SHEET 3 OF 4

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		910

CK:
DW:
CK:
DN:

DATE: $DATE$ $TIME$
FILE: $FILE$



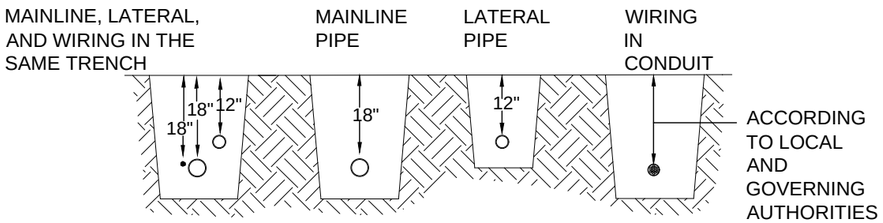


NOTES:
1. ALL SLEEVES ARE TO BE SCH 40 PVC PIPE.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND SMALLER SLEEVE TO 24" MIN. ABOVE FINISH GRADE.
4. MECHANICALLY TAMP TO 95% PROCTOR.

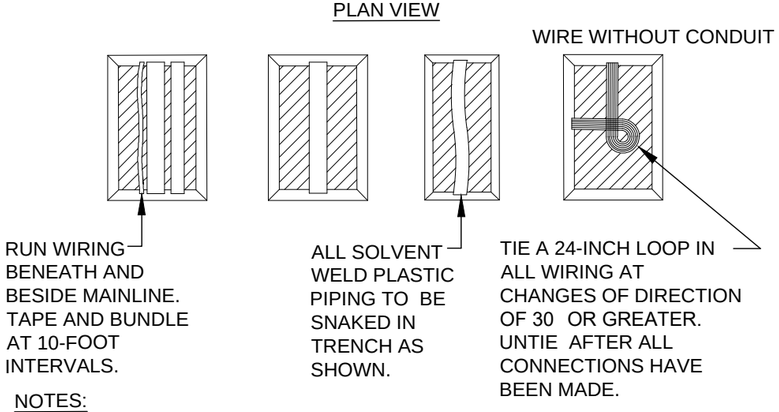
3 SLEEVING

SCALE: N.T.S.

SECTION VIEW



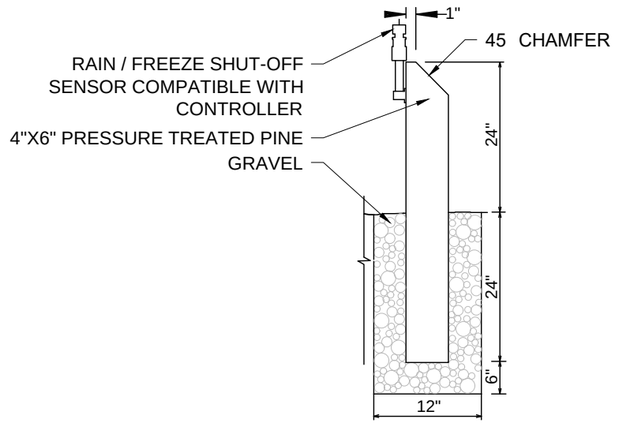
PLAN VIEW



NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH 40 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS SEE SPECIFICATIONS.

1 PIPE AND WIRE TRENCHING

SCALE: N.T.S.



PLACE RAIN SENSOR POST AS DIRECTED.
DO NOT EXCEED MAXIMUM WIRE DISTANCE LIMITS FROM CONTROLLER TO SENSOR.

2 WIRELESS RAIN/FREEZE SENSOR

SCALE: N.T.S.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

IRRIGATION DETAILS

SHEET 4 OF 4

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		911

CK: DW: CK: DN:

DATE: $DATE$ $TIME$
FILE: $FILE$

CK
DW
CK
DN

IRRIGATION COMPONENT, EQUIPMENT, AND MATERIALS LIST

DESCRIPTION	EXAMPLE OR APPROVED EQUAL	SIZE	REMARKS
TAPS/METERS - PAID FOR BY CONTRACTOR		AS SHOWN ON PLANS	COORDINATE WITH CITY WATER UTILITY
ISOLATION VALVE	PVC BALL VALVE	SAME SIZE AS MAINLINE	
Y FILTER	RAINBIRD, NETAFIM, AGRIFIM	3/4", 1", 1 1/2", REF. PLANS	LARGE CAPACITY DISC, UP TO 25GPM, 35GPM, AND 80GPM FLOWS
REDUCED PRESSURE PRINCIPLE BACKFLOW	FEBCO, CONBRACO	SAME SIZE AS CITY METER	
BATTERY-OPERATED IRRIGATION CONTROLLER - BURIABLE	RAINBIRD, TORO, HUNTER		CONTROLLER CONTROL MODULE SHALL BE WATERPROOF AND BURIABLE IN VALVE BOX. WILL REQUIRE SOLENOID ADAPTER.
REMOTE CONTROL VALVE	RAINBIRD, TORO, HUNTER	AS INDICATED ON PLAN/DETAILS	
PRESSURE REGULATING BASKET FILTER	RAINBIRD, NETIFIM, AGRIFIM 40PSI	2"	
SPOT WATERING EMITTERS	RAINBIRD	0.5, 1.0, OR 2.0GPH	SPOT WATER EMITTER ON DISTRIBUTION TUBING BRANCHES FROM 6-OUTLET MANIFOLD TO REACH SHRUBS.
6-OUTLET MANIFOLD	RAINBIRD		PROVIDES DISTRIBUTION FOR 6 EMISSION DEVICES. MANIFOLD ON A PRESURE REGULATOR.
AIR RELIEF VALVE			LOCATE AT HIGH POINT OF DRIP ZONE.
LINE FLUSHING VALVE			LOCATE AT END OF PVC LATERAL OR EXHAUST HEADER.
PVC SCH 40 CASING FOR SLEEVES AND BORES; PRESSURE RATED WITH SLIP TYPE SOLVENT WELDED JOINTS.		AS INDICATED ON PLANS	
PVC SCH 40 MAINLINE AND LATERALS; PRESSURE RATED WITH TWIN GASKET COUPLINGS AND FITTINGS OR SLIP TYPE SOLVENT WELDED JOINTS		AS INDICATED ON PLANS	
DISTRIBUTION TUBING		AS INDICATED IN THE DETAILS	
DRIPLINE TUBING WITH ROOT INTRUSION RESISTANCE, ANTI-SIPHONING, SELF-FLUSHING, PRESSURE COMPENSATING EMITTERS	RAINBIRD, TORO, NETAFIM DRIPLINE. PRESSURE COMPENSATING.	0.6 GPH, 12" INLINE DRIPPER SPACING	DRIP TUBING MAY REQUIRE AIR RELIEF VALVE AS REQUIRED BY THE MANUFACTURER.
FITTINGS - ALL FITTINGS INCORPORATED INTO SYSTEM SHALL BE OF THE SAME TYPE, SIZE AND CLASS MATERIAL AS THE PIPE, UNLESS INDICATED OTHERWISE ON PLANS			
SOLVENT CEMENT SOLVENT CEMENT SHALL BE THE TYPE RECOMMENDED BY THE PIPE MANUFACTURER.			
VALVE BOXES BOXES FOR SECTION VALVES, BELOW-GROUND BACKFLOW PREVENTERS, AND QUICK COUPLING VALVES SHALL BE AS SHOWN ON DETAIL SHEET.	NDS, AMETEK	BOX SIZE SHALL ALLOW FOR EASY REMOVAL OF VALVE, MAINTENANCE, ETC.	QUANTITY AS REQUIRED FOR SECTION VALVES, BELOW GROUND BACKFLOW PREVENTORS, QUICK COUPLING VALVES AND ANY ACCESSORIES.

* REFERENCE TO MANUFACTURER'S TRADE NAME OR CATALOG NUMBER IS FOR THE PURPOSE OF IDENTIFICATION ONLY, CONTRACTOR SHALL BE PERMITTED TO FURNISH LIKE MATERIALS OF OTHER MANUFACTURERS PROVIDED THEY ARE OF EQUAL QUALITY, COMPLY WITH SPECIFICATIONS FOR THIS PROJECT, AND ARE APPROVED BY THE LANDSCAPE ARCHITECT.

PRESSURE ANALYSIS - METER A, ZONE 2

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						108.00
Total Lateral Piping Pressure Loss in (PSI)					9.76	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	893	2.6	2"	0.99	8.84	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						39.87
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					39.87
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					54.87
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					68.13

PRESSURE ANALYSIS - METER A, ZONE 1

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet (PSI)	Pressure Loss this section	
Static Pressure						108.00
Total Lateral Piping Pressure Loss in (PSI)					3.16	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	262	2.6	2"	0.99	2.59	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						27.03
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					27.03
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					42.03
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					80.97

PRESSURE ANALYSIS - METER A, ZONE 3

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						108.00
Total Lateral Piping Pressure Loss in (PSI)					1.02	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	1719	2.6	2"	0.99	17.02	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						39.31
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					39.31
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					54.31
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					68.69

IRRIGATION TOTAL QUANTITIES

ITEM	CODE	DESCRIPTION	UNIT	QTY
618	7054	CONDT (PVC) (SCH 80) (2")	LF	3055
618	7055	CONDT (PVC) (SCH 80) (2") (BORE)	LF	353
618	7060	CONDT (PVC) (SCH 80) (3")	LF	18337
618	7061	CONDT (PVC) (SCH 80) (3") (BORE)	LF	1496
		CLASS 200 PVC, 3/4"	LF	20923

NOTE:
ITEM 618-7060 IS USED FOR ALL CONDUIT SIZED ABOVE 2".

EMITTER PLACEMENT SCHEDULE

PLANT CONTAINER SIZE	EMITTER	
	QTY	NOMINAL FLOW
30 GAL. CONTAINER	4	2 GPH
5 GAL. CONTAINER	2	1 GPH
3 GAL. CONTAINER	1	1 GPH

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

IRRIGATION SCHEDULES AND ANALYSIS

SHEET 1 OF 5

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		912

$TIME$
DATE: $DATE$
FILE: $FILE$

PRESSURE ANALYSIS - METER B, ZONE 3

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.82	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	322	2.6	2"	0.99	3.19	
Main Line (Sch 80)	351		2.5"	0.41	1.44	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						29.72
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					29.72
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					44.72
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					50.28

PRESSURE ANALYSIS - METER B, ZONE 2

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					2.41	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	246	2.6	2"	0.99	2.44	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						26.12
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					26.12
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					41.12
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					53.88

PRESSURE ANALYSIS - METER B, ZONE 1

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.05	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	311	2.6	2"	0.99	3.08	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						25.40
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					25.40
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					40.40
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					54.60

PRESSURE ANALYSIS - METER B, ZONE 6

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.01	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)	1378		3"	0.14	1.93	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						26.22
Elevation Gain/Loss	# of ft. (neg. for l		0.178	0.433	(PSI)	0.08
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					26.29
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					41.29
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					53.71

PRESSURE ANALYSIS - METER B, ZONE 5

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.07	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)	107		3"	0.14	0.15	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						22.50
Elevation Gain/Loss	# of ft. (neg. for l		0.211	0.433	(PSI)	0.09
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					22.59
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					37.59
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					57.41

PRESSURE ANALYSIS - METER B, ZONE 4

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.93	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	322	2.6	2"	0.99	3.19	
Main Line (Sch 80)	640		2.5"	0.41	2.62	
Main Line (Sch 80)	513		3"	0.14	0.72	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						31.74
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					31.74
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					46.74
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					48.26

PRESSURE ANALYSIS - METER B, ZONE 9

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					2.63	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)	3060		3"	0.14	4.28	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						28.19
Elevation Gain/Loss	# of ft. (neg. for l		0.307	0.433	(PSI)	0.13
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					28.32
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					43.32
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					51.68

PRESSURE ANALYSIS - METER B, ZONE 8

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					2.07	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)	2490		3"	0.14	3.49	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						26.84
Elevation Gain/Loss	# of ft. (neg. for l		0.285	0.433	(PSI)	0.12
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					26.96
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					41.96
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					53.04

PRESSURE ANALYSIS - METER B, ZONE 7

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					2.11	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)			2.5"	0.41	0.00	
Main Line (Sch 80)	2005		3"	0.14	2.81	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						26.19
Elevation Gain/Loss	# of ft. (neg. for l		0.477	0.433	(PSI)	0.21
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					26.40
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					41.40
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					53.60

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

IRRIGATION SCHEDULES AND ANALYSIS

SHEET 2 OF 5

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		913

CK
DW
CK
DN

DATE: $DATE$
FILE: $FILE$
$TIME$

PRESSURE ANALYSIS - METER B, ZONE 12

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					4.92	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	1152		2.5"	0.41	4.72	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						30.92
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					30.92
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					45.92
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					49.08

PRESSURE ANALYSIS - METER B, ZONE 11

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.15	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	763		2.5"	0.41	3.13	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						27.55
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					27.55
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					42.55
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					52.45

PRESSURE ANALYSIS - METER B, ZONE 10

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.28	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	628		2.5"	0.41	2.57	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						25.13
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					25.13
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					40.13
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					54.87

PRESSURE ANALYSIS - METER B, ZONE 15

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					2.42	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	1570		2.5"	0.41	6.44	
Main Line (Sch 80)	1630		3"	0.14	2.28	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.42
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					32.42
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					47.42
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					47.58

PRESSURE ANALYSIS - METER B, ZONE 14

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.05	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	1570		2.5"	0.41	6.44	
Main Line (Sch 80)	1086		3"	0.14	1.52	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.28
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					32.28
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					47.28
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					47.72

PRESSURE ANALYSIS - METER B, ZONE 13

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.83	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	1570		2.5"	0.41	6.44	
Main Line (Sch 80)	428		3"	0.14	0.60	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.14
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					32.14
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					47.14
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					47.86

PRESSURE ANALYSIS - METER B, ZONE 18

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.67	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	996		2.5"	0.41	4.08	
Main Line (Sch 80)	1088		3"	0.14	1.52	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						30.55
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					30.55
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					45.55
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					49.45

PRESSURE ANALYSIS - METER B, ZONE 17

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.19	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	830		2.5"	0.41	3.40	
Main Line (Sch 80)			3"	0.14	0.00	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						27.87
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					27.87
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					42.87
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					52.13

PRESSURE ANALYSIS - METER B, ZONE 16

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.80	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	1570		2.5"	0.41	6.44	
Main Line (Sch 80)	1945		3"	0.14	2.72	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.23
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					32.23
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					47.23
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					47.77

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE

3716

LICENSE NO.

12/22/2025

DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

IRRIGATION SCHEDULES AND ANALYSIS

SHEET 3 OF 5

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		914

CK
DW
CK
DN

DATE: $DATE$
FILE: $FILE$
$TIME$

PRESSURE ANALYSIS - METER C, ZONE 1

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					8.14	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	530		2.5"	0.41	2.17	
Main Line (Sch 80)	500		3"	0.14	0.70	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.29
Elevation Gain/Loss	# of ft. (neg. for l		0.335	0.433	(PSI)	0.15
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					32.43
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					47.43
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					47.57

PRESSURE ANALYSIS - METER B, ZONE 20

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.25	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	996		2.5"	0.41	4.08	
Main Line (Sch 80)	2450		3"	0.14	3.43	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.04
Elevation Gain/Loss	# of ft. (neg. for l		0.419	0.433	(PSI)	0.18
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					32.22
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					47.22
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					47.78

PRESSURE ANALYSIS - METER B, ZONE 19

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.41	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	996		2.5"	0.41	4.08	
Main Line (Sch 80)	1693		3"	0.14	2.37	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						31.14
Elevation Gain/Loss	# of ft. (neg. for l		0.305	0.433	(PSI)	0.13
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					31.27
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					46.27
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					48.73

PRESSURE ANALYSIS - METER C, ZONE 4

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					2.11	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	632	2.6	2"	0.99	6.26	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						29.64
Elevation Gain/Loss	# of ft. (neg. for l		-1.55	0.433	(PSI)	-0.67
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					28.97
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					43.97
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					51.03

PRESSURE ANALYSIS - METER C, ZONE 3

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.34	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	1029	2.6	2.5"	0.41	4.22	
Main Line (Sch 80)	2083	2.6	3"	0.14	2.92	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						31.75
Elevation Gain/Loss	# of ft. (neg. for l		-0.002	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					31.75
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					46.75
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					48.25

PRESSURE ANALYSIS - METER C, ZONE 2

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.90	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)		2.6	2"	0.99	0.00	
Main Line (Sch 80)	1029		2.5"	0.41	4.22	
Main Line (Sch 80)	1395		3"	0.14	1.95	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						31.35
Elevation Gain/Loss	# of ft. (neg. for l		-0.252	0.433	(PSI)	-0.11
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					31.24
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					46.24
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					48.76

PRESSURE ANALYSIS - METER C, ZONE 7

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					2.43	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	609	2.6	2"	0.99	6.03	
Main Line (Sch 80)	397	2.6	2.5"	0.41	1.63	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						31.37
Elevation Gain/Loss	# of ft. (neg. for l		-1.55	0.433	(PSI)	-0.67
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					30.69
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					45.69
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					49.31

PRESSURE ANALYSIS - METER C, ZONE 6

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.47	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	609	2.6	2"	0.99	6.03	
Main Line (Sch 80)	283	2.6	2.5"	0.41	1.16	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						31.94
Elevation Gain/Loss	# of ft. (neg. for l		-1.55	0.433	(PSI)	-0.67
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					31.27
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					46.27
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					48.73

PRESSURE ANALYSIS - METER C, ZONE 5

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.11	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	541	2.6	2"	0.99	5.36	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						27.74
Elevation Gain/Loss	# of ft. (neg. for l		-1.55	0.433	(PSI)	-0.67
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					27.07
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					42.07
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					52.93

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
TUCKER ROSE
3716
LICENSE NO.
12/22/2025
DATE

HNTB
HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

IRRIGATION SCHEDULES AND ANALYSIS

SHEET 4 OF 5

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		915

DATE: $DATE$
FILE: $FILE$
$TIME$

PRESSURE ANALYSIS - METER C, ZONE 10

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.81	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	1269	2.6	2"	0.99	12.56	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						35.65
Elevation Gain/Loss	# of ft. (neg. for l		-12.36	0.433	(PSI)	-5.35
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					30.30
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					45.30
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					49.70

PRESSURE ANALYSIS - METER C, ZONE 9

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.01	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	3401	2.6	2"	0.99	33.67	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						55.96
Elevation Gain/Loss	# of ft. (neg. for l		-12.36	0.433	(PSI)	-5.35
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					50.61
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					65.61
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					29.39

PRESSURE ANALYSIS - METER C, ZONE 8

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.49	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	609	2.6	2"	0.99	6.03	
Main Line (Sch 80)	947	2.6	2.5"	0.41	3.88	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.67
Elevation Gain/Loss	# of ft. (neg. for l		-12.36	0.433	(PSI)	-5.35
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					27.32
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					42.32
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					52.68

PRESSURE ANALYSIS - METER C, ZONE 13

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.10	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	333	2.6	2"	0.99	3.30	
Main Line (Sch 80)	590		2.5"	0.41	2.42	
Main Line (Sch 80)	874		3"	0.14	1.22	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						31.31
Elevation Gain/Loss	# of ft. (neg. for l		0.528	0.433	(PSI)	0.23
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					31.54
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					46.54
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					48.46

PRESSURE ANALYSIS - METER C, ZONE 12

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					2.42	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	333	2.6	2"	0.99	3.30	
Main Line (Sch 80)	590		2.5"	0.41	2.42	
Main Line (Sch 80)	300		3"	0.14	0.42	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						29.83
Elevation Gain/Loss	# of ft. (neg. for l		0	0.433	(PSI)	0.00
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					29.83
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					44.83
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					50.17

PRESSURE ANALYSIS - METER C, ZONE 11

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.33	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	1391	2.6	2"	0.99	13.77	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						36.38
Elevation Gain/Loss	# of ft. (neg. for l		-12.36	0.433	(PSI)	-5.35
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					31.03
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					46.03
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					48.97

PRESSURE ANALYSIS - METER C, ZONE 16

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					1.80	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	333	2.6	2"	0.99	3.30	
Main Line (Sch 80)	590		2.5"	0.41	2.42	
Main Line (Sch 80)	2479		3"	0.14	3.47	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.26
Elevation Gain/Loss	# of ft. (neg. for l		0.419	0.433	(PSI)	0.18
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					32.44
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					47.44
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					47.56

PRESSURE ANALYSIS - METER C, ZONE 15

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					2.42	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	333	2.6	2"	0.99	3.30	
Main Line (Sch 80)	590		2.5"	0.41	2.42	
Main Line (Sch 80)	2039		3"	0.14	2.85	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.27
Elevation Gain/Loss	# of ft. (neg. for l		0.123	0.433	(PSI)	0.05
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					32.32
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					47.32
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					47.68

PRESSURE ANALYSIS - METER C, ZONE 14

Irrigation Item	Pipe Length (feet)	Flow (gpm)	Size (in.)	Pressure Loss per 100 feet	Pressure Loss this section	
Static Pressure						80.00
Total Lateral Piping Pressure Loss in (PSI)					3.05	
Zone Valve (1")		2.6	1"		1.80	
Master Valve (2" bronze gate valve)					0.01	
Y filter (screen)		2.6	1"		2.00	
Main Line (Sch 80)	333	2.6	2"	0.99	3.30	
Main Line (Sch 80)	590		2.5"	0.41	2.42	
Main Line (Sch 80)	1498		3"	0.14	2.10	
Backflow		2.6	1 1/4"		11.00	
Water Meter		2.6	1"		5.30	
Service Line	50	2.6	1"	2.33	1.17	
Total Friction Loss						32.14
Elevation Gain/Loss	# of ft. (neg. for l		0.148	0.433	(PSI)	0.06
Total Pressure Loss	Total Friction loss plus elevation gain or loss (PSI)					32.20
Minimum Head Pressure	Given (PSI)					15
Design Pressure	Total pressure loss plus minimum head pressure (PSI)					47.20
Actual Pressure at Head	Static pressure less total pressure loss (PSI)					47.80

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.

TUCKER ROSE

3716

LICENSE NO.

12/22/2025

DATE

HNTB Corporation
The HNTB Companies
Infrastructure Solutions
Firm Registration Number 420

Texas Department of Transportation

US 54
LANDSCAPE

IRRIGATION SCHEDULES AND ANALYSIS

SHEET 5 OF 5

CONT	SECT	JOB	HIGHWAY
0167	01	122	US 54
DIST	COUNTY		SHEET NO.
ELP	EL PASO		916

DATE: $DATE$
FILE: $FILE$
$TIME$