City of Hilshire Village, Texas

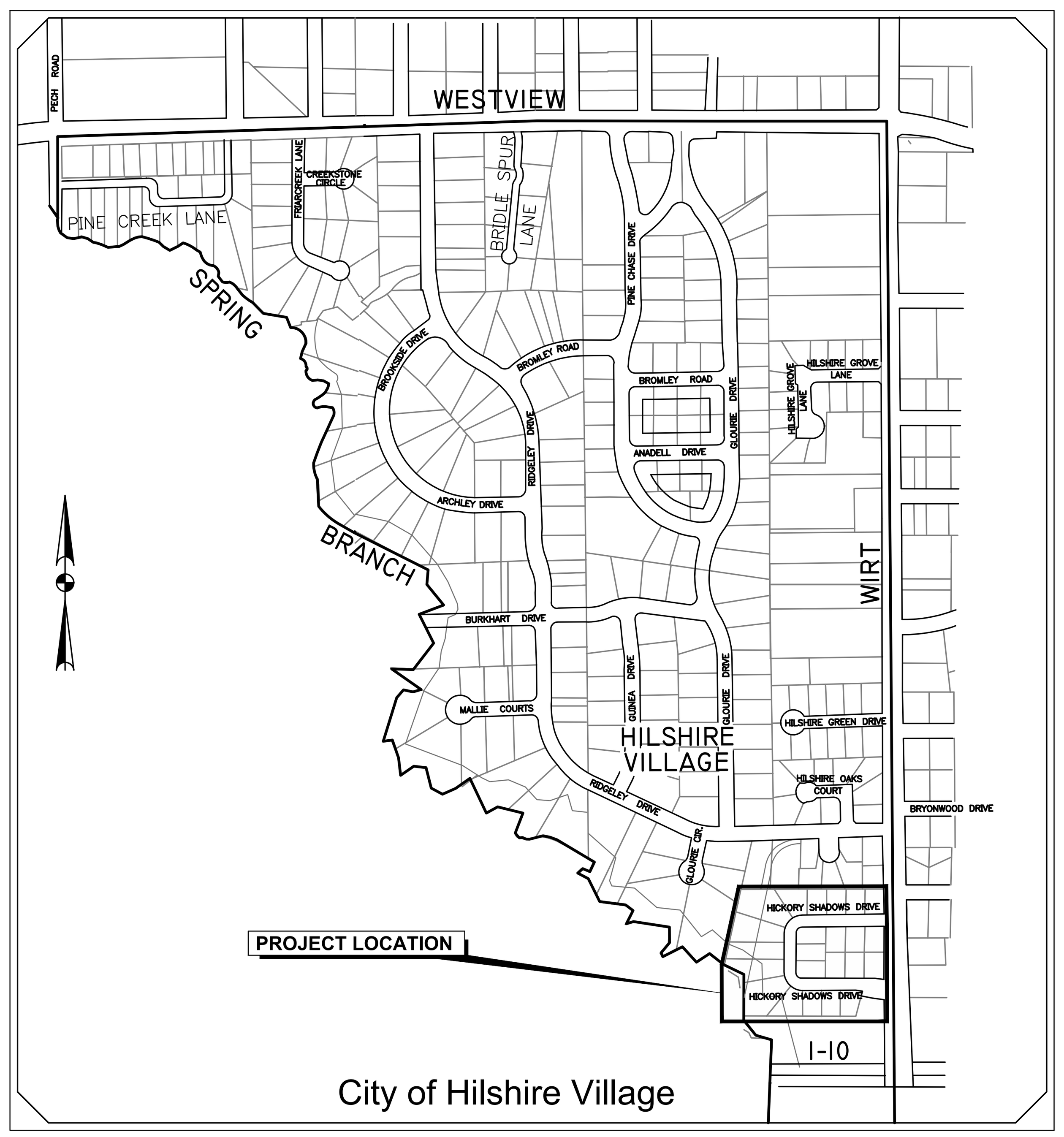
Hickory Shadows Drive

Paving, Drainage & Water Line Improvements

June, 2025

100% Submittal

Est. 1955



VICINITY MAP

NOT TO SCALE

HARRIS COUNTY KEY MAP 491B

MAYOR

Robert (Bob) Buesinger

COUNCIL

Mike Gordy
Andy Carey
Kristi Cooper
Justin Crawford
Mark Huber

CITY SECRETARY

Cassie Stephens

FOR REVIEW ONLY
JUNE 2025
NGOC KIM LE
TX. LIC. 102192
NOT FOR BIDDING, OR CONSTRUCTION

SUBMITTED BY: ______________________ DATE: ______________

NGOC KIM LE, PE
HDR ENGINEERING, INC

APPROVED BY: ______________________ DATE: ______________

ROBERT (BOB) BUESINGER
MAYOR, CITY OF HILSHIRE VILLAGE

HDR Engineering Inc. Texas Reg. No. 754
4828 Loop Central Drive, Suite 700 • Houston, Texas 77081
(713) 622-9264 • Fax (713) 622-9265 • www.hdrinc.com

HDR PROJECT NO. 10418041

GENERAL NOTES:

1. CONTRACTOR SHALL NOTIFY THE CITY OF HILSHIRE VILLAGE AT (713) 973-1779 AND THE ENGINEER AT (713) 622-9264 48 HOURS PRIOR TO START OF CONSTRUCTION.

2. CONTRACTOR SHALL CONTACT ALL PERTINENT UTILITY COMPANIES 48 HOURS (MINIMUM) PRIOR TO EXCAVATION IN AREA. THE HOUSTON AREA UTILITY COORDINATING COMMITTEE MAY BE CONTACTED FOR CERTAIN UTILITIES AT (713) 223-4567 OR TOLL FREE 1-800-669-8344 48 HOURS BEFORE BEGINNING WORK.

3. CONTRACTOR SHALL COORDINATE ANY UTILITY CONSTRUCTION THAT MAY DISRUPT SERVICE WITH THE CITY OF HILSHIRE VILLAGE (CASSIE STEPHENS, CITY SECRETARY, 713-973-1779.) AND THE CITY'S OPERATOR (ST SERVICES @ 281-578-4200). NOTIFY CITY 24 HOURS IN ADVANCE.

4. PROPERTY OWNERS SHALL BE NOTIFIED IN WRITING BY THE CONTRACTOR, BETWEEN 48 HOURS AND 7 DAYS IN ADVANCE OF DISTURBANCE OF DRIVEWAYS. PROPERTY OWNER SHALL BE PROVIDED THE MINIMUM FOLLOWING INFORMATION: WORK TO BE PERFORMED, STARTING AND ENDING DATES, THE NAME AND NUMBER OF CONTRACTOR'S REPRESENTATIVE, AND NAME OF HILSHIRE VILLAGE OFFICIAL TO BE CONTACTED FOR QUESTIONS. WRITTEN NOTICES SHALL BE APPROVED BY HILSHIRE VILLAGE PRIOR TO DISTRIBUTION.

5. TEXAS LAW ARTICLE 1436C, PROHIBITS ALL ACTIVITIES IN WHICH PERSONS OR EQUIPMENT MAY COME WITHIN SIX FEET OF ENERGIZED OVERHEAD POWER LINES, AND FEDERAL REGULATIONS, TITLE 29, PART 1910.180(I) AND PART 1926.550(A)(15) REQUIRE A MINIMUM CLEARANCE OF TEN FEET FROM THESE FACILITIES. THE ABOVE LAWS CARRY BOTH CRIMINAL AND CIVIL LIABILITIES, WITH CONTRACTORS AND OWNERS BEING LEGALLY RESPONSIBLE FOR THE SAFETY OF WORKERS UNDER THESE LAWS. IF YOU OR YOUR COMPANY MUST WORK NEAR OVERHEAD POWER LINES,CALL (713) 228-7400 FOR THE LINES TO BE DE-ENERGIZED AND/OR MOVED AT YOUR EXPENSE.

6. IN THE EVENT A GAS LINE IS EXPOSED DUE TO EXCAVATION AND IS IN NEED OF RELOCATION, THE APPROPRIATE GAS COMPANY SHALL BE CONTACTED BY THE CONTRACTOR TO HAVE STATUS OF THE LINE VERIFIED. CONTRACTOR IS RESPONSIBLE FOR HAVING THE GAS COMPANY RELOCATE THE GAS LINES WITHIN THE RIGHT OF WAY. SEE NOTE FOR CENTERPOINT ENERGY THIS PAGE.

7. THE PREPARATION OF THESE PLANS REFLECT INFORMATION PROVIDED BY OTHERS ON THE APPROXIMATE LOCATION AND EXISTENCE OF EXISTING UTILITIES AND ADJACENT PHYSICAL FEATURES; HOWEVER, THEY DO NOT IMPLY OR AFFIRM THAT ALL UTILITIES OR PHYSICAL FEATURES ARE SHOWN. GENERALLY, UTILITY SERVICE CONNECTIONS ARE NOT INDICATED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION OF THE OWNER IMMEDIATELY UPON ENCOUNTERING UNFORESEEN CONFLICTS.

8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE DEPTH, LOCATION AND EXISTENCE OF ALL EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION, PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.

9. RIGHTS OF WAY INDICATED ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LIMITS OF RIGHT OF WAY PRIOR TO CONSTRUCTION.

10. THE CONTRACTOR SHALL MAINTAIN ACCESS TO RESIDENTIAL AND COMMERCIAL PROPERTIES ADJACENT TO WORK AREAS AT ALL TIMES.

11. NO EXCAVATIONS SHALL BE LEFT OPEN OVERNIGHT. ALL EXCAVATIONS WHICH CANNOT BE BACKFILLED OVERNIGHT SHALL BE COVERED. USE STEEL PLATES WHEN IN PAVED AREAS; IN OTHER AREAS USE 3/4" PLYWOOD, WOOD PLANKING OR OTHER MATERIAL APPROVED BY THE CITY. THE EXCAVATION AREA MUST BE WELL PROTECTED WITH TRAFFIC BARRICADES EQUIPPED WITH FLASHING YELLOW LIGHTS, DURING ACTIVE CONSTRUCTION PERIODS. THE EXCAVATION AREAS MUST BE COMPLETELY CORDONED OFF WITH PLASTIC TAPE OR CONSTRUCTION FENCE WHEN CONSTRUCTION IS NOT ACTIVELY PROGRESSING.

12. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER SUCH THAT TRUCKS AND OTHER VEHICLES DO NOT CREATE A DIRT NUISANCE OR SAFETY HAZARD IN ANY STREETS, PUBLIC OR PRIVATE. CLEAN UP OF STREETS SHALL BE DONE DAILY.

13. IT IS IMPERATIVE THAT THE CONSTRUCTION IN THE PROJECT AREA INCONVENIENCE THE RESIDENTS OF THE AREA AS LITTLE AS POSSIBLE. CLEAN-UP SHALL BE COMPLETED AND MAINTAINED WITHIN ONE BLOCK BEHIND ALL CONSTRUCTION OF UTILITIES AND PAVING. CLEAN-UP INCLUDES COMPACTION OF BACKFILL, CLOSURE OF BORE PITS, AND SURFACE RESTORATION. NEW CONSTRUCTION OPERATIONS TO BE SUSPENDED TEMPORARILY IF COMPLETE CLEAN-UP IS FURTHER THAN ONE BLOCK BEHIND CONSTRUCTION.

14. ANY AREA OF GRASS WHICH IS DISTURBED OR DUG UP DURING THE CONSTRUCTION SHALL BE REPLACED WITH ST. AUGUSTINE SOD OR GRASS WHICH MATCHES THE GRASS REMOVED, AT NO ADDITIONAL COST TO THE CITY. WHEN CONSTRUCTION OCCURS IN CITY RIGHTS-OF-WAY AND EASEMENTS ON RESIDENTIAL YARD AREAS, CARE SHALL BE TAKEN TO MINIMIZE CONSTRUCTION DAMAGE TO YARD AREAS.

15. CONTRACTOR SHALL ADEQUATELY PROTECT EXISTING STRUCTURES, SPRINKLER SYSTEMS, LANDSCAPING, UTILITIES, POWER POLES, TREES, SHRUBS AND OTHER PERMANENT OBJECTS. TREES SHALL NOT BE REMOVED OR DISTURBED UNLESS OTHERWISE NOTED IN THE TREE PROTECTION PLANS. WHERE TREE ROOTS MUST BE CUT, FOLLOW THE REPAIR METHODS DESCRIBED IN THE SPECIFICATIONS AND TREE PROTECTION PLANS. ALL COST FOR REPAIRS OR REPLACEMENT OF DAMAGE DUE TO CONTRACTOR'S PERFORMANCE WILL BE PAID BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

16. CONTRACTOR SHALL NOT USE RESIDENTS WATER.

17. PROGRESS MEETINGS WILL BE HELD BETWEEN THE CONTRACTOR, THE CITY, AND THE ENGINEER ON A MONTHLY BASIS DURING CONSTRUCTION, AND MORE FREQUENTLY IF NEEDED.

UTILITY & PAVING NOTES:

1. THE CONTRACTOR'S SURVEYOR SHALL BE REGISTERED IN THE STATE OF TEXAS AND SHALL VERIFY THE LOCATION OF THE RIGHT OF WAY AND BASELINE PRIOR TO CONSTRUCTION.

2. RELOCATE ALL EXISTING PRIVATE UTILITIES AS NECESSARY FOR CONSTRUCTION. LOCATION AND ELEVATIONS OF EXISTING UTILITIES SHOWN ON DRAWINGS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. RELOCATION OF EXISTING UTILITIES SHALL BE AT THE CONTRACTOR'S EXPENSE.

3. PROVIDE ONE FOOT (1') MINIMUM CLEARANCE BETWEEN GAS LINES AND OTHER UTILITIES (NEW OR EXISTING).

4. CONTRACTOR SHALL COMPLY WITH OSHA REGULATIONS AND STATE OF TEXAS LAW CONCERNING EXCAVATION, TRENCHING AND SHORING.

5. CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES DURING CONSTRUCTION AND SHALL RESHAPE AND REGRADE STREET DITCH TO ORIGINAL OR BETTER CONDITION, IF DISTURBED DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE CITY.

6. ALL EXCAVATION AREAS MUST BE COMPLETELY CORDONED OFF WITH A MINIMUM OF TWO STRANDS OF PLASTIC CONSTRUCTION TAPE, OR CONSTRUCTION FENCE ACCEPTABLE TO THE CITY. ADEQUATE BARRICADES WITH FLASHING YELLOW LIGHTS SHALL BE INSTALLED TO PROTECT PEDESTRIAN AND VEHICLE TRAFFIC.

7. ALL PAVEMENTS OUTSIDE THE PROJECT AREA REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH EQUAL OR BETTER MATERIALS, TO THE SATISFACTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE CITY.

8. UNIT PRICE ITEM FOR REMOVAL AND REPLACEMENT OF EXISTING DRIVEWAYS SHALL INCLUDE THE REPLACEMENT OF DRIVEWAYS USING EITHER PLAIN REINFORCED CONCRETE OR ASPHALT, BASED ON THE TYPE OF MATERIAL THE EXISTING DRIVEWAY IS MADE OF. REMOVE AND REPLACE EXISTING DRIVEWAYS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

Existing Driveway Material	Proposed Driveway Material
Concrete	Concrete
Concrete with decorative paving materials	Concrete
Concrete with asphalt overlay	Concrete
Asphalt	Asphalt
Asphalt with decorative paving materials	Asphalt
Gravel/Other	Asphalt

9. DECORATIVE DRIVEWAYS AND SIDEWALKS EXIST WITHIN THE PROJECT AREA LIMITS. CONTRACTOR SHALL COORDINATE AND GIVE THE OPPORTUNITY TO PROPERTY OWNERS TO PAY THE DIFFERENCE IN COST FOR THE REPLACEMENT/UPGRADE OF ANY DECORATIVE MATERIALS OR TREATMENTS USED ON THEIR DRIVEWAYS AND/OR SIDEWALKS. PAYMENT FOR THE UPGRADE IN MATERIALS SHALL BE MADE BY THE HOMEOWNER DIRECTLY TO THE CONTRACTOR, WITH THE CITY'S ONLY INVOLVEMENT BEING TO FACILITATE DISPUTE RESOLUTION.

10. DRIVEWAY AND SIDEWALK REPLACEMENT SHALL MATCH THE WIDTH AND LOCATION OF THE EXISTING FACILITY.

11. PARKING AREAS BUILT WITHIN STREET RIGHTS-OF-WAY SHALL BE REMOVED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH SECTION 02100 – RIGHT OF WAY PREPARATION. COST TO REMOVE THESE FACILITIES IS INCIDENTAL TO THE PROJECT, UNLESS OTHERWISE NOTED IN THE BID FORM. RECONSTRUCTION OF THESE PARKING AREAS IS NOT INCLUDED UNDER THIS CONTRACT.

12. LARGE MASONRY MAILBOXES AND OTHER TYPES OF DECORATIVE MAILBOXES EXIST WITHIN THE PROJECT AREA LIMITS. CONTRACTOR SHALL TEMPORARILY REMOVE AND RELOCATE ANY MAILBOXES LOCATED WITHIN THE STREET RIGHT-OF-WAY OUT OF HARMS WAY. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS AND ENGINEER FOR THE TEMPORARY AND PERMANENT RELOCATION OF THESE FACILITIES. COST FOR TEMPORARY AND PERMANENT RELOCATION OF MAILBOXES IS INCIDENTAL TO THE PROJECT, UNLESS OTHERWISE NOTED IN THE BID FORM.

13. THE RESIDENTS AT 1 HICKORY SHADOWS REQUIRE CONTINUOUS ACCESS TO THEIR DRIVEWAY AND HOME. CONTRACTOR SHALL PROVIDE CONSTANT ACCESS TO DRIVEWAY THROUGHOUT THE ENTIRETY OF PROJECT DURATION AS NOTED IN PLANS.

13. RESIDENT'S LANDSCAPING IMPROVEMENTS EXIST WITHIN THE PROJECT AREA LIMITS. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS AND CAREFULLY REMOVE EXISTING LANDSCAPE IMPROVEMENTS LOCATED WITHIN THE STREET RIGHT-OF-WAY AND DELIVER THE SALVAGED ITEMS AND MATERIALS TO THE CORRESPONDING PROPERTY OWNER. COST TO REMOVE AND SALVAGE EXISTING RESIDENT'S LANDSCAPING IMPROVEMENTS LOCATED IN THE RIGHT-OF-WAY IS INCIDENTAL TO THE PROJECT, UNLESS OTHERWISE NOTED IN THE BID FORM.

14. RESIDENT'S SPRINKLER SYSTEMS MAY BE LOCATED WITHIN THE STREET RIGHT-OF-WAY. CONTRACTOR SHALL CUT AND CAP EXISTING SPRINKLER SYSTEMS AT THE RIGHT-OF-WAY LINE PRIOR TO CONSTRUCTION. COST TO CUT AND CAP EXISTING SPRINKLER SYSTEMS IS INCIDENTAL TO THE PROJECT, UNLESS OTHERWISE NOTED IN THE BID FORM. RESTORATION OF THE SPRINKLER SYSTEM IS NOT INCLUDED UNDER THIS CONTRACT.

15. ALL WATER LINES SHALL HAVE 5' COVER (3' ABSOLUTE MINIMUM).

TRAFFIC CONTROL

1. CONTRACTOR SHALL NOTIFY THE CITY OF HILSHIRE VILLAGE, AMBULANCE, POLICE, FIRE AND OTHER EMERGENCY SERVICE AGENCIES AT LEAST 48 HOURS PRIOR TO CLOSURE OF ANY STREET, INTERSECTION OR LANE OF TRAFFIC. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO ALLOW ACCESS TO EMERGENCY VEHICLES AT ALL TIMES.

2. CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OPEN TO TRAFFIC AT ALL TIMES. FLAGGER AND/OR UNIFORMED OFF-DUTY POLICE OFFICER SHALL BE USED TO CONTROL TRAFFIC. UNIFORMED OFFICERS SHALL BE USED FOR TRAFFIC CONTROL ON ALL MAJOR THOROUGHFARES.

3. DURING CONSTRUCTION PROCESS, CONTRACTOR SHALL ALLOW RESIDENT TRAFFIC ACCESS TO ADJACENT PROPERTIES WITH PROPER GUIDANCE, DIRECTION AND TRAFFIC CONTROL, BUT ONLY AT SUCH TIMES THAT DAMAGE WILL NOT OCCUR TO THE CONSTRUCTION OR THE VEHICLE.

4. CONTRACTOR SHALL SET AND MAINTAIN BARRICADES, SIGNS AND OTHER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

5. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER SUCH THAT TRUCKS AND OTHER VEHICLES DO NOT CREATE A DIRT NUISANCE OR SAFETY HAZARD IN ANY STREETS, PUBLIC OR PRIVATE. CLEAN UP OF STREETS SHALL BE DONE DAILY.

6. ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL DEVICES AND MARKINGS AND STRIPING REQUIRED FOR THIS PROJECT SHALL BE INCIDENTAL TO TRAFFIC CONTROL AND REGULATION (NO SEPARATE PAY)

7. TEMPORARY ACCESS TO DRIVEWAYS, AS REQUIRED DURING ROADWAY CONSTRUCTION SHALL BE INCIDENTAL TO TRAFFIC CONTROL AND REGULATION. (NO SEPARATE PAY)

COMCAST FACILITIES

1. Contact Mr. Bill Leopard at 281-802-1679 or Mr. Mohammad Woheidy at 713-895-1213 before proceeding with construction work in the vicinity of Comast / Time Warner cable facilities.

2. When excavating within eighteen inches (18") of the indicated location of an underground utility, all excavation must be accomplished using non-mechanized excavation proceedures.

NEW WAVE COMMUNICATIONS

CAUTION:

New Wave Communications has Aerial Cables in the Project Area.
Contact Brandon Hastey TOM -Southeast Texas (979) 481-4073 bhastey @ newwavecom.com

CENTERPOINT ENERGY GAS FACILITIES

CAUTION: UNDERGROUND GAS FACILITIES

The Contractor shall contact the Utility Coordinating Committee at 800-545-6005 or 811 a minimum of 48 hours prior to construction to have main and service lines field located.

- When CenterPoint Energy pipeline markings are not visible, call (713) 207-5463 or (713) 945-8037 (7:00 am to 4:30 pm) for status of line location request before excavation begins.
- When excavating within eighteen inches (18") of the indicated location of CenterPoint Energy Facilities, all excavation must be accomplished using non-mechanized excavation procedures.
- When CenterPoint Energy facilities are exposed, sufficient support must be provided to the facilities to prevent excessive stress on the piping.
- For emergencies regarding gas lines call (713) 659-2111 or (713) 207-4200.

The contractor is fully responsible for any damages caused by his failure to exactly locate and preserve these underground facilities.

CENTERPOINT ENERGY ELECTRIC FACILITIES

CAUTION: OVERHEAD ELECTRICAL LINES

Overhead lines may exist on the property. The location of overhead lines has not been shown on these drawings as the lines are clearly visible, but you should locate them prior to beginning any construction. Texas law, Section 752, Health and Safety Code, forbids activities that occur in close proximity to high voltage lines, specifically:

- Any activity where person or things may come with six (6) feet of live overhead high voltage lines, and
- Operating a crane, derrick, power shovel, drilling rig, pile driver, hoisting equipment, or similar apparatus within ten (10) feet of live overhead high voltage lines.

Parties responsible for the work, including Contractors, are legally responsible for the safety of construction workers under this law. This law carries both criminal and civil liability. To arrange for lines to be turned off or removed, call CenterPoint Energy at (713) 207-2222.

ACTIVITIES ON / OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY

No approval to use, cross or occupy CenterPoint fee or easement property is given. If you need to use CenterPoint property, please contact our Survey & Right of Way Division at (713) 207-6348 or (713) 207-5769.

WARNING: UNDERGROUND ELECTRICAL UTILITIES

The Contractor shall contact the utility coordinating committee at (800) 545-6005 or (TEXAS) 811 a minimum of 48 hours prior to construction to have main and service lines field located.

- All information concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractors are responsible for making their own determinations as to type and location of underground utilities as may be necessary to avoid damage thereto. The contractor shall verify location of underground pipelines, conduits, and structures by contacting owners of underground utilities or by excavating in advance of construction.
- The contractor is responsible for determining the exact location of all utilities when and where they fall in the path of construction.
- The contractor is also responsible for contacting the utility coordinating committee at (713) 223-4567 and Texas one-call at (800) 245-4545, forty-eight (48) hours prior to any construction.
- The location of any CenterPoint energy utilities are shown in approximate way only. The contractor shall determine the exact location before commencing work. They agree to be fully responsible for any and all damages which might be occasioned by this failure to exactly locate and preserve these underground utilities.
- All proposed facilities shall maintain 12" clear from all existing utilities.

MK.	DESCRIPTION	DATE	DWN.	CHK.

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Paving, Drainage & Water Line Improvements

GENERAL NOTES

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale: HORZ : VERT : ONE INCH
IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE

SHEET 02 OF 28

LEGEND :

SYMBOL EXISTING PLAN VIEW	DESCRIPTION
0"IR	IRON PIPE OR IRON ROD MONUMENTS
	CENTERLINE OF RIGHT–OF–WAY
5+00	SURVEY BASELINE
	EXISTING RIGHT–OF–WAY LINE
	PROPERTY LINE
25'	DIMENSION LINE
	CURB LINE
	EDGE OF ASPHALT PAVEMENT
	SIDEWALK
	SHRUBS
	TREE
BRICK BLDG.	BUILDING
	SLAB
	POST, WOOD OR METAL
95	INDEX CONTOUR
	WATER LINE (20" & SMALLER)
	WATER LINE (24" & LARGER)
WV OR BFWV	WATER VALVE (GATE OR BUTTERFLY)
TS & V	TAPPING SLEEVE AND VALVE
FH	FIRE HYDRANT
	WATER METER
	GAS LINE
GM	GAS METER
	SANITARY SEWER LINE (24" & SMALLER)
	SANITARY SEWER LINE (30" & LARGER)
CO MH	SANITARY SEWER LINE, MANHOLE & CLEANOUT
	STORM SEWER LINE (24" & SMALLER)
	STORM SEWER LINE (30" & LARGER)
MH	STORM SEWER LINE AND MANHOLE
	STORM SEWER JUNCTION BOX
"B" INLET "B–B" INLET	CURB INLET
	GRATE INLET
	CONCRETE DRAIN
	CULVERT
SWBT 6 MTD MH	SOUTHWESTERN BELL MANHOLE & OVERHEAD & BURIED CABLE
T	TELEPHONE BOX
	STREET LIGHT (CANTILEVERED ON WOODEN POLE
	STREET LIGHT (CANTILEVERED ON ORNAMENTAL POLE

SYMBOL EXISTING PLAN VIEW	DESCRIPTION
HL & P CO MH 9 MTD	HOUSTON LIGHTING & POWER CO CONDUIT & MANHOLE
	POWER POLE W/OVERHEAD LINES
	POWER POLE W/DOWN GUY
	TRAFFIC LIGHT POLE
	MARKER
	BUSINESS SIGN
	SIGN POST
	FENCE LINE (CHAIN LINK OR OTHER)
	FENCE LINE (BARBED WIRE)

SYMBOL EXISTING PROFILE VIEW	DESCRIPTION
	NORTH OR EAST RIGHT–OF–WAY
	SOUTH OR WEST RIGHT–OF–WAY
	NORTH OR EAST DITCH OR CURB
	SOUTH OR WEST DITCH OR CURB
	CENTER LINE OF PAVEMENT
RELIANT ENERGY MTD	RELIANT ENERGY CONDUIT
8" HP CENTERPOINT ENERGY	GAS LINE
SWBT 6 MCD	SOUTHWESTERN BELL COMMUNICATION CONDUIT
EXIST 20" WATER LINE	WATER LINE (20" & SMALLER)
EXIST 24" WATER LINE	WATER LINE (24" & LARGER)
EXIST 24" SAN SWR	SANITARY SEWER LINE (24" & SMALLER)
EXIST 30" SAN SWR	SANITARY SEWER LINE (30" & LARGER)
EXIST 24" STM SWR	STORM SEWER LINE (24" & SMALLER)
EXIST 30" STM SWR	STORM SEWER LINE (30" & LARGER)
	RELIANT ENERGY MANHOLE
	SOUTHWESTERN BELL TELEPHONE MANHOLE
	SANITARY SEWER MANHOLE & CLEANOUT
	STORM SEWER MANHOLE

SYMBOL PROPOSED PLAN VIEW	DESCRIPTION
B–1	BORING LOCATION
PI#	POINT OF INTERSECTION (PI)
PC OR PT	POINT OF CURVE (PC) OR POINT OF TANGENCY (PT)
	WATER LINE (20" & SMALLER)
	WATER LINE (24" & LARGER)
	TAPPING SLEEVE & VALVE
	FIRE HYDRANT
	SANITARY SEWER LINE (24" & SMALLER)
	SANITARY SEWER LINE (30" & LARGER)
	SANITARY SEWER MANHOLE
	STORM SEWER LINE (24" & SMALLER)
	STORM SEWER LINE (30" & LARGER)
"B–B" INLET	STORM SEWER MANHOLE
	CURB INLET
	FACE OF CURB
	PROPOSED SIGN
5' CONC SIDEWALK	CONCRETE WALK

SYMBOL PROPOSED PROFILE VIEW	DESCRIPTION
	WATER LINE (20" & SMALLER)
	WATER LINE (24" & LARGER)
	SANITARY SEWER LINE (24" & SMALLER)
	SANITARY SEWER LINE (30" & LARGER)
	STORM SEWER LINE (24" & SMALLER)
	STORM SEWER LINE (30" & LARGER)
	PVC SLEEVE
	SANITARY SEWER MANHOLE
	STORM SEWER MANHOLE
	STORM SEWER INLET
TOC @ +0.30% TOC @ −0.30%	TOP OF CURB OR CENTERLINE OF OPEN DITCH PAVING

ABBREVIATIONS :

&	AND
@	AT
AB	ALL BELL
AC	ASBESTOS CEMENT
AVE	AVENUE
B	BASELINE
B–B	BACK TO BACK
BC	BEHIND CURB
BSSN	BUSINESS SIGN
CI	CAST IRON
℄	CENTERLINE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
COH	CITY OF HOUSTON
CONC	CONCRETE
CONSTR	CONSTRUCTION
CPE	CENTER POINT ENERGY
CSG	CASING
CTMS	COMPUTERIZED TRANSPORTATION MANAGEMENT SYSTEM
DI	DUCTILE IRON
DIA	DIAMETER
DR	DRIVE
DWG	DRAWING
E	EAST
EL OR ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
ESP	EXTRA STRENGTH PIPE
E/R	END OF CURB RETURN
ESMT	EASEMENT
EXIST	EXISTING
FC	FACE OF CURB
F–F	FACE–TO–FACE
FH	FIRE HYDRANT
?	FLOWLINE
FT	FEET
GV & B	GATE VALVE AND BOX
HL & P	HOUSTON LIGHTING AND POWER
HMAC	HOT MIXED ASPHALTIC CONCRETE
HPS	HIGH–PRESSURE SODIUM
HWY	HIGHWAY
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IP	IRON PIPE
IR	IRON ROD
JT	JOINT
JUNC	JUNCTION
LF	LINEAR FEET
LN	LANE
LPST	LEAKING PETROLEUM STORAGE TANK
LT	LEFT
MAX	MAXIMUM
METRO	METROPOLITAN TRANSIT AUTHORITY
MH	MANHOLE
MIN	MINIMUM
MON	MONUMENT
MRC	MONOLITHIC REINFORCED CONCRETE
N	NORTH
NFV	NOT FIELD VERIFIED
NO	NUMBER
NTS	NOT TO SCALE
OCEL	ON CURVE ELEVATION
OFS	OFFSET
OLE	OVERHEAD ELECTRICAL
OH	OVERHEAD
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PERM	PERMANENT
PI	POINT OF INTERSECTION
PPCA	POTENTIALLY PETROLEUM CONTAMINATED AREA
PROP	PROPOSED
PT	POINT
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE, POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENCY
®	RECORD DRAWING
R	RADIUS OF CIRCULAR CURVE
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
REINF	REINFORCED
REMOV	REMOVABLE
ROW	RIGHT OF WAY
RD	ROAD
RRPM	REFLECTIVE REMOVABLE PAVEMENT MARKERS
RJ	RESTRAINED JOINT
RT	RIGHT
RW	RETAINING WALL
S	SOUTH
SAN	SANITARY
SPL	SPECIAL
SPRINK	SPRINKLER
ST	STREET
STA	STATION ALONG BASELINE OR CENTERLINE
STD	STANDARD
STL	STEEL
STM	STORM
SWR	SEWER
SWBT	SOUTHWESTERN BELL COMMUNICATION COMPANY
T	TANGENT
TBM	TEMPORARY BENCH MARK
TOC OR TC	TOP OF CURB
TEMP	TEMPORARY
TP	TOP OF PAVEMENT
TS & V	TAPPING SLEEVE AND VALVE
TY	TYPE
TYP	TYPICAL
UE	UTILITY EASEMENT
UG	UNDERGROUND
VC	VERTICAL CURVE
W	WEST
W/	WITH
WL	WATER LINE
WLE	WATER LINE EASEMENT
WM	WATER METER
WP	WOOD POLE
WV	WATER VALVE

MK.	DESCRIPTION	DATE	DWN.	CHK.

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LEGEND & ABBREVIATIONS

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale: HORZ :
VERT :
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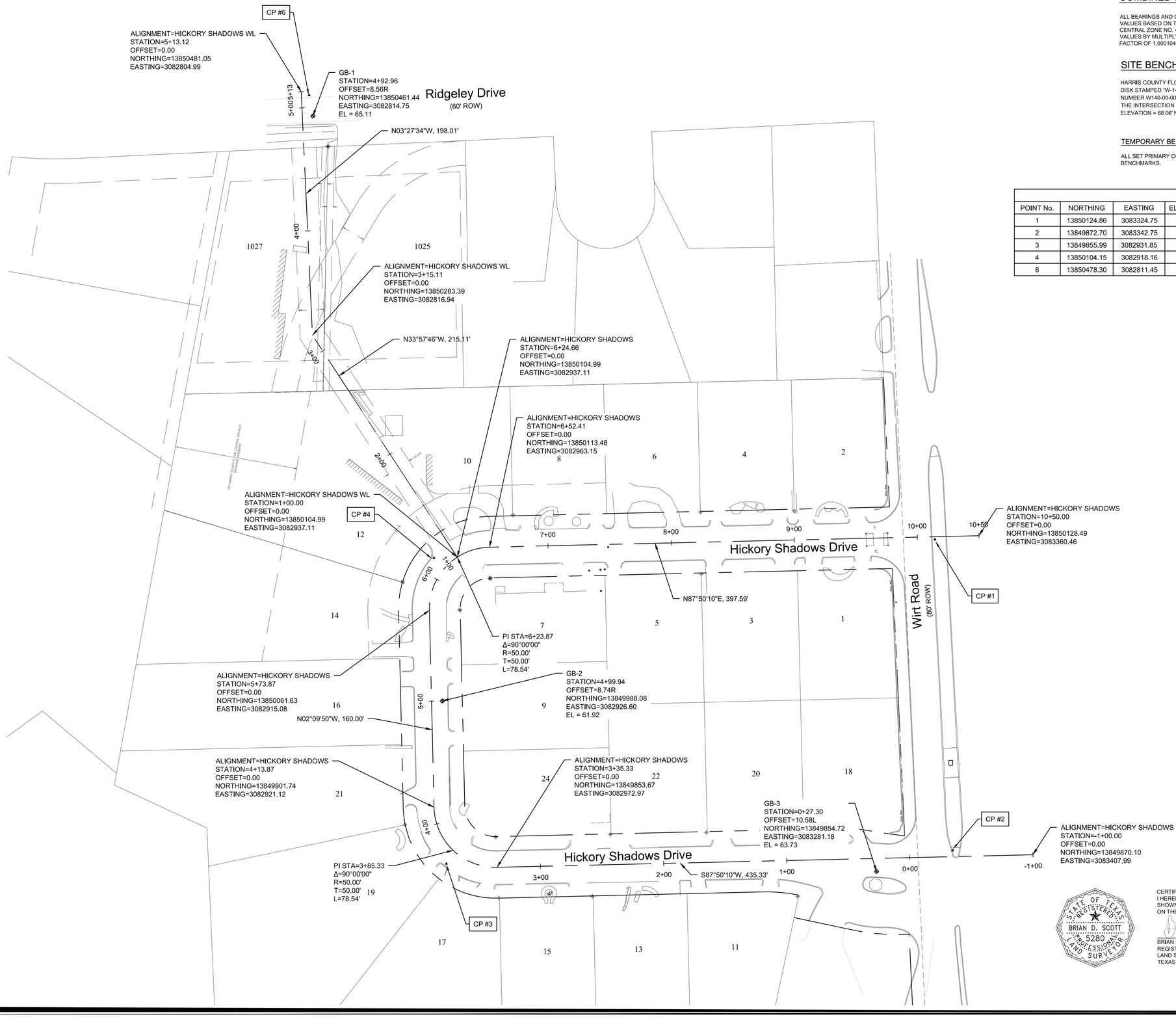
SHEET 03 OF 28



COMBINED SCALE FACTOR NOTE:

ALL BEARINGS AND COORDINATES REFERENCED HEREON ARE GRID VALUES BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE NO. 4204 AND MAY BE CONVERTED TO SURFACE VALUES BY MULTIPLYING BY THE FOLLOWING COMBINED SCALE FACTOR OF 1.00010462

SITE BENCHMARK:

HARRIS COUNTY FLOODPLAIN REFERENCE MARKER 210215 IS A BRASS DISK STAMPED "W-140" IN THE SPRING BRANCH WATERSHED, STREAM NUMBER W140-00-00. BENCHMARK IS LOCATED 340' SOUTHWEST OF THE INTERSECTION OF WESTVIEW DR. AND PECH RD. ELEVATION = 68.06' NAVD 1988, 2001 ADJ.

TEMPORARY BENCHMARKS :

ALL SET PRIMARY CONTROL POINTS(1-6) MAY BE USED AS TEMPORARY BENCHMARKS.

0 20' 40'

CONTROL TABLE

POINT No.	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET	ALIGNMENT
1	13850124.86	3083324.75	65.69	CP IRSC 58	10+14.19	2.28' RT	HICKORY SHADOWS
2	13849872.70	3083342.75	65.46	CP CHP	-0+34.91	5.06' RT	HICKORY SHADOWS
3	13849855.99	3082931.85	61.75	CP CHP	3+71.66	11.71' LT	HICKORY SHADOWS
4	13850104.15	3082918.16	62.33	CP CHP	6+11.44	12.03' LT	HICKORY SHADOWS
6	13850478.30	3082811.45	64.55	CP IRSC 58	5+09.99	6.30' RT	HICKORY SHADOWS WL

MK.	DESCRIPTION	DATE	DWN.	CHK.

MBCO ENGINEERING + SURVEYING
1505 Highway 6 South, Suite 180
Houston, Texas 77077
281.760.1656
MBCOEngineering.com
SBE/WBE/DBE/HUB
TBPELS Engineering Firm No. F-16850
Land Surveying Firm No. 10194810

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City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Utility Improvements

Survey Control Map Overall

STATE OF TEXAS · REGISTERED · BRIAN D. SCOTT · 5280 · PROFESSIONAL LAND SURVEYOR

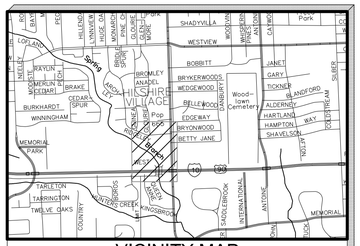
CERTIFICATION
I HEREBY CERTIFY THAT THE CONTROL POINTS SHOWN HERE WERE DETERMINED BY A SURVEY MADE ON THE GROUND ON 12/24/2024.

BRIAN D. SCOTT
REGISTERED PROFESSIONAL
LAND SURVEYOR
TEXAS REGISTRATION NO. 5280

Job No.: 10418041
Date: JUNE, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale:
HORZ : 1" = 40'
VERT :
ONE INCH
IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE

SHEET 04 OF 28



VICINITY MAP
(NOT TO SCALE)

GRAPHIC SCALE

10 0 5 10

1 inch = 10 ft.

CONTROL TABLE

POINT NUMBER	DESCRIPTION	NORTHING	EASTING	ELEVATION	STATION	OFFSET
CP #1	5/8 IR WITH MBCO CAP	13850124.86	3083324.75	65.69	10+14.19	2.28
CP #2	SET "X" IN CONCRETE	13849872.70	3083342.75	65.46	−0+34.91	5.06
CP #3	SET "X" IN CONCRETE	13849855.99	3082931.85	61.75	3+71.66	11.71
CP #4	SET "X" IN CONCRETE	13850104.15	3082918.16	62.33	6+11.44	12.03
CP #6	5/8 IR WITH MBCO CAP	13850478.30	3082811.45	64.55	5+09.99	6.30

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SITE BENCHMARK:

HARRIS COUNTY FLOODPLAIN REFERENCE MARKER 210215 IS A BRASS DISK STAMPED "W-140" IN THE SPRING BRANCH WATERSHED, STREAM NUMBER W140-00-00. BENCHMARK IS LOCATED 340' SOUTHWEST OF THE INTERSECTION OF WESTVIEW DR. AND PECH RD.
ELEVATION = 68.06' NAVD 1988, 2001 ADJ.

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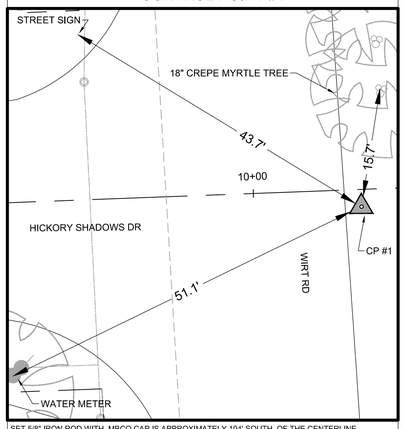
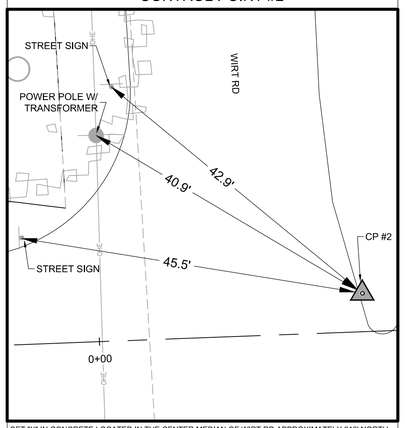
ALL SET PRIMARY CONTROL POINTS(1-6) MAY BE USED AS TEMPORARY BENCHMARKS.

CONTROL POINT #1



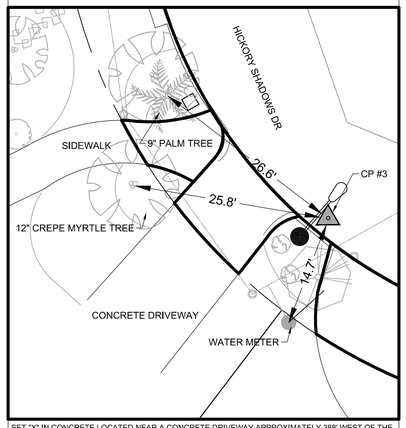
SET 5/8" IRON ROD WITH MBCO CAP IS APPROXIMATELY 104' SOUTH OF THE CENTERLINE INTERSECTION OF BETTY JANE LN AND WIRT RD.

CONTROL POINT #2



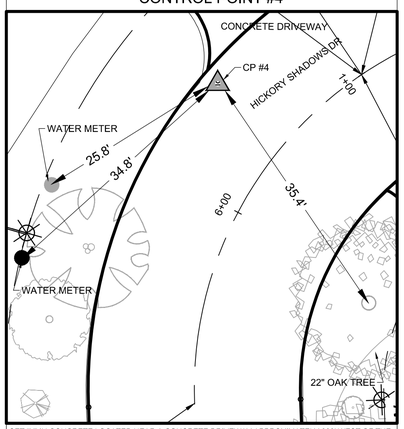
SET "X" IN CONCRETE LOCATED IN THE CENTER MEDIAN OF WIRT RD APPROXIMATELY 318' NORTH OF THE CENTERLINE INTERSECTION OF WIRT RD AND INTERSTATE 10 FRONTAGE RD.

CONTROL POINT #3



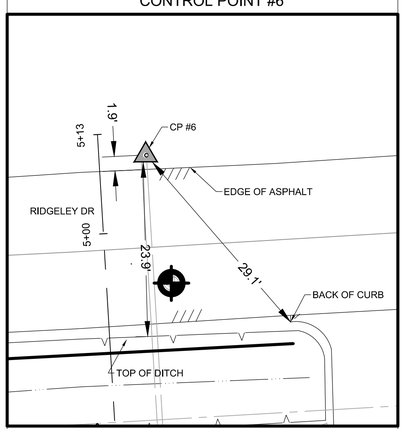
SET "X" IN CONCRETE LOCATED NEAR A CONCRETE DRIVEWAY APPROXIMATELY 388' WEST OF THE CENTERLINE INTERSECTION OF WIRT RD AND HICKORY SHADOW DR.

CONTROL POINT #4



SET "X" IN CONCRETE LOCATED NEAR A CONCRETE DRIVEWAY APPROXIMATELY 388' WEST OF THE CENTERLINE INTERSECTION OF WIRT RD AND HICKORY SHADOW DR.

CONTROL POINT #6



SET 5/8" IRON ROD WITH MBCO CAP IS APPROXIMATELY 490' WEST OF THE CENTERLINE INTERSECTION OF WIRT RD AND RIDGELEY DR.

STATE OF TEXAS · REGISTERED · BRIAN D. SCOTT · 5280 · PROFESSIONAL · LAND SURVEYOR

CERTIFICATION
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City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Utility Improvements

Hickory Shadows
Survey Control Details

Job No.: 10418041
Date: JUNE, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale:
HORZ :
VERT :
ONE INCH
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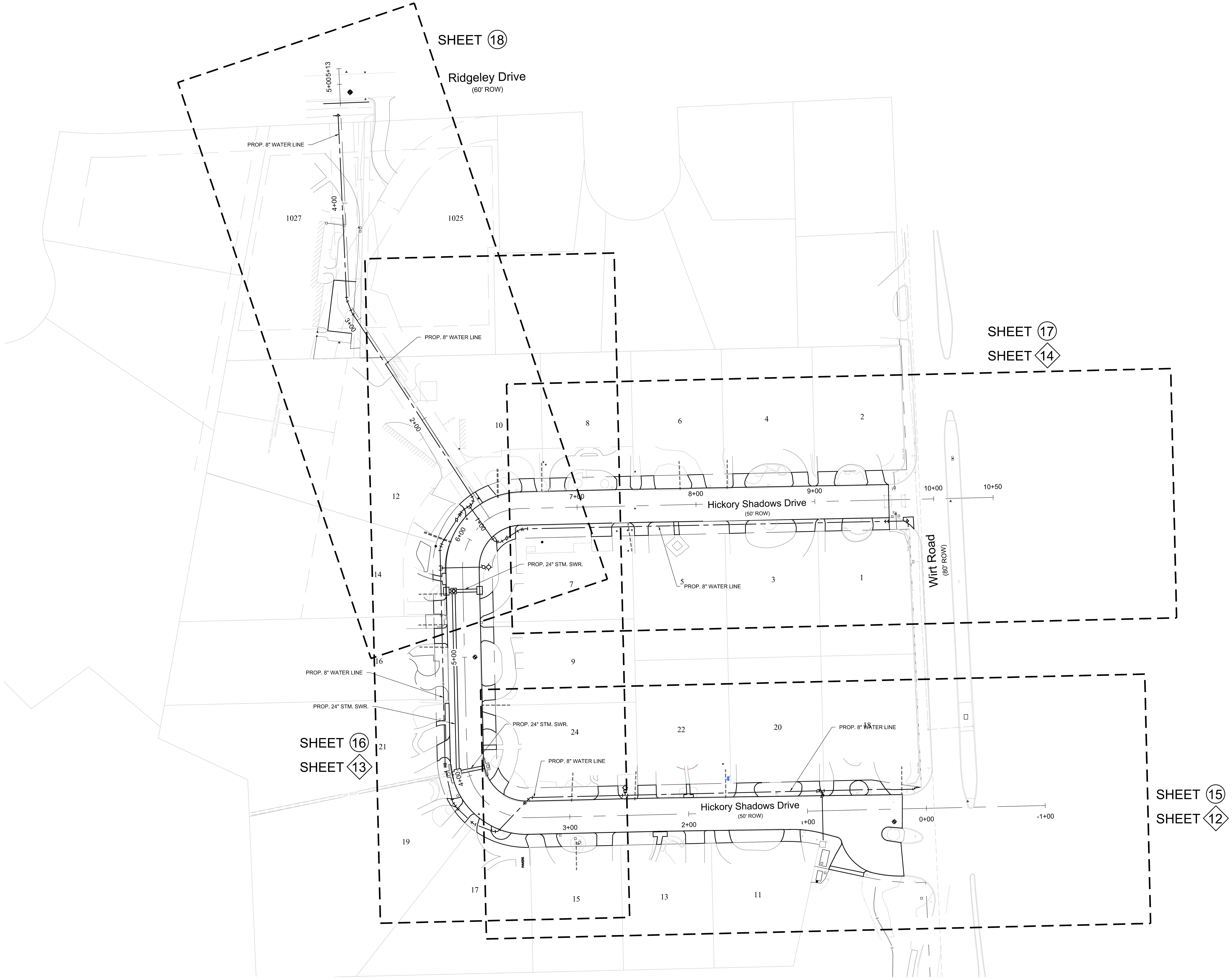
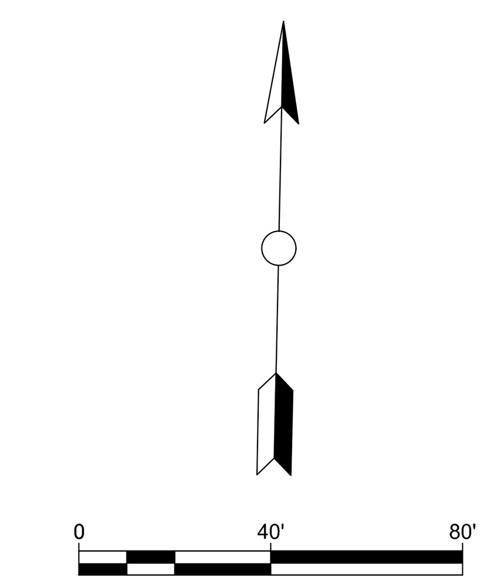
SHEET 04A OF 28





LEGEND

▭	SHEET LIMITS AND SHEET NUMBER
Y	WATER
X	PAVING & DRAINAGE

MK.	DESCRIPTION	DATE	DWN.	CHK.

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JUNE 2025
NGOC KIM LE
TX. LIC. 102192
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City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

OVERALL LAYOUT

Job No.: 10418041	Scale: HORZ : 1" = 30' VERT :	SHEET
Date: June, 2025	ONE INCH	05
Dwn By: G.S. Fuller	IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	OF 28
Chkd By: N. Le		

LEGEND

OVERALL DRAINAGE BOUNDARY

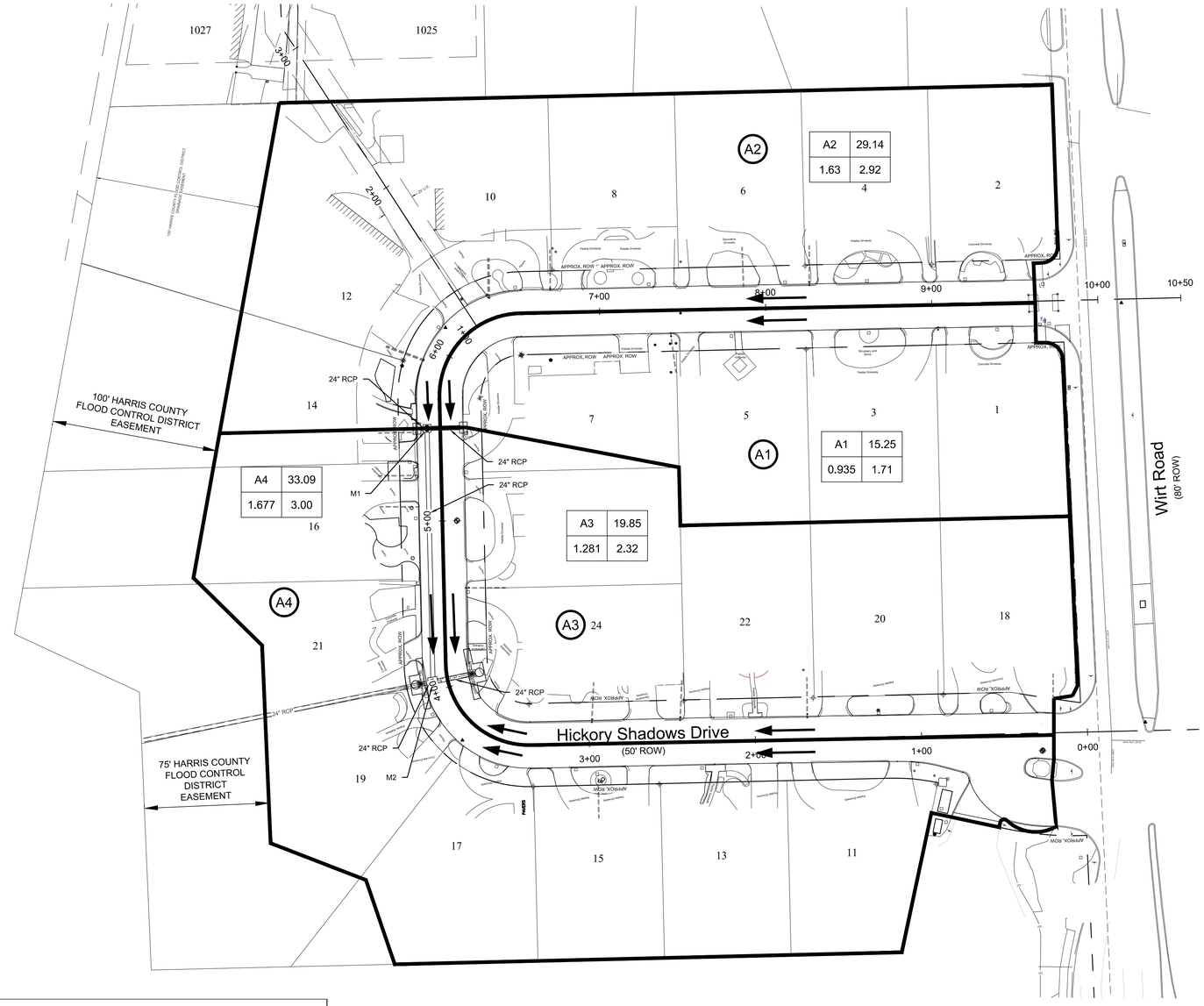
FLOW DIRECTION

DRAINAGE AREA DESIGNATION (A1)

CULVERT LABEL — DESIGNATION / AREA (ACRES) | CULVERT CAPACITY / FLOW (CFS)(2-YR)

NOTES:

1. DESIGN CRITERIA USED FOR STORM ANALYSIS IS THE LATEST HARRIS TX-DOT INTENSITY-DURATION FOR A 2-YEAR STORM EVENT WITH AN AVERAGE C VALUE OF 0.50.



Storm Sewer Hydrology & Hydraulic Calculations - 2 Year Storm Design
Hickory Shadows Drive Paving, Drainage, & Water Line Improvements
City of Hilshire Village

Job Section
Date: Tuesday, June 3, 2025
By: TC/NKL

Criteria:

HGL Starting Elevation for Drainage Basin =	59.20	(Top of Outfall Pipe)
Design Velocity =	NA	100 yr. Flood Elevation
Agency Curve Used	Harris-TxDOT	
Year Storm Calculated =	2	
Minimum pipe size proposed =	24	inches in diameter.
Pavement Thickness (inches) =	7	in.
Subgrade Thickness (inches) =	8	in.

Upstream Manhole / Inlet **(From)**	Downstream Manhole / Inlet **(To)**	Drainage Sub Area (Acres)	Total Area (Acres)	Runoff Coefficient 'C'	Sum of C*A	Time of Concentration 'TC'	Intensity based on 2 Year Storm	Bypass / Other Flow Added (cfs)	Sum of Flow (cfs)	Proposed Arch, Circular, or Box	Proposed Pipe	Prop. Top Wall Thickness (in)	Prop. Slope %	Prop. Design Capacity (cfs)	Pipe Length (Feet)	Pipe Fall (ft)	Manhole Drop / Pipe Drop (ft)	Flow line Elevation Upstream (ft)	Flow line Elevation Downstream (ft)	Actual Velocity (fps)	Travel Time (min)	Hydraulic Gradient % based on 2 Year Storm	Change in Head (ft) based on 2 Year Storm	2 Year Storm Upstream Hydraulic Elev.	2 Year Storm Downstream Hydraulic Elev.
Storm sewer along Hickory Shadows Drive																									
Inlet Laterals																									
A1	**M1**	0.935	0.935	0.50	0.468	***24.88***	**3.66**	***0.00***	***1.71***	**C**	**24"**	**3.00**	**0.45%**	**15.25**	22	0.10	0.00	57.76	57.66	**0.54**	**0.67**	**0.006%**	**0.001**	**59.28**	**59.27**
A2	**M1**	1.630	1.630	0.50	0.815	***25.90***	**3.58**	***0.00***	***2.92***	**C**	**24"**	**3.00**	**1.66%**	**29.14**	6	0.10	0.00	57.76	57.66	**0.93**	**0.11**	**0.017%**	**0.001**	**59.28**	**59.27**
A3	**M2**	1.281	1.281	0.50	0.641	***25.45***	**3.62**	***0.00***	***2.32***	**C**	**24"**	**3.00**	**0.77%**	**19.85**	24	0.18	0.00	57.53	57.35	**0.74**	**0.54**	**0.011%**	**0.003**	**59.22**	**59.21**
A4	**OUTFALL**	1.677	1.677	0.50	0.839	***25.95***	**3.58**	***0.00***	***3.00***	**C**	**24"**	**3.00**	**0.00%**	**0.00**	0	0.00	0.00	57.20	57.20	**0.96**	**0.00**	**0.018%**	**0.000**	**59.21**	**59.21**
Trunk Line																									
M1	**M2**	2.565	2.565	0.50	1.283	***26.80***	***3.52***	***0.00***	***4.51***	**C**	**24"**	**3.00**	**0.20%**	**10.11**	153	0.31	0.00	57.66	57.35	**1.44**	**1.78**	**0.040%**	**0.061**	**59.27**	**59.21**
M2	**A4/OUTFALL**	1.281	5.523	0.50	2.762	***28.51***	***3.62***	***0.00***	***9.99***	**C**	**24"**	**3.00**	**2.14%**	**33.09**	7	0.15	0.00	57.35	57.20	**3.18**	**0.04**	**0.195%**	**0.014**	**59.21**	**59.20**

MK.	DESCRIPTION	DATE	DWN.	CHK.

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JUNE 2025
NGOC KIM LE
TX. LIC. 102192
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City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

Drainage Area Map

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale: HORZ : 1" = 40'
VERT :
ONE INCH
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SHEET 06 OF 28

GENERAL TRAFFIC CONTROL NOTES:

1. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLAN" DURING CONSTRUCTION THAN WHAT IS OUTLINED IN CONTRACT DRAWINGS HE/SHE SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT AN ALTERNATIVE SET OF PLANS TO PLAN REVIEW FOR APPROVAL THREE WEEKS PRIOR TO BEGINNING CONSTRUCTION. THESE PLANS SHALL BE DRAWN TO SCALE AND SEALED BY A P.E. IN THE STATE OF TEXAS.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TXMUTCD - LATEST EDITION WITH REVISIONS) DURING CONSTRUCTION. FOR A 30 MPH ROADWAY, SIGNS SHALL BE PLACED MIN. 120' APART PER MINIMUM SIGN SPACING DISTANCE 'X' FROM "TRAFFIC CONTROL PLAN ONE-LANE TWO-WAY TRAFFIC CONTROL" DETAIL.
3. CONTRACTOR SHALL NOTIFY CITY 72 HOURS PRIOR TO INSTALLING TRAFFIC CONTROL DEVICES.
4. THE TCP PLAN SHALL BE COORDINATED WITH ALL LOCAL AGENCIES AND SERVICES THAT MAY BE IMPACTED BY THE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO EMERGENCY RESPONSE AGENCIES SUCH AS CITY POLICE DEPARTMENT, FIRE DEPARTMENT, TRASH PICKUP, USPS, SCHOOLS, AND TXDOT.
5. NO WORK WILL BE ALLOWED ON SATURDAYS OR HOLIDAYS, WITHOUT PRIOR AUTHORIZATION BY CITY STAFF.
6. THE CONTRACTOR SHALL NOT STORE ANY CONSTRUCTION MATERIALS IN SUCH A MANNER AS TO OBSTRUCT VEHICLE DRIVER SIGHT DISTANCES.
7. ALL SIGNS, WARNING DEVICES, AND BARRICADES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING ACTS OF VANDALISM OR ACCIDENT. THE CONTRACTOR SHALL INSURE THAT ALL BARRICADES, SIGNS, CHANNELIZING DEVICES, WARNING LIGHTS, TRAFFIC HANDLING DEVICES, AND TEMPORARY AND EXISTING PAVEMENT MARKINGS ARE MAINTAINED IN A CLEAN FUNCTIONAL CONDITION AT ALL TIMES.
8. THE CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS WHICH ARE IN CONFLICT WITH THE CONSTRUCTION SIGNS.
9. NOTHING IN THESE NOTES OR PLANS SHALL RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT; INCLUDING SAFETY OF ALL MODES OF TRANSPORTATION, PERSONS, AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS. PROJECT SITE AND PROPOSED IMPROVEMENTS TO BE MAINTAINED AND CONTRACTOR TO CLEAN UP AT THE END OF EACH DAY AS APPROVED BY THE ENGINEER AND CITY.
10. THE CITY HAS THE RIGHT TO DEMAND THE INSTALLATION OF ADDITIONAL TRAFFIC CONTROL DEVICES OR MODIFICATIONS OF THESE PLANS AND NOTES, AS DEEMED NECESSARY TO PROMOTE THE SAFE AND ORDERLY FLOW OF TRAFFIC, INCLUDING PEDESTRIANS AND BICYCLES, THROUGH THE CONSTRUCTION WORK ZONE. THE CONTRACTOR SHALL COMPLY WITH THESE ADDITIONAL REQUESTS OR MODIFICATIONS WITH DUE DILIGENCE.
11. WHEN ENTERING OR LEAVING ROADWAYS CARRYING PUBLIC TRAFFIC, THE CONTRACTOR'S EQUIPMENT WHETHER EMPTY OR LOADED SHALL IN ALL CASES YIELD TO PUBLIC TRAFFIC WITH ASSISTANCE OF CONTRACTOR PROVIDED CERTIFIED FLAGGER/OFF-DUTY OFFICER.
12. ACCESS TO DRIVEWAYS ADJACENT TO THE CONSTRUCTION WORK ZONE SHALL BE MAINTAINED AT ALL TIMES. ADDITIONAL CONES AND DELINEATORS MAY BE REQUIRED TO DELINEATE THE DRIVEWAY ACCESS ROUTE THROUGH THE CONSTRUCTION ZONE. A MINIMUM OF A 10' TRAVEL LANE SHALL BE MAINTAINED AT ALL TIMES.
13. CONTRACTOR SHALL PROVIDE A TEMPORARY DRIVEWAY FOR RESIDENTS UNTIL THE DRIVEWAY HAS BEEN REPLACED. THIS SHALL BE INCIDENTAL TO THE TRAFFIC CONTROL PAY ITEM.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE RESIDENTS A MINIMUM OF 7 DAYS PRIOR TO WORKING IN FRONT OF THEIR PROPERTY.
15. SPILLAGE RESULTING FROM HAULING OPERATIONS ALONG OR ACROSS ANY PUBLIC TRAVELED WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
16. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE THROUGHOUT THE PROJECT AT ALL TIMES.
17. THE CONTRACTOR SHALL COORDINATE HIS SCHEDULE OF WORK WITH UTILITY OWNERS, BOTH PUBLIC AND PRIVATE. UTILITY OWNERS MAY HAVE THERE OWN FORCES OR CONTRACTORS RELOCATING FACILITIES REQUIRED BY THE NEW CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THESE OTHER FORCES OR CONTRACTORS.
18. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.
19. ALL WORK SHALL BE PURSUED IN ACCORDANCE WITH CITY ORDINANCE NO. 40-28. NO WORK SHALL BE DONE ON HICKORY SHADOWS DRIVE IN THE ROADWAY BETWEEN HOURS OF 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM, MONDAY-FRIDAY. ALL OTHER ROADWAYS SHALL HAVE WORKING HOURS OF 7:00 AM TO 6:00 PM.
20. CONTRACTOR SHALL COVER OPEN EXCAVATIONS DURING NON-WORKING HOURS. ANCHORED STEEL PLATES SHALL BE USED TO COVER EXCAVATION WITHIN THE PAVEMENT, EXCAVATIONS OUTSIDE OF PAVEMENT SHALL BE COVERED AND ENCLOSED IN CONSTRUCTION FENCING AND OPEN THE LANES FOR TRAFFIC.

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City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

TRAFFIC CONTROL PLAN
GENERAL NOTES

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale:
HORZ :
VERT :
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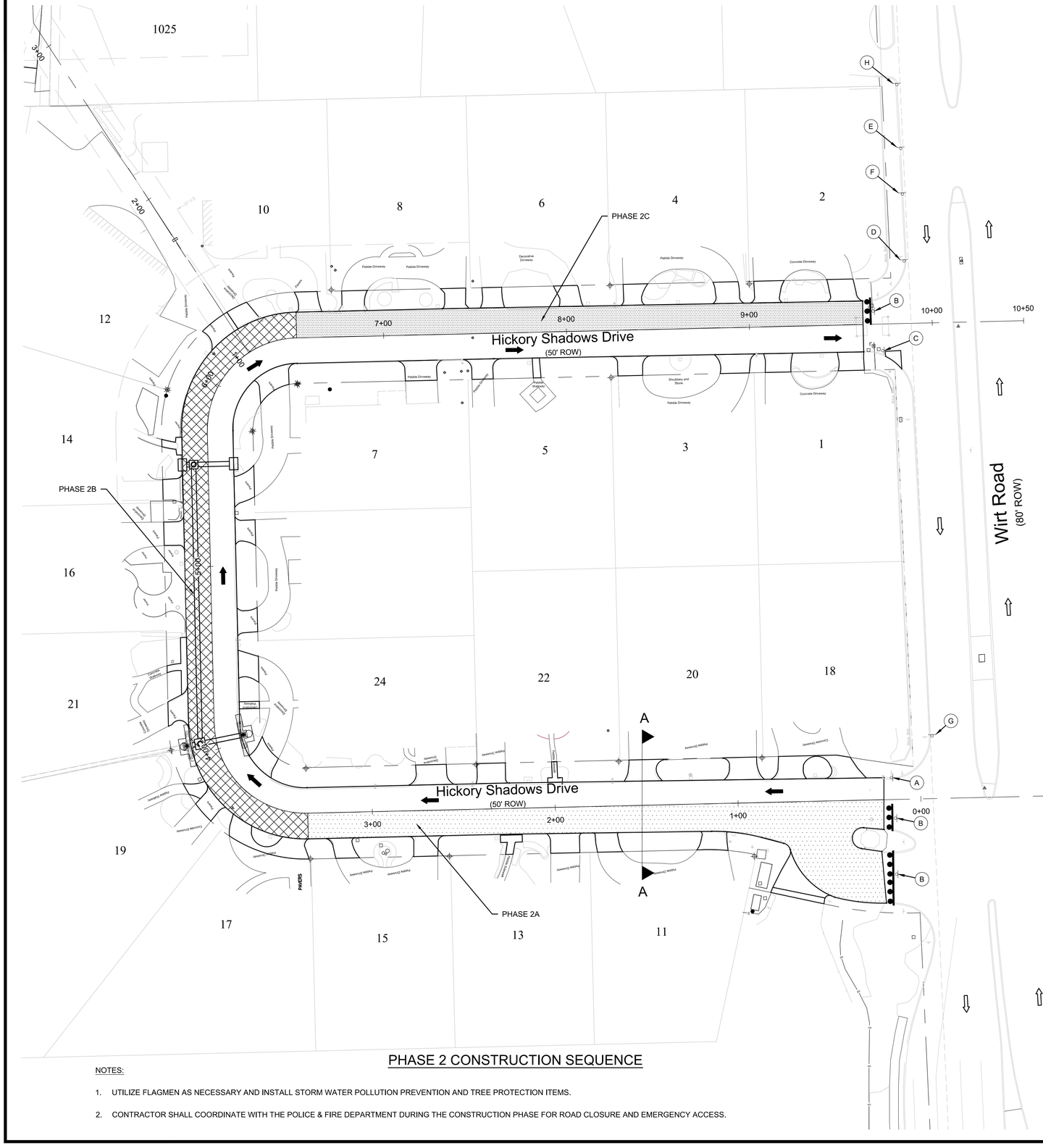
SHEET 07 OF 28



PHASE 2 CONSTRUCTION SEQUENCE

NOTES:

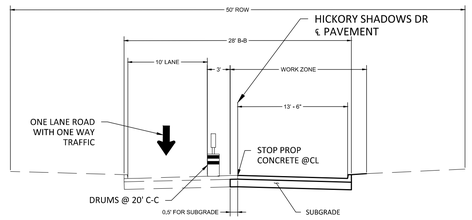
1. UTILIZE FLAGMEN AS NECESSARY AND INSTALL STORM WATER POLLUTION PREVENTION AND TREE PROTECTION ITEMS.
2. CONTRACTOR SHALL COORDINATE WITH THE POLICE & FIRE DEPARTMENT DURING THE CONSTRUCTION PHASE FOR ROAD CLOSURE AND EMERGENCY ACCESS.

PHASE 1 NOTES:

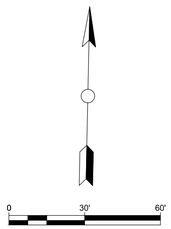
1. PLACE EROSION CONTROL ITEMS WHERE APPLICABLE (TYPICAL OF ALL TRAFFIC CONTROL PLAN NARRATIVE SEQUENCE ITEMS.)
2. INSTALL UTILITIES ON A ROLLING OPERATION PER "TRAFFIC CONTROL PLAN ONE-LANE TWO-WAY TRAFFIC CONTROL". WATER LINE TO BE INSTALLED FIRST. CONTRACTOR SHALL COORDINATE WITH CITY PRIOR TO INSTALLING UTILITIES. WHERE INSTALLATION OF UTILITIES ARE UNDER PAVEMENT, CONTRACTOR SHALL BACKFILL AND PLACE TEMPORARY PAVEMENT OR STEEL PLATES TO MAINTAIN ACCESS TO BOTH LANES OF TRAFFIC AT THE END OF EACH WORK DAY (NO SEPARATE PAYMENT).
3. INSTALLATION OF STORM SEWER ON THE WESTSIDE OF HICKORY SHADOWS DRIVE ON A ROLLING OPERATION PER SHEET 10 AND PLACE TEMPORARY ASPHALT PER TRAFFIC CONTROL ONE-LANE TWO-WAY TRAFFIC CONTROL, WITH FLAGGERS.

PHASE 2 NOTES:

1. PLACE TRAFFIC CONTROL SIGNS IN PHASE 2 IN ACCORDANCE WITH THE TYPICAL SECTION AND CONSTRUCTION SEQUENCE LAYOUT.
2. CONTRACTOR SHALL CONSTRUCT PAVEMENT IN SECTIONS (PHASE 2A, 2B AND 2C). CONSTRUCT WALKWAYS AND DRIVEWAYS ON APPLICABLE SIDE OF HICKORY SHADOWS DRIVE.
3. CONTRACTOR SHALL SEQUENCE CONSTRUCTION IN SUCH A MANNER THAT DRIVEWAYS ACCESS IS MAINTAINED AS MUCH AS POSSIBLE. CONTRACTOR TO VERIFY WITH ALL RESIDENTS IF ANY SPECIAL DRIVEWAY ACCESS IS NEEDED.
4. CONTRACTOR SHALL PROVIDE 72 HOUR NOTICE TO RESIDENTS PRIOR TO DRIVEWAY REMOVAL OR UTILITY SERVICE DISRUPTION.

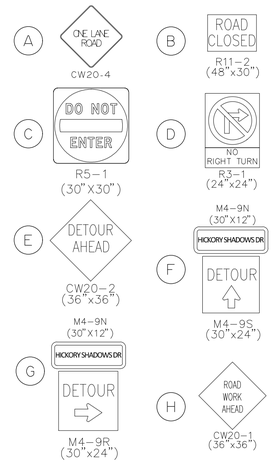


GENERAL TYPICAL SECTION FOR PAVING HALF OF THE ROAD
SECTION A-A



LEGEND

- PHASE 2A CONSTRUCTION
- PHASE 2B CONSTRUCTION
- PHASE 2C CONSTRUCTION
- BARRELS OR DRUMS
- GROUND MOUNTED SIGN
- TYPE III BARRICADE
- PROP DIRECTION OF TRAFFIC
- EXIST DIRECTION OF TRAFFIC



MK.	DESCRIPTION	DATE	DWN.	CHK.

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JUNE 2025
NGOC KIM LE
TX. LIC. 102192
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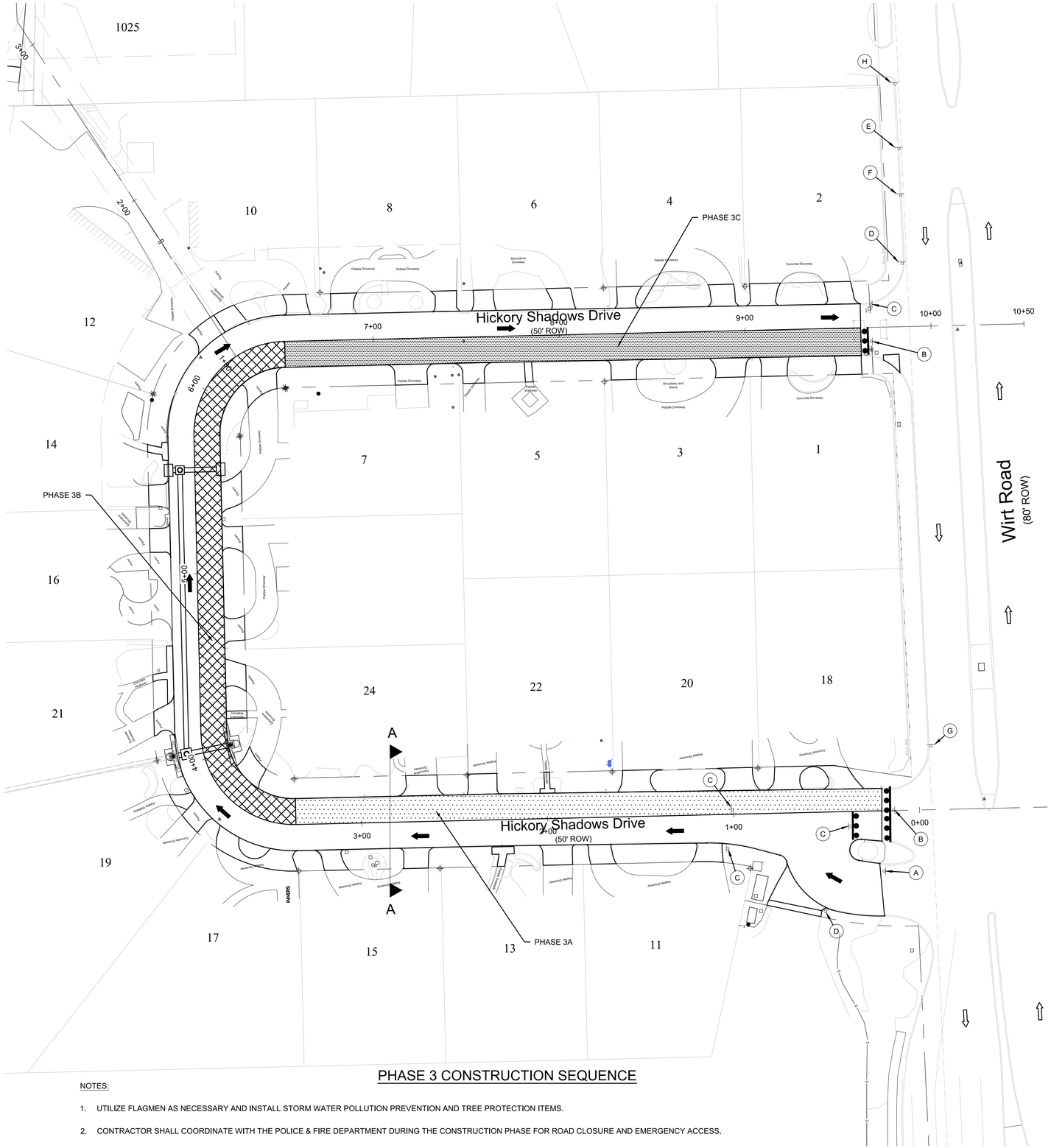
4828 Loop Central Drive, Suite 700 • Houston, Texas 77081
(713) 622-9264 • Fax (713) 622-9265 • www.hdrinc.com

City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

Traffic Control Map
Phase 1 & 2

Job No.: 10418041	Scale: HORZ : 1" = 30' VERT : ONE INCH (IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE)	SHEET 08 OF 28
Date: June, 2025		
Dwn By: G.S. Fuller		
Chkd By: N. Le		



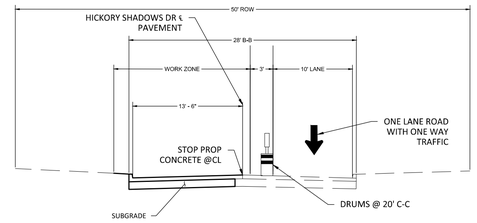
PHASE 3 CONSTRUCTION SEQUENCE

NOTES:

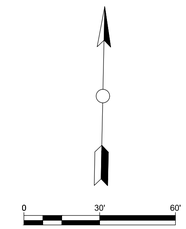
1. UTILIZE FLAGMEN AS NECESSARY AND INSTALL STORM WATER POLLUTION PREVENTION AND TREE PROTECTION ITEMS.
2. CONTRACTOR SHALL COORDINATE WITH THE POLICE & FIRE DEPARTMENT DURING THE CONSTRUCTION PHASE FOR ROAD CLOSURE AND EMERGENCY ACCESS.

PHASE 3 NOTES:

1. PLACE EROSION CONTROL ITEMS WHERE APPLICABLE (TYPICAL OF ALL TRAFFIC CONTROL PLAN NARRATIVE SEQUENCE ITEMS.)
2. PLACE TRAFFIC CONTROL SIGNS AND DEVICES FOR PHASE 3 IN ACCORDANCE WITH TYPICAL SECTIONS AND CONSTRUCTION SEQUENCE LAYOUT.
3. CONTRACTOR SHALL CONSTRUCT PAVEMENT IN APPLICABLE SECTIONS (PHASE 3A, 3B AND 3C). CONSTRUCT WALKWAYS AND DRIVEWAYS ON APPLICABLE SIDE OF HICKORY SHADOWS DRIVE.
4. CONTRACTOR SHALL SEQUENCE CONSTRUCTION IN SUCH A MANNER THAT DRIVEWAYS ACCESS IS MAINTAINED AS MUCH AS POSSIBLE. CONTRACTOR TO VERIFY WITH ALL RESIDENTS IF ANY SPECIAL DRIVEWAY ACCESS IS NEEDED.
5. THE RESIDENTS AT 1 HICKORY SHADOWS REQUIRE CONTINUOUS ACCESS TO THEIR DRIVEWAY AND HOME. CONTRACTOR SHALL PROVIDE CONSTANT ACCESS TO DRIVEWAY THROUGHOUT THE ENTIRETY OF PROJECT DURATION AS NOTED IN PLANS.
6. CONTRACTOR SHALL PROVIDE 72 HOUR NOTICE TO RESIDENTS PRIOR TO DRIVEWAY REMOVAL OR UTILITY SERVICE DISRUPTION.

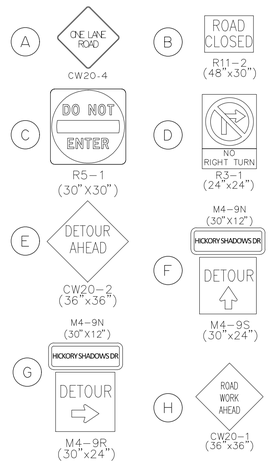


GENERAL TYPICAL SECTION FOR PAVING HALF OF THE ROAD



LEGEND

- PHASE 3A CONSTRUCTION
- PHASE 3B CONSTRUCTION
- PHASE 3C CONSTRUCTION
- BARRELS OR DRUMS
- GROUND MOUNTED SIGN
- TYPE III BARRICADE
- PROP DIRECTION OF TRAFFIC
- EXIST DIRECTION OF TRAFFIC



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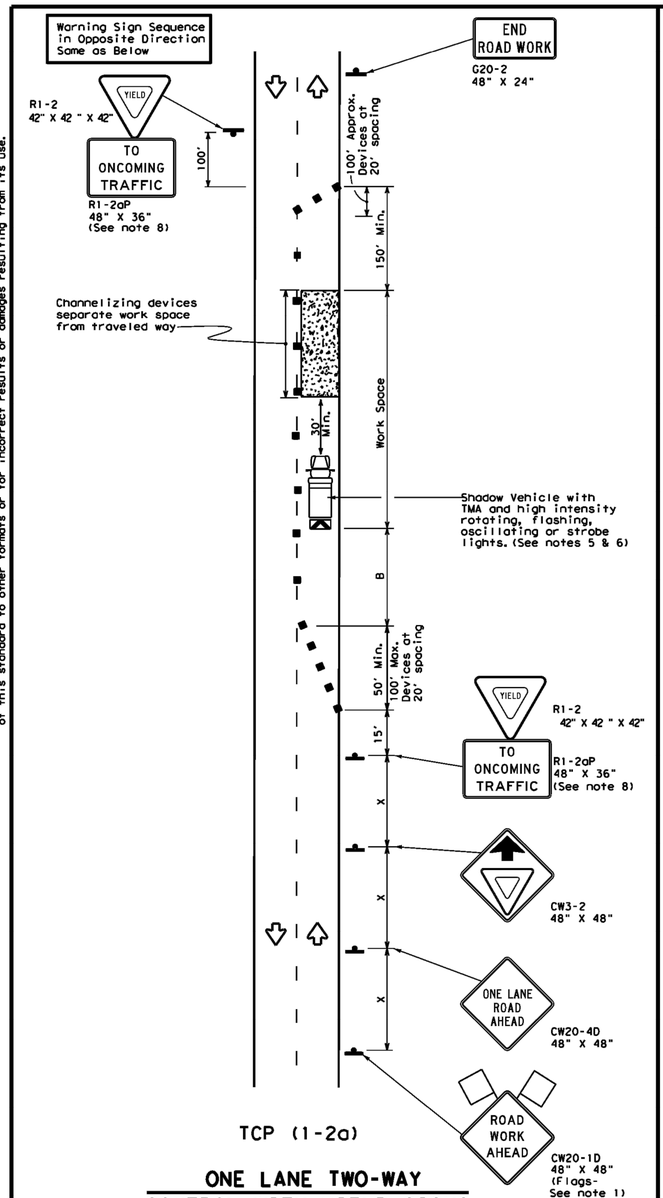
Paving, Drainage & Water Line Improvements

Traffic Control Map Phase 3

Job No.: 10418041	Scale: HORZ : 1" = 30' VERT : ONE INCH IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	SHEET 09 OF 28
Date: June, 2025		
Dwn By: G.S. Fuller		
Chkd By: N. Le		

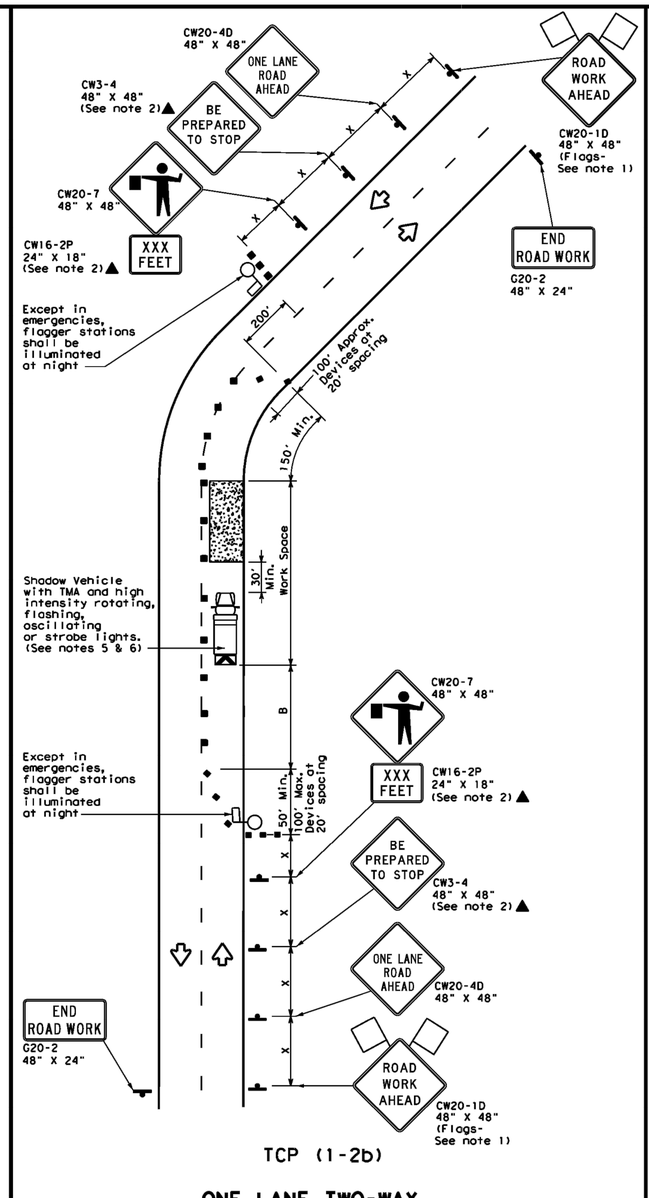
DATE:
FILE:



TCP (1-2a)

ONE LANE TWO-WAY CONTROL WITH YIELD SIGNS

(Less than 2000 ADT - See note 7)



TCP (1-2b)

ONE LANE TWO-WAY CONTROL WITH FLAGGERS

LEGEND

	Type 3 Barricade	■ ■	Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	(M)	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L=WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE

MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4D "ONE LANE ROAD AHEAD" sign, but proper sign spacing shall be maintained.
4. Sign spacing may be increased or an additional CW20-1D "ROAD WORK AHEAD" sign may be used if advance warning ahead of the flagger or R1-2 "YIELD" sign is less than 1500 feet.
5. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
6. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.

TCP (1-2a)

7. R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work spaces should be no longer than one half city block. In rural areas on roadways with less than 2000 ADT, work spaces should be no longer than 400 feet.
8. R1-2 "YIELD" sign with R1-2aP "TO ONCOMING TRAFFIC" plaque shall be placed on a support at a 7 foot minimum mounting height.

TCP (1-2b)

9. Flaggers should use two-way radios or other methods of communication to control traffic.
10. Length of work space should be based on the ability of flaggers to communicate.
11. If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain adequate stopping sight distance to the flagger and a queue of stopped vehicles (see table above).
12. Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.
13. Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

Texas Department of Transportation — Traffic Operations Division Standard

TRAFFIC CONTROL PLAN ONE-LANE TWO-WAY TRAFFIC CONTROL

TCP(1-2)-18

FILE: tcp1-2-18.dgn	DN:	CK:	DW:	CK:
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS 4-90 4-98 / 2-94 2-12 / 1-97 2-18	DIST	COUNTY		SHEET NO.

152

MK.	DESCRIPTION	DATE	DWN.	CHK.

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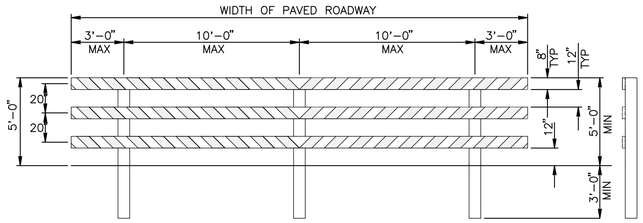
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

ONE-LANE TWO-WAY TRAFFIC CONTROL DETAIL

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

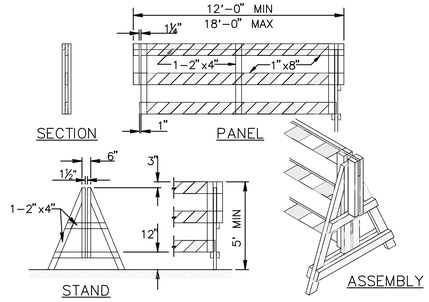
Scale: HORZ : VERT : ONE INCH
IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE

SHEET 10 OF 28



TYPE III BARRICADE FOR END OF ROAD

FOR TYPE III BARRICADE FOR END OF ROAD, THE THREE (3) RAILS SHALL BE REFLECTIVE RED AND REFLECTIVE WHITE STRIPES ON SIDE FACING TRAFFIC



DEMOUNTABLE TYPE III BARRICADE

BARRICADE NOTES

THE MOST RECENT EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND IT'S REVISIONS, SHALL GOVERN THE CONSTRUCTION AND USE OF ALL ITEMS HEREIN DESCRIBED.

CHANNELIZATION DEVICES OTHER THAN BARRICADES SHOULD NORMALLY BE USED FOR CHANNELIZATION PURPOSES.

BARRICADES SHOULD NORMALLY BE PLACED PERPENDICULAR TO THE TRAFFIC FLOW. OTHER CHANNELIZING DEVICES, SUCH AS DRUMS, VERTICAL PANELS OR PORTABLE BARRIERS, SHOULD BE USED WHERE NEEDED TO SEPARATE TRAFFIC FROM THE WORK AREA. IN ALL CASES, THE BARRICADES SHOULD BE SO LOCATED AS TO MOST ADVANTAGEOUSLY WARN AND DIRECT TRAFFIC.

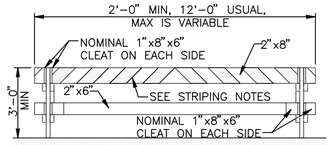
BARRICADES MAY BE DESIGNED AND CONSTRUCTED FROM WOOD OR ANY OTHER SUITABLE MATERIAL IN A MANNER APPROVED BY THE DEPARTMENT OF TRAFFIC AND TRANSPORTATION. THE CONSTRUCTION DETAILS SHOWN HEREON ARE TYPICAL AND ARE SUGGESTED DETAILS FOR WOOD SUPPORT SYSTEMS FOR BARRICADES. THE DETAILS OF RAIL WIDTH AND STRIPING, NUMBER AND SPACING OF RAILS, MINIMUM LENGTH AND HEIGHT (ABOVE PAVEMENT) OF RAILS MUST BE ADHERED TO WHEN ALTERNATE DESIGNS ARE USED.

BARRICADES ARE TO BE CONSTRUCTED OF CLEAN SOUND MATERIAL. ALL SURFACES ABOVE GROUND, WHICH ARE NOT STRIPED, SHALL BE WHITE EXCEPT THE UNPAINTED GALVANIZED METAL OR ALUMINUM COMPONENTS MAY BE USED. COMPONENTS MADE OF LUMBER SHALL BE PAINTED WITH A MINIMUM OF TWO COATS OF AN APPROVED BRAND OF WHITE PAINT TO SECURE THOROUGH COVERAGE AND A UNIFORM WHITE COLOR.

THE REFLECTORIZED WHITE AND REFLECTORIZED ORANGE (REFLECTORIZED RED) STRIPES FOR BARRICADES, DRUMS AND VERTICAL PANELS SHALL BE CONSTRUCTED OF "HIGH INTENSITY" SHEETING AND SHALL BE MAINTAINED TO MEET THE APPEARANCE, COLOR AND REFLECTIVITY REQUIREMENTS SET BY DOT.

THE CONTRACTOR SHALL MAINTAIN EACH BARRICADE IN A CLEAN AND GOOD CONDITION.

BARRICADES SHALL BE REMOVED UPON COMPLETION OF THE WORK AND/OR THE ELIMINATION OF THE HAZARD ON ANY SECTION.



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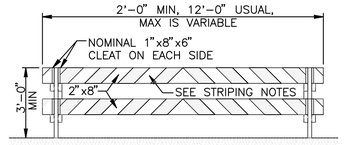

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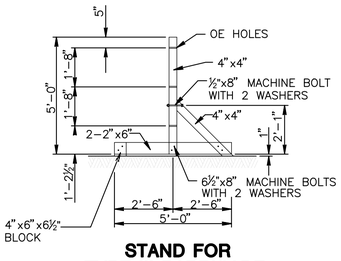
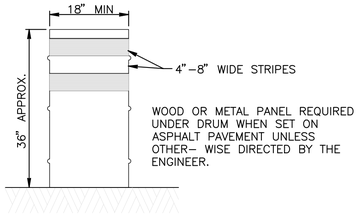


STAND FOR TYPE III BARRICADE

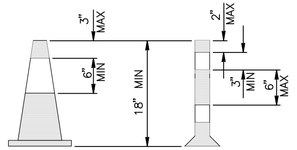


WOOD OR METAL PANEL REQUIRED UNDER DRUM WHEN SET ON ASPHALT PAVEMENT UNLESS OTHER– WISE DIRECTED BY THE ENGINEER.

DRUMS

DRUMS, SET ON END, AND USED FOR TRAFFIC WARNING OR CHANNELIZATION SHALL BE APPROX 36" IN HEIGHT AND A MIN OF 18" IN DIAMETER. THE CONTRACTOR, AT HIS OPTION, MAY USE DRUMS MADE FROM STEEL BARRELS OR BLACK POLYETHYLENE PLASTIC DRUM LINERS WEIGHING APPROX EIGHT POUNDS EACH. THE MARKINGS ON DRUMS SHALL BE HORIZONTAL, CIRCUMFERENTIAL, REFLECTORIZED ORANGE AND REFLECTORIZED WHITE STRIPES, 4 TO 8 INCHES WIDE. THE FIRST REFLECTORIZED STRIPE SHOULD START WITHIN TWO (2) INCHES OF THE TOP OF THE DRUM. THERE SHALL BE AT LEAST TWO ORANGE AND TWO WHITE STRIPES ON EACH DRUM. IF THERE ARE NON– REFLECTORIZED SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES, THEY SHALL BE NO MORE THAN 2 INCHES WIDE. METAL DRUMS SHALL BE PAINTED BLACK OR ORANGE BEFORE REFLECTORIZED STRIPES ARE ADDED. ALL DRUMS ON PROJECT WILL BE THE SAME COLOR. WHEN DRUMS ARE PLACED IN THE ROADWAY, APPROPRIATE WARNING SIGNS SHOULD BE USED. DURING HOURS OF DARKNESS, A FLASHING WARNING LIGHT SHOULD BE PLACED ON DRUMS USED SINGLY AS A WARNING DEVICE. STEADY BURN ELECTRIC LIGHTS OR DELINEATORS SHOULD BE PLACED ON DRUMS USED IN SERIES FOR TRAFFIC CHANNELIZATION. DRUMS SHALL BE WEIGHTED WITH SAND TO THE EXTENT INDICATED IN THE PLANS.

CWI–8 CHEVRON SIGNS, CWI–6A ARROW SIGNS OR VP–I VERTICAL PANELS MOUNTED ABOVE DRUMS MAY BE USED AS SUPPLEMENTS TO DRUM DELINEATION.

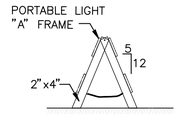


CONES

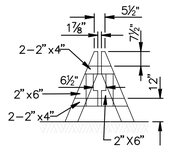
TRAFFIC CONES AND TUBULAR MARKERS SHALL BE A MIN OF 18" INCHES IN HEIGHT WITH A BROADENED BASE AND MAY BE MADE OF VARIOUS MATERIALS TO WITHSTAND IMPACT WITHOUT DAMAGE TO THEMSELVES OR TO VEHICLES. LARGER SIZES SHOULD BE USED ON FREEWAYS AND OTHER ROADWAYS WHERE SPEED ARE RELATIVELY HIGH OR WHERE EVER MORE CONSPICUOUS GUIDANCE IS NEEDED. ORANGE SHALL BE THE PREDOMINANT COLOR ON CONES AND TUBULAR MARKERS. THEY SHOULD BE KEPT CLEAN AND BRIGHT FOR MAX TARGET VALUE. FOR NIGHTTIME USE THEY SHALL BE REFLECTORIZED OR EQUIPPED WITH LIGHTING DEVICES FOR MAX VISIBILITY. REFLECTORIZED MATERIAL SHALL HAVE A SMOOTH, SEALED OUTER SURFACE WHICH WILL DISPLAY THE SAME APPROX COLOR DAY AND NIGHT.

REFLECTORIZATION OF TUBULAR MARKERS SHALL BE A MIN OF TWO THREE–INCH BANDS PLACED A MAX OF 2" FROM THE TOP WITH A MAX OF 6" BETWEEN THE BANDS. REFLECTORIZATION OF CONES SHALL BE PROVIDED BY A MIN 6" BAND PLACED A MAX OF 3" FROM THE TOP.

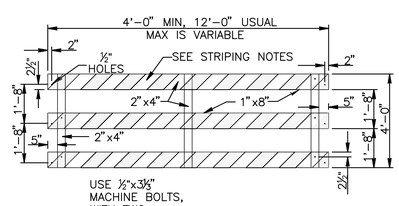
CONES OR TUBULAR MARKERS ARE GENERALLY ONLY SUITABLE FOR TEMPORARY USAGE (UP TO 8 HOURS) WITH OTHER CHANNELIZATION DEVICES SUCH AS VERTICAL PANELS OR BARRICADES PREFERRED FOR LONGER TERM USAGE. CARE SHOULD BE TAKEN TO INSURE THAT THEY REMAIN IN THEIR PROPER LOCATION AND IN AN UPRIGHT POSITION.



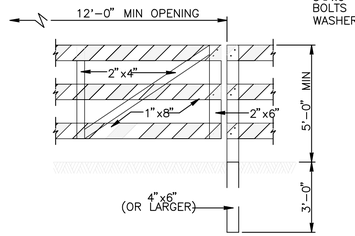
"A" FRAME



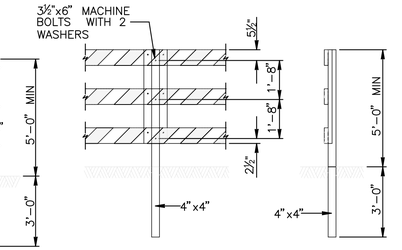
DEMOUNTABLE



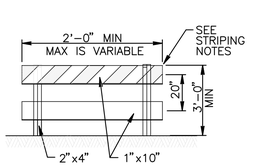
PANEL FOR TYPE III BARRICADE



GATE FOR TYPE III BARRICADE



POST FOR TYPE III BARRICADE



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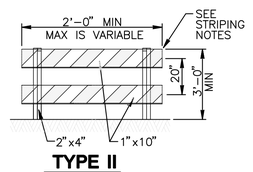

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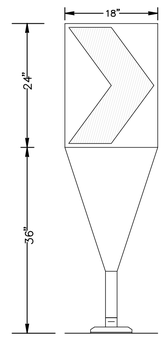
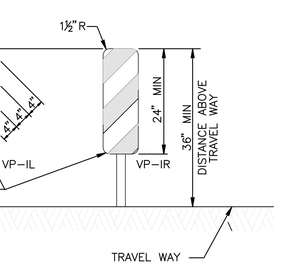


FIXED BASE W/ APPROVED ADHESIVE (DRIVEABLE BASE, OR FLEXIBLE SUPPORT CAN BE USED)

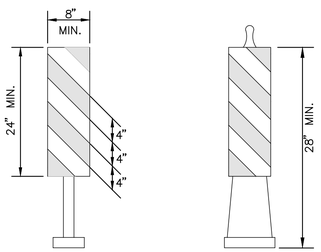
1. THE CHEVRON SHALL BE A VERTICAL RECTANGLE WITH A MINIMUM SIZE OF 12 BY 18 INCHES.
2. CHEVRONS ARE INTENDED TO GIVE NOTICE OF A SHARP CHANGE OF ALIGNMENT WITH THE DIRECTION OF TRAVEL AND PROVIDE ADDITIONAL EMPHASIS AND GUIDANCE FOR VEHICLE OPERATORS WITH REGARD TO CHANGES IN HORIZONTAL ALIGNMENT OF THE ROADWAY.
3. CHEVRONS, WHEN USED, SHALL BE ERECTED ON THE OUTSIDE OF A SHARP CURVE OR TURN, OR ON THE FAR SIDE OF AN INTERSECTION. THEY SHALL BE IN LINE WITH AND AT RIGHT ANGLES TO APPROACH–ING TRAFFIC. SPACING SHOULD BE SUCH THAT THE MOTORIST ALWAYS HAS THREE IN VIEW, UNTIL THE CHANGE IN ALIGNMENT ELIMINATES ITS NEED.
4. TO BE EFFECTIVE, THE CHEVRON SHOULD BE VISIBLE FOR AT LEAST 500 FEET.
5. CHEVRONS SHALL BE ORANGE WITH A BLACK NON–REFLECTIVE LEGEND. SHEETING FOR THE CHEVRON SHALL BE RETROREFLECTIVE TYPE E (FLUORESCENT PRISMATIC) CONFORMING TO DEPARTMENTAL MATERIAL SPECIFICATION DMS–8300, UNLESS NOTED PTHERWISE. THE LEGEND SHALL BE BLACK VINYL NON–REFLECTIVE DECAL SHEETING MEETING THE REQUIREMENTS OF DMS–8320.

CHEVRONS



VERTICAL PANELS (VP)

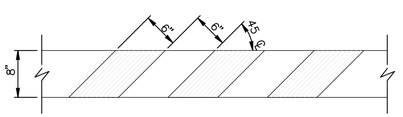
VERTICAL PANELS ARE NORMALLY USED AS CHANNELIZING DEVICES TO INDICATE TANGENT OR NEARLY TANGENT ROADWAY ALIGNMENT WHERE GOOD TARGET VALUE OF A DEVICE IS NEEDED IN DAYTIME AS WELL AS THE NIGHTTIME. IN ADDITION, VERTICAL PANELS SHOULD BE USED AT THE EDGE OF SHOULDER DROP–OFFS AND OTHER SUCH AREAS AS LANE TRANSITIONS WHERE POSITIVE DAY AND NIGHT DELINEATION MAY BE REQUIRED. VERTICAL PANELS SHOULD BE MOUNTED BACK TO BACK IF USED AT THE EDGE OF CUTS ADJACENT TO TWO–WAY TWO LANE ROADWAYS. STRIPES SHOULD ALWAYS SLOPE DOWNWARD TOWARD THE TRAVELED WAY.



PORTABLE RIGID VERTICAL PANEL

SEE COMPLIANT PRODUCTS LIST FOR ALTERNATE DESIGNS.

1. CHANNELIZING DEVICES ON SELF–RIGHTING SUPPORTS MAY BE A VERTICAL PANEL, OPPOSING LANE DIVIDER OR CHEVRON.
2. CHANNELIZING DEVICES ON SELF–RIGHTING SUPPORTS SHALL BE USED AT LOCATIONS DETAILED ELSEWHERE IN THE PLANS. THESE DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
3. THE CONTRACTOR SHALL MAINTAIN DEVICES IN A CLEAN CONDITION AND REPLACED DAMAGED, NON–REFLECTIVE, FADED, OR BROKEN DEVICES AND BASES AS NECESSARY.
4. PORTABLE BASES SHALL BE FABRICATED FROM VIRGIN AND/OR RECYCLED RUBBER. APPROXIMATE WEIGHT OF PORTABLE BASES SHALL BE 35 LBS.



STRIPING FOR BARRICADE

FOR ALL TYPES OF BARRICADES WITH RAILS LESS THAN 3'–0" LONG, STRIPES 4" WIDE SHALL BE USED. IDENTIFICATION MARKINGS MAY BE SHOWN ONLY ON BACK SIDE OF BAR–RICADE RAILS.

STRIPING SHOULD COVER THE FULL WIDTH OF THE RAIL. STRIPING OF RAILS, PANELS, ETC, SHOULD SLOPE DOWNWARD AT AN ANGLE OF 45° DEGREES IN DIRECTIONS TRAFFIC IS TO PASS.

WHERE A BARRICADE EXTENDS ENTIRELY ACROSS A ROADWAY, IT IS DESIRABLE THAT THE STRIPES SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING. WHEN BOTH RIGHT AND LEFT TURNS ARE PROVIDED FOR, THE CHEVRON STRIPING SHOULD SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE.

MK.	DESCRIPTION	DATE	DWN.	CHK.

FOR REVIEW ONLY
JUNE 2025
NGOC KIM LE
TX. LIC. 102192
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City of Hilshire Village, Texas

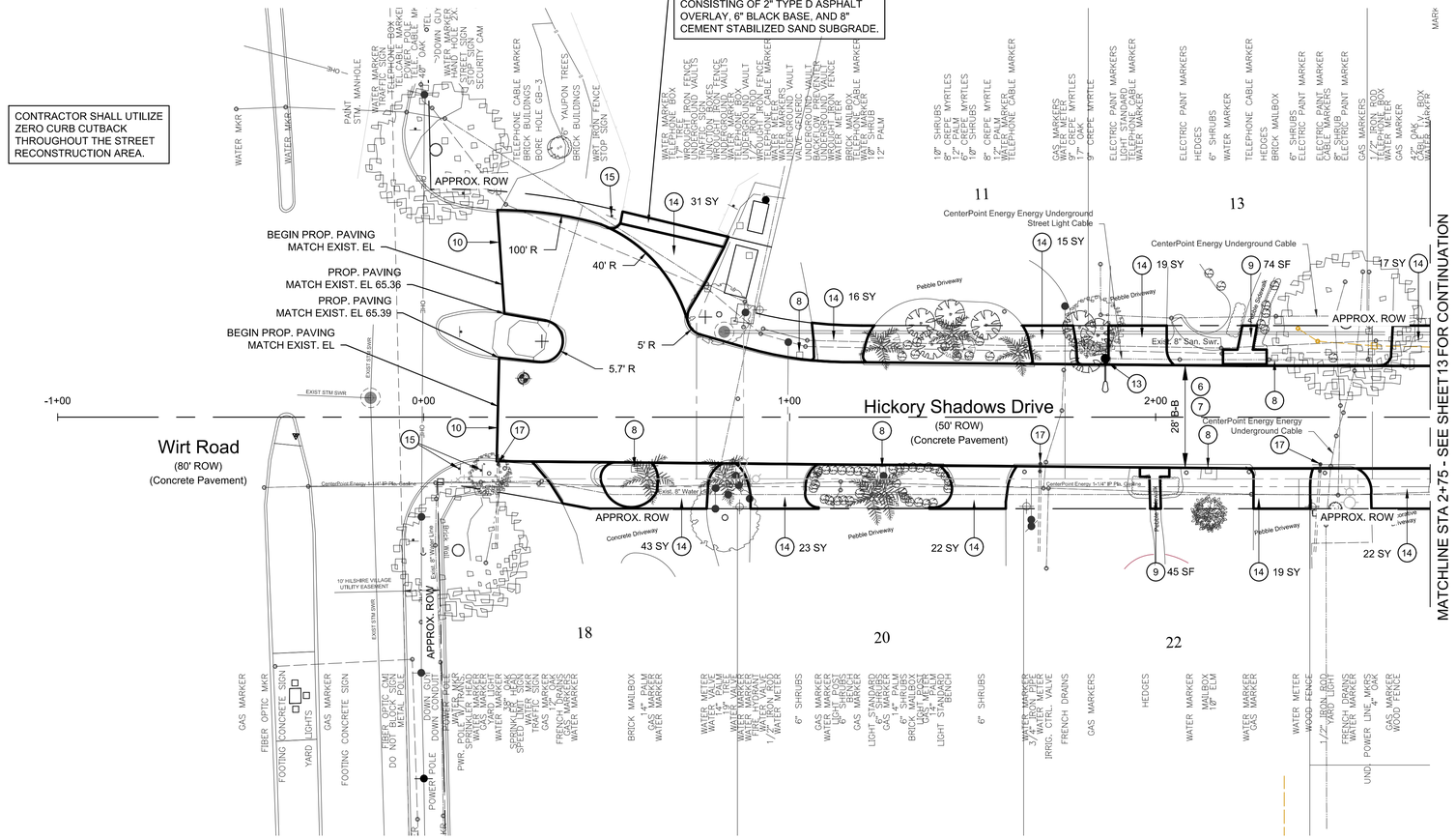
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

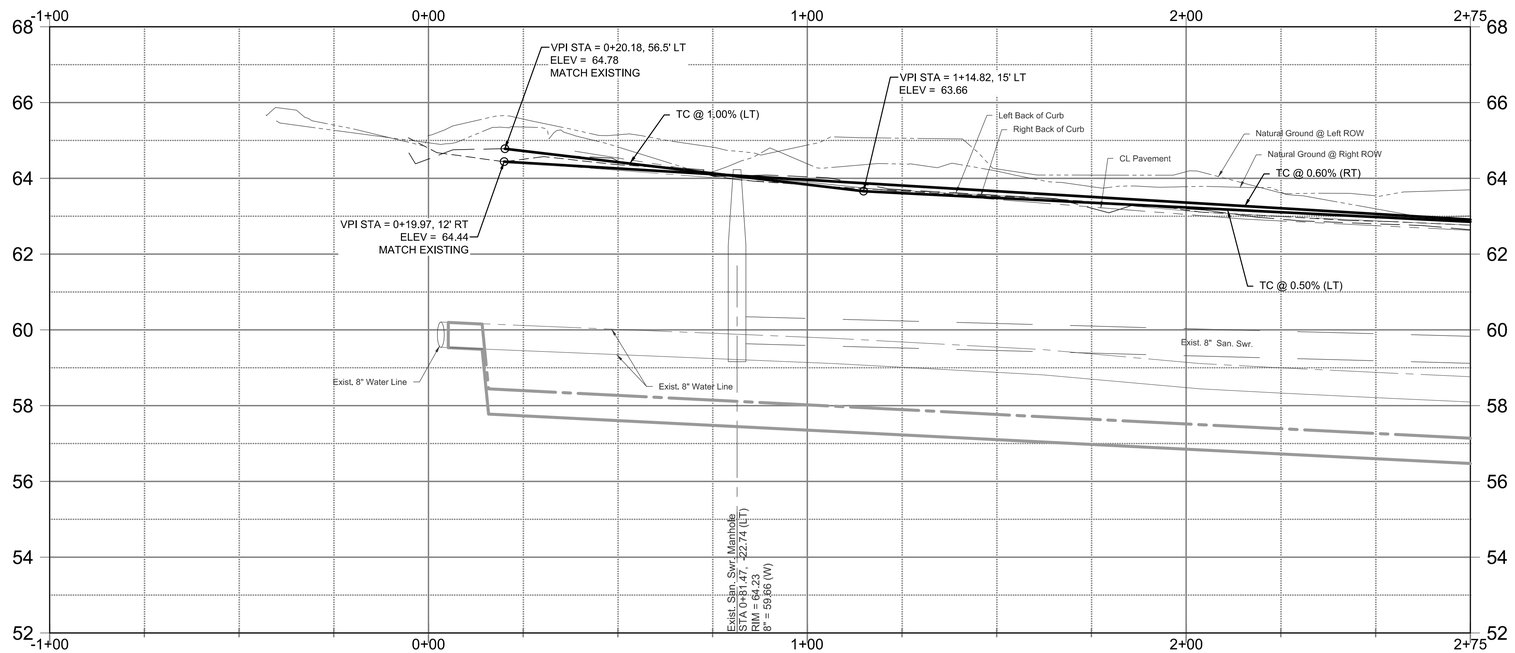
TYPICAL TRAFFIC CONTROL DETAILS

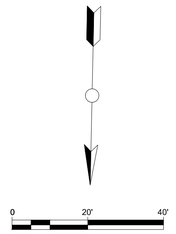
Job No.: 10418041	Scale: HORZ : VERT : ONE INCH	SHEET 11
Date: June, 2025	IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	OF 28
Dwn By: G.S. Fuller		
Chkd By: N. Le		

CONTRACTOR SHALL UTILIZE ZERO CURB CUTBACK THROUGHOUT THE STREET RECONSTRUCTION AREA.

PROP 11 SY 3' ASPHALT TRANSITION CONSISTING OF 2" TYPE D ASPHALT OVERLAY, 6" BLACK BASE, AND 8" CEMENT STABILIZED SAND SUBGRADE.







IMPROVEMENTS LEGEND:

UTILITIES, PAVING & DRAINAGE:

1. Proposed 1 ¾" Short Side Water Service Replacement with New Meter Box.
2. Proposed 1 ¾" Long Side Water Service Replacement with New Meter Box.
3. Remove and Salvage Existing Fire Hydrants.
4. Abandon Existing Water Valve as Per Specifications.
5. Abandon Existing Water Line Per Specifications.
6. Proposed Concrete pavement. (See Typical Single Roadway Section on Sheet 21)
7. Remove and Dispose of Existing Concrete Pavement and Base Course with Curb.
8. Remove and Reset Mailboxes. (Contractor to Verify if Removal is Required)
9. Proposed Walkway Replacement. (See Sidewalk Details on Sheet 22)
10. Proposed Pavement Header. (See Type I Paving Header Detail on Sheet 21)
11. Remove Existing Storm Sewer Inlet.
12. Remove Existing Storm Sewer.
13. Contractor Shall Coordinate Support, Adjustment or Relocation of Power/Light Poles and/or Guy Anchors w/Owner of Poles, as Required.
14. Remove and Replace Driveway with Concrete. (See Driveway Details on Sheet 22)
15. Remove and Relocate Sign.
16. Cut and Plug Sprinkler Head at R.O.W - No Replacement.
17. Remove and Replace existing Yard Drain using 4" PVC Pipe to penetrate through Proposed Curb. (No Separate Payment)

MK.	DESCRIPTION	DATE	DWN.	CHK.

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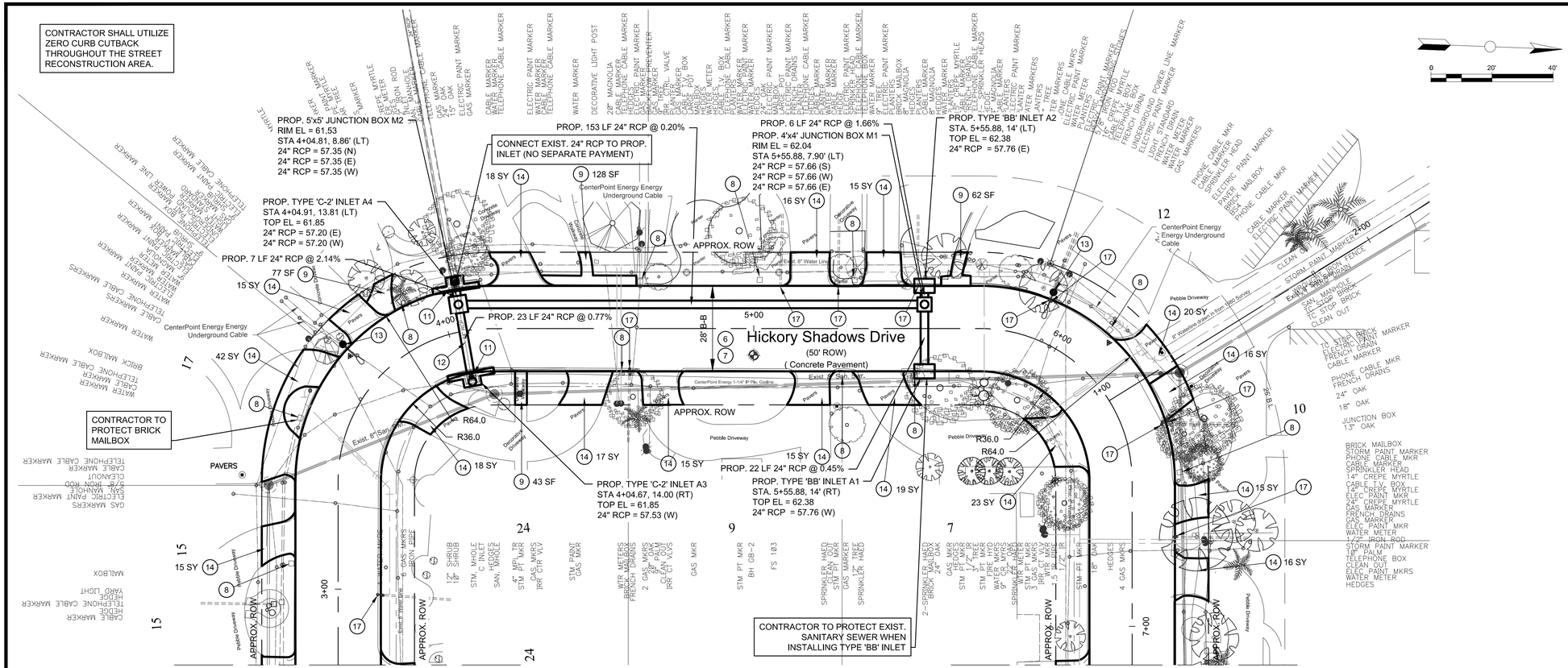
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

HICKORY SHADOWS
STA. -1+00.00 TO STA. 2+75.00

Job No.: 10418041	Scale: HORZ : 1" = 20' VERT : 1" = 2'	SHEET 12
Date: June, 2025	ONE INCH IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	OF 28
Dwn By: G.S. Fuller		
Chkd By: N. Le		

CONTRACTOR SHALL UTILIZE ZERO CURB CUTBACK THROUGHOUT THE STREET RECONSTRUCTION AREA.



0 20' 40'

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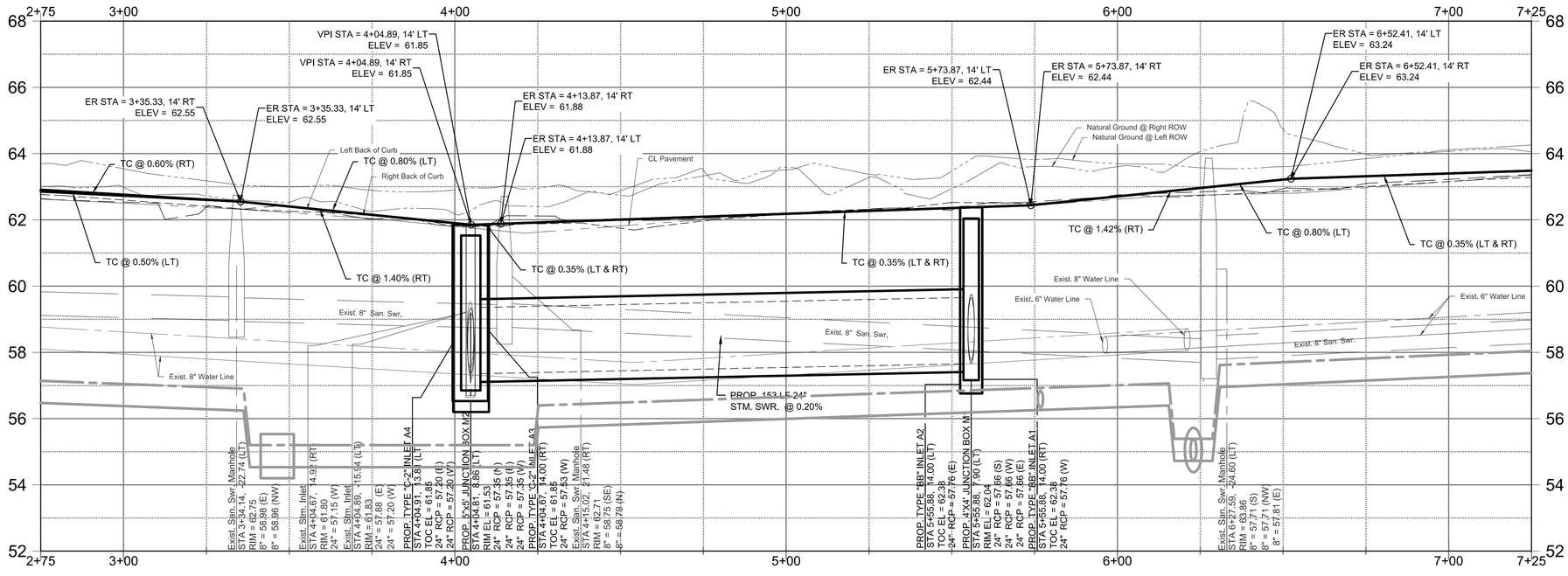

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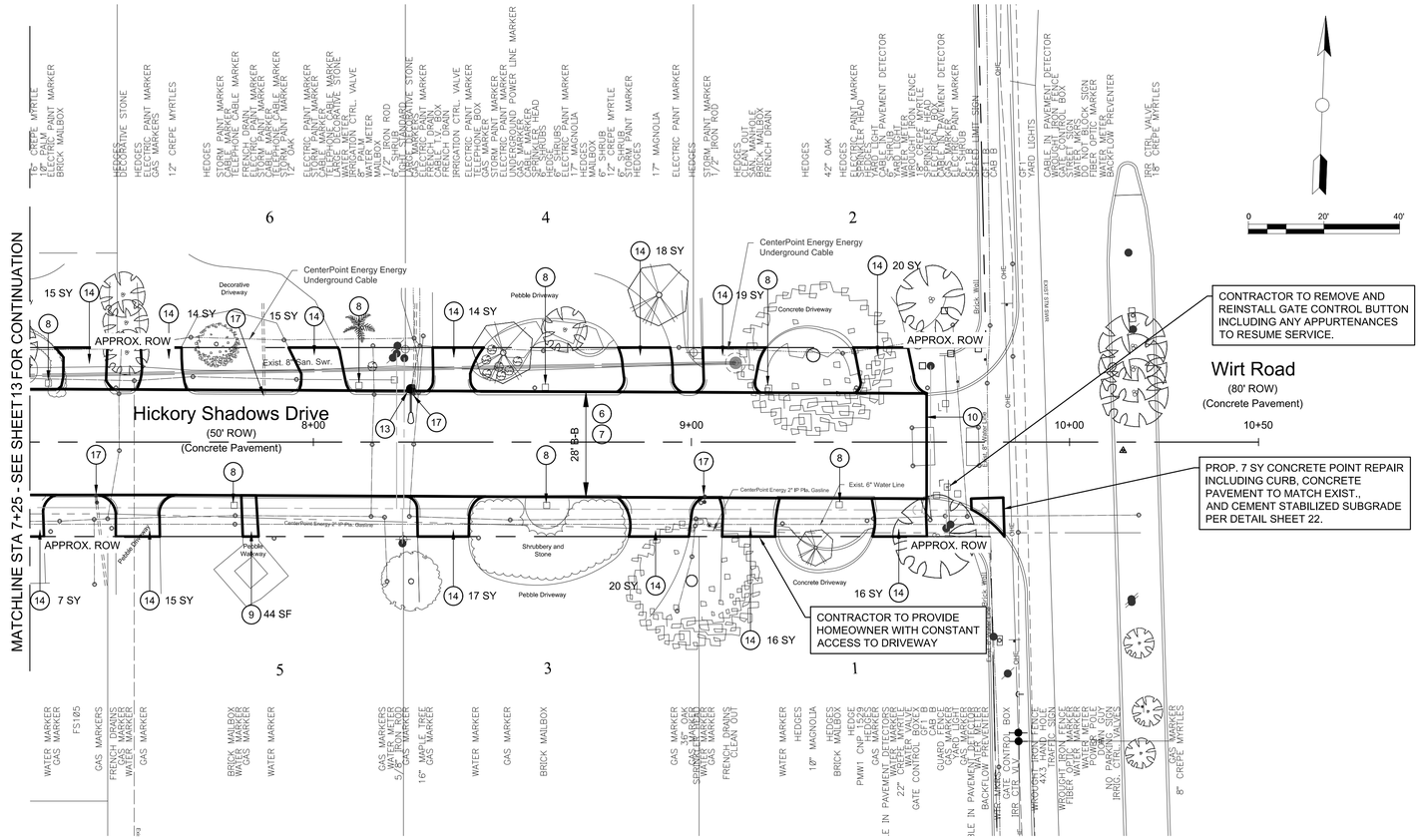
City of Hilshire Village, Texas

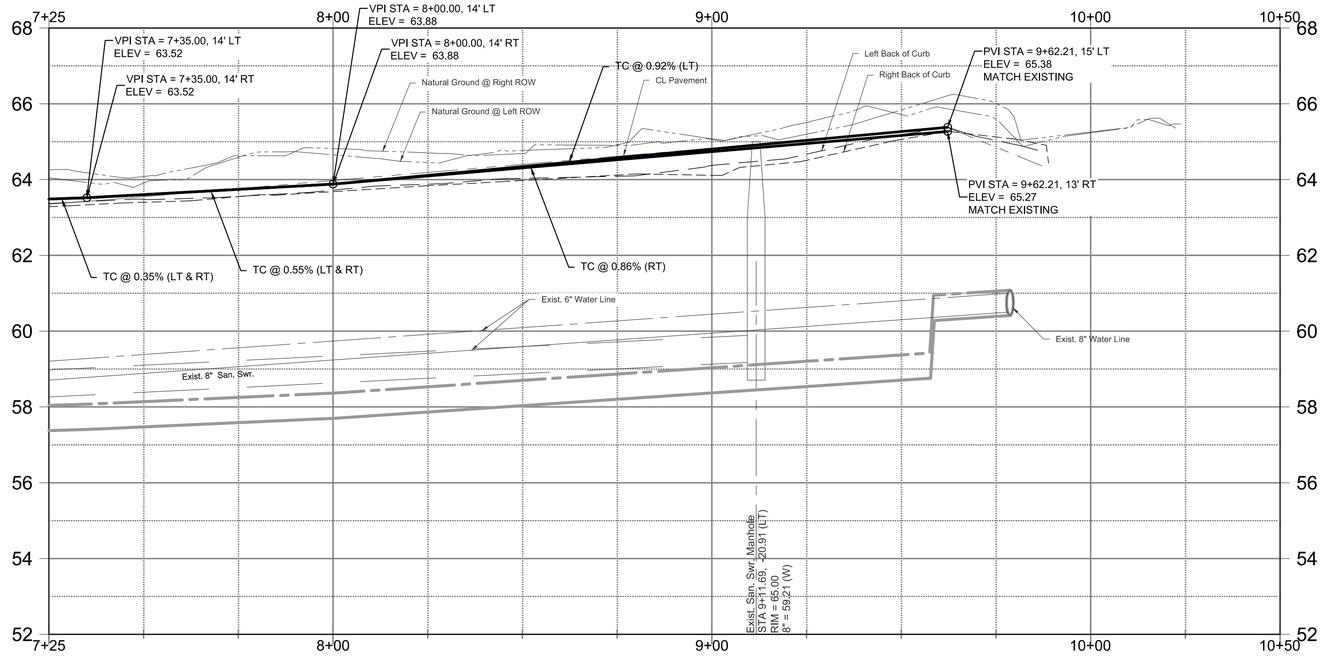
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

HICKORY SHADOWS
STA. 2+75.00 TO STA. 7+25.00

Job No.: 10418041	Scale: HORZ : 1" = 20' VERT : 1" = 2' ONE INCH IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	SHEET 13 OF 28
Date: June, 2025		
Dwn By: G.S. Fuller		
Chkd By: N. Le		

CONTRACTOR SHALL UTILIZE ZERO CURB CUTBACK THROUGHOUT THE STREET RECONSTRUCTION AREA.





IMPROVEMENTS LEGEND:

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14. Remove and Replace Driveway with Concrete. (See Driveway Details on Sheet 22)
15. Remove and Relocate Sign.
16. Cut and Plug Sprinkler Head at R.O.W - No Replacement.
17. Remove and Replace existing Yard Drain using 4" PVC Pipe to penetrate through Proposed Curb. (No Separate Payment)

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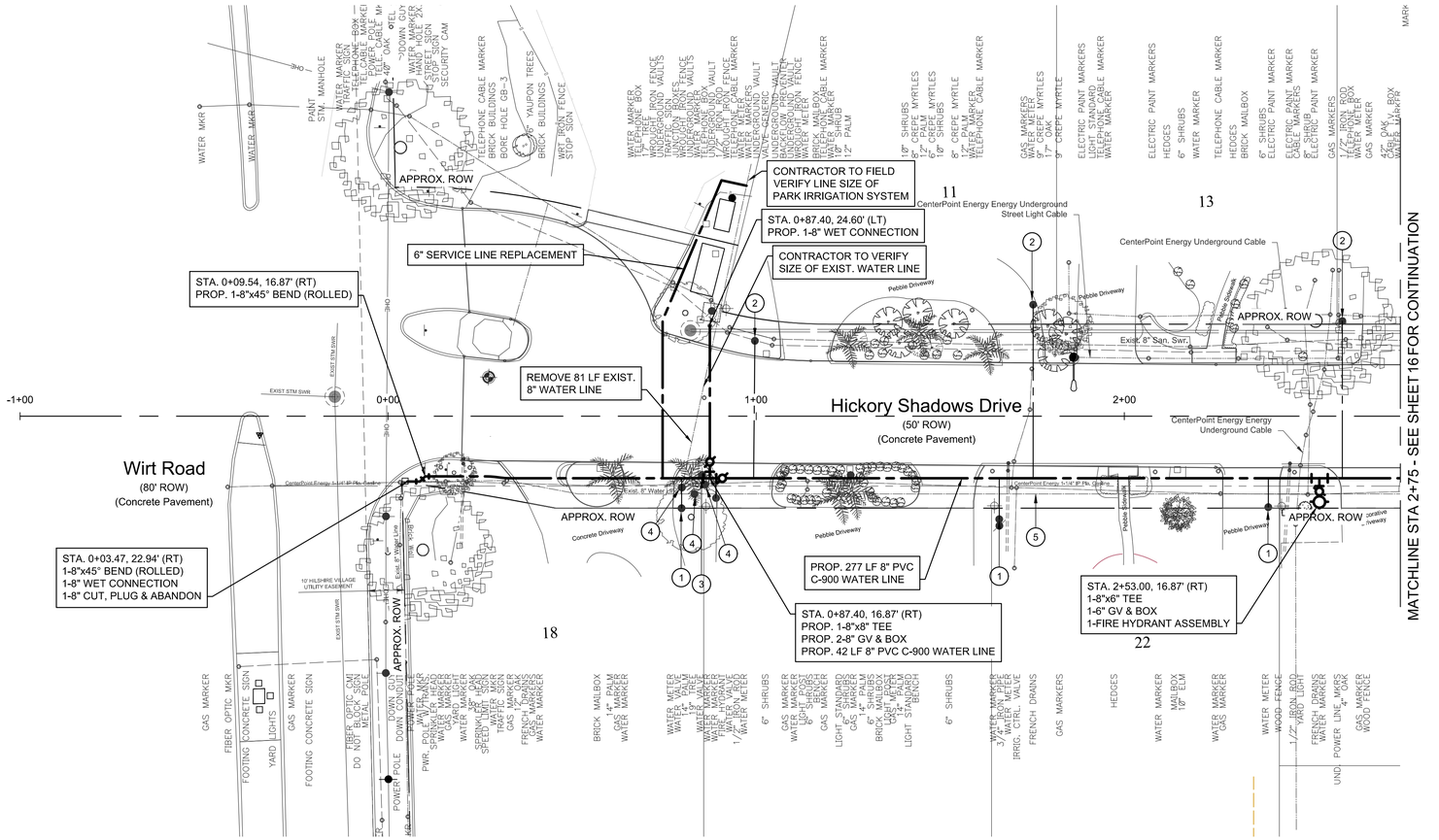
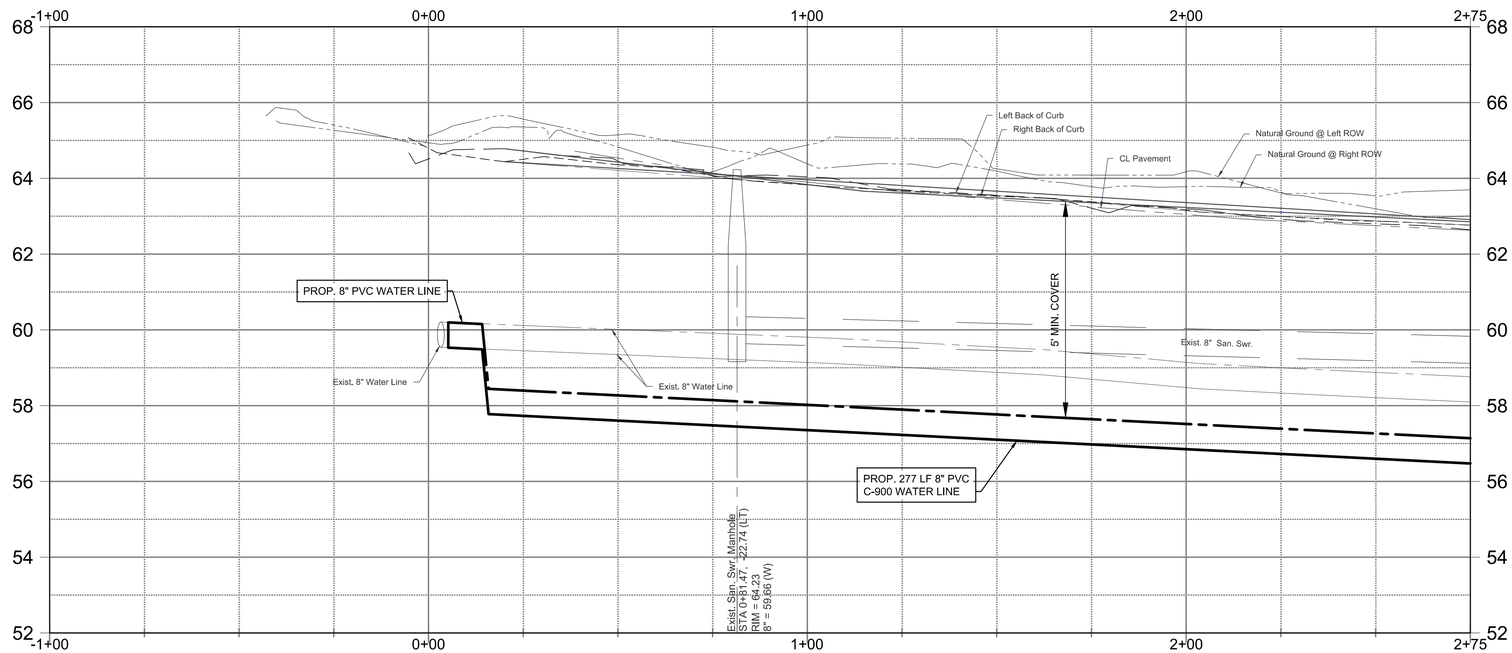
City of Hilshire Village, Texas

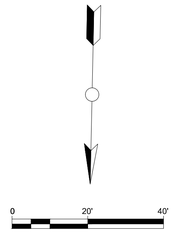
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

HICKORY SHADOWS
STA. 7+25.00 TO STA. 10+50.00

Job No.: 10418041	Scale: HORZ : 1" = 20' VERT : 1" = 2'	SHEET 14
Date: June, 2025	ONE INCH	OF 28
Dwn By: G.S. Fuller	IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	
Chkd By: N. Le		







IMPROVEMENTS LEGEND:

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15. Remove and Relocate Sign.
16. Cut and Plug Sprinkler Head at R.O.W - No Replacement.
17. Remove and Replace existing Yard Drain using 4" PVC Pipe to penetrate through Proposed Curb. (No Separate Payment)

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City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

HICKORY SHADOWS (WL)
STA. -1+00.00 TO STA. 2+75.00

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale:
HORZ : 1" = 20'
VERT : 1" = 2'
ONE INCH
IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE

SHEET 15 OF 28

STA. 3+86.50, 22.13' (LT)
PROP. 1-8"x22.5° BEND
PROP. 1-8"x11.25° BEND

STA. 3+70.42, 20.84' (LT)
PROP. 1-8"x22.5° BEND

STA. 3+57.65, 17.58' (LT)
PROP. 1-8"x22.5° BEND

CONTRACTOR SHALL TEMPORARILY SUPPORT EXISTING 8" WATER LINE DURING CONSTRUCTION OF PROPOSED 8" WATER LINE

STA. 3+55.19, 16.11' (LT)
PROP. 1-8"x45° BEND

CENTER ONE JOINT OF PVC WATER LINE AT SANITARY SEWER CROSSING

ENCASE WL AT SAN. SWR. CROSSING WITH 12 LF OF 16" STEEL CASING

STA. 3+37.86, 12.67' (RT)
PROP. 2-8"x45° BENDS

STA. 4+08.33, 18.9' (LT)
PROP. 1-8"x11.25° BEND

STA. 4+11.05, 18.59' (LT)
PROP. 2-8"x45° BENDS

STA. 3+33.07, 16.87' (RT)
PROP. 1-8"x45° BEND

PROP. 439 LF 8" PVC C-900 WATER LINE

CenterPoint Energy Energy Underground Cable

APPROX. ROW

Hickory Shadows Drive
(50' ROW)
(Concrete Pavement)

STA. 5+78.32, 14.24' (RT)
PROP. 36 L.F. 8" PVC C-900 WATER LINE
PROP. 1-6" GV & BOX
PROP. 1-FIRE HYDRANT ASSEMBLY

STA. 6+15.78, 19.68' (RT)
PROP. 2-8"x45° BENDS (ROLLED)
1-8" GV & BOX

STA. 6+30.15, 21.8' (RT)
1-8" GV & BOX

CONTRACTOR SHALL TEMPORARILY SUPPORT EXISTING 6" WATER LINE DURING CONSTRUCTION OF PROPOSED 8" WATER LINE

STA. 6+50.15, 17.90' (RT)
PROP. 1-8"x22.5° BEND

STA. 5+91.00, 20.3' (LT)
PROP. 1-8"x11.25° BEND

STA. 5+86.77, 20.8' (LT)
PROP. 1-8"x22.5° BEND

STA. 5+75.00, 17.95' (LT)
PROP. 1-8"x6" TEE

STA. 6+55.96, 17.12' (RT)
PROP. 1-8"x11.25° BEND

PROP. 123 LF 8" PVC C-900 WATER LINE

CONTRACTOR SHALL TEMPORARILY SUPPORT EXISTING 6" WATER LINE DURING CONSTRUCTION OF PROPOSED 8" WATER LINE

STA. 6+13.38, 19.54' (LT)
PROP. 1-8"x22.5° BEND
PROP. 2-8"x45° BENDS
1-8" GV & BOX

STA. 6+18.39, 18.55' (LT)
PROP. 1-8" TEE

PROP. 8" PVC WATER LINE (SEE SHEET 18)

ENCASE WATER LINE BEND IN CEMENT STABILIZED SAND

STA. 6+22.95, 18.27' (LT)
PROP. 2-8"x45° (ROLLED)

CONTRACTOR SHALL TEMPORARILY SUPPORT EXISTING 6" WATER LINE DURING CONSTRUCTION OF PROPOSED 8" WATER LINE

CENTER ONE JOINT OF PVC WATER LINE AT SANITARY SEWER CROSSING

ENCASE WL AT SAN. SWR. CROSSING WITH 21 LF OF 16" STEEL CASING

MATCHLINE STA. 2+75 - SEE SHEET 15 FOR CONTINUATION

Hickory Shadows Drive
(50' ROW)

MATCHLINE STA. 7+25 - SEE SHEET 17 FOR CONTINUATION

Hickory Shadows Drive
(50' ROW)

IMPROVEMENTS LEGEND:

UTILITIES, PAVING & DRAINAGE:

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16. Cut and Plug Sprinkler Head at R.O.W - No Replacement.
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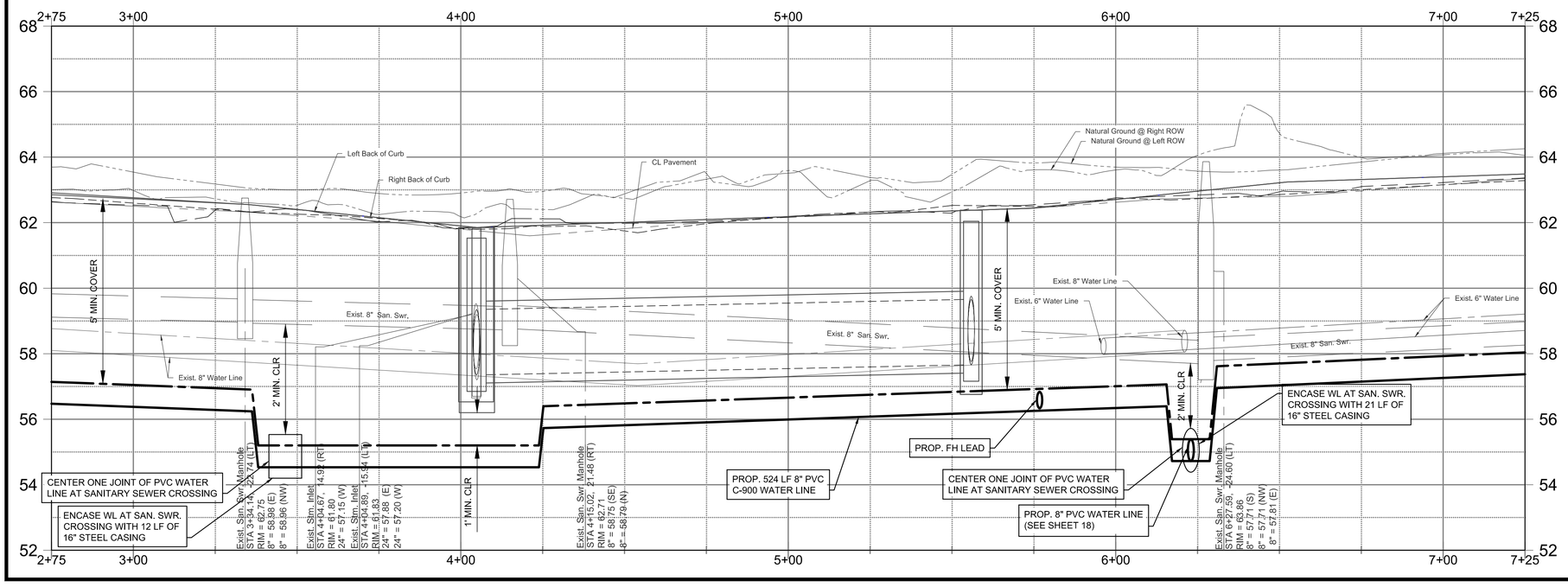

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Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

HICKORY SHADOWS (WL)
STA. 2+75.00 TO STA. 7+25.00

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale:
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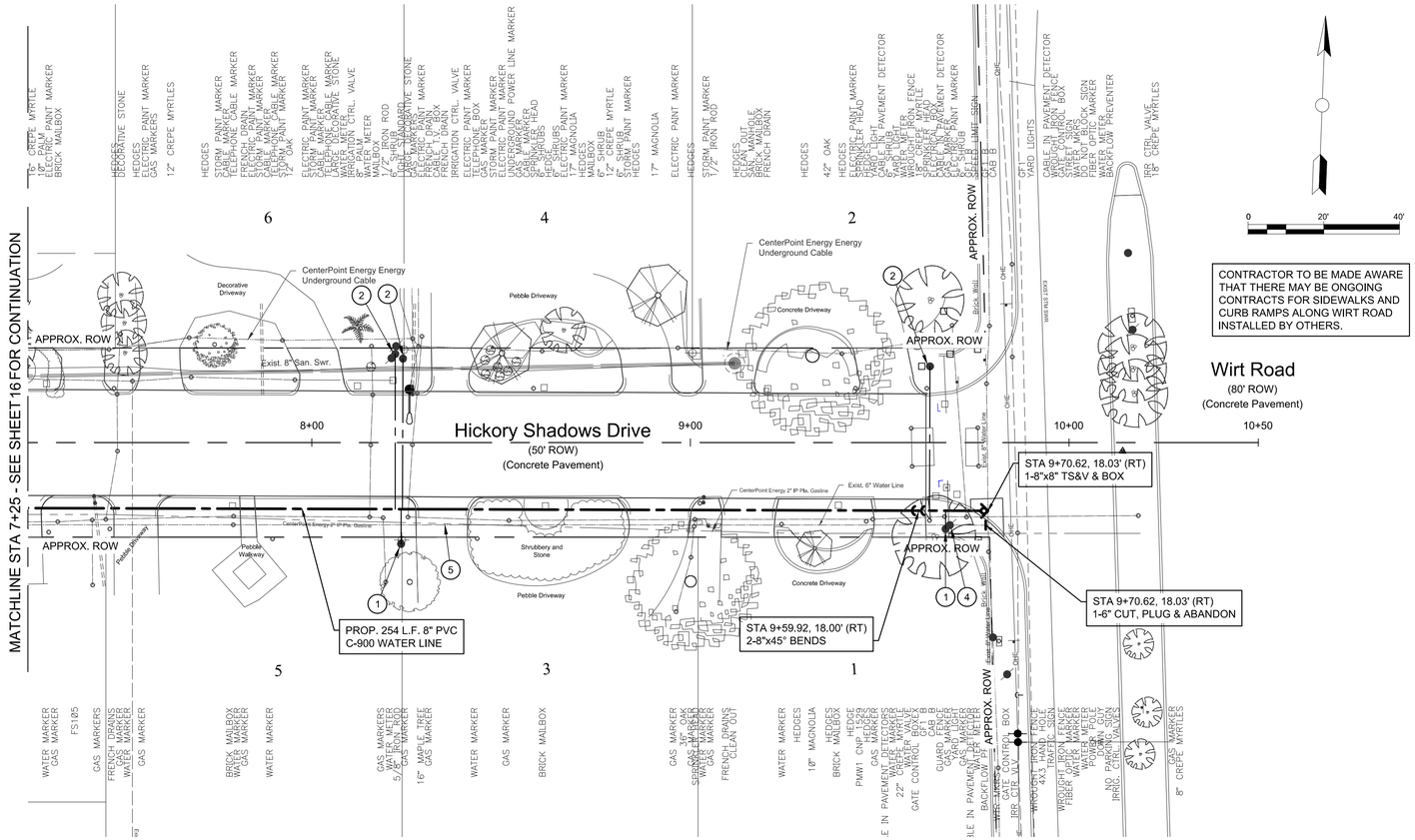
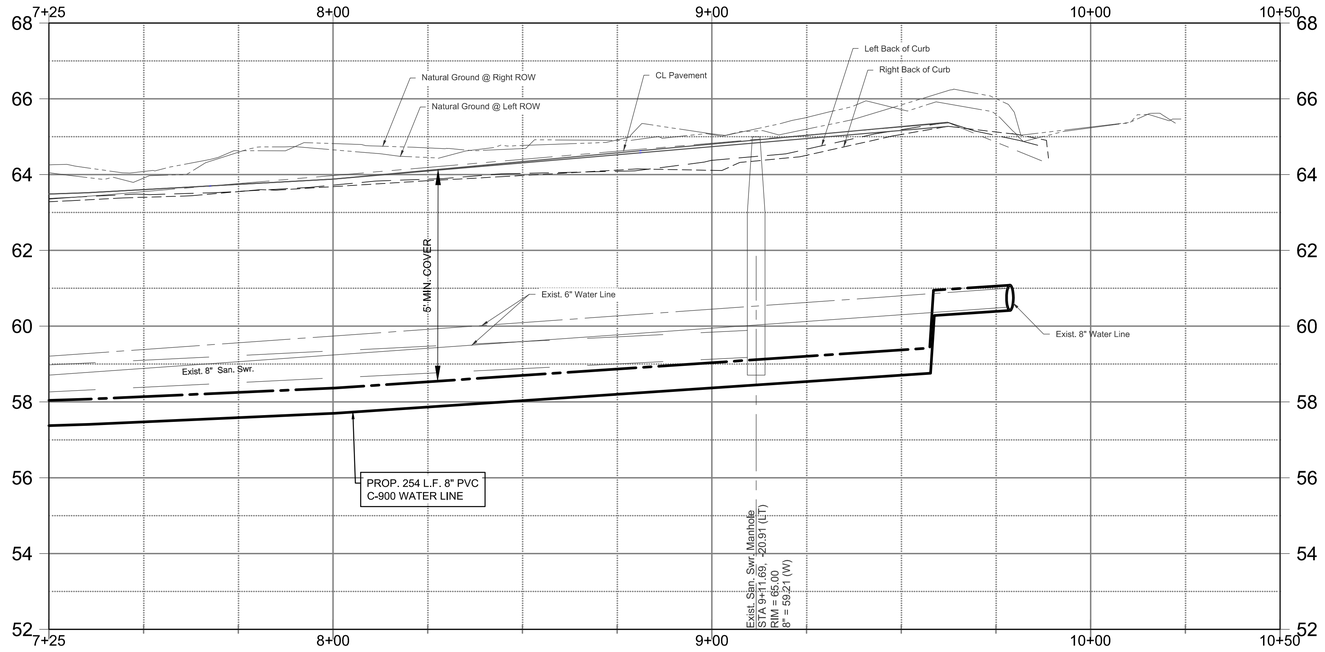
SHEET 16 OF 28





IMPROVEMENTS LEGEND:

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STA. 7+25.00 TO STA. 10+50.00

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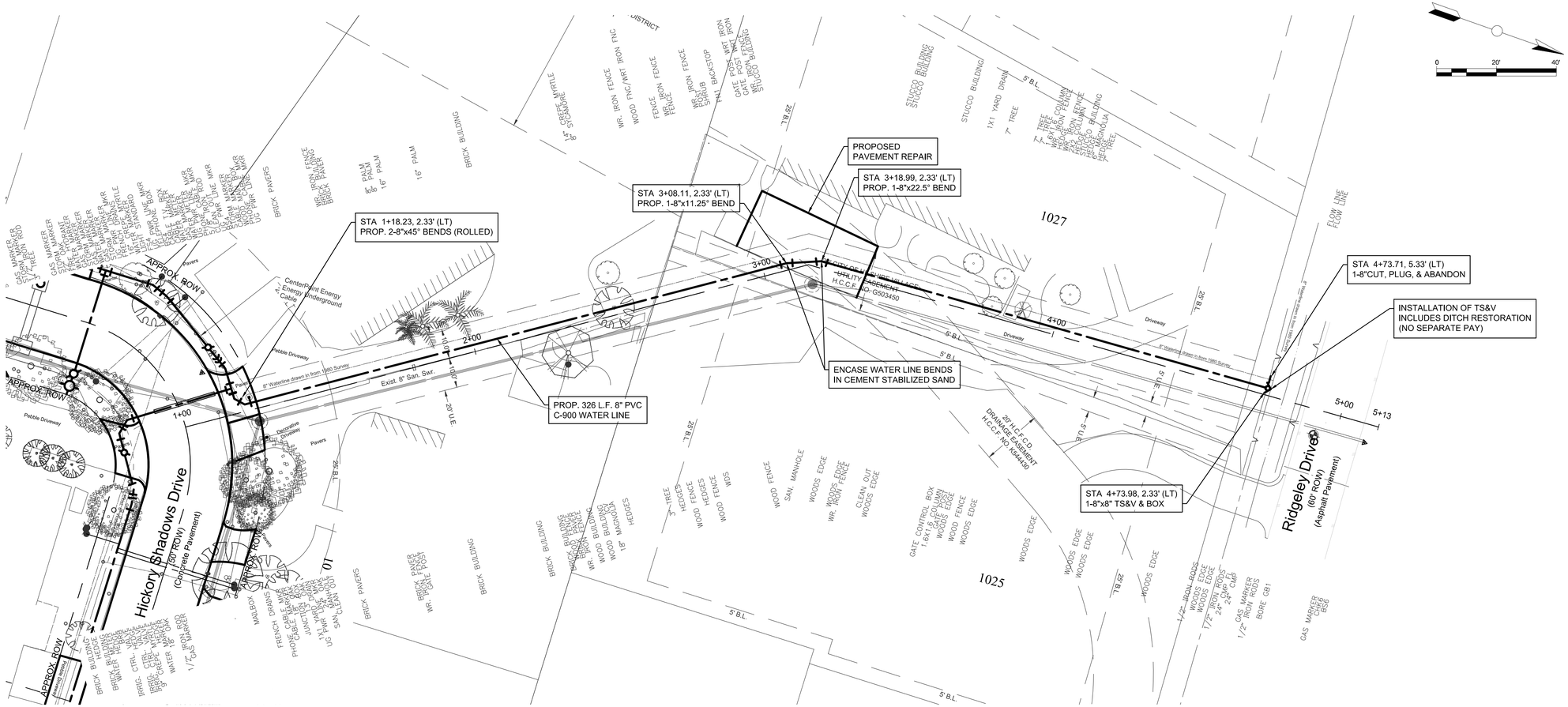
Chkd By: N. Le		



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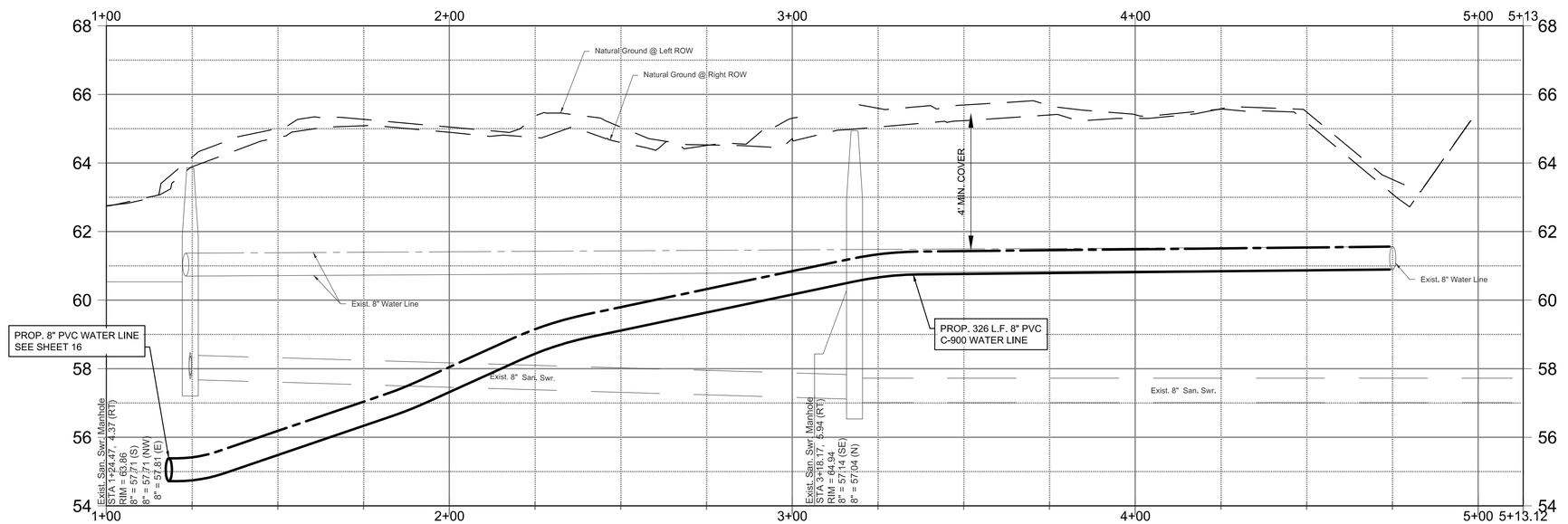
17. Remove and Replace existing Yard Drain using 4" PVC Pipe to penetrate through Proposed Curb. (No Separate Payment)



MK.	DESCRIPTION	DATE	DWN.	CHK.

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JUNE 2025
NGOC KIM LE
TX. LIC. 102192
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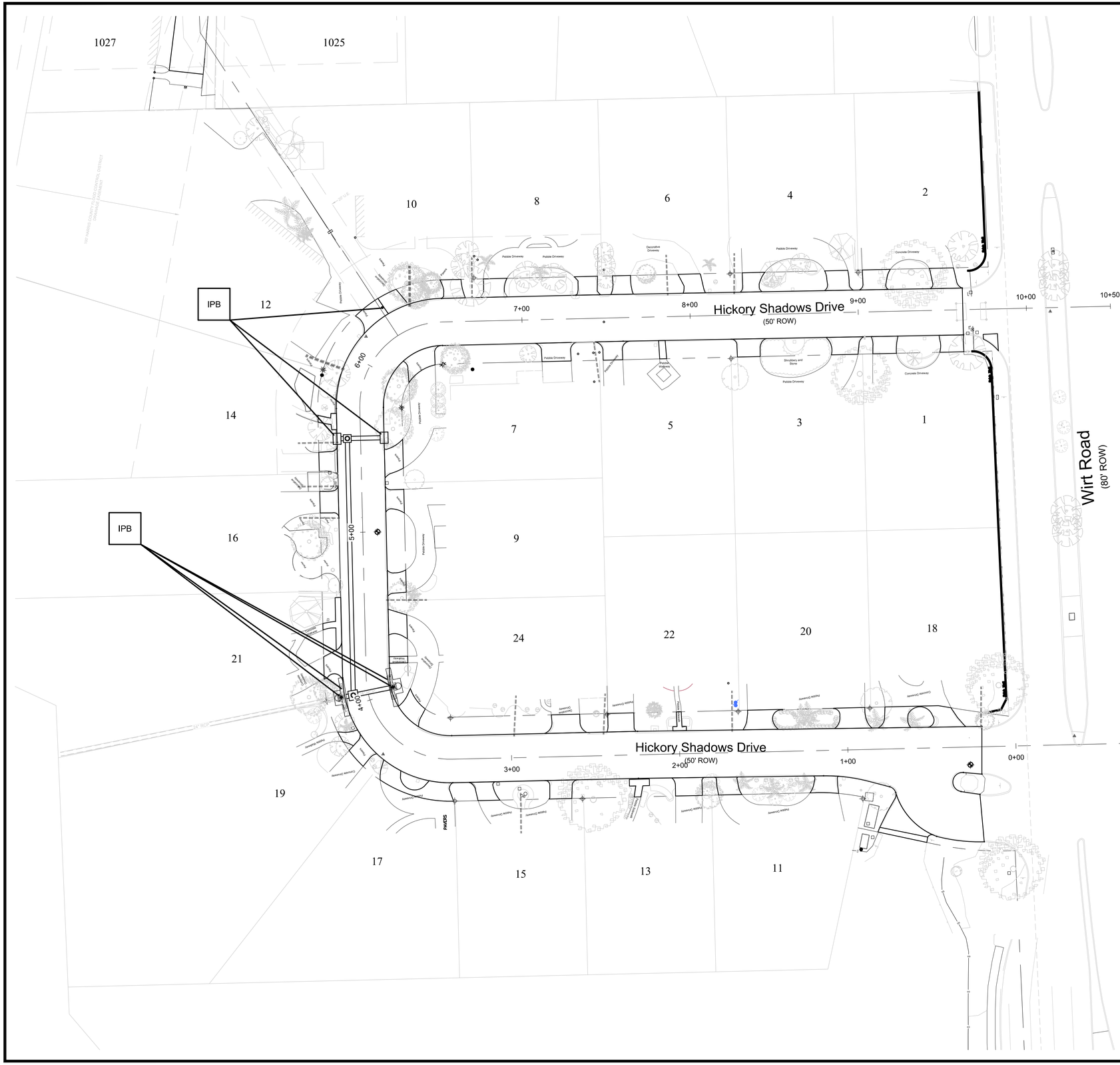
4828 Loop Central Drive, Suite 700 • Houston, Texas 77081
(713) 622-9264 • Fax (713) 622-9265 • www.hdrinc.com

City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

HICKORY SHADOWS - (WATER LINE EASEMENT)

Job No.: 10418041	Scale: HORZ : 1" = 20' VERT : 1" = 2'	SHEET 18
Date: June, 2025	ONE INCH IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	OF 28
Dwn By: G.S. Fuller		
Chkd By: N. Le		



NOTES:

1. ALL STORM WATER POLLUTION PREVENTION FEATURES APPLIED FOR EXISTING CONDITIONS SHALL REMAIN IN EFFECT THROUGHOUT CONSTRUCTION PROGRESS AS REQUIRED.
2. ALL SWPPP FEATURE LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD AND ADJUST AS REQUIRED TO ASSURE COMPLIANCE WITH SWPPP SPECIFICATIONS INCLUDING PROTECTION OF PRIVATE PROPERTIES.
3. INLET PROTECTION BARRIERS SHALL BE INSTALLED FOR EXISTING AND PROPOSED SITUATIONS AS REQUIRED.

0 30' 60'

SW3P LEGEND

- EXISTING STORM SEWER (60")
- PROPOSED STORM SEWER (60")
- EXISTING MANHOLE
- EXISTING "C" INLET
- PROPOSED "C" INLET
- PROPOSED "BB" INLET
- PROPOSED JUNCTION BOX
- IPB — INLET PROTECTION BARRIER FOR EXIST. AND PROP. INLETS
- ROW IN PROJECT AREA

MK.	DESCRIPTION	DATE	DWN.	CHK.

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City of Hilshire Village, Texas

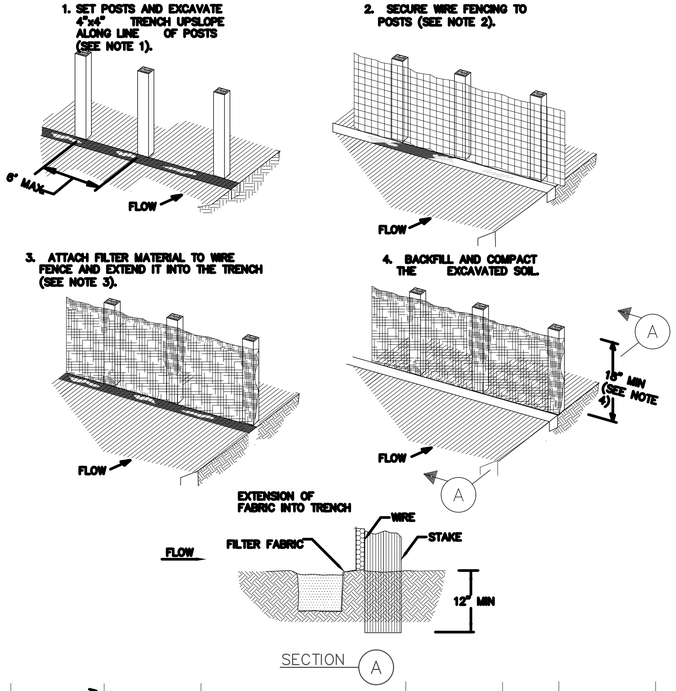
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

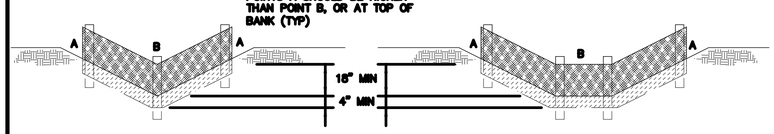
SWPPP Plan

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale:
HORZ : 1" = 30'
VERT :
ONE INCH
IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE

SHEET 19 OF 28





"V-DITCH" SECTION/ELEVATION

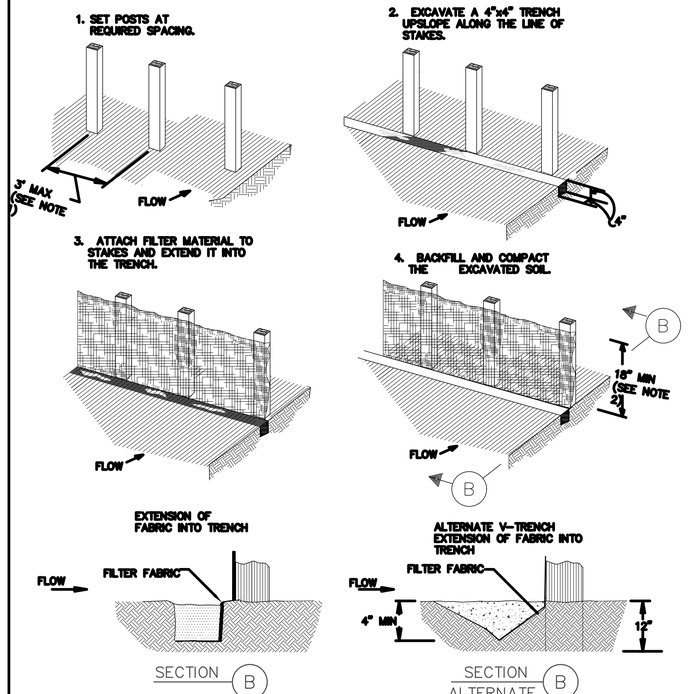
TRAPEZOIDAL SECTION/ELEVATION

CONSTRUCTION NOTES:

1. SET 2 INCH BY 2 INCH WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
2. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
4. MINIMUM HEIGHT OF FILTER SHOULD BE 18 INCHES AND A MAXIMUM OF 36 INCHES ABOVE NATURAL GROUND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
6. SEE SPECIFICATION FOR FILTER FABRIC BARRIER.

SYMBOL

REINFORCED FILTER FABRIC BARRIER

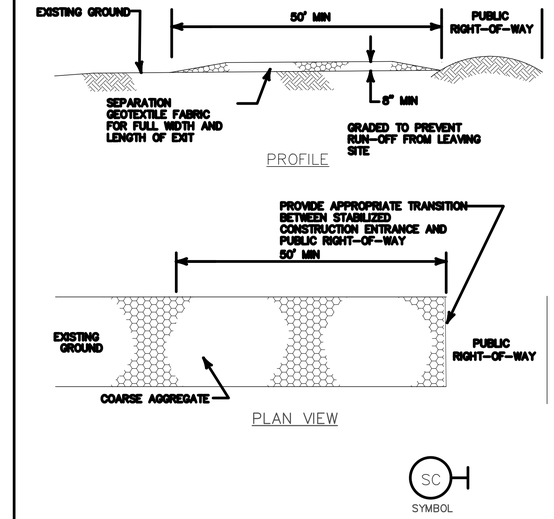


SYMBOL

CONSTRUCTION NOTES:

1. 2 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
2. ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC FENCE SHALL HAVE A MIN HEIGHT OF 18 INCHES AND MAX HEIGHT OF 36 INCHES ABOVE NATURAL GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
4. SEE SPECIFICATION FOR FILTER FABRIC FENCE.

FILTER FABRIC FENCE

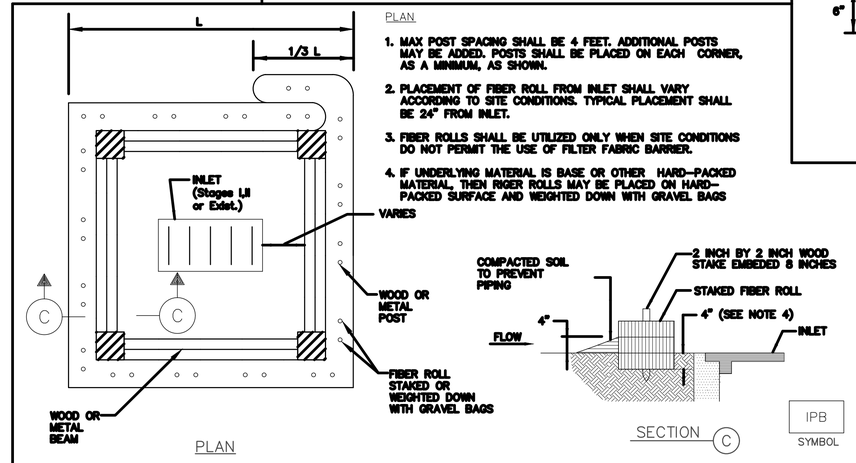


SYMBOL

STABILIZED CONSTRUCTION EXIT

CONSTRUCTION NOTES:

1. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. THICKNESS SHALL BE NOT LESS THAN 8 INCHES.
3. WIDTH SHALL BE NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
5. STABILIZED AREA MAY BE WIDENED OR LENGTHENED TO ACCOMMODATE A TRUCK WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE TRUCK WASHING AREA.
6. SEE SPECIFICATION FOR STABILIZED CONSTRUCTION EXIT.
7. STABILIZED CONSTRUCTION EXIT SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.



SYMBOL

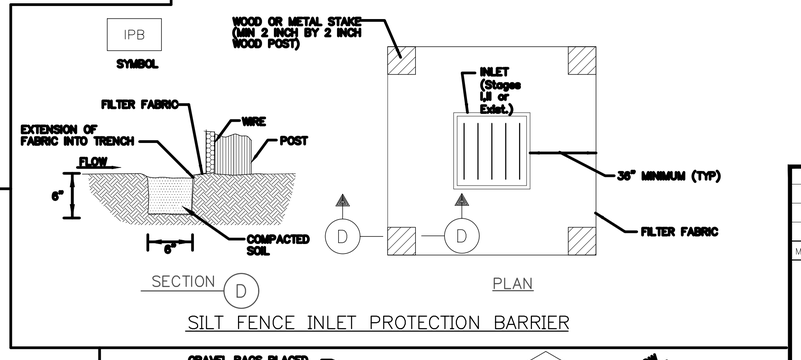
PLAN

1. MAX POST SPACING SHALL BE 4 FEET. ADDITIONAL POSTS MAY BE ADDED. POSTS SHALL BE PLACED ON EACH CORNER, AS A MINIMUM, AS SHOWN.
2. PLACEMENT OF FIBER ROLL FROM INLET SHALL VARY ACCORDING TO SITE CONDITIONS. TYPICAL PLACEMENT SHALL BE 24" FROM INLET.
3. FIBER ROLLS SHALL BE UTILIZED ONLY WHEN SITE CONDITIONS DO NOT PERMIT THE USE OF FILTER FABRIC BARRIER.
4. IF UNDERLYING MATERIAL IS BASE OR OTHER HARD-PACKED MATERIAL, THEN RIGER ROLLS MAY BE PLACED ON HARD-PACKED SURFACE AND WEIGHTED DOWN WITH GRAVEL BAGS

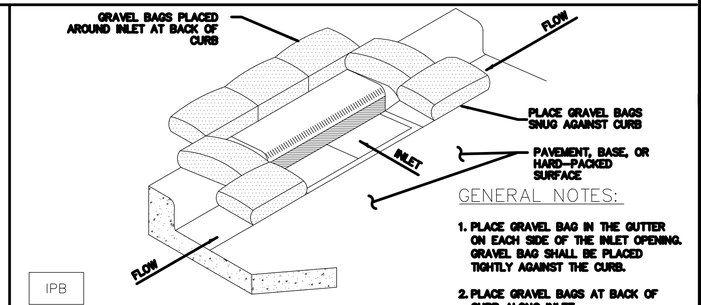
FIBER ROLL INLET PROTECTION BARRIER

CONSTRUCTION NOTE:

1. MAX. POST SPACING SHALL BE 4 FEET. ADDITIONAL POSTS MAY BE ADDED. POSTS SHALL BE PLACED ON EACH CORNER, AS A MINIMUM, AS SHOWN.
2. PLACEMENT OF FILTER FABRIC BARRIER FROM INLET SHALL VARY ACCORDING TO SITE CONDITIONS. TYPICAL PLACEMENT SHALL BE 36" MINIMUM FROM INLET EDGE.



SILT FENCE INLET PROTECTION BARRIER



SYMBOL

INLET PROTECTION BARRIER

(FOR EXISTING & PROPOSED STAGE II INLETS)

GENERAL NOTES:

1. PLACE GRAVEL BAG IN THE GUTTER ON EACH SIDE OF THE INLET OPENING. GRAVEL BAG SHALL BE PLACED TIGHTLY AGAINST THE CURB.
2. PLACE GRAVEL BAGS AT BACK OF CURB ALONG INLET.
3. DO NOT PLACE GRAVEL BAGS TO BLOCK THROAT OF INLET, UNLESS DIRECTED BY ENGINEER.

MK.	DESCRIPTION	DATE	DWN.	CHK.

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City of Hilshire Village, Texas

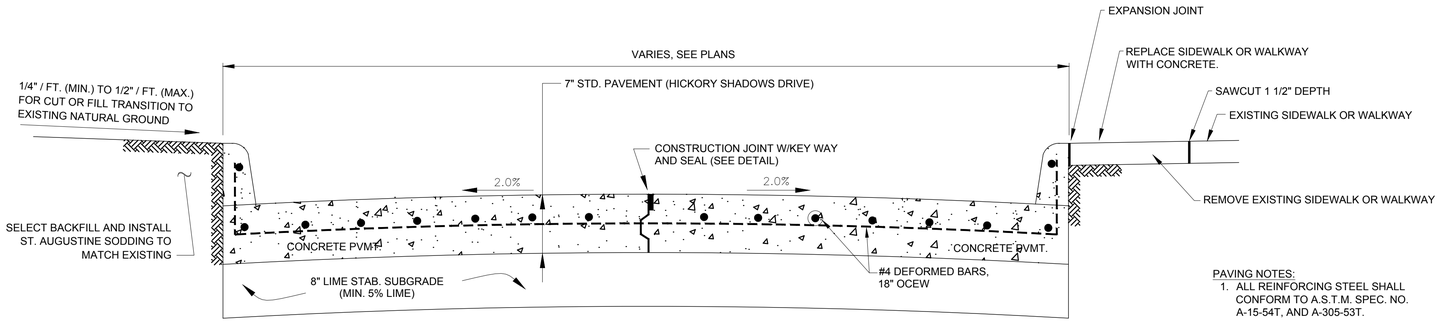
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

SWPPP DETAILS I

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale: HORZ : VERT : ONE INCH
IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE

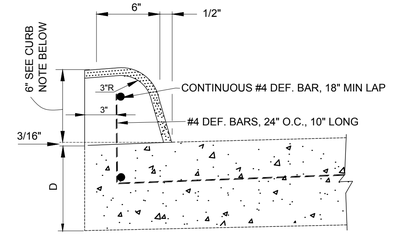
SHEET 20 OF 28



TYPICAL SINGLE ROADWAY SECTION

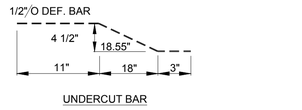
PAVING NOTES:

1. ALL REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPEC. NO. A-15-54T, AND A-305-53T.
2. THE SPACING OF EXPANSION JOINTS SHALL BE 60' MAX.
3. THE LOCATION OF CONSTRUCTION JOINTS MAY BE VARIED, WITH THE APPROVAL OF THE CITY'S REPRESENTATIVE, TO SUIT THE PROPOSED CONSTRUCTION METHODS OF THE CONTRACTOR. MAXIMUM WIDTH BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 20'-0".

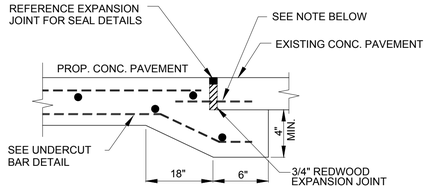


CURB NOTE:
MORTAR FINISH NOT REQUIRED WHEN CURB IS POURED BY A MACHINE, BUT CURB WILL HAVE THE SAME OUTSIDE DIMENSIONS.

CONCRETE CURB

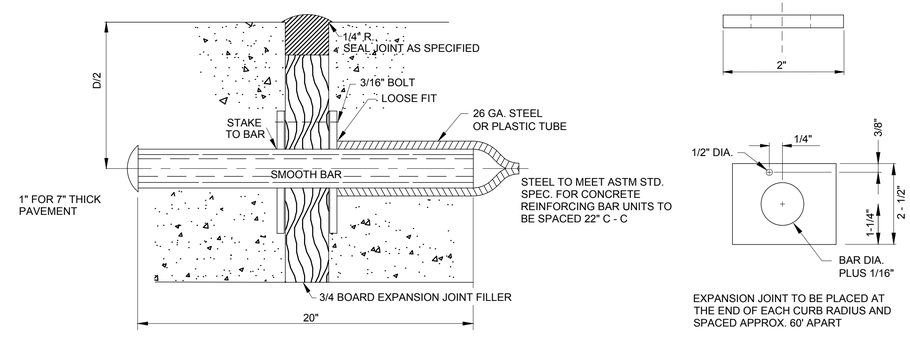


UNDERCUT BAR



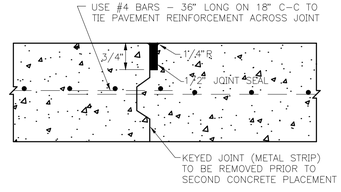
NOTE: PROVIDE 1" (7" THK. PAVEMENT) DIAMETER SMOOTH STEEL BAR, 20" LONG ON 12" CENTERS. END TREATMENT SHALL MATCH EXPANSION JOINT ADJACENT TO HEADER. WHERE THE ADJACENT DOWEL INTO EXPANSION JOINT HAS A SLIP SLEEVE ADJACENT TO HEADER, DRILL HOLE AND DRIVE EXISTING PAVEMENT. WHERE ADJACENT EXPANSION JOINT HAS A SLIP SLEEVE OPPOSITE TO THE HEADER, DRILL AND EPOXY DOWEL INTO EXISTING PAVEMENT WITH "PRO-ROC" OR EQUAL, AND PROVIDE SLIP SLEEVE ON EXPOSED END. FULL DEPTH SAW CUT DOWEL IN MIN. 10" USING TXDOT APPROVED EPOXY.

TYPE I PAVING HEADER DETAIL



DOWEL TYPE EXPANSION JOINT

EXPANSION JOINT TO BE PLACED AT THE END OF EACH CURB RADIUS AND SPACED APPROX. 60' APART



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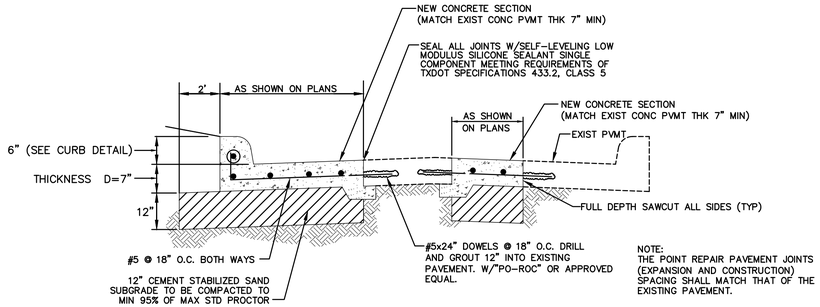
City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

PAVING DETAILS 1

Job No.: 10418041	Scale: HORZ : VERT : ONE INCH IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	SHEET 21 OF 28
Date: June, 2025		
Dwn By: G.S. Fuller		
Chkd By: N. Le		



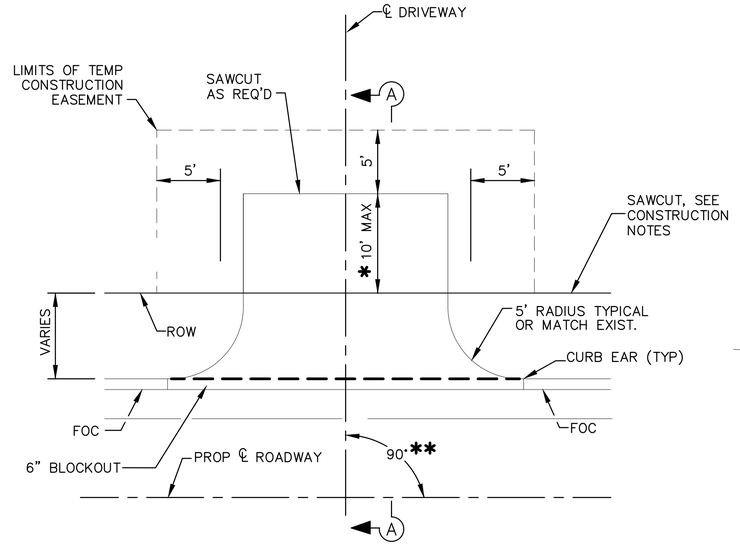
NOTE:
THE POINT REPAIR PAVEMENT JOINTS (EXPANSION AND CONSTRUCTION) SPACING SHALL MATCH THAT OF THE EXISTING PAVEMENT.

SECTION

NOTE:
1. PROPOSED CONCRETE TO BE DOWELED INTO EXISTING CONCRETE WITH #5 X 24" DOWELS @ 18" O.C. DRILL AND GROUT 12" INTO EXISTING PAVEMENT W/"PO-ROC" OR APPROVED EQUAL ON ALL SIDES.
2. POINT REPAIR MUST BE 1" THICKER THAN EXISTING PAVEMENT.

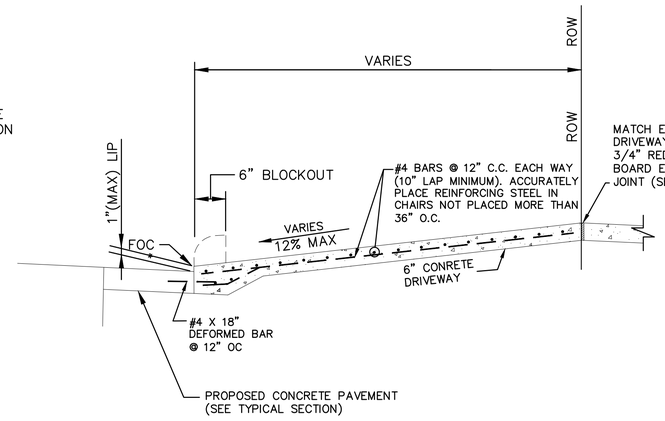
TYPICAL POINT REPAIR DETAIL FOR CONCRETE STREETS

NOT TO SCALE



TYPICAL DRIVEWAY CONNECTION

NOT TO SCALE

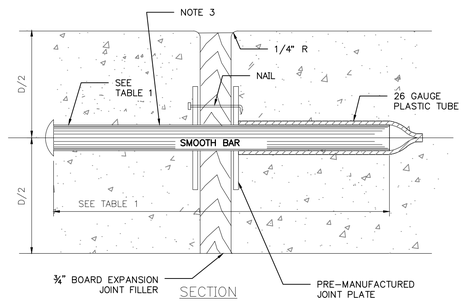


SECTION A-A

NOT TO SCALE

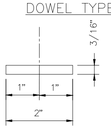
* RECONSTRUCTION OF DRIVEWAYS SHALL BE EXTENDED BEYOND THE RIGHT OF WAY TO A POINT 10 FEET MAX OR TO ACCOMMODATE A 12% SLOPE, WHICHEVER OCCURS FIRST.

** USUAL, SEE P&P FOR VARIATIONS

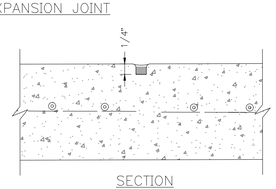


SECTION

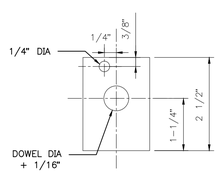
DOWEL TYPE EXPANSION JOINT



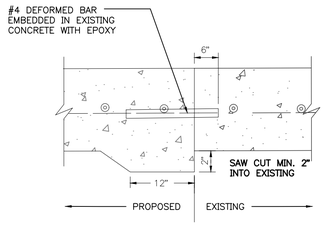
PLAN VIEW
JOINT PLATE



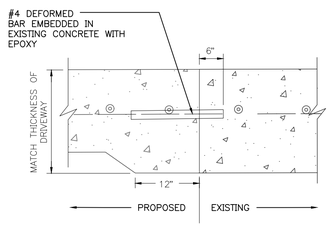
SECTION
CONTROL JOINT



ELEVATION VIEW
JOINT PLATE



SECTION
SIDEWALK TO EXISTING SIDEWALK



SECTION
SIDEWALK TO EXISTING DRIVEWAY

TABLE 1

PAVEMENT THICKNESS (IN)	DOWEL SIZES AND SPACINGS		
	DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
4 1/2	1/2	18	12
5	1/2	18	12
6	3/4	18	12
7	1	18	12

SIDEWALK DETAILS

NOT TO SCALE

DRIVEWAY NOTES

1. DRIVEWAYS SHALL BE CONSTRUCTED TO MATCH EXISTING DRIVEWAY WIDTH MEASURED AT THE RIGHT-OF-WAY. WHEN DRIVEWAY EXCEEDS 20'-0" IN WIDTH, OR WHEN EXISTING DRIVEWAY JOINT OR PROPOSED PAVING JOINT FALLS WITHIN LIMIT OF DRIVEWAY, A 3/4" REDWOOD BOARD EXPANSION JOINT W/STEEL RUNNING THROUGH IT, OR APPROVED EQUAL SHALL BE INSTALLED THE FULL LENGTH OF THE DRIVEWAY.
2. RESIDENTIAL DRIVEWAYS SHALL BE CONSTRUCTED OF CONCRETE 6" THICK.
3. SELECT BACKFILL SHALL BE USED AS A BASE LEVELER AND/OR AS BACKFILL REQUIRED WHEN OVER EXCAVATION OCCURS DUE TO POOR SOILS OR ANY OTHER CONDITION RESULTING IN OVER EXCAVATION OF DRIVEWAYS. SELECT BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
4. WHERE TYING INTO EXISTING CONCRETE DRIVEWAY AND CONDITION OF EXISTING DRIVEWAY ALLOWS, PROVIDE 3/4" REDWOOD BOARD W/24" LONG #4 DEFORMED BARS @ 18" O.C. THROUGH IT DRILLED INTO EXISTING DRIVEWAY. WHERE EXISTING CONCRETE IS IN POOR CONDITION OR WHERE DRIVEWAY IS ASPHALT, SHELLCRETE, SHELL, GRAVEL, DIRT, OR GRASS, PROVIDE STANDARD PAVING HEADER AT NO ADDITIONAL COST.
5. THE PROPOSED LIMITS OF REPLACEMENT OF DRIVEWAYS SHOWN ON THE PLAND AND PROFILES ARE APPROXIMATE. CONTRACTOR TO VERIFY THAT BASED ON THESE LIMITS, THE SLOPE IS NOT GREATER THAN 12%. CONTRACTOR SHALL COORDINATE WITH THE CITY'S REPRESENTATIVE AND PROPERTY OWNER TO REMOVE AND REPLACE DRIVEWAY BEYOND ROW AS REQUIRED TO ACHIEVE DRIVEWAY GRADE EQUAL TO OR LESS THAN 12%. REMOVAL/REPLACEMENT OF DRIVEWAYS TO RIGHT-OF-WAY VS NEAREST JOINT BEYOND ROW SHALL BE A FIELD DECISION. CITY REQUIRES CLEAN JOINT AT ROW IN ANY CASE. IF DECISION IS MADE TO EXTEND DRIVEWAY REPLACEMENT TO AN EXISTING EXPANSION JOINT BEYOND THE ROW, PROVISION OF A CONTRACTION JOINT AT THE ROW IS REQUIRED.

MK.	DESCRIPTION	DATE	DWN.	CHK.

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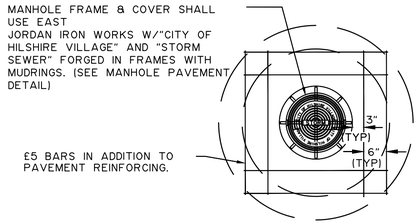
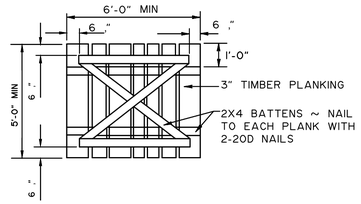
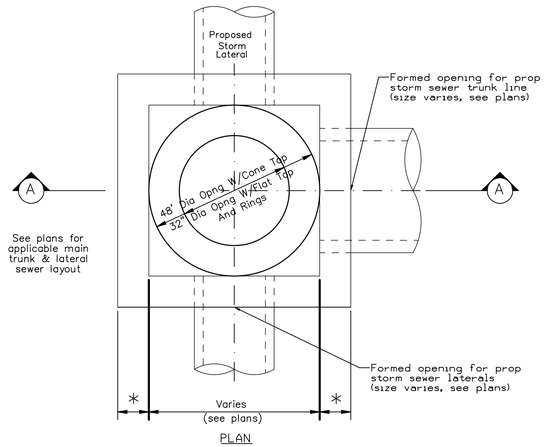
PAVING DETAILS II

Job No.: 10418041	Scale: HORZ : VERT : ONE INCH IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	SHEET 22 OF 28
Date: June, 2025		
Dwn By: G.S. Fuller		
Chkd By: N. Le		



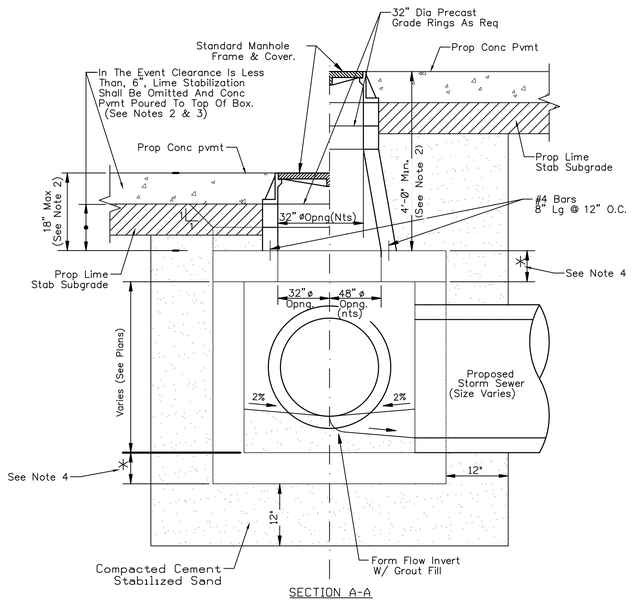


TEMPORARY TIMBER COVER



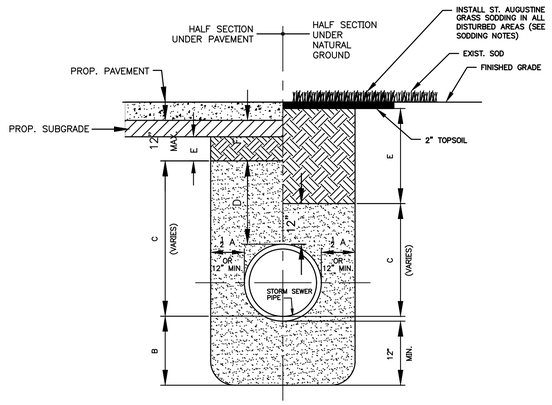
PRECAST STORM SEWER JUNCTION BOX NOTES:

1. All Precast Storm Box Manholes Shall Be Constructed Of 4000 Psi Concrete, Reinforced 60000 Psi Hs 20 Loading.
2. Where Storm Sewer Lead & TrunkmainDepths Allow The Top Of The Box To Be At Or Greater Than A Min. 4'-0" Depth, Cone Sections May Be Used. Where Leads & Main Depths Require The Box Manhole Top To Be Less Than 4'-0", Contractor shall use flat top and rings.
3. In Cases Where The Top Slabs May Encroach Into Proposed Pavement Subgrade, The Subgrade Over The Box Shall Be Eliminated And The Proposed Concrete Pavement Shall Be Poured In Required Extra Thickness To The Top Of The Box As Noted On This Sheet.
4. Top And Bottom Slabs Along With Wall Thickness And Related Structural Steel including cones or flat top and rings, Shall Be Per Manufacturer, signed and sealed by an Engineer licensed in the state of Texas for each proposed junction box on the plans. Provide location with street name, Station and Offset.



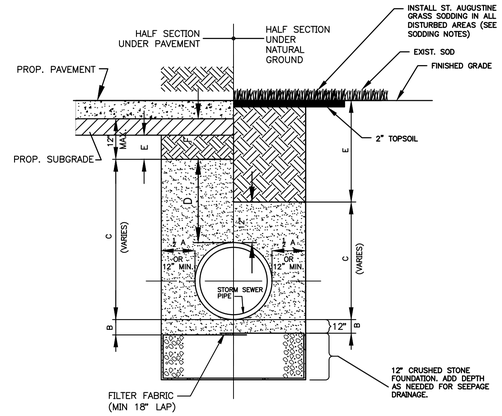
SECTION A-A

PRECAST STORM SEWER JUNCTION BOX
(JCTBOX(COMPL)(PJB)



BEDDING AND BACKFILL DETAIL FOR STORM SEWER PIPES UNDER PAVEMENT AND UNDER NATURAL GROUND

NOT TO SCALE



WET CONDITION BEDDING FOR STORM SEWER PIPE INSTALLATION

NOT TO SCALE

GENERAL NOTES:

1. TRENCH EXCAVATION, BEDDING & BACKFILL COSTS ARE INCIDENTAL TO PIPE INSTALLATION AND ARE BASED ON THE LIMITS SHOWN IN THESE DETAILS. ANY COST INCURRED FOR AREAS EXCAVATED AND OR REQUIRING BACKFILL BEYOND THESE LIMITS RESULTING FROM CONTRACTORS FAILURE TO CONTROL THESE LIMITS SHALL BE BORNE BY THE CONTRACTOR.
2. MAX TRENCH WIDTH SHALL NOT BE GREATER THAN MIN TRENCH WIDTH PLUS 24". UNLESS OTHERWISE NOTED.
3. IF OUTSIDE EDGE OF PIPE IS WITHIN 3' OF BACK OF CURB, BACKFILL SHALL BE PERFORMED AS UNDER PAVEMENT.

BEDDING AND BACKFILL NOTES FOR STORM SEWER INSTALLATION:

A. MIN. TRENCH WIDTH SHALL BE PIPE O.D. PLUS AN ALLOWANCE "A" FOR THE NOMINAL PIPE SIZE:

NOMINAL PIPE SIZE	"A"
<18"	24"
18" TO 30"	24"
>30"	36"

B. CEMENT STABILIZED SAND (1.1 SACKS OF CEMENT PER TON, COMPACTED TO AT LEAST 95% OF MAX. STD. PROCTOR) PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE OR ABOVE-MINIMUM DEPTH = 12".

C. CEMENT STABILIZED SAND (AS SPECIFIED ABOVE) THOROUGHLY RODDED, PLACED AFTER PIPE IS LAID.

D. CEMENT STABILIZED SAND TO 12-IN BELOW TOP OF SUBGRADE.

E. SELECT EARTH BACKFILL WITH MAX LIQUID LIMIT OF 40, MIN. P.I. OF 7, MAX P.I. OF 20 CONTAINING NO ROCKS OR OTHER DEBRIS NOR CONTAINING ANY DIRT CLODS EXCEEDING 6" IN ANY DIMENSION. PLACED IN 6" LAYERS, MOISTENED IF NECESSARY AND THOROUGHLY COMPACTED TO 95% DENSITY AS DETERMINED BY BY ASTM D698, UNLESS OTHERWISE NOTED. IN SITU SOILS MAY BE UTILIZE ONLY IF IT MEETS THIS CRITERIA AND SUITABLE MATERIAL CLASSIFICATION PER THE SPECIFICATIONS.

F. IN THE EVENT DIMENSION IS LESS THAN 8", CEMENT STABILIZED SAND SHALL BE EXTENDED TO BOTTOM OF CONCRETE.

SODDING NOTES FOR STORM SEWER INSTALLATION:

1. SODDING SHALL BE INSTALLED IN AREAS DISTURBED BY CONSTRUCTION.
2. CONTRACTOR SHALL REPLACE SODDING IN AREAS DAMAGED BY CONSTRUCTION AND THE REPLACEMENT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
3. IF EXISTING LANDSCAPING OTHER THAN GRASS IS WITHIN THESE AREAS, THE CONTRACTOR SHALL REBUILD OR REINSTALL THE LANDSCAPING PER THE PERTINENT BID ITEM.

MK.	DESCRIPTION	DATE	DWN.	CHK.

FOR REVIEW ONLY
JUNE 2025
NGOC KIM LE
TX. LIC. 102192
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HDR Engineering Inc. Texas Reg. No. 754
4828 Loop Central Drive, Suite 700 • Houston, Texas 77081
(713) 622-9264 • Fax (713) 622-9265 • www.hdrinc.com

City of Hilshire Village, Texas

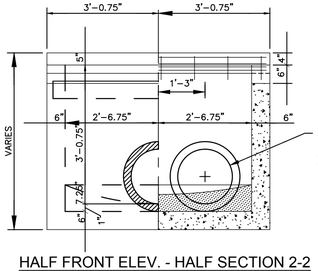
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

STORM SEWER DETAILS I

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale: HORZ : VERT : ONE INCH
IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE

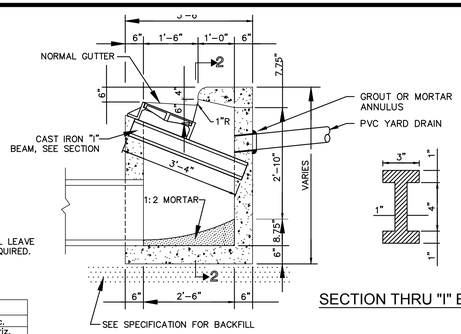
SHEET 23 OF 28



HALF FRONT ELEV. - HALF SECTION 2-2

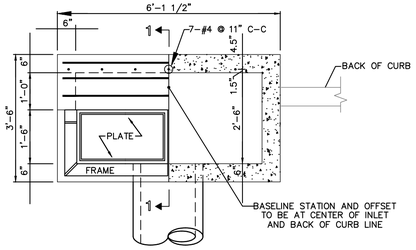
NOTES:
USE CAST IRON FRAME AND PLATE (PER SPECIFICATIONS). LEAD SHALL LEAVE INLET AT LOCATION AND GRADE REQUIRED. BRICK INLETS ARE NOT PERMITTED.

BAR LIST				
No.	Size	Length	Shp.	Loc.
4	#4	5'-10"	St.	Horiz.
7	#4	0'-10"	St.	Vert.
7	#3	1'-6"	Bt.	

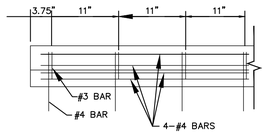


SECTION 1-1

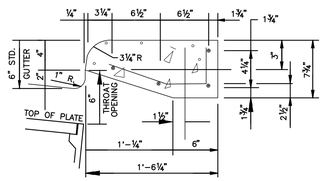
SECTION THRU "I" BEAM



HALF PLAN - HALF HORIZ. SECTION



HALF FRONT ELEVATION



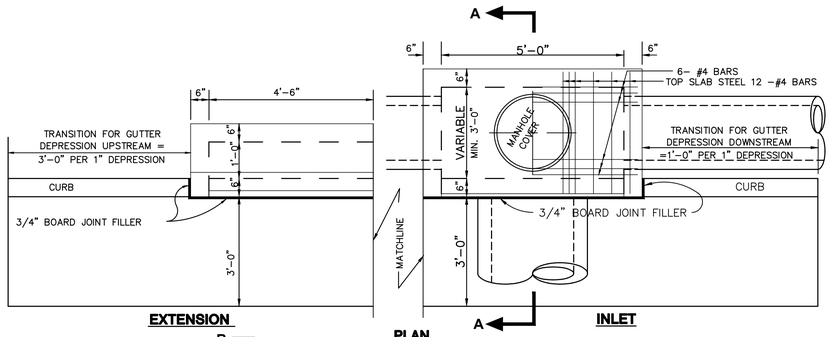
TRANS SECTION

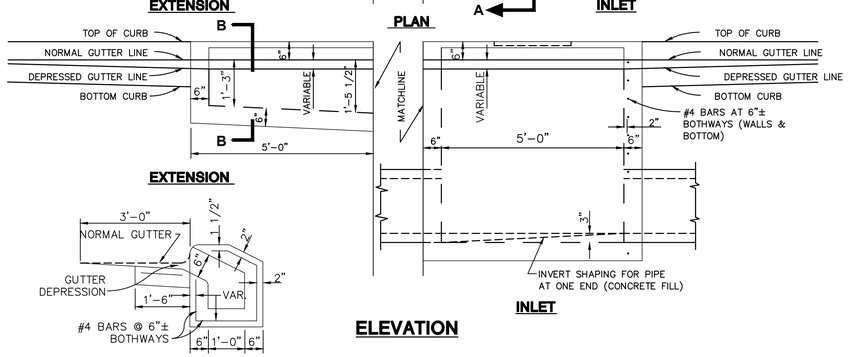
PRECAST CURB BEAM

NOTE:
TYPE B-B INLETS SHALL INCLUDE SOLID PLATE, NO GRATES (TYP.)

TYPE B-B INLET

SCALE: NTS

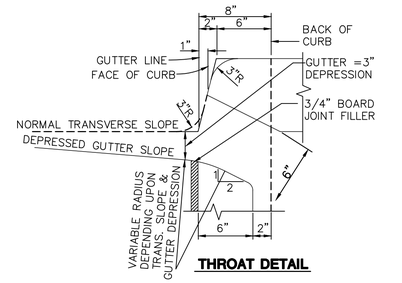




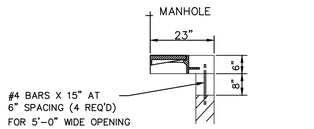
SECTION B-B

GENERAL NOTES:

1. All concrete shall be Class A. All exposed corners shall be chamfered 3/4". Pipes shall enter inlets as shown elsewhere on plans. Slope top of inlets as directed to match graded section.
2. All materials used in casting manhole covers and ladder rung shall conform to A.S.T.M. Specifications.
3. A permissible construction joint may be placed in the inlet wall with the approval of the Engineer.
4. Manhole ring and cover shall be 23 1/2" unless otherwise specified in the plans. Connection of pipes to precast units shall be mortared as directed by the Engineer. * But not less than six inches over highest pipe.
5. Control points for horizontal layout of inlets, all types, is the lateral center of the inlet, without regard for extensions, at the back of curb.
6. 5' Extension is not included unless called for in plans.

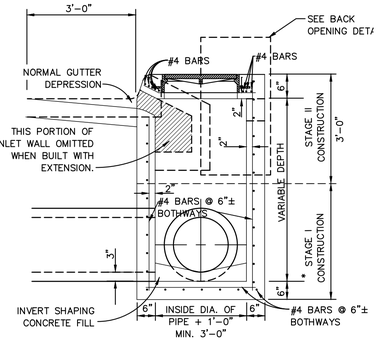


THROAT DETAIL



BACK OPENING DETAIL

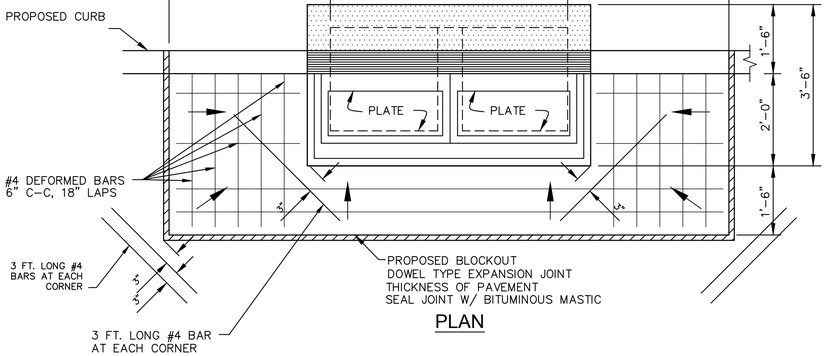
Note: This is to be used only where specified in plans.



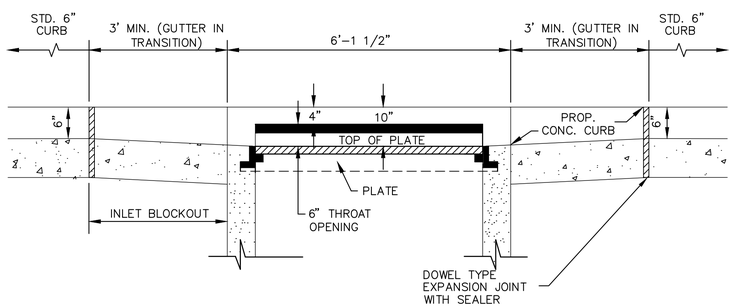
SECTION A-A

TYPE "C" INLET DETAILS

NOT TO SCALE

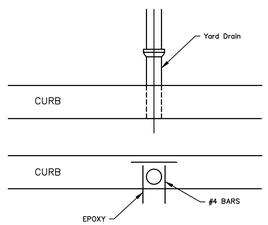


PLAN

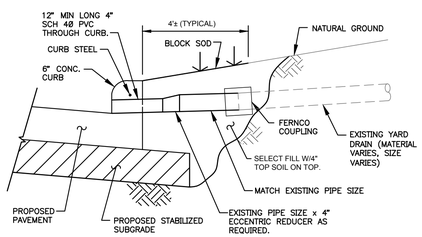


GUTTER DEPRESSIONS FOR TYPE B-B INLET

SCALE: NTS



AT CURB



YARD DRAIN CONNECTION DETAIL

NOT TO SCALE

MK.	DESCRIPTION	DATE	DWN.	CHK.

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City of Hilshire Village, Texas

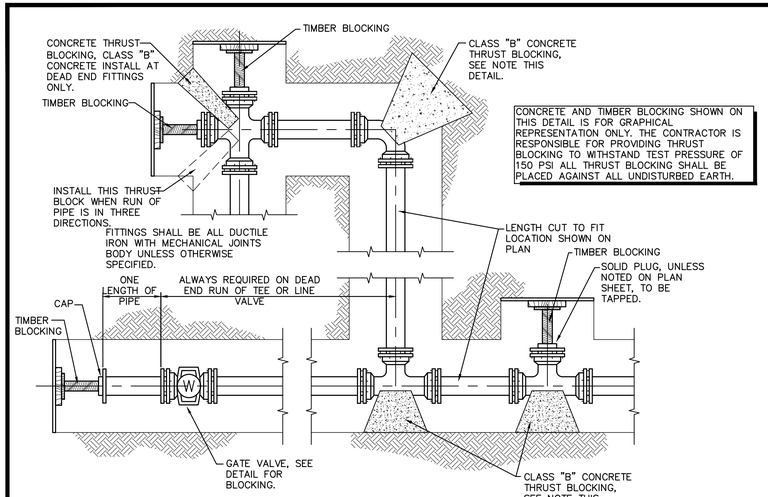
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

STORM SEWER DETAILS II

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

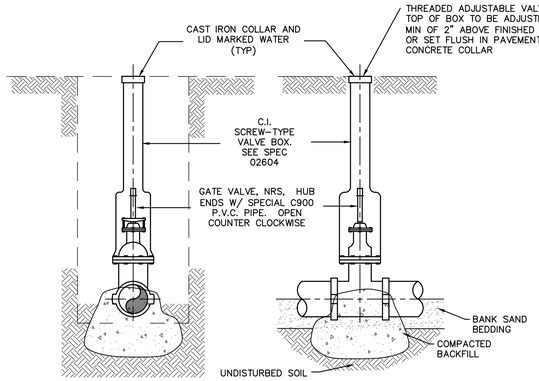
Scale: HORZ :
VERT : | ONE INCH |
IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE

SHEET 24 OF 28



FITTING ASSEMBLY & THRUST BLOCK DETAIL

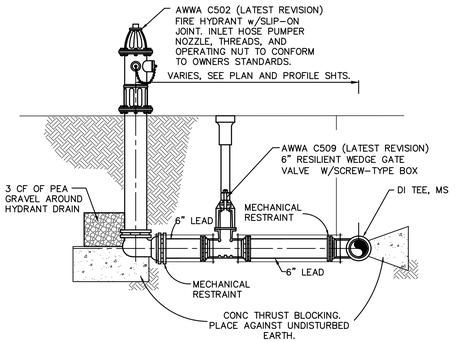
NOT TO SCALE



FRONT ELEVATION SIDE ELEVATION

GATE VALVE INSTALLATION DETAIL

NOT TO SCALE



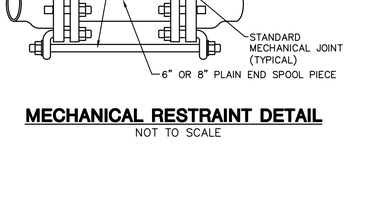
NOTE:
FIRE HYDRANT TO BE A MIN 4'-0" BURY UNLESS OTHERWISE NOTED ON PLAN AND PROFILE SHEETS.

STANDARD FIRE HYDRANT DETAIL

NOT TO SCALE

FIRE HYDRANT NOTES

1. ALL FIRE HYDRANTS SHALL CONFORM TO THE CITY'S FIRE DEPARTMENT REQUIREMENTS.
2. ALL FIRE HYDRANTS SHALL BE LOCATED 3' BACK OF CURB FOR CURB AND GUTTER STREETS AND 3' INSIDE RIGHT-OF-WAY (2' ABSOLUTE MIN) FOR ROADSIDE DITCH STREETS.
3. FIRE HYDRANTS SHOWN AT INTERSECTIONS SHALL BE LOCATED AT THE CURB RETURN FOR CURB AND GUTTER STREETS AND AT THE PROPERTY CORNER FOR ROADSIDE DITCH STREETS UNLESS OTHERWISE SHOWN ON PLANS AND APPROVED BY OWNER.
4. ALL FIRE HYDRANTS SHALL HAVE A MINIMUM OF 5'-0" LEAD PIPE. LEAD PIPES SHALL NOT EXCEED 100' IN LENGTH AND SHALL HAVE NO VERTICAL OR HORIZONTAL BENDS.
5. EACH FIRE HYDRANT LEAD SHALL HAVE A VALVE, PER SPECIFICATIONS, BEING EITHER A GATE VALVE WITH A TEE CONNECTION TO THE MAIN OR A TAPPING SLEEVE AND VALVE CONNECTION TO THE MAIN.
6. VALVES SHALL NOT BE LOCATED AT THE FLOWLINE OF ANY DITCH.
7. NEW FIRE HYDRANTS REPLACING THOSE TO BE SALVAGED SHALL BE PLACED 2'± EITHER SIDE OF THE EXISTING.
8. FIRE HYDRANTS SHALL BE PLACED AS SHOWN ON PLANS
9. FIRE HYDRANTS LOCATED IN AREAS OTHER THAN INTERSECTIONS SHALL BE LOCATED AT SIDE OF LOT LINES, UNLESS SHOWN OTHERWISE ON PLANS AND APPROVED BY OWNER.
10. NEW FIRE HYDRANTS SHALL BE LOCATED IN ALL AREAS WHERE EXISTING FIRE HYDRANTS ARE TO BE SALVAGED.
11. IN THE EVENT THAT A PROPOSED FIRE HYDRANT CANNOT BE LOCATED IN AREA DESCRIBED AS TYPICAL, ULTIMATE LOCATION OF FIRE HYDRANTS SHALL BE AS DETERMINED BY OWNER.
12. ALL FIRE HYDRANTS SHALL BE INSTALLED WITH 5" STORZ ADAPTERS WITH CAP.
13. STORZ ADAPTERS SHALL BE AS MANUFACTURED BY HARRINGTON HPHASO-40NH/CAP STORZ PERMANENT HYDRANT ADAPTER WITH CAP (HYDRANT CONVERTER) OR FYRELANE ADPT-5.0ST-BC 5" STORZ BLIND CAP (ALUMINUM).
14. NO PART OF THE STORZ ADAPTERS SHOULD BE PAINTED. ALL PARTS ARE DESIGNED TO PROVIDE FUNCTION WITHOUT PAINT. THIS INCLUDES SOME WITH THE CONNECTING CABLE THAT HAS BUILT-IN REFLECTORS FOR BETTER RECOGNITION AT NIGHT.



THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THRUST BLOCKING TO WITHSTAND TEST PRESSURE OF 150 PSI ALL THRUST BLOCKING SHALL BE PLACED AGAINST ALL UNDISTURBED EARTH.

THRUST BLOCKING OF IN LINE VALVE DETAIL

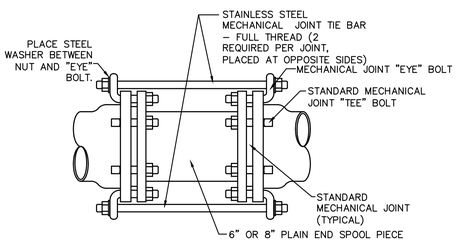
NOT TO SCALE

PROPOSED WATERLINE VERTICAL CLEARANCE TABLE		
OBSTRUCTION	MINIMUM CLEARANCE	MATERIAL
SANITARY SEWER	SEE TCEQ REGULATIONS (SPEC SECTIONS 02664)	SEE TCEQ REGULATIONS (SPEC SECTIONS 02664)
PRIVATE UTILITY	12"	C-900 DR 18 PVC *
PRIVATE PIPELINE	24"	C-900 DR 18 PVC *
WATERLINE	6"	C-900 DR 18 PVC *
STORM SEWER	6"	C-900 DR 18 PVC *

* IF DEPTH OF WATERLINE IS GREATER THAN 8' OR COVER IS LESS THAN 3' MATERIAL SHALL BE C-900 DR 14 PVC.

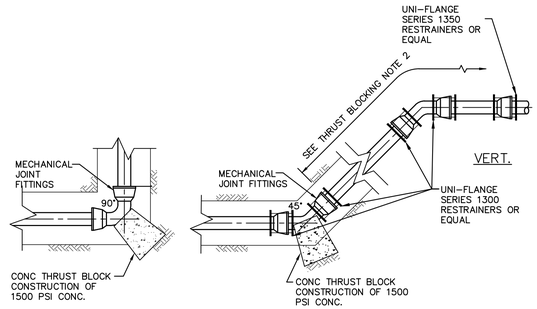
CLEARANCE DETAIL

NOT TO SCALE



MECHANICAL RESTRAINT DETAIL

NOT TO SCALE



HORIZ/ VERT HORIZ/ VERT

THRUST BLOCKING NOTES:

1. SIZE OF THRUST BLOCK TO BE ADEQUATE FOR TWO TIMES, TEST PRESSURE; THAT IS 250 PSI NO SEPARATE PAY FOR THRUST BLOCKING.
2. RESTRAINED JOINT PIPING SHALL BE USED IN ALL AREAS WHERE HORIZONTAL NEW PIPE HAS LESS THAN 4' COVER. ALL VERTICAL BENDS SHALL HAVE RESTRAINED JOINTS.

JOINT RESTRAINT DETAILS

NOT TO SCALE

MK.	DESCRIPTION	DATE	DWN.	CHK.

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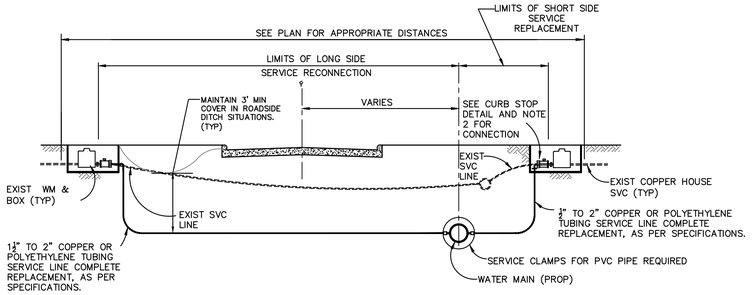
City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

WATER LINE DETAILS I

Job No.: 10418041	Scale: HORZ : VERT : (ONE INCH) IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE	SHEET 25 OF 28
Date: June, 2025		
Dwn By: G.S. Fuller		
Chkd By: N. Le		

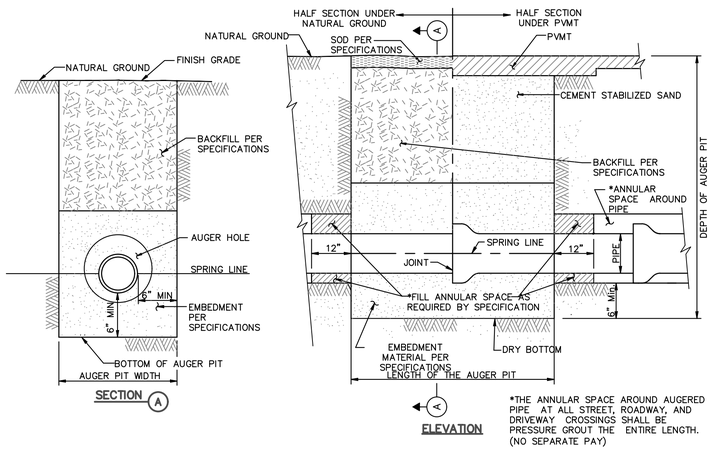


NOTES:

1. TAPS MUST BE SPACED A MIN OF ONE FOOT APART WHEN STAGGERED ON OPPOSITE SIDE OF THE WATERLINE, AND MUST BE SPACED A MIN OF TWO FEET APART WHEN ON SAME SIDE OF WATERLINE.
2. FIELD VERIFY SIZE AND LINE TYPE (COPPER, GALV. STL., PLASTIC, ETC.) OF EXIST. FOR THE PROPER CONNECTION TO CURB STOPS AND FOR APPROPRIATE PACK JOINT COUPLING IF APPLICABLE.
3. INSTALL ALL SERVICE LINE RECONNECTS OR NEW SERVICE PERPENDICULAR TO PROPOSED MAINLINE.
4. NEW OR MODIFICATION TO LONG SIDE SERVICE TO BE AUGERED UNDER PVMT UNLESS APPROVED IN WRITING BY THE CITY.

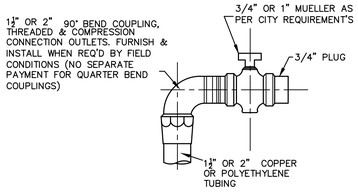
TYPICAL RESIDENTIAL SERVICE RECONNECTION

NOT TO SCALE



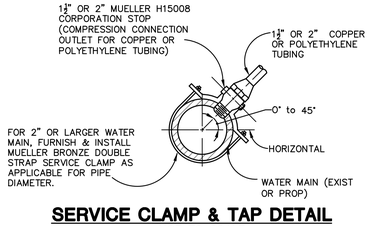
AUGER PIT AND AUGER HOLE DETAIL

NOT TO SCALE



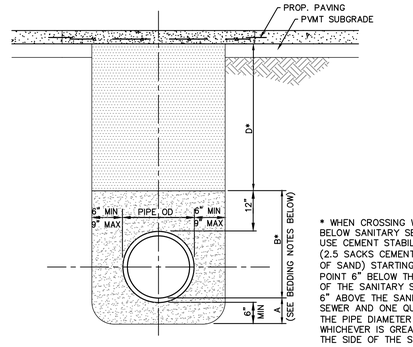
CURB STOP DETAIL

NOT TO SCALE



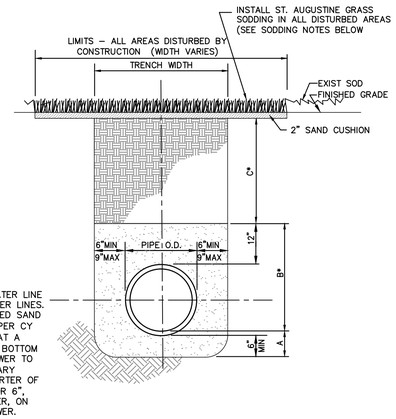
SERVICE CLAMP & TAP DETAIL

NOT TO SCALE



* WHEN CROSSING WATER LINE BELOW SANITARY SEWER LINES. USE CEMENT STABILIZED SAND (2.5 SACKS CEMENT PER CY OF SAND) STARTING AT A POINT 6" BELOW THE BOTTOM OF THE SANITARY SEWER TO 6" ABOVE THE SANITARY SEWER AND ONE QUARTER OF THE PIPE DIAMETER OR 6", WHICHEVER IS GREATER, ON THE SIDE OF THE SEWER.

WATER/SANITARY FORCE MAIN PIPE TRENCH DETAIL FOR PIPES UNDER EXISTING AND PROPOSED PVMT



WATER/SANITARY FORCE MAIN PIPE TRENCH DETAIL - FOR PIPES UNDER NATURAL GROUND

BEDDING NOTES:

A. BANK SAND PLACED BEFORE PIPE IS LAID.

B. BANK SAND PLACED AFTER PIPE IS LAID, THOROUGHLY RODDED AND MECHANICALLY TAMPED TO MIN 95% OF MAX. DRY DENSITY AS DETERMINED BY ASTMD-6 98

C. SELECT EARTH BACKFILL, MAX LIQUID LIMIT OF 40, MIN P.I. 7, MAX P.I. 20 CONTAINING NO ROCKS OR OTHER DEBRIS NOR CONTAINING ANY DIRT CLODS EXCEEDING 6" IN ANY DIMENSION. PLACED IN 6" LAYERS, MOISTENED IF NECESSARY AND THOROUGHLY COMPACTED TO A DENSITY EQUIVALENT TO THAT OF SURROUNDING UNDISTURBED SOIL, UNLESS OTHERWISE NOTED.

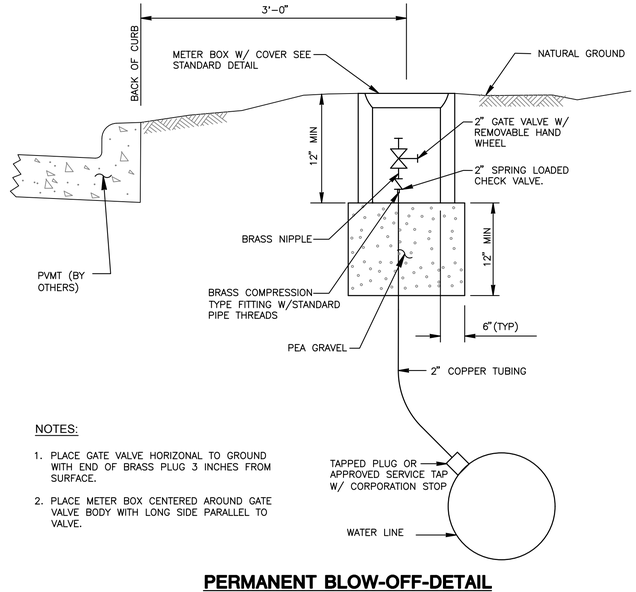
D. CEMENT STABILIZED SAND (AS PER SPECIFICATIONS)

SODDING NOTES:

1. SODDING SHALL BE INSTALLED IN AREAS DISTURBED BY CONSTRUCTION.
2. CONTRACTOR SHALL REPLACE SODDING IN AREAS DAMAGED BY CONSTRUCTION AND THE REPLACEMENT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
3. IF EXIST LANDSCAPING OTHER THAN GRASS IS WITHIN THESE AREAS, THE CONTRACTOR SHALL REBUILD OR REINSTALL THE LANDSCAPING OF THE AREA AFTER CONSTRUCTION IN AN EQUAL OR BETTER CONDITION.

BEDDING AND SODDING NOTES FOR TRENCH DETAILS

NOT TO SCALE

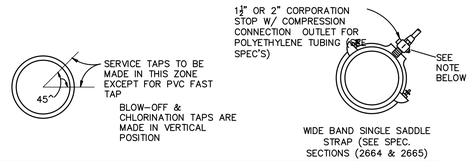


NOTES:

1. PLACE GATE VALVE HORIZONAL TO GROUND WITH END OF BRASS PLUG 3 INCHES FROM SURFACE.
2. PLACE METER BOX CENTERED AROUND GATE VALVE BODY WITH LONG SIDE PARALLEL TO VALVE.

PERMANENT BLOW-OFF-DETAIL

NOT TO SCALE



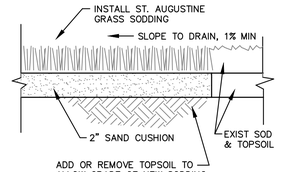
PIPE TAPPING SCHEDULE				
WATER MAIN TYPE AND DIAMETER	SERVICE SIZE			
	¾"	1"	1½"	2"
6" AND 8" PVC (AWWA C900)	WBSS	WBSS	WBSS	WBSS

NOTES:

1. FOR 2" DISTRIBUTION LINKS TO BE TAPPED TO NEW 8" MAIN, PROVIDE CORPORATION STOP PER SPEC'S W/CONNECTION OUTLET FOR CLASS 200 SDR 21 PVC PIPE.

SERVICE TAPS AND 2" MAIN TAPS DETAIL

NOT TO SCALE



TYPICAL SECTION

NOTES:

1. SODDING SHALL BE ON AREAS DISTURBED BY CONSTRUCTION.
2. SODDING LIMITS AT DITCHES SHALL BE THOSE AREAS DISTURBED BY THE GRADING PROCESS.
3. CONTRACTOR TO REPAIR SODDING IN THE AREAS DAMAGED BY CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT COST.
4. IN THE EVENT EXIST LANDSCAPING OTHER THAN GRASS IS WITHIN THESE AREAS, THE CONTRACTOR SHALL REBUILD OR REINSTALL THE LANDSCAPING OF THE AREA AFTER CONSTRUCTION IN AN EQUAL OR BETTER CONDITION.

TYPICAL GRASS SODDING DETAIL

NOT TO SCALE

MK.	DESCRIPTION	DATE	DWN.	CHK.

FOR REVIEW ONLY
JUNE 2025
NGOC KIM LE
TX. LIC. 102192
NOT FOR BIDDING, OR CONSTRUCTION

HDR Engineering Inc. Texas Reg. No. 754
4828 Loop Central Drive, Suite 700 • Houston, Texas 77081
(713) 622-9264 • Fax (713) 622-9265 • www.hdrinc.com

City of Hilshire Village, Texas

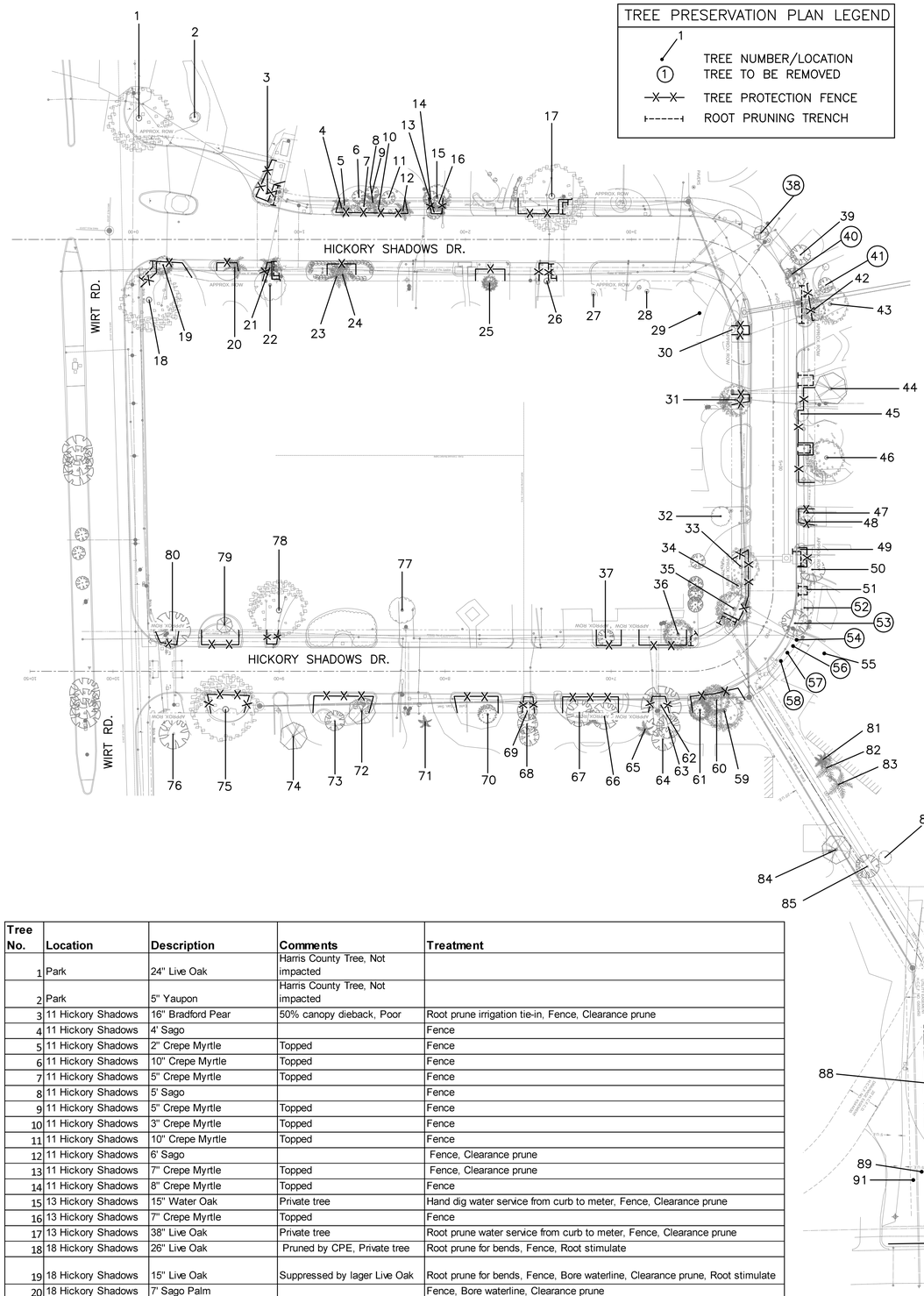
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

WATER LINE DETAILS II

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale: HORZ : VERT : ONE INCH
IF ABOVE MARK DOES NOT MEASURE ONE INCH, THEN THIS DWG. NOT TO SCALE

SHEET 26 OF 28



NOTE:

1. THIS TREE PROTECTION PLAN WAS DEVELOPED WITH INFORMATION PROVIDED BY DESIGN ENGINEER IN DRAWINGS DATED MAY 2025. THE PLAN CONSIDERS ALL FITTINGS, VERTICAL OFFSETS AND AREAS OF NECESSARY EXCAVATION. CHANGES MADE TO DESIGN MAY COMPROMISE THE TREE PROTECTION PLAN. REFER SPECIFICATIONS 01535. CONDITION OF EACH TREE IS BASED ON VISUAL EVALUATION AT TIME OF DESIGN. CONDITION AND STRUCTURAL INTEGRITY OF EACH TREE IS NOT GUARANTEED BY DESIGNER AT ANY POINT IN THE FUTURE, AS ENVIRONMENTAL AND MAINTENANCE INFLUENCES ON EACH TREE CAN NOT BE DETERMINED BY DESIGNER.
2. IN AREAS WHERE INDIVIDUAL TREES HAVE NOT BEEN TIED IN BY SURVEY APPROXIMATE LOCATION IS INDICATED ON TPP. ACCURACY OF REPRESENTED LOCATION CAN'T, AND IS NOT GUARANTEED BY DESIGNER.
3. THE CONTRACTOR'S ARBORTIST WILL MARK LOCATIONS OF THE NEW TREES AND OBTAIN APPROVAL BY THE CITY ENGINEER AND CITY FORESTER BEFORE PURCHASING AND PLANTING TREES.

Tree No.	Location	Description	Comments	Treatment
1	Park	24" Live Oak	Harris County Tree, Not impacted	
2	Park	5" Yaupon	Harris County Tree, Not impacted	
3	11 Hickory Shadows	16" Bradford Pear	50% canopy dieback, Poor	Root prune irrigation tie-in, Fence, Clearance prune
4	11 Hickory Shadows	4' Sago		Fence
5	11 Hickory Shadows	2" Crepe Myrtle	Topped	Fence
6	11 Hickory Shadows	10" Crepe Myrtle	Topped	Fence
7	11 Hickory Shadows	5" Crepe Myrtle	Topped	Fence
8	11 Hickory Shadows	5' Sago		Fence
9	11 Hickory Shadows	5" Crepe Myrtle	Topped	Fence
10	11 Hickory Shadows	3" Crepe Myrtle	Topped	Fence
11	11 Hickory Shadows	10" Crepe Myrtle	Topped	Fence
12	11 Hickory Shadows	6' Sago		Fence, Clearance prune
13	11 Hickory Shadows	7" Crepe Myrtle	Topped	Fence, Clearance prune
14	11 Hickory Shadows	8" Crepe Myrtle	Topped	Fence
15	13 Hickory Shadows	15" Water Oak	Private tree	Hand dig water service from curb to meter, Fence, Clearance prune
16	13 Hickory Shadows	7" Crepe Myrtle	Topped	Fence
17	13 Hickory Shadows	38" Live Oak	Private tree	Root prune water service from curb to meter, Fence, Clearance prune
18	18 Hickory Shadows	26" Live Oak	Pruned by CPE, Private tree	Root prune for bends, Fence, Root stimulate
19	18 Hickory Shadows	15" Live Oak	Suppressed by lager Live Oak	Root prune for bends, Fence, Bore waterline, Clearance prune, Root stimulate
20	18 Hickory Shadows	7' Sago Palm		Fence, Bore waterline, Clearance prune
21	18 Hickory Shadows	5' Sago		Fence, Bore waterline, Clearance prune
22	18 Hickory Shadows	16" Live Oak	Private tree	Root prune for tee and tap, Hand dig service lead tap to meter, Fence, Bore waterline, Clearance prune, Root stimulate
23	20 Hickory Shadows	9' Sago		Bore waterline, Fence
24	20 Hickory Shadows	6' Sago		Bore waterline, Fence
25	22 Hickory Shadows	11" Chinese Pistache	Private tree	Fence, Bore waterline, Clearance prune
26	24 Hickory Shadows	5" Shumard Oak		Root prune for fire hydrant, Fence, Bore waterline
27	24 Hickory Shadows	5" Pittosporum	Private tree, Not impacted	
28	24 Hickory Shadows	6" Ligustrum	Private tree, Not impacted	
29	24 Hickory Shadows	19" Live Oak	Private tree, Not impacted	
30	24 Hickory Shadows	3" Red Maple	Private tree	Fence
31	9 Hickory Shadows	22" Live Oak		Hand dig water service from curb to meter, Fence, Clearance prune
32	7 Hickory Shadows	16" Hickory	50% dieback, Private, Not impacted	
33	7 Hickory Shadows	20" Live Oak	30% canopy dieback	Hand root prune back side of proposed inlet during excavation, Do not disturb more than 4" back of proposed inlet, Fence, Root stimulate, Clearance prune
34	7 Hickory Shadows	2" Cherrylaurel		Fence
35	7 Hickory Shadows	23" Live Oak	Interior foliage stripped, 25% canopy dieback	Remove fire hydrant bonnet, cut stem and barrel 6" below grade. Remove valve box and backfill. Do not excavate to remove entire fire hydrant. Do not cut roots greater than 1" in diameter. Hand dig for new fire hydrant, Fence, Root prune for bends, Root stimulate, Clearance prune
36	7 Hickory Shadows	23" Live Oak	20% dieback	Hand dig tap&lead, Fence, Bore waterline, Root prune for bends, Root stimulate, Clearance prune
37	7 Hickory Shadows	9" Crepe Myrtle		Bore waterline, Fence
38	17 Hickory Shadows	12" Little Gem Magnolia	Base of trunk growing over existing driveway, Remove for drive replacement	Remove tree
39	19 Hickory Shadows	6" Crepe Myrtle	Topped, Private, Not impacted	
40	19 Hickory Shadows	3' Yucca	Remove for bends	Remove tree
41	19 Hickory Shadows	9" Crepe Myrtle	Remove for bends	Remove tree
42	21 Hickory Shadows	25" Live Oak	Private tree	Root prune for waterline, Fence
43	21 Hickory Shadows	17" Live Oak	Suppressed by lager Live Oak, 30% dieback	Root prune for waterline, Fence, Root stimulate
44	21 Hickory Shadows	22" Magnolia	30% dieback, Private tree	Root prune tap&lead, Fence, Bore waterline
45	16 Hickory Shadows	9" Fringe Tree		Hand dig tap& lead, Fence, Bore waterline, Clearance prune
46	16 Hickory Shadows	27" Live Oak	Private tree	Root prune for tap&lead, Fence, Bore waterline, Clearance prune
47	16 Hickory Shadows	9" Fringe Tree		Hand dig tap&lead, Fence, Bore waterline, Clearance prune
48	16 Hickory Shadows	8" Little Gem Magnolia		Fence, Bore waterline, Clearance prune
49	14 Hickory Shadows	8" Little Gem Magnolia		Root prune for inlet, Fence, Bore waterline, Clearance prune
50	14 Hickory Shadows	12" Crepe Myrtle	Topped	Bore waterline, Fence
51	14 Hickory Shadows	4" Little Gem Magnolia		Bore waterline, Fence
52	14 Hickory Shadows	8" Camphor	Remove for bends	Remove tree
53	12 Hickory Shadows	15" Crepe Myrtle	Remove for bends	Remove tree
54	12 Hickory Shadows	9" Crepe Myrtle	Remove for bends	Remove tree
55	12 Hickory Shadows	37" Live Oak	Private tree, Not impacted	
56	12 Hickory Shadows	2" Saucer Magnolia	Remove for bends	Remove tree
57	12 Hickory Shadows	2" Saucer Magnolia	Remove for bends	Remove tree
58	12 Hickory Shadows	2" Saucer Magnolia	Remove for bends	Remove tree
59	10 Hickory Shadows	21" Live Oak		Fence, Clearance prune
60	10 Hickory Shadows	16" Live Oak		Fence, Clearance prune
61	10 Hickory Shadows	13" Live Oak		Fence, Clearance prune
62	10 Hickory Shadows	22" Crepe Myrtle		Hand dig lead from curb to meter, Fence, Clearance prune
63	10 Hickory Shadows	13" Crepe Myrtle	Private tree	Fence
64	10 Hickory Shadows	13" Crepe Myrtle	Private tree	Fence
65	10 Hickory Shadows	4' Sago	Private tree, Not impacted	
66	10 Hickory Shadows	12" Crepe Myrtle	Topped, Private tree	Fence
67	10 Hickory Shadows	13" Crepe Myrtle	Topped	Fence
68	6 Hickory Shadows	12" Crepe Myrtle	Private tree	Fence
69	6 Hickory Shadows	13" Crepe Myrtle		Fence, Clearance prune
70	6 Hickory Shadows	12" Live Oak		Fence, Clearance prune
71	6 Hickory Shadows	3' Palm	Private tree, Not impacted	
72	4 Hickory Shadows	15" Magnolia	50% dieback	Fence, Clearance prune
73	4 Hickory Shadows	7" Crepe Myrtle	Topped, Private tree	Fence
74	4 Hickory Shadows	15" Magnolia	50% dieback, Private, Not impacted	
75	2 Hickory Shadows	33" Live Oak	Thin canopy, 10% dieback	Fence, Clearance prune
76	2 Hickory Shadows	13" Crepe Myrtle	Topped, Private tree, Not impacted	
77	3 Hickory Shadows	17" Red Maple	Topped, Private tree, Not impacted	
78	3 Hickory Shadows	29" Live Oak	Private tree	Fence, Bore waterline, Clearance prune
79	1 Hickory Shadows	11" Magnolia		Fence, Bore waterline, Clearance prune
80	1 Hickory Shadows	18" Crepe Myrtle		Hand dig tap&lead, Fence, Bore waterline, Clearance prune
81	12 Hickory Shadows	3" Redbud	Private tree, Not impacted	
82	12 Hickory Shadows	30' Palm	Private tree, Not impacted	
83	12 Hickory Shadows	18' Palm	Private tree, Not impacted	
84	10 Hickory Shadows	18" Magnolia	Easement tree	Center 30' trenchless construction on trunk of tree
85	12 Hickory Shadows	12" Crepe Myrtle	Easement tree	Center 20' trenchless construction on trunk of tree
86	12 Hickory Shadows	9" Mexican Sycamore	Private tree	Center 20' trenchless construction on trunk of tree
87	1027 Ridgeley	25" Cottonwood	Private tree	Center 30' trenchless construction on trunk of tree
88	1025 Ridgeley	14" Eastern Red Cedar	Easement tree	Center 20' trenchless construction on trunk of tree
89	1027 Ridgeley	17" Pine	Easement tree	Center 30' trenchless construction on trunk of tree
90	1027 Ridgeley	16" Live Oak	Easement tree	Center 30' trenchless construction on trunk of tree

MK.	DESCRIPTION	DATE	DWN.	CHK.

C.N. Koehl
Urban Forestry, Inc.
210 Stone Bush Ct. ◦ Katy, Texas 77493
281-391-0022 ckoehl@koehlurbanforestry.com

APPROVED:

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City of Hilshire Village, Texas

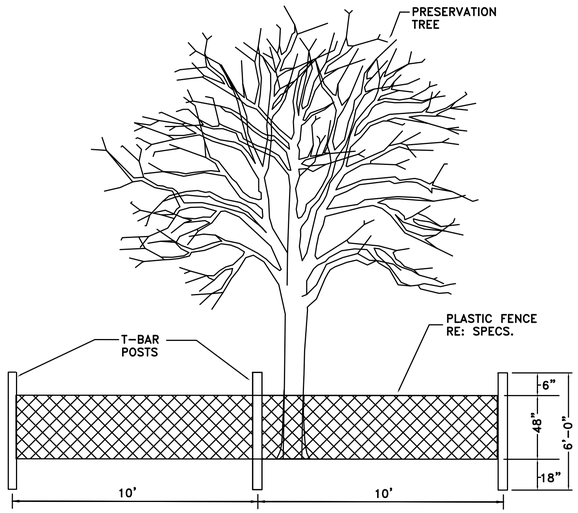
Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

TREE PROTECTION PLAN
SHEET 1 OF 2

Job No.: 10418041
Date: June, 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

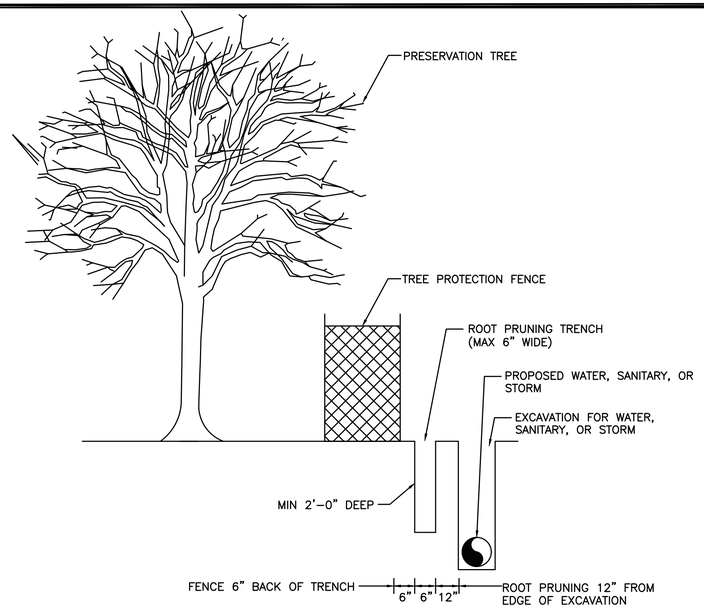
Scale:
HORZ :
VERT :
One Inch
If above mark does not measure one inch, then this dwg. not to scale

SHEET 27 OF 28



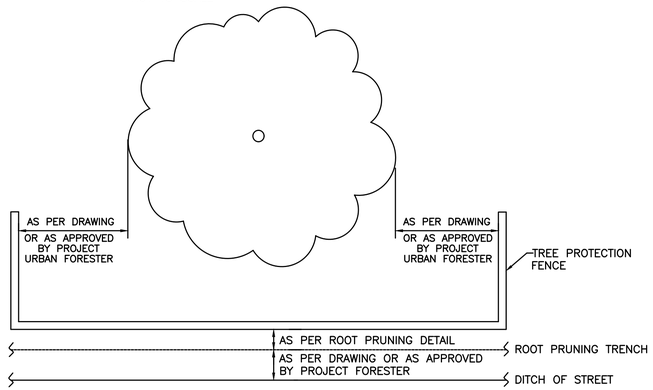
TREE PROTECTION FENCING DETAIL A

NOT TO SCALE



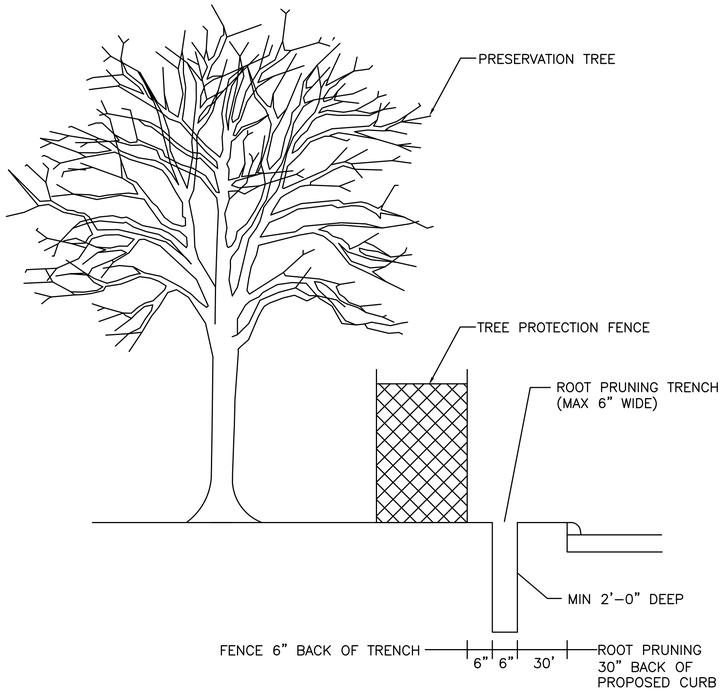
ROOT PRUNE FOR WATER, SANITARY, OR STORM LINE

NOT TO SCALE



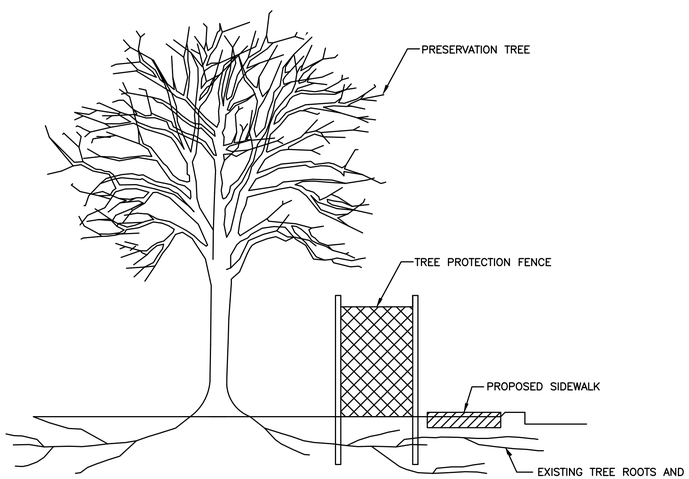
TREE PROTECTION FENCING DETAIL B

NOT TO SCALE



ROOT PRUNE FOR STREET-CURB & GUTTER - NO 0CC

NOT TO SCALE



DEMO-FORM-POUR WALK WITHOUT DAMAGE TO TREE ROOTS 1" DIAMETER OR LARGER

NOT TO SCALE

MK.	DESCRIPTION	DATE	DWN.	CHK.

C.N. Koehl
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281-391-0022 ckoehl@koehlurbanforestry.com

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City of Hilshire Village, Texas

Hickory Shadows Drive
Paving, Drainage & Water Line Improvements

TREE PROTECTION PLAN
SHEET 2 OF 2

Job No.: 10418041
Date: **June,** 2025
Dwn By: G.S. Fuller
Chkd By: N. Le

Scale:
HORZ :
VERT :
| One Inch |
If above mark does not measure one inch, then this dwg. not to scale

SHEET 28 OF 28