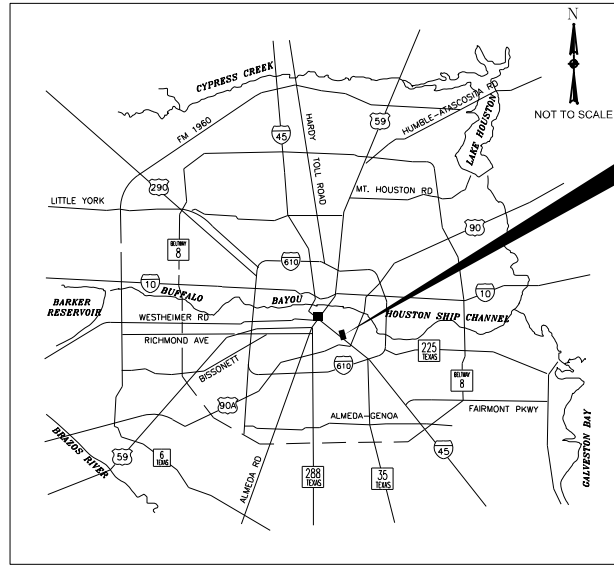


CITY OF HOUSTON HOUSTON PUBLIC WORKS CAPITAL PROJECTS

TELEPHONE RD MAIN STREET REVITALIZATION PROJECT SEGMENT 1: LAWDALE to IH 45

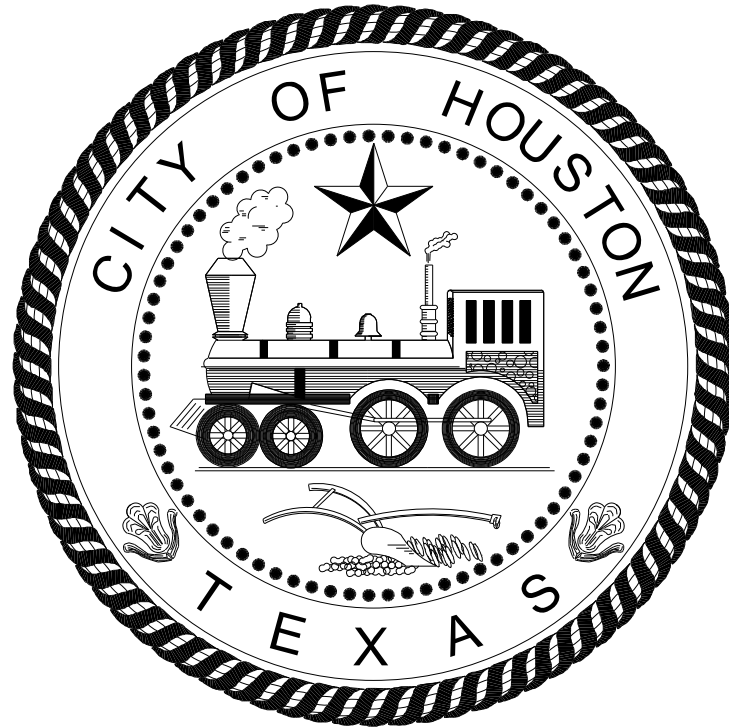
WBS NO. N-100042-0001-3



LOCATION MAP



VICINITY MAP
KEY MAP NO 494 X, 534X,
534C
GIMS MAP NO ### X



MAYOR
JOHN WHITMIRE

CONTROLLER
CHRIS HOLLINS

DISTRICT
COUNCIL MEMBERS

AMY PECK DISTRICT A	TARSHA JACKSON DISTRICT B	ABBIE KAMIN DISTRICT C	CAROLYN EVANS-SHABAZZ DISTRICT D
FRED FLICKINGER DISTRICT E	TIFFANY D. THOMAS DISTRICT F	MARY NAN HUFFMAN DISTRICT G	MARIO CASTILLO DISTRICT H
JOAQUIN MARTINEZ DISTRICT I	EDWARD POLLARD DISTRICT J	MARTHA CASTEX-TATUM DISTRICT K	

COUNCIL MEMBERS
AT-LARGE

JULIAN RAMIREZ POSITION 1	WILLIE DAVIS POSITION 2
TWILA CARTER POSITION 3	LETITIA PLUMMER POSITION 4
SALLIE ALCORN POSITION 5	

TDLR EABPR _____

TRANSCEND
engineers + planners

SURVEYED BY: KUO
FB NO. 10075600

THESE DOCUMENTS ARE FOR
100% REVIEW AND NOT FOR
CONSTRUCTION, BIDDING, OR
PERMIT PURPOSES.

RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

03/02/25

_____ PARKS-FORESTRY DEPT.

_____ METRO

_____ HOUSTON WATER

_____ TRANSPORTATION & DRAINAGE OPERATIONS

_____ CAPITAL PROJECTS

_____ SURVEY

_____ CITY ENGINEER _____ DATE

_____ DIRECTOR OF _____ DATE
HOUSTON PUBLIC WORKS

SHEET NO 1 OF 146 SHEETS

FOR CITY OF HOUSTON USE ONLY

<u>SHEET NO.</u>	<u>SHEET TITLE</u>
1	COVER SHEET
2	SHEET INDEX
3	GENERAL NOTES
4	SYMBOLS, ABBREVIATIONS & GENERAL NOTES
5	SUMMARY OF QUANTITIES
6	TYPICAL CROSS SECTIONS
7-9	SURVEY CONTROL MAPS
10-14	REMOVAL SHEETS
15	OVERALL PROJECT LAYOUT
16-24	PLAN & PROFILES
25-29	SIGNING AND PAVEMENT MARKINGS LAYOUT
30-32	UPGRADED TRAFFIC SIGNAL
33	TCP NOTES, CHANNELIZING DEVICES AND BARRICADES
34	TCP OVERVIEW
35-39	OVERALL TCP LAYOUT
40-51	TCP LAYOUTS PH 1
52-63	TCP LAYOUTS PH 2
64-75	TCP LAYOUTS PH 3
76-87	TCP LAYOUTS PH 4
88	TCP TYPICAL DRIVEWAY CLOSURE DETAIL
89-96	STORM WATER POLLUTION PREVENTION PLAN
97-99	TREE PROTECTION PLAN
100-111	PAVING DETAILS
112	DRAINAGE DETAILS
113-130	SPM STANDARD DETAILS
131-144	TCP STANDARD DETAILS
145	SW3P STANDARD DETAILS
146	CONSTRUCTION SIGN

TRANSCEND <small>Transcend Engineers & Planners, LLC TPEE Reg. No. F-19299 23410 Grand Reserve Dr., Suite 101 Houston, Texas 77454</small> engineers + planners	
DESIGN ENGINEER: RAJ BASAVARAJU, PE 23410 GRAND RESERVE DR HOUSTON, TX 77494 PHONE: (832) 492-4499 TX FIRM NUMBER: 19299	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
SURVEYED BY: KUO FIRM REG NO. 10075600	
CITY OF HOUSTON HOUSTON PUBLIC WORKS	
TELEPHONE ROAD MAIN STREET REVITALIZATION PROJECT SUBPROJECT 1: LAWNSDALE TO IH 45 SHEET INDEX	
WBS NUMBER N-100042-0001-3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE AS NOTED	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 2	

GENERAL CONSTRUCTION NOTES

- UNLESS OTHERWISE NOTED AND APPROVED ON DRAWINGS, CONSTRUCT CIVIL INFRASTRUCTURE IN ACCORDANCE WITH THE EFFECTIVE EDITION OF THE HOUSTON PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS, STANDARD CONSTRUCTION DETAILS, AND SUPPLEMENTS, ADDENDA AND AMENDMENTS THERETO. THE LATEST EDITION OF THE ABOVE PUBLICATIONS CAN BE FOUND AT: [HTTP://WWW.HOUSTONPERMITTINGCENTER.ORG/OFFICE-CITY-ENGINEER/DESIGN-AND-CONSTRUCTION-STANDARDS](http://www.houstonpermittingcenter.org/office-city-engineer/design-and-construction-standards).
- THE DESIGN MUST BE CONSISTENT WITH THE EFFECTIVE EDITION OF HOUSTON PUBLIC WORKS INFRASTRUCTURE DESIGN MANUAL AND TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) REQUIREMENTS.
- THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 11 OF THE LATEST EDITION OF THE PUBLICATION INFRASTRUCTURE DESIGN MANUAL, PUBLISHED BY HOUSTON PUBLIC WORKS. SOILS REPORT WAS PREPARED BY [GEOTECHNICAL ENGINEERING FIRM] REPORT NO. [NO. OF REPORT], DATED [DATE OF REPORT].
- UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567/811 OR 800-344-8377 AND LONE STAR NOTIFICATION CENTER AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION. UTILITIES MARKED WITHIN THE PUBLIC RIGHT OF WAY OR IN EASEMENTS SHALL COMPLY WITH TAC TITLE 16, PART 1, CHAPTER 18, RULE 18.6 AND THE AMERICAN PUBLIC WORKS ADMINISTRATION (APWA) UNIFORM COLOR CODE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES AND TRAFFIC CONTROL DEVICES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE EFFECTIVE EDITION OF HOUSTON PUBLIC WORKS, STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC, REFERENCED ABOVE AND SUPPLEMENTS, ADDENDA AND AMENDMENTS THERETO, AT NO ADDITIONAL COST TO THE CITY OF HOUSTON.
- CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER, HOUSTON PUBLIC WORKS @ 832-394-9098 OR VIA FAX AT 832-395-4424 FOR INSPECTION AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER AND TO THE SATISFACTION OF THE OWNING AUTHORITY.
- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
- CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
- CONTRACTOR SHALL MAINTAIN A SET OF REDLINE DRAWINGS AND RECORD AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE AS-BUILT DRAWINGS WILL BE SUBMITTED TO THE DESIGN CONSULTANT WHO WILL MAKE THE CHANGES ON THE ORIGINAL TRACINGS, LABEL EACH SHEET IN THE SET AS "RECORD DRAWINGS", AND RETURN IT TO THE OFFICE OF THE CITY ENGINEER.

STORM CONSTRUCTION NOTES

- STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (C-76, CLASS III), AND SHALL BE INSTALLED, BEDDED, AND BACK FILLED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 2317-02, 02317-3, 02317-05, 02317-06, AND 02317-07 (JULY 2019) AS APPLICABLE UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- ALL STORM SEWER CONSTRUCTED IN S IDELOT EASMENT SHALL BE R.C.P (C-76, CLASSIII) AND SHALL BE EMBEDDED IN ACCORDANCE WITH THE CITY OF HOUSTON DRAWING NOS. 02317-02, 02317-03, 02317-05, 02317-06, AND 02317-07 AS APPLICABLE.
- ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1-1/2 SACK CEMENT/C.Y. STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
- ALL TRENCH BACKFILL SHALL BE IN 8" LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS IN EACH LIFT, AND MECHNICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMACTION TEST (ASTM D-698/AASHTO T99).
- CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINT CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
- ALL STORM SEWER PIPES AND INLET LEADS SHALL BE 24" AND LARGER R.C.P. (C-76, CLASSIII).
- ALL PRPOSED PIPE STUB-OUTS FROM MANHOLES AND INLET LEADS ARE TO BE PLUGGED WITH 8"BRICK WALLS UNLESS OTHERWISE NOTED.
- MINIMUM HORIZONTAL CLEARANCE BETWEEN ANY STORM PIPE AND BOX SHALL BE AT LEAST 48-INCHES FROM EXTERIOR OF THE STORM PIPE OR BOX TO THE EXTERIOR OF THE EXISTING OR PROPOSED PUBLIC OR PRIVATE UTILITY AND OTHER APPURTENANCES. MINIMUM VERTICAL CLEARANCE BETWEEN ANY STORM PIPE AND BOX SHALL BE AT LEAST 24-INCHES FROM EXTERIOR OF THE STORM PIPE OR BOX TO THE EXTERIOR OF THE EXISTING OR PROPOSED PUBLIC OR PRIVATE UTILITY AND OTHER APPURTENANCES.

STORM CONSTRUCTION NOTES (CONT.)

- ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF SECTION 02086-ADJUSTING MANHOLES, INLETS, AND VALAVE BOXES TO GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF THIS WORK.
- ALL DITCHES SHALL BE GRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.
- ALL DRIVEWAYS WILL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES.

TRAFFIC NOTES

CONTRACTOR OR OWNER SHALL SUBMIT TRAFFIC CONTROL PLANS WITH THE MOBILITY PERMIT APPLICATION. THE PLANS SHALL BE DRAWN TO SCALE AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.

THE GENERAL NOTES THAT SHALL BE INCLUDED ON THE TRAFFIC CONTROL PLAN CAN BE FOUND IN CHAPTER 15 (15.12 TRAFFIC CONTROL PLAN) OF THE CITY OF HOUSTON'S (CITY) INFRASTRUCTURE DESIGN MANUAL (IDM). BELOW ARE SEVERAL KEY NOTES FROM THE IDM TO BE AWARE OF:

- THE CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) LATEST EDITION WITH REVISIONS DURING THE ENTIRE CONSTRUCTION PERIOD.
- NO WORK SHALL BE PERFORMED IN RESIDENTIAL AREAS FROM 7:00PM TO 7:00AM.
- CONTRACTOR SHALL MAINTAIN APPROVED NUMBER OF LANES OF TRAFFIC IN EACH DIRECTION DURING CONSTRUCTION WORKING HOURS. TRAFFIC CONTROL PLANS SHALL INCLUDE ONE-WAY AND/OR DETOUR PLANS. CONTRACTOR SHALL MAINTAIN ADA COMPLAINT PEDESTRIAN ACCESS TO BUS STOPS AND ADEQUATE BUS ACCESS TO THE BUS STOP.
- CONTRACTOR SHALL COVER OPEN PAVEMENT EXCAVATIONS FOR MINOR UTILITY WORK WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS, OPEN LANES FOR NORMAL TRAFFIC FLOW WHEN FEASIBLE.
- CONTRACTOR SHALL SECURE ROADWAY/SIDEWALK/STREET/BICYCLE FACILITY PERMITS AS DESCRIBED IN CITY OF HOUSTON ORDINANCE, CHAPTER 40 STREETS & SIDEWALKS, SECTION 40-361 FROM HOUSTON PERMITTING CENTER (MOBILITY PERMIT SECTION AT [HTTPS://GEOHUB.HOUSTONTX.GOV](https://geohub.houstontx.gov)) BEFORE IMPLEMENTING THE TRAFFIC CONTROL PLAN. THE APPLICATION MUST BE SUBMITTED AT LEAST TEN BUSINESS DAYS PRIOR TO THE IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN AND/OR BEGINNING CONSTRUCTION WORK. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS, CONSTRUCTION SEQUENCING, AND CONSTRUCTION SCHEDULE WITH THE APPLICATION.
- CONTRACTOR SHALL HAVE APPROVED TRAFFIC CONTROL PLAN AND PERMIT AT THE JOB SITE FOR INSPECTION AT ALL TIMES
- ACCESS TO DRIVEWAYS ADJACENT TO THE CONSTRUCTION WORK ZONE SHALL BE MAINTAINED AT ALL TIMES AS MUCH AS POSSIBLE. ADDITIONAL CONES AND/OR DELINEATORS MAY BE REQUIRED TO DELINEATE THE DRIVEWAY ACCESS ROUTE THROUGH THE CONSTRUCTION WORK ZONE. A MINIMUM OF ONE TRAVEL LANE SHALL BE MAINTAINED ACROSS THE DRIVEWAY, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE CITY OF HOUSTON.
- ADDITIONAL OFF DUTY POLICE OFFICERS/FLAGGERS MAY BE REQUESTED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED AT THE DIRECTION OF THE CITY EVEN IF THEY ARE NOT SPECIFICALLY IDENTIFIED ON THE PROJECT PLANS.

STREET & BRIDGE CONSTRUCTION NOTES

- FILL AREAS ON PLANS SHALL BE FILLED IN LAYERS NOT EXCEEDING 8" IN DEPTH AND EACH COMPACTED TO NOT LESS THAN 95% STANDARD PROCTOR DENSITY PRIOR TO INSTALLATION OF WATER LINE AND FILL AREA SHALL BE SEEDED AND FERTILIZED WITHIN 10 WORKING DAYS.
- UTILITY CONTRACTOR SHALL PROVIDE TEMPORARY SILT BARRIER FENCE ON ALL NON-CURBED INLETS WHICH WILL REMAIN IN PLACE AFTER UNDERGROUND CONTRACT IS COMPLETE.
- CONTRACTOR SHALL PROVIDE SILT BARRIER FENCE ON ALL STAGE 1 CURB INLETS.
- EXISTING PAVEMENTS, CURBS, DRIVEWAYS, AND SIDEWALKS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO CITY OF HOUSTON STANDARDS, WITH LATEST ADDENDA AND AMENDMENTS THERETO.
- CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY UPON COMPLETION OF JOB SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK.
- EXPOSED 15"OF REINFORCING STEEL AT PROPOSED SAWED JOINT IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS. HORIZONTAL DOWELS SHALL BE #6 BARS 24"LONG 24"C-C DRILLED AND EMBEDDED 8"INTO THE CENTER OF THE EXISTING SLAB WITH "PO ROC"OR EQUAL.
- WHEELCHAIR RAMPS SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF HOUSTON STANDARDS AT ALL INTERSECTIONS WHERE SIDEWALKS EXIST AND THE EXISTING CURB OR SIDEWALK IS DAMAGED OR REMOVED DURING CONSTRUCTION.
- PRIOR TO STREET CONSTRUCTION, THE CONTRACTOR SHALL CONTACT HOUSTON PUBLIC WORKS AT (PHONE) 832-394-9578 AND COMPLY WITH ALL REQUIREMENTS FOR THE ISSUANCE OF NECESSARY PERMITS/WORK ORDERS FOR STREET CONSTRUCTION.
- DOUBLE REFLECTORIZED BLUE TRAFFIC MARKERS SHALL BE PLACED 6-INCHES OFFSET OF THE CENTERLINE OF ALL FIRE HYDRANT LOCATIONS BY THE PAVING CONTRACTOR. HYDRANTS LOCATED AT INTERSECTIONS SHALL HAVE A BUTTON PLACED ON EACH STREET.

TRANSCEND engineers + planners		Transcend Engineers & Planners, LLC TPBE Reg. No. F-19299 23410 Grand Reserve Dr., Suite 101 Houston, Texas 77454
DESIGN ENGINEER: RAJ BASAVARAJU, PE	23410 GRAND RESERVE DR HOUSTON, TX 77494	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
PHONE: (832) 492-4499 TX FIRM NUMBER: 19299		RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149
SURVEYED BY: KUO	FIRM REG NO. 10075600	3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS		
TELEPHONE ROAD MAIN STREET REVITALIZATION PROJECT SUBPROJECT 1: LAWNDALE TO IH 45 GENERAL NOTES		
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY	
N-100042-0001-3		
DRAWING SCALE		
AS NOTED		
CITY OF HOUSTON PM		
ANNA CLIFTON, P.E.		
SHEET NO.	3	

PLAN AND PROFILE SYMBOLS

MATCH LINE	
TRANSIT LINE	
CENTERLINE OF RIGHT-OF-WAY	
PROPERTY LINE	
DITCHES, LEFT AND RIGHT	
EDGE OF CONCRETE	
FENCE LINE	
EDGE OF ASPHALT	
EDGE OF SHELL OR GRAVEL	
THEORETICAL PROPERTY LINE	
DIMENSION LINE	
LOT LINE	
DRAINAGE EASEMENT	
FILL EASEMENT	
CENTERPOINT (HL&P) CONDUIT	
GAS LINE	
WESTERN UNION CONDUIT	
S.W.B.T. CONDUIT	
IRON PIPE OR IRON ROD MONUMENTS	
POINT OF INTERSECTION (P.I.)	
POINT OF CURVR (P.C.) OR POINT OF TANGENCY (P.T.)	
POWER POLE	
POWER POLE DOWN GUY	
STREET SIGN	
TRAFFIC SIGNAL POLE	
LUMINAIRES	
TREE	
HEDGE	
BOREHOLE LOCATION	
CULVERT PIPE	

PLAN	EXISTING	PROPOSED
WATER VALVE		
FIRE HYDRANT		
WATER METER		
TAPPING SLEEVE & VALVE		
REDUCER		
ROUND CONNECTIONS		
SAN. SEWER MANHOLE & CLEAN OUT		
STORM SEWER MANHOLE		
WATER LINE 24" & SMALLER		
WATER LINE 30" & LARGER		
SAN. SEWER 24" & SMALLER		
SAN. SEWER 30" & LARGER		
STM. SEWER 24" & SMALLER		
STM. SEWER 30" & LARGER		

CITY OF HOUSTON HOUSTON PUBLIC WORK TRAFFIC NOTES

CONTRACTOR OR OWNER SHALL SUBMIT TRAFFIC CONTROL PLANS WITH THE MOBILITY PERMIT APPLICATION. THE PLANS SHALL BE DRAWN TO SCALE AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.

THE GENERAL NOTES THAT SHALL BE INCLUDED ON THE TRAFFIC CONTROL PLAN CAN BE FOUND IN CHAPTER 15 (15.12 TRAFFIC CONTROL PLAN) OF THE CITY OF HOUSTON'S (CITY) INFRASTRUCTURE DESIGN MANUAL (IDM). BELOW ARE SEVERAL KEY NOTES FROM THE IDM TO BE AWARE OF:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) LATEST EDITION WITH REVISIONS DURING THE ENTIRE CONSTRUCTION PERIOD.
2. NO WORK SHALL BE PERFORMED IN RESIDENTIAL AREAS FROM 7:00PM TO 7:00AM.
3. CONTRACTOR SHALL MAINTAIN APPROVED NUMBER OF LANES OF TRAFFIC IN EACH DIRECTION DURING CONSTRUCTION WORKING HOURS. TRAFFIC CONTROL PLANS SHALL INCLUDE ONE-WAY AND/OR DETOUR PLANS. CONTRACTOR SHALL MAINTAIN ADA COMPLAINT PEDESTRIAN ACCESS TO BUS STOPS AND ADEQUATE BUS ACCESS TO THE BUS STOP.
4. CONTRACTOR SHALL COVER OPEN PAVEMENT EXCAVATIONS FOR MINOR UTILITY WORK WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS, OPEN LANES FOR NORMAL TRAFFIC FLOW WHEN FEASIBLE.
5. CONTRACTOR SHALL SECURE LANE/SIDEWALK/BICYCLE FACILITY CLOSURE PERMITS FROM TRANSPORTATION & DRAINAGE OPERATIONS (MOBILITY PERMIT SECTION AT WWW.GMS.HOUSTONTX.GOV) BEFORE IMPLEMENTING THE TRAFFIC CONTROL PLAN. THE APPLICATION MUST BE SUBMITTED AT LEAST TEN BUSINESS DAYS PRIOR TO THE IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN AND/OR BEGINNING CONSTRUCTION WORK. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS, CONSTRUCTION SEQUENCING, AND CONSTRUCTION SCHEDULE WITH THE APPLICATION.
6. CONTRACTOR SHALL HAVE APPROVED TRAFFIC CONTROL PLAN AND PERMIT AT THE JOB SITE FOR INSPECTION AT ALL TIMES
7. ACCESS TO DRIVEWAYS ADJACENT TO THE CONSTRUCTION WORK ZONE SHALL BE MAINTAINED AT ALL TIMES AS MUCH AS POSSIBLE. ADDITIONAL CONES AND/OR DELINEATORS MAY BE REQUIRED TO DELINEATE THE DRIVEWAY ACCESS ROUTE THROUGH THE CONSTRUCTION WORK ZONE. A MINIMUM OF ONE TRAVEL LANE SHALL BE MAINTAINED ACROSS THE DRIVEWAY, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE CITY OF HOUSTON.

ADDITIONAL OFF DUTY POLICE OFFICERS/FLAGGERS MAY BE REQUESTED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED AT THE DIRECTION OF THE CITY EVEN IF THEY ARE NOT SPECIFICALLY IDENTIFIED ON THE PROJECT PLANS

ABBREVIATIONS

BL	BASELINE	IR	IRON ROD	STA	STATION
BLDG.	BUILDING	M.B.G.F.	METAL BEAM GUARD FENCE	STM. SWR.	STORM SEWER
CL	CENTERLINE	MH	MAN HOLE	S.W.B.T.	SOUTHWESTERN BELL TELEPHONE
CONC.	CONCRETE	N	NORTH	T.A.S.	TERMINAL ANCHOR SYSTEM
CSS	CEMENT STABILIZED SAND	PC	POINT OF CURVE	TC	TOP OF CURB
E	EAST	PI	POINT OF INTERSECTION	TG	TOP OF GRATE
ELEC.	ELECTRIC	PROP.	PROPOSED	TY	TYPE
EXIST.	EXISTING	PT	POINT OF TANGENT	VPI	VERTICAL POINT OF INTERSECTION
F-F	FACE TO FACE	R.O.W.	RIGHT-OF-WAY	W	WEST
FL	FLOWLINE	S	SOUTH	W.L.	WATER LINE
H.L. & P.	HOUSTON LIGHTING & POWER	SAN. SWR.	SANITARY SEWER		

GENERAL CONSTRUCTION NOTES
ONLY APPLICABLE IF CALLED FOR ON PLANS BY NUMBER

SEE PLAN LAYOUT SHEETS FOR CONSTRUCTION NOTES

NOTES:

1. REFER TO CITY OF HOUSTON DRAWING NO. 01510-001 - 01510-014 FOR ADDITIONAL DETAILS ON PAVEMENT MARKINGS.
2. REFER TO CITY OF HOUSTON DRAWING NO. 01509-001 - 01510-004 FOR ADDITIONAL DETAILS ON SIGNS.

CENTERPOINT ENERGY NOTES:

CAUTION: UNDERGROUND GAS FACILITIES

1. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
-WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL 713-945-8036 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 713-659-3552 OR 713-207-4200
2. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

WARNING: OVERHEAD ELECTRICAL LINES:

1. 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 & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:
-ANY ACTIVITY WHERE PERSONS OR THINGS MAY COME WITHIN 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 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
2. 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

1. NO APPROVAL TO USE, CROSS, OR OCCUPY NO CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING AND RIGHT OF WAY DIVISION AT (713) 207-6348 OR (713) 207-5769

PRIVATE UTILITY NOTES:

AT&T TEXAS/ SWBT FACILITIES:

1. THE LOCATIONS OF AT&T TEXAS/SWBT FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 (TEXAS 811) A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SWBT FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SWBT FACILITIES.
4. WHEN AT&T TEXAS/SWBT FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES OR OTHER CABLES IN CONDUIT IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER ROOSEVELT LEE JR. AT (713) 567-4552 OR EMAIL HIM AT RL7259@ATT.COM, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR OUR AT&T TEXAS/SWBT FACILITIES.

GENERAL NOTES - METRO:

1. CONTRACTOR SHALL NOTIFY METRO AT 713-615-6195 TWO WEEKS PRIOR TO DISTURBING EXISTING BUS STOPS.
1. CONTRACTOR SHALL COORDINATE WITH METRO TO REMOVE EXISTING AMENITIES.
2. BUS STOPS SHALL CONSTRUCTED PER CITY OF HOUSTON INFRASTRUCTURE DESIGN MANUAL AND MEET CURRENT ADA REQUIREMENTS

CITY OF HOUSTON HOUSTON PUBLIC WORK GENERAL NOTES

1. CONSTRUCT WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING IN ACCORDANCE WITH THE LATEST EDITION OF THE PUBLICATIONS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE AND STREET PAVING, AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING PUBLISHED BY HOUSTON PUBLIC WORKS.
2. THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT WAS CONDUCTED IN ACCORDANCE WITH CHAPTER 11 OF THE LATEST EDITION OF THE PUBLICATION INFRASTRUCTURE DESIGN MANUAL PUBLISHED BY HOUSTON PUBLIC WORKS. SOILS REPORT WAS PREPARED BY [GEOTECHNICAL ENGINEERING FIRM] REPORT NO. [NO. OF REPORT], DATED [DATE OF REPORT].
3. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567/811 OR 800-344-8377 AND ONE STAR NOTIFICATION CENTER AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION. UTILITIES MARKED WITHIN THE PUBLIC RIGHT OF WAY OR IN EASEMENTS SHALL COMPLY WITH TAC TITLE 16, PART 1, CHAPTER 18, RULE 19.6418.6 AND THE AMERICAN PUBLIC WORKS ADMINISTRATION (APWA) UNIFORM COLOR CODE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, STORM WATER LINES, AND TRAFFIC CONTROL DEVICES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE HOUSTON PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEM, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
5. CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER, HOUSTON PUBLIC WORKS @ 832-394-9098 OR VIA FAX AT 832-395-4424 FOR INSPECTION AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
6. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
7. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
8. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
9. CONTRACTOR SHALL MAINTAIN A SET OF REDLINE DRAWINGS AND RECORD AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINE MARKED UP DRAWINGS WILL BE SUBMITTED TO THE DESIGN CONSULTANT WHO WILL MAKE THE CHANGES ON THE ORIGINAL TRACINGS, LABEL EACH SHEET IN THE SET AS "RECORD DRAWINGS", AND RETURN IT TO THE OFFICE OF THE CITY ENGINEER.

TRANSCEND
engineers + planners

DESIGN ENGINEER: RAJ BASAVARAJU, PE	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
23410 GRAND RESERVE DR HOUSTON, TX 77494	RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149
PHONE: (832) 492-4499 TX FIRM NUMBER: 19299	3/2/2026
SURVEYED BY: KUO	
FIRM REG NO. 10075600	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
LEGEND, ABBREVIATIONS AND
GENERAL NOTES

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO.	4

TELEPHONE RD - SP1 QUANTITIES				
UNIT PRICE NO.		DESCRIPTION	UNIT	QUANTITY
1502	100	MOBILIZATION	LS	1
1555	100	TRAFFIC CONTROL AND REGULATION	LS	1
1562	100	TREE AND PLANT PROTECTION	LS	1
1570	101	FILTER FABRIC BARRIER	LF	580
1570	108	INLET PROTECTION BARRIER	LF	774
2081	400	TYPE C MANHOLE FOR PROPOSED CONCRETE BOX SEWER	EA	5
2221	251	REMOVE AND DISPOSE OF CONCRETE SIDEWALKS AND DRIVEWAYS (ALL THICKNESS)	SY	3,142
2221	253	REMOVE AND DISPOSE OF REINFORCED CONCRETE PAVEMENT, WITH OR WITHOUT ASHPALT OVERLAY (ALL THICKNESS)	SY	3,752
2336	105	LIME STABILIZED SUBGRADE, 6-INCH	SY	3,752
2631	105	24-INCH DIAMETER RCP STORM SEWER BY OPEN CUT	LF	10
2631	257	4-FOOT BY 2-FOOT BOX STORM SEWER BY OPEN CUT	LF	806
2713	100	RECYCLED CRUSHED CONCRETE BASE COURSE (SAND)	TON	764
2752	100	BOARD EXPANSION JOINT WITH LOAD TRANSFER DEVICE	LF	4,279
2764	200	RAISED REFLECTIVE PAVEMENT MARKER. DOUBLE-SIDED (WHITE OR YELLOW)	EA	247
2764	201	RAISED REFLECTIVE PAVEMENT MARKER. SINGLE-SIDED (WHITE OR YELLOW)	EA	159
2765	100	THERMOPLASTIC FOR RAILROAD CROSSING MARKINGS, TO INCLUDE STOP LINE AND TWO TRANSVERSE LINES	EA	4
2767	405	THERMOPLASTIC PAVEMENT MARKING (4-INCH-WIDE) WHITE OR YELLOW	LF	10,192
2767	406	THERMOPLASTIC PAVEMENT MARKING (6-INCH-WIDE) WHITE OR YELLOW	LF	943
2767	408	THERMOPLASTIC PAVEMENT MARKING (12-INCH-WIDE) WHITE OR YELLOW	LF	1,196
2767	409	THERMOPLASTIC PAVEMENT MARKING (24-INCH-WIDE) WHITE OR YELLOW	LF	1,021
2751	108	9-INCH REINFORCED CONCRETE PAVEMENT	SY	3,752
2771	100	6-INCH CONCRETE CURB	LF	135
2775	105	4-1/2-INCH CONCRETE SIDEWALK	SF	27,082
2775	200	WHEEL CHAIR RAMP	SF	2,819
2915	100	TREE PLANTING	EA	1
7-591.10		CONCRETE TRUCK WASHOUT (INST. 60%, REM. 40%) *	EA	1
		* HCD STD		

TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

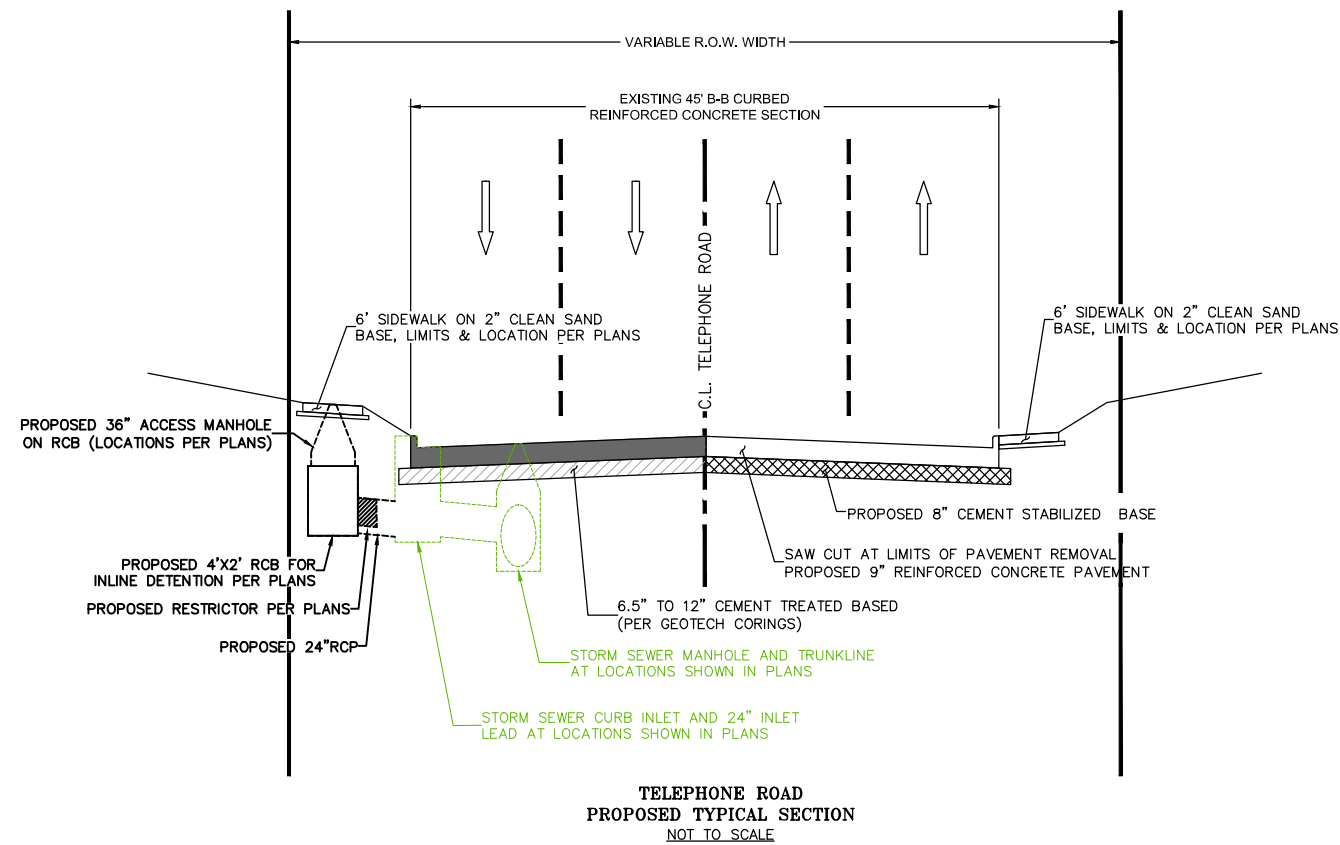
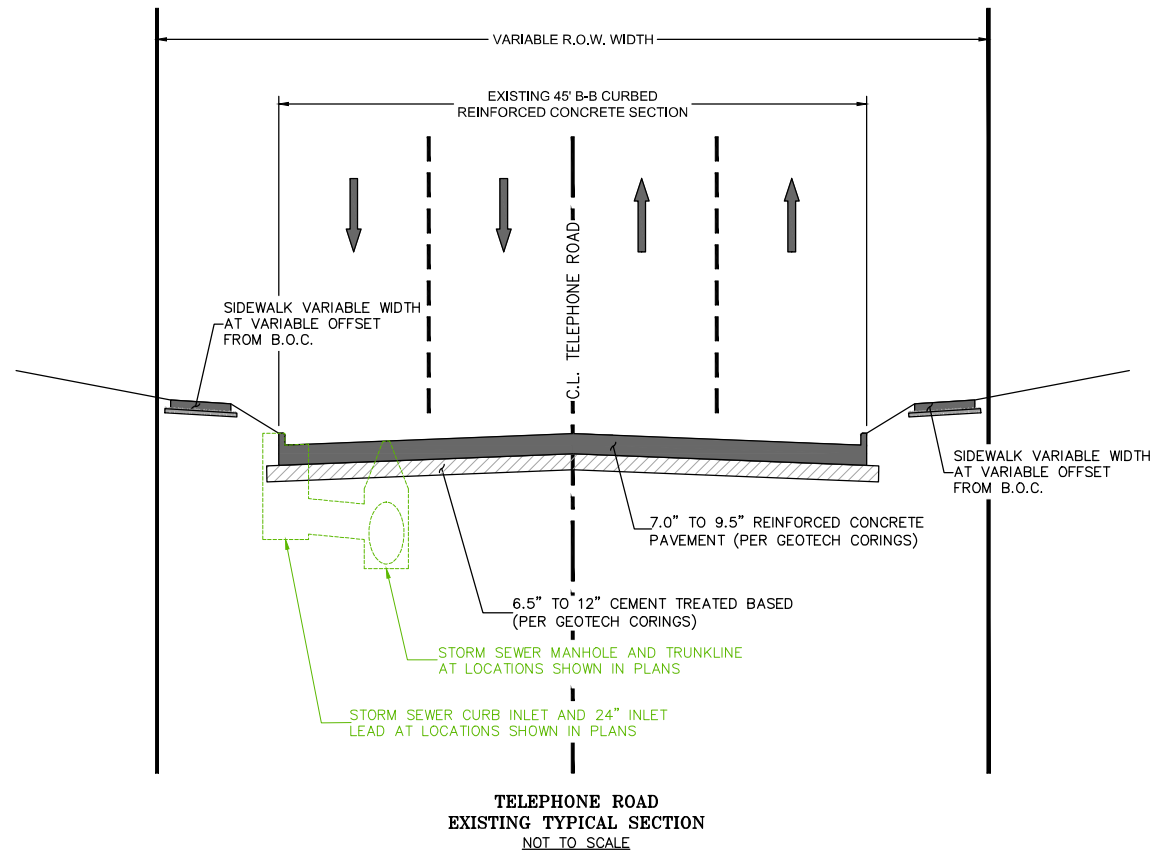
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FIRM REG NO. 10075600

03/02/25

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
SUMMARY OF
QUANTITIES

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 5	



NO.	DATE	REVISION	APP.

TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr. Suite 101
Houston, Texas 77454
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

03/02/25

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

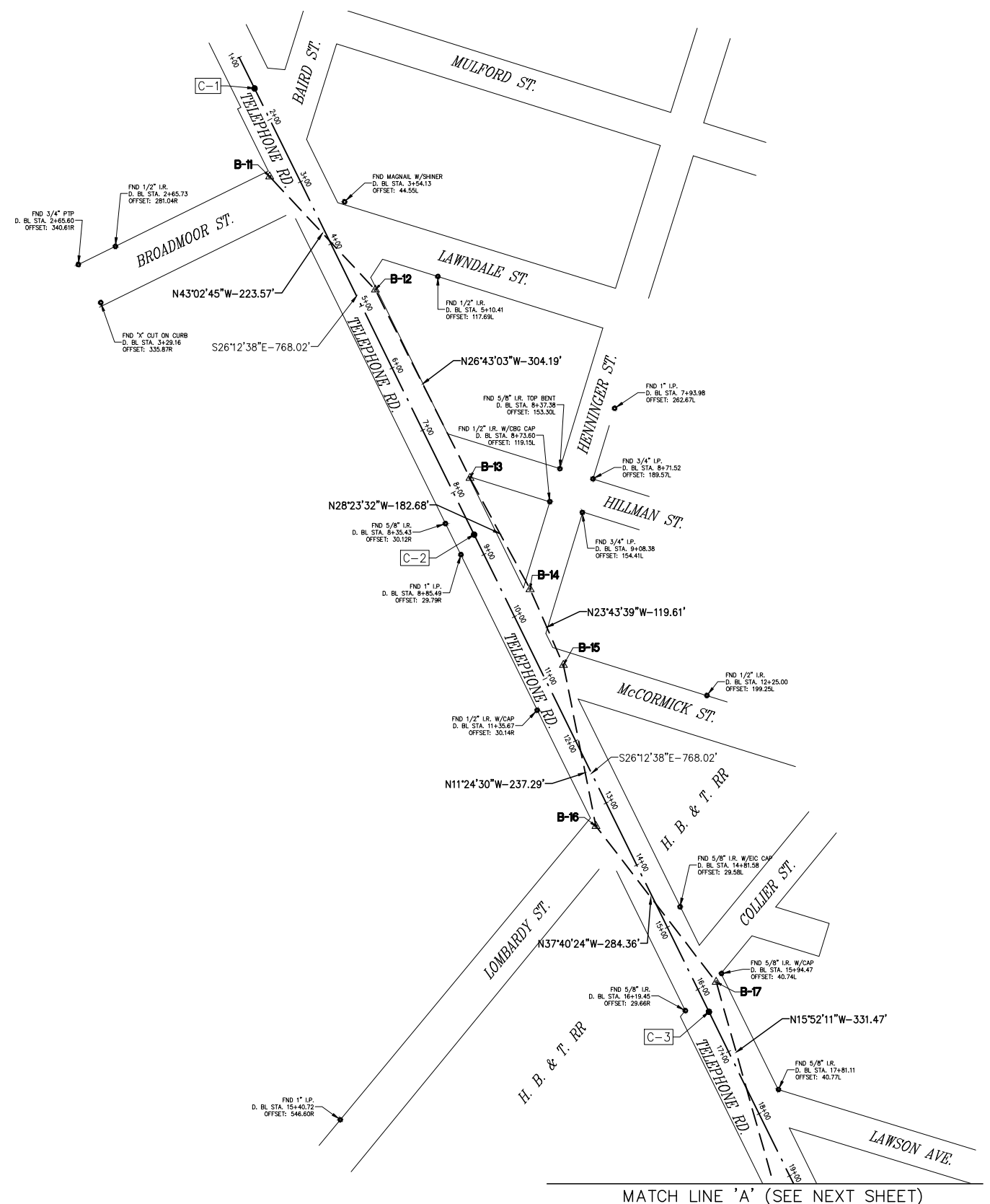
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
TYPICAL CROSS SECTIONS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 6	

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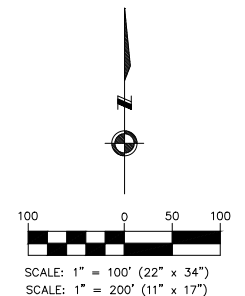
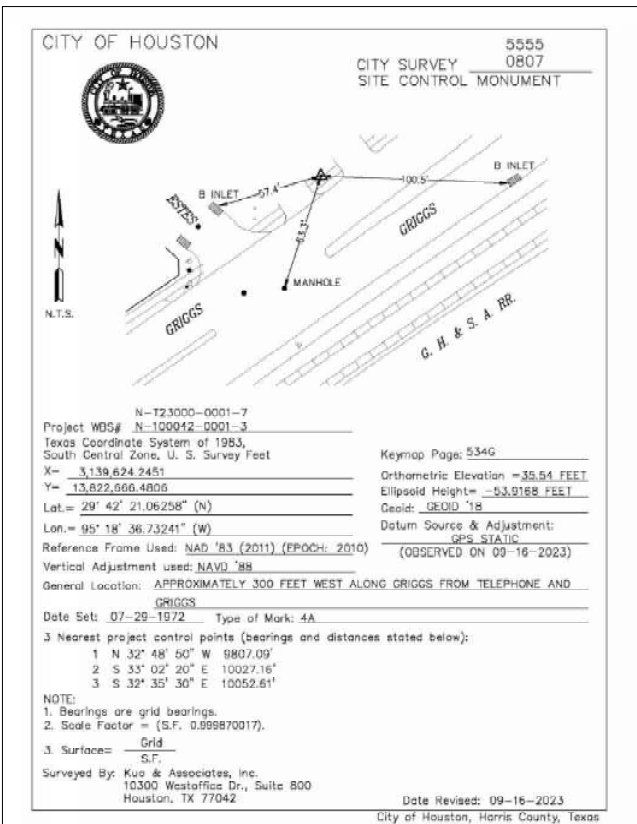
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SURVEY BASELINE POINTS DATA (TEMPORARY BENCHMARK)								
POINT No.	NORTHING (SURFACE)	EASTING (SURFACE)	NORTHING (GRID)	EASTING (GRID)	ELEVATION	D. BL. STA.	OFFSET	DESCRIPTION
B-11	13,832,869.08	3,134,565.32	13,831,071.04	3,134,157.88	34.63'	2+73.82	36.64R	SET 'X' CUT ON CONC.
B-12	13,832,705.69	3,134,717.92	13,830,907.68	3,134,310.46	34.69'	4+87.81	28.11L	SET 'X' CUT ON CONC.
B-13	13,832,433.98	3,134,854.69	13,830,636.00	3,134,447.21	33.90'	7+91.99	30.80L	SET 'X' CUT ON CONC.
B-14	13,832,273.28	3,134,941.55	13,830,475.31	3,134,534.06	33.35'	9+74.54	37.75L	SET 1/2" I.R. W/CAP
B-15	13,832,163.77	3,134,989.68	13,830,365.83	3,134,582.19	33.34'	10+94.04	32.57L	SET 'X' CUT ON CONC.
B-16	13,831,931.17	3,135,036.62	13,830,133.26	3,134,629.12	33.67'	13+23.45	28.05R	SET 'X' CUT ON CONC.
B-17	13,831,706.10	3,135,210.41	13,829,908.21	3,134,802.89	36.55'	16+02.15	28.46L	SET 'X' CUT ON CONC.
B-18	13,831,387.26	3,135,301.05	13,829,589.41	3,134,893.52	33.78'	19+28.24	31.04R	SET 'X' CUT ON CONC.
B-19	13,830,959.12	3,135,578.87	13,829,161.33	3,135,171.29	34.55'	24+34.84	29.34L	SET 'X' CUT ON CONC.
B-20	13,830,600.01	3,135,690.55	13,828,802.27	3,135,282.97	33.62'	28+06.99	28.87R	SET 'X' CUT ON CONC.
B-21	13,830,197.06	3,135,957.43	13,828,399.37	3,135,549.81	34.75'	32+86.05	31.47L	SET 'X' CUT ON CONC.
B-22	13,829,822.58	3,136,072.44	13,828,024.94	3,135,664.80	33.70'	36+72.65	31.75R	SET 'X' CUT ON CONC.
B-23	13,829,459.42	3,136,324.05	13,827,661.82	3,135,916.38	34.46'	41+09.78	32.46L	SET 1/2" I.R. W/CAP
B-24	13,829,177.19	3,136,374.37	13,827,379.64	3,135,966.69	33.50'	43+84.99	47.76R	SET 'X' CUT ON CONC.
B-25	13,829,121.47	3,136,506.59	13,827,323.92	3,136,098.90	31.51'	44+93.63	45.97L	SET 'X' CUT ON CONC.

DESIGN BASELINE POINTS DATA					
POINT No.	D. BL. STA.	NORTHING (SURFACE)	EASTING (SURFACE)	NORTHING (GRID)	EASTING (GRID)
C-1	1+50.00	13,832,996.36	3,134,543.50	13,831,198.30	3,134,136.07
C-2	8+68.02	13,832,352.17	3,134,860.63	13,830,554.20	3,134,453.16
C-3	16+36.04	13,831,663.12	3,135,199.85	13,829,865.24	3,134,792.33
C-4	24+04.07	13,830,974.06	3,135,539.06	13,829,176.27	3,135,131.50
C-5	24+64.07	13,830,920.04	3,135,565.17	13,829,122.25	3,135,157.60
C-6	27+54.34	13,830,659.96	3,135,694.07	13,828,862.21	3,135,286.48
C-7	28+14.33	13,830,605.75	3,135,719.79	13,828,808.01	3,135,312.20
C-8	37+67.17	13,829,751.99	3,136,142.85	13,827,954.36	3,135,735.20
C-9	47+00.00	13,828,916.15	3,136,557.03	13,827,118.62	3,136,149.33



BENCHMARK:
 CITY OF HOUSTON MONUMENT 5555-0807, A BRASS DISK IN CONCRETE, LOCATED AT NORTH SIDE OF GRIGGS RD APPROXIMATELY 300 FEET WESTWEST FROM THE INTERSECTION OF TELEPHONE RD.
 ELEV. 35.54 FEET NAVD 1988 (GEOID '18)*
 * OBSERVED BY GPS SURVEYING AND PROCESSED IN REFERENCE TO THE CORS DATED SEPTEMBER 16, 2023.

NOTE:
 ALL BEARINGS AND DISTANCES ARE BASED ON TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD83. ALL DISTANCES ARE IN SURFACE.
 THE COORDINATES SHOWN HEREON ARE TEXAS SOUTH CENTRAL ZONE NO. 4204 STATE PLANE GRID COORDINATES (NAD83) AND MAY BE BROUGHT TO SURFACE BY DIVIDING BY THE COMBINED SCALE FACTOR 0.999870017.

- LEGEND:**
- B-X SURVEY CONTROL POINT NUMBER
 - C-X DESIGN BASELINE POINT NUMBER
 - ▲ SURVEY CONTROL POINT
 - DESIGN BASELINE POINT
 - CITY OF HOUSTON MONUMENT
 - D. BL. DESIGN BASELINE ———
 - S. BL. SURVEY BASELINE - - - - -

TRANSCEND ENGINEERS & PLANNERS, LLC.
 TBPELS FIRM REG. NO. 19299
 23410 GRAND RESERVE DRIVE, SUITE 101
 KATY TX 77494

ENGINEERING + SURVEYING
 10300 Westoffice Dr., Suite 800, Houston, Texas 77042
 Tel: 713-975-8199, Fax: 713-975-8920, www.kuoassociates.com
 TBPELS Firm Registration No. F-4578
 TBPELS Firm Registration No. 1907560

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF KUTUBUL A. M. MANUDDIN, R.P.L.S. TEXAS REG. NO.: 6404
 ON 11/10/25 IT IS NOT TO BE USED FOR PERMIT, BIDDING OR CONSTRUCTION PURPOSES

CITY OF HOUSTON
 HOUSTON PUBLIC WORKS
 TELEPHONE RD. - MAIN ST.
 REVITALIZATION PROJECT
 SURVEY CONTROL MAP
 (SHEET 1 OF 3)

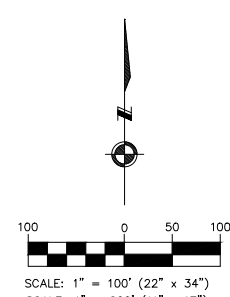
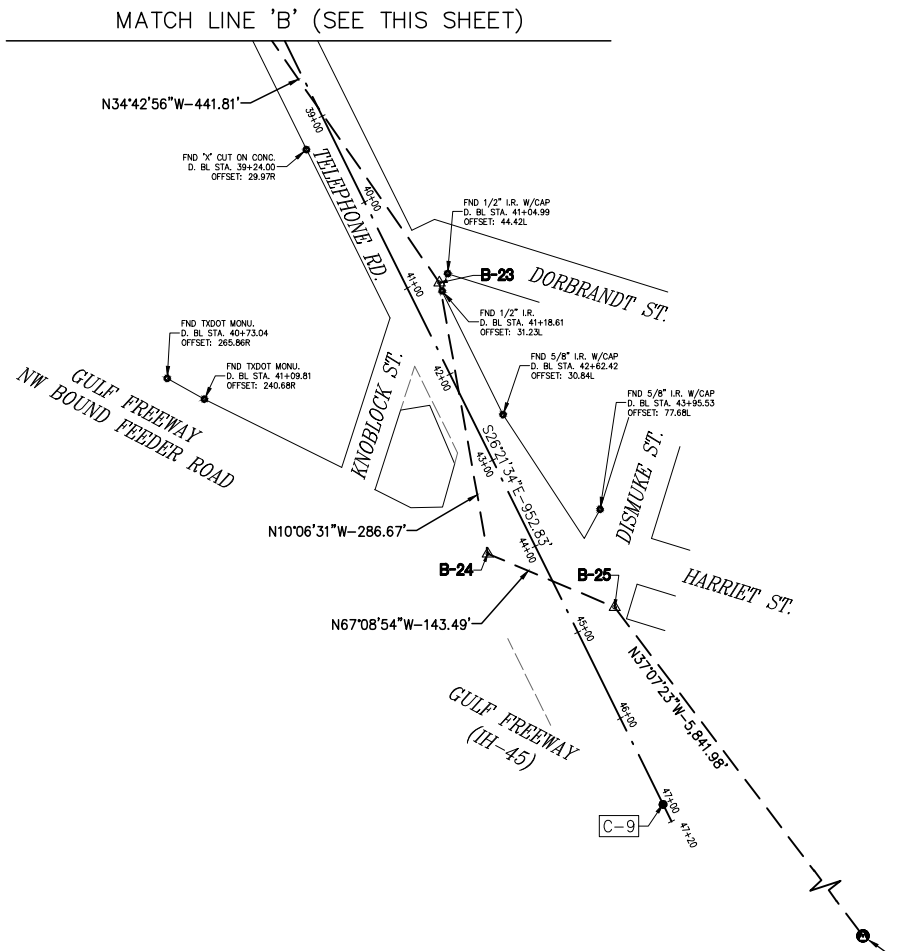
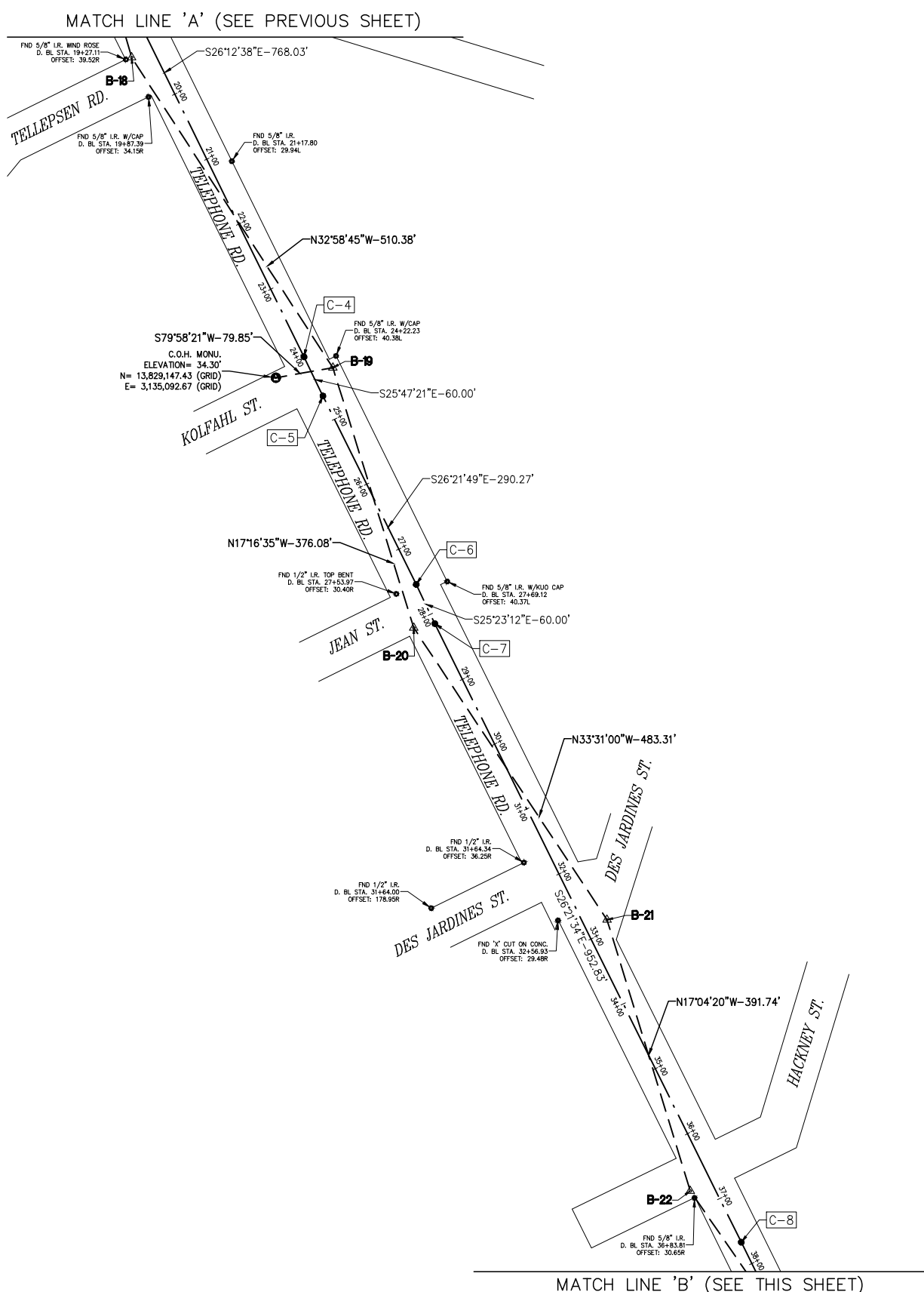
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N-100042-0001-3	
DRAWING SCALE	
1" = 100' (22" X 34") 1" = 200' (11" X 17")	
CITY OF HOUSTON PM	
C. CASEY GOFORTH, P.E.	
SHEET NO. 7	

NO.	DATE	REVISION	APP.

PLotted: 11/10/2025 5:53 PM

PLOT STYLE: COH.ctb

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BENCHMARK:
CITY OF HOUSTON MONUMENT 5555-0807, A BRASS DISK IN CONCRETE, LOCATED AT NORTH SIDE OF GRIGGS RD APPROXIMATELY 300 FEET SOUTHWEST FROM THE INTERSECTION OF TELEPHONE RD.

ELEV. 35.54 FEET NAVD 1988 (GEOID '18)*
* OBSERVED BY GPS SURVEY AND PROCESSED IN REFERENCE TO THE CORS DATED SEPTEMBER 16, 2023.

NOTE:
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- LEGEND:**
- B-X** SURVEY CONTROL POINT NUMBER
 - C-X** DESIGN BASELINE POINT NUMBER
 - ▲ SURVEY CONTROL POINT
 - DESIGN BASELINE POINT
 - CITY OF HOUSTON MONUMENT
 - D. BL: DESIGN BASELINE ———
 - S. BL: SURVEY BASELINE - - - - -

CITY OF HOUSTON
CITY SURVEY
SITE CONTROL MONUMENT

Project WBS# N-100042-0001-3
Texas Coordinate System of 1983,
South Central Zone, U. S. Survey Feet
X= 3,135,092.6746
Y= 13,829,147.4272
Lat.= 29° 43' 26.6057" (N)
Lon.= 95° 19' 25.7872" (W)
Reference Frame Used: NAD 83 (2011) (EPOCH: 2010)
Vertical Adjustment used: NAVD 1988
General Location: AT WEST CORNER OF THE INTERSECTION OF TELEPHONE RD

Date Set: 11-08-2025 Type of Mark: JA
3 Nearest project control points (bearings and distances stated below):
1 N 79° 58' 21" E 79.85'
2 S 28° 52' 08" E 394.19'
3 N 24° 15' 23" W 484.84'

NOTE:
1. Coordinates are grid coordinates. Scale Factor = (S.F. 0.999870017).
3. Surface= Grid
S.F.

Surveyed By: Kuo & Associates, Inc.
10300 Westoffice Dr., Suite 800
Houston, TX 77042

Keymap Page: 5348
Orthometric Elevation = 34.30 FEET
Ellipsoid Height=
Geoid: GEOID '18
Datum Source & Adjustment:
CONVENTIONAL
(TIED TO MONUMENT 5555-0807)

City of Houston, Harris County, Texas

TRANSCEND
engineers + planners

TRANSCEND ENGINEERS & PLANNERS, LLC.
TBPELS FIRM REG. NO. 19299
23410 GRAND RESERVE DRIVE, SUITE 101
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SURVEYED BY: KUO & ASSOC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE RD. – MAIN ST.
REVITALIZATION PROJECT

SURVEY CONTROL MAP
(SHEET 2 OF 3)

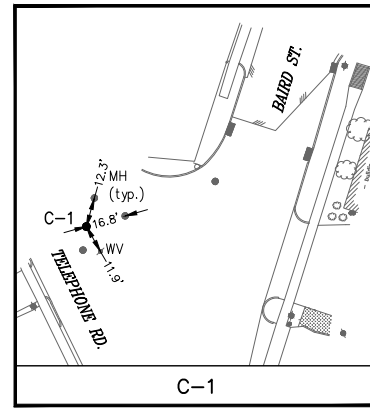
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N-100042-0001-3	
DRAWING SCALE	
1" = 100' (22" X 34") 1" = 200' (11" X 17")	
CITY OF HOUSTON PM	
C. CASEY GOFORTH, P.E.	
SHEET NO. 8	

NO.	DATE	REVISION	APP.

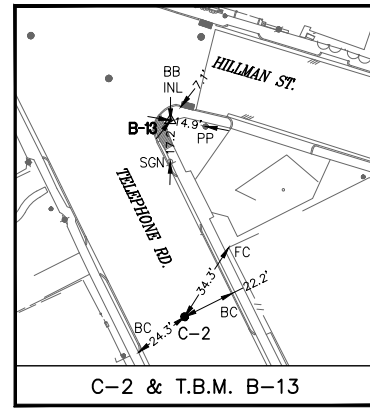
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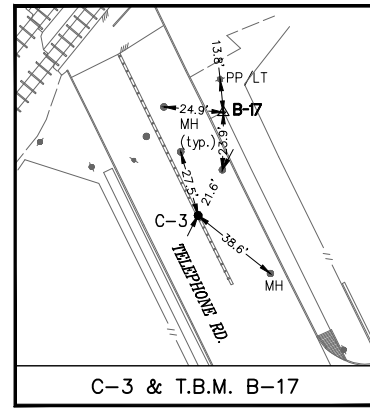
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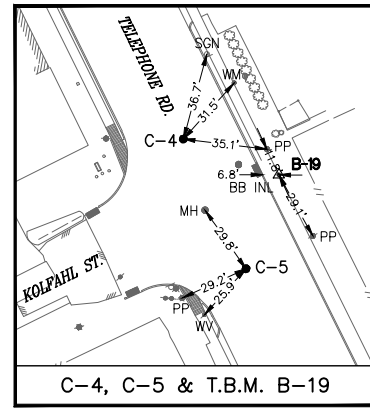
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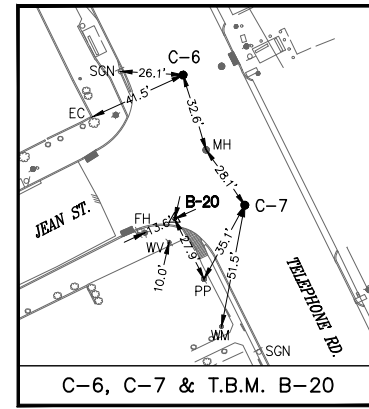
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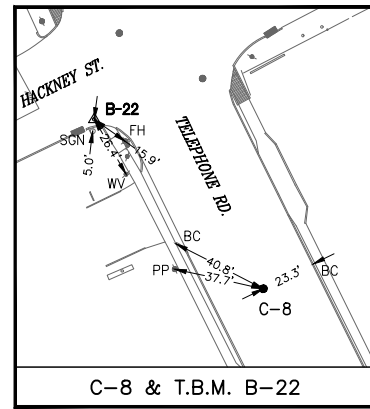
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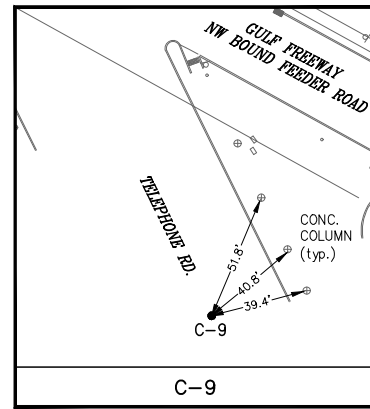
C-4, C-5 & T.B.M. B-19



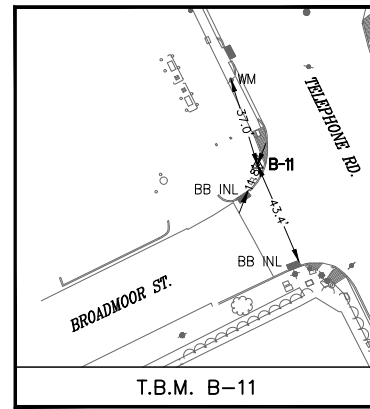
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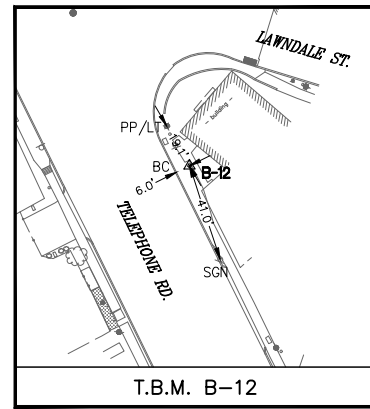
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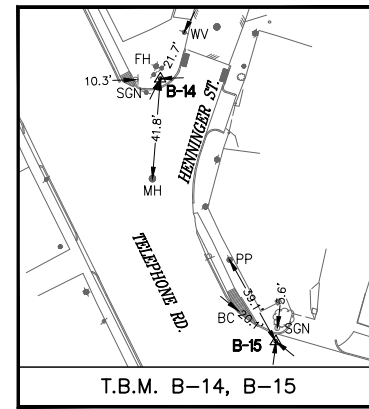
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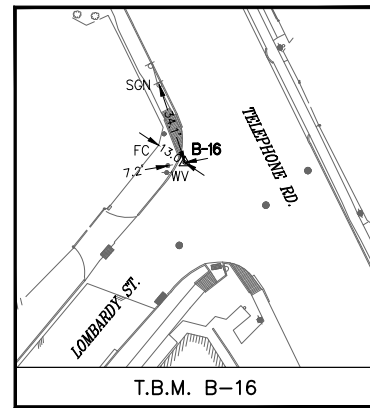
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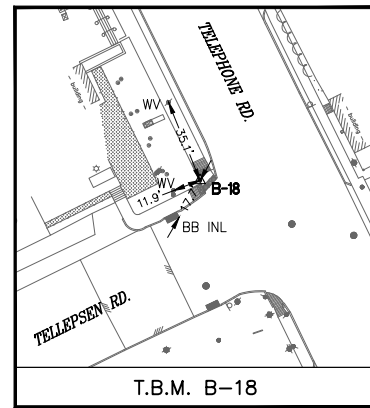
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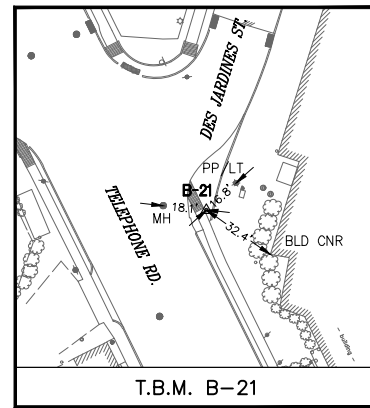
T.B.M. B-14, B-15



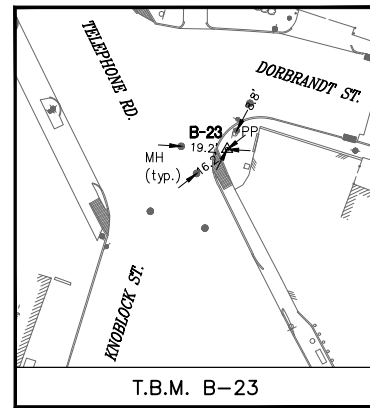
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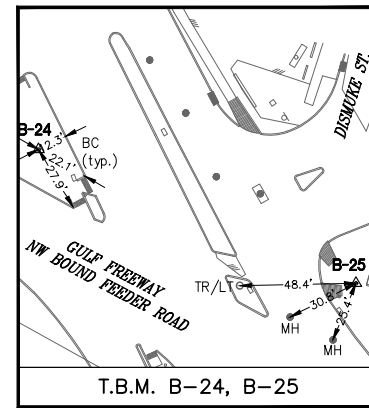
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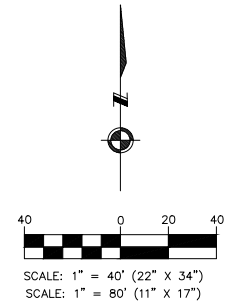
T.B.M. B-21



T.B.M. B-23



T.B.M. B-24, B-25



EXIST. TOPOGRAPHIC LEGEND

- ASPHALT SYMBOL
- B OR BB INLET
- CUSH
- C INLET
- CLEANOUT
- brick column
- DOWN GUY
- E INLET
- ELEC MANHOLE
- FIRE HYDRANT
- GAS METER
- GAS VALVE
- GATE
- GRATE INLET
- GRATE INLET
- MAIL BOX
- STORM MANHOLE
- SANITARY MANHOLE
- PLANTER
- POWER POLE
- POWER POLE W/LT.
- SIGN
- SIGNAL POLE
- SPRINKLER VALVE
- SPRINKLER HEAD
- STREET LIGHT/FLOOD LIGHT
- STREET LIGHT/PARKING LIGHT
- TREE
- TREE STUMP
- TREE-CREPE MYRTLE
- TREE-PINE
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE

ABBREVIATIONS

- BLD CNR - BUILDING CORNER
- FH - FIRE HYDRANT
- FC - FENCE CORNER
- LT - LIGHT POLE
- MB - MAIL BOX
- MH - MANHOLE
- PP - POWER POLE
- PP/LT - POWER POLE W/LIGHT
- TR/LT - TRAFFIC LIGHT
- WM - WATER METER

TRANSCEND
engineers + planners

TRANSCEND ENGINEERS & PLANNERS, LLC.
TBPELS FIRM REG. NO. 19299
23410 GRAND RESERVE DRIVE, SUITE 101
KATY TX 77494

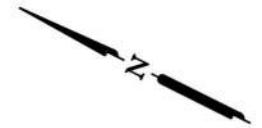
KUO & ASSOCIATES
ENGINEERING + SURVEYING
10300 Westoffice Dr., Suite 800, Houston, Texas 77042
Tel: 713-975-8199, Fax: 713-975-8920, www.kuoassociates.com
TBPES Firm Registration No. F-4578
TBPES Firm Registration No. 1907569

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ON 11/10/25 IT IS NOT TO BE USED FOR PERMIT, BIDDING OR CONSTRUCTION PURPOSES

SURVEYED BY: KUO & ASSOC.
FB NO.




CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE RD. - MAIN ST.
REVITALIZATION PROJECT
SURVEY CONTROL MAP
(SHEET 3 OF 3)

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
1" = 40' (22" X 34") 1" = 80' (11" X 17")	
CITY OF HOUSTON PM	
C. CASEY GOFORTH, P.E.	
SHEET NO. 9	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

LEGEND

-  REMOVE CONCRETE SIDEWALKS
-  REMOVE CONCRETE PAVEMENT
-  EXISTING TRAFFIC FLOW ARROW

NOTES:

1. CONTRACTOR SHALL REMOVE AND SALVAGE SIGNS AND EXISTING TRAFFIC SIGNAL EQUIPMENT SHOWN ON REMOVAL SHEETS.
2. CONTRACTOR SHALL LOCATE AND EXPOSE UTILITIES BY HAND EXCAVATION AROUND THE POLE FOUNDATION PRIOR TO FOUNDATION REMOVAL.
3. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CONTACT PUBLIC AND PRIVATE UTILITIES FOR LOCATION OF UNDERGROUND FACILITIES AT LEAST 48 HOURS PRIOR TO ANY DRILLING, BORING TRENCHING OR EXCAVATING.
4. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGE CAUSED BY CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE THESE UTILITIES, WHETHER UNDERGROUND, ABOVE GROUND OR OVERHEAD.



TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr. Suite 101
Houston, Texas 77494
engineers + planners

DESIGN ENGINEER: RAJ BASAVARAJU, PE 23410 GRAND RESERVE DR HOUSTON, TX 77494 PHONE: (832) 492-4499 TX FIRM NUMBER: 19299	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX. REG. NO. 112149 3/2/2026
SURVEYED BY: KUO FIRM REG. NO. 10075600	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
REMOVAL PLAN




WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 11	

SHEET 2 OF 5



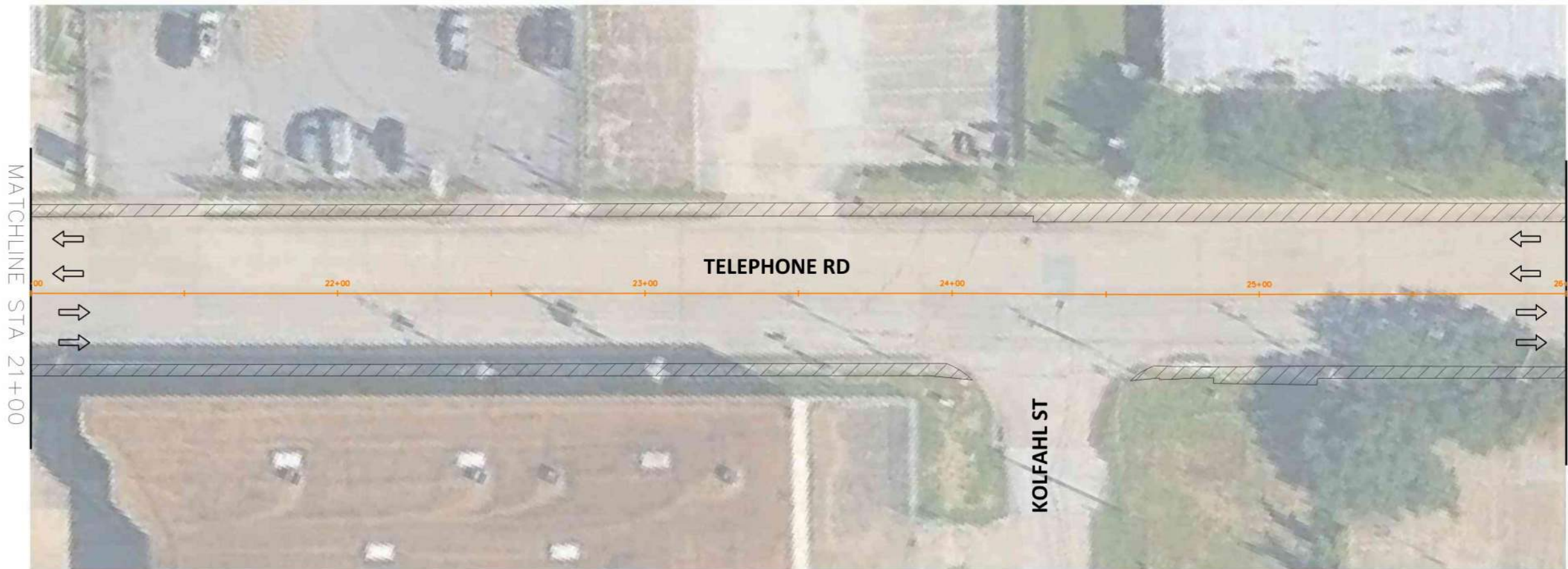
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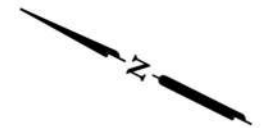


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CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
REMOVAL PLAN

SHEET 3 OF 5	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 12	



SCALE (22X34): 1"=20'
 SCALE (11X17): 1"=40'

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-  REMOVE CONCRETE PAVEMENT
-  EXISTING TRAFFIC FLOW ARROW

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CITY OF HOUSTON
 HOUSTON PUBLIC WORKS

TELEPHONE ROAD
 MAIN STREET REVITALIZATION PROJECT
 SUBPROJECT 1:
 LAWDALE TO IH 45
 REMOVAL PLAN

SHEET 4 OF 5	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 13	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

LEGEND

- REMOVE CONCRETE SIDEWALKS
- REMOVE CONCRETE PAVEMENT
- EXISTING TRAFFIC FLOW ARROW

NOTES:

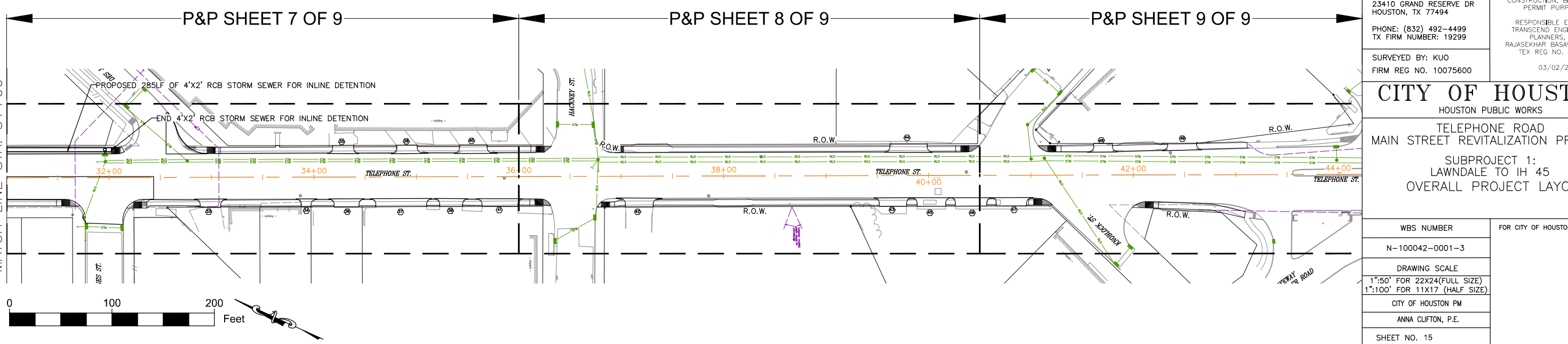
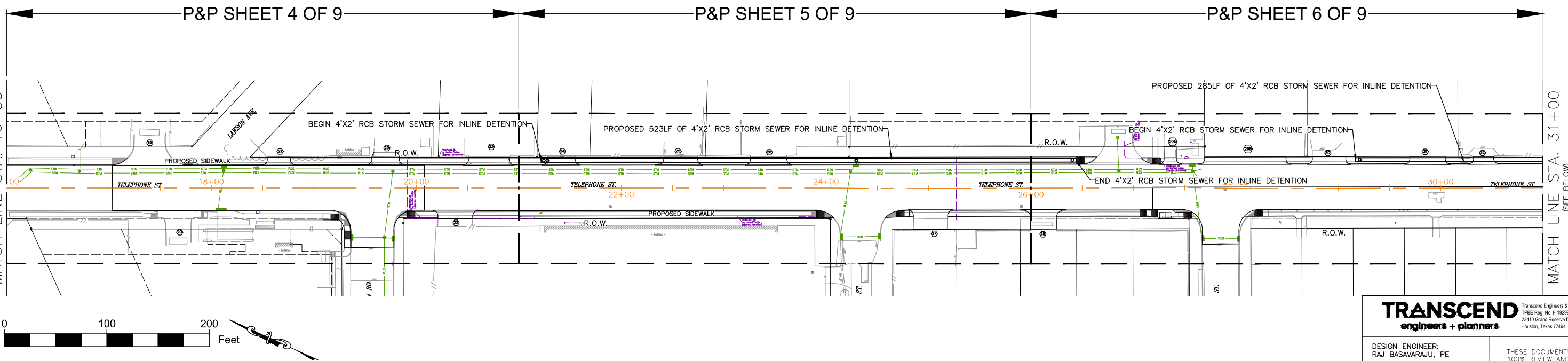
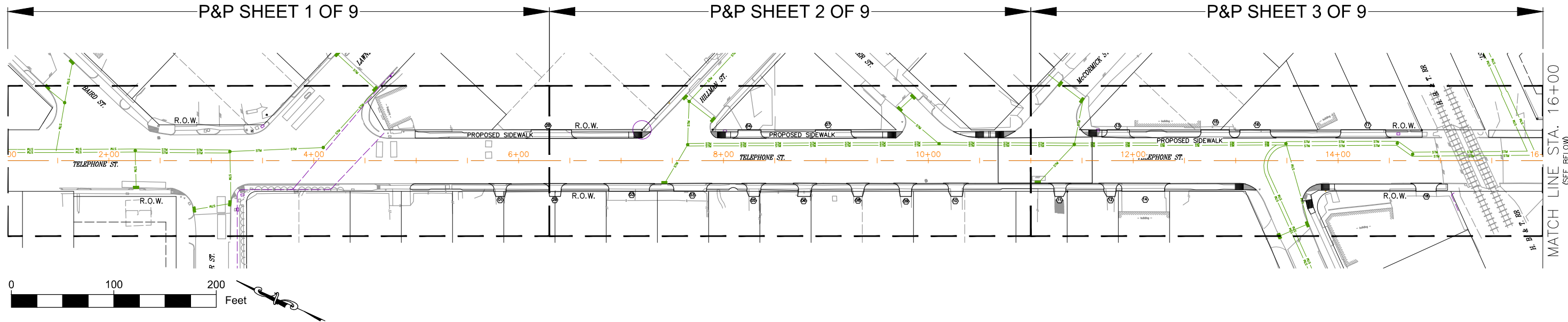
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SURVEYED BY: KUO FIRM REG NO. 10075600	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
REMOVAL PLAN

SHEET 5 OF 5	FOR CITY OF HOUSTON USE ONLY
WBS NUMBER	
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 14	



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23410 Grand Reserve Dr. Suite 101
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DESIGN ENGINEER:
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HOUSTON, TX 77494

PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

SURVEYED BY: KUO
FIRM REG NO. 10075600

03/02/25

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

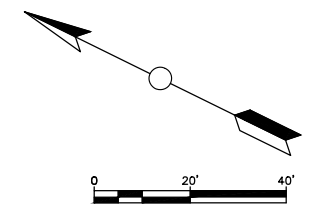
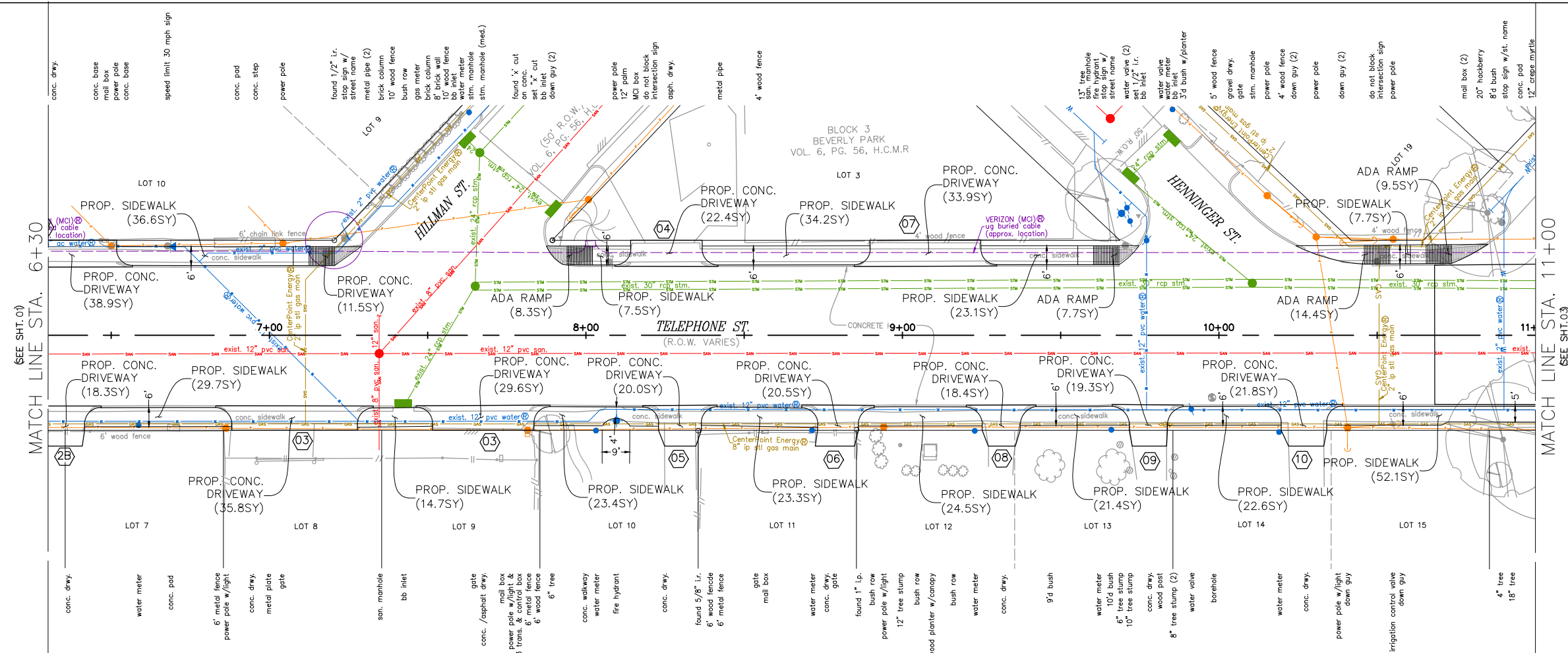
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
OVERALL PROJECT LAYOUT

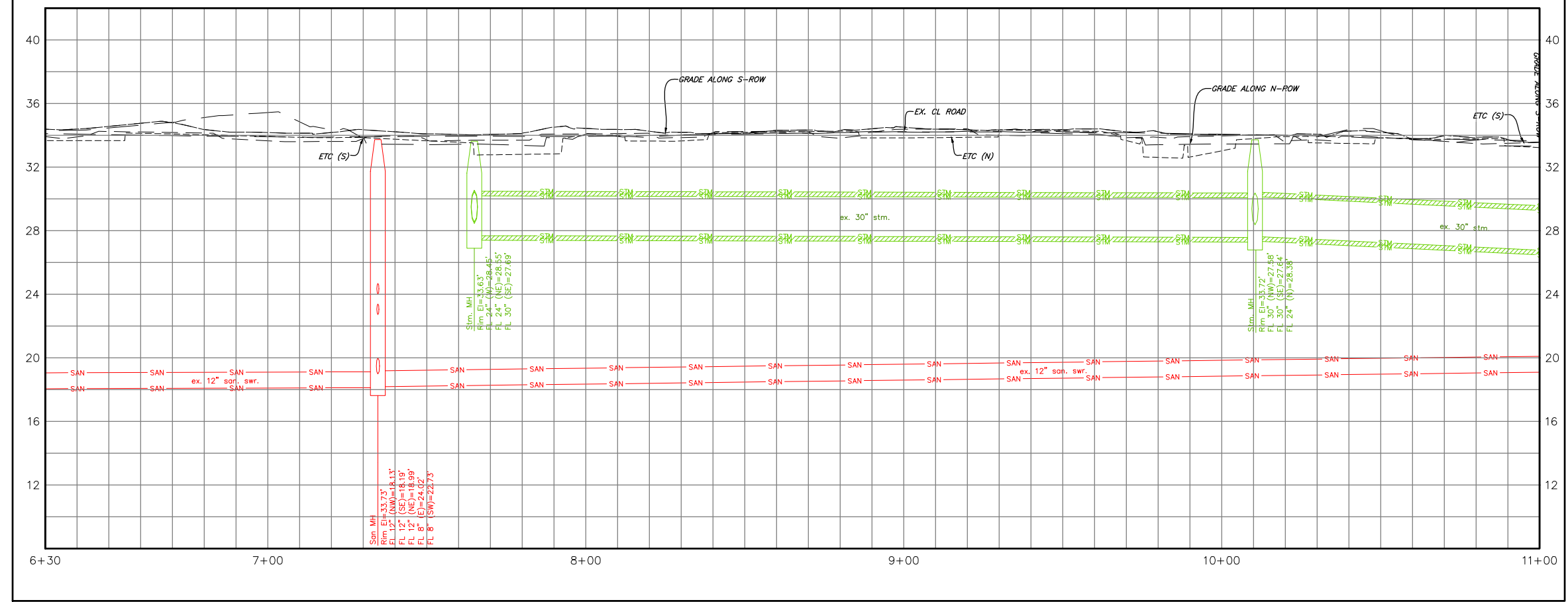
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N-100042-0001-3	
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1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 15	

NO.	DATE	REVISION	APP.



NO.	DATE	REVISION	APP.

PV - ALIGNMENT - TELEPHONE ST. STA. 6+30 TO STA. 11+00



FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not to be used for conflict verification.
Signature valid for six months.

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities - not to be used for conflict verification)
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Approved for AT&T underground conduit facilities only.
Signature valid for one year.

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PHONE: (832) 492-4499
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SURVEYED BY: KUO
FIRM REG NO. 10075600
03/02/25

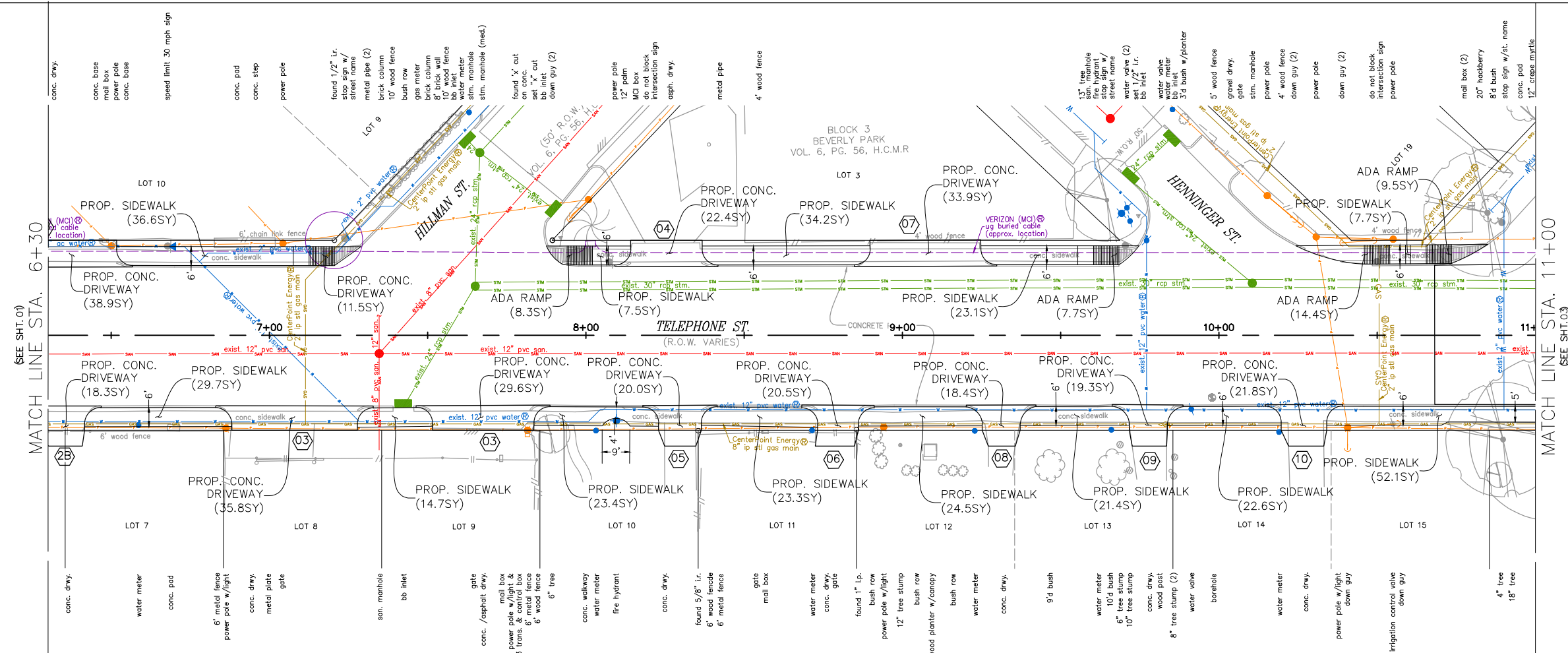
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TELEPHONE ROAD P&P
STA. 6+30 TO 11+00

P&P SHEET 2 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
1"=50' FOR 22X34 (FULL SIZE)	
1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 16	



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

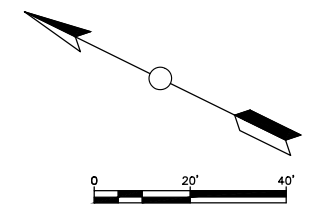
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

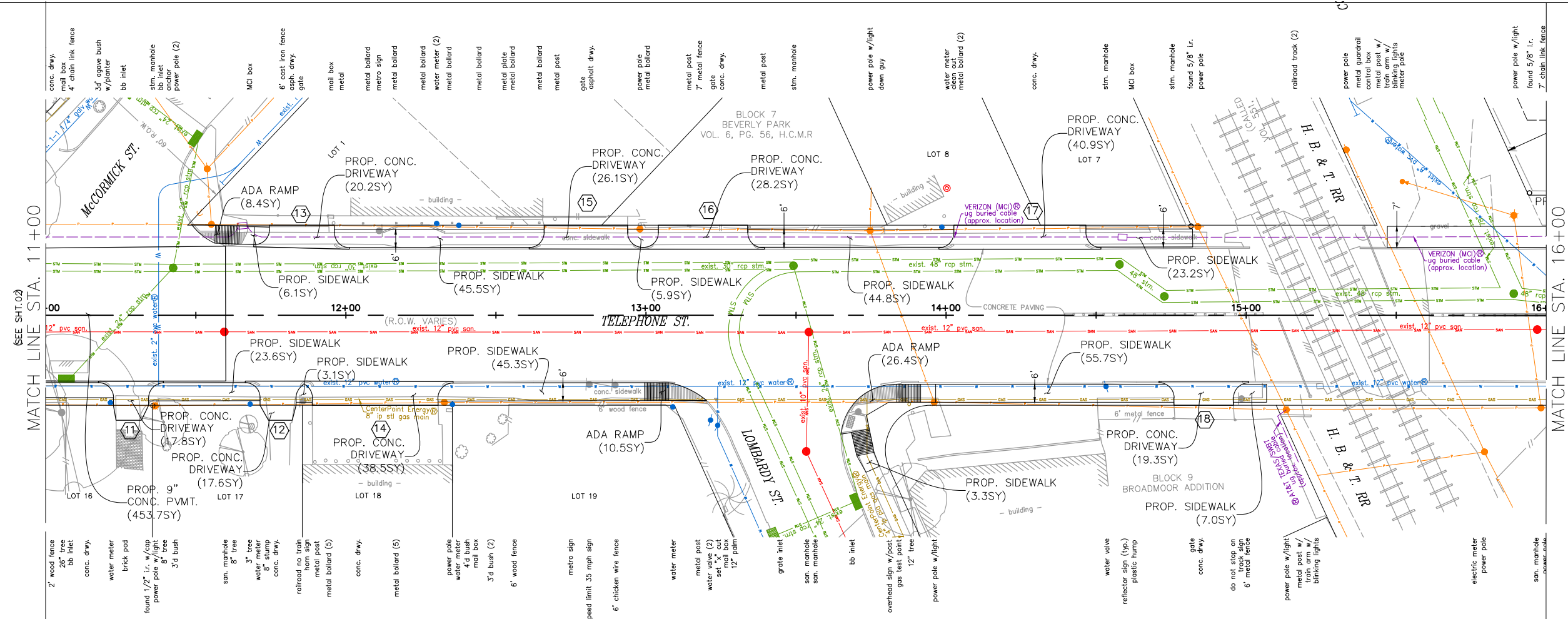
SUBPROJECT 1:
LAWNDALE TO IH 45
TELEPHONE ROAD P&P
STA. 6+30 TO 11+00

P&P SHEET 2 OF 9

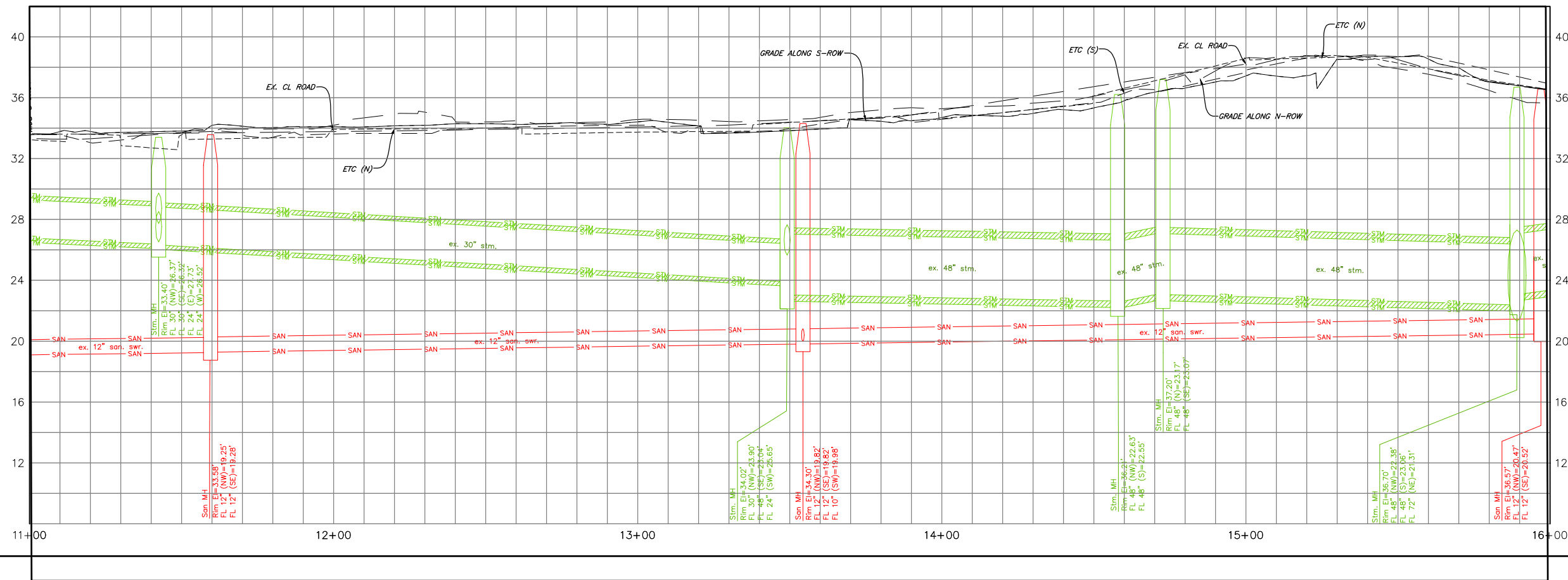
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
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1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 17	

NO.	DATE	REVISION	APP.





PV - ALIGNMENT - TELEPHONE ST. STA. 11+00 TO STA. 16+00



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RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

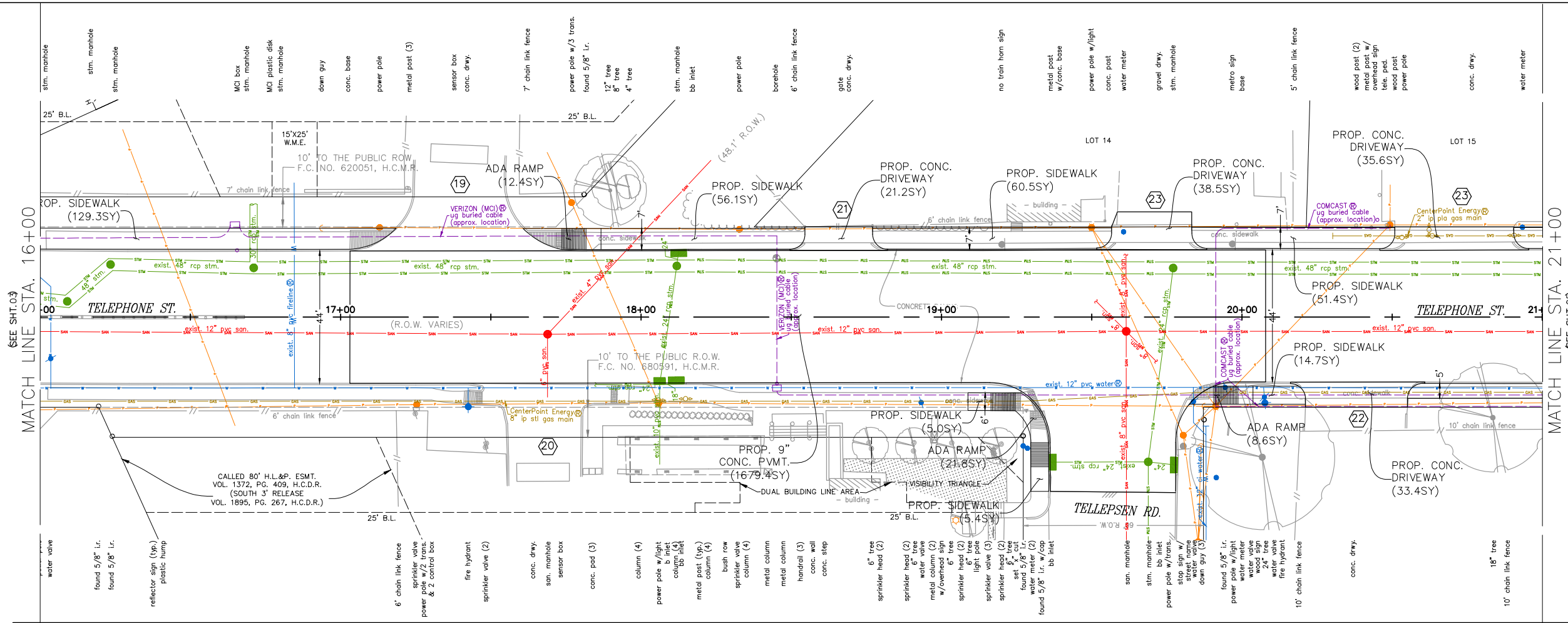
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TELEPHONE ROAD P&P
STA. 11+00 TO 16+00

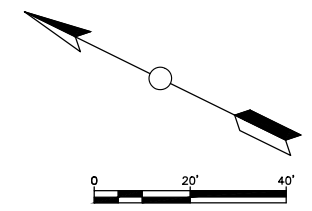
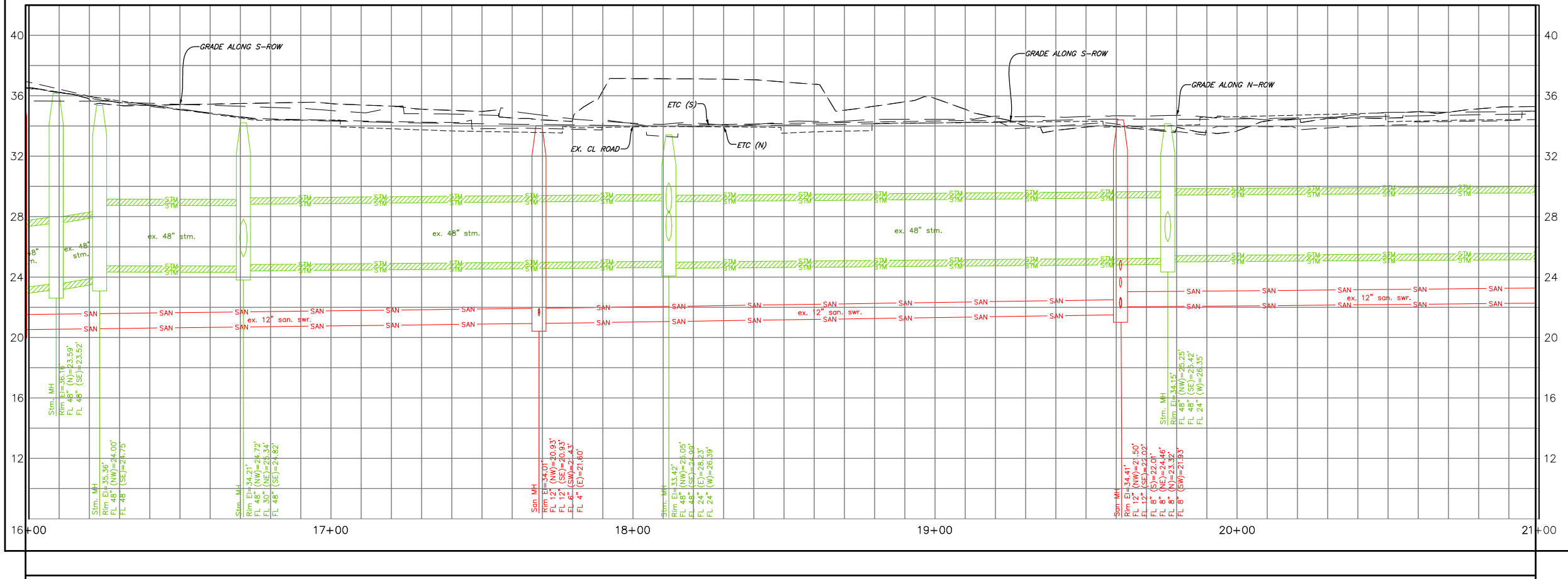
P&P SHEET 3 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
1"=50' FOR 22X34 (FULL SIZE)	
1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 18	

NO.	DATE	REVISION	APP.



PV - ALIGNMENT - TELEPHONE ST. STA. 16+00 TO STA. 21+00



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

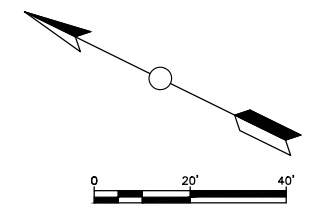
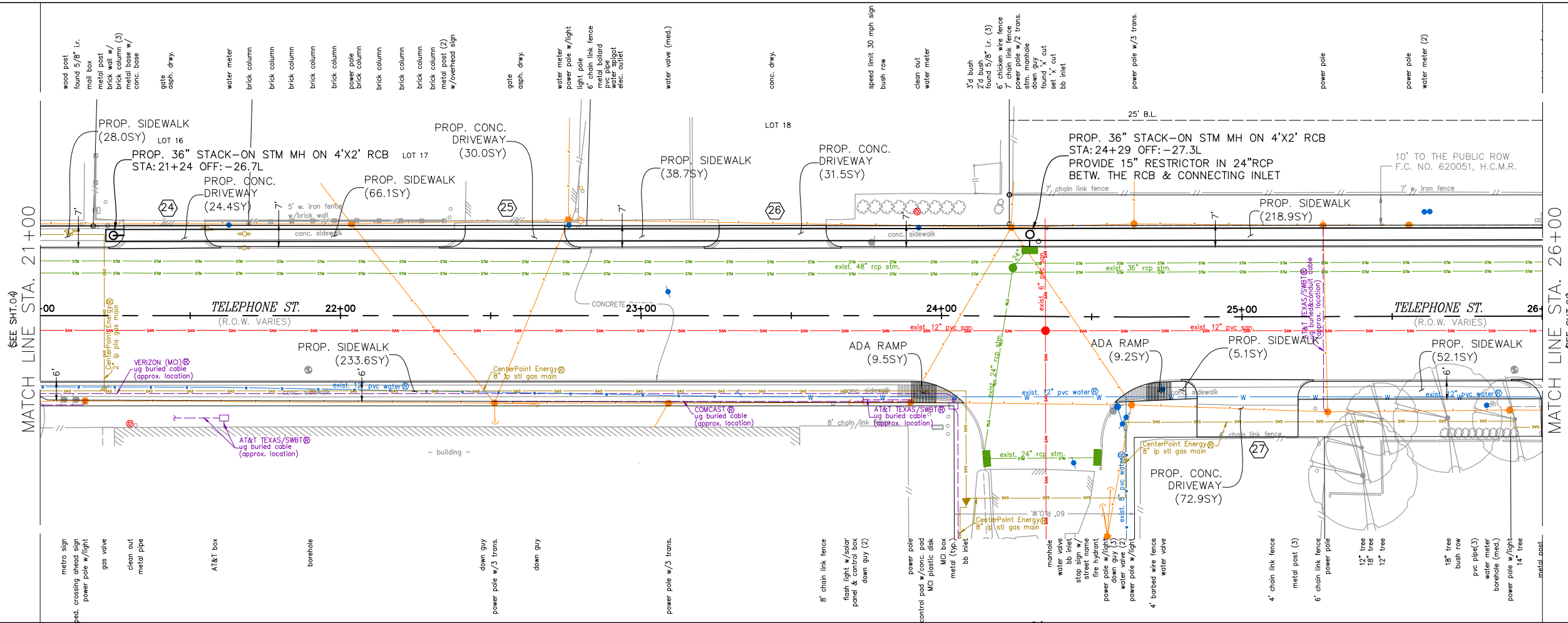
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TELEPHONE ROAD P&P
STA. 16+00 TO 21+00

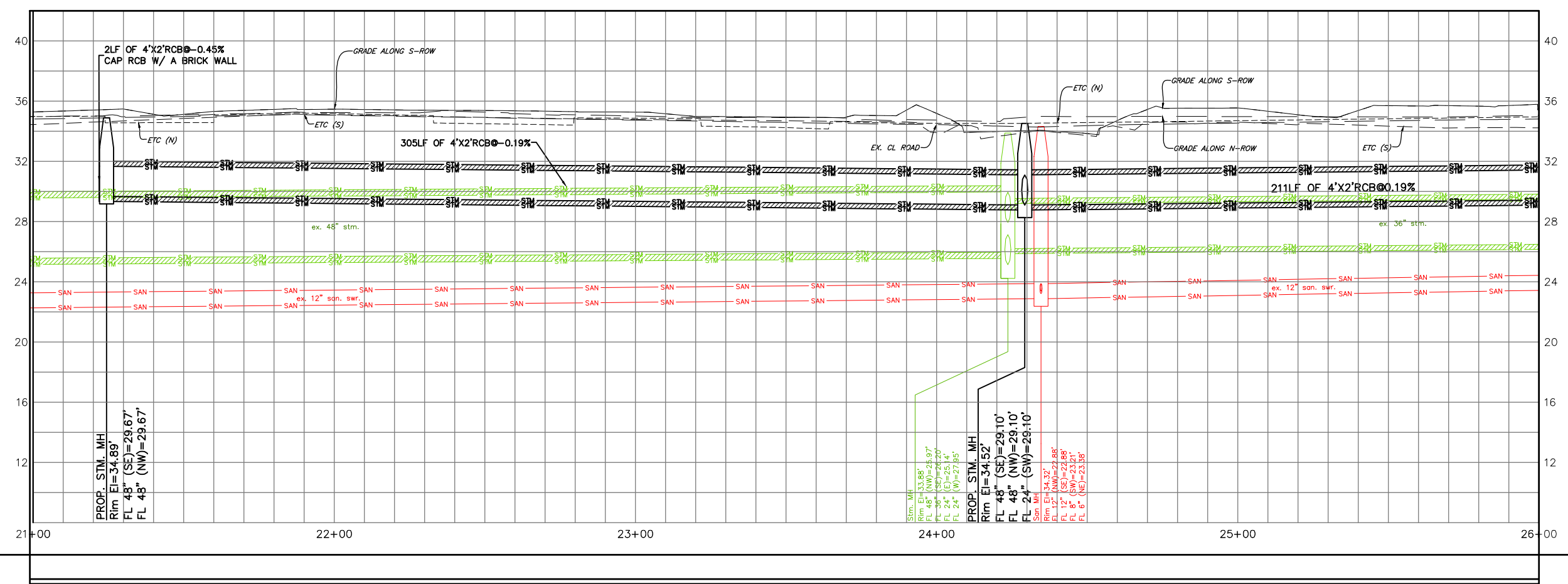
P&P SHEET 4 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
1"=50' FOR 22X34 (FULL SIZE)	
1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 19	

NO.	DATE	REVISION	APP.



PV - ALIGNMENT - TELEPHONE ST. STA. 21+00 TO STA. 26+00



FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

Signature valid for six months.

CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities - not to be used for conflict verification)

Signature valid for six months.

Approved for AT&T underground conduit facilities only. Signature valid for one year.

TRANSCEND Transcend Engineers & Planners, LLC
 engineers + planners
 23410 GRAND RESERVE DR HOUSTON, TX 77494
 PHONE: (832) 492-4499 TX FIRM NUMBER: 19299

DESIGN ENGINEER: RAJ BASAVARAJU, PE
 23410 GRAND RESERVE DR HOUSTON, TX 77494
 PHONE: (832) 492-4499 TX FIRM NUMBER: 19299

RESponsible Engineer: TRANSCEND ENGINEERS & PLANNERS, LLC
 RAJASEKHAR BASAVARAJU, PE
 TEX REG NO. 112149

SURVEYED BY: KUO
 FIRM REG NO. 10075600 03/02/25

CITY OF HOUSTON
 HOUSTON PUBLIC WORKS

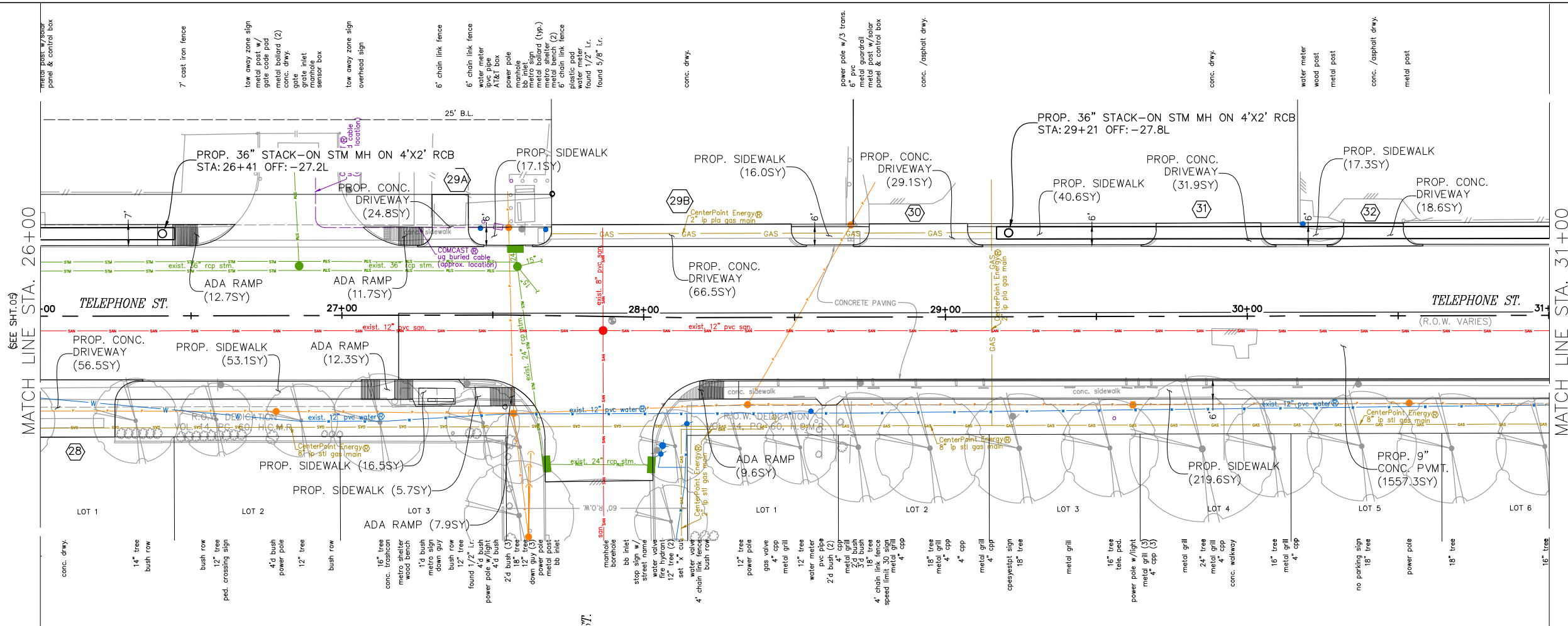
TELEPHONE ROAD
 MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
 LAWDALE TO IH 45
 TELEPHONE ROAD P&P
 STA. 21+00 TO 26+00

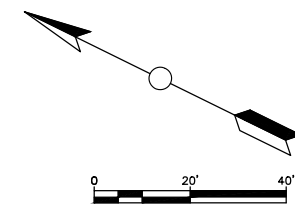
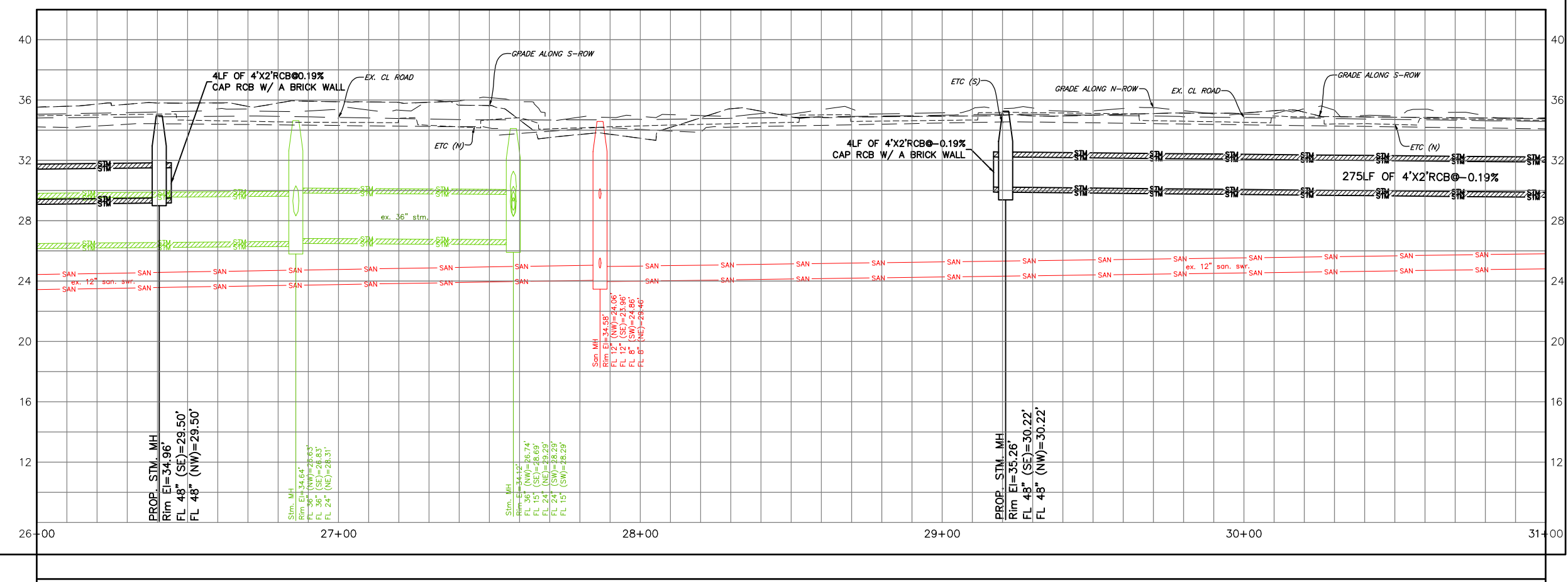
P&P SHEET 5 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
1"=50' FOR 22X24 (FULL SIZE)	
1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 20	

NO.	DATE	REVISION	APP.



PV - ALIGNMENT - TELEPHONE ST. STA. 26+00 TO STA. 31+00



FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

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TRANSCEND
engineers + planners

Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr. Suite 101
Houston, Texas 77454

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600
03/02/25

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

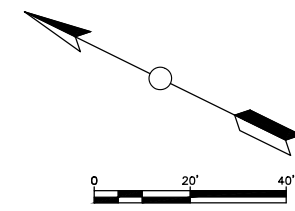
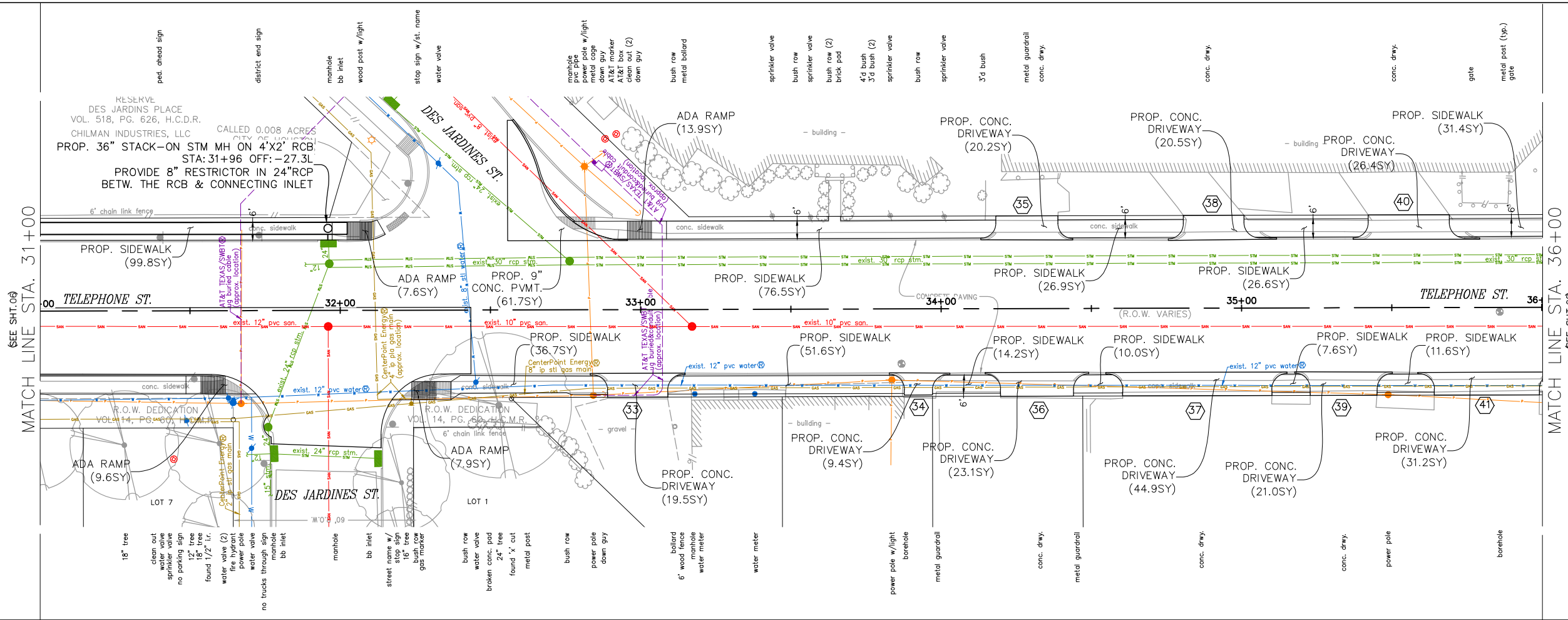
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
TELEPHONE ROAD P&P
STA. 26+00 TO 31+00

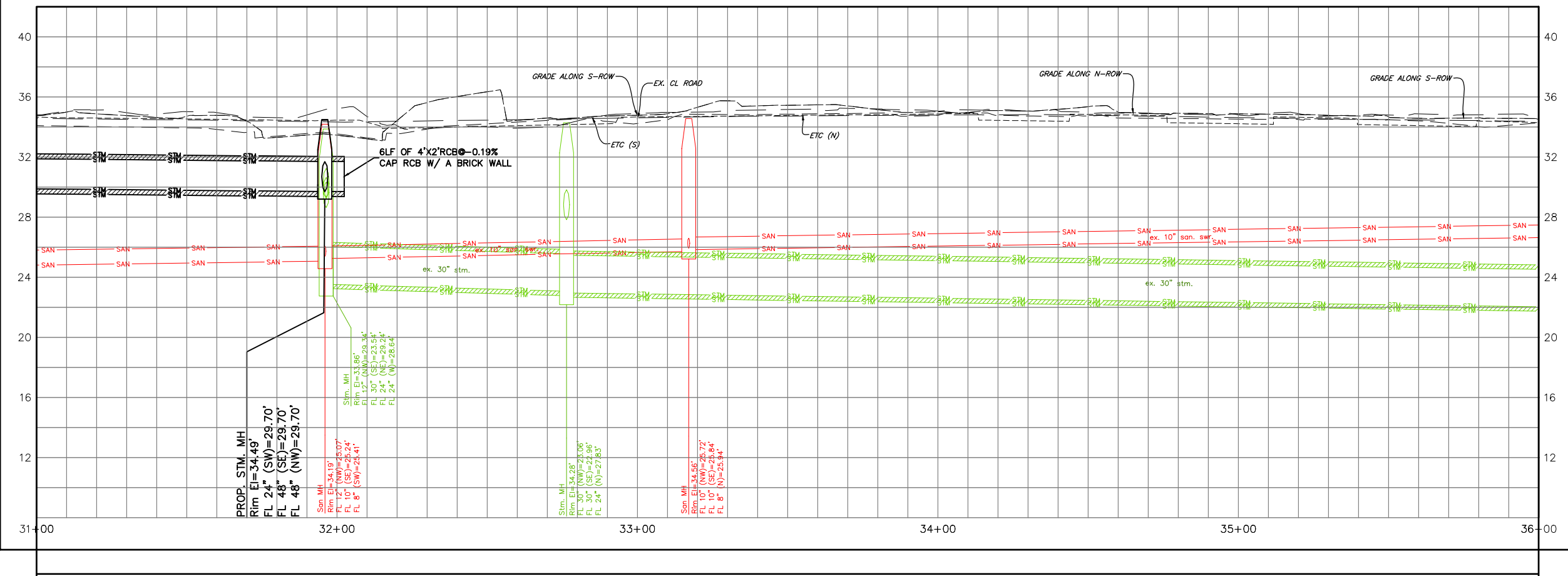
P&P SHEET 6 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
1"=50' FOR 22X34 (FULL SIZE) 1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 21	

NO.	DATE	REVISION	APP.



PV - ALIGNMENT - TELEPHONE ST. STA. 31+00 TO STA. 36+00



FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

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Signature valid for six months.

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Signature valid for six months.

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TRANSCEND Transcend Engineers & Planners, LLC
 engineers + planners
 23410 Grand Reserve Dr. Suite 101
 Houston, Texas 77454

DESIGN ENGINEER:
 RAJ BASAVARAJU, PE
 23410 GRAND RESERVE DR
 HOUSTON, TX 77494

PHONE: (832) 492-4499
 TX FIRM NUMBER: 19299

SURVEYED BY: KUO
 FIRM REG NO. 10075600

03/02/25

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RESPONSIBLE ENGINEER
 TRANSCEND ENGINEERS & PLANNERS, LLC
 RAJASEKHAR BASAVARAJU, PE
 TEX REG NO. 112149

CITY OF HOUSTON
 HOUSTON PUBLIC WORKS

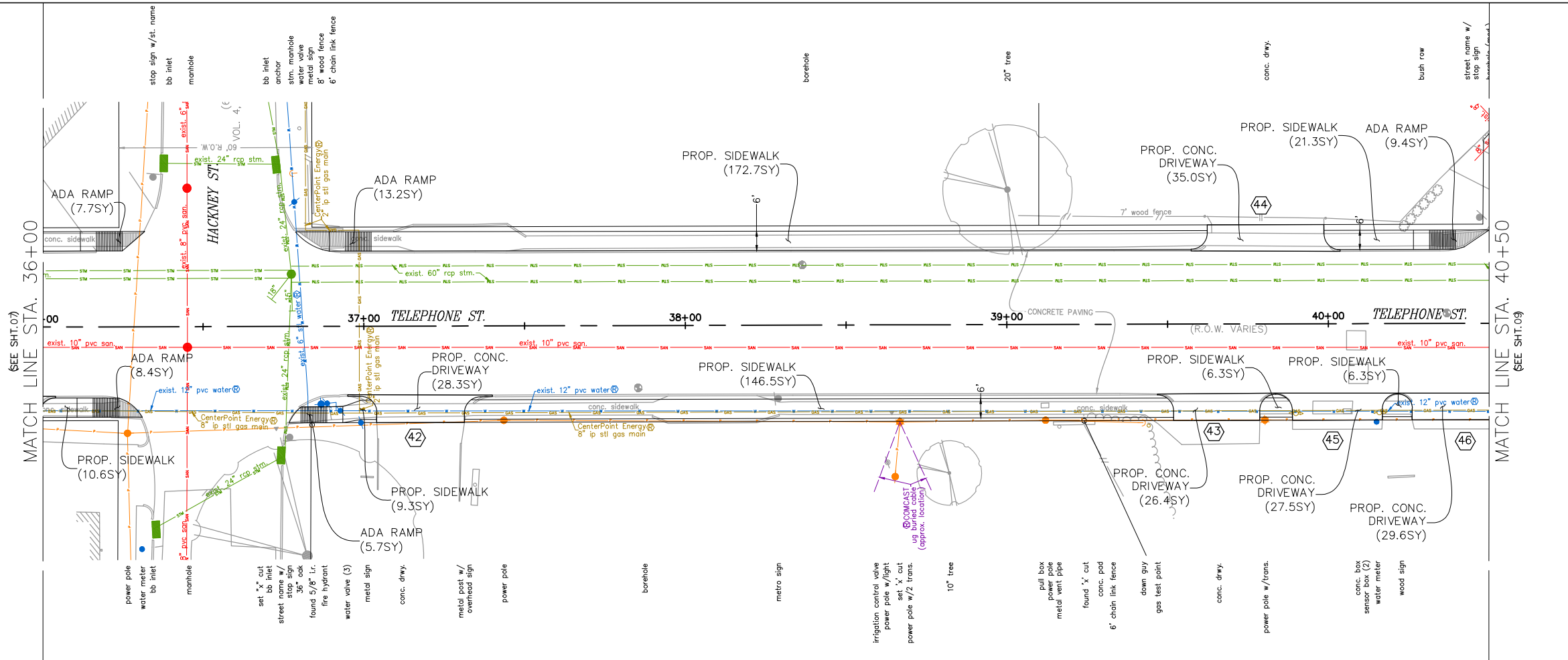
TELEPHONE ROAD
 MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
 LAWDALE TO IH 45
 TELEPHONE ROAD P&P
 STA. 31+00 TO 36+00

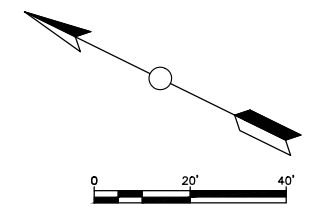
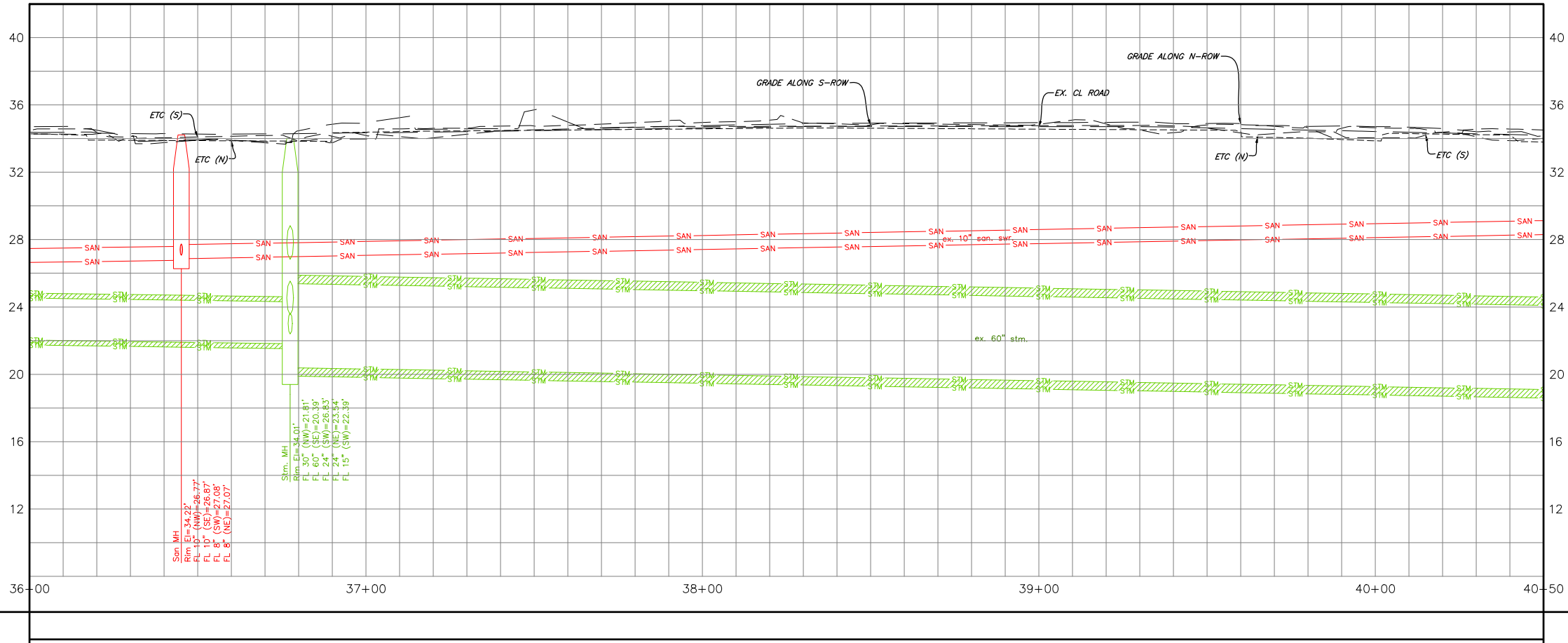
P&P SHEET 7 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
1"=50' FOR 22X34 (FULL SIZE)	
1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 22	

NO.	DATE	REVISION	APP.



PV - ALIGNMENT - TELEPHONE ST. STA. 36+00 TO STA. 40+50



FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.

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 engineers + planners
 TPEE Reg. No. F-19299
 23410 Grand Reserve Dr. Suite 101
 Houston, Texas 77454

DESIGN ENGINEER:
 RAJ BASAVARAJU, PE
 23410 GRAND RESERVE DR
 HOUSTON, TX 77494
 PHONE: (832) 492-4499
 TX FIRM NUMBER: 19299

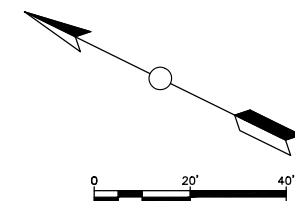
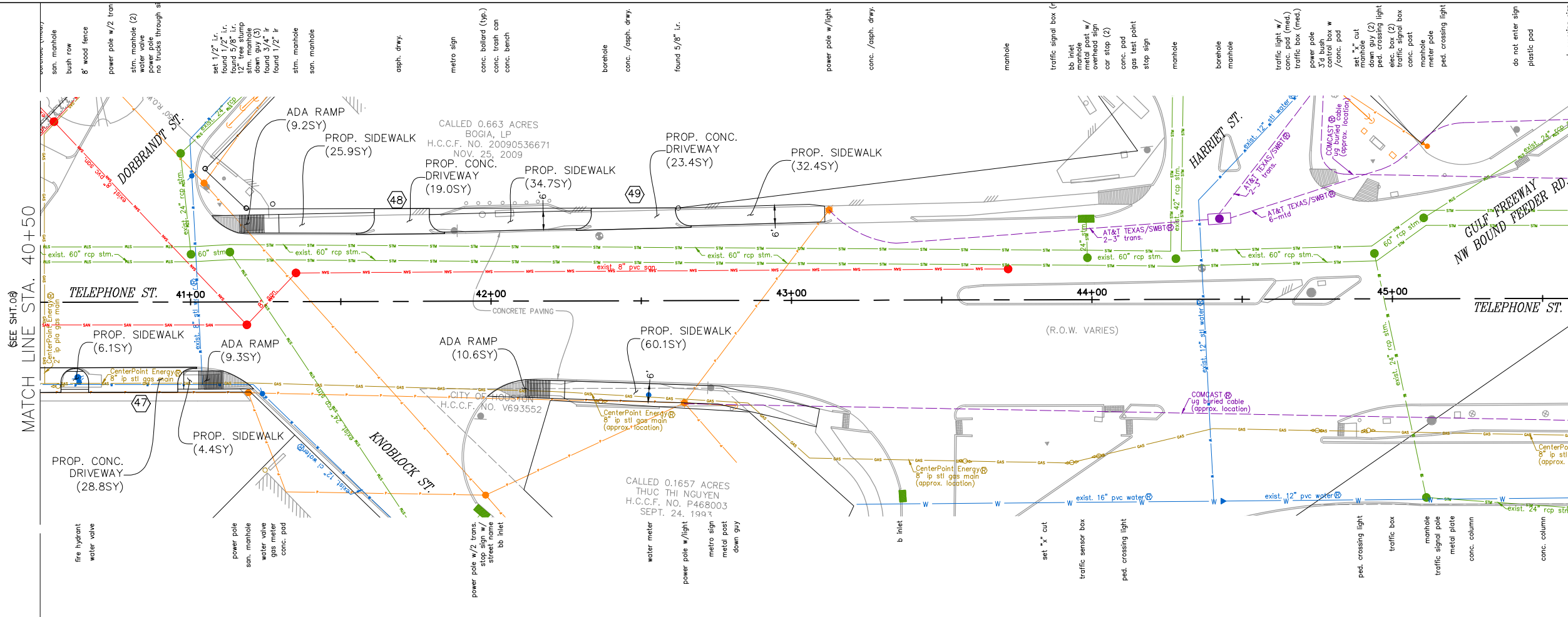
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RESPONSIBLE ENGINEER
 TRANSCEND ENGINEERS & PLANNERS, LLC
 RAJASEKHAR BASAVARAJU, PE
 TEX REG NO. 112149

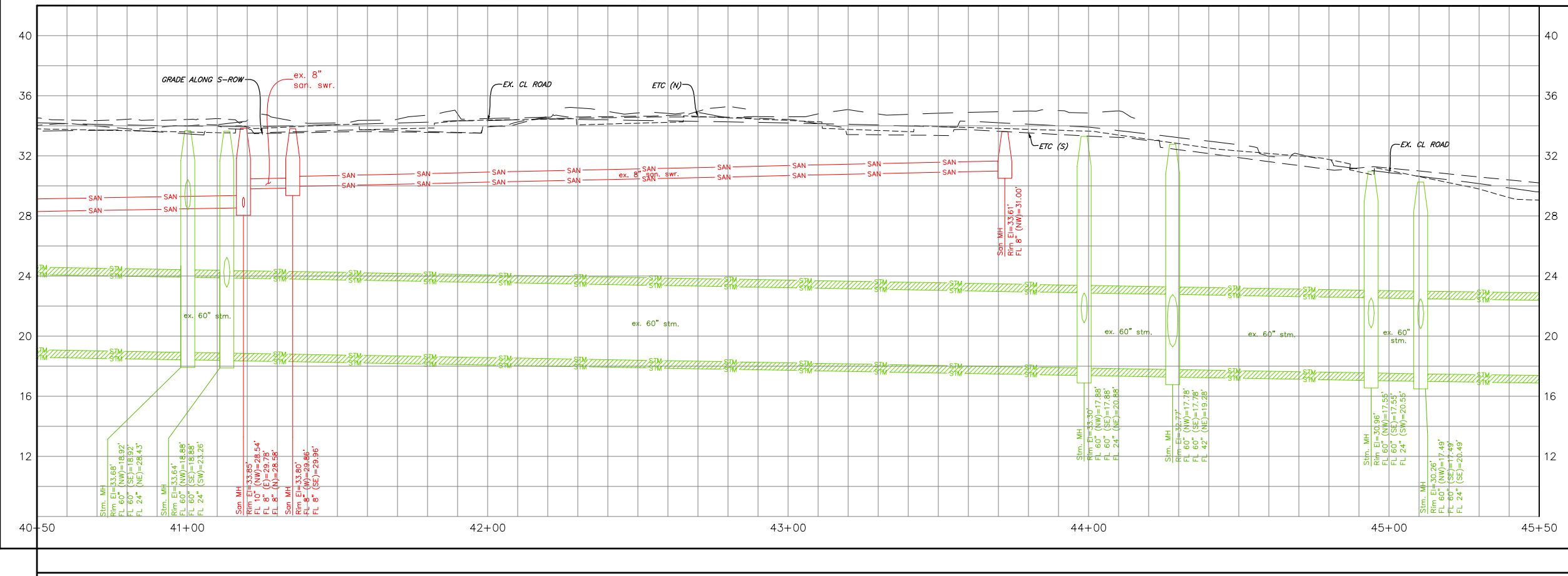
SURVEYED BY: KUO
 FIRM REG NO. 10075600
 03/02/25

CITY OF HOUSTON HOUSTON PUBLIC WORKS	
TELEPHONE ROAD MAIN STREET REVITALIZATION PROJECT	
SUBPROJECT 1: LAWDALE TO IH 45 TELEPHONE ROAD P&P STA. 36+00 TO 40+50 P&P SHEET 8 OF 9	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
1"=50' FOR 22X24 (FULL SIZE) 1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 23	

NO.	DATE	REVISION	APP.



PV - ALIGNMENT - TELEPHONE ST. STA. 40+50 TO STA. 45+50



FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

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TRANSCEND Transcend Engineers & Planners, LLC
 engineers + planners
 23410 GRAND RESERVE DR HOUSTON, TX 77494
 PHONE: (832) 492-4499 TX FIRM NUMBER: 19299
 SURVEYED BY: KUO FIRM REG NO. 10075600 03/02/25

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RESPONSIBLE ENGINEER
 TRANSCEND ENGINEERS & PLANNERS, LLC
 RAJASEKHAR BASAVARAJU, PE
 TEX REG NO. 112149

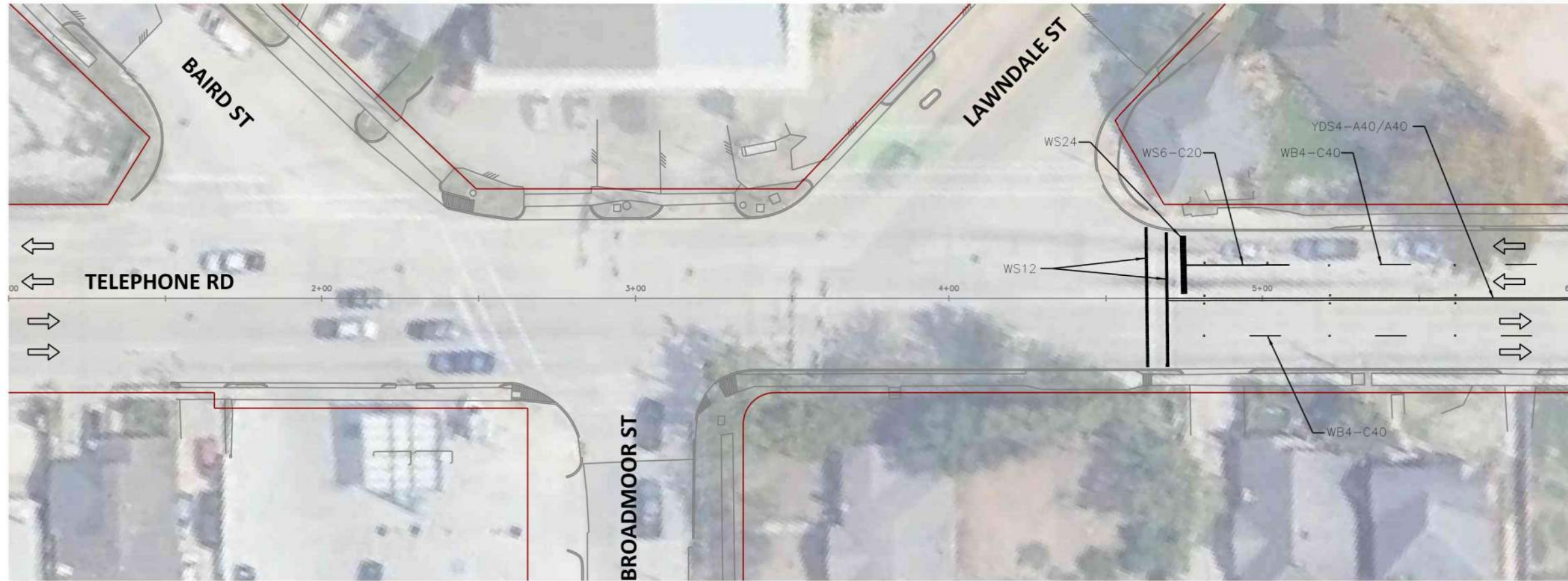
CITY OF HOUSTON
 HOUSTON PUBLIC WORKS

TELEPHONE ROAD
 MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
 LAWDALE TO IH 45
 TELEPHONE ROAD P&P
 STA. 40+50 TO 45+50 (END)
 P&P SHEET 9 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
1"=50' FOR 22X34 (FULL SIZE) 1"=100' FOR 11X17 (HALF SIZE)	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 24	

NO.	DATE	REVISION	APP.



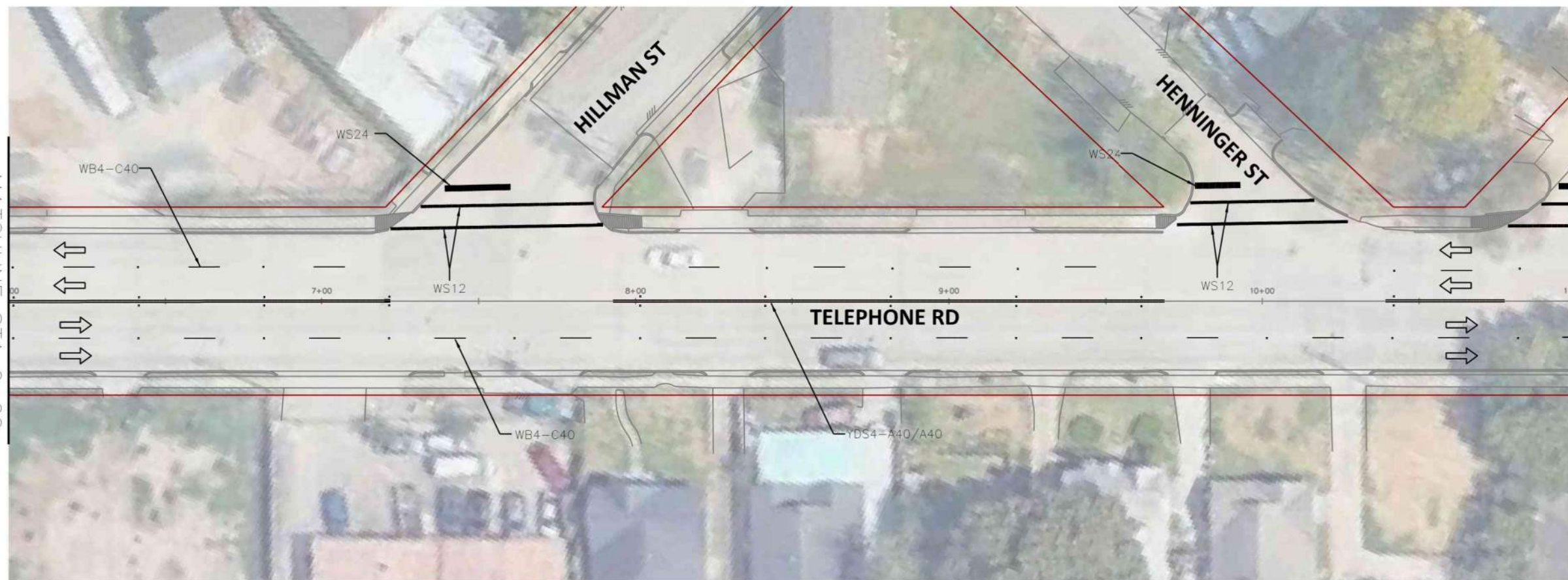
SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

LEGEND

- EXISTING TRAFFIC SIGN
- PROPOSED TRAFFIC SIGN
- PROPOSED TURN ARROW MARKING
- EXISTING TRAFFIC FLOW ARROW

NOTES:

1. CONTRACTOR TO MATCH ALL PAVEMENT MARKINGS AS PER LATEST COH STANDARDS.
2. CONTRACTOR TO REPLACE ANY IMPACTED EXISTING TRAFFIC SIGNS AS PER COH STANDARDS.
3. SEE COH STANDARD DETAIL 02760-08 FOR RAILROAD PAVEMENT MARKING DETAILS.
4. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.



TRANSCEND
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299
SURVEYED BY: KUO
FIRM REG NO. 10075600

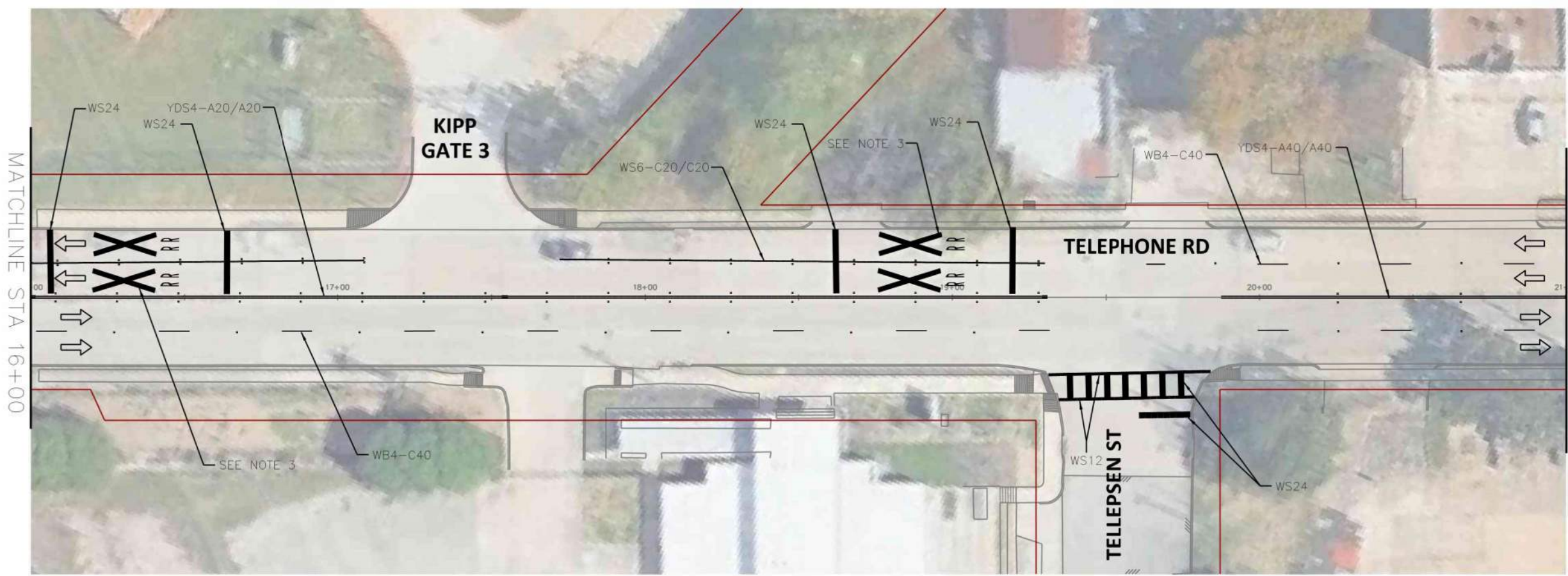
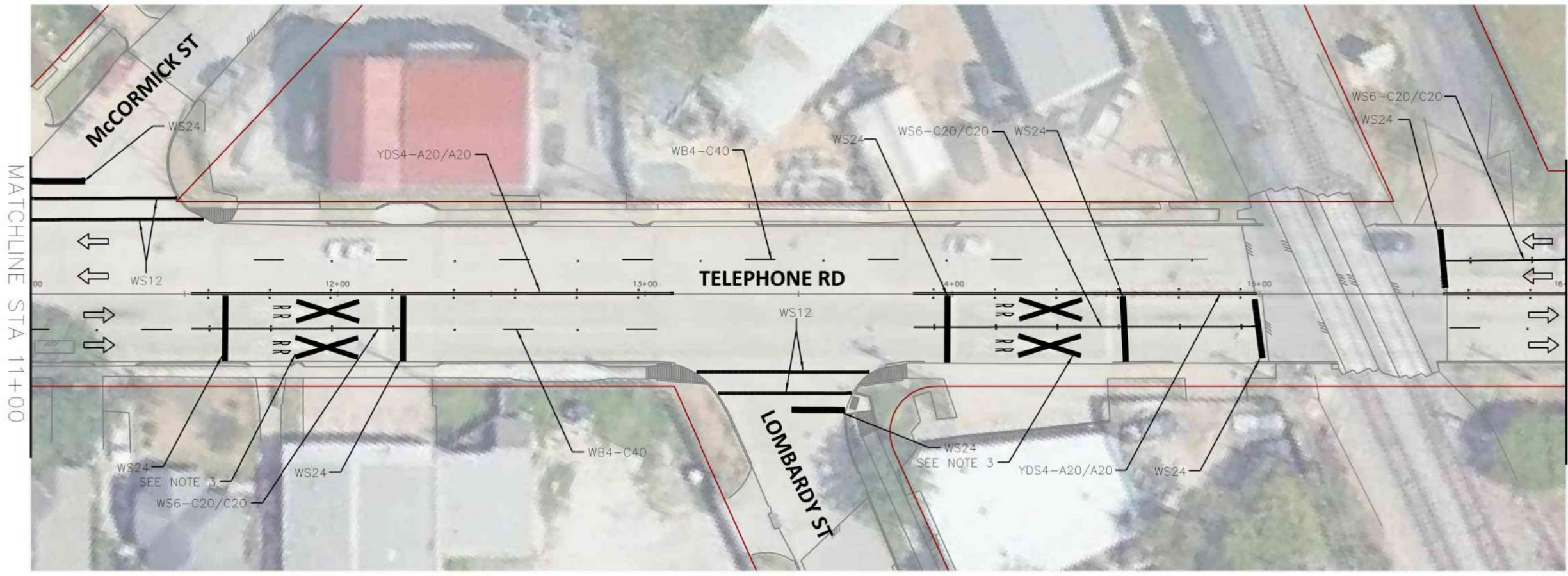
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
SIGNING AND PAVEMENT
MARKINGS LAYOUT

SHEET 1 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 25	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

LEGEND

- EXISTING TRAFFIC SIGN
- PROPOSED TRAFFIC SIGN
- PROPOSED TURN ARROW MARKING
- EXISTING TRAFFIC FLOW ARROW

NOTES:

1. CONTRACTOR TO MATCH ALL PAVEMENT MARKINGS AS PER LATEST COH STANDARDS.
2. CONTRACTOR TO REPLACE ANY IMPACTED EXISTING TRAFFIC SIGNS AS PER COH STANDARDS.
3. SEE COH STANDARD DETAIL 02760-08 FOR RAILROAD PAVEMENT MARKING DETAILS.
4. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.

TRANSCEND
engineers + planners

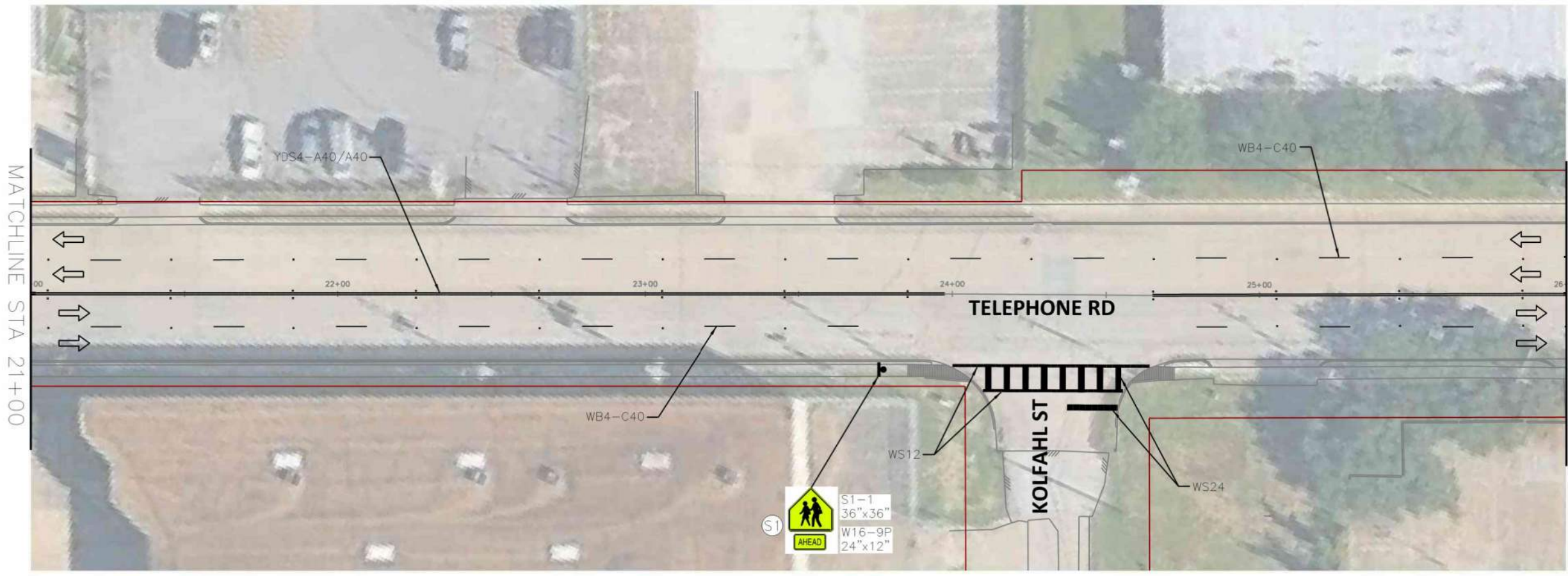
DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299
SURVEYED BY: KUO
FIRM REG NO. 10075600

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
SIGNING AND PAVEMENT
MARKINGS LAYOUT

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 26	



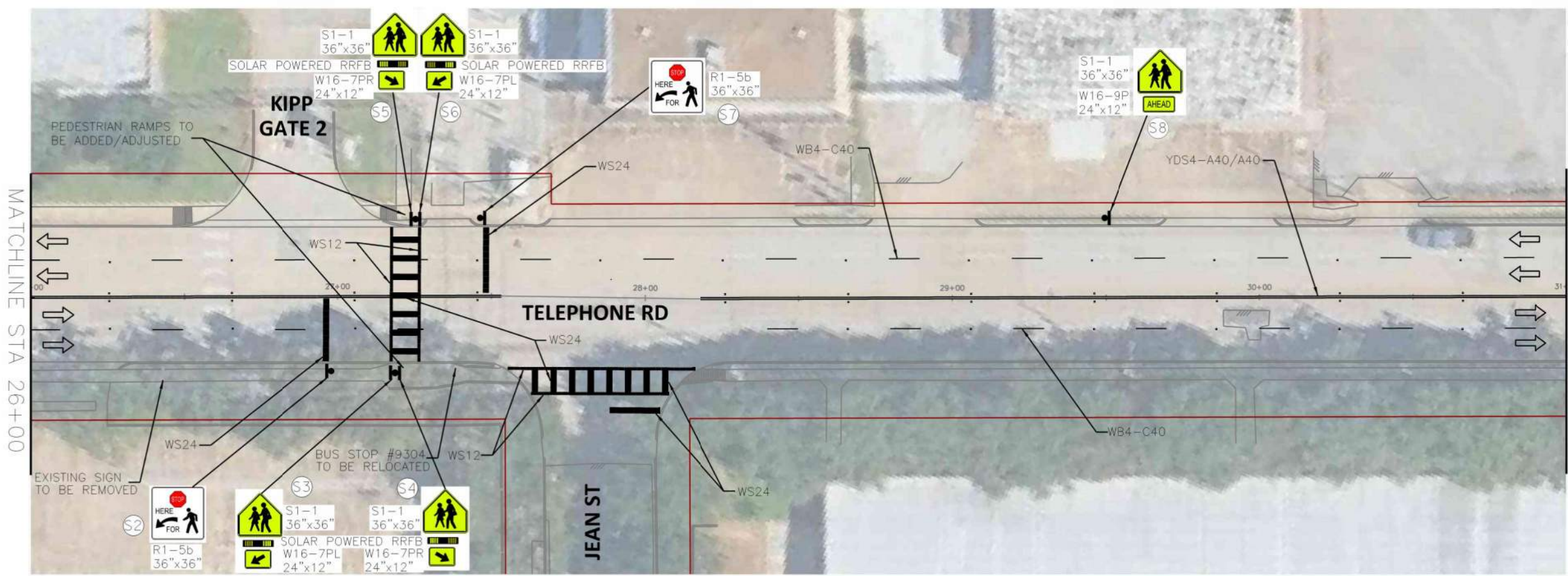
SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

LEGEND

- EXISTING TRAFFIC SIGN
- PROPOSED TRAFFIC SIGN
- PROPOSED TURN ARROW MARKING
- EXISTING TRAFFIC FLOW ARROW

NOTES:

1. CONTRACTOR TO MATCH ALL PAVEMENT MARKINGS AS PER LATEST COH STANDARDS.
2. CONTRACTOR TO REPLACE ANY IMPACTED EXISTING TRAFFIC SIGNS AS PER COH STANDARDS.
3. SEE COH STANDARD DETAIL 02760-08 FOR RAILROAD PAVEMENT MARKING DETAILS.
4. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.



TRANSCEND
engineers + planners

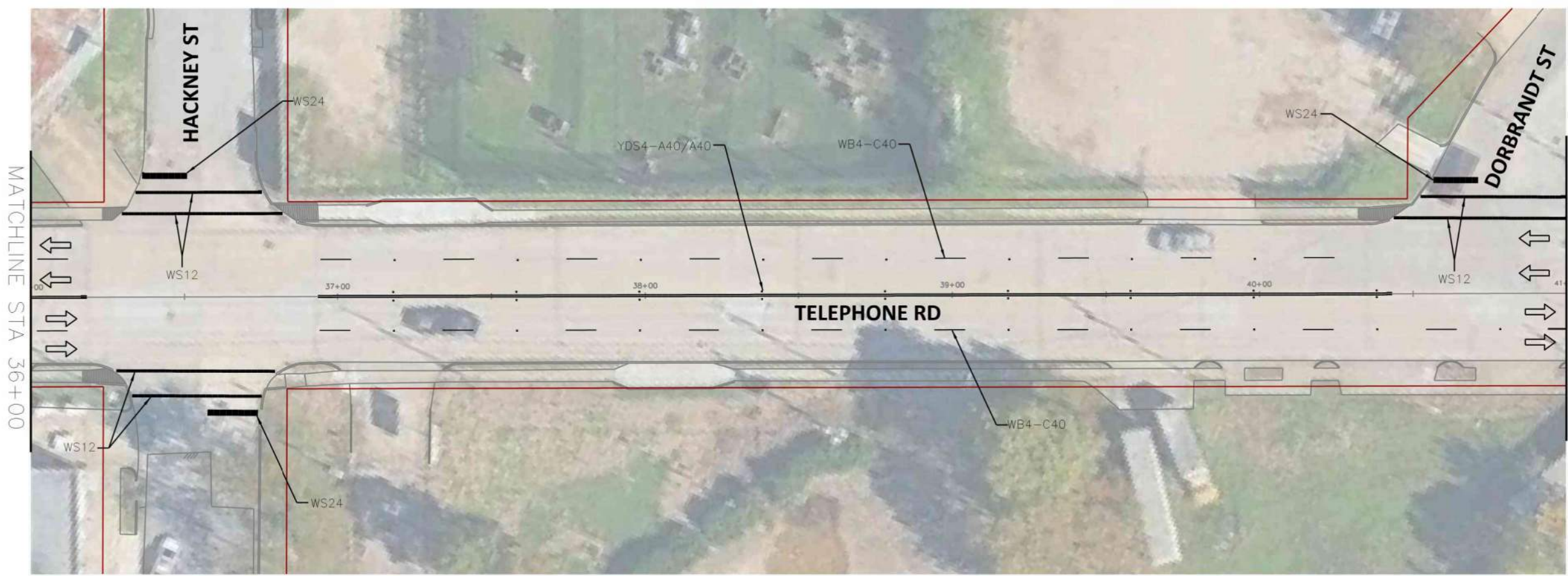
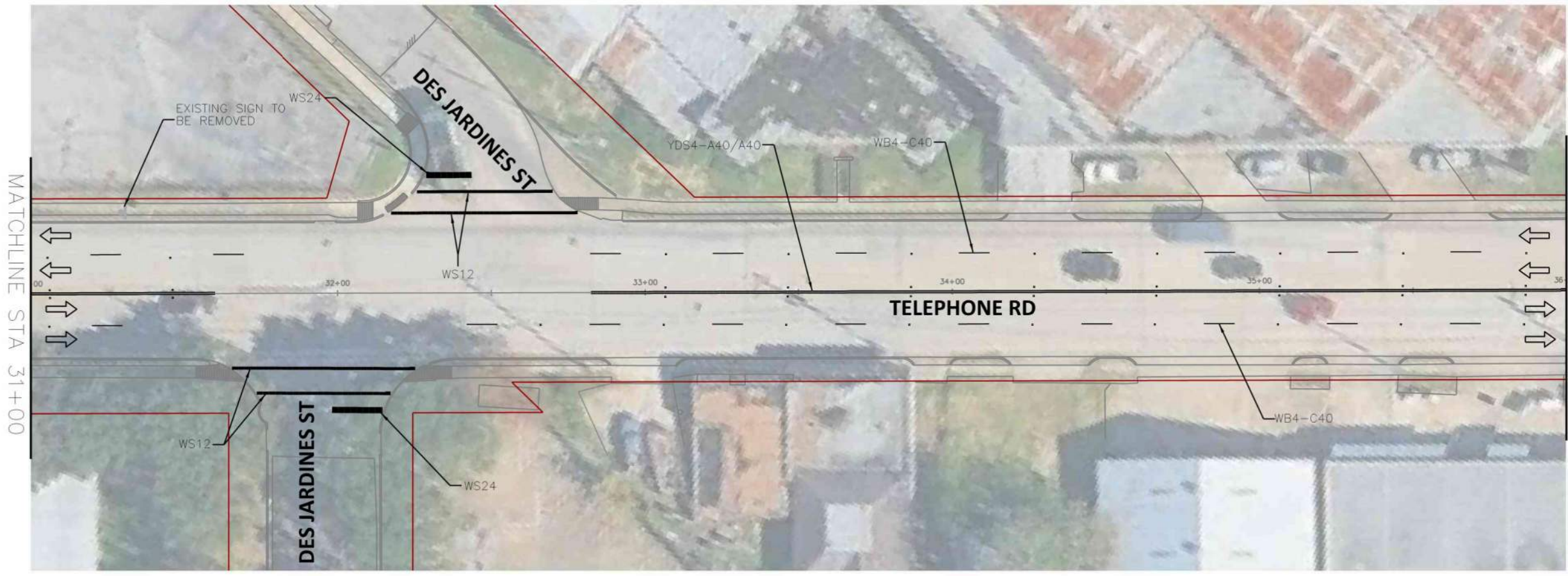
DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299
SURVEYED BY: KUO
FIRM REG NO. 10075600

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
SIGNING AND PAVEMENT
MARKINGS LAYOUT

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 27	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

LEGEND

- EXISTING TRAFFIC SIGN
- PROPOSED TRAFFIC SIGN
- PROPOSED TURN ARROW MARKING
- EXISTING TRAFFIC FLOW ARROW

NOTES:

1. CONTRACTOR TO MATCH ALL PAVEMENT MARKINGS AS PER LATEST COH STANDARDS.
2. CONTRACTOR TO REPLACE ANY IMPACTED EXISTING TRAFFIC SIGNS AS PER COH STANDARDS.
3. SEE COH STANDARD DETAIL 02760-08 FOR RAILROAD PAVEMENT MARKING DETAILS.
4. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.

TRANSCEND
engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299
SURVEYED BY: KUO
FIRM REG NO. 10075600

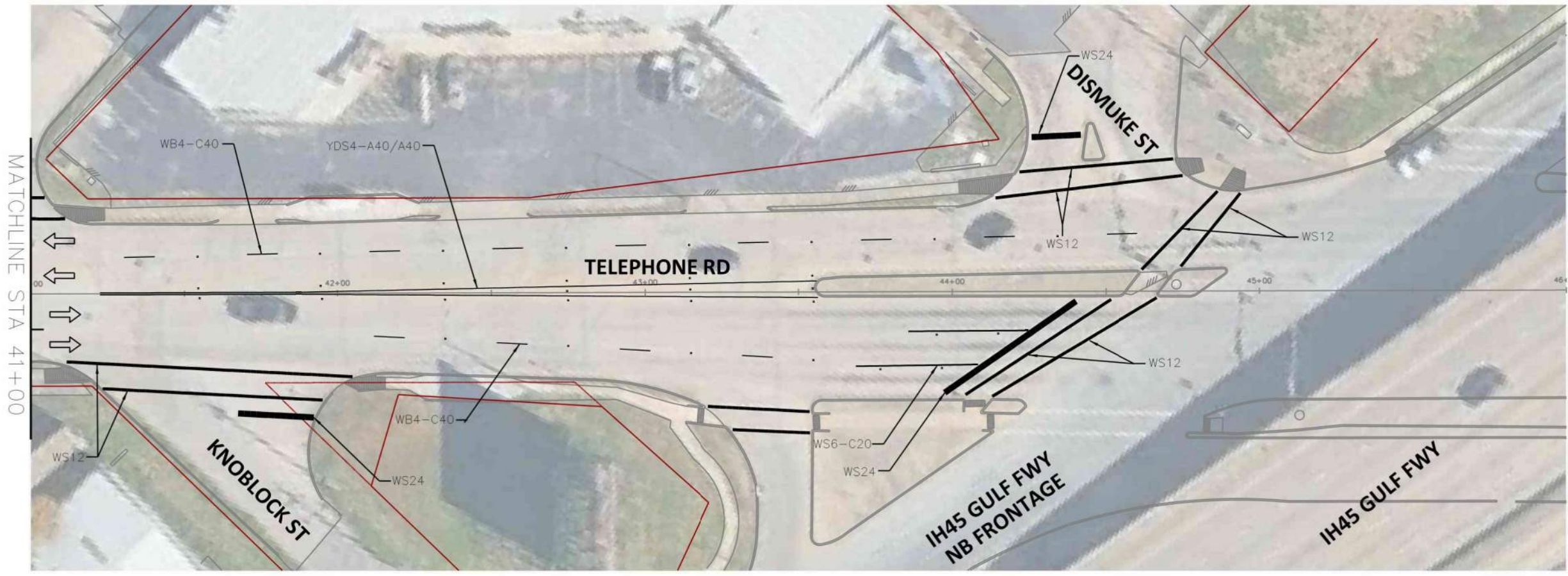
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
SIGNING AND PAVEMENT
MARKINGS LAYOUT

SHEET 4 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 28	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

LEGEND

- EXISTING TRAFFIC SIGN
- PROPOSED TRAFFIC SIGN
- PROPOSED TURN ARROW MARKING
- EXISTING TRAFFIC FLOW ARROW

NOTES:

1. CONTRACTOR TO MATCH ALL PAVEMENT MARKINGS AS PER LATEST COH STANDARDS.
2. CONTRACTOR TO REPLACE ANY IMPACTED EXISTING TRAFFIC SIGNS AS PER COH STANDARDS.
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4. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.

TRANSCEND Transcend Engineers & Planners, LLC
TPBE Reg. No. F-19299
23410 Grand Reserve Dr. Suite 101
Houston, Texas 77494
engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
SIGNING AND PAVEMENT
MARKINGS LAYOUT

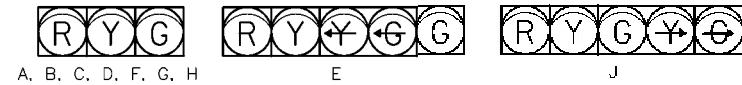
SHEET 5 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 29	

PLOTTED: 9/7/2005 7:08 PM

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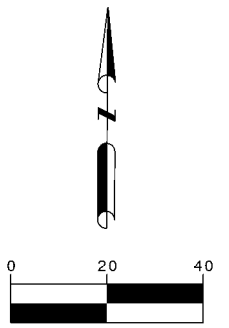
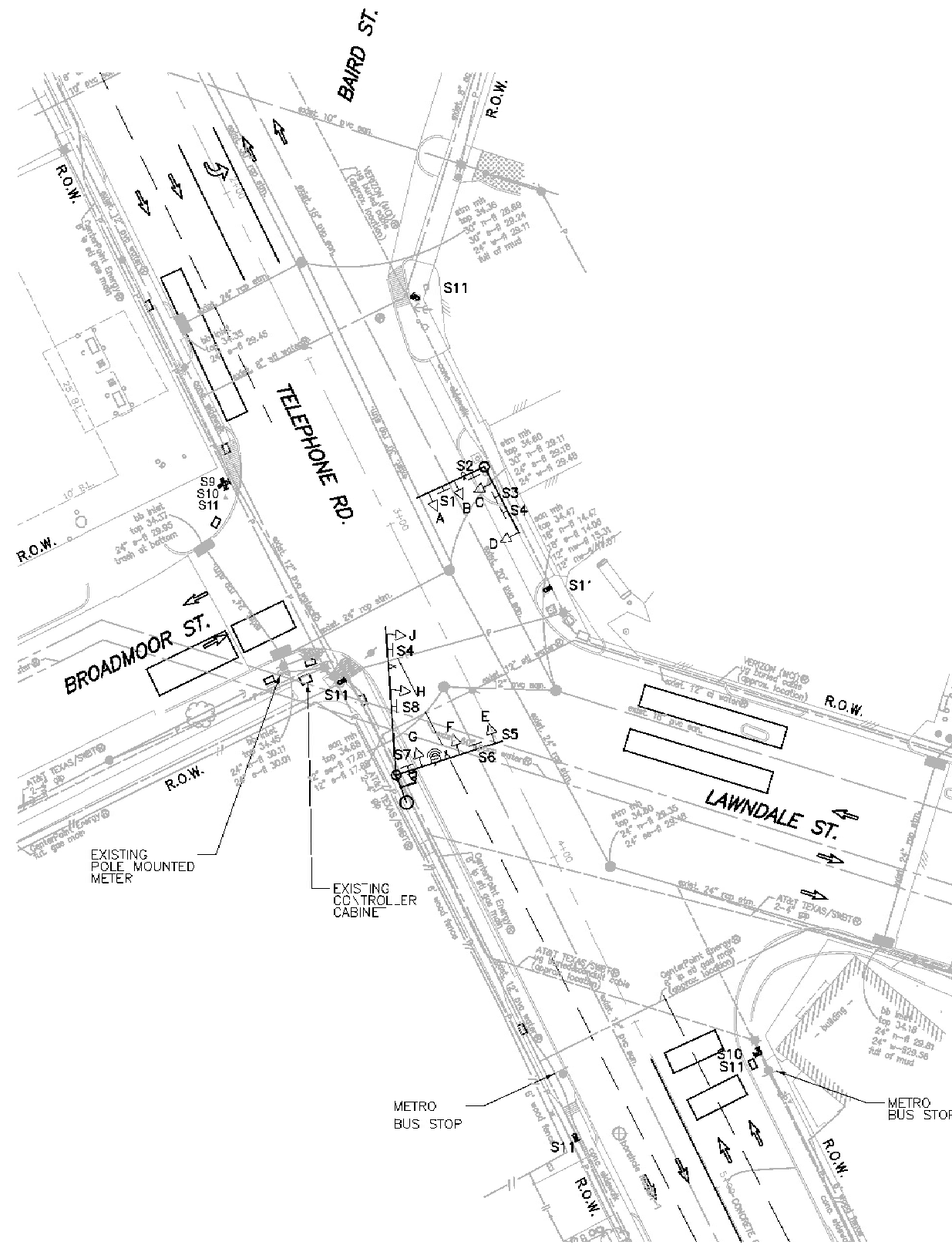
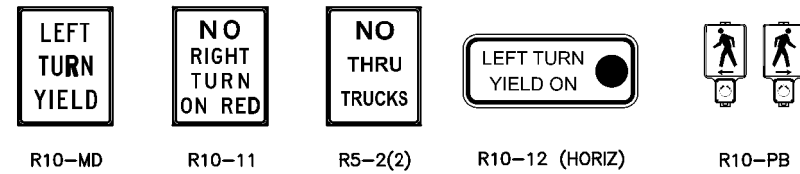
EXISTING SIGNAL HEAD SCHEDULE



8 EXISTING PED SIGNALS

EXISTING OVERHEAD & POLE MOUNTED TRAFFIC SIGN SCHEDULE

- S1 = OVERHEAD SIGN, R10-MD
- S2 = OVERHEAD SIGN, STREET NAME SIGN Arrow "Broadmoor St" WITH BLOCK NUMBER 1500
- S3 = OVERHEAD SIGN, STREET NAME SIGN "Lawndale St" WITH BLOCK NUMBER 5100 & Arrow
- S4 = OVERHEAD SIGN, R10-11
- S5 = OVERHEAD SIGN, R10-12 (HORIZ)
- S6 = OVERHEAD SIGN, STREET NAME SIGN "Lawndale St" WITH BLOCK NUMBER 5100
- S7 = OVERHEAD SIGN, STREET NAME SIGN "Broadmoor St" WITH BLOCK NUMBER 1500
- S8 = OVERHEAD SIGN, STREET NAME SIGN "Telephone Rd" WITH BLOCK NUMBER 1500 & 1400
- S9 = POLE MOUNTED SIGN, R5-2(2)
- S10 = POLE MOUNTED SIGN, R10-PB (L)
- S11 = POLE MOUNTED SIGN, R10-PB (R)



LEGEND

- PEDESTAL POLE
- SIGNAL POLE
- VEHICLE SIGNAL HEAD
- VEHICLE SIGNAL HEAD W/BACK PLATE
- PEDESTRIAN SIGNAL HEAD
- PEDESTRIAN PUSH BUTTON
- PRE-EMPT SENSOR
- LUMINAIRE
- CONTROLLER CABINET
- POLE MOUNTED METER
- LOOP DETECTOR

STEVENS TECHNICAL
 TEXAS REGISTERED ENGINEERING FIRM F-13097
 8131 JACKRABBIT RD.
 HOUSTON, TX 77095
 PHONE: (713) 828-4742

DESIGN ENGINEER:
 MICHELLE C. MAGALLANEZ, PE
 8131 JACKRABBIT RD.
 HOUSTON, TX 77095
 PHONE: (713) 828-4742
 TX FIRM NUMBER: F-13097

THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

RESPONSIBLE ENGINEER
 STEVENS TECHNICAL SERVICES, INC.
 MICHELLE C. MAGALLANEZ, PE
 TEX REG NO. 82016

SURVEYED BY: KUO
 FIRM REG NO. 10075600
 03/02/2026

CITY OF HOUSTON
 HOUSTON PUBLIC WORKS

TELEPHONE ROAD
 MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
 LAWDALE TO IH 45
 UPGRADED TRAFFIC SIGNAL
 EXISTING CONDITIONS LAYOUT

SHEET 1 OF 3

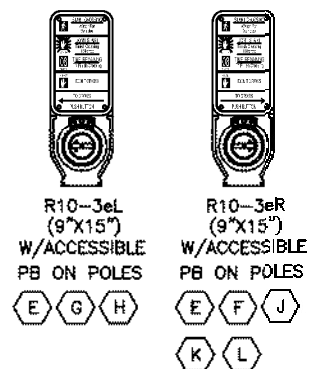
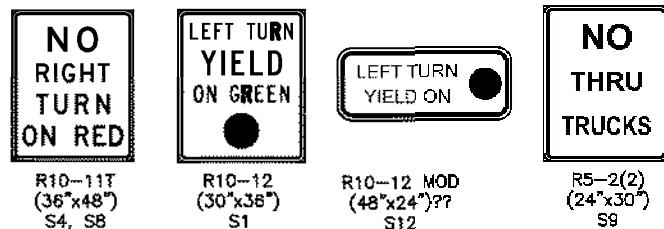
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 30	

POSTED SPEED LIMIT
 TELEPHONE RD 35 MPH
 LAWDALE ST 35 MPH

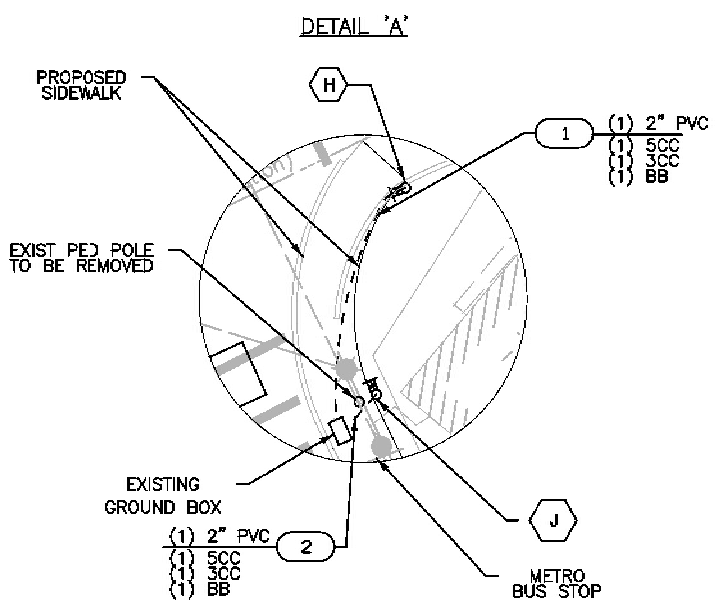
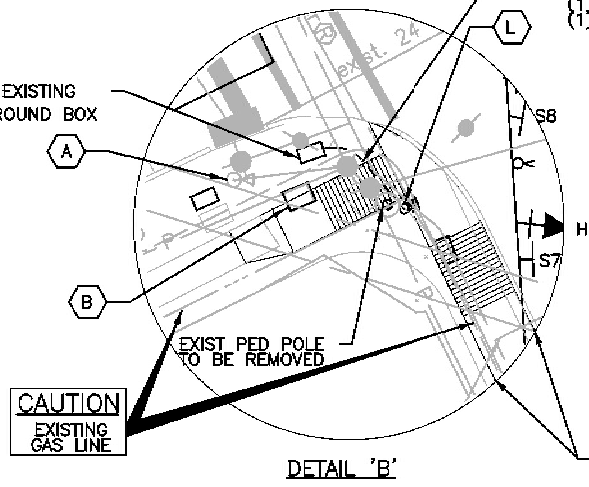
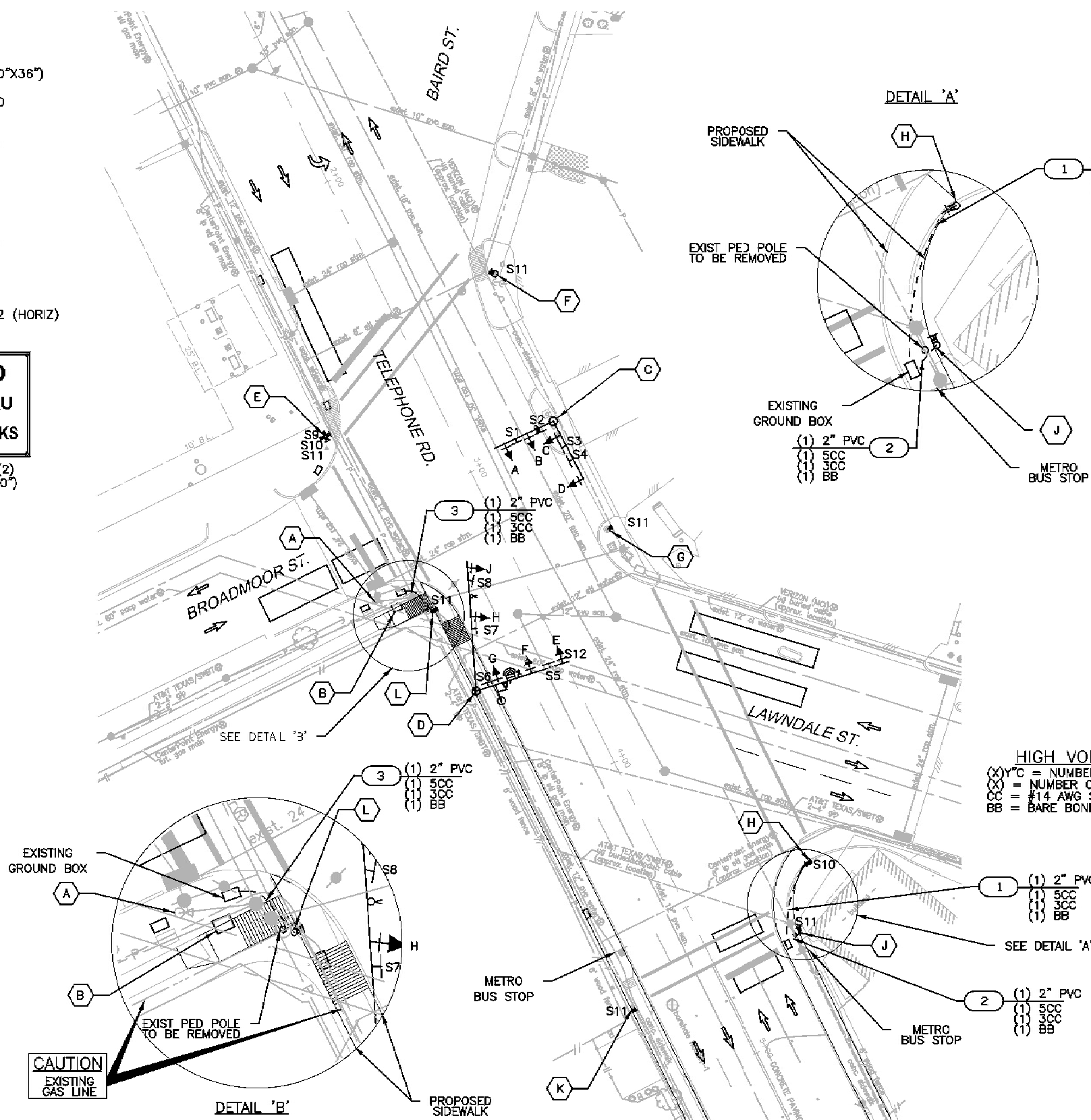
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PROPOSED OVERHEAD TRAFFIC SIGN SCHEDULE

- S1 = "LEFT TURN YIELD ON GREEN", (R10-12), (30"x36")
- S2 = EXISTING OVERHEAD SIGN, STREET NAME SIGN Arrow & "Broadmoor St" WITH BLOCK NUMBER 1500 "Lawndale St" WITH BLOCK NUMBER 5100 & Arrow
- S3 = EXISTING OVERHEAD SIGN, STREET NAME SIGN "Telephone Rd" WITH BLOCK NUMBER 1400 & 1500
- S4 = OVERHEAD SIGN, R10-11T
- S5 = EXISTING OVERHEAD SIGN, STREET NAME SIGN "Lawndale St" WITH BLOCK NUMBER 5100
- S6 = EXISTING OVERHEAD SIGN, STREET NAME SIGN "Broadmoor St" WITH BLOCK NUMBER 1500
- S7 = EXISTING OVERHEAD SIGN, STREET NAME SIGN "Telephone Rd" WITH BLOCK NUMBER 1500 & 1400
- S8 = OVERHEAD SIGN, R10-11T
- S9 = POLE MOUNTED SIGN, R5-2(2)
- S10 = POLE MOUNTED SIGN, R10-3aL
- S11 = POLE MOUNTED SIGN, R10-3aR
- S12 = SIGNAL HEAD MOUNTED OVERHEAD SIGN, R10-12 (HORIZ)



PROPOSED SIGNAL HEAD SCHEDULE	
SIGNAL FACE	DESIGNATION
	A, B, C, D, F, G, H
	E
	J

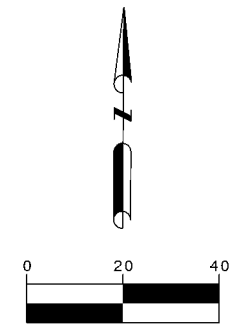


PROPOSED PEDESTRIAN SIGNAL HEAD SCHEDULE	
SIGNAL FACE	DESIGNATION
	PED SIGNALS ON POLES E F G H J K L

- NOTES:**
- CONTRACTOR SHALL INSTALL SIGNAL HEADS ON EXISTING DUAL MAST SIGNAL POLES.
 - CONTRACTOR SHALL INSTALL PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON ASSEMBLIES ON EXISTING PEDESTAL POLES.
 - SPLICE NEW PED SIGNAL AND PUSH BUTTON CABLE FROM PROPOSED PED POLES H, J AND L TO EXISTING SIGNAL CABLE BOXES.

CAUTION:
EXISTING GAS FACILITIES IN AREA

POSTED SPEED LIMIT
 TELEPHONE RD 35 MPH
 LAWDALE ST 35 MPH




LEGEND

PEDESTAL POLE	
SIGNAL POLE W/ MAST ARM	
VEHICLE SIGNAL HEAD	
VEHICLE SIGNAL HEAD W/BACK PLATE	
PEDESTRIAN SIGNAL HEAD	
PEDESTRIAN PUSH BUTTON	
PRE-EMPT SENSOR	
LUMINAIRE	
CONTROLLER CABINET	
POLE MOUNTED METER	
LOOP DETECTOR	
PEDESTAL POLE	
VEHICLE SIGNAL HEAD W/BACK PLATE	
PEDESTRIAN SIGNAL HEAD	
PEDESTRIAN PUSH BUTTON	
MAST ARM SIGN	
CONDUIT (TRENCH)	
CONDUIT (BORE)	
DIRECTION OF TRAFFIC FLOW	

HIGH VOLTAGE CIRCUIT
 (X)YC = NUMBER, SIZE, AND TYPE OF CONDUIT
 (X) = NUMBER OF CABLES (SIGNAL)
 CC = #14 AWG SOLID CONDUCTOR CABLE
 BB = BARE BOND #8 AWG SOLID

 STEVENS TECHNICAL TEXAS REGISTERED ENGINEERING FIRM F-13097 8131 JACKRABBIT RD. HOUSTON, TX 77095 PHONE: (713) 828-4742	
DESIGN ENGINEER: MICHELLE C. MAGALLANEZ, PE 8131 JACKRABBIT RD. HOUSTON, TX 77095 PHONE: (713) 828-4742 TX FIRM NUMBER: F-13097	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER STEVENS TECHNICAL SERVICES, INC. MICHELLE C. MAGALLANEZ, PE TEX REG NO. 82016
SURVEYED BY: KUO FIRM REG NO. 10075600	03/02/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS	
TELEPHONE ROAD MAIN STREET REVITALIZATION PROJECT SUBPROJECT 1: LAWDALE TO IH 45 UPGRADED TRAFFIC SIGNAL PROPOSED SIGNAL LAYOUT	
WBS NUMBER N-100042-0001-3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE AS NOTED	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 31	

POLE NUMBER	POLE TYPE	MAST ARM		SIGNALS		LUMINAIRE TYPE	PED PB TYPE/ SIGN	REMARKS	LOCATION	STANDARDS
		SIGNAL	LUMINAIRE	MOUNTING	FACE					
C 	EXISTING	25'	N/A	2 - ASTRCBRAC	2 - H3	-	-	EXISTING PRE-EMPT SENSOR, EXISTING SIGNS: S2=STREET NAME NEW SIGN: S1=R10-12 (30" X 36")	EXISTING AT APPROX. POLE C - STA 2+97, 30' LT TELEPHONE RD CONST C	02582-01 02582-02 02582-03 02893-01
		20'	N/A	2 - ASTRCBRAC	2 - H3	-	-	EXISTING SIGNS: S3=STREET NAME NEW SIGN: S4=R10-11T (30" X 36")	EXISTING	02582-01 02582-02 02582-03 02893-01
D 	EXISTING	40	N/A	2 - ASTRCBRAC	1 - H3 1 - H5R	-	-	EXISTING: PRE-EMPT SENSOR, EXISTING SIGNS: S7=STREET NAME NEW SIGN: S8=R10-11T (30" X 36")	EXISTING AT APPROX. POLE D - STA 3+61, 28.5' RT TELEPHONE RD CONST C	02582-01 02582-02 02582-03 02893-01
		30	N/A	3 - ASTRCBRAC	2 - H3 1 - H5L	-	-	EXISTING: PRE-EMPT SENSOR, EXISTING SIGNS: S5=STREET NAME S6=STREET NAME NEW SIGN: S12=R10-12 MOD (30" X 36")	EXISTING	02582-01 02582-02 02582-03 02893-01
E 	EXIST.	-	-	2 - SIDE CF POLE	2 - CDP	-	-	NEW SIGN: S9=R5-2(2) (24" X 30")	EXISTING AT APPROX. POLE E - STA 2+70, 35' RT TELEPHONE RD CONST C	02465-02 02893-01
F 	EXIST.	-	-	1 - SIDE CF POLE	1 - CDP	-	-	POLARA NAVIGATOR R10-3E (R)	EXISTING AT APPROX. POLE F - STA 2+48, 34' LT TELEPHONE RD CONST C	02465-02 02893-01
G 	EXIST.	-	-	1 - SIDE CF POLE	1 - CDP	-	-	POLARA NAVIGATOR R10-3E (L)	EXISTING AT APPROX. POLE G - STA 3+34, 30' LT TELEPHONE RD CONST C	02465-02 02893-01
H 	PROPOSED PED POLE 15'	-	-	1 - SIDE CF POLE	1 - CDP	-	-	POLARA NAVIGATOR R10-3E (L)	BY ENGINEER IN FIELD AT APPROX. POLE H - STA 4+55, 41' LT TELEPHONE RD CONST C	02465-02 02893-01
J 	PROPOSED PED POLE 15'	-	-	1 - SIDE CF POLE	1 - CDP	-	-	POLARA NAVIGATOR R10-3E (R)	BY ENGINEER IN FIELD AT APPROX. POLE J - STA 4+72, 29' LT TELEPHONE RD CONST C	02465-02 02893-01
K 	EXIST.	-	-	1 - SIDE CF POLE	1 - CDP	-	-	POLARA NAVIGATOR R10-3E (R)	EXISTING AT APPROX. POLE K - STA 4+70, 28' RT TELEPHONE RD CONST C	02465-02 02893-01
L 	PROPOSED PED POLE 15'	-	-	1 - SIDE CF POLE	1 - CDP	-	-	POLARA NAVIGATOR R10-3E (R)	BY ENGINEER IN FIELD AT APPROX. POLE L - STA 3+33, 30' RT TELEPHONE RD CONST C	02465-02 02893-01
TRAFFIC SIGNAL CONTROLLER										
CABINET	TYPE	CONTROLLER	AUX. CONTROL	REMARKS	LOCATION	STANDARDS				
A 	EXISTING SERVICE ON POLE	EXISTING	-	-	EXISTING AT APPROX. A - STA 3+23, 44' RT TELEPHONE RD CONST C	02893-03				
B 	EXISTING TYPE 332	EXISTING	-	-	EXISTING AT APPROX. B - STA 3+28, 39' RT TELEPHONE RD CONST C	02893-02 16730-01				



STEVENS TECHNICAL
TEXAS REGISTERED ENGINEERING FIRM F-13097
8131 JACKRABBIT RD. HOUSTON, TX 77095
PHONE: (713) 828-4742

DESIGN ENGINEER: MICHELLE C. MAGALLANEZ, PE 8131 JACKRABBIT RD. HOUSTON, TX 77095 PHONE: (713) 828-4742 TX FIRM NUMBER: F-13097	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER STEVENS TECHNICAL SERVICES, INC. MICHELLE C. MAGALLANEZ, PE TEX REG NO. 82016 03/02/2026
SURVEYED BY: KUO FIRM REG NO. 10075600	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
UPGRADED TRAFFIC SIGNAL
POLE SCHEDULE

SHEET 3 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 32	

GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON THE UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) LATEST EDITION WITH REVISIONS DURING THE ENTIRE CONSTRUCTION PERIOD.
2. ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL CONFORM THE LATEST VERSION OF THE TMUTCD.
3. NO LANES SHALL BE CLOSED DURING THE HOURS OF 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM MONDAY THRU FRIDAY WITHOUT APPROVAL OF THE CITY TRAFFIC ENGINEER.
4. NO WORK SHALL BE PERFORMED IN RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN APPROVED NUMBER OF THROUGH LANES OF TRAFFIC IN EACH DIRECTION DURING CONSTRUCTION WORKING HOURS. TRAFFIC CONTROL PLANS SHALL INCLUDE ONE-WAY AND/OR DETOUR PLANS. CONTRACTOR SHALL MAINTAIN ADA COMPLIANT PEDESTRIAN ACCESS TO BUS STOPS AND ADEQUATE BUS ACCESS TO ALL THE BUS STOPS.
6. CONTRACTOR SHALL MAINTAIN TRAFFIC LANES AND DETOURS ACCORDING TO TRAFFIC CONTROL PLANS DURING WORKING HOURS.
7. CONTRACTOR SHALL COVER OPEN PAVEMENT EXCAVATIONS FOR MINOR UTILITY WORK WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS, AND OPEN LANES FOR NORMAL TRAFFIC FLOW WHEN FEASIBLE.
8. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT AN ALTERNATE SET OF TRAFFIC CONTROL PLANS TO THE CITY OF HOUSTON PROJECT MANAGER FOR APPROVAL TEN WORKING DAYS PRIOR TO IMPLEMENTATION. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLARS AND SHALL BE SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. OFFICE OF CITY ENGINEER, MOBILITY PERMITS SECTION REPRESENTATIVE APPROVAL IS REQUIRED TO ACCEPT THE PROPOSED CHANGES.
9. CONTRACTOR SHALL SECURE LANE/SIDEWALK/BICYCLE FACILITY CLOSURE PERMITS FROM OFFICE OF CITY ENGINEER (MOBILITY PERMIT SECTION AT <https://geohub.houstontx.gov>) BEFORE IMPLEMENTING THE TRAFFIC CONTROL PLAN. THE APPLICATION MUST BE SUBMITTED AT LEAST TEN DAYS PRIOR TO THE IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN AND/OR BEGINNING CONSTRUCTION WORK. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS, CONSTRUCTION SEQUENCING, AND CONSTRUCTION SCHEDULE WITH THE APPLICATION.
10. CONTRACTOR SHALL HAVE APPROVED TRAFFIC CONTROL PLAN AND PERMIT AT THE JOB SITE FOR INSPECTION AT ALL TIMES.
11. DURING PAVEMENT SURFACE RESTORATION PROJECTS; THE CONTRACTOR SHALL NOT OPEN CLOSED LANES UNTIL THE PAVEMENT SURFACE HAS CURED ENOUGH TO ALLOW VEHICULAR TRAFFIC ACCORDING TO CITY OF HOUSTON STANDARD SPECIFICATIONS.
12. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING ALL CONSTRUCTION ACTIVITIES WITH STAKE HOLDERS IN THE VICINITY INCLUDING EMERGENCY RESPONSE AGENCIES SUCH AS HOUSTON POLICE DEPARTMENT, HOUSTON FIRE DEPARTMENT, AND METROPOLITAN TRANSIT AUTHORITY.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ISSUING ALL WORK DIRECTIVES TO ALL SUB-CONTRACTORS, UTILITY COMPANIES, AND ALL OTHER ENTITIES PERFORMING CONSTRUCTION WORK ASSOCIATED WITH THE PROJECT.
14. 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.
15. THE OFFICE OF CITY ENGINEER (MOBILITY PERMITS GROUP) PER THE DIRECTION OF THE CITY TRAFFIC ENGINEER HAVE 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.
16. ALL EXISTING TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE MAINTAINED IN VISIBLE LOCATIONS DURING CONSTRUCTION UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM CITY OF HOUSTON PROJECT MANAGER. THE CONTRACTOR SHALL RESTORE OR REPLACE (AT THE DISCRETION OF THE CITY TRAFFIC ENGINEER) ANY PAVEMENT MARKING OR SIGNING DAMAGE DURING CONSTRUCTION OPERATIONS, INCLUDING RAISED PAVEMENT MARKERS (RPMs).
17. 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 THE ASSISTANCE OF CONTRACTOR PROVIDED CERTIFIED FLAGGER/PEACE OFFICER.
18. ACCESS TO DRIVEWAYS ADJACENT TO THE CONSTRUCTION WORK ZONE SHALL BE MAINTAINED AT ALL TIMES AS MUCH AS POSSIBLE. ADDITIONAL CONES AND/OR DELINEATORS MAY BE REQUIRED TO DELINEATE THE DRIVEWAY ACCESS ROUTE THROUGH THE CONSTRUCTION WORK ZONE. A MINIMUM OF ONE TRAVEL LANE SHALL BE MAINTAINED ACROSS THE DRIVEWAYS, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM CITY OF HOUSTON PROJECT MANAGER.
19. SPILLAGE RESULTING FROM HAULING OPERATIONS ALONG OR ACROSS ANY PUBLIC TRAVELED WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
20. THE CONTRACTOR SHALL SUBMIT AN APPLICATION FOR TEMPORARY PARKING RESTRICTIONS IF THERE ARE PARKING METERS LOCATED AT THE PROPOSED LANE CLOSURES FROM PARKING MANAGEMENT DIVISION (832-393-8690) AT LEAST TEN BUSINESS DAYS BEFORE IMPLEMENTATION OF LANE CLOSURES. IN ADDITION, TEMPORARY NO PARKING SIGNS SHALL BE POSTED 24 HOURS PRIOR TO COMMENCEMENT OF WORK.
21. ADDITIONAL OFF DUTY OFFICERS/FLAGGERS MAY BE REQUESTED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED AT THE DISCRETION OF THE CITY PROJECT MANAGER EVEN IF THEY ARE NOT SPECIFICALLY IDENTIFIED ON THE PROJECT PLANS.
22. THE CONTRACTOR SHALL REPLACE WITHIN 72 HOURS, ALL TRAFFIC SIGNAL LOOP DETECTORS DAMAGED DURING CONSTRUCTION.
23. IN GENERAL, A SOLAR POWERED FLASHING ARROW BOARD SHALL BE REQUIRED ON ALL MAJOR THOROUGHFARE LANES CLOSURES. EXCEPTIONS TO FLASHING ARROW BOARDS AND/OR IMPLEMENTATION ON RESIDENTIAL LANE CLOSURES SHALL BE APPROVED BY CITY TRAFFIC ENGINEER.
24. APPROVED TRAFFIC CONTROL PLAN SHALL BE IN PLACE BEFORE STARTING ANY EXCAVATION.
25. WATER FILLED BARRIERS CAN BE USED AS INSTRUCTED BY THE ENGINEER AND APPROVED BY THE CITY FOR PROJECTS WHERE SPACE IS LIMITED AND HEAVY EQUIPMENT TO PLACE CONCRETE BARRIERS IS NOT FEASIBLE. WATER FILLED BARRIERS SHALL NOT BE USED ON ROADWAYS WITH A POSTED SPEED LIMIT MORE THAN 45 MPH.
26. WATER FILLED BARRIERS MUST BE INSTALLED AND MAINTAINED PER THE MANUFACTURER'S REQUIREMENTS AND ROUTINELY INSPECTED FOR DEFECTS.
27. IF WATER FILLED BARRIER IS PROVIDED, USE ENVIRONMENTALLY SAFE ANTI-FREEZING AGENT IN THE WATER WHEN IT IS APPLICABLE PER MANUFACTURER SPECIFICATIONS AND RECOVER AGENT WHEN THE BARRIER IS DRAINED.

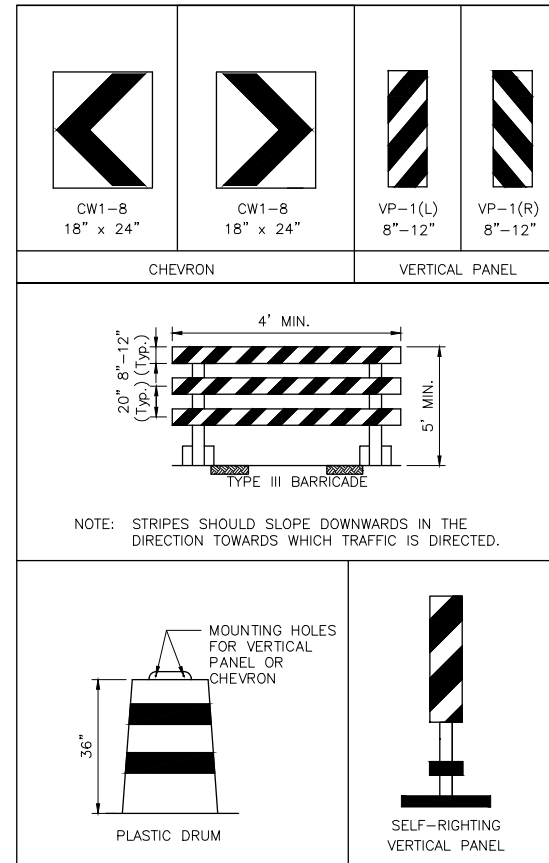
28. DISPOSE OF WATER AND AGENT PROPERLY. DO NOT DRAIN WATER FILLED BARRIER INTO OR ACROSS AN EXISTING TRAVEL LANE.
29. PROVIDE BARRIER UNITS THAT ARE CAPABLE OF BEING LIFTED AND MOVED WHEN FILLED IF DRAINING IS NOT POSSIBLE.
30. PROVIDE WATER FILLED BARRIER THAT ACTS AS ITS OWN FREE STANDING, NON-REDIRECTIVE END TREATMENT.
31. WHEN WATER FILLED BARRIERS ARE USED TO CHANNELIZE PEDESTRIANS, THEY MUST HAVE A CONTINUOUS DETECTABLE BOTTOM FOR USERS OF LONG CANES AND THE TOP OF THE UNIT SHALL NOT BE LESS THAN 32 INCHES IN HEIGHT.
32. ANY CLOSURE OF A PEDESTRIAN OR BICYCLE FACILITY SHALL REQUIRE THE SHORTEST DETOUR THAT MAINTAINS THE SAFETY OF PEDESTRIAN AND/OR BICYCLISTS.

SPACING FOR CHANNELIZING DEVICES

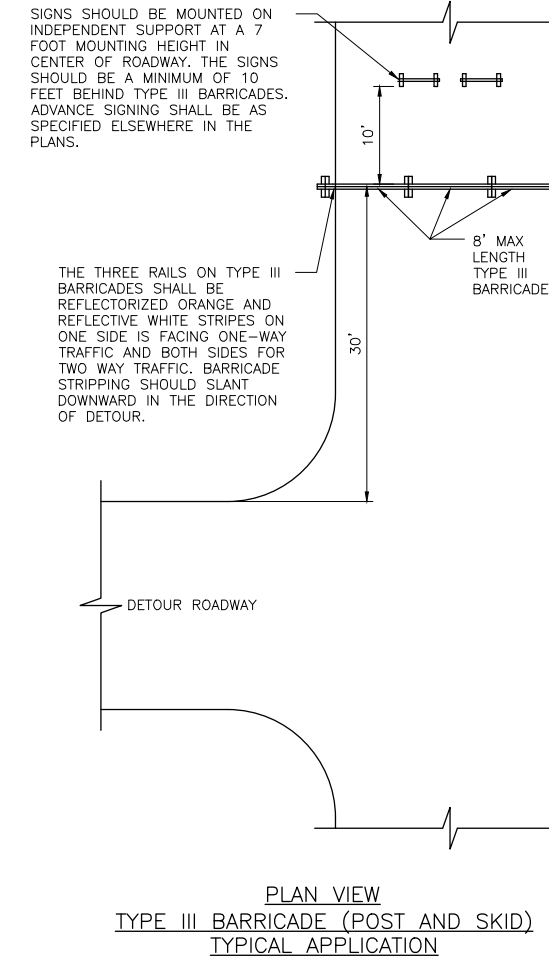
- A. PLASTIC DRUMS ON MERGING TAPER @ 30' C - C WITH CHEVRON SIGN @ 60' C - C AND WARNING LIGHTS FOR OVERNIGHT CLOSURE.
- B. PLASTIC DRUMS ON DOWNSTREAM TAPER @ 30' C - C (RETURN TAPER AND BARRICADE ARE OPTIONAL AND DIVIDED ROADWAY SECTION)
- C. PLASTIC DRUMS ON RADII @ 35' C - C.
- D. PLASTIC DRUMS ON TANGENT @ 35' C - C WITH VERTICAL PANEL AT 70' C - C AND APPROVED WARNING LIGHT @ 70' C - C (FOR OVERNIGHT CLOSURE).
- E. PLASTIC DRUMS IN FRONT OF CONSTRUCTION ZONE @ 20' C - C WITH VERTICAL PANEL AT 40' C - C AND APPROVED WARNING LIGHT @ 40' C - C (FOR OVERNIGHT CLOSURE).
- F. CONCRETE TRAFFIC BARRIER (CTB) OR LOW PROFILE CONCRETE TRAFFIC BARRIER (LPCTB) WITH APPROVED REFLECTORS @ 10' C - C IF PAVEMENT DROP IS GREATER THAN 1 FOOT.
- G. PLASTIC DRUMS W/GUARD RAIL MOUNTED.
- H. SELF-RIGHTING VERTICAL PANEL SPACING.
 - 4 LANES TO 2 LANES UNDIVIDED ROADWAY SECTION @ 20' C - C.
 - 4 LANES DIVIDED ROADWAY TO ONE SIDE TWO WAY ROADWAY @ 20' C - C.
 - LEFT LANE AND RIGHT LANE STORAGE BAYS @ 15' C - C.
- I. SPACING SHOWN ON TRAFFIC CONTROL SHALL SUPERSEDE THE ABOVE SPACING.
- J. SPACING MAY BE ADJUSTED TO PROVIDE DRIVEWAYS, INTERSECTIONS AND /OR MEDIAN OPENINGS.

POSTED SPEED (MPH)	SIGN SPACING "X" (FEET)	MIN. DESIRABLE TAPER LENGTH "L"			SUGGESTED MAXIMUM SPACING OF DEVICE	
		10' OFFSET	11' OFFSET	12' OFFSET	ON A TAPER	ON A TANGENT
30	120'	150'	165'	180'	30'	60'-75'
35	160'	205'	225'	245'	35'	70'-90'
40	240'	265'	295'	320'	40'	80'-100'
45	320'	450'	495'	540'	45'	90'-110'
50	400'	500'	550'	600'	50'	100'-125'
55	500'	550'	605'	660'	55'	110'-140'

POSTED SPEED (MPH)	DISTANCE "D" (FEET)
30	200
35	250
40	305
45	360
50	425
55	495



CHANNELIZATION AND BARRICADES



LEGEND:

- SIGN
- FLAGGER
- APPROVED CHANNELIZATION DEVICE
- BARRICADE
- FLASHING ARROW PANEL
- AREA UNDER CONSTRUCTION
- EXISTING TRAVEL WAY
- TRAFFIC CONTROL PLAN DETOUR TRAVEL WAY

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THE USE OF THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER.

APPROVED BY: SUBUD KANWAR RESP-0000416476	APPROVED BY: EHSAN NAIFAN 0843220478/CO...
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: CARL P. HADDOCK 18800002223483	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-01
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 74-19289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TCP NOTES CHANNELIZING DEVICES AND BARRICADES	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 33	

TCP PHASING

LIMITS OF CONSTRUCTION: TELEPHONE RD SEGMENT 1 MAIN LANES FROM LAWNDALE ST TO IH 45 FRONTAGE RD, EXCLUDING UPRR RIGHT-OF-WAY.

PHASE I : SOUTHBOUND INSIDE LANE

PHASE II : SOUTHBOUND OUTSIDE LANE AND SIDEWALK

PHASE III: NORTHBOUND INSIDE LANE

PHASE IV : NORTHBOUND OUTSIDE LANE AND SIDEWALK

PHASE V : FINAL SURFACE OVERLAY (FULL WIDTH, MOBILE OPERATION)

CONSTRUCTION PHASING AND SEQUENCING

PHASE I : SOUTHBOUND INSIDE LANE

THIS PHASE INVOLVES MILLING THE INSIDE LANE FOR THE SOUTHBOUND DIRECTION, PERFORMING BASE REPAIRS WHERE NECESSARY AND PLACING THE LEVEL-UP COURSE OVER THE MILLED AREAS. THE AFOREMENTIONED LANE SHALL BE CLOSED WHILE OTHER LANES REMAIN OPEN TO PUBLIC TRAFFIC. APPROPRIATE TRAFFIC CONTROL MEASURES, INCLUDING ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES SHALL BE USED. ONCE THE LEVEL-UP COURSE IS COMPACTED AND TEMPORARY STRIPING IS IN PLACE, THE CLOSED AREAS SHALL BE REOPENED TO PUBLIC TRAFFIC.

ESTIMATED DURATION: 5 DAYS

PHASE II : SOUTHBOUND OUTSIDE LANE AND SIDEWALK

THIS PHASE INVOLVES MILLING THE OUTSIDE LANE FOR THE SOUTHBOUND DIRECTION AND THE ADJACENT SIDEWALK, PERFORMING BASE REPAIRS WHERE NECESSARY AND PLACING THE LEVEL-UP COURSE OVER THE MILLED AREAS. THE AFOREMENTIONED LANE SHALL BE CLOSED WHILE OTHER LANES REMAIN OPEN TO PUBLIC TRAFFIC. APPROPRIATE TRAFFIC CONTROL MEASURES, INCLUDING ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES SHALL BE USED.

A PEDESTRIAN DETOUR PLAN SHALL BE IN PLACE, ALSO FITTED WITH APPROPRIATE DEVICES SPECIFIED IN COH STANDARD DETAIL 01555-16. ONCE THE LEVEL-UP COURSE IS COMPACTED AND TEMPORARY STRIPING IS IN PLACE, THE CLOSED AREAS SHALL BE REOPENED TO PUBLIC TRAFFIC.

ESTIMATED DURATION: 10 DAYS

PHASE III: NORTHBOUND INSIDE LANE

THIS PHASE INVOLVES MILLING THE INSIDE LANE FOR THE NORTHBOUND DIRECTION, PERFORMING BASE REPAIRS WHERE NECESSARY AND PLACING THE LEVEL-UP COURSE OVER THE MILLED AREAS. THE AFOREMENTIONED LANE SHALL BE CLOSED WHILE OTHER LANES REMAIN OPEN TO PUBLIC TRAFFIC. APPROPRIATE TRAFFIC CONTROL MEASURES, INCLUDING ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES SHALL BE USED. ONCE THE LEVEL-UP COURSE IS COMPACTED AND TEMPORARY STRIPING IS IN PLACE, THE CLOSED AREAS SHALL BE REOPENED TO PUBLIC TRAFFIC.

ESTIMATED DURATION: 5 DAYS

PHASE IV : NORTHBOUND OUTSIDE LANE AND SIDEWALK

THIS PHASE INVOLVES MILLING THE OUTSIDE LANE FOR THE NORTHBOUND DIRECTION AND THE ADJACENT SIDEWALK, PERFORMING BASE REPAIRS WHERE NECESSARY AND PLACING THE LEVEL-UP COURSE OVER THE MILLED AREAS. THE AFOREMENTIONED LANE SHALL BE CLOSED WHILE OTHER LANES REMAIN OPEN TO PUBLIC TRAFFIC. APPROPRIATE TRAFFIC CONTROL MEASURES, INCLUDING ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES SHALL BE USED.

A PEDESTRIAN DETOUR PLAN SHALL BE IN PLACE, ALSO FITTED WITH APPROPRIATE DEVICES SPECIFIED IN COH STANDARD DETAIL 01555-16. ONCE THE LEVEL-UP COURSE IS COMPACTED AND TEMPORARY STRIPING IS IN PLACE, THE CLOSED AREAS SHALL BE REOPENED TO PUBLIC TRAFFIC.

ESTIMATED DURATION: 10 DAYS

PHASE V : FINAL SURFACE OVERLAY (FULL WIDTH, MOBILE OPERATION)

THIS PHASE INVOLVES FINAL SURFACE OVERLAY OF THE NEW PAVEMENT. THIS SHALL OCCUR OVER ALL FOUR TRAVEL LANES OF THE ROADWAY. THIS SHALL BE COMPLETED USING A ROLLING OPERATION THAT CLOSES ONE LANE AT A TIME, THUS BEING A MOBILE OPERATION. SHADOW VEHICLES EQUIPPED WITH TRUCK-MOUNTED ATTENUATORS (TMAs) AND PORTABLE MESSAGE BOARDS SHALL BE DEPLOYED FOR TRAFFIC SAFETY. ONCE PAVING IS COMPLETE, FINAL PAVEMENT MARKINGS SHALL BE INSTALLED.


ESTIMATED DURATION: 4 DAYS

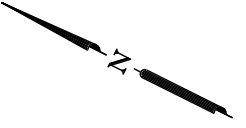
ADDITIONAL CONSIDERATIONS

- FLAGGERS SHALL BE PRESENT AND PROVIDE ASSISTANCE WHERE TURNING MOVEMENTS MAY COMPROMISE SAFETY OF WORKERS OR WORK ZONE.
- NO MORE THAN ONE LANE CLOSURE AT A TIME ALONG TELEPHONE RD. ANY TWO COINCIDENT LANE CLOSURES HAVE TO OCCUR OVERNIGHT WITH PRIOR APPROVAL BY CITY TRAFFIC ENGINEER.
- PROHIBIT ON-STREET PARKING DURING CONSTRUCTION. TEMPORARY "NO PARKING" SIGNS (R8-3aT) SHALL BE INSTALLED ALONG THE CURB LANE NEAR WORK ZONES SO AS TO PREVENT ROAD USER PARKING DURING WORKING OR NON-WORKING HOURS.
- LANE CLOSURE SHALL NEVER FULLY CLOSE OFF A SIDE STREET. AT INTERSECTIONS, LANE CLOSURE SHALL BE CARRIED OUT IN PARTIAL SECTIONS SO AS TO MAINTAIN AT LEAST ONE LANE OF ACCESS ENTERING OR EXITING A SIDE STREET.
- WHEN LANE WIDTH ADJACENT TO WORK ZONES IS LESS THAN 10 FEET WIDE, SELF-RIGHTING VERTICAL PANELS, TUBULAR MARKERS, OR LONGITUDINAL BARRIERS MAY BE CONSIDERED FOR TRAFFIC CONTROL WITH PRIOR APPROVAL BY CITY TRAFFIC ENGINEER.
- MAINTAIN ACCESS TO PRIVATE DRIVEWAYS AND BUS STOPS AT ANY GIVEN TIME FOR VEHICULAR AND PEDESTRIAN TRAFFIC. INFORM PROPERTY/BUSINESS OWNERS OF ACCESS RESTRICTIONS AT LEAST ONE WEEK IN ADVANCE (SEE HPW DETAIL 01555-01, NOTE 18).
- SIDEWALK WORK ZONES SHALL BE LIMITED TO SMALL AREAS TO HELP MAINTAIN ACCESS TO PRIVATE PROPERTIES AND MINIMIZE ANY EFFECTS OF PEDESTRIAN DETOURS.
- PEDESTRIAN DETOUR PLANS AS HIGHLIGHTED IN HPW DETAIL 01555-16 SHALL BE IN PLACE DURING ANY SIDEWALK OR PEDESTRIAN RAMP REPAIR.
- MINIMIZE DETOUR DISTANCES AS MUCH AS POSSIBLE.
- CONCRETE BARRIERS SHALL BE USED AROUND ANY OPEN-PIT WORK ZONES.

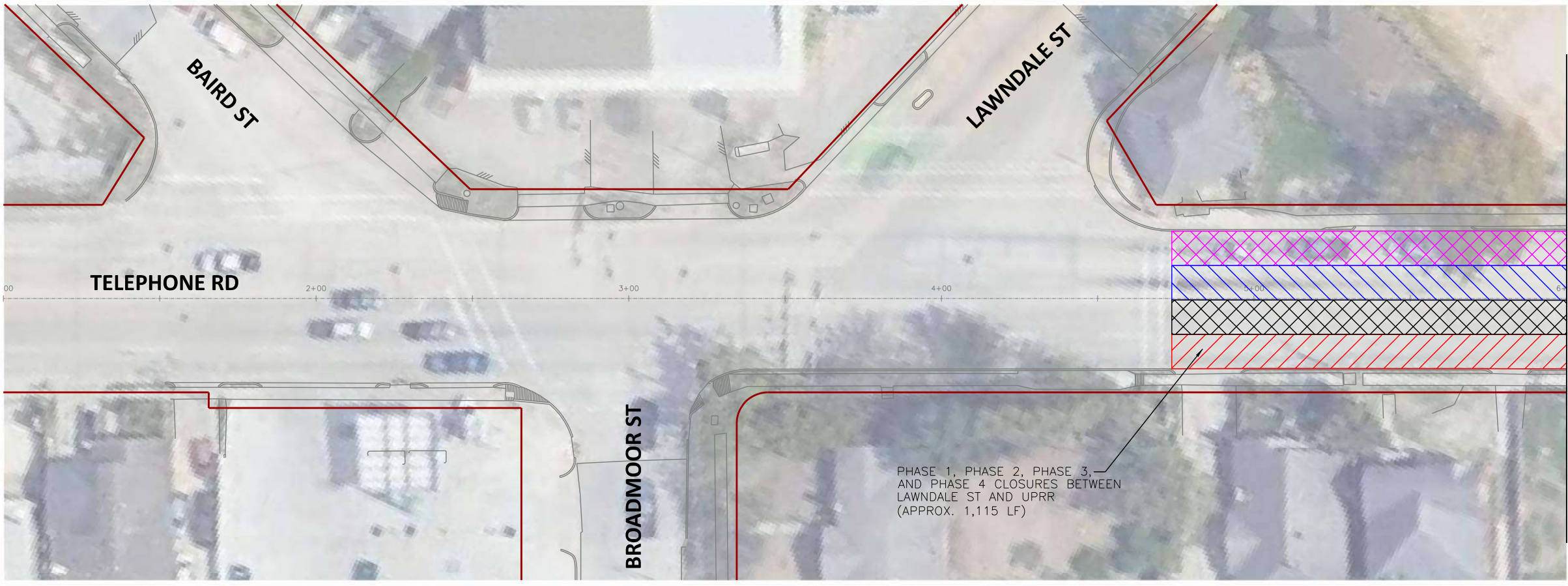
PRIVATE DRIVEWAY ACCESS

- A. AS PER CITY OF HOUSTON TCP GENERAL NOTE 18, ALL PRIVATE BUSINESSES ALONG PROJECT LIMITS SHALL HAVE ADEQUATE ACCESS TO THEIR PROPERTIES AT ALL TIMES DURING CONSTRUCTION.
- B. IF A WORK ZONE WILL COMPLETELY BLOCK OFF A DRIVEWAY, THEN THE WORK ZONE MUST BE DIVIDED INTO PARTIAL SECTIONS SO AS TO AVOID BLOCKING OFF THE ENTIRE DRIVEWAY ACCESS TO THE PROPERTY.
- C. AT LEAST ONE LANE OF TRAFFIC MUST BE MAINTAINED ACROSS A DRIVEWAY FOR ANY PROPERTY.
- D. AS PER TCP GENERAL NOTES 18 AND 21, ADDITIONAL CONES, DELINEATORS OR FLAGGERS MAY BE USED AS NEEDED TO DELINEATE A DRIVEWAY ACCESS ROUTE.
- E. PRIVATE PROPERTIES WITH MORE THAN ONE DRIVEWAY ENTRANCE ARE NOT EXEMPT FROM THE ABOVE ITEMS SO AS TO MAXIMIZE ACCESS TO PROPERTIES.
- F. ANY EXCEPTIONS TO THE ABOVE ITEMS MUST OBTAIN PRIOR WRITTEN APPROVAL FROM THE CITY OF HOUSTON TRAFFIC ENGINEER.

 <small>Transcend Engineers & Planners, LLC TPEE Reg. No. F-19299 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77044</small>	
DESIGN ENGINEER: RAJ BASAVARAJU, PE 23410 GRAND RESERVE DR HOUSTON, TX 77494 PHONE: (832) 492-4499 TX FIRM NUMBER: 19299	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
SURVEYED BY: KUO FIRM REG NO. 10075600	
CITY OF HOUSTON HOUSTON PUBLIC WORKS	
TELEPHONE ROAD MAIN STREET REVITALIZATION PROJECT	
SUBPROJECT 1: LAWNDALE TO IH 45 TCP OVERVIEW	
WBS NUMBER N-100042-0001-3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 34	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

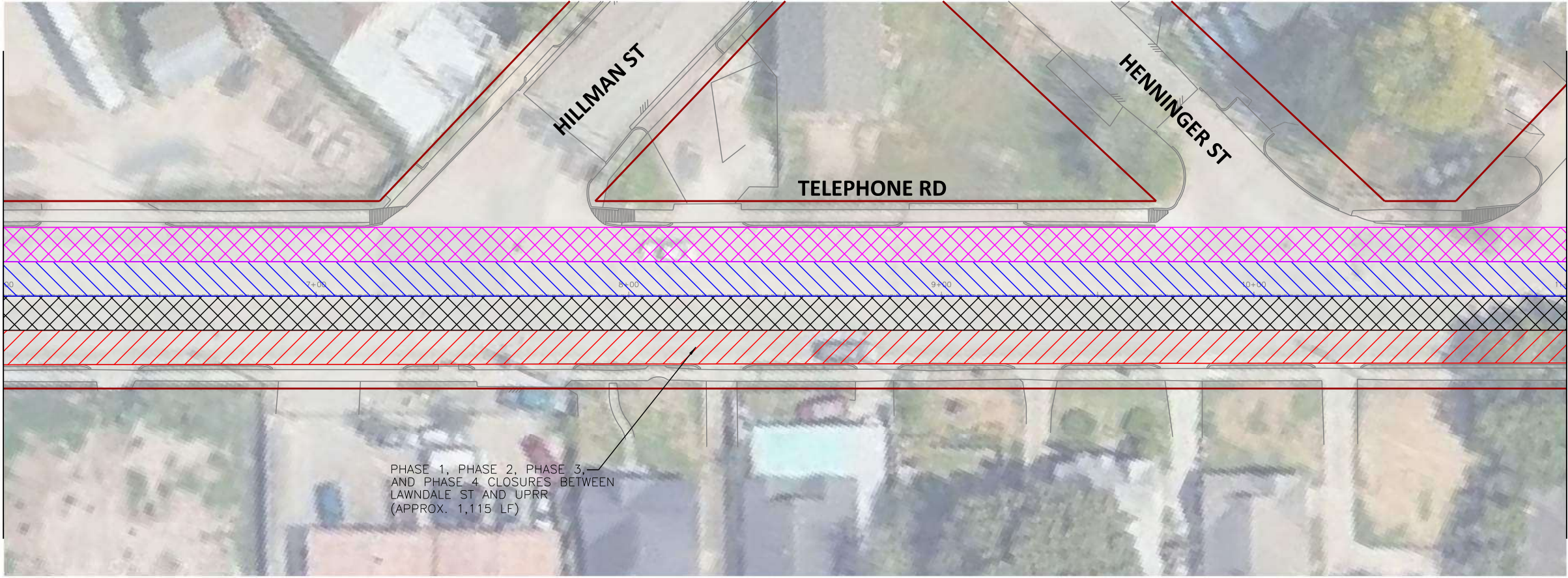


MATCHLINE STA 6+00

- PHASE 1 WORK ZONE
- PHASE 2 WORK ZONE
- PHASE 3 WORK ZONE
- PHASE 4 WORK ZONE

PHASE 1, PHASE 2, PHASE 3,
AND PHASE 4 CLOSURES BETWEEN
LAWDALE ST AND UPRR
(APPROX. 1,115 LF)

- NOTES:
1. CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS. SEE TYPICAL PRIVATE DRIVEWAY CLOSURE.
 2. MAINTAIN MINIMUM 10-FT WIDE LANES.
 3. INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 4. PHASE 5 NOT SHOWN AS IT IS MOBILE OPERATION.



MATCHLINE STA 6+00

MATCHLINE STA 11+00

PHASE 1, PHASE 2, PHASE 3,
AND PHASE 4 CLOSURES BETWEEN
LAWDALE ST AND UPRR
(APPROX. 1,115 LF)

TRANSCEND
engineers + planners

<p>DESIGN ENGINEER: RAJ BASAVARAJU, PE 23410 GRAND RESERVE DR HOUSTON, TX 77494 PHONE: (832) 492-4499 TX FIRM NUMBER: 19299</p>	<p>THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.</p> <p>RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026</p>
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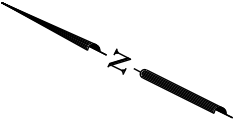
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

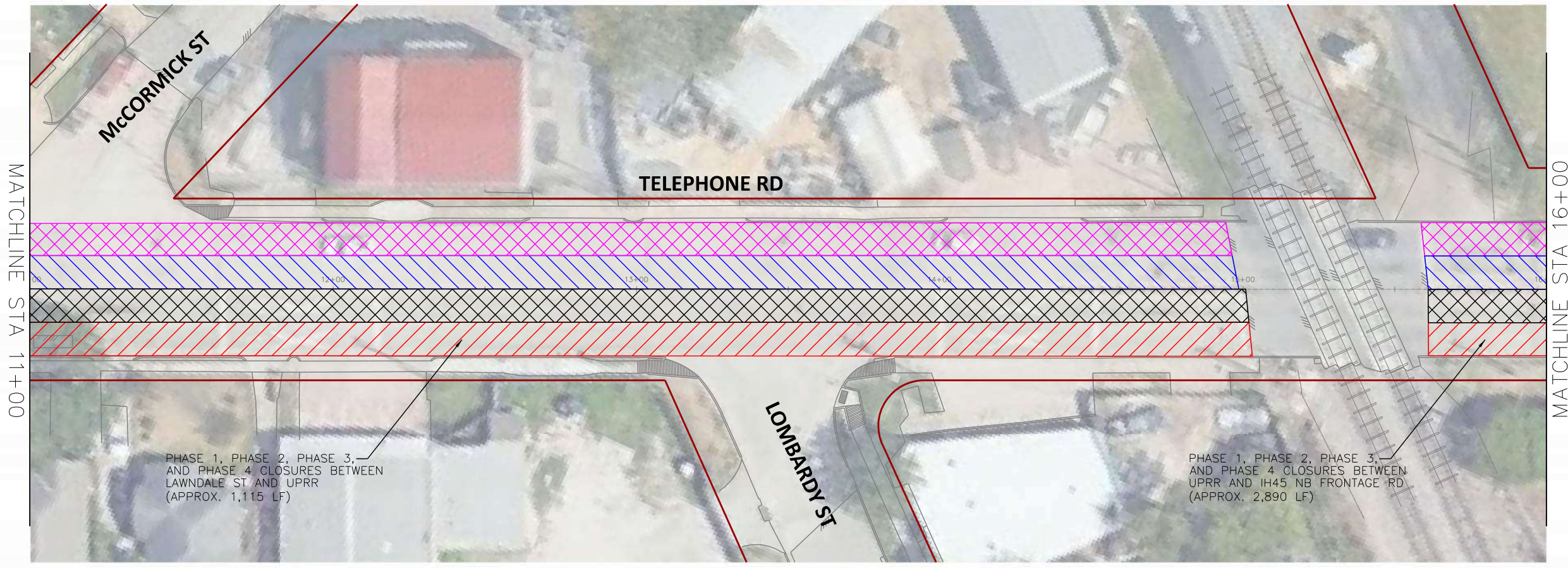
SUBPROJECT 1:
LAWDALE TO IH 45
OVERALL TCP LAYOUT

SHEET 1 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 35	







SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

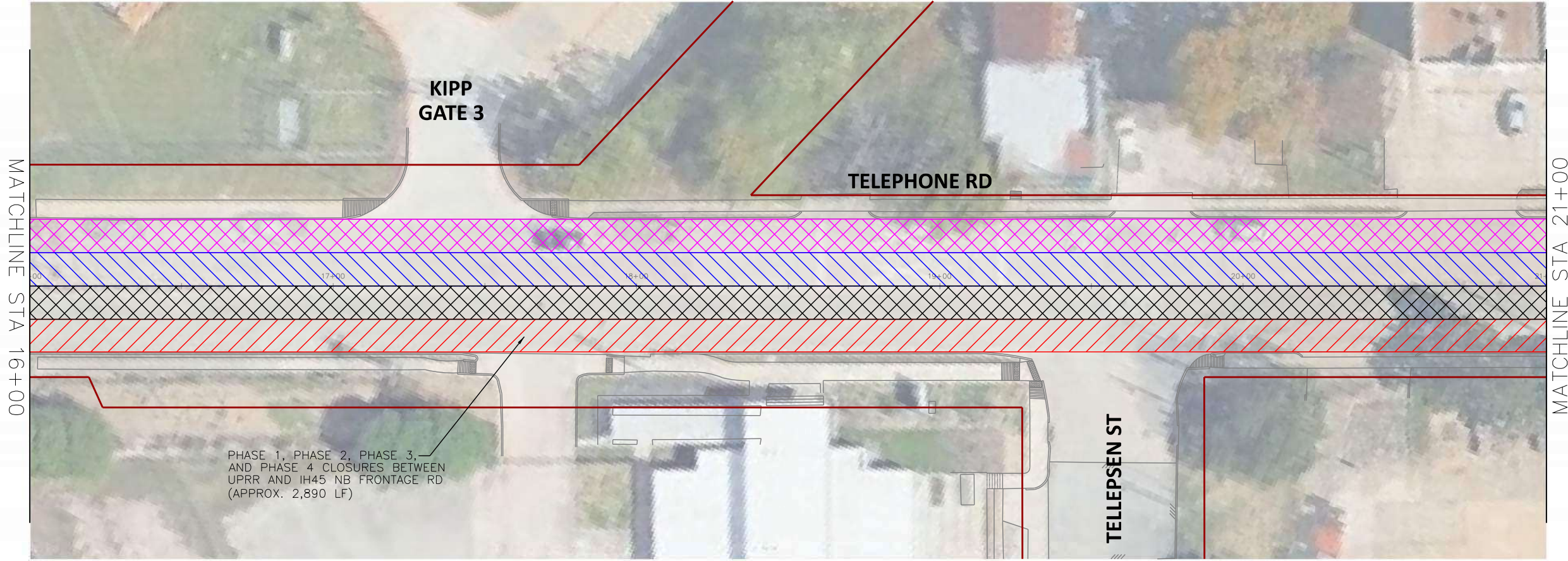


MATCHLINE STA 11+00

MATCHLINE STA 16+00

-  PHASE 1 WORK ZONE
-  PHASE 2 WORK ZONE
-  PHASE 3 WORK ZONE
-  PHASE 4 WORK ZONE

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS. SEE TYPICAL PRIVATE DRIVEWAY CLOSURE.
 - MAINTAIN MINIMUM 10-FT WIDE LANES.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 - PHASE 5 NOT SHOWN AS IT IS MOBILE OPERATION.



MATCHLINE STA 16+00

MATCHLINE STA 21+00

TRANSCEND
engineers + planners

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HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299
SURVEYED BY: KUO
FIRM REG NO. 10075600

Transcend Engineers & Planners, LLC
TP&E Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77494

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

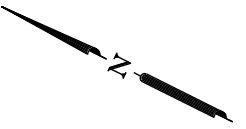
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

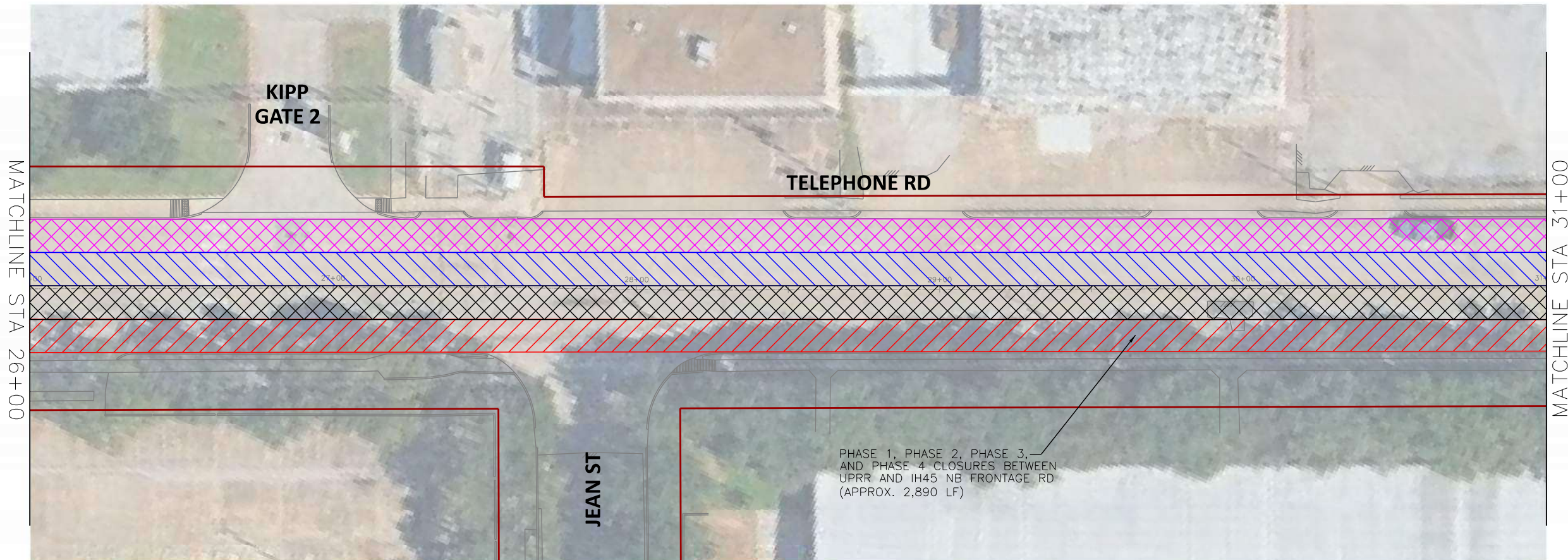
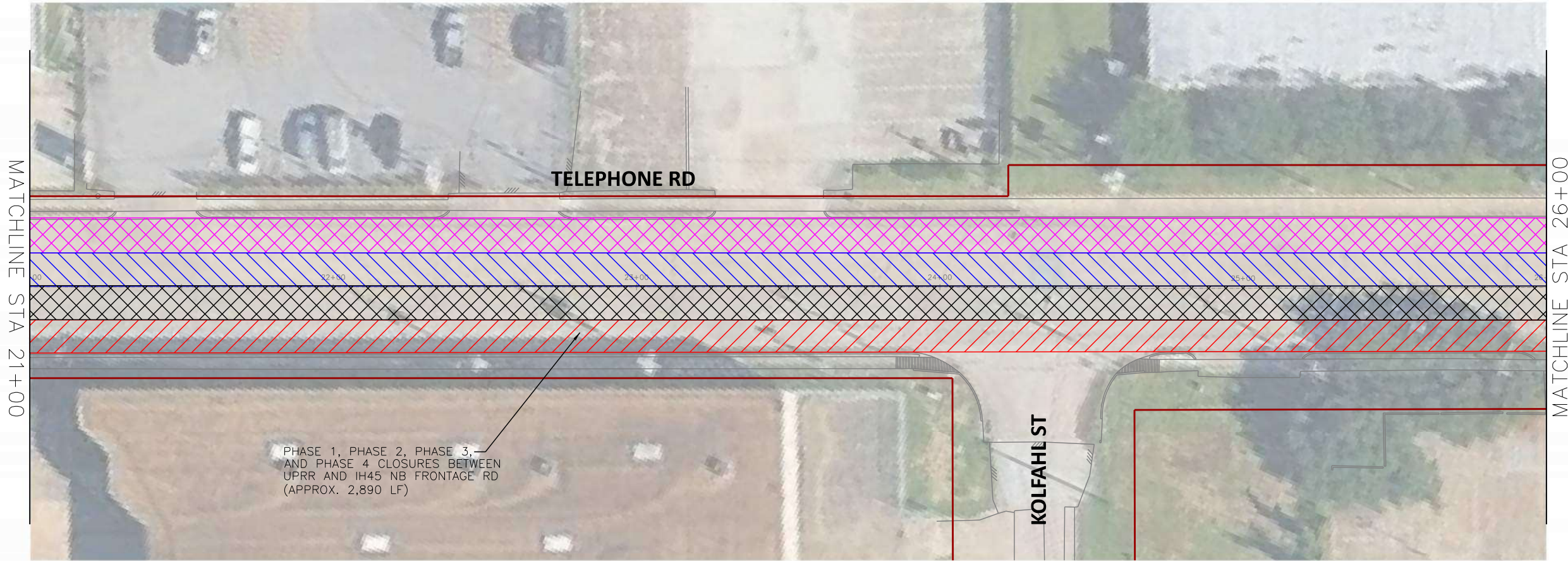
SUBPROJECT 1:
LAWNDALE TO IH 45
OVERALL TCP LAYOUT





SHEET 2 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 36	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



-  PHASE 1 WORK ZONE
-  PHASE 2 WORK ZONE
-  PHASE 3 WORK ZONE
-  PHASE 4 WORK ZONE

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS. SEE TYPICAL PRIVATE DRIVEWAY CLOSURE.
 - MAINTAIN MINIMUM 10-FT WIDE LANES.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 - PHASE 5 NOT SHOWN AS IT IS MOBILE OPERATION.

TRANSCEND Transcend Engineers & Planners, LLC
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DESIGN ENGINEER:
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TX FIRM NUMBER: 19299
SURVEYED BY: KUO
FIRM REG NO. 10075600

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TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

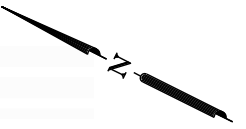
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

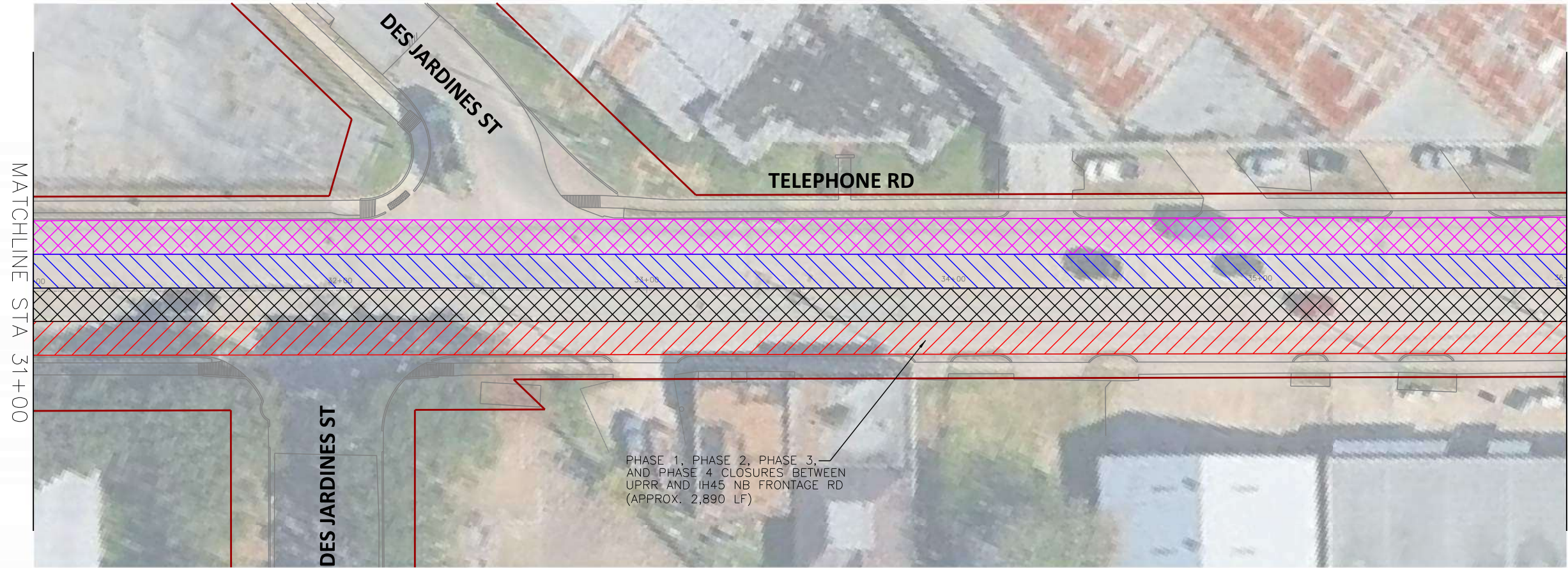
SUBPROJECT 1:
LAWNDALE TO IH 45
OVERALL TCP LAYOUT

SHEET 3 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 37	







SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

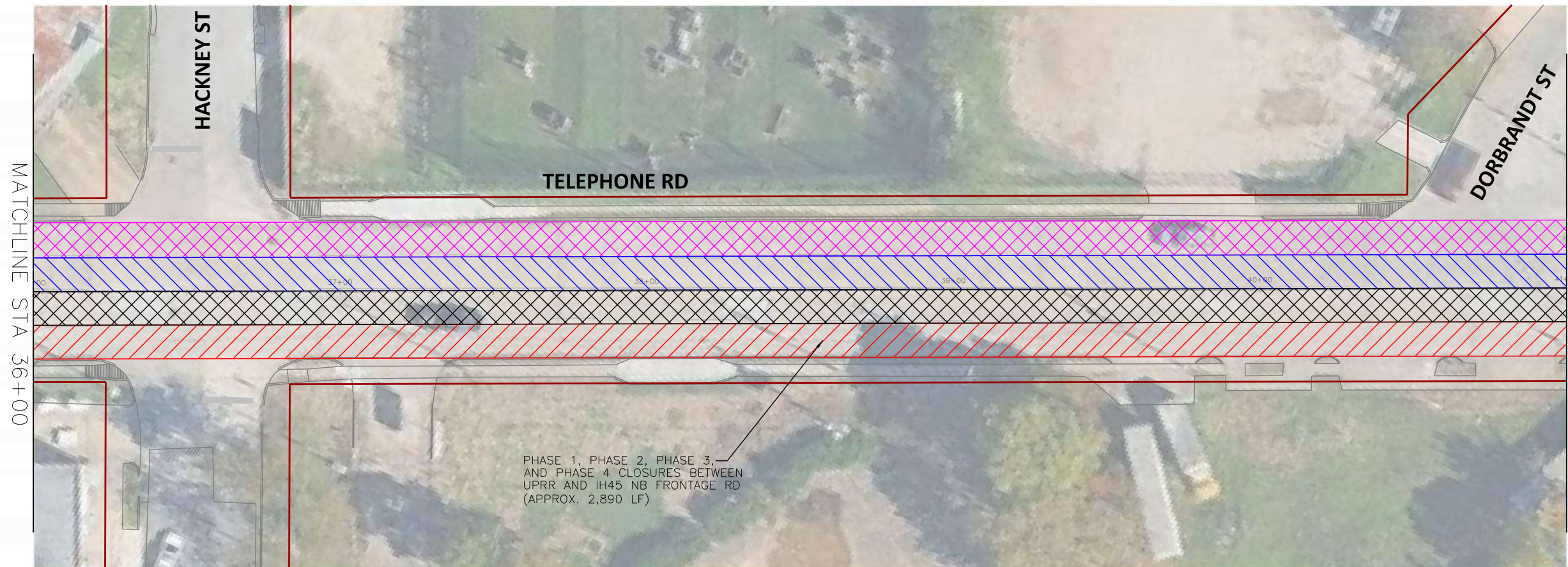


MATCHLINE STA 31+00

MATCHLINE STA 36+00

-  PHASE 1 WORK ZONE
-  PHASE 2 WORK ZONE
-  PHASE 3 WORK ZONE
-  PHASE 4 WORK ZONE

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS. SEE TYPICAL PRIVATE DRIVEWAY CLOSURE.
 - MAINTAIN MINIMUM 10-FT WIDE LANES.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 - PHASE 5 NOT SHOWN AS IT IS MOBILE OPERATION.



MATCHLINE STA 36+00

MATCHLINE STA 41+00

TRANSCEND Transcend Engineers & Planners, LLC
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HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

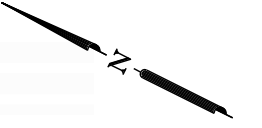
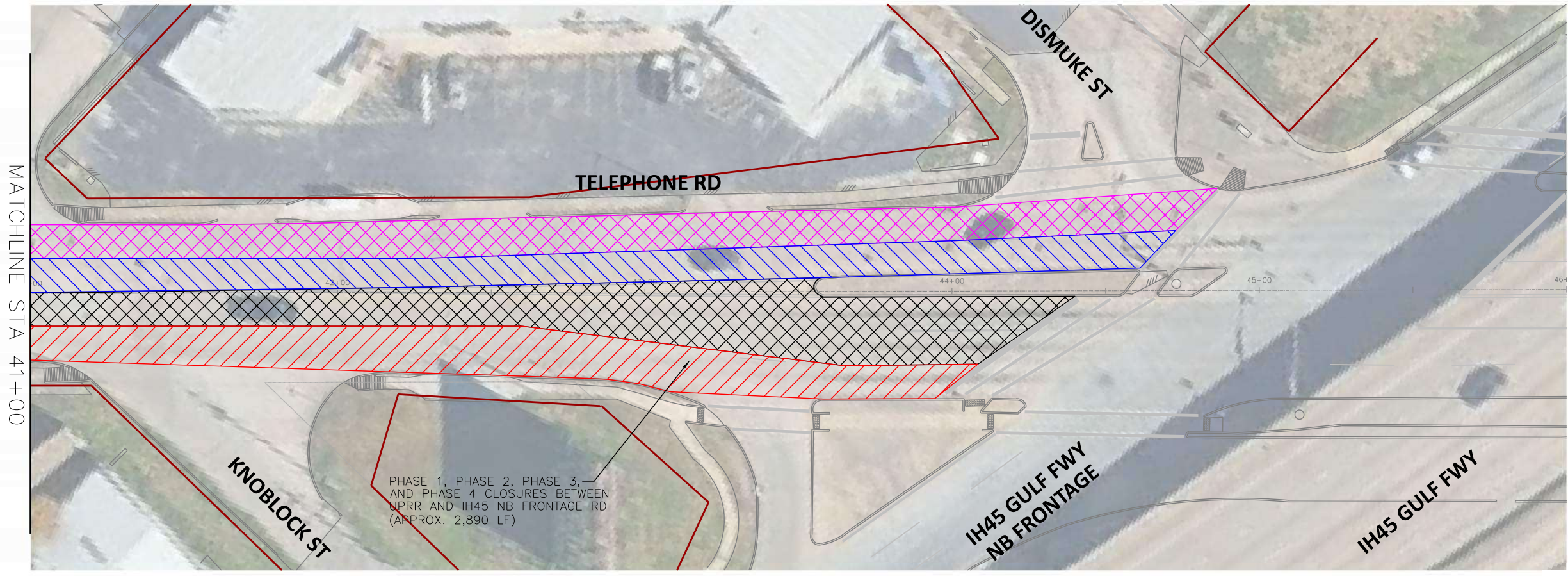
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45





OVERALL TCP LAYOUT

SHEET 4 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 38	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'

-  PHASE 1 WORK ZONE
-  PHASE 2 WORK ZONE
-  PHASE 3 WORK ZONE
-  PHASE 4 WORK ZONE

- NOTES:
1. CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS. SEE TYPICAL PRIVATE DRIVEWAY CLOSURE.
 2. MAINTAIN MINIMUM 10-FT WIDE LANES.
 3. INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 4. PHASE 5 NOT SHOWN AS IT IS MOBILE OPERATION.

TRANSCEND Transcend Engineers & Planners, LLC
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
OVERALL TCP LAYOUT

SHEET 5 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 39	

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 - WHERE TEMPORARY LANES WOULD BE LESS THAN 10' WIDE, NARROW TUBULAR MARKERS OR SELF-RIGHTING VERTICAL PANELS MAY BE USED IN PLACE OF DRUMS.

TRANSCEND Transcend Engineers & Planners, LLC
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engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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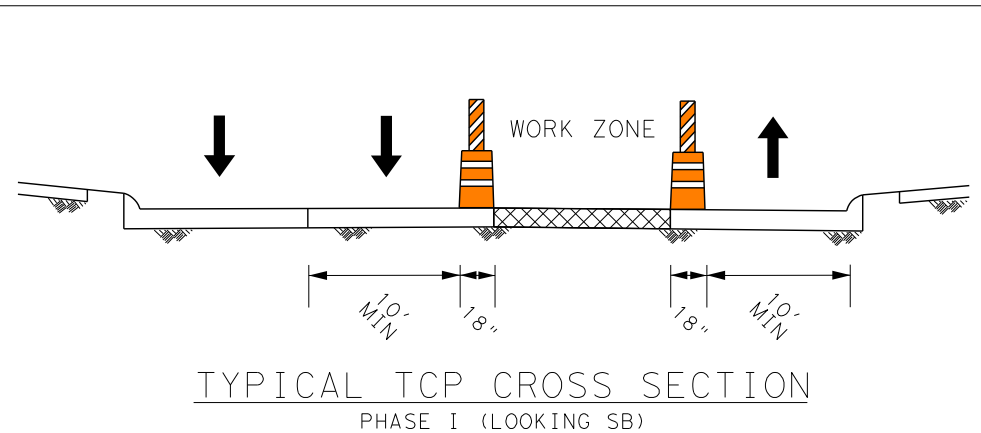
RESPONSIBLE ENGINEER:
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

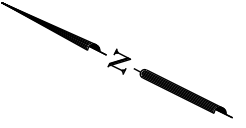
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE I

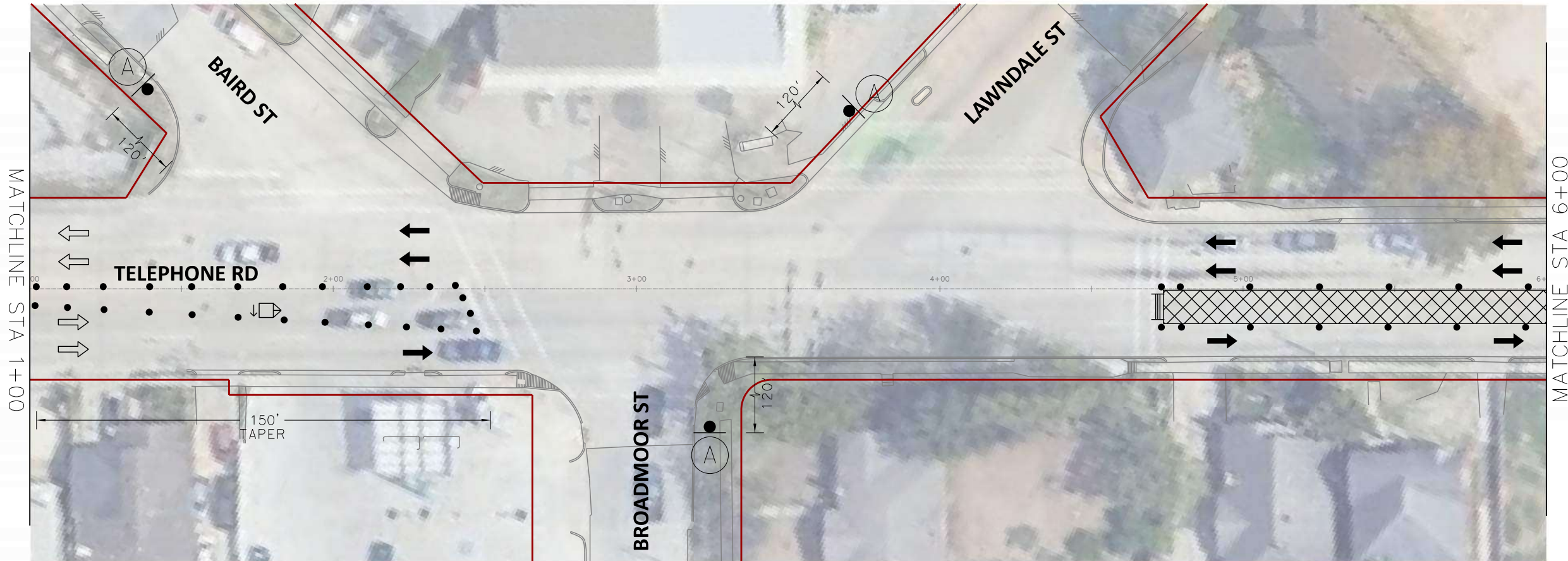
SHEET 1 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 40	

2/11/2026
TSR_SF1_TCP_Phase 1 Layout Sheet 1.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 - WHERE TEMPORARY LANES WOULD BE LESS THAN 10' WIDE, NARROW TUBULAR MARKERS OR SELF-RIGHTING VERTICAL PANELS MAY BE USED IN PLACE OF DRUMS.

TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

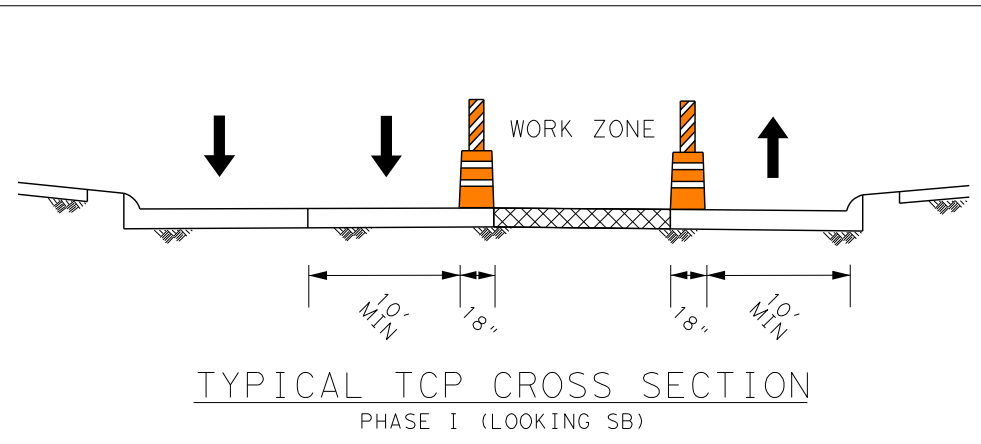
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

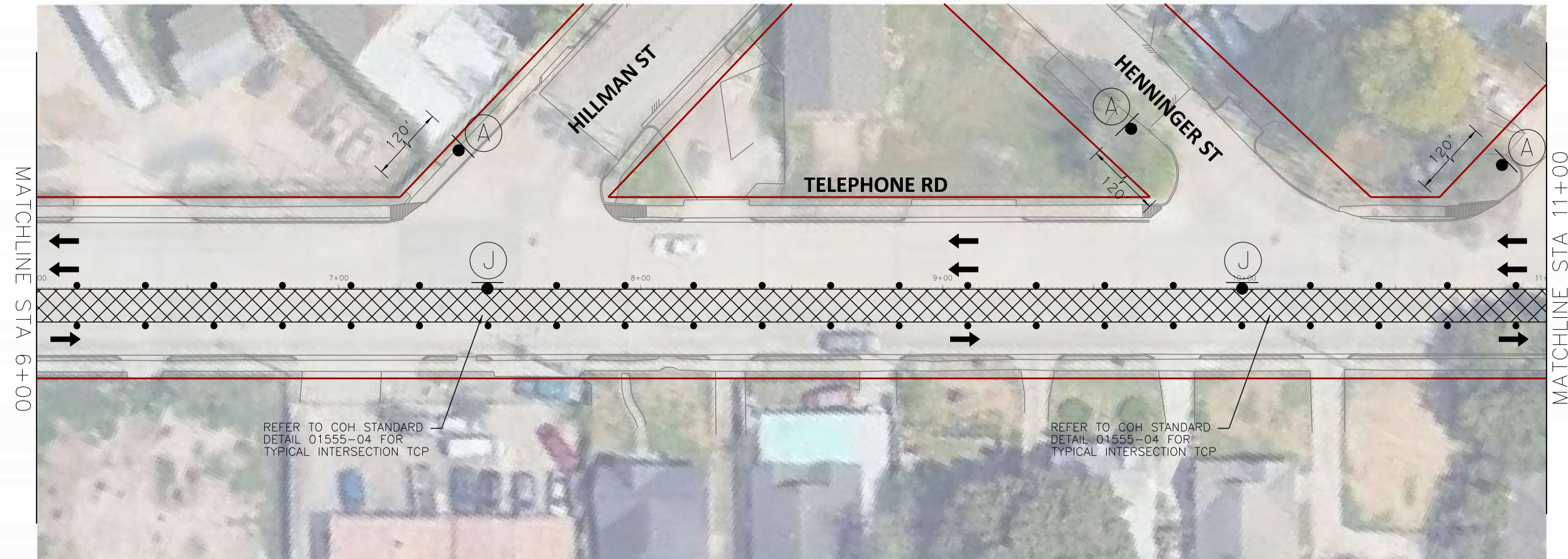
SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE I

SHEET 2 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 41	

2/11/2026
TSR_SF1_TCP_Phase 1 Layout Sheet 2.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



REFER TO COH STANDARD
DETAIL 01555-04 FOR
TYPICAL INTERSECTION TCP

REFER TO COH STANDARD
DETAIL 01555-04 FOR
TYPICAL INTERSECTION TCP

- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE.
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engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

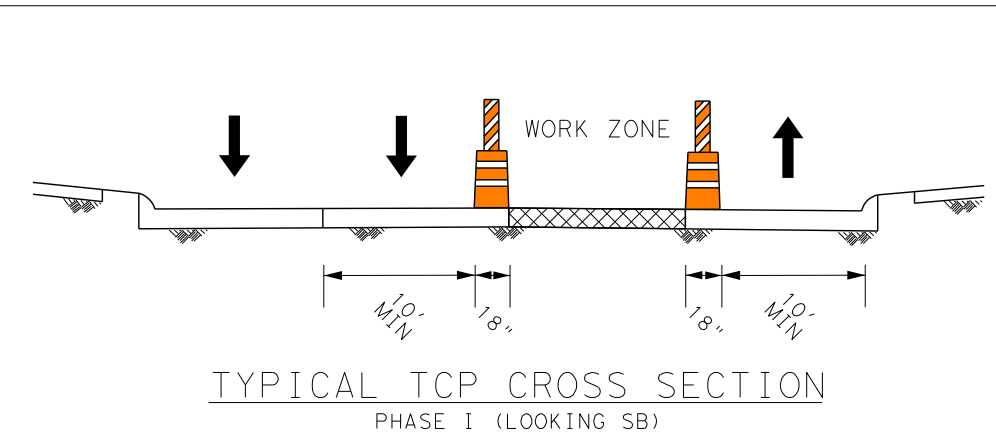
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RESPONSIBLE ENGINEER:
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

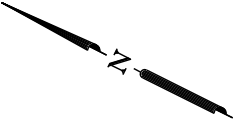
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 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



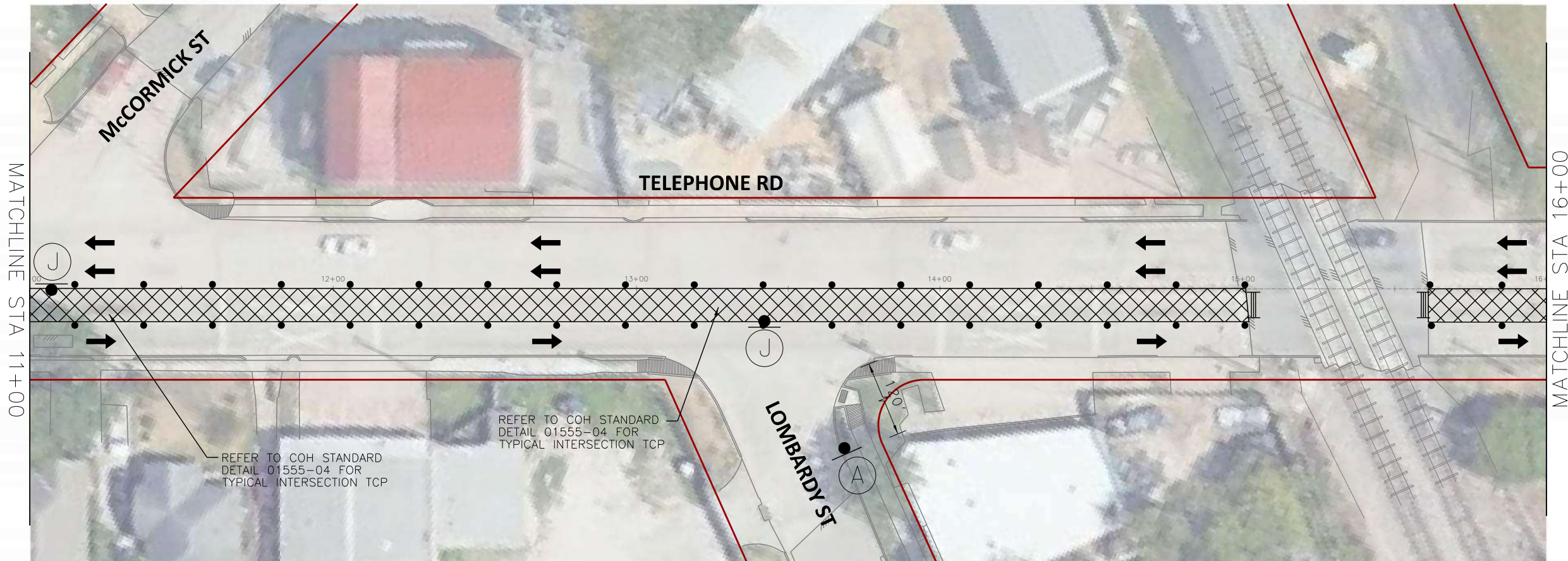
CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE I

WBS NUMBER N-100042-0001-3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE AS NOTED	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 42	

2/11/2026
TSR_SF1_TCP_Phase 1_Layout_Sheet_3.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
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DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

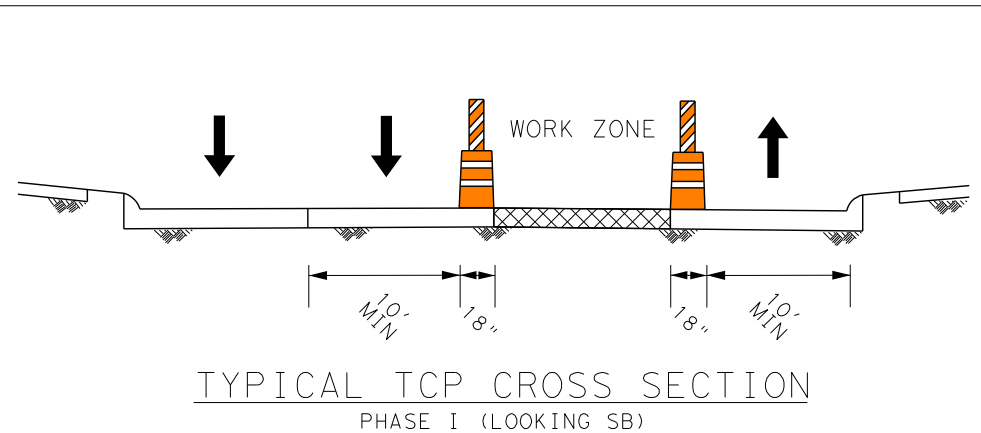
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

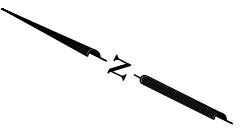
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE I

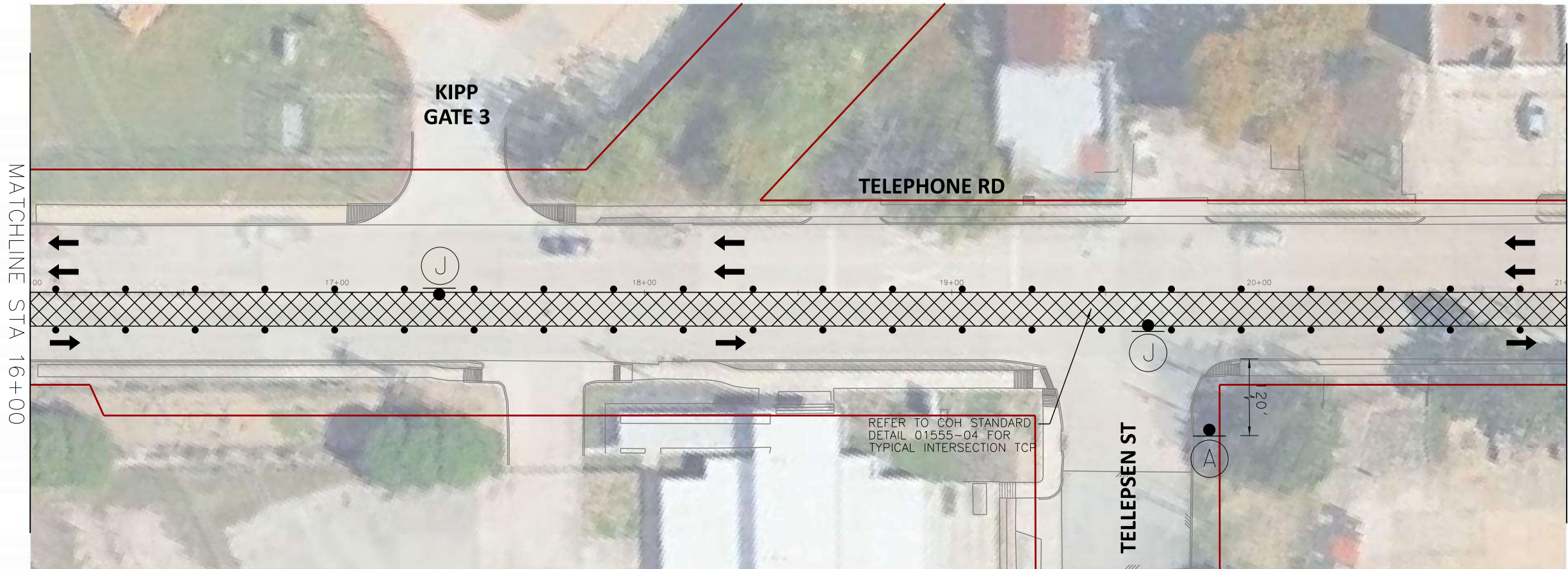
SHEET 4 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 43	

2/11/2026
TSR_SF1_TCP_Phase 1_Layout_Sheet_4.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
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23410 Grand Reserve Dr, Suite 101
Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

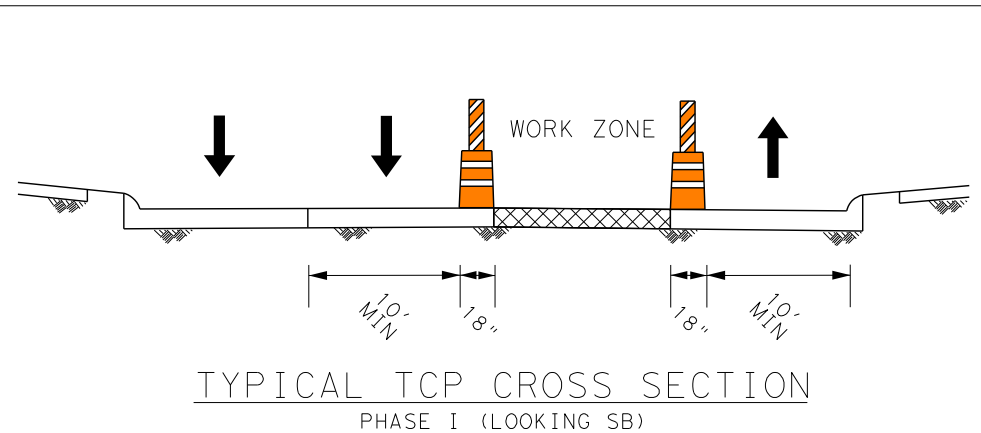
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

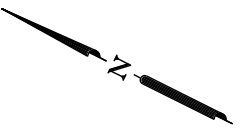
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE I

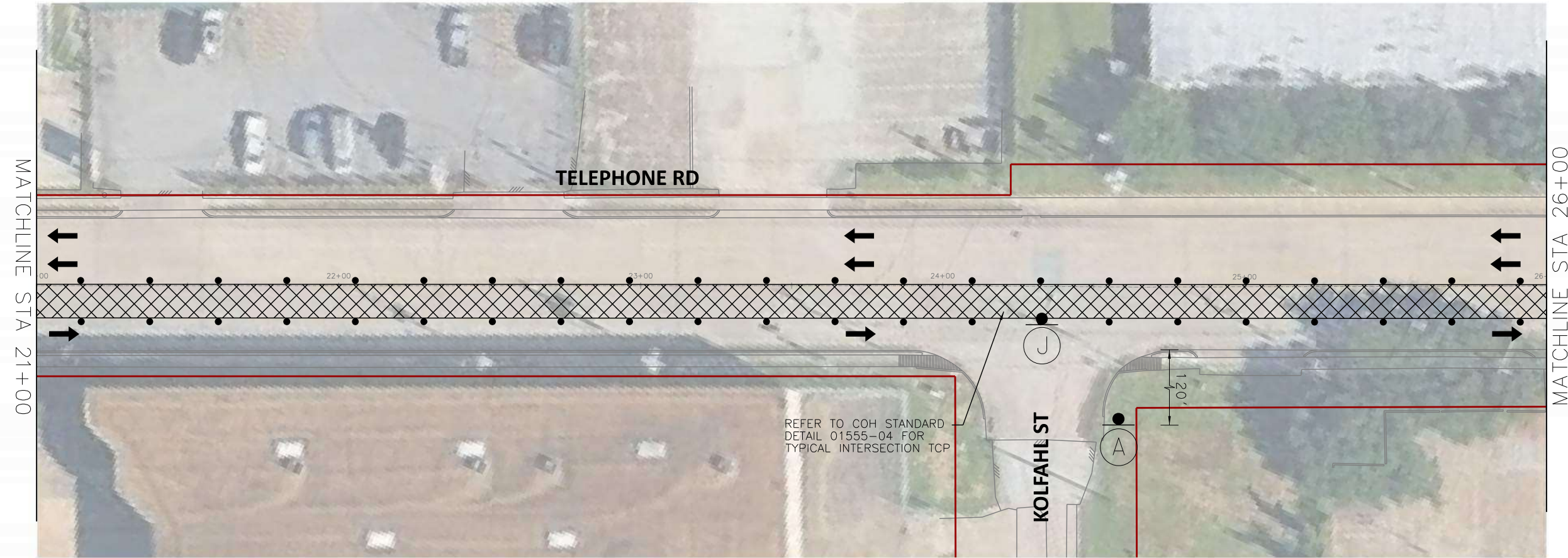
SHEET 5 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 44	

2/11/2026
TSR_SF1_TCP_Phase 1_Layout_Sheet_5.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



REFER TO COH STANDARD
DETAIL 01555-04 FOR
TYPICAL INTERSECTION TCP

- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

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engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494

PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

SURVEYED BY: KUO
FIRM REG NO. 10075600

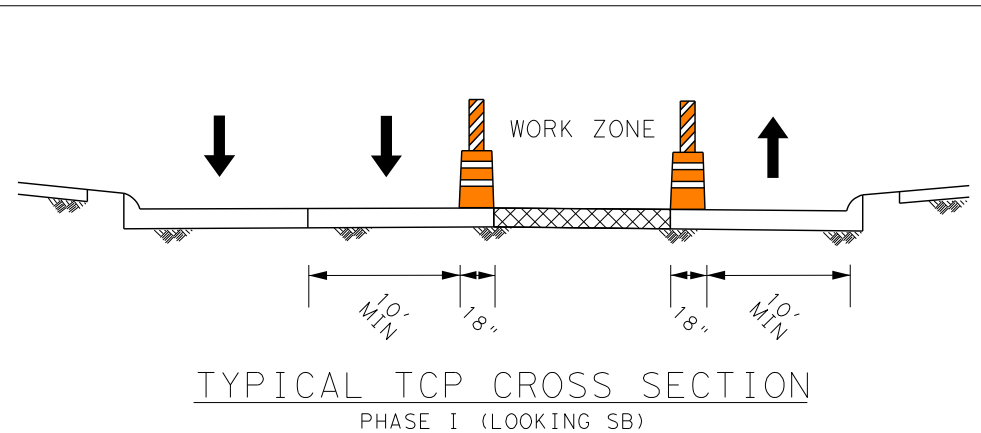
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

(A) CW20-1D 48" X 48"	(B) CW20-3D 48" X 48"	(C) CW20-5R 48" X 48"	(D) CW20-5L 48" X 48"	(E) CW4-2R 48" X 48"	(F) CW4-2L 48" X 48"
(G) CW20-8 36" X 36"	(H) CW9-3T 48" X 48"	(I) G20-2 48" X 24"	(J) R3-2 24" X 24"	(K) R3-1 24" X 24"	(L) R11-2 48" X 30"



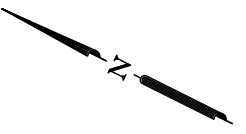
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

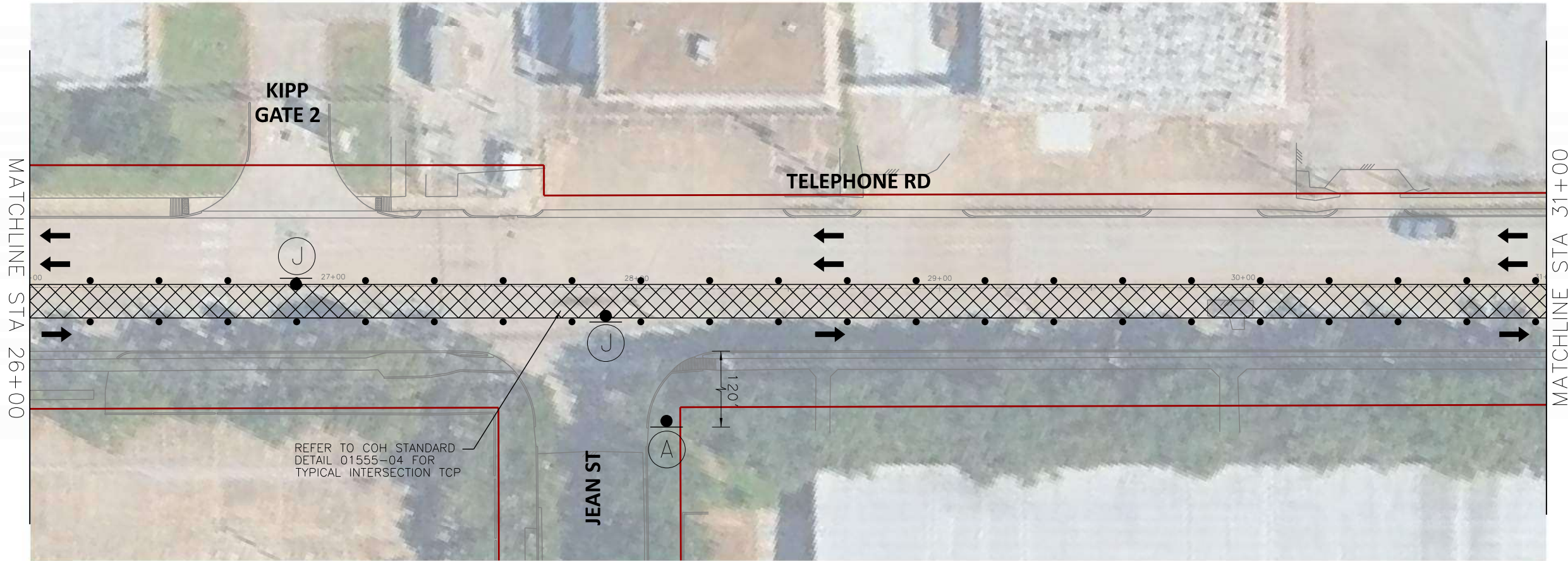
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE I

SHEET 6 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 45	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



REFER TO COH STANDARD
DETAIL 01555-04 FOR
TYPICAL INTERSECTION TCP

- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

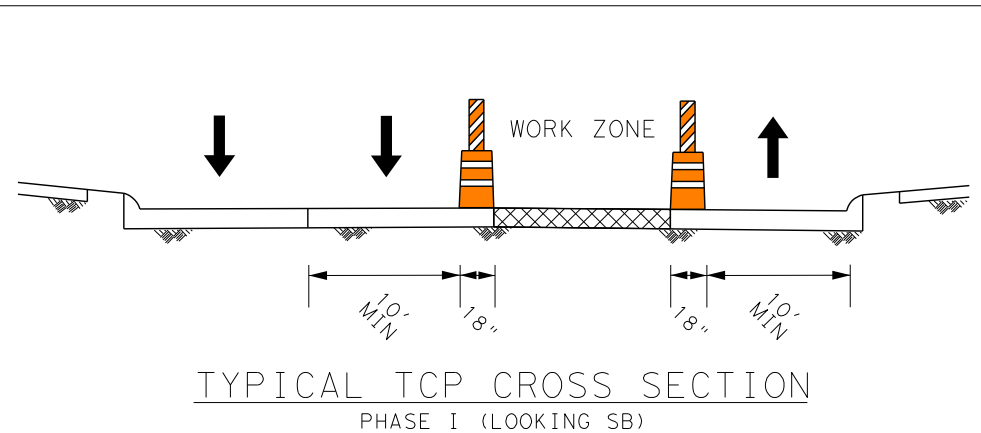
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

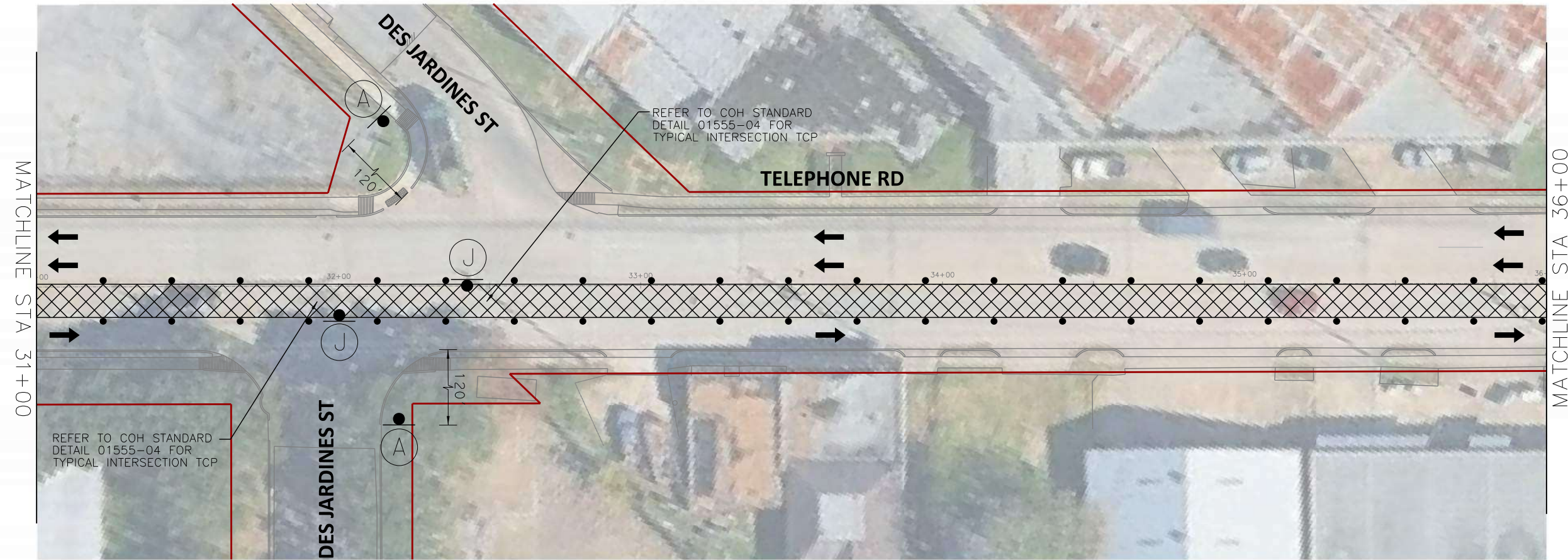
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE I

SHEET 7 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 46	

2/11/2026
TSR_SF1_TCP_Phase 1_Layout_Sheet_7.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

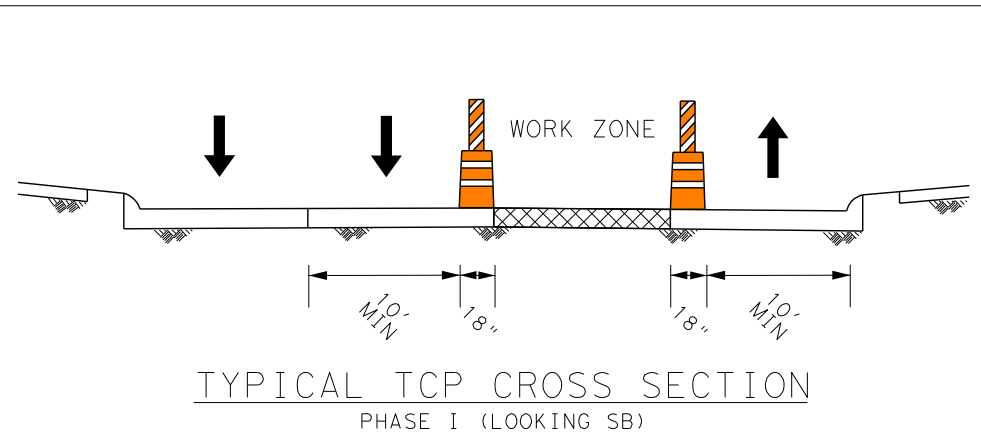
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

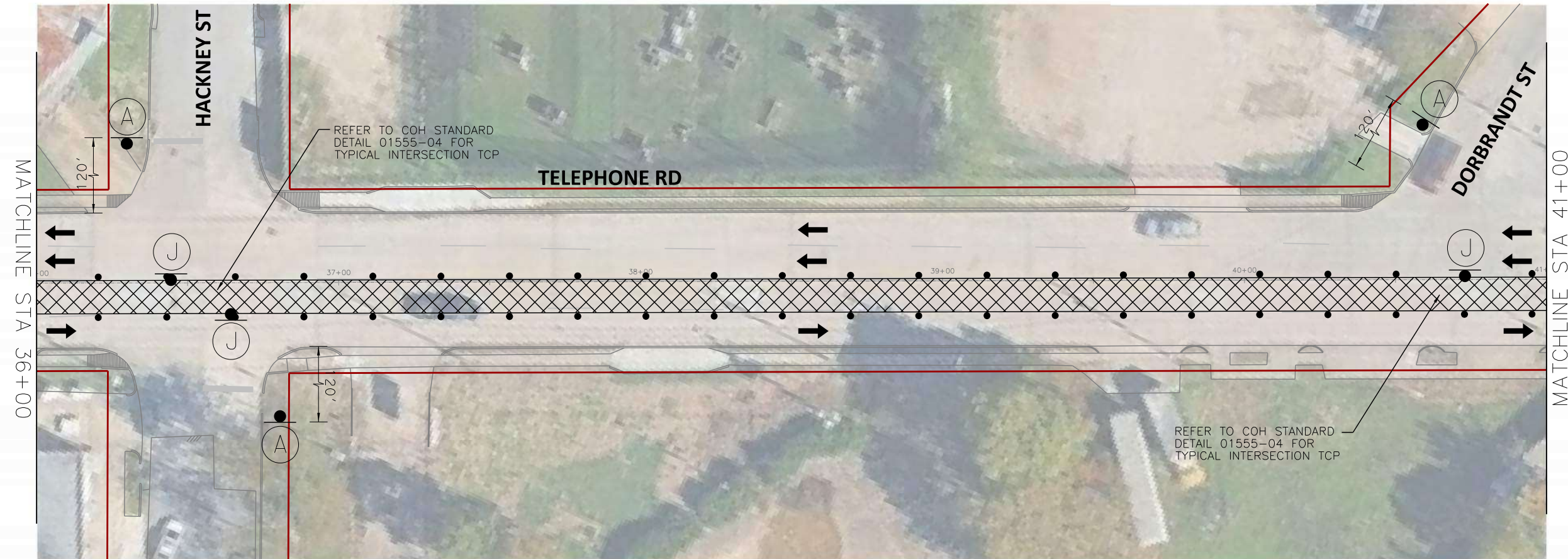
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE I

SHEET 8 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 47	

2/11/2026
TSR_SF1_TCP_Phase 1_Layout_Sheet_8.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
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DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

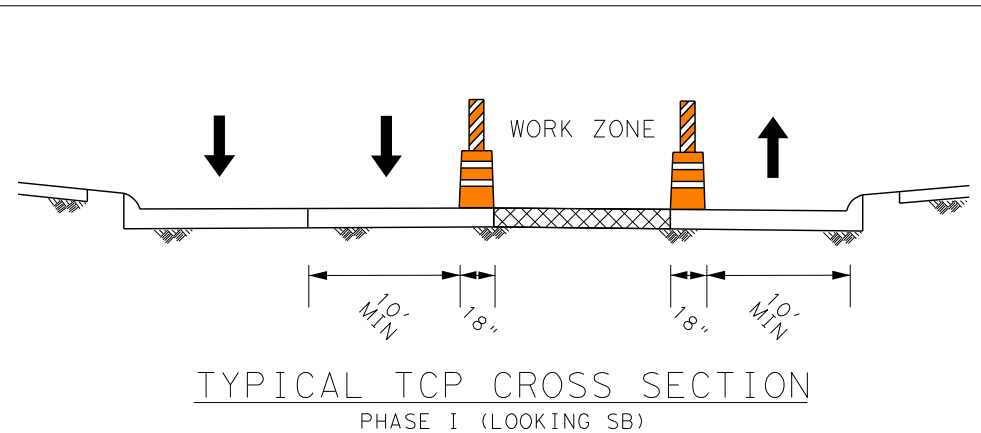
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

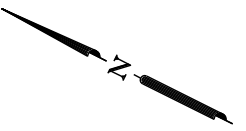
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE I

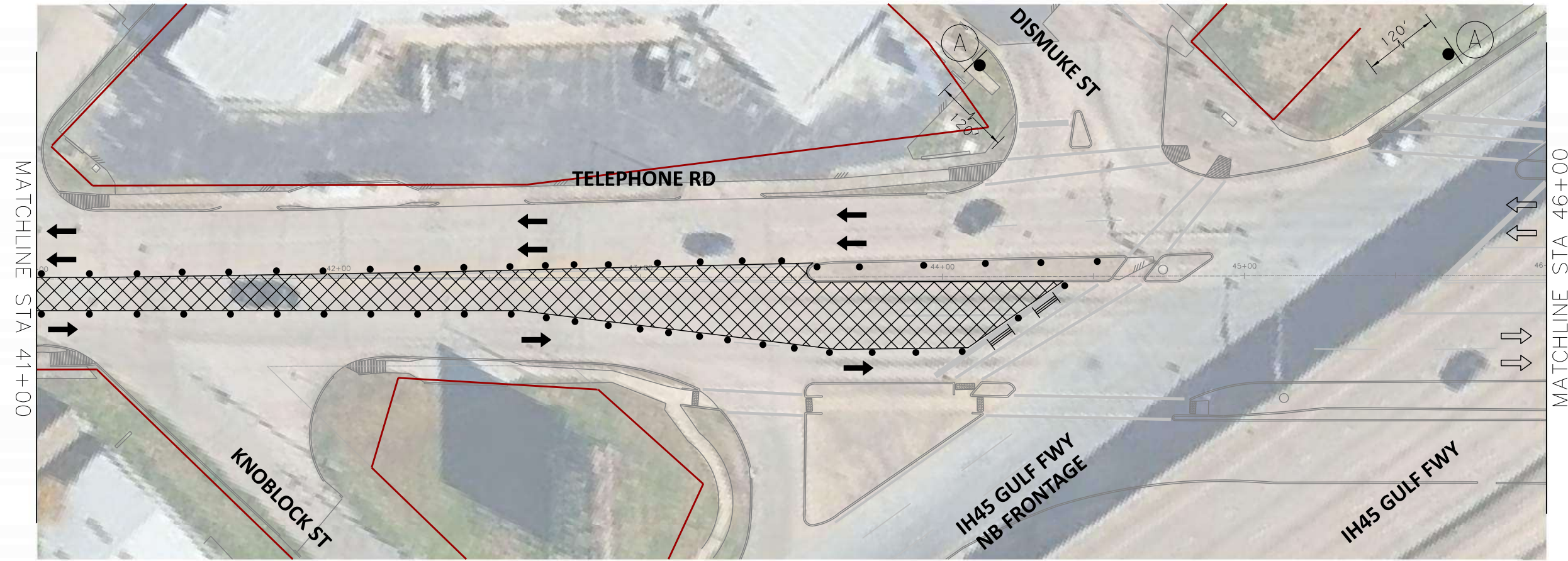
SHEET 9 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 48	

2/11/2026
TSR_SF1_TCP_Phase 1_Layout_Sheet_9.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
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 - WHERE TEMPORARY LANES WOULD BE LESS THAN 10' WIDE, NARROW TUBULAR MARKERS OR SELF-RIGHTING VERTICAL PANELS MAY BE USED IN PLACE OF DRUMS.

TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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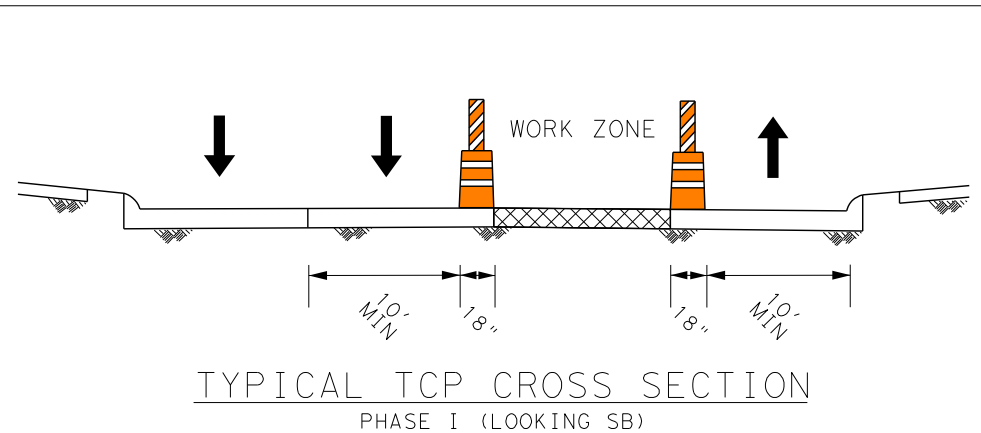
RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

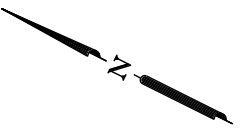
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 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 49	

2/11/2026
TSR_SF1_TCP_Phase 1_Layout_Sheet_10.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
1. CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 2. MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE.
 3. INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 4. WHERE TEMPORARY LANES WOULD BE LESS THAN 10' WIDE, NARROW TUBULAR MARKERS OR SELF-RIGHTING VERTICAL PANELS MAY BE USED IN PLACE OF DRUMS.

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DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494

PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

SURVEYED BY: KUO
FIRM REG NO. 10075600

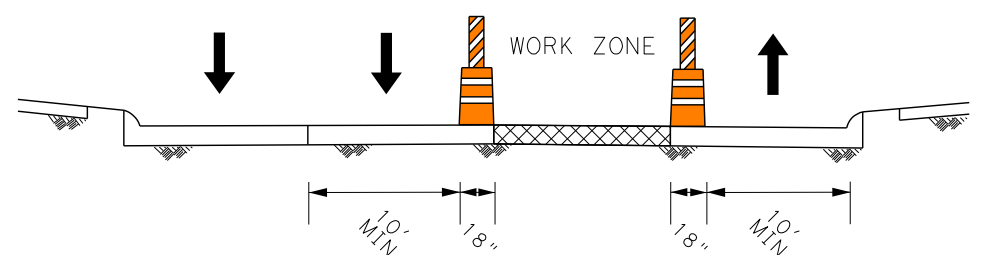
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



TYPICAL TCP CROSS SECTION
PHASE I (LOOKING SB)

CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE I

SHEET 11 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 50	

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE I WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

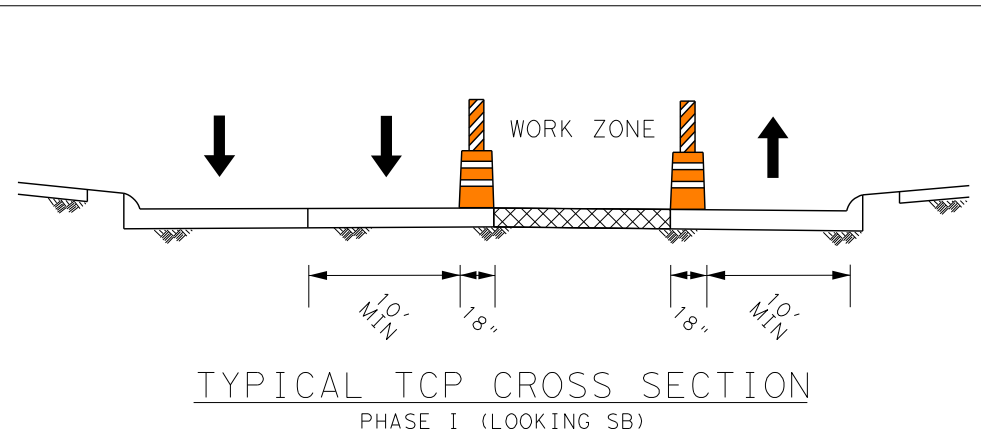
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE I








SHEET 12 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 51	

2/11/2026
TSR_SF1_TCP_Phase 1_Layout_Sheet_12.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



-  PHASE II WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
-  EXISTING TRAVEL WAY
-  TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299









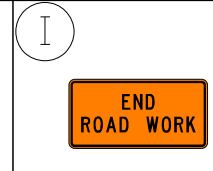
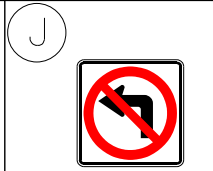
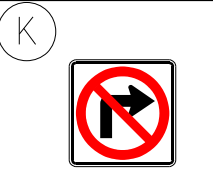

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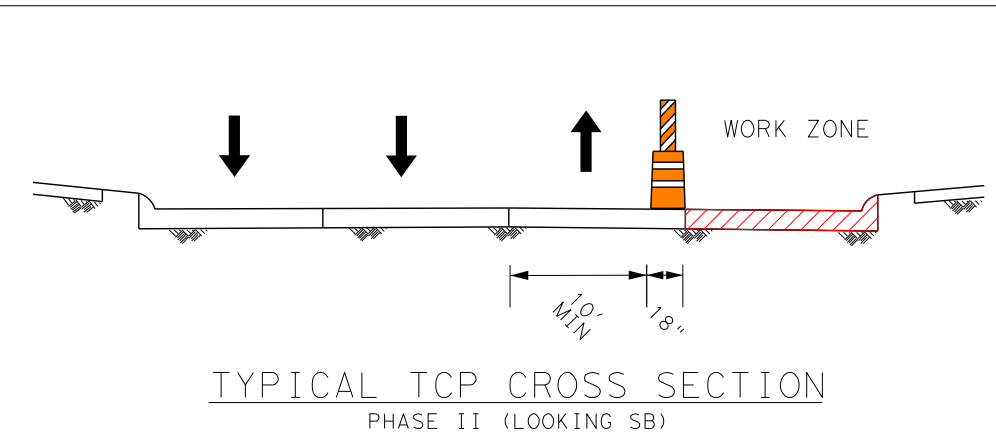
RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

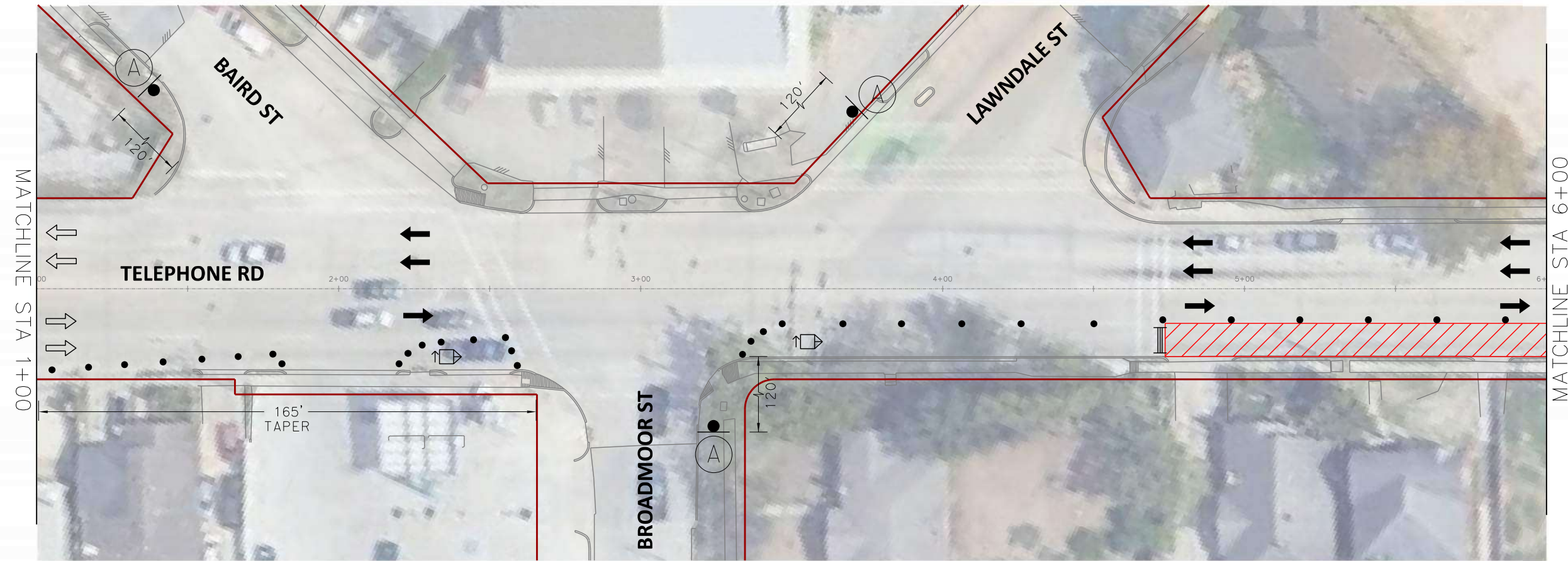
SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE II

SHEET 1 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 52	

2/11/2026
TSR_SF1_TCP_Phase 2_Layout_Sheet_1.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE II WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
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engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

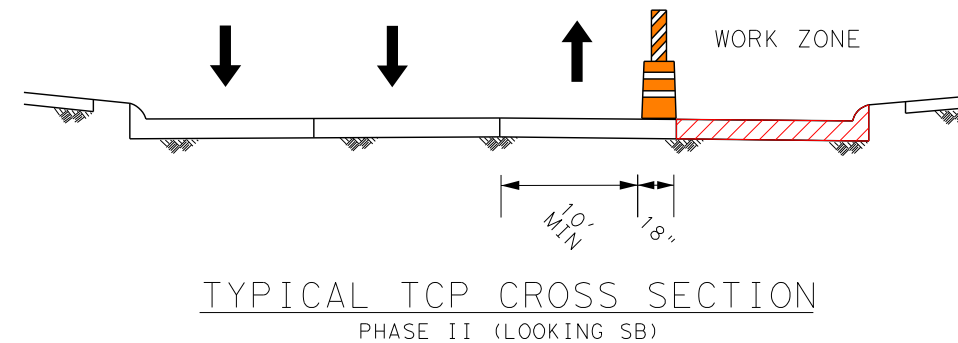
SUBPROJECT 1:
LAWNDALE TO IH 45

TCP LAYOUTS
PHASE II

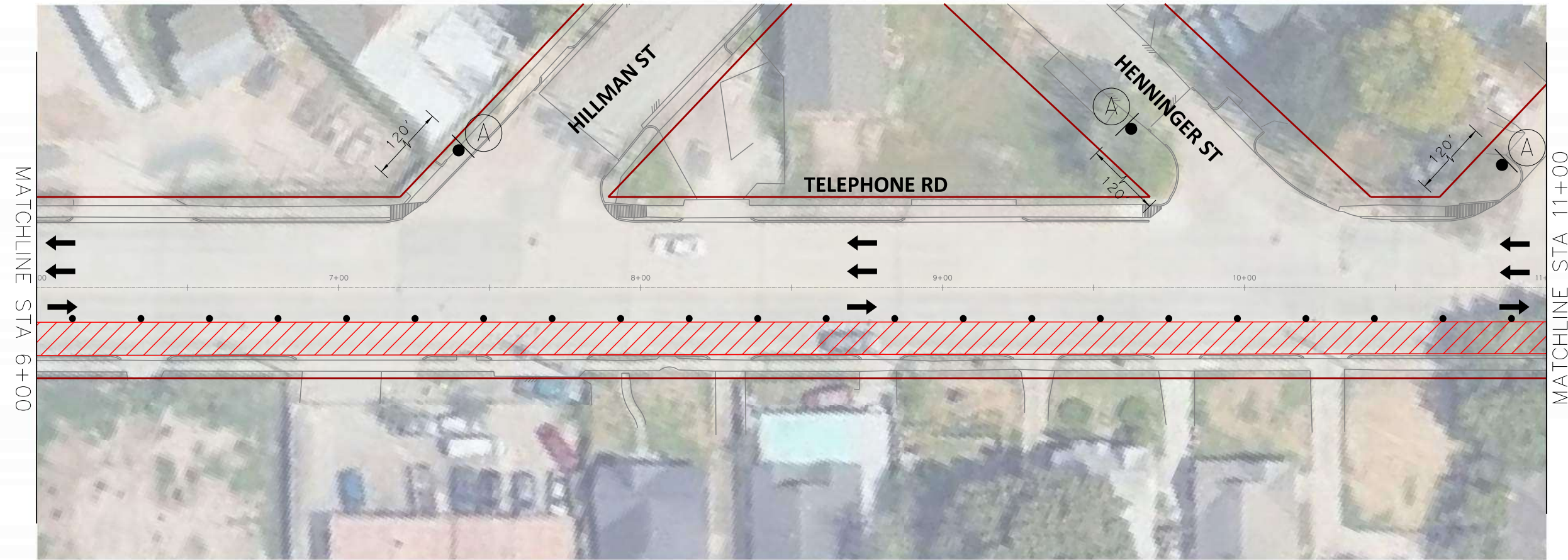
SHEET 2 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 53	

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE II WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
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engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

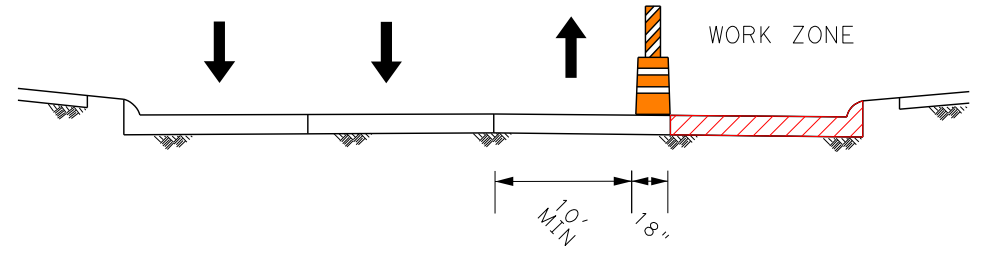
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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TYPICAL TCP CROSS SECTION
PHASE II (LOOKING SB)

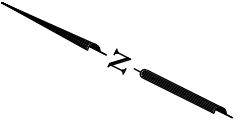
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

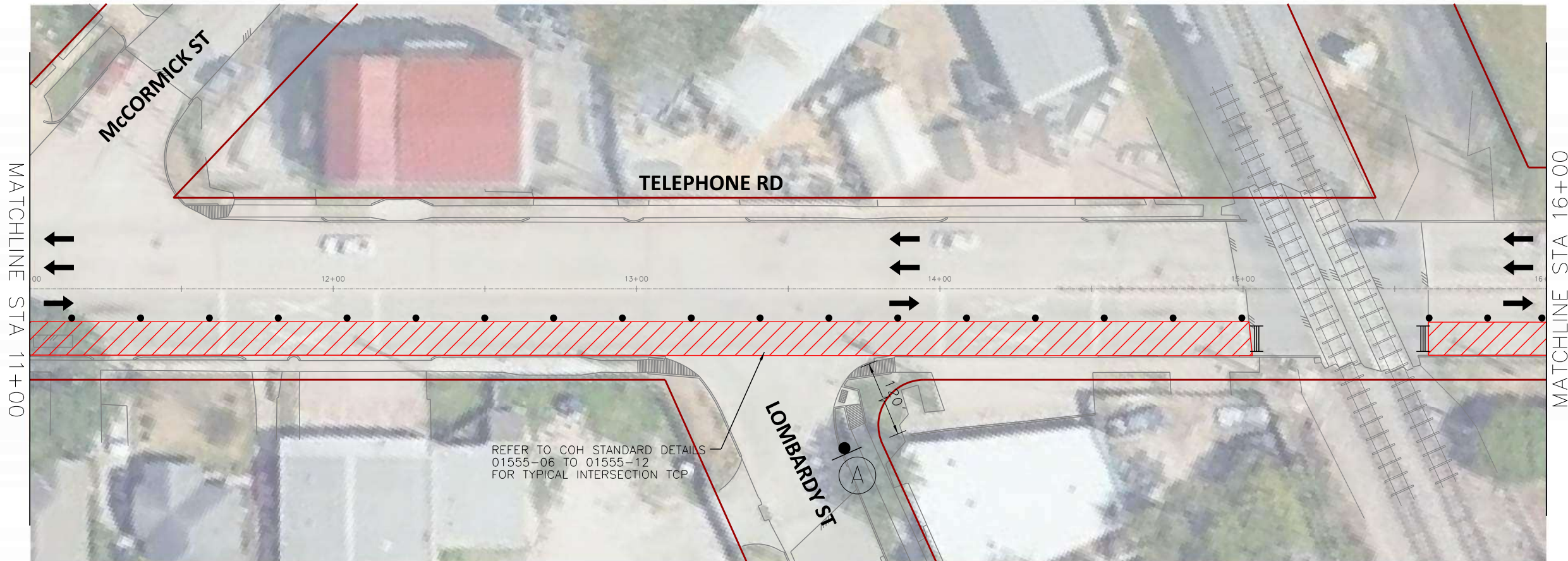
SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE II

SHEET 3 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 54	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE II WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
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DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

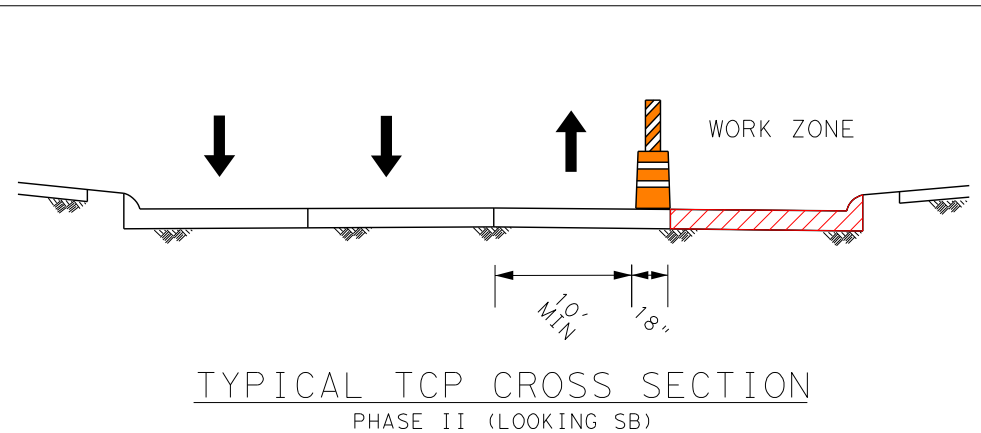
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

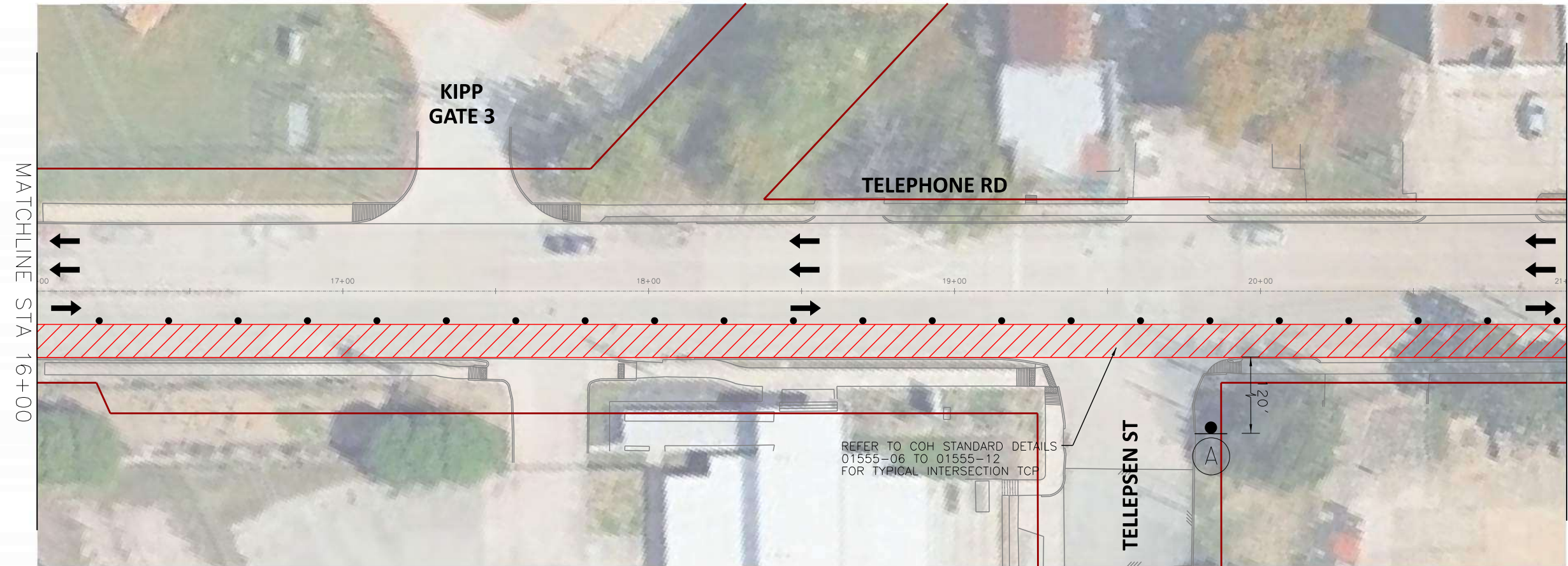
SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE II

WBS NUMBER: N-100042-0001-3
DRAWING SCALE: AS NOTED
CITY OF HOUSTON PM: ANNA CLIFTON, P.E.
SHEET NO. 55

FOR CITY OF HOUSTON USE ONLY

2/11/2026
TSR_SF1_TCP_Phase 2 Layout Sheet 4.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE II WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

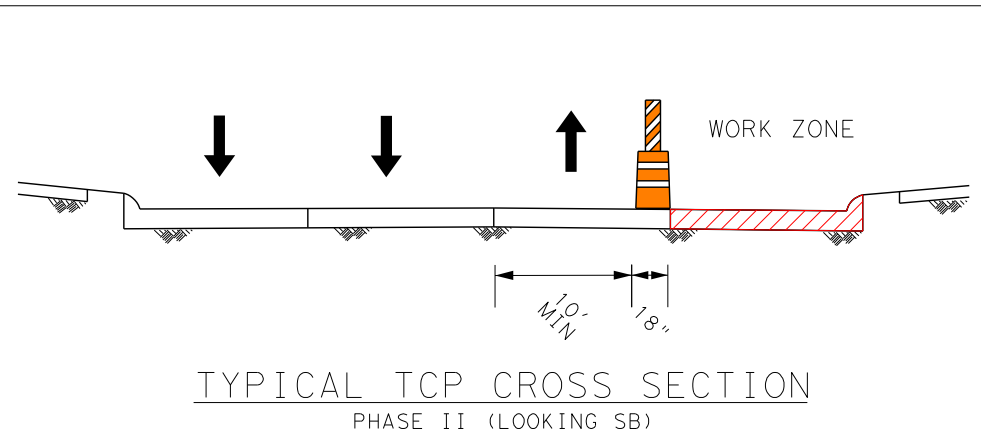
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

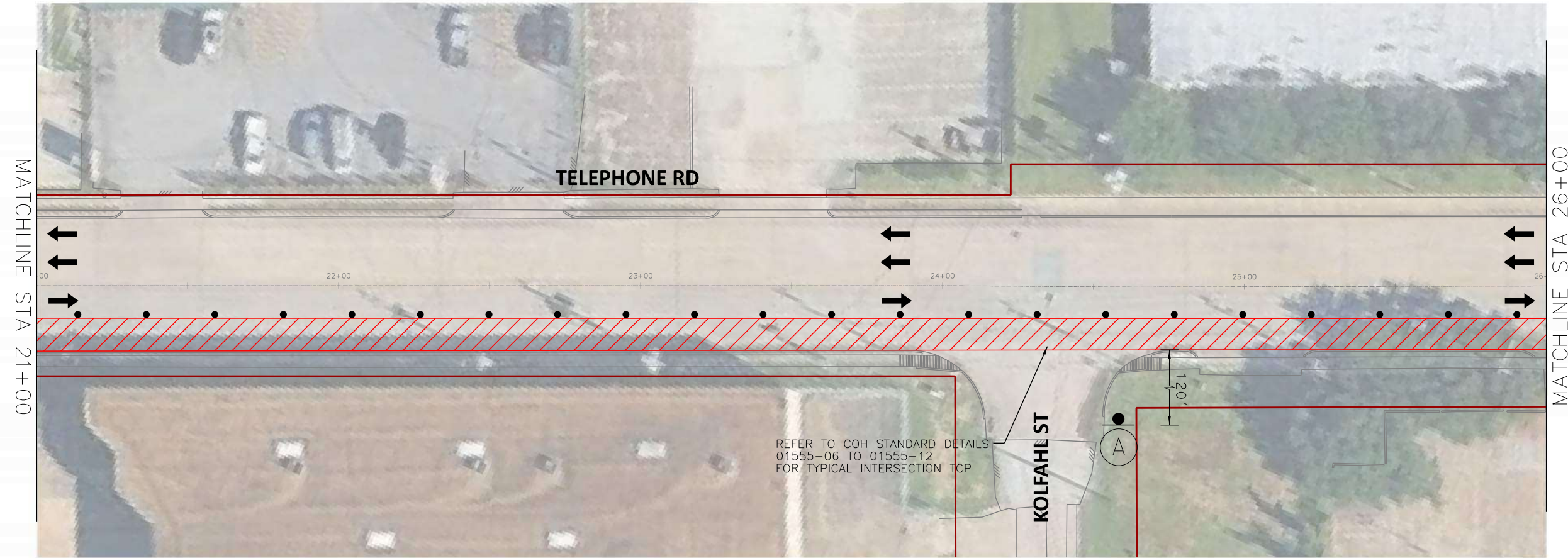
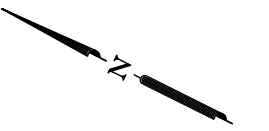
SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE II

SHEET 5 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 56	

2/11/2026
TSR_SF1_TCP_Phase 2 Layout Sheet 5.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE II WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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engineers + planners

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PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

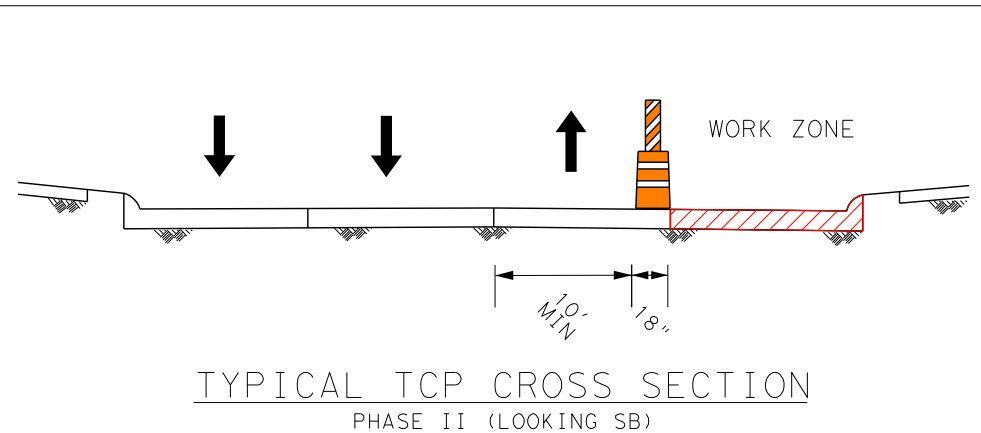
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

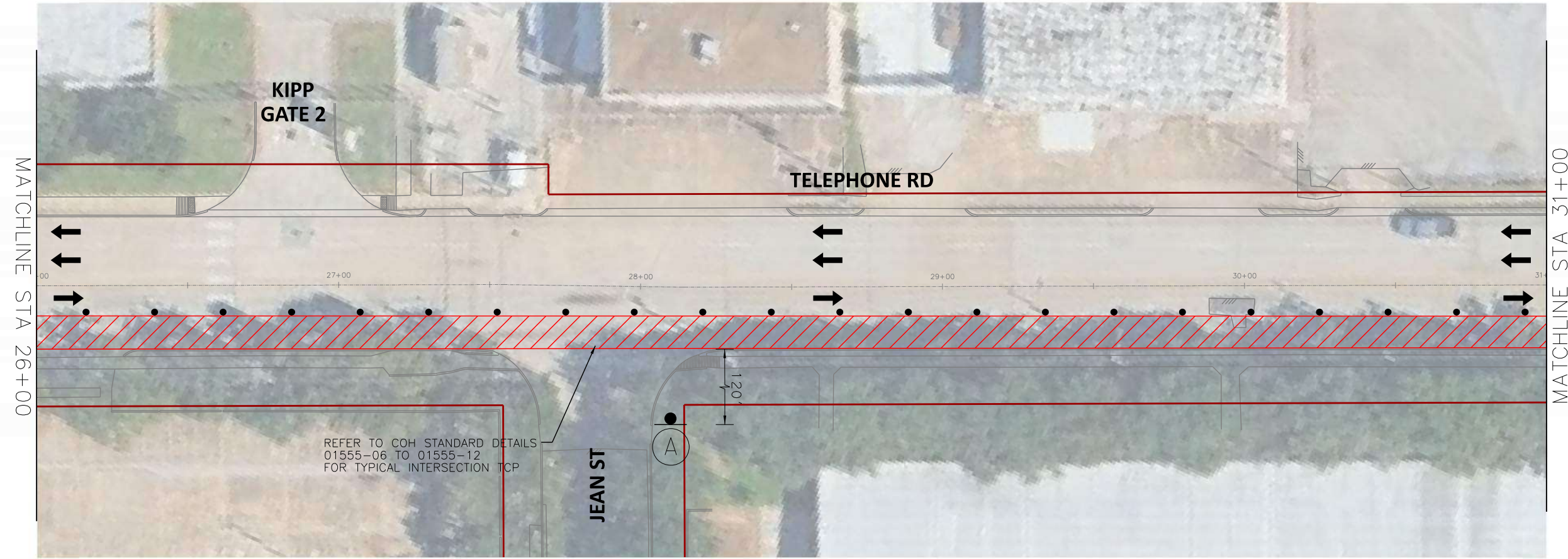
 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON HOUSTON PUBLIC WORKS	
TELEPHONE ROAD MAIN STREET REVITALIZATION PROJECT	
SUBPROJECT 1: LAWNDALE TO IH 45 TCP LAYOUTS PHASE II	
WBS NUMBER N-100042-0001-3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE AS NOTED	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 57	

2/11/2026
TSR_SF1_TCP_Phase 2_Layout_Sheet_6.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE II WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE.
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TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

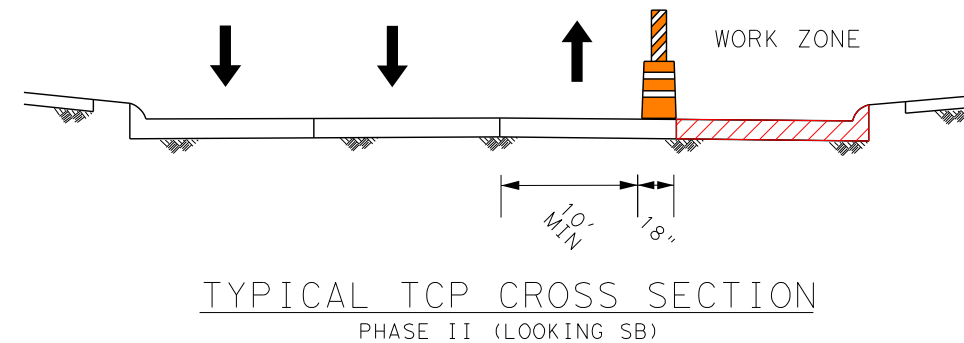
SUBPROJECT 1:
LAWNDALE TO IH 45

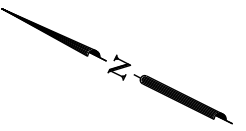
TCP LAYOUTS
PHASE II

SHEET 7 OF 12

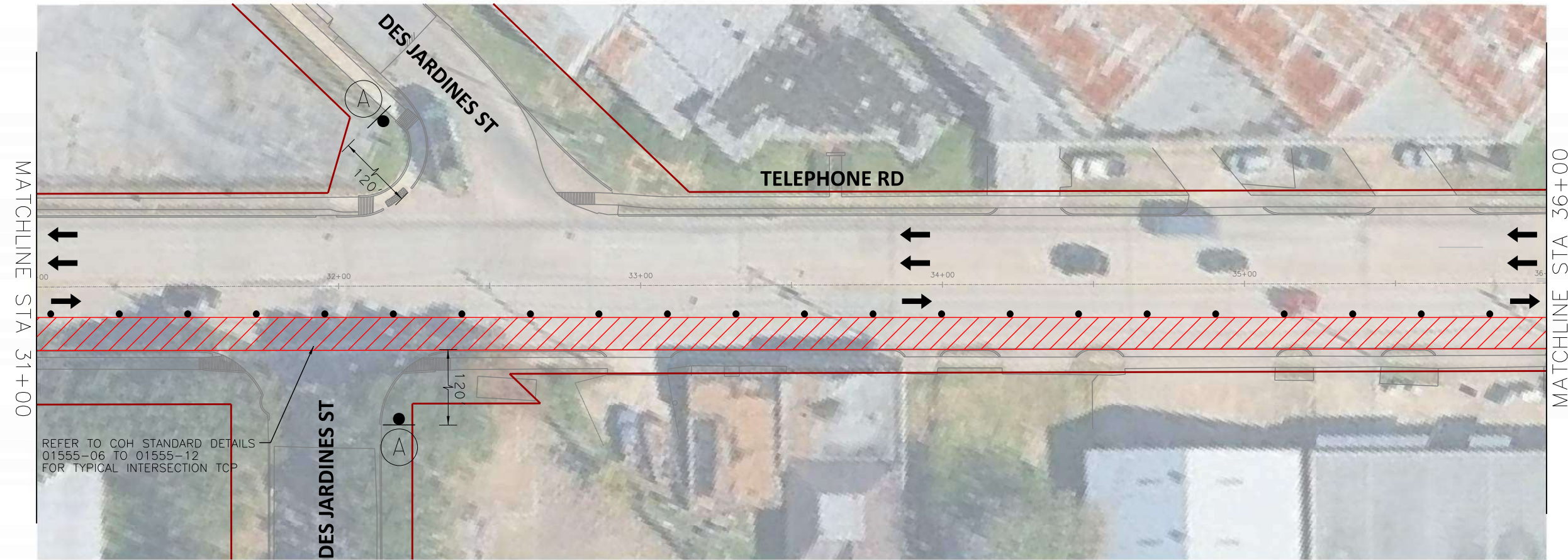
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 58	








 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"





SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



-  PHASE II WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
-  EXISTING TRAVEL WAY
-  TEMPORARY TRAVEL WAY

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RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS













TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

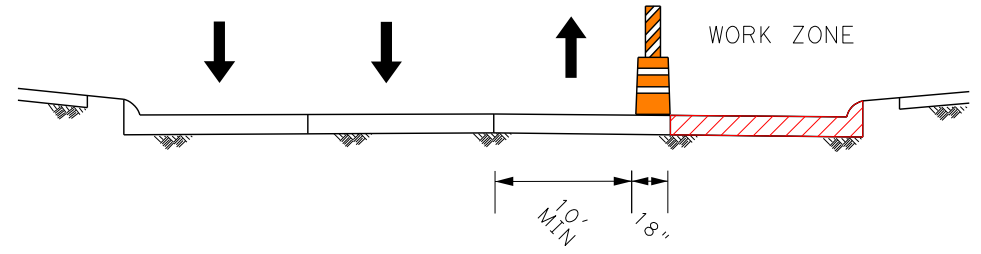
SUBPROJECT 1:
LAWNDALE TO IH 45

TCP LAYOUTS
PHASE II

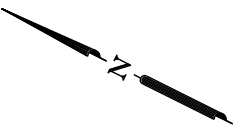
SHEET 8 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 59	

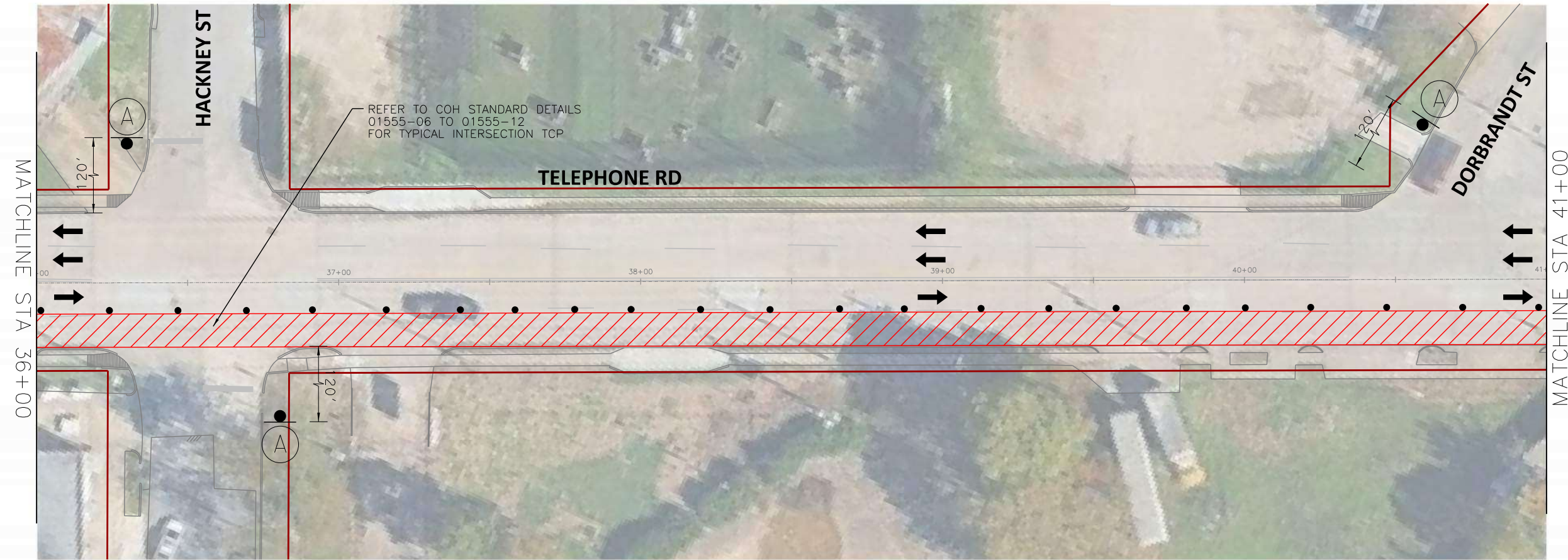
 ROAD WORK AHEAD CW20-1D 48" X 48"	 ROAD CLOSED AHEAD CW20-3D 48" X 48"	 RIGHT LANE CLOSED CW20-5R 48" X 48"	 LEFT LANE CLOSED CW20-5L 48" X 48"	 NARROW LANES AHEAD CW4-2R 48" X 48"	 NARROW LANES AHEAD CW4-2L 48" X 48"
 NARROW LANES AHEAD CW20-8 36" X 36"	 CENTER LANE CLOSED CW9-3T 48" X 48"	 END ROAD WORK G20-2 48" X 24"	 NO LEFT TURN R3-2 24" X 24"	 NO RIGHT TURN R3-1 24" X 24"	 ROAD CLOSED R11-2 48" X 30"



TYPICAL TCP CROSS SECTION
PHASE II (LOOKING SB)



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE II WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

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engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

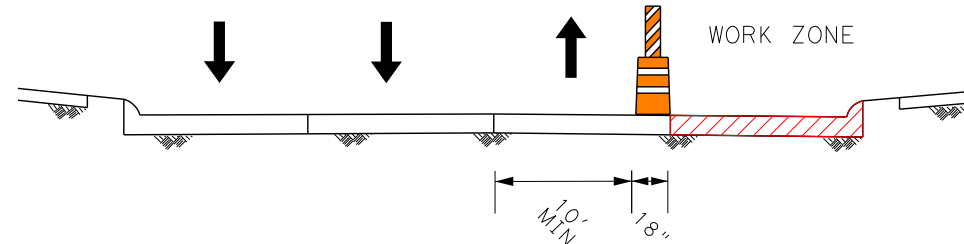
SUBPROJECT 1:
LAWNDALE TO IH 45

TCP LAYOUTS
PHASE II

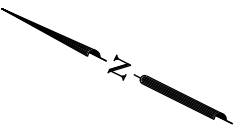
SHEET 9 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 60	

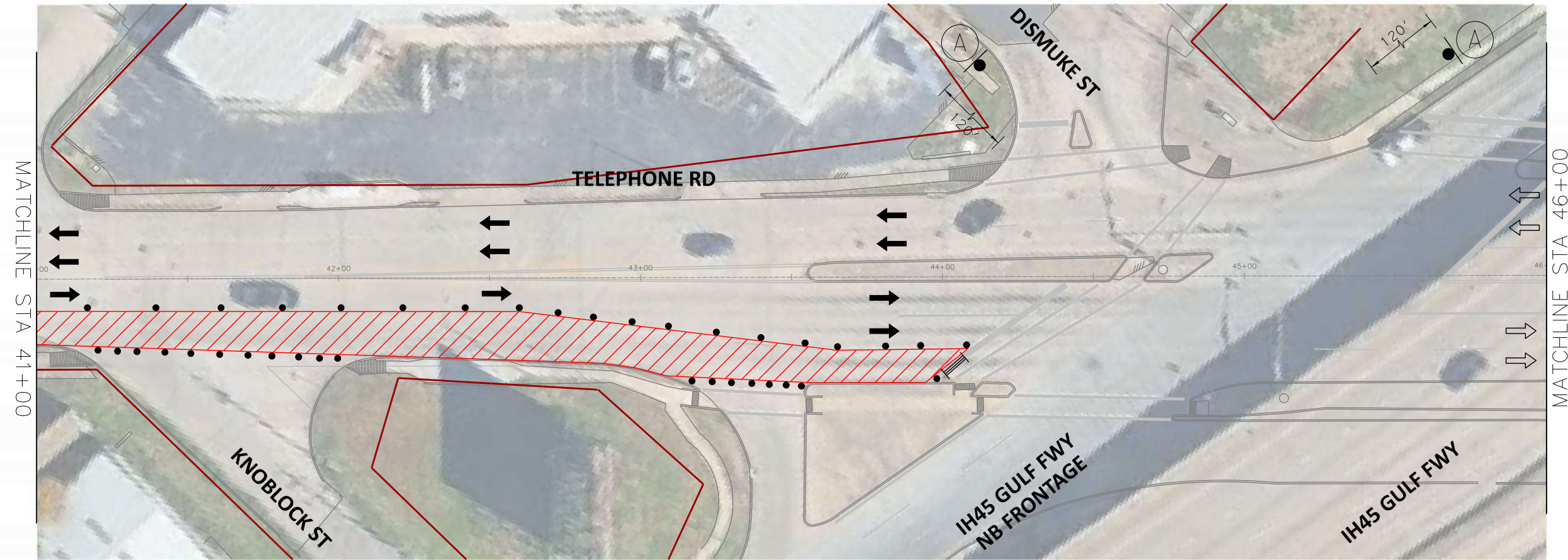
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




TYPICAL TCP CROSS SECTION
PHASE II (LOOKING SB)



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'








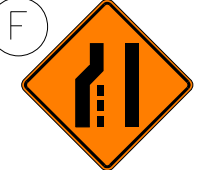


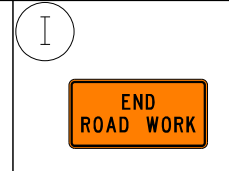
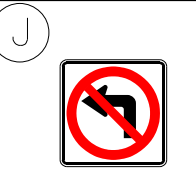
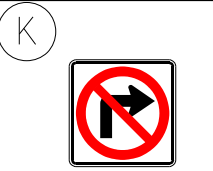

-  PHASE II WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
-  EXISTING TRAVEL WAY
-  TEMPORARY TRAVEL WAY

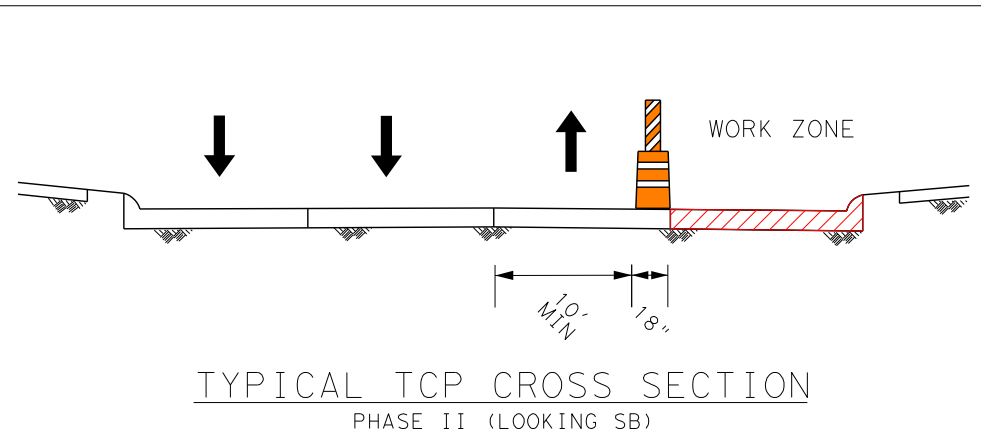
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TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77494
engineers + planners

DESIGN ENGINEER: RAJ BASAVARAJU, PE 23410 GRAND RESERVE DR HOUSTON, TX 77494 PHONE: (832) 492-4499 TX FIRM NUMBER: 19299	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
SURVEYED BY: KUO FIRM REG NO. 10075600	

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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CITY OF HOUSTON HOUSTON PUBLIC WORKS	
TELEPHONE ROAD MAIN STREET REVITALIZATION PROJECT	
SUBPROJECT 1: LAWNDALE TO IH 45 TCP LAYOUTS PHASE II	
SHEET 10 OF 12	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 61	

2/11/2026
TSR_SF1_TCP_Phase 2 Layout Sheet 10.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE II WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

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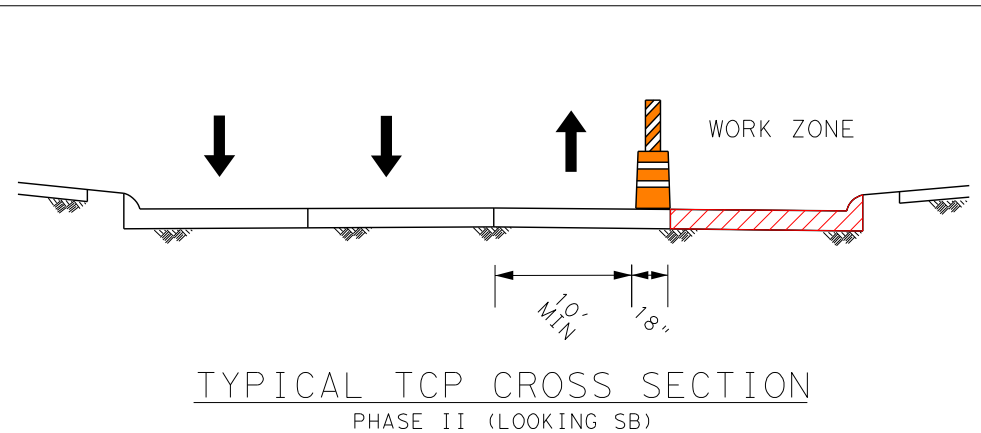
DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE II








SHEET 11 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 62	

2/11/2026
TSR_SF1_TCP_Phase 2 Layout Sheet 11.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



-  PHASE II WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
-  EXISTING TRAVEL WAY
-  TEMPORARY TRAVEL WAY

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engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS






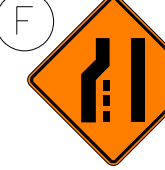






TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

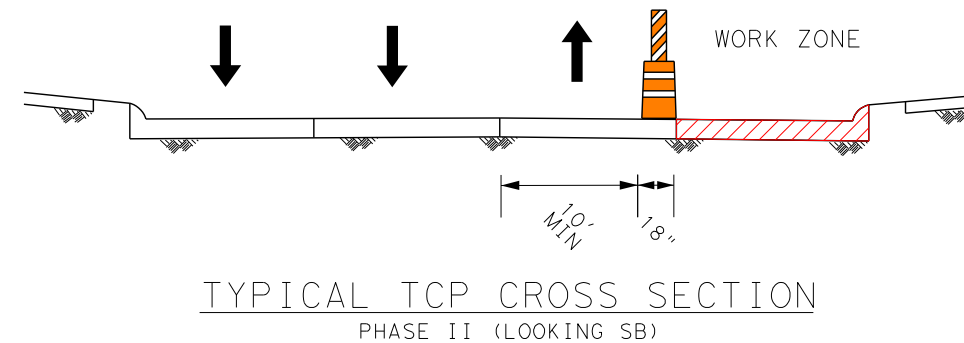
SUBPROJECT 1:
LAWNDALE TO IH 45

TCP LAYOUTS
PHASE II

SHEET 12 OF 12








WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 63	

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



-  PHASE III WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
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DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494






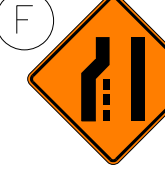






PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

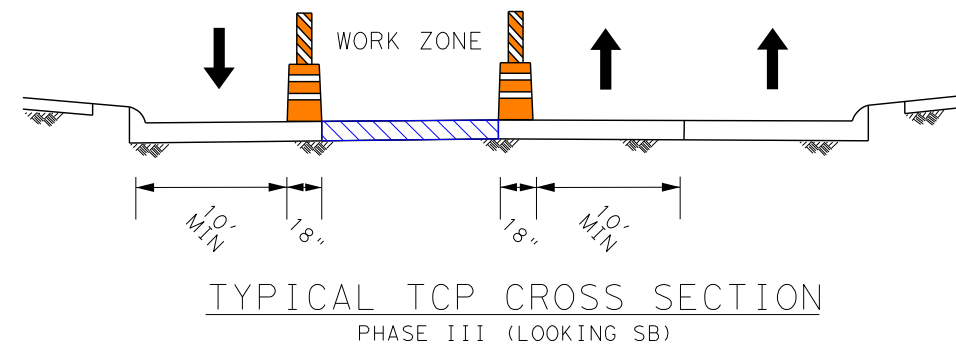
SURVEYED BY: KUO
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"

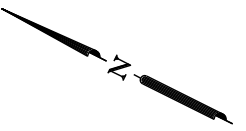


CITY OF HOUSTON
HOUSTON PUBLIC WORKS

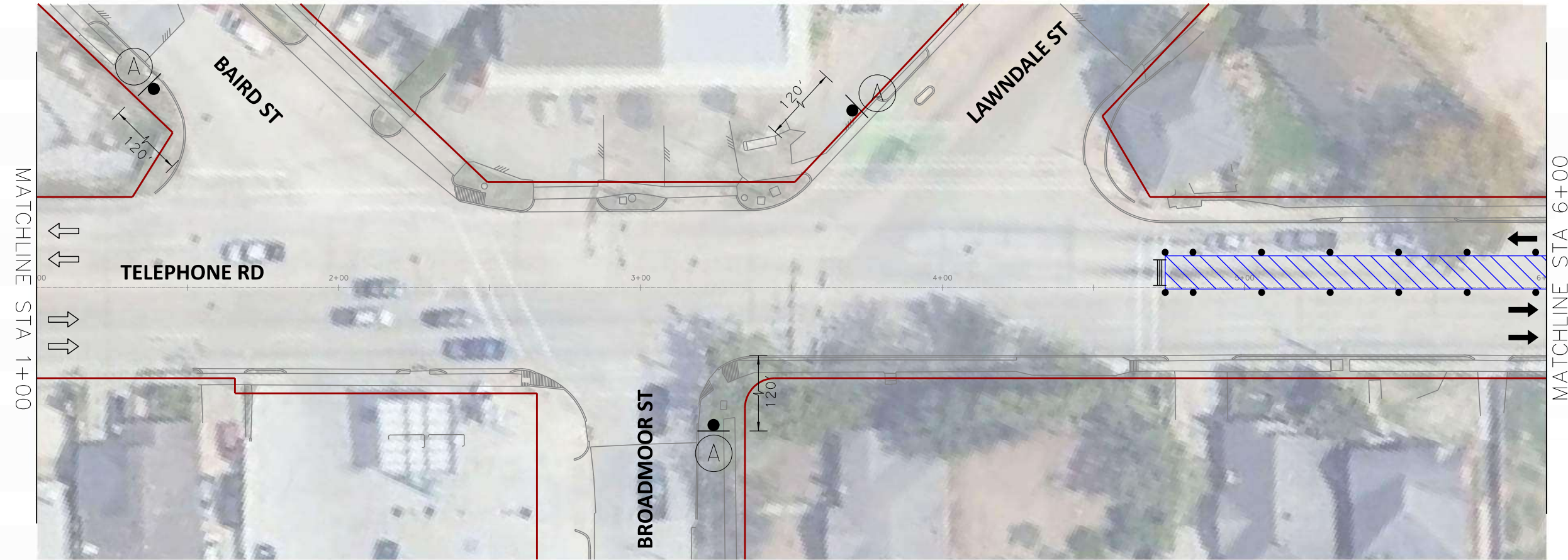
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 64	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 - WHERE TEMPORARY LANES WOULD BE LESS THAN 10' WIDE, NARROW TUBULAR MARKERS OR SELF-RIGHTING VERTICAL PANELS MAY BE USED IN PLACE OF DRUMS.

TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77494
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

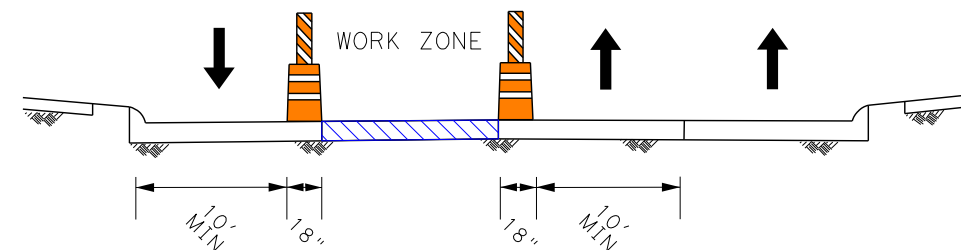
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



TYPICAL TCP CROSS SECTION
PHASE III (LOOKING SB)

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

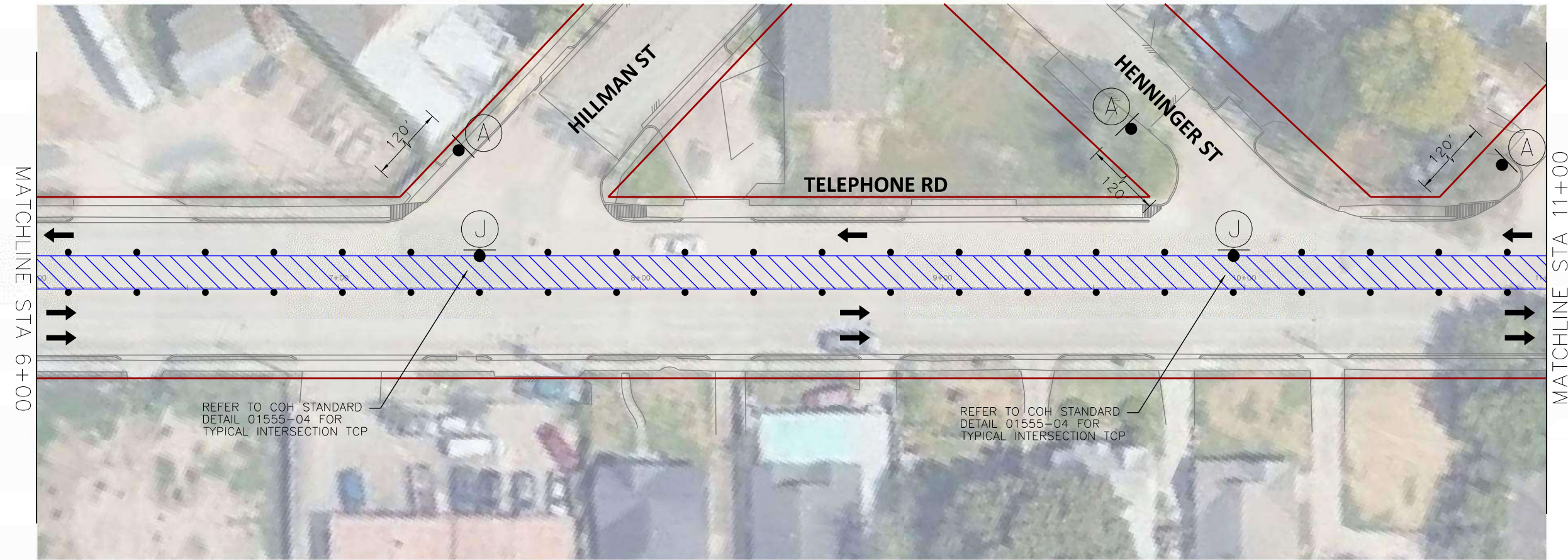
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III

SHEET 2 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 65	

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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23410 Grand Reserve Dr, Suite 101
Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

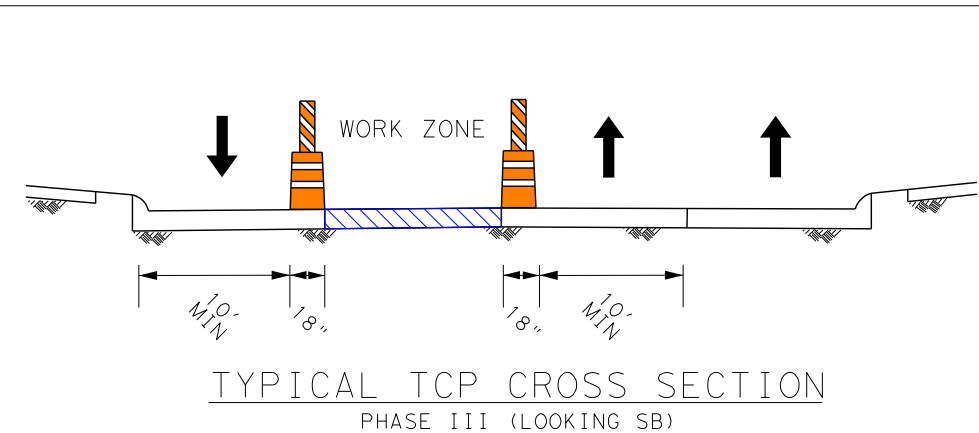
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RESPONSIBLE ENGINEER:
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

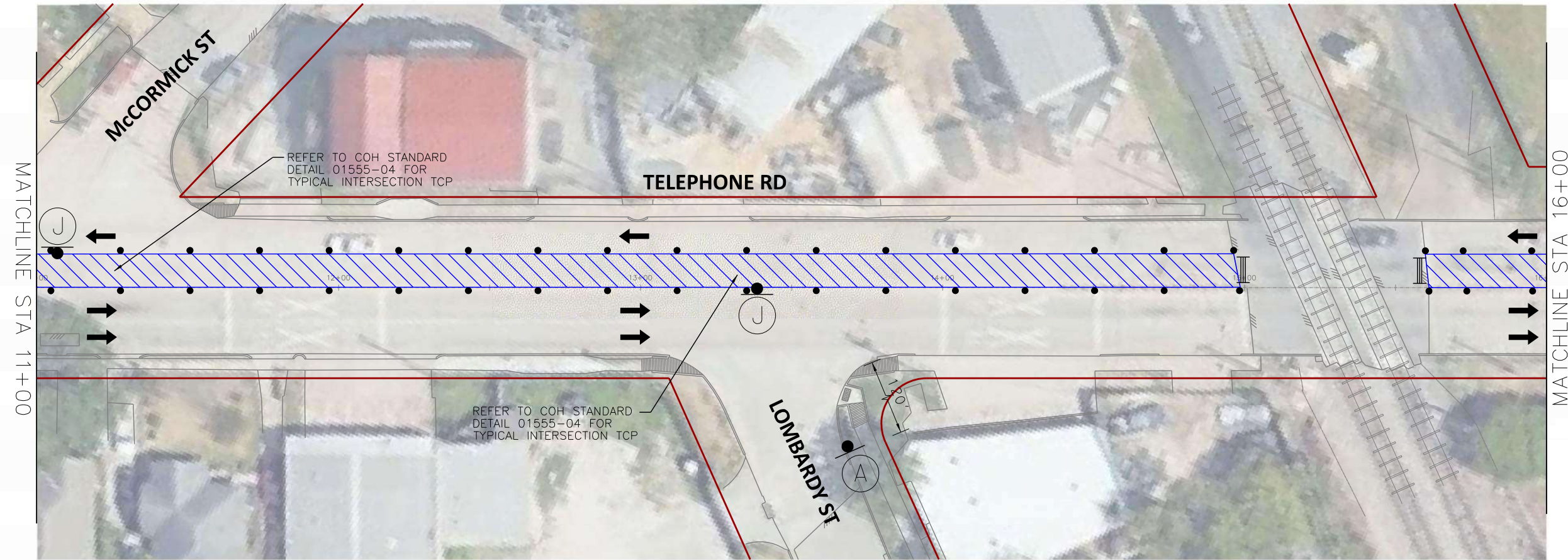
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III

SHEET 3 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 66	

2/11/2026
TSR_SF1_TCP_Phase_3_Layout_Sheet_3.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

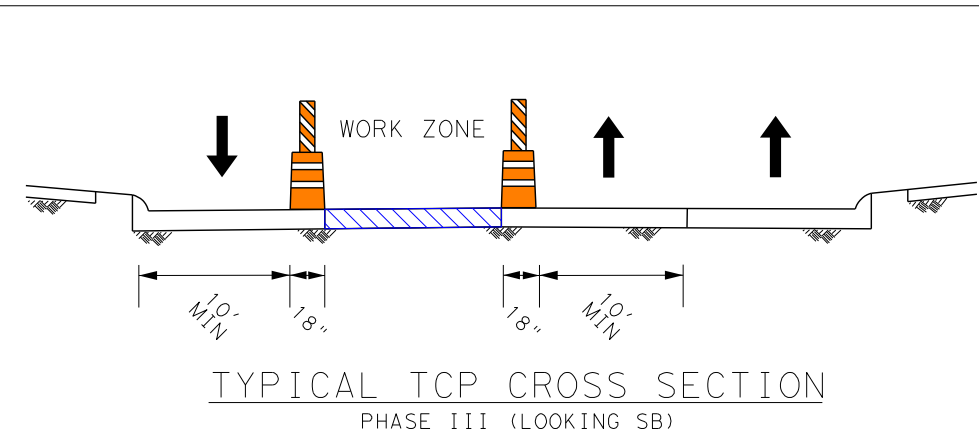
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RESPONSIBLE ENGINEER:
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

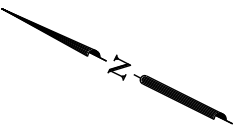
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III

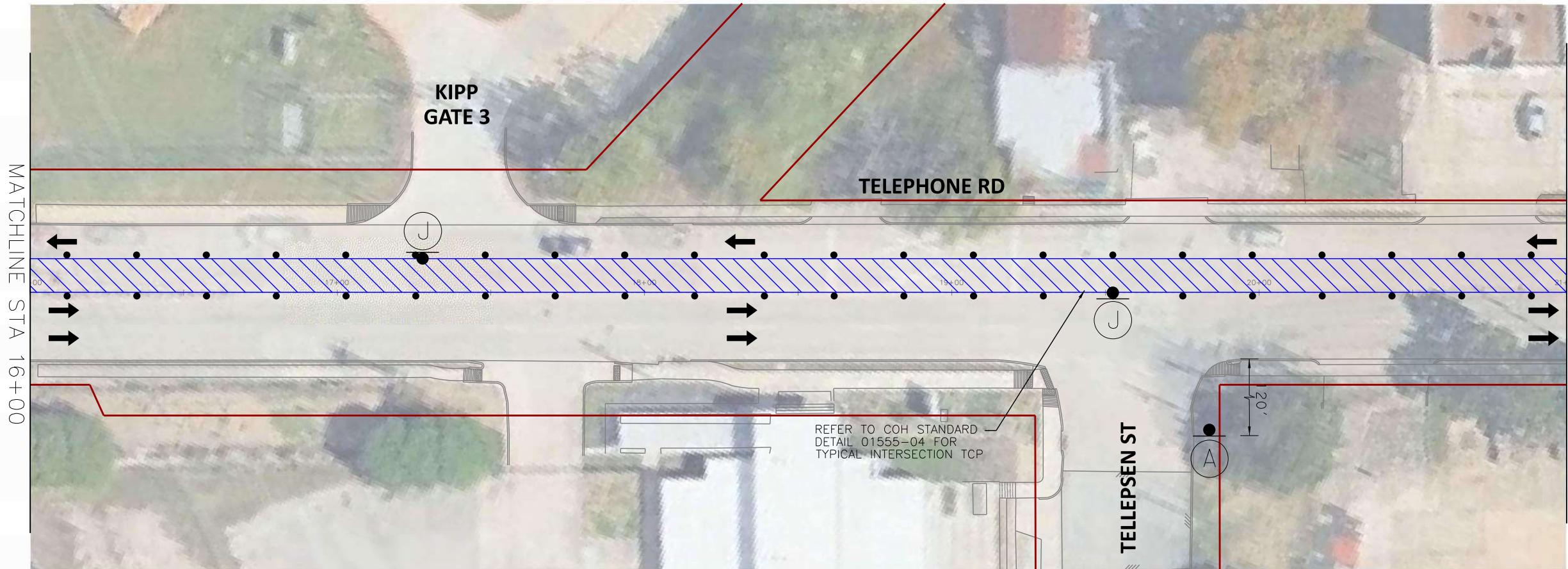
SHEET 4 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 67	

2/11/2026
TSR_SF1_TCP_Phase_3_Layout_Sheet_4.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

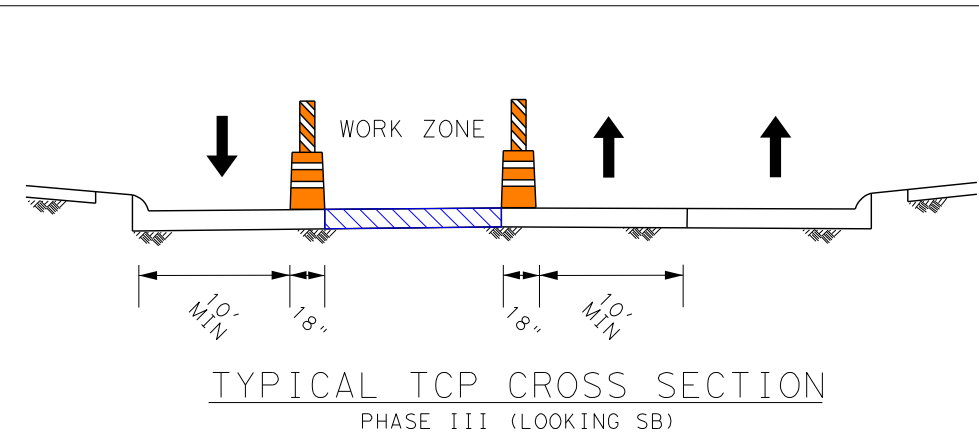
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

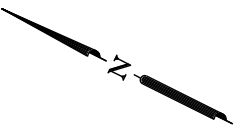
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III

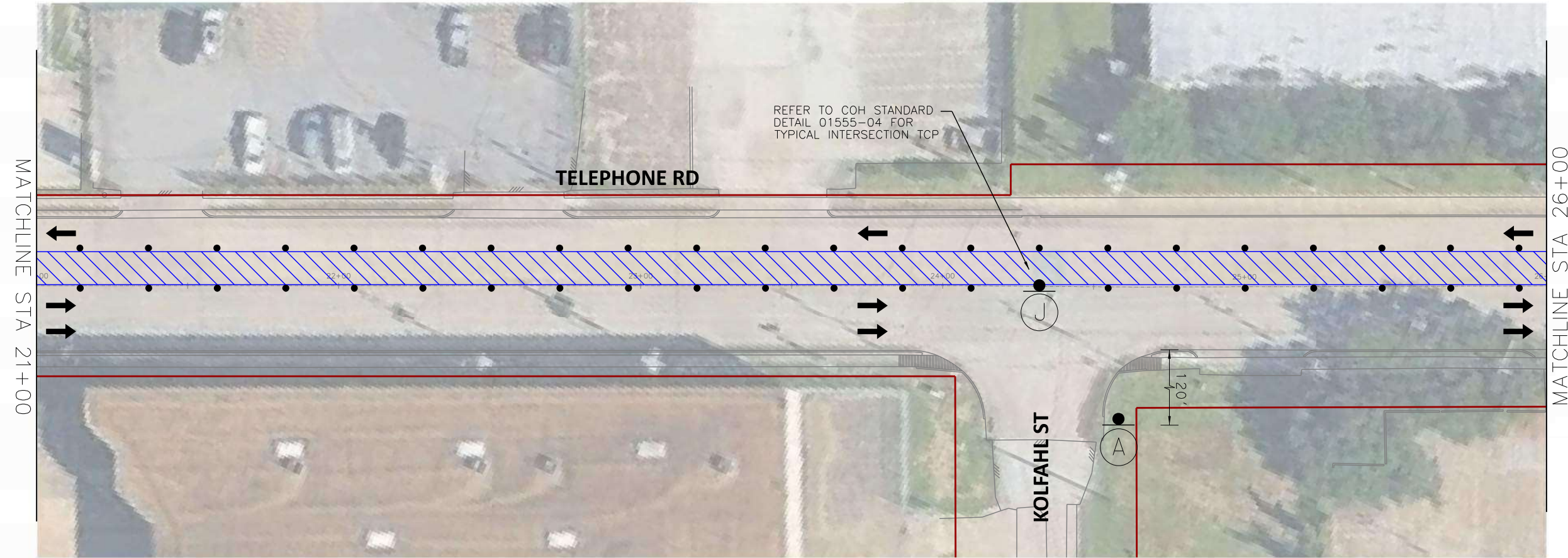
SHEET 5 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 68	

2/11/2026
TSR_SF1_TCP_Phase_3_Layout_Sheet_5.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
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engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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CONSTRUCTION, BIDDING, OR
PERMIT PURPOSES.

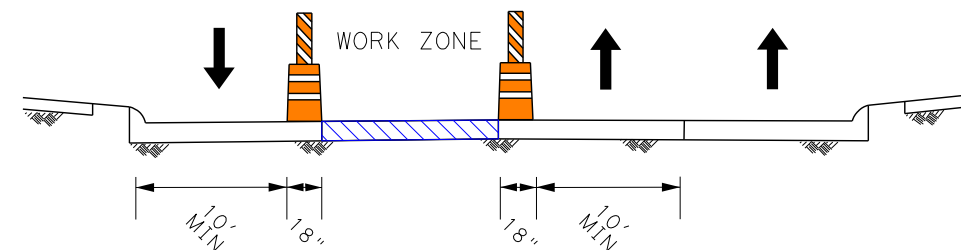
RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



TYPICAL TCP CROSS SECTION
PHASE III (LOOKING SB)

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

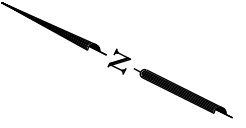
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45

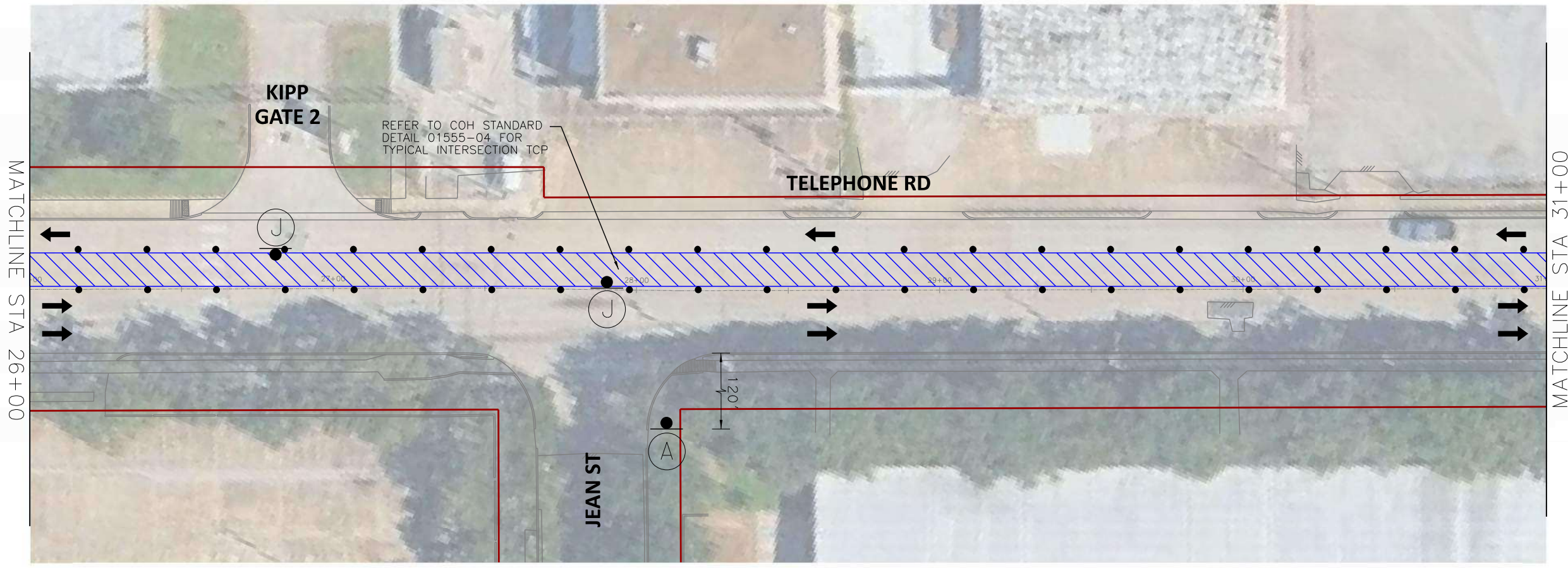
TCP LAYOUTS
PHASE III

SHEET 6 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 69	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

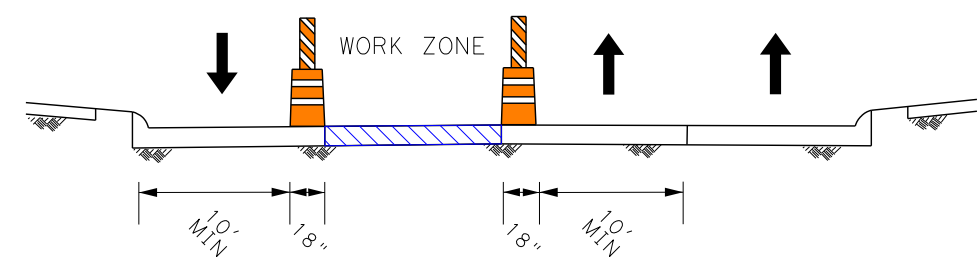
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

(A) CW20-1D 48" X 48"	(B) CW20-3D 48" X 48"	(C) CW20-5R 48" X 48"	(D) CW20-5L 48" X 48"	(E) CW4-2R 48" X 48"	(F) CW4-2L 48" X 48"
(G) CW20-8 36" X 36"	(H) CW9-3T 48" X 48"	(I) G20-2 48" X 24"	(J) R3-2 24" X 24"	(K) R3-1 24" X 24"	(L) R11-2 48" X 30"



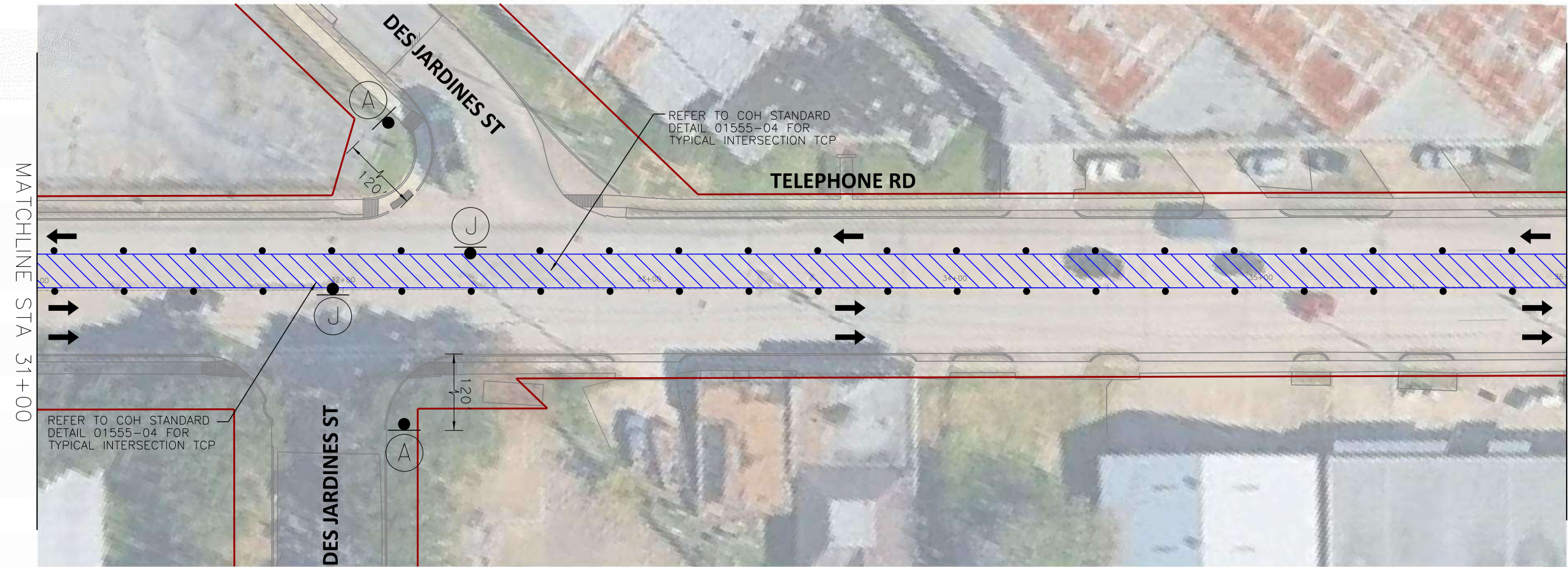
TYPICAL TCP CROSS SECTION
PHASE III (LOOKING SB)

CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III

WBS NUMBER N-100042-0001-3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE AS NOTED	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 70	

2/11/2026
TSR_SF1_TCP_Phase_3_Layout_Sheet_7.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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Houston, Texas 77494
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

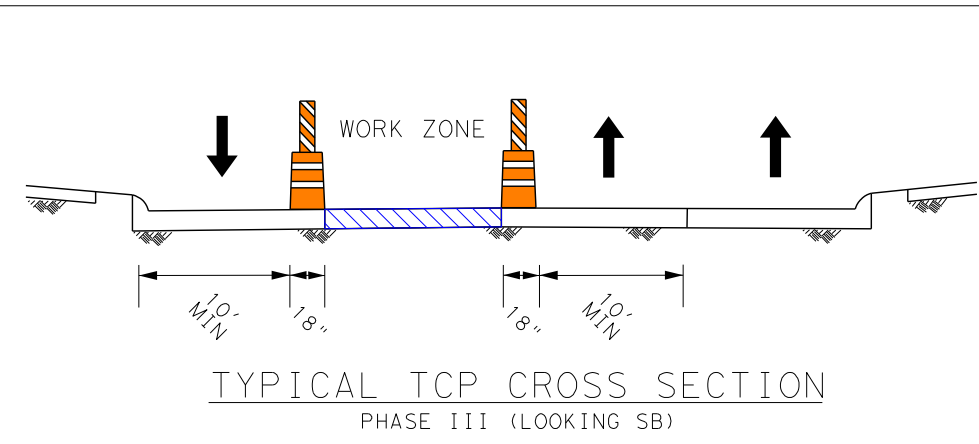
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RESPONSIBLE ENGINEER:
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

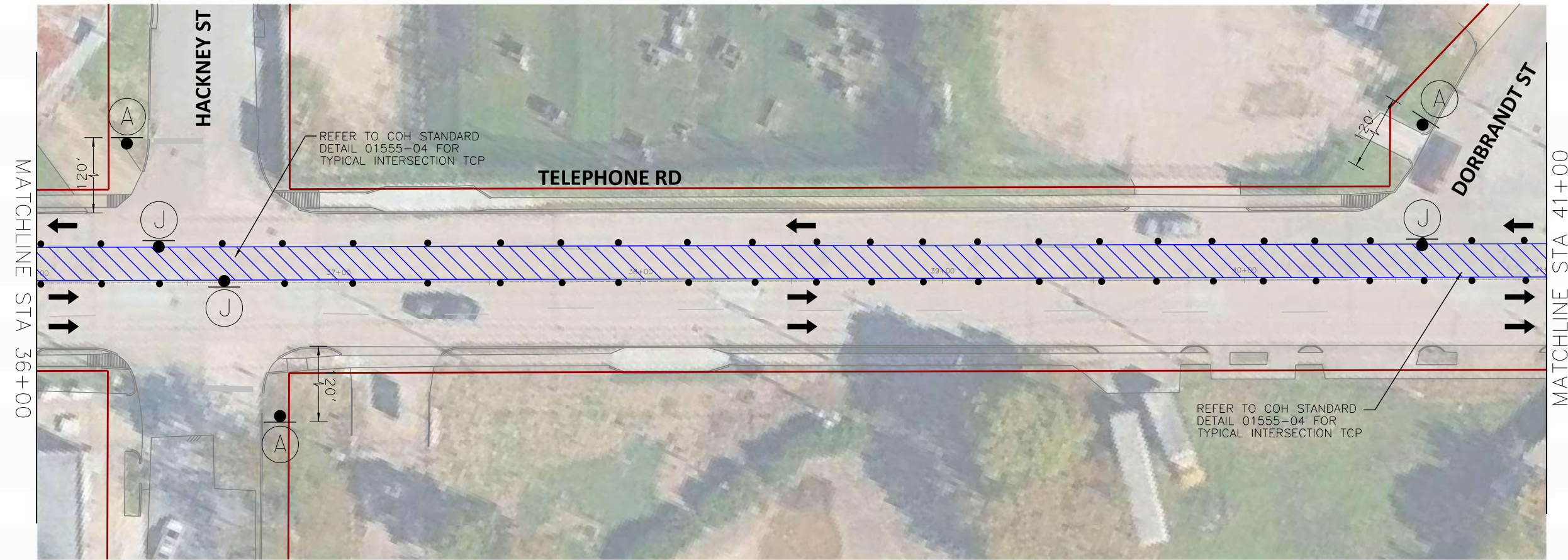
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III

SHEET 8 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 71	

2/11/2026
TSR_SF1_TCP_Phase_3_Layout_Sheet_8.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

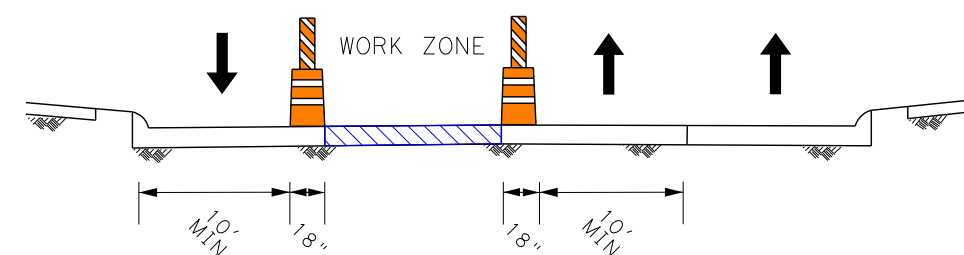
SUBPROJECT 1:
LAWDALE TO IH 45

TCP LAYOUTS
PHASE III

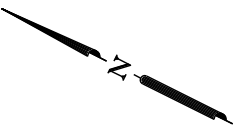
SHEET 9 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 72	

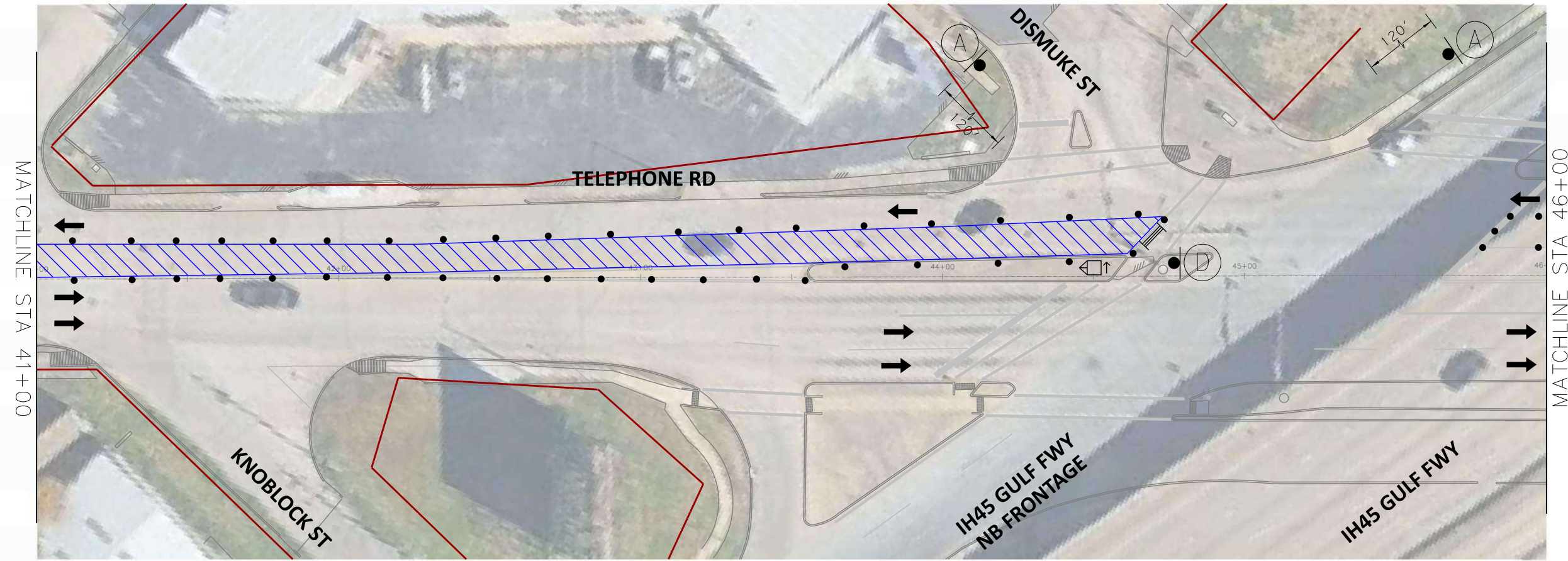
 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



TYPICAL TCP CROSS SECTION
PHASE III (LOOKING SB)



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10'-FT WIDE LANES WHERE POSSIBLE.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
 - WHERE TEMPORARY LANES WOULD BE LESS THAN 10' WIDE, NARROW TUBULAR MARKERS OR SELF-RIGHTING VERTICAL PANELS MAY BE USED IN PLACE OF DRUMS.

TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

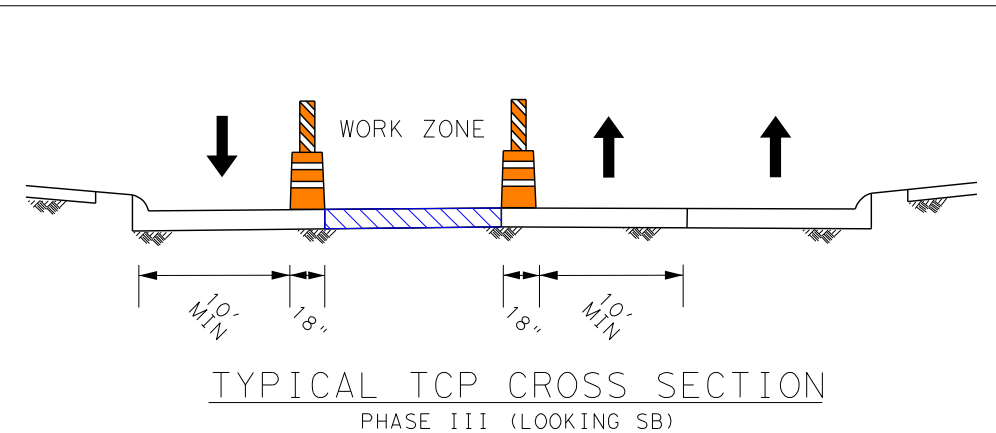
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"

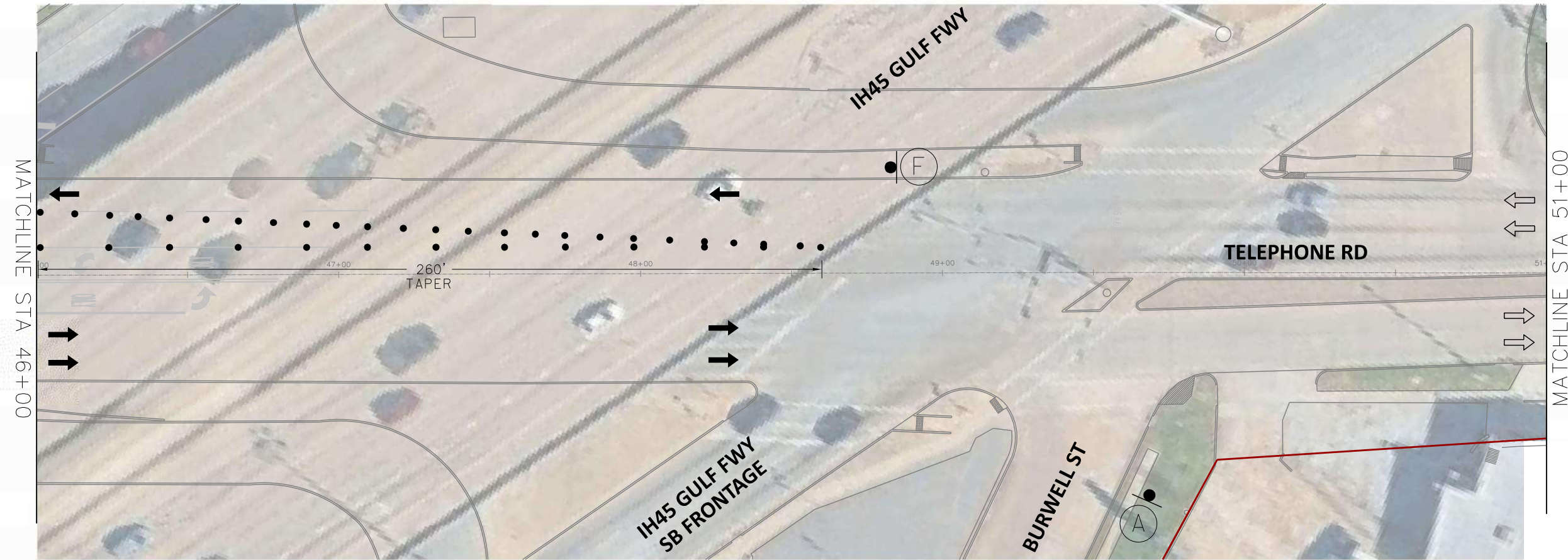


CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 73	

2/11/2026
TSR_SF1_TCP_Phase_3_Layout_Sheet_10.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE III WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

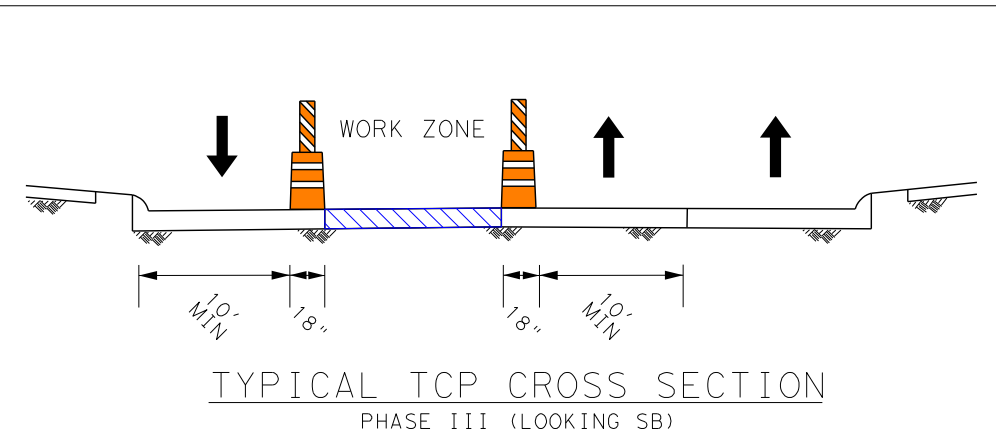
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III








SHEET 11 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 74	

2/11/2026
TSR_SF1_TCP_Phase_3_Layout_Sheet_11.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



-  PHASE III WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
-  EXISTING TRAVEL WAY
-  TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE.
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Houston, Texas 77044
engineers + planners






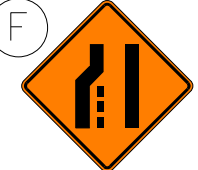


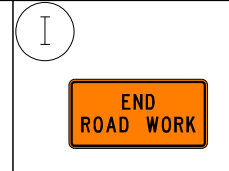
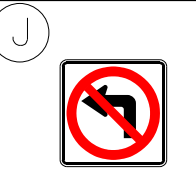
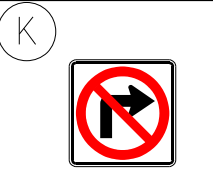

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

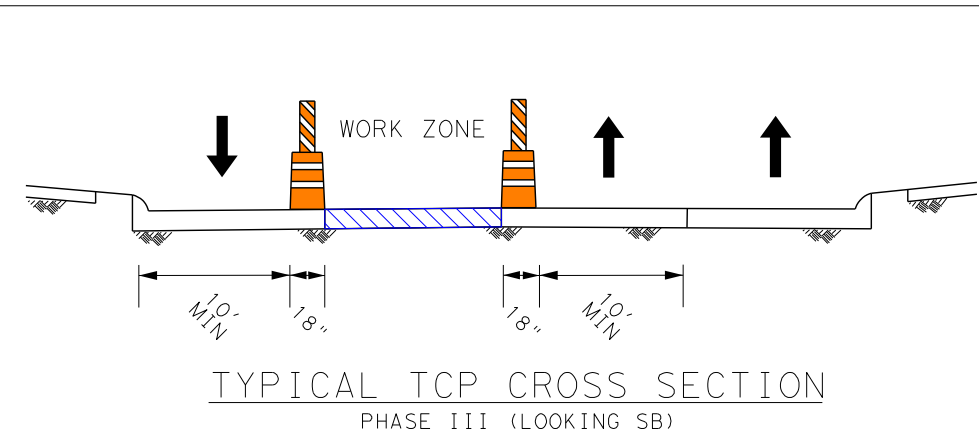
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE III








SHEET 12 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 75	

2/11/2026
TSR_SF1_TCP_Phase_3_Layout_Sheet_12.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'








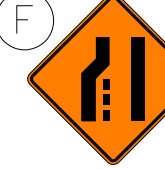






-  PHASE IV WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
-  EXISTING TRAVEL WAY
-  TEMPORARY TRAVEL WAY

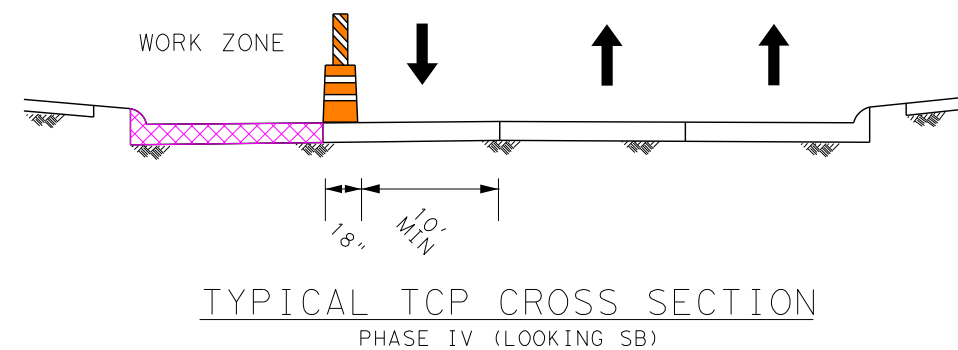
- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10'-FT WIDE LANES WHERE POSSIBLE.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
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Houston, Texas 77044
engineers + planners

DESIGN ENGINEER: RAJ BASAVARAJU, PE 23410 GRAND RESERVE DR HOUSTON, TX 77494 PHONE: (832) 492-4499 TX FIRM NUMBER: 19299	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
SURVEYED BY: KUO FIRM REG NO. 10075600	

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"

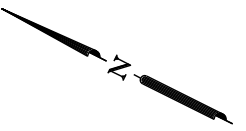


CITY OF HOUSTON
HOUSTON PUBLIC WORKS

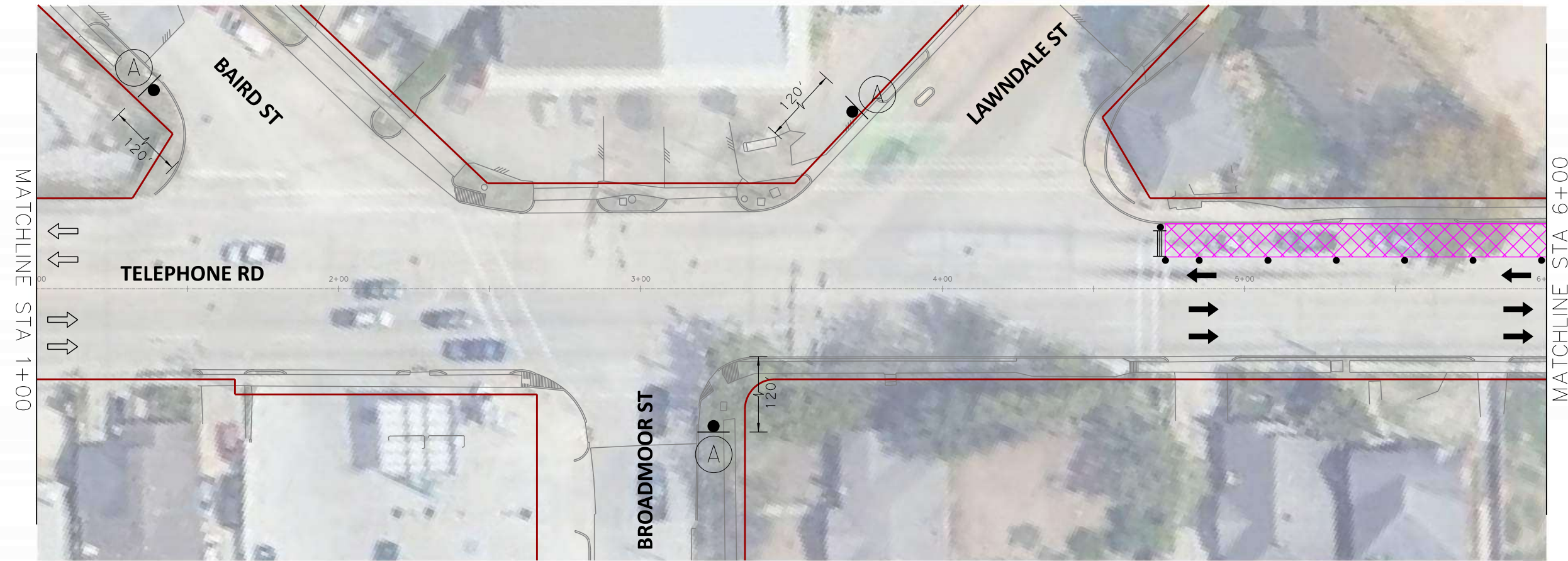
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT








SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE IV

WBS NUMBER N-100042-0001-3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE AS NOTED	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 76	



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



-  PHASE IV WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
-  EXISTING TRAVEL WAY
-  TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77494
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS






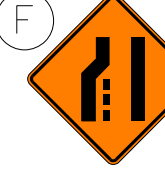




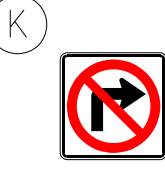

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

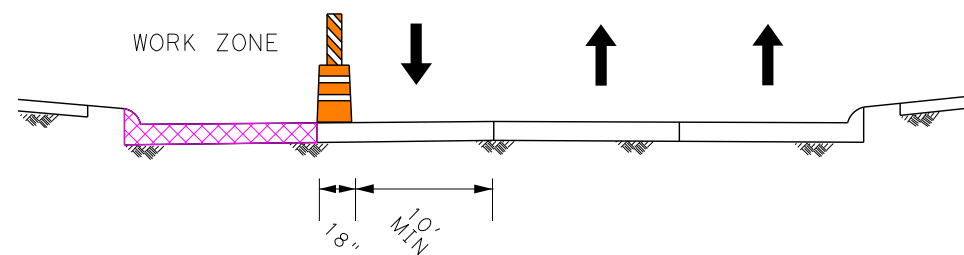
SUBPROJECT 1:
LAWNDALE TO IH 45

TCP LAYOUTS
PHASE IV

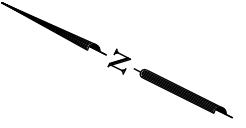
SHEET 2 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 77	

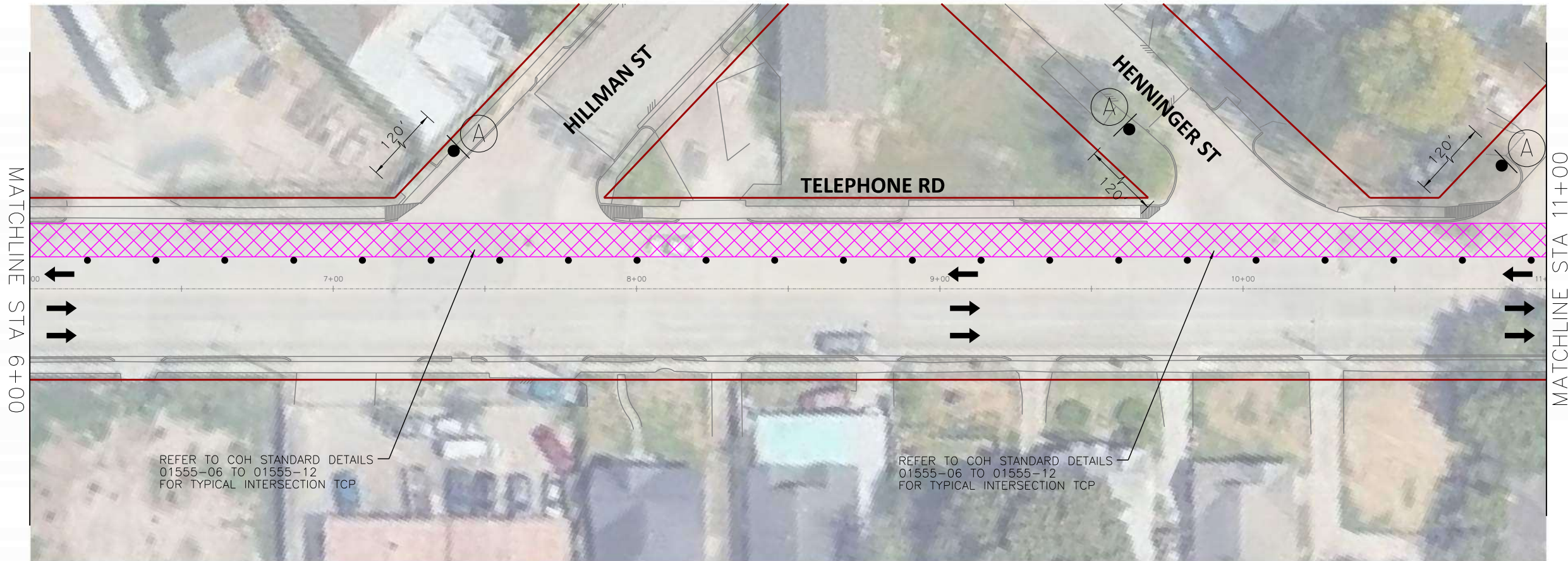
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 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



TYPICAL TCP CROSS SECTION
PHASE IV (LOOKING SB)



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



REFER TO COH STANDARD DETAILS
01555-06 TO 01555-12
FOR TYPICAL INTERSECTION TCP

REFER TO COH STANDARD DETAILS
01555-06 TO 01555-12
FOR TYPICAL INTERSECTION TCP

- PHASE IV WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

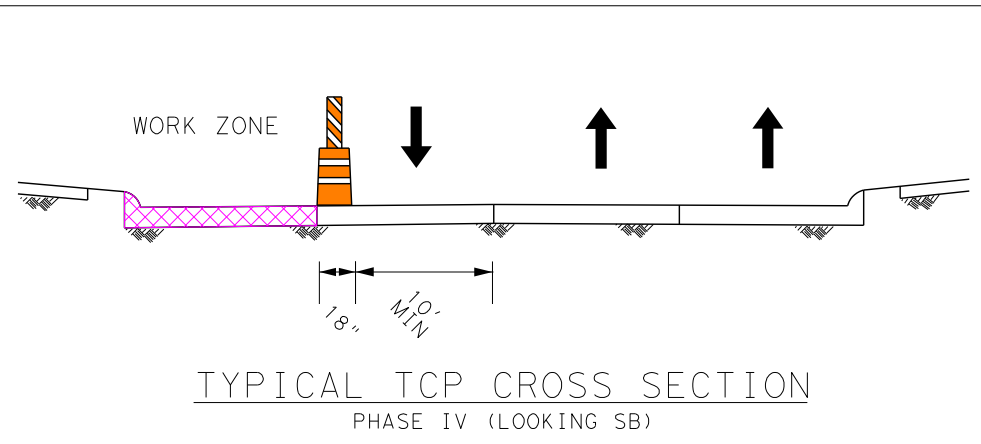
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

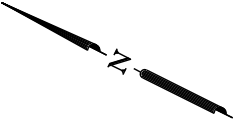
 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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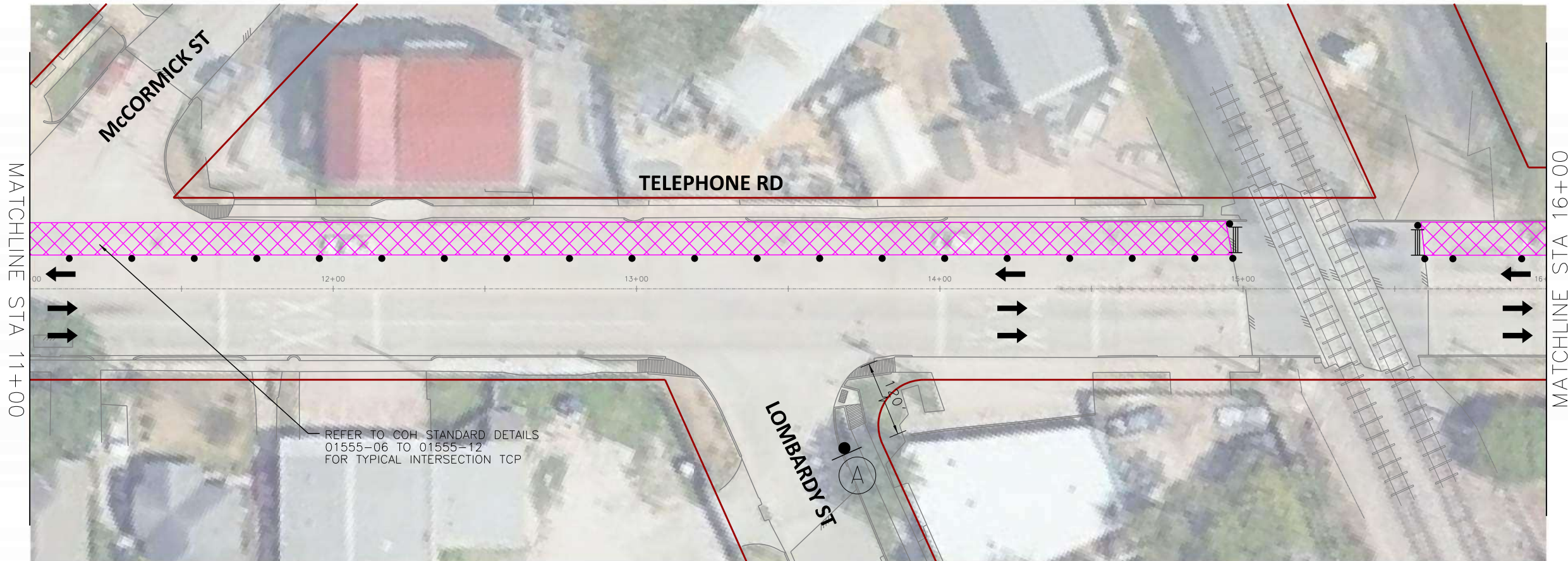
CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE IV

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 78	

2/11/2026
TSR_SF1_TCP_Phase_4_Layout_Sheet_3.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE IV WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

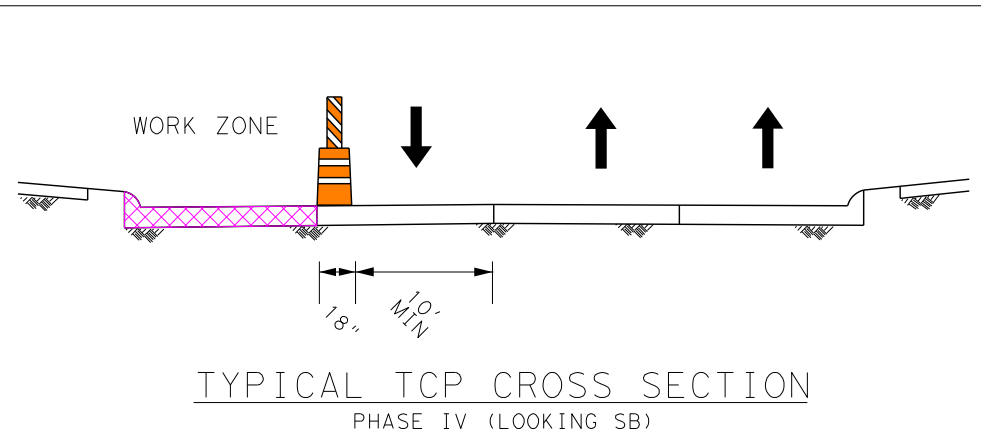
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600
3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

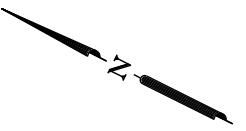
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE IV

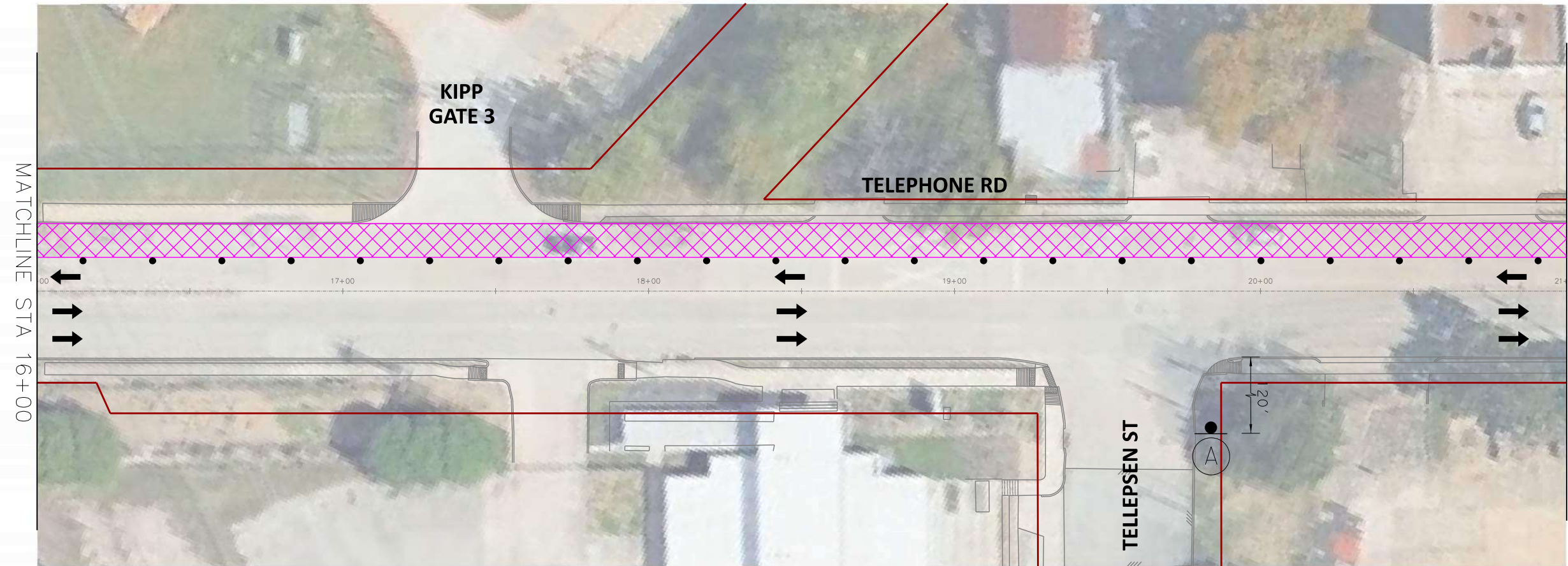
SHEET 4 OF 12








WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 79	

2/11/2026
TSR_SF1_TCP_Phase 4_Layout_Sheet_4.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



-  PHASE IV WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
-  EXISTING TRAVEL WAY
-  TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
 - MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.
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TRANSCEND Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr, Suite 101
Houston, Texas 77044
engineers + planners









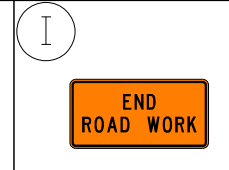
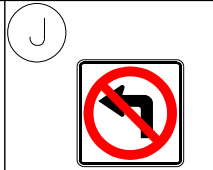
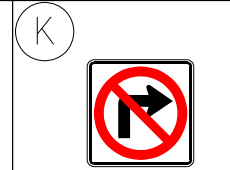

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

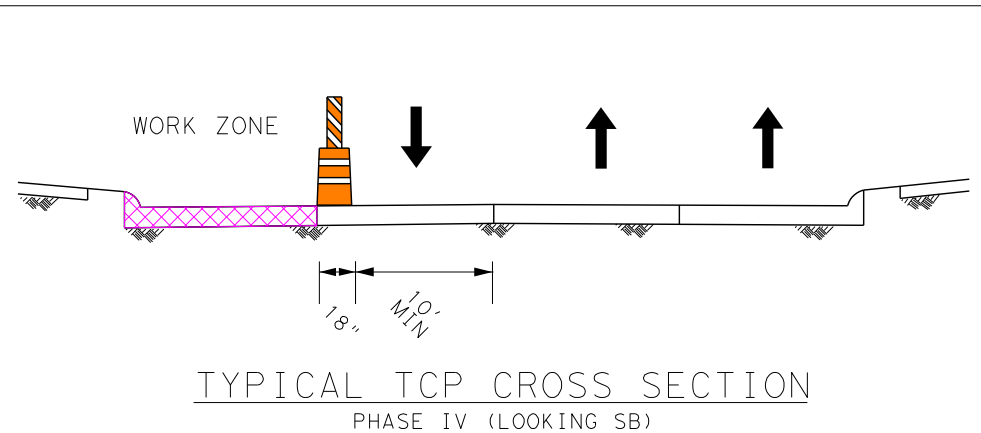
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

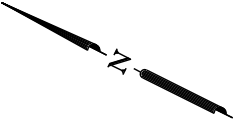
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 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



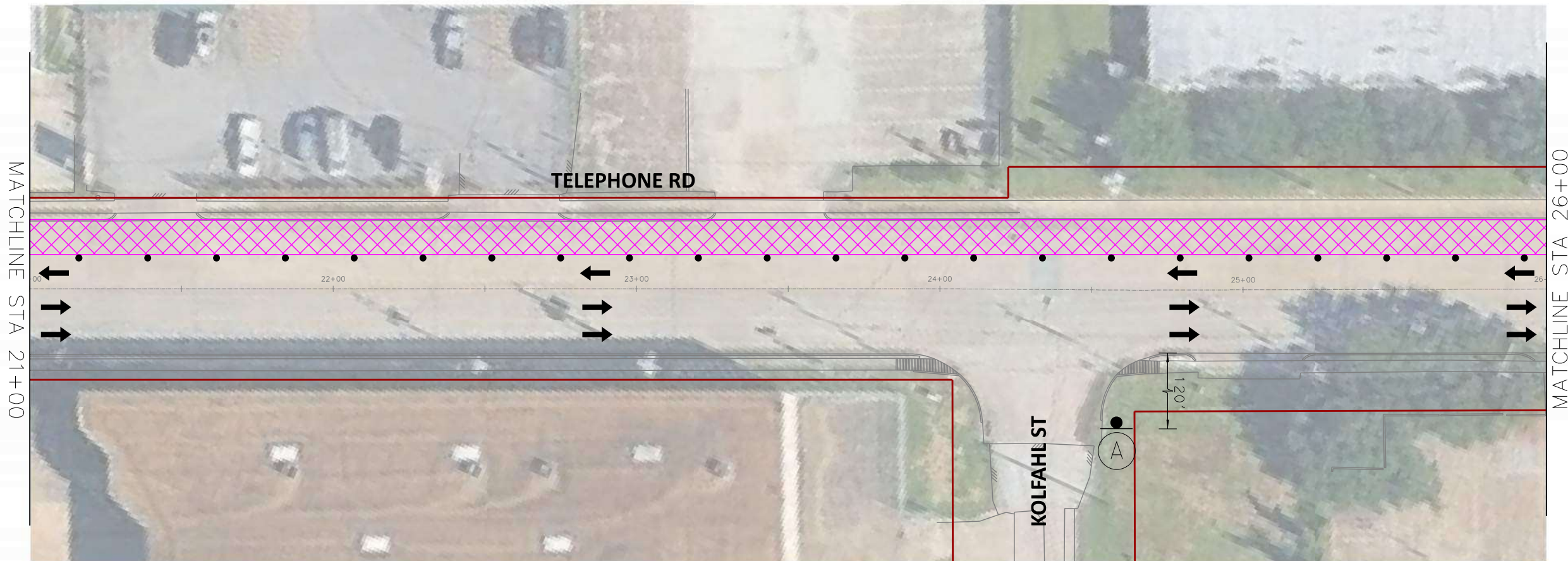
CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE IV

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 80	

2/11/2026
TSR_SF1_TCP_Phase 4_Layout_Sheet_5.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE IV WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND ESTABLISHMENTS.
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DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

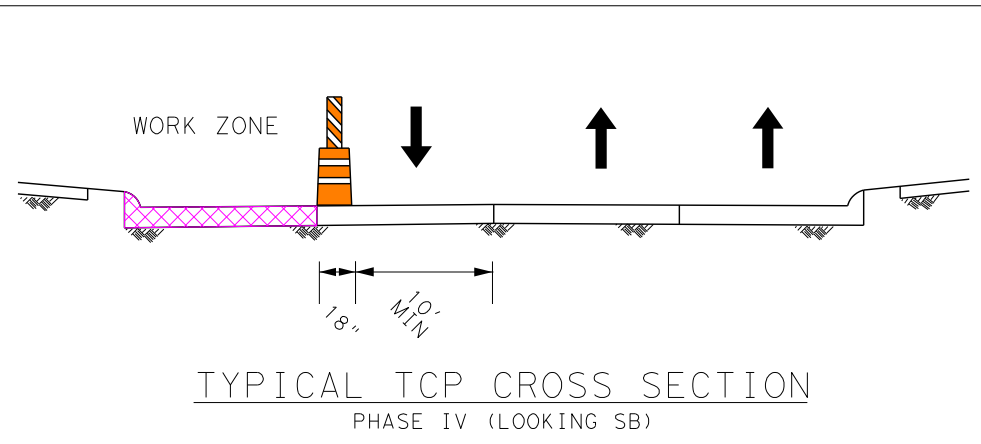
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



CITY OF HOUSTON
HOUSTON PUBLIC WORKS

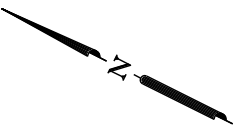
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE IV

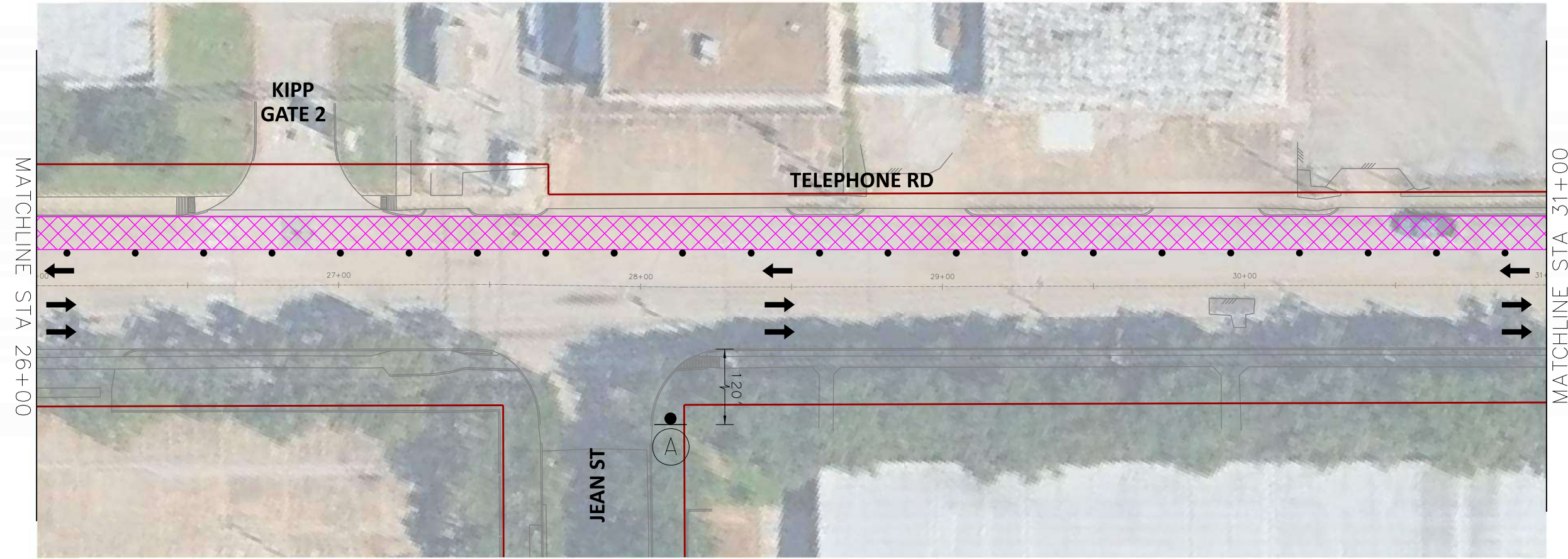
SHEET 6 OF 12








WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 81	

2/11/2026
TSR_SF1_TCP_Phase 4_Layout_Sheet_6.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



-  PHASE IV WORK ZONE
-  TEMPORARY SIGN
-  TRAFFIC CONTROL DEVICES
-  FLASHING ARROW PANEL
-  TYPE III BARRICADE
-  EXISTING TRAVEL WAY
-  TEMPORARY TRAVEL WAY

- NOTES:
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PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS






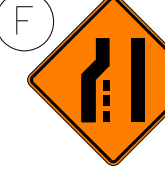






TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

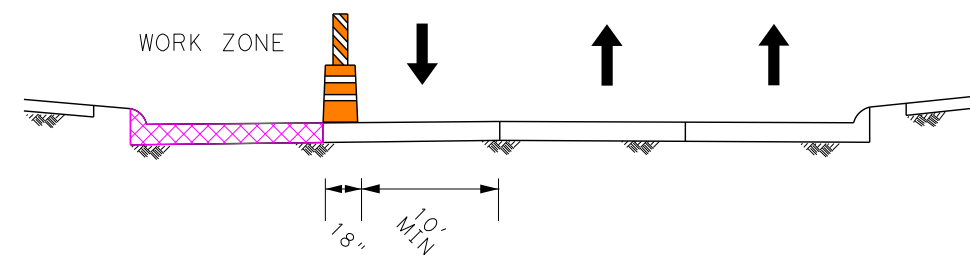
SUBPROJECT 1:
LAWNDALE TO IH 45

TCP LAYOUTS
PHASE IV

SHEET 7 OF 12

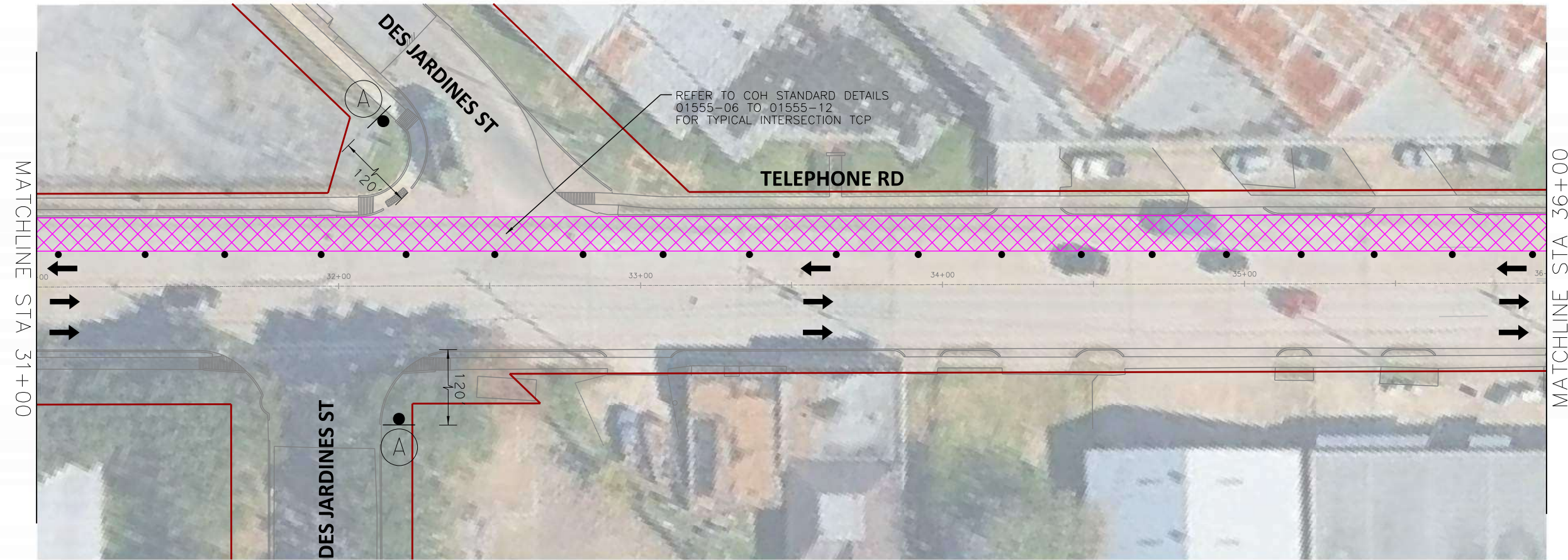
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 82	

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
 CW20-8 36" X 36"	 CW9-3T 48" X 48"	 G20-2 48" X 24"	 R3-2 24" X 24"	 R3-1 24" X 24"	 R11-2 48" X 30"



TYPICAL TCP CROSS SECTION
PHASE IV (LOOKING SB)

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE IV WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

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engineers + planners

DESIGN ENGINEER:
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23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS &
PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149

SURVEYED BY: KUO
FIRM REG NO. 10075600

3/2/2026

TELEPHONE RD SPEED LIMIT = 30 MPH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

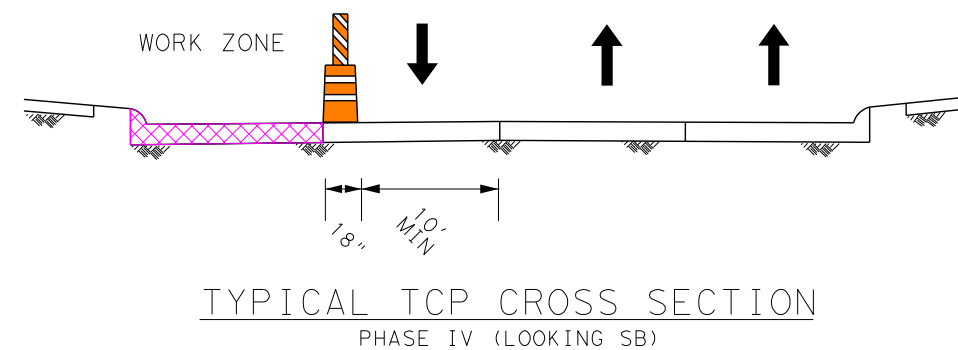
SUBPROJECT 1:
LAWNDALE TO IH 45

TCP LAYOUTS
PHASE IV

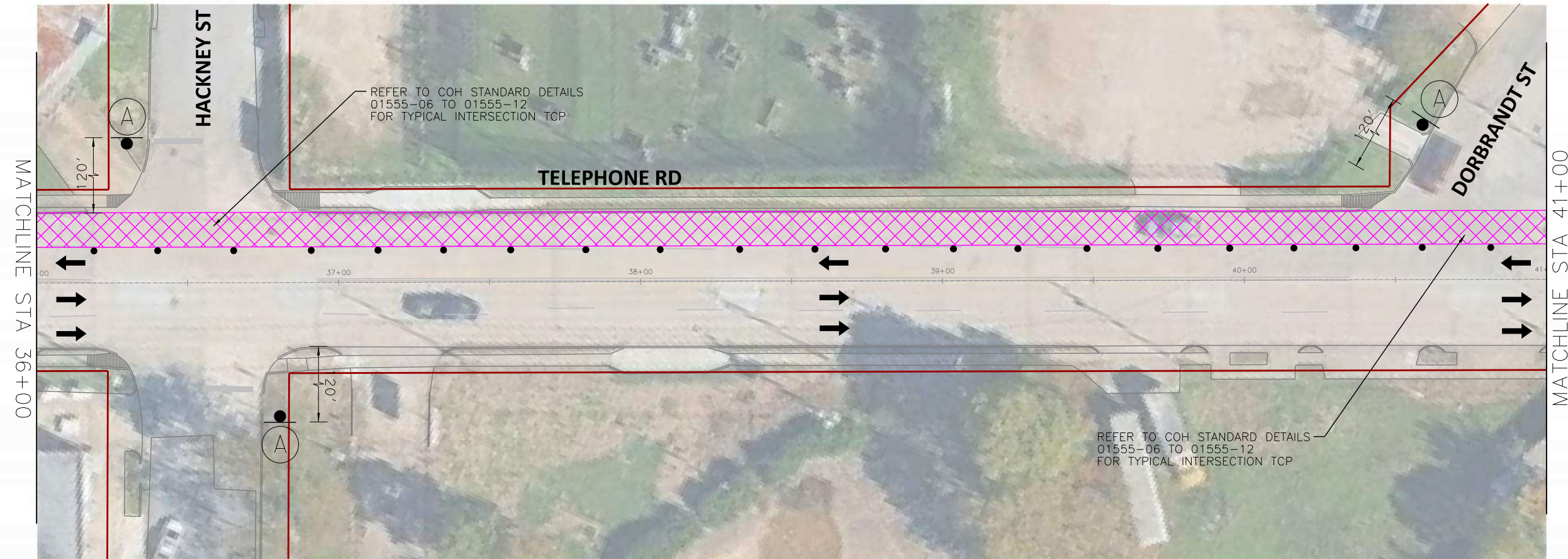
SHEET 8 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 83	

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE IV WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

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Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

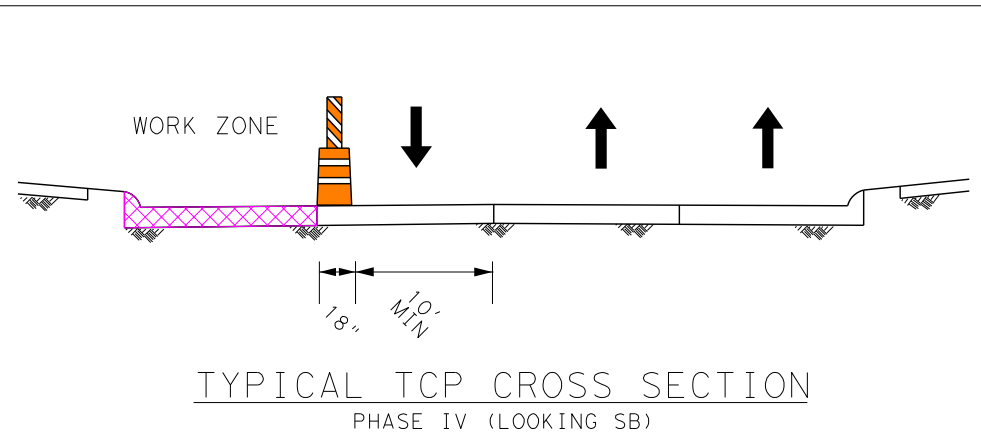
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

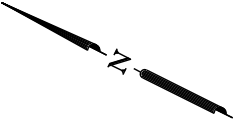
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE IV

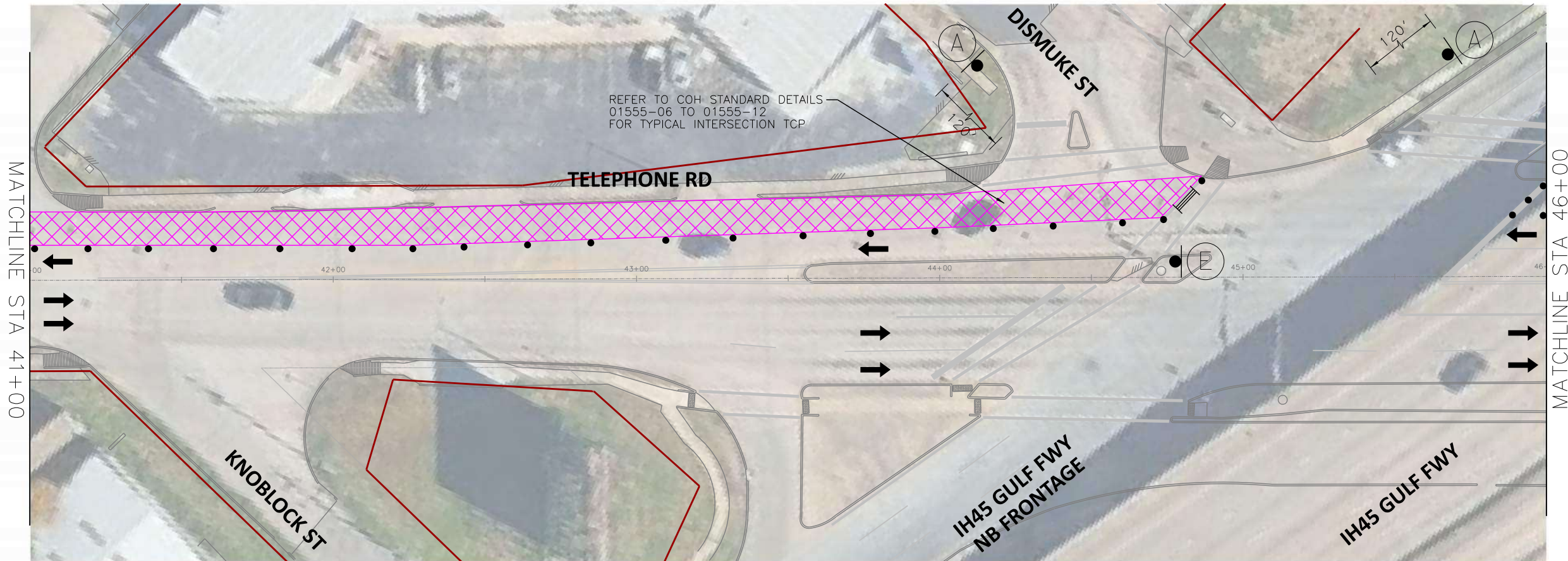
SHEET 9 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 84	

2/11/2026
TSR_SF1_TCP_Phase 4_Layout_Sheet_9.dgn



SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE IV WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

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Houston, Texas 77044
engineers + planners

DESIGN ENGINEER:
RAJ BASAVARAJU, PE
23410 GRAND RESERVE DR
HOUSTON, TX 77494
PHONE: (832) 492-4499
TX FIRM NUMBER: 19299

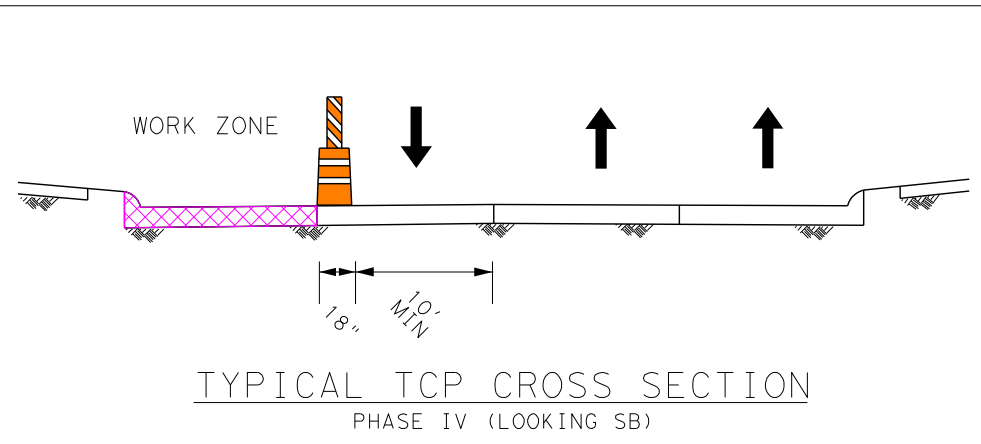
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

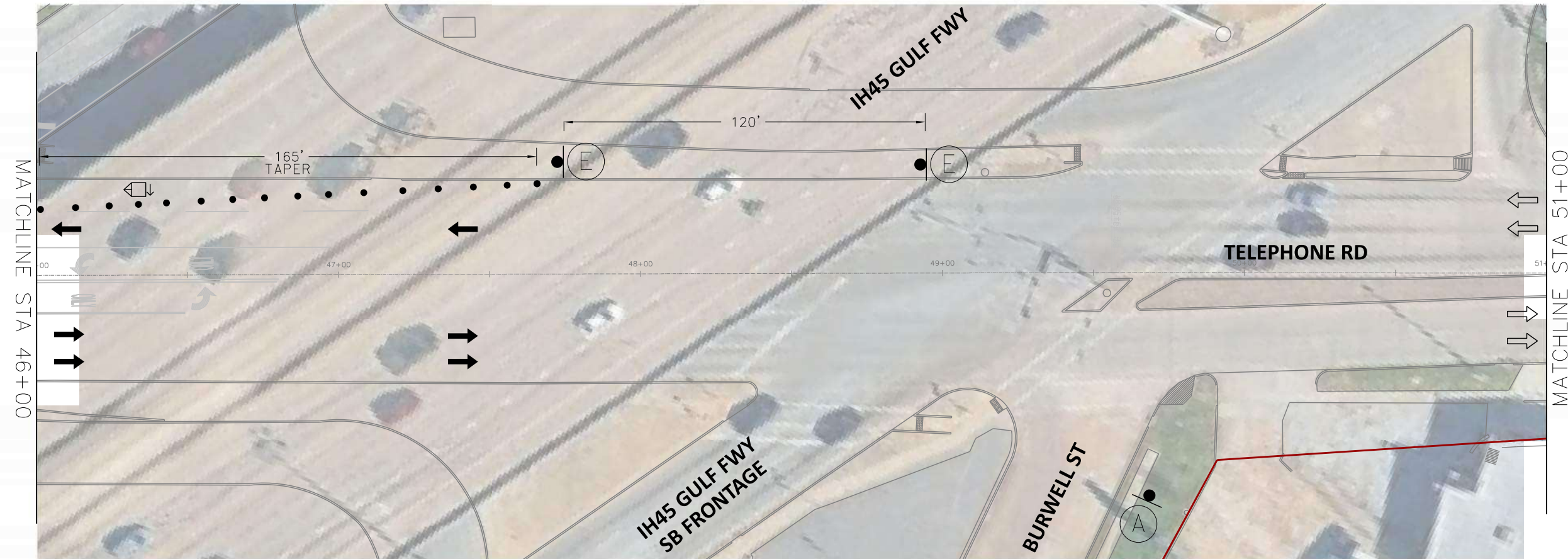
SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE IV

SHEET 10 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 85	

2/11/2026
TSR_SF1_TCP_Phase 4_Layout_Sheet_10.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE IV WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

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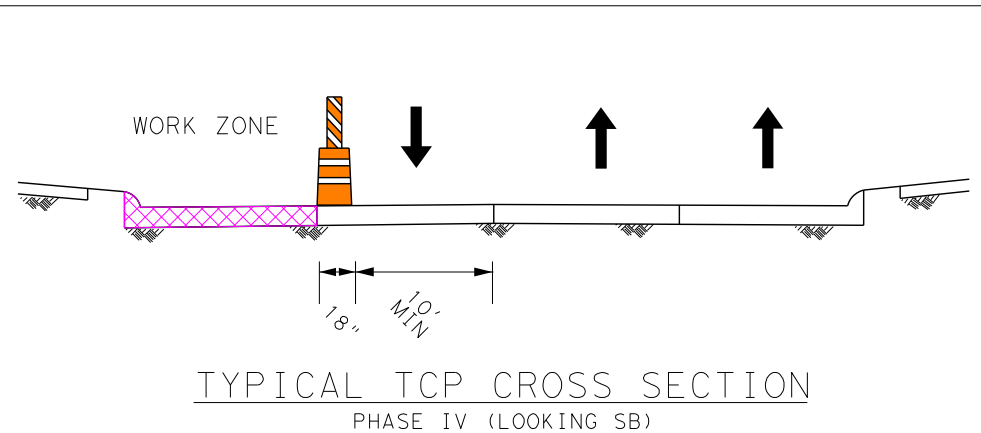
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RESPONSIBLE ENGINEER
TRANSCEND ENGINEERS & PLANNERS, LLC
RAJASEKHAR BASAVARAJU, PE
TEX REG NO. 112149
3/2/2026

SURVEYED BY: KUO
FIRM REG NO. 10075600

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-3D 48" X 48"	 CW20-5R 48" X 48"	 CW20-5L 48" X 48"	 CW4-2R 48" X 48"	 CW4-2L 48" X 48"
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
TCP LAYOUTS
PHASE IV

SHEET 11 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 86	

2/11/2026
TSR_SF1_TCP_Phase 4_Layout_Sheet_11.dgn

SCALE (22X34): 1"=20'
SCALE (11X17): 1"=40'



- PHASE IV WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- FLASHING ARROW PANEL
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
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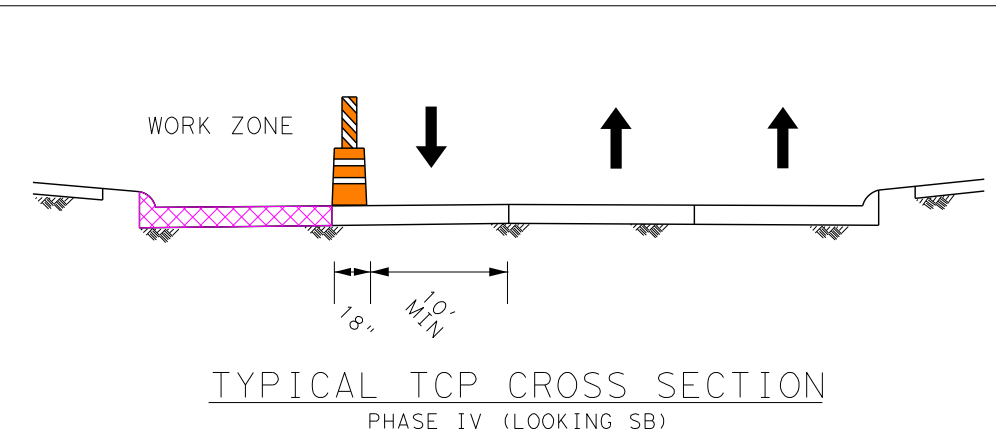
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SURVEYED BY: KUO
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TELEPHONE RD SPEED LIMIT = 30 MPH

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWDALE TO IH 45
TCP LAYOUTS
PHASE IV

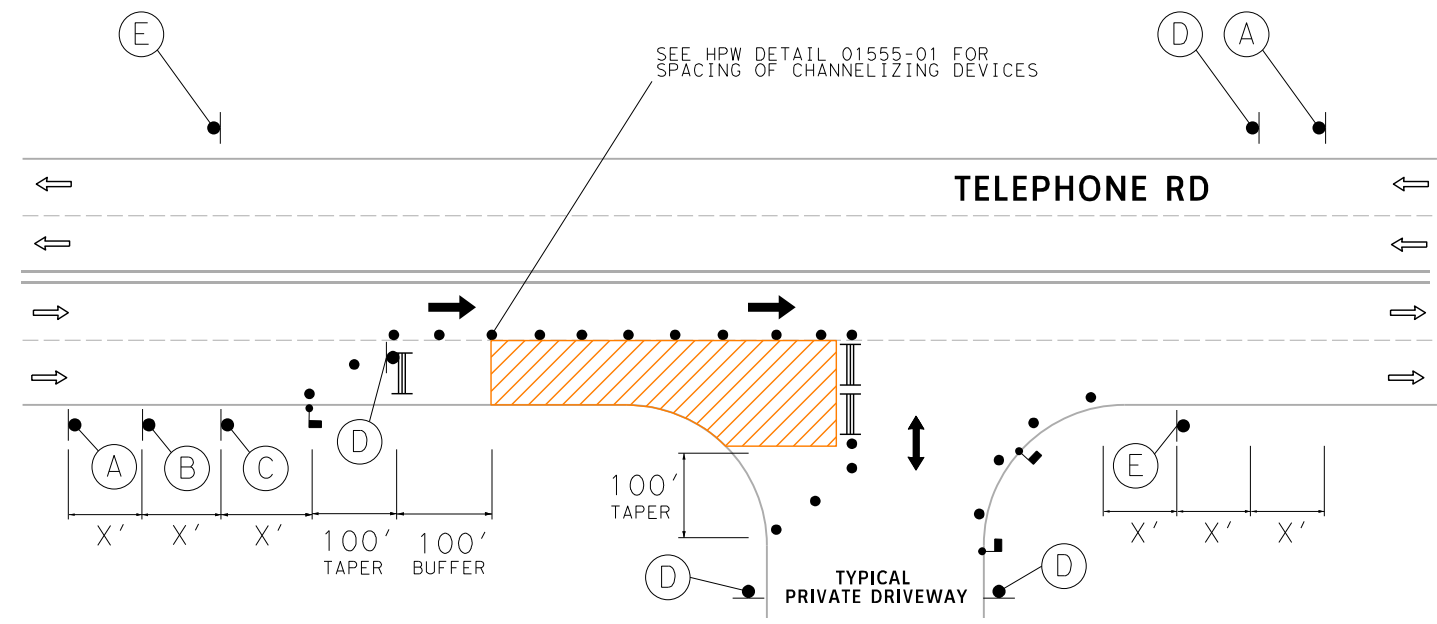
SHEET 12 OF 12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 87	

2/11/2026
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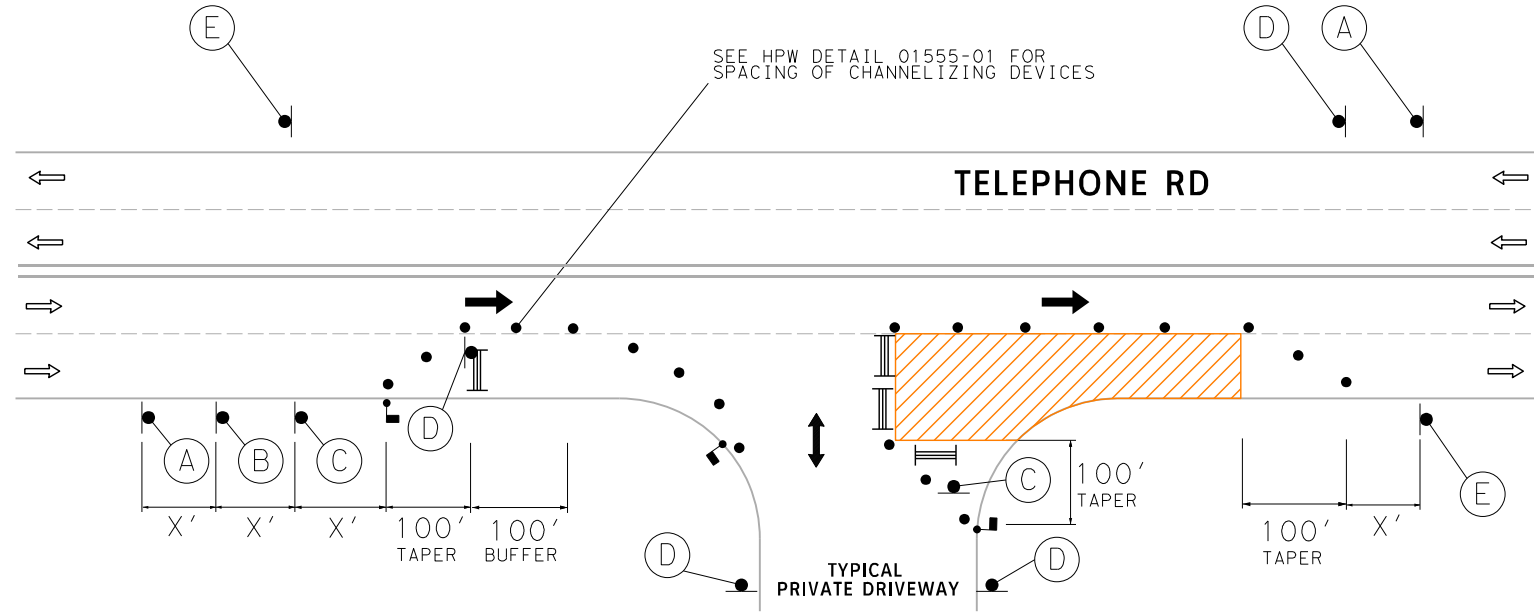
TYPICAL 1-LANE, 2-WAY TCP LAYOUT FOR PRIVATE DRIVEWAY ENTRANCE LANE WORK ZONE

N. T. S.



TYPICAL 1-LANE, 2-WAY TCP LAYOUT FOR PRIVATE DRIVEWAY EXIT LANE WORK ZONE

N. T. S.



- TYPICAL WORK ZONE
- TEMPORARY SIGN
- TRAFFIC CONTROL DEVICES
- TYPE III BARRICADE
- EXISTING TRAVEL WAY
- TEMPORARY TRAVEL WAY

TRANSCEND Transcend Engineers & Planners, LLC
TP&E Reg. No. F-19299
23410 Grand Reserve Dr. Suite 101
Houston, Texas 77494
engineers + planners

DESIGN ENGINEER: RAJ BASAVARAJU, PE	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
23410 GRAND RESERVE DR HOUSTON, TX 77494	RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC
PHONE: (832) 492-4499 TX FIRM NUMBER: 19299	RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149
SURVEYED BY: KUO FIRM REG NO. 10075600	3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT

SUBPROJECT 1:
LAWNDALE TO IH 45
TYPICAL PRIVATE DRIVEWAY
CLOSURE TCP LAYOUT

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
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CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 88	

- NOTES:
- CONTRACTOR TO MAINTAIN ACCESS TO LOCAL TRAFFIC AND PRIVATE ESTABLISHMENTS AT ALL TIMES.
 - MAINTAIN MINIMUM 10-FT WIDE LANES WHERE POSSIBLE. WHERE TEMPORARY LANES WOULD BE LESS THAN 10' WIDE, NARROW TUBULAR MARKERS OR SELF-RIGHTING VERTICAL PANELS MAY BE USED IN PLACE OF DRUMS.
 - IF MORE THAN ONE DRIVEWAY IS AVAILABLE FOR A SINGLE PROPERTY, CLOSE ONE FULL DRIVEWAY AT A TIME.
 - REFER TO HPW STANDARD DETAIL 01555-04 IF CLOSING A FULL DRIVEWAY.
 - CLOSE CURB LANE AND PROVIDE ONE-LANE TWO-WAY ACCESS AS SHOWN, EVEN IF A DRIVEWAY WORK ZONE DOES NOT OVERLAP WITH MAIN ROADWAY TRAVEL LANES.
 - AVOID IMPLEMENTING DRIVEWAY CLOSURES WITH ADJACENT PRIVATE DRIVEWAYS OR WITH DRIVEWAYS THAT ARE ON THE OPPOSITE SIDE OF THE ROAD.
 - REFER TO HPW STANDARD DETAIL 01555-01 FOR TRAFFIC CONTROL DEVICES.
 - INTERSECTIONS SHALL BE CLOSED FOR SHORT DURATIONS TO ALLOW FOR MILLING AND OVERLAY OPERATIONS.

TELEPHONE RD SPEED LIMIT = 30 MPH

 CW20-1D 48" X 48"	 CW20-5R 48" X 48"	 CW1-6a 48" X 48"	 CW20-7 48" X 48"	 G20-2a 48" X 24"
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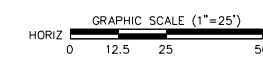
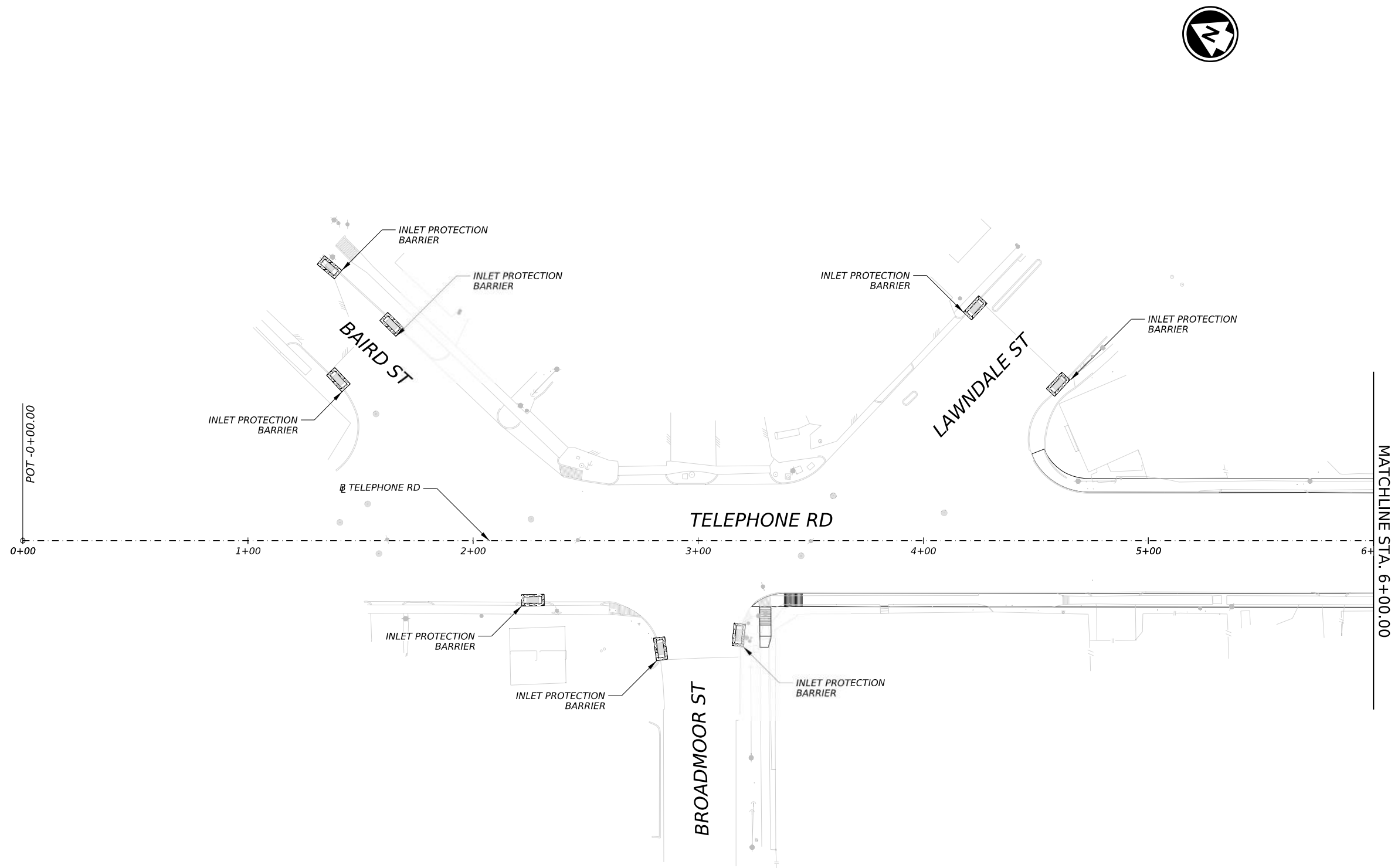
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LEGEND

-  INLET PROTECTION BARRIER
-  FILTER FABRIC BARRIER
-  STABILIZED CONSTRUCTION ACCESS
-  CONCRETE TRUCK WASHOUT AREA

NOTES

1. INLET PROTECTION MAY BE REUSED IF PROJECT PHASING ALLOWS.



TRANSCEND ENGINEERS & PLANNERS, LLC.
 TBPELS FIRM REG. NO. 19299
 23410 GRAND RESERVE DRIVE, SUITE 101
 KATY TX 77494

AGHA ENGINEERING LLC
 1080 ELDRIDGE PARKWAY
 SUITE #1100
 HOUSTON, TEXAS 77077
 713-331-9464
 TBPE REG. No. F-20817

100% SUBMITTAL

PRELIMINARY
 Document Incomplete: not intended
 for permit, bidding or construction.
 Engineer: KYLE KASPER-LEWIS
 P.E. Serial No. 155889
 Date: 2/20/26

SURVEYED BY:
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CITY OF HOUSTON
 HOUSTON PUBLIC WORKS

TELEPHONE RD. - MAIN ST.
 REVITALIZATION PROJECT
 SEGMENT 1: LAWDALE to IH 45
 STORM WATER POLLUTION
 PREVENTION PLAN

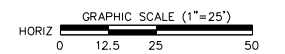
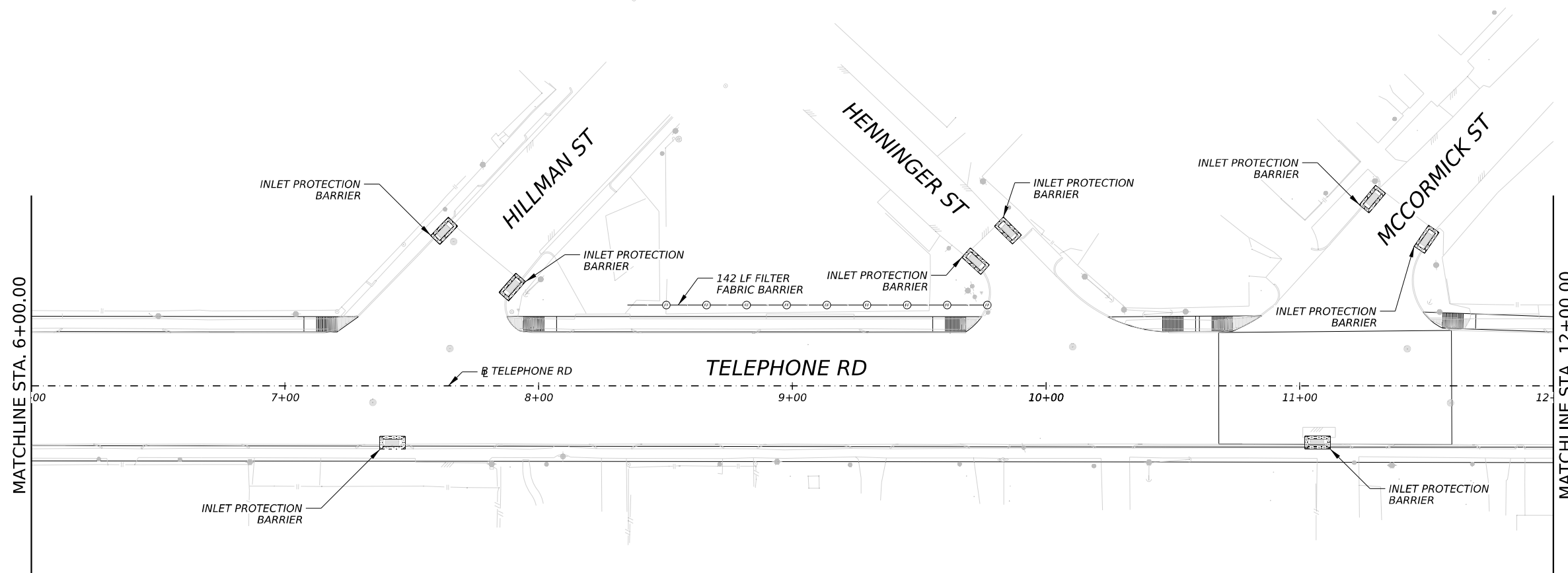
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SHEET NO. 90	

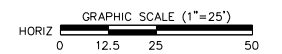
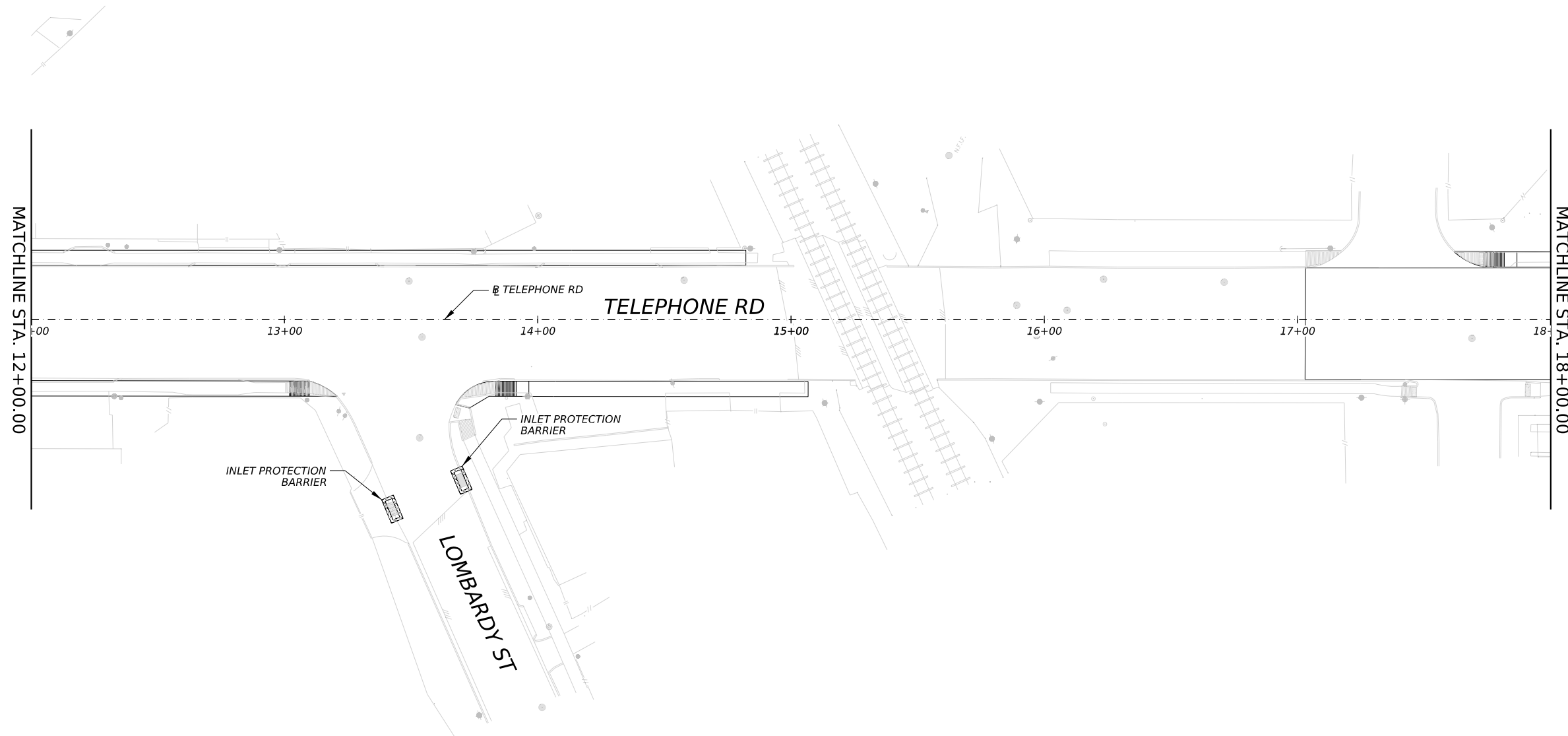


LEGEND

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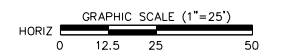
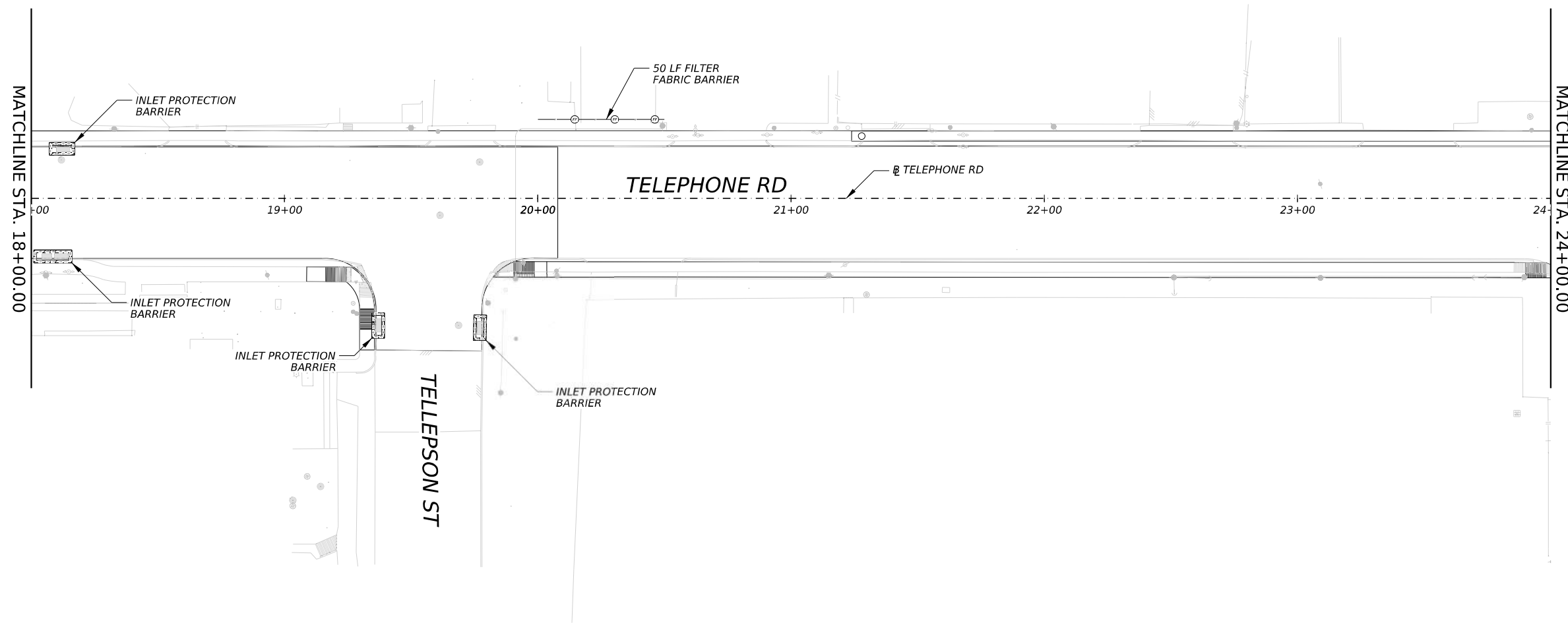


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CITY OF HOUSTON

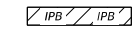
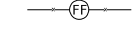
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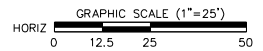
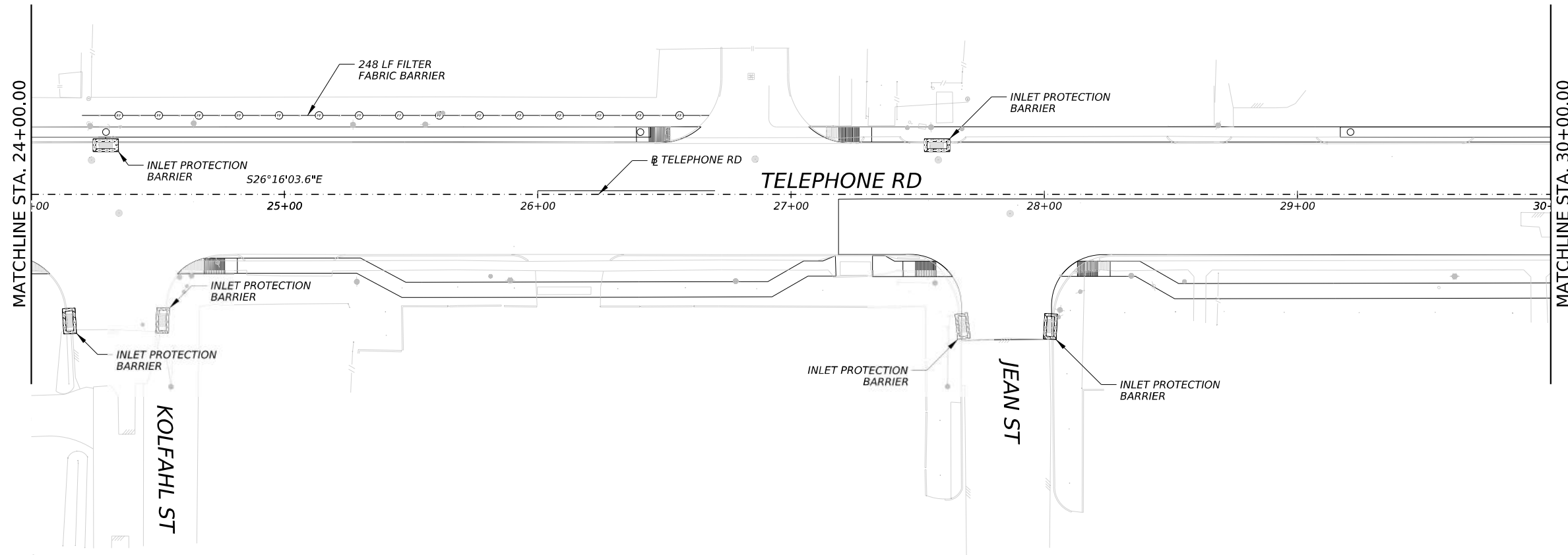


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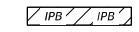
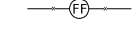
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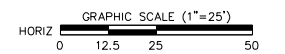
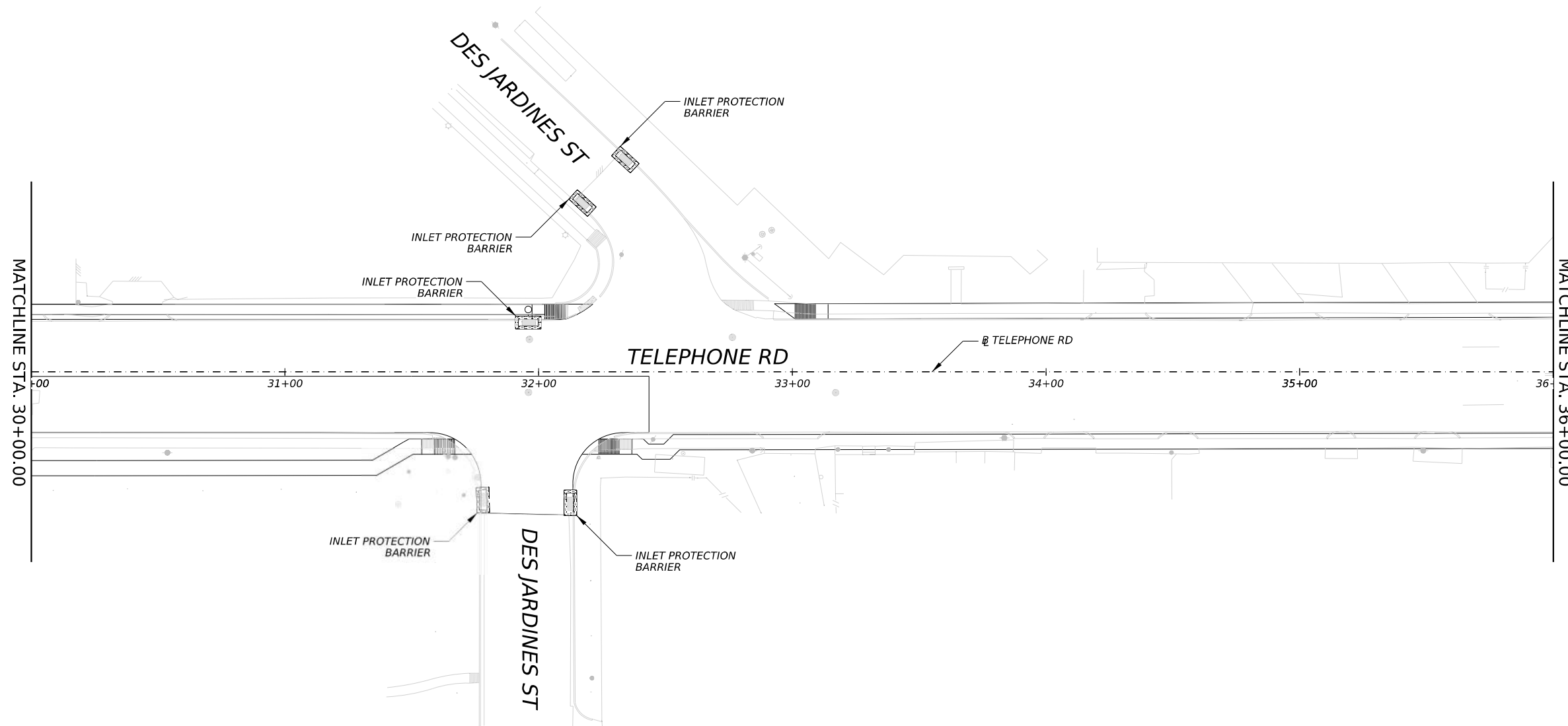


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 KATY TX 77494

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 SUITE #1100
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 713-331-9464
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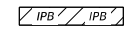
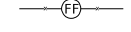

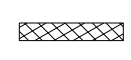
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TELEPHONE RD. – MAIN ST.
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 SEGMENT 1: LAWNSDALE to IH 45
 STORM WATER POLLUTION
 PREVENTION PLAN

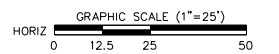
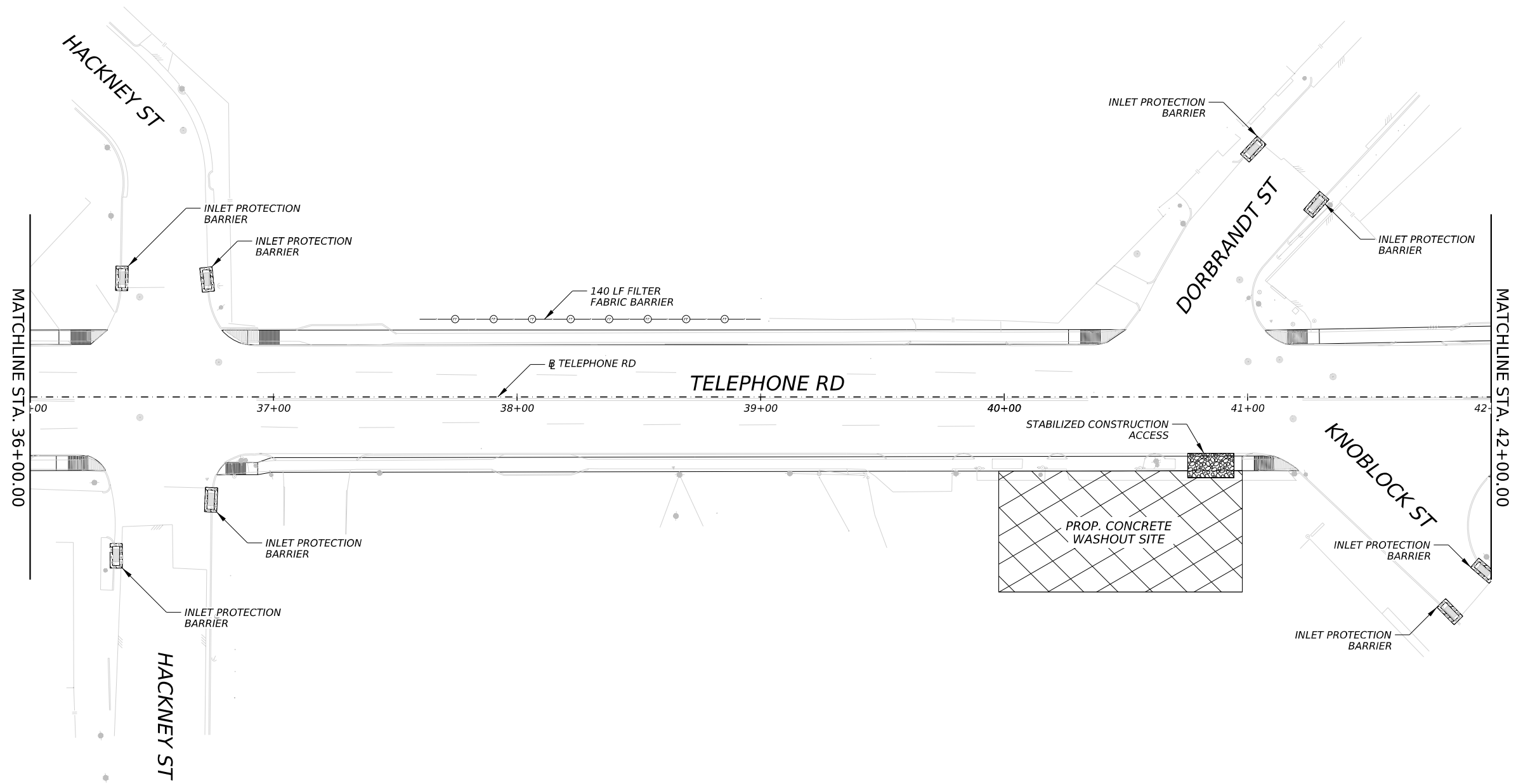
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CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 94	

LEGEND


-  INLET PROTECTION BARRIER
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 23410 GRAND RESERVE DRIVE, SUITE 101
 KATY TX 77494

 AGHA ENGINEERING, LLC 1080 ELDRIDGE PARKWAY SUITE #1100 HOUSTON, TEXAS 77077 713-331-9464 TPPE REG. NO. F-20817	100% SUBMITTAL PRELIMINARY Document Incomplete: not intended for permit, bidding or construction. Engineer: <u>KYLE KASPER-LEWIS</u> P.E. Serial No. <u>155889</u> Date: <u>2/20/26</u>
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 FB NO. 000000

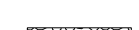
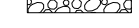
CITY OF HOUSTON
 HOUSTON PUBLIC WORKS

TELEPHONE RD. – MAIN ST.
 REVITALIZATION PROJECT
 SEGMENT 1: LAWDALE to IH 45
 STORM WATER POLLUTION
 PREVENTION PLAN

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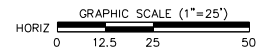
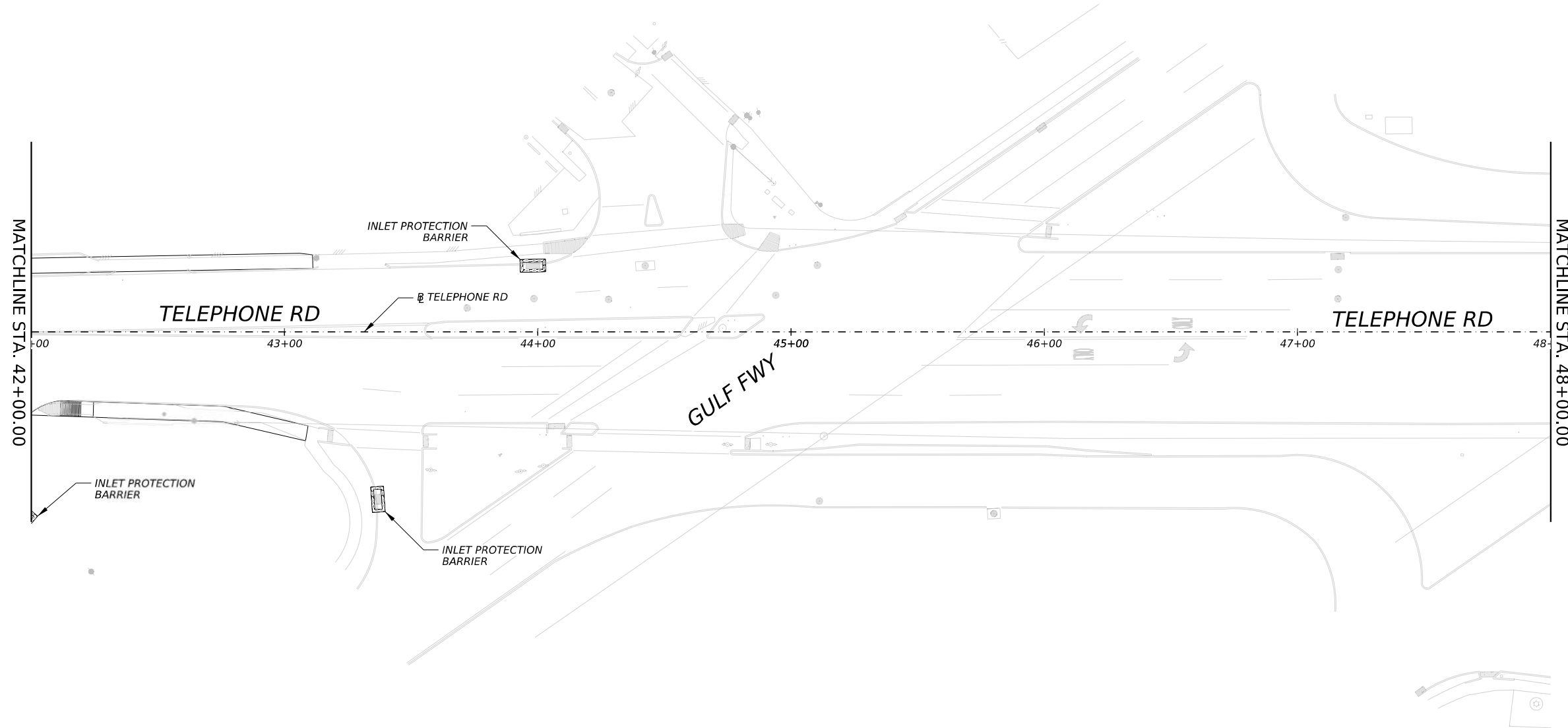


LEGEND

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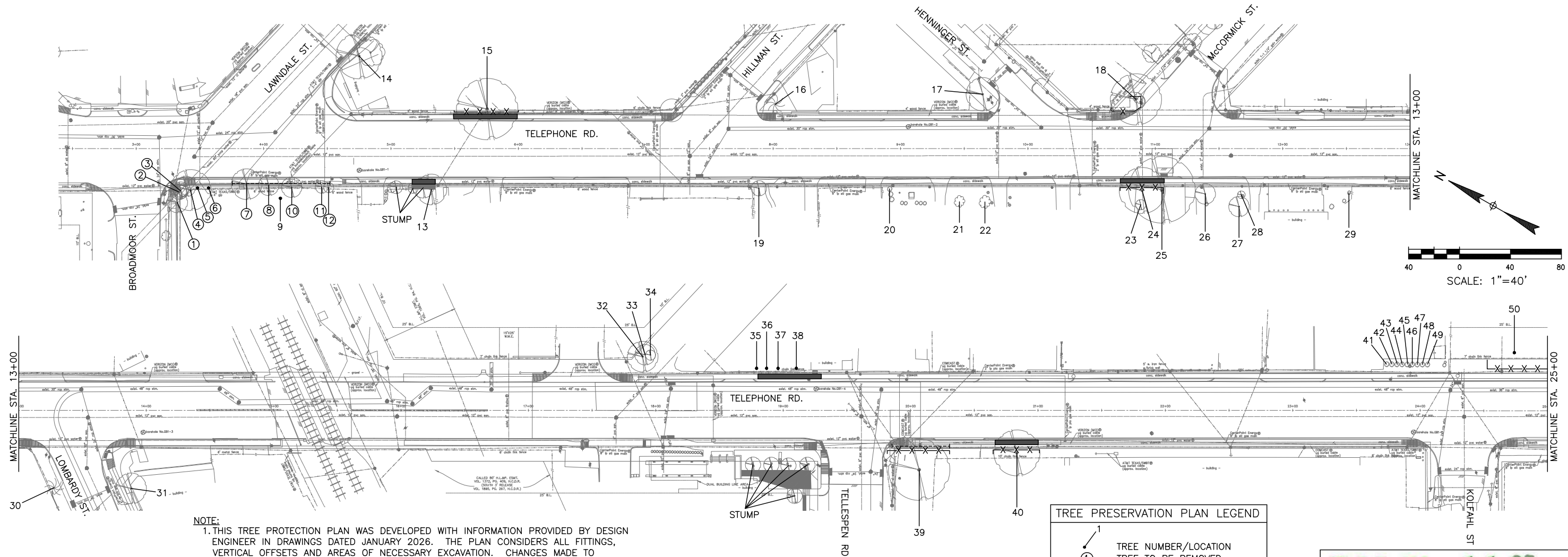
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 Engineer: **KYLE KASPER-LEWIS**
 P.E. Serpal No. 155889
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CITY OF HOUSTON
 HOUSTON PUBLIC WORKS

TELEPHONE RD. – MAIN ST.
 REVITALIZATION PROJECT
 SEGMENT 1: LAWNSDALE to IH 45
 STORM WATER POLLUTION
 PREVENTION PLAN

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SHEET NO. 96	



NOTE:
 1. THIS TREE PROTECTION PLAN WAS DEVELOPED WITH INFORMATION PROVIDED BY DESIGN ENGINEER IN DRAWINGS DATED JANUARY 2026. 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.
 2. CN KOEHL URBAN FORESTRY, INC. HAS NOT BEEN CONTRACTED TO COMPLETE ANY TREE RISK ASSESSMENTS ON THIS PROJECT—THIS TPP INCLUDES PROTECTION MEASURES FOR SPECIES OF TREES PROTECTED BY APPLICABLE ORDINANCE ONLY. CN KOEHL URBAN FORESTRY, INC. DOES NOT GUARANTEE CONDITION OR STRUCTURAL INTEGRITY OF ANY TREE LOCATED ON OR ADJACENT TO THIS PROJECT.
 3. IN AREAS WHERE INDIVIDUAL TREES HAVE NOT BEEN TIED IN BY SURVEY, APPROXIMATE LOCATION IS INDICATED ON TPP WITH A DOT AND TREE NUMBER. ACCURACY OF REPRESENTED LOCATION IS NOT GUARANTEED BY CN KOEHL URBAN FORESTRY, INC.

TREE PRESERVATION PLAN LEGEND

- ① TREE NUMBER/LOCATION
- X—X— TREE PROTECTION FENCE
- - - - ROOT PRUNING TRENCH
- █ SIDEWALK ON GRADE

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Telephone Road					
1	1510 Telephone Rd	14" Sugarberry	Not protected	Remove for walk	Remove tree, no replacement/mitigation required
2	1510 Telephone Rd	5" Sugarberry	Not protected	Remove tree, no replacement/mitigation required	Remove tree, no replacement/mitigation required
3	1510 Telephone Rd	7" Sugarberry	Not protected	Remove for walk	Remove tree, no replacement/mitigation required
4	1510 Telephone Rd	10" American Elm	Protected	Pruned by CPE, Remove for walk	Remove tree, Provide 10" replacement/mitigation
5	1510 Telephone Rd	10" Sugarberry	Not protected	Topped by CPE, Remove for walk	Remove tree, no replacement/mitigation required
6	1510 Telephone Rd	16" American Elm	Protected	Topped by CPE, Remove for walk Trunk leans over walk, Remove for walk	Remove tree, Provide 16" replacement/mitigation
7	1510 Telephone Rd	19" Sugarberry	Not protected	Topped by CPE, Remove for walk	Remove tree, no replacement/mitigation required
8	1510 Telephone Rd	10" Sugarberry	Not protected	Topped by CPE, Remove for walk	Remove tree, no replacement/mitigation required
9	1510 Telephone Rd	32" Live Oak	Protected	Pruned by CPE, Corridor tree	Root prune for walk, Clearance prune
10	1510 Telephone Rd	9" Sugarberry	Not protected	Topped by CPE, Remove for walk	Remove tree, no replacement/mitigation required
11	1510 Telephone Rd	9" Sugarberry	Not protected	Topped by CPE, Remove for walk	Remove tree, no replacement/mitigation required
12	1510 Telephone Rd	6" Sugarberry	Not protected	Topped by CPE, Remove for walk	Remove tree, no replacement/mitigation required
13	1516 Telephone Rd	14" American Elm	Not protected	Topped by CPE, Private tree	Demo-form-pour walk without damage to tree roots 1" diameter or larger
14	5106 Lawndale	15" Ligustrum	Not protected		
15	5106 Lawndale	35" American Elm	Protected		Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
16	Not available	25" Palm	Not protected		
17	Not available	15" Arizona Ash	Not protected	Private tree	Clearance prune
18	1559 Telephone Rd	27" Sugarberry	Protected		Fence
19	1540 Telephone Rd	3" Redtip Photinia	Not protected	Topped, Private tree	
20	1550 Telephone Rd	4" Holly	Not protected	Dead, Private tree	
21	1556 Telephone Rd	3" Boxwood	Not protected	Private tree, not impacted	
22	1556 Telephone Rd	3" Boxwood	Not protected	Private tree, not impacted	
23	1562 Telephone Rd	4" Peach	Not protected	Private tree, not impacted	
24	1562 Telephone Rd	23" Arizona Ash	Not protected	Topped by CPE, Private tree	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
25	1562 Telephone Rd	27" Arizona Ash	Not protected	Topped by CPE, Private tree	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Telephone Road					
26	1566 Telephone Rd	9" Loquat	Not protected	50% dieback, Private tree	
27	1566 Telephone Rd	8" Peach	Not protected	Private tree, not impacted	
28	1566 Telephone Rd	3" Peach	Not protected	Private tree, not impacted	
29	1570 Telephone Rd	1" Rose	Not protected	Private tree, not impacted	
30	1570 Telephone Rd	3" Palm	Not protected		
31	1580 Telephone Rd	15" Mulberry	Not protected	Private tree, not impacted	
32	1651 Telephone Rd	16" American Elm	Not protected	Private tree, not impacted	
33	1651 Telephone Rd	12" American Elm	Not protected	Private tree, not impacted	
34	1651 Telephone Rd	5" American Elm	Not protected	Private tree, not impacted	
35	1705 Telephone Rd	7" Sugarberry	Not protected	Growing in fence, Private tree	
36	1705 Telephone Rd	8" American Elm	Not protected	Growing in fence, Private tree	Demo-form-pour walk without damage to tree roots 1" diameter or larger
37	1705 Telephone Rd	15" Sugarberry	Not protected	Growing in fence, Private tree	Demo form pour walk without damage to tree roots 1" diameter or larger
38	1705 Telephone Rd	17" American Elm	Not protected	Growing in fence, Private tree	Demo-form-pour walk without damage to tree roots 1" diameter or larger
39	1903 Tellepsen	27" Live Oak	Protected	Pruned by CPE, Corridor tree	Root prune for walk, Fence
40	1903 Tellepsen	20" Live Oak	Protected	Pruned by CPE, Corridor tree	Root prune for walk, Fence
41	1815 Telephone Rd	5" Ligustrum	Not protected	Private tree, not impacted	
42	1015 Telephone Rd	5" Ligustrum	Not protected	Private tree, not impacted	
43	1815 Telephone Rd	5" Ligustrum	Not protected	Private tree, not impacted	
44	1815 Telephone Rd	5" Ligustrum	Not protected	Private tree, not impacted	
45	1815 Telephone Rd	5" Ligustrum	Not protected	Private tree, not impacted	
46	1815 Telephone Rd	5" Ligustrum	Not protected	Private tree, not impacted	
47	1815 Telephone Rd	5" Ligustrum	Not protected	Private tree, not impacted	
48	1815 Telephone Rd	5" Ligustrum	Not protected	Private tree, not impacted	
49	1815 Telephone Rd	5" Ligustrum	Not protected	Private tree, not impacted	
50	5402 Lawndale	16" Live Oak	Not protected	Private tree	Fence, Clearance prune

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 APPROVED:

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DESIGN ENGINEER:
 RAJ BASAVARAJU, PE
 23410 GRAND RESERVE DR
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 PHONE: (832) 492-4499
 TX FIRM NUMBER: 19299

SURVEYED BY: KUO
 FIRM REG NO. 10075600

THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
 RESPONSIBLE ENGINEER
 TRANSCEND ENGINEERS & PLANNERS, LLC
 RAJASEKHAR BASAVARAJU, PE
 TEX REG NO. 112149
 3/2/2026

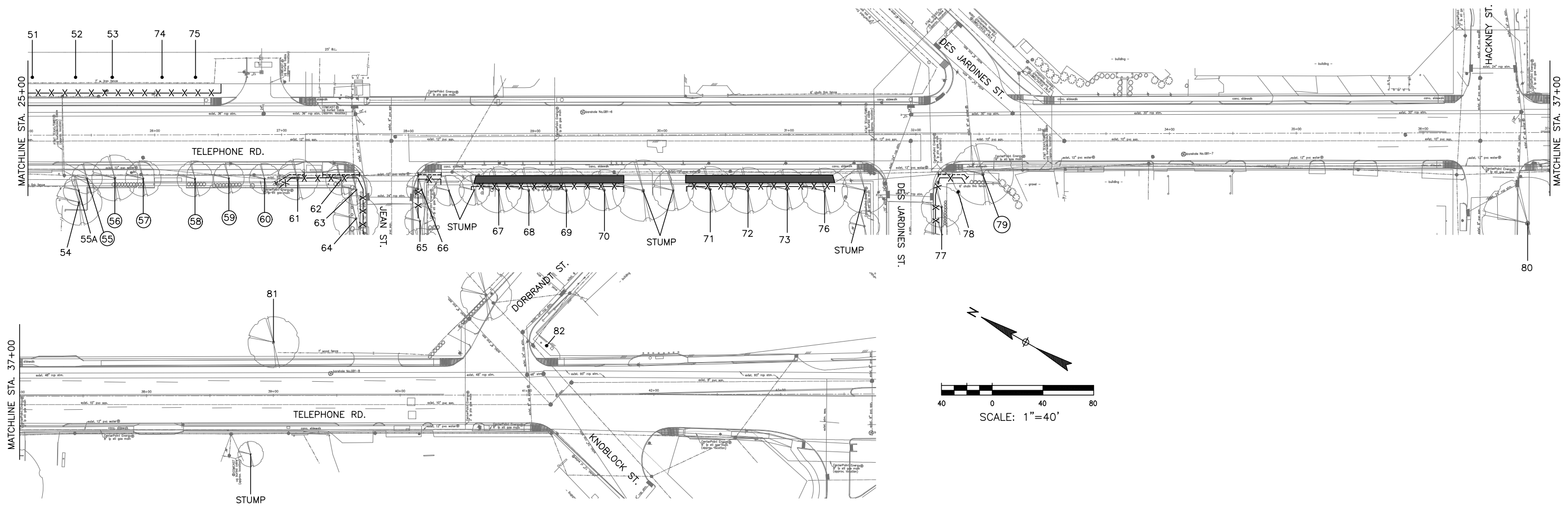
CITY OF HOUSTON
 HOUSTON PUBLIC WORKS

TELEPHONE ROAD
 MAIN STREET REVITALIZATION PROJECT

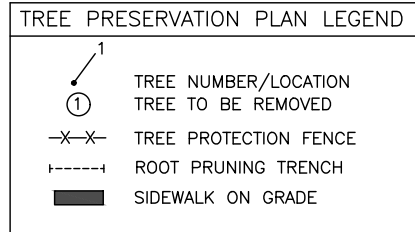
SUBPROJECT 1:
 LAWDALE TO IH 45
 TREE PROTECTION PLAN

SHEET 1 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 97	



Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Telephone Road					
51	5402 Lawndale	17" Live Oak	Not protected	Private tree	Fence, Clearance prune
52	5402 Lawndale	12" Live Oak	Not protected	Private tree	Fence, Clearance prune
53	5402 Lawndale	16" Live Oak	Not protected	Private tree	Fence, Clearance prune
54	2100 Telephone Rd	22" Live Oak	Not protected	1/3 of canopy removed, Not impacted	
55	2100 Telephone Rd	15" Live Oak	Protected	Remove for walk	Remove tree, Provide 15" replacement/mitigation
55A	2100 Telephone Rd	15" Live Oak	Not protected	1/3 of canopy removed, Not impacted	
56	2100 Telephone Rd	19" Live Oak	Protected	Remove for walk	Remove tree, Provide 19" replacement/mitigation
57	2100 Telephone Rd	17" Live Oak	Protected	Remove for walk	Remove tree, Provide 17" replacement/mitigation
58	2100 Telephone Rd	17" Live Oak	Protected	Remove for walk	Remove tree, Provide 17" replacement/mitigation
59	2100 Telephone Rd	14" Live Oak	Protected	Remove for walk	Remove tree, Provide 14" replacement/mitigation
60	2100 Telephone Rd	15" Live Oak	Protected	Remove for walk	Remove tree, Provide 15" replacement/mitigation
61	2100 Telephone Rd	16" Live Oak	Protected	Topped by CPE	Root stimulate, Root prune for walk, Fence
62	2100 Telephone Rd	14" Live Oak	Protected	Topped by CPE	Root stimulate, Root prune for walk, Fence
63	2100 Telephone Rd	16" Live Oak	Protected	Pruned by CPE	Root stimulate, Root prune for walk, Fence
64	2100 Telephone Rd	21" Live Oak	Protected		Fence
65	2100 Telephone Rd	17" Live Oak	Protected		Fence
66	2100 Telephone Rd	17" Live Oak	Protected	Pruned by CPE	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
67	2100 Telephone Rd	18" Live Oak	Protected	Corridor Tree, Pruned by CPE	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
68	2100 Telephone Rd	22" Live Oak	Protected	Corridor Tree, Pruned by CPE	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
69	2100 Telephone Rd	21" Live Oak	Protected	Corridor Tree, Pruned by CPE	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
70	2100 Telephone Rd	18" Live Oak	Protected	Corridor Tree, Pruned by CPE	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
71	2100 Telephone Rd	22" Live Oak	Protected	Corridor Tree, Pruned by CPE	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
72	2100 Telephone Rd	22" Live Oak	Protected	Corridor Tree, Pruned by CPE	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
73	2100 Telephone Rd	21" Live Oak	Protected	Corridor Tree, Pruned by CPE	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
74	5402 Lawndale	16" Live Oak	Not protected	Private tree	Fence, Clearance prune
75	5402 Lawndale	16" Live Oak	Not protected	Private tree	Fence, Clearance prune
76	2100 Telephone Rd	19" Live Oak	Protected	Corridor Tree, Pruned by CPE	Fence, Demo-form-pour walk without damage to tree roots 1" diameter or larger
77	2202 Telephone Rd	16" Live Oak	Protected		Root prune for walk, Fence
78	2202 Telephone Rd	22" Live Oak	Protected	Corridor tree	Root prune for walk, Fence
79	2202 Telephone Rd	26" Tallow	Protected	Remove for walk	Remove tree, Provide 26" in replacement/mitigation
80	5335 Gulf Fwy	27" American Elm	Protected	Sidewalk const impacts, 70% dieback	
81	2331 Telephone Rd	18" Mulberry	Not protected	1/2 canopy removed, Private tree	
82	2429 Telephone Rd	3" Live Oak	Not protected	Stump sprouts, Private tree	



- NOTE:**
- THIS TREE PROTECTION PLAN WAS DEVELOPED WITH INFORMATION PROVIDED BY DESIGN ENGINEER IN DRAWINGS DATED JANUARY 2026. 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.
 - CN KOEHL URBAN FORESTRY, INC. HAS NOT BEEN CONTRACTED TO COMPLETE ANY TREE RISK ASSESSMENTS ON THIS PROJECT—THIS TPP INCLUDES PROTECTION MEASURES FOR SPECIES OF TREES PROTECTED BY APPLICABLE ORDINANCE ONLY. CN KOEHL URBAN FORESTRY, INC. DOES NOT GUARANTEE CONDITION OR STRUCTURAL INTEGRITY OF ANY TREE LOCATED ON OR ADJACENT TO THIS PROJECT.
 - IN AREAS WHERE INDIVIDUAL TREES HAVE NOT BEEN TIED IN BY SURVEY, APPROXIMATE LOCATION IS INDICATED ON TPP WITH A DOT AND TREE NUMBER. ACCURACY OF REPRESENTED LOCATION IS NOT GUARANTEED BY CN KOEHL URBAN FORESTRY, INC.

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SURVEYED BY: KUO
FIRM REG NO. 10075600

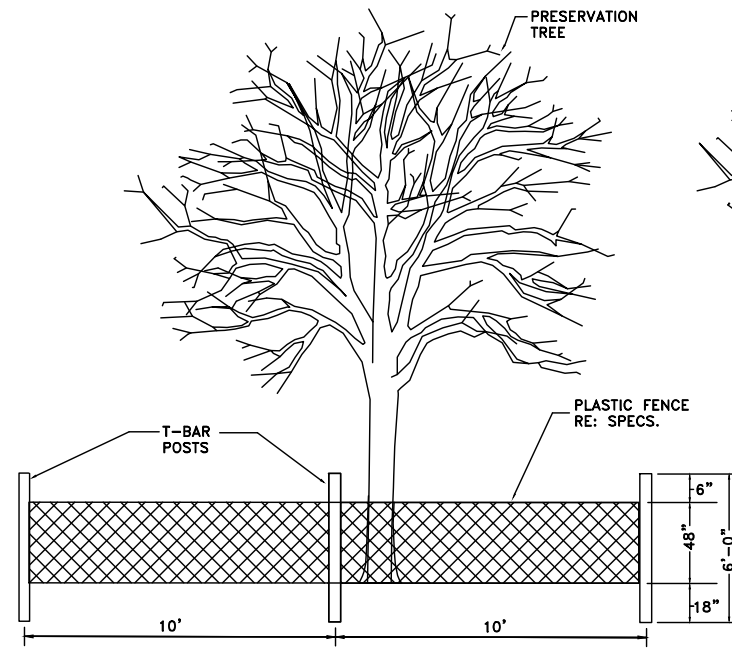
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
TREE PROTECTION PLAN

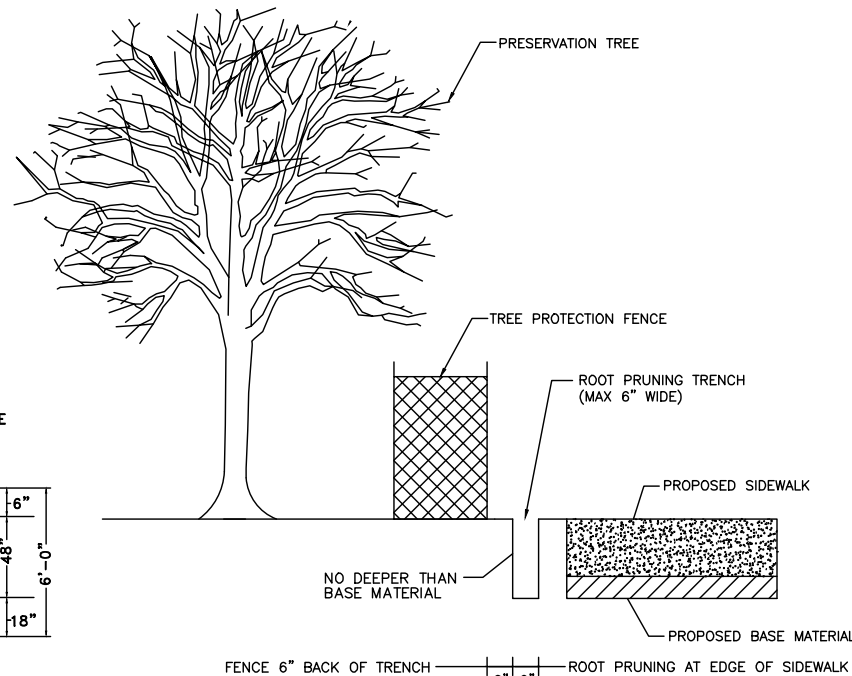
SHEET 2 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 98	

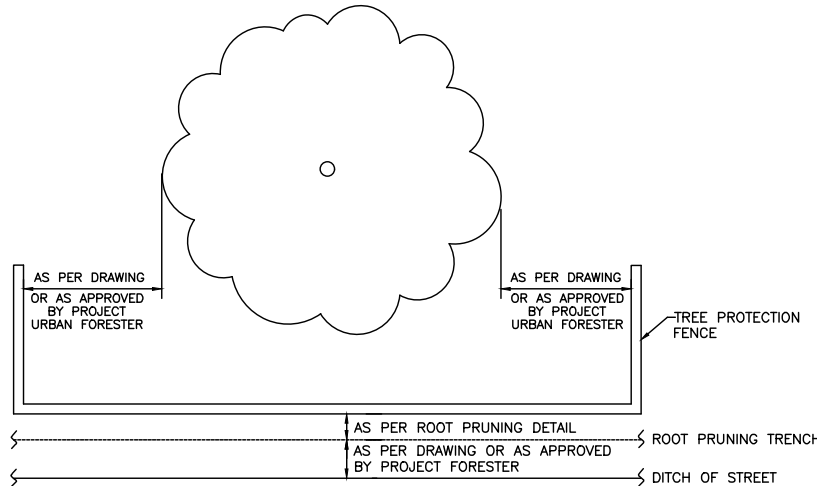
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TREE PROTECTION FENCING DETAIL A
NOT TO SCALE



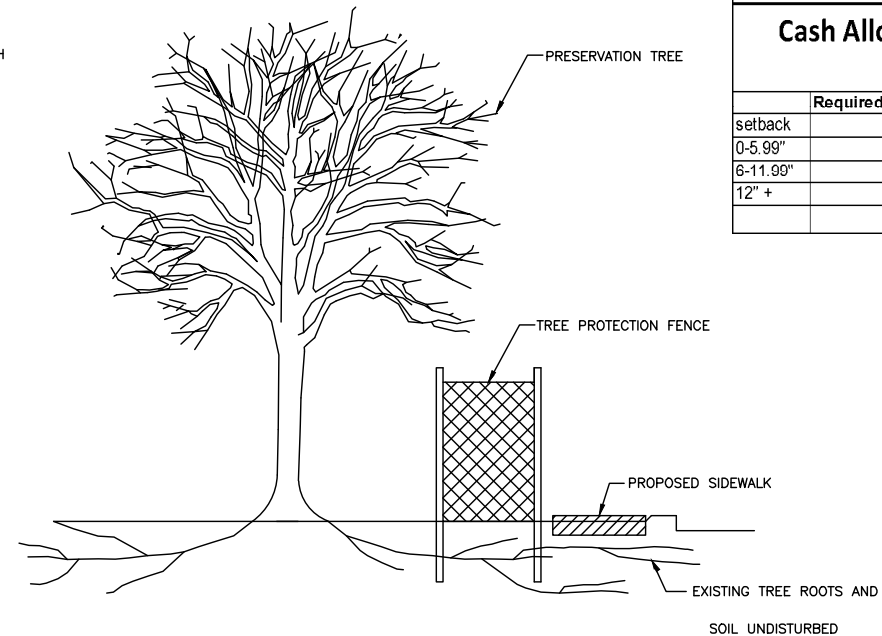
ROOT PRUNE FOR SIDEWALK
NOT TO SCALE



TREE PROTECTION FENCING DETAIL B
NOT TO SCALE

Arboriculturally Significant Tree List		
Tree No.	Location	Description
9	1510 Telephone Rd	32" Live Oak
15	5106 Lawndale	35" American Elm
25	1562 Telephone Rd	27" Arizona Ash
39	1903 Tellepsen	27" Live Oak
79	2202 Telephone Rd	26" Tallow
80	5335 Gulf Fwy	27" American Elm

Trees identified by City of Houston Forestry/Parks & Recreation Department as Arboriculturally Significant are identified here and/or in treatment schedule included on TPP sheets. Arboriculturally Significant trees are to be pruned under direct supervision of City of Houston Forestry. Minimal pruning will be allowed for construction equipment access, and in some cases no pruning will be allowed. Contractor must review conditions around and/or under the canopy of Arboriculturally Significant trees and consider restrictions when preparing cost estimate and planning construction equipment that will be necessary to accomplish design installation with minimal to no tree pruning.



DEMO-FORM-POUR WALK WITHOUT DAMAGE TO TREE ROOTS 1" DIAMETER OR LARGER
NOT TO SCALE

Tree Removal List			
Tree No.	Location	Description	Replacement requirement
1	1510 Telephone Rd	14" Sugarberry	0
2	1510 Telephone Rd	5" Sugarberry	0
3	1510 Telephone Rd	7" Sugarberry	0
4	1510 Telephone Rd	10" American Elm	10
5	1510 Telephone Rd	10" Sugarberry	0
6	1510 Telephone Rd	16" American Elm	16
7	1510 Telephone Rd	19" Sugarberry	0
8	1510 Telephone Rd	10" Sugarberry	0
10	1510 Telephone Rd	9" Sugarberry	0
11	1510 Telephone Rd	9" Sugarberry	0
12	1510 Telephone Rd	6" Sugarberry	0
55	2100 Telephone Rd	15" Live Oak	15
56	2100 Telephone Rd	19" Live Oak	19
57	2100 Telephone Rd	17" Live Oak	17
58	2100 Telephone Rd	17" Live Oak	17
59	2100 Telephone Rd	14" Live Oak	14
60	2100 Telephone Rd	15" Live Oak	15
79	2202 Telephone Rd	26" Tallow	26

TOTAL REPLACEMENT INCHES REQUIRED 149

Tree Replacement List			
Quantity	Caliper Size	Species	Container/Tree Spade size
TOTAL REPLACEMENT INCHES INCLUDED IN PLAN			0

NOTE: Tree replacement locations are not shown on plans. Contractor must coordinate with City of Houston Urban Forestry and Houston Public Works prior to PURCHASING trees. This project may not have adequate room for all required replacement trees without creating regulatory sign or traffic/pedestrian visibility issues. Number of trees and planting locations will be determined by City of Houston Urban Forestry in construction phase. Trees that are planted are to be maintained and watered for 2 years following planting per standard spec 02915. Timing of planting may be delayed in periods of drought with mandatory water restrictions in place-timing to be coordinated with City of Houston Urban Forestry. Trees in esplanade groupings to be planted in common bed with 4" of hardwood mulch between trees.

Trees are to be maintained and watered for 2 years following planting per standard spec 02915. Timing of planting may be delayed in periods of drought with mandatory water restrictions in place-timing to be coordinated with City of Houston Forestry.

Tree replacement locations shall comply with Houston Public Works spec sections 02811, 02911, 02912, 02915, 02921 & 02922. In general trees along sides of street right of ways shall be no closer than 3' to back of curb or 20' from another tree. Trees in medians shall be no closer than 6' back of curb, 75' from an intersection, 50' to a median cut, or 20' from another tree. Contractor to coordinate locations with City Forestry and HPW prior to PURCHASING trees. All replacement trees called out on plans may not be planted on project relative to coordination with listed parties.

Cash Allowance Due Parks from HPW for Balance of Mitigation Not Planted on Project

	Required Mitigation total	Mitigation rate/inch	
setback	\$	132.51	
0-5.99"	\$	302.12	\$ -
6-11.99"	10 \$	503.55	\$ 5,035.50
12" +	139 \$	671.40	\$ 93,324.60
	TOTAL REQUIRED MITIGATION FEE		\$ 98,360.10

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TX FIRM NUMBER: 19299

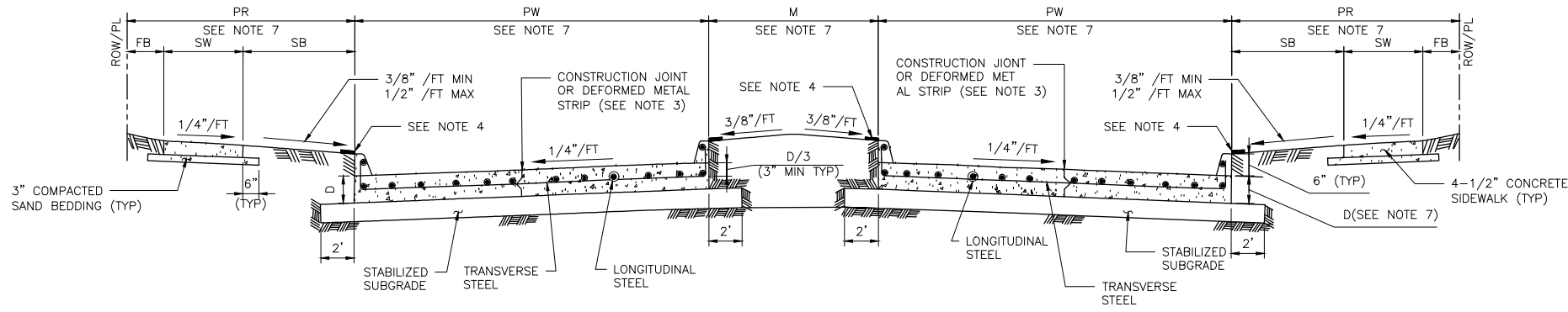
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FIRM REG NO. 10075600

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

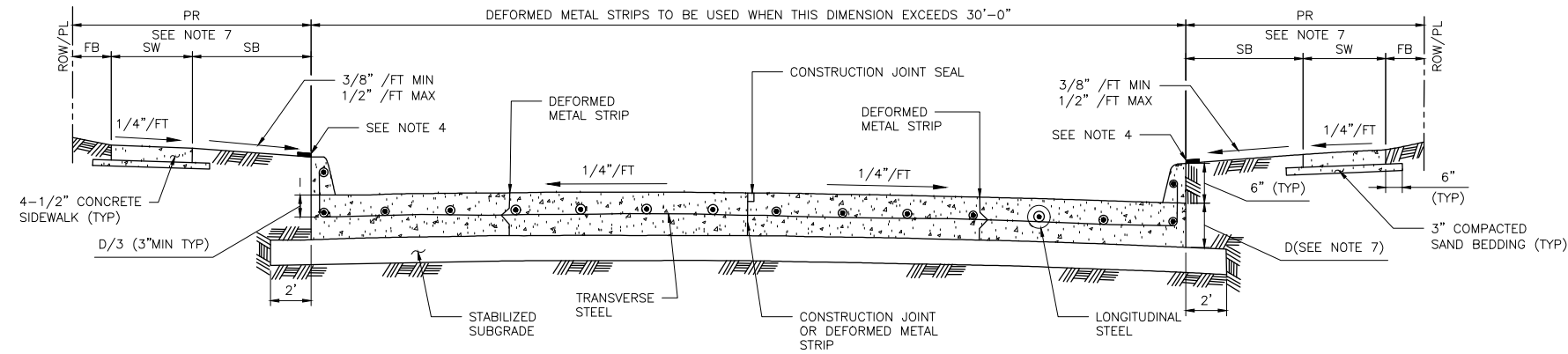
TELEPHONE ROAD
MAIN STREET REVITALIZATION PROJECT
SUBPROJECT 1:
LAWNDALE TO IH 45
TREE PROTECTION PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 99	

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TYPICAL DOUBLE ROADWAY SECTION FOR CONCRETE PAVEMENT WITH CURBS



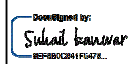



TYPICAL SINGLE ROADWAY SECTION FOR CONCRETE PAVEMENT WITH CURBS

TABLE 1
REINFORCING STEEL BAR SIZES AND SPACINGS FOR VARIOUS PAVEMENT THICKNESSES (D) WITH: MAXIMUM TRANSVERSE CONTROL JOINT SPACING = 20'-0"
MAXIMUM EXPANSION JOINT SPACING = 80'-0"
f_c = 4,000 PSI/28 DAYS AND F_y = 60,000 PSI

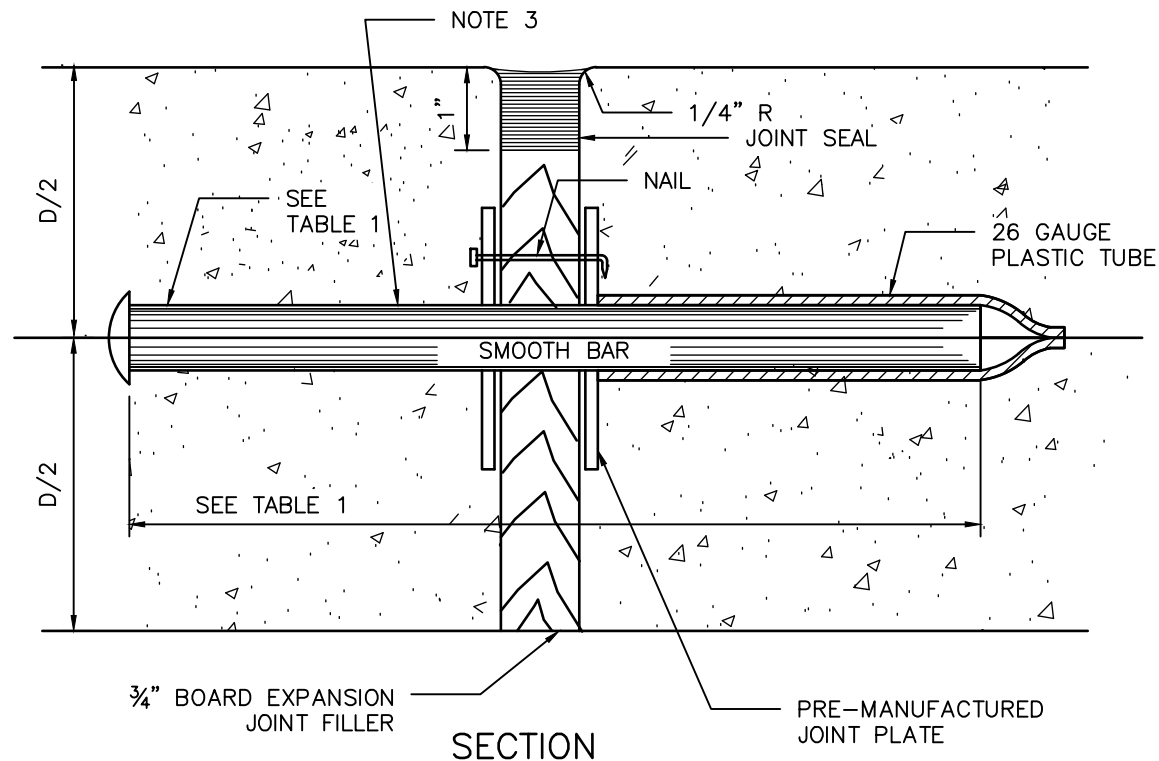
PAVEMENT THICKNESS 'D' (IN)	PAVEMENT WIDTH 'PW' (FT)	LONGITUDINAL STEEL						TRAVERSE STEEL					
		#4 BARS			#5 BARS			#6 BARS	#4 BARS	#5 BARS	#6 BARS		
		NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	NUMBER OF BARS	SPACING (IN)	END BAR SPACING (IN)	SPACING (IN)	SPACING (IN)	SPACING (IN)
6	28	17	20.50	4.00	-	-	-	-	-	-	36	-	-
7	25	17	18.25	4.00	-	-	-	-	-	-	36	-	-
7	35	24	18.00	3.00	-	-	-	-	-	-	36	-	-
7	36	25	17.75	3.00	-	-	-	-	-	-	36	-	-
7	37	25	18.25	3.00	-	-	-	-	-	-	36	-	-
7	41	28	18.00	3.00	-	-	-	-	-	-	36	-	-
7	45	31	17.75	3.75	-	-	-	-	-	-	36	-	-
8	25	20	15.50	2.75	13	24.50	3.0	-	-	-	36	36	-
8	34	27	15.50	2.50	17	25.00	4.0	-	-	-	36	36	-
8	35	27	16.00	2.00	18	24.25	4.0	-	-	-	36	36	-
8	36	28	15.75	3.25	18	25.00	3.0	-	-	-	30	36	-
8	44	24	15.75	4.00	22	24.75	4.0	-	-	-	30	36	-
8	45	35	15.75	2.25	23	24.25	3.0	-	-	-	30	36	-
9	25	22	14.00	3.00	14	22.50	4.0	-	-	-	36	36	-
9	34	31	13.50	2.00	19	22.25	3.5	-	-	-	30	36	-
9	35	31	13.75	3.75	20	21.75	3.5	-	-	-	30	36	-
9	36	32	13.75	3.00	21	21.25	3.5	-	-	-	30	36	-
9	44	39	13.75	2.75	25	21.75	3.0	-	-	-	24	36	-
9	45	39	14.00	4.00	26	21.25	4.5	-	-	-	24	36	-
10	25	24	12.75	3.50	17	18.25	4.0	-	-	-	36	36	36
10	34	33	12.50	4.00	21	20.00	4.0	-	-	-	30	36	36
10	35	34	12.50	3.75	23	18.75	4.0	-	-	-	30	36	36
10	36	35	12.50	3.50	24	18.50	3.0	-	-	-	30	36	36
10	44	44	12.00	4.00	29	18.50	4.5	-	-	-	24	36	36
10	45	44	12.50	3.00	29	19.00	3.0	-	-	-	24	36	36
11	25	27	11.25	3.00	17	18.25	4.0	12	26.75	3	36	36	36
11	34	36	11.50	2.75	24	17.50	2.5	17	25.00	4	24	36	36
11	35	37	11.50	3.00	24	18.00	3.0	17	25.75	4	24	36	36
11	36	40	11.00	2.00	25	17.75	3.0	17	26.50	4	24	36	36
11	44	48	11.125	2.50	30	18.00	3.0	21	26.00	4	24	36	36
11	45	49	11.125	3.00	31	17.75	4.0	22	25.50	3	24	36	36
12	25	-	-	-	19	16.25	4.0	13	24.50	3	36	36	36
12	34	-	-	-	26	16.00	4.0	18	23.50	4	24	36	36
12	35	-	-	-	26	16.50	4.0	19	23.00	3	24	36	36
12	36	-	-	-	27	16.25	4.5	20	22.25	4.5	24	36	36
12	44	-	-	-	33	16.25	4.0	24	22.50	5	24	30	36
12	45	-	-	-	35	15.75	3.0	25	22.25	3	24	30	36

MINIMUM LAP LENGTH (L):
A. # 4 BARS ; L = 22 INCHES
B. # 5 BARS ; L = 27 INCHES
C. # 6 BARS ; L = 32 INCHES

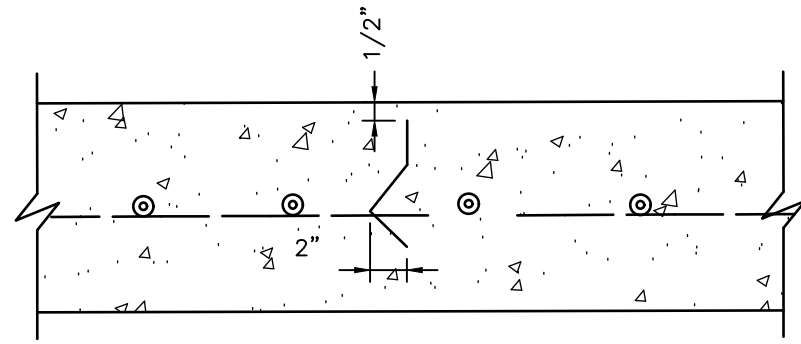
- NOTES:
- THE MAXIMUM WIDTH BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 15'-0".
 - ALL EARTHEN AREAS ARE TO BE HYDROMULCHED UNLESS SHOWN OTHERWISE ON DRAWINGS.
 - CONTRACTOR MAY SAW CUT IN LIEU OF DEFORMED METAL STRIP.
 - USE STRIP OF SOD GRASS TO PREVENT EROSION UNTIL STAND OF GRASS IS ESTABLISHED.
 - AN EQUAL OR LARGER AREA OF WELDED REINFORCEMENT BAR CONFORMING TO ASTM A497, MAY BE SUBSTITUTED FOR REBARS LISTED IN TABLE 1.
 - IF AVAILABLE ROW IS NOT SUFFICIENT TO ACCOMMODATE SIDEWALK WIDTH (SW) ACCORDING TO IDM REQUIREMENTS, ENGINEER SHALL OBTAIN A VARIANCE FROM THE CITY ENGINEER.
 - REFER TO CONTRACT DRAWINGS FOR PAVEMENT WIDTH (PW) AND PAVEMENT THICKNESS (D), MEDIAN (M), PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.

APPROVED BY:  CITY ENGINEER	APPROVED BY:  CITY TRAFFIC ENGINEER
APPROVED BY:  DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02751-01
 Transcend Engineers + Planners, LLC TPEE Reg. No. F-19299 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494	
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
CONCRETE PAVEMENT DETAILS	
WBS NUMBER N - 100042 - 0001 - 3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE NOT TO SCALE	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 100	

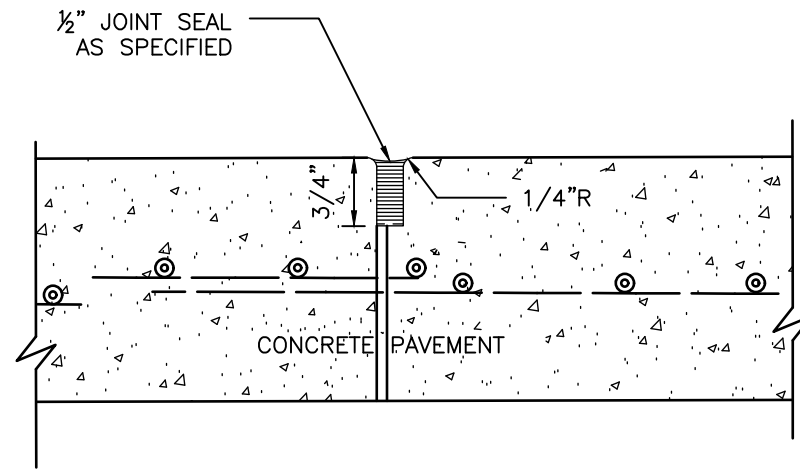
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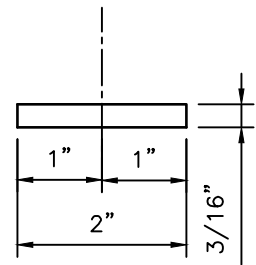
SECTION
DOWEL TYPE EXPANSION JOINT



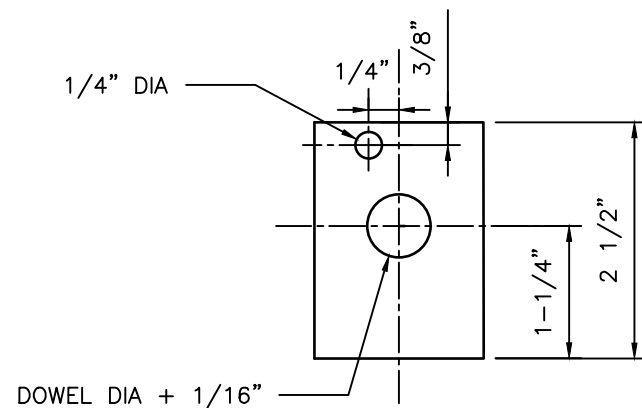
SECTION
DEFORMED METAL STRIP



SECTION
CONSTRUCTION JOINT SEAL



PLAN VIEW
JOINT PLATE



ELEVATION VIEW
JOINT PLATE

TABLE 1

PAVEMENT THICKNESS (IN)	DOWEL SIZES AND SPACINGS		
	DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
6	3/4	18	12
7	1	18	12
8	1	18	12
9	1 1/4	18	12
10	1 1/4	18	12
11	1 1/4	18	12
12	1 1/4	18	12

NOTES:

1. STEEL TO MEET ASTM STANDARD SPECIFICATIONS FOR CONCRETE REINFORCING BARS. UNITS TO BE SPACED 12" CENTER ON CENTER.
2. EXPANSION JOINT TO BE PLACED AT THE END OF EACH CURB RADIUS.
3. CENTER DOWEL HORIZONTALLY ON JOINT.
4. CENTER DOWEL VERTICALLY IN CONCRETE BASE. EXTEND THICKENED CONCRETE AS NEEDED TO MAINTAIN 3" MIN COVER.
5. CITY OF HOUSTON APPROVED PRODUCTS MAY BE USED AS JOINT PLATE ALTERNATIVE.

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HOUSTON PUBLIC WORKS STANDARD

PAVEMENT EXPANSION AND CONSTRUCTION JOINT DETAILS

(SCALE: NOT TO SCALE)

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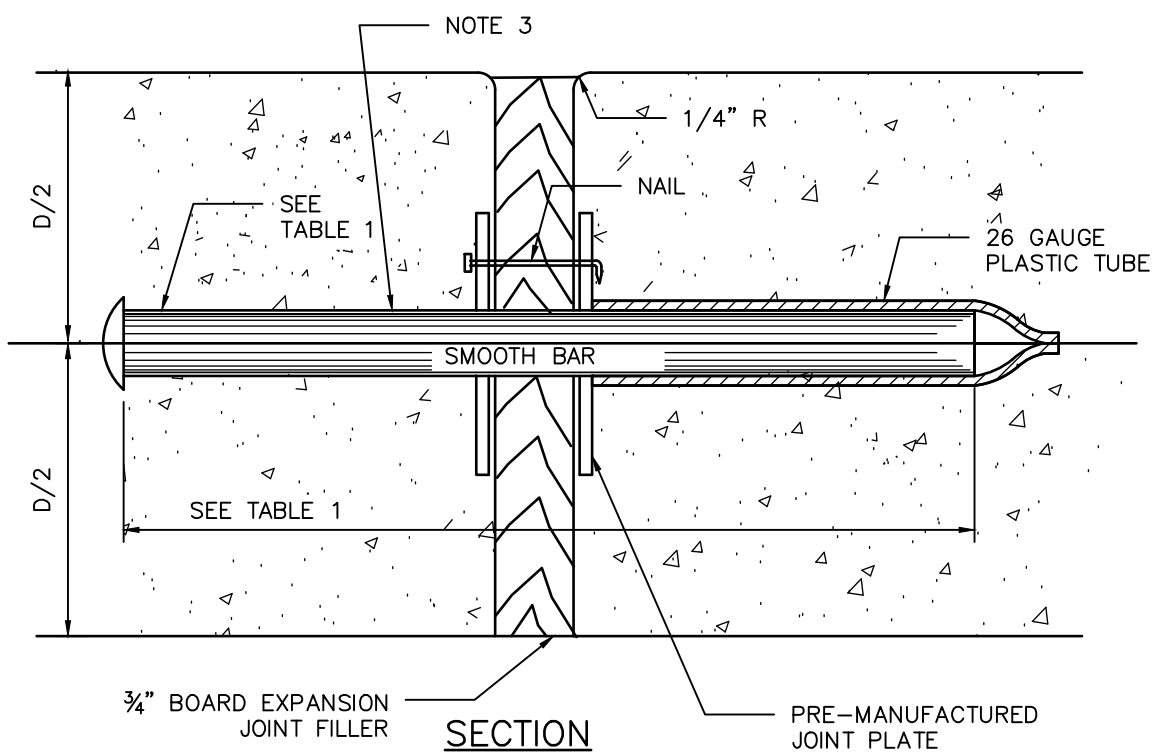
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KHANG NGUYEN
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CITY TRAFFIC ENGINEER

DocuSigned by:
Carol Haddock
A93C410B72B3493...
DIRECTOR OF HPW

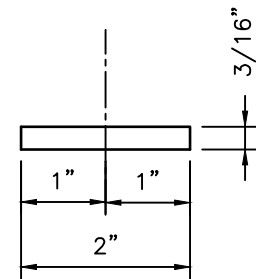
EFF DATE: NOV-27-2023 DWG NO: 02752-01

SHEET NO. 101

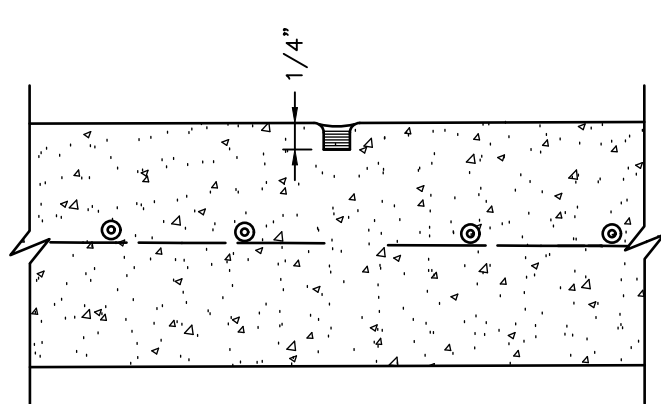
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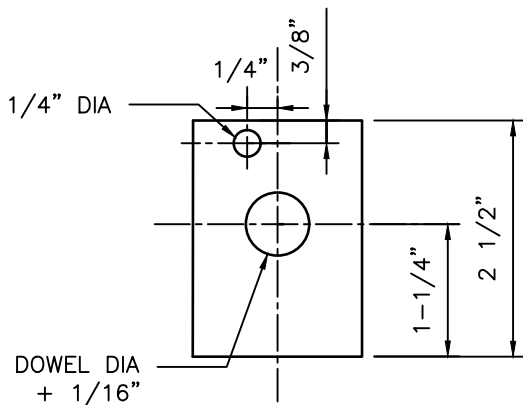
DOWEL TYPE EXPANSION JOINT



PLAN VIEW JOINT PLATE



SECTION CONTROL JOINT

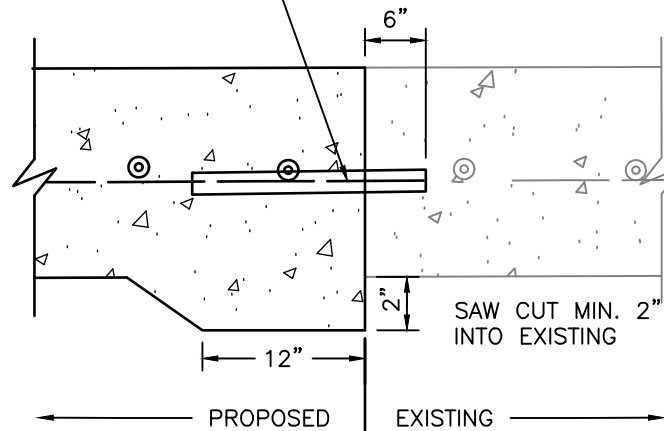


ELEVATION VIEW JOINT PLATE

TABLE 1

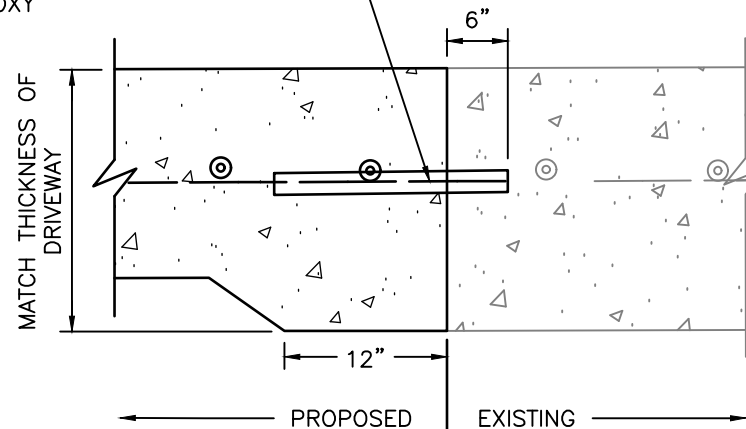
PAVEMENT THICKNESS (IN)	DOWEL SIZES AND SPACINGS		
	DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
4 1/2	1/2	18	12
5	1/2	18	12
6	3/4	18	12
7	1	18	12

#4 DEFORMED BAR EMBEDDED IN EXISTING CONCRETE WITH EPOXY



SECTION SIDEWALK TO EXISTING SIDEWALK

#4 DEFORMED BAR EMBEDDED IN EXISTING CONCRETE WITH EPOXY



SECTION SIDEWALK TO EXISTING DRIVEWAY

NOTES:

1. STEEL TO MEET ASTM STANDARD SPECIFICATIONS FOR CONCRETE REINFORCING BARS.
2. EXPANSION JOINT TO BE PLACED AT THE END OF EACH CURB RADIUS AND SPACED AT A MAXIMUM DISTANCE OF 3 FEET MAXIMUM SPACING FOR CONTROL JOINTS SHALL BE 5 FEET.
3. CENTER DOWEL HORIZONTALLY ON JOINT.
4. CENTER DOWEL VERTICALLY IN CONCRETE AS NEEDED TO MAINTAIN A 2 INCH MINIMUM COVER.

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SIDEWALK EXPANSION AND CONSTRUCTION JOINT DETAILS

(SCALE: NOT TO SCALE)

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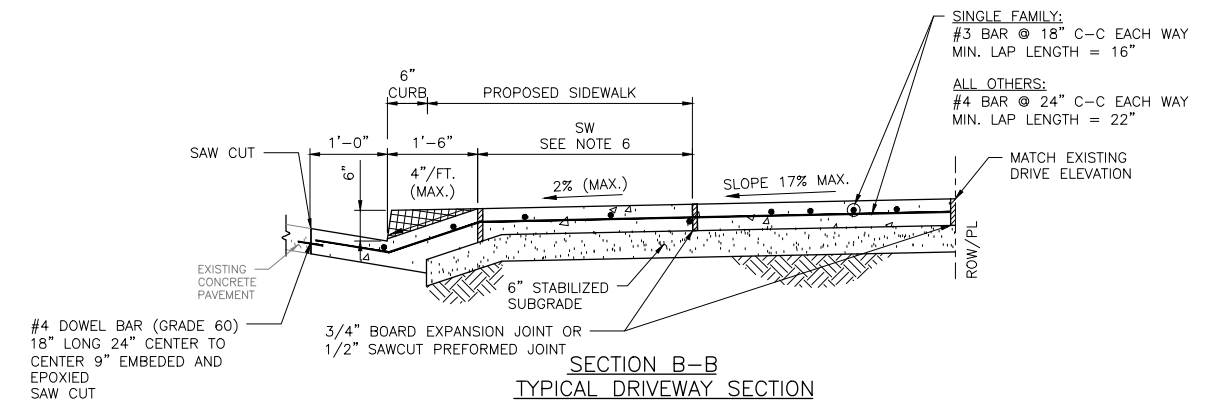
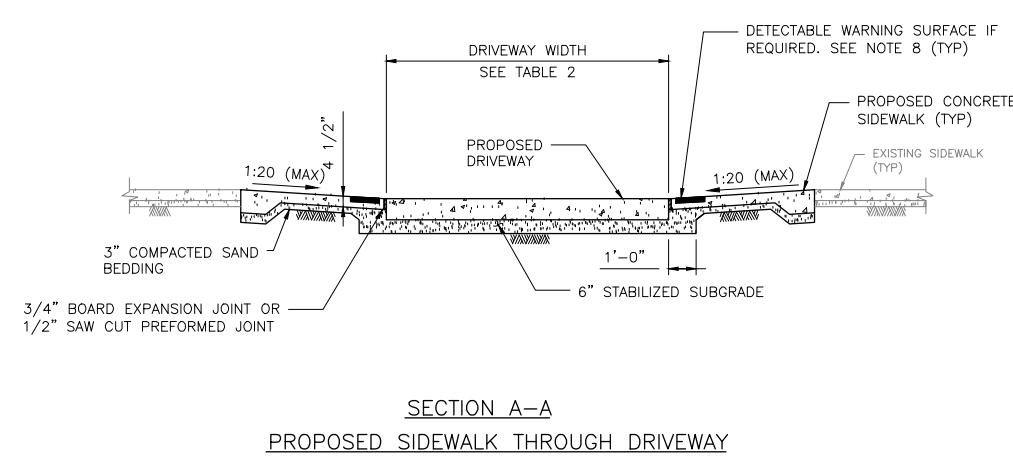
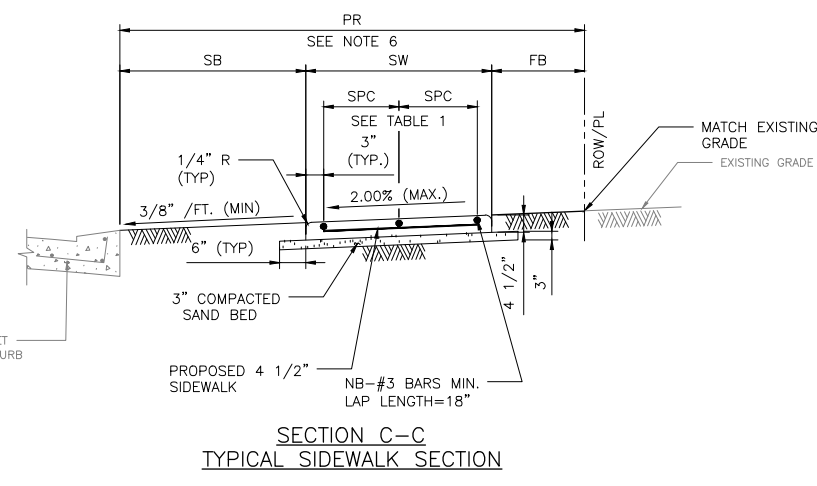
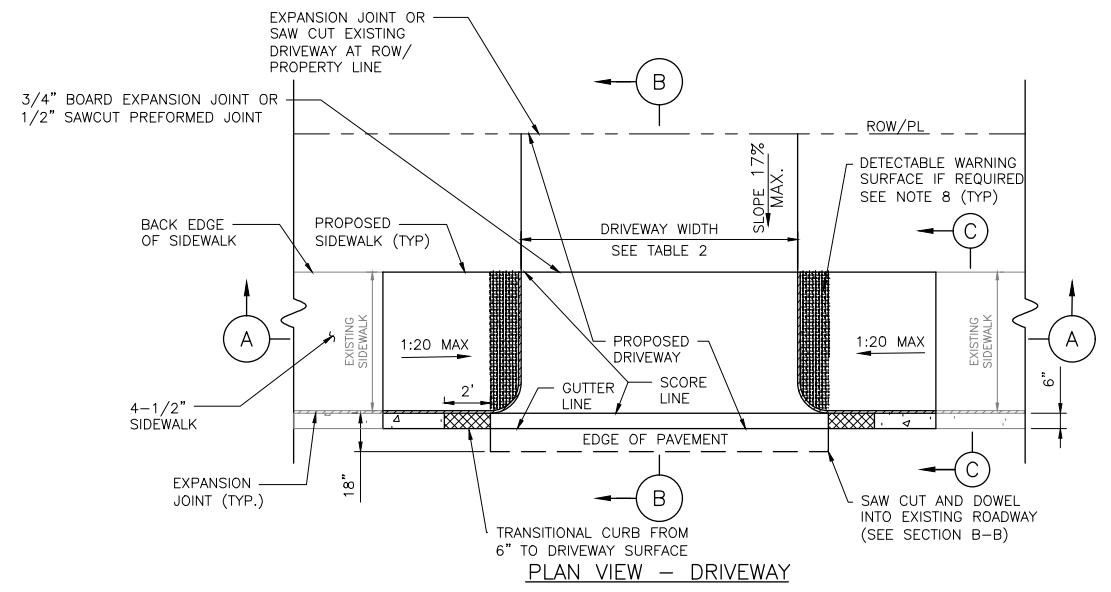
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CITY TRAFFIC ENGINEER

DocuSigned by:
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DIRECTOR OF HPW

EFF DATE: NOV-27-2023 DWG NO: 02752-02

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NOTES:

- REPAIR, RECONSTRUCTION OR REPLACEMENT OF SIDEWALKS SHALL MEET PERMITTING REQUIREMENTS OF CODE OF ORDINANCES SECTION 40-552.
- FOR REPAIR, RECONSTRUCTION, OR REPLACEMENT OF EXISTING SIDEWALKS:
 - EXISTING SIDEWALKS LESS THAN OR EQUAL TO 20 FEET IN TOTAL LENGTH:
 - THE PROPOSED SIDEWALK WIDTH WILL BE ALLOWED TO MATCH THE EXISTING SIDEWALK.
 - EXISTING SIDEWALKS GREATER THAN 20 FEET IN TOTAL LENGTH:
 - THE SIDEWALK WIDTH FOR THE ENTIRE PROPERTY WIDTH SHALL BE IMPROVED TO MEET WIDTH REQUIREMENTS ACCORDING TO THE LATEST INFRASTRUCTURE DESIGN MANUAL.
 - 20 FOOT TOTAL LENGTH IS DEFINED AS:
 - UP TO 10 FEET ON BOTH SIDES OF THE DRIVEWAY; OR
 - UP TO 20 FEET WHEN SIDEWALK AFFECTED IS LOCATED ONLY ON ONE SIDE OF THE DRIVEWAY.
- PROPOSED SIDEWALKS THAT DO NOT FALL WITHIN THE SCOPE DEFINED IN NOTE 2 SHALL BE DESIGNED ACCORDING TO IDM REQUIREMENTS AND CONSTRUCTED ACCORDING TO THE CONTRACT DRAWINGS.
- ALL RAMP AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
- CURB RAMP THAT ARE STEEPER THAN A 1:20 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
- REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
- DRIVEWAYS SHALL BE MINIMUM 6" THICK FOR SINGLE FAMILY AND DUPLEXES. DRIVEWAYS SHALL BE MINIMUM 7" THICK FOR ALL OTHERS (I.E. COMMERCIAL, INDUSTRIAL, ETC.)
- DETECTABLE WARNING SURFACES:
 - SIDEWALK SHALL HAVE A DETECTABLE WARNING SURFACE WHERE SIDEWALK INTERSECTS TYPE C DRIVEWAYS (COMMERCIAL DRIVEWAYS) THAT ARE STOP, YIELD, OR TRAFFIC SIGNAL CONTROLLED.
 - DETECTABLE WARNING SURFACES ARE OPTIONAL WHERE SIDEWALKS INTERSECT TYPE A DRIVEWAYS (SINGLE FAMILY RESIDENTIAL HOUSES OR DUPLEXES) OR TYPE B DRIVEWAYS (SHARED ACCESS/SHARED DRIVEWAYS).
 - REFER TO STANDARD DETAILS 02775-06 TO 02775-07 FOR DETECTABLE WARNING SURFACE STANDARDS.

TABLE 1

REINFORCING STEEL INFORMATION FOR 4 1/2" THICK SIDEWALKS
EXPANSION JOINT SPACING = 40 FT
f'c = 3,500 PSI AND fy = 60,000 PSI
REFER TO CONTRACT DRAWINGS FOR SIDEWALKS WIDER THAN 6 FEET.

SIDEWALK THICKNESS (IN)	SIDEWALK WIDTH (FT)	LONGITUDINAL STEEL			TRANSVERSE STEEL #3 BARS SPACING (IN)
		NO. OF BARS "NB"	SPACING "SPC" (IN)	END BAR SPACING (IN)	
4.5	5	3	27	3	48
4.5	6	4	22	3	48

TABLE 2

DRIVEWAY DESIGN CRITERIA (1)(2)

TRAFFIC TYPE	TYPE A DRIVEWAY (FOR SINGLE FAMILY RESIDENTIAL HOUSES OR DUPLEXES)				TYPE B DRIVEWAY (SHARED ACCESS/SHARED DRIVEWAY)				TYPE C DRIVEWAY (COMMERCIAL DRIVEWAY)			
	WIDTH (FT)		RADIUS (FT)		WIDTH (FT)		RADIUS (FT)		WIDTH (FT)		RADIUS (FT)	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
ONE-WAY	10	12	4	10	12(5)	16(5)	4(5)	10(5)	15	20	10	20
TWO-WAY	10(3)	24(4)	4	10	16(6)	24	4	10	24	35	10	20

- REFER TO INFRASTRUCTURE DESIGN MANUAL ARTICLE 15.2.07.C.1.F FOR DRIVEWAYS THAT REQUIRE A VEHICLE SWEEP PATH ANALYSIS.
- REFER TO INFRASTRUCTURE DESIGN MANUAL ARTICLES 15.2.07.C.1.G.(1) AND 15.2.07.C.1.G.(2) FOR TYPE 1 PAE AND TYPE 2 PAE REQUIREMENTS.
- THE MINIMUM WIDTH FOR JOINT ACCESS DRIVEWAY IS 12 FT.
- REFER TO CHAPTER 42 OF THE CODE OF ORDINANCES FOR DRIVEWAY WIDTHS FOR NARROW LOTS.
- ONLY MURS AND COURTYARD STYLE DEVELOPMENTS ON CORNER LOTS CAN HAVE ONE-WAY DRIVEWAYS.
- REFER TO CHAPTER 42, SECTION 42-146 OF THE CODE OF ORDINANCES FOR EXCEPTIONS TO THE MINIMUM DRIVEWAY WIDTH FOR SHARED DRIVEWAYS.

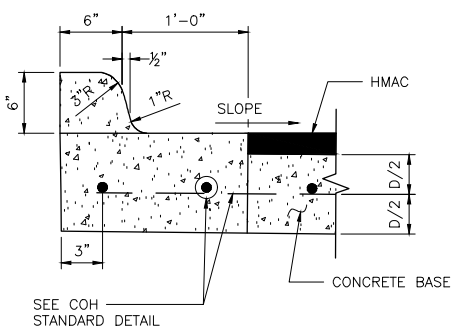
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APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02754-04
TRANSCEND engineers + planners Transcend Engineers & Planners, LLC TPE Reg. No. F-19299 23410 Grand Reserve Dr. Suite 101 Houston, Texas 77494	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

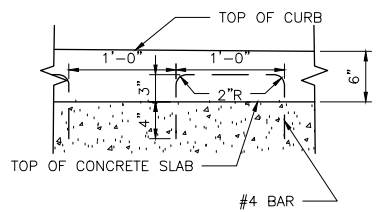
PROPOSED SIDEWALK THROUGH DRIVEWAY WITH MINIMAL ELEVATION DIFFERENCE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 103	

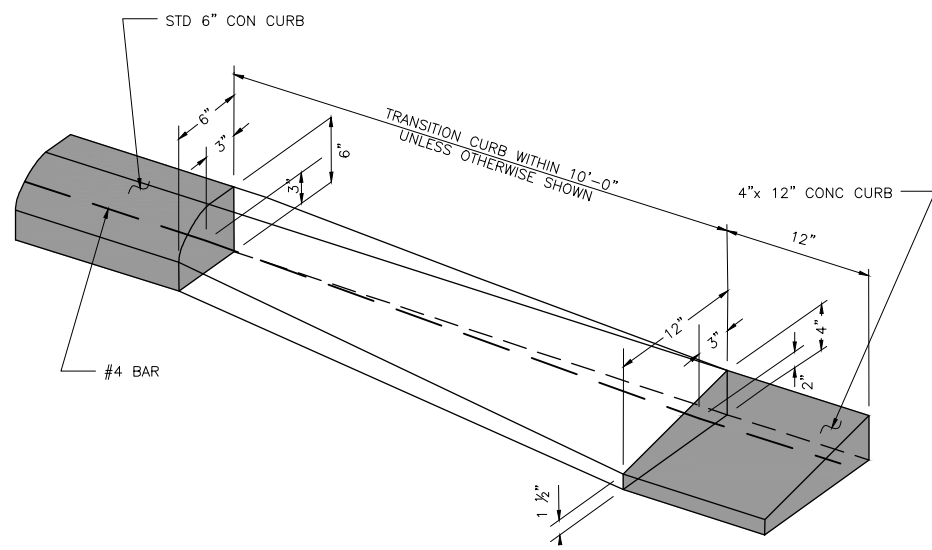
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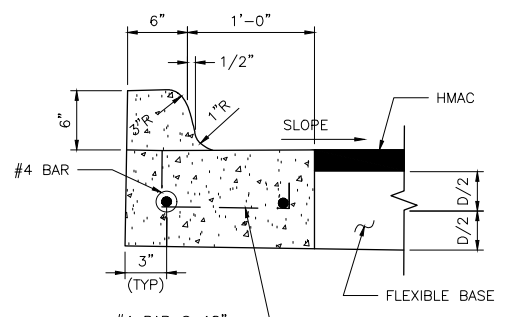
ESPLANADE CURB CONNECTED TO CONCRETE BASE



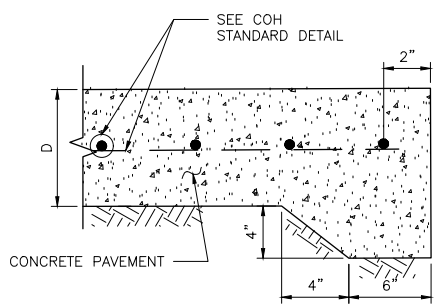
ALTERNATE CONCRETE CURB REINFORCEMENT



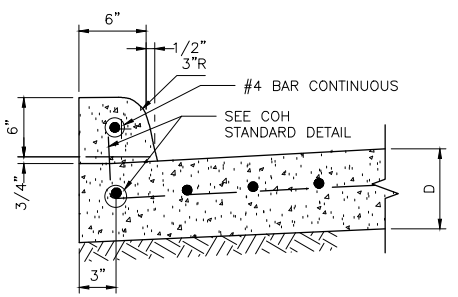
CURB TRANSITION
(SEE NOTES)



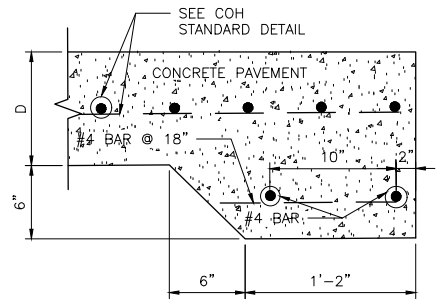
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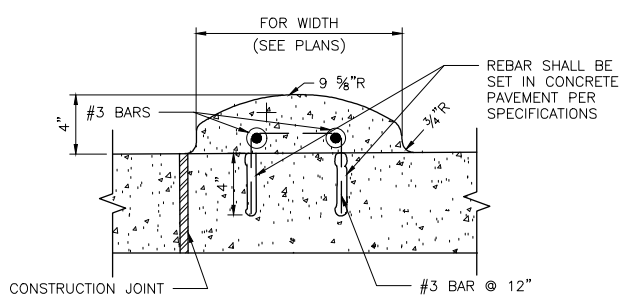
STANDARD CONCRETE PAVING HEADER



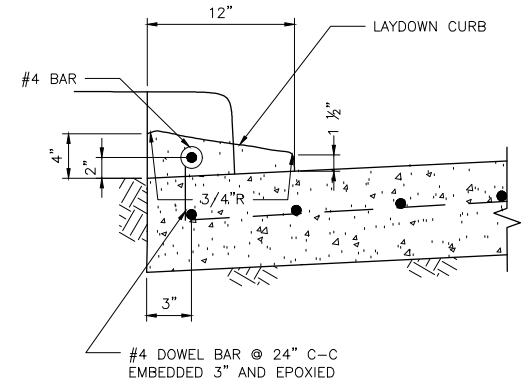
CONCRETE CURB



STANDARD RAILROAD HEADER

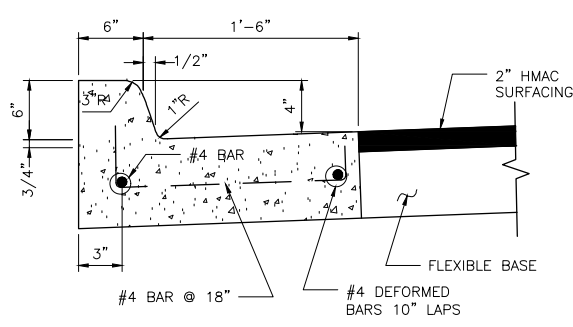


MOUNTABLE CURB

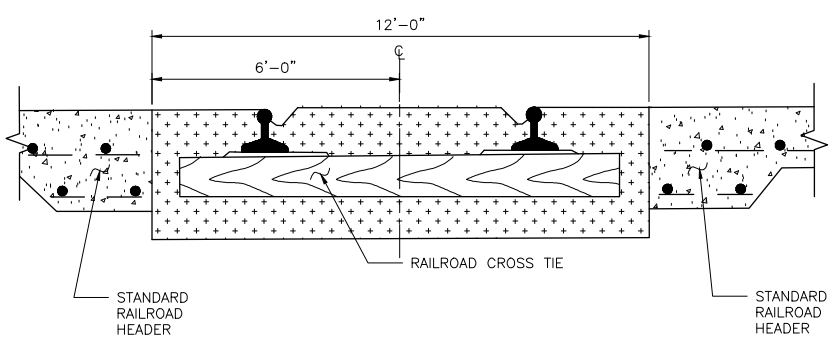


4-INCH x 12-INCH TRANSITION CURB
(SEE NOTES)

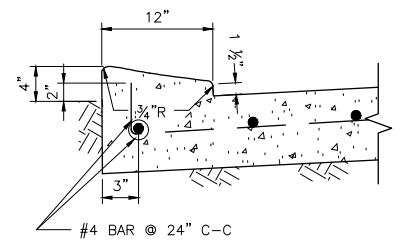
WHEN CONCRETE CURB IS TO BE PLACED EXISTING CONCRETE USE BASE
 #4 BAR @ 18x10" LONG, DOWELED AND SET IN EPOXY GROUT.
 SET #4 DOWEL BARS, 25" LONG AT 12" C-C WHEN PAVEMENT SECTION POURED.



MONOLITHIC CURB AND GUTTER






STANDARD RAILROAD CROSSING - SINGLE TRACK



4-INCH x 12-INCH MONOLITHIC CURB
(SEE NOTES)

4"x12" MONOLITHIC AND TRANSITION CURB NOTES:

- 6-INCH CONCRETE CURB TO BE CONSTRUCTED ON ALL ESPLANADES, ISLANDS, NON-RESIDENTIAL STREETS, AND RESIDENTIAL STREETS.
- TRANSITIONS FROM 6-INCH CONCRETE CURB TO 4-INCH x 12-INCH CONCRETE CURB TO BE ACCOMPLISHED WITHIN 10 FEET, UNLESS OTHERWISE SHOWN. IF THIS 10-FEET TRANSITION CURB IS NOT POURED MONOLITHICALLY WITH THE PAVEMENT, THEN REINFORCING STEEL AS SHOWN IN "4-INCH x 12-INCH TRANSITION CURB" IS TO BE INSTALLED.

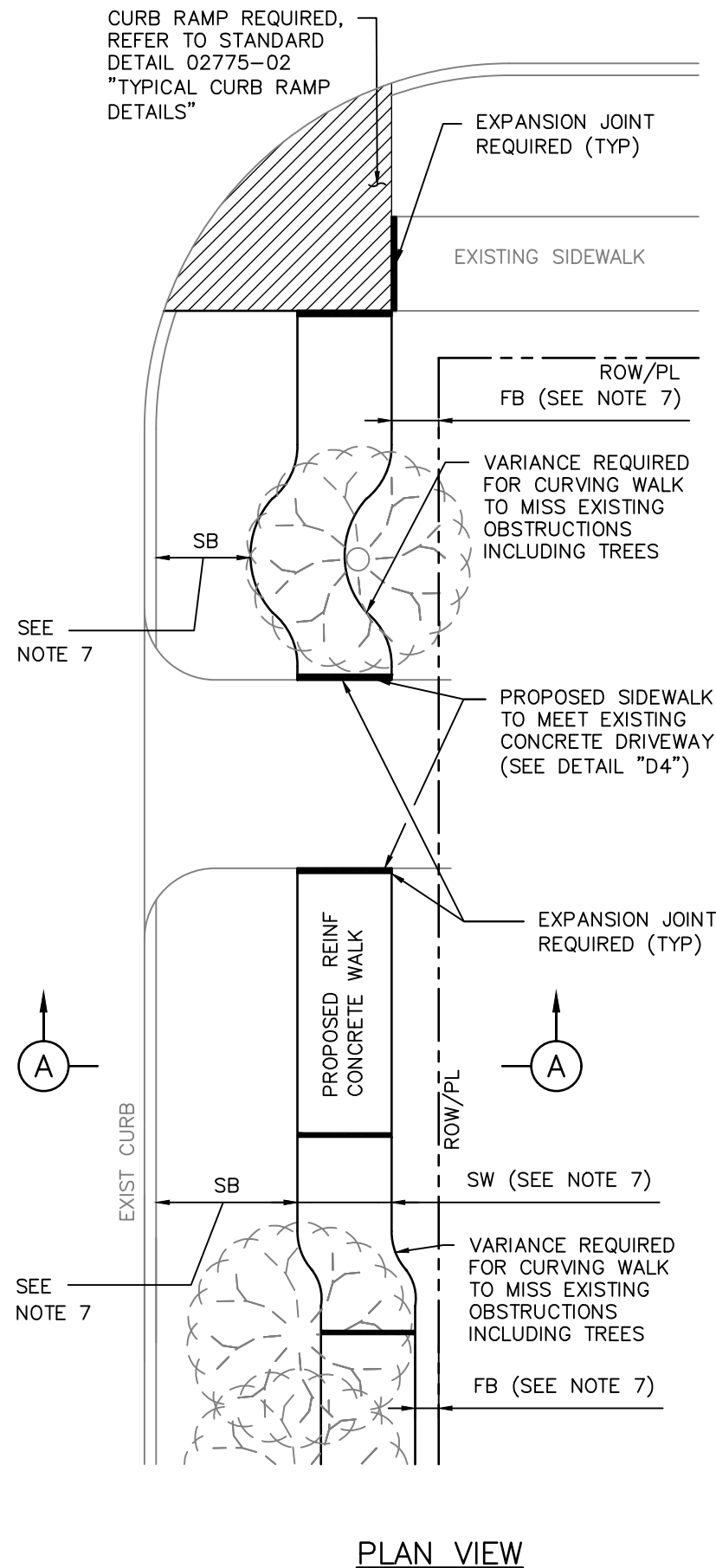
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APPROVED BY:  DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02771-01
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

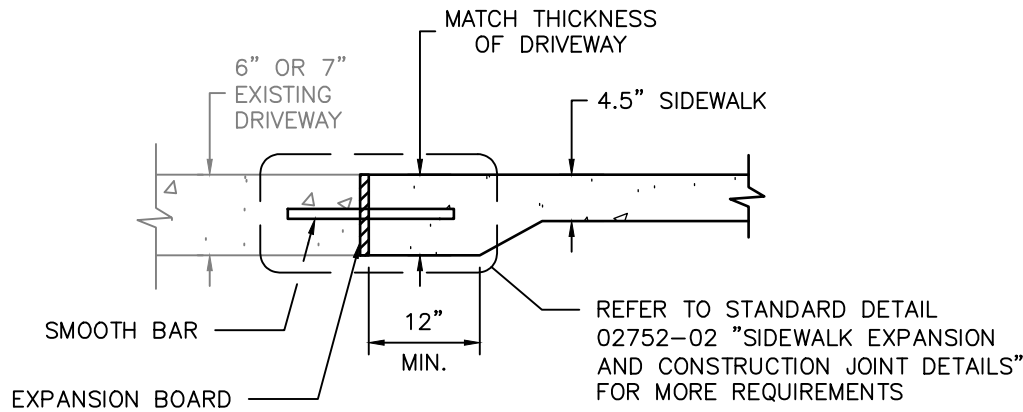
CURB, CURB AND GUTTER AND HEADER DETAILS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 104	

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PLAN VIEW

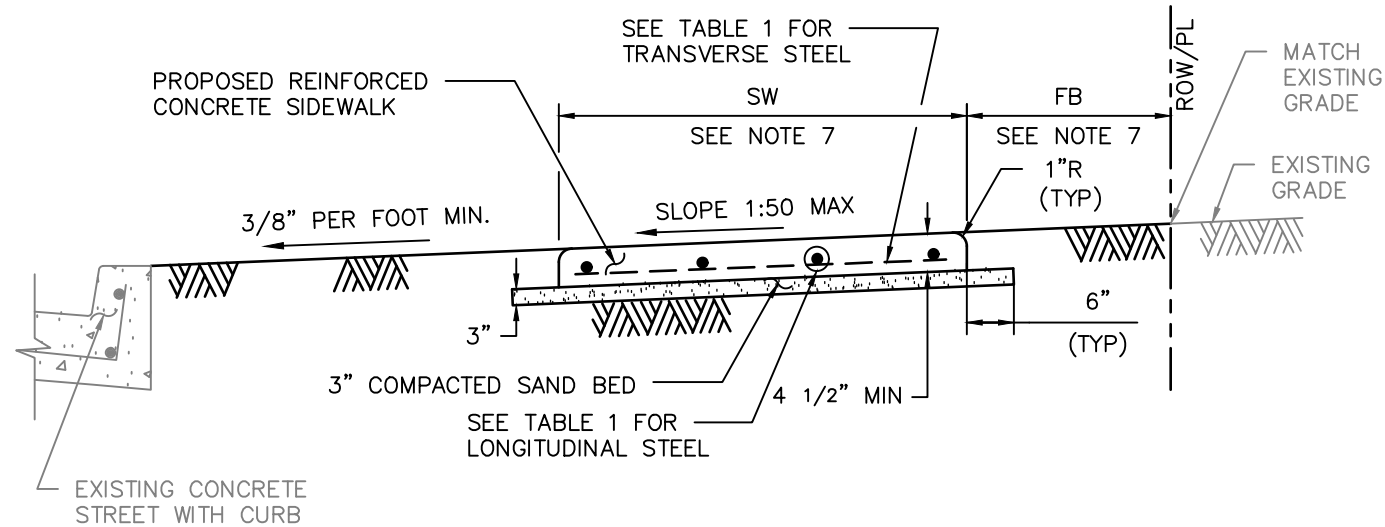


**DETAIL D4
DRIVEWAY/SIDEWALK HEADER**

TABLE 1

REINFORCING STEEL INFORMATION
 FOR 4 1/2" THICK SIDEWALKS
 EXPANSION JOINT SPACING = 40 FT
 $f_c' = 3,500$ PSI AND $f_y = 60,000$ PSI
 REFER TO CONTRACT DRAWINGS FOR SIDEWALKS WIDER THAN 6 FEET.

SIDEWALK THICKNESS (IN)	SIDEWALK WIDTH (FT)	LONGITUDINAL STEEL			TRANSVERSE STEEL #3 BARS SPACING (IN)
		#3 BARS			
		NO. OF BARS	SPACING (IN)	END BAR SPACING (IN)	
4.5	5	3	27	3	48
4.5	6	4	22	3	48



SECTION A-A

NOTES:

- 6X6 - W2.9XW2.9 WELDED WIRE FABRIC MAY BE USED IN LIEU OF THE REINFORCING STEEL GIVEN IN TABLE 1.
- REINFORCED CONCRETE SIDEWALKS THRU DRIVEWAYS OPENINGS SHALL BE EITHER 6" THICK OR 7" THICK AS SPECIFIED ON 6" STABILIZED SUBGRADE. FOR THE REINFORCING STEEL REQUIREMENTS, SEE CITY OF HOUSTON STANDARD DETAILS 02754-01A, 02754-01B, 02754-03, AND 02754-04.
- MAXIMUM SPACING FOR EXPANSION JOINTS SHALL BE 40 FEET.
- CONTRACTOR SHALL CONSTRUCT SIDEWALK IN A MANNER NOT TO BLOCK THE NATURAL DRAINAGE FROM ADJACENT PROPERTY.
- ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
- CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON UNLESS NOTED OTHERWISE.
- REFER TO CONTRACT DRAWINGS FOR SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.

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HOUSTON PUBLIC WORKS STANDARD

TYPICAL SIDEWALK LAYOUT AND DETAILS FOR STREETS WITH CURBS
(SCALE: NOT TO SCALE)

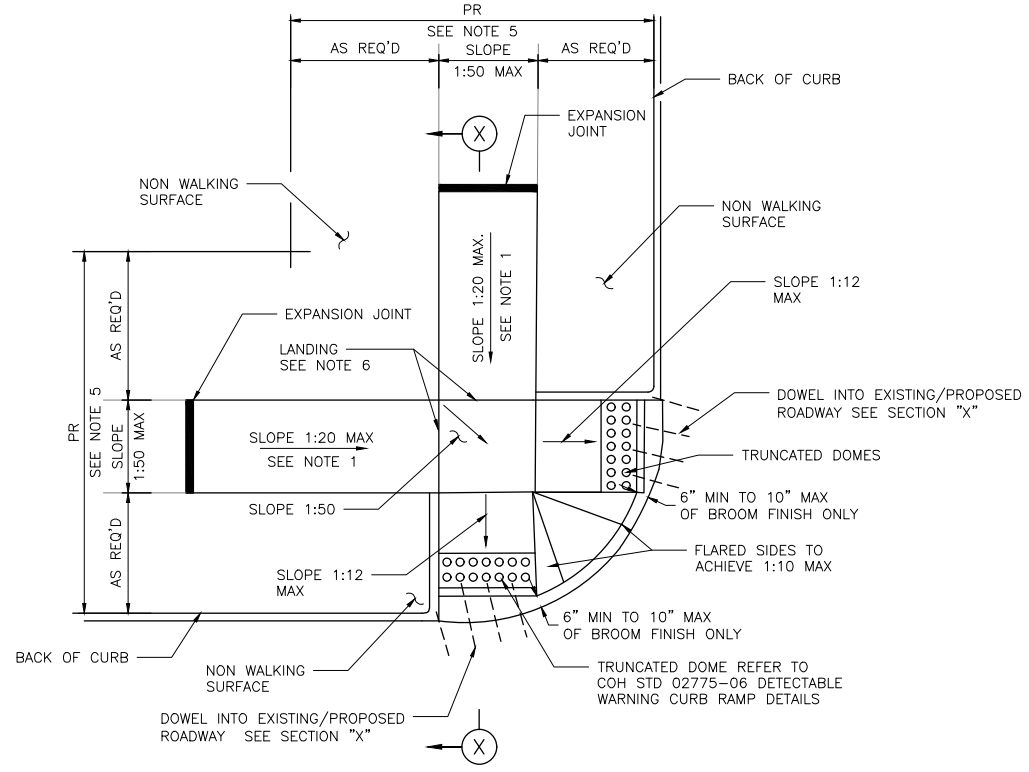
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LANG NGUYEN
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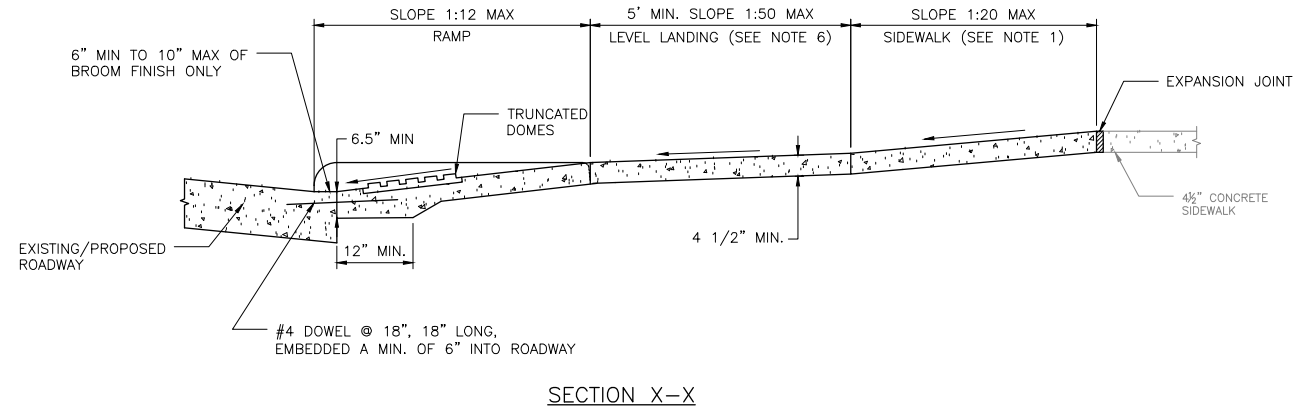
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 DIRECTOR OF HPW

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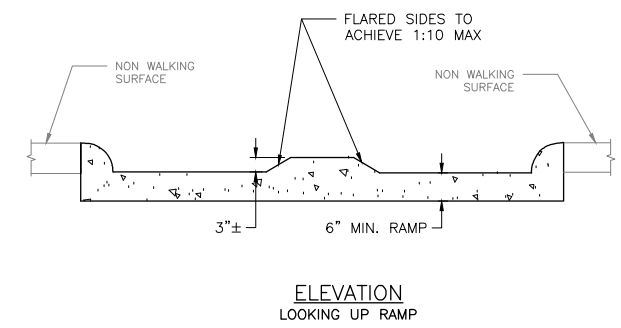
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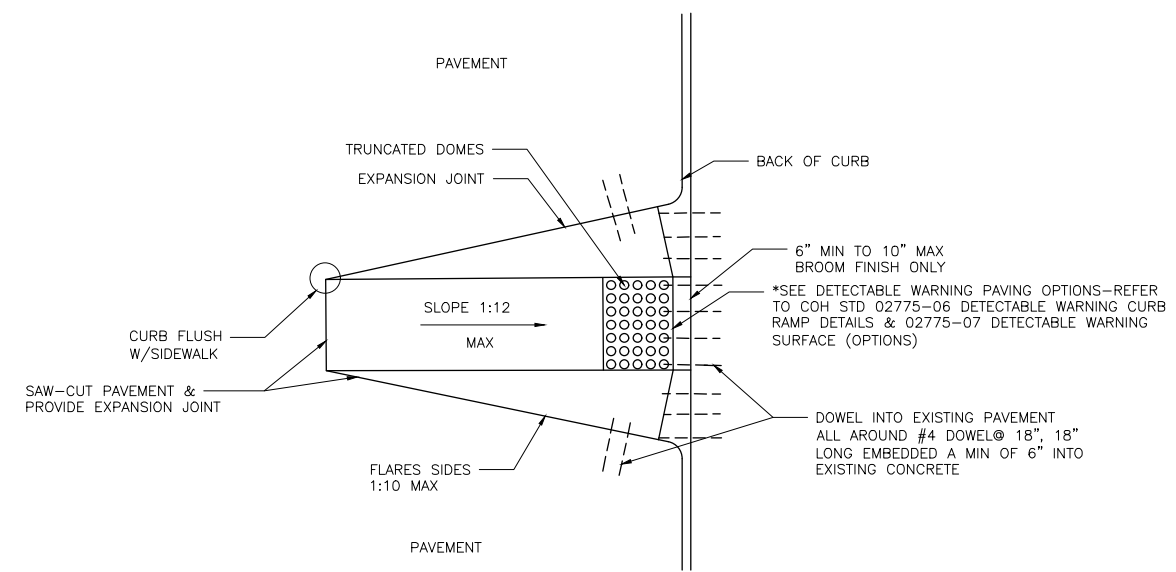
STREETS WITH NON- WALKING SURFACE BEHIND CURB
SEE NOTE-7



SECTION X-X






ELEVATION
LOOKING UP RAMP



CURB RAMP CONSTRUCTION FOR EXISTING PAVEMENT

NOTES:

1. REPLACE EXISTING SIDEWALK FROM LEVEL LANDING AS NECESSARY TO ACHIEVE 1:20 SLOPE
2. BROOM FINISH IS MEASURED FROM FACE OF CURB.
3. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
4. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON UNLESS NOTED OTHERWISE.
5. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR) WIDTH.
6. MINIMUM 5'x5' LANDING PAD ACCORDING TO ADA REQUIREMENTS. WHEN THE APPROACHING SIDEWALK IS WIDER THAN 5', THE LANDING PAD AND RAMP WIDTH MUST MATCH THE SIDEWALK WIDTH.
7. FOR STREETS WITH WALKABLE SURFACES IMMEDIATELY BEHIND THE CURB A FLARE IS REQUIRED ON BOTH SIDES OF THE RAMP.

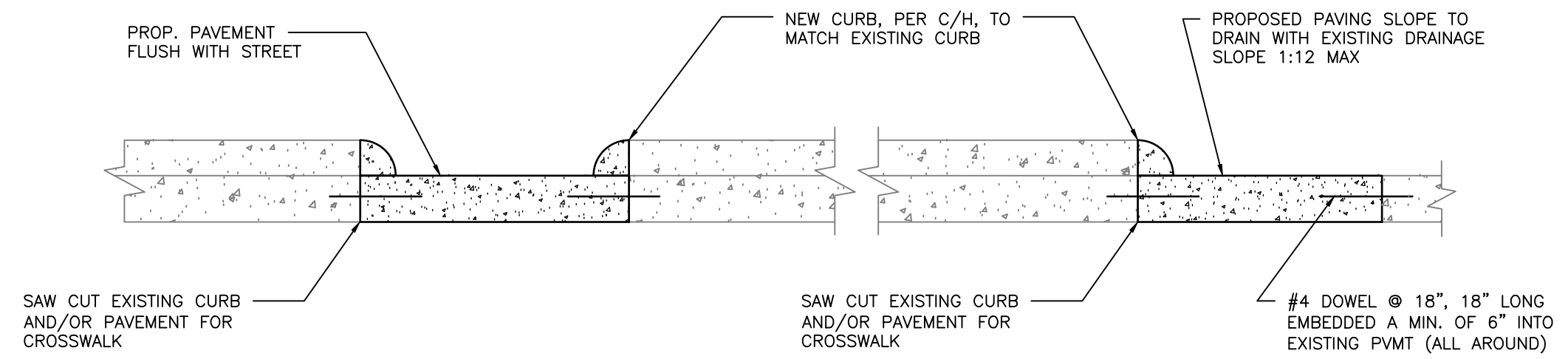
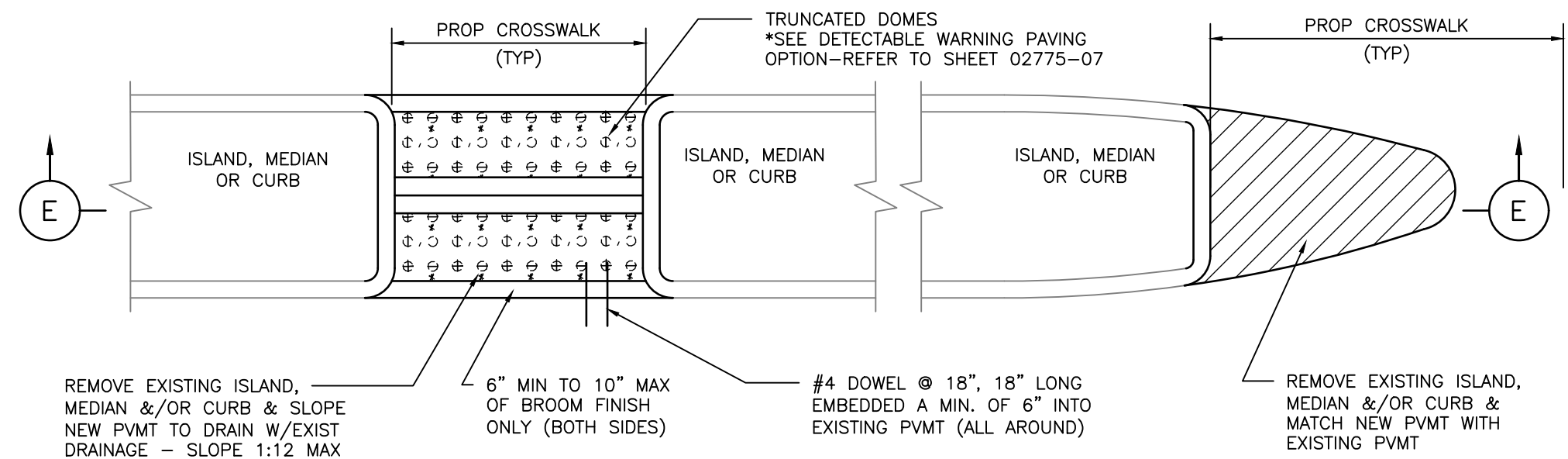
APPROVED BY:  CITY ENGINEER	APPROVED BY:  CITY TRAFFIC ENGINEER
APPROVED BY:  DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02775-02
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPBE Reg. No. F-192299 23410 Grand Reserve Dr. Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TYPICAL CURB RAMP DETAILS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 106	

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SECTION E-E
FOR ISLAND, MEDIAN, OR CURB MODIFICATIONS FOR CROSSWALKS

NOTES:

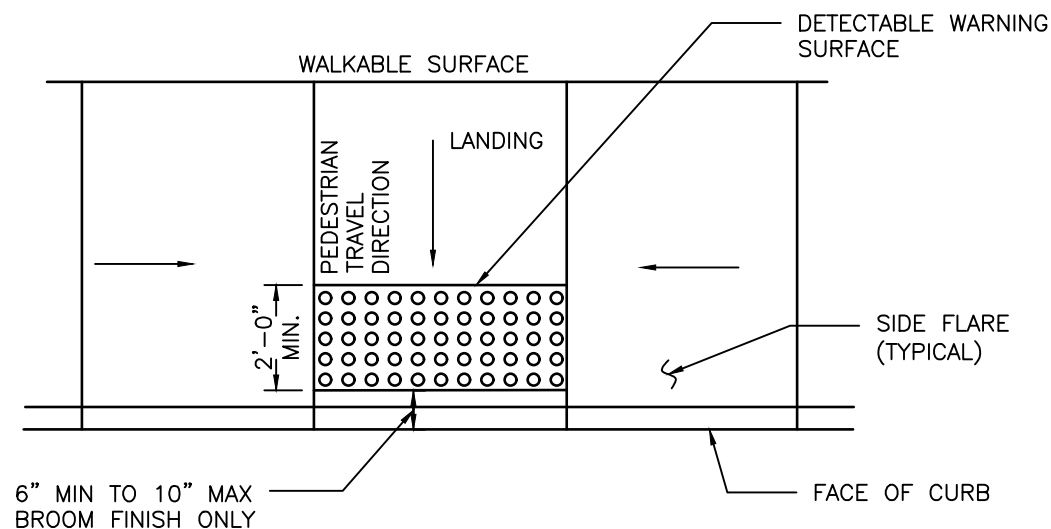
1. SEE COH STANDARD DETAIL FOR PAVEMENT MARKING DETAILS.
2. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
3. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.

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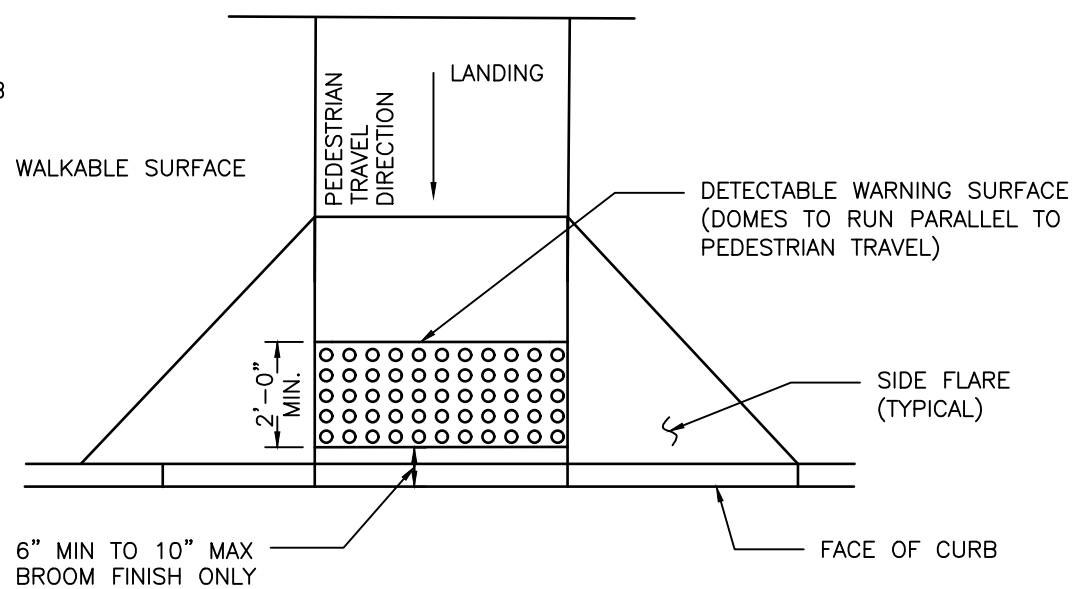
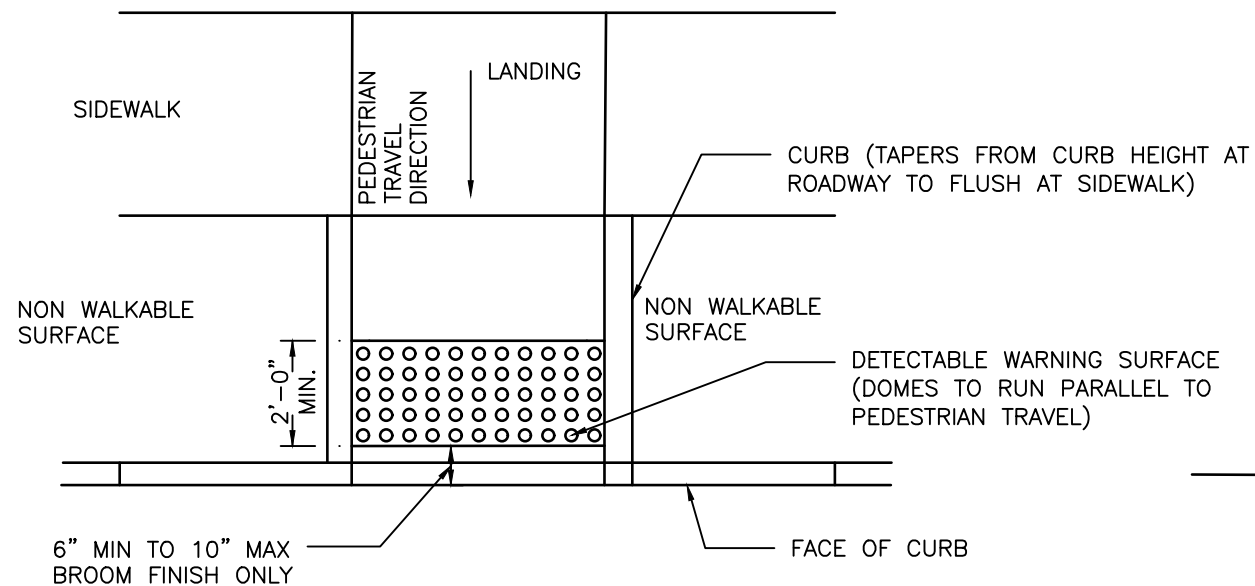
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TPBE Reg. No. F-19299
23410 Grand Reserve Dr., Suite 101
Houston, Texas 77494

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
CURB MODIFICATION FOR CURB RAMPS & CROSSWALKS (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: 9EF8B0C841F5478... CITY ENGINEER	DocuSigned by: A93C410B72B3493... DIRECTOR OF HPW
DocuSigned by: 95A29EFD75B4CD... CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023	DWG NO: 02775-04

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TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN

GENERAL NOTES FOR DETECTABLE WARNINGS:

1. DETECTABLE WARNING SURFACES MUST BE FULLY ADA COMPLIANT.
2. ALL NEW CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES. THE SURFACE MUST CONTRAST VISUALLY WITH ADJOINING SURFACE, INCLUDING SIDE FLARES. FURNISH DARK BROWN OR DARK RED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE, UNLESS SPECIFIED ELSEWHERE IN THE PLANS.
3. DETECTABLE WARNING SURFACES MUST MAINTAIN A SLIP RESISTANCE WITH FA-VALUE OF EQUAL TO OR GREATER THAN 0.8.
4. DETECTABLE WARNING SURFACES MUST MAINTAIN A WATER ABSORPTION RATE OF LESS THAN 1%, DETECTABLE WARNING SHALL NOT ALLOW WATER TO ACCUMULATE.
5. DETECTABLE WARNINGS INSTALLED INTO FRESH CONCRETE SHALL BE WITHOUT VOIDS AND UTILIZING AN ACCEPTABLE ANCHORING SYSTEM.
6. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
7. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN DEPTH IN THE DIRECTION OF PEDESTRIAN TRAVEL, AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR LANDING WHERE THE PEDESTRIAN ACCESS ROUTE ENTERS THE STREET.
8. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6" MIN TO 10" MAX FROM THE DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.
9. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
10. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

DETECTABLE WARNING CURB RAMP DETAILS

(SCALE: NOT TO SCALE)

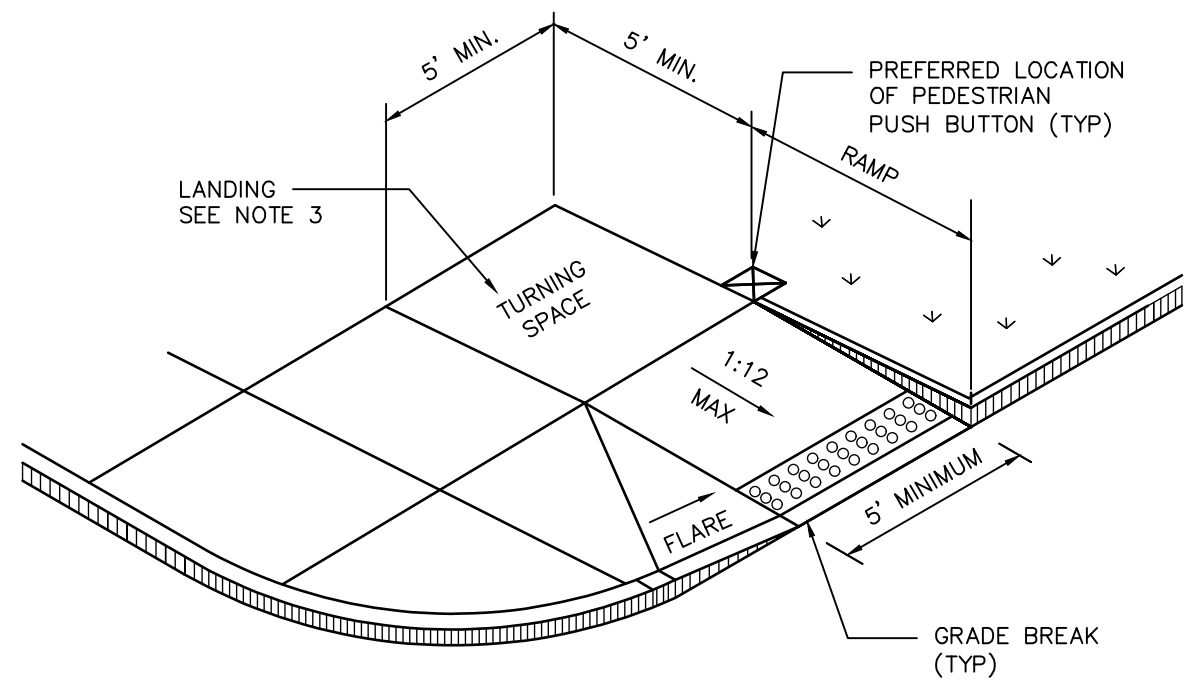
APPROVED BY:

DocuSigned by:
Suhail Kanwar
9EF890C841F5478...
CITY ENGINEER
DocuSigned by:
LANG NGUYEN
95A29EFD75B4CD...
CITY TRAFFIC ENGINEER

DocuSigned by:
Carol Haddock
A93C410B72B3493...
DIRECTOR OF HPW

EFF DATE: NOV-27-2023 DWG NO: 02775-06

SHEET NO. 108



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23410 Grand Reserve Dr. Suite 101
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NOTES:

1. ALL RAMPS AND SIDEWALKS/WALKWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOUSTON PUBLIC WORKS STANDARDS, TEXAS ACCESSIBILITY STANDARDS (TAS) AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. IF THERE IS A CONFLICT IN THE REQUIREMENTS, THE STRICTEST REQUIREMENTS SHALL GOVERN.
2. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
3. MINIMUM 5'x5' LANDING PAD ACCORDING TO ADA REQUIREMENTS. WHEN THE APPROACHING SIDEWALK IS WIDER THAN 5', THE LANDING PAD AND RAMP WIDTH MUST MATCH THE SIDEWALK WIDTH.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PERPENDICULAR CURB RAMP

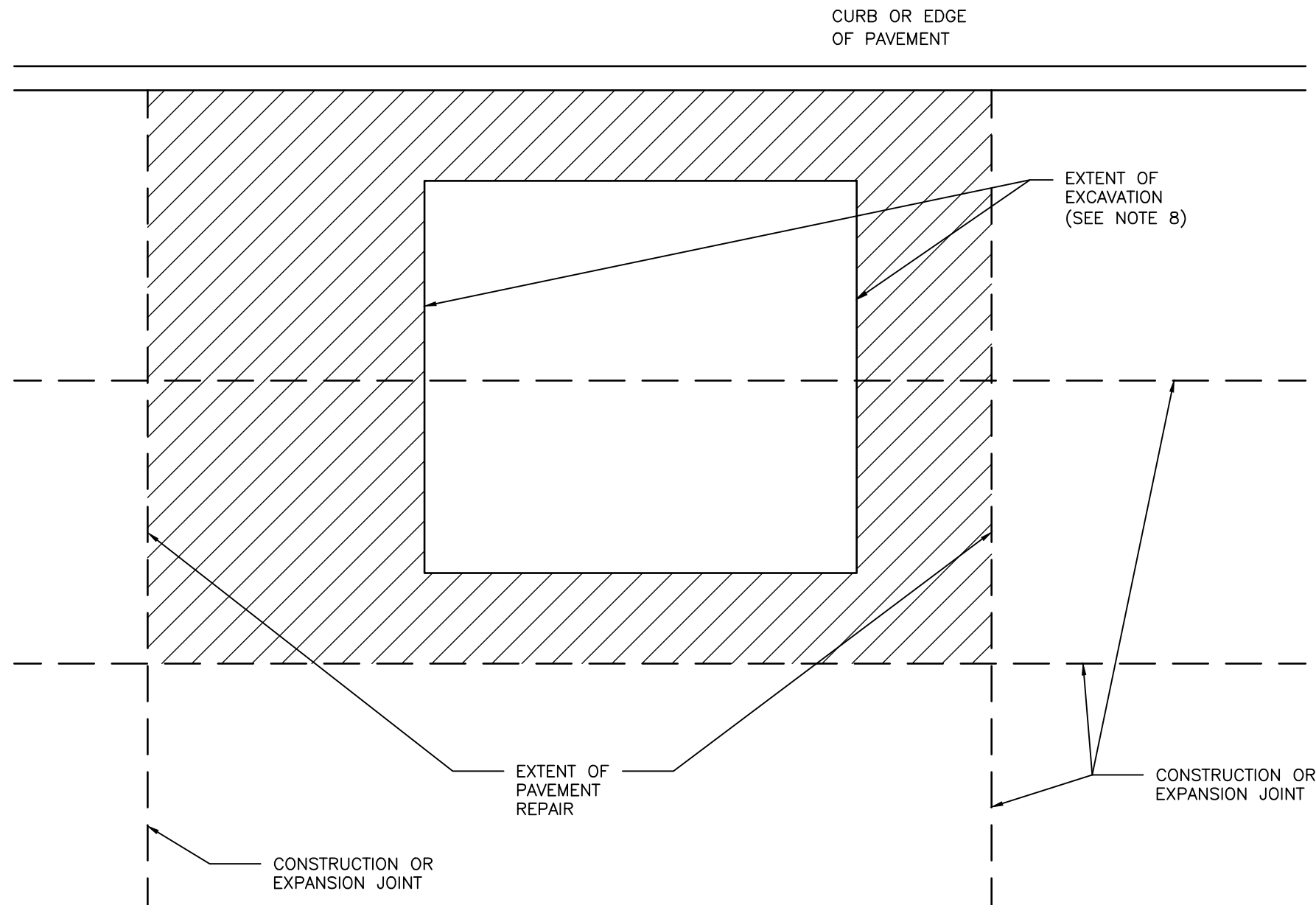
(SCALE: NOT TO SCALE)

APPROVED BY:

<p>DocuSigned by: <i>Sulrat Kanwar</i> 9EF8B0C841F5478...</p> <p>CITY ENGINEER</p>	<p>DocuSigned by: <i>KHANG NGUYEN</i> 95A28EFD75B4CD...</p> <p>CITY TRAFFIC ENGINEER</p>	<p>DocuSigned by: <i>Carol Hallbeck</i> A93C410B72B3453...</p> <p>DIRECTOR OF HPW</p>
--	--	---

EFF DATE: NOV-27-2023 | DWG NO: 02775-09

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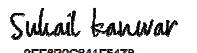




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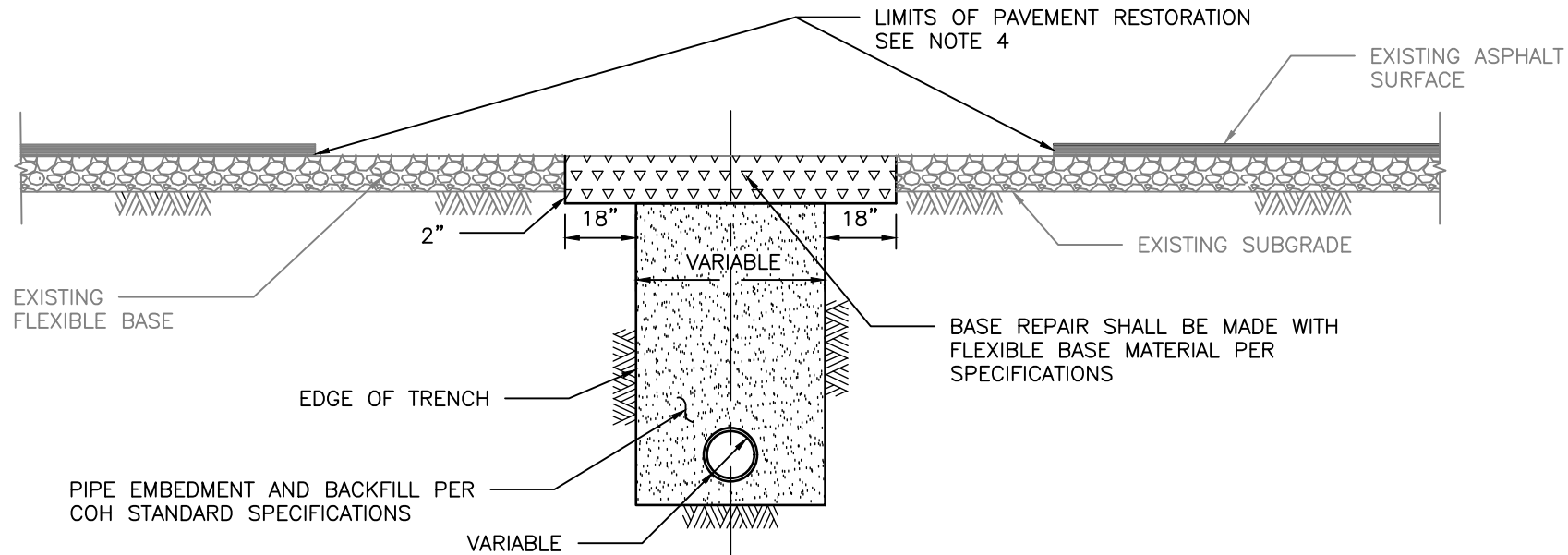
1. EXTENT OF PAVEMENT REPAIR SHALL BE PERPENDICULAR AND PARALLEL TO TRAVEL WAY.
2. REPLACE ENTIRE PANEL WIDTH AND LENGTH TO NEAREST CONSTRUCTION OR EXPANSION JOINT BEYOND EDGE OF EXCAVATION.
3. SAW CUT AND EXPOSE 15" OF REINFORCING STEEL WITHIN EXISTING PAVEMENT. PROVIDE HORIZONTAL DOWELS (PER SPECIFICATION SECTION 02951-PAVEMENT REPAIR AND RESTORATION) IF EXISTING REINFORCING IS BROKEN OFF.
4. REPLACE CURB WHEN ADJACENT LANE IS REPLACED.
5. MAINTAIN EXPANSION JOINTS AT EXISTING LOCATIONS UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
6. SPECIALTY PAVEMENTS (IE: BRICK PAVERS) TO BE REPLACED WITH MATCHING PAVEMENT IN ALL CASES.
7. REPLACE PAVEMENT MARKINGS IN ACCORDANCE WITH CITY OF HOUSTON STANDARD SPECIFICATIONS 02764-RAISED PAVEMENT MARKERS AND 02767-THERMOPLASTIC PAVEMENT MARKINGS.
8. EXTENT OF EXCAVATION INCLUDES 18" OVERCUT AS SHOWN ON STANDARD DETAIL 02951-04 PAVEMENT REPAIR DETAIL FOR STREET CUTS (FLEX-BASE PAVEMENT & CONCRETE PAVEMENT).

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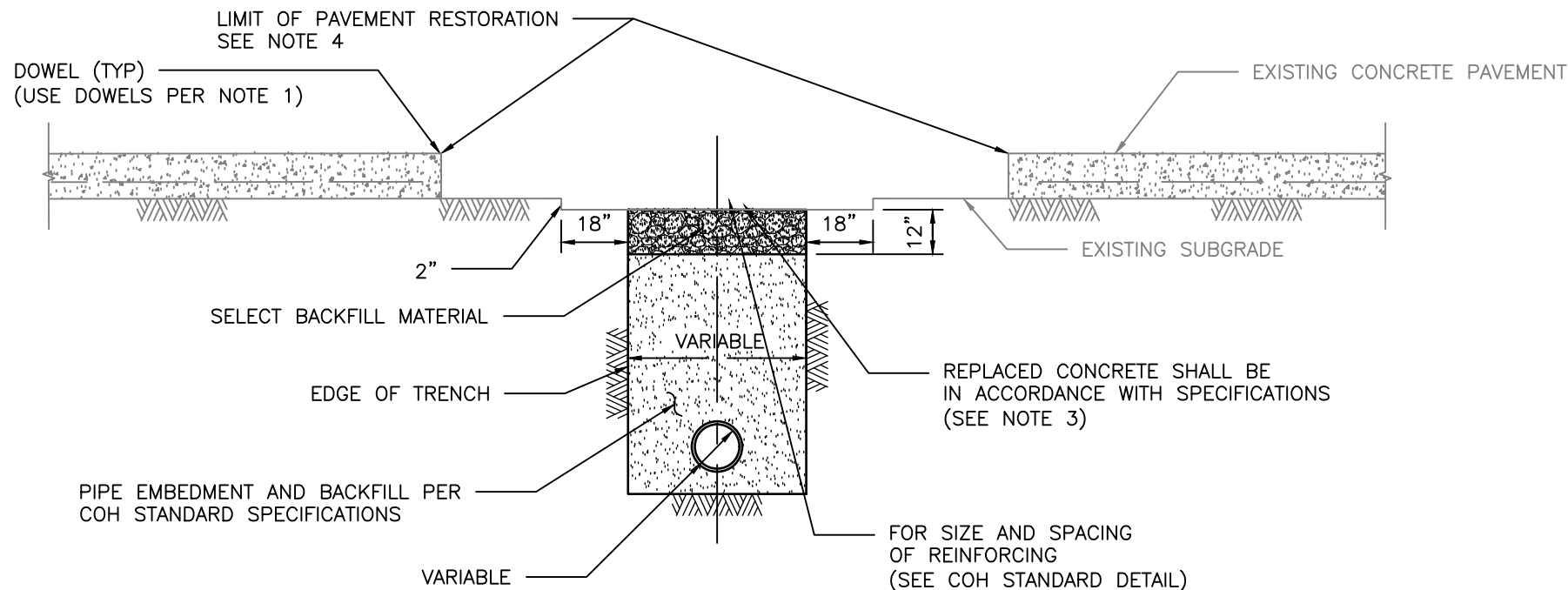
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CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
STREET CUT FOR CONCRETE PAVEMENT REPLACEMENT/RESTORATION AGE OF PAVEMENT ≤ 5YRS (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by:  9EF8B0C841F5478... CITY ENGINEER	DocuSigned by:  A93C410B72B3493... DIRECTOR OF HPW
DocuSigned by:  95A29EFD75B4CD... CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023 DWG NO: 02951-01	

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ELEVATION A
REPAIR OF FLEXIBLE BASE PAVEMENT



ELEVATION B
REPAIR OF REINFORCED CONCRETE PAVEMENT

NOTES:

1. EXPOSE 15" OF REINFORCING STEEL AT PROPOSED SAWED JOINT. IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS. HORIZONTAL DOWELS SHALL BE #6 BAR, 24" LONG, 24" C-C, DRILLED AND EMBEDDED 8" INTO THE CENTER OF THE EXISTING SLAB. WITH "PO ROC" OR EQUAL.
2. IF REINFORCED CONCRETE IS OVERLAYED WITH ASPHALT, REPLACE WITH 2" MIN HMAC SURFACING.
3. REFER TO STANDARD DETAIL 02751-01 FOR REINFORCING STEEL REQUIREMENTS.
4. REFER TO STANDARD DETAIL 02951-01 THROUGH 03 FOR PAVEMENT RESTORATION LIMITS.

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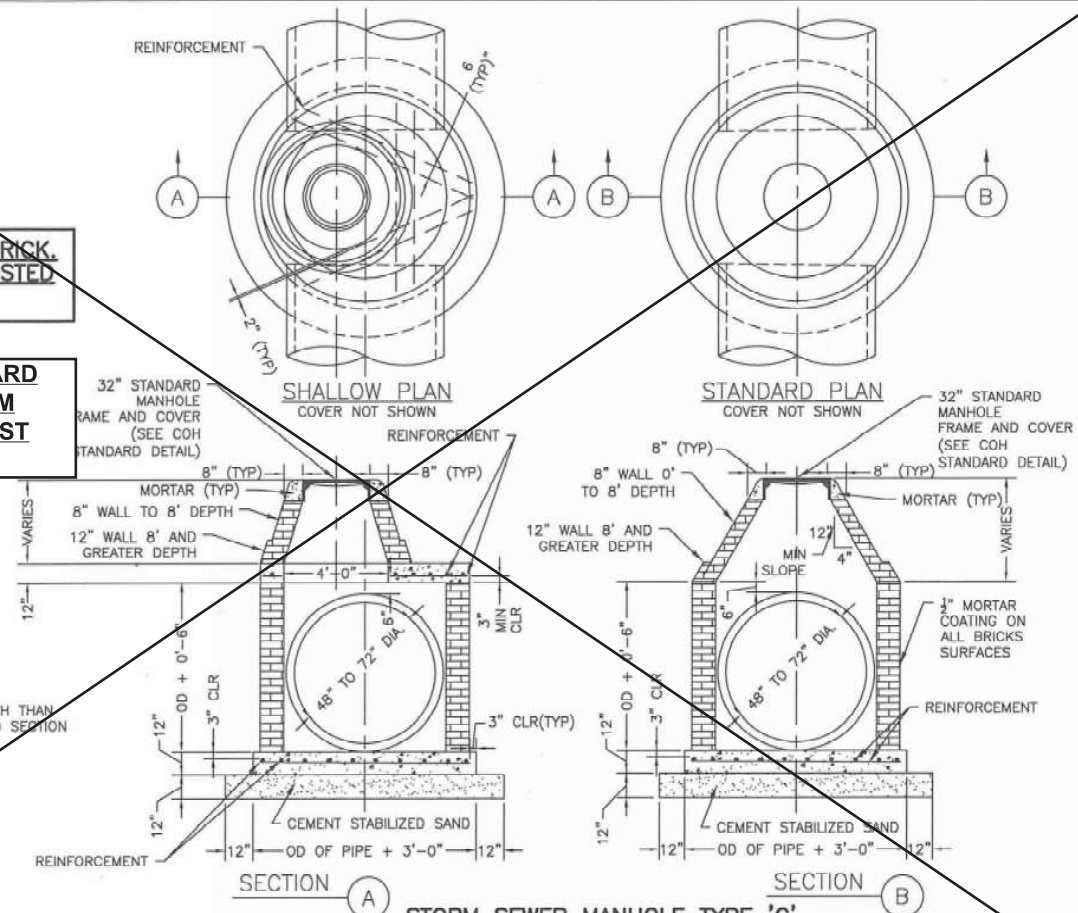
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 Houston, Texas 77494

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
PAVEMENT REPAIR DETAIL FOR STREET CUTS (FLEX-BASE PAVEMENT & CONCRETE PAVEMENT) (SCALE: NOT TO SCALE)	
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DocuSigned by: 9EF8B0C841F5478... CITY ENGINEER	DocuSigned by: A93C410B72B3493... DIRECTOR OF HPW
DocuSigned by: 95A29EFD75B4CD... CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023 DWG NO: 02951-04	

02081-02

COH IS PHASING OUT BRICK. NEW DETAILS TO BE POSTED END OF 2019

REFER TO COH STANDARD DETAIL 02082-12 "STORM SEWER TYPE 'C' PRECAST ROUND MANHOLE"

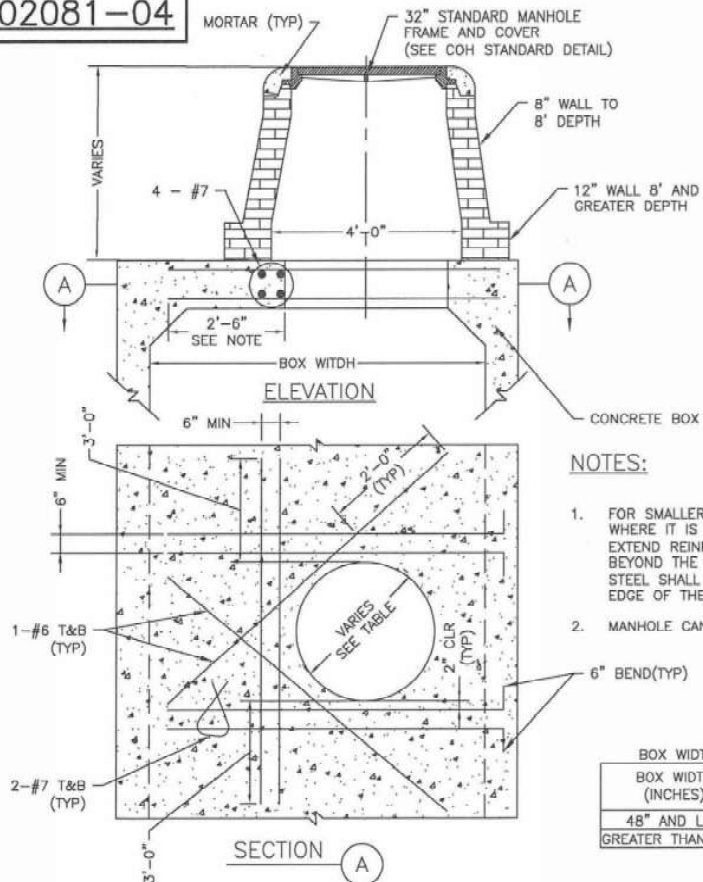


NOTE:

1. WHEN MANHOLE HAS LESS DEPTH THAN MIN. SHOWN ON TABLE 1, BUILD SECTION A OTHERWISE BUILD SECTION B.

STORM SEWER MANHOLE TYPE 'C' FOR 48" TO 72" DIAMETER RCP NTS

02081-04



COH IS PHASING OUT BRICK. NEW DETAILS TO BE POSTED END OF 2019

NOTES:

1. FOR SMALLER BOX SEWER WIDTHS, WHERE IT IS NOT POSSIBLE TO EXTEND REINFORCING STEEL 2'-6" BEYOND THE OPENING, REINFORCING STEEL SHALL BE EXTENDED 3" TO THE EDGE OF THE WALL.
2. MANHOLE CAN BE PRECAST

TABLE
BOX WIDTH VS OPENING SIZE

BOX WIDTH (INCHES)	OPENING SIZE (INCHES)
48" AND LESS	36"
GREATER THAN 48"	48"

STORM SEWER MANHOLE TYPE 'C' FOR PROPOSED CONCRETE BOX SEWER NTS

REFER TO COH STANDARD DETAIL 02082-12 "STORM SEWER TYPE 'C' PRECAST ROUND MANHOLE"

REFER TO COH STANDARD DETAIL 02082-13 "STORM SEWER PRECAST BOX MANHOLE"

FIRM INFORMATION ENGINEER'S SEAL

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

STORM SEWER
02081-01 THROUGH 04

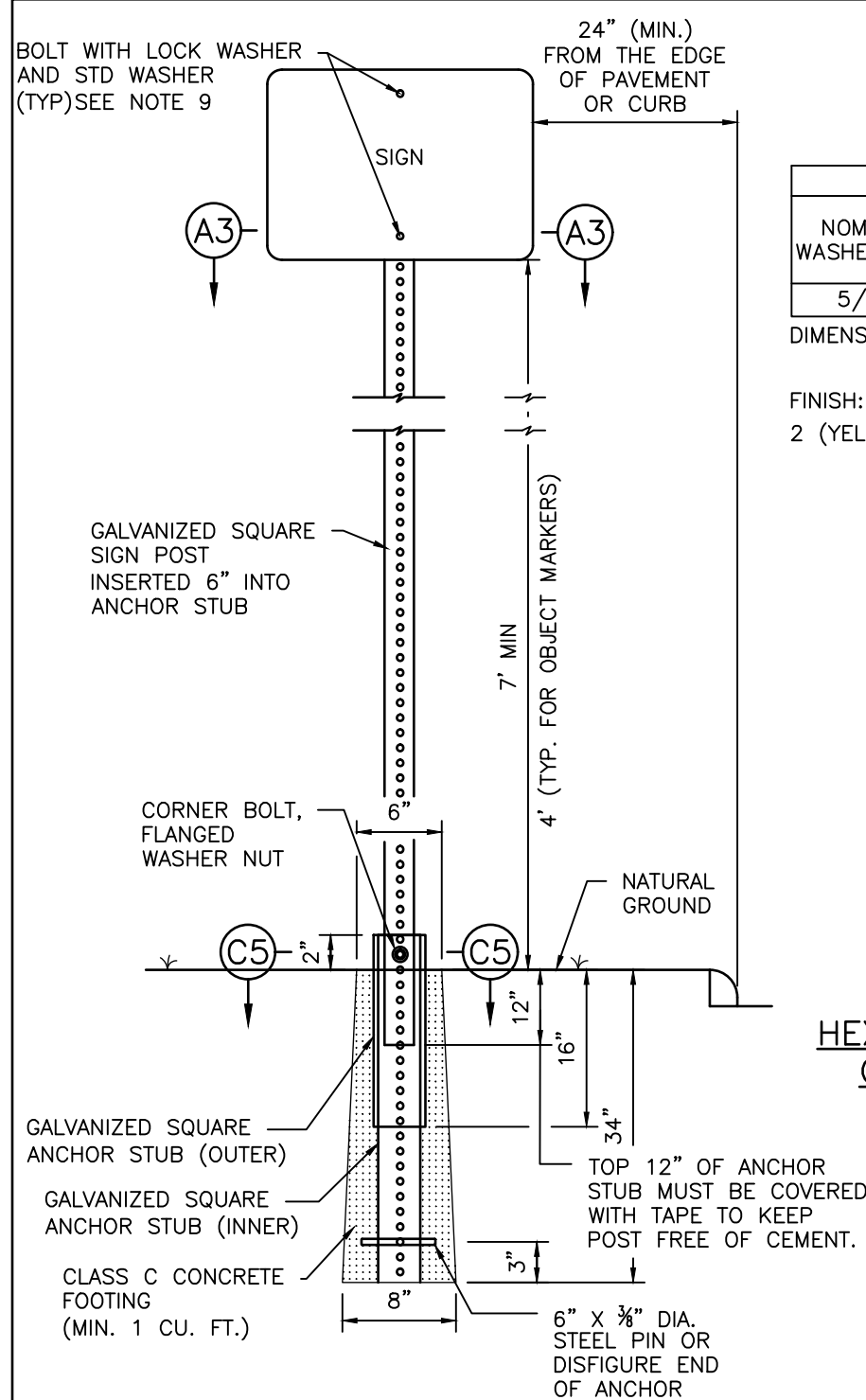
APPROVED BY: *[Signature]* CITY ENGINEER
APPROVED BY: *[Signature]* DEPUTY DIRECTOR

APPROVED BY: *[Signature]* DIRECTOR

EFFECTIVE DATE: JUL-01-2019

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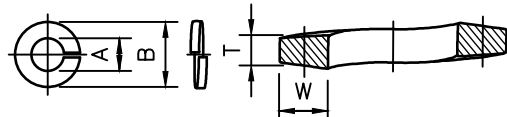
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ELEVATION

TYPICAL GROUND SIGN INSTALLATION PERFORATED SQUARE METAL TUBING

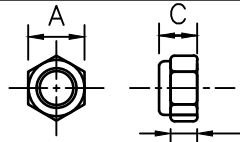
TABLE A	
GALVANIZED SQUARE SIGN POST (PERFORATED)	1-3/4" x 1-3/4" (14 GAUGE)
GALVANIZED SQUARE ANCHOR STUB (PERFORATED) (INNER)	2" x 2" x 36" (14 GAUGE)
GALVANIZED SQUARE ANCHOR STUB (PERFORATED) (OUTER)	2 1/4" x 2 1/4" x 18" (14 GAUGE)



NOMINAL WASHER SIZE	A		B	T	W
	INSIDE DIAMETER MAX	INSIDE DIAMETER MIN	OUTSIDE DIAMETER MAX	MEAN SECTION (THICKNESS)	SECTION WIDTH
5/16"	0.332"	0.314"	0.583"	0.078"	0.125"

DIMENSIONS: ASME B18.21.1
 MATERIAL: ALLOY STEEL PER ASME B18.21.1
 FINISH: MECHANICAL ZINC PER ASTM B695, CLASS 5, TYPE 2 (YELLOW)

5/16" SPLIT LOCK WASHER, HIGH ALLOY MECHANICAL DEPOSITED YELLOW SINK



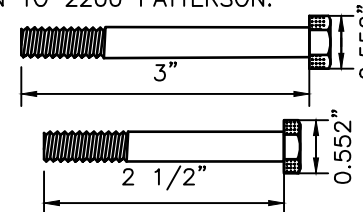
SIZE	C		A		D
	THICKNESS MAX	THICKNESS MIN	WIDTH ACROSS FLATS MAX	WIDTH ACROSS FLATS MIN	HEX HEIGHT MIN
0.313"	0.359"	0.329"	0.502"	0.489"	0.250"

DIMENSIONS: ASME B18.16.6
 MATERIAL: CARBON STEEL, GRADE 8 PER ASME B18.16.6, NYLON 6
 THREAD REQUIREMENTS: ASME B1.1 UNC & UNF CLASS 2B

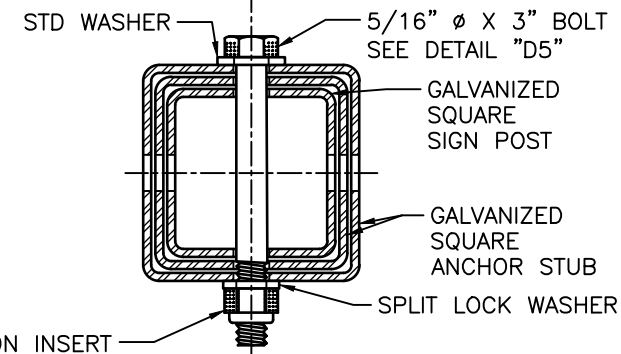
HEX NYLON INSERT LOCKNUTS (NE), GRADE 8, YELLOW ZINC PLATED

NOTES:

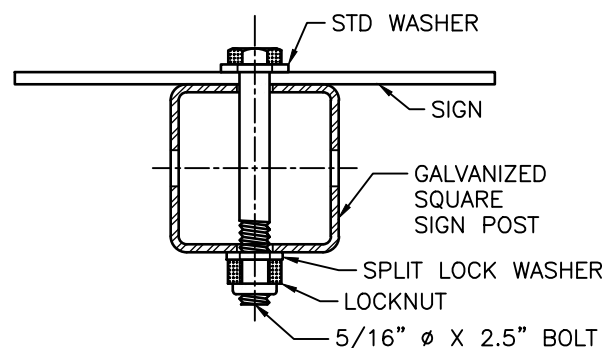
- THE EXISTING SIGNS LOCATED ON PUBLIC CONSTRUCTION SITE ARE THE PROPERTY OF THE CITY OF HOUSTON. THROUGHOUT THE PERIOD OF THE CONTRACT, THE CONTRACTOR SHALL PROTECT THESE SIGNS SUCH THAT THEY ARE NOT DAMAGED IN THE COURSE OF CONSTRUCTION ACTIVITY. SUCH PROTECTION SHALL INCLUDE THE PERIOD AFTER SIGNS ARE REMOVED FROM INSTALLATION AND STORED BY THE CONTRACTOR OR DELIVERED TO THE TRAFFIC OPERATIONS CENTER (2200 PATTERSON). THE GENERAL TRAFFIC SUPERINTENDENT (832-395-6771) MUST BE NOTIFIED 48 HOURS IN ADVANCE PRIOR TO DELIVERY.
- AFTER SIGNS ARE REMOVED FROM INSTALLATION AND ARE BEING STORED BY THE CONTRACTOR, THE CONTRACTOR SHALL CONTACT THE TRAFFIC OPERATIONS DIVISION OF HOUSTON PUBLIC WORKS (832-395-6771) AND ARRANGE FOR A CONVENIENT TIME TO DELIVER ONLY CITY SIGNS AND POSTS IDENTIFIED BY TRAFFIC OPERATIONS DIVISION TO 2200 PATTERSON.
- PRIOR TO THE START OF CONSTRUCTION, ALL EXISTING SIGNS WITHIN THE AREA OF CONSTRUCTION WILL BE INVENTORIED AND DOCUMENTED JOINTLY BY THE CITY INSPECTOR AND THE CONTRACTOR. THIS DOCUMENT WILL BE JOINTLY SIGNED BY BOTH PARTIES REFLECTING THE SIGN TYPE, SIGN SIZE, SIGN CONDITION, SIGN LOCATION, REFLECTIVITY ADEQUACY, ETC. THE CONTRACTOR IS HELD ACCOUNTABLE FOR THESE SIGNS THROUGHOUT THE PROJECT AND AT THE PROJECTS COMPLETION.
- ALL GROUND MOUNTED STOP SIGNS, WARNING SIGNS, AND OTHER REGULATORY SIGNS SHALL USE AT A MINIMUM HIGH INTENSITY PRISMATIC REFLECTIVE SHEETING.
- ALL OVERHEAD SIGNS SHALL USE DIAMOND GRADE REFLECTIVE SHEETING.
- ALL OTHER SIGNS SHALL USE SUPER ENGINEER GRADE SHEETING.
- ALL BLANKS TO BE INSTALLED SHALL BE ALUMINUM ALLOY 6061-T-6 OR 5052-H38 IN ACCORDANCE WITH ASTM B209.
- ALL HOLES SHALL BE 3/8" DIAMETER DRILLED OR PUNCHED AS SHOWN ON EACH BLANK DETAIL AND SHALL BE FREE OF BURRS AND / OR ROUGH EDGES. WHERE NON-STANDARD ORIENTATION OF SIGN IS USED, ENLARGE HOLE IN SIGN POST AT SIGN CONNECTION NOT GREATER THAN 11/16" IN DIAMETER.
- BOLT SIZE REQUIREMENTS FOR SIGN CONNECTION:
 - STANDARD ORIENTATION = 5/16" DIA X 2 1/2" BOLT
 - NON STANDARD ORIENTATION = 5/16" DIA X 3" BOLT
- SIGN BLANK CORNERS TO BE ROUNDED AS SHOWN ON EACH DETAIL ON SHEET 01554-06.
- ALL SIGN BLANKS ARE TO BE ETCHED, DEGREASED, AND HAVE A COATING MEETING THE REQUIREMENTS OF ASTM B449, CLASS 2, OR ASTM B921, CLASS 2. PRIOR TO APPLICATION OF LEGENDS.
- ALL SIGNS SHALL BE MANUFACTURED AND INSTALLED IN CONFORMANCE TO THE LATEST TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) AND STANDARD HIGHWAY SIGNS LATEST EDITION.



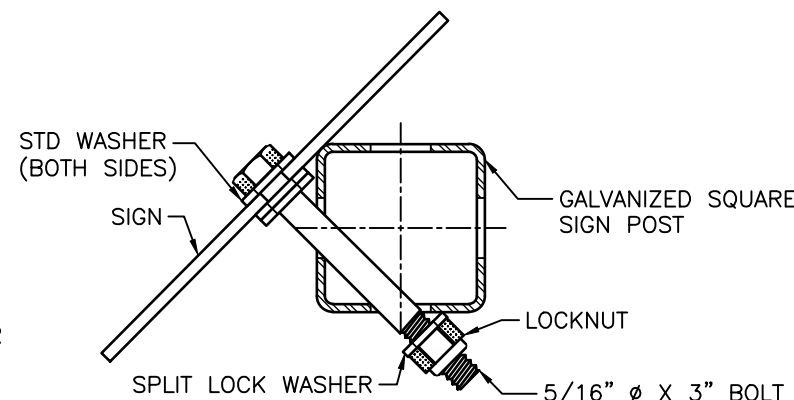
SECTION D5 BOLTS



SECTION C5 CORNER BOLT



STANDARD ORIENTATION



NON-STANDARD ORIENTATION

SECTION A3: SIGN CONNECTION DETAILS

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

GENERAL NOTES AND GROUND MOUNTING SIGN

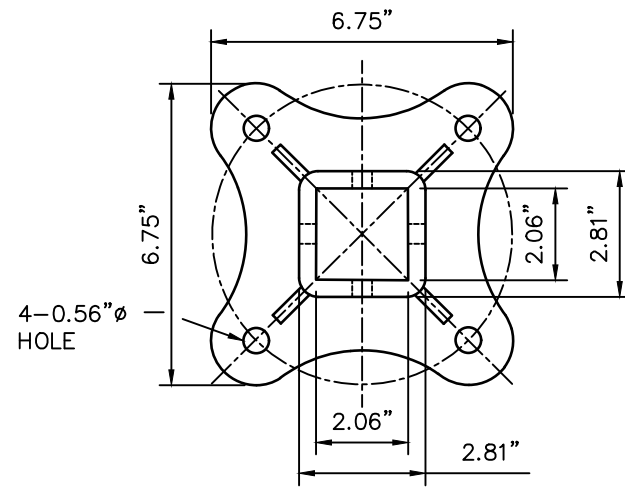
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APPROVED BY:

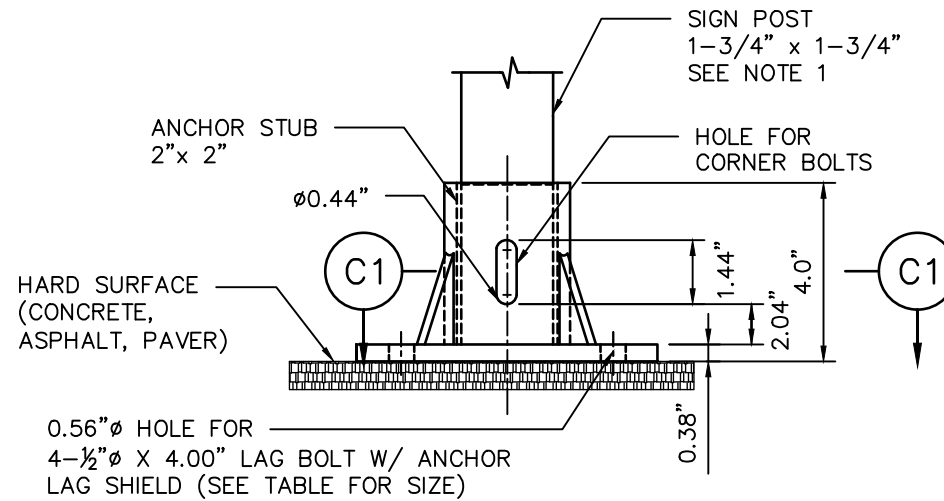
DocuSigned by:
Suhail Banwar
 9EF8B0C041F5478...
 CITY ENGINEER
 DocuSigned by:
ERANG NEUPHEN
 95A29EFD75B4CD...
 CITY TRAFFIC ENGINEER

DocuSigned by:
Carl Haddock
 A93C410B72B3493...
 DIRECTOR OF HPW

EFF DATE: NOV-27-2023 DWG NO: 01554-01

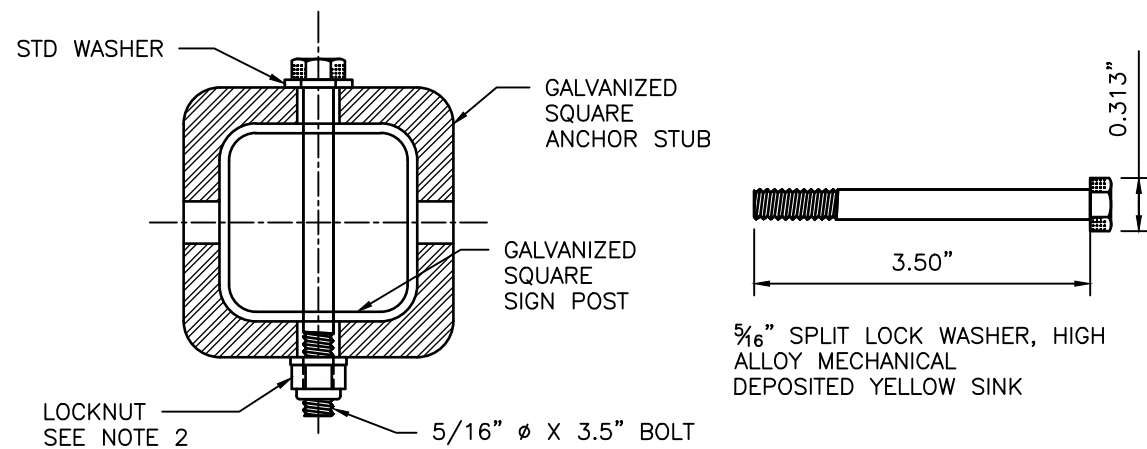


TOP VIEW

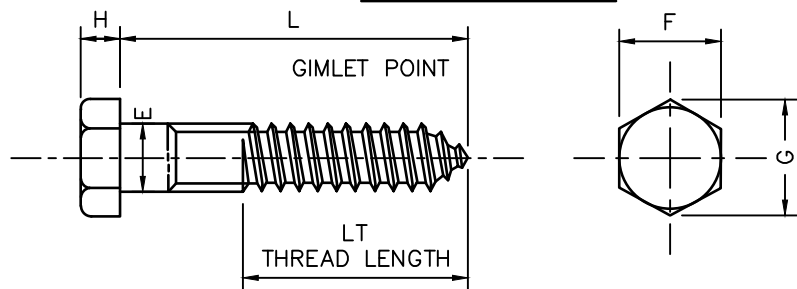


SIDE VIEW

TYPICAL HARD SURFACE INSTALLATION GALVANIZED SIGN BASE



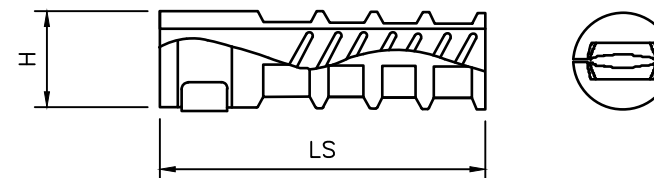
SECTION C1
CORNER BOLT



SAE FLAT WASHERS									
SIZE	ID			OD			THICKNESS - TH		
	BASIC	TOLERANCE		BASIC	TOLERANCE		BASIC	MAX	MIN
		PLUS	MINUS		PLUS	MINUS			
1/2"	0.531	0.015"	0.005"	1.062"	0.030"	0.007"	0.95"	0.121"	0.74"

DIMENSIONS: ASME B18.21.1, TYPE A PLAIN WASHERS
 MATERIAL: CARBON STEEL
 FINISH: Fe/Zn 3AT PER ASTM F1941

1/2" FLAT WASHERS, LOW CARBON, SAE, ZINC PLATED



TH	LS	H	L
LAG THREAD SIZE	LENGTH OF SHIELD NOMINAL	DRILLED HOLE SIZE	BOLT LENGTH REQ
1/2"	3.00"	0.75"	4.00"

ANCHOR LAG SHIELD - ZINC ALLOY

NOTES:

1. REFER TO COH STD DWG 01554-01 FOR SIGN AND POST REQUIREMENTS.
2. REFER TO DETAIL "C5" ON COH STD DWG 01554-01 FOR NUT AND BOLT REQUIREMENTS.

BASE PLATE NOTES:

1. MATERIAL: ASTM A-536 GRADE 65-45-12 DUCTILE IRON
2. HOT DIP GALVANIZE PER ASTM A-153
3. ALL DIMENSIONS ARE IN INCHES

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

SIGN BASE
HARD SURFACE
MOUNTING DETAILS
(SCALE: NOT TO SCALE)

APPROVED BY:

DocuSigned by:
Sulrat Kanwar
9EF8B0C041F5478...
CITY ENGINEER
DocuSigned by:
KRANG NEUFEN
95A29EFD75B4CD...
CITY TRAFFIC ENGINEER

DocuSigned by:
Carl Haddock
A93C410B72B3493...
DIRECTOR OF HPW

EFF DATE: NOV-27-2023 DWG NO: 01554-02

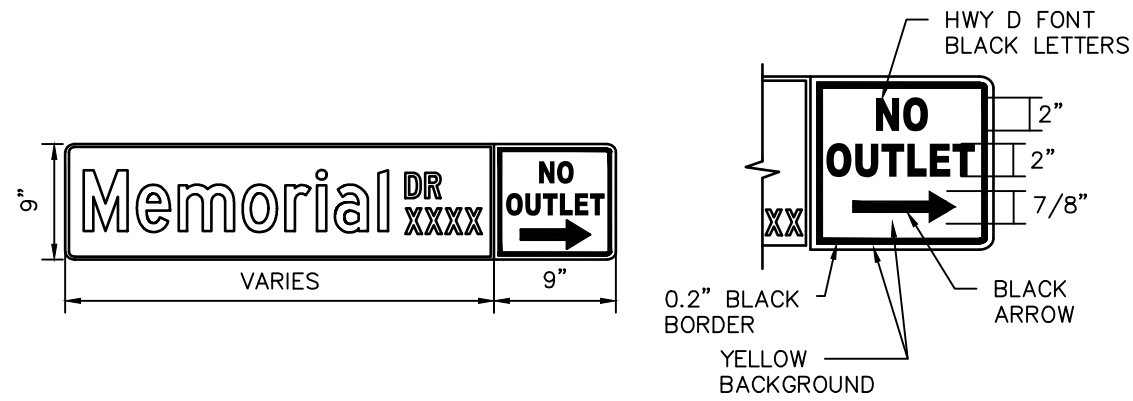
DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DIAMETER	E		F		G		H		L	LT
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN		
1/2"	0.515"	0.482"	0.750"	0.725"	0.866"	0.826"	0.364"	0.302"	4.00"	3.84"

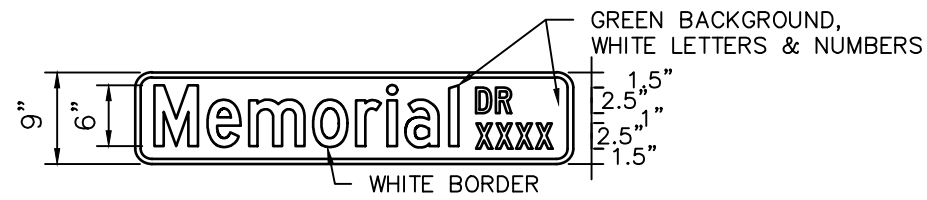
MATERIAL: PER A307 GRADE A
 COATING: HOT DIP ZINC PER ASTM F2329 OR IN ACCORDANCE WITH CLASS C OF ASTM A153 AND CLASS D FOR 3/8" DIAMETER AND LESS

4" HEX LAG SCREWS, HOT DIPPED GALVANIZED

POST MOUNTED STREET NAME SIGN W/ NO OUTLET SIGN



D3 - POST MOUNTED STREET NAME SIGN



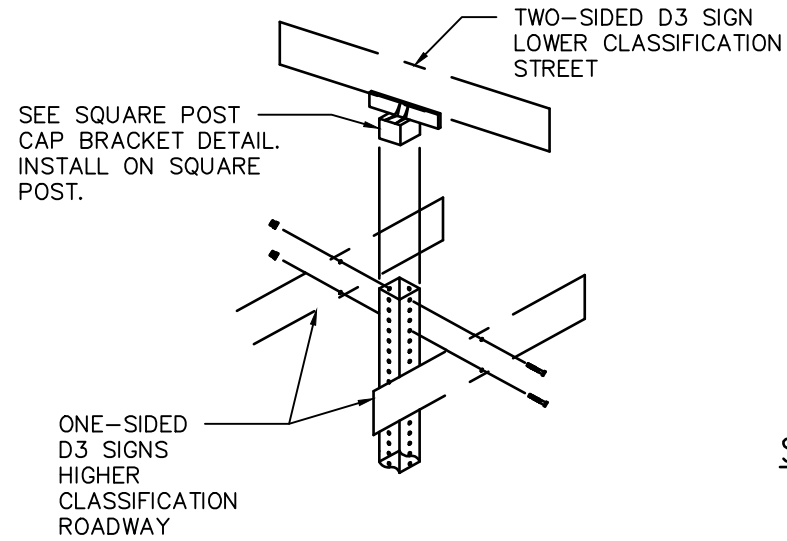
OVERHEAD STREET NAME SIGN DETAIL



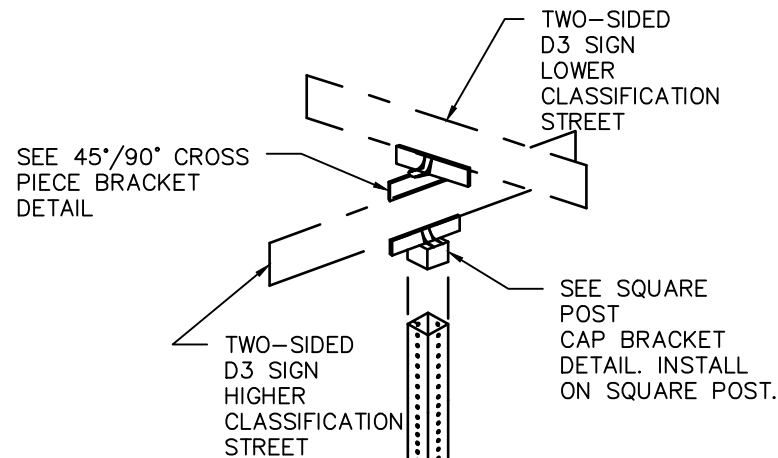
D3 - STREET NAME SIGN

	POST-MOUNTED SIGN	OVERHEAD SIGN
HEIGHT	9"	24"
LENGTH	30" MIN 48" MAX 6" INCREMENTS OF LENGTH	10" MAX 2' INCREMENT OF LENGTH
THICKNESS	0.125"	0.080"
SUBSTRATE	ALLUMINUM ALLOY, 5052-H38 (ASTM B-209)	
SIGN FACE MATERIALS	GREEN FILM OVER DIAMOND GRADE VIP SHEETING	
LEGENDS AND SYMBOLS	HIGHWAY GOTHIC SERIES D (USUAL) HIGHWAY GOTHIC SERIES C OR B FOR MAXIMUM LENGTH SIGN BLACK	
COLOR	LETTERS-WHITE REFLECTIVE BORDER-WHITE REFLECTIVE BACKGROUND-GREEN REFLECTIVE	

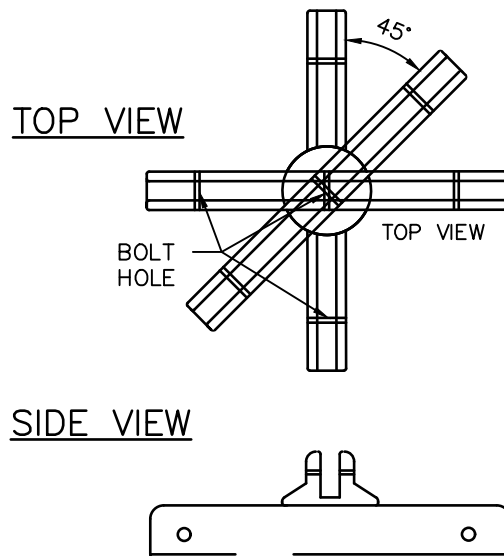
D3 SIGNS GREATER THAN 42" PLATES IN LENGTH



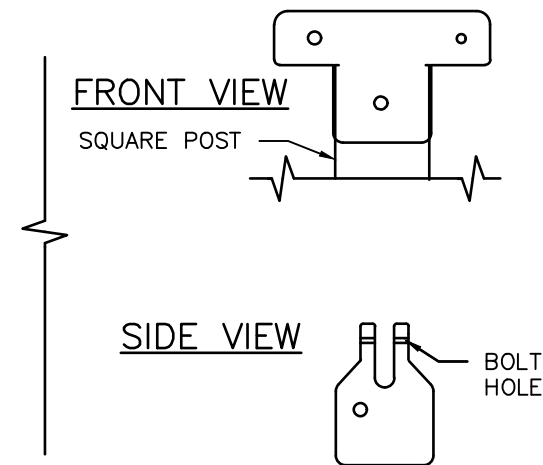
D3 SIGNS LESS THAN OR EQUAL TO 42" PLATES IN LENGTH



45°/90° CROSS PIECE SIGN BRACKET



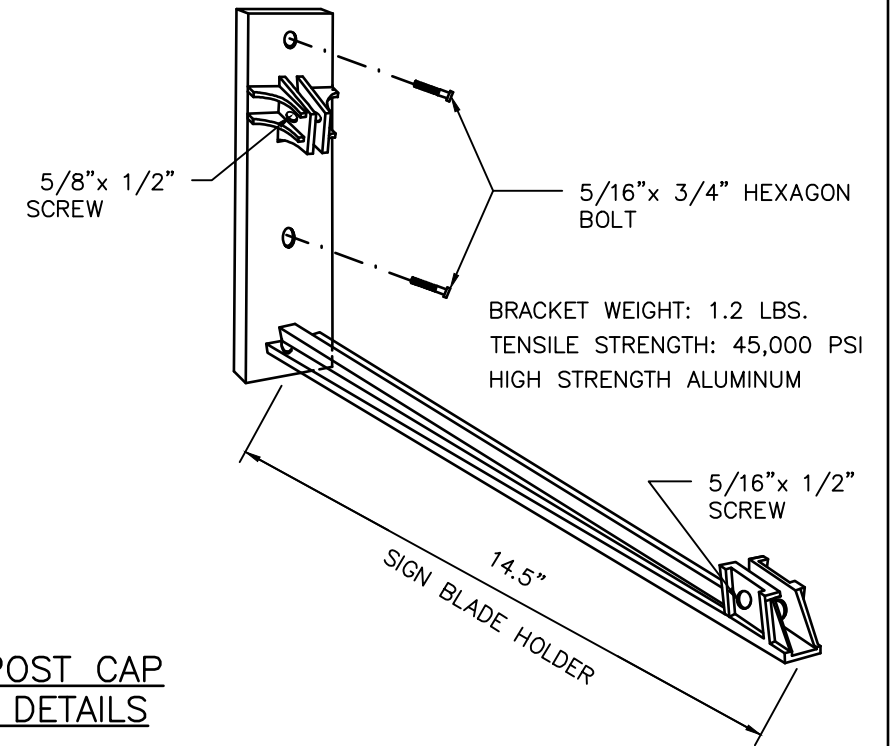
SQUARE POST CAP BRACKET DETAILS



NOTES:

1. TYPICAL SIGN PLATE SHOULD BE 30" MAX.
2. LONGER SIGN PLATE MUST BE APPROVED BY THE CITY TRAFFIC ENGINEER.

SIGNAL POLE MOUNTING DETAIL



DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

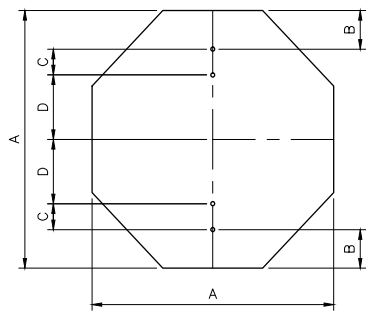
STREET NAME SIGN AND SIGN MOUNTING
(SCALE: NOT TO SCALE)

APPROVED BY:

DocuSigned by: <i>Suhail Banwar</i> 9EF8B0C841F5478... CITY ENGINEER	DocuSigned by: <i>Carl Haddock</i> A93C410B72B3493... DIRECTOR OF HPW
DocuSigned by: <i>KRANG NEUFEN</i> 95A29EFD75B4CD... CITY TRAFFIC ENGINEER	

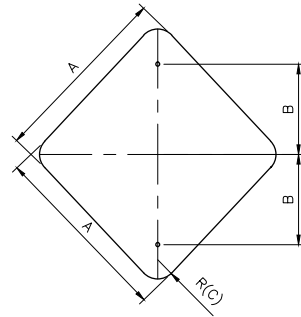
EFF DATE: NOV-27-2023 DWG NO: 01554-03

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THE USE OF THIS STANDARD. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



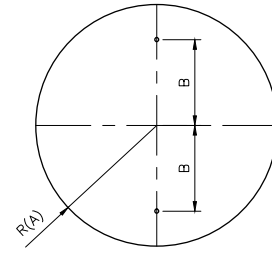
OCTAGONAL

A	B	C	D	T
24	3	3	12	0.08
36	3	3	24	0.08



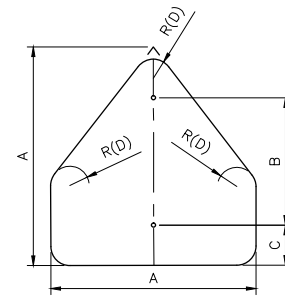
DIAMOND

A	B	C	T
24	12	1 1/2	0.08
30	15	1 1/2	0.08
36	18	1 1/2	0.08



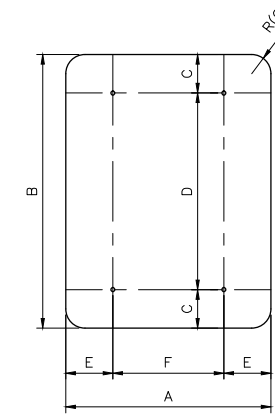
CIRCLE

A	B	T
15	15	0.08
18	12	0.08



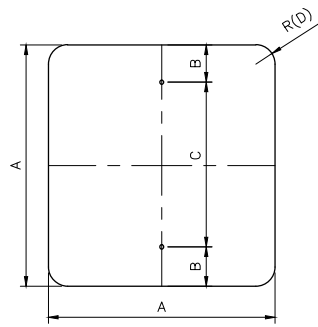
PENTAGON (SCHOOL)

A	B	C	D	T
36	24	3	1 1/2	0.08



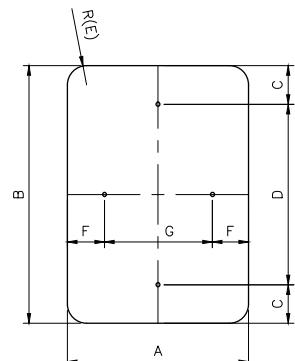
VERTICAL RECTANGLE

A	B	C	D	E	F	G	T
36	48	6	36	6	24	1 1/2	0.08
48	60	6	48	9	30	1 1/2	0.08
18	30	3	24	-	-	1 1/2	0.08



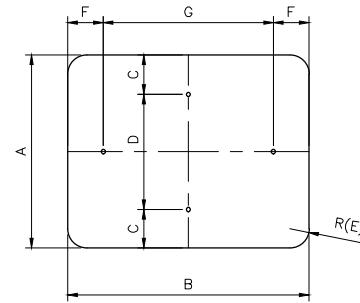
SQUARE (A)

A	B	C	D	T
18	3	12	1 1/2	0.08
24	3	18	1 1/2	0.08
36	3	30	1 1/2	0.08



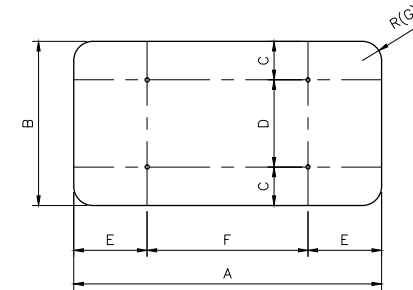
VERTICAL/HORIZONTAL RECTANGLE

A	B	C	D	E	F	G	T
12	18	1 1/2	15	1 1/2	1 1/2	9	0.08
12	36	3	30	1 1/2	1 1/2	9	0.08
18	24	3	18	1 1/2	1 1/2	15	0.08
24	30	3	24	1 1/2	3	18	0.08
24	36	3	30	1 1/2	3	18	0.08
24	48	3	36	1 1/2	3	18	0.08
30	36	3	30	1 1/2	3	24	0.08



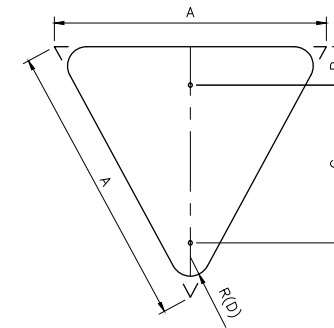
HORIZONTAL/VERTICAL RECTANGLE

A	B	C	D	E	F	G	T
12	6	-	-	1 1/2	1	4	0.08
18	6	-	-	1 1/2	1	4	0.08
12	9	1	10	1 1/2	-	-	0.08
24	12	1 1/2	9	1 1/2	2	8	0.08
24	18	3	12	1 1/2	2	14	0.08
30	24	3	18	1 1/2	3	18	0.08
36	12	1 1/2	9	1 1/2	2	8	0.08



HORIZONTAL RECTANGLE

A	B	C	D	E	F	G	T
36	24	3	18	6	24	1 1/2	0.08
48	24	3	18	9	30	1 1/2	0.08
48	36	6	24	9	30	1 1/2	0.08
60	24	3	18	12	36	1 1/2	0.08
60	36	6	24	12	36	1 1/2	0.08



EQUILATERAL TRIANGLE

A	B	C	D	T
36	3	21	1 1/2	0.08

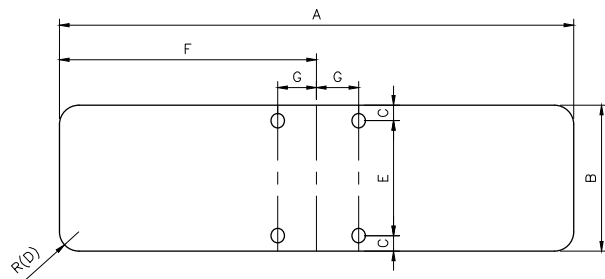
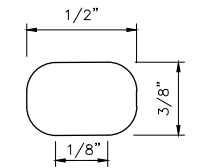


TABLE -- D3 SIGNS (BRACKETS)

A	B	C	D	E	F	G	T
30	9	5/16	1 1/2	8 3/8	15	1 3/4	0.125
36	9	5/16	1 1/2	8 3/8	18	1 3/4	0.125
42	9	5/16	1 1/2	8 3/8	21	1 3/4	0.125
48	9	5/16	1 1/2	8 3/8	24	1 3/4	0.125

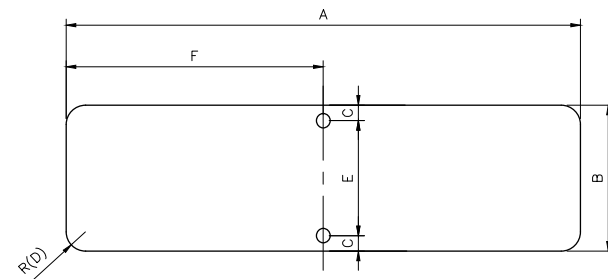


TABLE -- D3 SIGNS

A	B	C	D	E	F	T
30	9	1 1/2	1 1/2	6	15	0.125
36	9	1 1/2	1 1/2	6	18	0.125
42	9	1 1/2	1 1/2	6	21	0.125
48	9	1 1/2	1 1/2	6	24	0.125

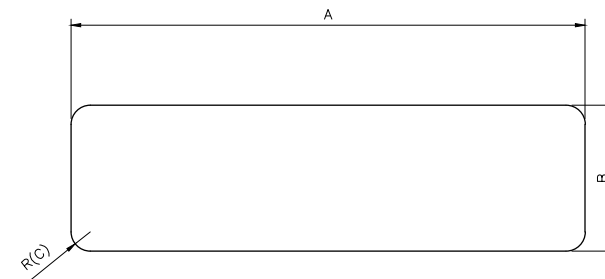


TABLE -- D1 SIGNS

A	B	C	T
60	24	1 1/2	0.08
72	24	1 1/2	0.08
84	24	1 1/2	0.08
96	24	1 1/2	0.08

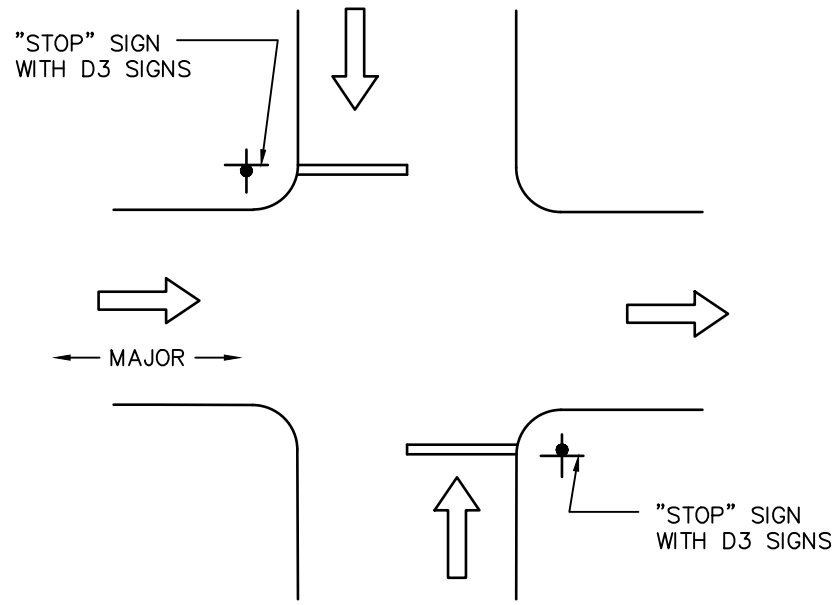
NOTES:

1. A 30" LONG OR GREATER PLATE SHALL BE USED WHEN A "NO OUTLET" SUPPLEMENT IS REQUIRED.
2. THE CITY OF HOUSTON "STOP" AND "YIELD" SIGNS SHALL BE A MINIMUM 36". SPECIAL PERMISSION FROM THE CITY TRAFFIC ENGINEER IS REQUIRED FOR LESS THAN 36" SIGNS.
3. ALL PUNCHED HOLES ARE 3/8"x 1/2" OVAL.
4. ALL CORNER RADII ARE 1 1/2".
5. ALL DIMENSIONS ARE IN INCHES.
6. T = THICKNESS

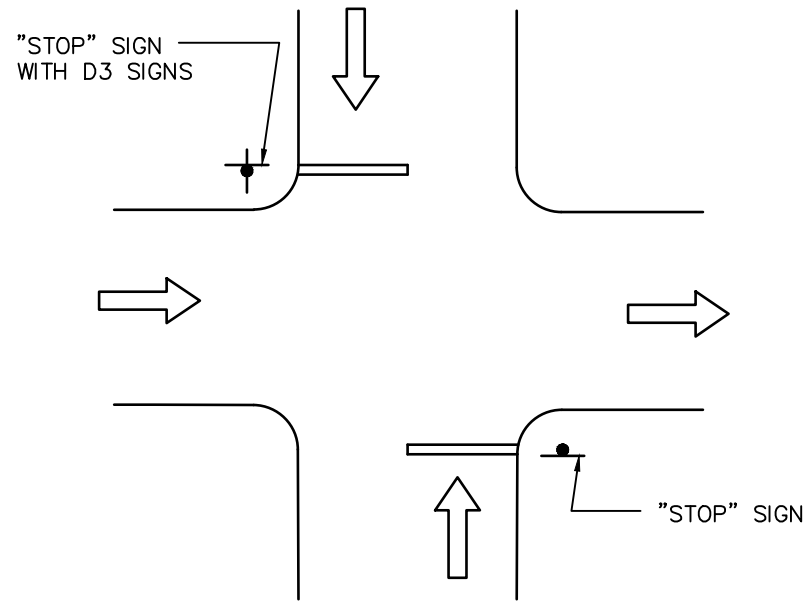
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01554-06
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC 199E Reg. No. F-19289 23410 Grand Reserve Dr. Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
GROUND MOUNTED SIGN SIZES	
WBS NUMBER N - 100042 - 0001 - 3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE NOT TO SCALE	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 117	

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

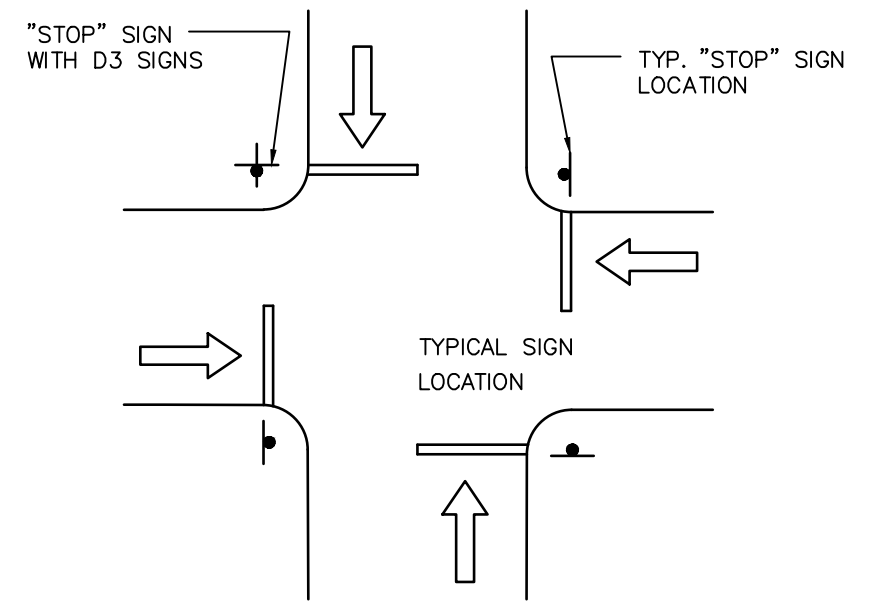
TYPICAL SIGN PLACEMENT



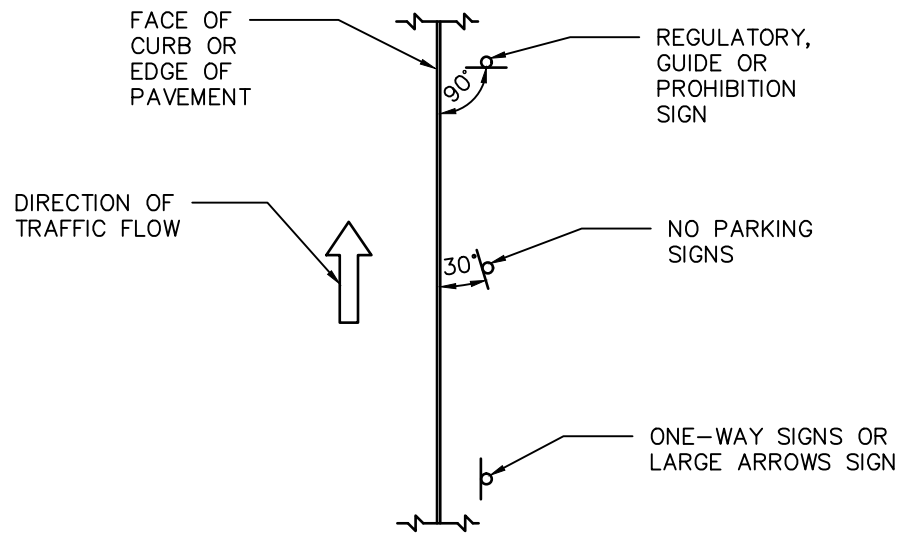
TWO-WAY STOP AND ONE-WAY OPERATION ON MAJOR/LOCAL INTERSECTION



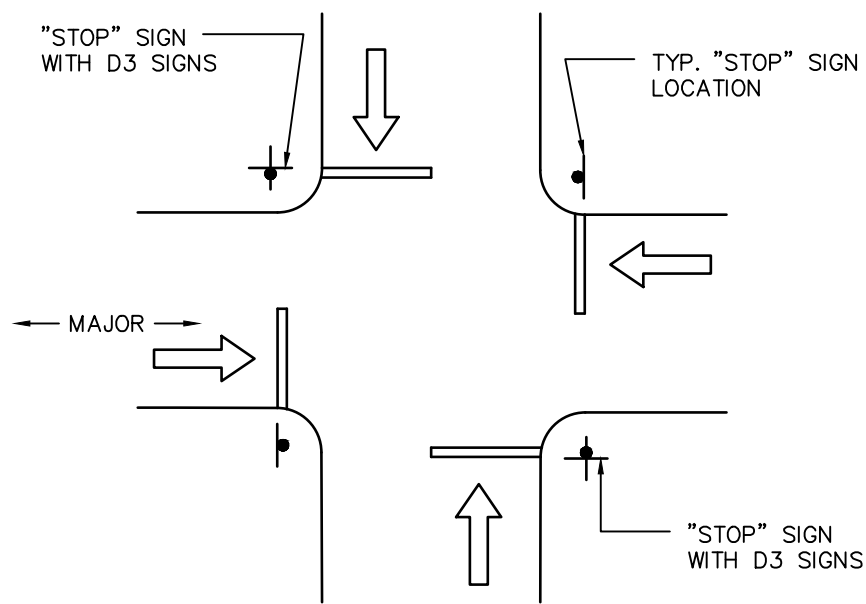
TWO-WAY STOP AND ONE-WAY OPERATION ON LOCAL/LOCAL INTERSECTION



FOUR-WAY STOP CONTROL ON LOCAL/LOCAL INTERSECTION



MAST ARM INSTALLATION REFER TO TRAFFIC SIGNAL DETAILS FOR ADDITIONAL INFORMATION.



FOUR-WAY STOP CONTROL ON MAJOR/LOCAL INTERSECTION

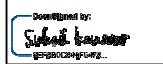


CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TYPICAL SIGN PLACEMENT (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: 9EF8B0C841F5478... CITY ENGINEER	DocuSigned by: A93C410B72B3493... DIRECTOR OF HPW
DocuSigned by: 95A29EFD75B4CD... CITY TRAFFIC ENGINEER	
EFF DATE: NOV-27-2023 DWG NO: 01554-07	

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THE USE OF THIS STANDARD. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

REGULATORY SIGNS		
SIGN	SIGN DESIGNATION	SIZE (IN.)
STOP	R1-1	36x36
YIELD	R1-2	36x36x36
ALL WAY PLAQUE	R1-3P	18x6
YIELD HERE TO PEDESTRIANS	R1-5a	36x48
EXCEPT RIGHT TURN (PLAQUE)	R1-10P(1)	24x18
EXCEPT BUSES (PLAQUE)	R1-10P(2)	24x18
SPEED LIMIT	R2-1	30x36
MINIMUM SPEED LIMIT (PLAQUE)	R2-4P	24x30
NO RIGHT TURNS	R3-1	36x36
NO LEFT TURNS	R3-2	36x36
NO U-TURNS	R3-4	36x36
LEFT/RIGHT TURN ONLY	R3-5	30x36
THRU ONLY	R3-5a	30x36
LEFT TURN/THRU	R3-6	30x36
LEFT/RIGHT LANE MUST TURN LEFT/RIGHT	R3-7	36x36
ADVANCE INTERSECTION LANE CONTROL (VARIES)	R3-8	VARIESx30
TWO-WAY LEFT TURN ONLY (OVERHEAD)	R3-9a	30x36
TWO-WAY LEFT TURN LANE (POST MOUNTED)	R3-9b	24x36
BEGIN	R3-9cP	30x12
END	R3-9dP	30x12
REVERSIBLE LANE CONTROL (SYMBOL)	R3-9e	108x48
REVERSIBLE LANE CONTROL (POST MOUNTED)	R3-9f	36x54
ADVANCE REVERSIBLE LANE CONTROL TRANSITION	R3-9g,9h	108x36
END REVERSIBLE LANE	R3-9i	108x48
BIKE LANE	R3-17	24x18
SLOWER TRAFFIC KEEP RIGHT	R4-3	24x30
BEGIN RIGHT TURN LANE YIELD TO BIKES	R4-4	36x30
KEEP RIGHT	R4-7	24x30
KEEP LEFT	R4-8	24x30
DO NOT DRIVE ON SHOULDER	R4-17	24x30
DO NOT PASS ON SHOULDER	R4-18	24x30
DO NOT ENTER	R5-1	36x36
WRONG WAY	R5-1a	42x30
NO TRUCKS (SYMBOL)	R5-2(1)	24x24
NO THRU TRUCKS (TEXT)	R5-2(2)	24x30
ONE WAY (LONG)	R6-1	54x18
ONE WAY	R6-2	30x36
ROUNDBOUT DIRECTIONAL (2 CHEVRONS)	R6-4	30x24
ROUNDBOUT CIRCULATION (PLAQUE)	R6-5P	30x30
BEGIN ONE WAY	R6-6	30x36
END ONE WAY	R6-7	30x36
PARKING RESTRICTION (ARROW)	R7-2(1)	12x18
PARKING RESTRICTION (TO CORNER)	R7-2(2)	12x18
PARKING RESTRICTION (BUS ZONE)	R7-2(3)	12x18

REGULATORY SIGNS		
SIGN	SIGN DESIGNATION	SIZE (IN.)
PARKING RESTRICTION (VALET ZONE)	R7-2(4)	12x18
PARKING RESTRICTION (PEAK PERIOD)	R7-2(5)	12x18
PARKING RESTRICTION (EMERGENCY VEH. ONLY)	R7-2(6)	12x18
PARKING RESTRICTION (TAXI ZONE)	R7-2(7)	12x18
PARKING RESTRICTION (NO STOPPING OR STANDING)	R7-2(8)	12x18
PARKING RESTRICTION (JITNEY STOP)	R7-2(9)	12x18
PARKING RESTRICTION (PED-CAB ZONE)	R7-2(10)	12x18
PARKING RESTRICTION (LIMO ZONE)	R7-2(11)	12x18
PARKING RESTRICTION (COMMERCIAL VEH. ZONE)	R7-2(12)	12x18
PARKING RESTRICTION (FED/CITY AUTHORIZED VEH. ONLY)	R7-2(13)	12x18
PARKING RESTRICTION (U.S. MARSHAL PARKING ONLY)	R7-2(14)	12x18
PARKING RESTRICTION (EMERGENCY)	R7-2(15)	12x18
PARKING TIME LIMIT (VARIES)	R7-108	12x18
HANDICAPPED PARKING	R7-8T	12x18
TOW AWAY ZONE (PLAQUE)	R7-201P	12x6
PARKING METER (COH)	R7-110	12x18
ON TRACKS (PLAQUE)	R8-3eP	24x18
CROSS ONLY AT CROSSWALKS (SYMBOL)	R9-2	12x18
NO PEDESTRIAN CROSSING (SYMBOL)	R9-3	18x18
NO PEDESTRIAN CROSSING	R9-3a	12x18
PEDESTRIAN CROSSING	R9-8	36x18
SIDEWALK CLOSED	R9-9	24x12
SIDEWALK CLOSED-USE OTHER SIDE	R9-10	24x12
SIDEWALK CLOSED CROSS HERE	R9-11a	24x12
PUSH BUTTON FOR PEDESTRIAN CROSSING	R10-3e	9x15
LEFT ON GREEN ARROW ONLY	R10-5	30x36
STOP HERE ON RED	R10-6	24x36
DO NOT BLOCK INTERSECTION	R10-7	24x30
LEFT/RIGHT TURN SIGNAL	R10-10	30x36
NO TURN ON ROAD (TEXT)	R10-11a	36x48
LEFT TURN YIELD ON GREEN	R10-12	30x36
CROSSWALK, STOP ON RED	R10-23	24x30
KEEP OFF MEDIAN	R11-1	24x30
ROAD CLOSED	R11-2	48x30
ROAD CLOSED LOCAL TRAFFIC ONLY	R11-3a	60x30
BRIDGE OUT LOCAL TRAFFIC ONLY	R11-3b	60x30
ROAD CLOSED TO THRU TRAFFIC	R11-4	60x30
WEIGHT LIMIT XX TONS	R12-1	24x30
AXLE WEIGHT LIMIT XX TONS/LBS	R12-2	24x30
NO TRUCKS OVER XX TONS/LBS EMPTY WEIGHT	R12-3	24x36
WEIGHT LIMIT XX TONS PER AXLE XX TONS GROSS	R12-4	36x24
LOAD ZONED BRIDGE	R12aT	VARIESx36
TRUCK ROUTE	R14-1	24x18
GRADE CROSSING (CROSSBUCK)	R15-1	48x9
NUMBER OF TRACKS (PLAQUE)	R15-2P	27x18

REGULATORY SIGNS		
SIGN	SIGN DESIGNATION	SIZE (IN.)
RIGHT ANGLE TURN	CW1-1	36X36
HORIZONTAL CURVE	CW1-2	36X36
REVERSE RIGHT ANGLE TURNS	CW1-3	36X36
REVERSE HORIZONTAL CURVES	CW1-4	36X36
REVERSE CURVE (2 LANES)	CW1-4b	36X36
REVERSE CURVE (MORE THAN 2 LANES)	CW1-4c	36X36
ONE-DIRECTION LARGE ARROW	CW1-6	48X24
UPWARD SLOPING ARROW	CW1-6aT	36X36
CHEVRON	CW1-8	18X24
STOP AHEAD	CW3-1	36X36
SIGNAL AHEAD	CW3-3	36X36
BE PREPARED TO STOP	CW3-4	36X36
ROAD NARROWS	CW5-1	36X36
NARROW BRIDGE	CW5-2	36X36
TWO-WAY TRAFFIC FLOW	CW6-3	36X36
TWO-WAY TRAFFIC	CW6-4	12X18
BUMP	CW8-1	36X36
DIP	CW8-2	36X36
SOFT SHOULDER	CW8-4	36X36
TRUCK CROSSING	CW8-6	36X36
ROUGH ROAD	CW8-8	36X36
UNEVEN LANES	CW8-11	36X36
LEFT LANE ENDS	CW9-1(1)	36X36
RIGHT LANE ENDS	CW9-1(2)	36X36
DOUBLE ARROW	CW12-1	30X30
ADVISORY SPEED (PLAQUE)	CW13-1P	24X24
XX FEET (PLAQUE)	CW16-2P	24X18
AHEAD (PLAQUE)	CW16-3	24X12
ROAD WORK AHEAD	CW20-1	36X36
DETOUR AHEAD	CW20-2	36X36
ROAD CLOSED AHEAD	CW20-3	36X36
ONE LANE ROAD	CW20-4	36X36
LEFT LANE CLOSED	CW20-5(1)	36X36
RIGHT LANE CLOSED	CW20-5(2)	36X36
FLAGGER (SYMBOL)	CW20-7	36X36
NARROW LANES AHEAD	CW20-8T	36X36
SHOULDER WORK AHEAD	CW21-5	36X36
UTILITY WORK AHEAD	CW21-7	36X36
DOUBLE REVERSE CURVE (1 LANE)	CW24-1	36X36
DOUBLE REVERSE CURVE (2 LANE)	CW24-1a	36X36
DOUBLE REVERSE CURVE (3 LANE)	CW24-1b	36X36
END ROAD WORK	G20-2	36X18
DETOUR WITH ARROWS	M4-9	30X24
END DETOUR	M4-8a	24X18
PEDESTRIAN DETOUR	M4-9b	30X24
DETOUR	M4-10	48X18

APPROVED BY:  CITY ENGINEER	APPROVED BY:  CITY TRAFFIC ENGINEER
APPROVED BY:  DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01554-08
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC 1795E Reg. No. 1-19299 23410 Grand Reserve Dr. Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TYPICAL CITY OF HOUSTON SIGNS	
SHEET 1 OF 2	
WBS NUMBER N - 100042 - 0001 - 3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE NOT TO SCALE	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 119	

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WARNING SIGNS		
SIGN	SIGN DESIGNATION	SIZE (IN.)
RIGHT ANGLE TURN CURVE	W1-1	30x30
RIGHT ANGLE TURN WITH SPEED LIMIT	W1-1a	36x36
HORIZONTAL CURVE	W1-2	30x30
HORIZONTAL CURVE WITH SPEED LIMIT	W1-2a	36x36
REVERSE RIGHT ANGLE TURN	W1-3	30x30
REVERSE HORIZONTAL CURVE	W1-4	30x30
WINDING ROAD	W1-5	30x30
ONE DIRECTION LARGE ARROW	W1-6	48x24
TWO DIRECTION LARGE ARROW	W1-7	48x24
CHEVRON ALIGNMNET	W1-8	18x24
HAIRPIN CURVE	W1-11	30x30
TRUCK ROLLOVER	W1-13	36x36
CROSS ROAD	W2-1	30x30
SIDE STREET T-INTERSECTION (SYMBOL)	W2-2	30x30
T- INTERSECTION (SYMBOL)	W2-4	30x30
Y- INTERSECTION (SYMBOL)	W2-5	30x30
ROUNDAABOUT (SYMBOL)	W2-6	30x30
STOP AHEAD	W3-1	30x30
SIGNAL AHEAD	W3-3	30x30
REDUCED SPEED LIMIT AHEAD	W3-5	36x36
MERGE	W4-1	36x36
LANE ENDS	W4-2	36x36
ADDED LANE	W4-3	36x36
CROSS TRAFFIC DOES NOT STOP (PLAQUE)	W4-4P	24x12
ROAD NARROWS	W5-1	36x36
NARROW BRIDGE	W5-2	36x36
DIVIDED HIGHWAY	W6-1	36x36
DIVIDED HIGHWAY ENDS	W6-2	36x36
TWO WAY TRAFFIC (SYMBOL)	W6-3	36x36
BUMP	W8-1	30x30
DIP	W8-2	30x30
PAVEMENT ENDS	W8-3	36x36
SOFT SHOULDER	W8-4	36x36
TRUCK CROSSING	W8-6	36x36
LOOSE GRAVEL	W8-7	36x36
ROUGH ROAD	W8-8	36x36
UNEVEN LANES	W8-11	36x36
WATCH FOR ICE ON BRIDGE	W8-13T	36x36
SHOULDER DROP-OFF (SYMBOL)	W8-17	30x30
SHOULDER DROP-OFF (PLAQUE)	W8-17P	24x18

WARNING SIGNS		
SIGN	SIGN DESIGNATION	SIZE (IN.)
FLOOD GAUGE	W8-19	12X72
NO SHOULDER	W8-23	36x36
SHOULDER ENDS	W8-25	36x36
LEFT LANE ENDS	W9-1(1)	36x36
RIGHT LANE ENDS	W9-1(2)	36x36
LANE ENDS MERGE LEFT	W9-2(1)	36x36
LANE ENDS MERGE RIGHT	W9-2(2)	36x36
GRADE CROSSING ADVANCE WARNING	W10-1	30 DIA
NO TRAIN HORN	W10-9	36x36
NO TRAIN HORN (PLAQUE)	W10-9P	30x24
BICYCLE	W11-1	30x30
PEDESTRIAN	W11-2	36x36
EMERGENCY VEHICLE	W11-8	30x30
HANDICAPPED	W11-9	30x30
TRUCK	W11-10	30x30
EMERGENCY SIGNAL AHEAD (PLAQUE)	W11-12P	36x30
BICYCLE/PEDESTRIAN	W11-15	30x30
TRAIL CROSSING (PLAQUE)	W11-15P	24x18
DOUBLE ARROW	W12-1	30x30
LOW CLEARANCE WITH ARROWS	W12-2	36x36
LOW CLEARANCE	W12-2a	78x24
LOADED ZONED BRIDGE	W12-5T	36x36
ADVISORY SPEED (PLAQUE)	W13-1P	18x18
NO OUTLET	W14-2	24x24
NO OUTLET WITH ARROW	W14-2a	36x6
SHARE THE ROAD (PLAQUE)	W16-1P	18x24
XX FEET (PLAQUE)	W16-2P	24x18
NEXT XX FEET (PLAQUE)	W16-4P	30x24
SUPPLEMENTAL LEFT ARROW (PLAQUE)	W16-5P(1)	24x18
SUPPLEMENTAL RIGHT ARROW (PLAQUE)	W16-5P(2)	24x18
DIAGONAL ARROW (PLAQUE)	W16-7P	24x12
AHEAD (PLAQUE)	W16-9P	24x12
WHEN FLASHING (PLAQUE)	W16-13P	24x18
ROUNDAABOUT (PLAQUE)	W16-17	24x12
SPEED HUMP	W17-1	30x30
TYPE 3 OBJECT MARKER (LEFT)	OM3-L	12x36
TYPE 3 OBJECT MARKER (RIGHT)	OM3-R	12x36
TYPE 3 OBJECT MARKER (CENTER)	OM3-C	12x36
TYPE 4 OBJECT MARKER	OM4-1	18x18

BICYCLE SIGNS		
SIGN	SIGN DESIGNATION	SIZE (IN.)
STOP	R1-1	18x18
STREET NAME	D3-1	VARIESx6
YIELD	R1-2	18x18x18
TO REQUEST GREEN WAIT ON SYMBOL	R10-22	12x18
YIELD TO PEDESTRIAN	R9-6	18x18
NO PARKING BIKE LANE	R7-9	12x18
BIKE ROUTE	D11-1	24x18
BIKE ROUTE TO DOWNTOWN	D11-1c	24x18
BIKE SIGN AUXILIARY SIGNS	M4-1, M4-14	12x6
BICYCLE ROUTE ROUTE ARROW SIGNS	M5-1,2; M6-1,2,3,4,5,6,7	12x9
WALK YOUR BIKE (CUSTOM SIGN)	R9-8 CoH	12x18
YIELD TO PED/BIKE (CUSTOM SIGN)	R1-5PB	36x36
TURNING VEHICLES YIELD TO PED/BIKE (CUSTOM SIGN)	R10-15PB	36x36
STOP FOR PED/BIKE (CUSTOM SIGN)	R1-5PBb	36x36
TURNING VEHICLES STOP FOR PED/BIKE (CUSTOM SIGN)	R10-15PBa	36x36
CROSSWALK STOP ON RED (CUSTOM SIGN)	R10-23 (CoH)	42x30
PEDESTRAIN CROSSING (CUSTOM SIGN)	W11-2 (HAWK)	48x30
LOOK BOTH WAYS (CUSTOM SIGN)	W4-4Pa (BIKE) W4-4Pb (BIKE)	VARIES
TURN WIDE (CUSTOM SIGN)	R3-8 (BIKE)	30x36
BIKE MERGE AHEAD (CUSTOM SIGN)	W11-1 (MERGE)	36x36

SCHOOL SIGNS		
SIGN	SIGN DESIGNATION	SIZE (IN.)
SCHOOL	S1-1(FYG)	36x36
X:XX TO X:XX AM AND PM (PLAQUE)	S4-1P	24x10
SCHOOL (PLAQUE)	S4-3P(FYG)	24x8
WHEN FLASHING (PLAQUE)	S4-4P	24x10
REDUCED SCHOOL SPEED LIMIT AHEAD	S4-5a(FYG)	36x36
SCHOOL SPEED LIMIT XX WHEN FLASHING	S5-1(FYG)	24x48
END SCHOOL ZONE	S5-2	24x30
END SCHOOL ZONE (PLAQUE)	S5-2aTP	24x10
CELL PHONE USE PROHIBITED	S7-1T	24x18
TURN ARROW (PLAQUE)	SW16-5P(FYG)	24x12
ADVANCE TURN ARROW (PLAQUE)	SW16-6P(FYG)	24x12
DIAGONAL ARROW (PLAQUE)	SW16-7P(FYG)	24x12
AHEAD (PLAQUE)	S16-9P(FYG)	24x12

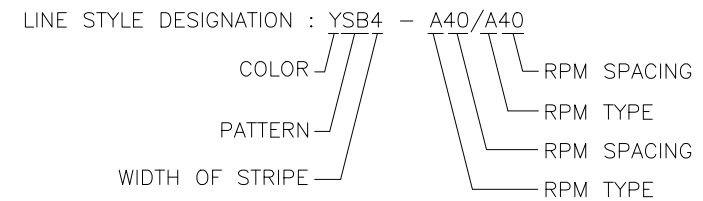
FYG- FLUORESCENT YELLOW-GREEN BACKGROUND COLOR

APPROVED BY:  CITY ENGINEER	APPROVED BY:  CITY TRAFFIC ENGINEER
APPROVED BY:  DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01554-09
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CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TYPICAL CITY OF HOUSTON SIGNS	
SHEET 2 OF 2	
WBS NUMBER N - 100042 - 0001 - 3	FOR CITY OF HOUSTON USE ONLY
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CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 120	

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DESCRIPTION AND APPLICATION OF PAVEMENT MARKING LINES				
LINE SERIES	COLOR	DESCRIPTION	WIDTH (INCHES)	TYPICAL APPLICATIONS
WB	WHITE	BROKEN (10' STRIPE W/30' GAP)	4"	LANE LINES BETWEEN TRAVEL LANES IN THE SAME DIRECTION WHERE CHANGING OF LANES IS PERMITTED.
WS	WHITE	SOLID	4"	EDGE LINES TO DELINEATE THE RIGHT EDGE OF THE ROADWAY.
			6"	LEFT EDGE OF BICYCLE LANE AND LANE LINES BETWEEN TRAVEL LANES IN THE SAME DIRECTION WHERE CHANGING OF LANES IS DISCOURAGED.
			12"	PERPENDICULAR CROSSWALK LINES.
			24"	STOP BARS AT INTERSECTIONS (SIGNALIZED AND UNSIGNALIZED). HATCHING AT HIGH VISIBILITY CROSSWALKS.
			12", 24"	DIAGONAL HATCHING USED IN GORES BETWEEN SAME DIRECTION OF TRAVEL LANES.
WG	WHITE	GUIDE (2' STRIPE W/6' GAP)	6"	GUIDE LINES THROUGH INTERSECTIONS. TAPER LINES FOR TURN LANES. GUIDE LINES FOR BICYCLE LANES.
			4"	EDGE LINES TO DELINEATE THE LEFT EDGE OF A DIVIDED ROADWAY, A ONE-WAY ROAD, OR RAMP.
			6"	BIDIRECTIONAL BICYCLE LANE PAVEMENT MARKING.
YS	YELLOW	SOLID	12", 24"	DIAGONAL HATCHING USED IN GORES BETWEEN OPPOSING DIRECTION OF TRAVEL LANES.
			4" - (4") - 4" (GAP)	CENTERLINE THAT SEPARATES OPPOSING TRAVEL LANES AND DELINEATION OF MEDIAN ISLANDS.
YDS	YELLOW	DOUBLE SOLID	4" - (4") - 4" (GAP)	DEFINES THE EDGES OF CENTER REVERSIBLE LANES THAT ARE USED AS TWLTLs DURING INTERMITTENT PERIODS.
YDB	YELLOW	DOUBLE BROKEN	4" - (4") - 4" (GAP)	SEPARATES TRAVEL LANES IN OPPOSITE DIRECTIONS WHERE PASSING IS PERMITTED IN BOTH DIRECTIONS OF TRAVEL.
YB	YELLOW	BROKEN (10' STRIPE W/30' GAP)	4"	SEPARATES BICYCLE TRAVEL LANES IN OPPOSITE DIRECTIONS WHERE PASSING IS PERMITTED IN BOTH DIRECTIONS OF TRAVEL.
YB (BIKE)	YELLOW	BROKEN (3' STRIPE W/9' GAP)	4"	SEPARATES TRAVEL LANES IN OPPOSITE DIRECTIONS WHERE PASSING IS PERMITTED IN ONE DIRECTION AND PROHIBITED IN THE OPPOSITE DIRECTION.
YSB	YELLOW	SOLID & BROKEN BROKEN (10' STRIPE W/30' GAP)	4" - (4") - 4" (GAP)	USED FOR EDGE OF TWO-WAY LEFT TURN LANES (TWLTL).
			VARIES	PED/BIKE CROSSING VEHICLE / BIKE/ CONFLICT AREA
BICYCLE GREEN	GREEN	SOLID COLORED PAVEMENT	VARIES	MID-BLOCK CROSSING.
YIELD LINE	WHITE	TRIANGLE	16" x 24"	

DESCRIPTION AND APPLICATION OF REFLECTIVE RAISED PAVEMENT MARKERS (RPM)			
RRPM TYPES	COLOR	COH SPEC. SEC. 02764 EQUIVALENT	DESCRIPTION
C	CLEAR	TYPE I-C	APPROACH FACE THAT REFLECTS WHITE LIGHT, AND THE OTHER SIDE DOES NOT REFLECT.
R	CLEAR & RED	TYPE II-C-R	APPROACH FACE THAT REFLECTS WHITE LIGHT, AND THE OTHER SIDE REFLECTS RED LIGHT.
A	AMBER & AMBER	TYPE II-A-A	APPROACH FACE AND THE OTHER SIDE BOTH REFLECT AMBER LIGHT.

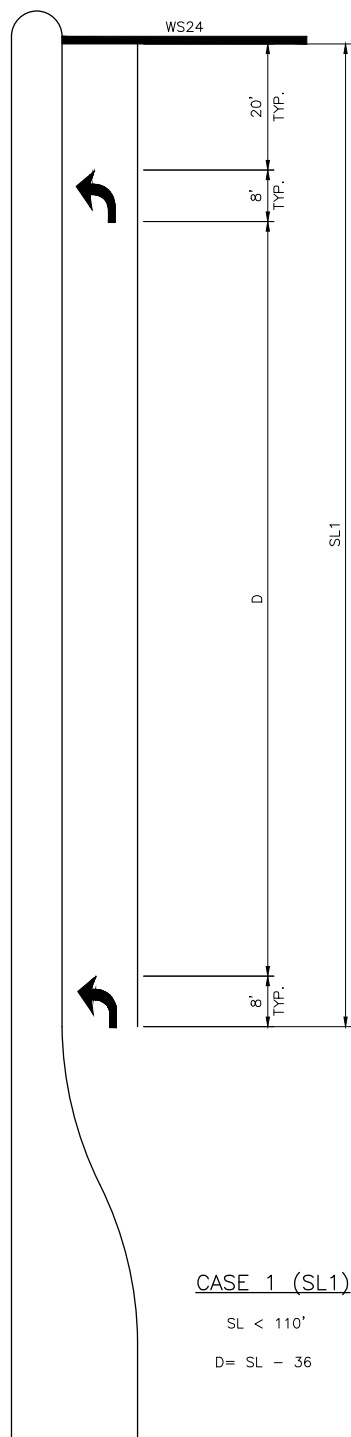


GENERAL PAVEMENT MARKING NOTES:

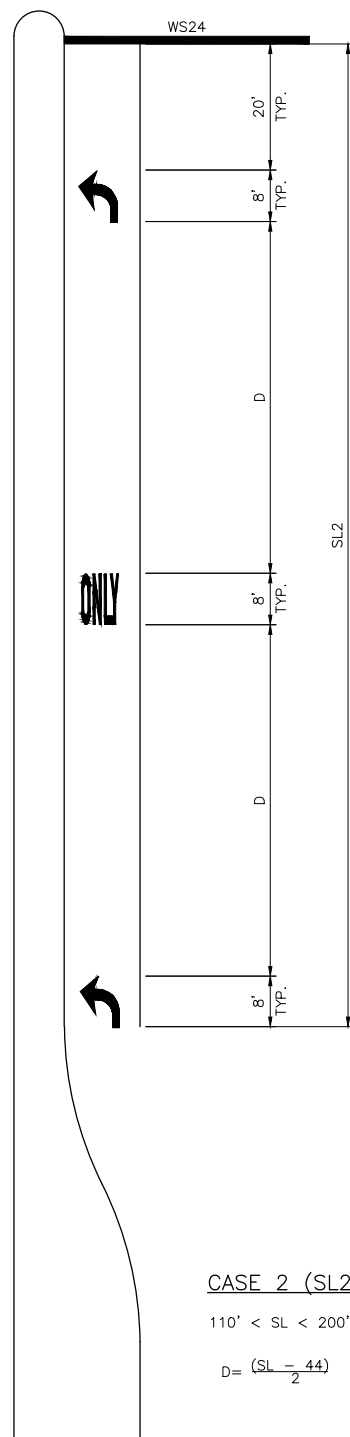
- PRIOR TO START OF CONSTRUCTION, ALL EXISTING PAVEMENT MARKINGS WITHIN THE AREA OF CONSTRUCTION SHALL BE INVENTORIED AND DOCUMENTED JOINTLY BY THE CITY INSPECTOR AND THE CONTRACTOR. THIS DOCUMENT WILL BE JOINTLY SIGNED BY BOTH PARTIES REFLECTING ALL EXISTING PAVEMENT MARKINGS AND LANE CONFIGURATIONS WILL BE DUPLICATED AGAIN. THIS REVIEW CAN BE DONE IN CONJUNCTION WITH SIGN INVENTORY. THE CONTRACTOR IS HELD ACCOUNTABLE FOR EXISTING AND TEMPORARY CONSTRUCTION PAVEMENT MARKINGS THROUGHOUT THE PROJECT AND AT THE PROJECT'S COMPLETION.
- ALL PAVEMENT MARKINGS SHALL CONFORM TO CITY OF HOUSTON STANDARDS AND SPECIFICATIONS AND GENERAL GUIDELINES OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
- THE PERMANENT PAVEMENT MARKINGS MAY BE MODIFIED AS DIRECTED BY THE CITY TRAFFIC ENGINEER.
- THE DESIGN SPEED FOR THE ROAD IS: _____. THE POSTED SPEED LIMIT IS: _____.
- ALL LANE DIMENSIONS ARE FROM CENTER OF LANE LINE, CENTER OF DOUBLE LANE LINE, FACE OF CURB, OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- THE PAVEMENT MARKING DRAWINGS ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL FOLLOW ALL DIMENSIONS, DETAILS, AND STANDARDS WHEN INSTALLING PAVEMENT MARKINGS AND SYMBOLS.
- THE FINAL LONGITUDINAL STRIPINGS SHALL BE 60 MIL (0.060") THICK HOT-SPRAYED THERMOPLASTIC PLACED OVER THE TEMPORARY STRIPING WITHIN 14 TO 30 CALENDAR DAYS AFTER COMPLETION OF THE FINAL PAVEMENT SURFACE, OR AS DIRECTED BY THE CITY TRAFFIC ENGINEER. ALL OTHER PAVEMENT MARKINGS SHALL BE APPLIED AT THE SAME TIME. TEMPORARY STRIPING SHALL BE WATER BASED PAINT.
- ALL FINAL TRANSVERSE MARKINGS SHALL BE 90 MIL (0.090") HOT-SPRAYED THERMOPLASTIC. ALL PAVEMENT ARROWS AND LEGENDS SHALL ALSO BE 90 MIL (0.090") HOT-SPRAYED THERMOPLASTIC. PREFORMED THERMOPLASTIC APPLICATIONS MAY BE USED IF ONLY APPROVED BY THE CITY TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF PAVEMENT MARKINGS OF FINAL SURFACE COURSE FOLLOWING CONTROL POINTS THAT HAVE BEEN SET NO MORE THAN 50 FEET APART ALONG THE LINES TO BE IMPLEMENTED. IN TANGENT SECTIONS OF A ROAD WHERE THE PAVEMENT MARKING PATTERN DOES NOT CHANGE, CONTROL POINTS CAN BE SET AT 200 FEET SPACING. THE LAYOUT AND INSPECTION OF ALL PAVEMENT MARKINGS SHALL BE APPROVED BY CITY OF HOUSTON REPRESENTATIVE PRIOR TO THE APPLICATION OF MATERIALS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE FINAL SURFACE COURSE IS PLACED SO THAT THE STRIPING IS OFFSET NO MORE THAN ONE FOOT CLEAR OF THE CONSTRUCTION JOINT, UNLESS OTHERWISE DIRECTED BY THE CITY TRAFFIC ENGINEER.
- ALL RAISED PAVEMENT MARKERS (RPMS) SHALL BE INSTALLED SO THAT THE REFLECTIVE FACE OF EACH MARKER IS FACING THE DIRECTION OF TRAFFIC AND IS PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW. TYPE C PAVEMENT MARKERS SHALL BE INSTALLED SO THAT THE CLEAR FACE OF EACH MARKER IS FACING THE APPROACHING TRAFFIC FLOW AND PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW.
- ALL REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED IN ACCORDANCE TO CITY OF HOUSTON STANDARD SPECIFICATION 02762. APPLYING OVER EXISTING PAVEMENT MARKINGS DOES NOT CONSTITUTE AS APPROVED OBLITERATION METHOD.
- THE ENGINEER OF RECORD SHALL BE REQUIRED TO PRODUCE AS-BUILT OF PAVEMENT MARKING PLANS WITHIN 30 DAYS AFTER COMPLETION OF PAVEMENT MARKING IMPLEMENTATION.
- BLUE RPMS MAY BE PLACED ADJACENT TO FIRE HYDRANTS WITH THE APPROVAL OF THE CITY TRAFFIC ENGINEER.
- FOR ALL CONSTRUCTION, ALL PAVEMENT MARKINGS AND SIGNING SHALL BE INSTALLED AND SHALL BE PAID BY THE PROJECT OWNER/DEVELOPER.
- FINAL INSPECTION AND ACCEPTANCE OF PAVEMENT MARKINGS SHALL BE PERFORMED BY TRANSPORTATION & DRAINAGE OPERATION REPRESENTATIVE (713-803-3054).

APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02760-01
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TSP# Reg. No. F-19259 23410 Grand Reserve Dr. Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
PAVEMENT MARKINGS GENERAL NOTES AND LEGENDS	
WBS NUMBER N - 100042 - 0001 - 3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE NOT TO SCALE	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 121	

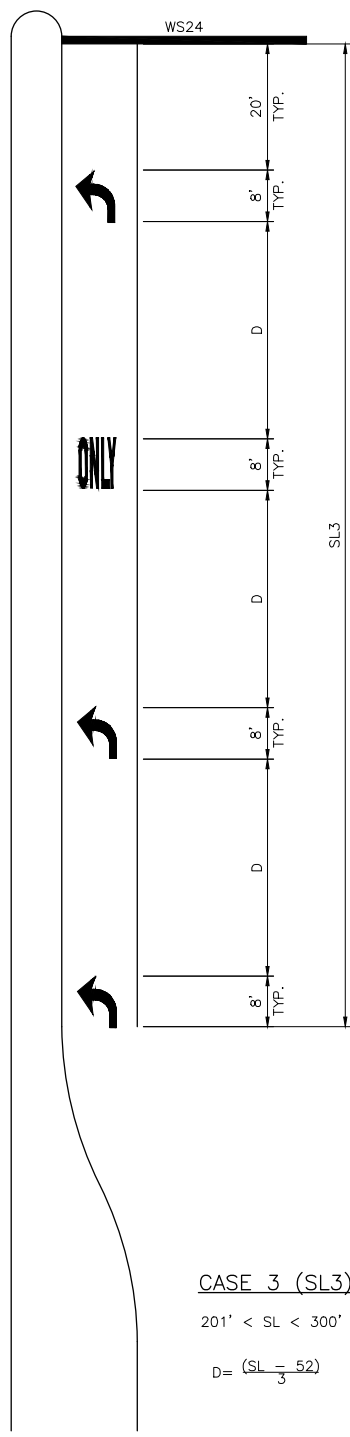
DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



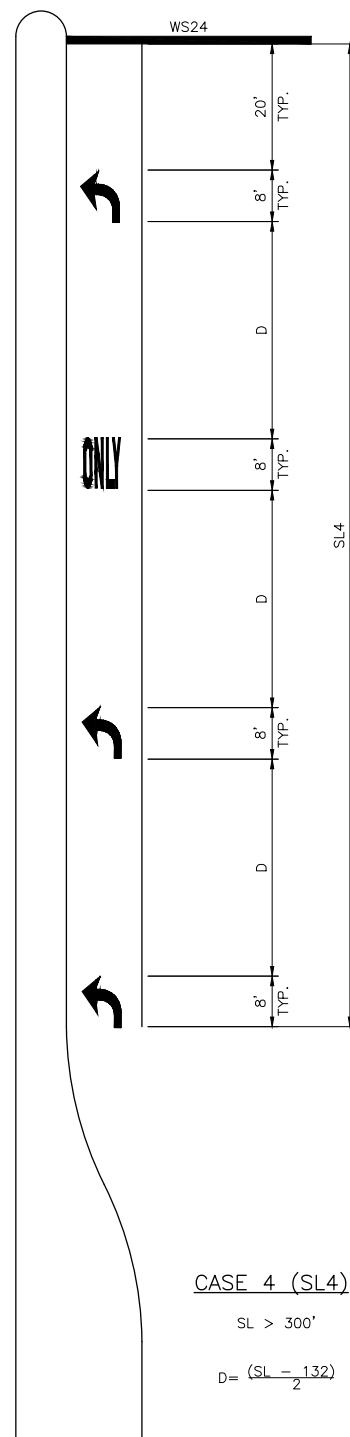
CASE 1 (SL1)
 SL < 110'
 D = SL - 36



CASE 2 (SL2)
 110' < SL < 200'
 $D = \frac{(SL - 44)}{2}$



CASE 3 (SL3)
 201' < SL < 300'
 $D = \frac{(SL - 52)}{3}$



CASE 4 (SL4)
 SL > 300'
 $D = \frac{(SL - 132)}{2}$

KEY (FOR TURN LANES ONLY):
 SL - STORAGE LENGTH (FEET)
 D - DISTANCE BETWEEN ARROWS AND/OR WORDS (FEET)

- GENERAL NOTES:**
- ALL CASES AND DETAILS ALSO APPLY TO RIGHT-TURN LANES.
 - FOR DUAL-TURN LANES, DIMENSIONS SHALL BE THE SAME FOR EACH LANE.
 - SL DIMENSION IS FROM BACK OF STOP LINE TO END OF TURN LANE. NOTE: DO NOT INCLUDE TAPER LENGTH.
 - PAVEMENT ARROWS AND "ONLY" LEGEND MARKINGS ARE TYPICALLY USED AT ALL SIGNALIZED INTERSECTIONS AND AT ALL UNSIGNALIZED INTERSECTIONS THAT HAVE TURN LANES.
 - MINIMUM SL = 100'. SL MAY BE LESS THAN 100 FEET ONLY BY APPROVAL OF THE CITY TRAFFIC ENGINEER.

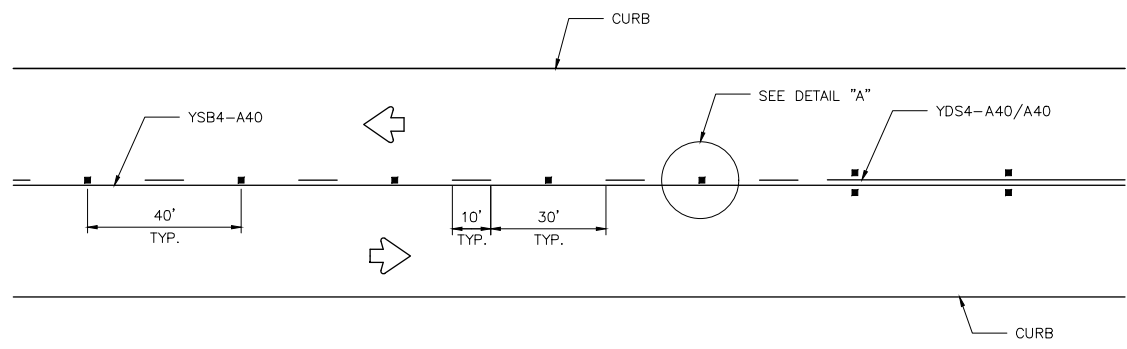
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02760-02
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPE Reg. No. T-19289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
LEFT/RIGHT-TURN "ONLY" AND ARROW SPACING	
WBS NUMBER N - 100042 - 0001 - 3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE NOT TO SCALE	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 122	

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APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02760-03
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPE Reg. No. F-15289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
STANDARD PAVEMENT MARKING — (WORDS)	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 123	

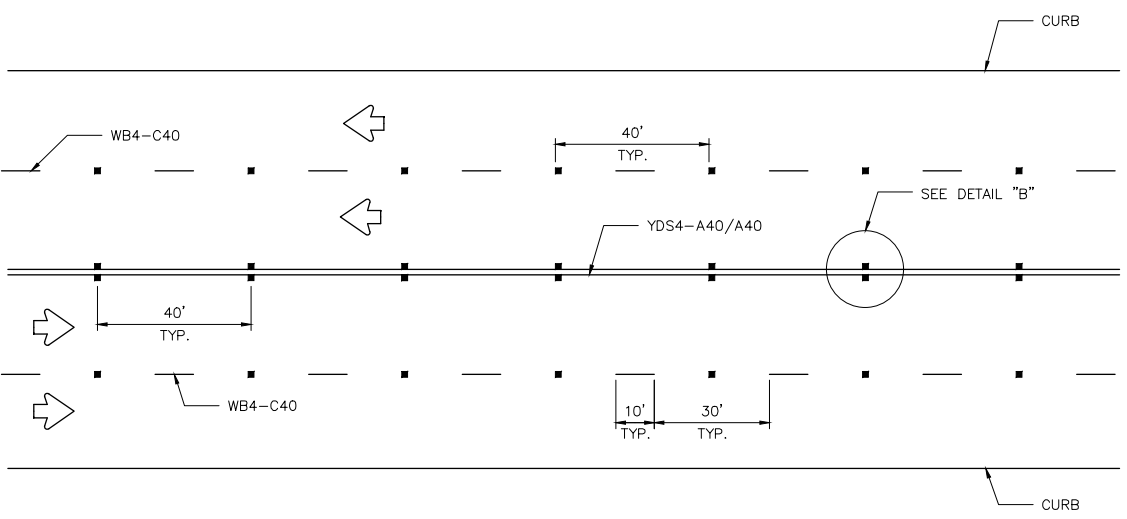
DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THE USE OF THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

CENTERLINE & FOR ALL TWO LANE STREETS WITH PASSING ZONE

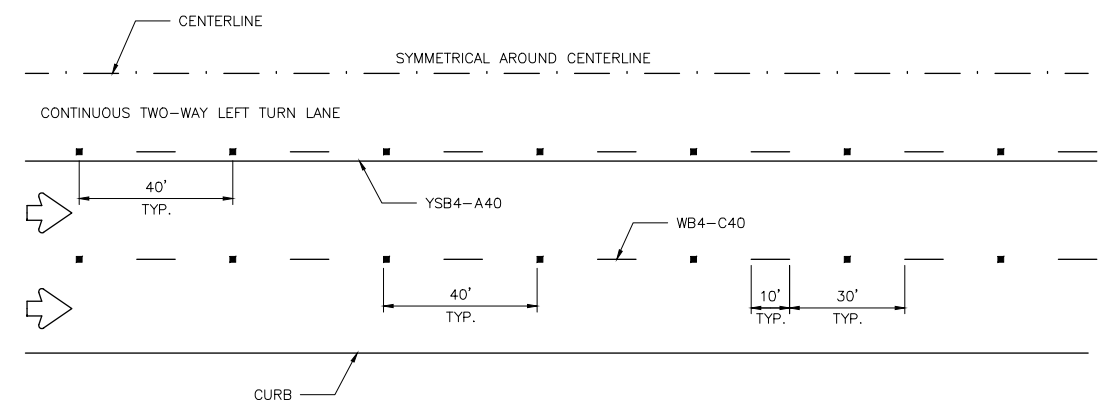


CENTERLINE & LANE LINES FOR FOUR LANE TWO-WAY STREETS

RRPM TYPE C, CLEAR FACE TOWARD NORMAL TRAFFIC, SHALL BE PLACED ON 40-FOOT CENTERS.

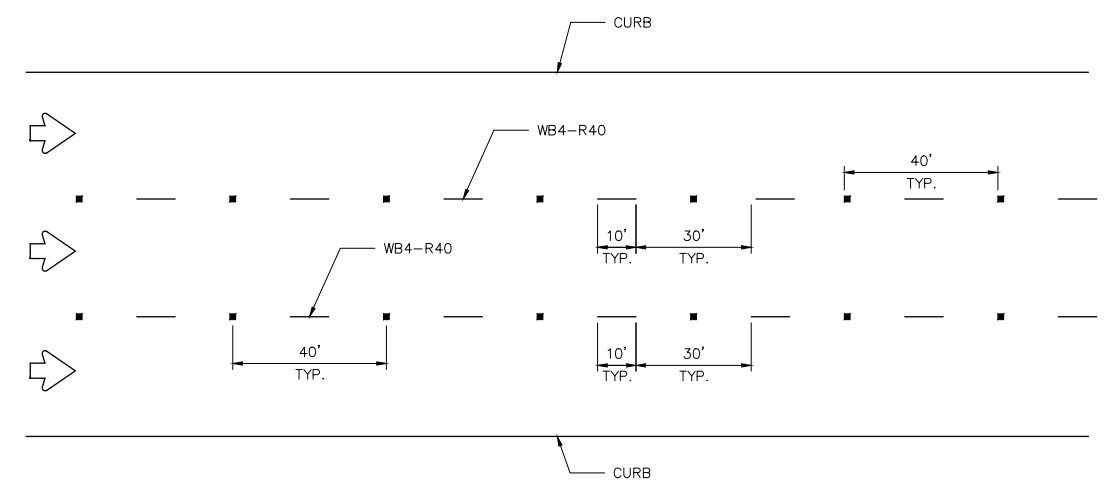


CENTERLINE & LANE LINES FOR TWO-WAY LEFT TURN LANE



LANE LINES FOR ONE-WAY MULTILANE STREET

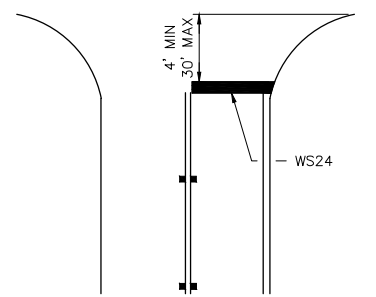
RRPM TYPE R SHALL HAVE CLEAR FACE TOWARD NORMAL TRAFFIC AND RED FACE TOWARD WRONG-WAY TRAFFIC.



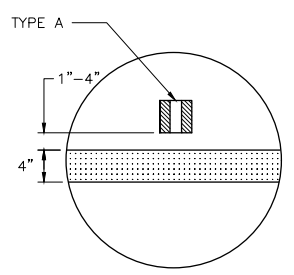
GENERAL NOTES:

1. EDGELINE ADJACENT TO CURB AND GUTTER IS NOT REQUIRED IN ALL CASES, HOWEVER SHALL BE PLACED AS DIRECTED BY CITY TRAFFIC ENGINEER.
2. THE TRAVELED WAY INCLUDES ONLY THAT PORTION OF THE ROADWAY USED FOR VEHICULAR TRAVEL AND NOT THE PARKING LANES, SIDEWALKS, BERMS AND SHOULDERS. THE TRAVELED WAYS SHALL BE MEASURED FROM THE INSIDE OF EDGELINE TO INSIDE OF EDGELINE OF A TWO LANE ROADWAY.
3. ALL RAISED PAVEMENT MARKERS PLACED IN BROKEN LINES SHALL BE PLACED IN LINE WITH AND MIDWAY BETWEEN THE STRIPES.
4. ON CONCRETE PAVEMENTS THE RAISED PAVEMENT MARKERS SHOULD BE PLACED TO ONE SIDE OF THE LONGITUDINAL JOINTS.
5. ALL PAVEMENT MARKING MATERIAL SHALL MEET THE REQUIRED MATERIAL SPECIFICATIONS AS SPECIFIED BY CITY OF HOUSTON STANDARD SPECIFICATIONS.

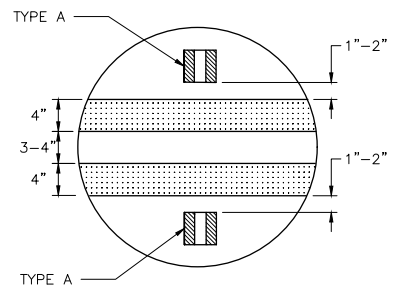
GUIDE FOR PLACEMENT OF STOP LINES & CENTERLINE



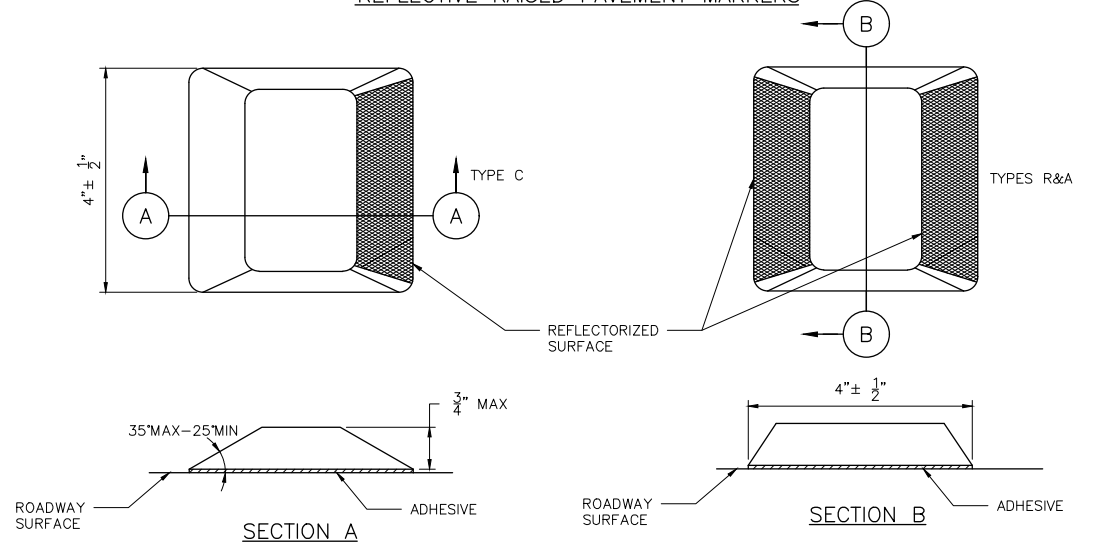
DETAIL "A"



DETAIL "B"



REFLECTIVE RAISED PAVEMENT MARKERS



APPROVED BY: [Signature] CITY ENGINEER	APPROVED BY: [Signature] CITY TRAFFIC ENGINEER
APPROVED BY: [Signature] DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02760-05
TRANSCEND engineers + planners Transcend Engineers & Planners, LLC 1982 Reg. No. 1-19289 23410 Grand Reserve Dr. Suite 101 Houston, Texas 77044	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

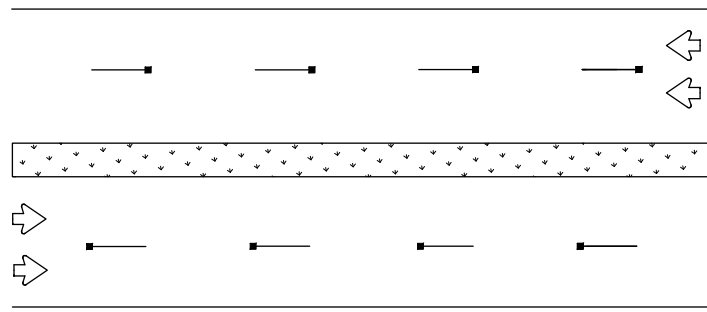
CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKERS FOR POSITION GUIDANCE

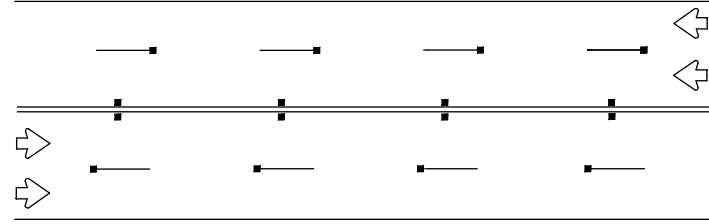
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 124	

DISCLAIMER: THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THE USE OF THIS STANDARD. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

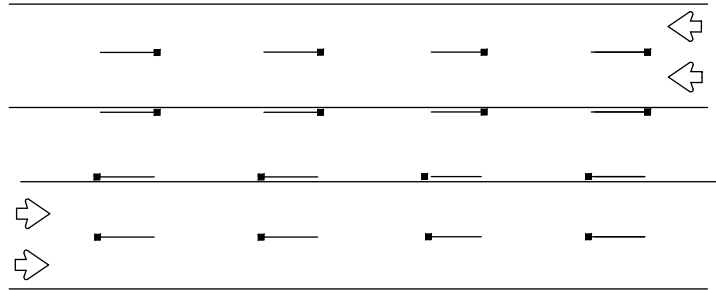
LANE LINES FOR DIVIDED STREET



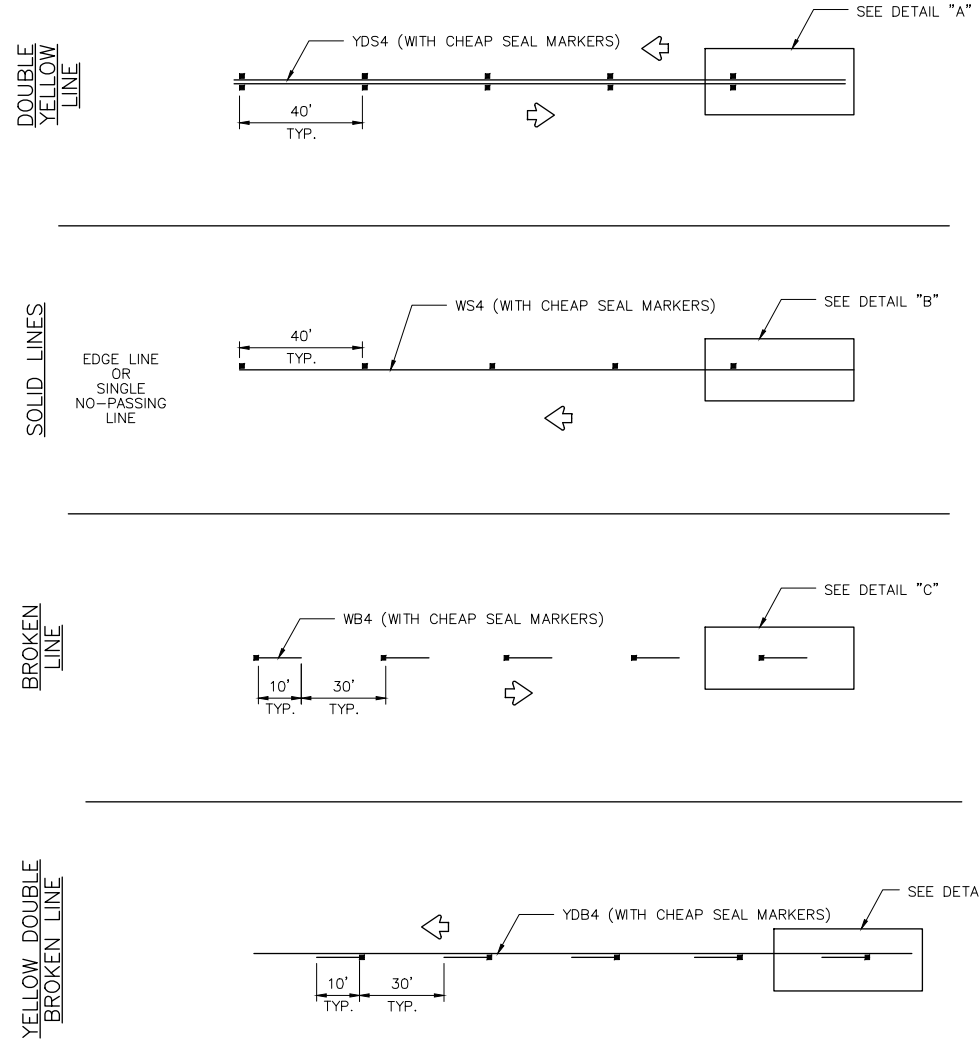
LANE & CENTER LINES FOR MULTILANE UNDIVIDED STREETS



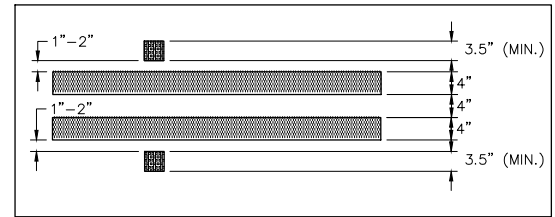
TWO-WAY LEFT TURN LANE



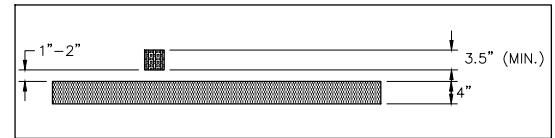
TEMPORARY PAVEMENT MARKINGS PLACEMENT DETAILS



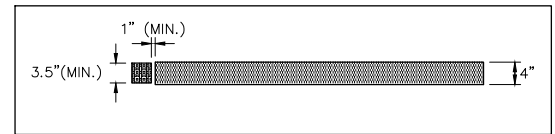
DETAIL "A"



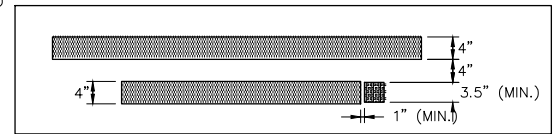
DETAIL "B"



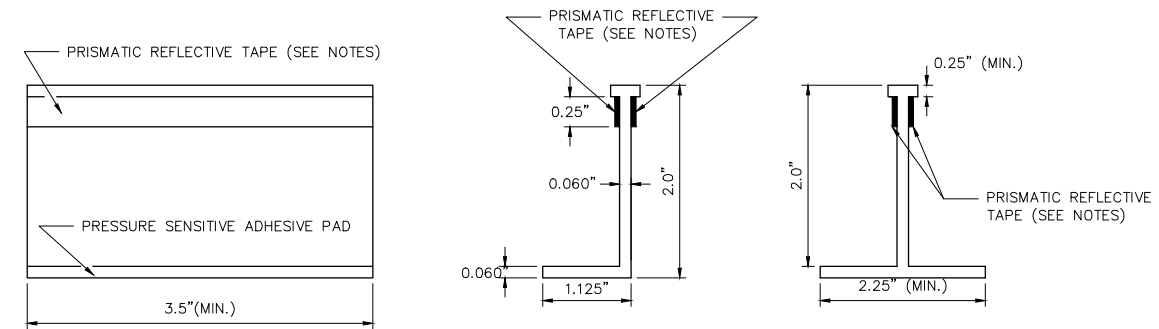
DETAIL "C"



DETAIL "D"



TEMPORARY CHIP SEAL MARKER DETAIL



TEMPORARY PAVEMENT MARKER FRONT VIEW

"L" DESIGN RIGHT VIEW

"T" DESIGN RIGHT VIEW

NOTES:

1. YELLOW MARKERS SHALL HAVE YELLOW BODIES AND YELLOW REFLECTIVE TAPE.
2. WHITE MARKERS SHALL HAVE WHITE BODIES AND WHITE REFLECTIVE TAPE.
3. ONE-WAY OR TWO-WAY REFLECTIVE SHALL BE USED AS NECESSARY FOR APPLICATION.
4. THE CLEAR PLASTIC COVER MAY VARY FROM ONE MANUFACTURER TO ANOTHER IF DEEMED NECESSARY BY SPECIFIC PROJECT.
5. ALL TEMPORARY PAVEMENT MARKERS SHALL BE PLACED WITH REFLECTIVE SIDE FACING ONCOMING TRAFFIC.
6. ALL TEMPORARY STRIPING SHALL BE WATER BASED PAINT.

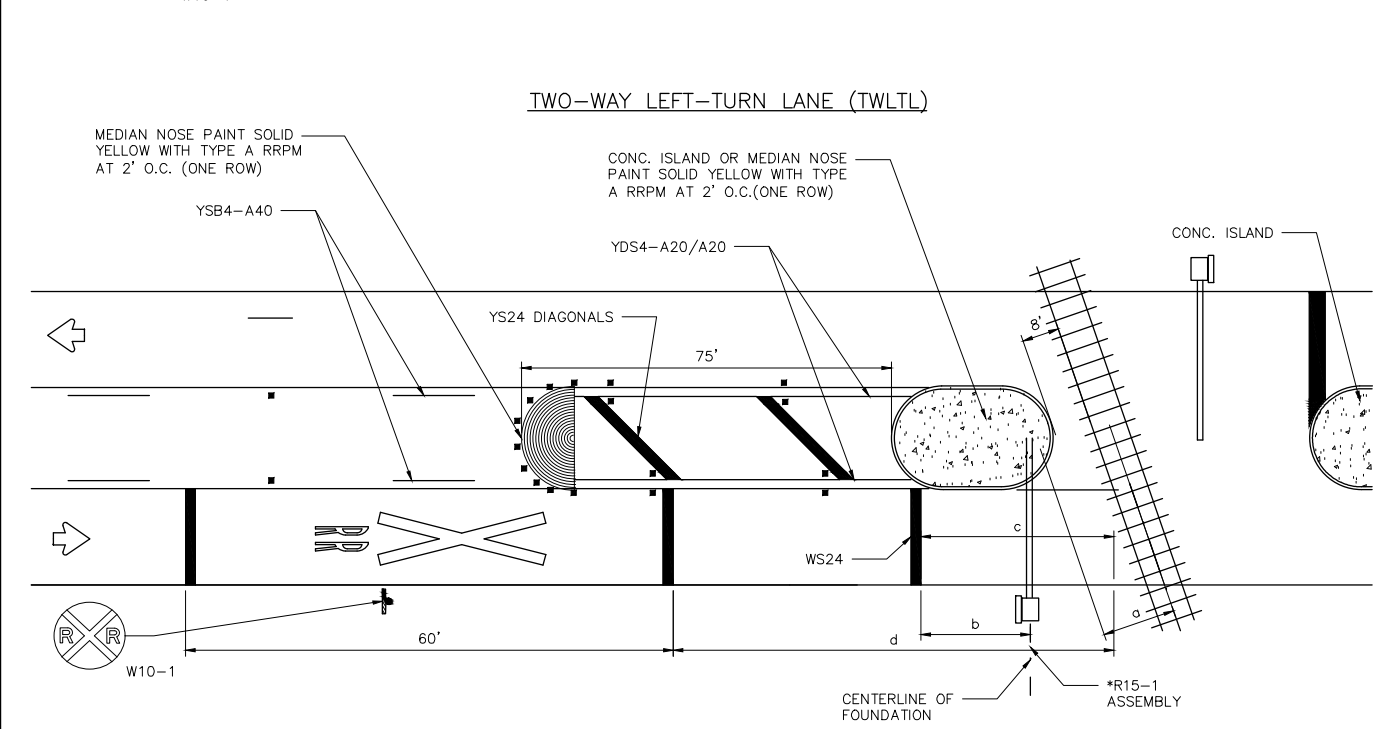
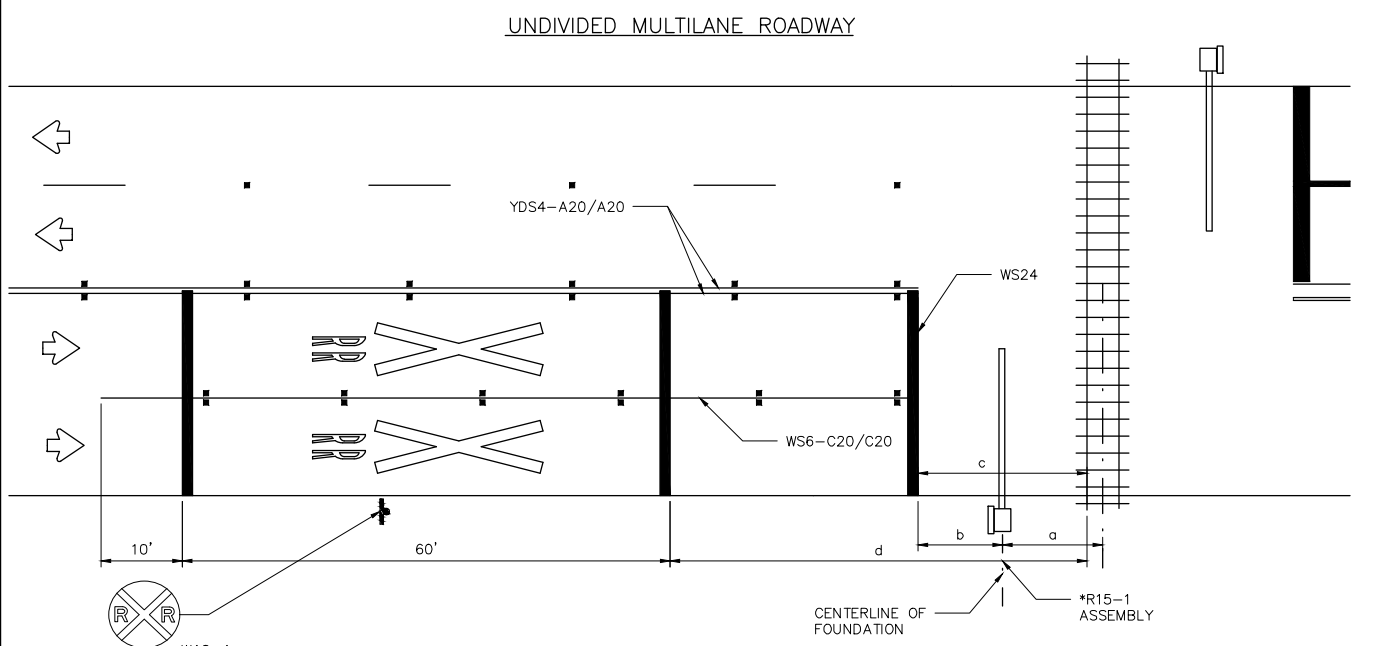
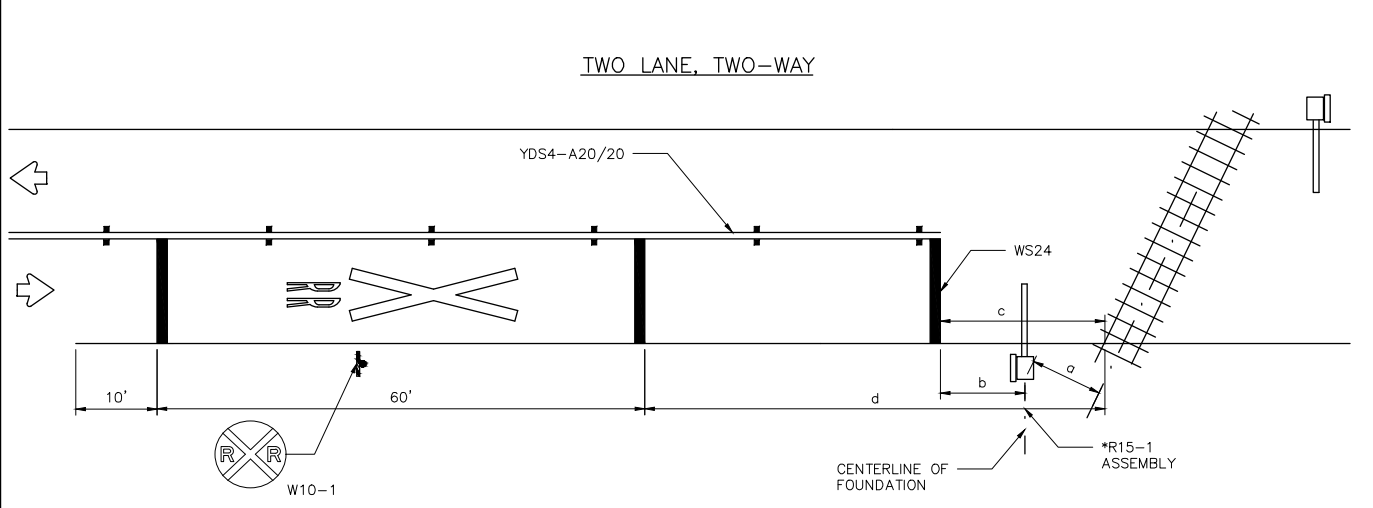
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02760-06
TRANSCEND engineers + planners Transcend Engineers & Planners, LLC TPRE Reg. No. F-15289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77044	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

REFLECTIVE CHIP SEAL MARKER USE FOR TEMPORARY MARKINGS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 125	

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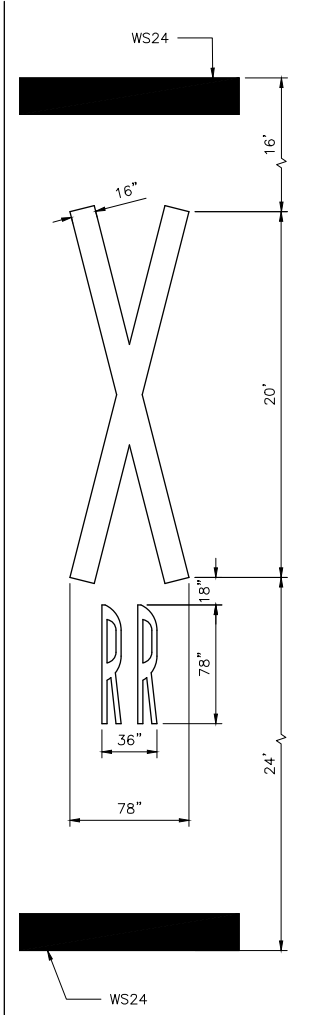


- a = 12 FEET MINIMUM, 15 FEET USUAL, IF ACTIVE WARNING DEVICES ARE PRESENT. DISTANCE "a" SHOULD BE MEASURED FROM THE CENTER-LINE OF * R15-1 ASSEMBLY TO THE CENTER-LINE OF NEAREST TRACK.
- b = STOP LINES SHOULD BE APPROXIMATELY 8 FEET IN ADVANCE OF ACTIVE WARNING DEVICES (TYPE A, E OR F). STOP LINE SHOULD BE APPROXIMATELY 15 FEET FROM NEAR RAIL IF ONLY PASSIVE DEVICES (R15-1, PLUS R15-2 WHEN APPLICABLE) ARE PRESENT.
- c = 15 FEET DESIRABLE MINIMUM IF NO GATE OR SIGNAL IS PRESENT. R15-1 SHOULD BE PLACED BETWEEN STOP LINE AND RAILS WITH ADEQUATE DISTANCE PROVIDED FOR "a".

d =

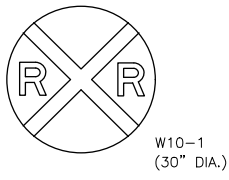
APPROACH SPEED LIMIT (MPH)	DESIRABLE PLACEMENT (FEET)
20	145
25	220
30	295
35	370
40	445
45	520
50	595
55	670
60	745
65	820
70	900

*LOCAL CONDITIONS MAY REQUIRE ALTERNATE PLACEMENT LOCATIONS.



NOTES:

1. THE PAVEMENT MARKINGS ON AN APPROACH TO A RAILROAD GRADE CROSSING SHALL CONSIST OF:
 - A) THE RR X-ING SYMBOL,
 - B) THREE TRANSVERSE 24" LINES, AND
 - C) LANE LINES: A SOLID NO PASSING LINE FOR TWO-WAY TRAFFIC APPROACHES, OR SOLID LAND LINES FOR MULTILANE APPROACHES.
2. FOR BIDDING PURPOSES, THE RR X-ING SYMBOL WILL BE MEASURED AND PAID FOR AS FOR EACH (EA) LANE IN PLACE. THE TRANSVERSE MARKINGS AND LANE LINES WILL BE MEASURED AND PAID FOR BY THE LINEAR FOOT (LF).
3. APPROACH LANES LESS THAN 8 FOOT WIDTH SHALL NOT HAVE MARKINGS.
4. MARKINGS SHOULD NOT BE PLACED WHERE LESS THAN 110 FEET OF APPROACH ROADWAY IS AVAILABLE FOR PLACEMENT UNLESS DIRECTED BY CITY TRAFFIC ENGINEER.
5. RR X-ING SYMBOLS SHOULD BE PLACED APPROXIMATELY IN THE CENTER OF THE APPROACH LANE.
6. ALL TRANSVERSE MARKINGS, INCLUDING STOP LINES, SHALL BE PLACED AT RIGHT ANGLES TO THE CENTERLINE AND ACROSS ALL APPROACH LANES.
7. EXISTING NON-STANDARD MARKINGS SHALL BE REMOVED TO THE FULLEST EXTENT POSSIBLE SO AS NOT TO LEAVE A DISCERNABLE MARKING, BY ANY METHOD APPROVED BY THE CITY TRAFFIC ENGINEER. OVERPAINTING WILL NOT BE ALLOWED.
8. ADDITIONAL MARKINGS AND PLACEMENT DETAILS MAY BE FOUND IN THE TMTUCD, APPENDIX H.
9. THE CITY TRAFFIC ENGINEER MAY REQUIRE ADDITIONAL LONGITUDINAL MARKINGS IF THE DISTANCE BETWEEN THE STOP LINES IS GREATER THAN 80 FEET. MARKINGS ARE NOT REQUIRED ACROSS OR BETWEEN THE RAILS UNLESS SPECIFIED ELSEWHERE IN THE PLANS.

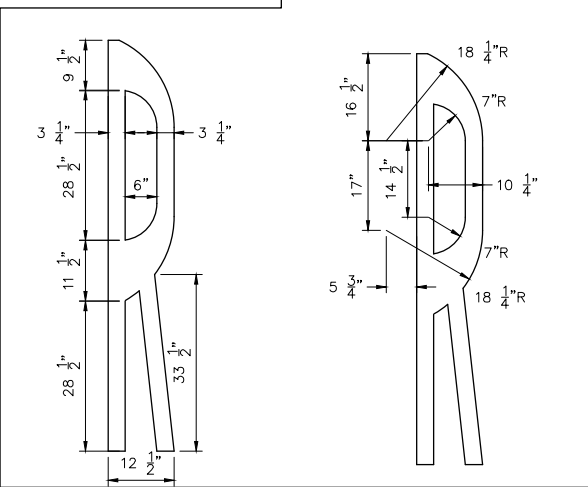





SIGN W10-1 TO BE PLACED AS SHOWN IN TYPICAL DETAILS WHEN PAVEMENT MARKINGS ARE INSTALLED.

***R15-1 ASSEMBLY**

MAY CONSIST OF ONE OR MORE OF THE FOLLOWING:

- R15-1 CROSSBUCK SIGN
- R15-2 MULTIPLE TRACK SIGN
- TYPE A MAST FLASHERS
- TYPE E CANTILEVERS
- TYPE F GATES



APPROVED BY:  CITY ENGINEER	APPROVED BY:  CITY TRAFFIC ENGINEER		
APPROVED BY:  DIRECTOR OF HOUSTON PUBLIC WORKS			
EFF DATE: NOV-27-2023	DWG NO: 02760-08		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPE Reg. No. F-15289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small> </td> <td style="width: 50%; vertical-align: top;"> THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026 </td> </tr> </table>		TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPE Reg. No. F-15289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPE Reg. No. F-15289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026		

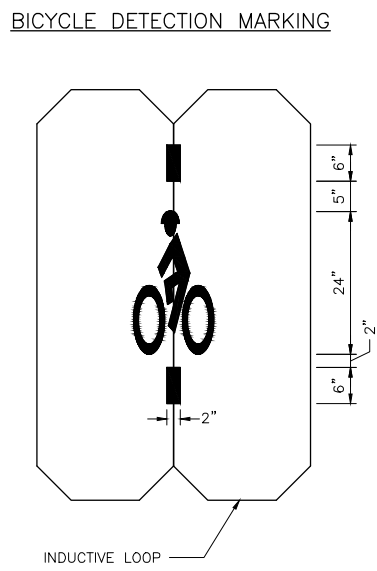
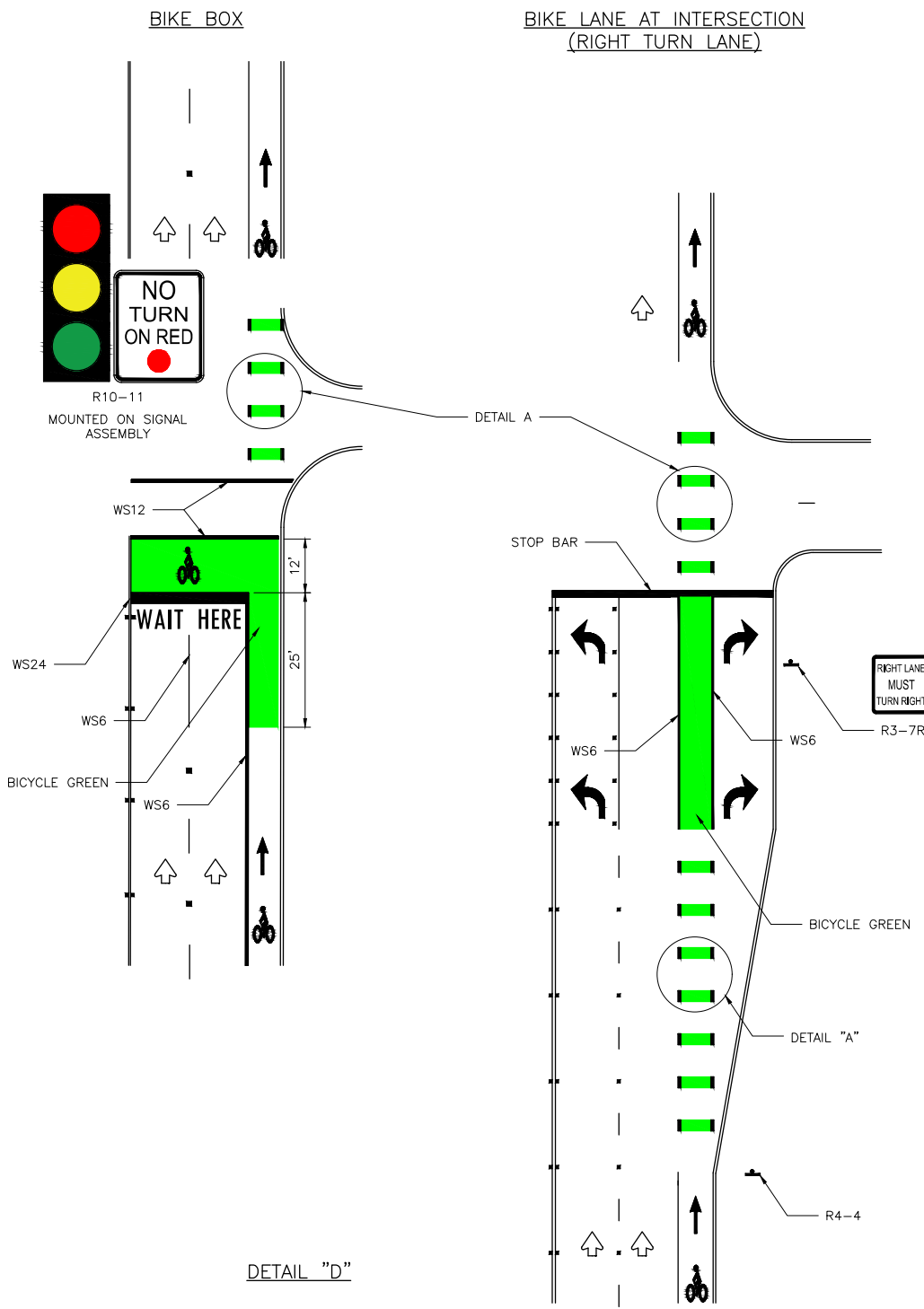
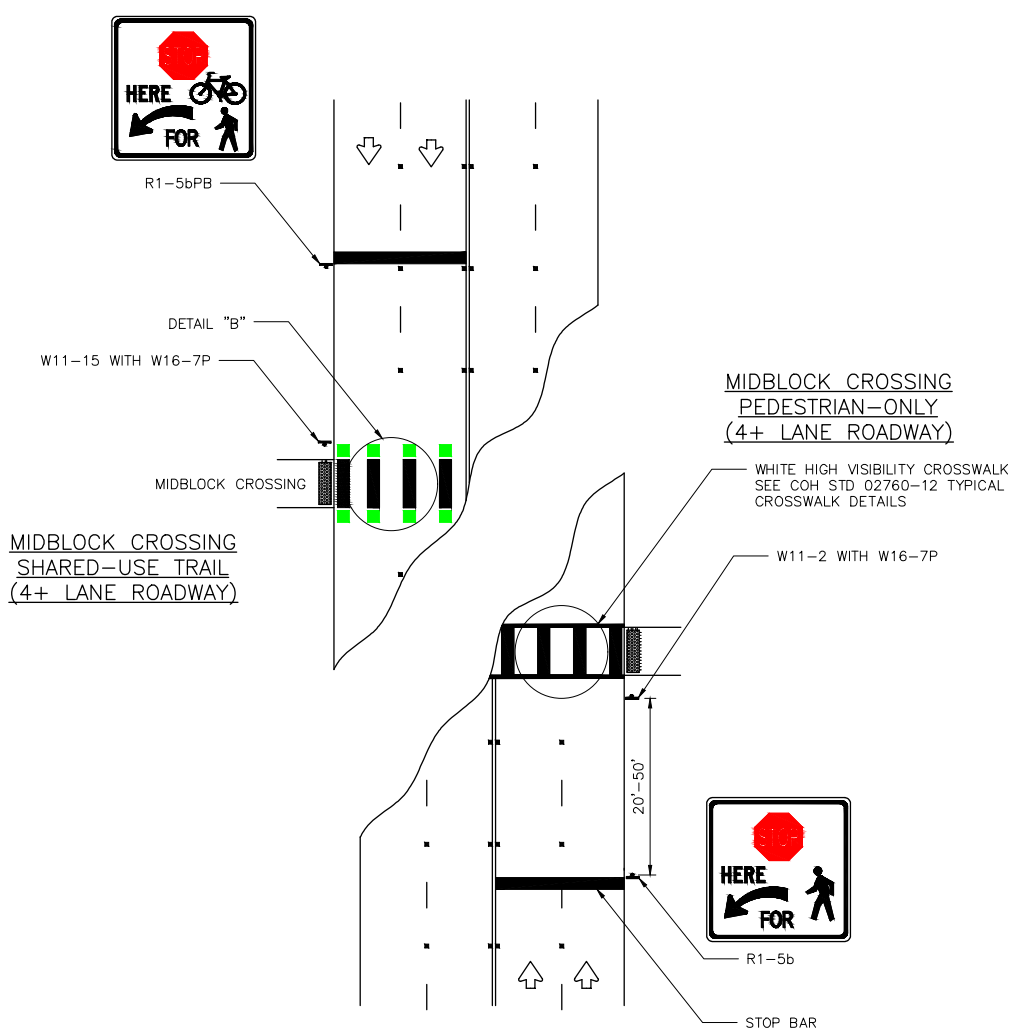
CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

RAILROAD CROSSING PAVEMENT MARKING DETAILS

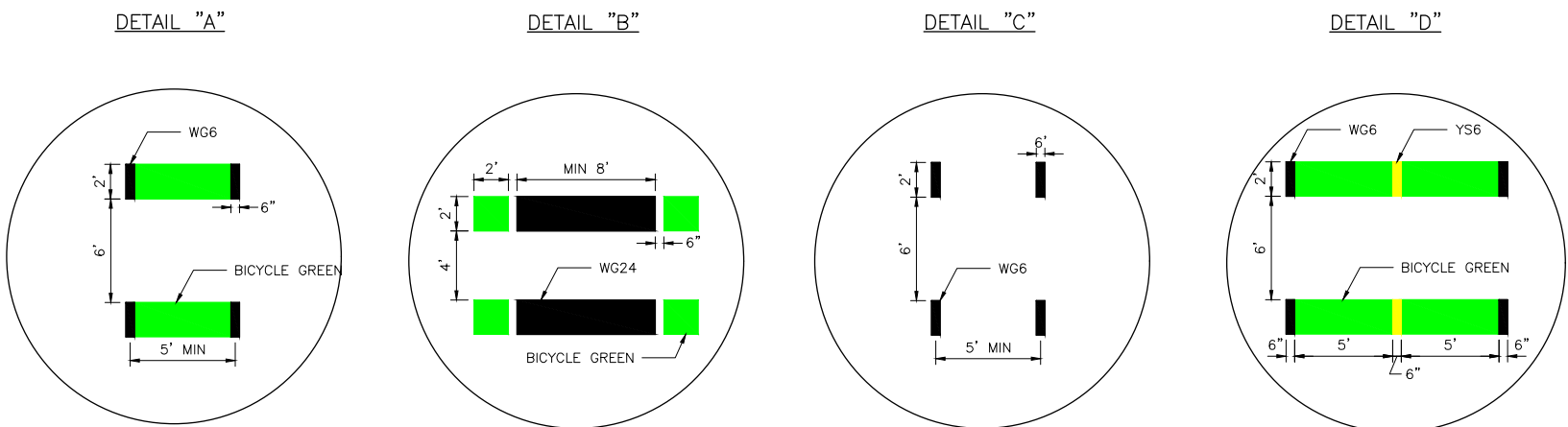
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 126	

USE OF TREATMENTS ON THIS SHEET MUST BE PRE-APPROVED BY THE CITY TRAFFIC ENGINEER

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- NOTE:**
- ALL PAVEMENT MARKINGS SHALL BE WHITE EXCEPT WHEN NOTED OTHERWISE ON PLANS.
 - PAVEMENT MARKINGS SHALL BE OF THE MATERIALS SPECIFIED AND SHALL BE IN CONFORMANCE WITH MATERIAL SPECIFICATIONS AS SPECIFIED BY CITY OF HOUSTON STANDARD SPECIFICATIONS.
 - WHERE NOT SHOWN ON THIS SHEET, SIGN PLACEMENT AND DETAILS ARE SHOWN ELSEWHERE IN THE PLANS.
 - ADDITIONAL REFERENCES (LATEST EDITION):
 - TMUTCD (TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES)
 - GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, AASHTO
 - URBAN BIKWAY DESIGN GUIDE, NACTO
 - FOR PLACEMENT OF PAVEMENT ARROWS AND WORDS SEE COH STD 02760-13 & 02760-14 LEFT-TURN LANE & RIGHT TURN LANE DESIGN.



APPROVED BY: <i>[Signature]</i> CITY ENGINEER	APPROVED BY: <i>[Signature]</i> CITY TRAFFIC ENGINEER
APPROVED BY: <i>[Signature]</i> DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02760-10
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC 179E Reg. No. 4-15285 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

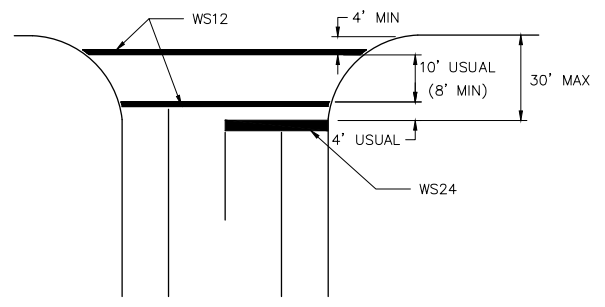
BICYCLE INTERSECTION TREATMENTS

SHEET 01 OF 02

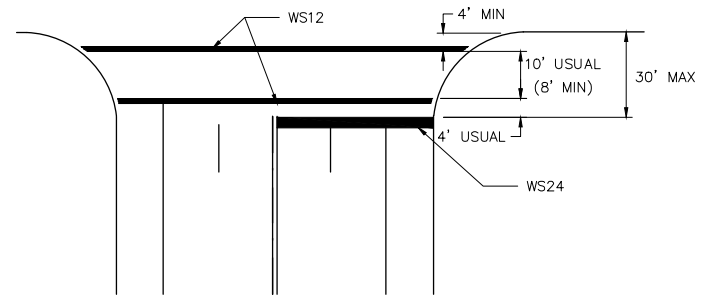
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 127	

DISCLAIMER: THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THE USE OF THIS STANDARD. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

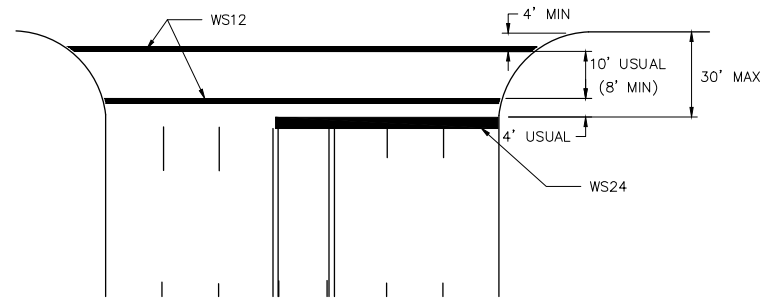
TWO LANES WITH SHOULDERS



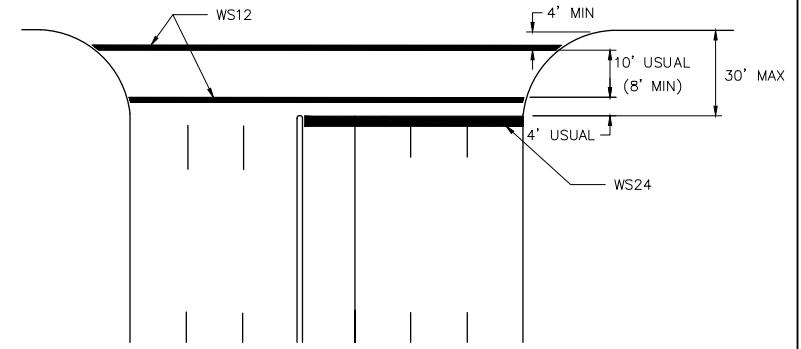
FOUR LANES WITH SHOULDERS



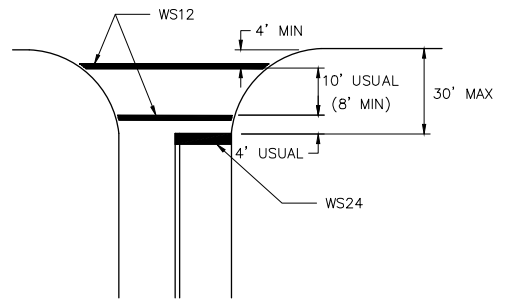
MULTI - LANES



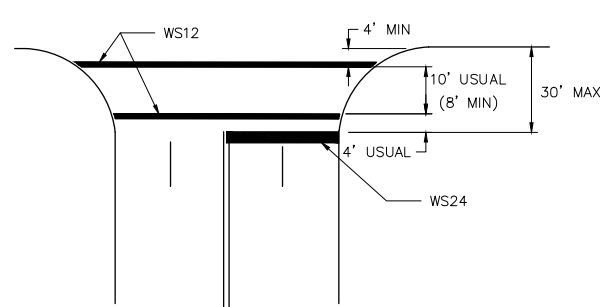
MULTI - LANE WITH MEDIAN



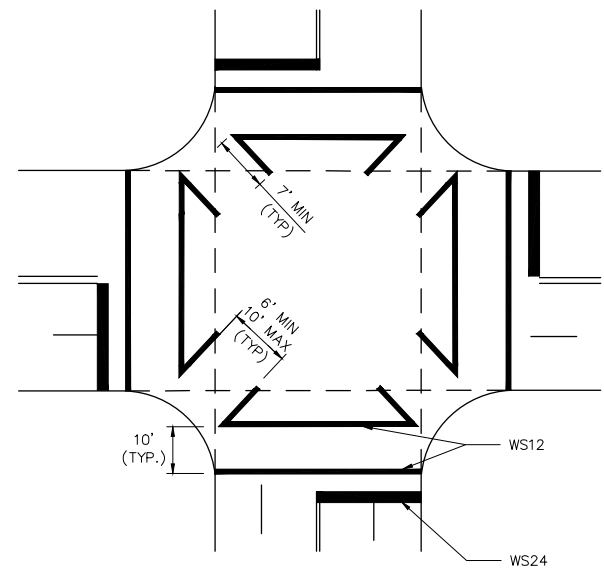
TWO LANES



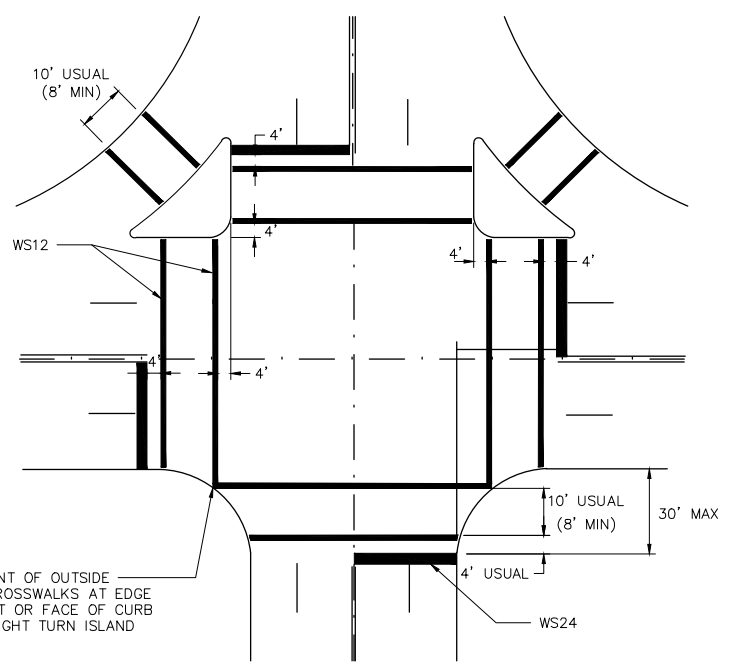
FOUR LANES



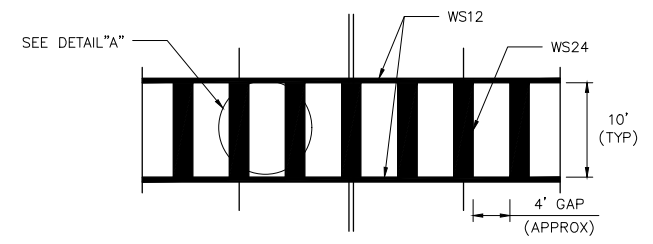
EXCLUSIVE PEDESTRIAN PHASE



INTERSECTION WITH RIGHT - TURN ISLANDS

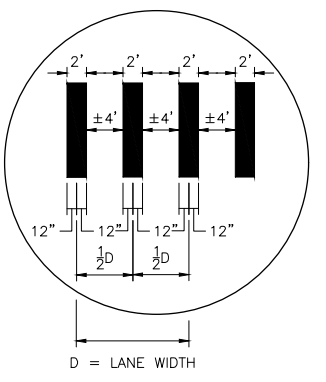


HIGH VISIBILITY CROSSWALK DETAIL



TYPICALLY USED AT SIGNALIZED AND NON-SIGNALIZED CROSSINGS ON COLLECTOR AND ARTERIAL ROADWAYS AND AT LOCATIONS REQUIRING EXTRA EMPHASIS.

DETAIL "A"



COMMON POINT OF OUTSIDE EDGES OF CROSSWALKS AT EDGE OF PAVEMENT OR FACE OF CURB WHERE NO RIGHT TURN ISLAND EXIST.

NOTES:

- CROSSWALKS AND STOP LINES SHALL BE WHITE.
- "D" IS EQUAL TO ONE HALF THE WIDTH OF TRAVEL LANE.

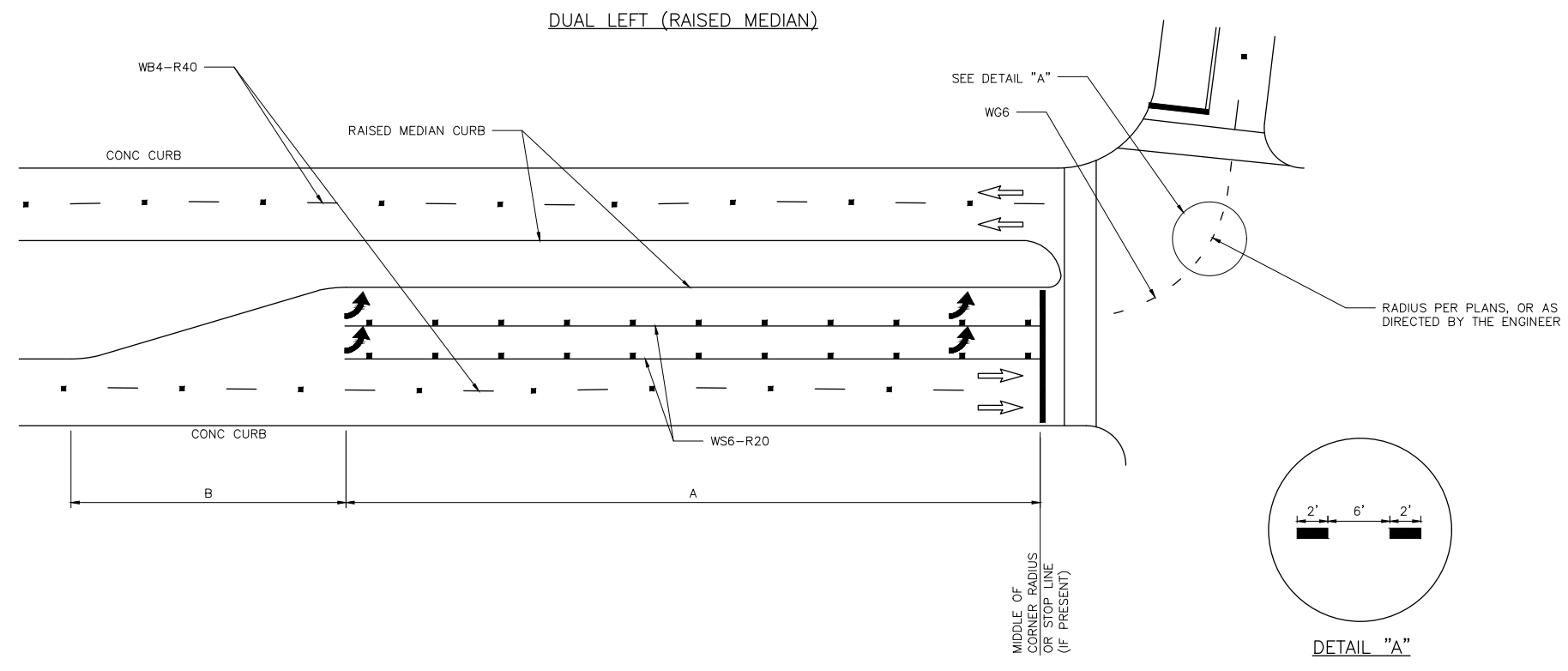
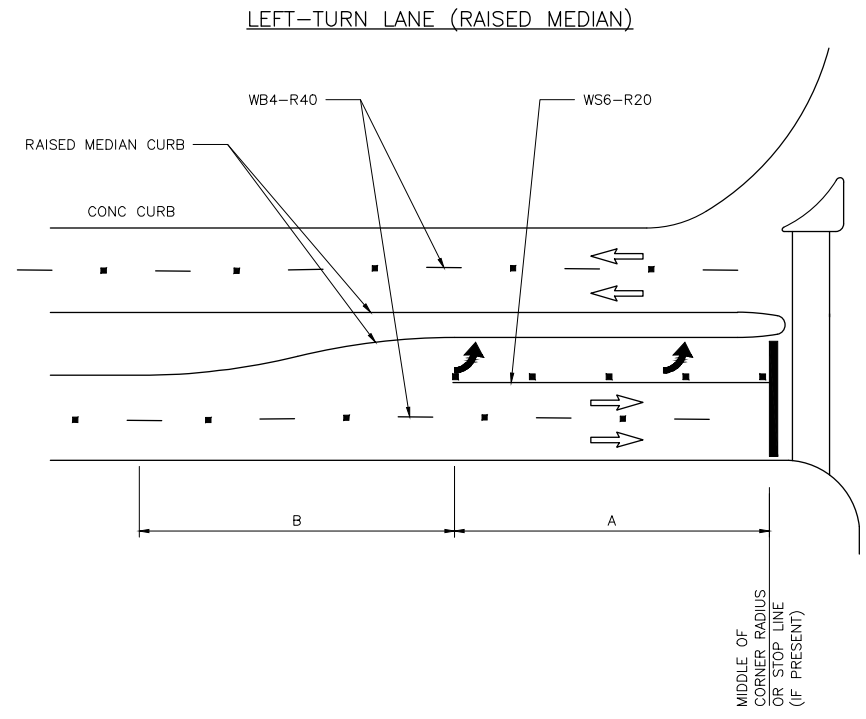
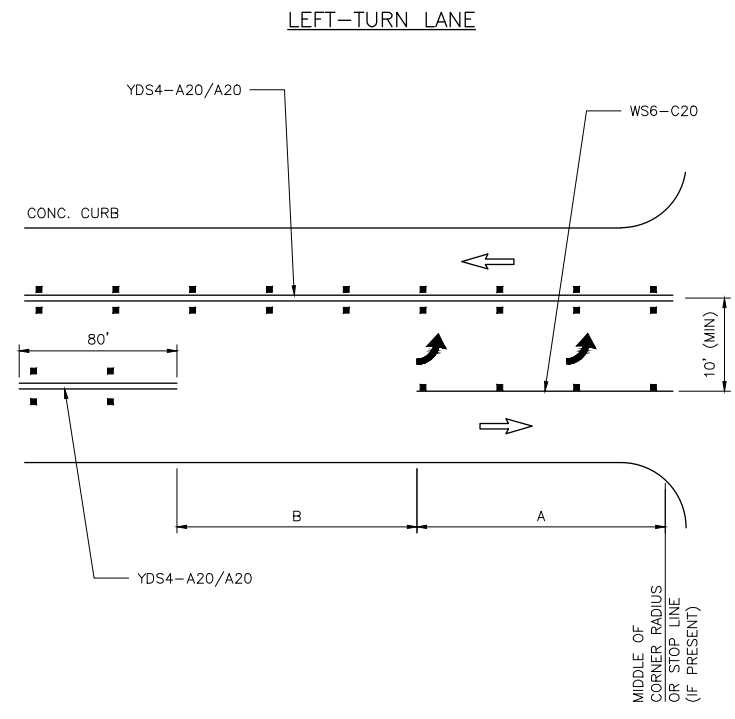
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02760-12
TRANSCEND engineers + planners Transcend Engineers & Planners, LLC TPE Reg. No. F-19299 23410 Grand Reserve Dr. Suite 101 Houston, Texas 77494	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TYPICAL CROSSWALK DETAILS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 128	

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



GENERAL NOTES:

1. THE DIMENSIONS GIVEN FOR DUAL LEFT (RAISED MEDIAN) ON THIS SHEET ARE ALSO APPLICABLE FOR DUAL RIGHT-TURN LANES.
2. STORAGE LENGTHS LONGER THAN THE MINIMUMS LISTED ON THIS DRAWING MAY BE DETERMINED USING TRAFFIC ENGINEERING ANALYSIS.
3. FOR THE PLACEMENT OF PAVEMENT ARROWS AND WORDS REFER TO 02760-02 - LEFT/RIGHT TURN "ONLY" AND ARROW SPACING.
4. REFER TO APPLICABLE STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKERS FOR POSITION GUIDANCE AND LEFT-TURN & RIGHT-TURN LANE STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKINGS.
5. REFER TO BICYCLE LANE PAVEMENT MARKINGS STANDARD FOR TYPE AND PLACEMENT.

LEFT TURN BAY NOTES:

1. LEFT TURN BAY DIMENSIONS
 - A = 150' MINIMUM AT INTERSECTION OF TWO (2) MAJOR STREETS WHEN PRACTICAL.
 - = 100' MINIMUM AT ALL OTHER INTERSECTIONS.
 - B = 100' MINIMUM ON STRAIGHT ROADWAYS.
 - *TAPER LENGTH MAY BE SHORTER IF IT IS ON A HORIZONTAL CURVE TO THE LEFT.
 - *TAPER LENGTH MAY BE LONGER IF CURVE IS TO THE RIGHT.
2. DIMENSIONS SHALL BE ADJUSTED AS DETERMINED BY CITY OF HOUSTON TRAFFIC ENGINEER.
3. REFER TO CITY OF HOUSTON INFRASTRUCTURE DESIGN MANUAL (FIGURE 10.8) FOR DETAILS.

APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
-----------------------------------	---

APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS
--

EFF DATE: NOV-27-2023	DWG NO: 02760-13
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TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPE Reg. No. F-19289 23410 Grand Reserve Dr. Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

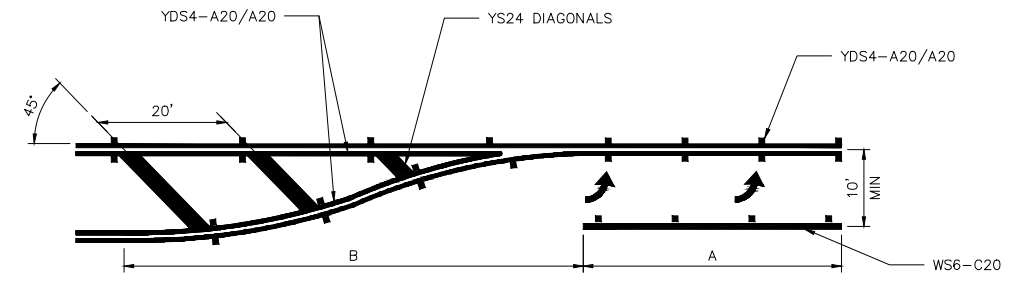
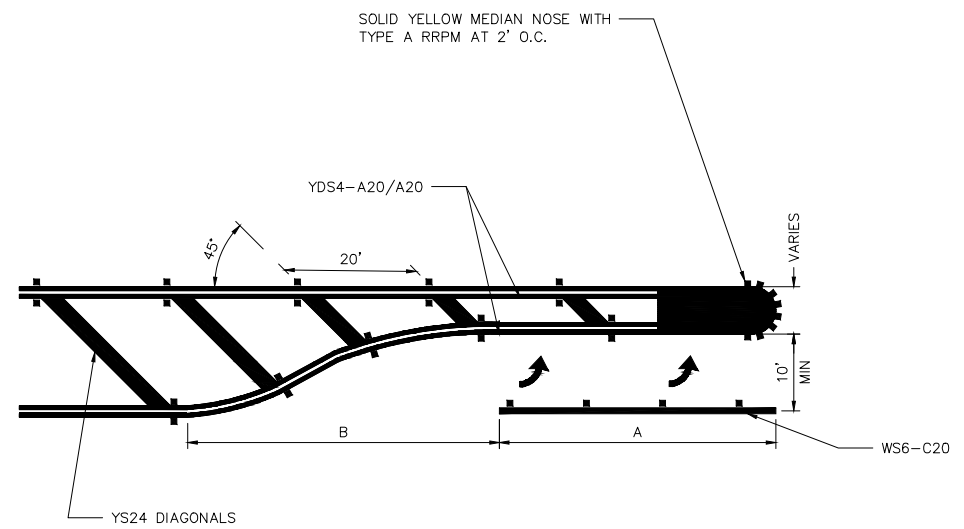
LEFT-TURN LANE & RIGHT-TURN LANE DESIGN

SHEET 01 OF 02

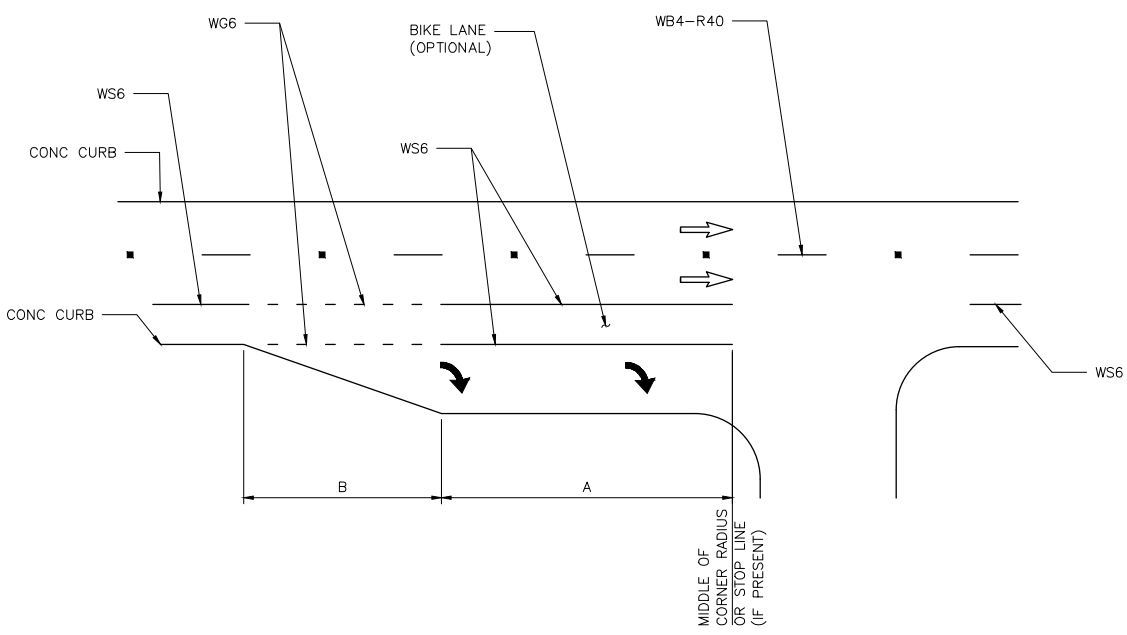
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 129	

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

PAINTED MEDIAN LEFT TURN BAY DETAILS



UNSIGNALIZED RIGHT-TURN LANE



- GENERAL NOTES:**
1. STORAGE LENGTHS LONGER THAN THE MINIMUMS LISTED ON THIS DRAWING MAY BE DETERMINED USING TRAFFIC ENGINEERING ANALYSIS OR APPROXIMATE CALCULATIONS.
 2. FOR THE PLACEMENT OF PAVEMENT ARROWS AND WORDS REFER TO 02760-02 - LEFT/RIGHT TURN "ONLY" AND ARROW SPACING.
 3. REFER TO APPLICABLE STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKERS FOR POSITION GUIDANCE AND LEFT-TURN & RIGHT-TURN LANE STANDARD PAVEMENT MARKINGS WITH REFLECTIVE RAISED PAVEMENT MARKINGS.
 4. REFER TO BICYCLE LANE PAVEMENT MARKINGS STANDARD FOR TYPE AND PLACEMENT.

- LEFT TURN BAY NOTES:**
1. LEFT TURN BAY DIMENSIONS
 - A = 150' MINIMUM AT INTERSECTION OF TWO (2) MAJOR STREETS WHEN PRACTICAL.
 - = 100' MINIMUM AT ALL OTHER INTERSECTIONS.
 - B = 100' MINIMUM ON STRAIGHT ROADWAYS.
 - *TAPER LENGTH MAY BE SHORTER IF IT IS ON A HORIZONTAL CURVE TO THE LEFT.
 - *TAPER LENGTH MAY BE LONGER IF CURVE IS TO THE RIGHT.
 2. DIMENSIONS SHALL BE ADJUSTED AS DETERMINED BY CITY OF HOUSTON TRAFFIC ENGINEER.
 3. REFER TO CITY OF HOUSTON INFRASTRUCTURE DESIGN MANUAL (FIGURE 10.8) FOR DETAILS.

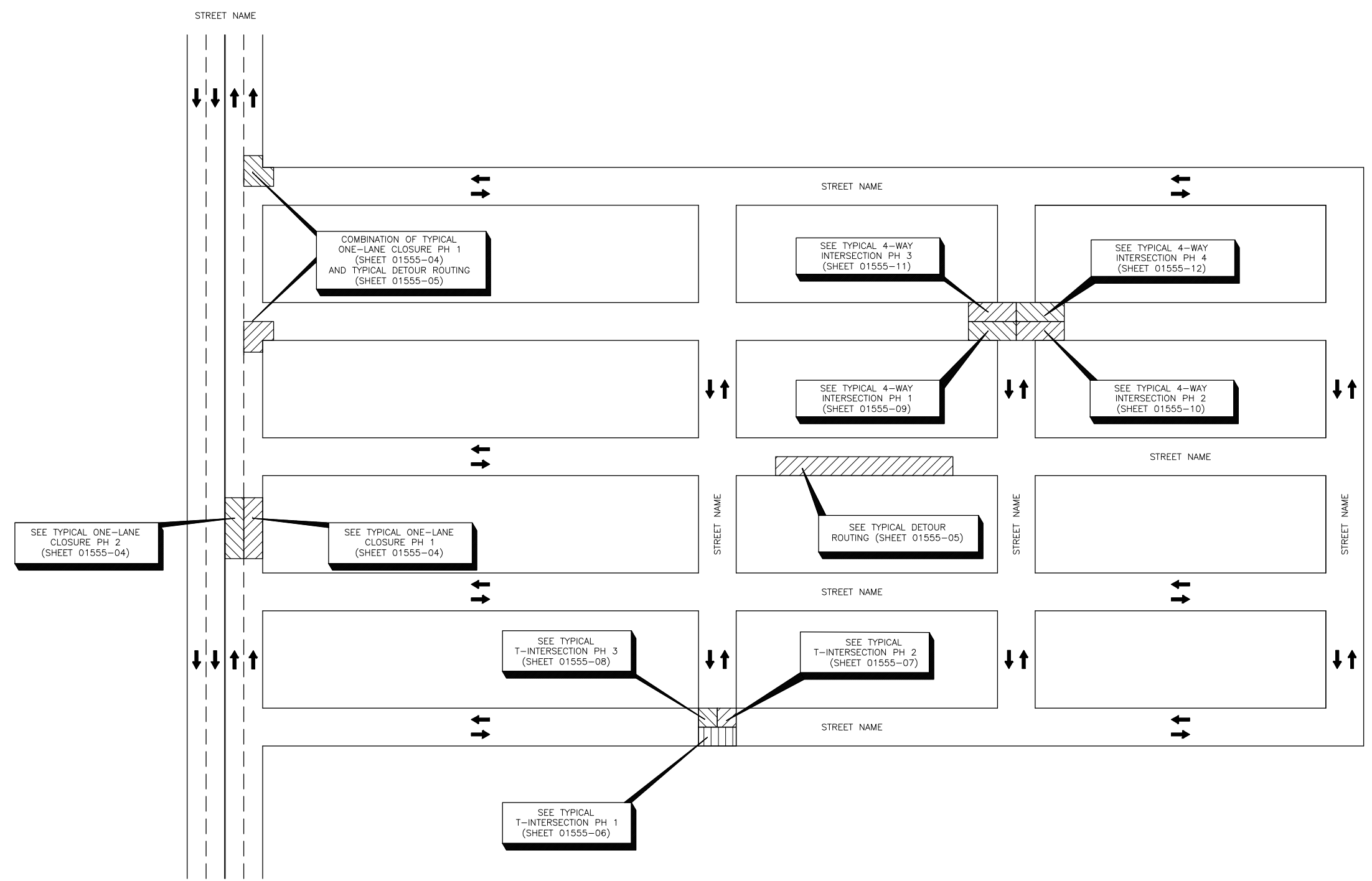
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02760-14
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPE Reg. No. 5-19289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77044</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

LEFT TURN LANE & RIGHT TURN LANE DESIGN

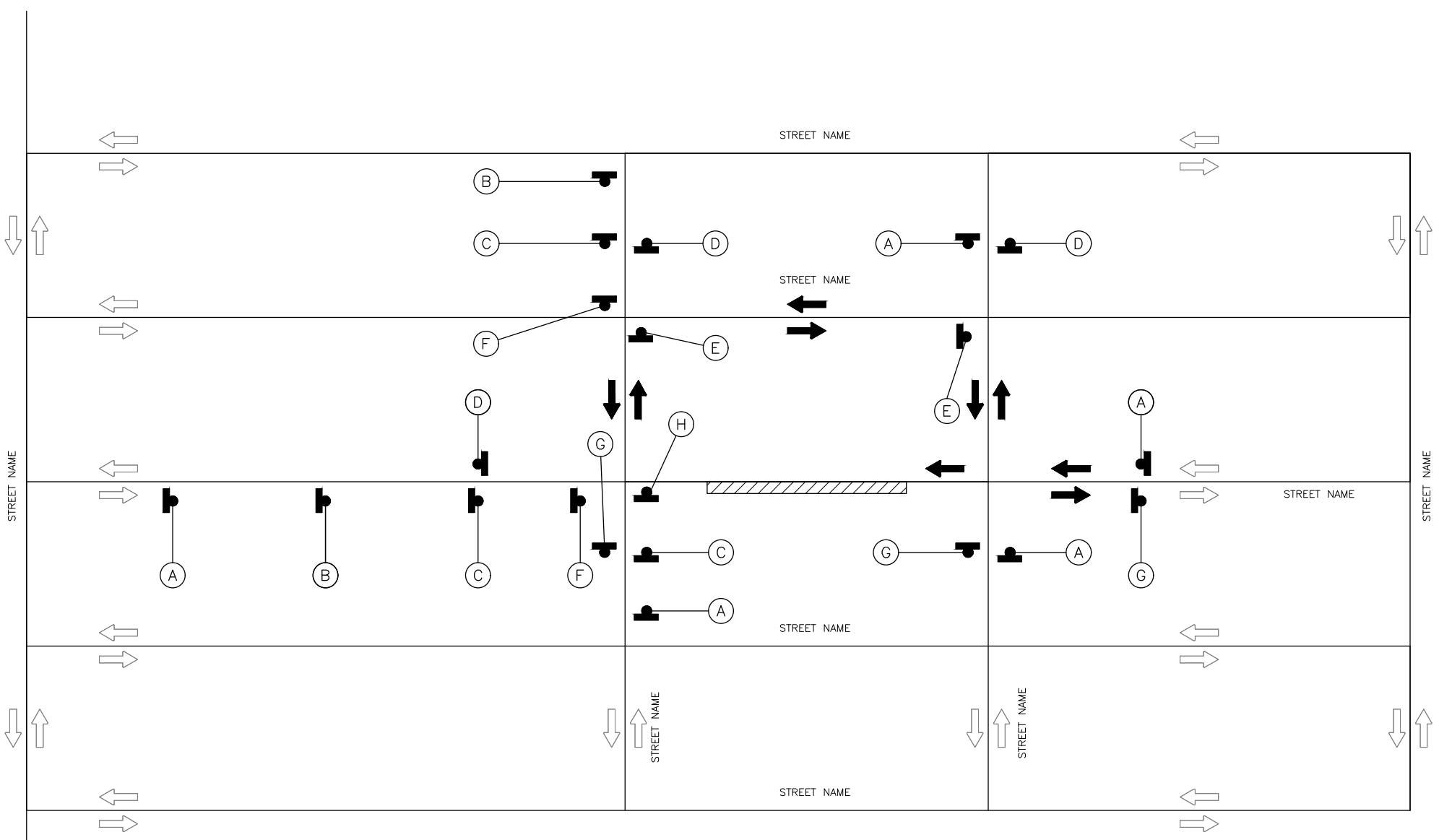
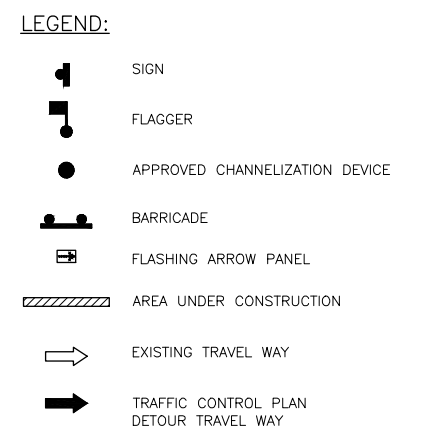
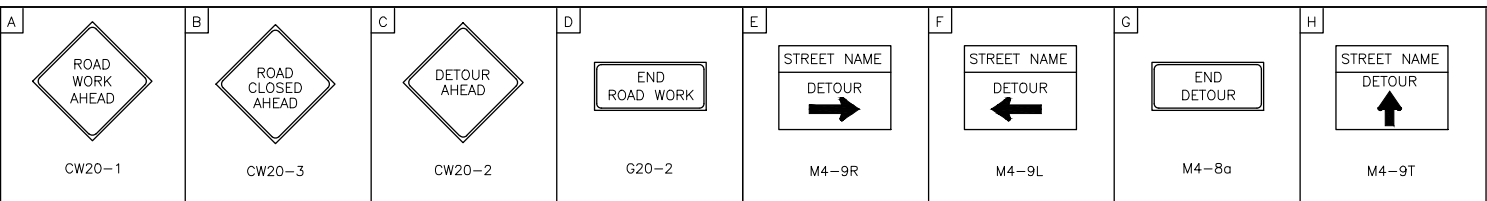
SHEET 02 OF 02	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 130	

DISCLAIMER: THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THE USE OF THIS STANDARD. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



APPROVED BY: <i>Sulail Kanwar</i> CITY ENGINEER	APPROVED BY: <i>BAHNG NGUYEN</i> CITY TRAFFIC ENGINEER
APPROVED BY: <i>Carl Haddock</i> DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-02
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPOE Reg. No. T-19289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TCP OVERALL TRAFFIC CONTROL LAYOUT	
WBS NUMBER N - 100042 - 0001 - 3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE NOT TO SCALE	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 131	

DISCLAIMER: THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THE USE OF THIS STANDARD. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



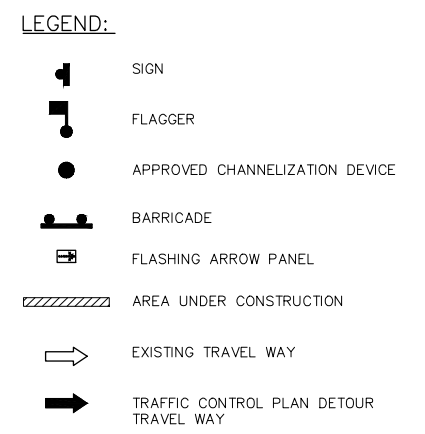
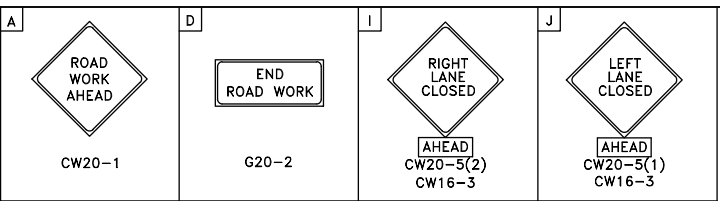
APPROVED BY: Sultan Kanwar REF980C641F5478	APPROVED BY: BAHING NAUYEN 98A29FD6A7984C0
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Carl Haddock 883CA10570B8420	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-03
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 74-19289 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

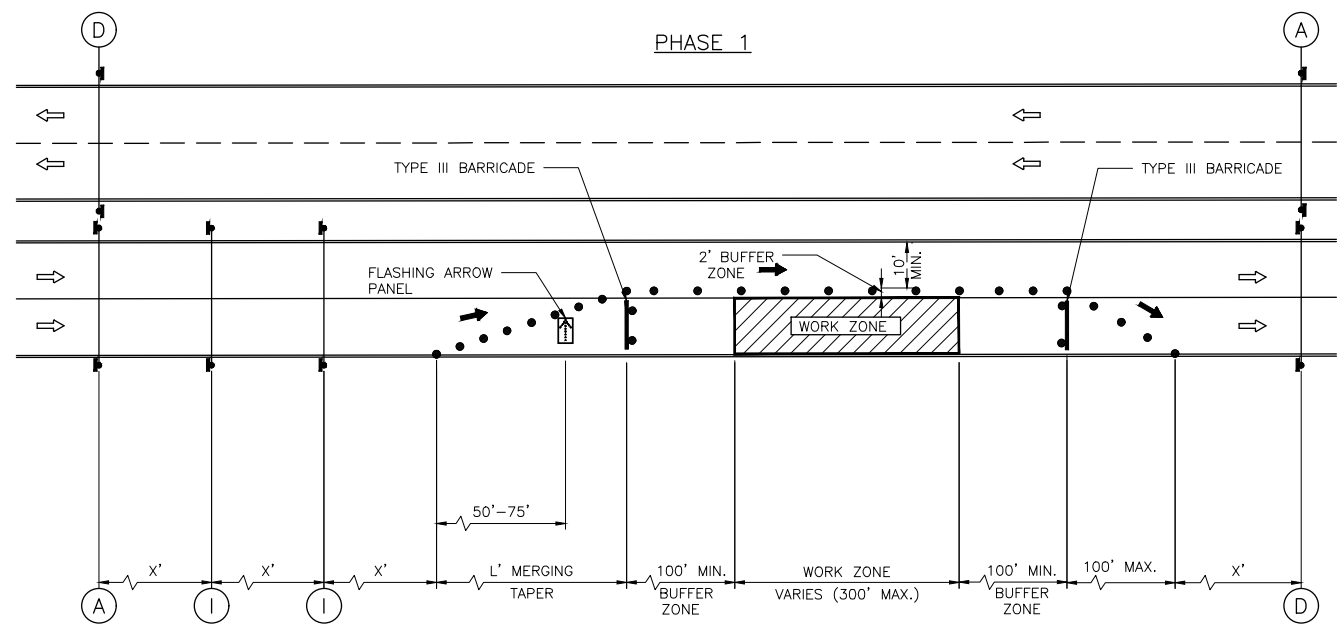
TRAFFIC CONTROL LAYOUT

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 132	

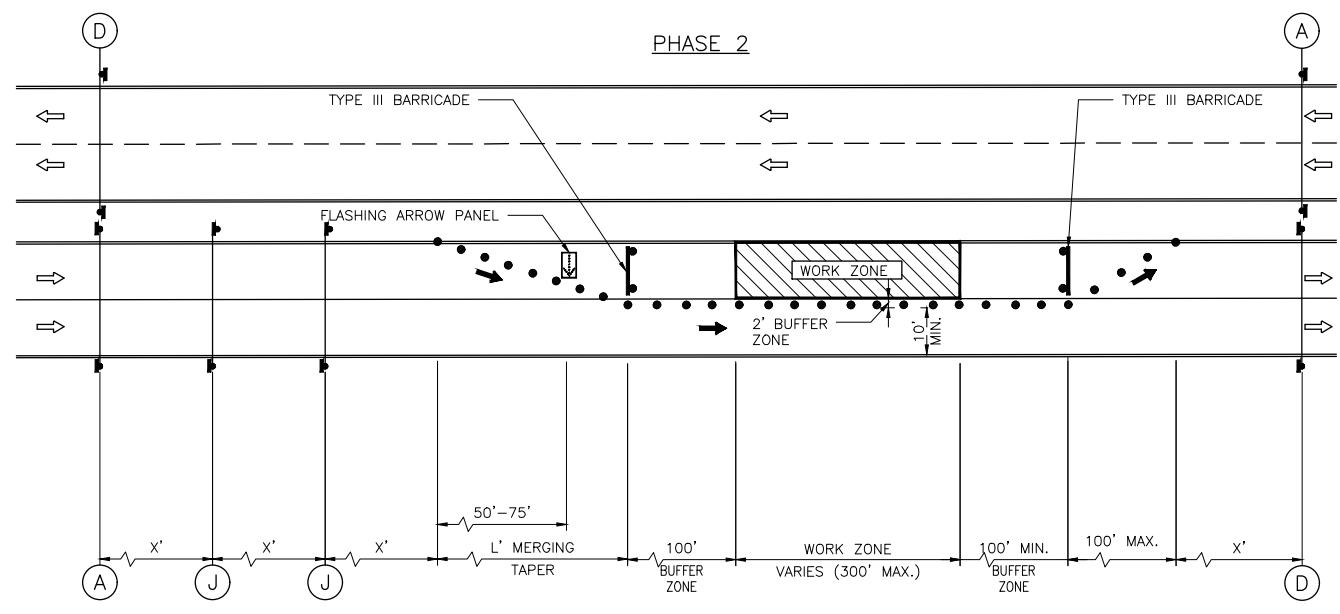
DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



- NOTES:**
1. RETURN TAPERS AND DOWNSTREAM BARRICADES ARE OPTIONAL ON A DIVIDED ROADWAY SECTION.
 2. DOUBLE SIGNS SHALL BE USED ONLY ON ROADWAYS WITH MEDIANS.
 3. FOR DIMENSIONS REFER TO SHEET 01555-01.
 4. INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.



STREET NAME
(__M.P.H.)



STREET NAME
(__M.P.H.)

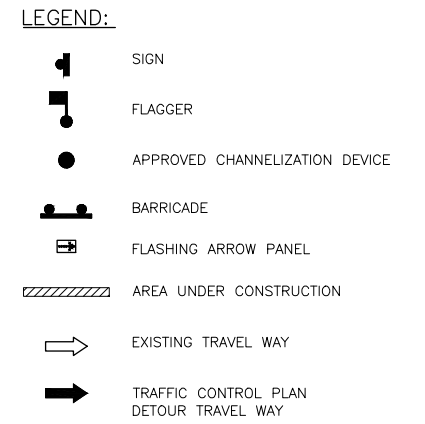
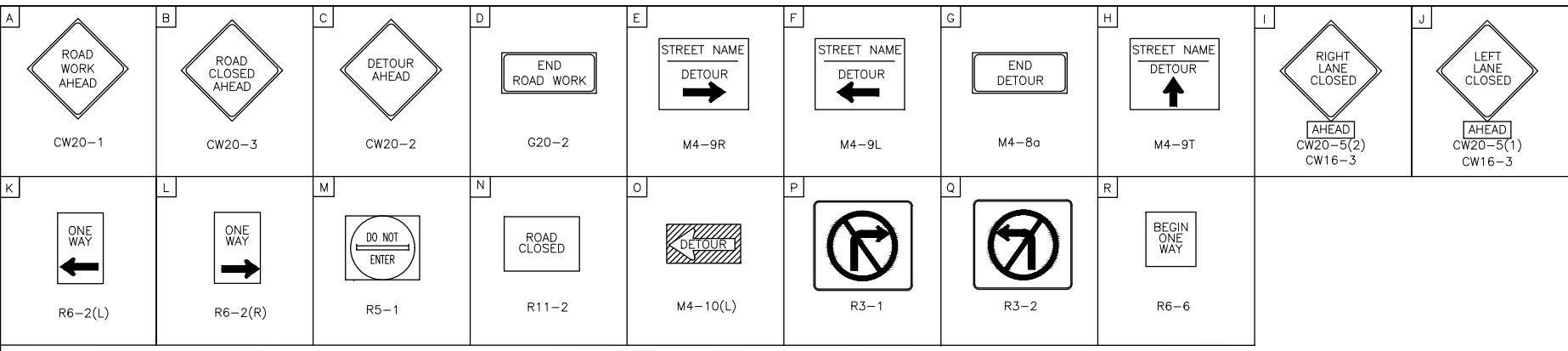
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-04
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 74-0228 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

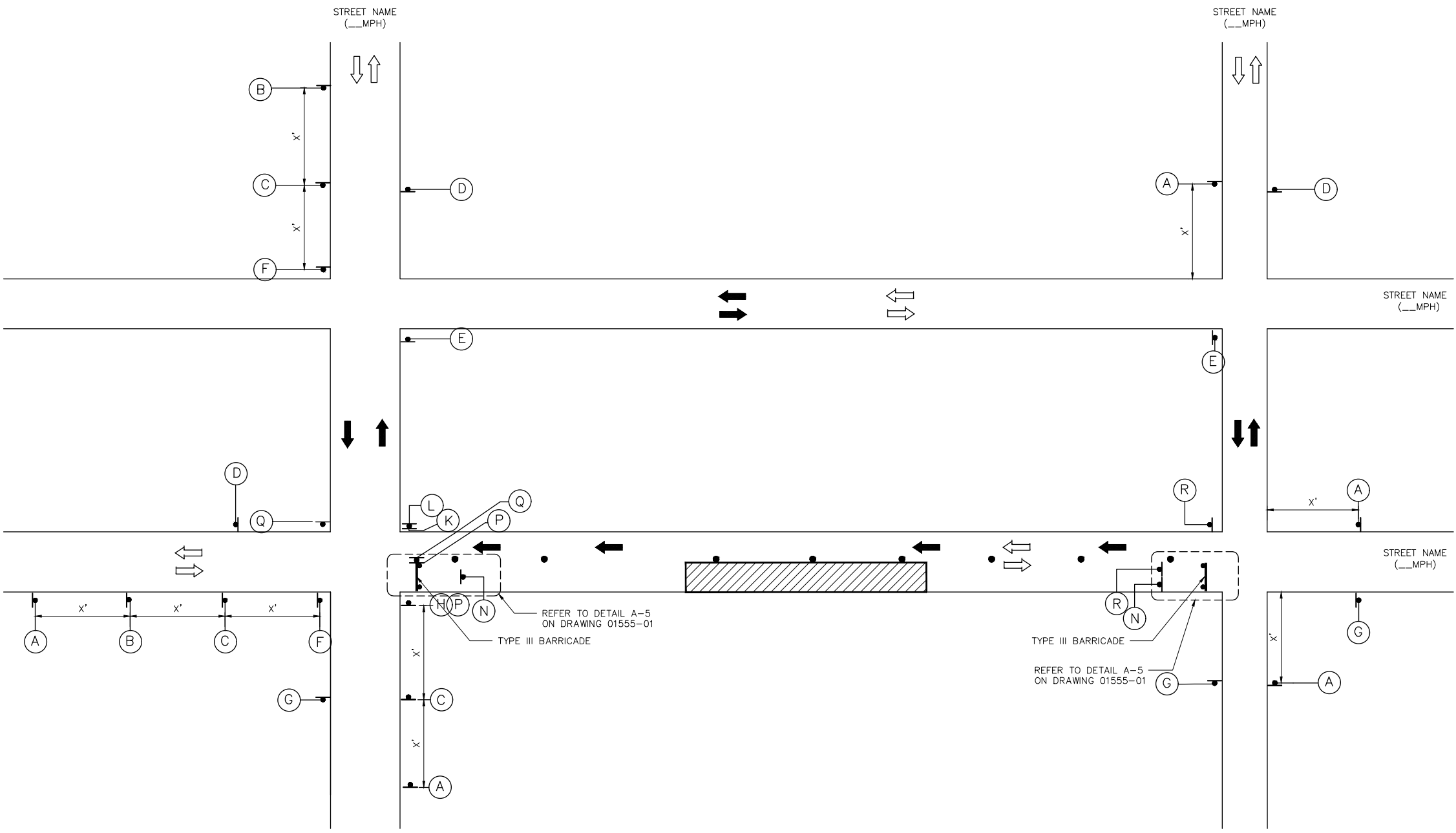
TCP ONE LANE CLOSURE
PHASE 1 & 2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 133	

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



- NOTES:**
- A 10' MINIMUM LANE WIDTH FOR EMERGENCY SHALL BE MADE AVAILABLE AND MAINTAINED BY THE CONTRACTOR AT ALL TIMES.
 - FOR DIMENSIONS REFER TO SHEET 01555-01.
 - INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.



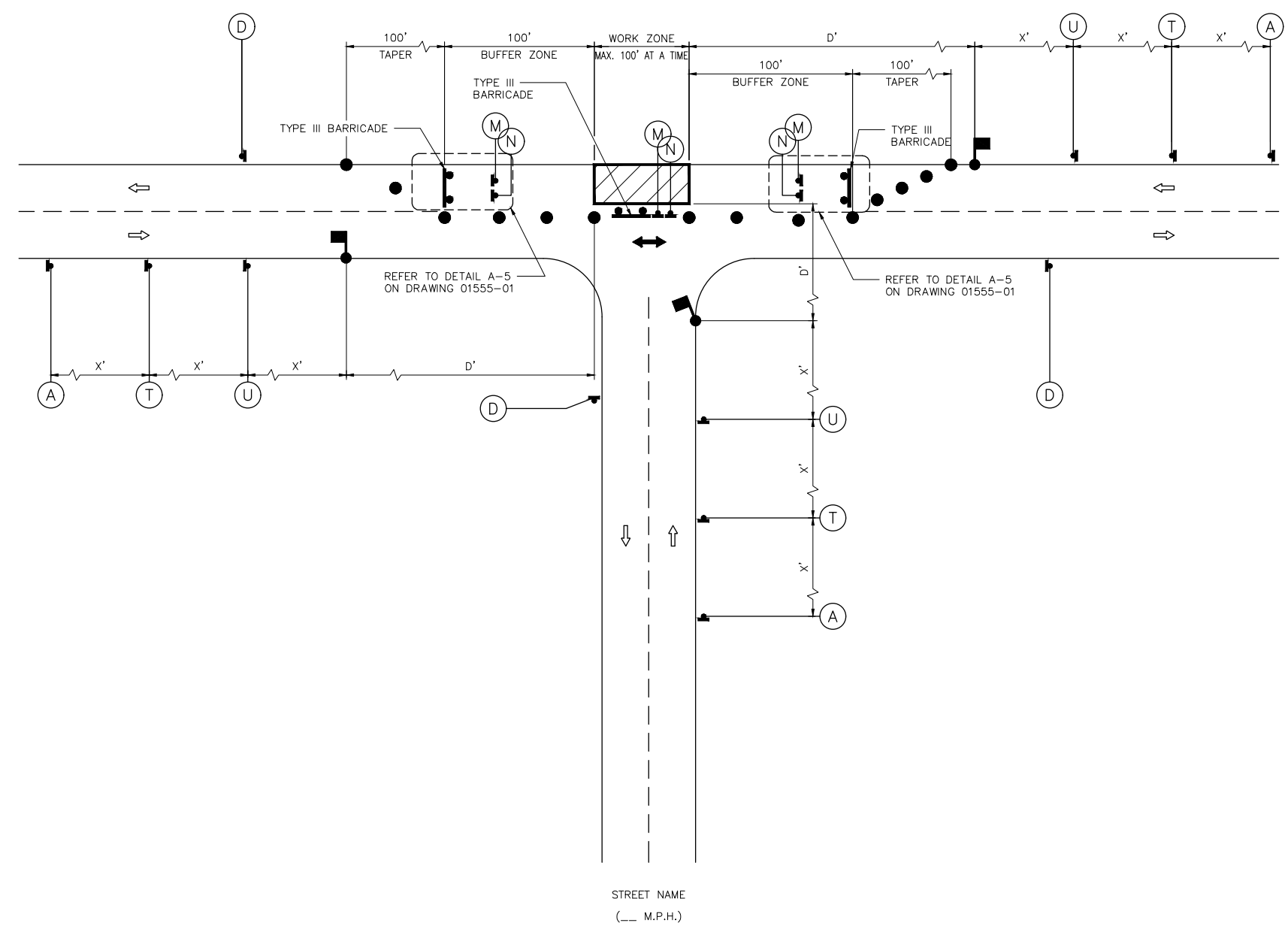
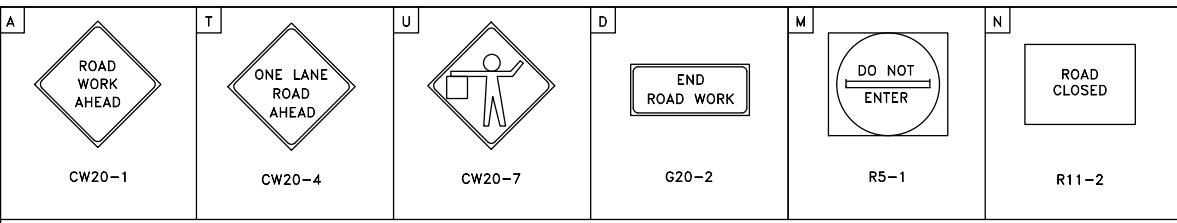
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-05
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 749288 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP TYPICAL DETOUR ROUTING
WITH ONE LANE CLOSURE
(ONE BLOCK)

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 134	

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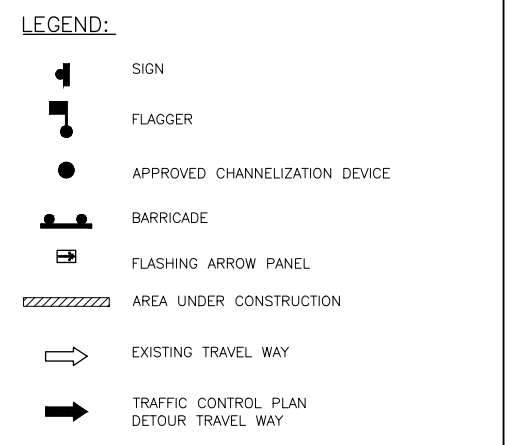
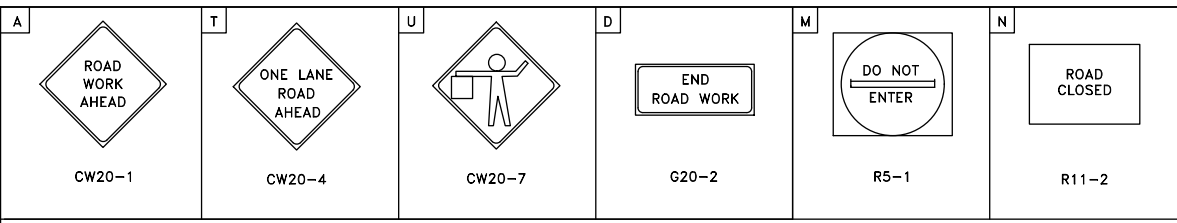
- LEGEND:**
- SIGN
 - FLAGGER
 - APPROVED CHANNELIZATION DEVICE
 - BARRICADE
 - FLASHING ARROW PANEL
 - AREA UNDER CONSTRUCTION
 - EXISTING TRAVEL WAY
 - TRAFFIC CONTROL PLAN DETOUR TRAVEL WAY

- NOTES:**
1. MINOR WORK AND DAYTIME OPERATIONS ONLY.
 2. REFER TO PROJECT SPECIFIC TRAFFIC CONTROL PLANS FOR MAJOR OPERATIONS AND OVERNIGHT LANE CLOSURES.
 3. FOR DIMENSIONS REFER TO SHEET 01555-01.
 4. INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.
 5. MAX. 100' WORK ZONE AT A TIME.

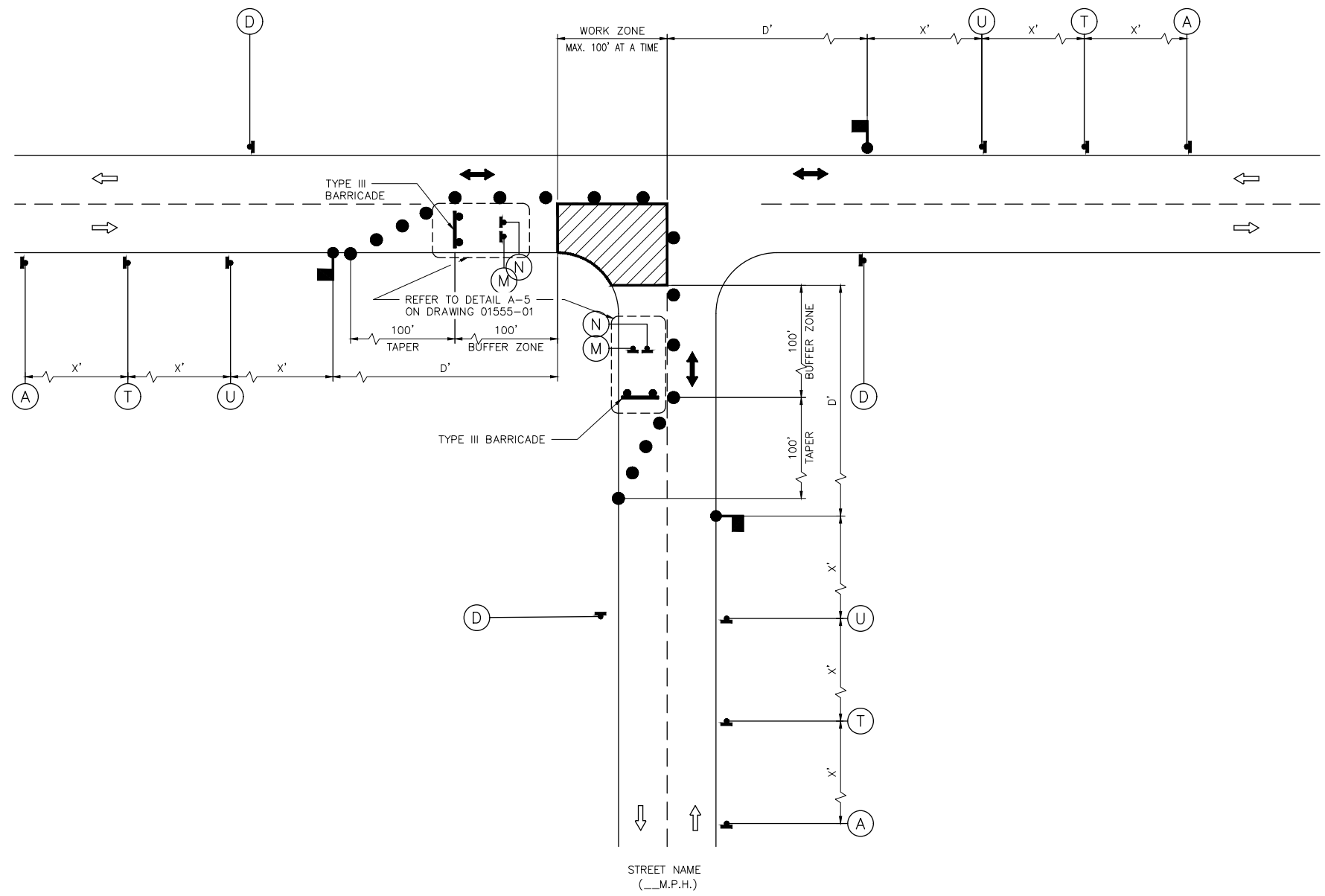
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-06
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 74-0288 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TCP TYPICAL CONSTRUCTION ZONE AT A T-INTERSECTION PHASE 1 OF 3	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 135	

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 - FOR DIMENSIONS REFER TO SHEET 01555-01.
 - INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.
 - MAX. 100' WORK ZONE AT A TIME.



STREET NAME
(__M.P.H.)

STREET NAME
(__M.P.H.)

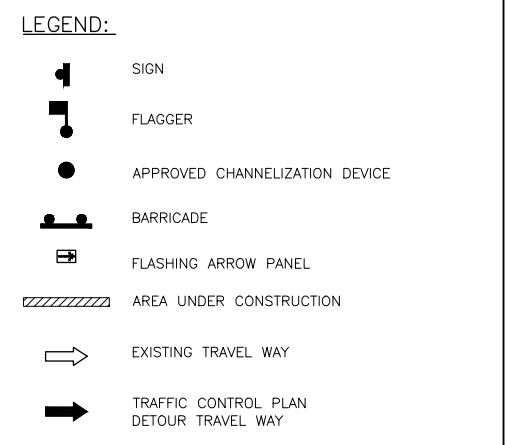
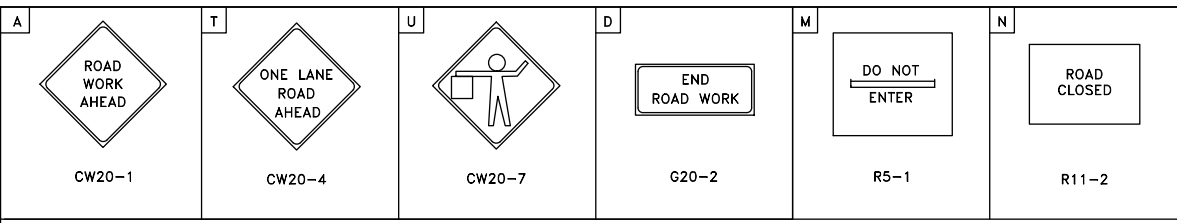
APPROVED BY: <i>Sulail Kanwar</i> CITY ENGINEER	APPROVED BY: <i>BAHNG NGUYEN</i> CITY TRAFFIC ENGINEER
APPROVED BY: <i>Carl Haddock</i> DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-07
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC 1992 Reg. No. 74-0288 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

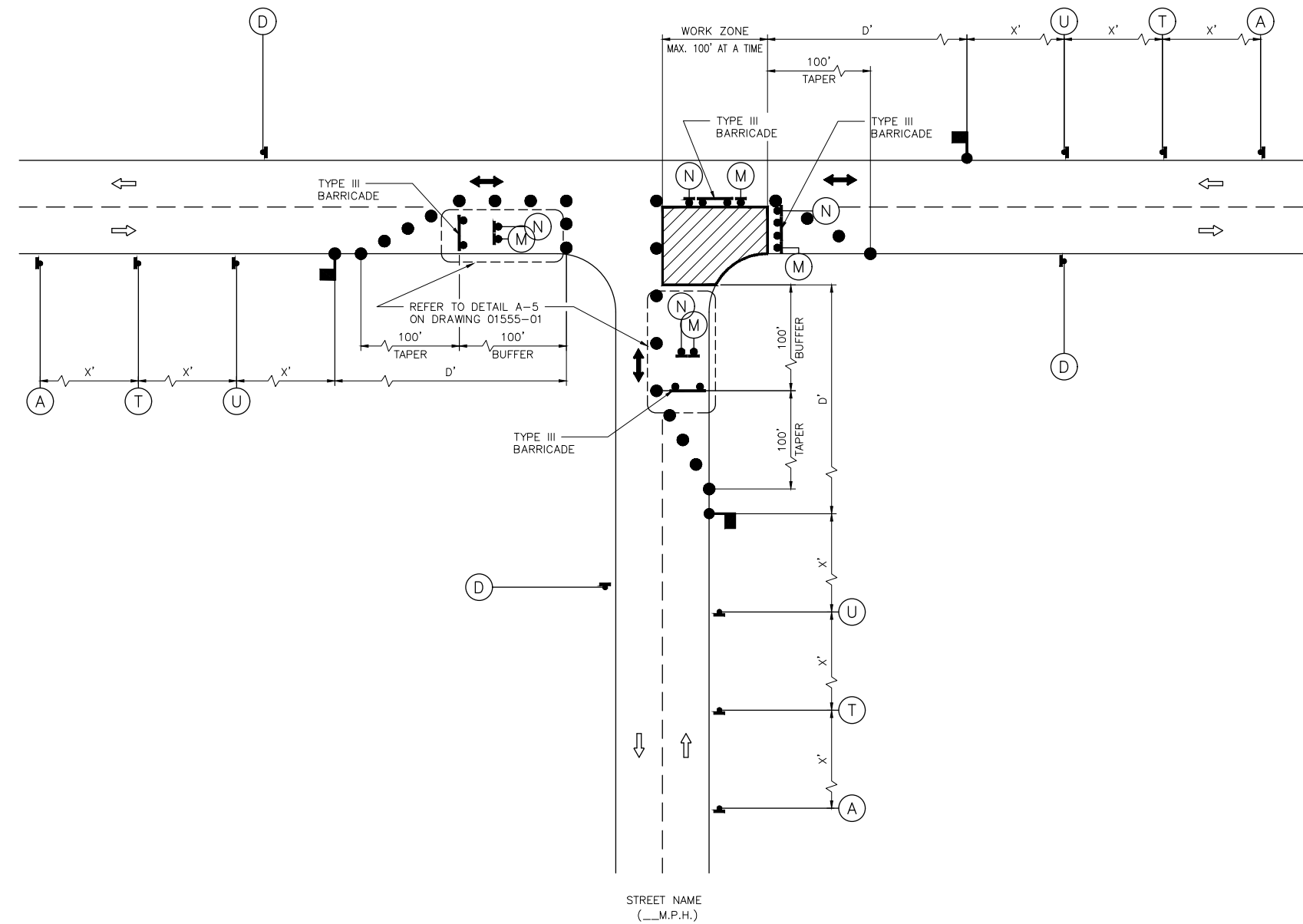
TCP TYPICAL CONSTRUCTION ZONE AT A T-INTERSECTION
PHASE 2 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 136	

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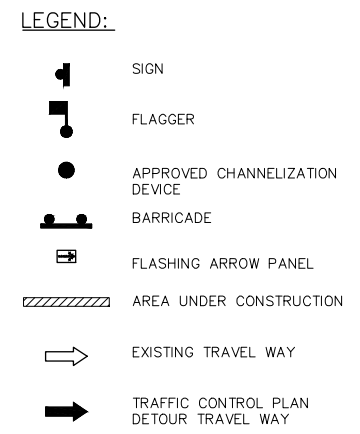
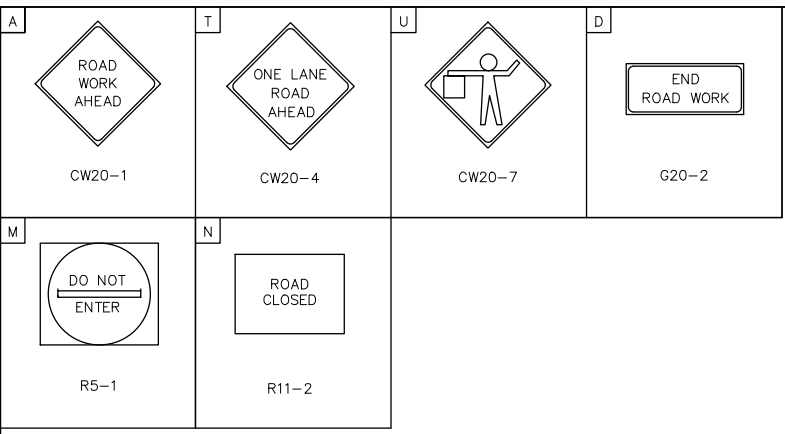
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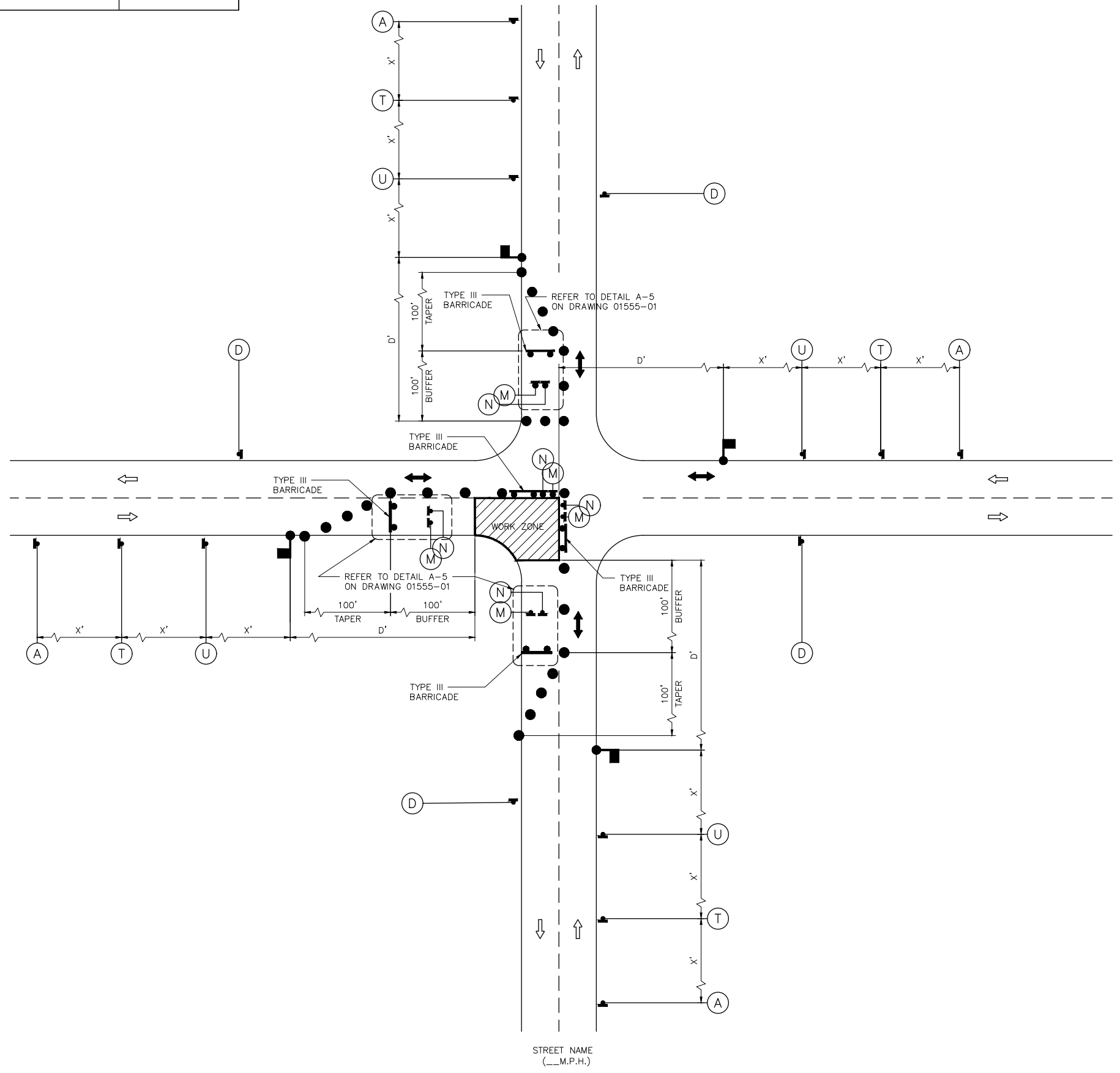
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-08
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 74-9299 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TCP TYPICAL CONSTRUCTION ZONE AT A T-INTERSECTION PHASE 3 OF 3	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 137	

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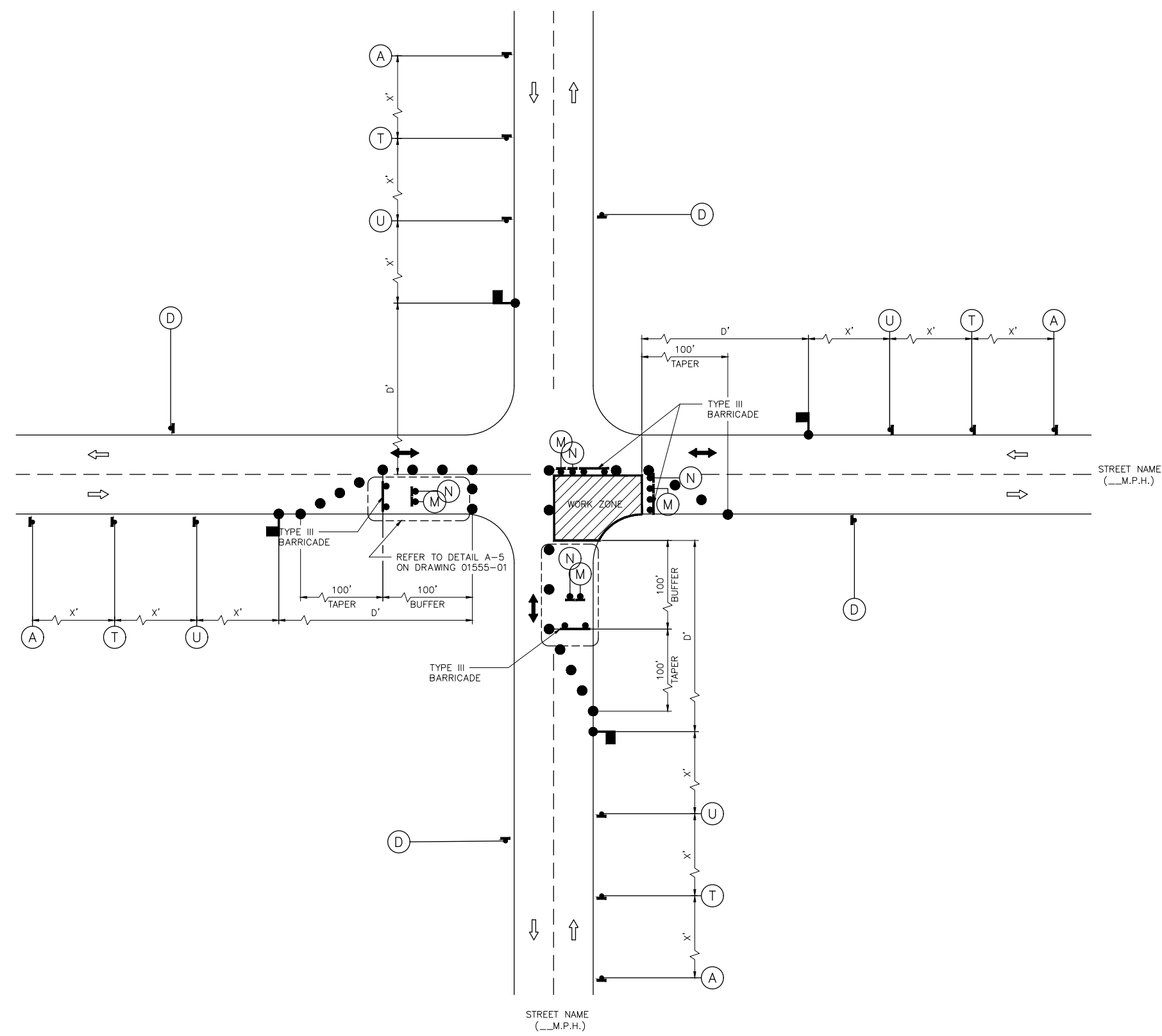
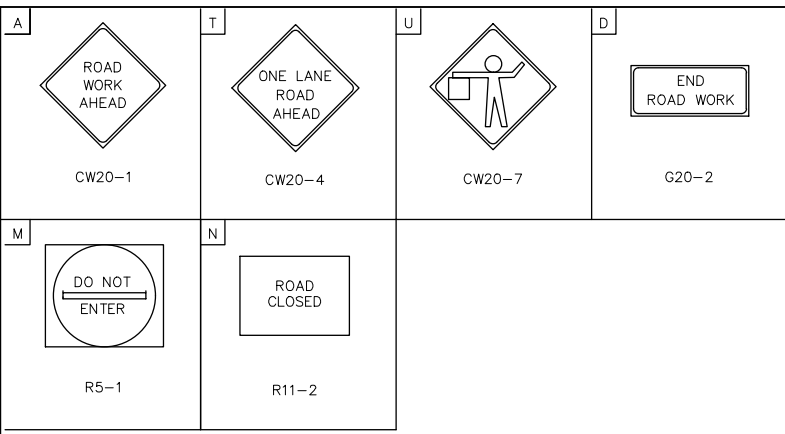


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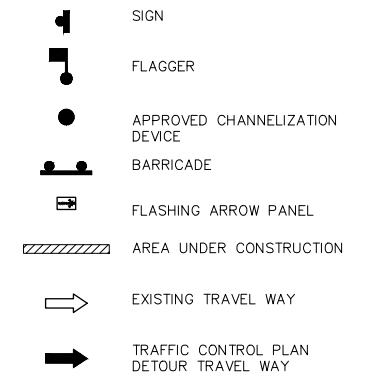
STREET NAME
(___.M.P.H.)

APPROVED BY: <i>Sulail Kanwar</i> CITY ENGINEER	APPROVED BY: <i>BAHNG NGUYEN</i> CITY TRAFFIC ENGINEER
APPROVED BY: <i>Carl Haddock</i> DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-09
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 74-9228 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TCP TYPICAL CONSTRUCTION ZONE AT A 4-WAY INTERSECTION (LOW VOLUME TRAFFIC) PHASE 1 OF 4	
WBS NUMBER N - 100042 - 0001 - 3	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE NOT TO SCALE	
CITY OF HOUSTON PM ANNA CLIFTON, P.E.	
SHEET NO. 138	

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LEGEND:

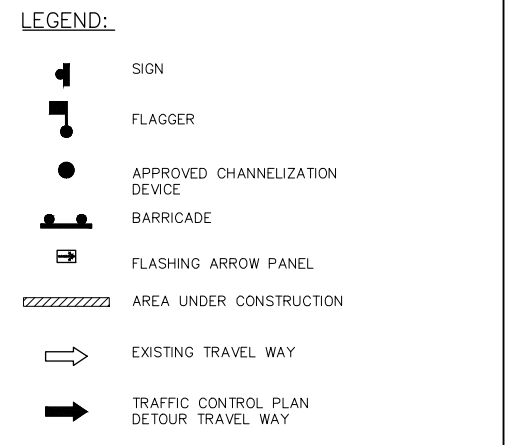
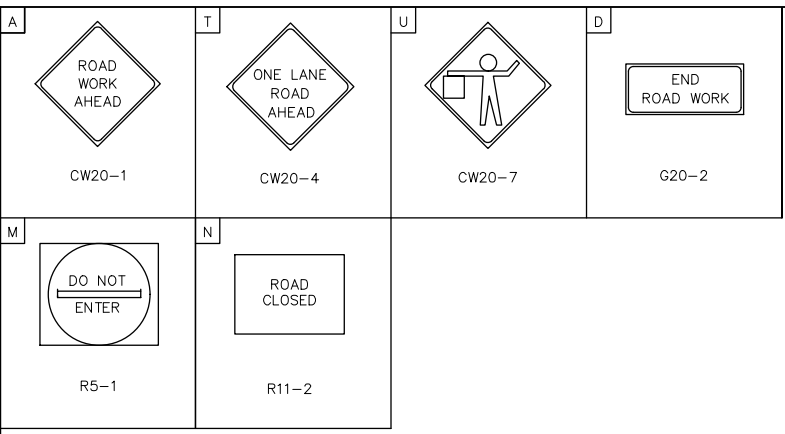


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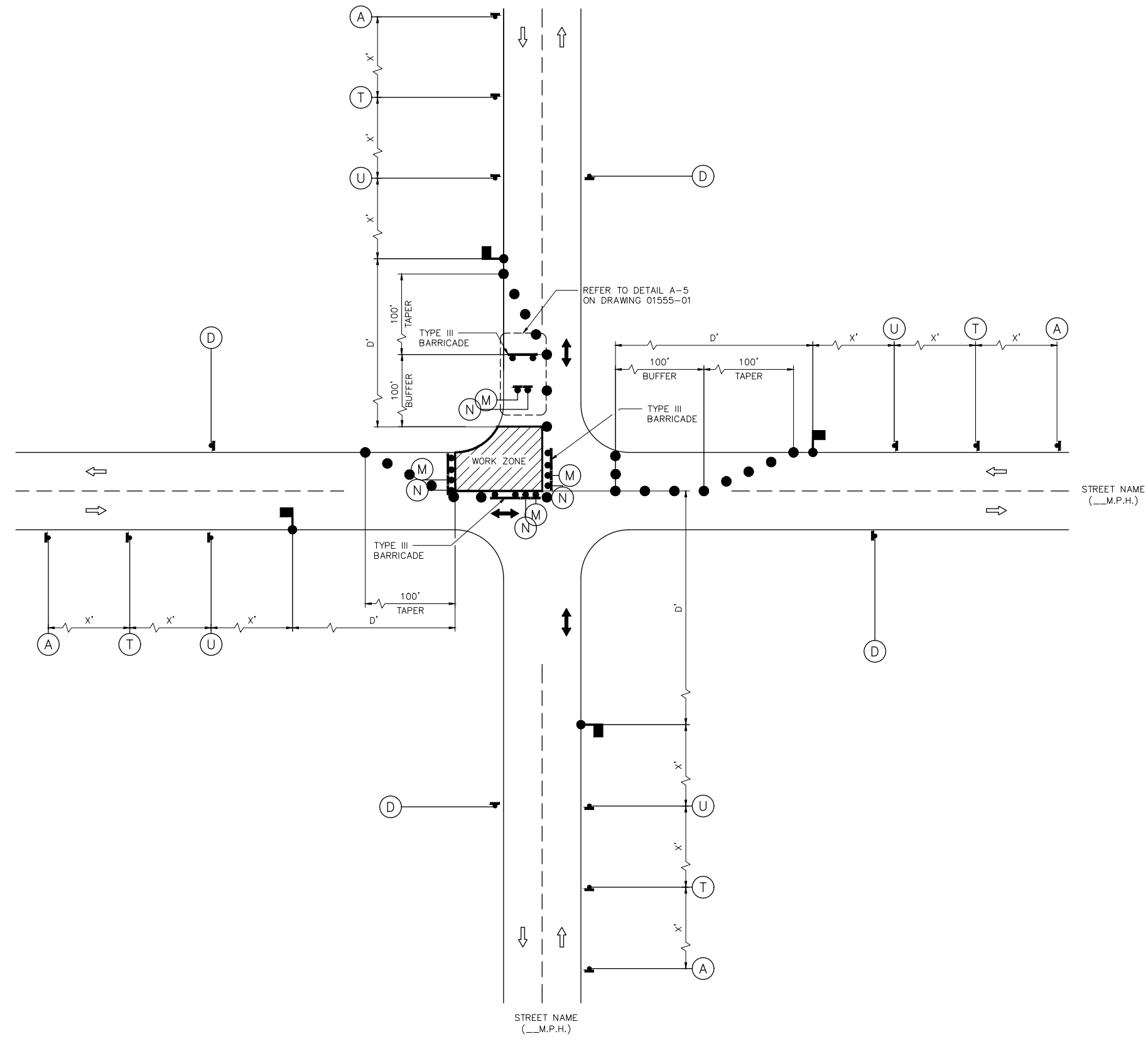
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APPROVED BY: <i>Sulail Kanwar</i> CITY ENGINEER	APPROVED BY: <i>BAHNG NGUYEN</i> CITY TRAFFIC ENGINEER
APPROVED BY: <i>Carl Haddock</i> DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-10
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 74-9299 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TCP TYPICAL CONSTRUCTION ZONE AT A 4-WAY INTERSECTION (LOW VOLUME TRAFFIC) PHASE 2 OF 4	
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 139	

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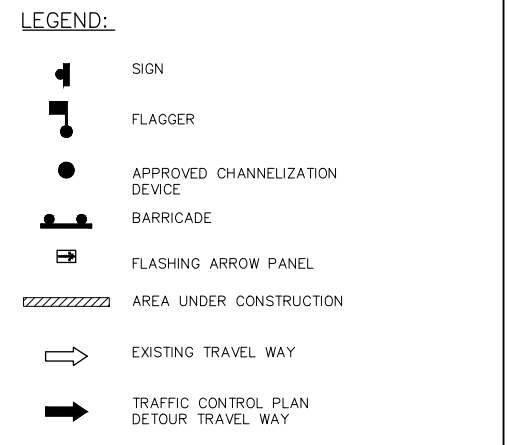
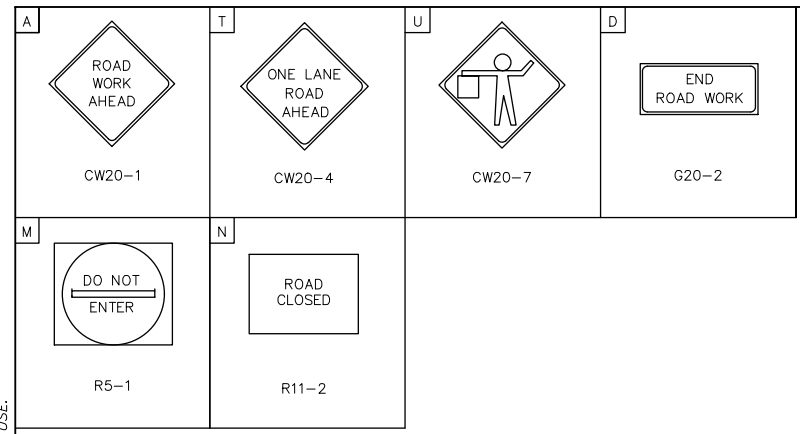
APPROVED BY: CITY ENGINEER	APPROVED BY: CITY TRAFFIC ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-11
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 74-0298 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

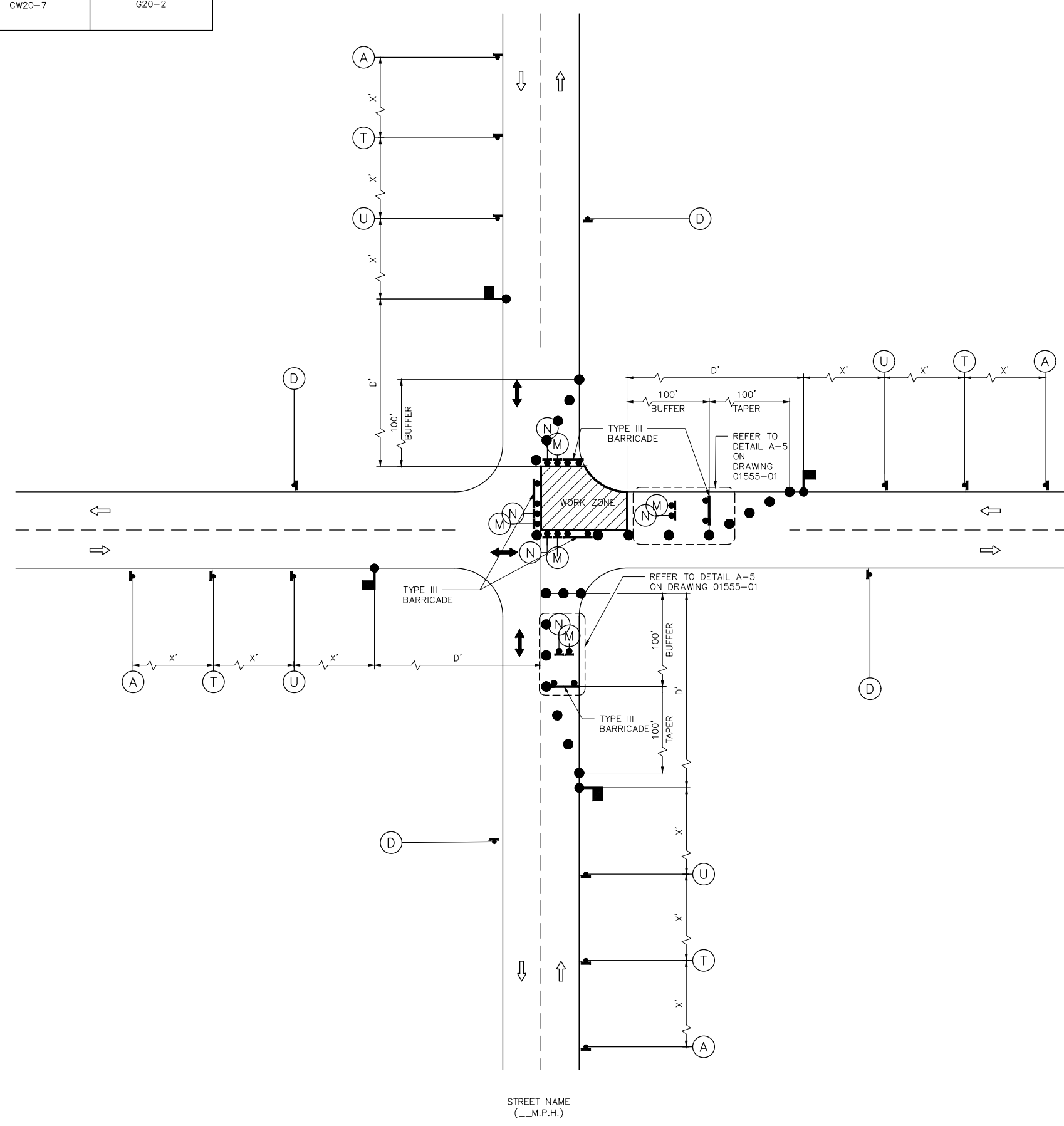
TCP TYPICAL CONSTRUCTION ZONE AT A 4-WAY INTERSECTION (LOW VOLUME TRAFFIC) PHASE 3 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
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CITY OF HOUSTON PM	
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SHEET NO. 140	

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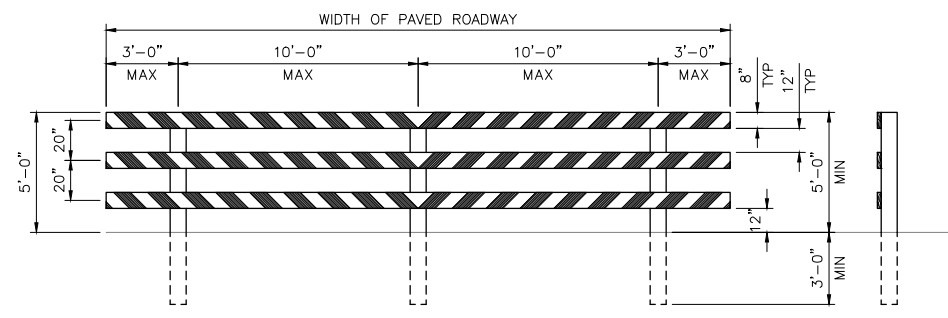


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STREET NAME
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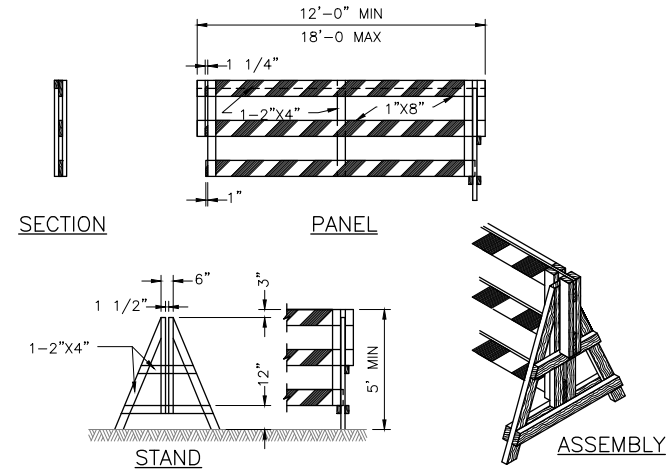
APPROVED BY: <i>Sulail Kanwar</i> CITY ENGINEER	APPROVED BY: <i>BAHNG NGUYEN</i> CITY TRAFFIC ENGINEER
APPROVED BY: <i>Carl Haddock</i> DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-12
TRANSCEND engineers + planners <small>Transcend Engineers & Planners, LLC TPEE Reg. No. 74-0228 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494</small>	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026
CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TCP TYPICAL CONSTRUCTION ZONE AT A 4-WAY INTERSECTION (LOW VOLUME TRAFFIC) PHASE 4 OF 4	
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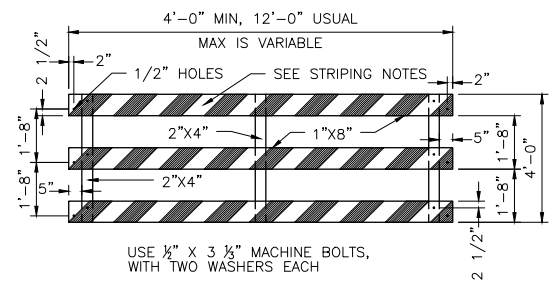


TYPE III BARRICADE FOR END OF ROAD

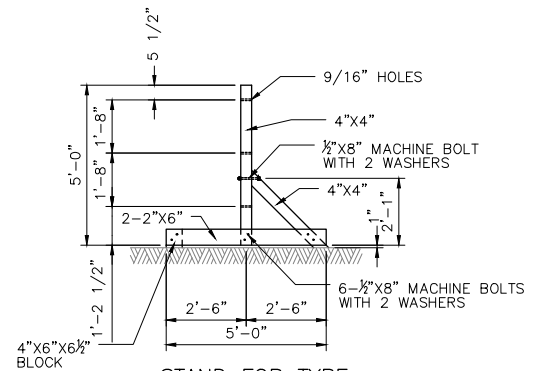
FOR TYPE III BARRICADE FOR END OF ROAD, THE THREE (3) RAILS SHALL BE REFLECTIVE RED AND RELFLECTIVE WHITE STRIPES ON SIDE FACING TRAFFIC



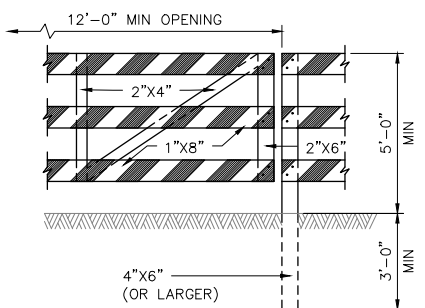
DEMOUNTABLE TYPE III BARRICADE



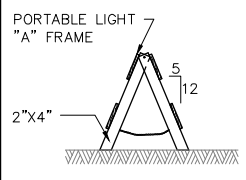
PANEL FOR TYPE III BARRICADE



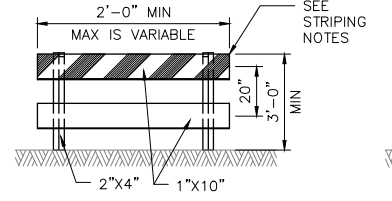
STAND FOR TYPE III BARRICADE



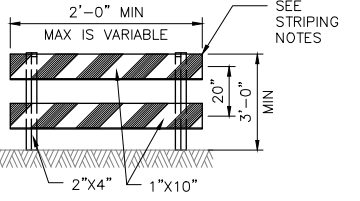
GATE FOR TYPE III BARRICADE



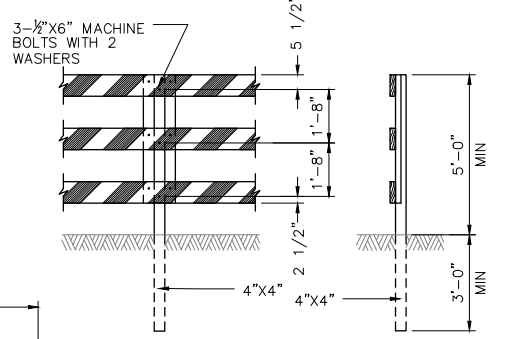
"A" FRAME



TYPE I



TYPE II

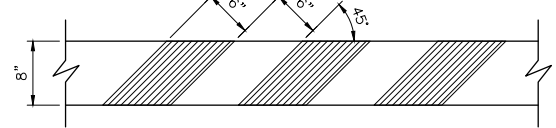


POST FOR TYPE III BARRICADE

DEMOUNTABLE BARRICADE NOTES:

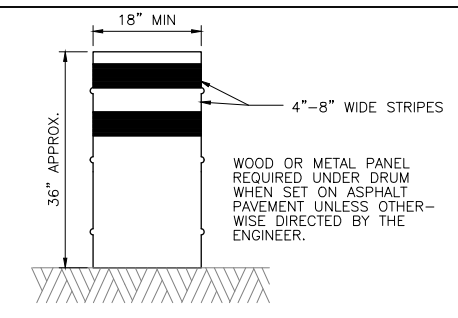
1. THE MOST RECENT EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND ITS REVISIONS, SHALL GOVERN THE CONSTRUCTION AND USE OF ALL ITEMS HEREIN DESCRIBED.
2. CHANNELIZATION DEVICES OTHER THAN BARRICADES SHOULD NORMALLY BE USED FOR CHANNELIZATION PURPOSES.
3. BARRICADES SHOULD NORMALLY 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.
4. BARRICADES MAY BE DESIGNED AND CONSTRUCTED FROM WOOD OR ANY OTHER SUITABLE MATERIAL APPROVED BY THE TMTCD. 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.

5. 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.
6. 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.
7. THE CONTRACTOR SHALL MAINTAIN EACH BARRICADE IN A CLEAN AND GOOD CONDITION.
8. BARRICADES SHALL BE REMOVED UPON COMPLETION OF THE WORK AND/OR THE ELIMINATION OF THE HAZARD ON ANY SECTION.



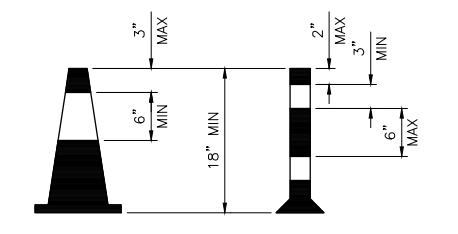
STRIPING FOR BARRICADE

1. 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 BARRICADE RAILS.
2. 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.
3. 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 MAY SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE.



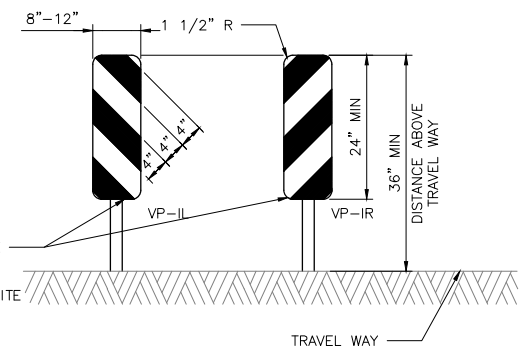
DRUMS

1. 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.
2. CWI-8 CHEVRON SIGNS, CWI-6A ARROW SIGNS OR VP-1 VERTICAL PANELS MOUNTED ABOVE DRUMS MAY BE USED AS SUPPLEMENTS TO DRUM DELINEATION.



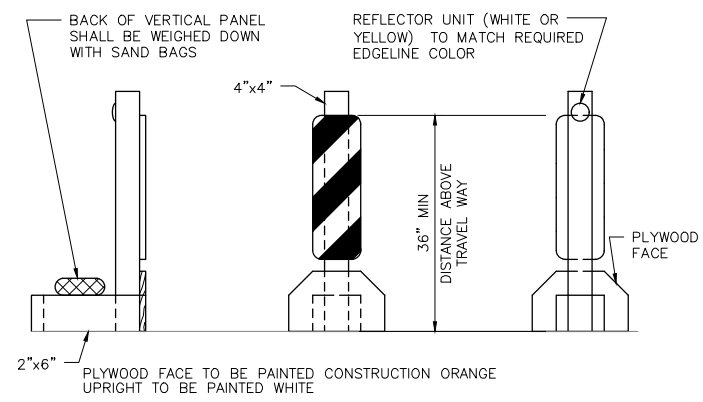
CONES

1. 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 NIGHT TIME 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.
2. 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.
3. 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.



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.



TYPICAL PORTABLE VERTICAL PANEL OR DELINEATOR

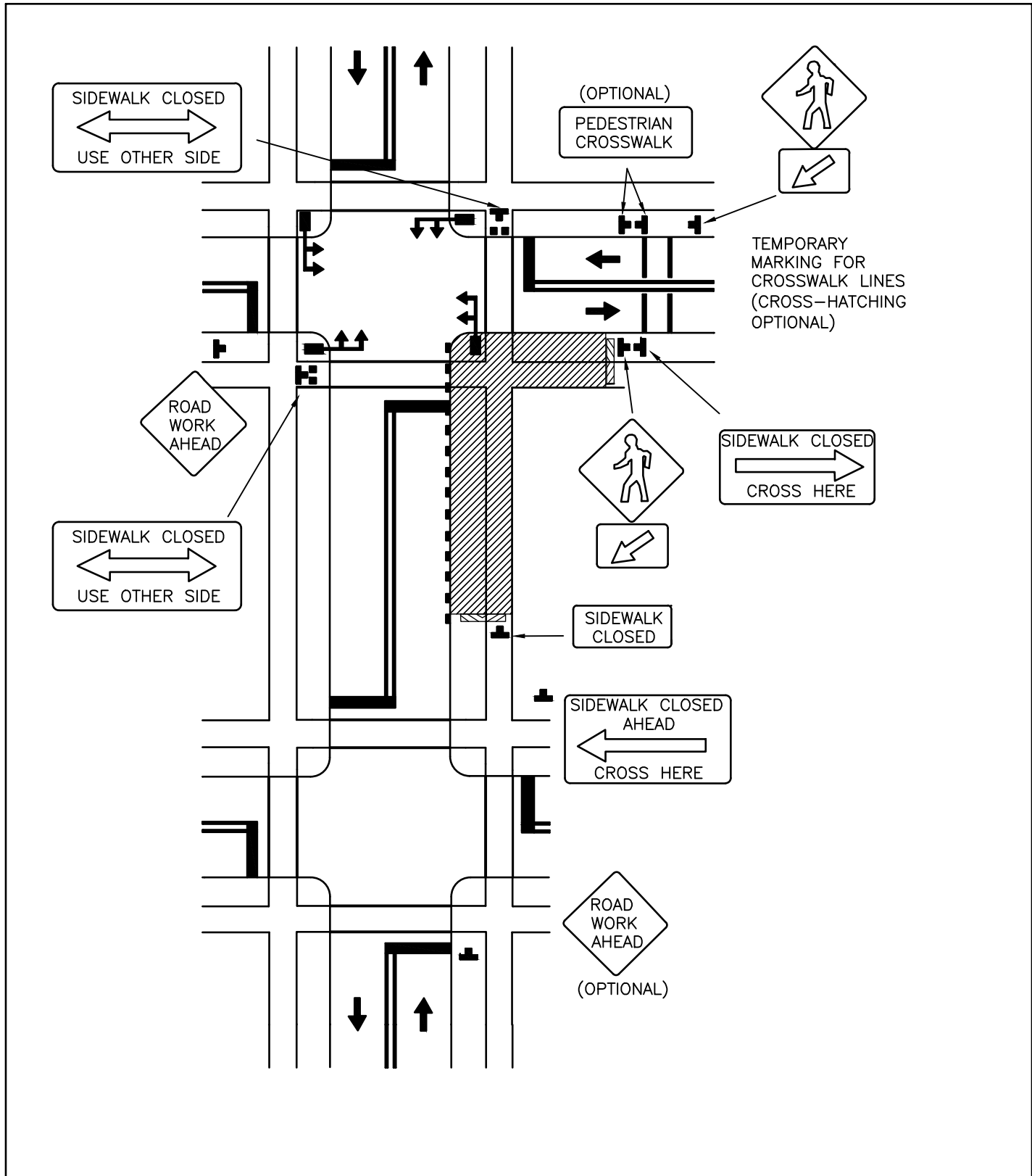
OTHER SIMILAR SUPPORTS MAY BE USED WHEN APPROVED BY TMTCD AND DIRECTED BY THE CITY OF HOUSTON.

APPROVED BY: DocuSigned by: <i>Sulaim Kanwar</i> REF980641F547B	APPROVED BY: DocuSigned by: <i>BAHNG NGUYEN</i> 9A29EFD047946D
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: DocuSigned by: <i>Carla Haddock</i> A83C4105B78264D	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-14
TRANSCEND engineers + planners Transcend Engineers & Planners, LLC TPE Reg. No. 749288 23410 Grand Reserve Dr, Suite 101 Houston, Texas 77494	THESE DOCUMENTS ARE FOR 100% REVIEW AND NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. RESPONSIBLE ENGINEER TRANSCEND ENGINEERS & PLANNERS, LLC RAJASEKHAR BASAVARAJU, PE TEX REG NO. 112149 3/2/2026

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD

BARRICADE AND CHANNELIZING DEVICES

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N - 100042 - 0001 - 3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 142	



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

CROSSWALK CLOSURES AND PEDESTRIAN DETOURS

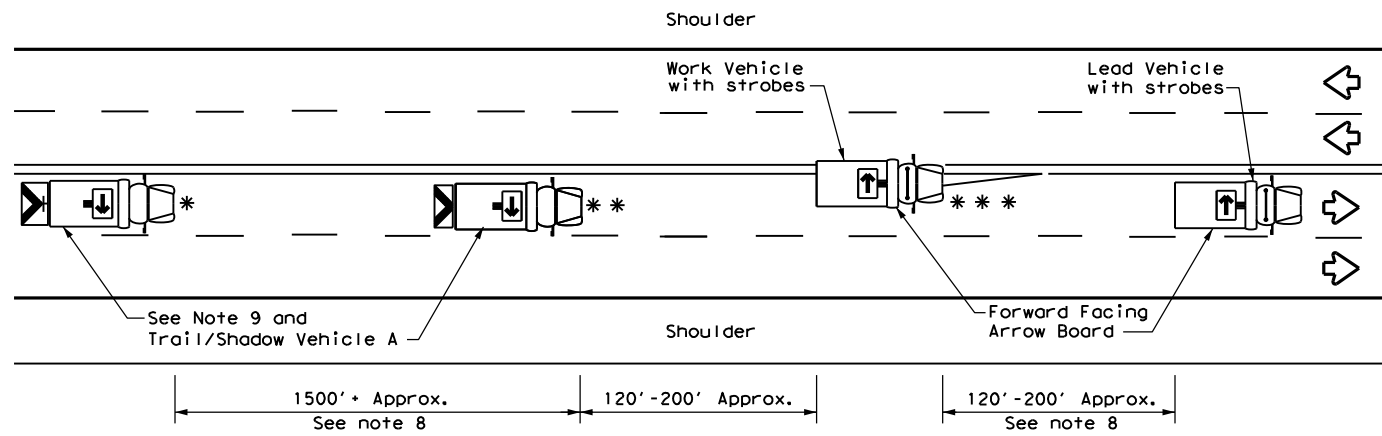
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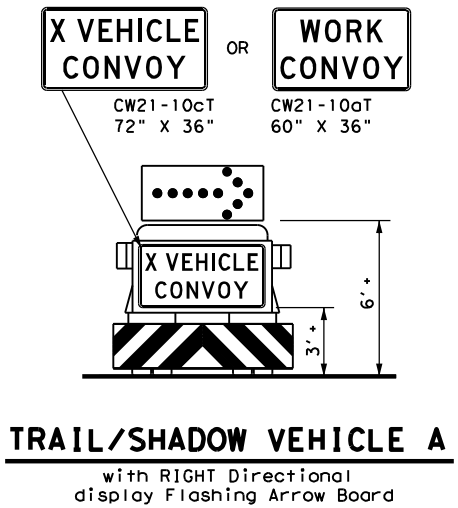
<p>DocuSigned by: <i>Sulail Kanwar</i> 9EF8B0C641F5478</p> <p>CITY ENGINEER</p>	<p>DocuSigned by: <i>KHANG NGUYEN</i> 95A29EFD75B4CD</p> <p>CITY TRAFFIC ENGINEER</p>	<p>DocuSigned by: <i>Carol Hallock</i> A93C410B72B3453</p> <p>DIRECTOR OF HPW</p>
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EFF DATE: NOV-27-2023 | DWG NO: 01555-16

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TCP (3-1a)
UNDIVIDED MULTILANE ROADWAY



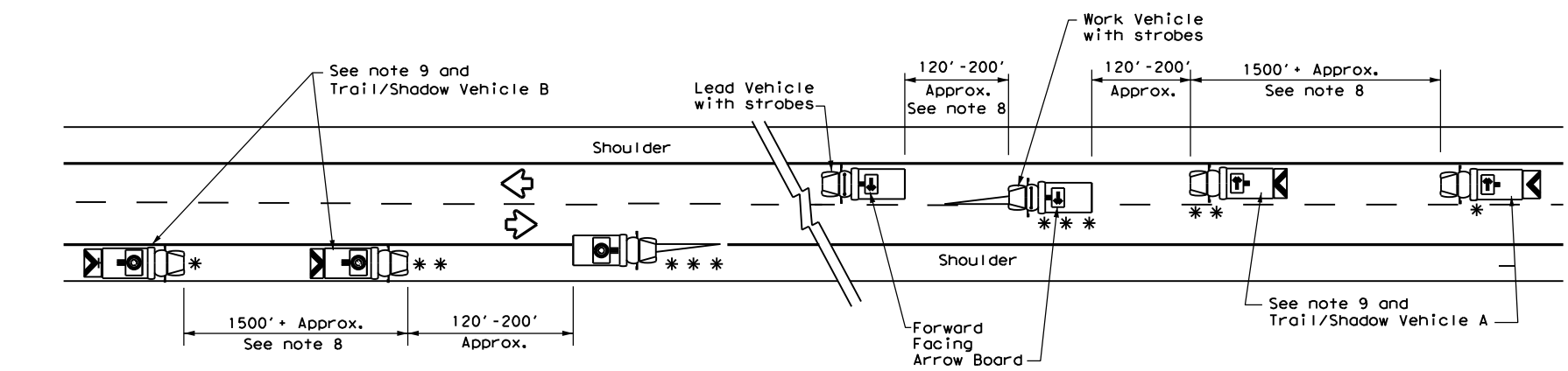
TRAIL/SHADOW VEHICLE A
with RIGHT Directional display Flashing Arrow Board

LEGEND			
*	Trail Vehicle	ARROW BOARD DISPLAY	
**	Shadow Vehicle		
***	Work Vehicle		RIGHT Directional
	Heavy Work Vehicle		LEFT Directional
	Truck Mounted Attenuator (TMA)		Double Arrow
	Traffic Flow		CAUTION (Alternating Diamond or 4 Corner Flash)

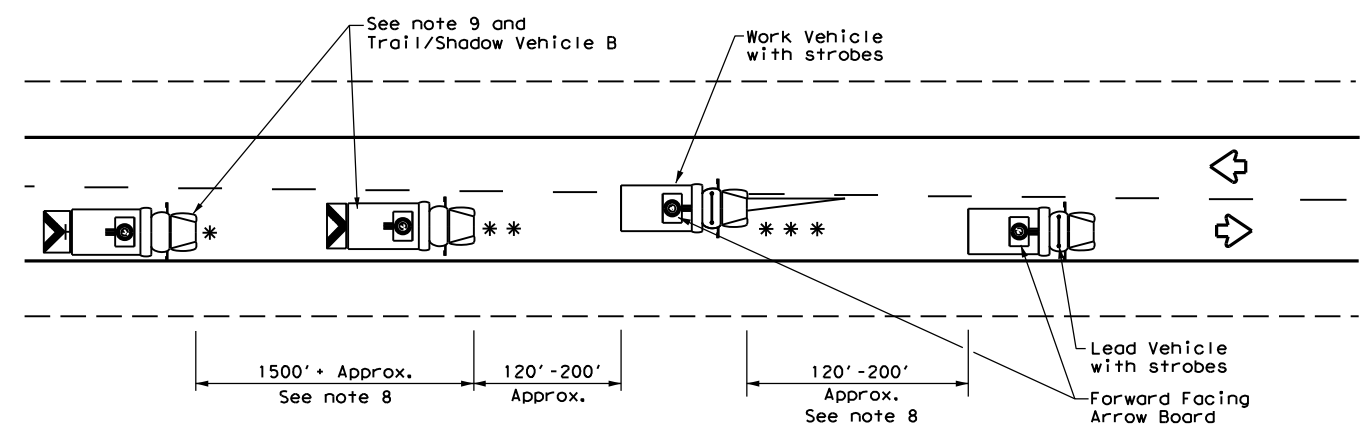
TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GENERAL NOTES

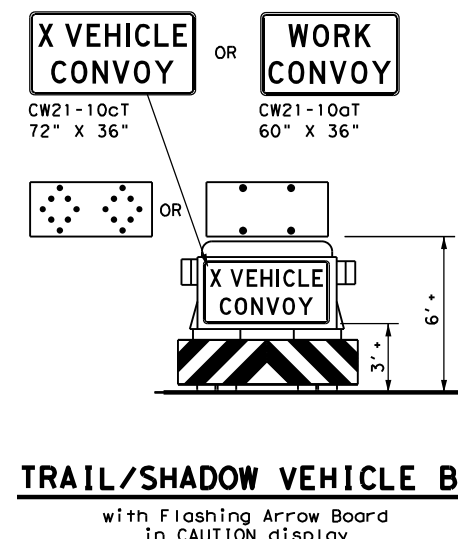
- TRAIL, SHADOW, and LEAD vehicles shall be equipped with arrow boards as illustrated. When a LEAD vehicle is not used the WORK vehicle must be equipped with an arrow board. The Engineer will determine if the LEAD VEHICLE and/or TRAIL VEHICLE are required based on prevailing roadway conditions, traffic volume, and sight distance restrictions.
- The use of amber high intensity rotating, flashing, oscillating, or strobe lights on vehicles are required. Blue high intensity rotating, flashing, oscillating or strobe lights when mounted on the driver's side of the vehicle may be operated simultaneously with the amber beacons or strobe lights.
- The use of truck mounted attenuators (TMA) on the SHADOW VEHICLE and TRAIL VEHICLE are required.
- Reflective sheeting on the rear of the TMA shall meet or exceed the reflectivity and color requirements of DEPARTMENTAL MATERIAL SPECIFICATION DMS 8300, Type A.
- Flashing arrow boards shall be Type B or Type C as per the Barricade and Construction (BC) standards. The board shall be controlled from inside the vehicle.
- Each vehicle shall have two-way radio communication capability.
- When work convoys must change lanes, the TRAIL VEHICLE should change lanes first to shadow the other convoy vehicles.
- Vehicle spacing between the TRAIL VEHICLE and the SHADOW VEHICLE will vary depending on sight distance restrictions. Motorists approaching the work convoy should be able to see the TRAIL VEHICLE in time to slow down and/or change lanes as they approach the TRAIL VEHICLE. Vehicle spacing between the WORK VEHICLE and SHADOW VEHICLE and vehicle spacing between WORK VEHICLE and LEAD VEHICLE may vary according to terrain, work activity and other factors.
- "X VEHICLE CONVOY" (CW21-10cT) or "WORK CONVOY" (CW21-10aT) signs shall be used on TRAIL VEHICLES and SHADOW VEHICLES as shown. As an option 48" X 48" diamond shaped "WORK CONVOY" (CW21-10T) or "X VEHICLE CONVOY" (CW21-10bT) signs may be used where adequate mounting space exists. When used, the X VEHICLE CONVOY sign shall have the number of the convoy vehicles displayed on the sign in the number designation "X" location. The "X VEHICLE CONVOY" sign shall not be used on the SHADOW VEHICLE if a TRAIL VEHICLE is used.
- On two-lane two-way roadways, the work and protection vehicles should pull over periodically to allow motor vehicle traffic to pass. If motorists are not allowed to pass the work convoy, a "DO NOT PASS" (R4-1) sign should be placed on the back of the rearmost protection vehicle.



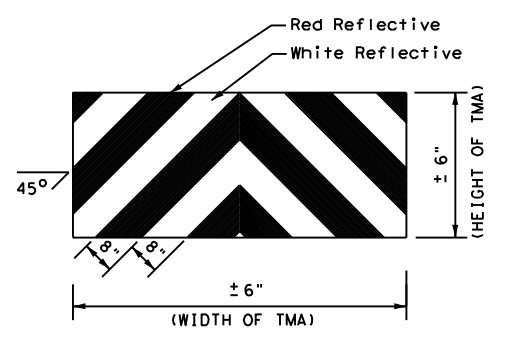
TCP (3-1b)
TWO-WAY ROADWAY WITH PAVED SHOULDERS



TCP (3-1c)
TWO-WAY ROADWAY WITHOUT PAVED SHOULDERS



TRAIL/SHADOW VEHICLE B
with Flashing Arrow Board in CAUTION display



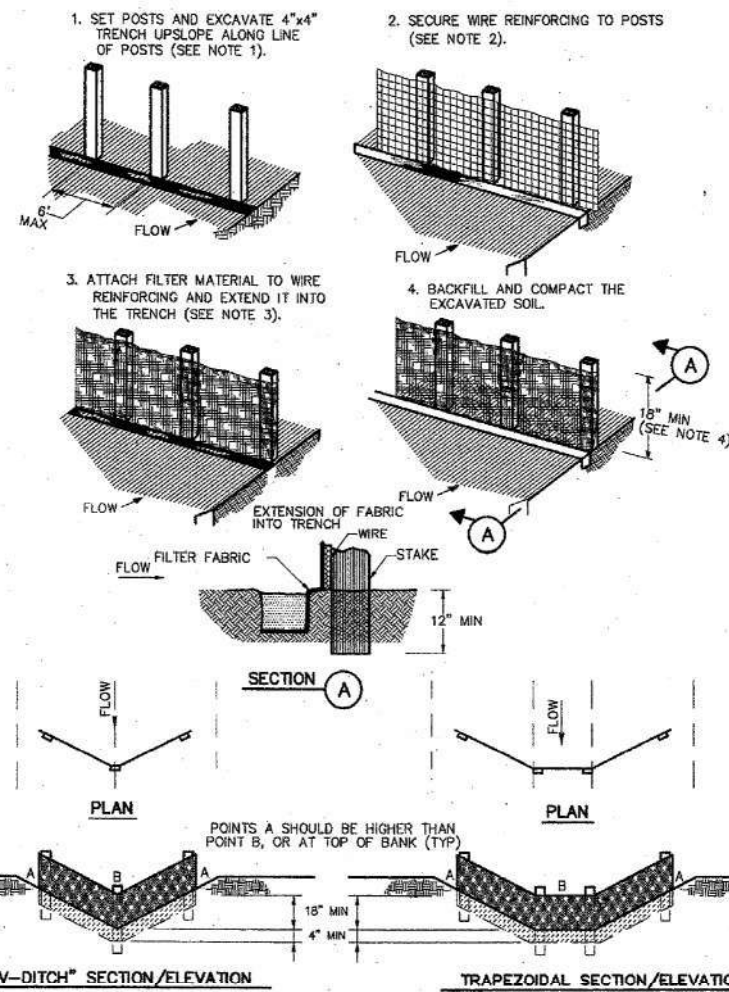
STRIPING FOR TMA

Texas Department of Transportation
 Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
MOBILE OPERATIONS
UNDIVIDED HIGHWAYS
TCP(3-1)-13

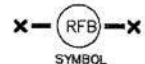
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© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS				
2-94 4-98				
8-95 7-13				
1-97				
DIST	COUNTY	SHEET NO.		144

DATE: FILE:

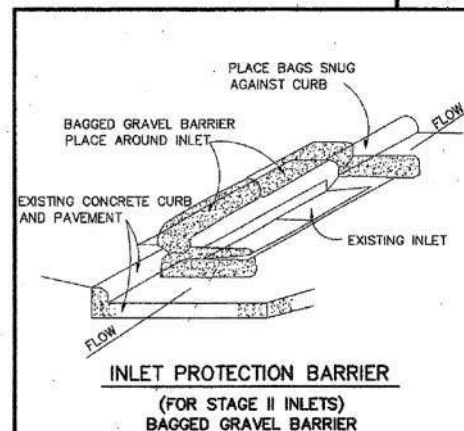


CONSTRUCTION NOTES:

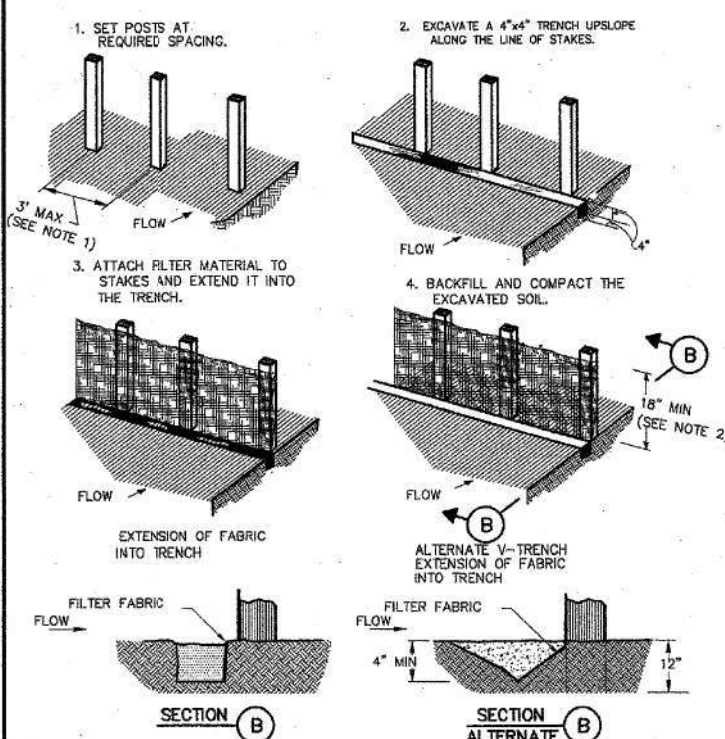
1. SET 2 INCH BY 2 INCH WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
2. WOVEN WIRE REINFORCING TO BE FASTENED SECURELY TO BARRIER POSTS WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE REINFORCING, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
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 COH STANDARD SPECIFICATION FOR FILTER FABRIC BARRIER.



REINFORCED FILTER FABRIC BARRIER

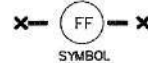


INLET PROTECTION BARRIER (FOR STAGE II INLETS) BAGGED GRAVEL BARRIER

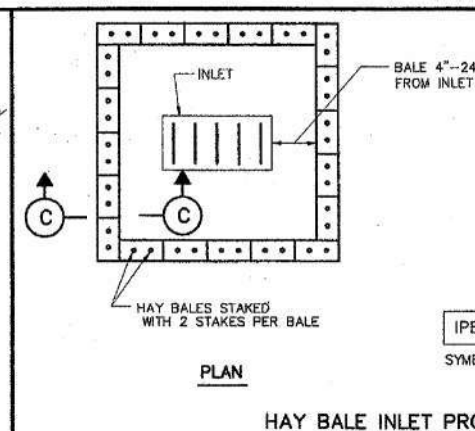


CONSTRUCTION NOTES:

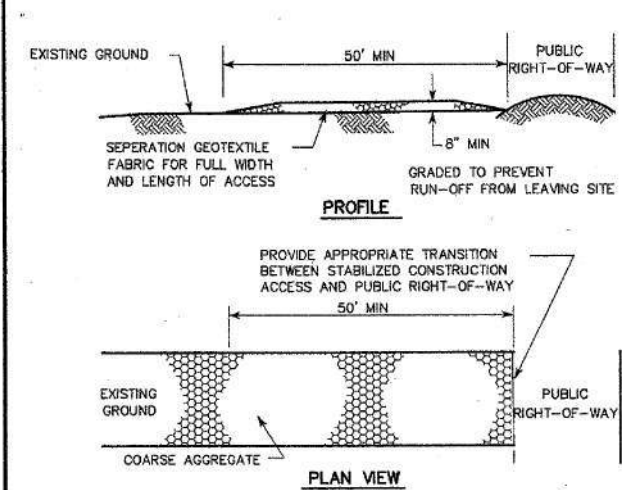
1. 2 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED BARRIER WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
2. ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC BARRIER SHALL HAVE A MIN HEIGHT OF 18 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 COH STANDARD SPECIFICATION FOR FILTER FABRIC BARRIER.



FILTER FABRIC BARRIER



HAY BALE INLET PROTECTION BARRIER

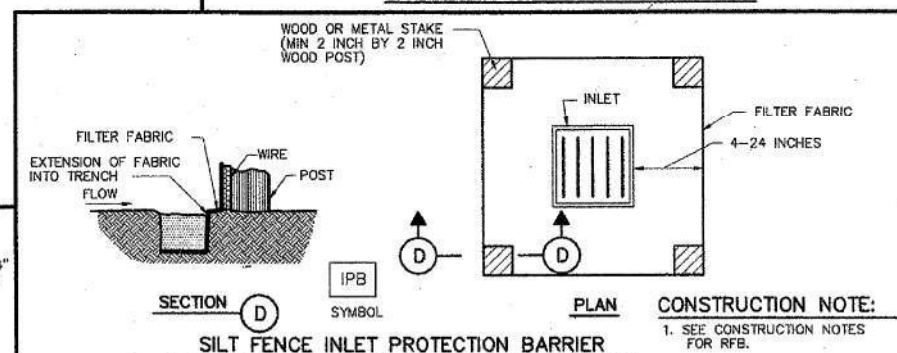


CONSTRUCTION NOTES:

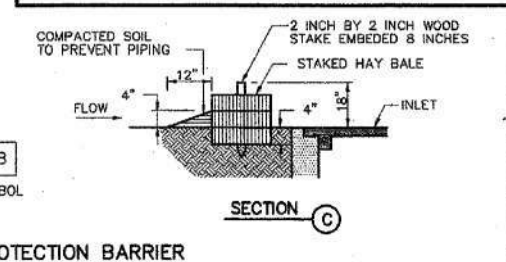
1. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. THICKNESS SHALL BE NOT LESS THAN 8 INCHES.
3. WIDTH SHALL BE NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS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



STABILIZED CONSTRUCTION ACCESS



SILT FENCE INLET PROTECTION BARRIER



CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

STORM WATER POLLUTION PREVENTION PLAN DETAILS

(NOT TO SCALE)

APPROVED: [Signature] CITY ENGINEER
[Signature] DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: JULY-01-2010 DWG NO: 01571-01

TRANSCEND ENGINEERS & PLANNERS, LLC.
TPELS FIRM REG. NO. 19299
23410 GRAND RESERVE DRIVE, SUITE 101
KATY TX 77494

1080 CLONDRA PARKWAY
SUITE #1100
HOUSTON, TEXAS 77077
713-331-9464
TSPC REG. NO. F-20817

100% SUBMITTAL

PRELIMINARY

Document Incomplete: not intended for permit, bidding or construction.
Engineer: KYLE KASPER-LEWIS
P.E. Serial No. 155889
Date: 2/20/26

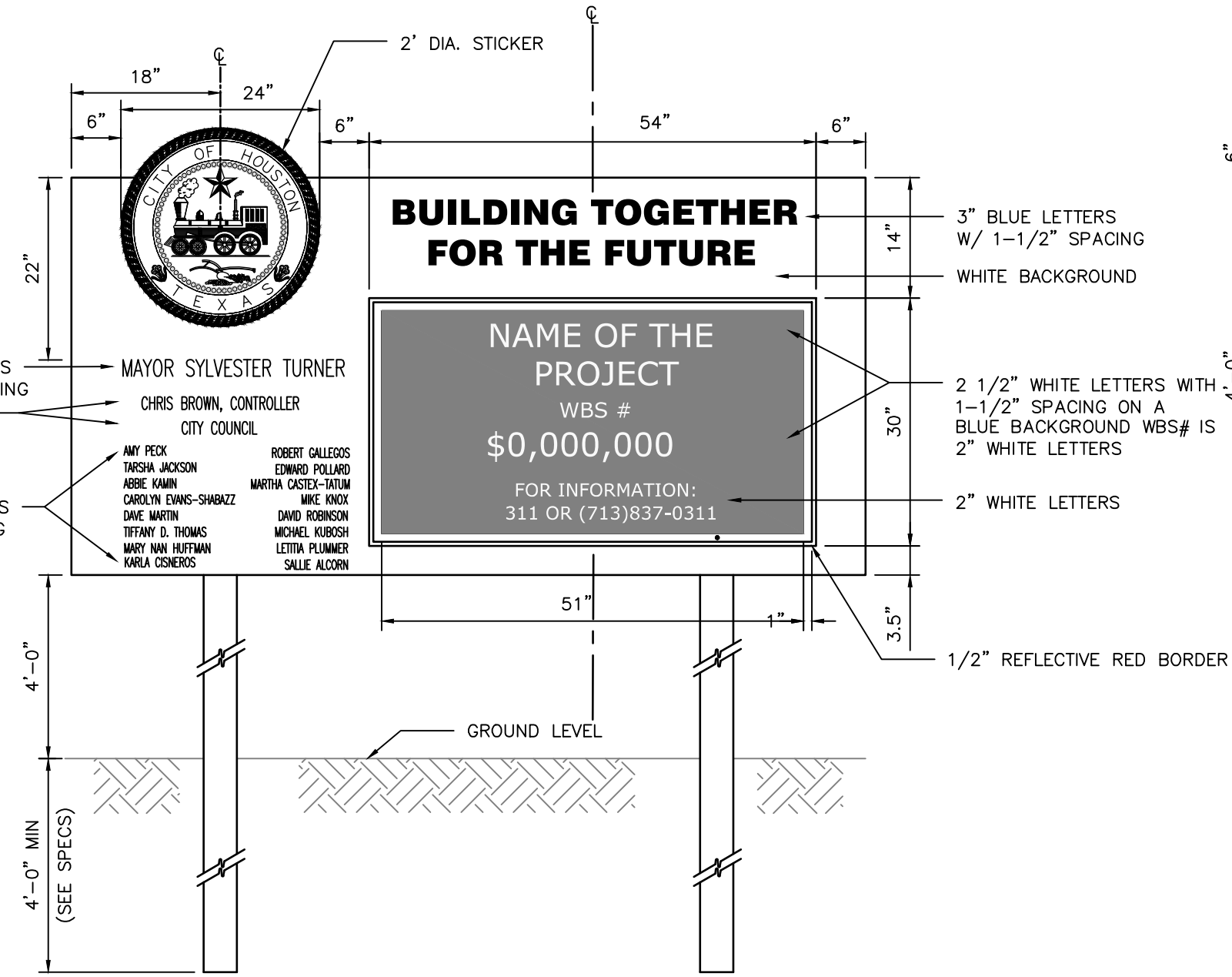
SURVEYED BY:
FB NO. 000000

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

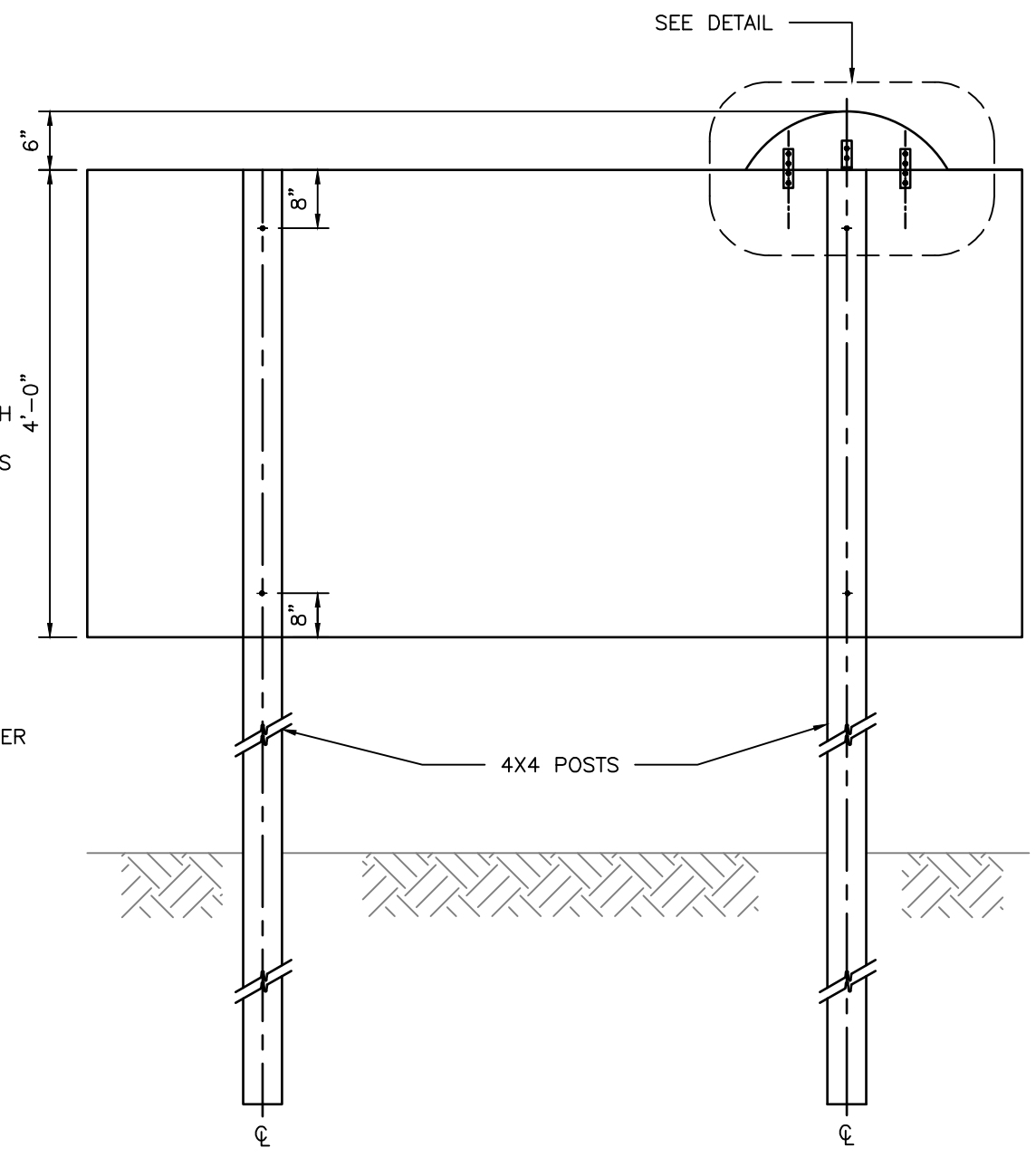
TELEPHONE RD. - MAIN ST.
REVITALIZATION PROJECT
SEGMENT 1: LAWDALE to IH 45
STORM WATER POLLUTION PREVENTION PLAN
(SHT. 01 OF 01)

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
N-100042-0001-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
ANNA CLIFTON, P.E.	
SHEET NO. 145	

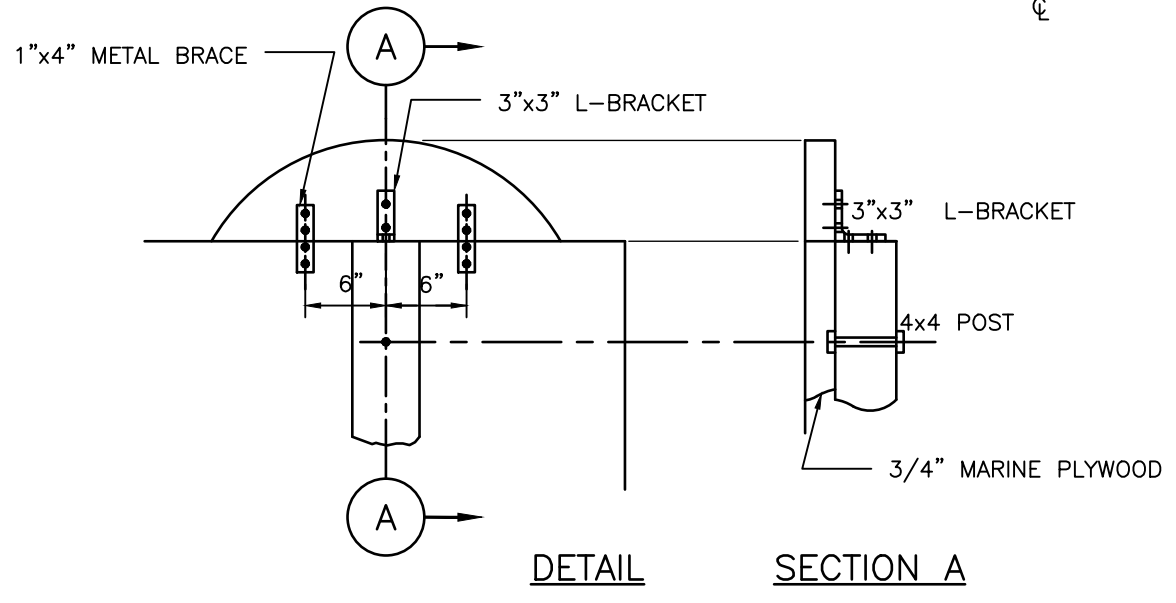
DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



FRONT VIEW



BACK VIEW



DETAIL

SECTION A

TRANSCEND
engineers + planners
Transcend Engineers & Planners, LLC
TPEE Reg. No. F-19299
23410 Grand Reserve Dr. Suite 101
Houston, Texas 77494

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
CONSTRUCTION SIGN	
(SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: CITY ENGINEER	DocuSigned by: DIRECTOR OF HPW
EFF DATE: NOV-27-2023	DWG NO: 01580-01