CITY OF HOUSTON

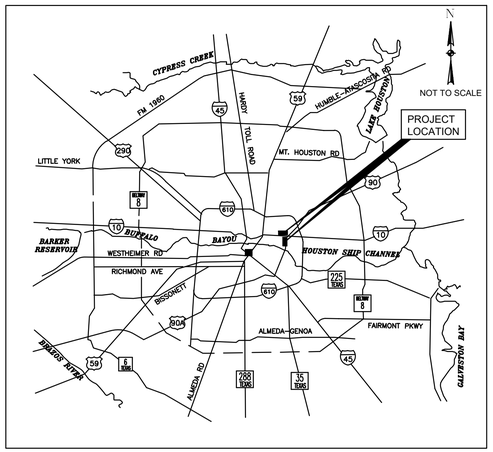
HOUSTON PUBLIC WORKS

CAPITAL PROJECTS

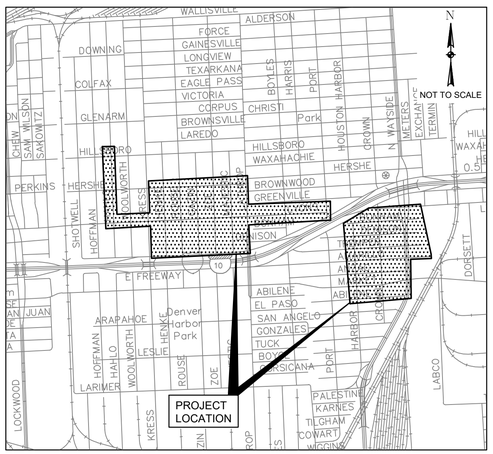
CRMP PACKAGE 9 - AREAS 8 AND 11 - BASIN IB032 AND IB022

90% SUBMITTAL

WBS NO. R-001000-0034-3



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE
KEY MAP NO 494H & 495E
GIMS MAP NO ### X
COUNCIL DISTRICT - H

TDLR EABPR _____

MAYOR
JOHN WHITMIRE

CONTROLLER
CHRIS HOLLINS

DISTRICT COUNCIL MEMBERS

AMY PECK, DISTRICT A
TARSHA JACKSON, DISTRICT B
JOE PANZARELLA, 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
ALEJANDRA SALINAS, POSITION 4
SALLIE ALCORN, POSITION 5

NO.	DATE	REVISION	APP.

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Houston, Texas 77042
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC
FB NO. ######

PARKS–FORESTRY DEPT.

METRO

HOUSTON WATER

TRANSPORTATION & DRAINAGE OPERATIONS

CAPITAL PROJECTS

SURVEY

CITY ENGINEER DATE

DIRECTOR OF HOUSTON PUBLIC WORKS DATE

FOR CITY OF HOUSTON USE ONLY

SHEET NO 1 OF 339 SHEETS

PLOT STYLE: 102–2501 CRMP NSSI.ctb PLOTTED: 10/28/2026 10:25 AM
FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.2 General\01 COVER SHEET.dwg

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NO.	DATE	REVISION	APP.

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SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SHEET INDEX

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 2 OF 339	

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- WATER METER
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- WATER VALVE (BUTTERFLY)
- FIRE HYDRANT/FLUSHING VALVE
- TAPPING SLEEVE & VALVE
- REDUCER
- ROUND CONNECTION
- SANITARY SEWER CLEANOUT & MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER INLETS
- CULVERT PIPE AND HEADWALL
- TOP OF CURB ELEVATION (TC=XX.XX)
- GUTTER ELEVATION (G=XX.XX)
- TOP OF PAVEMENT ELEVATION (TP=XX.XX)
- CONTOUR LINE (XX.X')
- ROW LINE
- PROPERTY LINE
- LOT LINES
- EASEMENT LINE
- CENTER LINE OF ROW
- TRANSIT LINE
- EDGE OF DITCHES
- CENTER LINE OF DITCHES
- EDGE OF DITCHES
- FENCE LINE, WOOD
- FENCE LINE, CHAIN LINK
- FENCE LINE, BARBED WIRE
- FENCE LINE, HOG WIRE
- EDGE OF CONCRETE
- CURB LINE
- CONCRETE WALK
- EDGE OF ASPHALT
- EDGE OF SHELL OR GRAVEL
- DIMENSION LINE
- AERIAL POWER LINE
- UNDERGROUND POWER LINE
- GAS LINE
- UNKNOWN UNDERGROUND LINE
- OIL PIPELINE
- UNDERGROUND TELECOMM LINE W/VAULT
- AERIAL TELECOMM LINE
- RAILROAD LINE
- WATER LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- SANITARY SEWER FORCE MAIN
- RECLAIMED WATER LINE
- NON–POTABLE WATER LINE
- GAS METER
- GAS VALVE
- PROPANE LINE
- STEAM LINE
- MISC UNDERGROUND PIPELINE LABLE

PROPOSED PLAN VIEW

- WATER METER
- WATER VALVE (GATE)
- WATER VALVE (BUTTERFLY)
- FIRE HYDRANT/FLUSHING VALVE
- TAPPING SLEEVE & VALVE
- REDUCER
- ROUND CONNECTION
- SANITARY SEWER CLEANOUT & MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER INLETS
- CULVERT PIPE AND HEADWALL
- TOP OF CURB ELEVATION (TC=XX.XX)
- GUTTER ELEVATION (G=XX.XX)
- TOP OF PAVEMENT ELEVATION (TP=XX.XX)
- CONTOUR LINE (XX.X')
- ROW LINE
- PROPERTY LINE
- LOT LINES
- EASEMENT LINE
- CENTER LINE OF ROW
- TRANSIT LINE
- EDGE OF DITCHES
- CENTER LINE OF DITCHES
- EDGE OF DITCHES
- FENCE LINE, WOOD
- FENCE LINE, CHAIN LINK
- FENCE LINE, BARBED WIRE
- FENCE LINE, HOG WIRE
- EDGE OF CONCRETE
- CURB LINE
- CONCRETE WALK
- EDGE OF ASPHALT
- EDGE OF SHELL OR GRAVEL
- DIMENSION LINE
- AERIAL POWER LINE
- UNDERGROUND POWER LINE
- GAS LINE
- UNKNOWN UNDERGROUND LINE
- OIL PIPELINE
- UNDERGROUND TELCOMM LINE W/ VAULT
- AERIAL TELECOMM LINE
- RAILROAD LINE
- WATER LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- SANITARY SEWER FORCE MAIN
- RECLAIMED WATER LINE
- NON–POTABLE WATER LINE
- GAS METER
- GAS VALVE
- PROPANE LINE
- STEAM LINE
- MISC UNDERGROUND PIPELINE LABLE
- MATCH LINE

EXISTING PLAN VIEW

- PAVING HEADER
- BUILDING, RESIDENTIAL (RES. 1–STORY BR. BLDG.)
- BUILDING, COMMERCIAL (COMM. 1–STORY BR. BLDG.)
- TREE
- HEDGE
- IRON PIPE OR IRON ROD MONUMENT (3/4" IP)
- POINT OF INTERSECTION (PI)
- POINT OF CURVE (PC)
- POINT OF TANGENCY (PT)
- POWER POLE
- POWER POLE W/DOWN GUY

EXISTING PROFILE VIEW

- NORTH OR EAST PROPERTY LINE
- SOUTH OR WEST PROPERTY LINE
- NORTH OR EAST CURB
- SOUTH OR WEST CURB
- NORTH OR EAST DITCH
- SOUTH OR WEST DITCH
- NORTH OR EAST NATURAL GROUND
- SOUTH OR WEST NATURAL GROUND
- NORTH OR EAST CULVERT
- SOUTH OR WEST CULVERT
- CENTERLINE OF ROW
- CENTERPOINT ENERGY CONDUIT
- GAS LINE
- WESTERN UNION
- AT&T CONDUIT
- WATER LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- SANITARY SEWER FORCE MAIN
- RECLAIMED WATER LINE
- NON–POTABLE WATER LINE
- CENTERPOINT ENERGY MANHOLE
- AT&T MANHOLE
- WATER LINE MANHOLE
- SANITARY SEWER MANHOLE & CLEANOUT
- STORM SEWER MANHOLE
- STORM SEWER INLET

PROPOSED PLAN VIEW

- PAVING HEADER
- BUILDING, RESIDENTIAL (RES. 1–STORY BR. BLDG.)
- BUILDING, COMMERCIAL (COMM. 1–STORY BR. BLDG.)
- TREE
- HEDGE
- IRON PIPE OR IRON ROD MONUMENT (3/4" IP)
- POINT OF INTERSECTION (PI)
- POINT OF CURVE (PC)
- POINT OF TANGENCY (PT)
- POWER POLE
- POWER POLE W/DOWN GUY

PROPOSED PROFILE VIEW

- NORTH OR EAST PROPERTY LINE
- SOUTH OR WEST PROPERTY LINE
- NORTH OR EAST CURB
- SOUTH OR WEST CURB
- NORTH OR EAST DITCH
- SOUTH OR WEST DITCH
- NORTH OR EAST NATURAL GROUND
- SOUTH OR WEST NATURAL GROUND
- NORTH OR EAST CULVERT
- SOUTH OR WEST CULVERT
- CENTERLINE OF ROW
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- AT&T MANHOLE
- WATER LINE MANHOLE
- SANITARY SEWER MANHOLE & CLEANOUT
- STORM SEWER MANHOLE
- STORM SEWER INLET

MISC STANDARD ELEMENTS

- COH NORTH ARROW
- COH BAR SCALE (0' 10' 20' 40'; SCALE: 1"=20')
- REVISION CLOUD/DELTA
- DETAIL/SECTION TITLE (1 VIEW TITLE; SCALE: 1:1)
- SECTION CALLOUT (1 / XX)
- DETAIL CALLOUT (1 / XX)

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
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SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SYMBOLS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 3 OF 339	

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ABBREVIATIONS:

&	AND
@	AT
AB	ALL BELL
AC	ACRE / ASBESTOS CEMENT
AI/VR	AIR INLET / VACUUM RELIEF
APPROX	APPROXIMATELY
ASPH	ASPHALT
AVE	AVENUE
℄	BASELINE
B/B	BACK TO BACK
BC	BACK OF CURB
BFV	BUTTERFLY VALVE
BL	BUILDING LINE
BLDG	BUILDING
BLVD	BOULEVARD
℄	CENTER LINE
C/C	CENTER TO CENTER
CGMP	CORRUGATED GALVANIZED METAL PIPE
CMP	CORRUGATED METAL PIPE
CIP	CAST IRON PIPE
CLR	CLEARANCE
CO	CLEAN OUT
COH	CITY OF HOUSTON
CONC	CONCRETE
CONSTR	CONSTRUCTION
CPEE	CENTERPOINT ENERGY ELECTRIC
CPEG	CENTERPOINT ENERGY GAS
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DR	DRIVE
DWG	DRAWING
DWY	DRIVEWAY
E	EAST
EL	ELEVATION
EP	EDGE OF PAVEMENT
E/R	END OF RADIUS
ESMT	EASEMENT
EXST	EXISTING
FC	FACE OF CURB
F/F	FACE TO FACE
FH	FIRE HYDRANT
℄	FLOW LINE
FM	FORCE MAIN
FT	FEET
GPS	GLOBAL POSITIONING SYSTEM
GV	GATE VALVE
GV&B	GATE VALVE AND BOX
HCFCD	HARRIS COUNTY FLOOD CONTROL DISTRICT
HDPE	HIGH-DENSITY POLYETHYLENE
HGL	HYDRAULIC GRADE LINE
HP	HIGH PRESSURE
INV EL	INVERT ELEVATION
IP	INTERMEDIATE PRESSURE
IR	IRON ROD

ABBREVIATIONS:

J-BOX	JUNCTION BOX
JT	JOINT
JUNCT	JUNCTION
LF	LINEAR FEET
LN	LANE
LPT	LOW POINT
LT	LEFT
LS	LIFT STATION
MAX	MAXIMUM
METRO	METROPOLITAN TRANSIT AUTHORITY
MH	MANHOLE
MIN	MINIMUM
MON	MONUMENT
N	NORTH
NA	NOT APPLICABLE
NAVD	NORTH AMERICAN VERTICAL DATUM
NG	NATURAL GROUND
NO	NUMBER
NTS	NOT TO SCALE
OCC	ZERO CURB CUT
OS	OFFSET
OH	OVERHEAD
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVATURE
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PERM	PERMANENT
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PNT	POINT
PPCA	POTENTIALLY PETROLEUM CONTAMINATED AREA
PRC	POINT OF REVERSE
PROP	PROPOSED
PSI	POUND PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE PIPE / POINT OF VERTICAL CURVATURE
PVMT	PAVEMENT
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY

ABBREVIATIONS:

	RECORD DRAWING
R	RADIUS
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REINF	REINFORCED
REM	REMOVABLE
RJ	RESTRAINED JOINT
ROW	RIGHT OF WAY
RR	RAILROAD
RRPM	REFLECTIVE REMOVABLE PAVEMENT MARKERS
RT	RIGHT
S	SOUTH
SAN	SANITARY
SCHED	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SSE	SANITARY SEWER EASEMENT
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STM	STORM
SWBT	SOUTHWESTERN BELL TELEPHONE
SWR	SEWER
SY	SQUARE YARD
TAN	TANGENT
TBM	TEMPORARY BENCHMARK
TEMP	TEMPORARY
TOB	TOP OF BANK
TOC	TOP OF CURB
TOP	TOP OF PAVEMENT
TOS	TOP OF STACK
TS&V	TAPPING SLEEVE AND VALVE
TXDOT	TEXAS DEPARTMENT OF TRANSPORTATION
TYP	TYPICAL
UE	UTILITY EASEMENT
UGND	UNDERGROUND
VC	VERTICAL CURVE
VPI	VERTICAL POINT OF INTERSECTION
W	WEST
W/	WITH
WL	WATER LINE
WLE	WATER LINE EASEMENT
WM	WATER METER
WP	WOOD POLE
WSEL	WATER SURFACE ELEVATION
WV	WATER VALVE
WWTP	WASTE WATER TREATMENT PLANT

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

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GENERAL CONSTRUCTION NOTES:

1. 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.

2. THE DESIGN MUST BE CONSISTENT WITH THE EFFECTIVE EDITION OF HOUSTON PUBLIC WORKS INFRASTRUCTURE DESIGN MANUAL AND TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) REQUIREMENTS.

3. 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].

4. 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.

5. 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.

6. 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.

7. 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.

8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.

9. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.

10. 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.

11. CONTRACTOR TO FIELD SURVEY EXISTING SERVICE LEADS AND CONNECT TO PROPOSED SANITARY SEWER.

STORM SEWER CONSTRUCTION NOTES:

1. 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 OTHERWISW SHOWN ON THE DRAWINGS.

2. ALL STORM SEWER CONSTRUCTED IN SIDELOT 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.

3. 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. STABLIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE. THE REMAINING DEPTH OF TRENCH SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.

4. 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).

5. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINT CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.

6. ALL STORM SEWER PIPES AND INLET LEADS SHALL BE 24" AND LARGER R.C.P. (C-76, CLASSIII).

7. ALL PRPOSED PIPE STUB-OUTS FROM MANHOLES AND INLET LEADS ARE TO BE PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.

8. 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.

9. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF SECTION 02086-ADJUSTING MANHOLES, INLETS, AND VALAVE BOXES TO GRADE.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF THIS WORK.

11. 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.

12. ALL DRIVEWAYS WILL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES.

SANITARY SEWERS CONSTRUCTION NOTES:

1. ALL SEWERS SHALL BE SUBJECT TO A STANDARD EXFILTRATION TEST. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE, TITLE 30 CHAPTER 217, "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS" SHALL GOVERN WHERE CONFLICTS EXIST EXCEPT WHERE CITY REQUIREMENTS ARE MORE STRINGENT.

2. ALL MANHOLES ARE TO BE PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02082-01, 02082-02, 02082N-02, 02082-03, AND 02082N-03 UNLESS OTHERWISE NOTED. USE THE LATEST VERSION AS APPLICABLE.

3. SANITARY SEWER MANHOLES WILL HAVE BEDDING AND BACKFILL PER CITY OF HOUSTON STANDARD DETAILS DRAWING NO. 02317-08 UNLESS OTHERWISE NOTED.

4. THE SANITARY SEWER PVC PIPE SHALL BE ASTM D 3034 TYPE PSM SDR 26 GRAVITY SEWER PIPE, ASTM D2241 SDR 26 PRESSURE RATED SEWER PIPE OR AWWA C-900 DR-18 GREEN PVC PRESSURE RATED SEWER PIPE BASED ON CONSTRUCTION CONDITION REQUIREMENT AND CONFORMING TO ASTM D1784 AND CITY OF HOUSTON STANDARD SPECIFICATION SECTION 02506 POLYVINYL CHLORIDE PIPE.

5. WHEN SS PRESSURE RATED PVC PIPE IS USED ON WATERLINE (WL) CROSSING UNDER CONDITION 1 OF COH IDM TABLE 7.3, THE SAME TYPE OF D2241 SDR 26 PVC PIPE OR C-900 GREEN DR-18 PVC GREEN PRESSURED TO BE UTILIZING IN-BETWEEN TWO SS MH'S. OR TO UTILIZE A DI TRANSITION ADAPTER FOR THE CONNECTING OF ASTM D-3034 PVC GRAVITY PIPE TO DI-OD AWWA C-900 PVC PIPE CENTERED AT WL WHEN CONNECTING TWO DIFFERENT TYPES OF PVC PIPES FOR SEWER CONSTRUCTION.

6. AWWA C-900 DR-18 PVC PIPE USES EITHER AWWA C900 DR-18 PVC FITTINGS OR DIP FITTINGS.

7. ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL HAVE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02317-01, 02317-02, OR 02317-03 AS APPLICABLE, WITH 1 ½ SACK CEMENT/CY STABILIZED SAND BACKFILL UP TO THE BOTTOM OF THE PAVEMENT SUBGRADE. 100 PSI PERFORMANCE RESULTS ARE STILL REQUIRED.

8. ALL NEW SANITARY SEWERS CROSSING WATER LINES WITH A CLEARANCE BETWEEN 12 INCHES AND 9 FEET SHALL HAVE A MINIMUM OF ONE 18' JOINT OF DUCTILE IRON OR (GREEN) C900 PVC PIPE MEETING ASTM SPECIFICATION D2241 CENTERED ON WATER LINE. WHEN WATER LINE IS BELOW SANITARY SEWER, PROVIDE MINIMUM 2 FOOT SEPARATION.

9. CONTRACTOR SHALL PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 9' FEET BETWEEN WATER LINES AND SANITARY SEWER MANHOLES AND LINES.

10. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" – 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER TO DRAIN AWAY FROM MANHOLE RIM.

11. IN WET STABLE TRENCH AREAS USE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBER 02317-02.

12. DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID SEWER PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5% IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED AS PER 30 TAC 217.57 LATEST AMENDMENT AND WITHOUT MECHANICAL PULLING DEVICES. NO BALL-TYPE MANDREL IS ALLOWED.

13. INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR TEST: EITHER OF THE FOLLOWING TESTS SHALL BE PERFORMED AS PER TAC, TITLE 30 217.57 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS.

   A. INFILTRATION OR EXFILTRATION TEST: TOTAL LEAKAGE AS DETERMINED BY A HYDROSTATIC HEAD TEST SHALL NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO (2) FEET.

   B. LOW-PRESSURE AIR TEST: PERFORM TEST ACCORDING TO UNI-B-6-90 OR OTHER APPROPRIATE PROCEDURES. FOR SECTIONS OF PIPE LESS THAN 36" (INCH) AVERAGE INSIDE DIAMETER, THE MINIMUM ALLOWABLE TIME FOR PRESSURE DROP FROM 3.5 P.S.I.G. TO 2.5 P.S.I.G. SHALL BE AS FOLLOWS:

      6" 340 SECONDS OR 0.855(L) FOR TEST LENGTHS GREATER THAN 398'
      8" 454 SECONDS OR 1.520(L) FOR TEST LENGTHS GREATER THAN 298'
      10" 567 SECONDS OR 2.374(L) FOR TEST LENGTHS GREATER THAN 239'
      12" 680 SECONDS OR 3.419(L) FOR TEST LENGTHS GREATER THAN 199'
      15" 850 SECONDS OR 5.342(L) FOR TEST LENGTHS GREATER THAN 159'
      18" 1020 SECONDS OR 7.693(L) FOR TEST LENGTHS GREATER THAN 133'

      WHERE L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET.

14. "SAN. S. E." INDICATES "SANITARY SEWER EASEMENT"

15. FOR SANITARY MANHOLE (MH) RIMS SET INSIDE OF OR @ CURB & GUTTER PAVEMENT AND/OR BELOW T.C., MH RIMS WILL BE SET FLUSHED WITH AN ABUTTING PAVED SURFACE. THE (VALCUN, NEENAH OR EQUAL) HEAVY DUTY BOLTED SOLID MH COVER SHALL BE PROPERLY (AND SECURELY) ATTACHED AND SEALED TO ITS COMPATIBLE GASKETED FRAME BY USING BOTH A NEOPRENE GASKET AND (AT LEAST) 4 COUNTER-SUNK HEX-HEAD COARSE THREADED ½"-13 UNC STAINLESS STEEL BOLTS. THE HEAVY DUTY FRAME MH COVER SHALL BE SOLID (NO AIR HOLES). SAID FRAME SHALL BE BOTH EMBEDDED INTO THE MH'S TOP ALSO SECURELY ANCHORED TO THE UNDERLYING MH STRUCTURE WITH EITHER SECURELY ATTACHED EMBEDDED ANCHOR BOLTS OR THE CONCRETE MH'S EXPOSED REBARS WELDED TO THE FRAME OR OTHER EQUALLY SECURED METHODS TO PREVENT MH COVER/FRAME BLOW-OFFS/EJECTIONS.

SWPPP CONSTRUCTION NOTES:

1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER ALONG ROAD AND SIDE DITCHES AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPP) PLANS TO KEEP SILT AND OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM.

2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATION MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.

3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK TRACKED FORM THE EXCAVATED AREA.

4. CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.

5. CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.

   - DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
   - AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
   - STRUCTURAL CONTROL MEASURES.
   - LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

6. CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.

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.

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

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

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

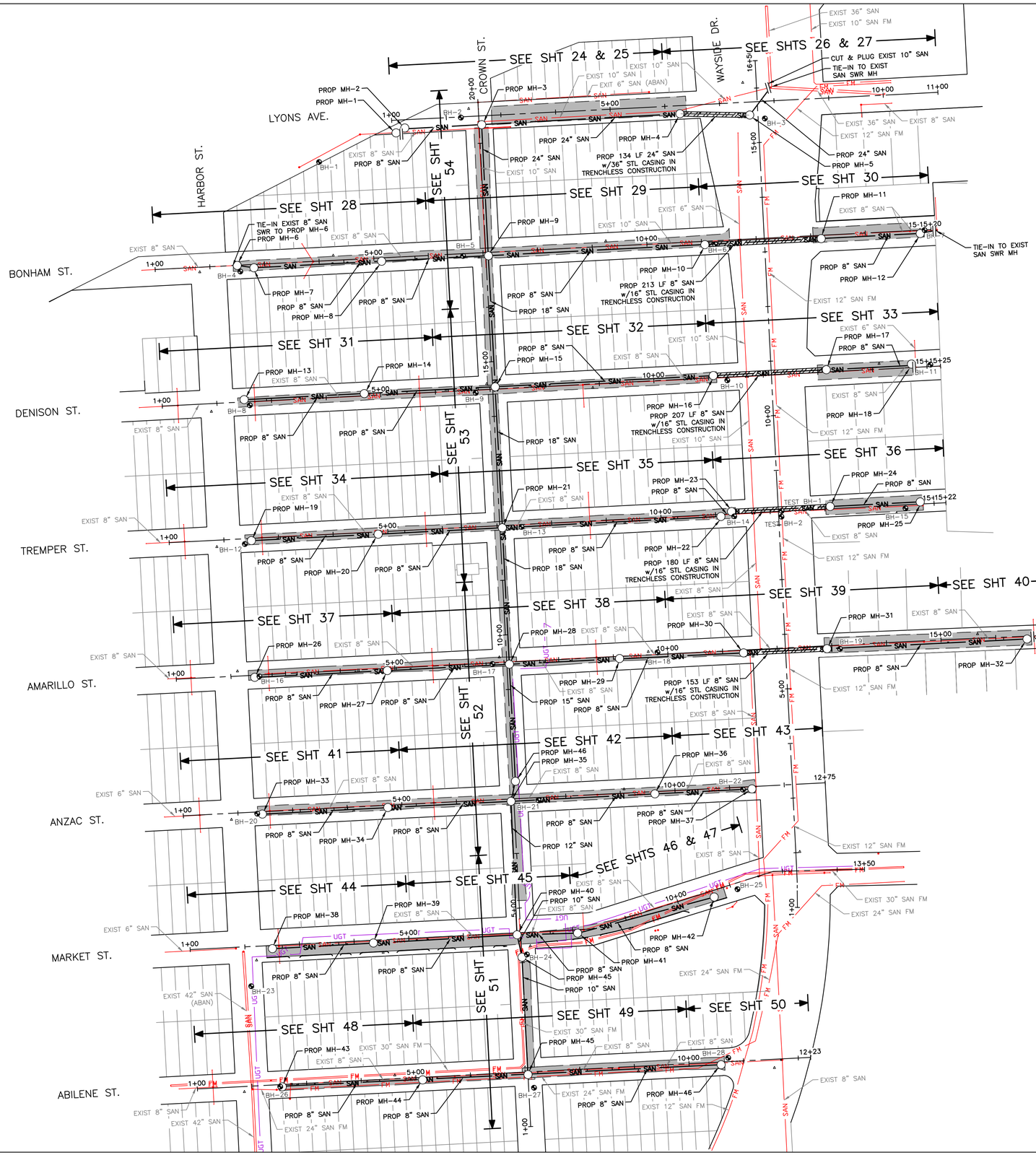
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

GENERAL CONSTRUCTION NOTES

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 5 OF 339	

PLOTTED: 10/28/2026 10:40 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.2 General\05 GENERAL NOTES.dwg



N

0' 50' 100' 200'

SCALE: 1"=100'

BENCHMARK

COH MON 5558-1203

LEGEND

- PROP MANHOLE w/NUMBER
- PROP SAN w/STL CASING IN TRENCHLESS CONSTRUCTION
- CUT & PLUG
- BOREHOLE w/NUMBER
- AREA OF PVMT CONSTRUCTION

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
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Houston, Texas 77042
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SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 OVERALL LAYOUT SANITARY AND PAVEMENT

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 6 OF 339	

PLOTTED: 10/28/2026 10:27 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.2 General\06 AREA 8 OVERALL LAYOUT.dwg



N

0' 50' 100' 200'

SCALE: 1"=100'

NO.	DATE	REVISION	APP.

BENCHMARK

COH MON 5558-1203

LEGEND

- FH PROP FH ASSEMBLY
- WV PROP WATER VALVE
- PROP CUT & PLUG
- PROP WATER w/STL CASING IN TUNNEL

CIVITAS ENGINEERING GROUP

Engineers ● Planners ● Construction Managers

2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

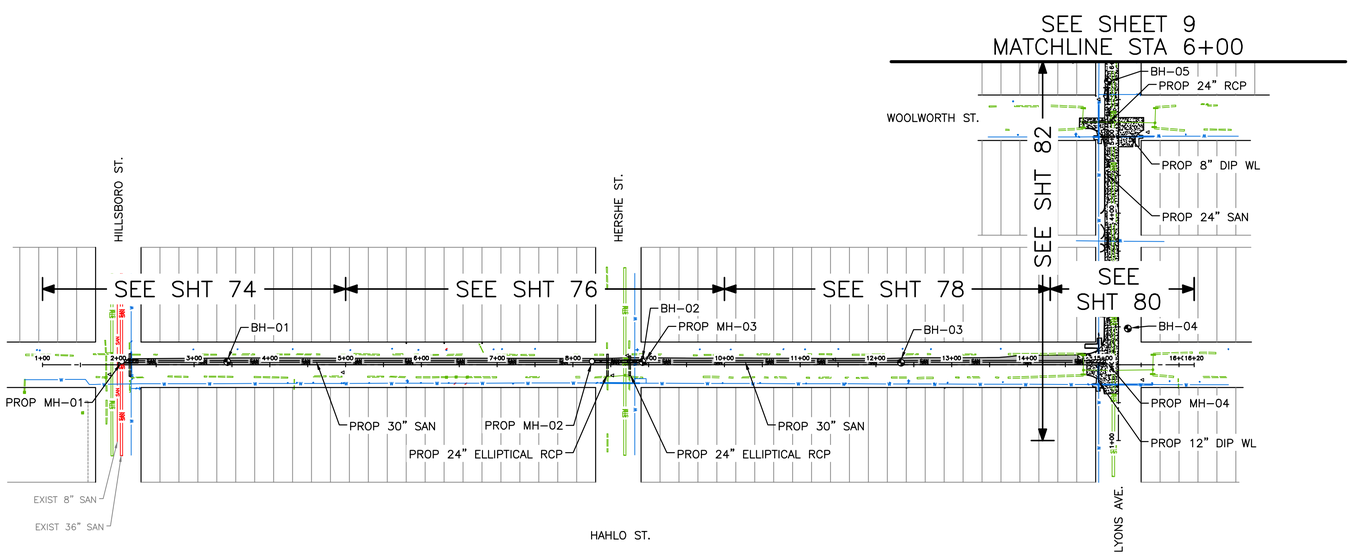
AREA 8 OVERALL LAYOUT WATER

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 7 OF 339	

PLOTTED: 10/28/2026 10:27 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.2 General\06 AREA 8 OVERALL LAYOUT.dwg



N

0' 75' 100' 200'

SCALE: 1"=100'

NO.	DATE	REVISION	APP.

LEGEND

- PROP MANHOLE w/NUMBER
- PROP SAN ENCASED IN STEEL PIPE
- PROP CUT&PLUG
- PROP ASPHALT PAVEMENT
- PROP CONCRETE PAVEMENT
- BOREHOLE w/NUMBER

CIVITAS ENGINEERING GROUP
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FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

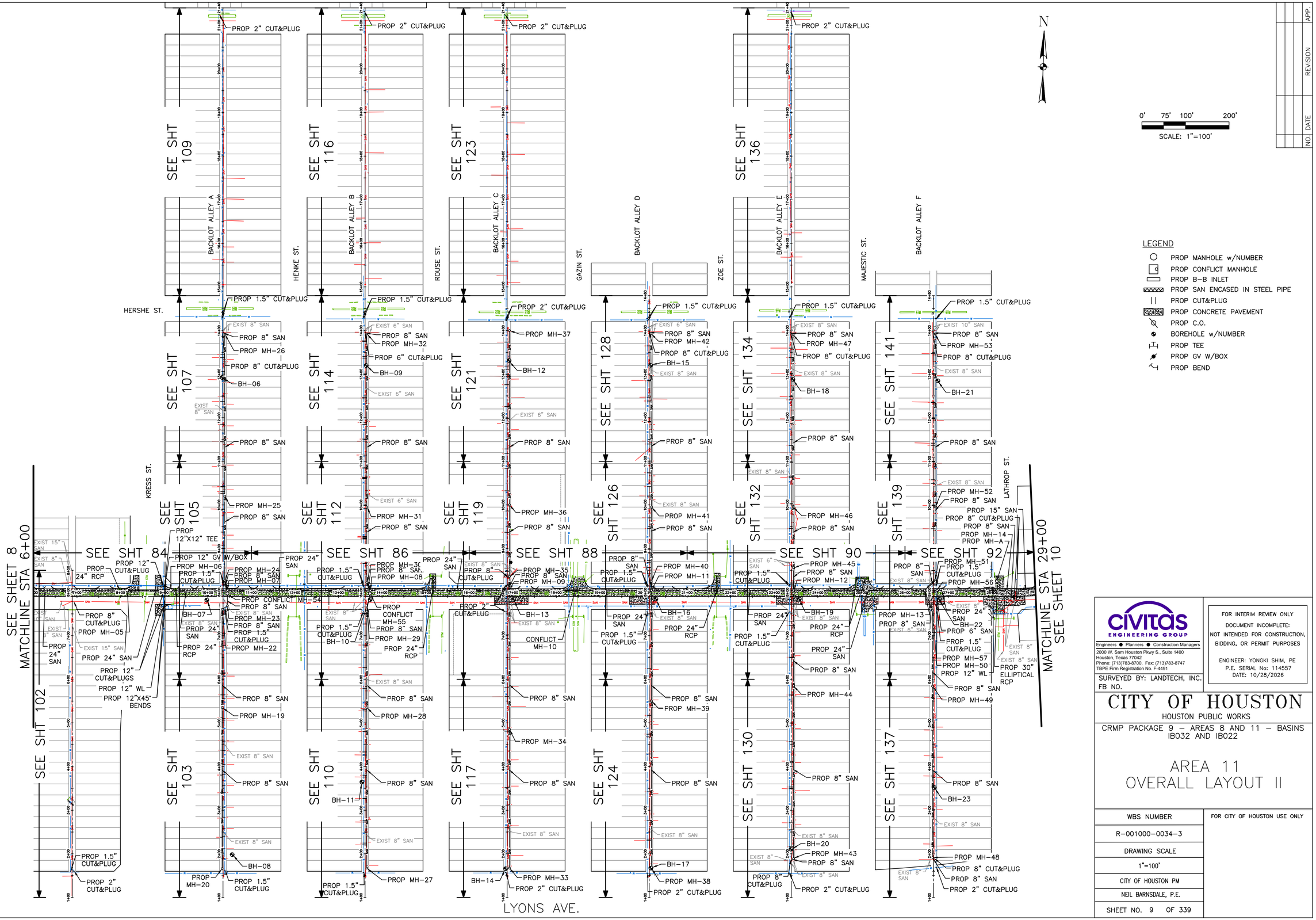
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11
OVERALL LAYOUT I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 8 OF 339	

PLOTTED: 10/28/2026 10:26 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.2 General\07-08 AREA 11 OVERALL LAYOUT I&II.dwg



NO.	DATE	REVISION	APP.

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PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.2 General\07-08 AREA 11 OVERALL LAYOUT II&III.dwg

CIVITAS ENGINEERING GROUP
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SURVEYED BY: LANDTECH, INC.
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

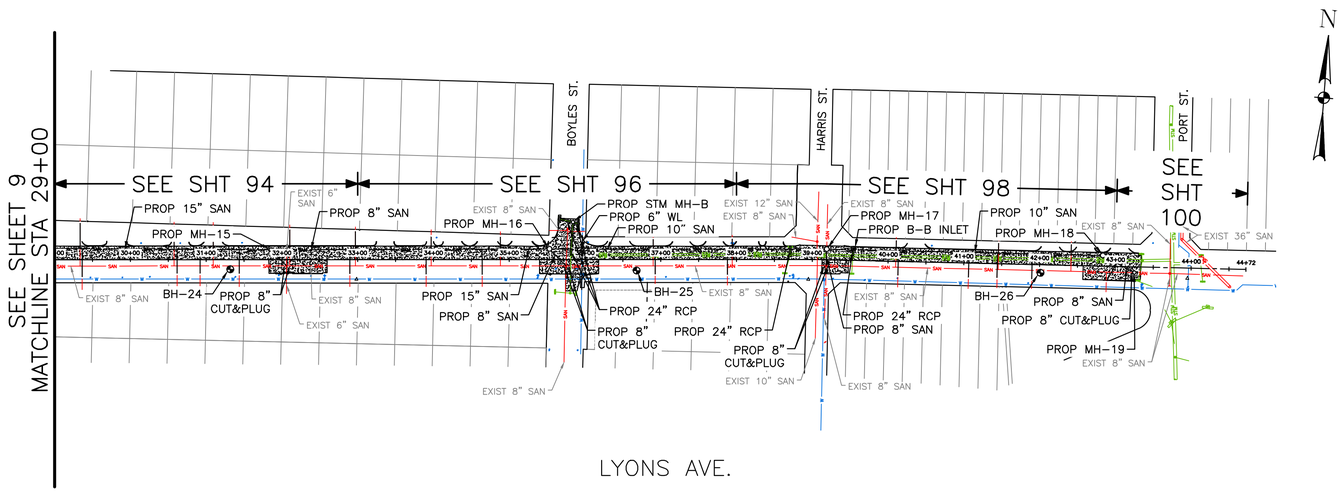
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11
OVERALL LAYOUT II

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 9 OF 339	



0' 75' 100' 200'

SCALE: 1"=100'

NO.	DATE	REVISION	APP.

LEGEND

- PROP MANHOLE w/NUMBER
- PROP CONFLICT MANHOLE
- PROP B-B INLET
- PROP SAN ENCASED IN STEEL PIPE
- PROP CUT&PLUG
- PROP CONCRETE PAVEMENT
- PROP C.O.
- BOREHOLE w/NUMBER

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
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BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

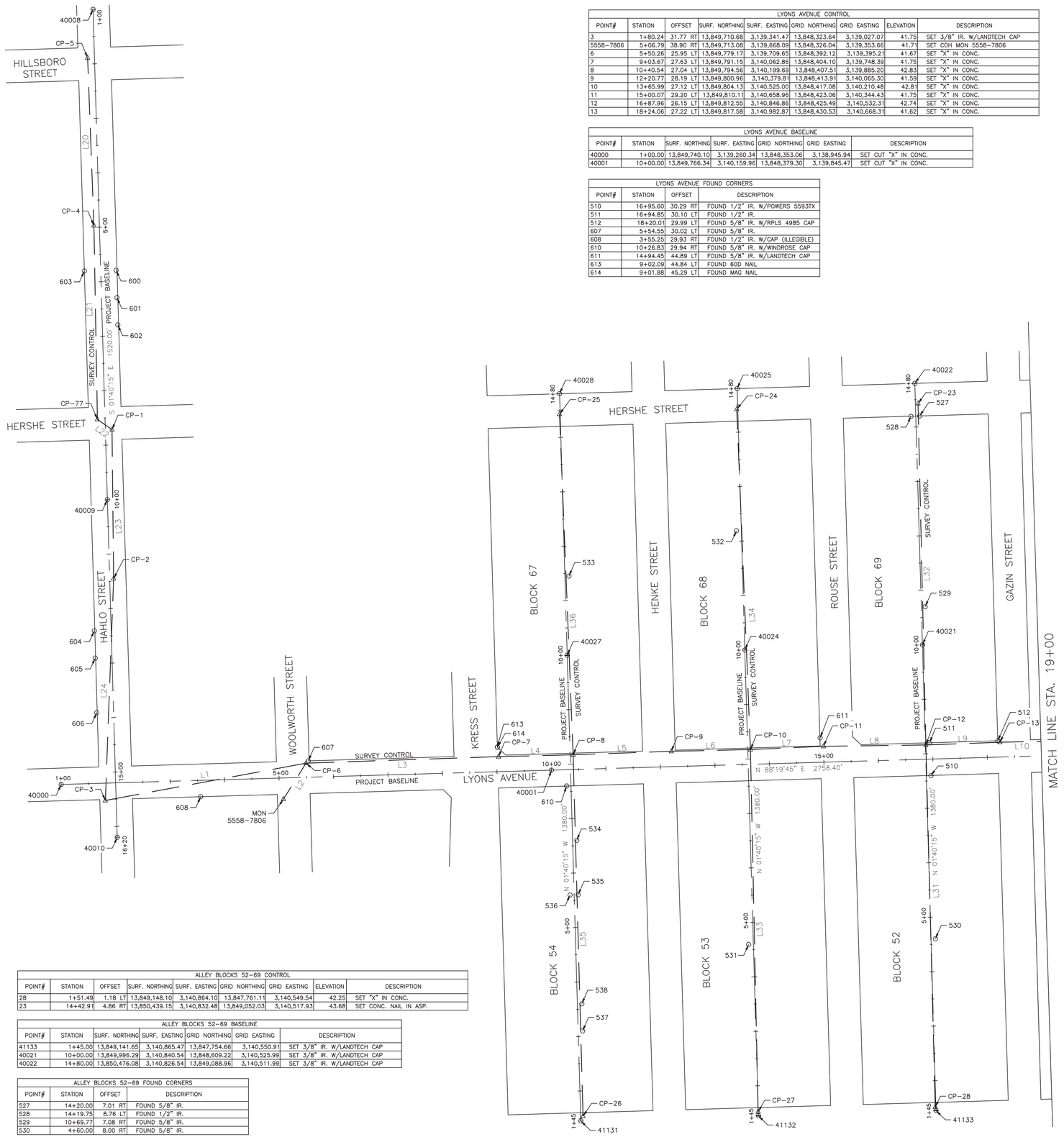
AREA 11
OVERALL LAYOUT III

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 10 OF 339	

PLOTTED: 10/28/2026 10:30 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.2 General\07-08 AREA 11 OVERALL LAYOUT I&II.dwg



LYONS AVENUE CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
3	1+80.24	31.77 RT	13,849,710.68	3,139,341.47	13,848,323.64	3,139,027.07	41.75	SET 3/8" IR. W/LANDTECH CAP
5558-7806	5+06.79	38.90 RT	13,849,713.08	3,139,668.09	13,848,326.04	3,139,353.66	41.71	SET COH MON 5558-7806
6	5+50.26	25.95 LT	13,849,779.17	3,139,709.65	13,848,392.12	3,139,395.21	41.67	SET "X" IN CONC.
7	9+03.67	27.63 LT	13,849,791.15	3,140,062.86	13,848,404.10	3,139,748.39	41.75	SET "X" IN CONC.
8	10+40.54	27.04 LT	13,849,794.56	3,140,199.69	13,848,407.51	3,139,885.20	42.83	SET "X" IN CONC.
9	12+20.77	28.19 LT	13,849,800.96	3,140,379.81	13,848,413.91	3,140,065.30	41.59	SET "X" IN CONC.
10	13+65.99	27.12 LT	13,849,804.13	3,140,525.00	13,848,417.08	3,140,210.48	42.81	SET "X" IN CONC.
11	15+00.07	29.20 LT	13,849,810.11	3,140,658.96	13,848,423.06	3,140,344.43	41.75	SET "X" IN CONC.
12	16+87.96	26.15 LT	13,849,812.55	3,140,846.86	13,848,425.49	3,140,532.31	42.74	SET "X" IN CONC.
13	18+24.06	27.22 LT	13,849,817.58	3,140,982.87	13,848,430.53	3,140,668.31	41.62	SET "X" IN CONC.

LYONS AVENUE BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40000	1+00.00	13,849,740.10	3,139,260.34	13,848,353.06	3,138,945.94	SET CUT "X" IN CONC.
40001	10+00.00	13,849,766.34	3,140,159.96	13,848,379.30	3,139,845.47	SET CUT "X" IN CONC.

LYONS AVENUE FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
510	16+95.60	30.29 RT	FOUND 1/2" IR. W/POWERS 5593TX
511	16+94.85	30.10 LT	FOUND 1/2" IR.
512	18+20.01	29.99 LT	FOUND 5/8" IR. W/RPLS 4985 CAP
607	5+54.55	30.02 LT	FOUND 5/8" IR.
608	3+55.25	29.93 RT	FOUND 1/2" IR. W/CAP (ILLEGIBLE)
610	10+26.83	29.94 RT	FOUND 5/8" IR. W/WINDROSE CAP
611	14+94.45	44.89 LT	FOUND 5/8" IR. W/LANDTECH CAP
613	9+02.09	44.84 LT	FOUND 60D NAIL
614	9+01.88	45.29 LT	FOUND MAG NAIL

HAHLO STREET CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
5	1+88.56	12.56 RT	13,851,073.53	3,139,308.91	13,849,686.35	3,138,994.51	44.60	SET CONC. NAIL IN ASP.
4	4+96.65	9.97 RT	13,850,765.65	3,139,320.49	13,849,378.50	3,139,006.09	44.30	SET CONC. NAIL IN ASP.
77	8+52.31	13.97 RT	13,850,410.01	3,139,326.87	13,849,022.90	3,139,012.46	44.27	SET CONC. NAIL IN ASP.
1	8+71.85	12.29 LT	13,850,391.25	3,139,353.68	13,849,004.14	3,139,039.28	44.02	SET CONC. NAIL IN ASP.
2	11+45.14	7.26 LT	13,850,117.93	3,139,356.62	13,848,730.85	3,139,042.21	43.88	SET CONC. NAIL IN ASP.

HAHLO STREET BASELINE					
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40008	1+00.00	13,849,775.23	3,139,004.49	13,851,162.41	3,139,318.89	SET CONC. NAIL
40009	10+00.00	13,848,875.70	3,139,030.73	13,850,262.80	3,139,345.13	SET CONC. NAIL
40010	16+20.00	13,848,256.03	3,139,048.81	13,849,643.06	3,139,363.21	SET CONC. NAIL

HAHLO STREET FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
600	5+79.84	28.38 LT	FOUND 1/2" IR.
601	6+30.10	28.40 LT	FOUND 5/8" IR. W/GREENLEAF CAP
602	6+80.05	28.48 LT	FOUND 5/8" IR. W/GREENLEAF CAP
603	5+79.50	29.99 RT	FOUND 1/2" IP.
604	12+40.03	31.06 RT	FOUND 1/2" IR. W/SURVEY 1 CAP
605	12+90.17	30.85 RT	FOUND 1/2" IR. W/SURVEY 1 CAP
606	13+90.37	30.97 RT	FOUND 3/8" IP.

ALLEY BLOCKS 54-67 CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
26	1+53.72	4.36 RT	13,849,131.48	3,140,217.85	13,847,744.49	3,139,903.36	40.77	SET "X" IN CONC.
25	14+42.46	1.23 LT	13,850,419.51	3,140,174.69	13,849,032.40	3,139,860.20	44.14	SET CONC. NAIL IN ASP.

ALLEY BLOCKS 54-67 BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
41131	1+45.00	13,849,122.64	3,140,213.75	13,847,735.66	3,139,899.26	SET CUT "X" IN CONC.
40027	10+00.00	13,849,977.28	3,140,188.82	13,848,590.21	3,139,874.33	SET 3/8" IR. W/LANDTECH CAP
40028	14+80.00	13,850,457.07	3,140,174.82	13,849,069.95	3,139,860.33	SET 3/8" IR. W/LANDTECH CAP

ALLEY BLOCKS 54-67 FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
533	11+45.02	7.41 RT	FOUND 1/2" IR.
534	6+59.94	7.78 RT	FOUND 5/8" IR. W/WINDROSE CAP
535	5+59.94	7.15 RT	FOUND 1/2" IR.
536	5+59.95	7.59 LT	FOUND 1/2" IR.
537	3+09.97	8.12 RT	FOUND 1/2" IR.
538	3+59.81	8.16 RT	FOUND 1/2" IR.

ALLEY BLOCKS 53-68 CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
27	1+52.31	0.34 LT	13,849,139.44	3,140,539.06	13,847,752.46	3,140,224.53	42.22	SET "X" IN CONC.
24	14+42.21	1.86 LT	13,850,428.75	3,140,499.93	13,849,041.63	3,140,185.41	43.58	SET CONC. NAIL IN ASP.

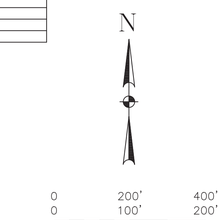
ALLEY BLOCK 53-68 BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
41132	1+45.00	13,849,132.14	3,140,539.61	13,847,745.16	3,140,225.08	SET 3/8" IR. W/LANDTECH CAP
40024	10+00.00	13,849,986.78	3,140,514.68	13,848,599.71	3,140,200.16	SET 3/8" IR. W/LANDTECH CAP
40025	14+80.00	13,850,466.58	3,140,500.68	13,849,079.46	3,140,186.16	SET 3/8" IR. W/LANDTECH CAP

ALLEY BLOCKS 53-68 FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
531	4+59.65	8.76 LT	FOUND 1" IP.
532	12+19.19	8.96 LT	FOUND 1/2" IR.

ALLEY BLOCKS 52-69 CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
28	1+51.49	1.18 LT	13,849,148.10	3,140,864.10	13,847,761.11	3,140,549.54	42.25	SET "X" IN CONC.
23	14+42.91	4.86 RT	13,850,439.15	3,140,832.48	13,849,052.03	3,140,517.93	43.68	SET CONC. NAIL IN ASP.

ALLEY BLOCKS 52-69 BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
41133	1+45.00	13,849,141.65	3,140,865.47	13,847,754.66	3,140,550.91	SET 3/8" IR. W/LANDTECH CAP
40021	10+00.00	13,849,996.29	3,140,840.54	13,848,609.22	3,140,525.99	SET 3/8" IR. W/LANDTECH CAP
40022	14+80.00	13,850,476.08	3,140,826.54	13,849,088.96	3,140,511.99	SET 3/8" IR. W/LANDTECH CAP

ALLEY BLOCKS 52-69 FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
527	14+20.00	7.01 RT	FOUND 5/8" IR.
528	14+19.75	8.76 LT	FOUND 1/2" IR.
529	10+69.77	7.08 RT	FOUND 5/8" IR.
530	4+60.00	8.00 RT	FOUND 5/8" IR.

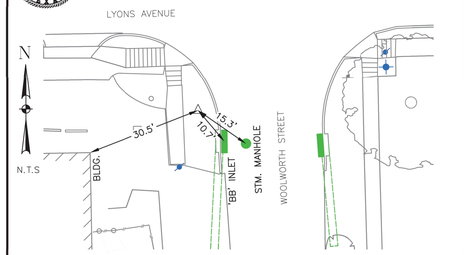


LINE	BEARING	DISTANCE
L1	N79°27'44"E	374.46'
L2	S32°09'51"W	78.07'
L3	N88°03'27"E	353.41'
L4	N88°34'27"E	136.87'
L5	N87°57'50"E	180.23'
L6	N88°44'59"E	145.23'
L7	N87°26'38"E	134.10'
L8	N89°15'26"E	187.92'
L9	N87°52'48"E	136.10'
L10	N88°47'35"E	185.70'
L20	S02°09'10"E	308.10'
L21	S01°01'39"E	355.69'
L22	S55°00'49"E	32.73'
L23	S00°36'57"E	273.33'
L24	S02°07'48"W	407.53'
L31	N01°29'10"W	664.67'
L32	N01°18'53"W	626.77'
L33	N01°12'42"W	664.84'
L34	N02°17'55"W	625.12'
L35	N01°34'10"W	663.33'
L36	N02°17'25"W	625.45'

BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
ELEV = 40.64' (NAVD 88)

NOTES:
1. BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE. DISTANCES ARE SURFACE VALUES. SURFACE = GRID/0.99989985044.
2. HORIZONTAL AND VERTICAL CONTROLS USING GPS OBSERVATIONS AND DIGITAL LEVELING HOLDING CITY OF HOUSTON MONUMENT 5558-1203. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. FIELD WORK COMPLETED IN DECEMBER 2025

CITY OF HOUSTON
CITY SURVEY 5558-7806
SITE CONTROL MONUMENT



Project WBS# R-001000-0034-3
Texas Coordinate System of 1983, South Central Zone, U. S. Survey Feet
X= 3,139,353.66
Y= 13,848,326.04
Lat.= 29°46'35.05" N
Lon.= 95°18'30.62" W
Reference Frame Used: NAD 83 (GRS 80)
Vertical Adjustment used: NAVD '88
General Location: LYONS AVE. AND WOOLWORTH ST.
Date Set: 10/28/2025 Type of Mark: 4A
3 Nearest project control points (bearings and distances stated below):
CP-03: S89°34'46"W 326.60'
CP-06: N32°09'51"E 78.07'
CP-07: N78°48'49"E 402.38'
NOTE:
1. Bearings and distances are grid.
2. Scale Factor = (S.F. 0.99989985044).
3. Surface= Grid
S.F.
Surveyed By: LANDTECH, INC.
1315 W SAM HOUSTON PKWY N, SUITE 100
HOUSTON, TEXAS 77043
T: 713-861-7068 TBPELS REG. NO. 10019100

Keymap Page: 494H
Orthometric Elevation = 41.71'
Ellipsoid Height= N/A
Geoid: 18
Datum Source & Adjustment: GPS & DIGITAL LEVELING

STATE OF TEXAS REGISTERED NHUY T. NGUYEN 6409 PROFESSIONAL LAND SURVEYOR
1/19/2016

City of Houston, Harris County, Texas

Engineers ● Planners ● Construction Managers
CIVITAS ENGINEERING GROUP
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

LANDTECH
1315 W SAM HOUSTON PKWY N
STE 100
HOUSTON, TEXAS 77043
T: 713-861-7068 F: 713-861-4131
TBPELS REGISTRATION NO. 10019100

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

FOR INTERIM REVIEW ONLY

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

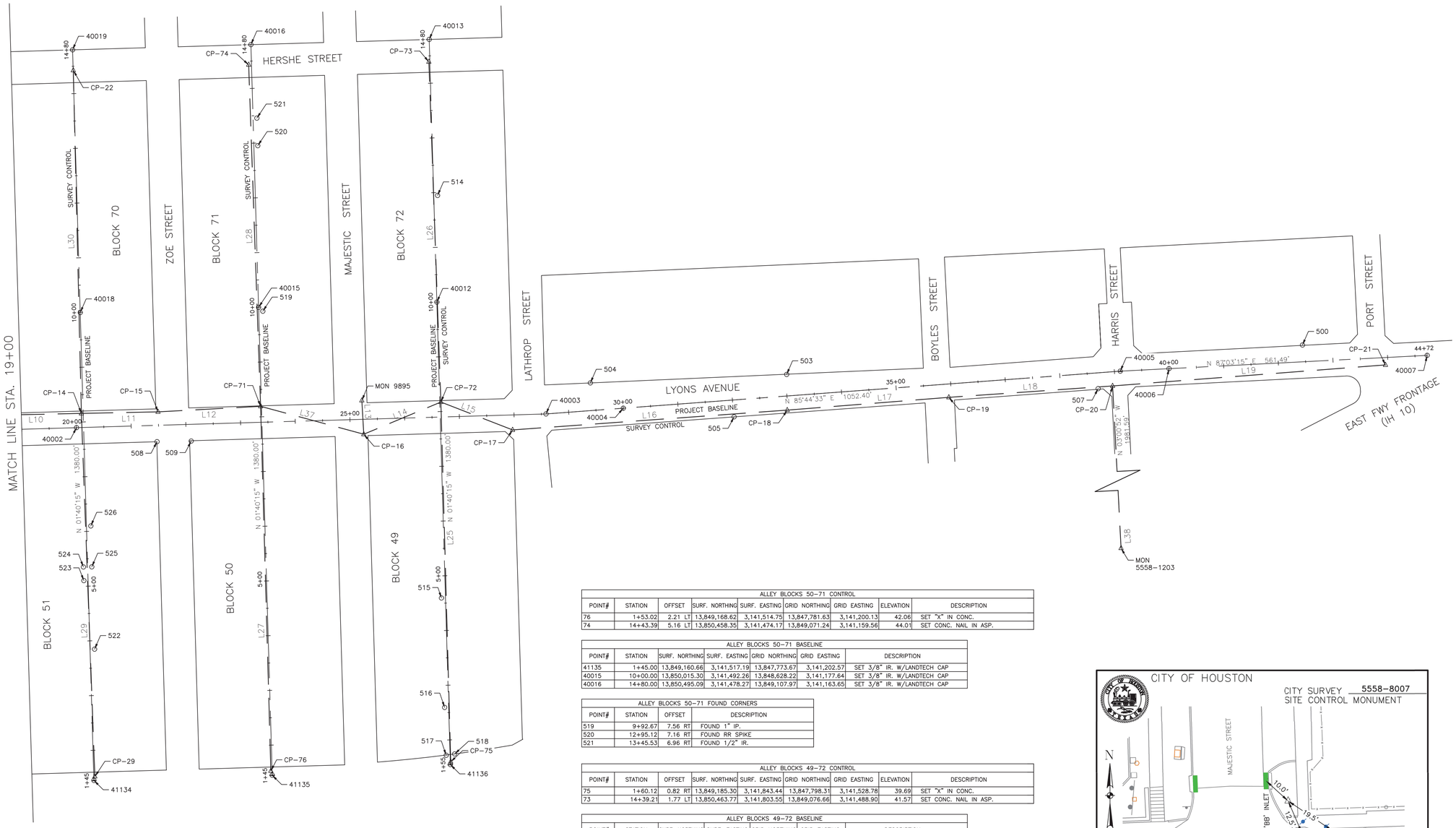
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SURVEY CONTROL MAP
SHEET 1 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 11 OF 339	

NO.	DATE	REVISION	APP.

PLOTTED: 5/13/2026 2:05 PM
PLOT STYLE: COH.ctb
FILE PATH: S:\2025\2520136 Lyon\CADD\AREA 11\AREA 11-SCM.dwg



LINE	BEARING	DISTANCE
L10	N88°47'35"E	185.68'
L11	N88°49'26"E	140.08'
L12	N86°55'18"E	187.72'
L13	N03°15'43"W	61.74'
L14	N67°21'27"E	152.68'
L15	S68°46'17"E	140.59'
L16	N85°52'45"E	503.22'
L17	N85°28'58"E	296.22'
L18	N86°00'48"E	300.01'
L19	N85°35'38"E	500.11'
L25	N01°34'00"W	657.22'
L26	N02°01'11"W	621.88'
L27	N01°36'36"W	666.09'
L28	N02°00'23"W	624.29'
L29	N02°07'18"W	663.56'
L30	N01°21'12"W	626.86'
L37	S74°52'39"E	195.29'
L38	S03°00'52"E	1981.59'

BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
ELEV = 40.64' (NAVD 88)

NOTES:
1. BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE. DISTANCES ARE SURFACE VALUES. SURFACE = GRID/0.99989985044.
2. HORIZONTAL AND VERTICAL CONTROLS USING GPS OBSERVATIONS AND DIGITAL LEVELING HOLDING CITY OF HOUSTON MONUMENT 5558-1203. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. FIELD WORK COMPLETED IN DECEMBER 2025

0 200' 400' (17"X11")
0 100' 200' (34"X22")
SCALE:
1"=200' (17"X11")
1"=100' (34"X22")

NO.	DATE	REVISION	APP.

LYONS AVENUE CONTROL							
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
14	20+09.75	25.72 LT	13,849,821.49	3,141,168.53	13,848,434.44	3,140,853.94	42.74	SET "X" IN CONC.
15	21+49.83	24.51 LT	13,849,824.37	3,141,308.58	13,848,437.31	3,140,993.98	41.60	SET "X" IN CONC.
71	23+37.49	29.12 LT	13,849,834.45	3,141,496.03	13,848,447.39	3,141,181.41	42.37	SET "X" IN CONC.
9895	25+22.74	34.42 LT	13,849,845.15	3,141,681.04	13,848,458.09	3,141,366.40	41.54	SET COH MON
16	25+24.45	27.30 RT	13,849,783.50	3,141,684.55	13,848,396.45	3,141,369.92	41.53	SET "X" IN CONC.
72	26+67.02	27.34 LT	13,849,842.28	3,141,825.47	13,848,455.22	3,141,510.81	42.38	SET "X" IN CONC.
17	27+96.53	27.37 RT	13,849,791.37	3,141,956.52	13,848,404.32	3,141,641.86	40.71	SET "X" IN CONC.
18	32+98.58	25.75 RT	13,849,827.53	3,142,458.44	13,848,440.48	3,142,143.73	42.26	SET "X" IN CONC.
19	35+94.80	24.41 RT	13,849,850.86	3,142,753.74	13,848,463.81	3,142,438.99	40.78	SET "X" IN CONC.
20	38+94.81	25.82 RT	13,849,871.72	3,143,053.03	13,848,484.66	3,142,738.25	41.02	SET "X" IN CONC.
21	43+95.35	13.44 RT	13,849,910.14	3,143,551.66	13,848,523.08	3,143,236.84	41.02	SET "X" IN CONC.

LYONS AVENUE BASELINE							
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40002	20+00.00	13,849,795.50	3,141,159.53	13,848,408.45	3,140,844.94	SET CUT "X" IN CONC.
40003	28+58.40	13,849,820.53	3,142,017.56	13,848,433.48	3,141,702.89	SET CUT "X" IN CONC.
40004	30+00.00	13,849,831.04	3,142,158.77	13,848,443.99	3,141,844.09	SET CUT "X" IN CONC.
40005	39+10.80	13,849,898.66	3,143,067.06	13,848,511.60	3,142,752.28	SET CUT "X" IN CONC.
40006	40+00.00	13,849,903.25	3,143,156.14	13,848,516.18	3,142,841.36	SET CUT "X" IN CONC.
40007	44+72.29	13,849,927.52	3,143,627.81	13,848,540.45	3,143,312.98	SET CUT "X" IN CONC.

LYONS AVENUE FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
500	42+45.80	30.59 LT	FOUND 1/2" IR.
503	33+02.32	39.32 LT	FOUND 5/8" IR.
504	29+43.47	50.51 LT	FOUND 1" IP.
505	32+00.75	30.79 RT	FOUND PK NAIL
507	38+67.99	28.87 RT	FOUND 1" IP.
508	21+46.36	29.90 RT	FOUND 1/2" IR.
509	22+08.83	30.67 RT	FOUND 1" IP.

ALLEY BLOCKS 50-71 CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
76	1+53.02	2.21 LT	13,849,168.62	3,141,514.75	13,847,781.63	3,141,200.13	42.06	SET "X" IN CONC.
74	14+43.39	5.16 LT	13,850,458.35	3,141,474.17	13,849,071.24	3,141,159.56	44.01	SET CONC. NAIL IN ASP.

ALLEY BLOCKS 50-71 BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
41135	1+45.00	13,849,160.66	3,141,517.19	13,847,773.67	3,141,202.57	SET 3/8" IR. W/LANDTECH CAP
40015	10+00.00	13,850,015.30	3,141,492.26	13,848,628.22	3,141,177.64	SET 3/8" IR. W/LANDTECH CAP
40016	14+80.00	13,850,495.09	3,141,478.27	13,849,107.97	3,141,163.65	SET 3/8" IR. W/LANDTECH CAP

ALLEY BLOCKS 50-71 FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
519	9+92.67	7.56 RT	FOUND 1" IP.
520	12+95.12	7.16 RT	FOUND RR SPIKE
521	13+45.53	6.96 RT	FOUND 1/2" IR.

ALLEY BLOCKS 49-72 CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
75	1+60.12	0.82 RT	13,849,185.30	3,141,843.44	13,847,798.31	3,141,528.78	39.69	SET "X" IN CONC.
73	14+39.21	1.77 LT	13,850,463.77	3,141,803.55	13,849,076.66	3,141,488.90	41.57	SET CONC. NAIL IN ASP.

ALLEY BLOCKS 49-72 BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
41136	1+55.00	13,849,180.16	3,141,842.76	13,847,793.17	3,141,528.11	SET 3/8" IR. W/LANDTECH CAP
40012	10+00.00	13,848,637.73	3,141,503.47	13,850,024.80	3,141,818.12	SET 3/8" IR. W/LANDTECH CAP
40013	14+80.00	13,849,117.48	3,141,489.48	13,850,504.60	3,141,804.13	SET 3/8" IR. W/LANDTECH CAP

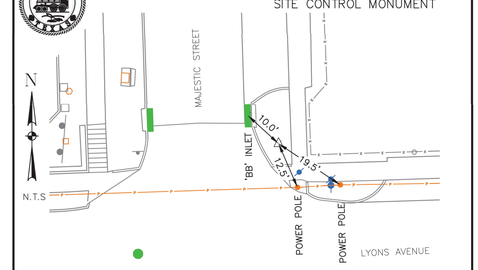
ALLEY BLOCKS 49-72 FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
514	11+94.68	6.92 RT	FOUND 1" IP.
515	4+59.57	7.41 LT	FOUND 1" IP.
516	2+59.57	7.39 LT	FOUND 1/2" IR.
517	1+72.15	7.09 LT	FOUND 5/8" IR.
518	1+74.17	8.42 RT	FOUND 1" IR.

ALLEY BLOCKS 51-70 CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
29	1+52.17	1.98 RT	13,849,158.38	3,141,193.10	13,847,771.40	3,140,878.51	41.93	SET "X" IN CONC.
22	14+42.57	0.23 RT	13,850,448.18	3,141,153.72	13,849,061.06	3,140,839.14	43.86	SET CONC. NAIL IN ASP.

ALLEY BLOCKS 51-70 BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
41134	1+45.00	13,849,151.16	3,141,191.33	13,847,764.17	3,140,876.74	SET COTTON SPINDLE
40018	10+00.00	13,850,005.79	3,141,166.40	13,848,618.72	3,140,851.81	SET 3/8" IR. W/LANDTECH CAP
40019	14+80.00	13,850,485.59	3,141,152.41	13,849,098.47	3,140,837.82	SET 3/8" IR. W/LANDTECH CAP

ALLEY BLOCKS 51-70 FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
522	3+84.59	8.24 RT	FOUND 5/8" IR.
523	5+10.35	7.70 LT	FOUND 5/8" IR. W/ARTHUR SURVEYING CAP
524	5+35.23	7.78 LT	FOUND 5/8" IR. W/ARTHUR SURVEYING CAP
525	5+35.01	7.52 RT	FOUND 5/8" IR. W/TSI RPLS 5269 CAP
526	6+09.80	7.94 RT	FOUND 1" IP.

CITY OF HOUSTON
CITY SURVEY 5558-8007
SITE CONTROL MONUMENT



Project WBS# R-001000-0034-3
Texas Coordinate System of 1983, South Central Zone, U. S. Survey Feet
X= 3,141,366.40
Y= 13,848,458.09
Lat.= 29°46'35.73" N
Lon.= 95°18'07.74" W
Reference Frame Used: NAD 83 (GRS 80)
Vertical Adjustment used: NAVD '88
General Location: LYONS AVE. AND MAJESTIC ST.
Date Set: 10/28/2025 Type of Mark: 4A
3 Nearest project control points (bearings and distances stated below)
CP-16: S03°15'43"E 61.74'
CP-71: S86°41'26"W 185.30'
CP-72: S88°51'48"E 144.44'
NOTE:
1. Bearings and distances are grid.
2. Scale Factor = (S.F. 0.99989985044).
3. Surface= Grid / S.F.
Surveyed By: LANDTECH, INC.
1315 W SAM HOUSTON PKWY N, SUITE 100
HOUSTON, TEXAS 77043
T: 713-861-7068 TBPELS REG. NO. 10019100

Keymap Page: 494H
Orthometric Elevation = 41.54'
Ellipsoid Height= N/A
Geoid: 18
Datum Source & Adjustment: GPS & DIGITAL LEVELING

STATE OF TEXAS REGISTERED NHUY T. NGUYEN 6409 PROFESSIONAL LAND SURVEYOR
1/19/2016

City of Houston, Harris County, Texas

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

LANDTECH
1315 W SAM HOUSTON PKWY N STE 100
HOUSTON, TEXAS 77043
T: 713-861-7068 F: 713-861-4131
TBPELS REGISTRATION NO. 10019100

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

FOR INTERIM REVIEW ONLY

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

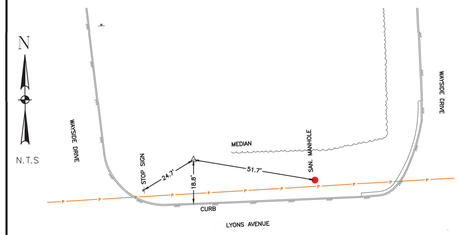
SURVEY CONTROL MAP
SHEET 2 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 12 OF 339	

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CITY OF HOUSTON

CITY SURVEY SITE CONTROL MONUMENT 5558-8407



Project WBS# R-001000-0034-3

Texas Coordinate System of 1983, South Central Zone, U. S. Survey Feet

X= 3,144,704.32

Y= 13,848,648.18

Lat.= 29°46'36.56" N

Lon.= 95°17'29.81" W

Reference Frame Used: NAD 83 (GRS 80)

Vertical Adjustment used: NAVD '88

General Location: WAYSIDE DRIVE & LYONS AVENUE

Date Set: 10/31/2025 Type of Mark: 4A

Keymap Page: 495E

Orthometric Elevation = 40.20'

Ellipsoid Height= N/A

Geoid: 18

Datum Source & Adjustment: GPS & DIGITAL LEVELING

3 Nearest project control points (bearings and distances stated below)

CP-60: S04°18'40"W 301.49'
CP-61: S40°48'48"W 382.78'
CP-66: S53°59'40"W 96.58'

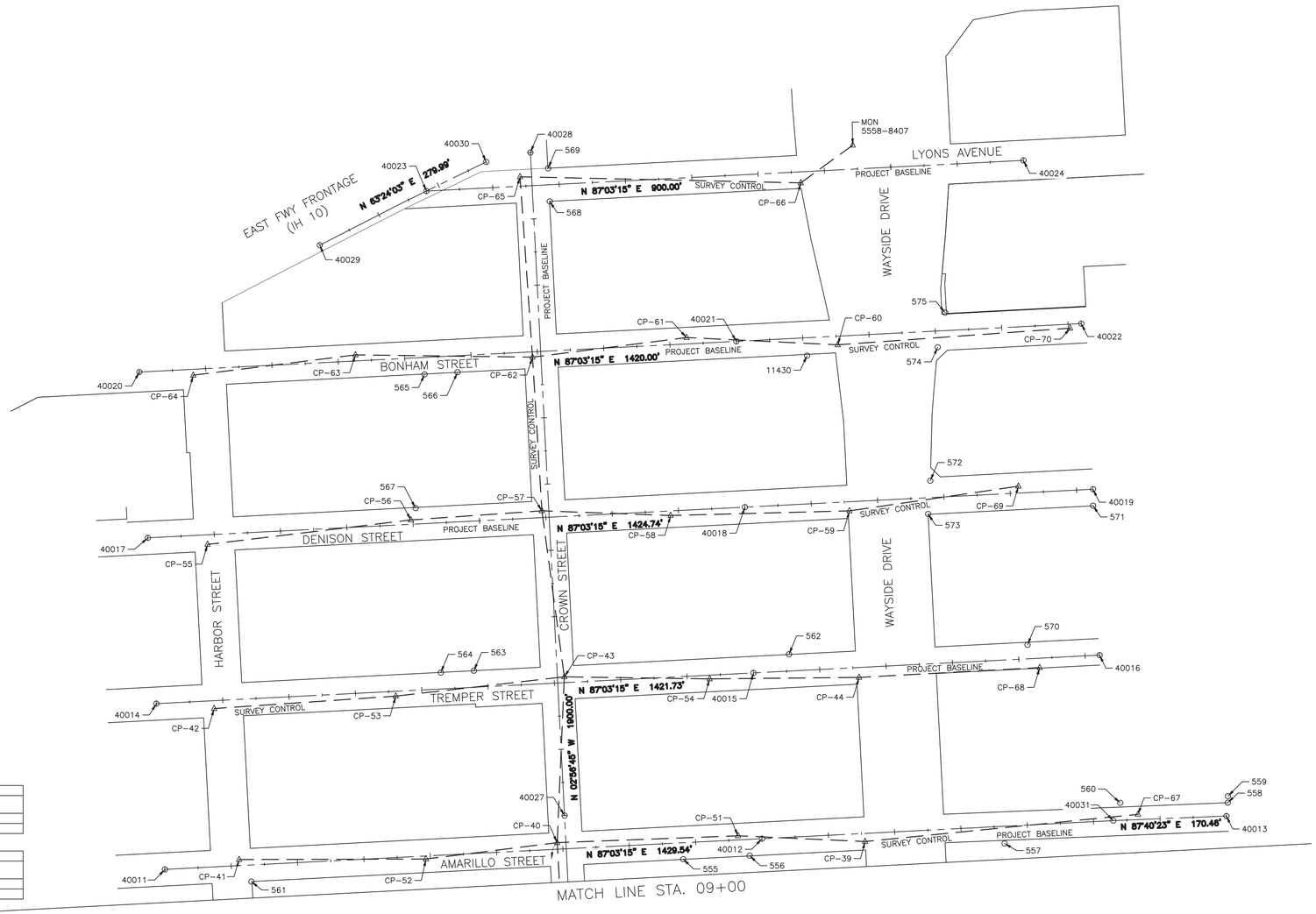
NOTE:
1. Bearings and distances are grid.
2. Scale Factor = (S.F. 0.99989985044).
3. Surface= Grid / S.F.

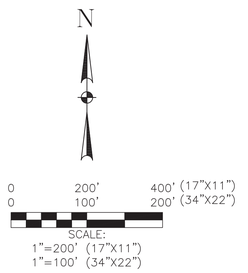
Surveyed By: LANDTECH, INC.
1315 W SAM HOUSTON PKWY N, SUITE 100
HOUSTON, TEXAS 77043
T: 713-861-7068 TBPELS REG. NO. 10019100

STATE OF TEXAS REGISTERED NHUY T. NGUYEN 6409 PROFESSIONAL LAND SURVEYOR

1/19/2016

City of Houston, Harris County, Texas





NO.	DATE	REVISION	APP.

BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
ELEV = 40.64' (NAVD 88)

NOTES:
1. BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE. DISTANCES ARE SURFACE VALUES. SURFACE = GRID/0.99989985044.
2. HORIZONTAL AND VERTICAL CONTROLS USING GPS OBSERVATIONS AND DIGITAL LEVELING HOLDING CITY OF HOUSTON MONUMENT 5558-1203. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. FIELD WORK COMPLETED IN DECEMBER 2025

CROWN BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40027	10+00.00	13,849,025.54	3,144,585.43	13,847,638.57	3,144,270.50	SET CONC. NAIL
40028	20+00.00	13,850,024.22	3,144,534.04	13,848,637.14	3,144,219.11	SET CONC. NAIL

1-10 BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40029	1+00.00	13,849,884.63	3,144,216.95	13,848,497.57	3,143,902.06	SET CUT "X" IN CONC.
40030	3+80.01	13,850,009.99	3,144,467.31	13,848,622.92	3,144,152.39	SET CUT "X" IN CONC.

LYONS AVENUE CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
65	2+41.92	14.29 LT	13,849,987.66	3,144,518.46	13,848,600.59	3,144,203.54	41.51	SET CONC. NAIL IN ASP.
66	6+63.58	16.61 RT	13,849,978.47	3,144,941.15	13,848,519.40	3,144,626.19	40.05	SET CONC. NAIL IN ASP.
5558-8407	7+44.54	36.09 LT	13,850,035.26	3,145,019.29	13,848,648.18	3,144,704.32	40.20	SET CoH MON 5558-8407

BONHAM STREET CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
64	1+80.90	8.86 RT	13,849,688.83	3,144,026.51	13,848,301.79	3,143,711.63	42.32	SET CONC. NAIL IN ASP.
63	4+26.26	9.13 LT	13,849,719.41	3,144,270.62	13,848,332.36	3,143,955.72	42.01	SET 5/8" IR. W/LANDTECH CAP
62	6+92.31	7.97 RT	13,849,716.00	3,144,537.20	13,848,328.96	3,144,222.27	41.41	SET CONC. NAIL
61	9+25.41	9.60 LT	13,849,745.52	3,144,769.08	13,848,358.48	3,144,454.14	41.31	SET 5/8" IR. W/LANDTECH CAP
60	11+52.09	13.02 RT	13,849,734.59	3,144,996.62	13,848,347.54	3,144,681.65	41.13	SET CONC. NAIL IN ASP.
70	15+02.82	5.99 RT	13,849,759.63	3,145,346.53	13,848,372.58	3,145,031.52	40.73	SET CONC. NAIL IN ASP.

DENISON STREET CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
55	1+89.31	14.49 RT	13,849,433.97	3,144,048.04	13,848,046.96	3,143,733.16	42.31	SET CONC. NAIL IN ASP.
56	4+96.98	6.58 LT	13,849,470.83	3,144,354.22	13,848,083.81	3,144,039.32	42.11	SET CONC. NAIL IN ASP.
57	6+94.56	10.17 LT	13,849,484.57	3,144,551.36	13,848,097.55	3,144,236.43	41.82	SET MAG NAIL
58	8+87.76	6.82 RT	13,849,477.53	3,144,745.17	13,848,090.51	3,144,430.23	42.03	SET CONC. NAIL IN ASP.
59	11+57.00	13.70 RT	13,849,484.49	3,145,014.41	13,848,097.47	3,144,699.44	40.06	SET CONC. NAIL IN ASP.
69	14+12.87	10.35 LT	13,849,521.66	3,145,268.71	13,848,134.63	3,144,953.71	40.56	SET CONC. NAIL IN ASP.

TREMPER STREET CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
42	1+86.51	11.91 RT	13,849,186.74	3,144,057.96	13,847,799.75	3,143,743.09	42.01	SET CONC. NAIL IN ASP.
53	4+60.65	7.21 RT	13,849,205.52	3,144,331.49	13,847,818.53	3,144,016.59	42.01	SET CONC. NAIL IN ASP.
43	7+15.43	8.75 LT	13,849,234.55	3,144,585.12	13,847,847.56	3,144,270.19	42.23	SET CONC. NAIL IN ASP.
54	9+33.77	5.59 RT	13,849,231.45	3,144,803.90	13,847,844.45	3,144,488.95	42.03	SET CONC. NAIL IN ASP.
44	11+58.49	14.94 RT	13,849,233.67	3,145,028.81	13,847,846.67	3,144,713.83	40.55	SET CONC. NAIL IN ASP.
68	14+30.82	14.14 RT	13,849,248.45	3,145,300.74	13,847,861.45	3,144,985.74	40.92	SET 3/8" IR. W/LANDTECH CAP

AMARILLO STREET CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
41	2+12.36	9.13 LT	13,848,959.40	3,144,095.54	13,847,572.44	3,143,780.66	42.03	SET CONC. NAIL IN ASP.
52	4+93.29	4.58 RT	13,848,960.15	3,144,376.80	13,847,573.18	3,144,061.90	42.90	SET CONC. NAIL IN ASP.
40	6+91.85	9.89 LT	13,848,984.81	3,144,574.36	13,847,597.84	3,144,259.43	42.70	SET CONC. NAIL IN ASP.
51	9+64.31	6.20 LT	13,848,995.13	3,144,846.65	13,847,608.16	3,144,531.69	42.69	SET CONC. NAIL IN ASP.
39	11+54.83	12.23 RT	13,848,986.51	3,145,037.86	13,847,559.54	3,144,722.89	40.55	SET CONC. NAIL IN ASP.
67	15+67.08	7.92 LT	13,849,027.42	3,145,448.64	13,847,640.45	3,145,133.62	39.78	SET CONC. NAIL IN ASP.

LYONS AVENUE BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40023	1+00.00	13,849,966.09	3,144,377.46	13,848,579.03	3,144,062.55	SET CUT "X" IN CONC.
40024	10+00.00	13,850,012.35	3,145,276.27	13,848,625.27	3,144,961.27	SET CONC. NAIL

BONHAM STREET BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40020	1+00.00	13,849,693.52	3,143,945.25	13,848,306.48	3,143,630.39	SET 5/8" IR. W/LANDTECH CAP
40021	10+00.00	13,849,739.77	3,144,844.07	13,848,352.73	3,144,529.11	SET CONC. NAIL
40022	15+20.00	13,849,766.50	3,145,363.38	13,848,379.45	3,145,048.37	SET 3/8" IR. W/LANDTECH CAP

DENISON STREET BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40017	1+00.00	13,849,443.85	3,143,958.10	13,848,056.84	3,143,643.24	SET CONC. NAIL
40018	10+00.00	13,849,490.11	3,144,856.91	13,848,103.08	3,144,541.96	SET CONC. NAIL
40019	15+24.74	13,849,517.07	3,145,380.96	13,848,130.05	3,145,065.95	SET CUT "X" IN CONC.

TREMPER STREET BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40014	1+00.00	13,849,194.18	3,143,970.95	13,847,807.19	3,143,656.08	SET CONC. NAIL
40015	10+00.00	13,849,240.44	3,144,869.76	13,847,853.44	3,144,554.80	SET CONC. NAIL
40016	15+21.73	13,849,267.25	3,145,390.80	13,847,880.25	3,145,075.79	SET 3/8" IR. W/LANDTECH CAP

AMARILLO STREET BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40011	1+00.00	13,848,944.51	3,143,983.80	13,847,557.55	3,143,668.93	SET CONC. NAIL
40012	10+00.00	13,848,990.77	3,144,882.61	13,847,603.80	3,144,567.65	SET CONC. NAIL
40031	15+29.54	13,849,017.98	3,145,411.45	13,847,631.01	3,145,096.44	SET CONC. NAIL
40013	17+00.00	13,849,024.90	3,145,581.77	13,847,637.93	3,145,266.74	SET 3/8" IR. W/LANDTECH CAP

LYONS AVENUE FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
568	2+84.55	25.00 RT	FOUND MAG NAIL
569	2+84.75	24.76 LT	FOUND 5/8" IR. (BENT)

BONHAM STREET FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
565	5+28.74	25.54 RT	FOUND 5/8" IR.
566	5+78.35	24.87 RT	FOUND 1" IP.
574	13+02.25	24.50 RT	FOUND 1/2" IR.
575	13+16.09	27.03 LT	FOUND 5/8" IR. W/CAP EIC SURV
11430	11+05.14	26.94 RT	FOUND 5/8" IR. W/CAP

DENISON STREET FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
567	5+04.76	24.00 LT	FOUND 5/8" IR. W/CAP COBALT ENG
571	15+23.59	24.80 RT	FOUND 5/8" IR.
572	12+80.76	25.26 LT	FOUND 5/8" IR. W/CAP TEAM CAP
573	12+74.95	24.50 RT	FOUND MON

TREMPER STREET FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
562	10+54.92	25.38 LT	FOUND 1/2" IR. W/CAP SURVEY 1
563	5+80.02	24.96 LT	FOUND 1" IP.
564	5+29.99	24.67 LT	FOUND 5/8" IR. W/CAP DARTLAND
570	14+14.22	21.07 LT	FOUND 1/2" IR. W/CAP

AMARILLO STREET FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
555	8+79.90	24.60 RT	FOUND 1" IP.
556	9+80.17	24.54 RT	FOUND 1" IR.
557	13+64.37	25.91 RT	FOUND 1/2" IR.
558	17+00.00	20.22 LT	FOUND 1" IP.
559	17+00.00	30.07 LT	FOUND 5/8" IR. W/CAP PRIME TX
560	15+41.03	26.23 LT	FOUND 5/8" IR. W/CAP PRIME TX
561	2+29.03	25.01 RT	FOUND 1/2" IP.

LINE	BEARING	DISTANCE
L14	N89°50'54"E	281.27'
L15	N82°53'02"E	199.09'
L16	N87°49'47"E	272.48'
L17	S87°25'05"E	191.41'
L18	N84°18'43"E	412.81'
L19	N86°04'18"E	274.17'
L20	N83°28'10"E	255.28'
L21	S89°11'12"E	218.81'
L22	N89°26'06"E	224.92'
L23	N86°53'16"E	272.33'
L24	N83°08'12"E	308.40'
L25	N86°00'48"E	197.61'
L26	S87°55'12"E	193.94'
L27	N88°31'05"E	269.33'
L28	N81°41'09"E	257.00'
L29	N82°51'36"E	246.02'
L30	S89°16'05"E	266.60'
L31	N82°44'39"E	233.76'
L32	S87°14'54"E	227.80'
L33	N85°54'23"E	350.80'
L34	S88°45'17"E	422.79'
L35	N53°59'40"E	96.59'
L36	N03°18'04"W	270.06'
L39	N02°28'00"E	249.98'
L40	N07°41'25"W	252.28'
L41	N03°30'05"W	231.87'
L42	N03°56'42"W	272.31'

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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HOUSTON, TEXAS 77043
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TBPELS REGISTRATION NO. 10019100

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

FOR INTERIM REVIEW ONLY

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SURVEY CONTROL MAP SHEET 3 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 13 OF 339	

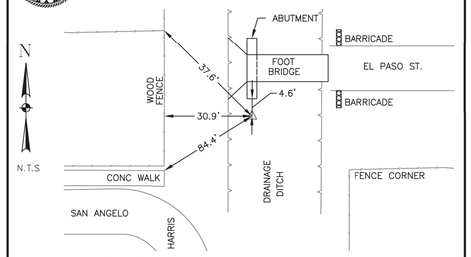
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PLOT STYLE: COH.ctb

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CITY OF HOUSTON

CITY SURVEY SITE CONTROL MONUMENT 5558-1203



Project WBS# R-001000-0034-3

Keymap Page: 495E

Texas Coordinate System of 1983, South Central Zone, U. S. Survey Feet

Orthometric Elevation = 40.64'

Ellipsoid Height= N/A

X= 3,142,842.45

Y= 13,846,506.01

Geoid: 18

Datum Source & Adjustment: GPS & DIGITAL LEVELING

Lat.= 29°46'15.95" N

Lon.= 95°17'51.70" W

Reference Frame Used: NAD 83 (GRS 80)

Vertical Adjustment used: NAVD '88

General Location: 0.1 MILE W OF INTERSECTION EL PASO AND PORT

Date Set: 03/12/1973 Type of Mark: 4A

3 Nearest project control points (bearings and distances stated below):

CP-30: N72°38'11"E 996.32'
CP-35: N61°04'28"E 1,112.24'
CP-45: N75°01'40"E 1,268.99'

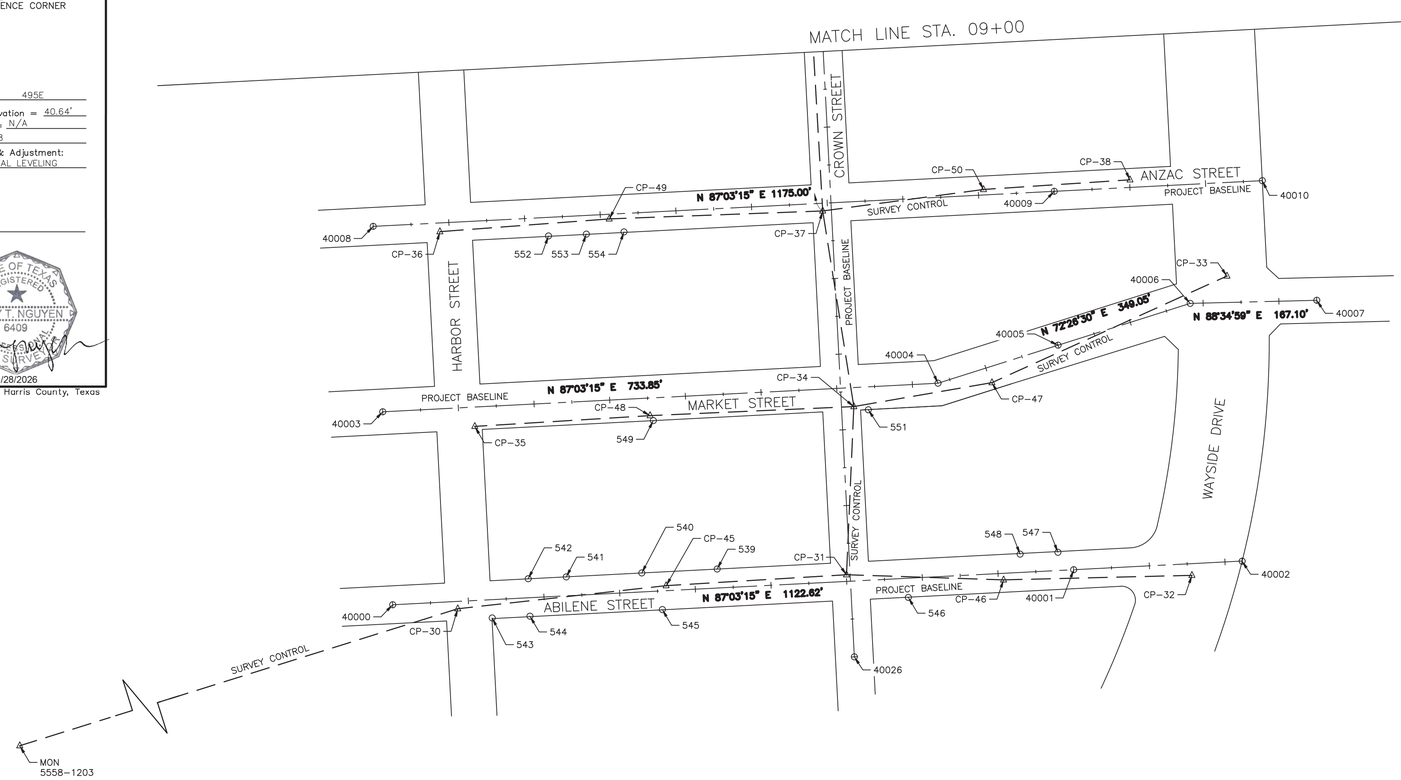
NOTE:
1. Bearings and distances are grid.
2. Scale Factor = (S.F. 0.99989985044).
3. Surface= Grid S.F.

Surveyed By: LANDTECH, INC.
1315 W SAM HOUSTON PKWY N, SUITE 100
HOUSTON, TEXAS 77043
T: 713-861-7068 TBPELS REG. NO. 10019100

STATE OF TEXAS REGISTERED NHUY T. NGUYEN 6409 LICENSED PROFESSIONAL LAND SURVEYOR

1/28/2026

City of Houston, Harris County, Texas



N

0 200' 400' (17"X11")
0 100' 200' (34"X22")

SCALE:
1"=200' (17"X11")
1"=100' (34"X22")

NO.	DATE	REVISION	APP.

BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
ELEV = 40.64' (NAVD 88)

NOTES:
1. BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE. DISTANCES ARE SURFACE VALUES. SURFACE = GRID/0.99989985044.
2. HORIZONTAL AND VERTICAL CONTROLS USING GPS OBSERVATIONS AND DIGITAL LEVELING HOLDING CITY OF HOUSTON MONUMENT 5558-1203. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. FIELD WORK COMPLETED IN DECEMBER 2025

CROWN BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40026	1+00.00	13,848,126.73	3,144,631.68	13,846,739.84	3,144,316.75	SET CONC. NAIL

ANZAC CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
36	1+87.59	11.51 RT	13,848,687.85	3,144,084.72	13,847,300.91	3,143,769.84	42.36	FOUND MAG NAIL
49	4+11.66	6.14 RT	13,848,704.73	3,144,308.21	13,847,317.79	3,143,993.31	42.73	SET CONC. NAIL IN ASP.
37	6+93.52	10.16 RT	13,848,715.20	3,144,589.91	13,847,328.26	3,144,274.98	42.81	SET CONC. NAIL IN ASP.
50	9+06.99	7.25 LT	13,848,743.56	3,144,802.20	13,847,356.61	3,144,487.25	42.60	SET CONC. NAIL IN ASP.
38	11+00.72	10.04 LT	13,848,756.30	3,144,995.53	13,847,369.35	3,144,680.56	42.17	SET MAG NAIL

ANZAC BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40008	1+00.00	13,848,694.84	3,143,996.65	13,847,307.90	3,143,681.78	SET CONC. NAIL
40009	10+00.00	13,848,741.10	3,144,895.46	13,847,354.15	3,144,580.50	SET CONC. NAIL
40010	12+75.00	13,848,755.23	3,145,170.10	13,847,368.28	3,144,855.11	SET COTTON SPINDLE

ANZAC FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
552	3+30.40	24.53 RT	FOUND 1/2" IP.
553	3+80.37	24.69 RT	FOUND 1/2" IP.
554	4+30.18	24.30 RT	FOUND 1/2" IP.

MARKET CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
35	2+20.43	25.50 RT	13,848,430.89	3,144,130.82	13,847,043.97	3,143,815.93	40.50	SET "X" IN CONC.
48	4+52.17	23.17 RT	13,848,445.13	3,144,362.14	13,847,058.21	3,144,047.23	41.87	SET 5/8" IR. W/LANDTECH CAP
34	7+21.30	25.05 RT	13,848,430.89	3,144,130.82	13,847,070.16	3,144,316.07	41.01	SET "X" IN CONC.
47	9+01.99	20.78 RT	13,848,488.62	3,144,813.35	13,847,101.70	3,144,498.40	41.71	SET "X" IN CONC.
33	12+32.38	34.93 LT	13,848,629.33	3,145,123.51	13,847,242.39	3,144,808.52	40.85	SET "X" IN CONC.

MARKET BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40003	1+00.00	13,848,450.17	3,144,009.24	13,847,063.25	3,143,694.37	SET CUT "X" IN CONC.
40004	8+33.85	13,848,487.88	3,144,742.11	13,847,100.96	3,144,427.17	SET CUT "X" IN CONC.
40005	10+00.00	13,848,538.01	3,144,900.53	13,847,151.08	3,144,585.57	SET CUT "X" IN CONC.
40006	11+82.90	13,848,593.18	3,145,074.90	13,847,206.25	3,144,759.93	SET CONC. NAIL
40007	13+50.00	13,848,597.31	3,145,241.95	13,847,210.38	3,144,926.96	SET CUT "X" IN CONC.

MARKET FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
549	4+55.96	29.93 RT	FOUND 1/2" IR.
551	7+40.18	30.30 RT	FOUND 5/8" IR.

ABILENE CONTROL								
POINT#	STATION	OFFSET	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	ELEVATION	DESCRIPTION
30	1+85.52	9.68 RT	13,848,190.24	3,144,108.24	13,846,803.35	3,143,793.36	43.07	SET CONC. NAIL IN ASP
31	7+00.26	8.80 LT	13,848,235.14	3,144,621.35	13,846,848.24	3,144,306.42	43.40	SET 5/8" IR. W/LANDTECH CAP
32	11+55.54	15.45 RT	13,848,234.32	3,145,077.28	13,846,847.43	3,144,762.30	39.39	SET CONC. NAIL IN ASP
45	4+61.74	6.66 LT	13,848,220.75	3,144,383.27	13,846,833.86	3,144,068.36	43.72	SET CONC. NAIL IN ASP
46	9+06.94	8.63 RT	13,848,228.35	3,144,828.66	13,846,841.46	3,144,513.71	42.87	SET CONC. NAIL IN ASP
5558-1203	N/A	N/A	13,847,892.87	3,143,157.23	13,846,506.01	3,142,842.45	40.64	MON COH 5558-1203-FOUND

ABILENE BASELINE						
POINT#	STATION	SURF. NORTHING	SURF. EASTING	GRID NORTHING	GRID EASTING	DESCRIPTION
40000	1+00.00	13,848,195.50	3,144,022.34	13,846,808.61	3,143,707.47	SET CONC. NAIL
40001	10+00.00	13,848,241.76	3,144,921.15	13,846,854.86	3,144,606.19	SET CONC. NAIL
40002	12+22.62	13,848,253.20	3,145,143.48	13,846,866.30	3,144,828.50	SET 5/8" IR. W/LANDTECH CAP

ABILENE FOUND CORNERS			
POINT#	STATION	OFFSET	DESCRIPTION
539	5+30.10	25.03 LT	FOUND 1/2" IP.
540	4+30.46	25.02 LT	FOUND 1/2" IP.
541	3+30.70	24.91 LT	FOUND 1/2" IR.
542	2+80.37	25.04 LT	FOUND 1/2" IP.
543	2+30.25	24.14 RT	FOUND 1/2" IR. W/CAP (ILLEGIBLE)
544	2+80.16	24.40 RT	FOUND 1/2" IR.
545	4+55.12	24.69 RT	FOUND 1/2" IR.
546	7+80.16	25.39 RT	FOUND 1/2" IR.
547	9+80.40	24.01 LT	FOUND 1/2" IR.
548	9+30.41	24.18 LT	FOUND 1/2" IR.

LINE	BEARING	DISTANCE
L1	N72°38'11"E	996.42'
L2	N83°40'08"E	276.71'
L3	N86°32'32"E	238.52'
L4	S88°07'33"E	207.42'
L5	N88°37'30"E	248.69'
L6	N86°28'38"E	231.76'
L7	N87°27'19"E	269.13'
L8	N80°11'09"E	185.06'
L9	N65°35'53"E	340.58'
L10	N85°40'47"E	224.13'
L11	N87°52'18"E	281.89'
L12	N82°23'34"E	214.18'
L13	N86°13'41"E	193.75'
L36	N02°29'22"E	222.15'
L37	N09°02'44"W	261.37'

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TBPE Firm Registration No. F-4491

LANDTECH
1315 W SAM HOUSTON PKWY N
STE 100
HOUSTON, TEXAS 77043
T: 713-861-7068 F: 713-861-4131
TBPELS REGISTRATION NO. 10019100

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

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SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SURVEY CONTROL MAP SHEET 4 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 14 OF 339	

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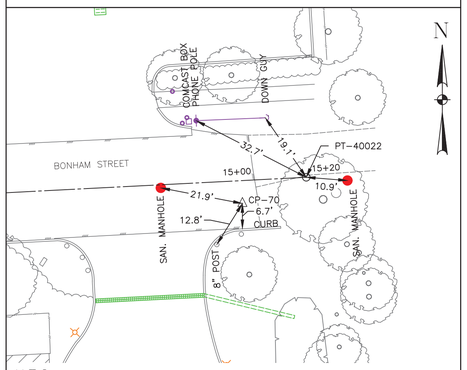
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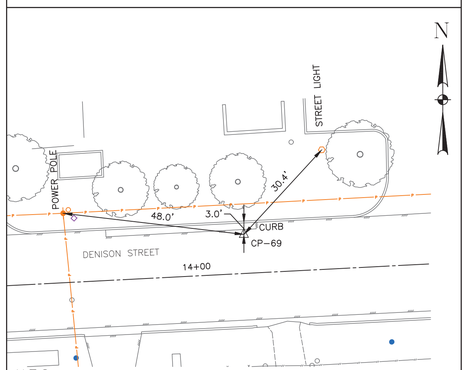
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NO.	DATE	REVISION	APP.

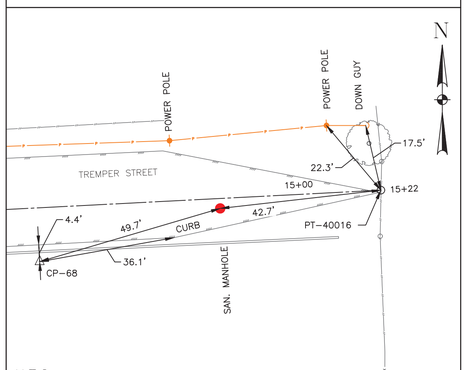
CP-70, PT-40022



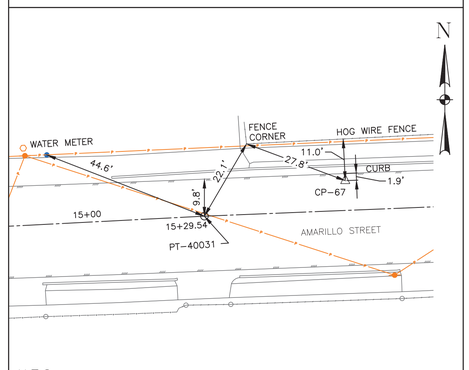
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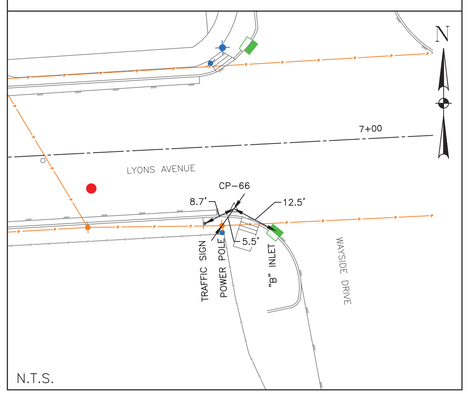
CP-68, PT-40016



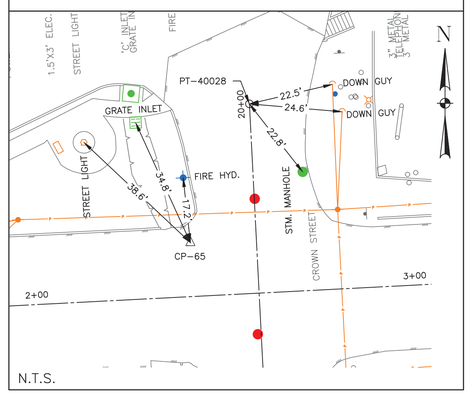
CP-67, PT-40031



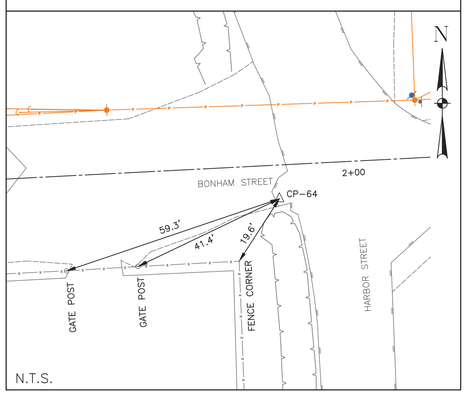
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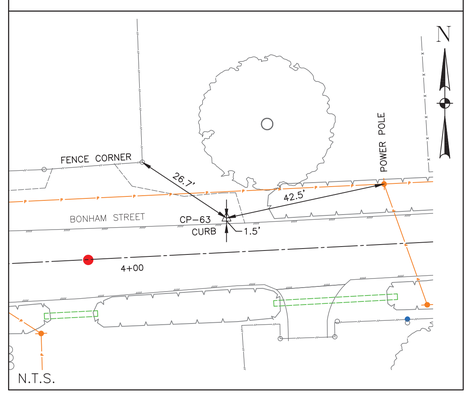
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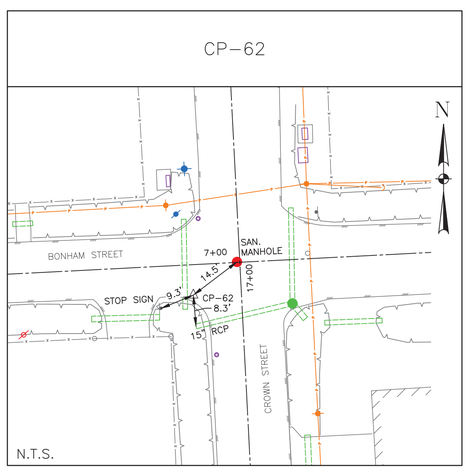
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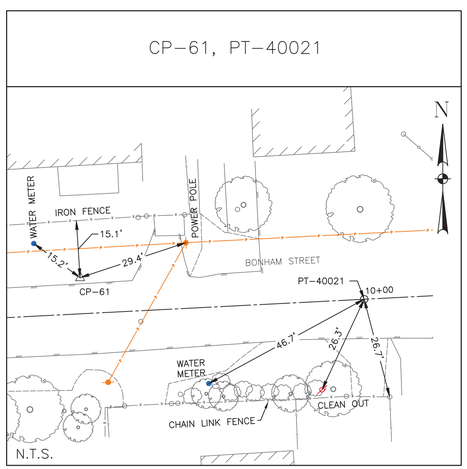
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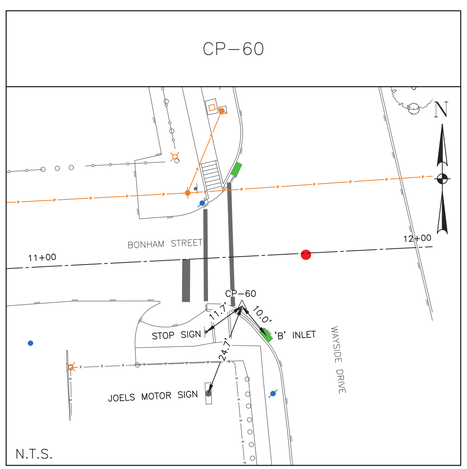
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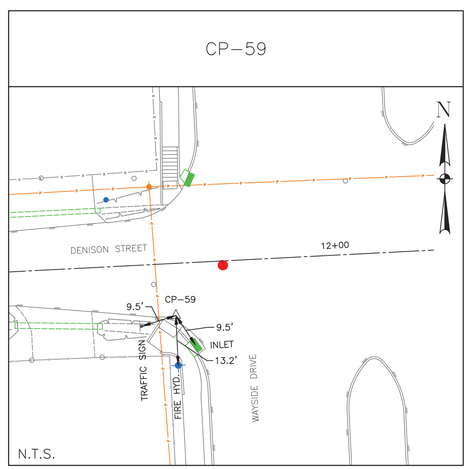
CP-61, PT-40021



CP-60



CP-59



BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
ELEV = 40.64' (NAVD 88)

NOTES:
1. BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE. DISTANCES ARE SURFACE VALUES. SURFACE = GRID/0.99989985044.
2. HORIZONTAL AND VERTICAL CONTROLS USING GPS OBSERVATIONS AND DIGITAL LEVELING HOLDING CITY OF HOUSTON MONUMENT 5558-1203. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. FIELD WORK COMPLETED IN DECEMBER 2025

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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TBPELS REGISTRATION NO. 10019100

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

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SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

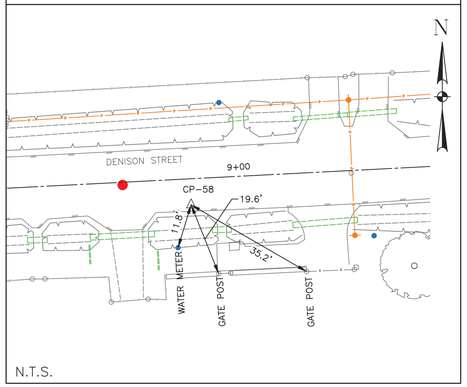
SWING TIES
SHEET 1 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 15 OF 339	

PLOTTED: 5/13/2026 2:07 PM
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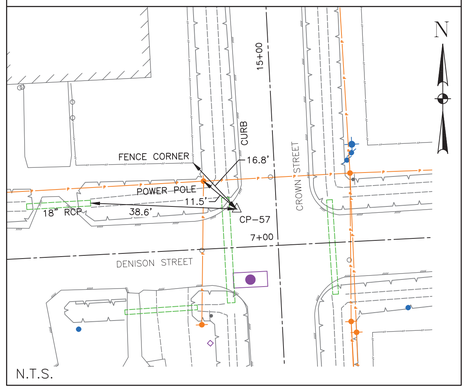
NO.	DATE	REVISION	APP.

CP-58



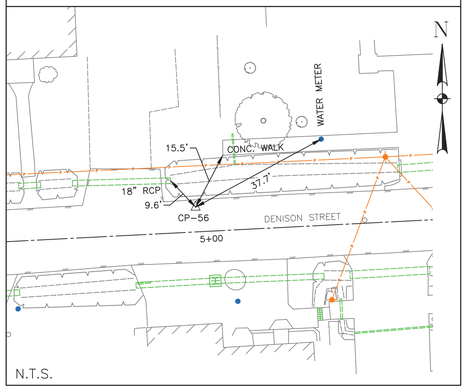
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CP-57



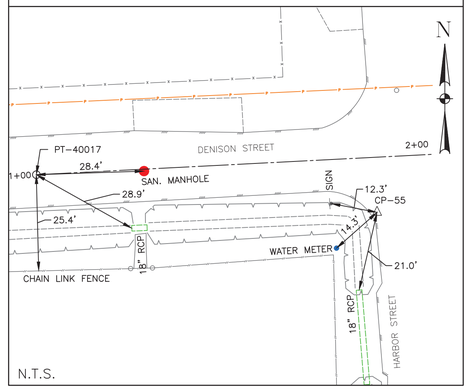
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CP-56



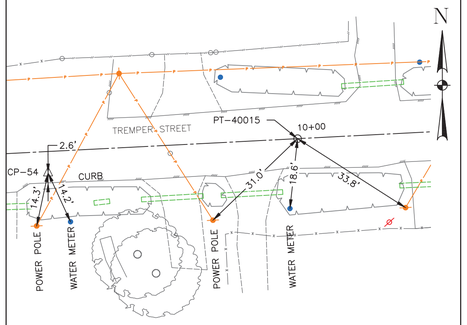
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CP-55, PT-40017



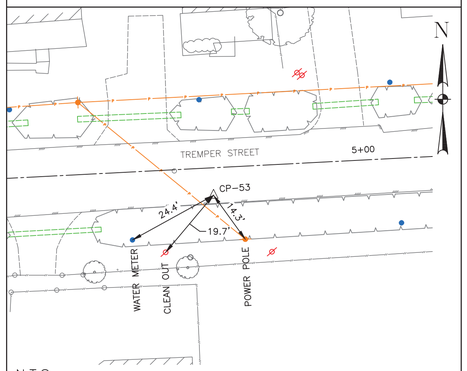
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CP-54, PT-40015



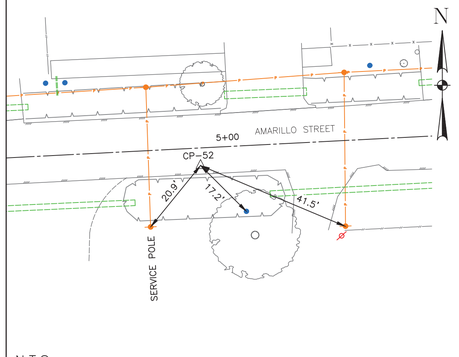
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CP-53



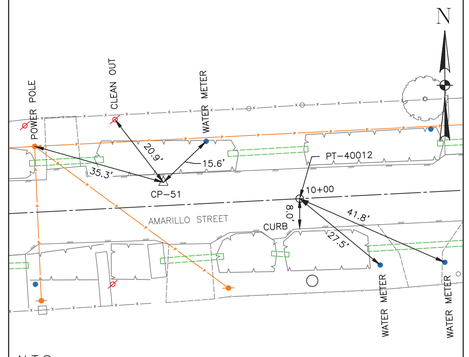
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CP-52



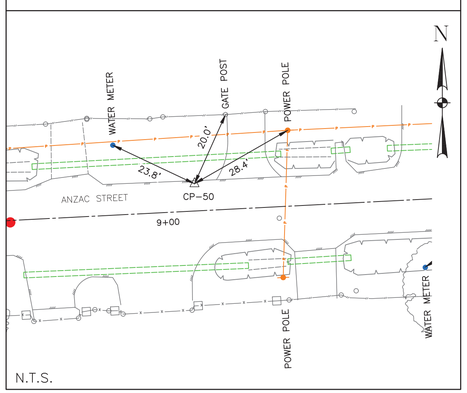
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CP-51, PT-40012



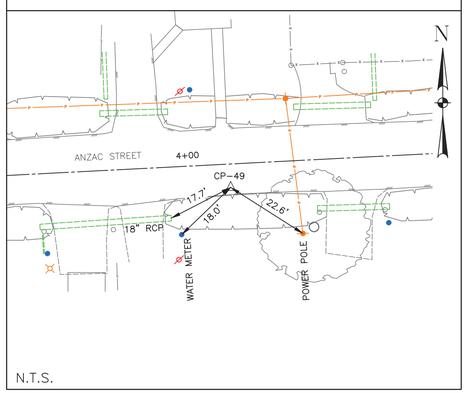
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CP-50



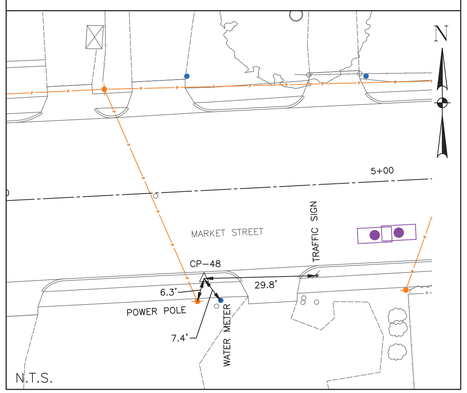
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CP-49



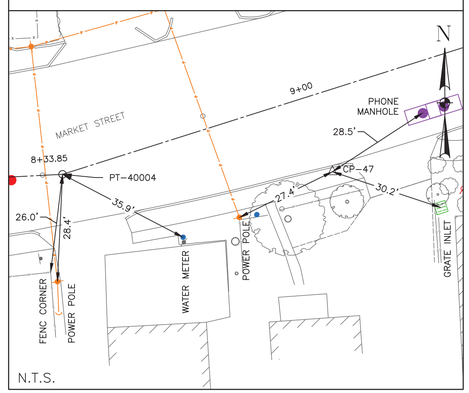
N.T.S.

CP-48



N.T.S.

CP-47, PT-40004



N.T.S.

BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
ELEV = 40.64' (NAVD 88)

NOTES:
1. BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE. DISTANCES ARE SURFACE VALUES. SURFACE = GRID/0.99989985044.
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3. FIELD WORK COMPLETED IN DECEMBER 2025

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SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

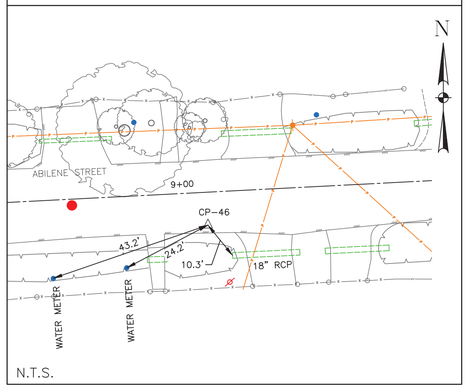
SWING TIES
SHEET 2 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 16 OF 339	

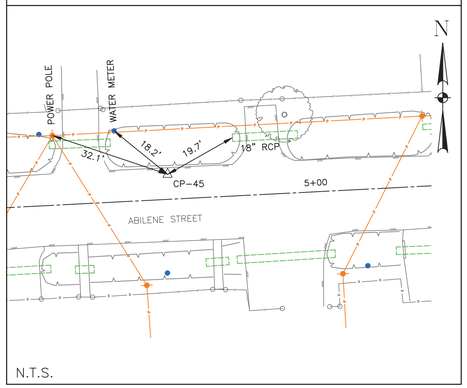
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NO.	DATE	REVISION	APP.

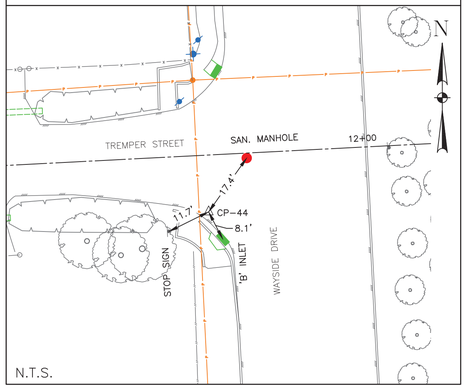
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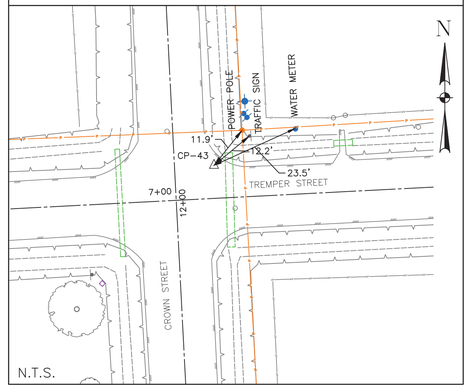
CP-45



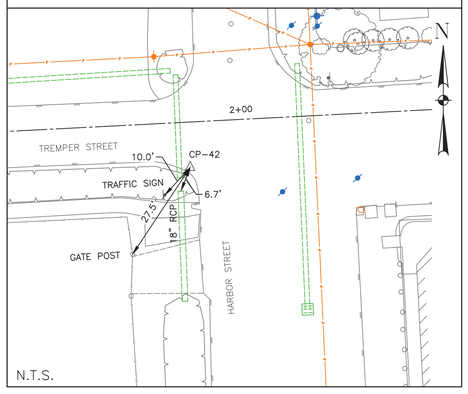
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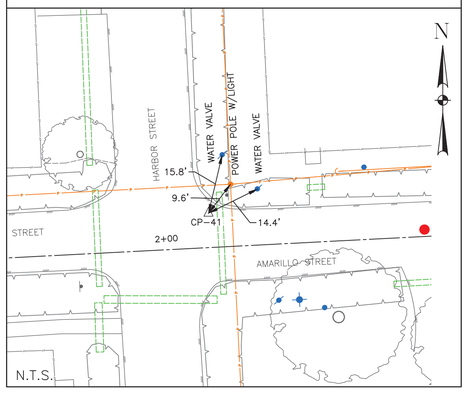
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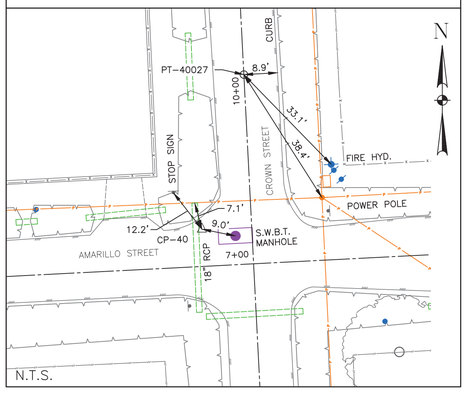
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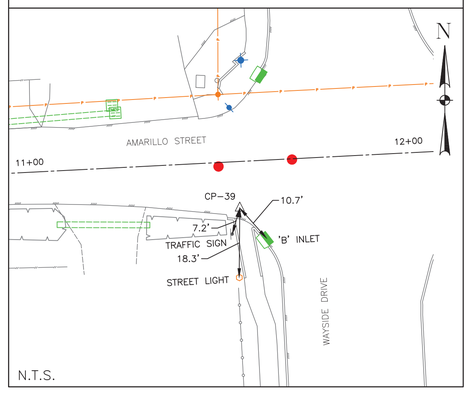
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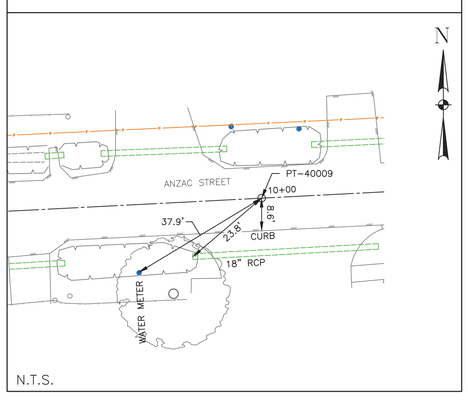
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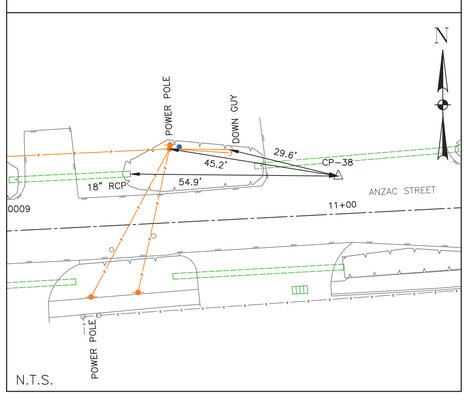
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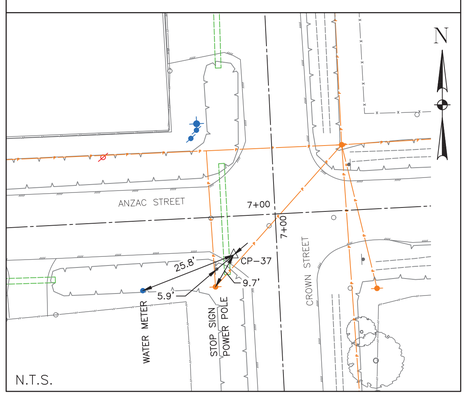
PT-40009



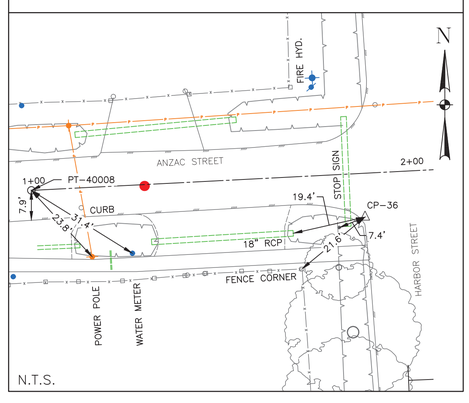
CP-38



CP-37



CP-36, PT-40008



PT-40009

CP-38

CP-37

CP-36, PT-40008

BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
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NOTES:
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3. FIELD WORK COMPLETED IN DECEMBER 2025

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

LANDTECH
1315 W SAM HOUSTON PKWY N
STE 100
HOUSTON, TEXAS 77043
T: 713-861-7068 F: 713-861-4131
TBPELS REGISTRATION NO. 10019100

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

FOR INTERIM REVIEW ONLY

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

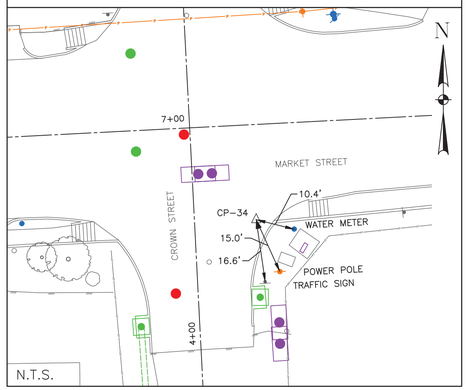
SWING TIES
SHEET 3 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 17 OF 339	

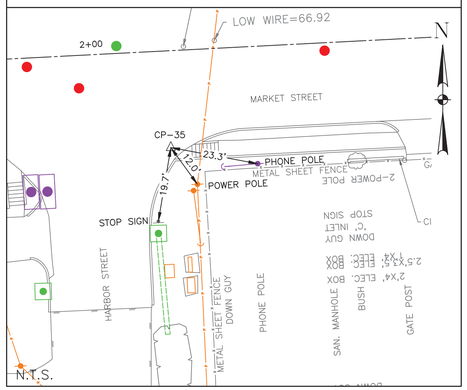
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NO.	DATE	REVISION	APP.

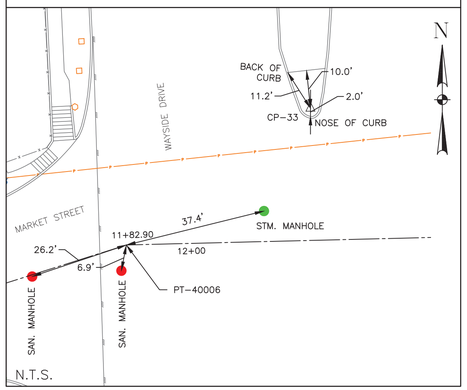
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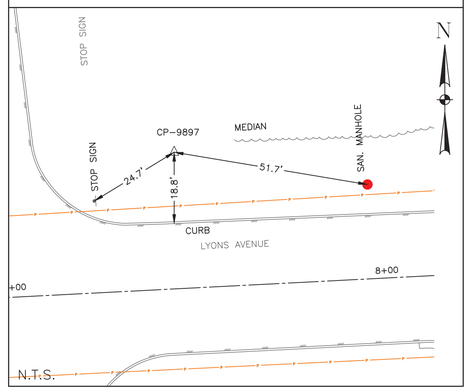
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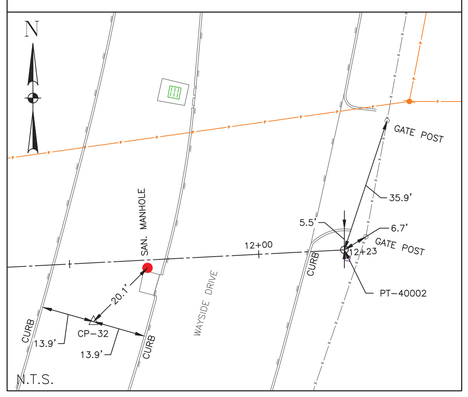
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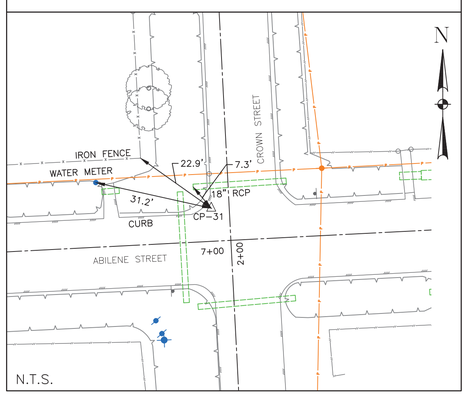
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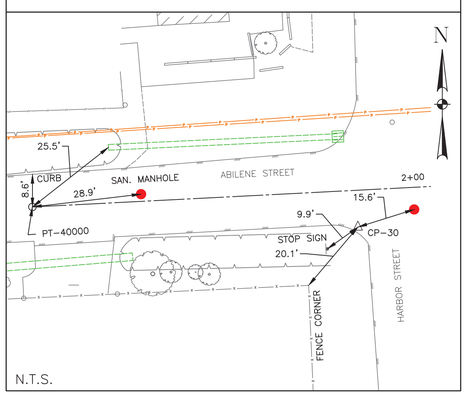
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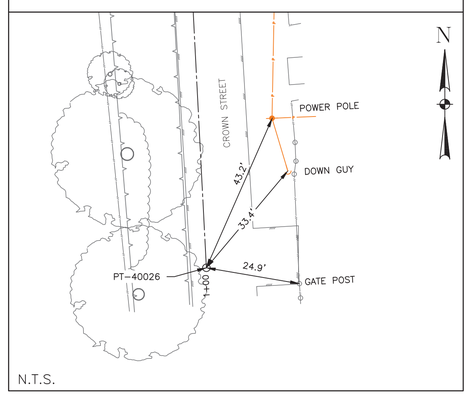
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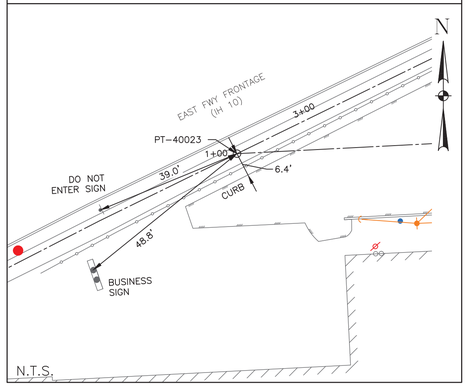
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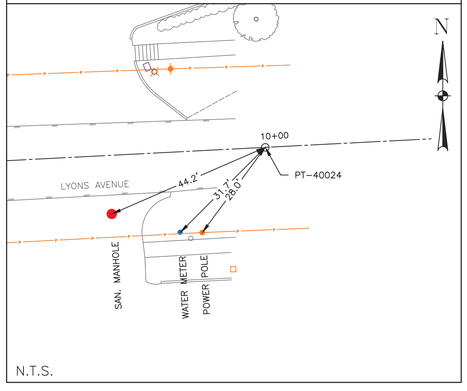
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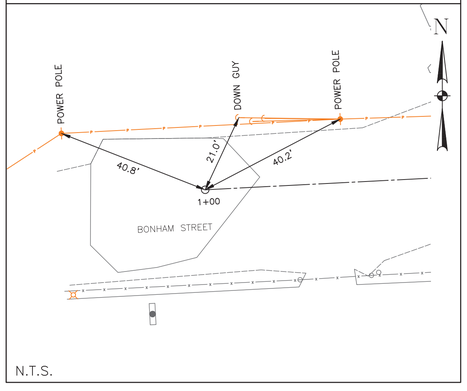
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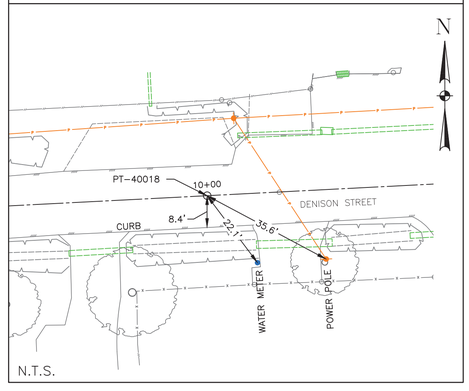
PT-40024



PT-40020



PT-40018



BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
ELEV = 40.64' (NAVD 88)

NOTES:
1. BEARINGS AND COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE. DISTANCES ARE SURFACE VALUES. SURFACE = GRID/0.9998985044.
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3. FIELD WORK COMPLETED IN DECEMBER 2025

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TBPELS REGISTRATION NO. 10019100

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

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SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWING TIES
SHEET 4 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 18 OF 339	

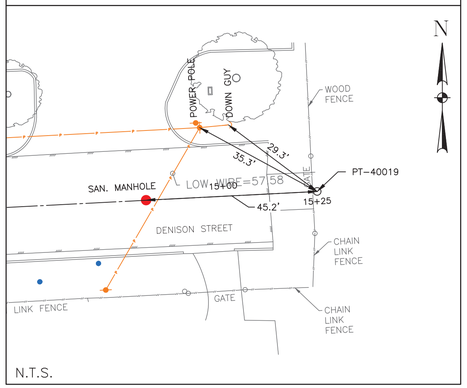
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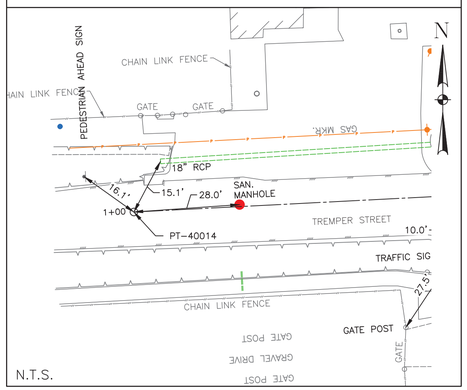
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NO.	DATE	REVISION	APP.

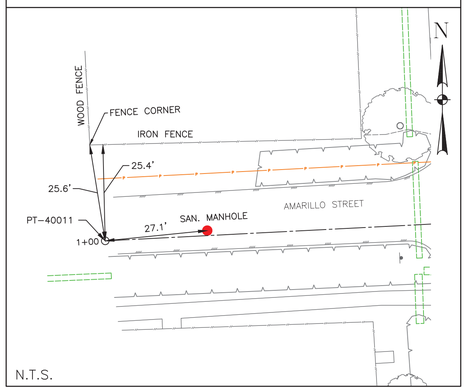
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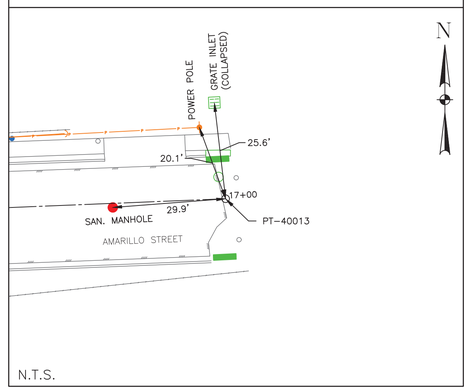
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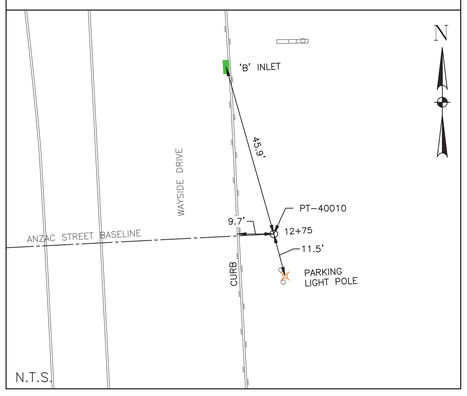
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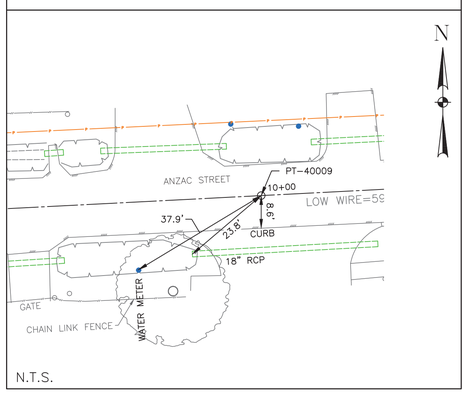
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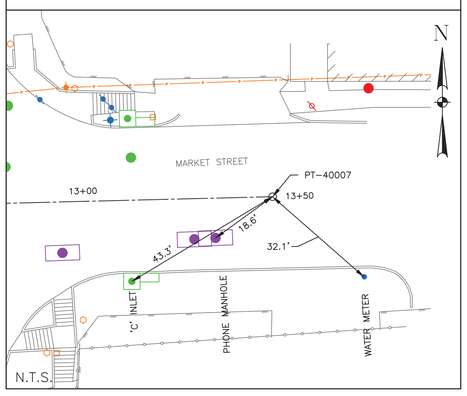
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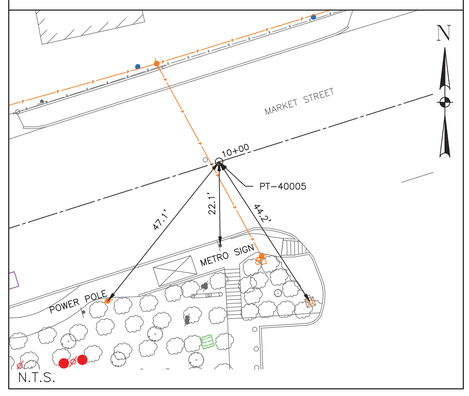
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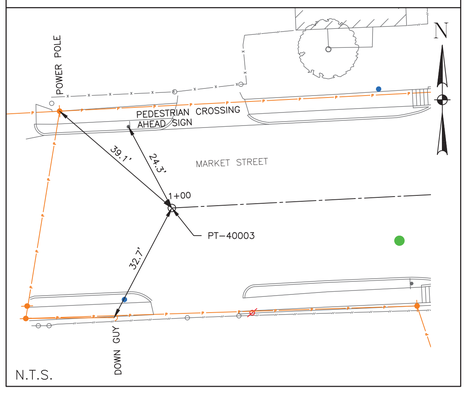
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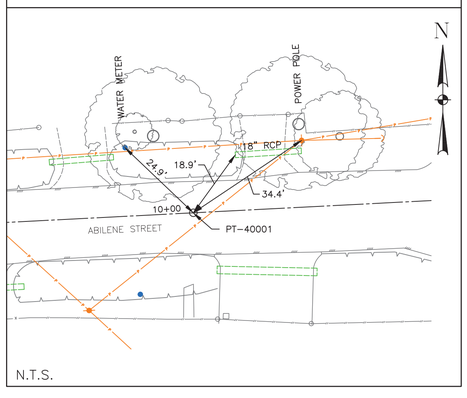
PT-40005



PT-40003



PT-40001



BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
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FB NO. P-6450

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

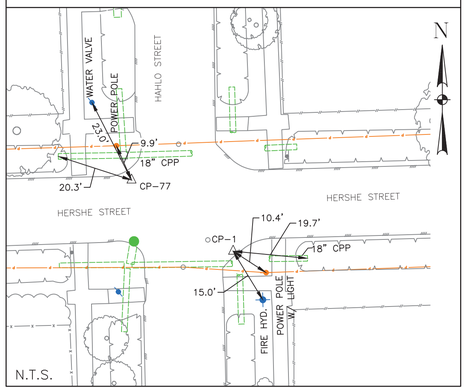
SWING TIES
SHEET 5 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 19 OF 339	

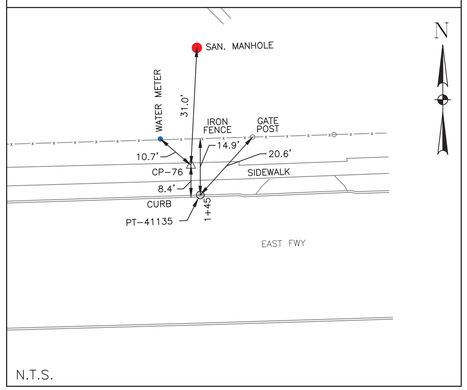
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NO.	DATE	REVISION	APP.

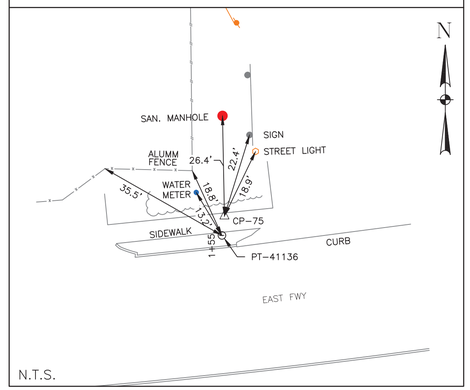
CP-77 AND CP-1



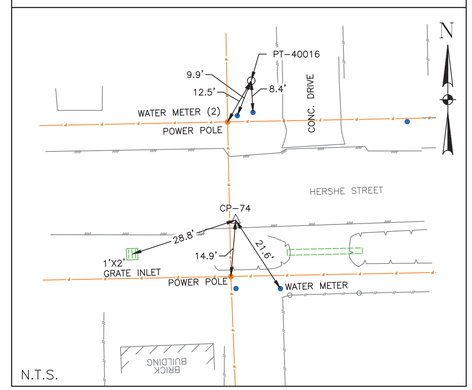
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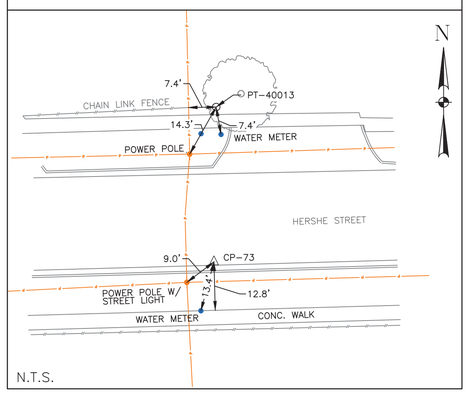
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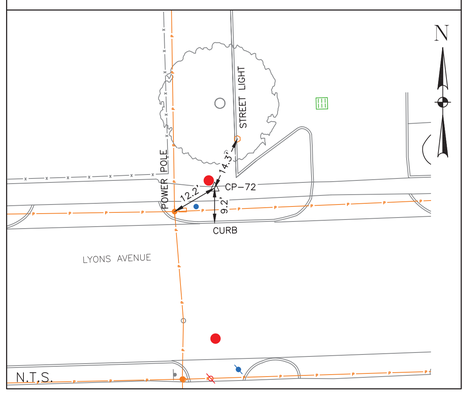
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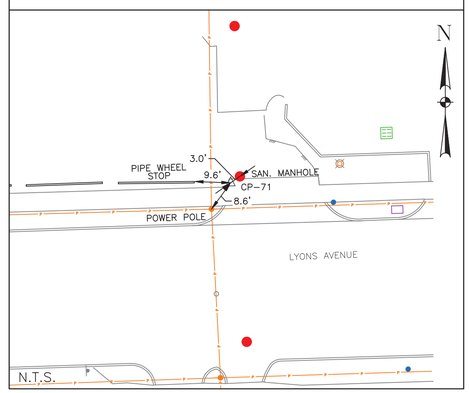
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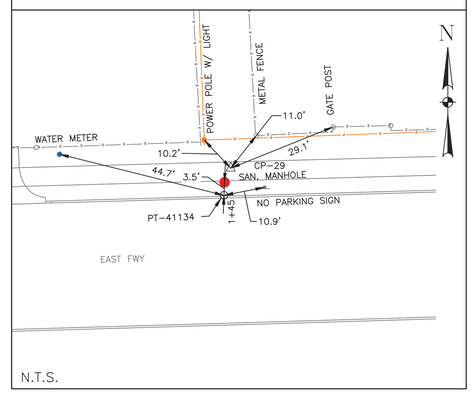
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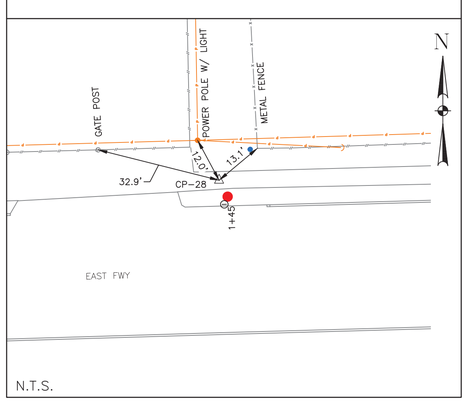
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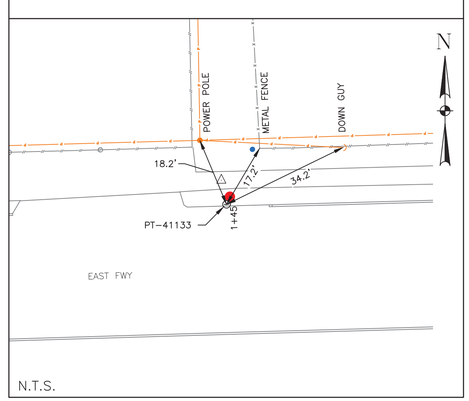
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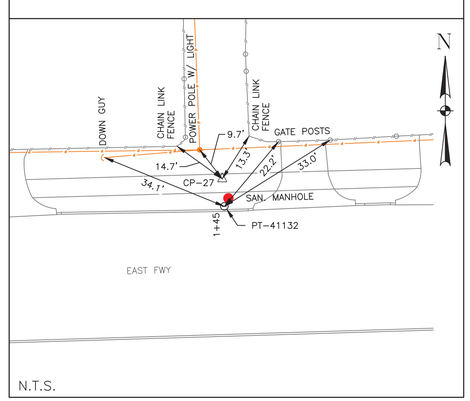
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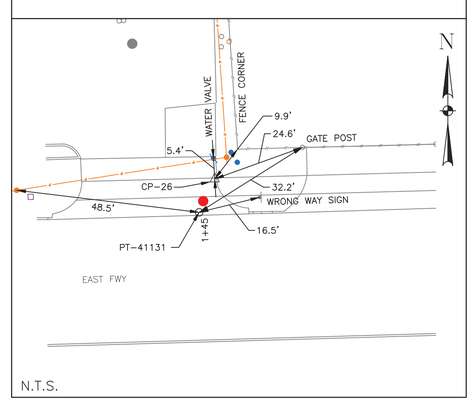
PT-41133



CP-27, PT-41132



CP-26, PT-41131



BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
ELEV = 40.64' (NAVD 88)

NOTES:
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SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

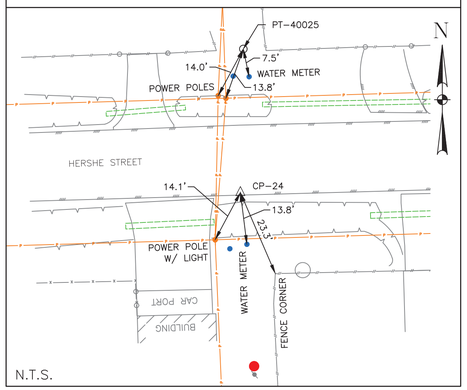
SWING TIES
SHEET 6 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 20 OF 339	

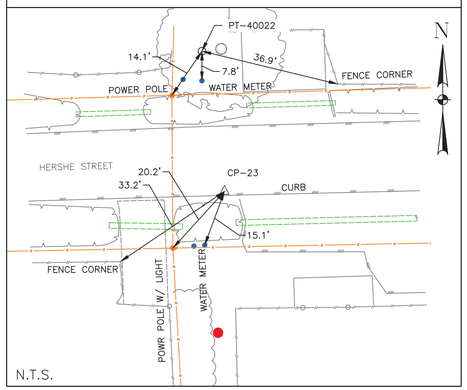
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NO.	DATE	REVISION	APP.

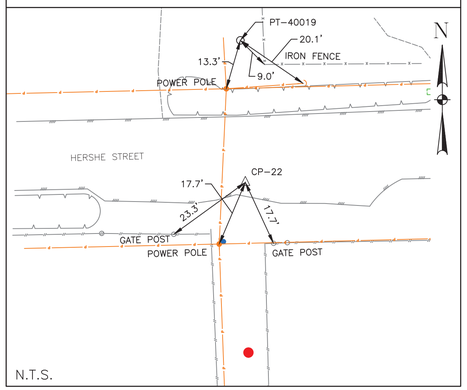
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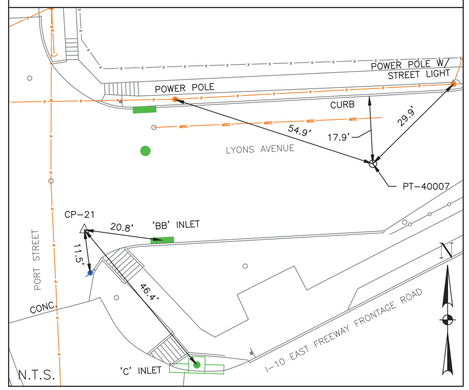
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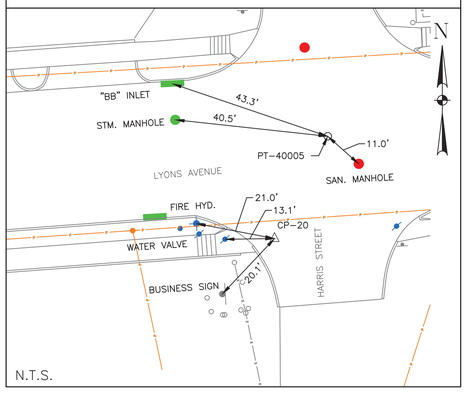
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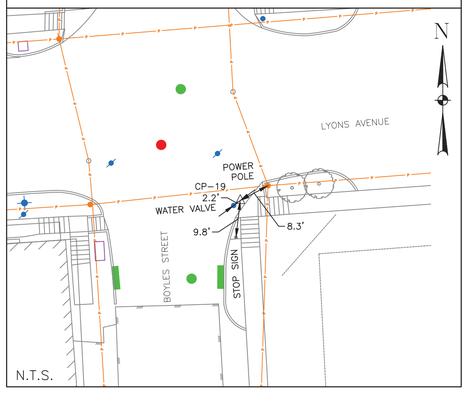
CP-21 AND PT-40007



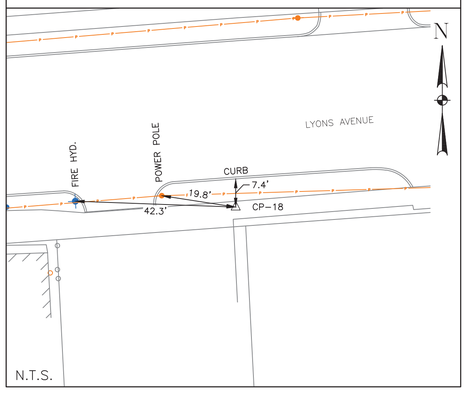
CP-20, PT-40005



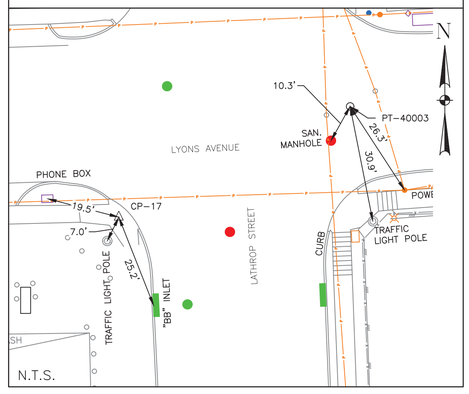
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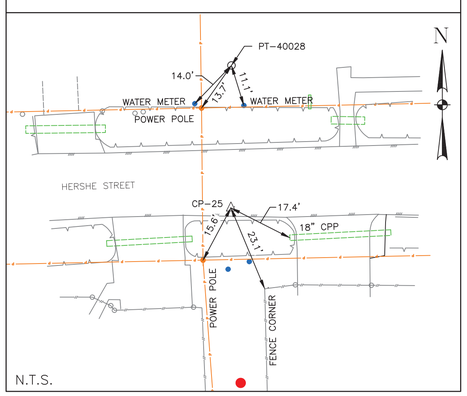
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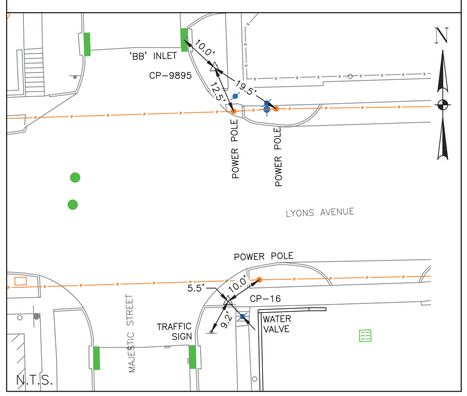
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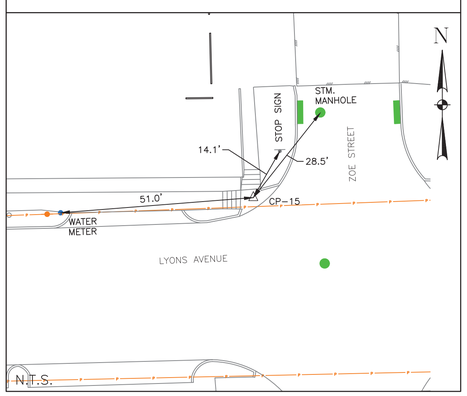
CP-25, PT-40028



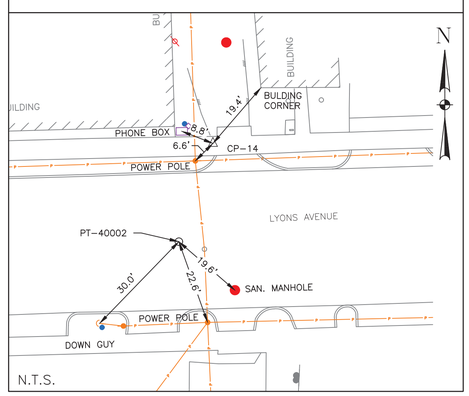
CP-16 AND CP-9895



CP-15



CP-14, PT-40002



BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
ELEV = 40.64' (NAVD 88)

NOTES:
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3. FIELD WORK COMPLETED IN DECEMBER 2025

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

LANDTECH
1315 W SAM HOUSTON PKWY N
STE 100
HOUSTON, TEXAS 77043
T: 713-861-7068 F: 713-861-4131
TBPELS REGISTRATION NO. 10019100

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

FOR INTERIM REVIEW ONLY

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SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

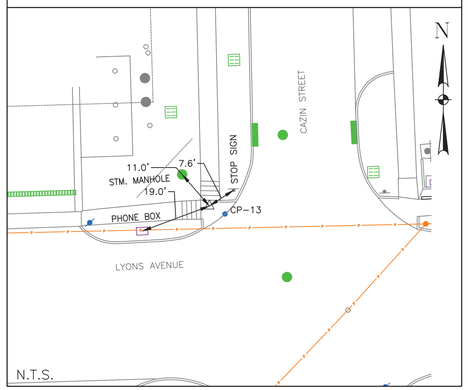
SWING TIES
SHEET 7 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 21 OF 339	

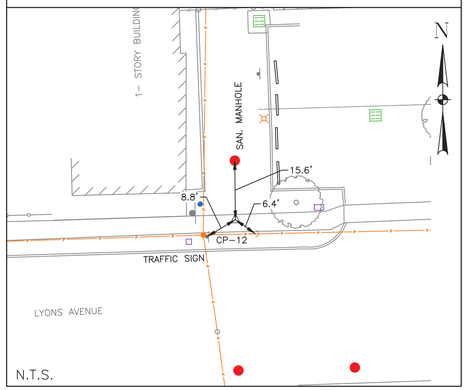
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NO.	DATE	REVISION	APP.

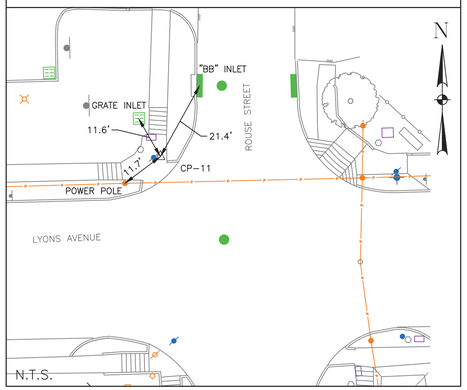
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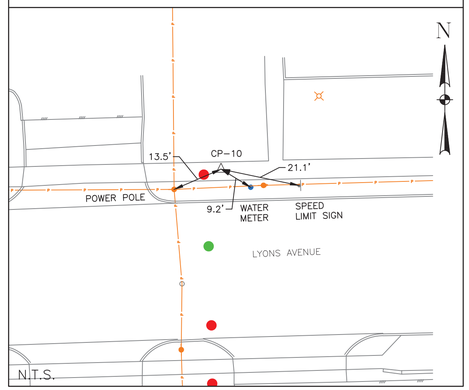
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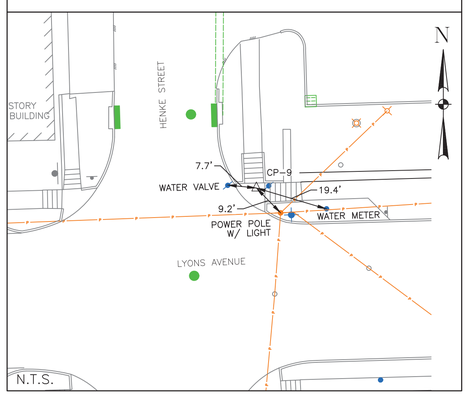
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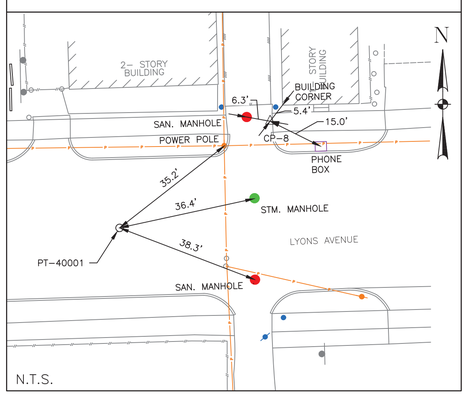
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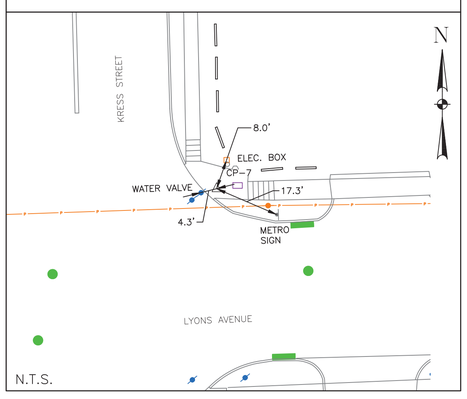
CP-9



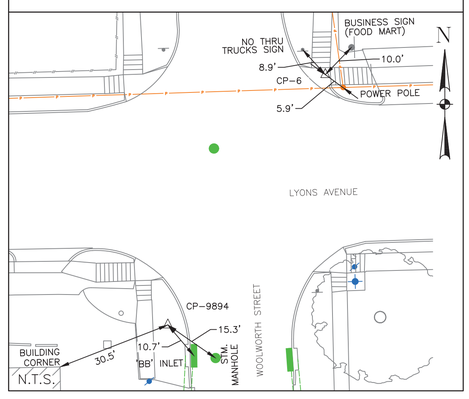
CP-8, PT-40001



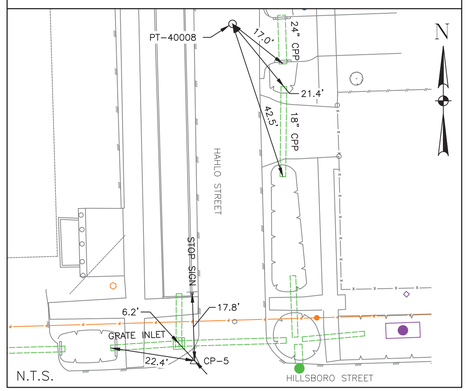
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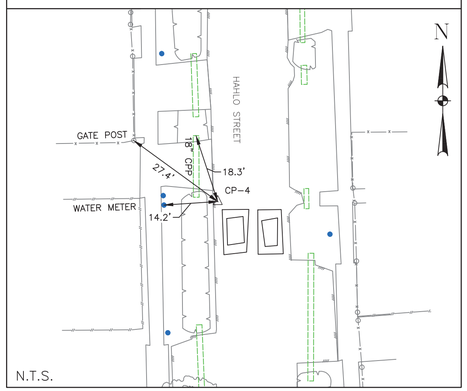
CP-6



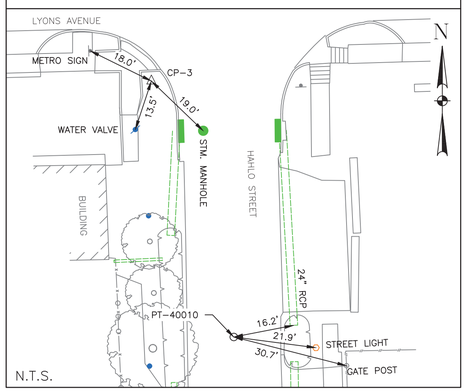
CP-5, PT-40008



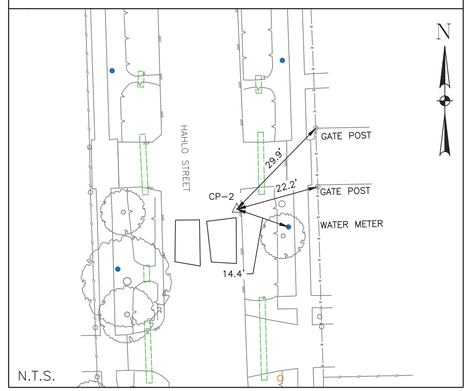
CP-4



CP-3, PT-40010



CP-2



BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
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3. FIELD WORK COMPLETED IN DECEMBER 2025

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TBPELS REGISTRATION NO. 10019100

Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

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SURVEYED BY: LANDTECH, INC.
FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

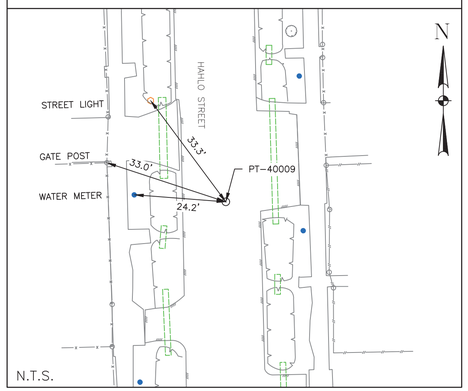
SWING TIES
SHEET 8 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 22 OF 339	

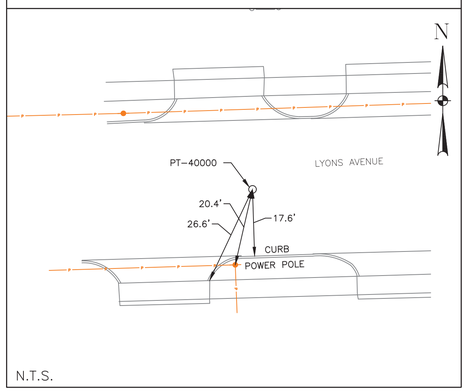
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NO.	DATE	REVISION	APP.

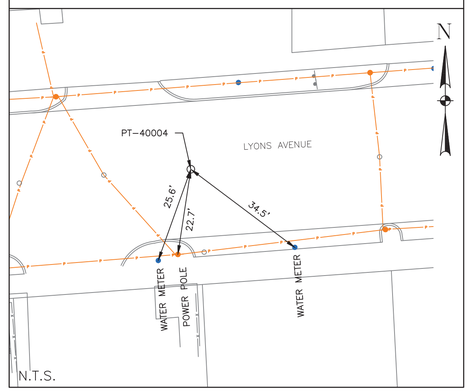
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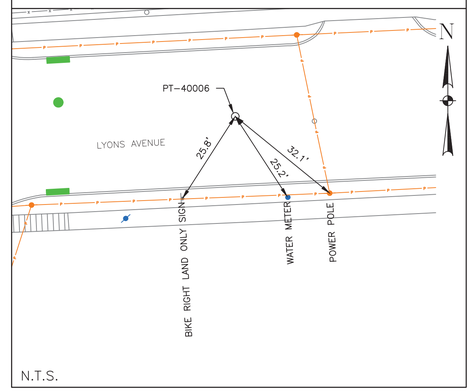
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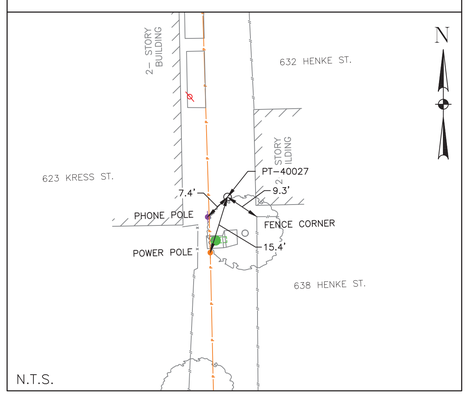
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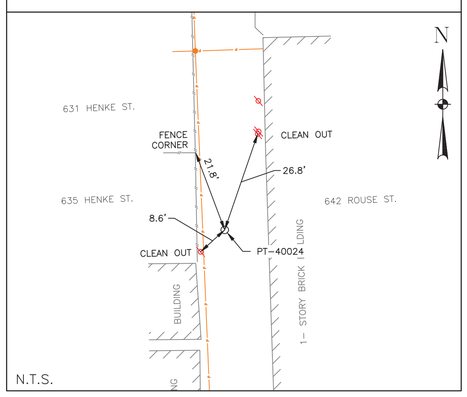
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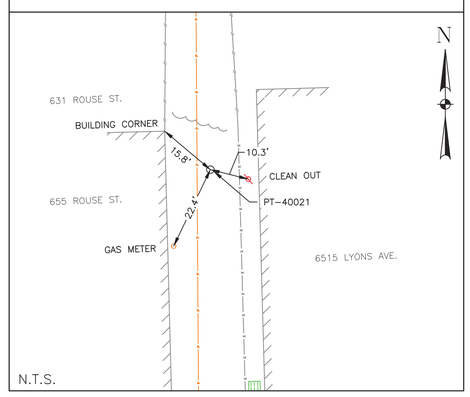
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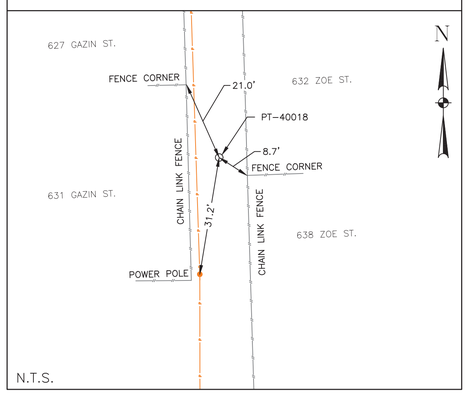
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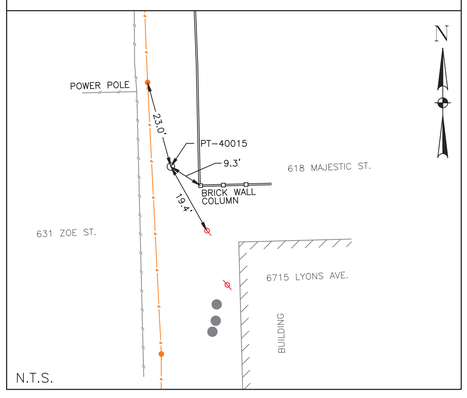
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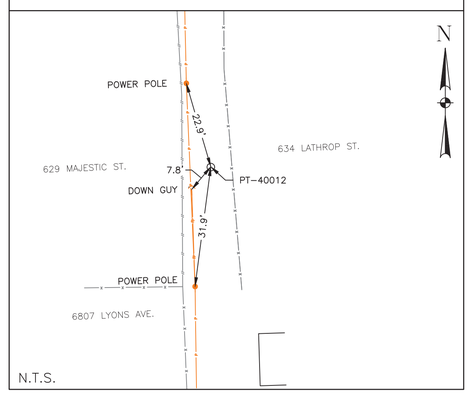
PT-40018



PT-40015



PT-40012



BENCHMARK:
CITY OF HOUSTON SURVEY SITE CONTROL MONUMENT 5558-1203: FOUND BRASS DISK IN CONCRETE AT SOUTHWEST CORNER OF A FOOT BRIDGE LOCATED AT THE WEST END OF EL PASO ST.
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Released by: Nhuy Nguyen, TX RPLS #6409
Date: May 13, 2026

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FB NO. P-6450

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWING TIES
SHEET 9 OF 9

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 23 OF 339	

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FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\LYONS AVE. PLAN.dwg

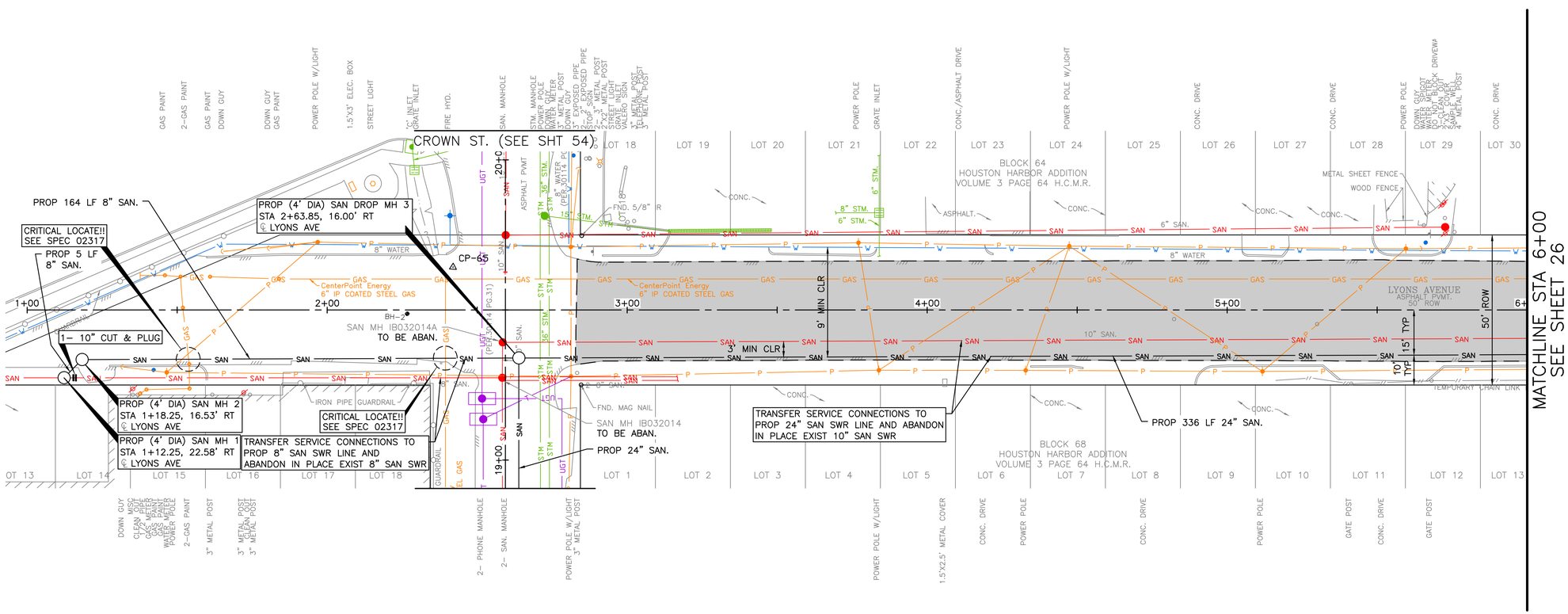
N

0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

TBM
CP-65 SET CONC NAIL IN ASP
2+41.92, 14.29' LT
EL= 41.51

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)



LYONS AVE.

CIVITAS ENGINEERING GROUP Engineers ● Planners ● Construction Managers 2000 W. Sam Houston Pkwy S., Suite 1400 Houston, Texas 77042 Phone: (713)783-8700, Fax: (713)783-8747 TBPE Firm Registration No. F-4491 SURVEYED BY: LANDTECH, INC. FB NO.	FOR INTERIM REVIEW ONLY DOCUMENT INCOMPLETE: NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES ENGINEER: YONGKI SHIM, PE P.E. SERIAL No: 114557 DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PLAN
STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 24 OF 339	

PROP SAN MH 1
ADJUST RIM EL TO
PROP PVMT
8" FL(W)=33.71

PROP SAN MH 2
ADJUST RIM EL TO
PROP PVMT
8" FL(W)=33.69
8" FL(E)=33.69

PHONE MANHOLE
RIM=41.29
BOTTOM=32.79
THROAT=38.29
CABLE=40.69

PHONE MANHOLE
RIM=41.55
BOTTOM=31.95
THROAT=38.35
CABLE=37.55

SAN MANHOLE
RIM=41.64
10" FL(S)=29.89

SAN MANHOLE (S)
RIM=41.38
10" FL(E)=29.84

SAN MANHOLE
RIM=41.38
8" FL(E)=34.38
8" FL(E)=30.28
10" FL(NW)=29.78
8" FL(W)=29.98
8" FL(W)=29.98

SAN MANHOLE (N)
(ABAN.)
RIM=41.40
TOP OF DIRT=40.70
FULL OF DIRT
(PER.30114 PG.31)

PROP DROP SAN
MH 3
ADJUST RIM EL TO
PROP PVMT
24" FL(E)=25.88
24" FL(W)=25.73
24" FL(S)=25.88

STM MANHOLE
RIM=41.31
15" FL(E)=37.71
BOTTOM=37.01
36" FL(N/S)

GRATE INLET
TOP=41.09
15" FL(W)=39.49

GRATE INLET
TOP=41.13
BOTTOM=40.73

GRATE INLET
TOP=40.91
6" FL(N&S)=39.21
8" FL(W)=39.21

SAN MANHOLE (ABAN.)
RIM=41.46
BOLTED SAMPLE WELL
(PER.30114 PG.32)

NORTH R.O.W.
SOUTH R.O.W.
CL OF ROAD

NORTH T.O.C.
SOUTH T.O.C.

VPI STA= 2+83.02
EL= 41.44

SOUTH R.O.W.
CL OF ROAD
NORTH R.O.W.

SOUTH T.O.C.
NORTH T.O.C.

-0.28%

℄ OF PROP PVMT

STA= 6+00.00
EL= 40.55

4' MIN COVER

AT&T texas/S.W.B.T.28 MTD ducts
LOGIX FIBER NETWORKS
logix in existing AT&T duct
(PER. 30114 PG. 31)

AT&T BURIED CABLE

6" FH LEAD

2' MIN CLR

STM

15" STM

6" STM

8" STM

36" STM

SAN

6" SAN (PER.30114 PG.32)

8" SAN

10" SAN

12" SAN

8" WATER

PROP 8" SAN.
159 LF @ 0.44%

HGL

PROP 24" SAN.
@ FL=25.88'(S)

PROP 24" SAN.
334 LF @ 0.11%

FL EL= 25.51

MATCHLINE STA 6+00 - SEE SHEET 27

1+00 2+00 3+00 4+00 5+00 6+00

LEGEND
FLOW DIRECTION
HYDRAULIC GRADE LINE (HGL)

NO.	DATE	REVISION	APP.

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TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

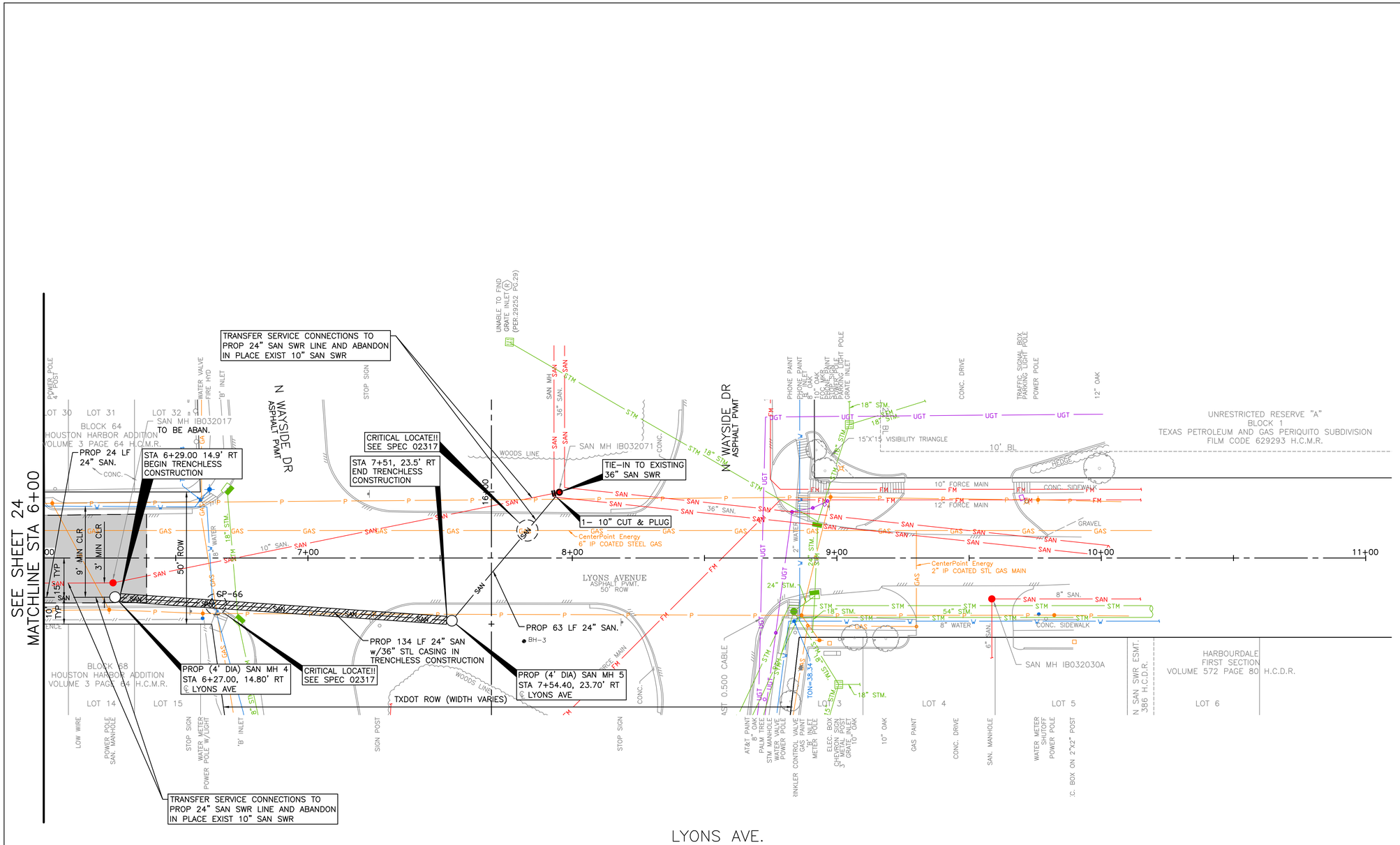
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PROFILE
STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 25 OF 339	

PLOTTED: 10/28/2026 10:45 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\LYONS AVE. PLAN_PROFILE-2.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

TBM
CP-66 SET CONC NAIL IN ASP
6+63.58, 16.61' RT
EL= 40.05

LEGEND

LIMITS OF PVMT CONSTRUCTION

NOTES:

1. CONTRACTOR TO CONFORM TO SECTIONS 02448 – PIPE AND CASING AUGERING FOR SEWERS AND 02431 – TUNNEL GROUT AFTER THE GRAVITY SEWER INSTALLATION.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE. PLAN STA 6+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 26 OF 339	

PLOTTED: 10/28/2026 10:46 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 8\LYONS AVE. PLAN.dwg

PLOTTED: 10/28/2026 10:28 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\LYONS AVE.PROFILE.dwg

MATCHLINE STA 6+00 – SEE SHEET 25

PROP SAN MH 4
ADJUST RIM EL TO
PROP PVMT
24" FL(E)=25.49
24" FL(W)=25.49

STA= 6+00.00
EL= 40.55

℄ OF PROP PVMT

VPI STA= 6+38.91
EL= 40.44

−0.28%

SAN MANHOLE
RIM=40.40
10" FL(NE)=28.55
10" FL(W)=28.70

'B' INLET (N)
TOP=40.59
18" FL(S)=34.39
'B' INLET (S)
TOP=40.32
18" FL(N)=34.32
18" FL(S)=35.27
'B' INLET
TOP=40.24
BOTTOM=34.04

18" STM
8" WATER
2' MIN CLR
4' MIN COVER

PROP SAN MH 5
ADJUST RIM EL TO
PROP PVMT
24" FL(E)=25.35
24" FL(W)=25.35

MH 19876
SAN MANHOLE
RIM=40.88
36" FL(E)=14.58
36" FL(W)=14.58
10" FL(W)=27.98
24" FL(W)=25.31
12" FL(W)=14.58

STM MANHOLE
RIM=40.04
54" FL(E)=25.24
24" FL(NE)=32.54
24" FL(W)=32.64
18" FL(S)=34.54
60" FL(SW)=25.04

'B' INLET (S)
TOP=40.04
24" FL(N)=34.04
18" FL(S)=35.44
'B' INLET (N)
TOP=40.04
18" FL(N)=34.99
24" FL(S)=34.74
STM MANHOLE
RIM=40.04
GRATE=40.88
18" FL(E)=37.28
18" FL(W)=37.23
15" FL(S)=37.33

SAN MANHOLE
RIM=41-16
6" FL(S)=35.18
BOTTOM=33.88

SOUTH T.O.C.
SOUTH R.O.W.
NORTH T.O.C.
NORTH R.O.W.
CL OF ROAD
SOUTH R.O.W.
CL OF ROAD
NORTH R.O.W.
SOUTH T.O.C.
NORTH T.O.C.

18" STM
2" WATER
8" WATER
24" STM
STM
6" SAN
8" SAN
SAN
10" SLUDGE FORCE MAIN
(PER.30114 PG.33)
FM
HGL
12" SLUDGE FORCE MAIN
(PER.30114 PG.33)
(PER.29252 PG.29)
10" SAN
PROP 24" SAN.
24 LF @ 0.11%
PROP 24" SAN.
63 LF @ 0.11%
60" STM.
54" STM
PROP 24" SAN.
130 LF @ −0.11%
PROP 122 LF OF 24" SAN SWR
TRENCHLESS CONSTRUCTION
w/36" STEEL CASING
STA 6+29 TO 7+51
FL EL= 25.51
36" SAN
FL EL= 14.58

6+00 7+00 8+00 9+00 10+00 11+00

0' 10' 20' 40'
SCALE: 1"=20'

LEGEND
FLOW DIRECTION
HYDRAULIC GRADE LINE (HGL)

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

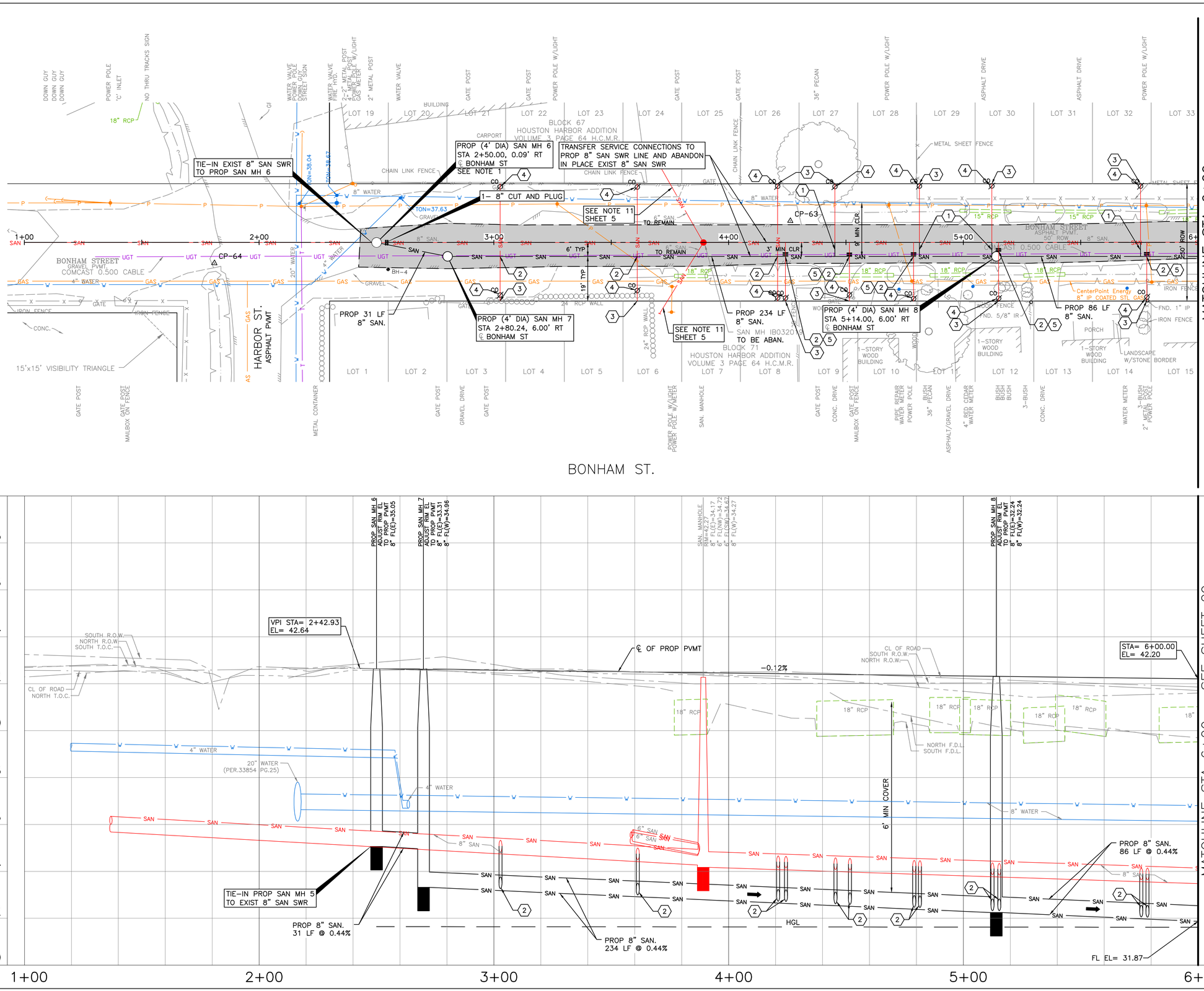
SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PROFILE
STA 6+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 27 OF 339	



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P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

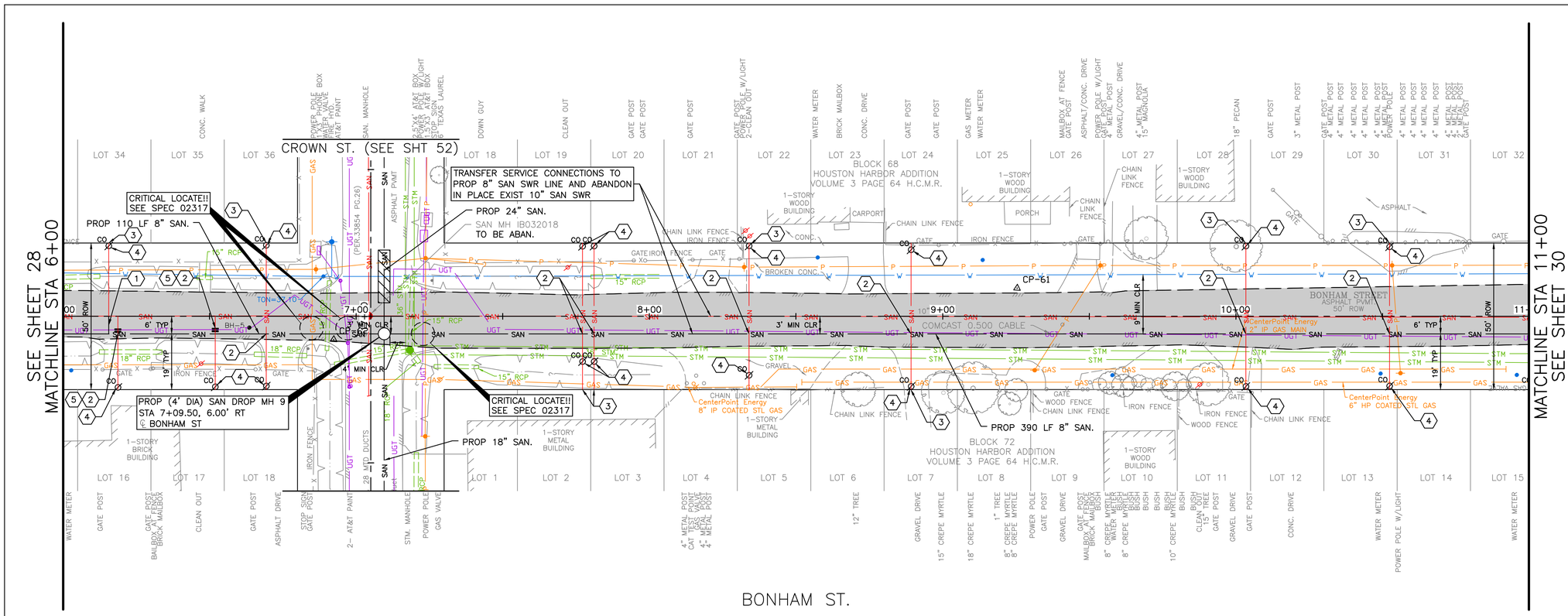
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

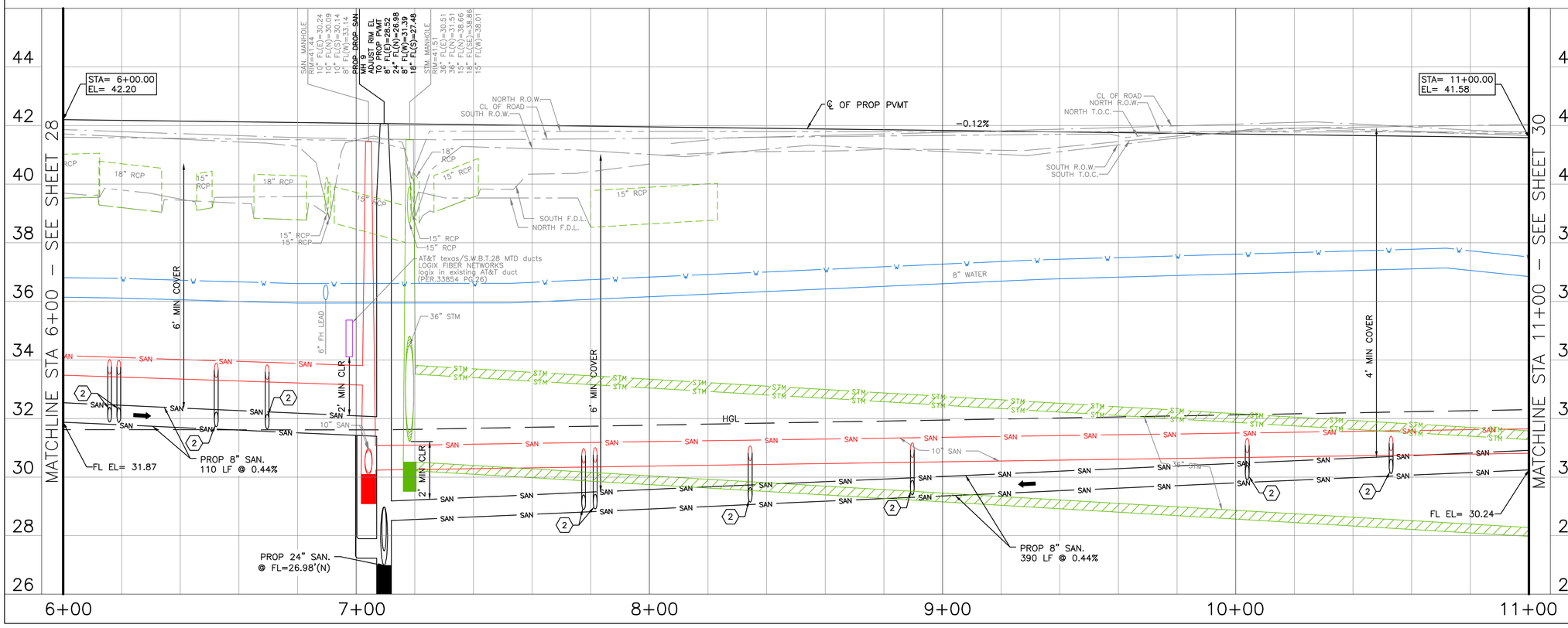
BONHAM ST. PLAN & PROFILE STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 28 OF 339	

NO.	DATE	REVISION	APP.

PLOTTED: 10/28/2026 10:36 AM
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FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 8\BONHAM ST. PLAN.dwg





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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BONHAM ST. PLAN & PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 29 OF 339	

PLOTTED: 10/28/2026 10:29 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\BONHAM ST. PLAN.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

TBM
CP-60 SET CONC NAIL IN ASP
11+52.09, 13.02' RT
EL= 41.13

CP-70 SET CONC NAIL IN ASP
15+02.82, 5.99' RT
EL= 40.73

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:
1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE BONHAM ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.
3. CONTRACTOR TO CONFORM TO SECTIONS 02448 – PIPE AND CASING AUGERING FOR SEWERS AND 02431 – TUNNEL GROUT AFTER THE GRAVITY SEWER INSTALLATION.

KEYNOTES
1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

NO.	DATE	REVISION	APP.

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P.E. SERIAL No: 114557
DATE: 10/28/2026

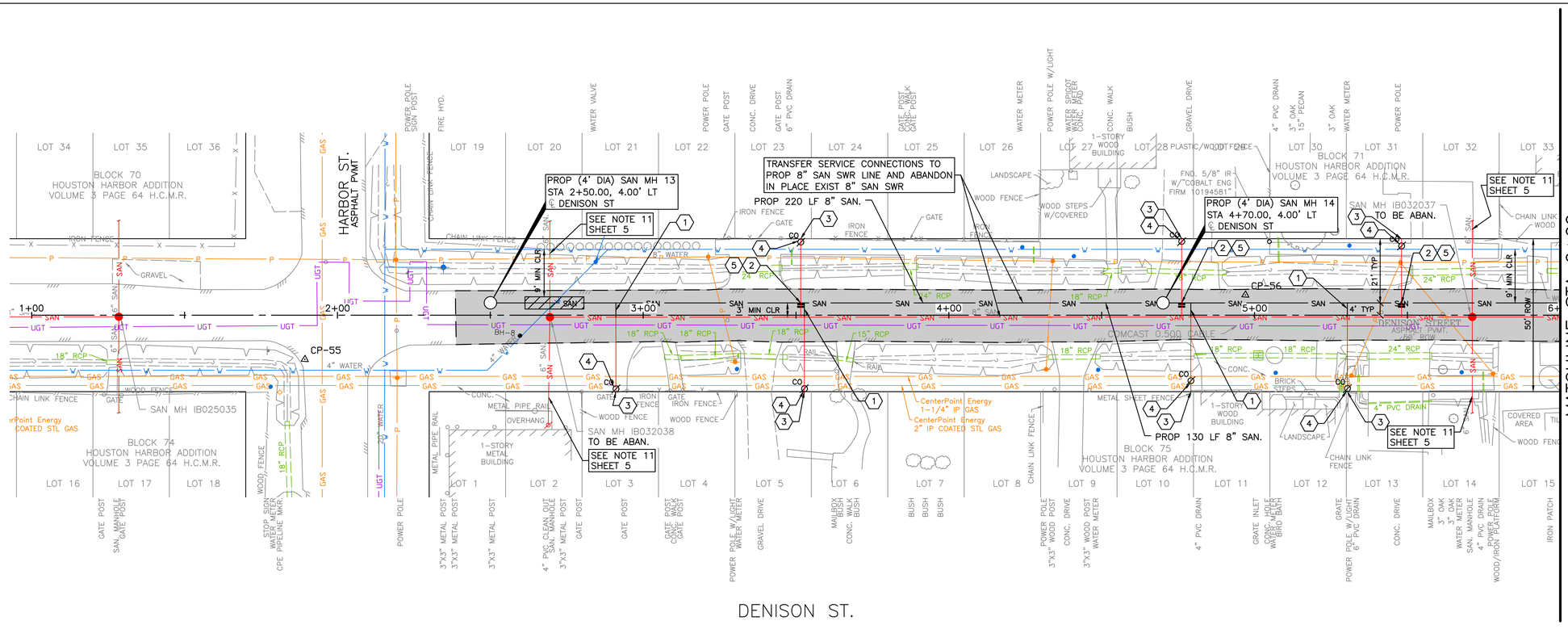
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

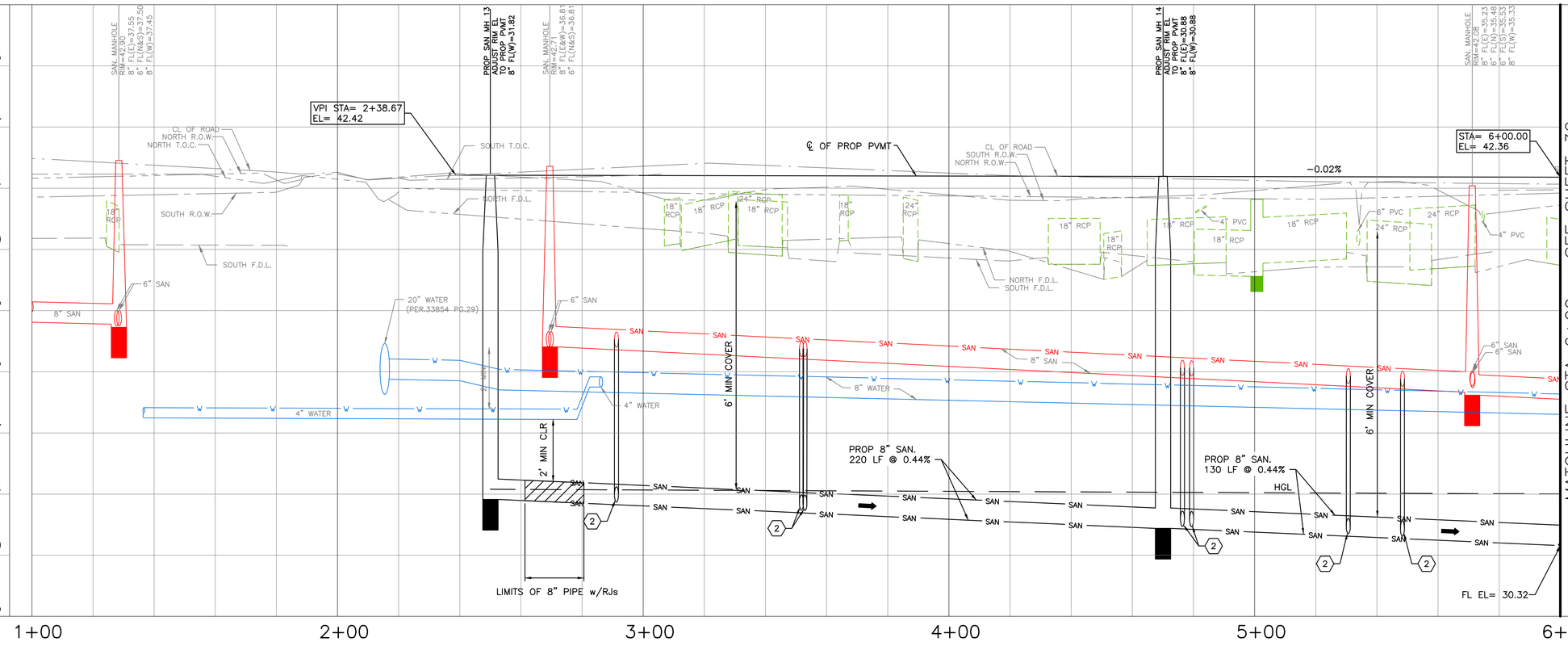
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BONHAM ST.
PLAN & PROFILE
STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 30 OF 339	

PLOTTED: 10/28/2026 10:34 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\BONHAM ST PLAN.dwg





N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

TBM

CP-55 SET CONC NAIL IN ASP
1+89.31, 14.49' RT
EL= 42.31

CP-56 SET CONC NAIL IN ASP
4+96.98, 6.58' LT
EL= 42.11

LEGEND

- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE DENISON ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

KEYNOTES

1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

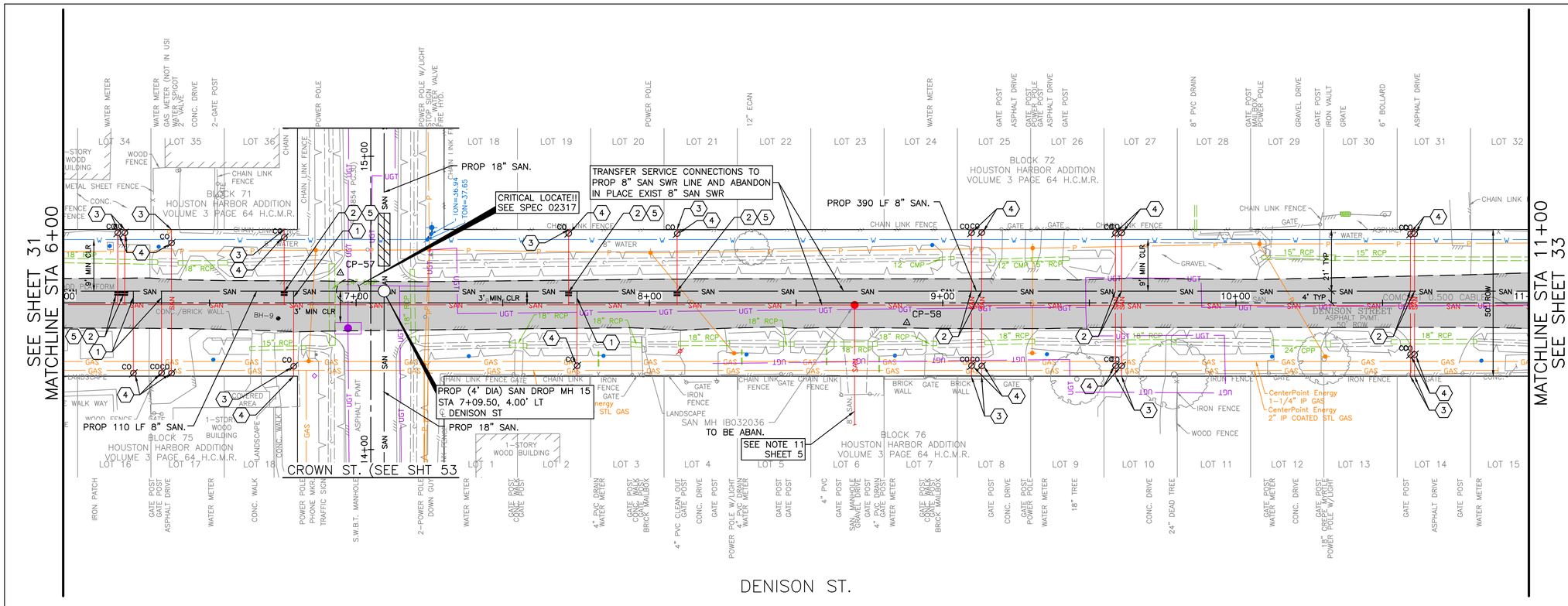
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

DENISON ST. PLAN & PROFILE STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 31 OF 339	

PLOTTED: 10/28/2026 10:34 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 8\DENISON ST. PLAN.dwg



TBM
CP-57 SET MAG NAIL
6+94.56, 10.17' LT
EL= 41.82

CP-58 SET CONC NAIL IN ASP
8+87.76, 6.82' RT
EL= 42.03

LEGEND

- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

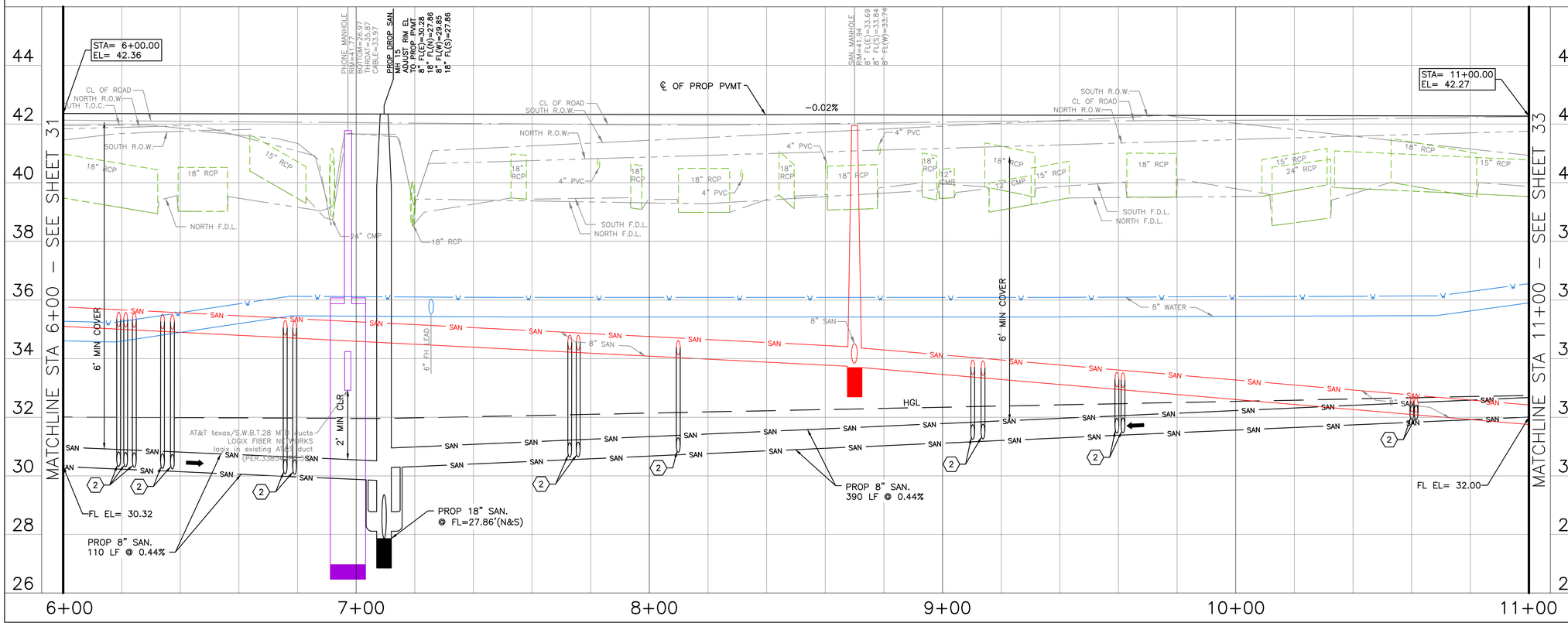
NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE DENISON ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

KEYNOTES

1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

NO.	DATE	REVISION	APP.



civitas ENGINEERING GROUP
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TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

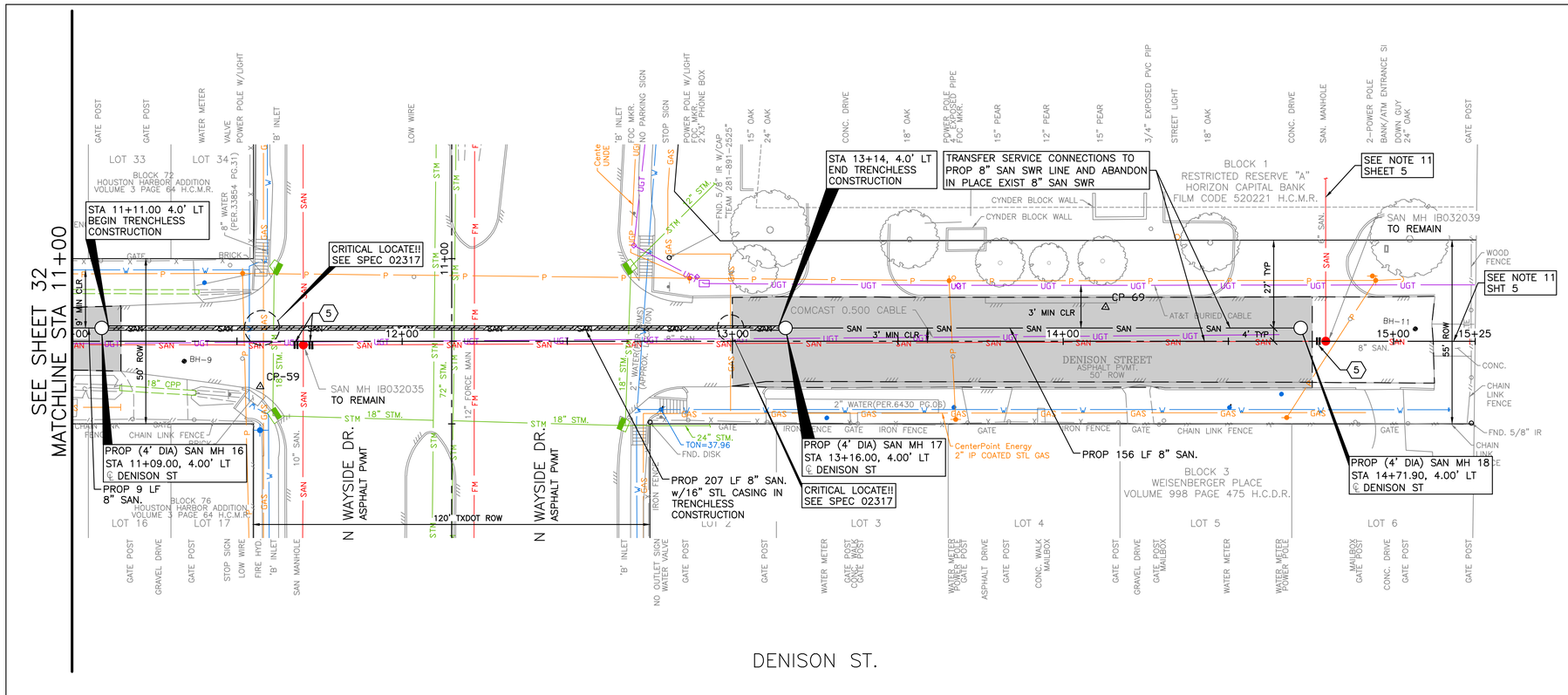
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

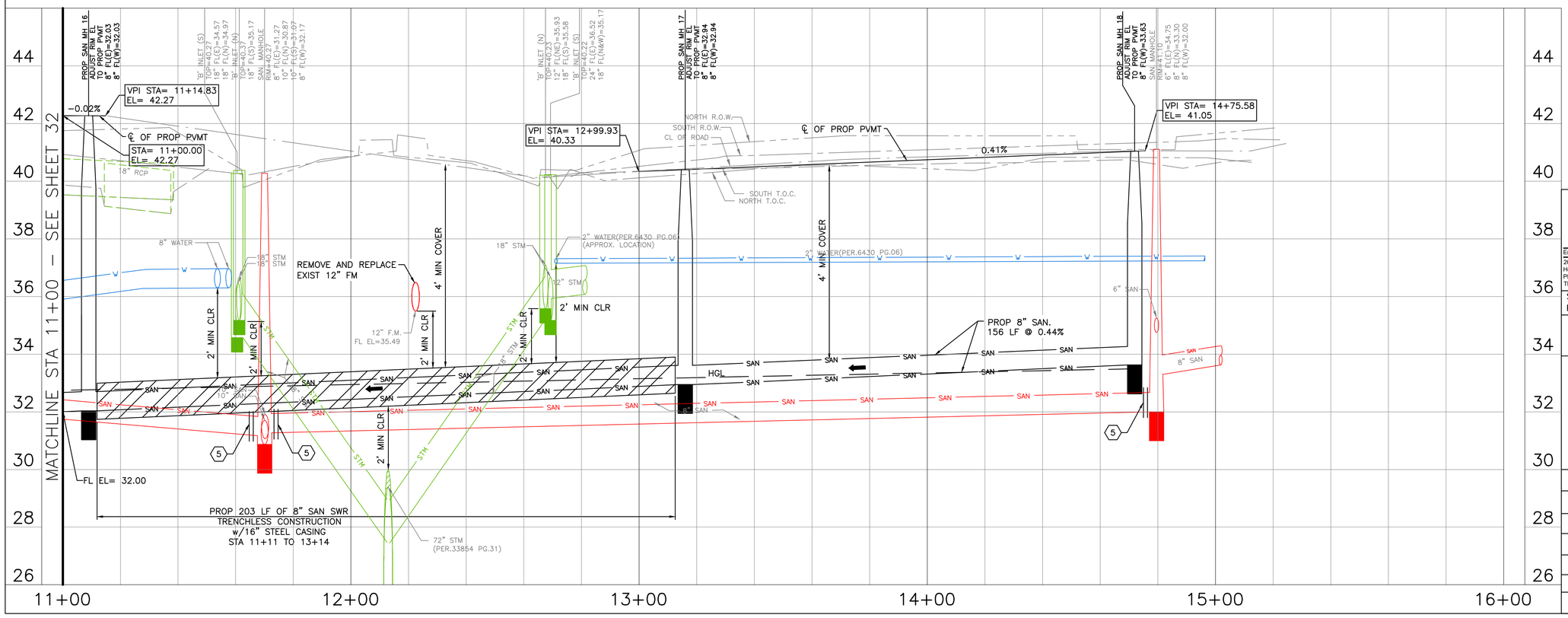
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

DENISON ST. PLAN & PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 32 OF 339	

PLOTTED: 10/28/2026 10:40 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 8\DENISON ST. PLAN.dwg





N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

TBM
CP-59 SET CONC NAIL IN ASP
11+57.00, 13.70' RT
EL= 40.06

CP-69 SET CONC NAIL IN ASP
14+12.87, 10.35' LT
EL= 40.56

LEGEND

- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE DENISON ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.
3. CONTRACTOR TO CONFORM TO SECTIONS 02448 – PIPE AND CASING AUGERING FOR SEWERS AND 02431 – TUNNEL GROUT AFTER THE GRAVITY SEWER INSTALLATION.

KEYNOTES

1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

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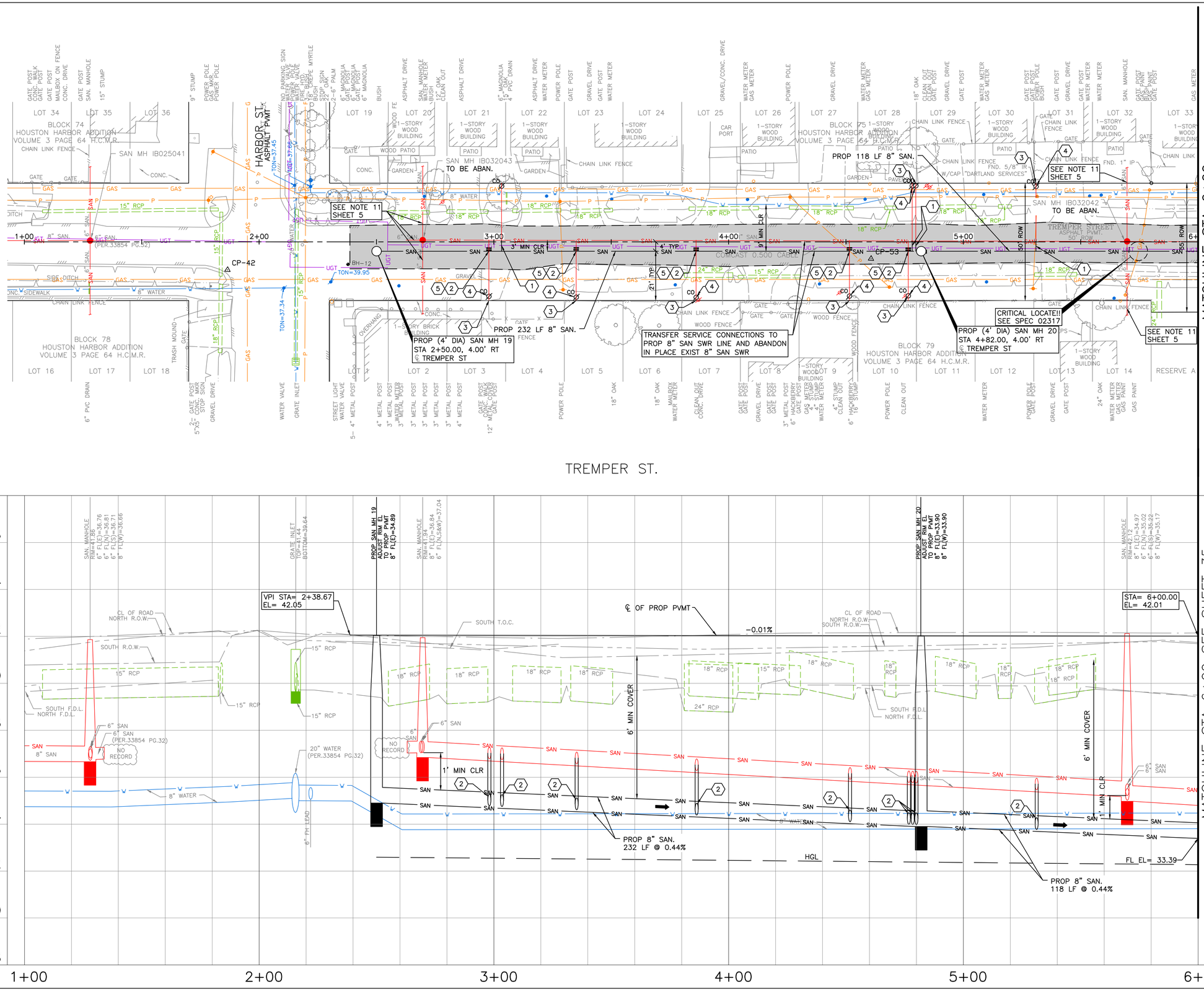
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

DENISON ST.
PLAN & PROFILE
STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 33 OF 339	

PLOTTED: 10/28/2026 10:52 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\DENISON ST. PLAN.dwg



TBM
CP-42 SET CONC NAIL IN ASP
1+86.51, 11.91' RT
EL= 42.01

CP-53 SET CONC NAIL IN ASP
4+60.65, 7.21' RT
EL= 42.01

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:
1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE TREMPER ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

KEYNOTES
1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

NO.	DATE	REVISION	APP.

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P.E. SERIAL No: 114557
DATE: 10/28/2026

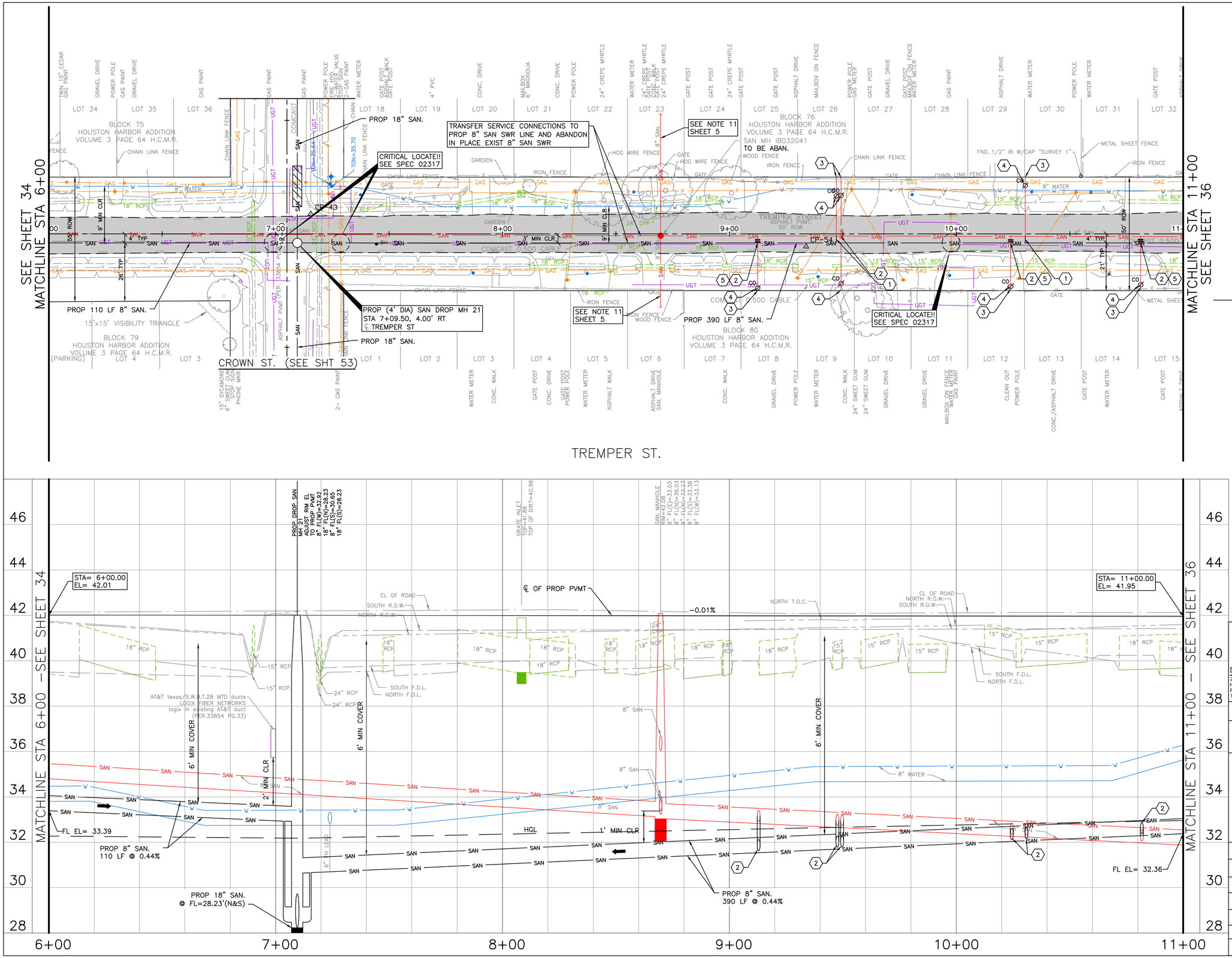
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREMPER ST. PLAN & PROFILE STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 34 OF 339	

PLOTTED: 10/28/2026 10:49 AM
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civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

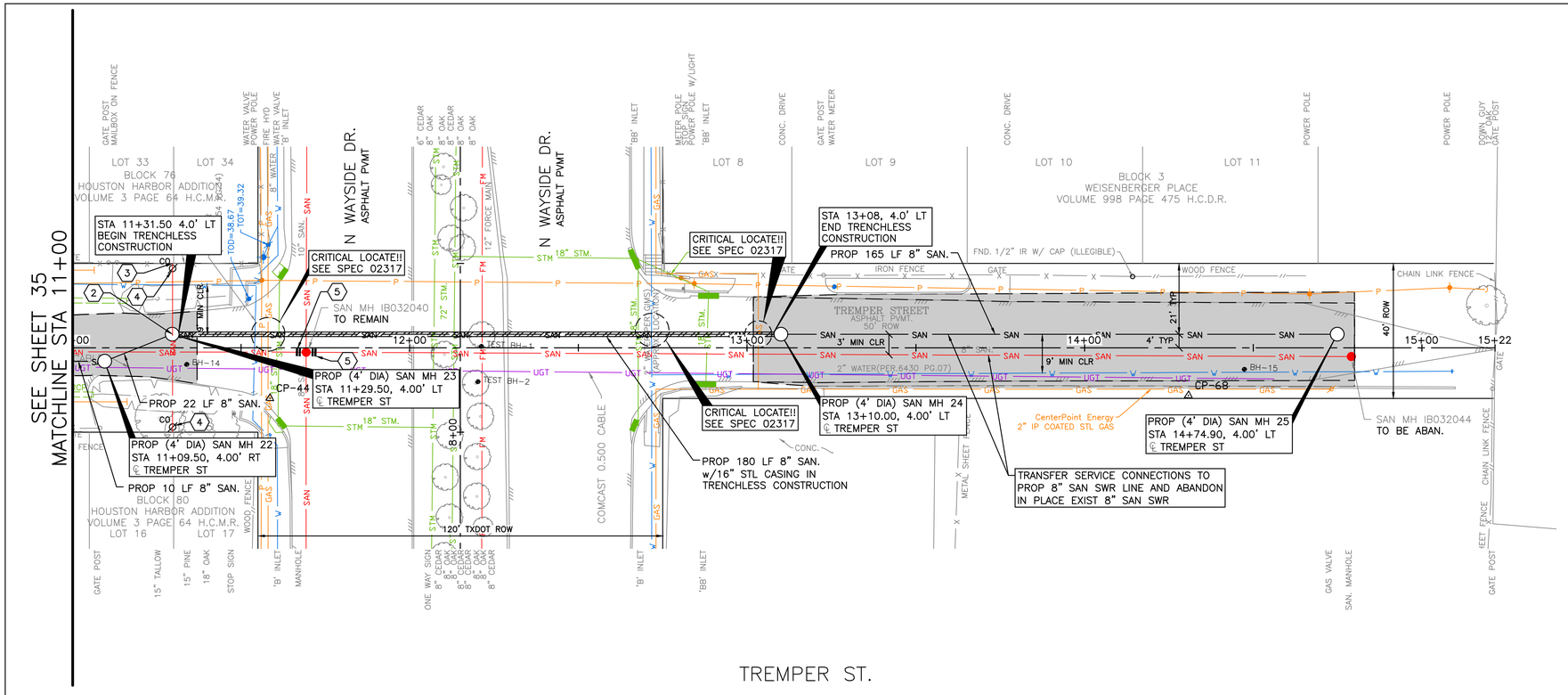
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

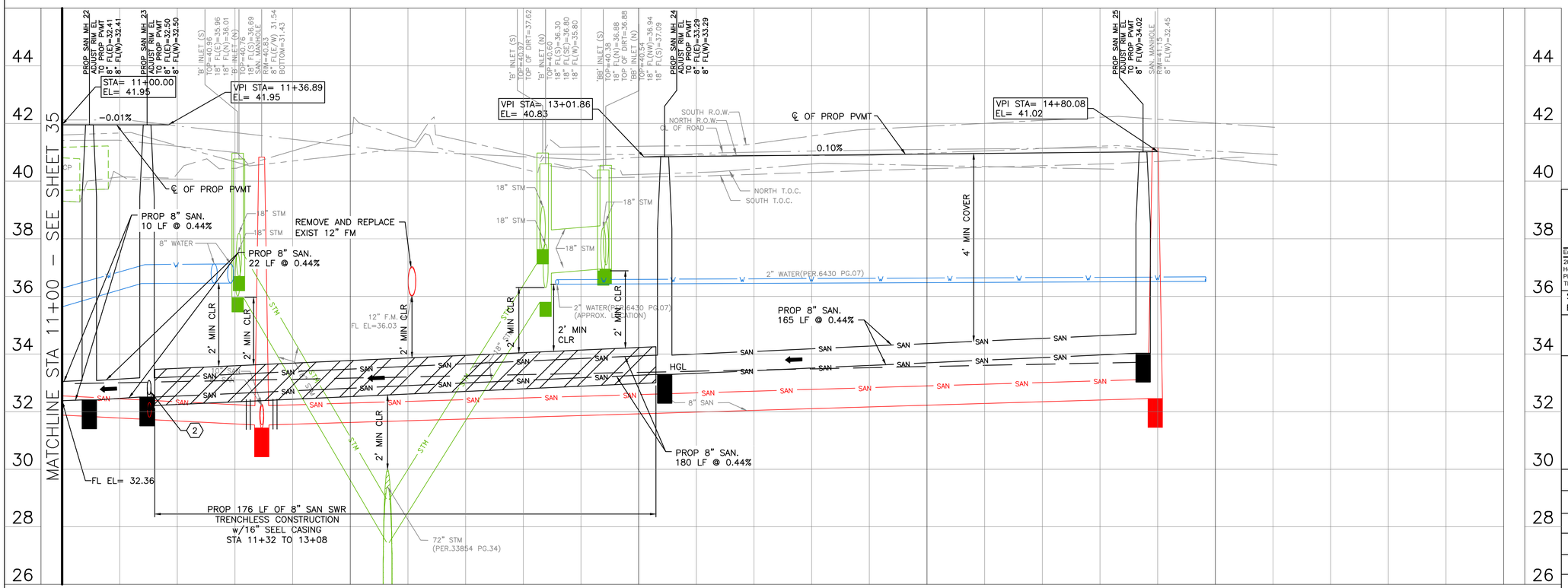
TREMPER ST. PLAN & PROFILE STA 6+00 TO 11+00

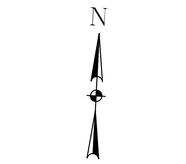
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 35 OF 339	

PLOTTED: 10/28/2026 10:28 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\TREMPER ST. PLAN.dwg



TREMPER ST.





NO.	DATE	REVISION	APP.

TBM
CP-44 SET CONC NAIL IN ASP
11+58.49, 14.94' RT
EL= 40.55

CP-68 SET 3/8"IR w/LANDTECH CAP
14+30.82, 14.14' RT
EL= 40.92

LEGEND

- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE TREMPER ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.
3. CONTRACTOR TO CONFORM TO SECTIONS 02448 – PIPE AND CASING AUGERING FOR SEWERS AND 02431 – TUNNEL GROUT AFTER THE GRAVITY SEWER INSTALLATION.

KEYNOTES

1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

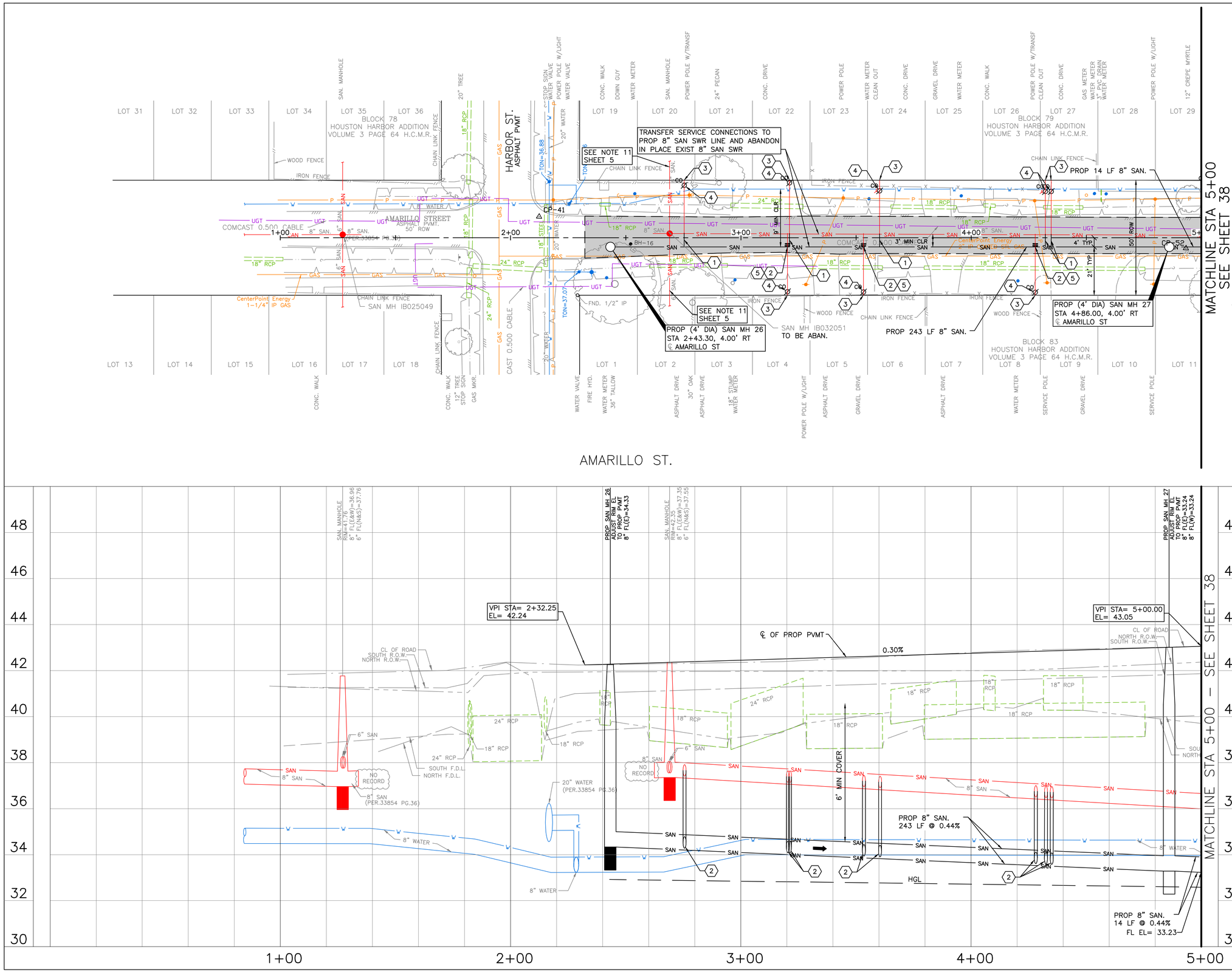
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREMPER ST.
PLAN & PROFILE
STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 36 OF 339	

PLOTTED: 10/28/2026 10:47 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\TREMPER ST. PLAN.dwg



NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE AMARILLO ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

KEYNOTES

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NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AMARILLO ST. PLAN & PROFILE STA BEGIN TO 5+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 37 OF 339	

PLOTTED: 10/28/2026 10:43 AM
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PLOTTED: 10/28/2026 10:29 AM
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\AMARILLO ST. PLAN.dwg

SEE SHEET 37
MATCHLINE STA 5+00

MATCHLINE STA 10+00
SEE SHEET 39

CROWN ST. (SEE SHT 52)

BLOCK 79
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

BLOCK 80
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

BLOCK 83
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

BLOCK 84
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

AMARILLO STREET
ASPHALT PVMT
50' ROW

SEE NOTE 11 SHEET 5

SAN MH IB032050 TO BE ABAN.

SAN MH IB032049 TO BE ABAN.

CP-40

CP-51

BH-1

PROP 18" SAN.

TRANSFER SERVICE CONNECTIONS TO PROP 8" SAN SWR LINE AND ABANDON IN PLACE EXIST 8" SAN SWR

PROP 210 LF 8" SAN.

PROP 15" SAN.

PROP 290 LF 8" SAN.

CRITICAL LOCATE!! SEE SPEC 02317

PROP (4' DIA) SAN DROP MH 28
STA 7+09.50, 4.00' RT
℄ AMARILLO ST

PROP (4' DIA) SAN MH 29
STA 9+11.50, 4.53' RT
℄ AMARILLO ST

AMARILLO ST.

N

0' 10' 20' 40'
SCALE: 1"=20'

TBM
CP-40 SET CONC NAIL IN ASP
6+91.85, 9.89' LT
EL= 42.70

CP-51 SET CONC NAIL IN ASP
9+64.31, 6.20' LT
EL= 42.69

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

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NO.	DATE	REVISION	APP.

VPI STA= 5+00.00
EL= 43.05

VPI STA= 10+00.00
EL= 42.91

GRATE INLET (R)
TOP=42.67

SAN. MANHOLE
RIM=43.09
8" FL(E)=35.09
8" FL(W)=35.59
8" FL(W)=35.59

PHONE MANHOLE
RIM=42.78
BOTTOM=28.03
THROAT=36.83
CABLE=35.83

PROP DROP SAN. MH 28
RIM EL 42.75
TO PROP PVMT
8" FL(E)=30.28
18" FL(N)=28.61
8" FL(W)=32.30
15" FL(S)=28.85

SAN. MANHOLE
RIM=42.56
8" FL(E&W)=33.56
8" FL(W)=33.96
8" FL(E)=34.06

PROP SAN. MH 29
RIM EL 42.74
TO PROP PVMT
8" FL(E)=31.17
8" FL(W)=31.17

℄ OF PROP PVMT
CL OF ROAD
NORTH R.O.W.
SOUTH R.O.W.
SOUTH F.D.L.
NORTH F.D.L.
−0.03%

AT&T texas/S.W.B.T.28 MTD ducts
LOGIX FIBER NETWORKS
logix in existing AT&T duct
(PER.33854 PG.37)

6" MIN COVER
1' MIN CLR
2' MIN CLR
6" FH LEAD
HGL

PROP 8" SAN.
210 LF @ 0.44%

FL EL= 33.23

PROP 18" (N) FL=28.61
PROP 15" (S) FL=28.85

PROP 8" SAN.
290 LF @ 0.44%

FL EL= 31.55

5+00 6+00 7+00 8+00 9+00 10+00

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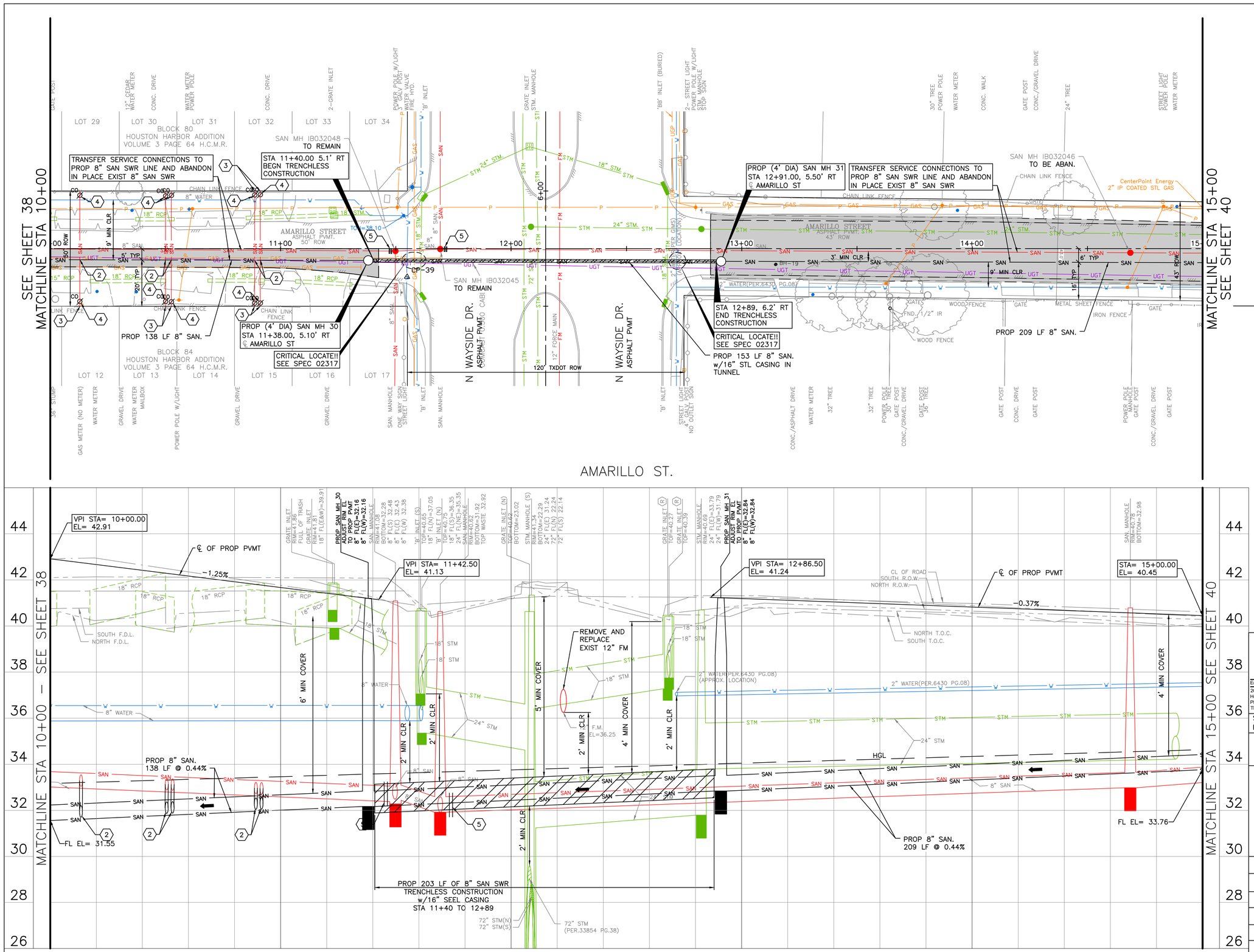
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

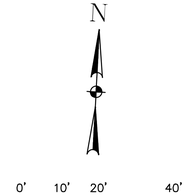
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AMARILLO ST.
PLAN & PROFILE
STA 5+00 TO 10+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 38 OF 339	





TBM
CP-39 SET CONC NAIL IN ASP
11+54.83, 12.23' RT
EL= 40.55

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:
1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE AMARILLO ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.
3. CONTRACTOR TO CONFORM TO SECTIONS 02448 – PIPE AND CASING AUGERING FOR SEWERS AND 02431 – TUNNEL GROUT AFTER THE GRAVITY SEWER INSTALLATION.

KEYNOTES
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5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

NO.	DATE	REVISION	APP.

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P.E. SERIAL No: 114557
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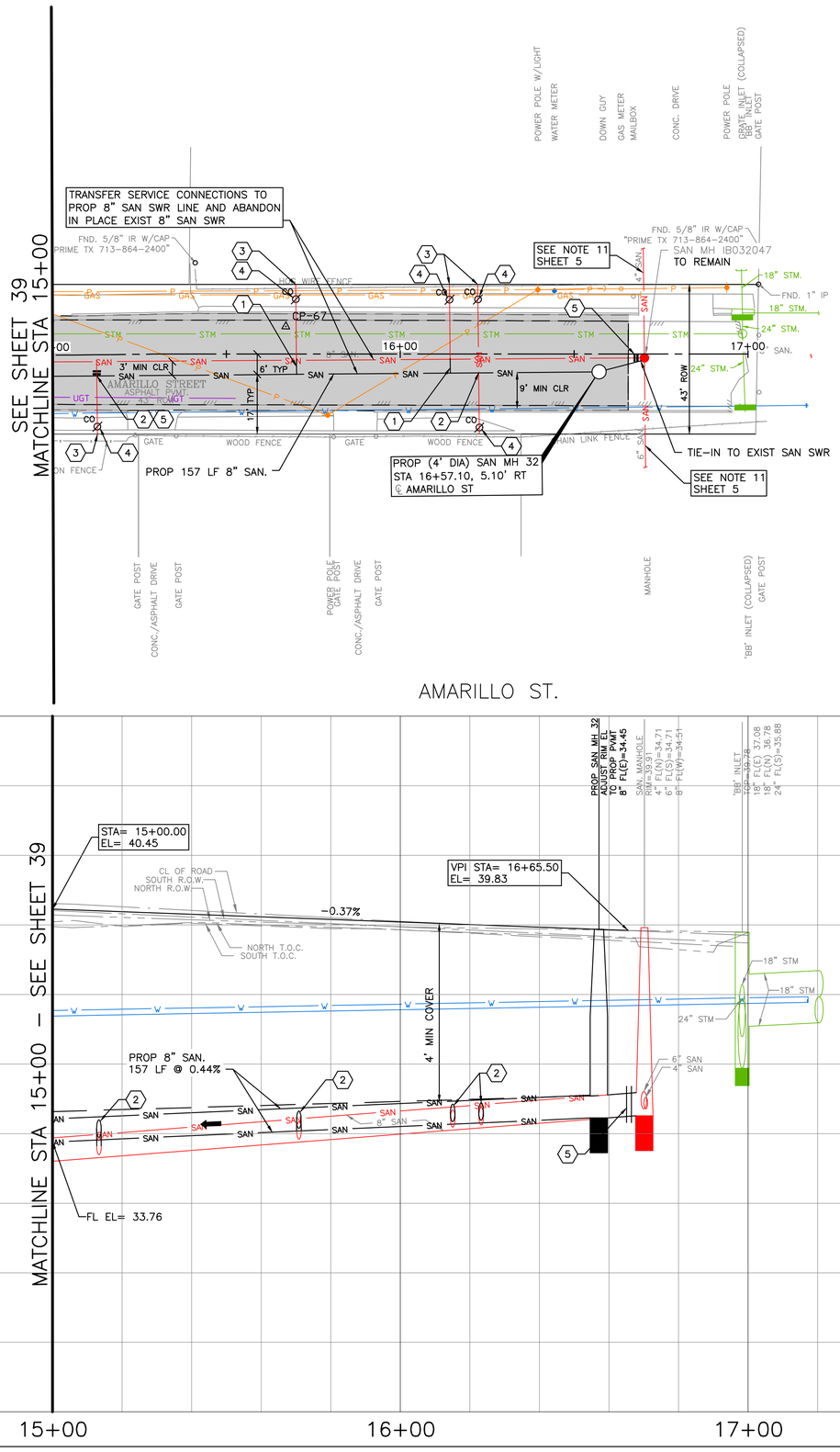
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AMARILLO ST. PLAN & PROFILE STA 10+00 TO 15+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 39 OF 339	

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N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

TBM
CP-67 SET CONC NAIL IN ASP
15+67.08, 7.92' LT
EL= 39.78

LEGEND

- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
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5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

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FB NO.

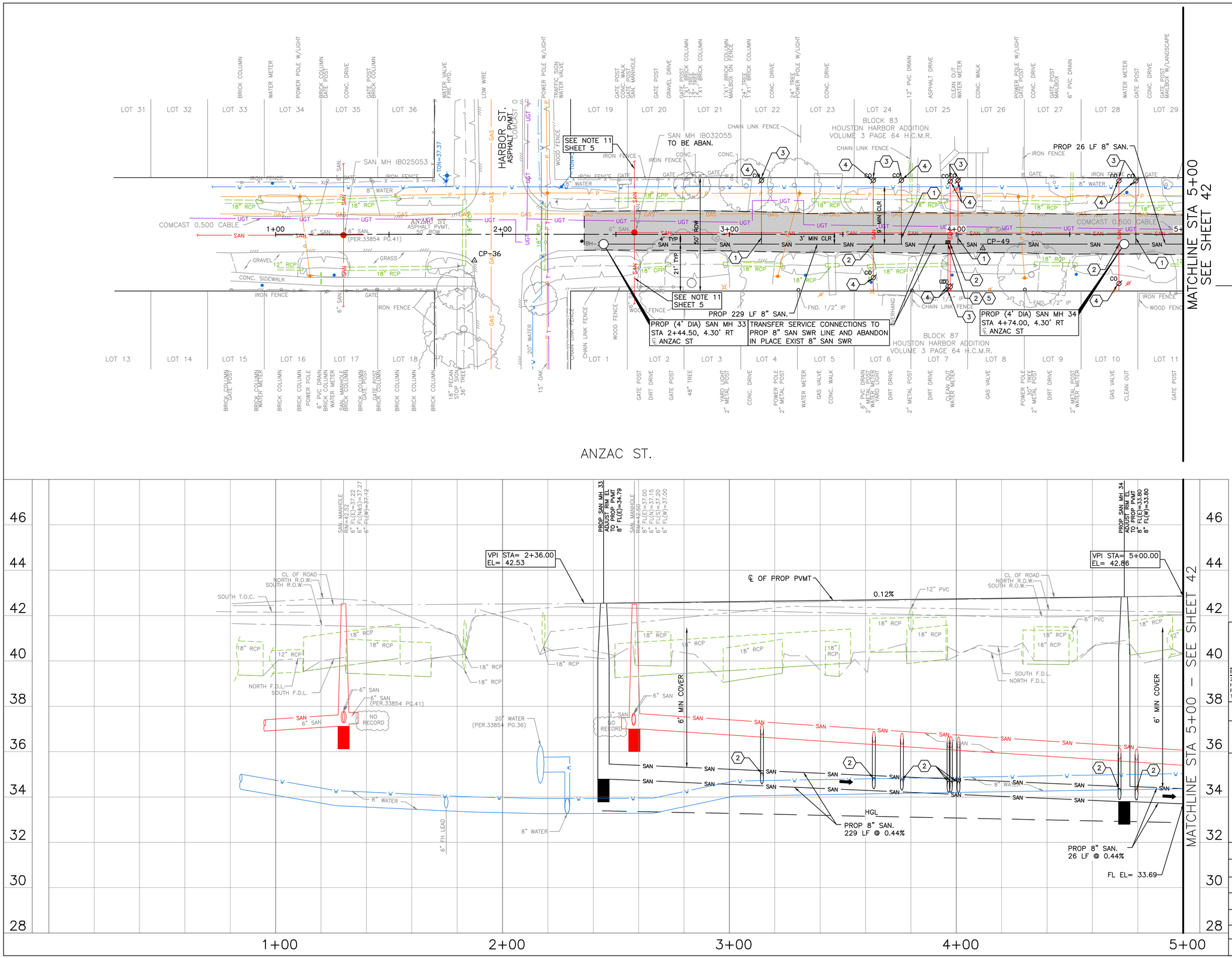
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AMARILLO ST.
PLAN & PROFILE
STA 15+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 40 OF 339	

PLOTTED: 10/28/2026 10:29 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\AMARILLO ST. PLAN.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

TBM
CP-36 FND MAG NAIL
1+87.59, 11.51' RT
EL= 42.36

CP-49 SET CONC NAIL IN ASP
4+11.66, 6.14' RT
EL= 42.73

LEGEND

- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE ANZAC ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

KEYNOTES

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4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

NO.	DATE	REVISION	APP.

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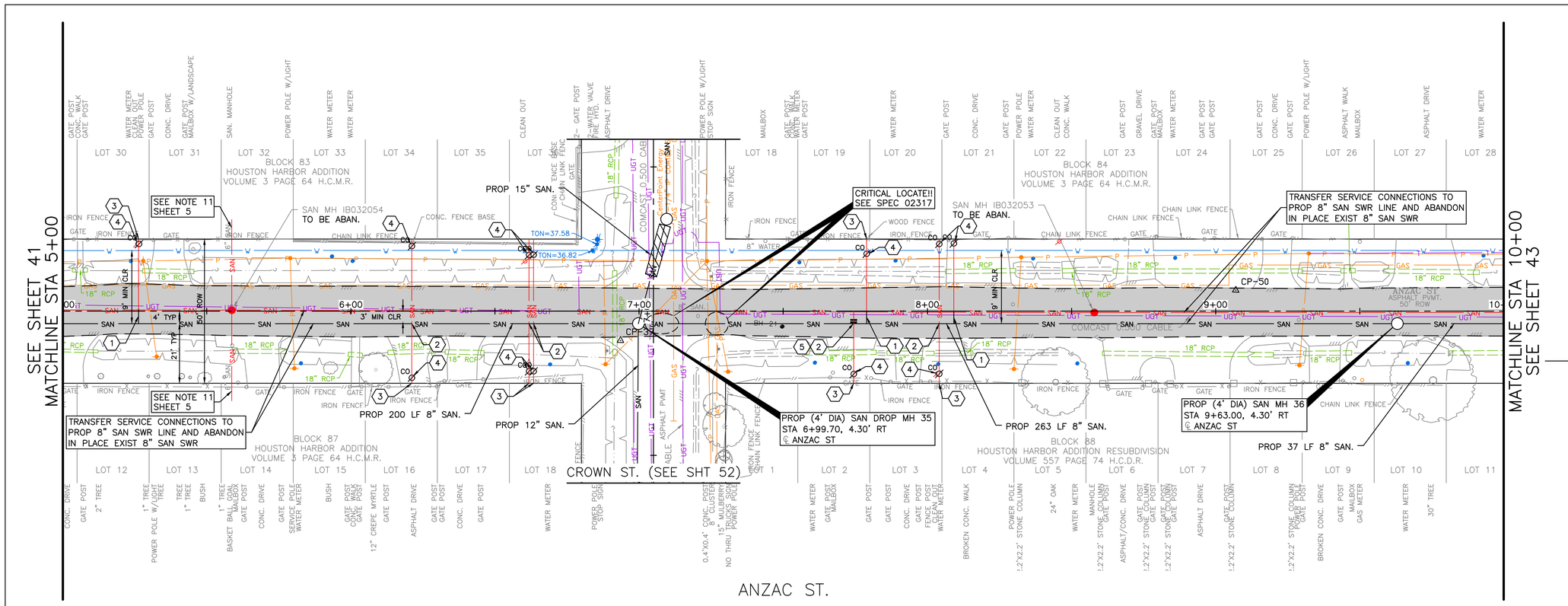
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

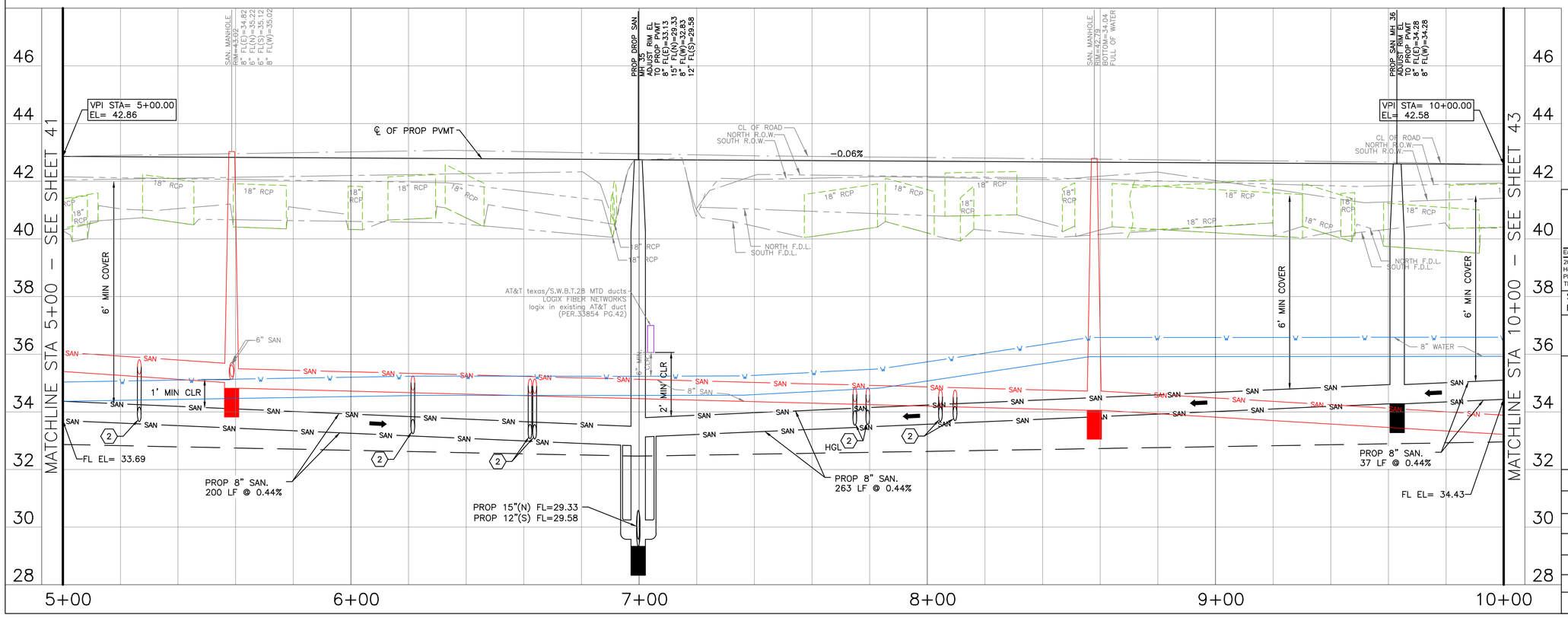
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

ANZAC ST. PLAN & PROFILE STA BEGIN TO 5+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 41 OF 339	

PLOTTED: 10/28/2026 10:55 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 8\ANZAC ST. PLAN.dwg





N

0' 10' 20' 40'

SCALE: 1"=20'

TBM

CP–37 SET CONC NAIL IN ASP
6+93.52, 10.16' RT
EL= 42.81

CP–50 SET CONC NAIL IN ASP
9+06.99, 7.25' LT
EL= 42.60

LEGEND

- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:

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5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

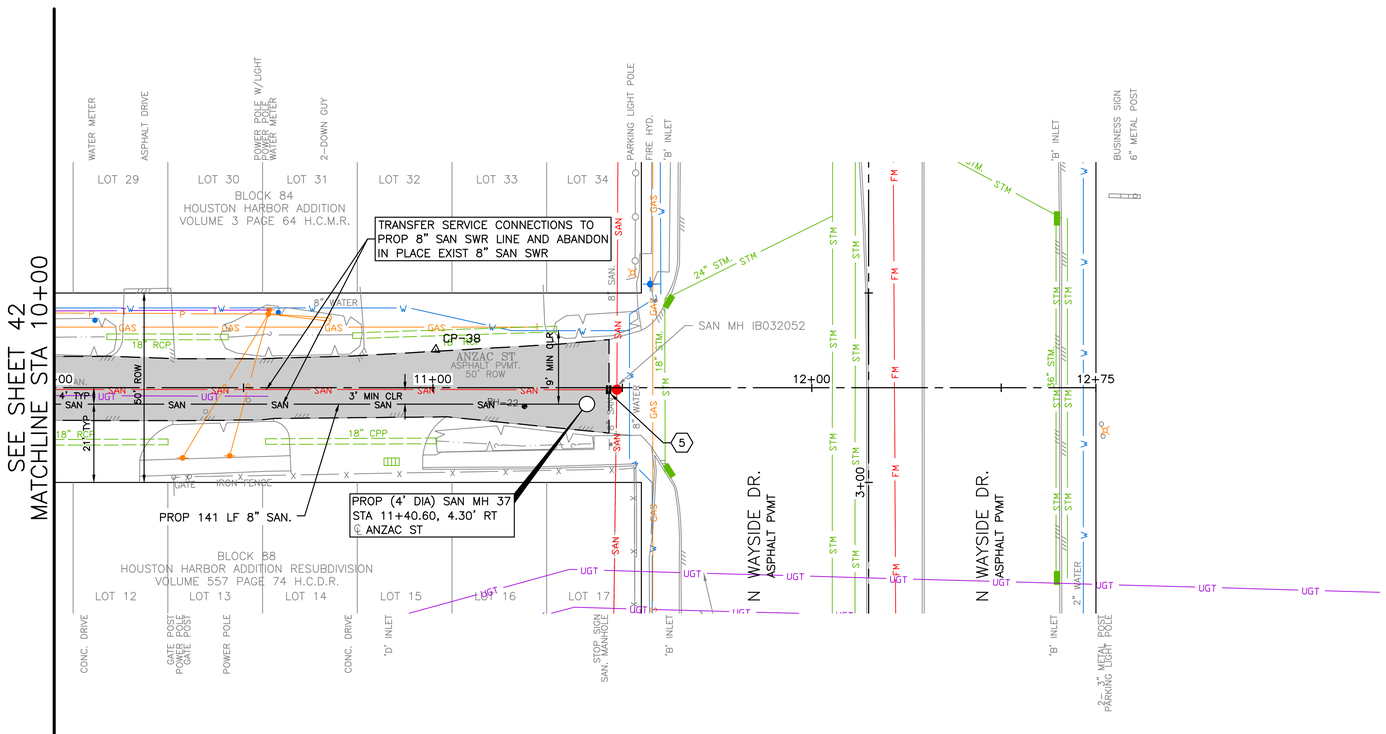
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

ANZAC ST.
PLAN & PROFILE
STA 5+00 TO 10+00

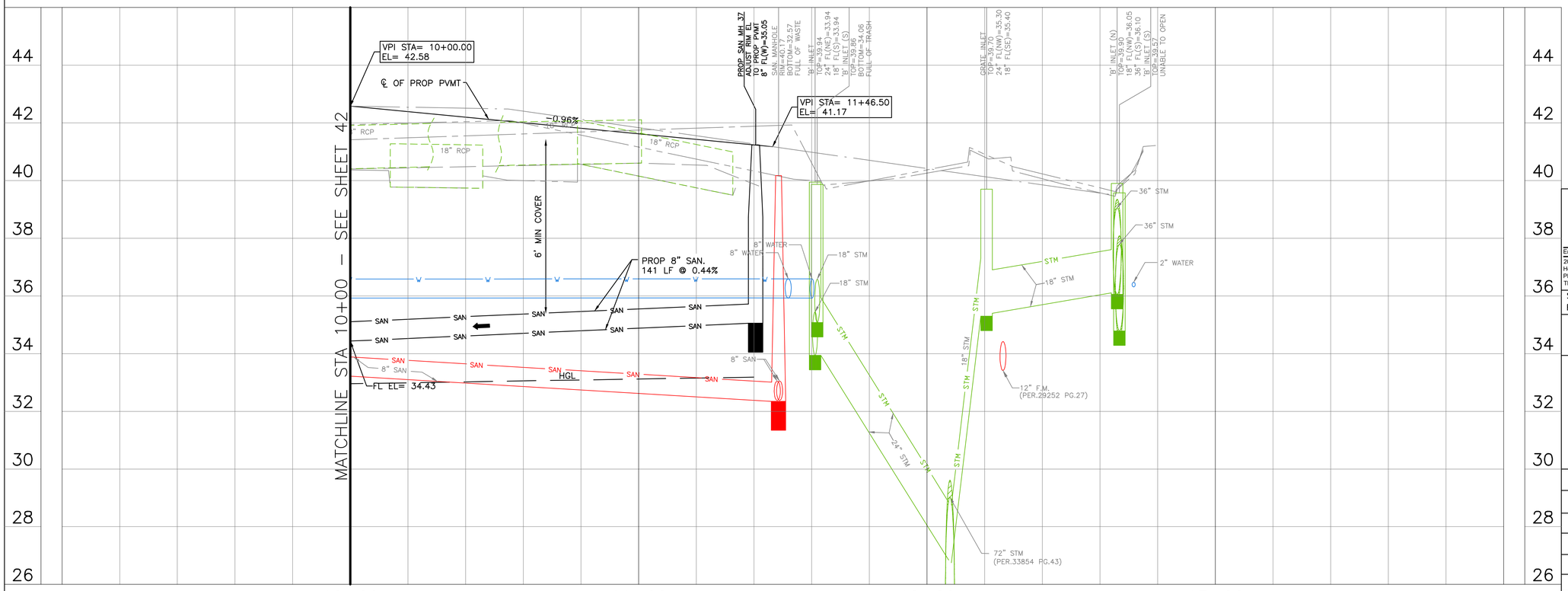
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R–001000–0034–3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 42 OF 339	

PLOTTED: 10/28/2026 10:51 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\ANZAC ST. PLAN.dwg

PLOT STYLE: COH.ctb
PLOTTED: 10/28/2026 10:43 AM
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\ANZAC ST. PLAN.dwg



ANZAC ST.



N

0' 10' 20' 40'

SCALE: 1"=20'

TBM
CP-38 SET MAG NAIL
11+00.72, 10.04' LT
EL= 42.17

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:
1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE ANZAC ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

KEYNOTES
1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

NO.	DATE	REVISION	APP.

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Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
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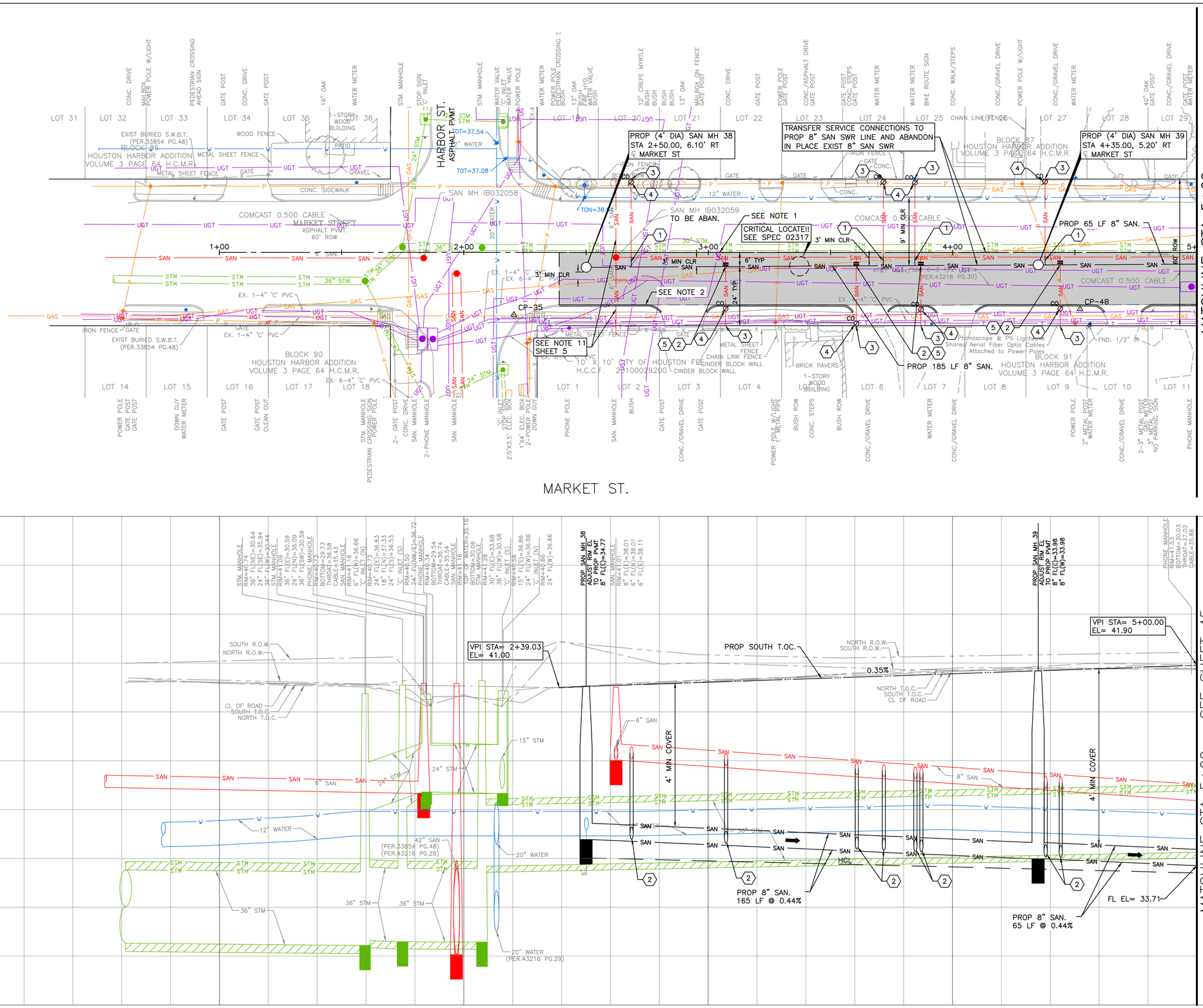
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

ANZAC ST.
PLAN & PROFILE
STA 10+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 43 OF 339	



N

0' 10' 20' 40'

SCALE: 1"=20'

TBM
CP-35 SET XCON
2+20.43, 25.50' RT
EL= 40.50

CP-48 SET 5/8"IR w/LANDTECH CAP
4+52.17, 23.17' RT
EL= 41.87

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:
1. CONTRACTOR TO REPLACE THE EASTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.

KEYNOTES
1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

NO.	DATE	REVISION	APP.

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Engineers ● Planners ● Construction Managers
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

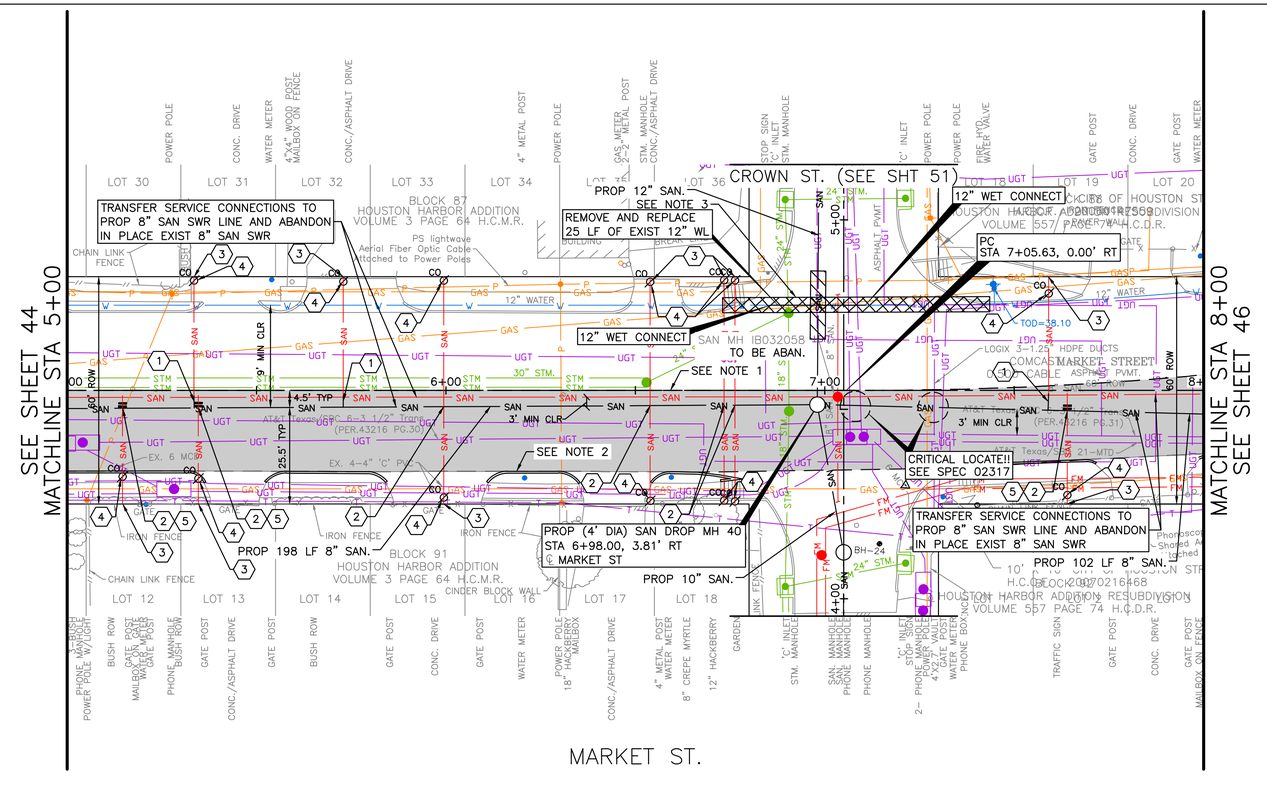
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

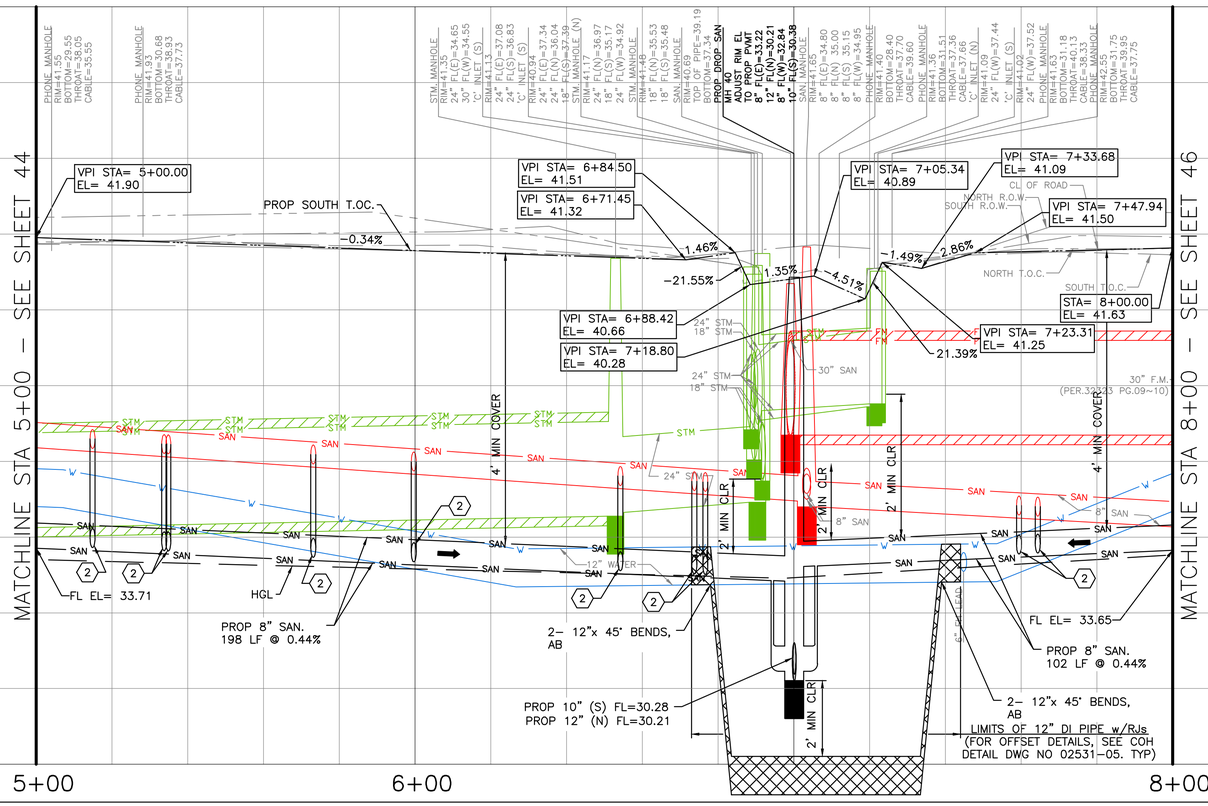
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

MARKET ST. PLAN & PROFILE STA BEGIN TO 5+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 44 OF 339	

PLOTTED: 10/28/2026 10:51 AM
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N

0' 10' 20' 40'

SCALE: 1"=20'

TBM
CP–34 SET XCON
7+21.30, 25.05' RT
EL= 41.01

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:
1. CONTRACTOR TO REPLACE THE EASTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. PLACE ONE FULL SECTION (MIN 18 FT) OF WL CENTERED AT SS CROSSING. PROVIDE RESTRAINED JOINTS TO WL, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF SS.
4. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.

KEYNOTES
1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

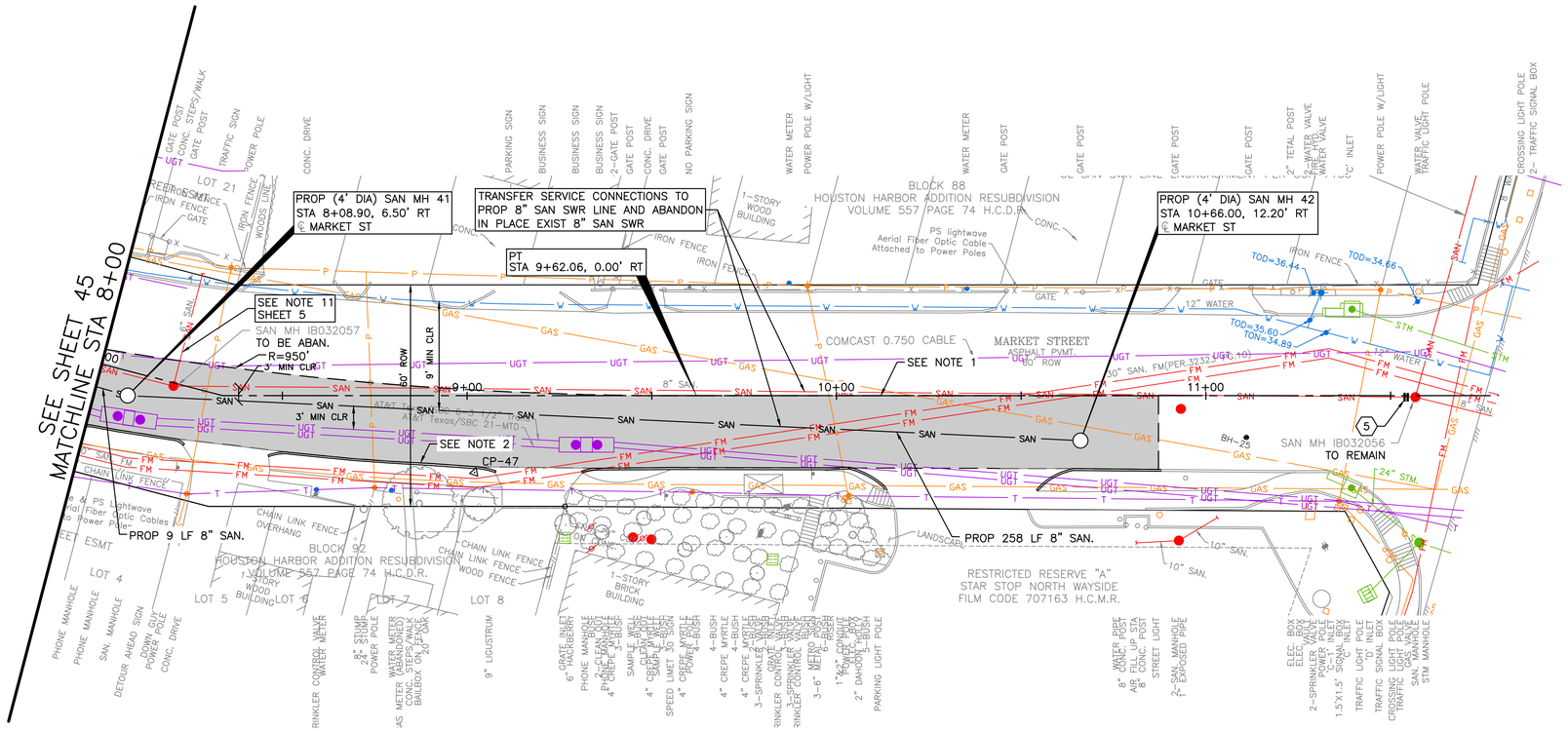
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

MARKET ST. PLAN & PROFILE STA 5+00 TO 8+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 45 OF 339	

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FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\MARKET ST. PLAN.dwg



MARKET ST.

N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

TBM
CP-47 SET XCON
9+01.99, 20.78' RT
EL= 41.71

LEGEND

LIMITS OF PVMT CONSTRUCTION

NOTES:

1. CONTRACTOR TO REPLACE THE EASTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.

KEYNOTES

1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
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3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

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SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

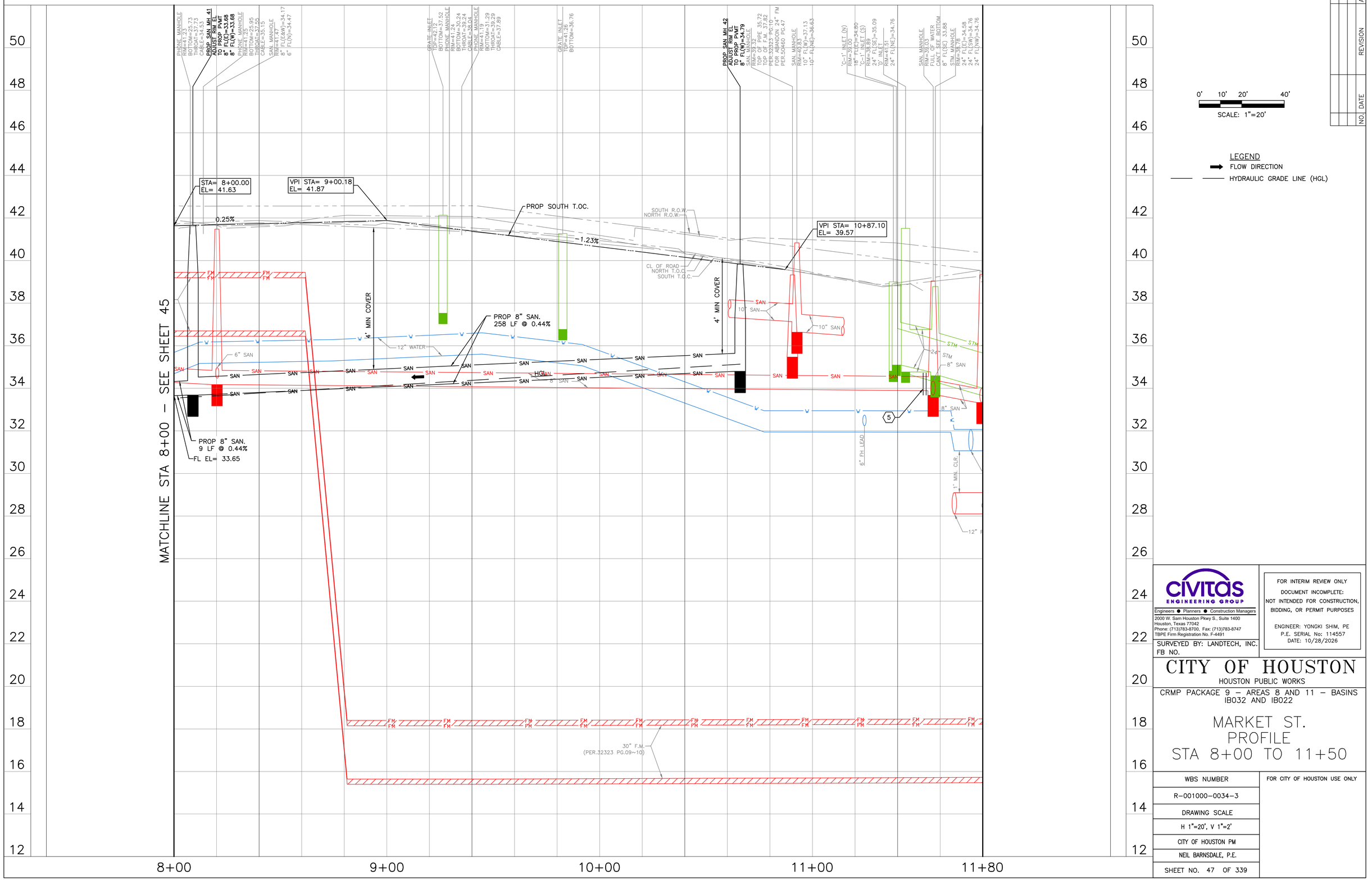
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

MARKET ST. PLAN STA 8+00 TO 11+50

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 46 OF 339	

PLOTTED: 10/28/2026 10:32 AM
PLOT STYLE: COH.ctb
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0' 10' 20' 40'

SCALE: 1"=20'

LEGEND

FLOW DIRECTION

HYDRAULIC GRADE LINE (HGL)

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP

Engineers ● Planners ● Construction Managers

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Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON

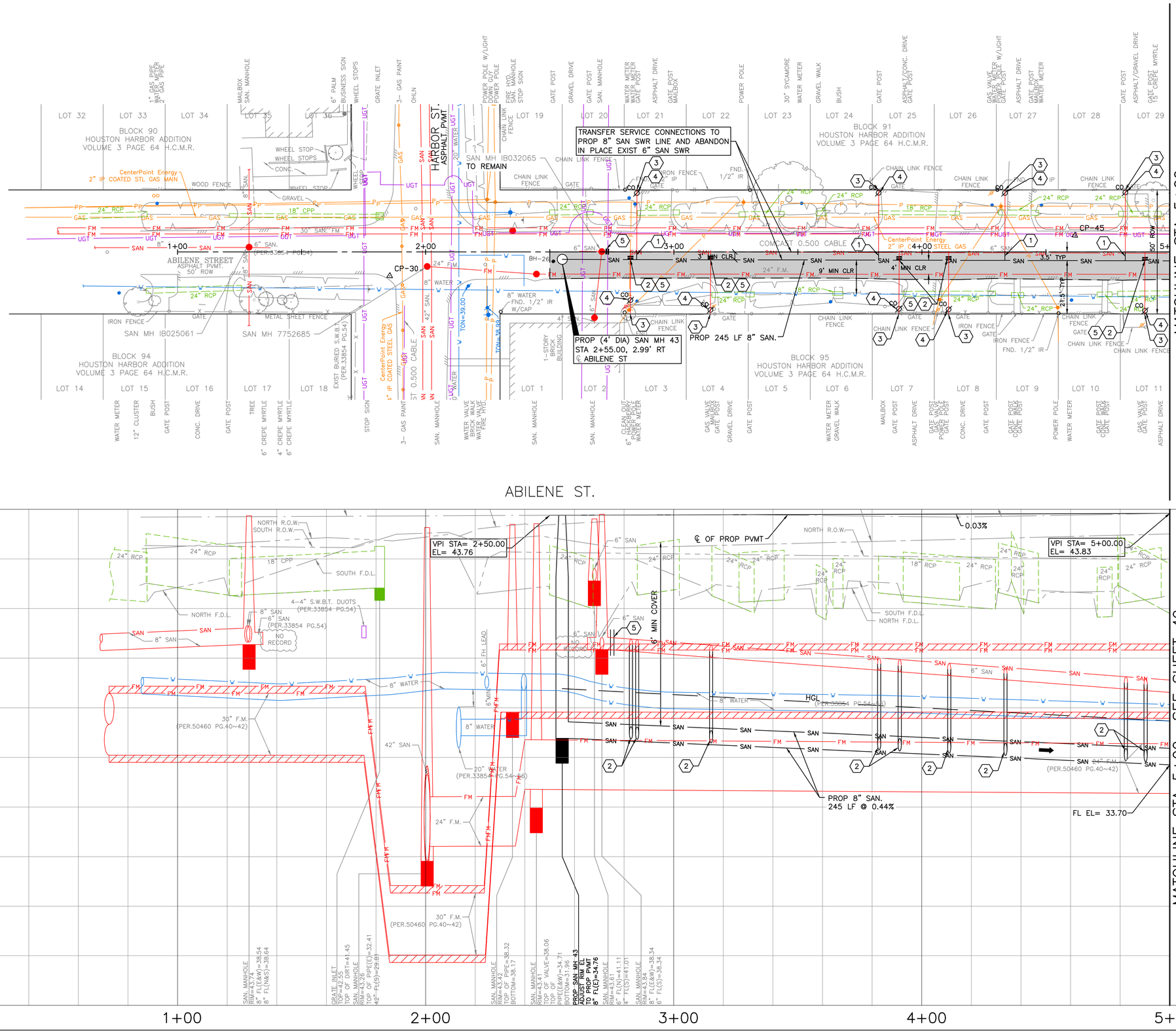
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

MARKET ST. PROFILE STA 8+00 TO 11+50

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
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CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 47 OF 339	

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N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

TBM

CP-30 SET CONC NAIL IN ASP
1+85.52, 9.68' RT
EL= 43.07

CP-45 SET CONC NAIL IN ASP
4+61.74, 6.66' LT
EL= 43.72

LEGEND

- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE ABILENE ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

KEYNOTES

1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

civitas ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

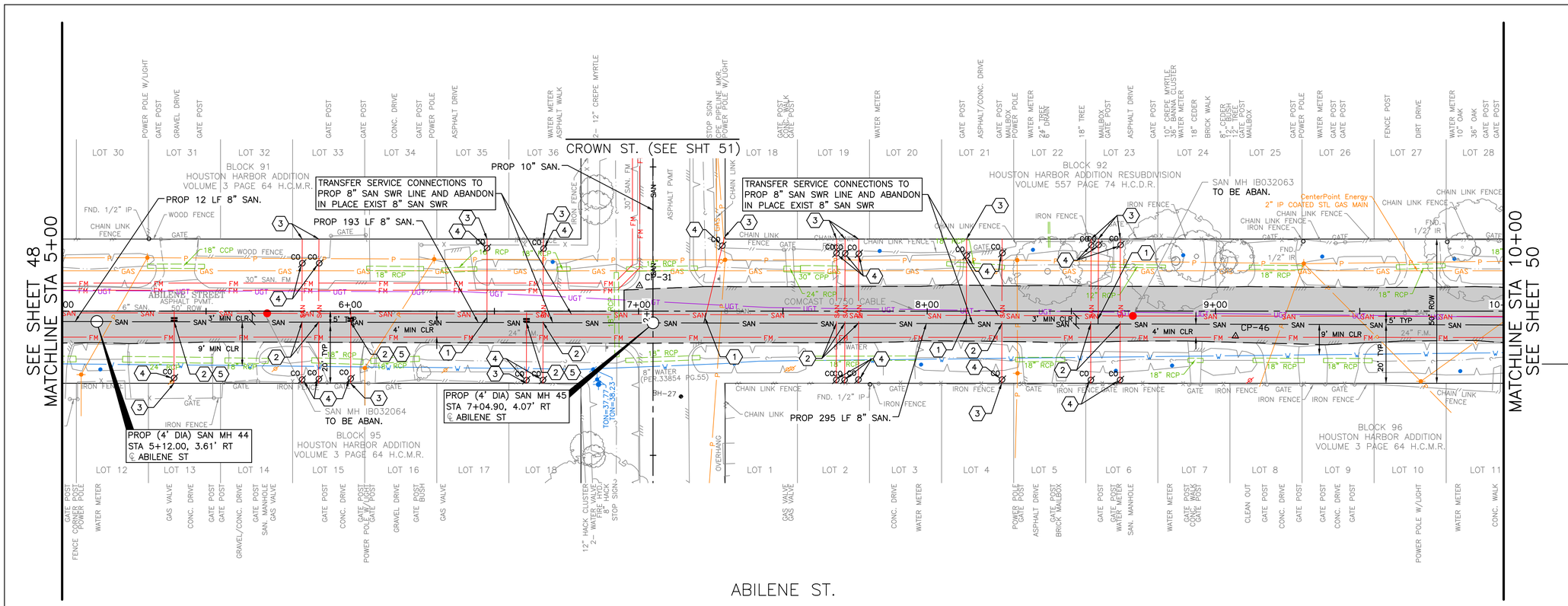
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

ABILENE ST. PLAN & PROFILE STA BEGIN TO 5+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 48 OF 339	

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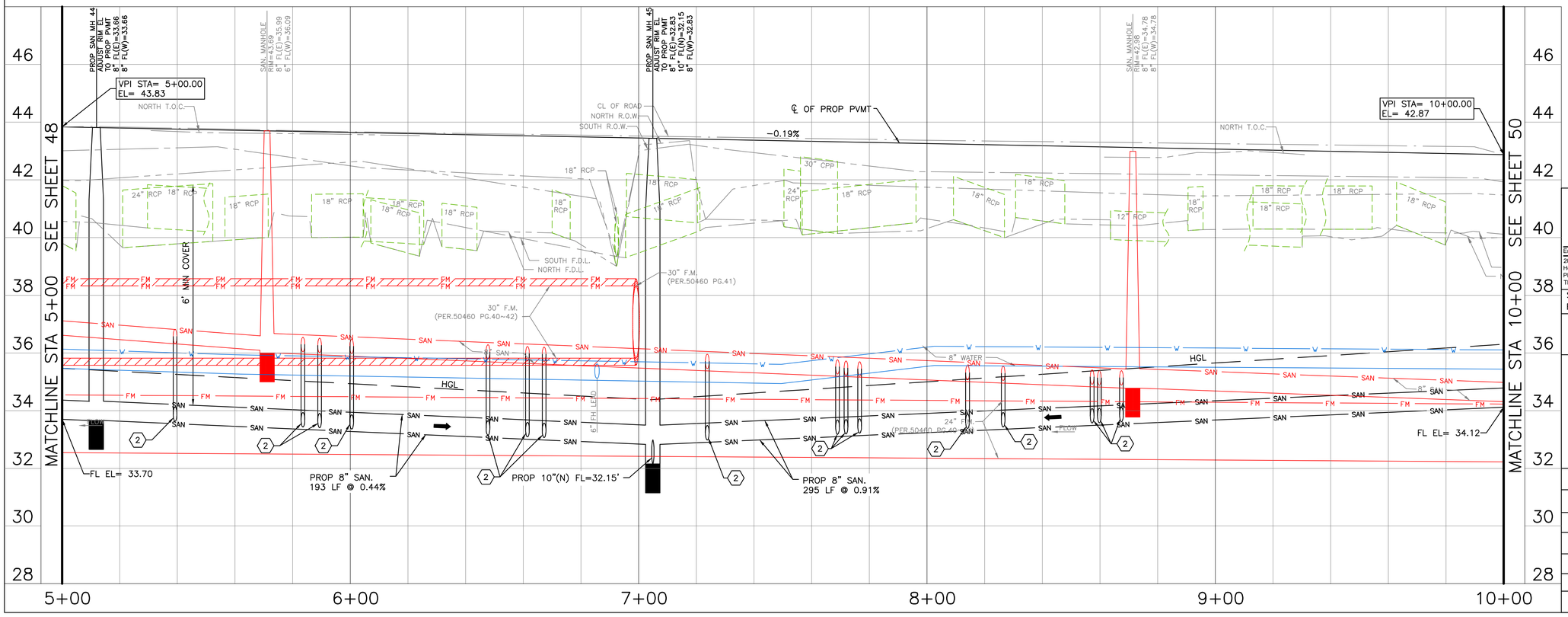
TBM
CP-31 SET 5/8"IR W/LANDTECH CAP
7+00.26, 8.80' LT
EL= 43.40

CP-46 SET CONC NAIL IN ASP
9+06.94, 8.63' RT
EL= 42.87

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:
1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE ABILENE ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

KEYNOTES
1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.



NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

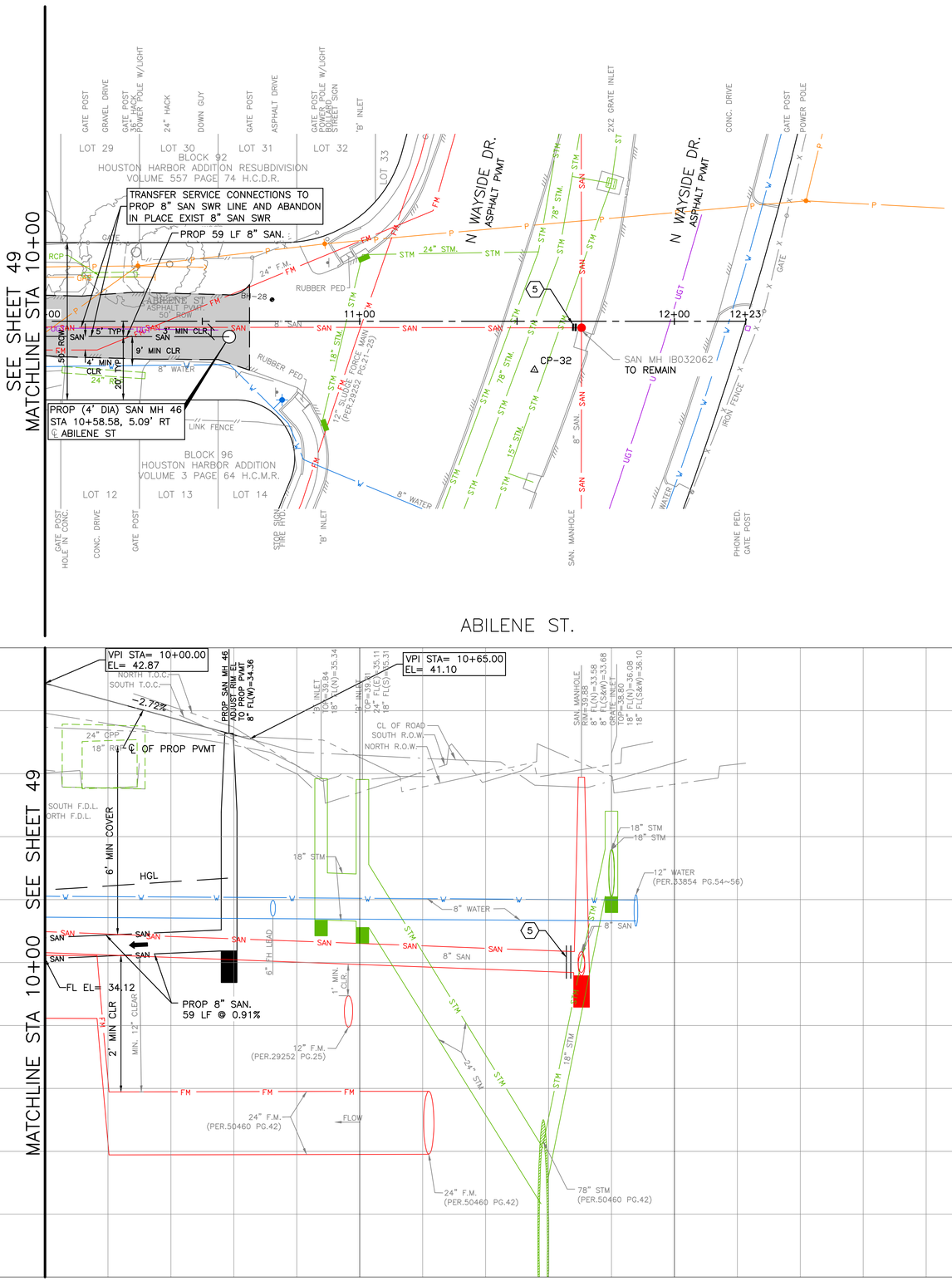
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

ABILENE ST. PLAN & PROFILE STA 5+00 TO 10+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 49 OF 339	

PLOTTED: 10/28/2026 10:44 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\ABILENE ST. PLAN.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

TBM
CP-32 SET CONC NAIL IN ASP
11+55.54, 15.45' RT
EL= 39.39

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:
1. CONTRACTOR TO VERIFY LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING SANITARY SEWER SERVICE LEADS.
2. CONTRACTOR TO RESTORE ABILENE ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

KEYNOTES
1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERFIED)
4. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL. SEE DETAIL XX.
5. CUT, PLUG AND ABANDON EXISTING SANITARY SEWER PER SPEC 02222.

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SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

ABILENE ST.
PLAN & PROFILE
STA 10+00 TO END

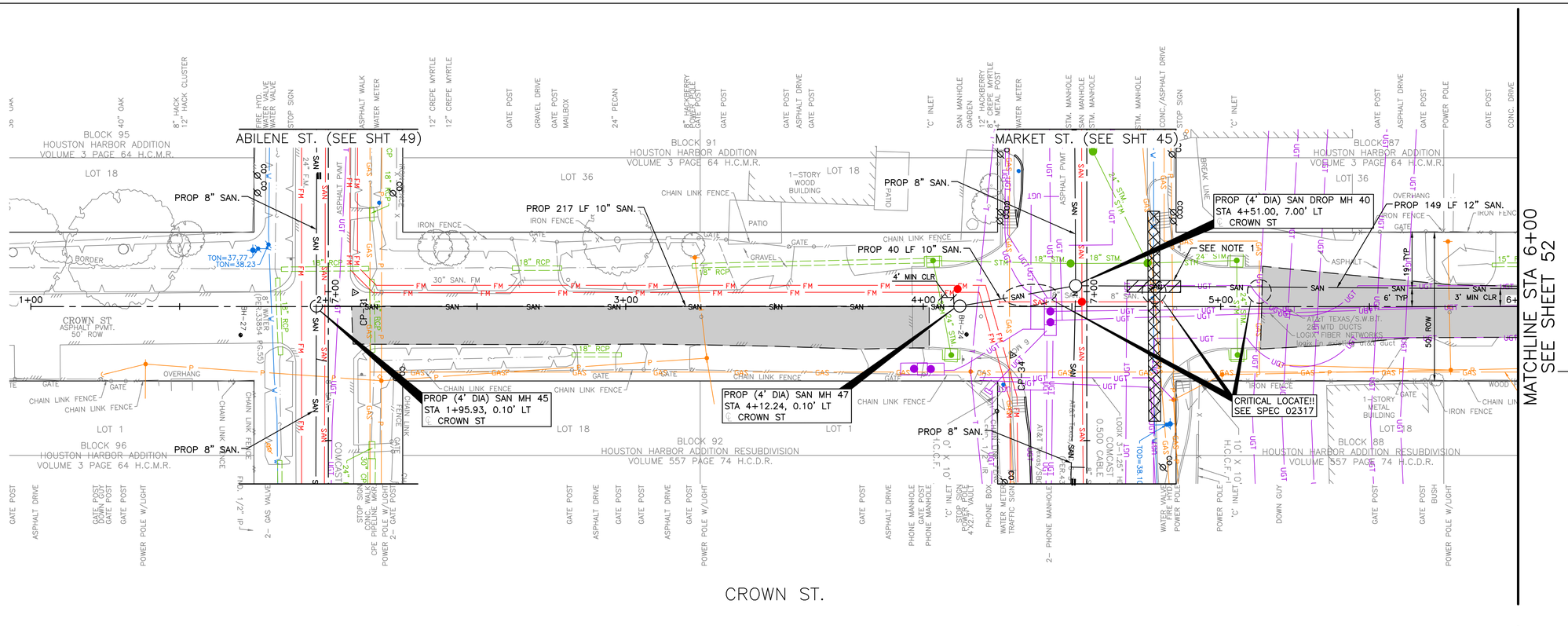
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H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 50 OF 339	

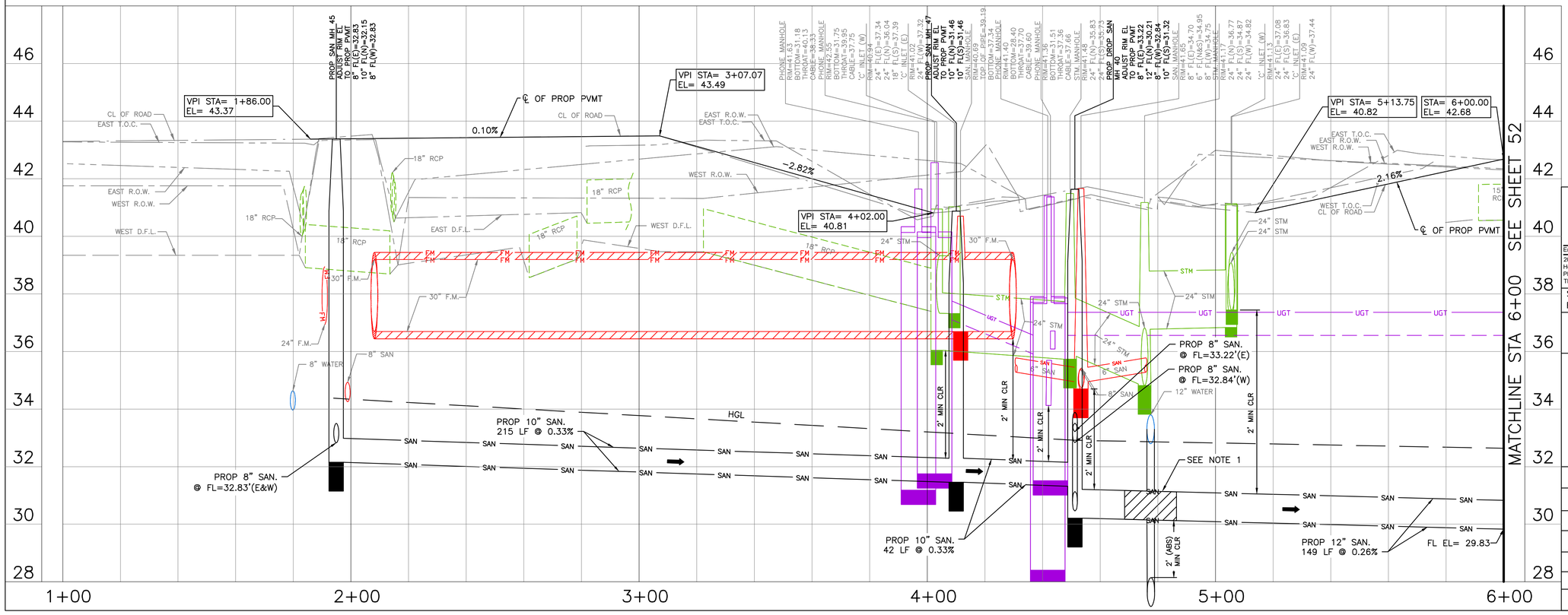
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PLOTTED: 10/28/2026 10:41 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\CROWN ST.PLAN.dwg





0' 10' 20' 40'

SCALE: 1"=20'

TBM

CP-31 SET 5/8"IR W/LANDTECH CAP
2+08.80, 4.74' LT
EL= 43.40

CP-34 SET XCON
4+29.95, 16.30' RT
EL= 41.01

LEGEND

- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:

1. PLACE ONE FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS TO SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO RESTORE CROWN ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
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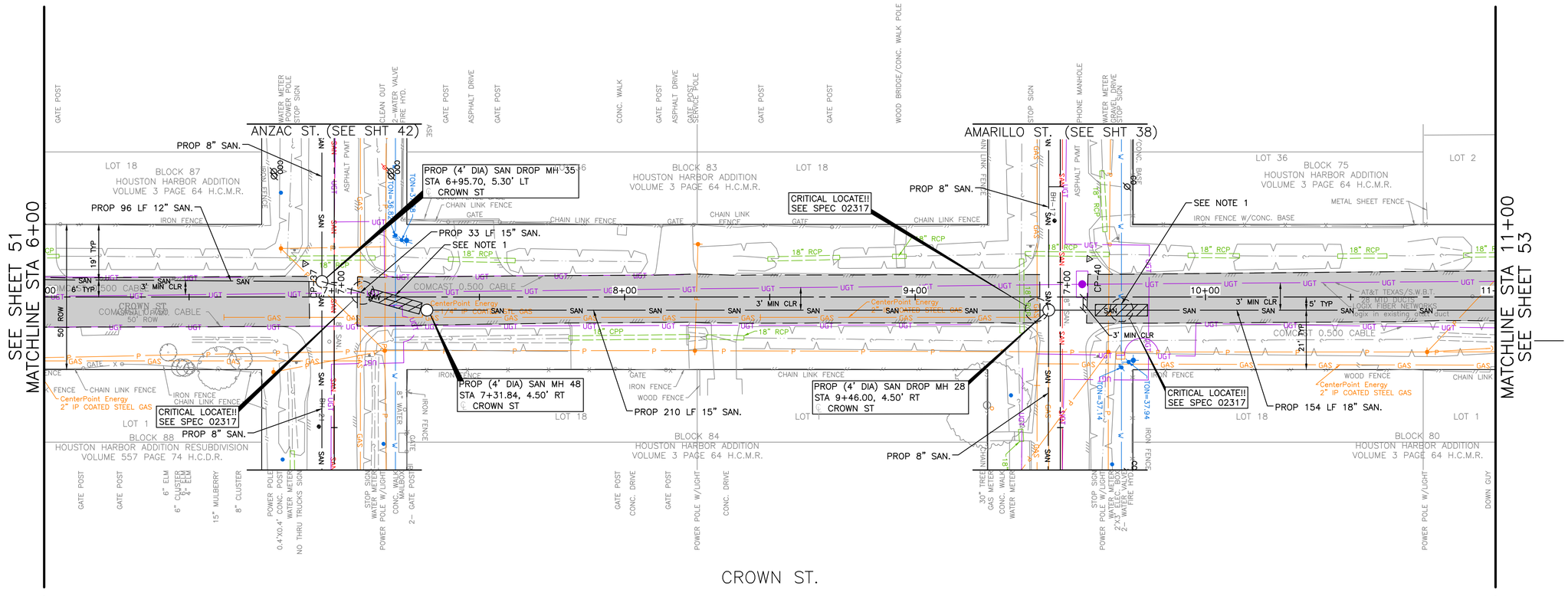
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

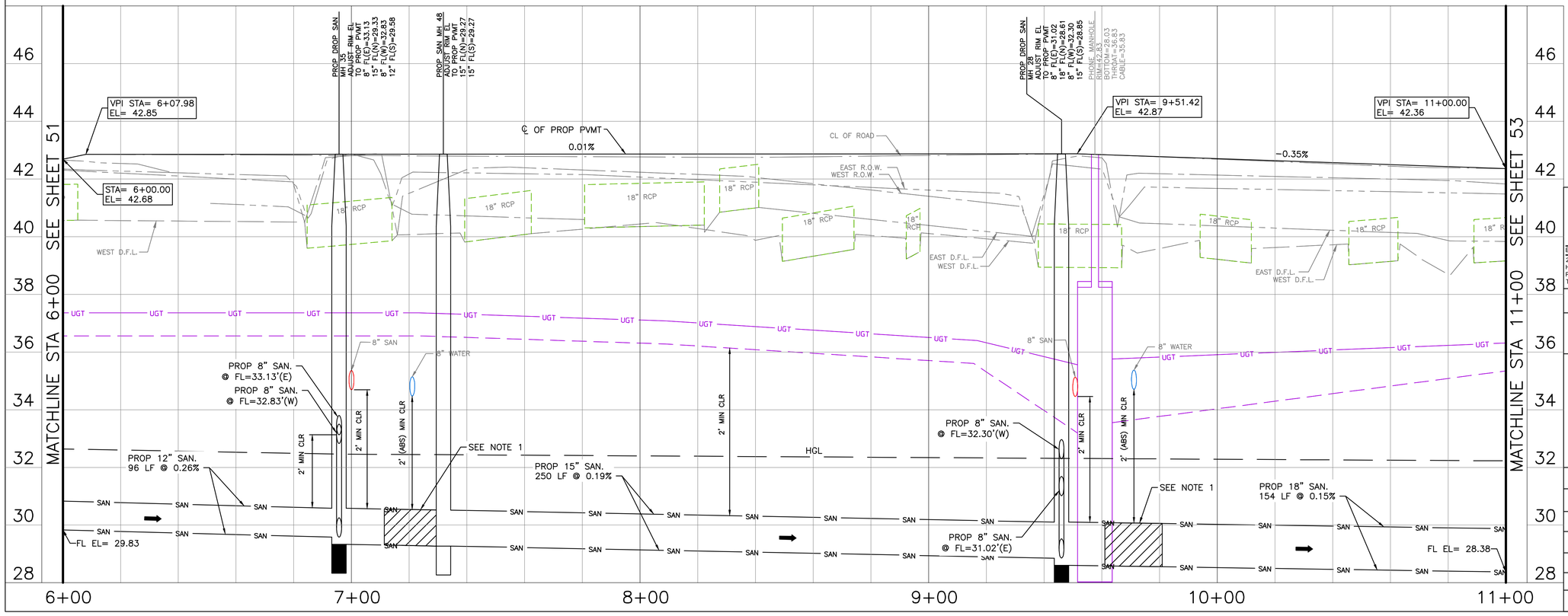
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

CROWN ST. PLAN & PROFILE STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 51 OF 339	





CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Phone: (713)783-8700, Fax: (713)783-8747
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SURVEYED BY: LANDTECH, INC.
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

CROWN ST. PLAN & PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 52 OF 339	

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PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\CROWN ST.PLAN.dwg

SEE SHEET 52
MATCHLINE STA 11+00

TREMPER ST. (SEE SHT 35)

DENISON ST. (SEE SHT 32)

MATCHLINE STA 16+00
SEE SHEET 54

TREMPER COURT
FILM CODE 708973 H.C.M.R.

BLOCK 75
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

BLOCK 71
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

BLOCK 80
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

BLOCK 76
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

BLOCK 72
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

LOT 2 | LOT 3 | LOT 36 | LOT 18 | LOT 1

CROWN ST
ASPHALT PVMT
50' ROW
(PER 33854 PG 33)

COMCAST

AT&T TEXAS/S.W.B.T.
2"Ø MTD DUCTS
LOGIX FIBER NETWORKS
logix in existing at&t duct

1-STORY WOOD BUILDING
1-STORY BRICK BUILDING
1-STORY WOOD BUILDING

PROP (4' DIA) SAN DROP MH 21
STA 11+96.00, 4.50' RT
CROWN ST

PROP 8" SAN.

PROP 96 LF
18" SAN.

CRITICAL LOCATE!!
SEE SPEC 02317

PROP 250 LF 18" SAN.

SEE NOTE 1

CRITICAL LOCATE!!
SEE SPEC 02317

PROP 8" SAN.
SEE NOTE 1

CRITICAL LOCATE!!
SEE SPEC 02317

PROP (4' DIA) SAN DROP MH 15
STA 14+54.00, 4.50' RT
CROWN ST

PROP 154 LF
18" SAN.

PROP 8" SAN.

CP-43
CP-57

TON=36.64
TON=35.70

12+00 | 13+00 | 14+00 | 15+00

CROWN ST.

0' 10' 20' 40'
SCALE: 1"=20'

TBM
CP-43 SET CONC NAIL IN ASP
12+08.75, 10.43' RT
EL= 42.23

CP-57 SET MAG NAIL
14+60.17, 10.44' LT
EL= 41.82

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NOTES:
1. PLACE ONE FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS TO SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO RESTORE CROWN ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

NO.	DATE	REVISION	APP.

VPI STA= 11+00.00
EL= 42.36

PROP DROP SAN MH 21
ADJUST RIM EL
20" RCP OUT
8" FL(E)=32.92
18" FL(N)=28.23
8" FL(W)=30.65
18" FL(S)=28.23

PROP DROP SAN MH 15
ADJUST RIM EL
20" RCP OUT
8" FL(E)=30.28
18" FL(N)=27.86
8" FL(W)=29.85
18" FL(S)=27.86

PHONE MANHOLE
RIM EL=45.97
BOTTOM=25.97
THROAT=35.87

STA= 16+00.00
EL= 41.79

CL OF ROAD
WEST R.O.W.
EAST R.O.W.

℄ OF PROP PVMT

-0.11%

WEST D.F.L.
EAST D.F.L.

18" RCP | 24" RCP | 15" RCP

8" SAN | 8" WATER

PROP 8" SAN.
@ FL=32.92'(W)
PROP 8" SAN.
@ FL=30.65'(E)

PROP 8" SAN.
@ FL=30.28'(E)
PROP 8" SAN.
@ FL=29.85'(W)

2' (ABS) MIN CLR | 2' MIN CLR

HGL

PROP 18" SAN.
96 LF @ 0.15%

PROP 18" SAN.
250 LF @ 0.15%

PROP 18" SAN.
154 LF @ 0.15%

SEE NOTE 1

FL EL= 28.38

FL EL= 27.62

44 | 42 | 40 | 38 | 36 | 34 | 32 | 30 | 28 | 26

11+00 | 12+00 | 13+00 | 14+00 | 15+00 | 16+00

SEE SHEET 52 MATCHLINE STA 11+00

SEE SHEET 54 MATCHLINE STA 16+00

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TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

CROWN ST.
PLAN & PROFILE
STA 11+00 TO 16+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 53 OF 339	

SEE SHEET 53
MATCHLINE STA 16+00

BONHAM ST. (SEE SHT 29)

LYONS AVE. (SEE SHT 24)

CROWN ST.

BLOCK 71
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

LOT 18

BLOCK 67
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

LOT 36

LOT 18

BLOCK 72
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

LOT 1

BLOCK 68
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

LOT 18

LOT 1

BLOCK 64
HOUSTON HARBOR ADDITION
VOLUME 3 PAGE 64 H.C.M.R.

LOT 18

PROP 8" SAN.

PROP 94 LF 18" SAN.

PROP 8" SAN.

PROP 240 LF 24" SAN.

PROP 24" SAN.

CRITICAL LOCATE!!
SEE SPEC 02317

SEE NOTE 1

PROP (4' DIA) SAN DROP MH 9
STA 16+94.00, 4.50' RT
CROWN ST

PROP (4' DIA) SAN DROP MH 3
STA 19+34.00, 4.50' RT
CROWN ST

3' MIN CLR

5' TYP

21' TYP

50' ROW

CROWN ST
ASPHALT PVMT.
50' ROW

AT&T TEXAS/S.W.B.T. 28 MTD DUCTS
(LOCATION APPROX.)

LOGIX FIBER NETWORKS
logix in existing at&t duct

CenterPoint Energy
6" IP COATED STEEL GAS

(PER.33854 PG.26)

(PER.30114 PG.31)

10" SAN.

8" WATER
(PER.30114 PG.31)

36" STM.

18" STM.

15" STM.

GATE POST
POWER POLE
GAS VALVE
STM. MANHOLE
STOP SIGN
DOWN GUY
POWER POLE W/LIGHT
2.5'X4' AT&T BOX
1.5'X3' AT&T BOX
6" TEXAS LAUREL
MAILBOX AT FENCE
GATE POST
GATE POST
GATE POST
POWER POLE W/LIGHT
POWER POLE W/LIGHT
METAL POST
STOP SIGN
POWER POLE
SAN. MANHOLE
TELEPHONE POST
3'X3' GRATE INLET
STM. MANHOLE
VALVON SIGN
2"X2" METAL POST
2-3'X3' EMERGER BOXES
3" WATER VALVE
3" METAL POST
STOP SIGN

NOTES:

1. PLACE ONE FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS TO SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO RESTORE CROWN ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

N

0' 10' 20' 40'
SCALE: 1"=20'

TBM
CP-62 SET CONC NAIL
16+92.03, 12.69' LT
EL= 41.41

CP-65 SET CONC NAIL IN ASP
19+64.29, 17.43' LT
EL= 41.51

LEGEND
- FLOW DIRECTION
- LIMITS OF PVMT CONSTRUCTION
- HYDRAULIC GRADE LINE (HGL)

NO.	DATE	REVISION	APP.

STA= 16+00.00
EL= 41.79

FL EL= 27.62

PROP DROP SAN MH 9
ADJUST RIM EL TO PROP PVMT
8" FL(E)=28.52
24" FL(N)=23.14
18" FL(S)=27.48

PROP DROP SAN MH 3
ADJUST RIM EL TO PROP PVMT
24" FL(E)=25.88
24" FL(W)=25.88
24" FL(S)=25.88

℄ OF PROP PVMT

VPI STA= 19+28.46
EL= 41.42

-0.11%

CL OF ROAD
WEST R.O.W.
EAST T.O.C.

EAST R.O.W.
WEST T.O.C.

WEST D.F.L.

PROP 18" SAN.
94 LF @ 0.15%

PROP 8" SAN.
@ FL=28.52'(E)

PROP 8" SAN.
@ FL=31.39'(W)

PROP 24" SAN.
240 LF @ 0.11%

PROP 8" SAN.
@ FL=33.07'(W)

PROP 24" SAN.
@ FL=25.88'(E)

HGL

2' (ABS) MIN CLR

2' MIN CLR

SEE NOTE 1

8" WATER

36" STM

15" STM

18" STM

18" RCP

15" RCP

8" RCP

8" SAN

10" SAN

12" SAN

44 42 40 38 36 34 32 30 28 26

16+00 17+00 18+00 19+00 20+00

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TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

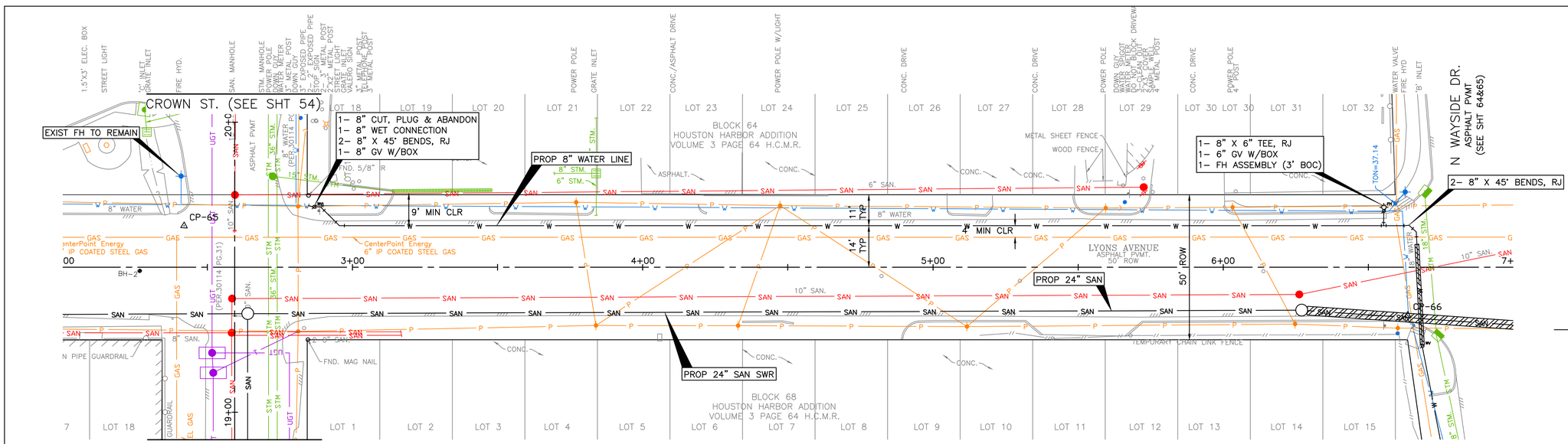
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

CROWN ST.
PLAN & PROFILE
STA 16+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 54 OF 339	

PLOTTED: 10/28/2026 10:50 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\CROWN ST.PLAN.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

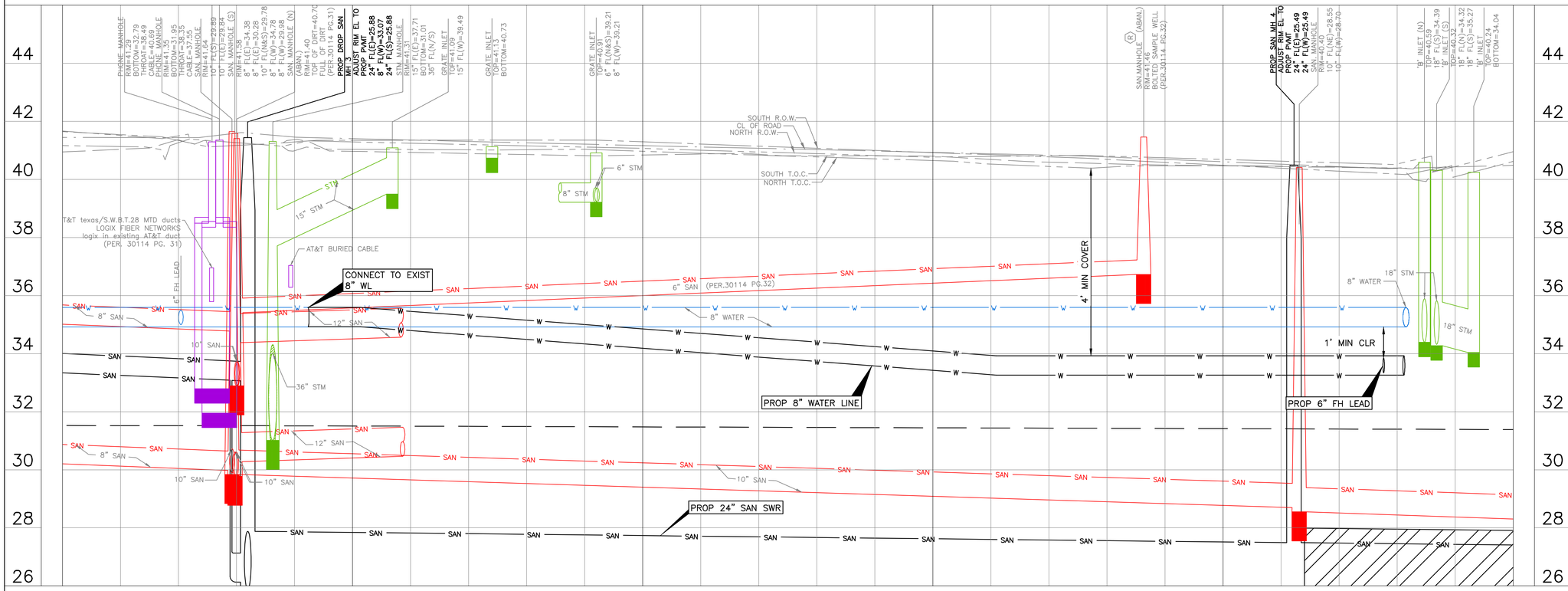
TBM
CP-65 SET CONC NAIL IN ASP
2+41.92, 14.29' LT
EL= 41.51
CP-66 SET CONC NAIL IN ASP
6+85.15, 34.02' RT
EL= 40.05

LEGEND

HYDRAULIC GRADE LINE (HGL)

NO.	DATE	REVISION	APP.

LYONS AVE.



CIVITAS ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

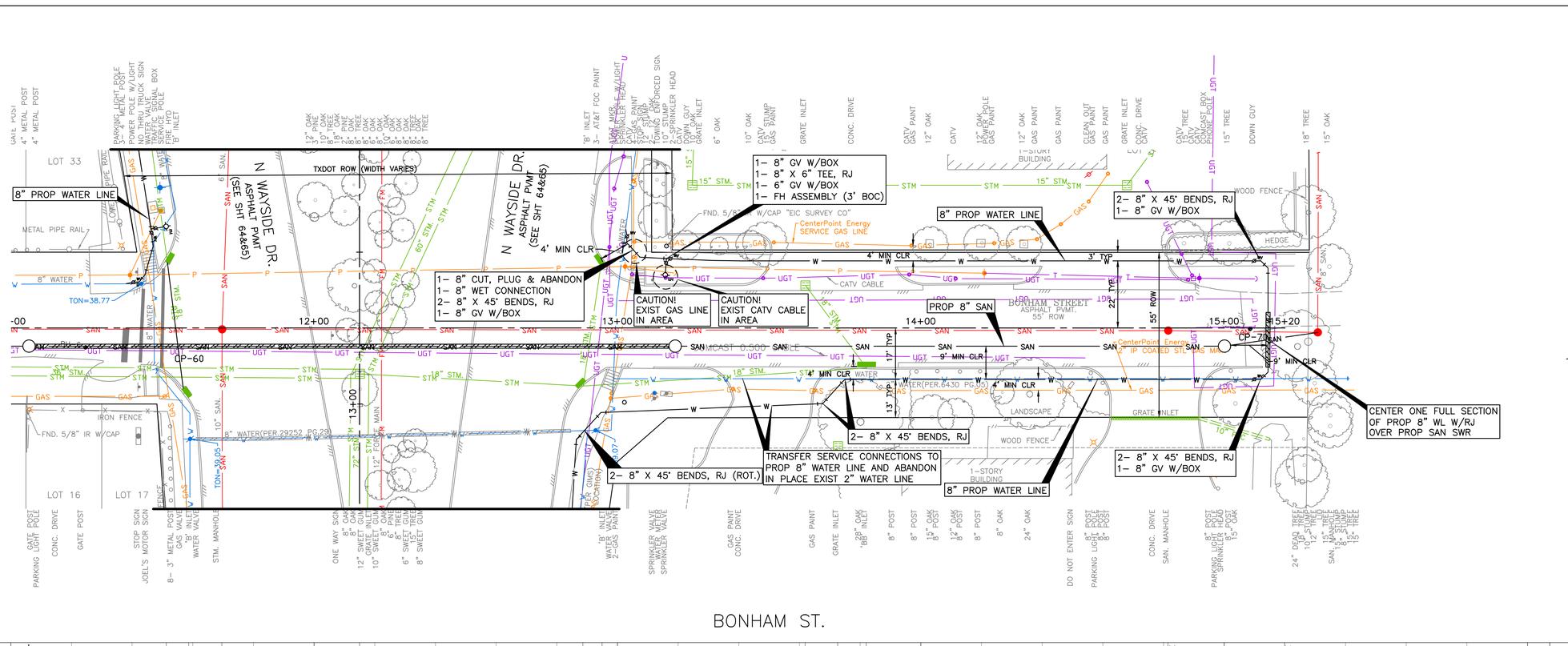
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

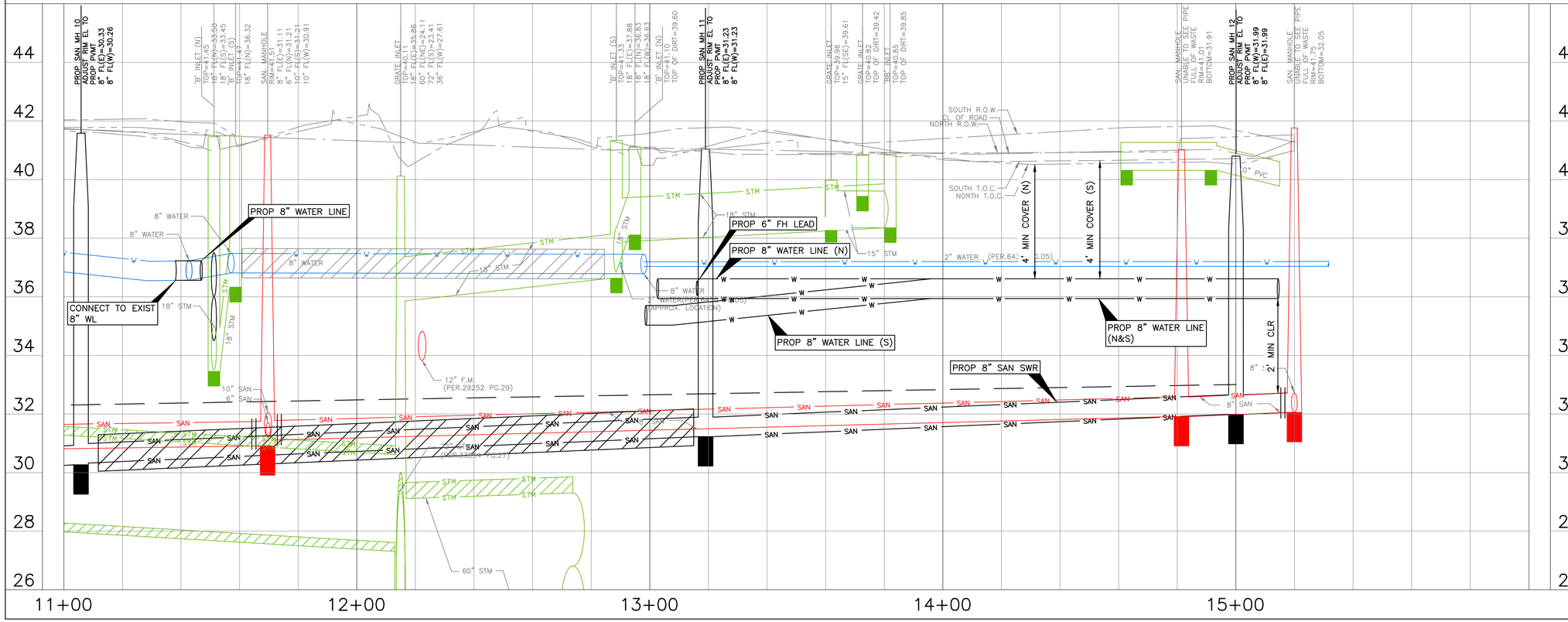
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE. PLAN & PROFILE STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 55 OF 339	

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NO.	DATE	REVISION	APP.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

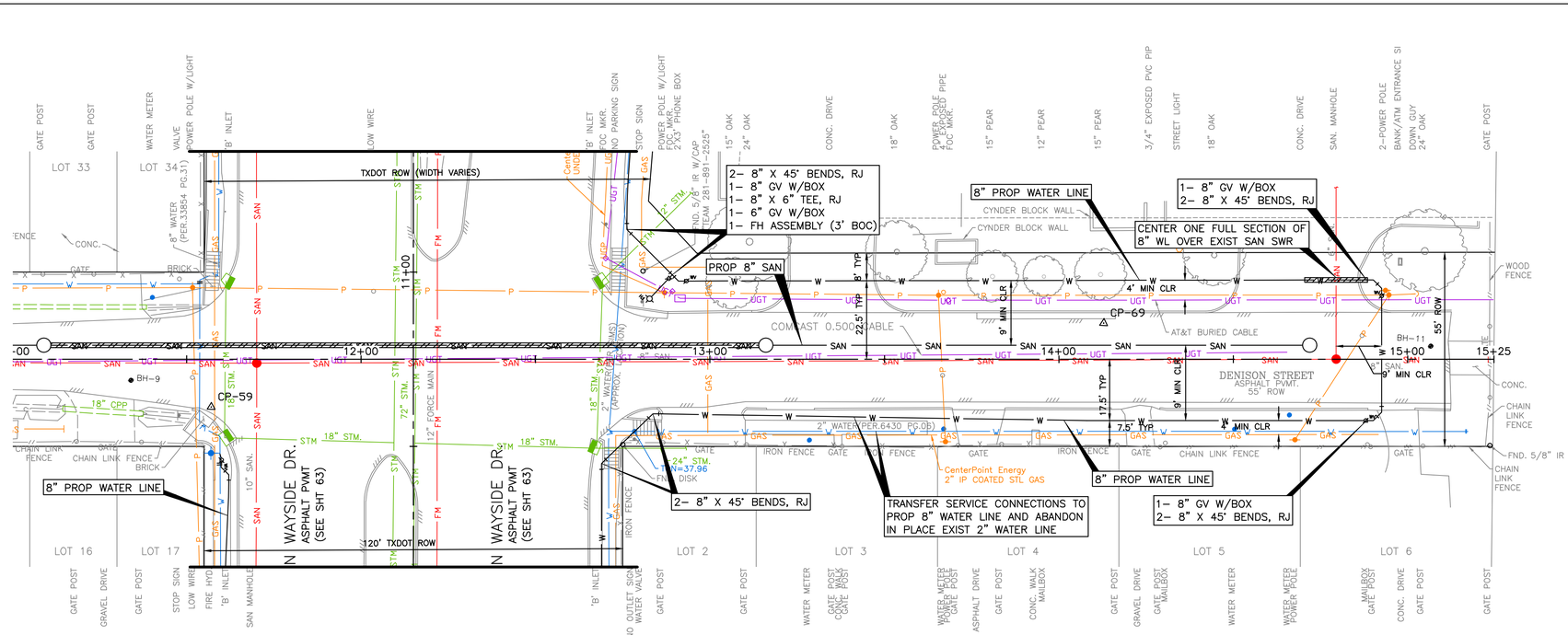
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

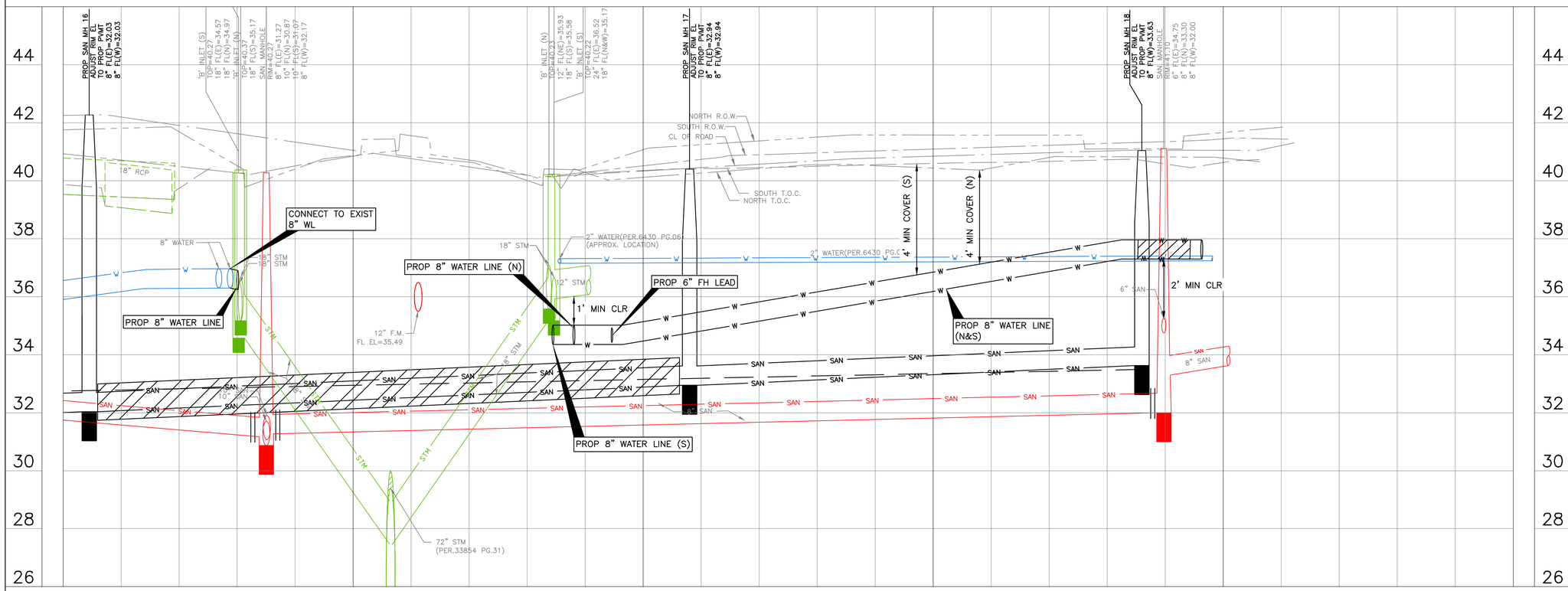
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BONHAM ST.
PLAN & PROFILE
STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 56 OF 339	

PLOTTED: 10/28/2026 10:32 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\BONHAM ST. PLAN_WATER.dwg





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P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

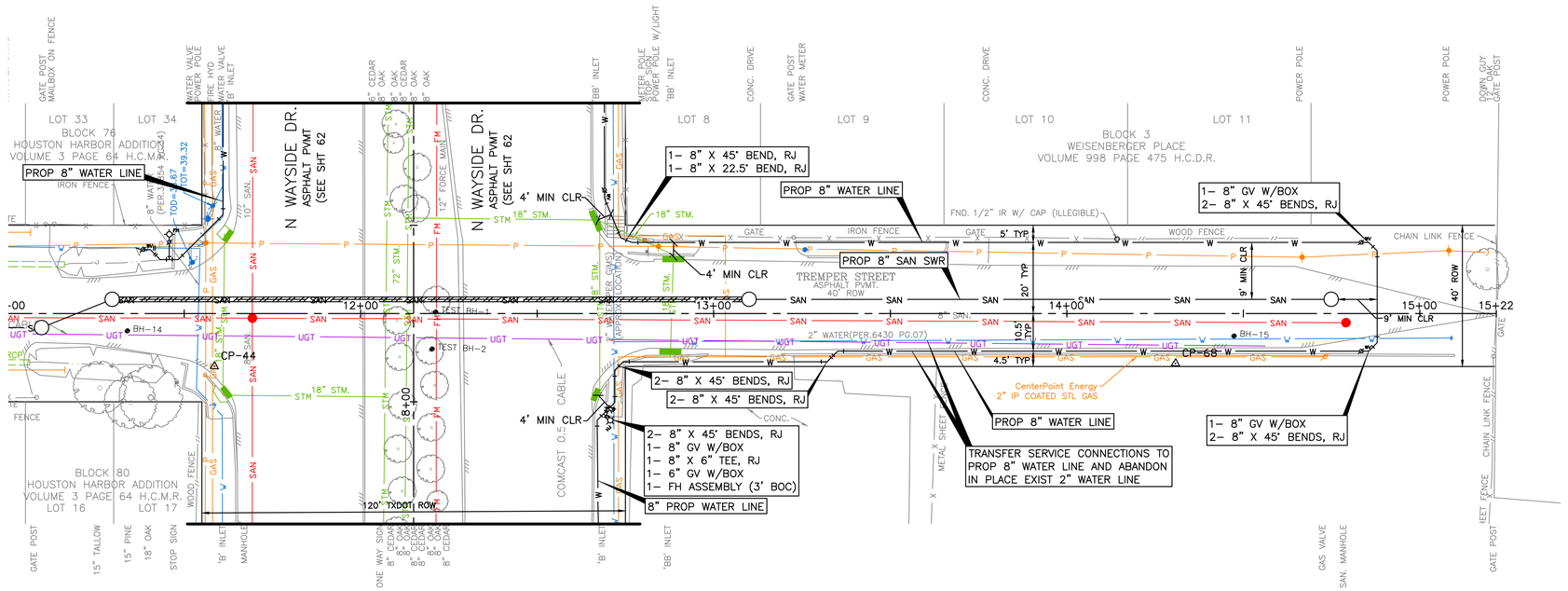
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

DENISON ST.
PLAN & PROFILE
STA 11+00 TO END

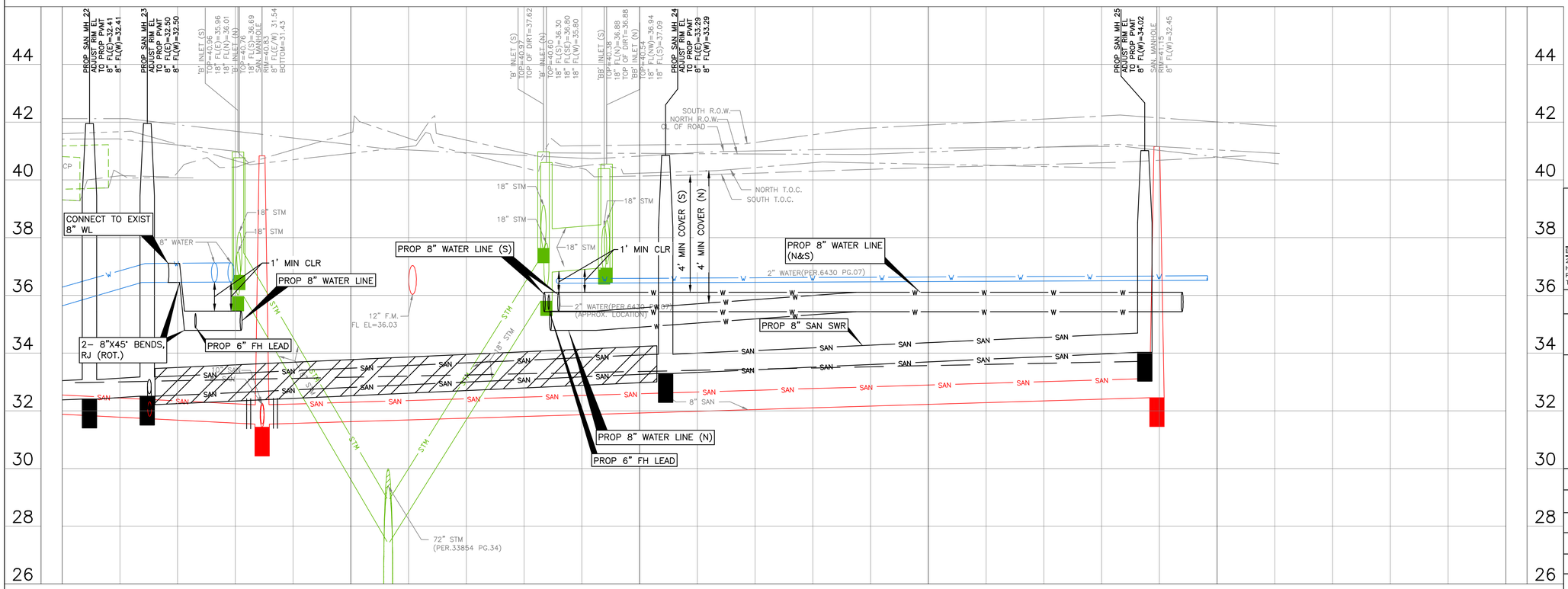
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 57 OF 339	

NO.	DATE	REVISION	APP.

PLOTTED: 10/28/2026 10:30 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\DENISON ST. PLAN_WATER.dwg



TREMPER ST.



N

0' 10' 20' 40'

SCALE: 1"=20'

TBM
CP-44 SET CONC NAIL IN ASP
11+58.49, 14.94' RT
EL= 40.55

CP-68 SET 3/8"IR w/LANDTECH CAP
14+30.82, 14.14' RT
EL= 40.92

LEGEND

——— HYDRAULIC GRADE LINE (HGL)

FOR SANITARY, SEE SHT 36

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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ENGINEER: YONGKI SHIM, PE
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DATE: 10/28/2026

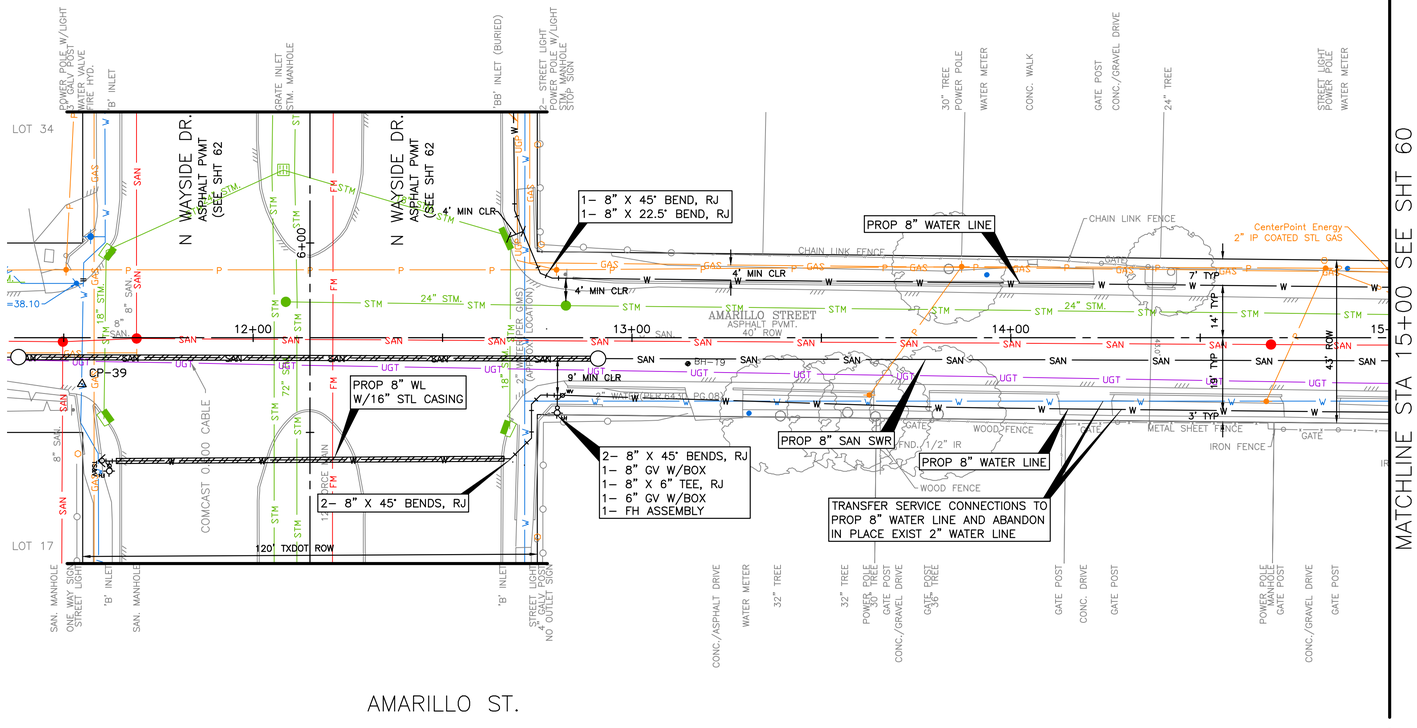
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

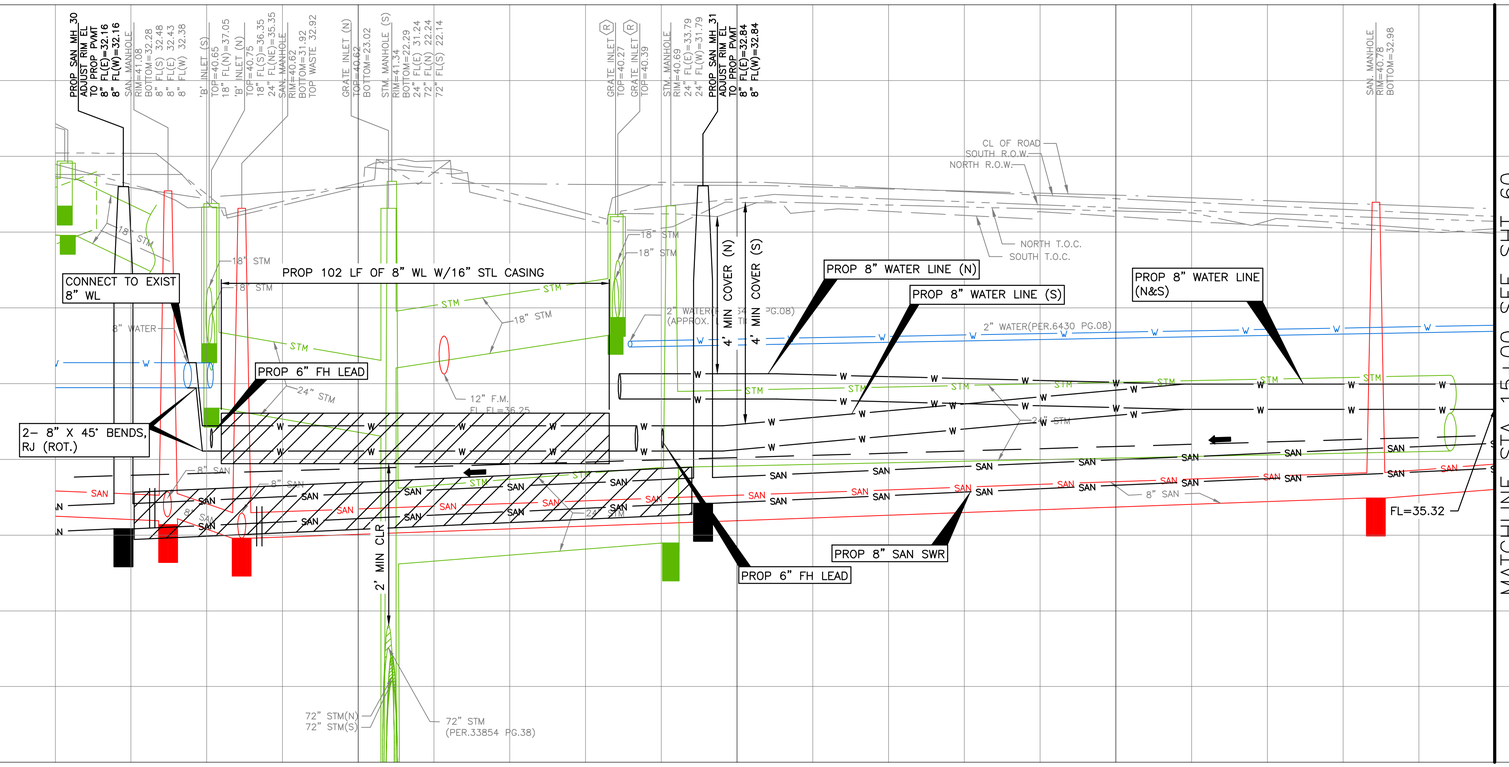
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

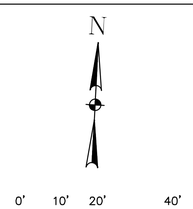
TREMPER ST.
PLAN & PROFILE
STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 58 OF 339	

PLOTTED: 10/28/2026 10:26 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\TREMPER ST. PLAN_WATER.dwg







TBM
OP-39 SET CONC NAIL IN ASP
11+54.83, 12.23' RT
EL= 40.55

LEGEND

HYDRAULIC GRADE LINE (HGL)

NOTES:

1. CONTRACTOR TO CONFORM TO SECTIONS 02448 – PIPE AND CASING AUGERING FOR SEWERS AND 02431 – TUNNEL GROUT AFTER THE GRAVITY SEWER INSTALLATION.

FOR SANITARY, SEE SHT 39

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
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DOCUMENT INCOMPLETE:
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

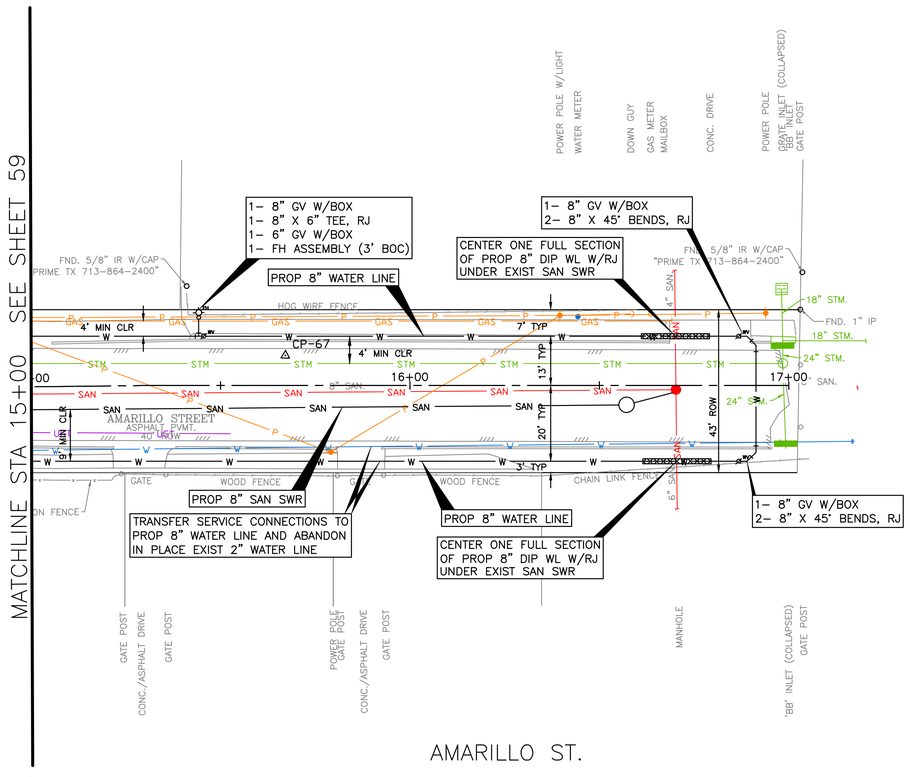
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

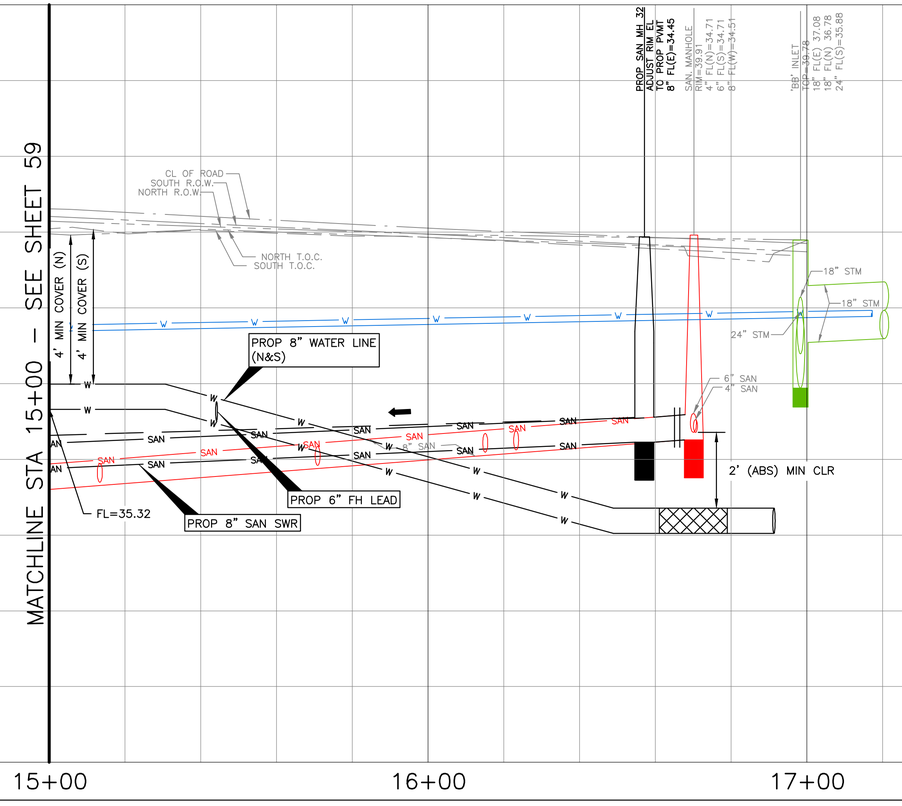
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AMARILLO ST.
PLAN & PROFILE
STA 10+00 TO 15+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 59 OF 339	

PLOTTED: 10/28/2026 10:48 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\AMARILLO ST. PLAN_WATER.dwg





N

0' 10' 20' 40'

SCALE: 1"=20'

TBM
CP-67 SET CONC NAIL IN ASP
15+67.08, 7.92' LT
EL= 39.78

LEGEND

HYDRAULIC GRADE LINE (HGL)

FOR SANITARY, SEE SHT 40

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AMARILLO ST.
PLAN & PROFILE
STA 15+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 60 OF 339	

PLOTTED: 10/28/2026 10:33 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\AMARILLO ST. PLAN_WATER.dwg

PLOTTED: 10/28/2026 10:49 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\N WAYSIDE DR.dwg

MARKET ST.

ANZAC ST.

N WAYSIDE DR

1– 2" CUT, PLUG AND ABAN.

ABANDON EXIST 2" WATER LINE

MATCHLINE STA 5+00
SEE SHT 62

120' TXDOT ROW

CP-38

TBM
CP–33 SET XCON
12+32.38, 34.93' LT (MARKET)
EL= 40.85

N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

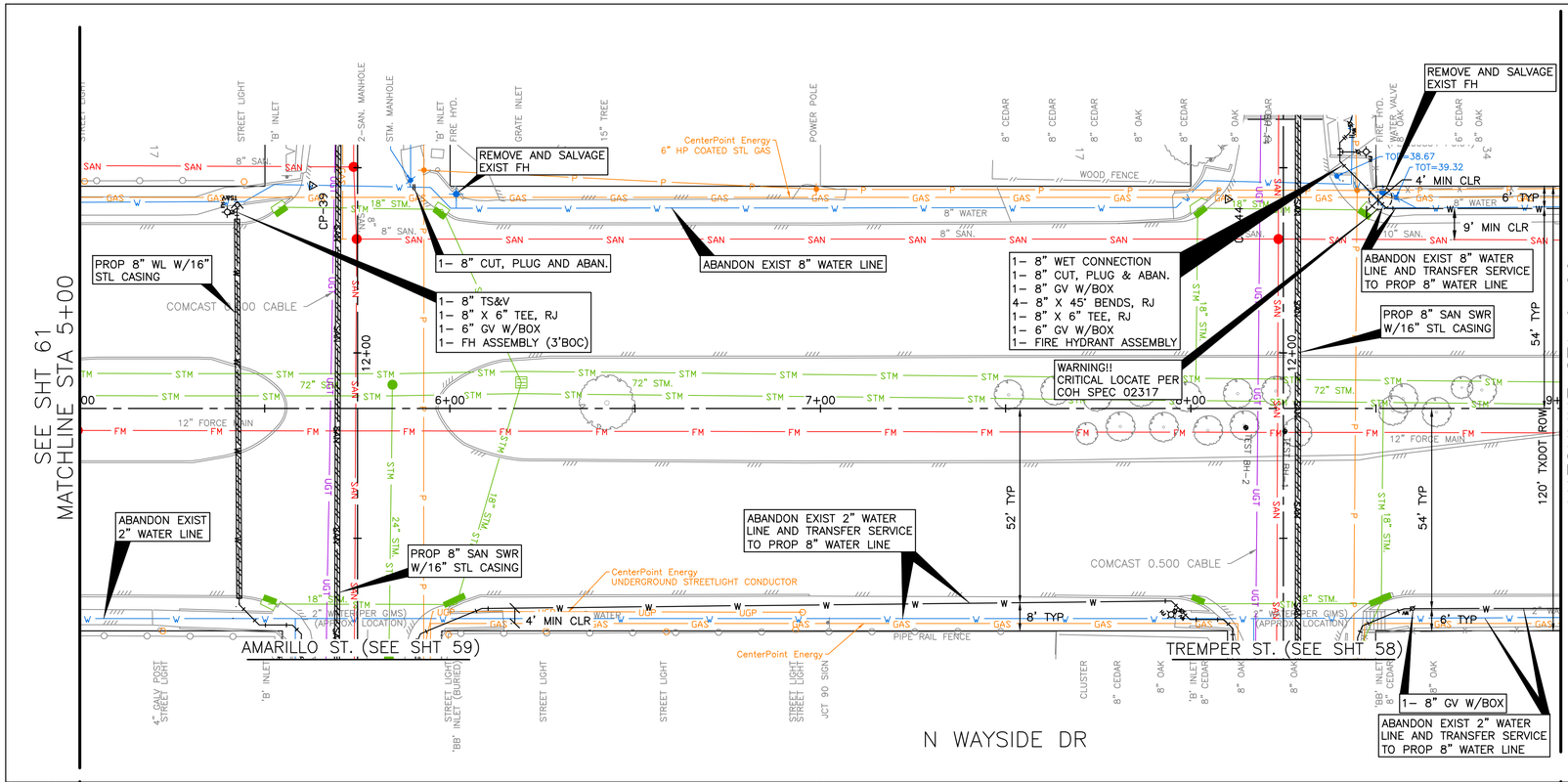
CITY OF HOUSTON

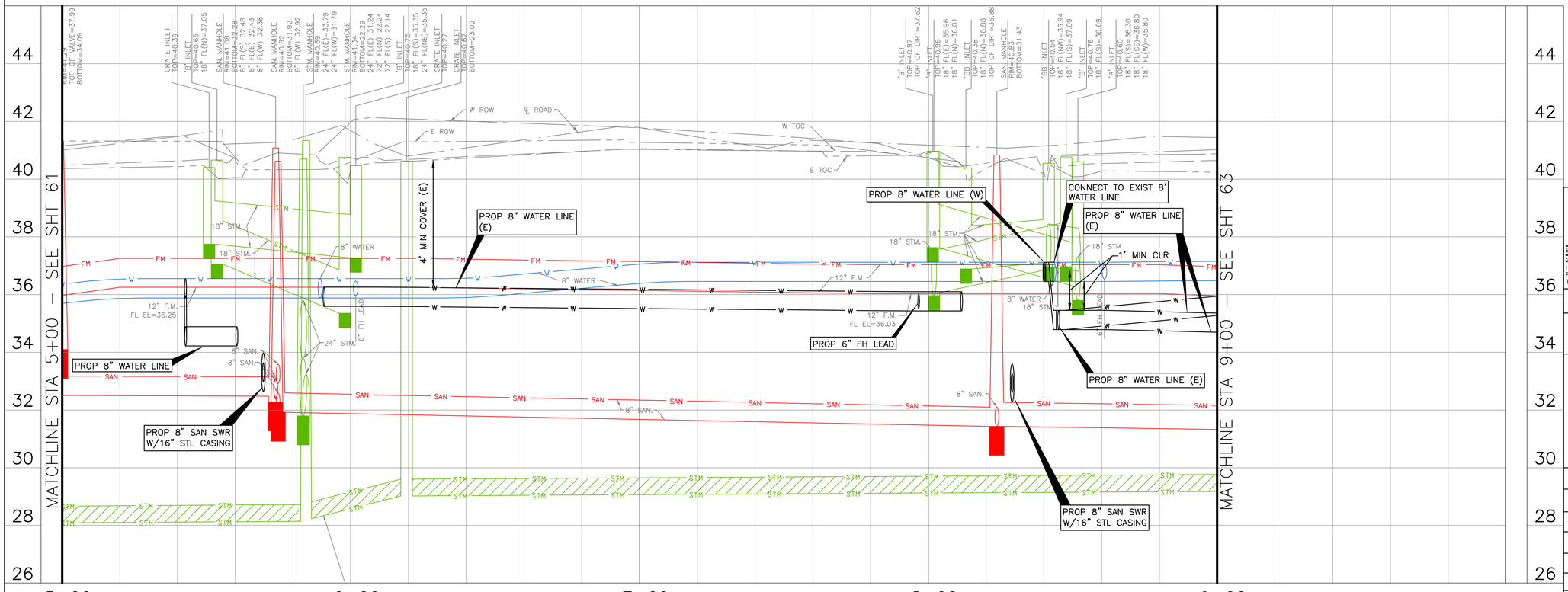
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

N WAYSIDE DR
PLAN & PROFILE
STA 1+00 TO 5+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 61 OF 339	





FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\N WAYSIDE DR.dwg

PLOTTED: 10/28/2026 10:40 AM

PLOT STYLE: COH.ctb

NO.	DATE	REVISION	APP.

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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

N WAYSIDE DR
PLAN & PROFILE
STA 5+00 TO 9+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 62 OF 339	

PLOTTED: 10/28/2026 10:46 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 8\N WAYSIDE DR.dwg

SEE SHT 62
MATCHLINE STA 9+00

MATCHLINE STA 12+50
SEE SHT 64

WARNING!! CRITICAL LOCATE PER COH SPEC 02317!

EXIST FH TO REMAIN IN SERVICE

POWER POLE W/LIGHT

FIRE HYD.

CenterPoint Energy 6" HP COATED STL GAS

IRON FENCE

CHAIN LINK FENCE

6' TYP

9' MIN CLR

10" SAN.

ABANDON EXIST 8" WATER LINE AND TRANFSER SERVICE TO PROP 8" WATER LINE

1- 8" WET CONNECTION
1- 8" CUT, PLUG & ABAN.
2- 8" X 45° BENDS, RJ
1- 8" GV W/BOX

CP-59

1- 8" CUT, PLUG & ABAN.

ABANDON EXIST 8" WATER LINE

8" WATER (PER.33854 PG.31)

3" METAL POST

3" SWEET GUM

54' TYP

120' TXDOT ROW

10+00

11+00

12+00

72" STM.

18" STM.

12" FORCE MAIN

PROP 8" SAN SWR W/16" STL CASING

ABANDON EXIST 2" WATER LINE AND TRANFSER SERVICE TO PROP 8" WATER LINE

ABANDON EXIST 2" WATER LINE AND TRANFSER SERVICE TO PROP 8" WATER LINE

CenterPoint Energy UNDERGROUND STREETLIGHT CONDUCTOR

AT&T BURIED CABLE

2" WATER (PER TIMS) (APPROX. LOCATION)

4' MIN CLR

GATE

GATE POST

DENISON ST. (SEE SHT 57)

N WAYSIDE DR

NO PARKING SIGN

STREET LIGHT

STREET LIGHT ELEC. BOX

8"X8" ELEC. BOX

LANDSCAPE

PARKING LIGHT POLE

8" PINE

CREPE MYRTLE

TXDOT ROW (WIDTH VARIES)

TBM
CP-59 SET CONC NAIL IN ASP
11+57.00, 13.70' RT
EL= 40.06

FOR SANITARY, SEE SHT 33

N

0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

'B' INLET TOP=40.22 24" F.L(E)=36.52 18" F.L(W&N)=35.17

'B' INLET TOP=40.27 18" F.L(E)=34.57 18" F.L(N)=34.92

SAN. MANHOLE RIM=40.27 8" F.L(E)=31.27 10" F.L(N)=30.87 10" F.L(S)=31.07 8" F.L(W)=32.17

'B' INLET TOP=40.33 12" F.L(NE)=35.93 18" F.L(S)=35.58

'B' INLET TOP=40.37 18" F.L(S)=35.17

E ROW

W ROW

℄ ROAD

E TOC

W TOC

4' MIN COVER (E)

4' MIN COVER (W)

PROP 8" WATER LINE (W)

CONNECT TO EXIST 8" WATER LINE

24" STM.

6" FM CASING

8" WATER

1' MIN CLR

12" F.M.

FL= 35.49

PROP 8" WATER LINE (E)

8" SAN.

PROP 8" SAN SWR W/16" STL CASING

72" STM.

MATCHLINE STA 9+00 - SEE SHT 62

MATCHLINE STA 12+50 - SEE SHT 65

9+00 10+00 11+00 12+00 12+50

26 28 30 32 34 36 38 40 42 44

CIVITAS ENGINEERING GROUP
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2000 W. Sam Houston Pkwy S., Suite 1400
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TBPE Firm Registration No. F-4491

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DOCUMENT INCOMPLETE:
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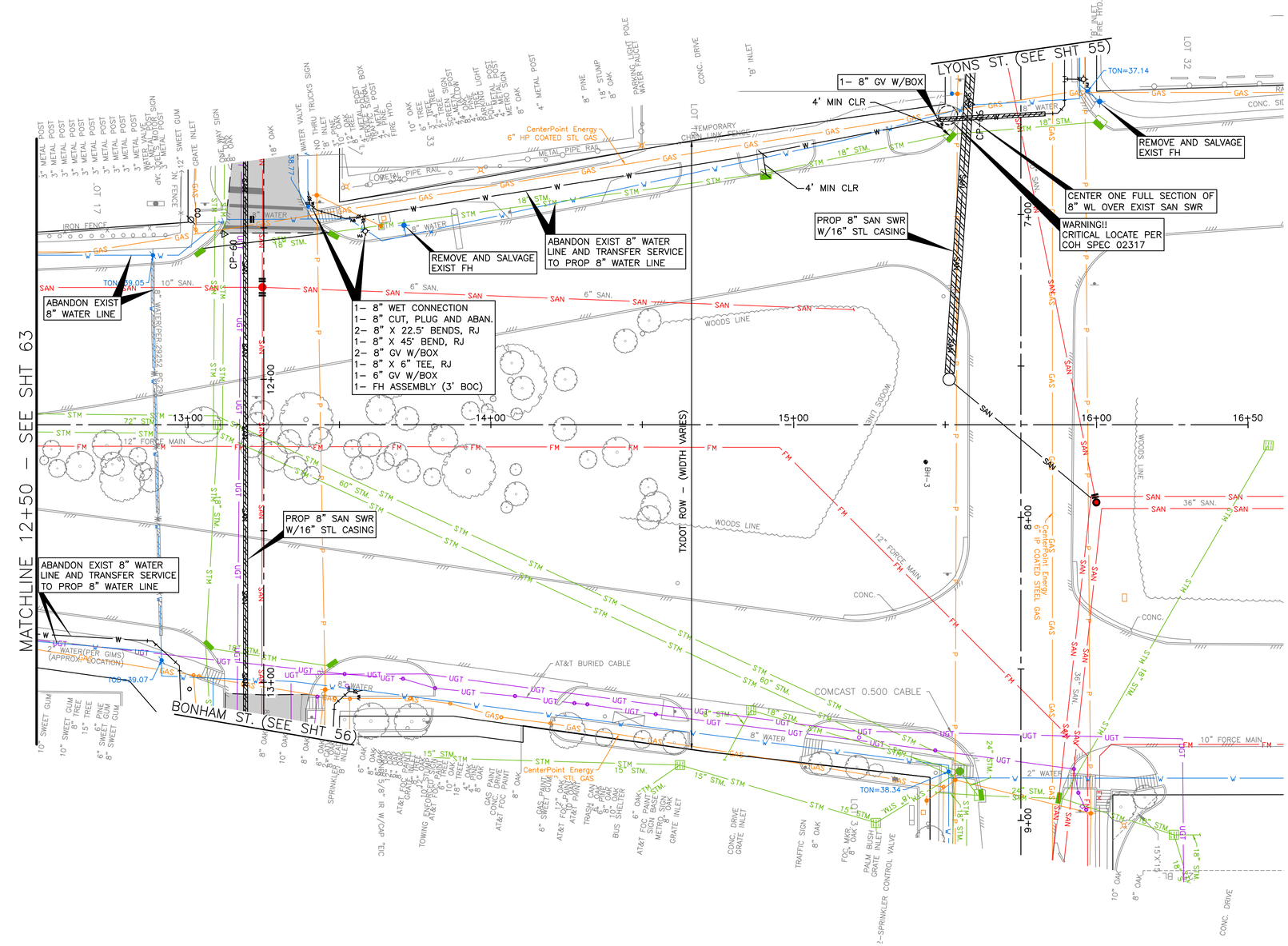
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

N WAYSIDE DR
PLAN & PROFILE
STA 9+00 TO 12+50

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 63 OF 339	



TBM
CP-66 SET CONC NAIL IN ASP
6+63.58, 16.61' RT (LYONS)
EL= 40.05
CP-60 SET CONC NAIL IN ASP
11+52.09, 13.02' RT (BONHAM)
EL= 41.13

FOR SANITARY, SEE SHT 26, 27 & 30

N

0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

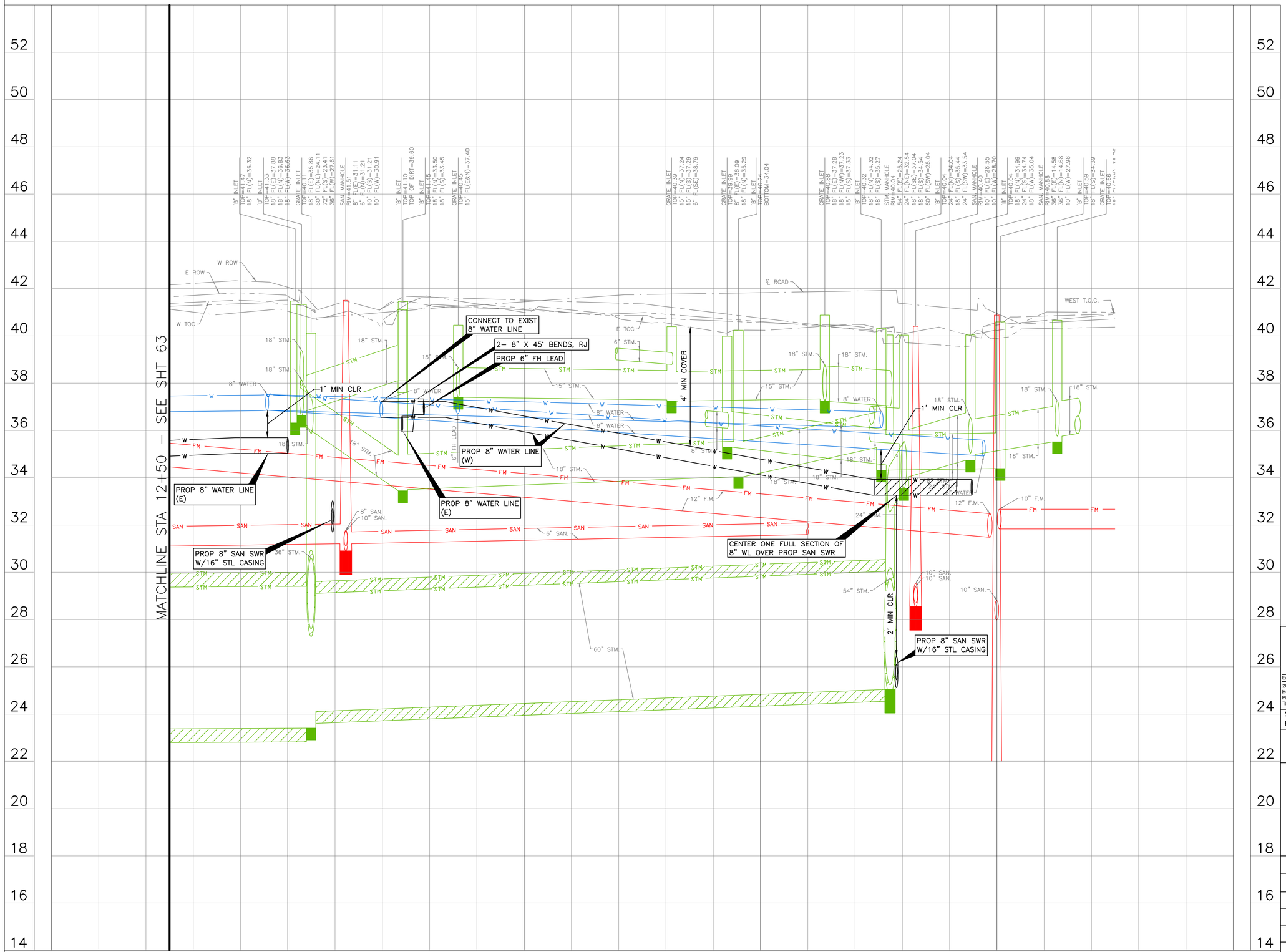
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

N WAYSIDE DR
PLAN
STA 12+50 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 64 OF 339	

PLOTTED: 10/28/2026 10:41 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\N WAYSIDE DR.dwg



FOR SANITARY, SEE SHT 26 & 30

NO.	DATE	REVISION	APP.

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Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

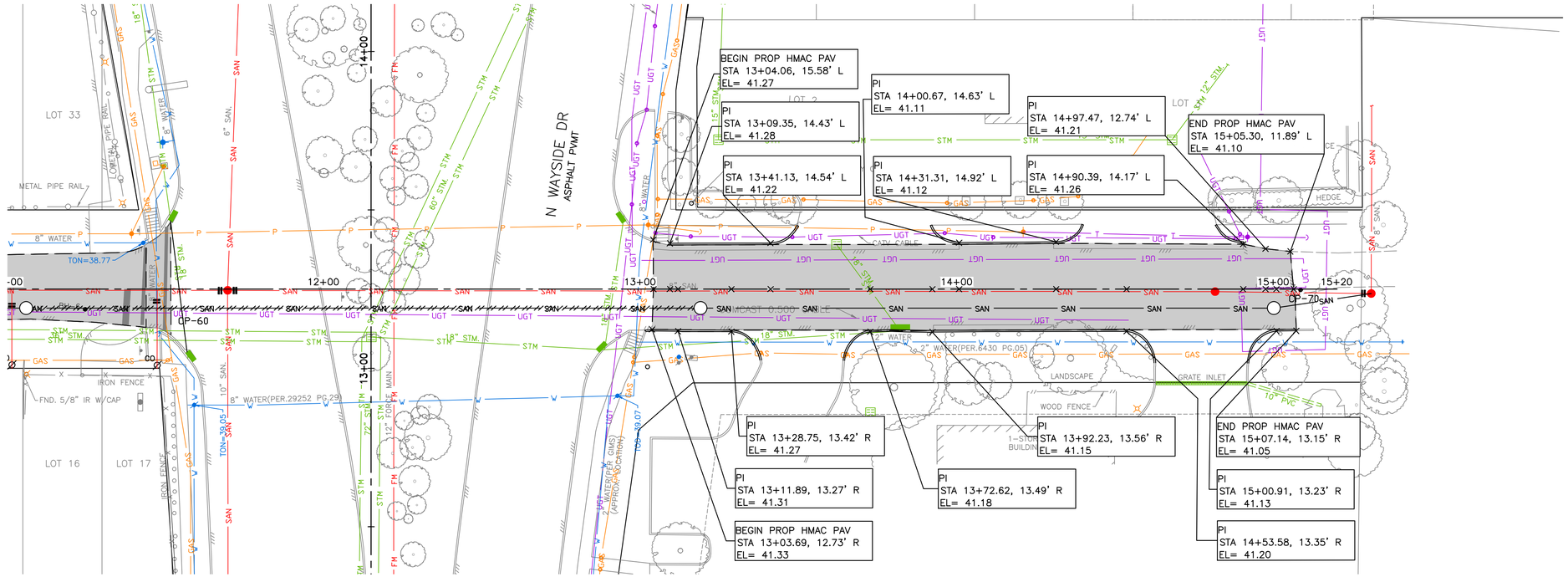
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

N WAYSIDE DR PROFILE STA 12+50 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 65 OF 339	

PLOTTED: 10/28/2026 10:50 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 8\N WAYSIDE DR.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

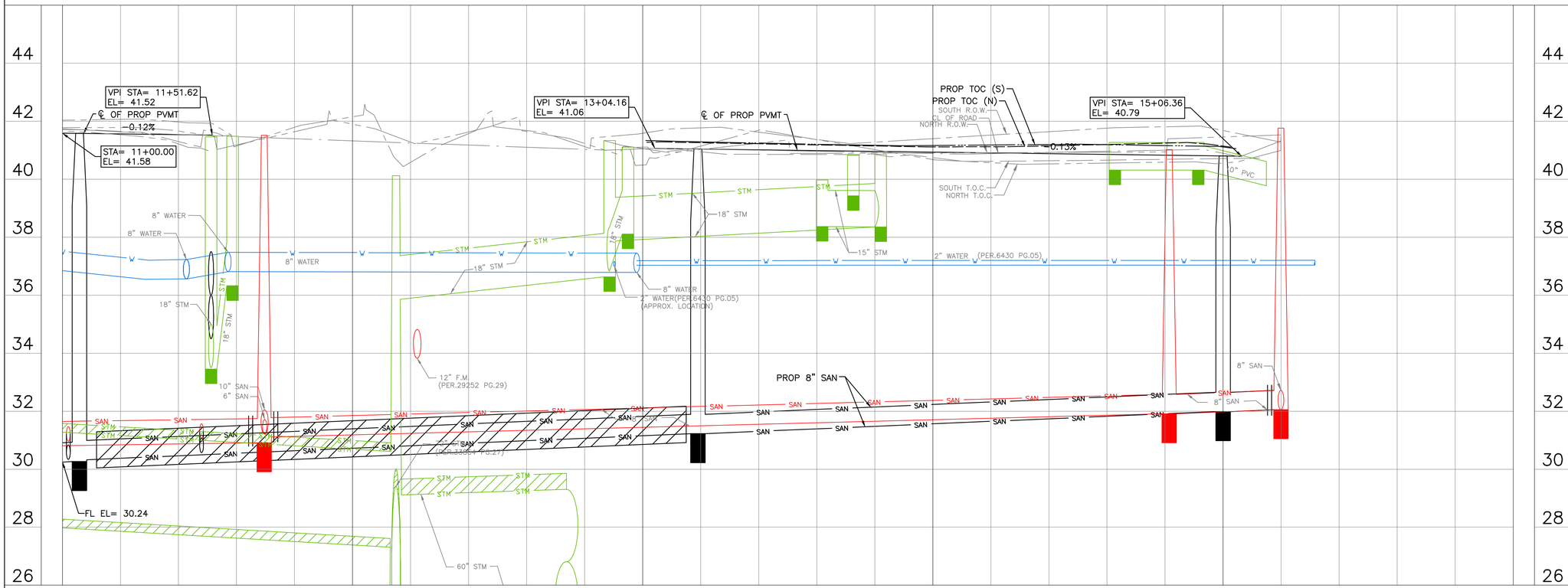
LEGEND

PROP ASPHALT PAVEMENT

NOTES:

1. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1-INCH.

NO.	DATE	REVISION	APP.



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P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

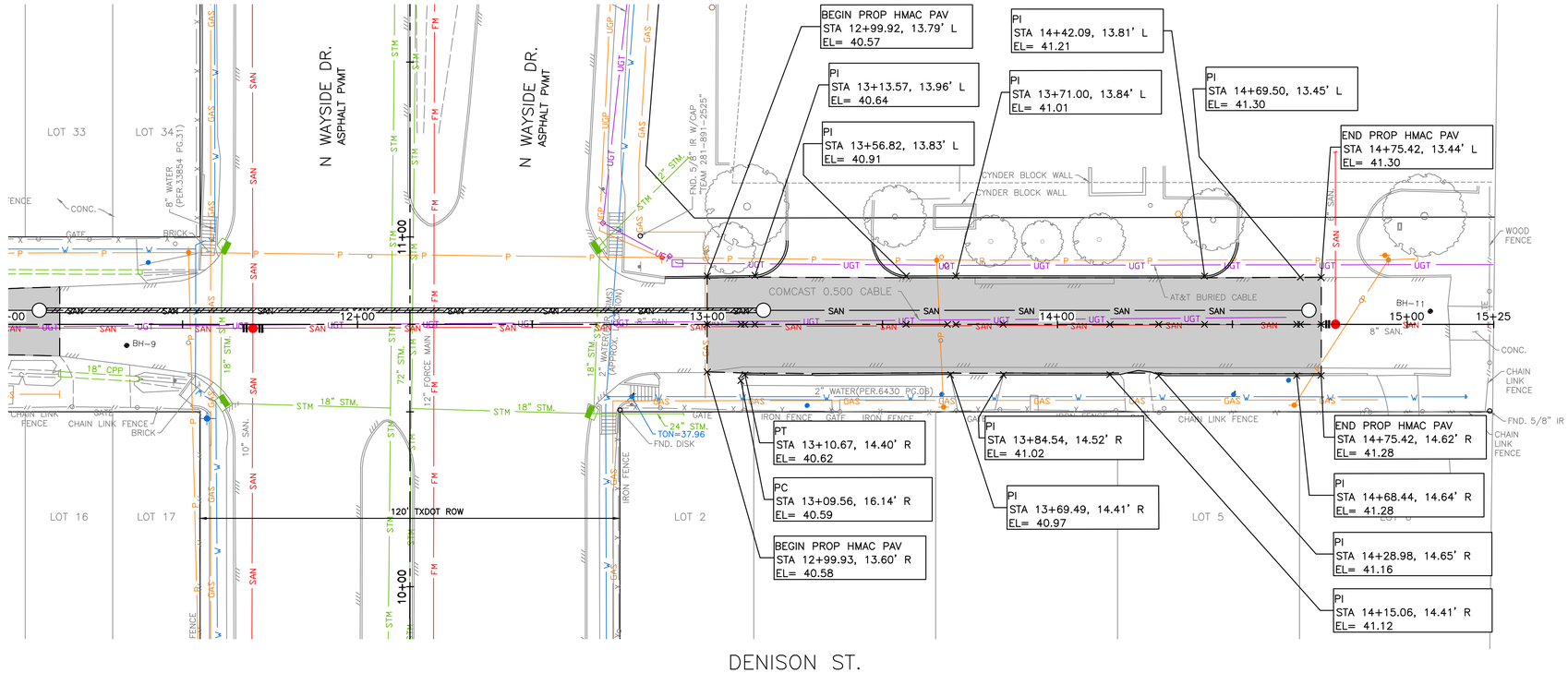
BONHAM ST. PAVEMENT STA 11+00 TO END

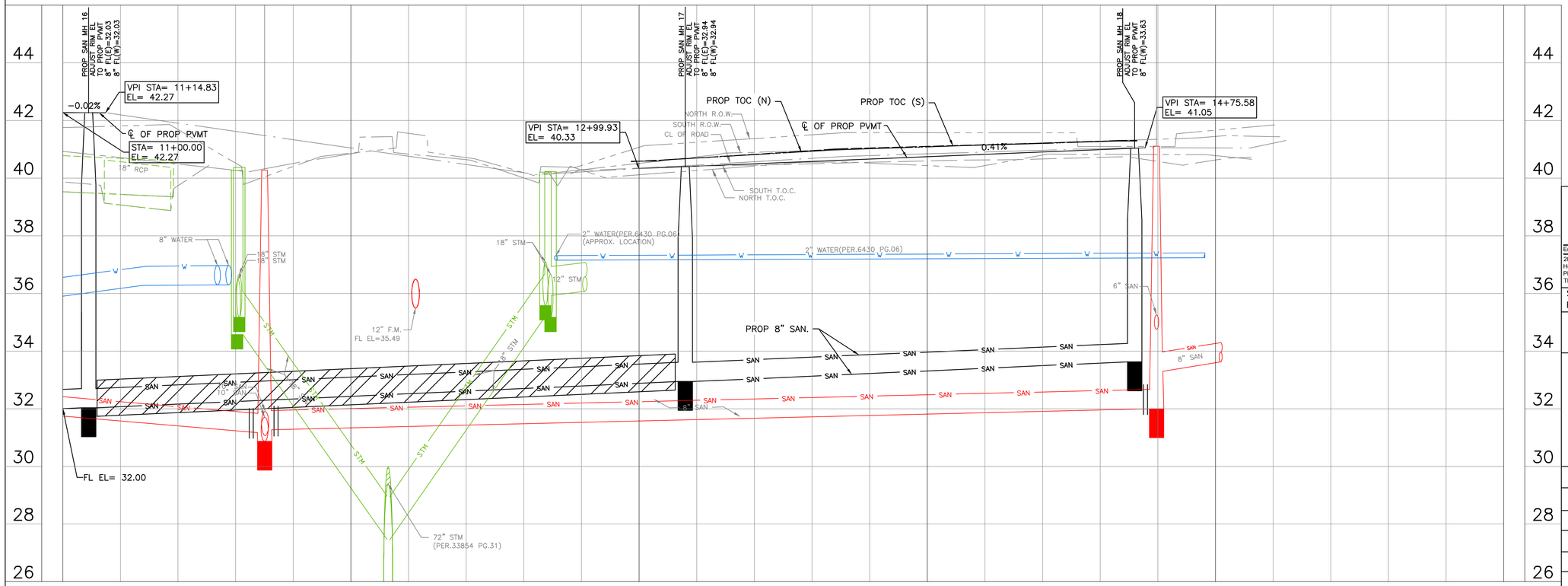
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R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 66 OF 339	

PLOTTED: 10/28/2026 10:32 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\PVMT\BONHAM ST. PLAN.dwg





N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

LEGEND

PROP ASPHALT PAVEMENT

NOTES:

1. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1-INCH.

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ENGINEER: YONGKI SHIM, PE
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DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

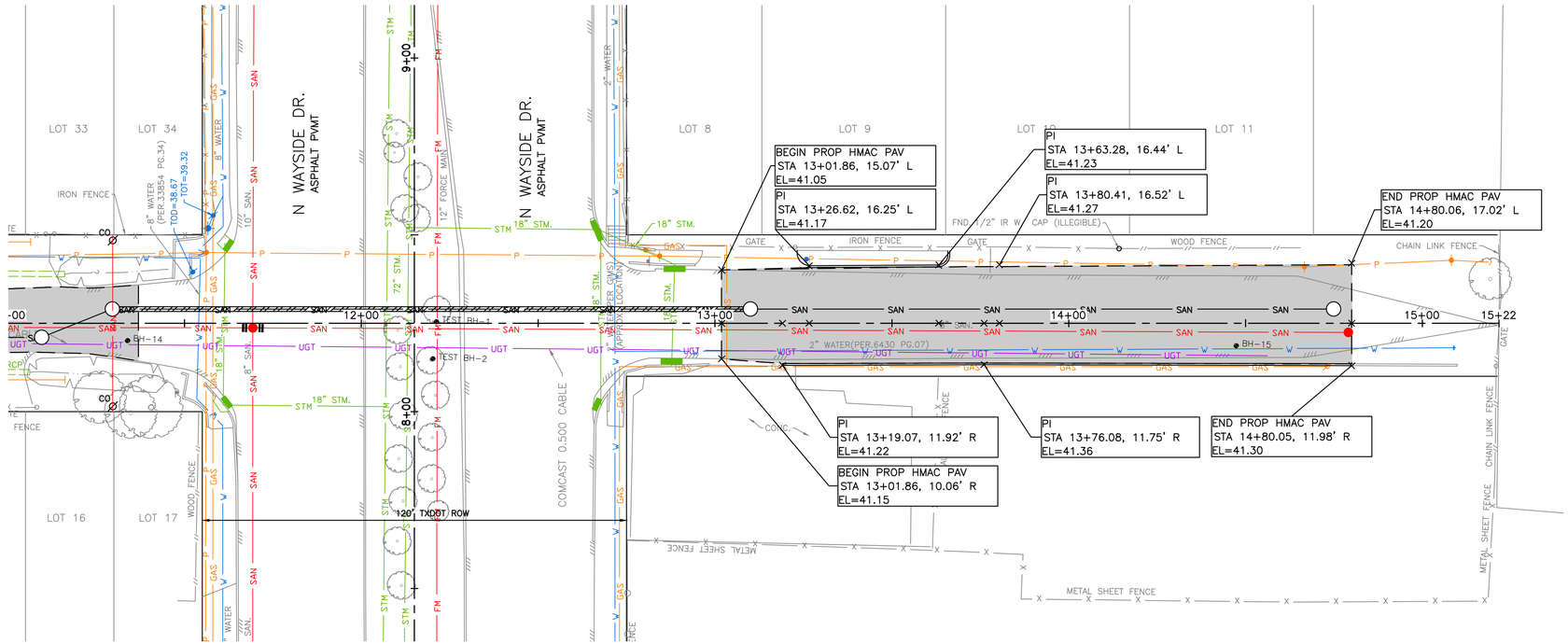
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

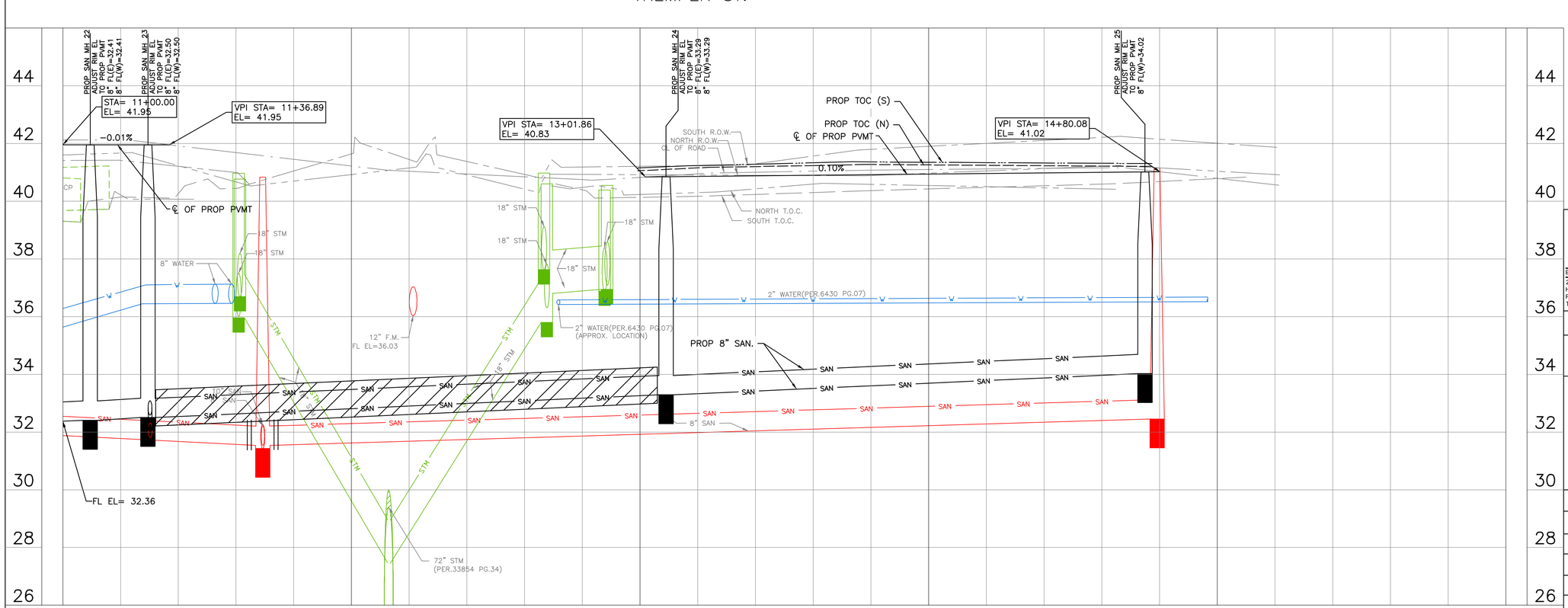
DENISON ST. PAVEMENT STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 67 OF 339	

PLOTTED: 10/28/2026 10:31 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\PVMT\DENISON ST. PLAN.dwg



TREMPER ST.



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

LEGEND

PROP ASPHALT PAVEMENT

NOTES:

1. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1-INCH.

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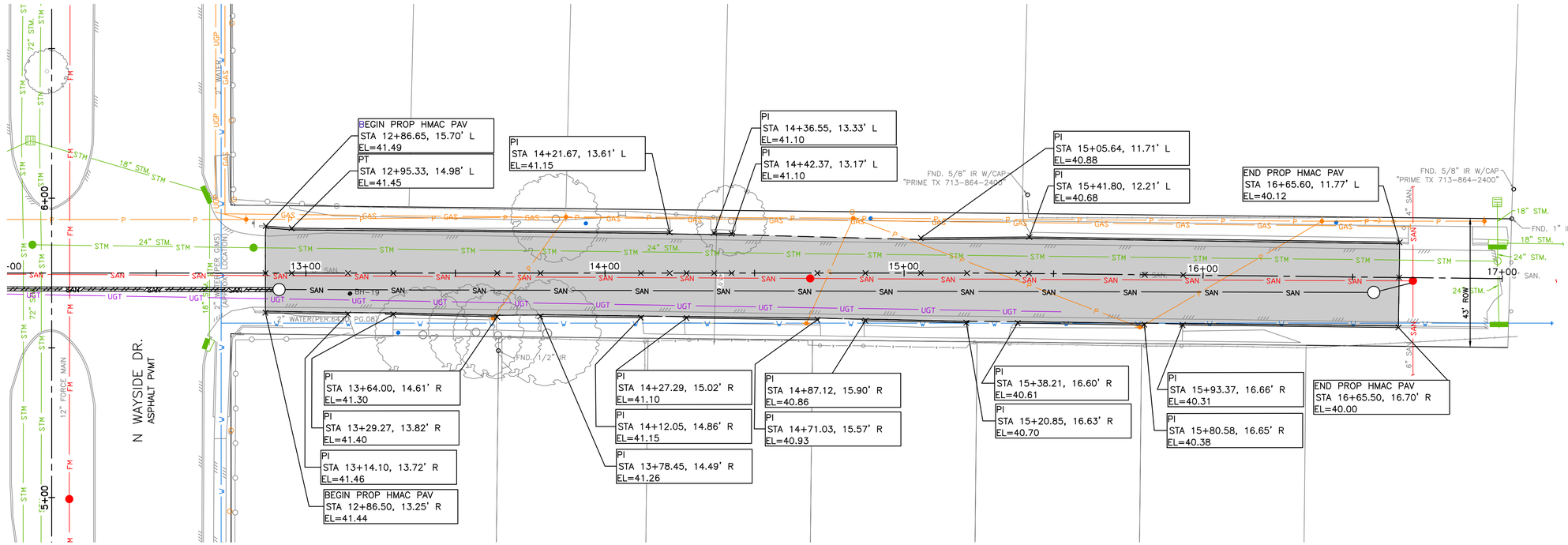
CITY OF HOUSTON
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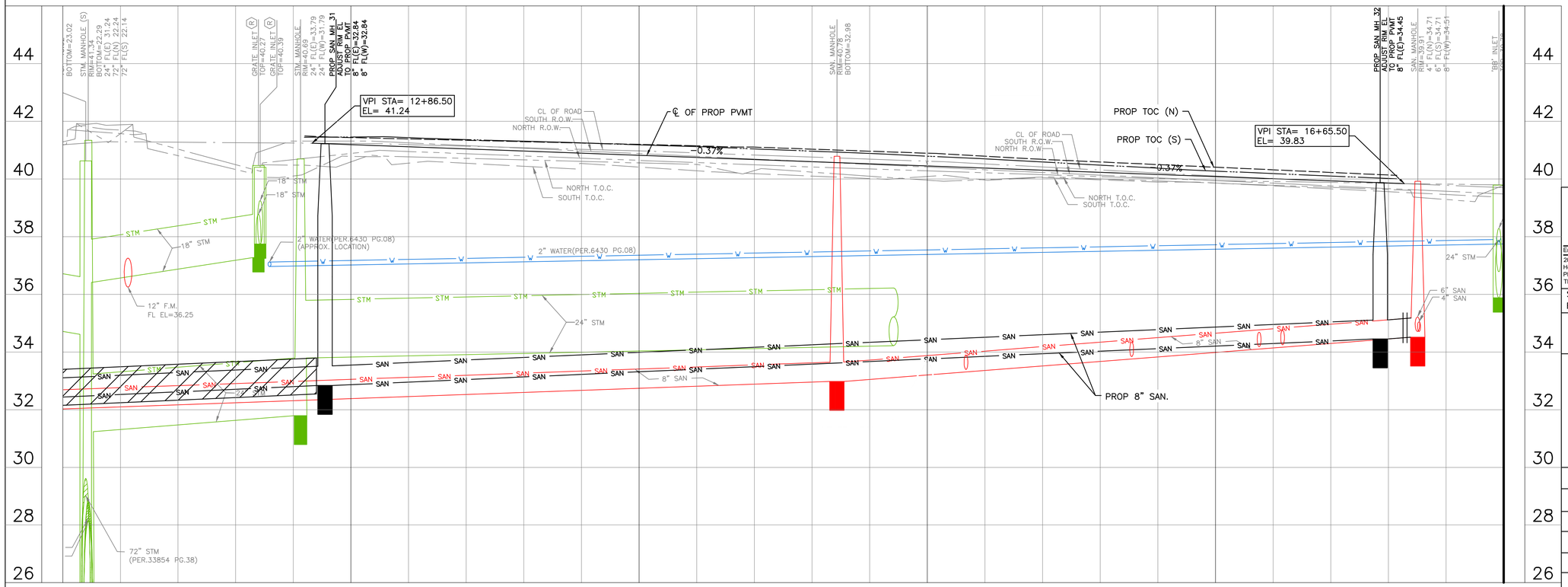
CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

TREMPER ST. PAVEMENT STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 68 OF 339	

PLOTTED: 10/28/2026 10:29 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\PVMT\TREMPER ST. PLAN.dwg





N

0' 10' 20' 40'

SCALE: 1"=20'

LEGEND

PROP ASPHALT PAVEMENT

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

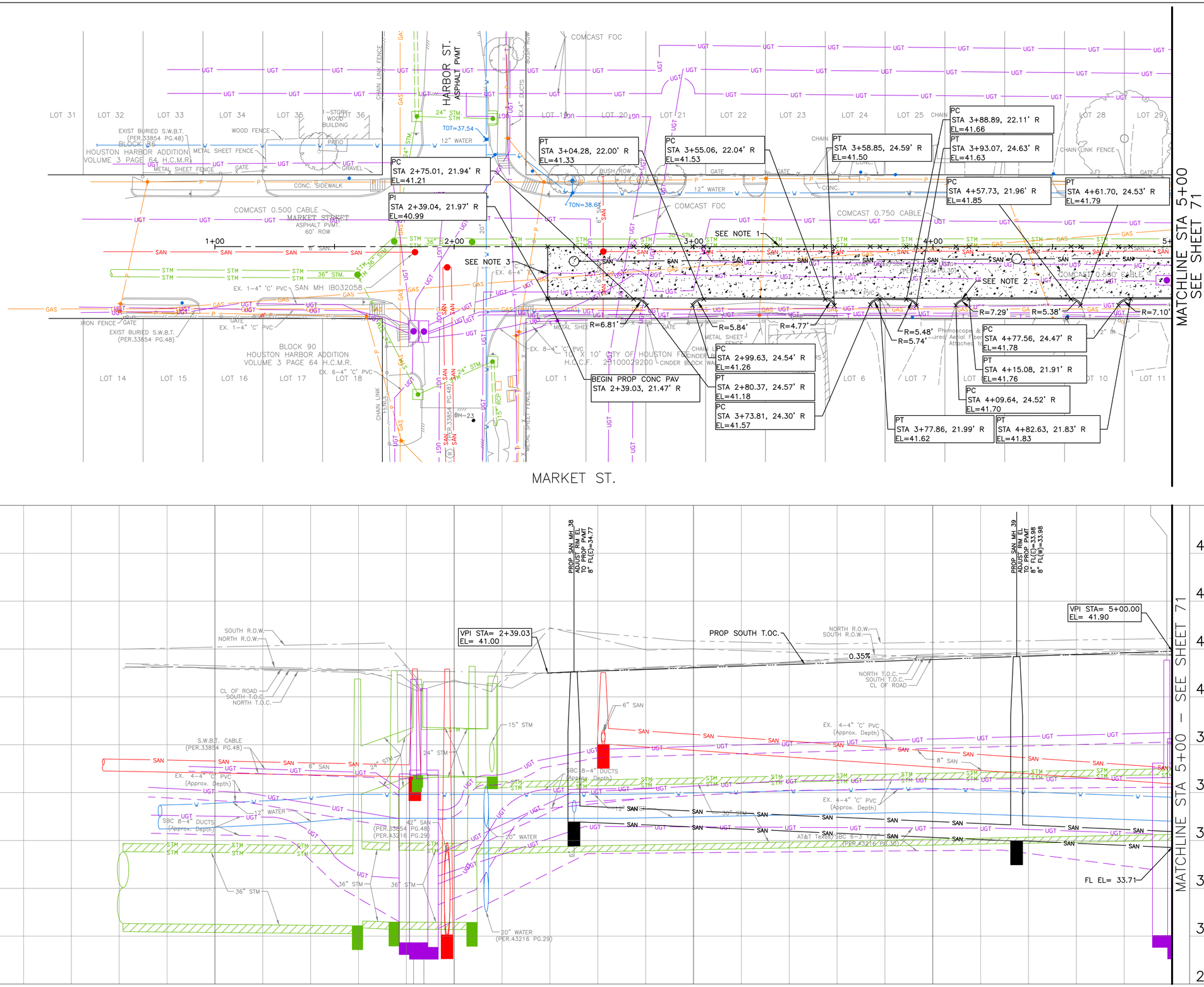
AMARILLO ST. PAVEMENT STA 12+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 69 OF 339	

PLOTTED: 10/28/2026 10:49 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\PVMT\AMARILLO ST. PLAN.dwg



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Engineers ● Planners ● Construction Managers
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Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

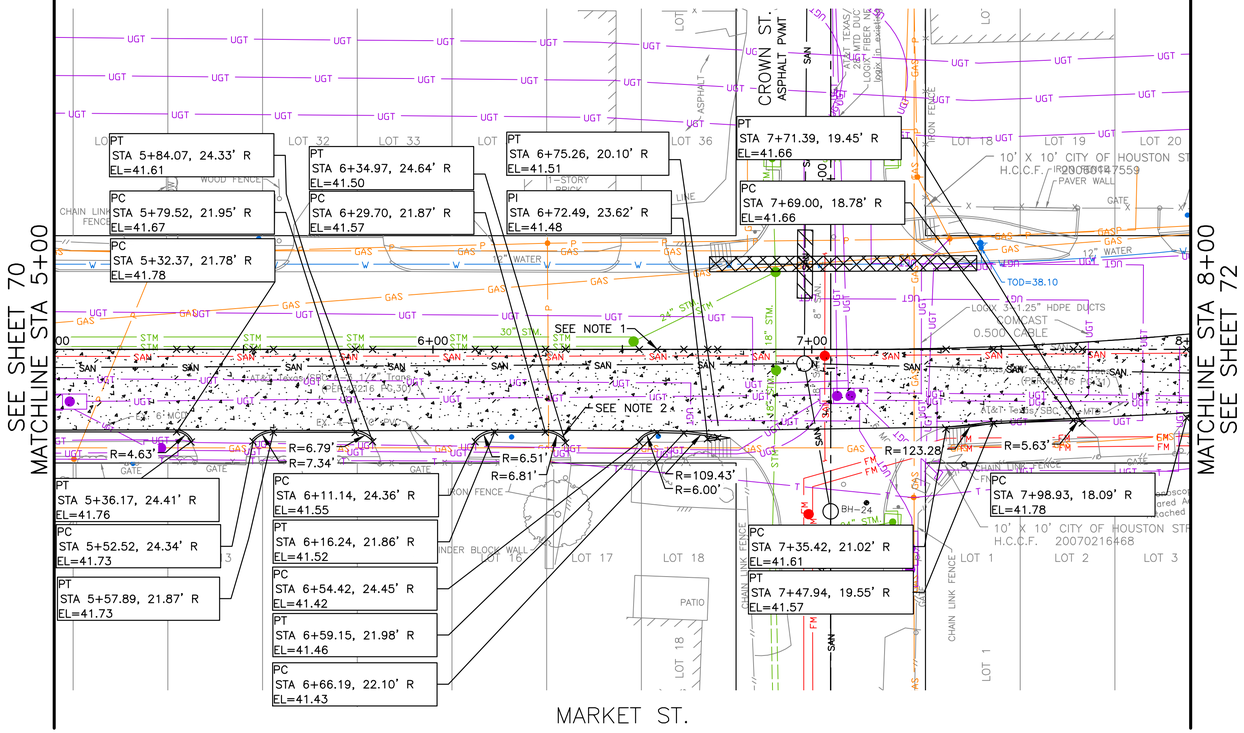
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

MARKET ST. PAVEMENT STA BEGIN TO 5+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 70 OF 339	

PLOTTED: 10/28/2026 10:53 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\PVMT\MARKET ST. PLAN.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

LEGEND

PROP CONCRETE PAVEMENT

NOTES:

1. CONTRACTOR TO REPLACE THE EASTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO SAWCUT AT EXISTING CONSTRUCTION JOINT.
4. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1 INCH.

CIVITAS ENGINEERING GROUP
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TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

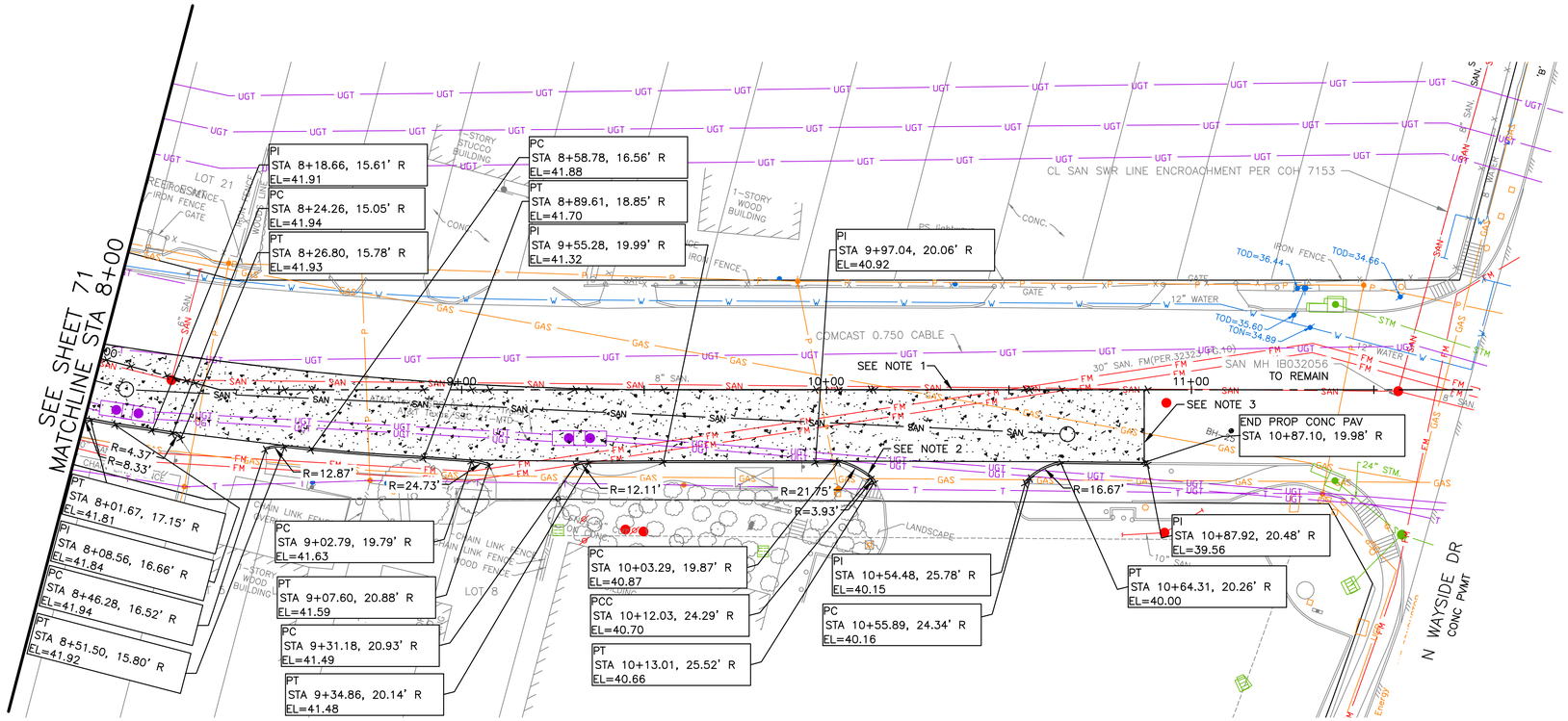
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

MARKET ST. PAVEMENT STA 5+00 TO 8+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 71 OF 339	

PLOTTED: 10/28/2026 10:28 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\PVMT\MARKET ST. PLAN.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

LEGEND

PROP CONCRETE PAVEMENT

NOTES:

1. CONTRACTOR TO REPLACE THE EASTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO SAWCUT AT EXISTING CONSTRUCTION JOINT.
4. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1 INCH.

CIVITAS ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

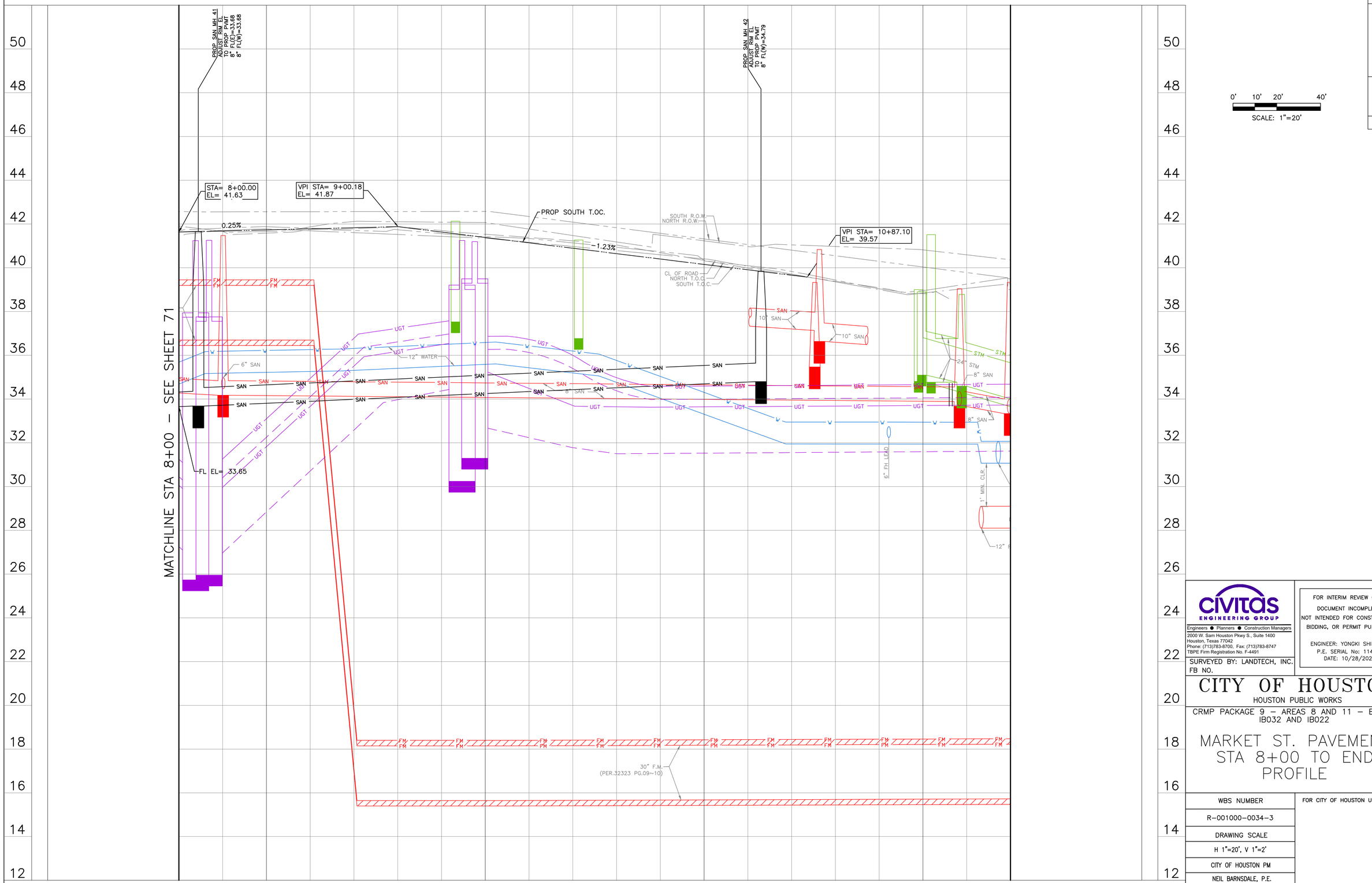
MARKET ST. PAVEMENT STA 8+00 TO END PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 72 OF 339	

PLOTTED: 10/28/2026 10:33 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\PVMT\MARKET ST. PLAN.dwg



NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

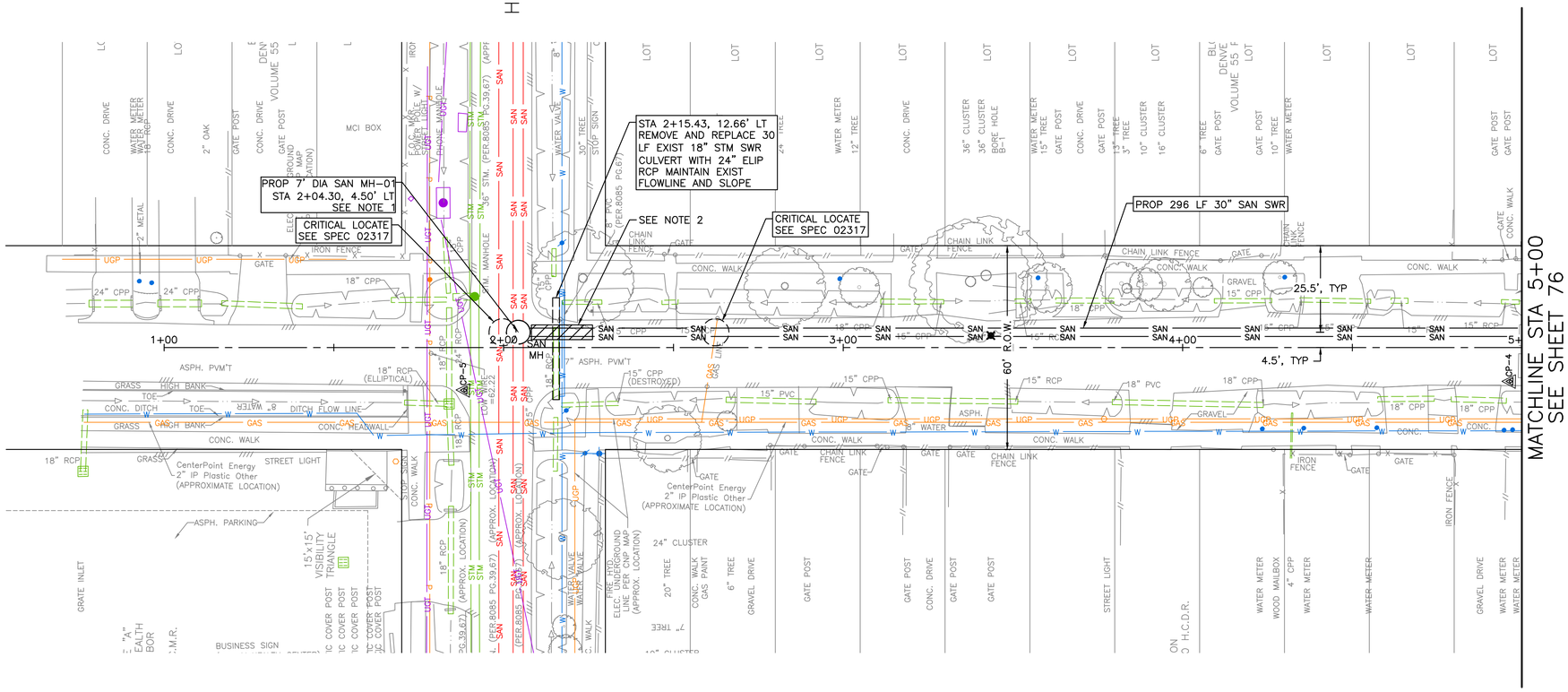
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

MARKET ST. PAVEMENT STA 8+00 TO END PROFILE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 73 OF 339	

PLOTTED: 10/28/2026 10:44 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 8\PVMT\MARKET ST.PROFILE.dwg



NOTES:
1. CONTRACTOR TO INSTALL SAN SWR MH VIA DOGHOUSE METHOD CONNECTING TO THE EXISITNG 36" SANITARY SEWER LINE. SEE DETAIL SHEET 166.
2. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
3. CONTRACTOR TO RESTORE HAHLO ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

0' 10' 20' 40'
SCALE: 1"=20'

TBM
CP-5 SET CONC NAIL IN ASP
1+88.56, 12.56' RT
EL=44.60

TBM
CP-4 SET CONC NAIL IN ASP
4+96.65, 9.97' RT
EL=44.30

NO.	DATE	REVISION	APP.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

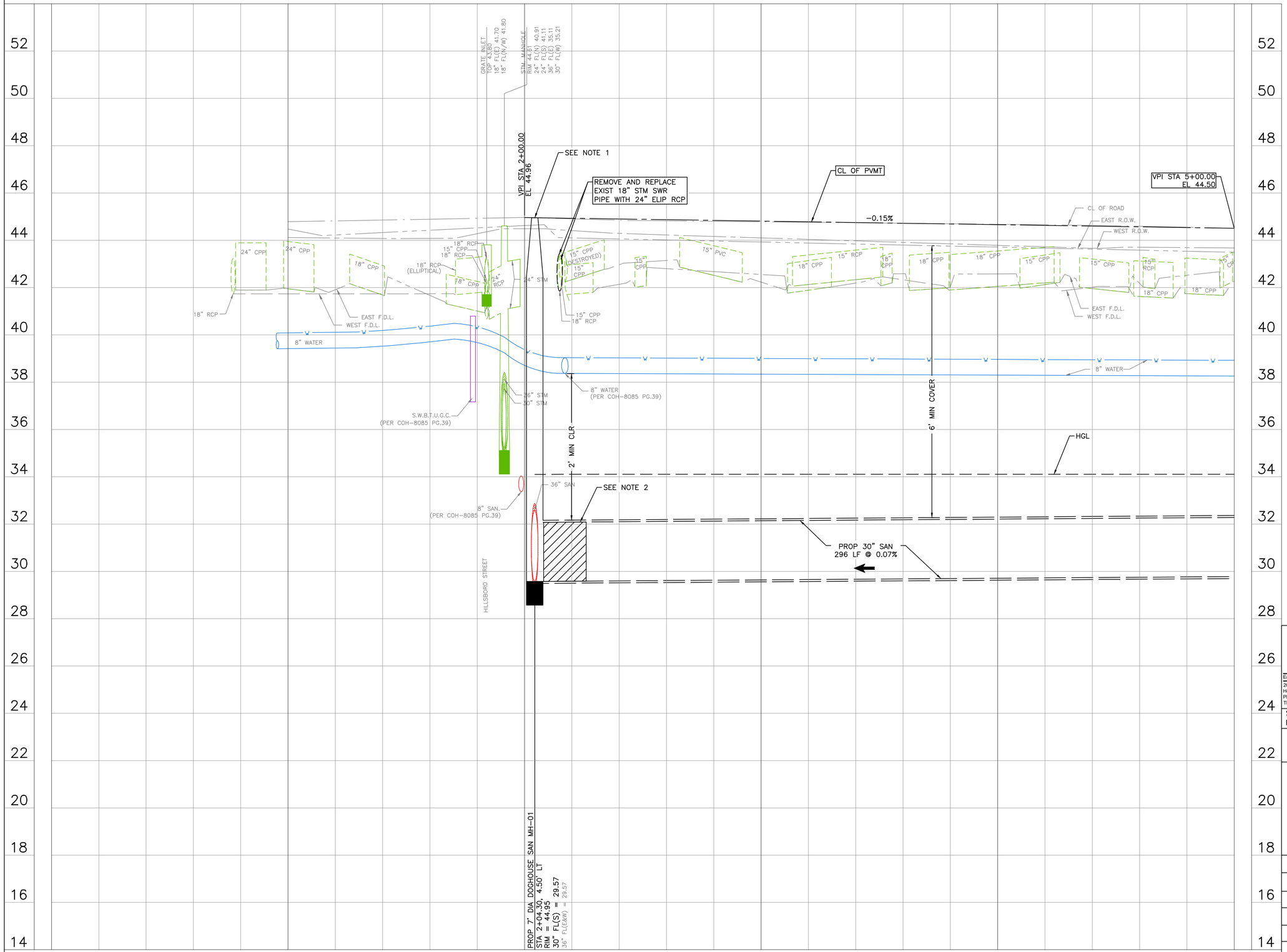
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST.
PLAN
STA BEGIN TO 5+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 74 OF 339	

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PLOTTED: 10/28/2026 10:33 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\HAHLO ST.PROF.dwg



NO.	DATE	REVISION	APP.

0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. CONTRACTOR TO INSTALL SAN SWR MH VIA DOGHOUSE METHOD CONNECTING TO THE EXISITNG 36" SANITARY SEWER LINE. SEE DETAIL SHEET 166.
2. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
3. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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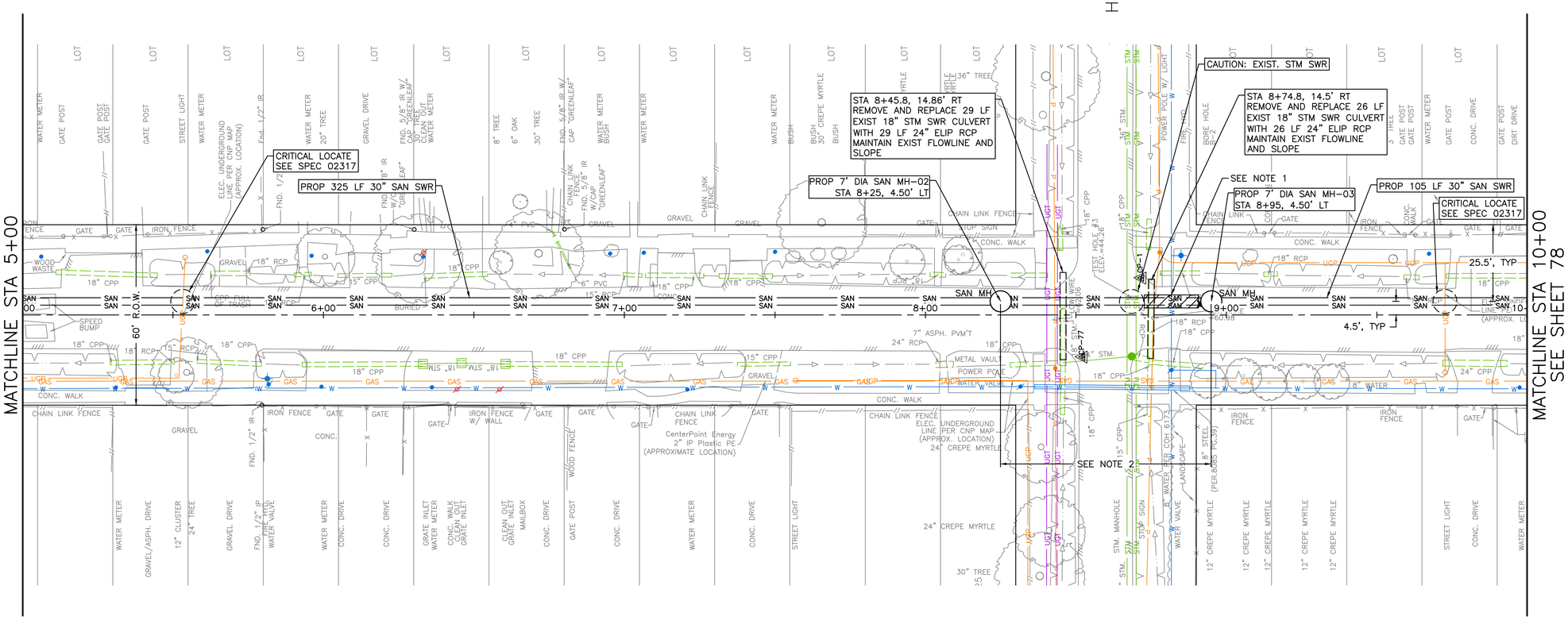
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST.
PROFILE
STA BEGIN TO 5+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 75 OF 339	





0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO USE CEMENT STABILIZED SAND BACKFILL.
3. CONTRACTOR TO RESTORE HAHLO ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

TBM
CP-77 SET CONC NAIL IN ASP
8+52.31, 13.97' RT
EL=44.27

TBM
CP-1 SET CONC NAIL IN ASP
8+71.85, 12.29' LT
EL=44.02

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

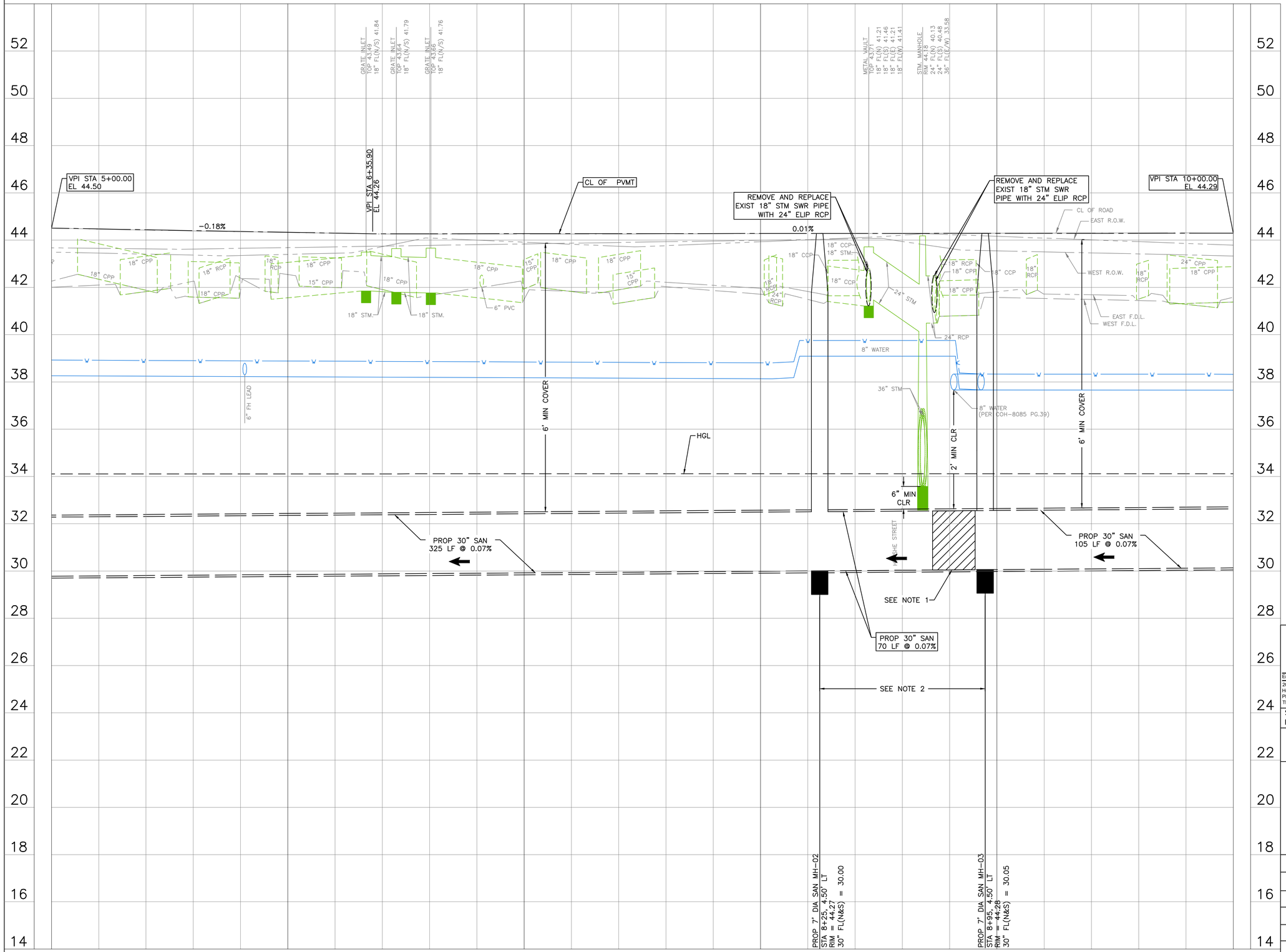
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST.
PLAN
STA 5+00 TO 10+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 76 OF 339	

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PLOTTED: 10/28/2026 10:28 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\HAHLO ST.PROF.dwg



NO.	DATE	REVISION	APP.

0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO USE CEMENT STABILIZED SAND BACKFILL.
3. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP
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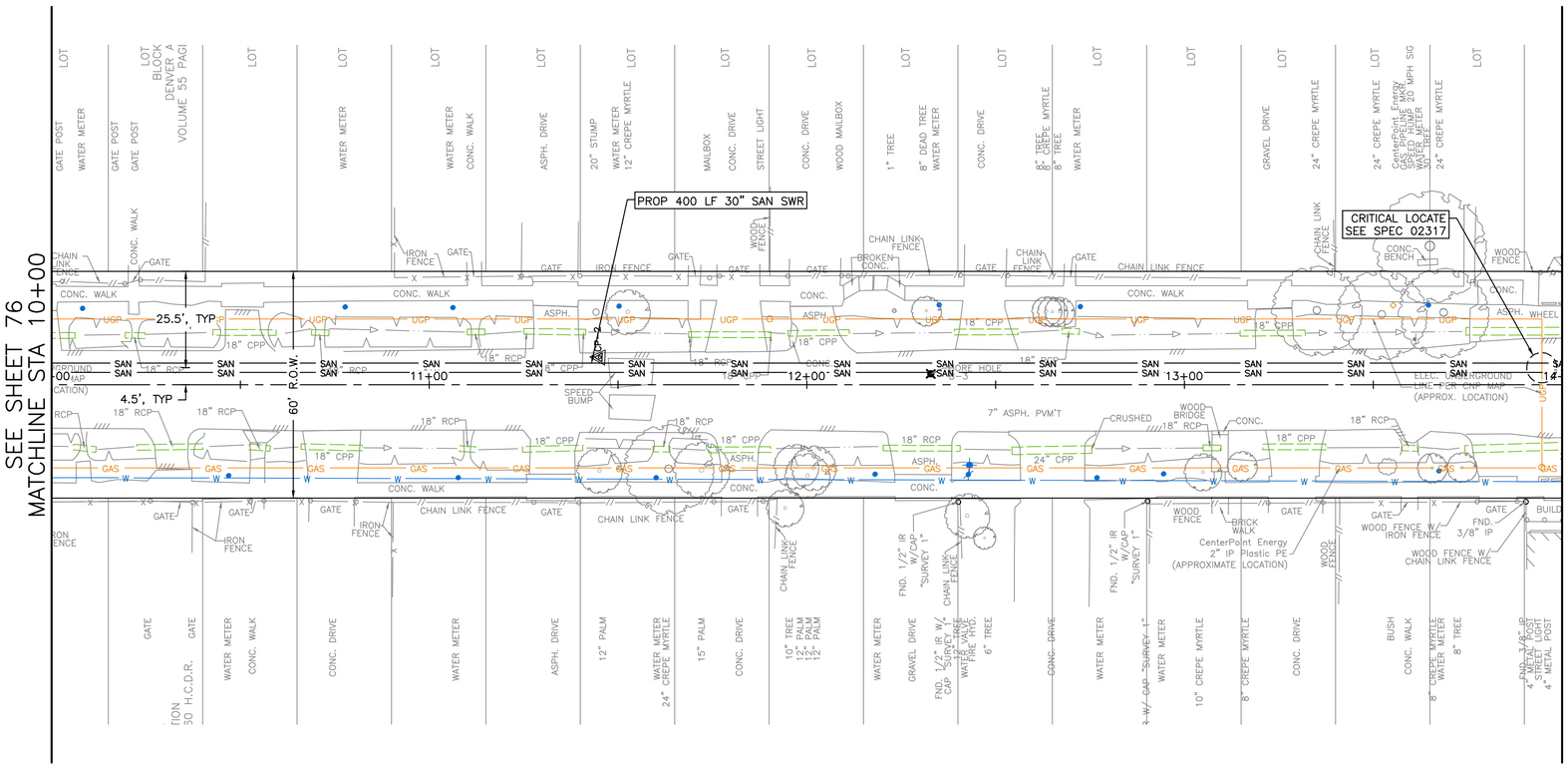
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST.
PROFILE
STA 5+00 TO 10+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 77 OF 339	



NOTES:
1. CONTRACTOR TO RESTORE HAHLO ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

TBM
CP-2 SET CONC NAIL IN ASP
11+45.14, 7.26' LT
EL=43.88

0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

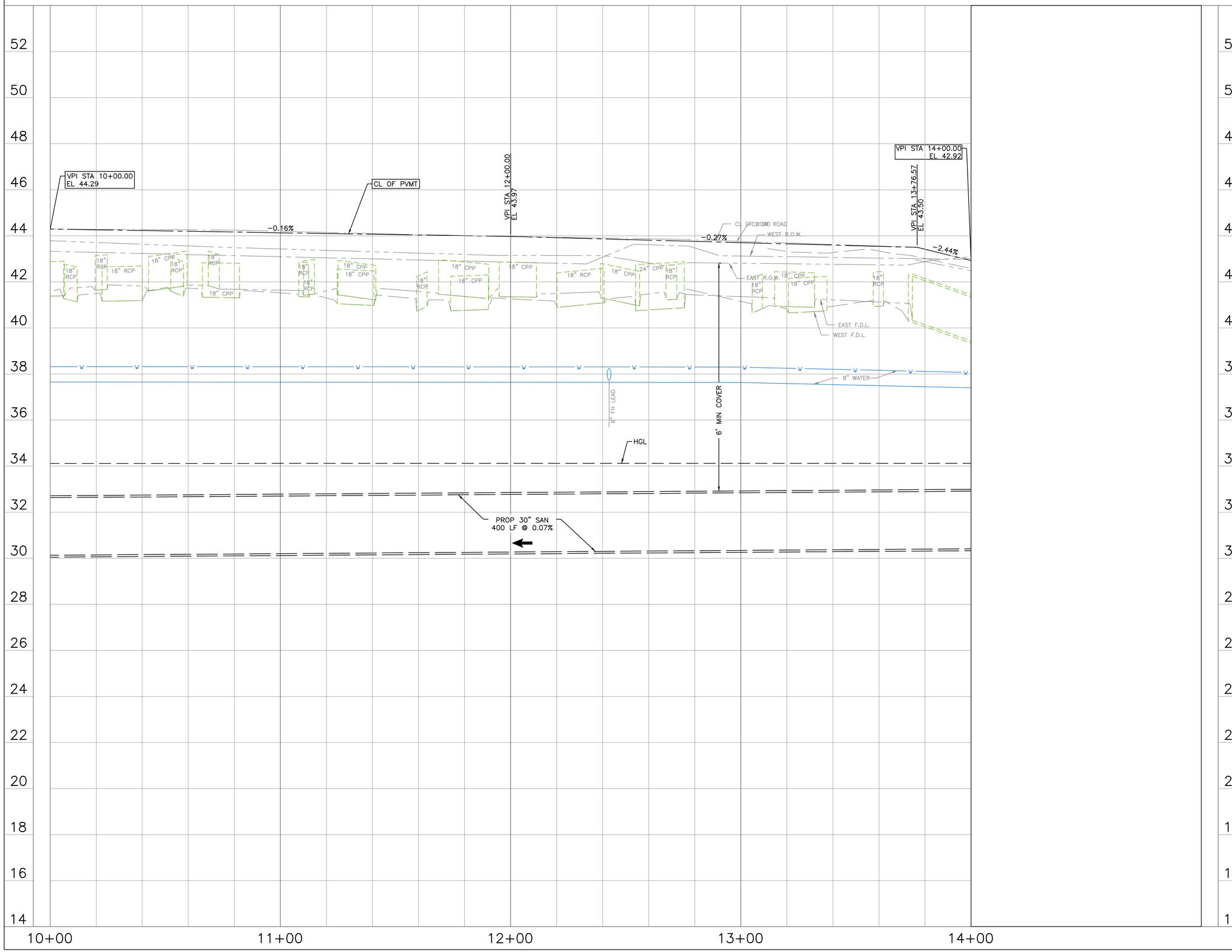
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST.
PLAN
STA 10+00 TO 14+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 78 OF 339	

PLOTTED: 10/28/2026 10:49 AM
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FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\HAHLO ST.PLAN.dwg

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FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\HAHLO ST.PROF.dwg



NO.	DATE	REVISION	APP.

0' 10' 20' 40'
SCALE: 1"=20'

LEGEND

FLOW DIRECTION

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DATE: 10/28/2026

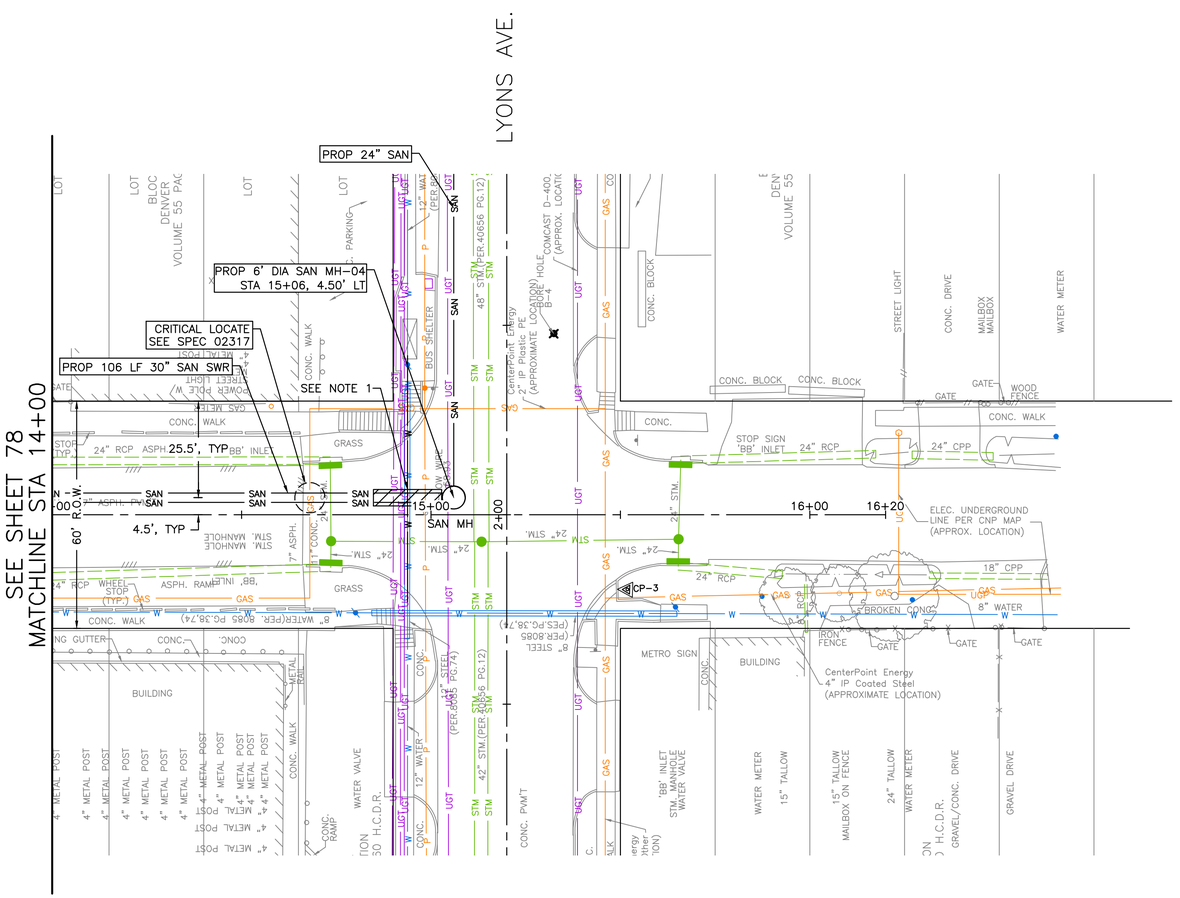
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST.
PROFILE
STA 10+00 TO 14+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 79 OF 339	

PLOT STYLE: COH.ctb
PLOTTED: 10/28/2026 10:30 AM
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\HAHLO ST.PLAN.dwg



0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO RESTORE HAHLO ST DITCH ALONG PROPOSED SANITARY SEWER LINE TO EXISTING OR BETTER CONDITIONS AFTER SANITARY SEWER LINE CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

TBM
CP-3 SET 3/8" IR w/LANDTECH CAP
15+51.77, 19.76' RT
EL=41.75

CIVITAS ENGINEERING GROUP
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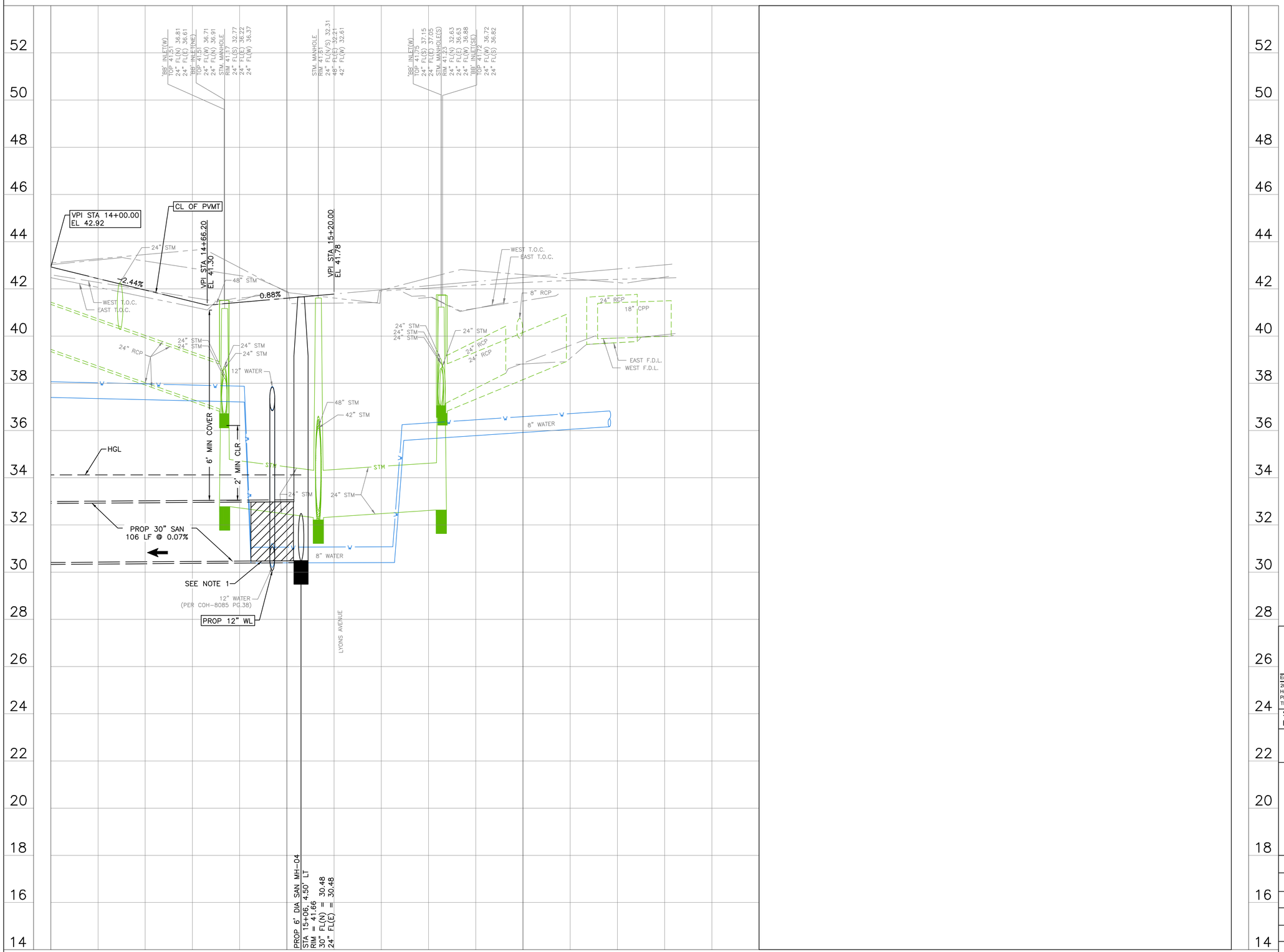
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P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST.
PLAN
STA 14+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 80 OF 339	



PLOTTED: 10/28/2026 10:31 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\HAHLO ST.PROF.dwg

NO.	DATE	REVISION	APP.

0' 10' 20' 40'

SCALE: 1"=20'

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

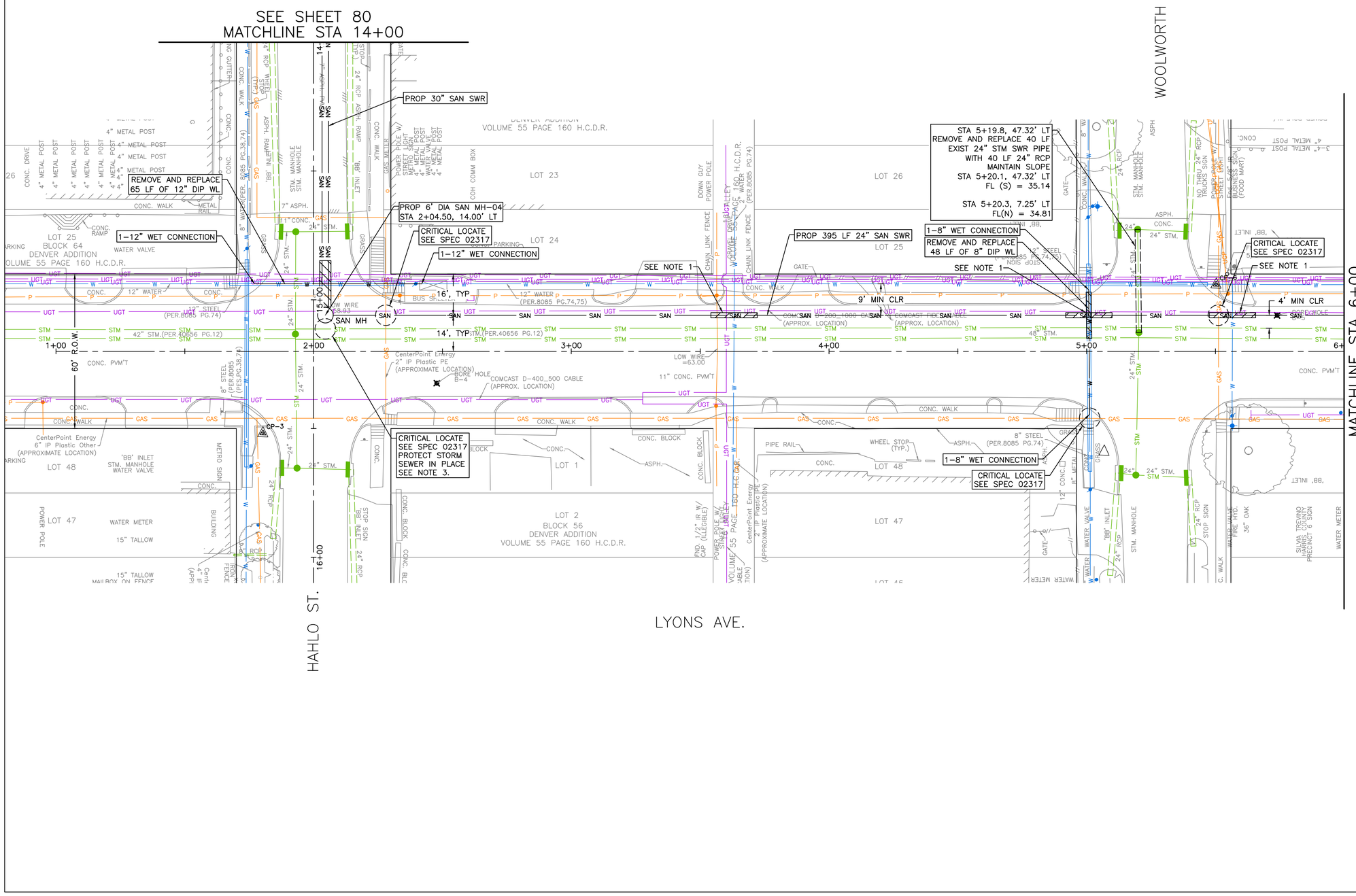
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST.
PROFILE
STA 14+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 81 OF 339	



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR WET CONNECTION. SEE SPEC 02513.
3. CONTRACTOR TO USE CEMENT STABILIZED SAND BACKFILL.
4. SEE SHEET 143 FOR STORM/WATER LINE IMPROVEMENT CROSS SECTIONS.

TBM
CP-3 SET 3/8" IR w/LANDTECH CAP
1+80.24, 31.77' RT
EL=41.75

TBM
CP-6 SET XCON
5+50.26, 25.95' LT
EL=41.67

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

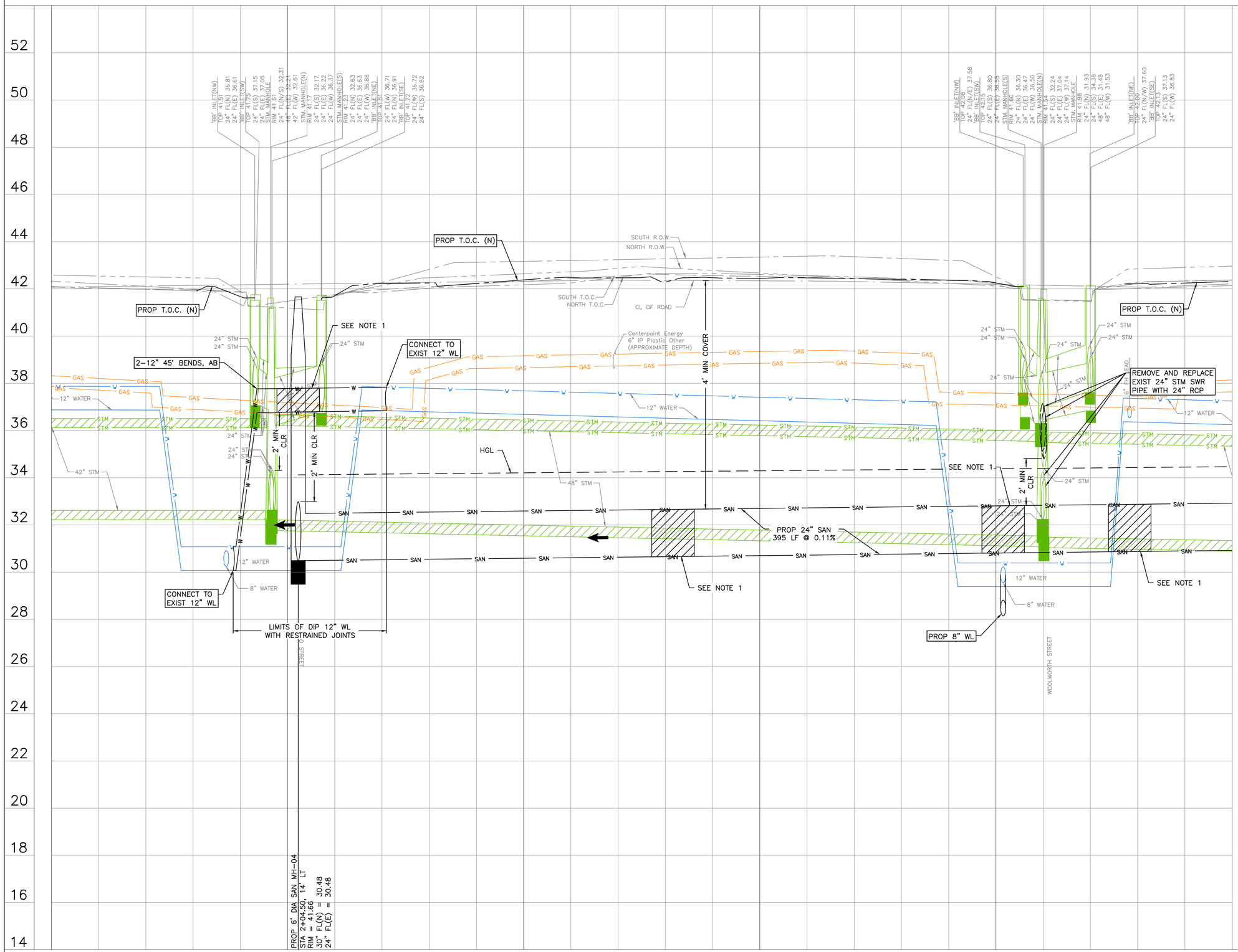
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PLAN
STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 82 OF 339	

PLOTTED: 10/28/2026 10:33 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PLAN.dwg

PLOTTED: 10/28/2026 10:53 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PROFILE.dwg



NO.	DATE	REVISION	APP.

0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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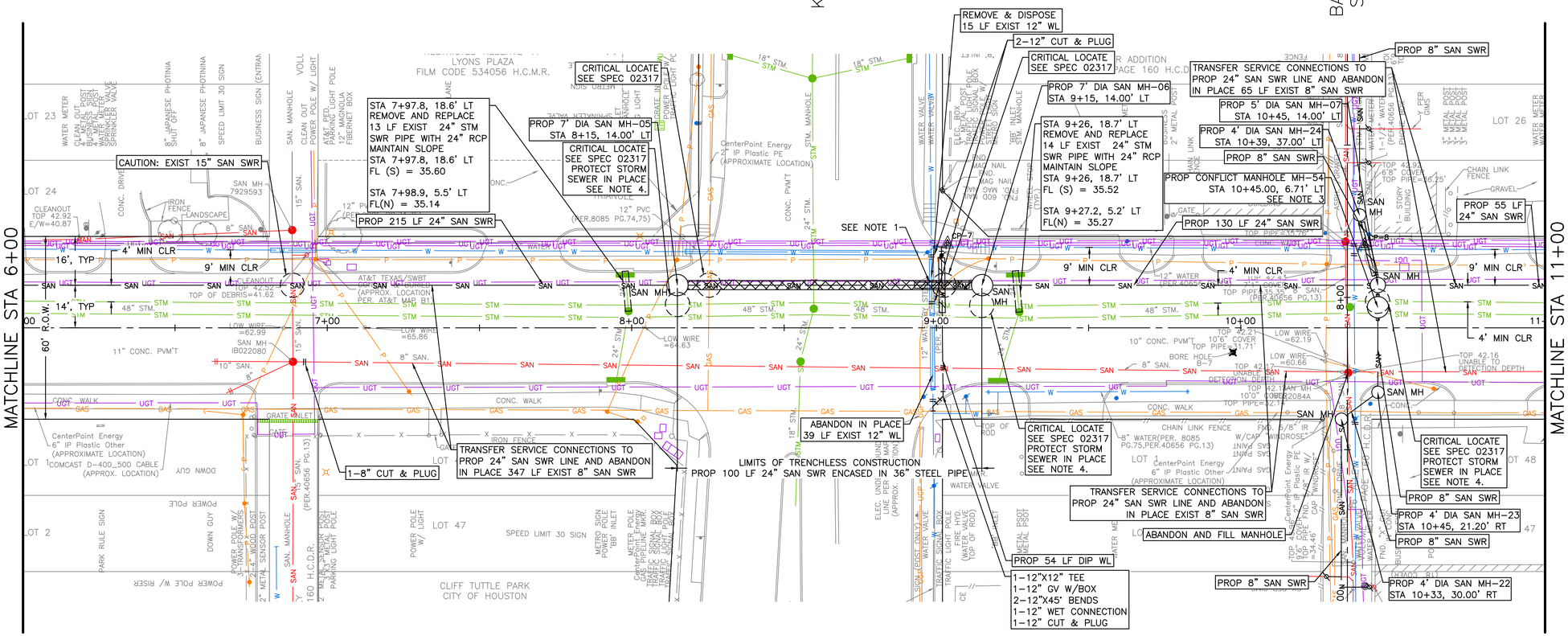
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PROFILE
STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 83 OF 339	


KRESS ST.
LYONS AVE.
SEE SHEET 82
MATCHLINE STA 6+00
SEE SHEET 105
BACKLOT ALLEY A
SEE SHEET 86
MATCHLINE STA 11+00
CAUTION: EXIST 15" SAN SWR
STA 7+97.8, 18.6' LT
REMOVE AND REPLACE
13 LF EXIST 24" STM
SWR PIPE WITH 24" RCP
MAINTAIN SLOPE
STA 7+97.8, 18.6' LT
FL (S) = 35.60
STA 7+98.9, 5.5' LT
FL(N) = 35.14
PROP 215 LF 24" SAN SWR
CRITICAL LOCATE
SEE SPEC 02317
PROP 7' DIA SAN MH-05
STA 8+15, 14.00' LT
CRITICAL LOCATE
SEE SPEC 02317
PROTECT STORM
SEWER IN PLACE
SEE NOTE 4.
REMOVE & DISPOSE
15 LF EXIST 12" WL
2-12" CUT & PLUG
CRITICAL LOCATE
SEE SPEC 02317
PROP 7' DIA SAN MH-06
STA 9+15, 14.00' LT
STA 9+26, 18.7' LT
REMOVE AND REPLACE
14 LF EXIST 24" STM
SWR PIPE WITH 24" RCP
MAINTAIN SLOPE
STA 9+26, 18.7' LT
FL (S) = 35.52
STA 9+27.2, 5.2' LT
FL(N) = 35.27
SEE NOTE 1
TRANSFER SERVICE CONNECTIONS TO
PROP 24" SAN SWR LINE AND ABANDON
IN PLACE 65 LF EXIST 8" SAN SWR
PROP 8" SAN SWR
PROP 5' DIA SAN MH-07
STA 10+45, 14.00' LT
PROP 4' DIA SAN MH-24
STA 10+39, 37.00' LT
PROP 8" SAN SWR
PROP CONFLICT MANHOLE MH-54
STA 10+45.00, 6.71' LT
SEE NOTE 3
PROP 130 LF 24" SAN SWR
PROP 55 LF
24" SAN SWR
1-8" CUT & PLUG
TRANSFER SERVICE CONNECTIONS TO
PROP 24" SAN SWR LINE AND ABANDON
IN PLACE 347 LF EXIST 8" SAN SWR
ABANDON IN PLACE
39 LF EXIST 12" WL
LIMITS OF TRENCHLESS CONSTRUCTION
PROP 100 LF 24" SAN SWR ENCASED IN 36" STEEL PIPE
CRITICAL LOCATE
SEE SPEC 02317
PROTECT STORM
SEWER IN PLACE
SEE NOTE 4.
TRANSFER SERVICE CONNECTIONS TO
PROP 24" SAN SWR LINE AND ABANDON
IN PLACE EXIST 8" SAN SWR
ABANDON AND FILL MANHOLE
PROP 54 LF DIP WL
1-12"X12" TEE
1-12" GV W/BOX
2-12"X45° BENDS
1-12" WET CONNECTION
1-12" CUT & PLUG
PROP 8" SAN SWR
CRITICAL LOCATE
SEE SPEC 02317
PROTECT STORM
SEWER IN PLACE
SEE NOTE 4.
PROP 4' DIA SAN MH-23
STA 10+45, 21.20' RT
PROP 8" SAN SWR
PROP 4' DIA SAN MH-22
STA 10+33, 30.00' RT
CLIFF TUTTLE PARK
CITY OF HOUSTON
LYONS PLAZA
FILM CODE 534056 H.C.M.R.
ADDITION
PAGE 160 H.C.D.R.
CenterPoint Energy
2" IP Plastic PE
(APPROXIMATE LOCATION)
CenterPoint Energy
6" IP Plastic Other
(APPROXIMATE LOCATION)
COMCAST D-400_500 CABLE
(APPROX. LOCATION)
AT&T TEXAS/SWBT
COMMUNICATIONS
(APPROX. LOCATION)
PER. AT&T MAP B11
12" PVC
(PER.8085 PG.74,75)
12" WATER
(PER.40656 PG.13)
8" WATER(PER. 8085
PG.75,PER.40656 PG.13)
10" CONC. PVMT
10'6" COVER
TOP PIPE=41.71'
TOP PIPE=42.27'
TOP PIPE=42.17'
TOP PIPE=42.16'
TOP PIPE=42.14'
TOP PIPE=42.25

PLOTTED: 10/28/2026 10:43 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PROFILE.dwg

NO.	DATE	REVISION	APP.

0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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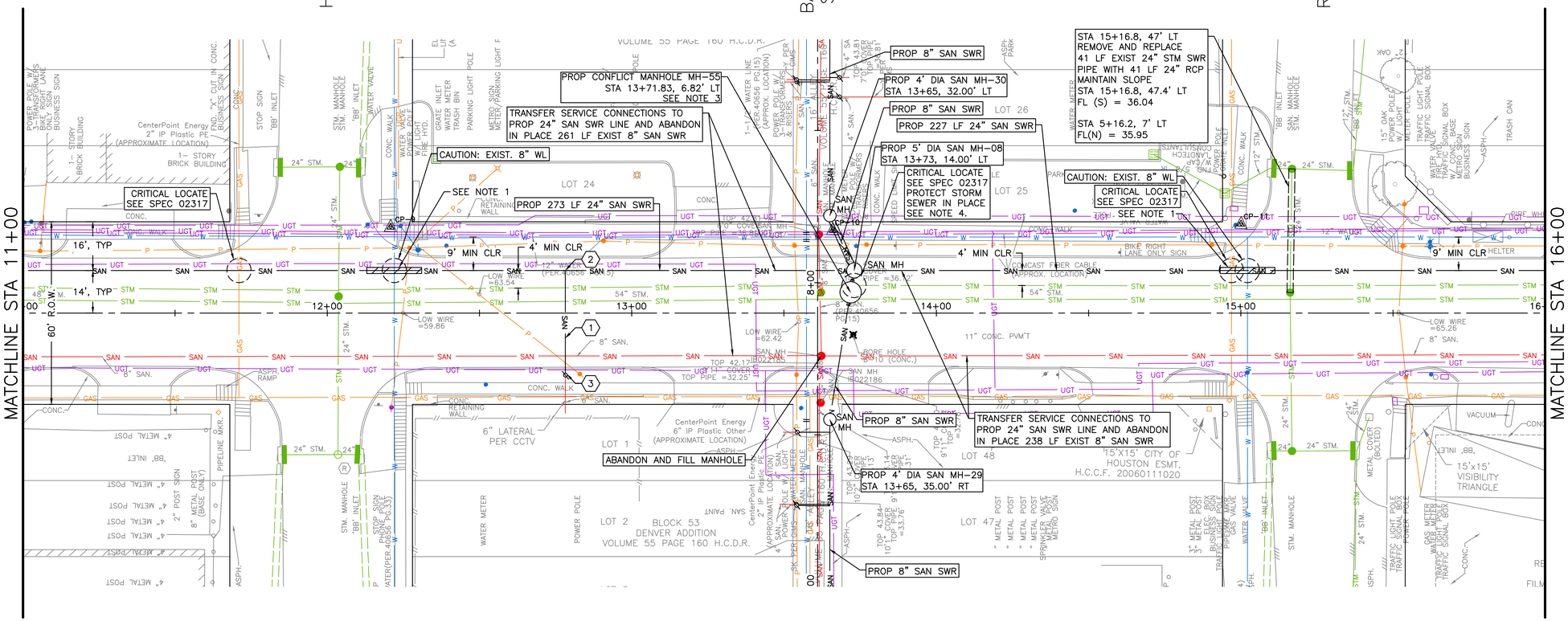
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE. PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 85 OF 339	



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERVICE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
3. SEE SHEET 164 FOR CONFLICT MANHOLE DETAIL.
4. CONTRACTOR TO USE CEMENT STABILIZED SAND BACKFILL.
5. SEE SHEET 144 FOR STORM/WATER LINE IMPROVEMENT CROSS SECTIONS.

KEY NOTES:

1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-9 SET XCON
12+20.77, 28.19' LT
EL=41.59

TBM
CP-10 SET XCON
13+65.99, 27.12' LT
EL=42.81

TBM
CP-11 SET XCON
15+00.07, 29.20' LT
EL=41.75

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

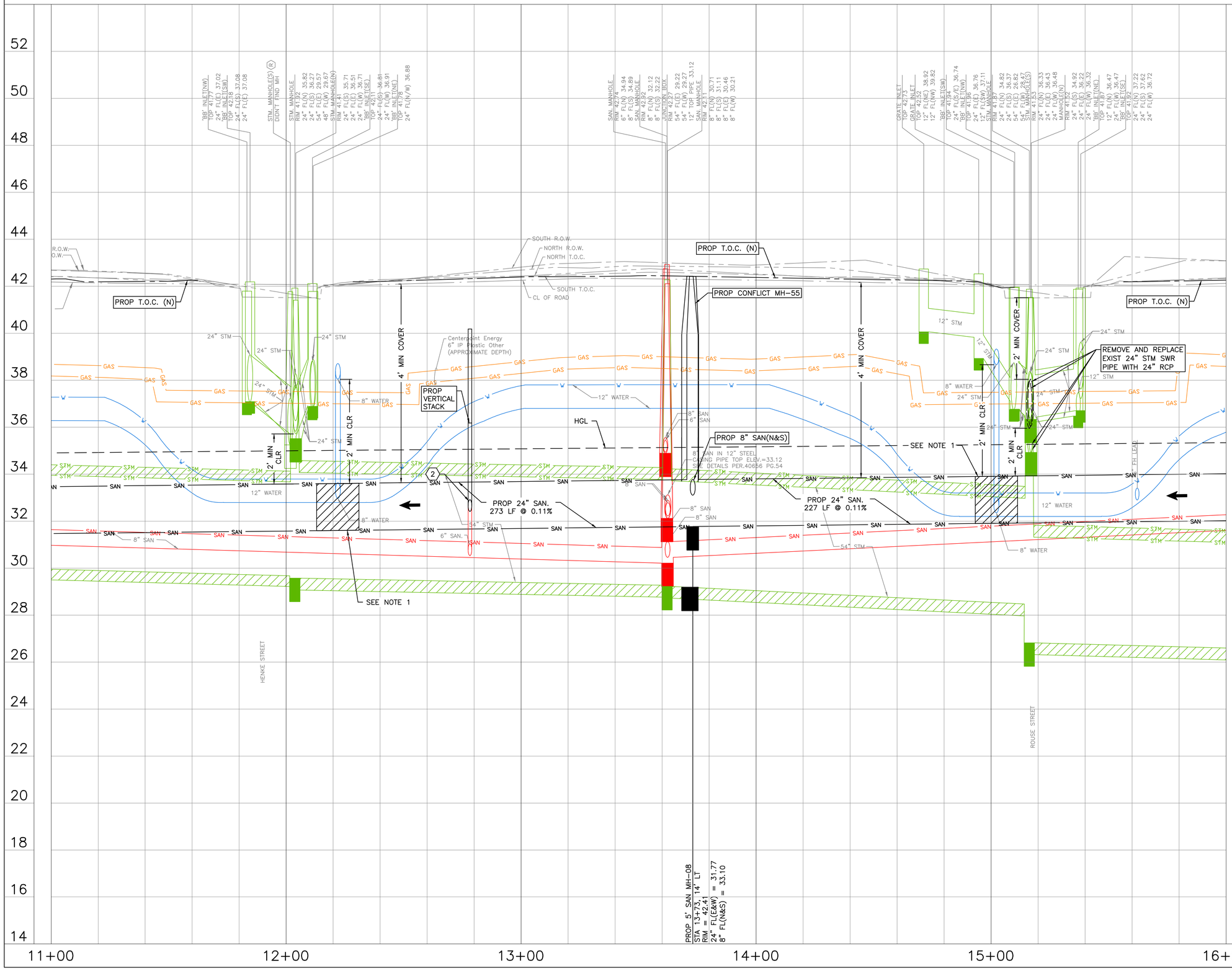
LYONS AVE. PLAN STA 11+00 TO 16+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 86 OF 339	

PLOTTED: 10/28/2026 10:50 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PLAN.dwg



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

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Engineers ● Planners ● Construction Managers
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DATE: 10/28/2026

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FB NO.

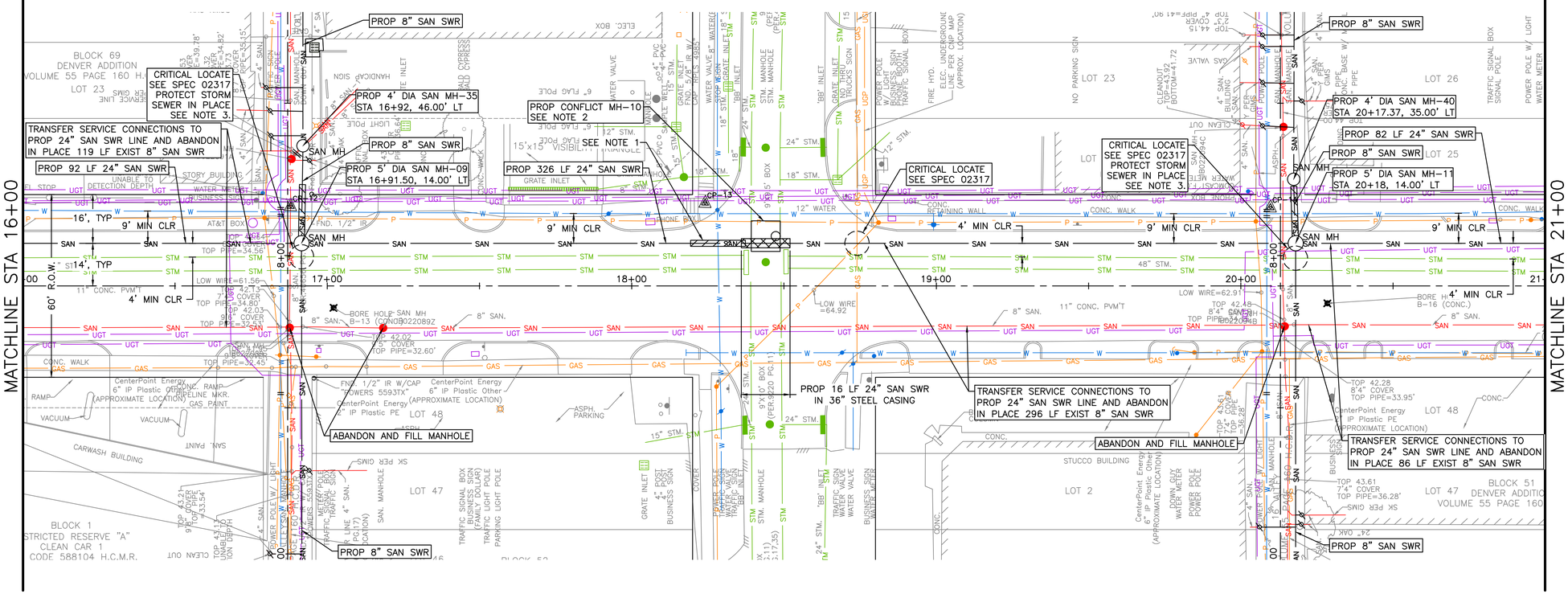
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

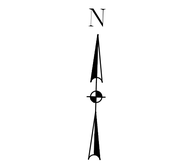
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PROFILE
STA 11+00 TO 16+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 87 OF 339	

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PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE_PROFILE.dwg





NO.	DATE	REVISION	APP.

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. SEE SHEET 162 FOR CONFLICT MANHOLE DETAIL #1.
3. CONTRACTOR TO USE CEMENT STABILIZED SAND BACKFILL.

TBM
CP-12 SET XCON
16+87.96, 26.15' LT
EL=42.74

TBM
CP-13 SET XCON
18+24.06, 27.22' LT
EL=41.62

TBM
CP-14 SET XCON
20+09.75, 25.72' LT
EL=42.74

CIVITAS ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

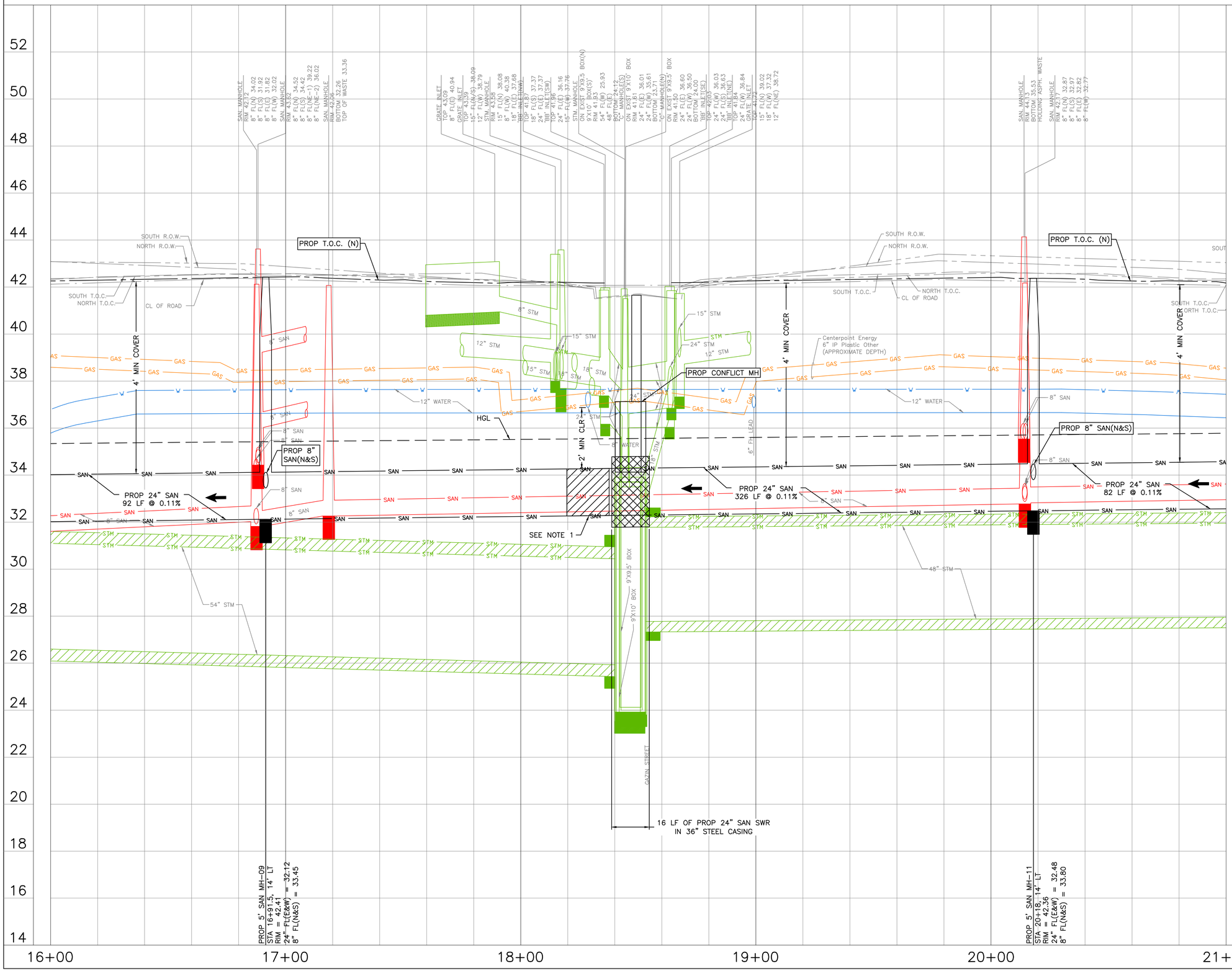
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PLAN
STA 16+00 TO 21+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 88 OF 339	

PLOTTED: 10/28/2026 10:44 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PLAN.dwg



PLOTTED: 10/28/2026 10:38 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE_PROFILE.dwg

NO.	DATE	REVISION	APP.

0' 10' 20' 40'

SCALE: 1"=20'

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP

Engineers ● Planners ● Construction Managers

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P.E. SERIAL No: 114557
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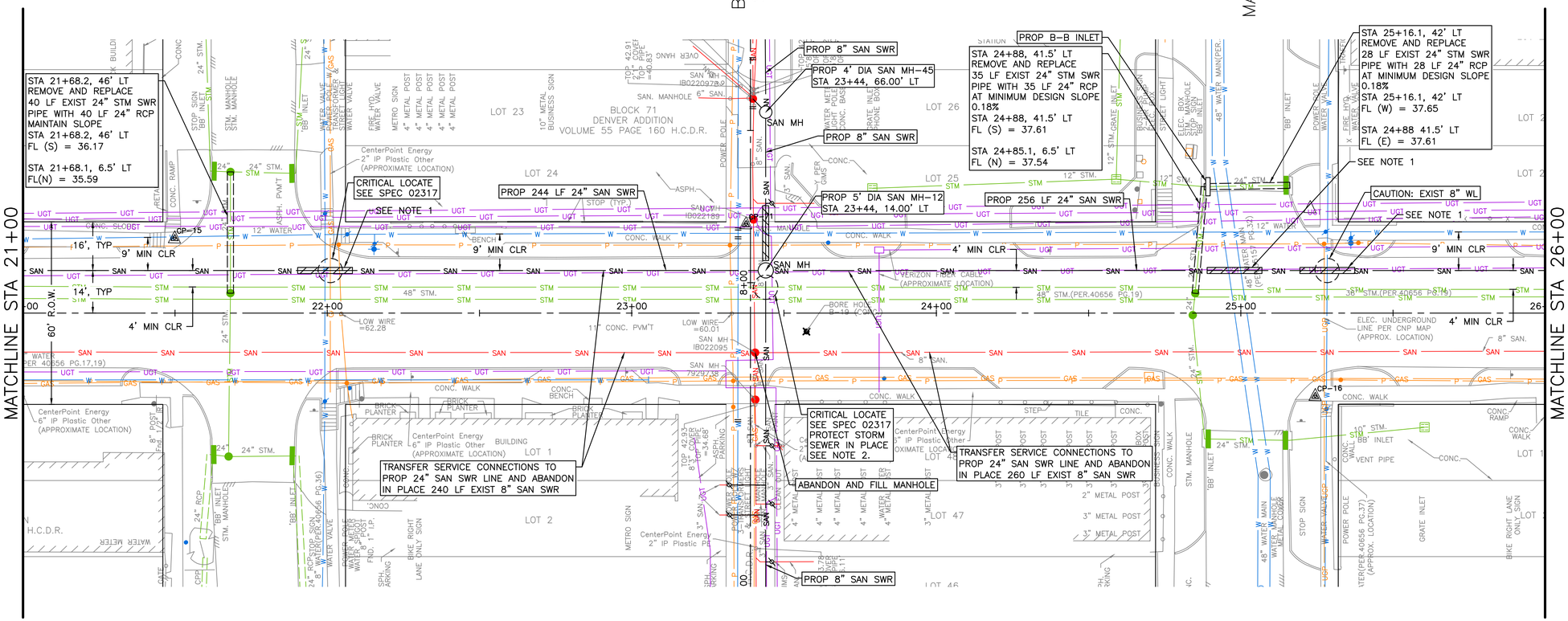
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE. PROFILE STA 16+00 TO 21+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 89 OF 339	



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO USE CEMENT STABILIZED SAND BACKFILL.
3. SEE SHEET 144 AND 145 FOR STORM/WATER LINE IMPROVEMENT CROSS SECTIONS.

TBM
CP-15 SET XCON
21+49.83, 24.51' LT
EL=41.60

TBM
CP-71 SET XCON
23+37.49, 29.12' LT
EL=42.38

TBM
CP-16 SET XCON
25+24.45, 27.30' RT
EL=41.53

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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

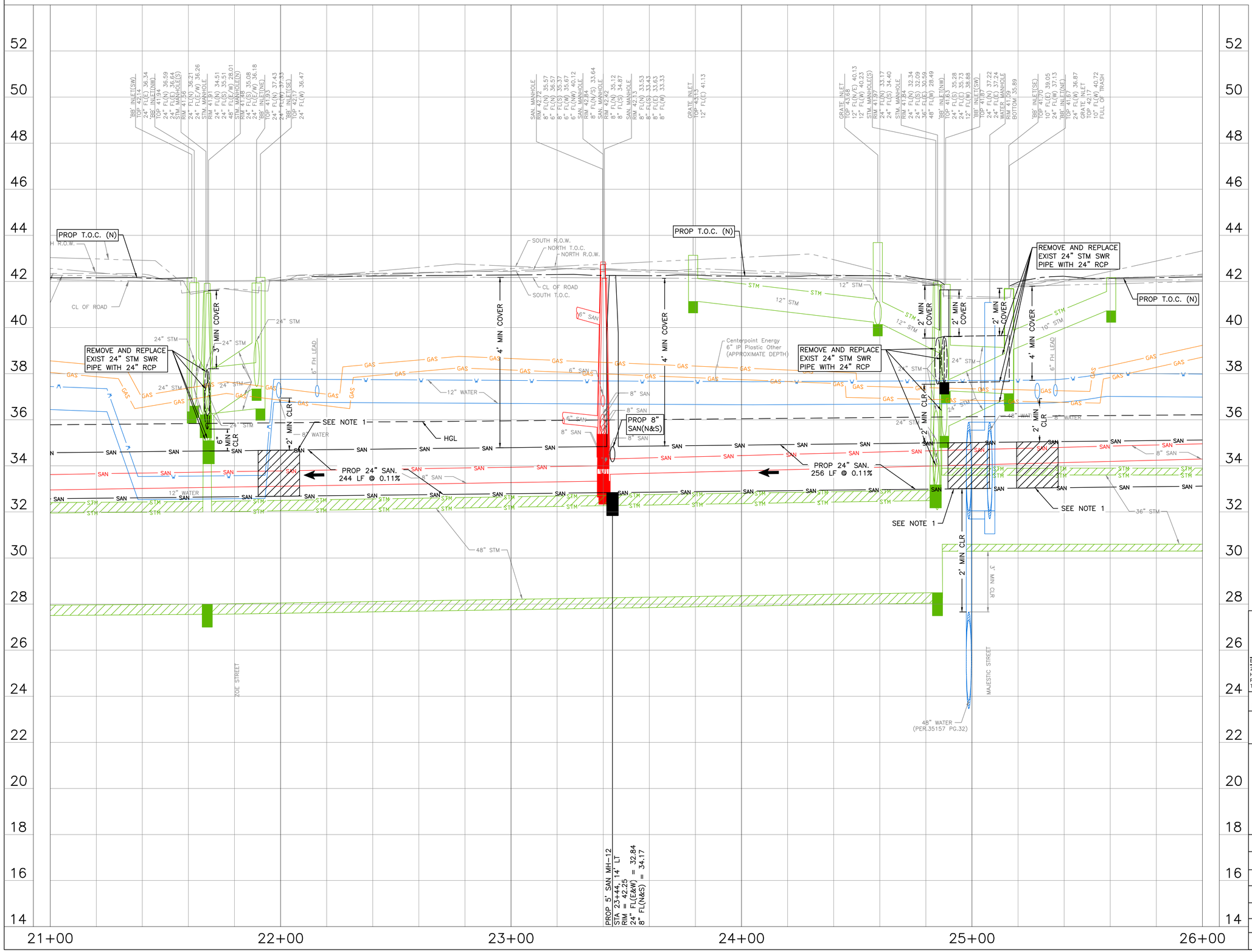
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PLAN
STA 21+00 TO 26+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 90 OF 339	

PLOTTED: 10/28/2026 10:30 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PLAN.dwg

PLOTTED: 10/28/2026 10:54 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PROFILE.dwg



0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

NO.	DATE	REVISION	APP.

LEGEND
← FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
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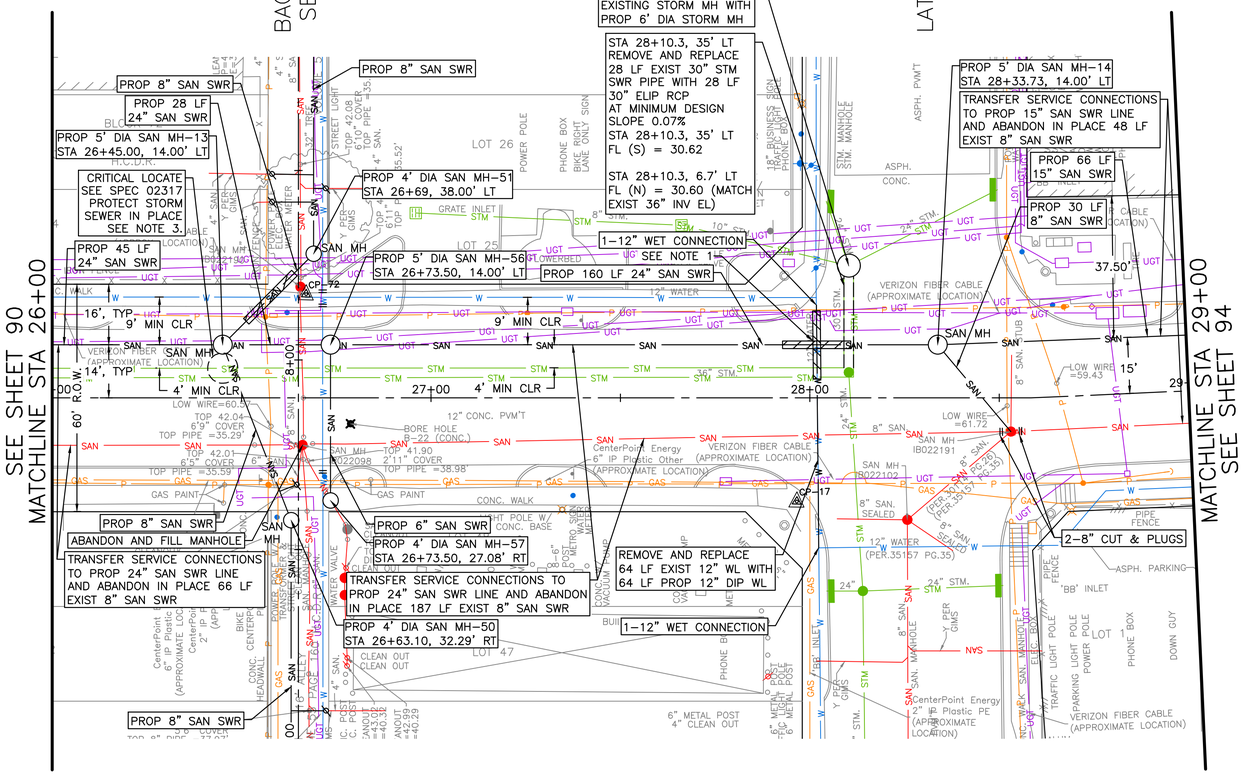
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE. PROFILE STA 21+00 TO 26+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 91 OF 339	



NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR WET CONNECTION. SEE SPEC 02513.
3. CONTRACTOR TO USE CEMENT STABILIZED SAND BACKFILL.
4. SEE SHEET 145 FOR STORM/WATER LINE IMPROVEMENT CROSS SECTIONS.

TBM
CP-72 SET XCON
26+67.02, 27.34' LT
EL=42.38

TBM
CP-17 SET XCON
27+96.53, 27.37' RT
EL=40.71

N

0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

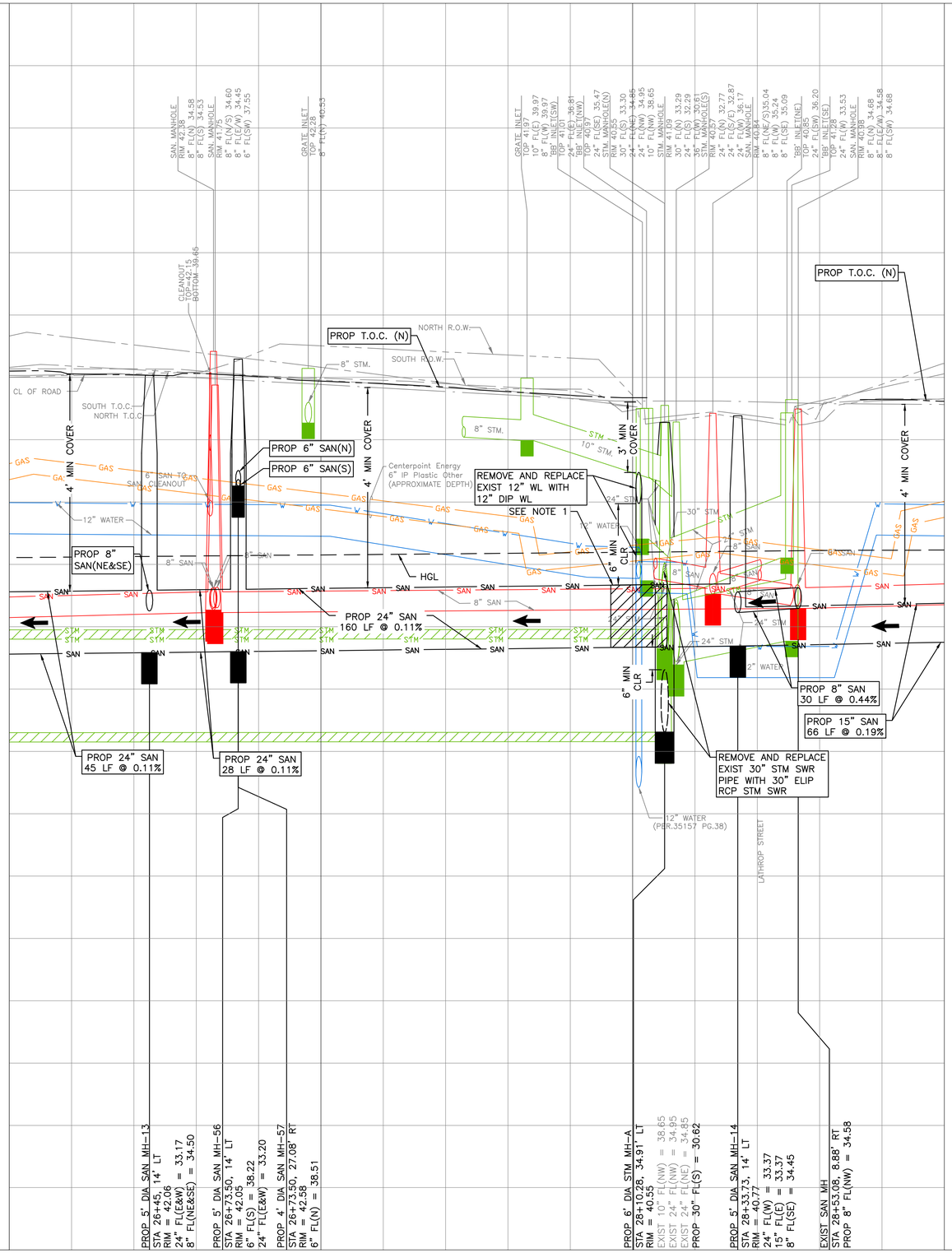
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PLAN
STA 26+00 TO 29+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 92 OF 339	

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PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PROFILE.dwg

NO.	DATE	REVISION	APP.

0' 10' 20' 40'

SCALE: 1"=20'

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

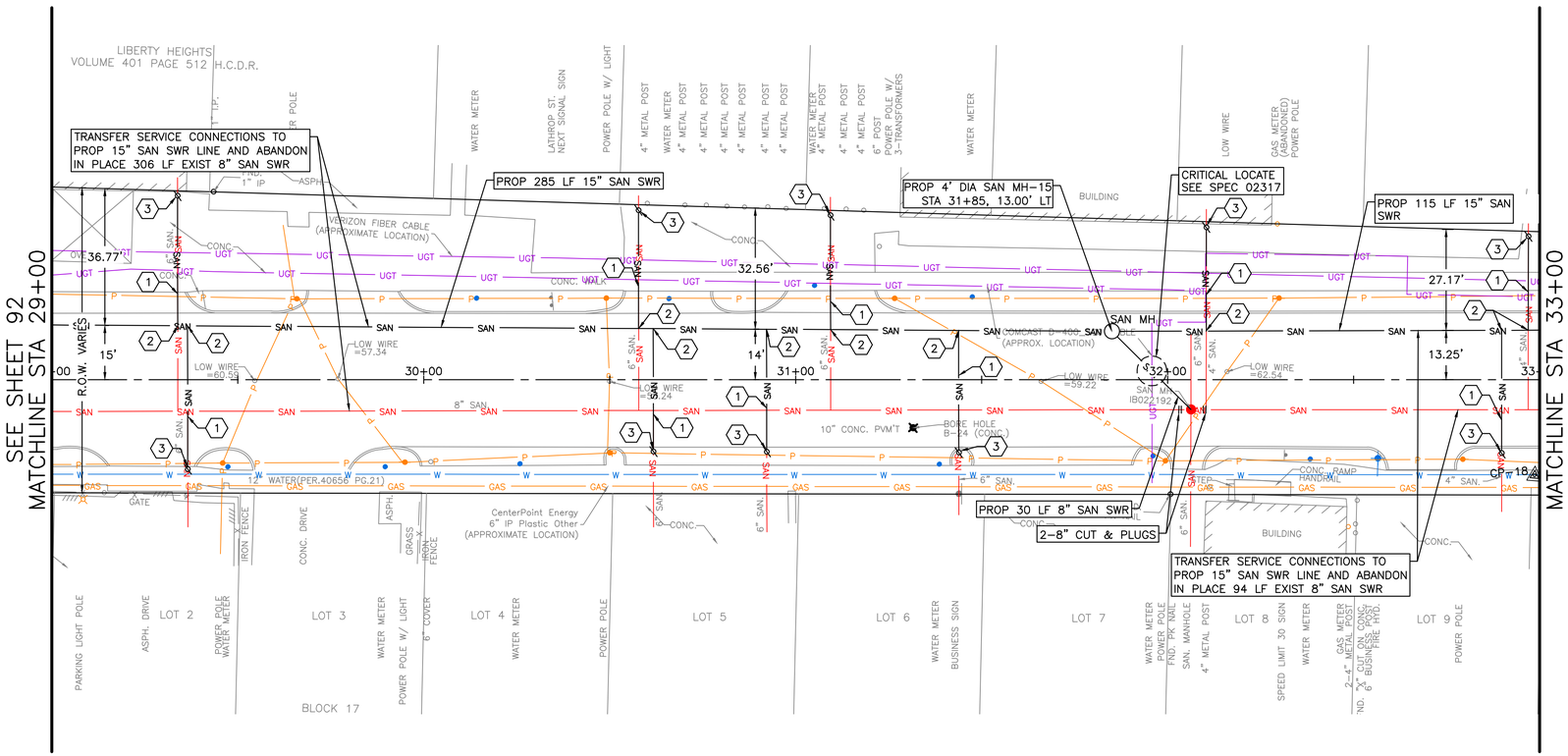
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PROFILE
STA 26+00 TO 29+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 93 OF 339	



LYONS AVE.

N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERVICE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.

KEY NOTES:

(1) EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE.

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

(3) INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-18 SET XCON
32+98.58, 25.75' RT
EL=42.26

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TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
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DOCUMENT INCOMPLETE:
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

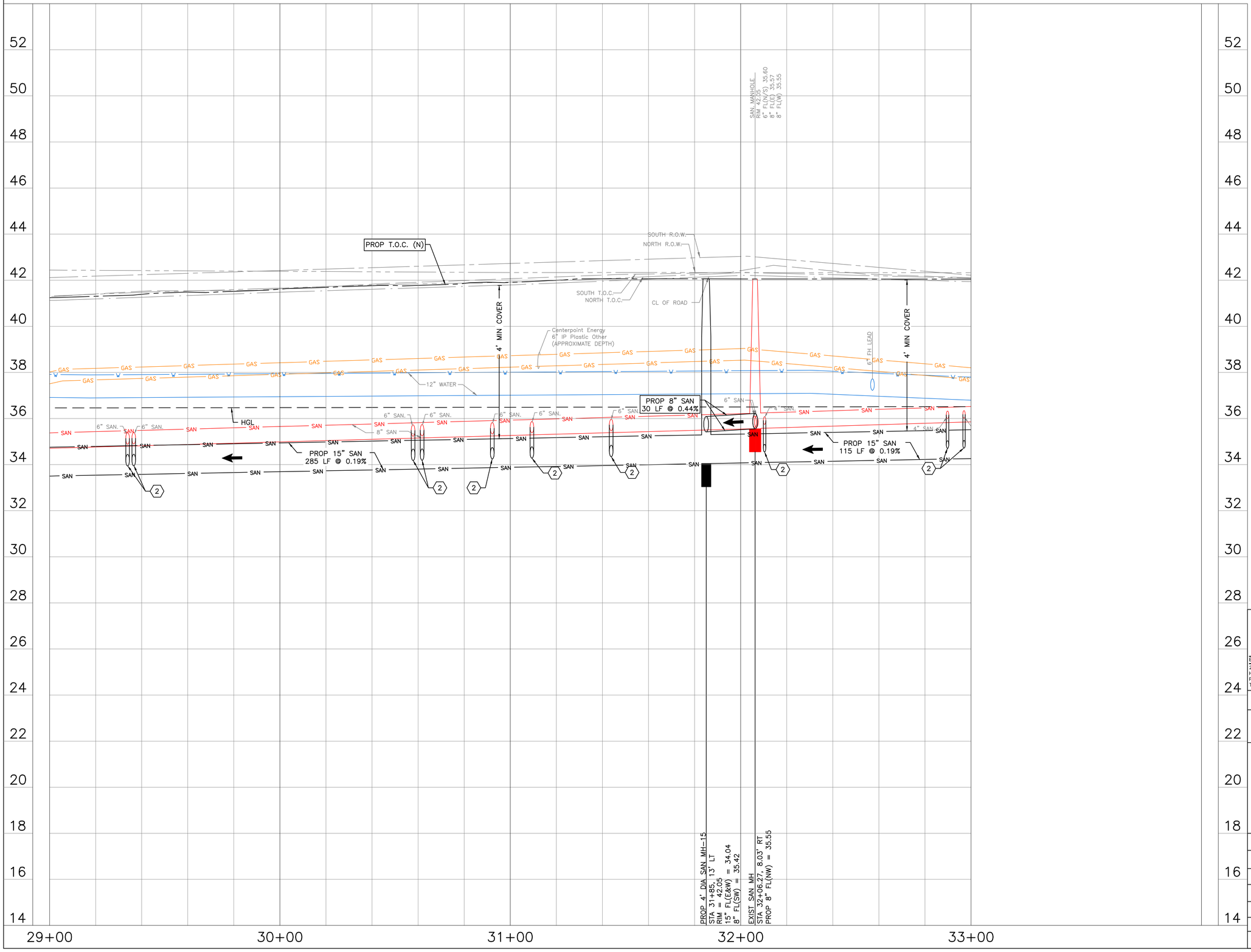
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PLAN
STA 29+00 TO 33+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 94 OF 339	

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0' 10' 20' 40'

SCALE: 1"=20'

NOTES:
1. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Phone: (713)783-8700, Fax: (713)783-8747
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

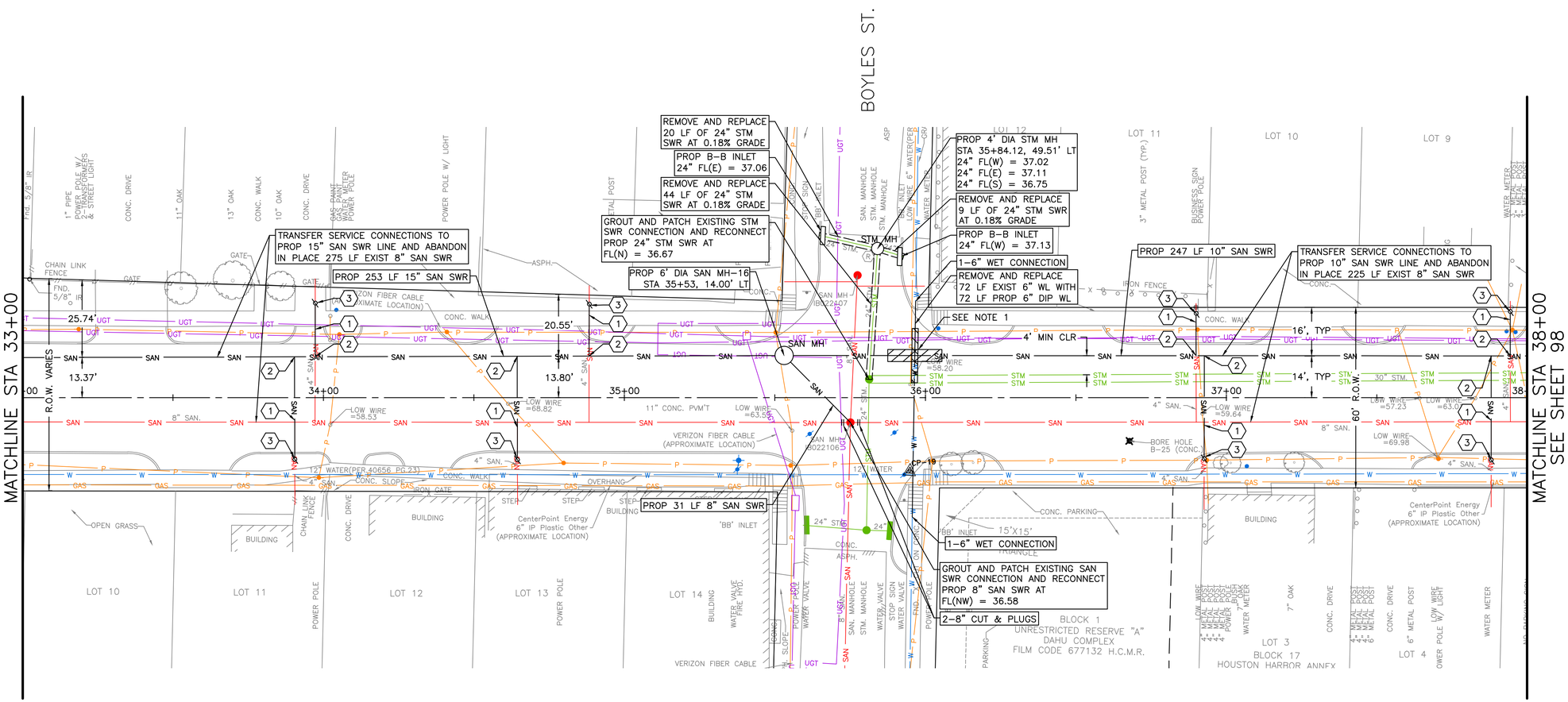
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

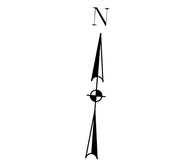
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PROFILE
STA 29+00 TO 33+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 95 OF 339	

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FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PROFILE.dwg





NO.	DATE	REVISION	APP.

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR WET CONNECTION. SEE SPEC 02513.
3. SEE SHEET 145 FOR STORM/WATER LINE IMPROVEMENT CROSS SECTIONS.

KEY NOTES:
1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-19 SET XCON
35+94.80, 24.41' RT
EL=40.78

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
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DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

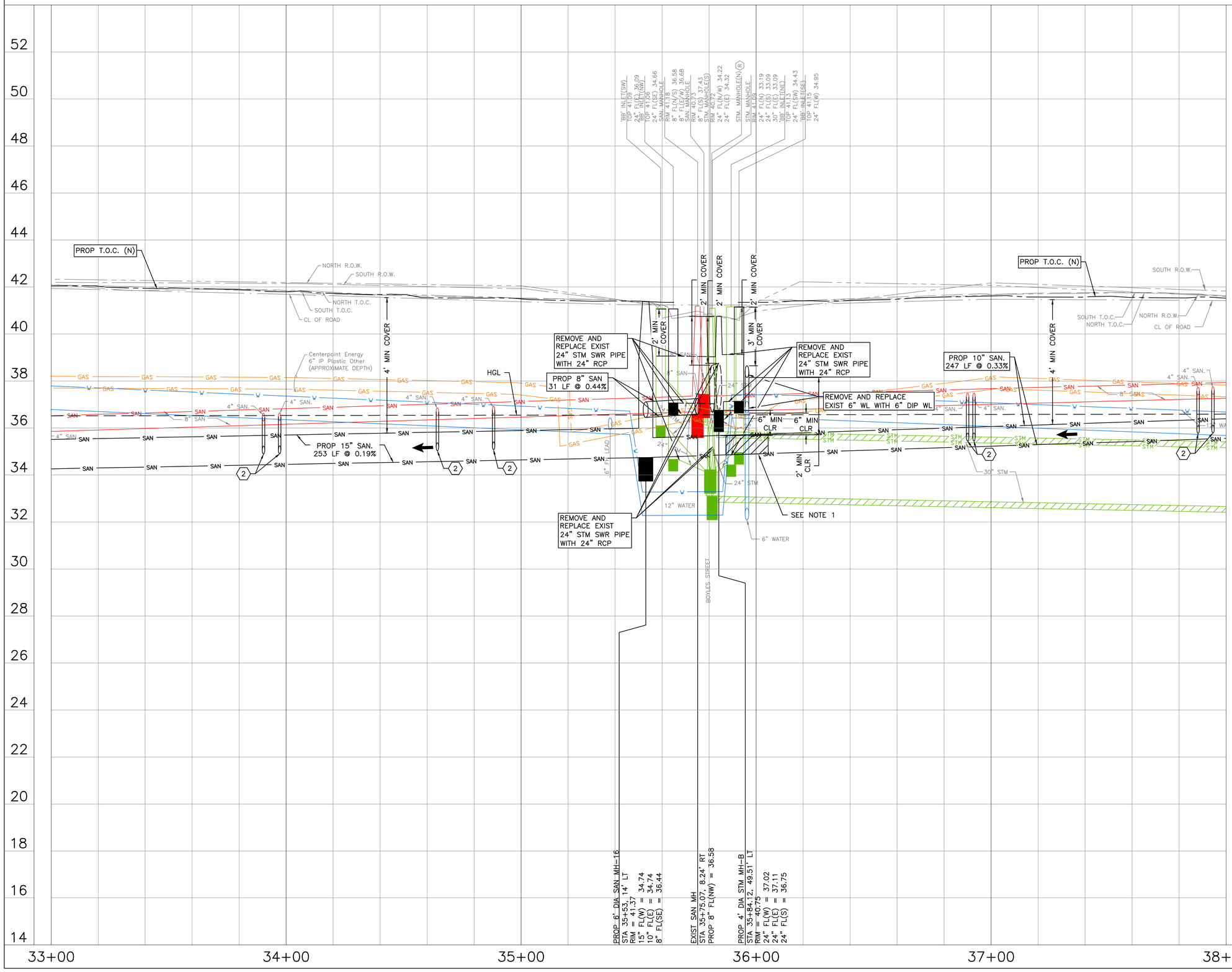
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE. PLAN
STA 33+00 TO 38+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 96 OF 339	

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PLOT STYLE: COH.ctb
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0' 10' 20' 40'

SCALE: 1"=20'

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

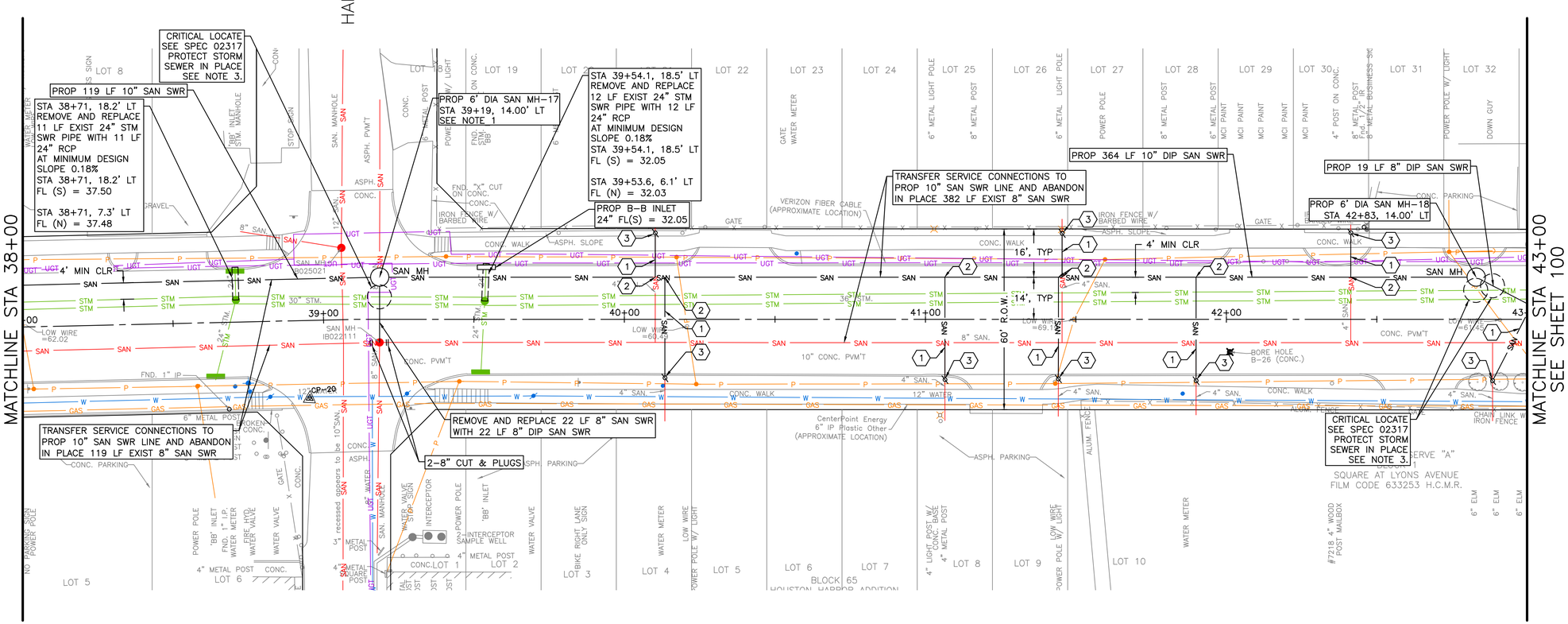
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PROFILE
STA 33+00 TO 38+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 97 OF 339	

PLOTTED: 10/28/2026 10:31 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE_PROFILE.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. CONTRACTOR TO PROVIDE BYPASS FOR INSTALLATION OF MH-17.
2. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERVICE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
3. CONTRACTOR TO USE CEMENT STABILIZED SAND BACKFILL.
4. SEE SHEET 146 FOR STORM/WATER LINE IMPROVEMENT CROSS SECTIONS.

KEY NOTES:
1. EXTEND EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND FLOWLINE.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-20 SET XCON
38+94.81, 25.82' RT
EL=41.02'

CIVITAS ENGINEERING GROUP
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2000 W. Sam Houston Pkwy S., Suite 1400
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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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FB NO.

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DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

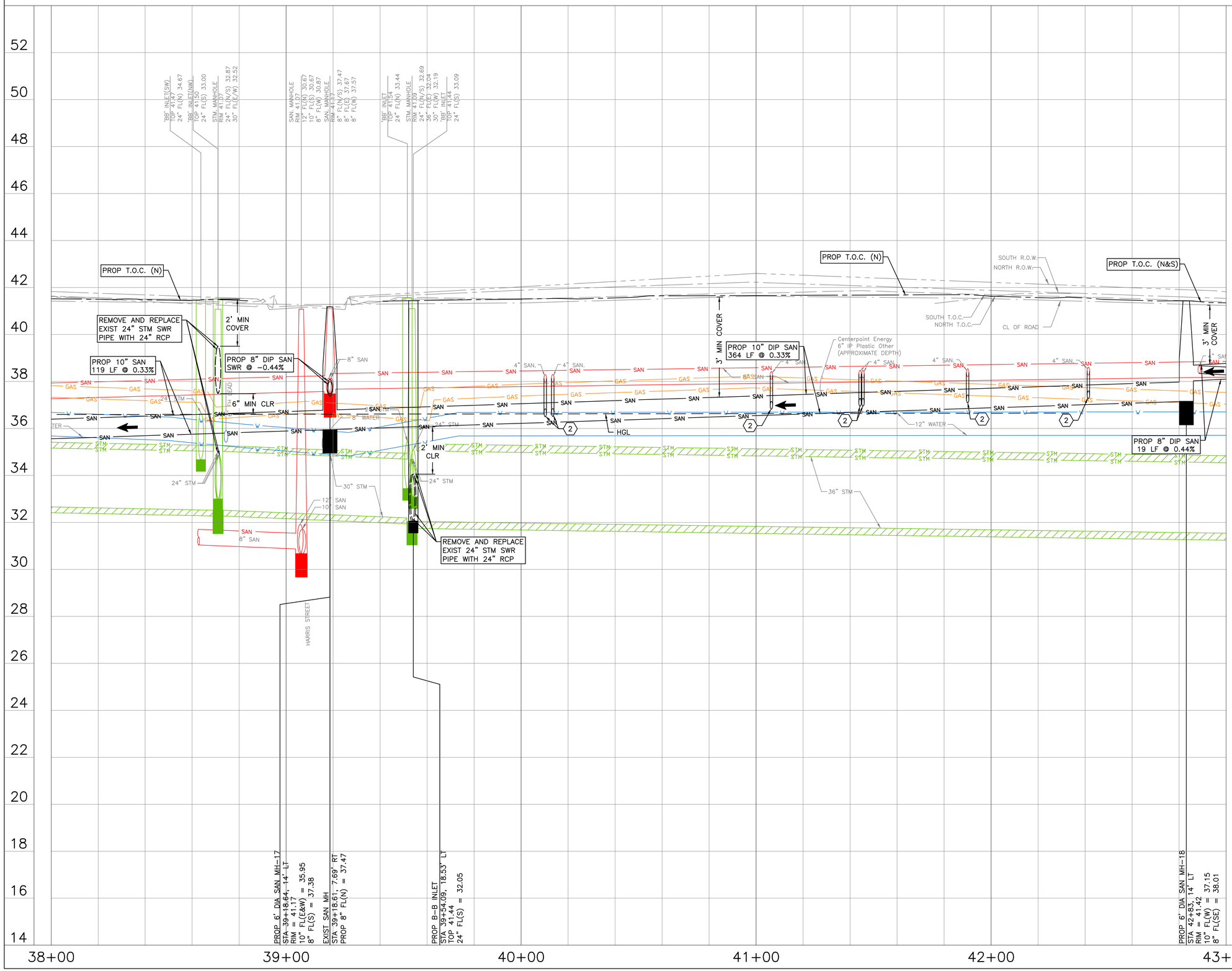
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PLAN
STA 38+00 TO 43+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 98 OF 339	

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0' 10' 20' 40'

SCALE: 1"=20'

NOTES:
1. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

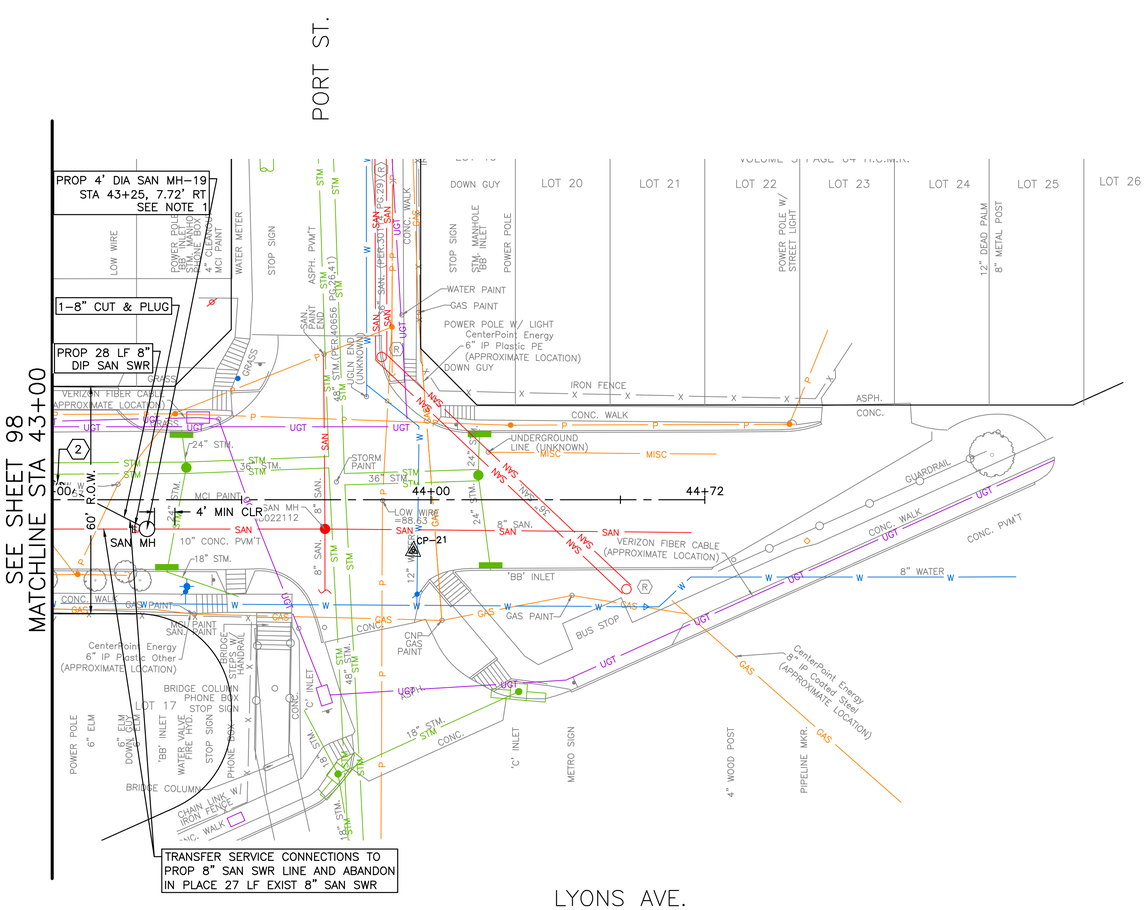
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PROFILE
STA 38+00 TO 43+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 99 OF 339	

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N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. CONTRACTOR TO PROVIDE BYPASS FOR INSTALLATION OF MH-19.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

TBM
CP-21 SET XCON
43+95.35, 13.44' RT
EL=41.02

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

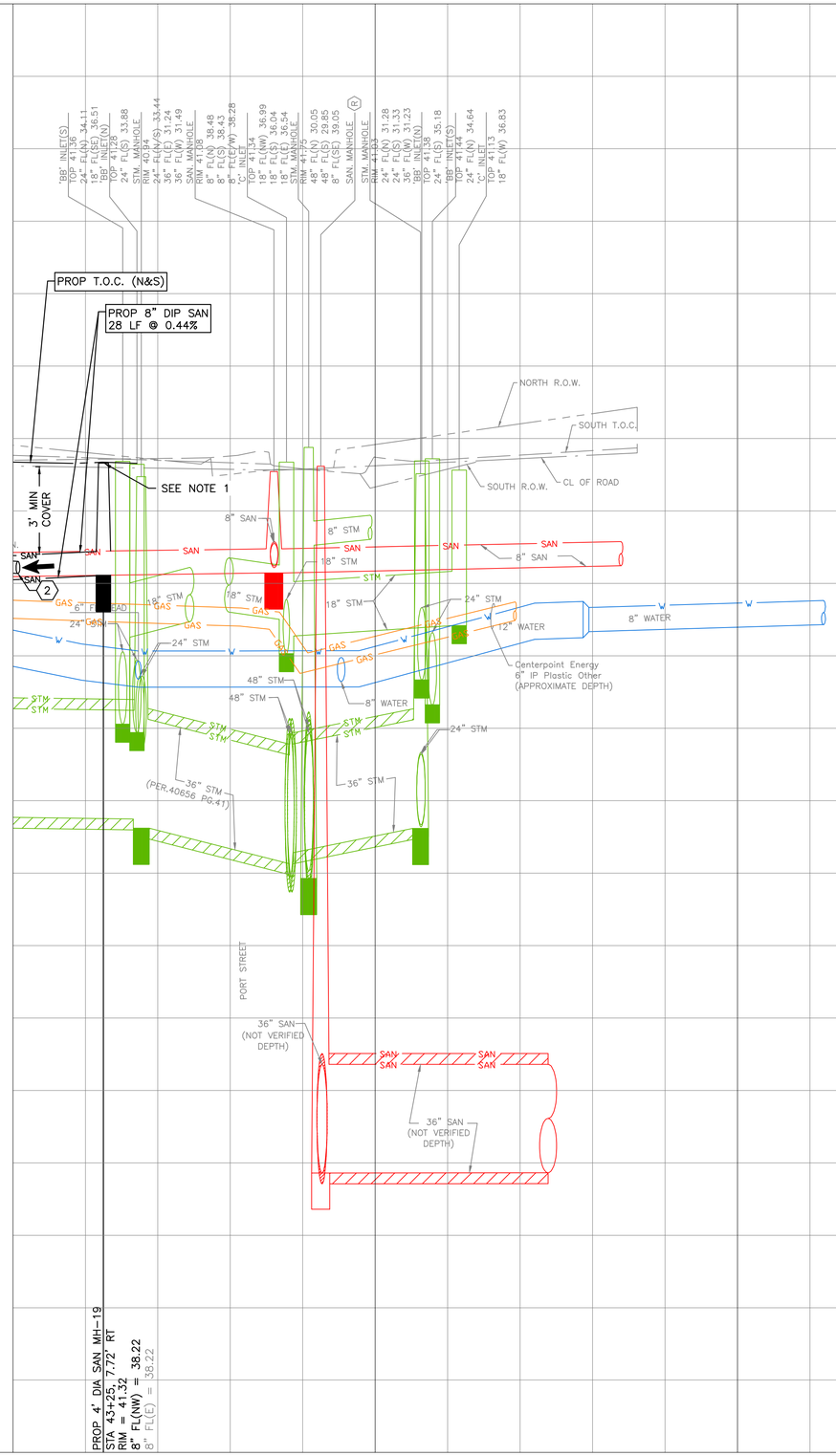
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

LYONS AVE.
PLAN
STA 43+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 100 OF 339	

PLOTTED: 10/28/2026 10:38 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PLAN.dwg



0' 10' 20' 40'

SCALE: 1"=20'

NOTES:
1. CONTRACTOR TO PROVIDE BYPASS FOR INSTALLATION OF MH-19.
2. CONTRACTOR TO FIELD VERIFY PROP MH RIM ELEVATION.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE.
PROFILE
STA 43+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 101 OF 339	

PLOTTED: 10/28/2026 10:47 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PROFILE.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

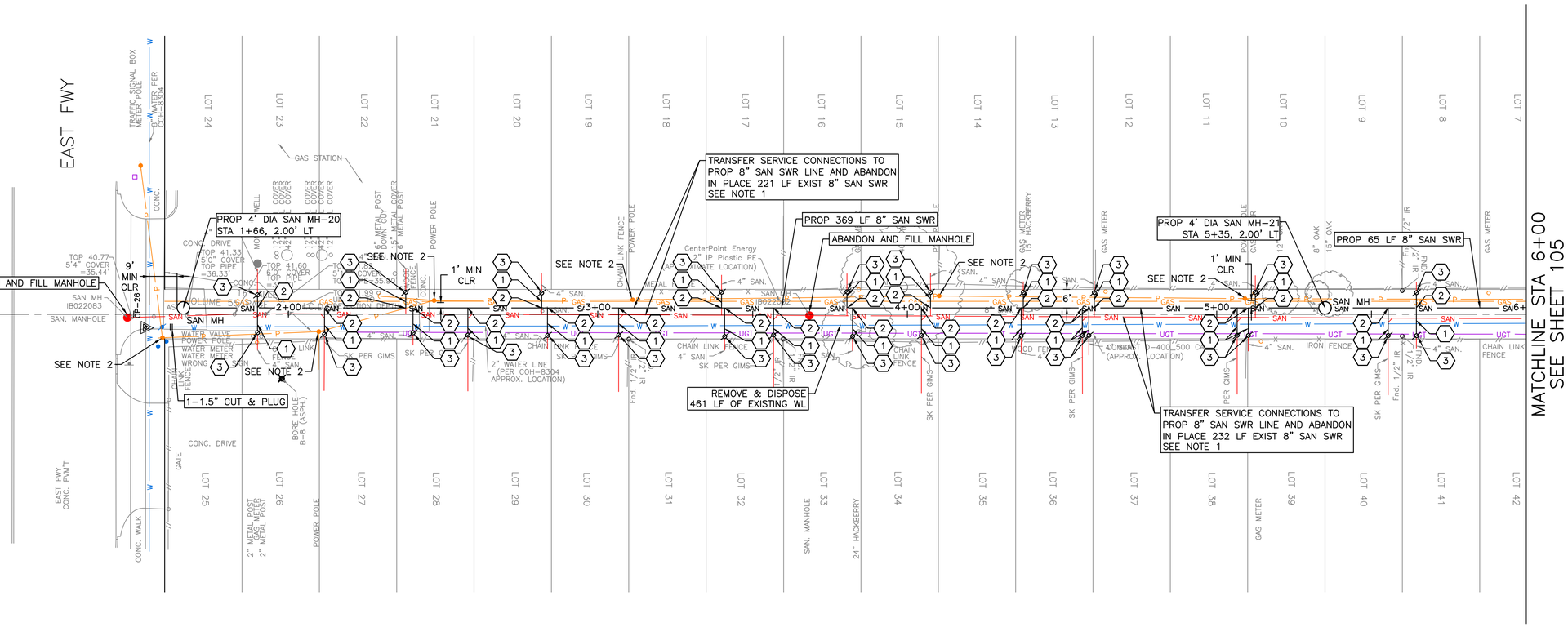
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

KRESS LYONS PARK

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 102 OF 339	

PLOTTED: 10/28/2026 10:42 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\KRESS LYONS PARK.dwg



BACKLOT ALLEY A

N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534–04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

KEY NOTES:

1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP–26 SET XCON
1+53.72, 4.36' RT
EL=40.77

CIVITAS ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

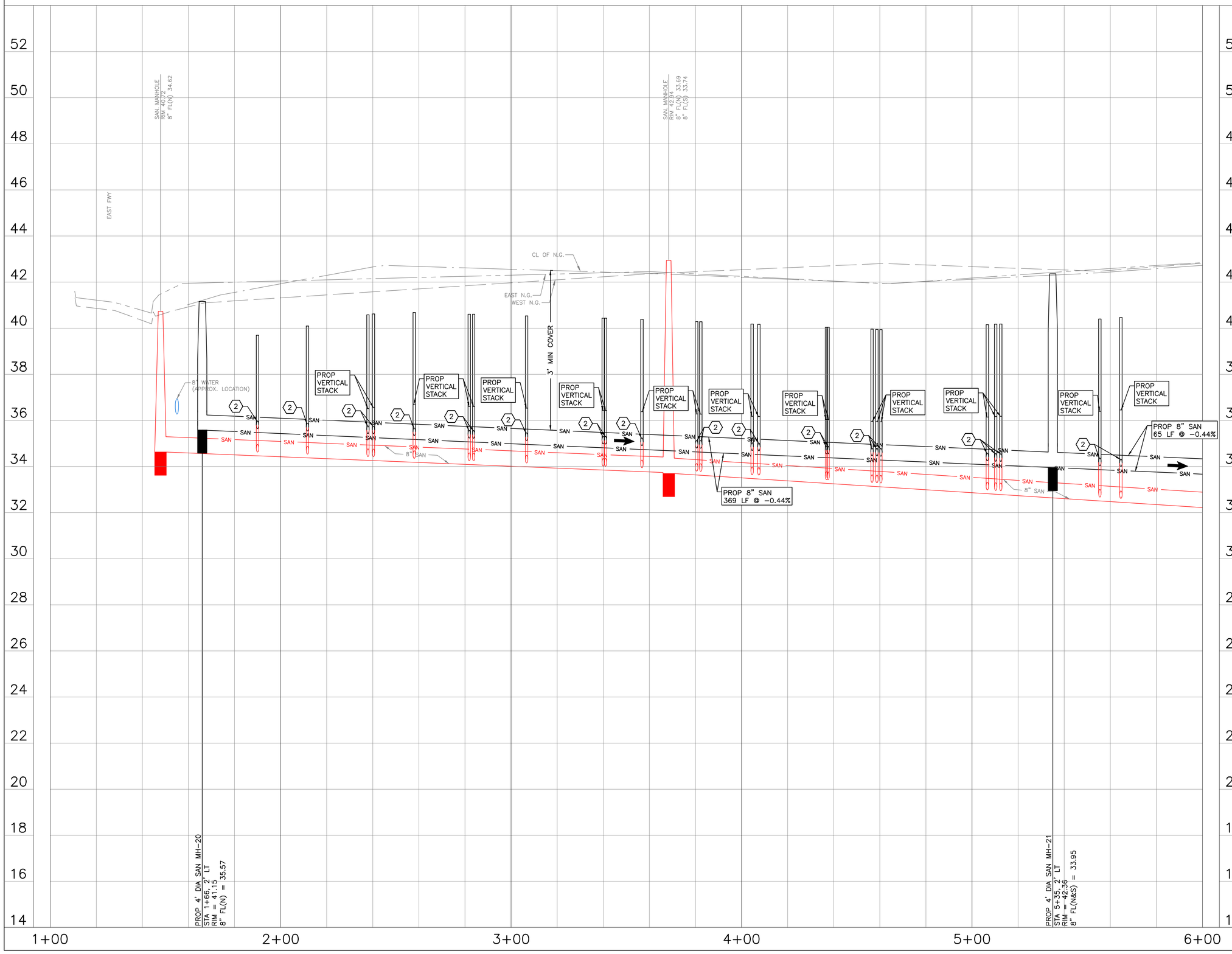
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY A PLAN STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 103 OF 339	

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PLOT STYLE: COH.ctb
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0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Phone: (713)783-8700, Fax: (713)783-8747
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

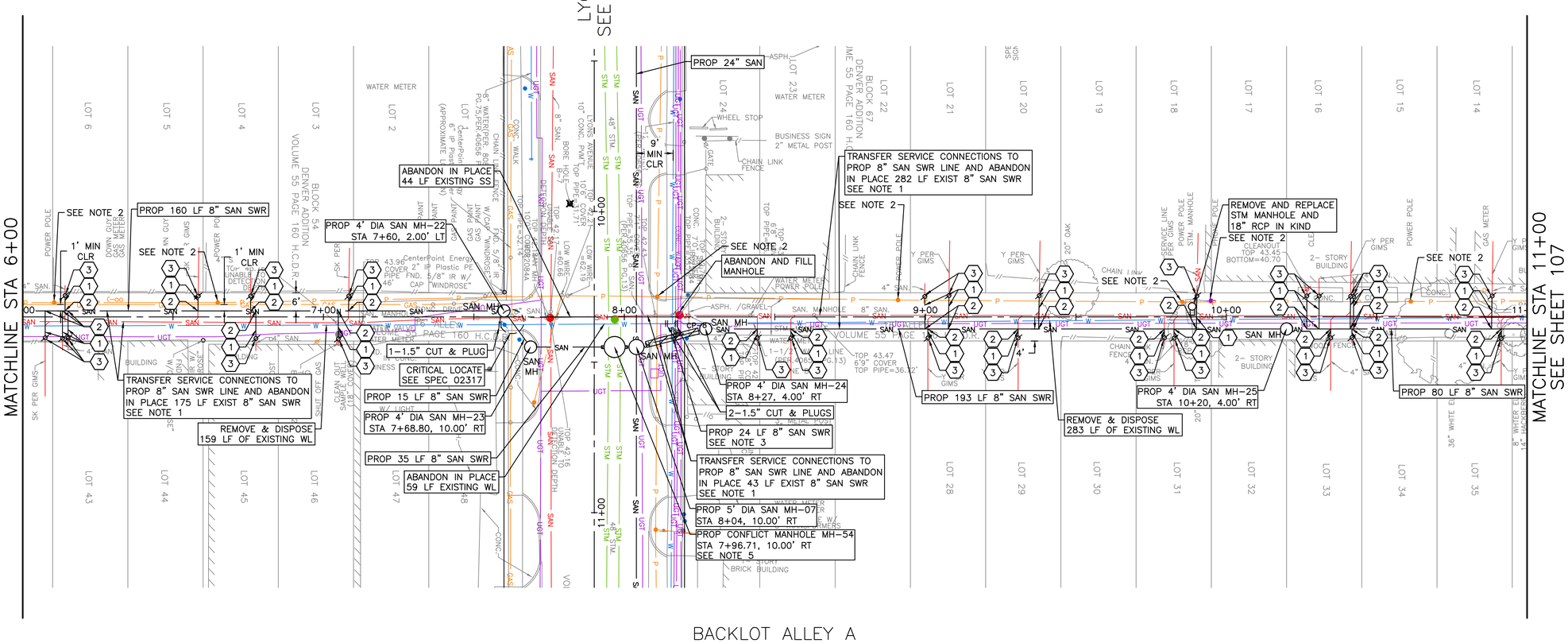
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY A PROFILE
STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 104 OF 339	

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PLOT STYLE: COH.ctb
PLOTTED: 10/28/2026 10:27 AM
FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY A PLAN.dwg



NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
4. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.
5. SEE SHEET 163 FOR CONFLICT MANHOLE DETAIL.

KEY NOTES:
1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-8 SET XCON
8+17.04, 5.54' RT
EL=42.83

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

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Houston, Texas 77042
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FB NO.

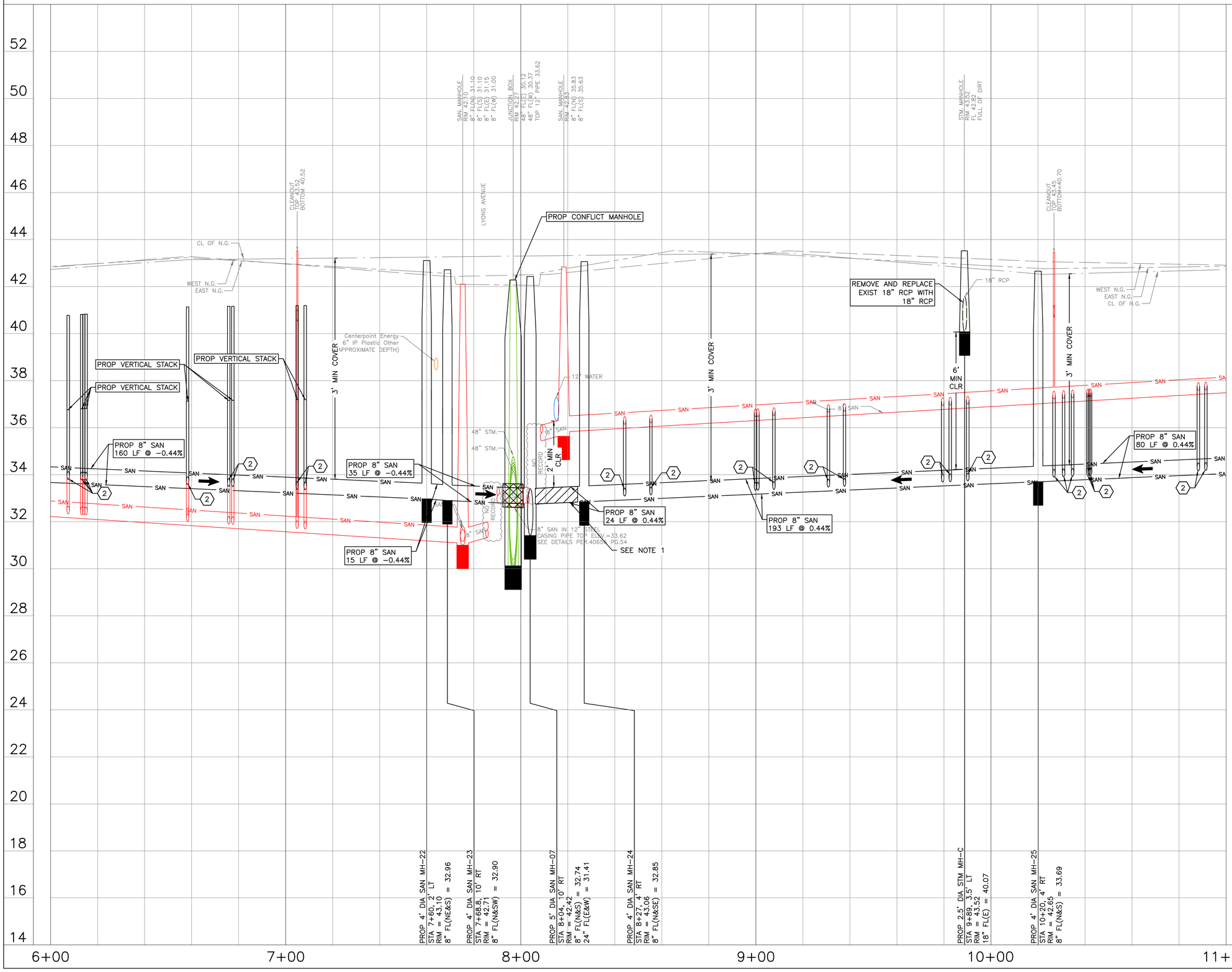
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DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY A PLAN STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 105 OF 339	



0' 10' 20' 40'

SCALE: 1"=20'

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

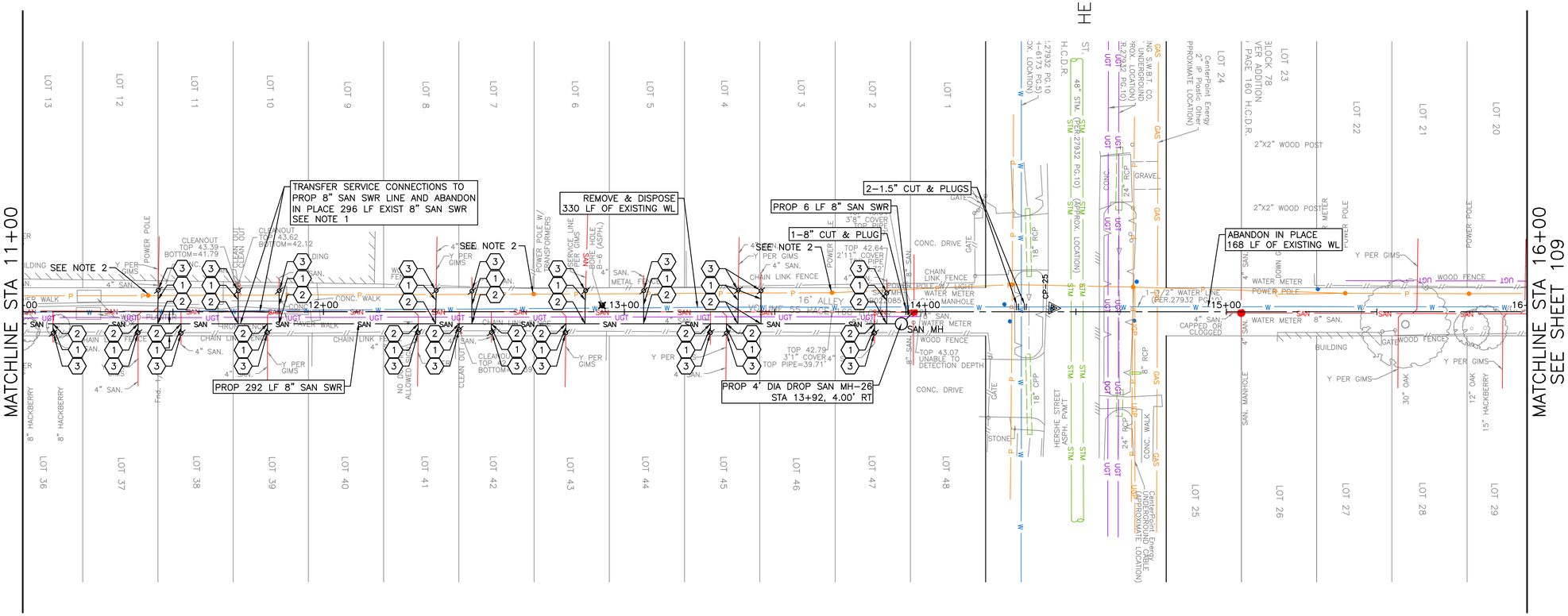
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY A PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 106 OF 339	

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PLOT STYLE: COH.ctb
PLOTTED: 10/28/2026 10:36 AM
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY A PLAN.dwg



BACKLOT ALLEY A

NO.	DATE	REVISION	APP.

N

0' 10' 20' 40'

SCALE: 1"=20'

NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

KEY NOTES:
1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-25 SET CONC NAIL IN ASP
14+42.46, 1.23' LT
EL=44.14

civitas ENGINEERING GROUP
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TBPE Firm Registration No. F-4491

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DOCUMENT INCOMPLETE:
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

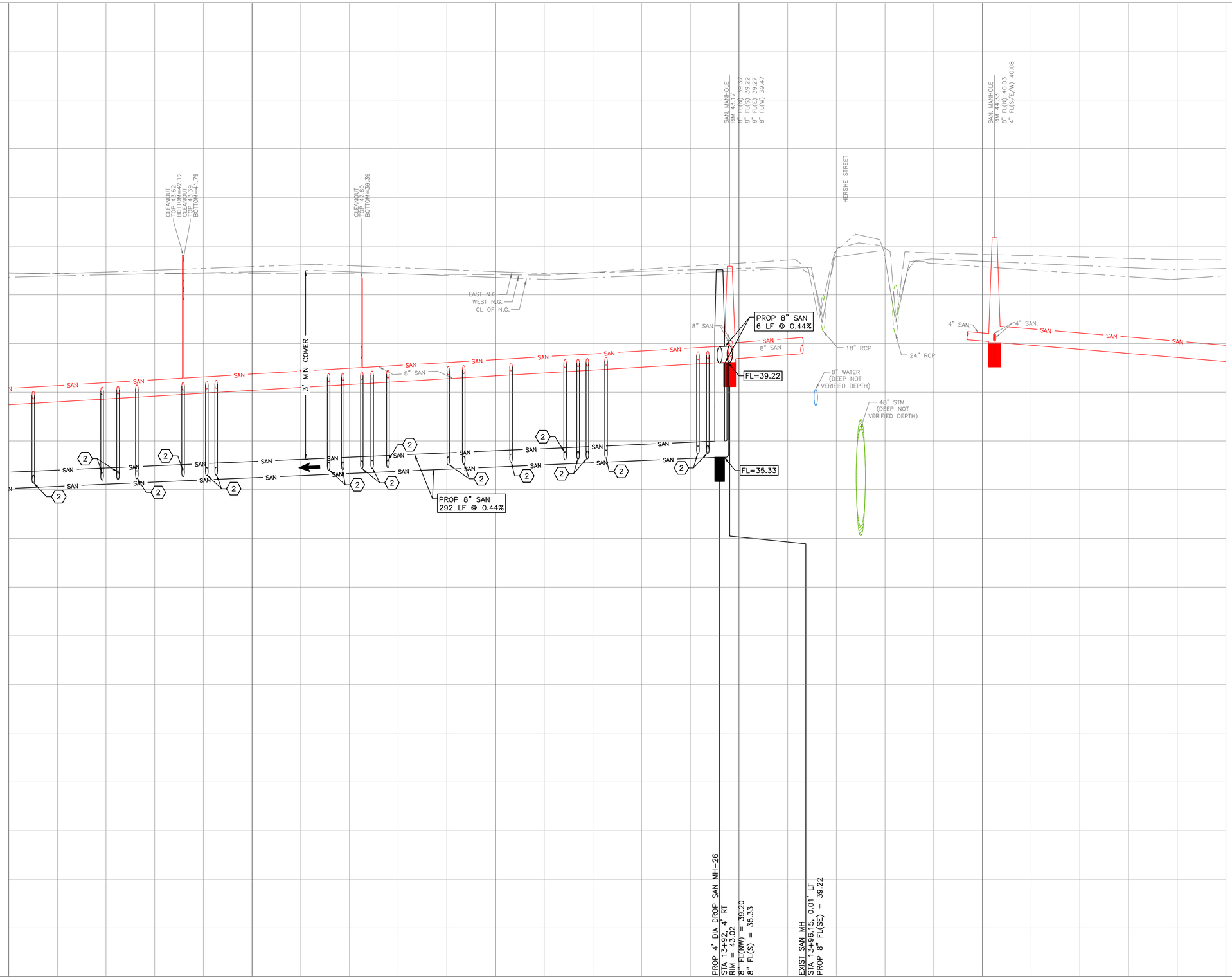
SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY A PLAN STA 11+00 TO 16+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 107 OF 339	



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP

Engineers ● Planners ● Construction Managers

2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

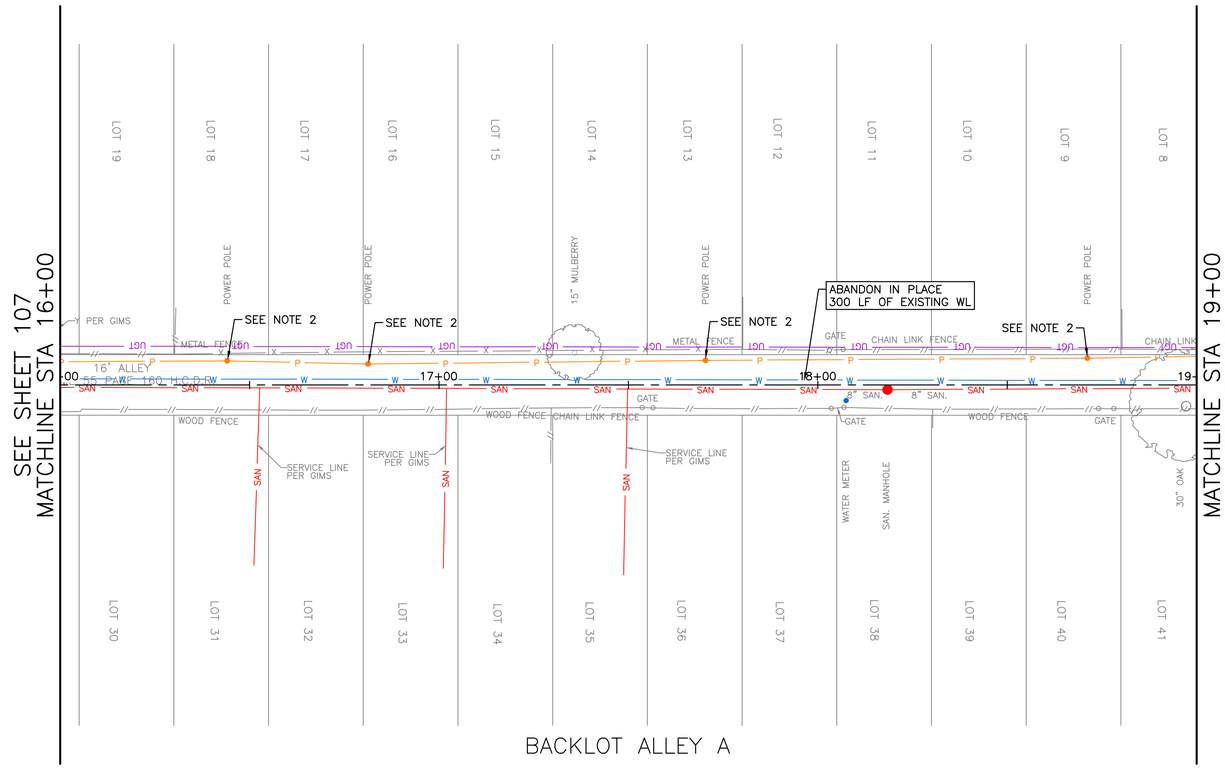
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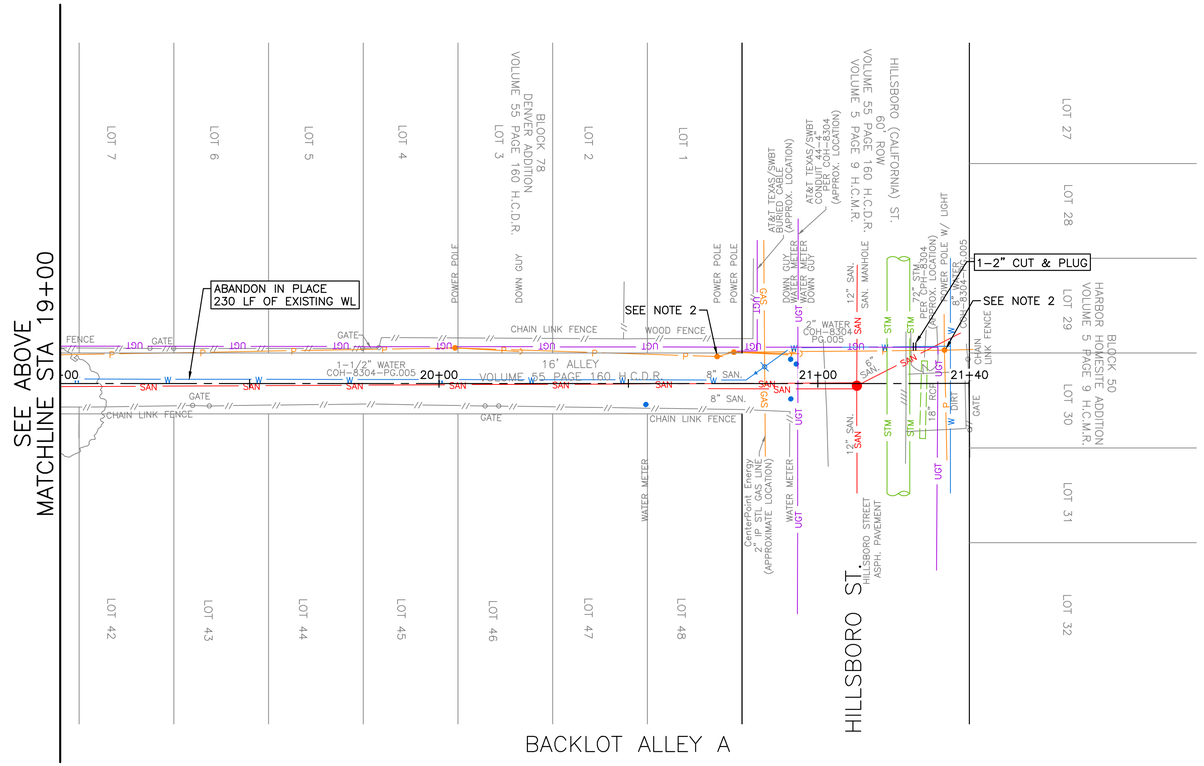
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 108 OF 339	

PLOTTED: 10/28/2026 10:43 AM

PLOT STYLE: COH.ctb

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NO.	DATE	REVISION	APP.

N

0' 10' 20' 40'

SCALE: 1"=20'

NOTES:
1. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

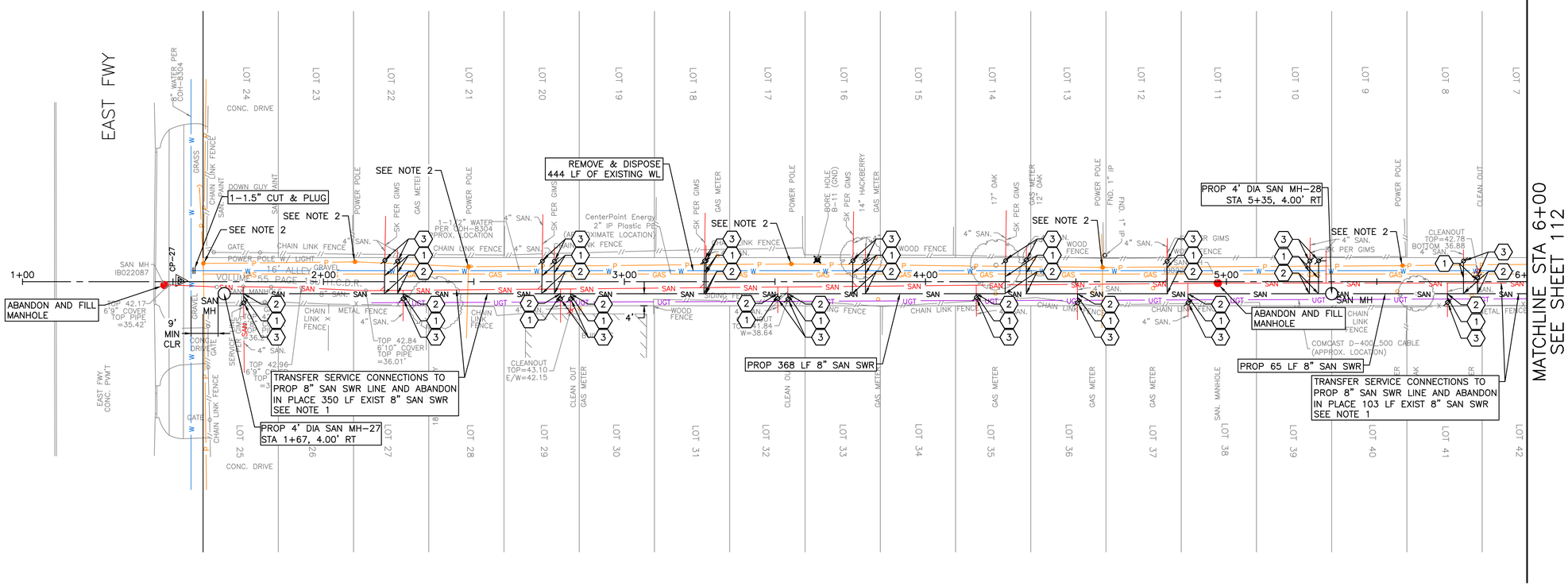
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY A PLAN STA 16+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 109 OF 339	

PLOTTED: 10/28/2026 10:36 AM
PLOT STYLE: COH.ctb
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BACKLOT ALLEY B

NO.	DATE	REVISION	APP.

N

0' 10' 20' 40'

SCALE: 1"=20'

NOTES:

1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.

KEY NOTES:

1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-27 SET XCON
1+52.31, 0.34' LT
EL=42.22

CIVITAS ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

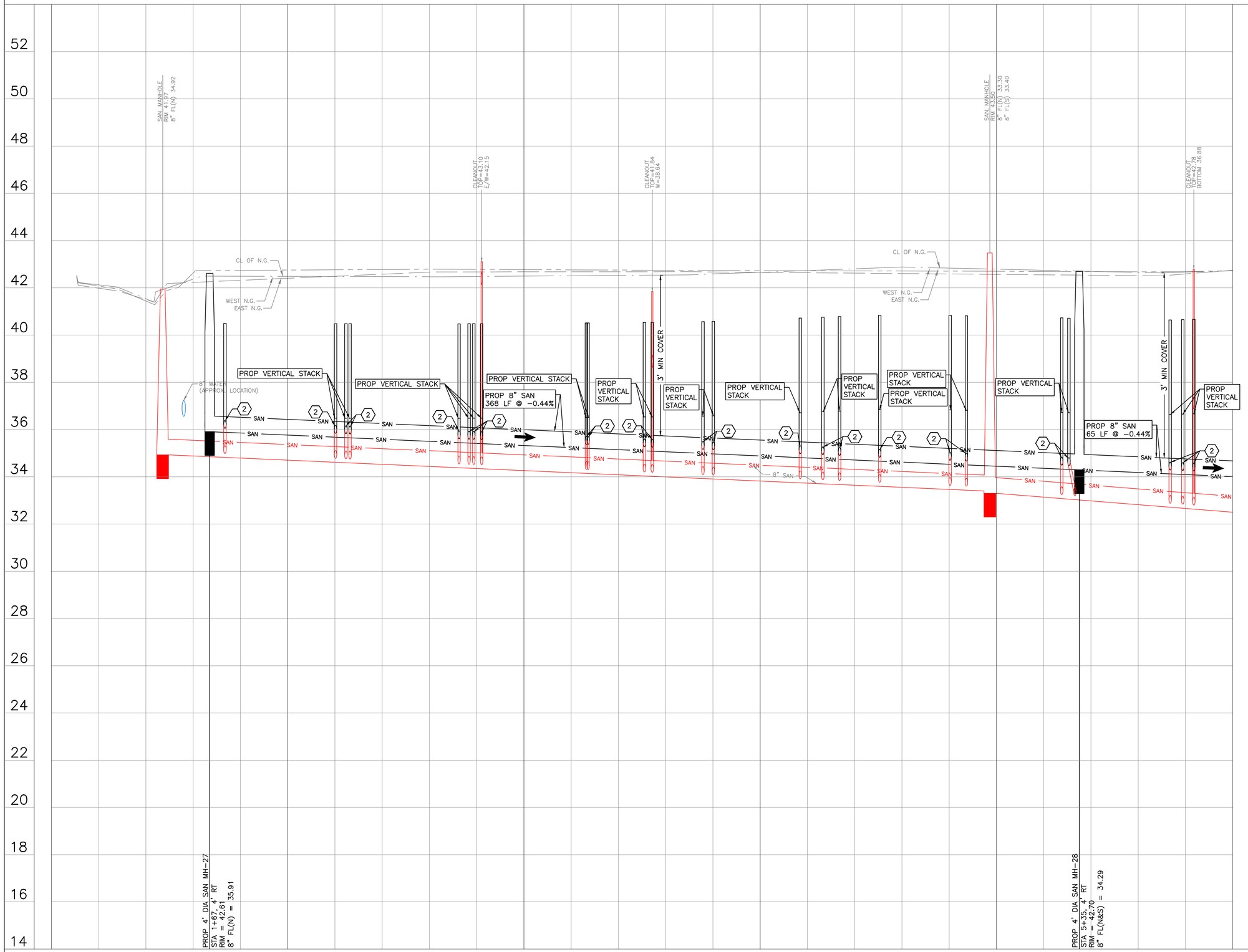
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY B PLAN STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 110 OF 339	

PLOTTED: 10/28/2026 10:43 AM
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0' 10' 20' 40'

SCALE: 1"=20'

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

NO.	DATE	REVISION	APP.

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P.E. SERIAL No: 114557
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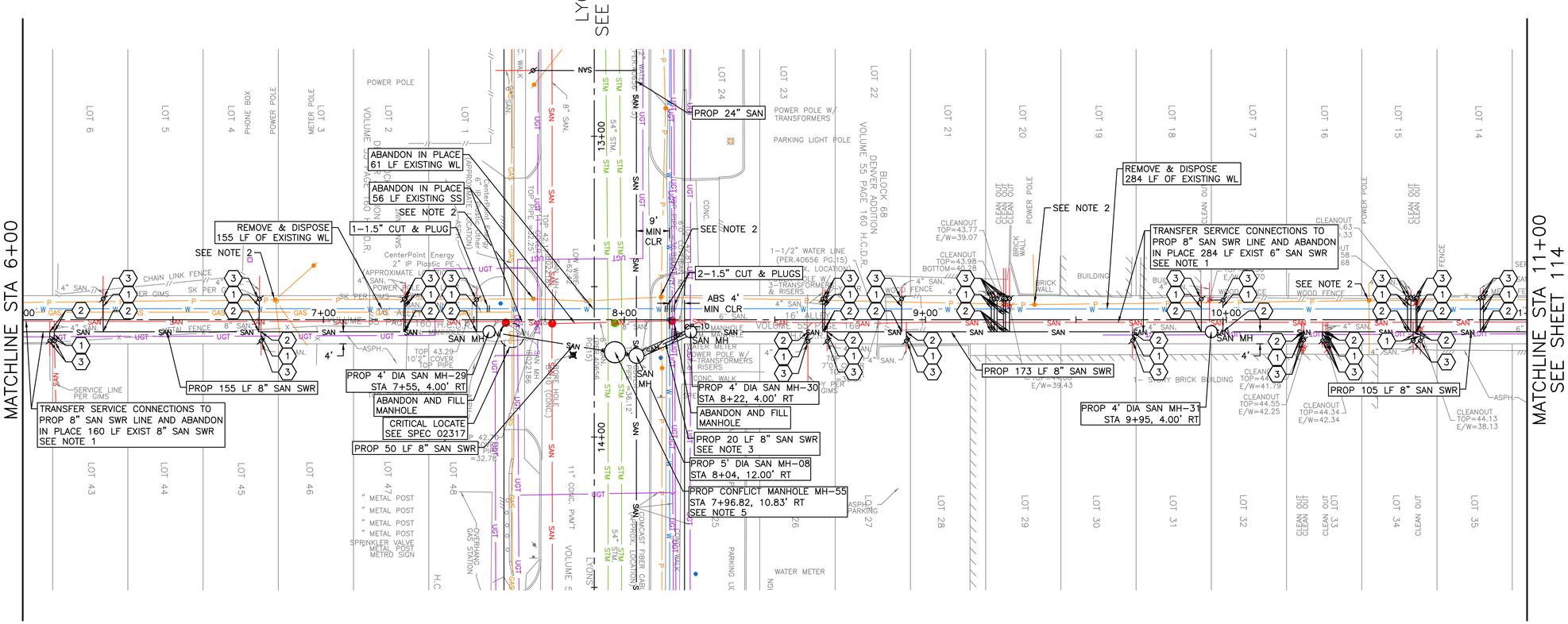
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY B PROFILE STA BEGIN TO 6+00

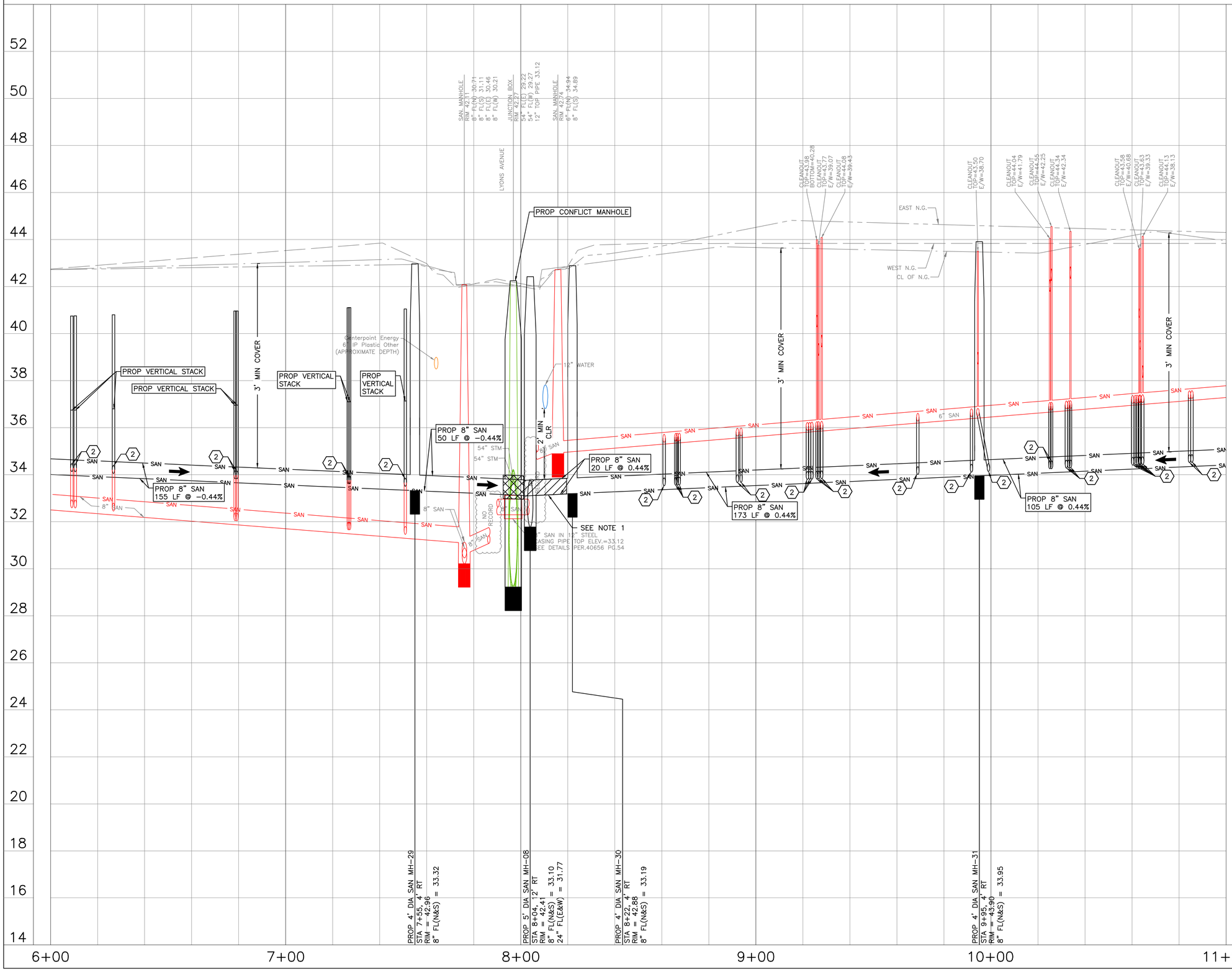
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 111 OF 339	

PLOTTED: 10/28/2026 10:47 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY B PROFILE.dwg


SEE SHEET 110
MATCHLINE STA 6+00
LYONS AVE.
SEE SHEET 86
MATCHLINE STA 11+00
SEE SHEET 114
REMOVE & DISPOSE 155 LF OF EXISTING WL
SEE NOTE 2
TRANSFER SERVICE CONNECTIONS TO PROP 8" SAN SWR LINE AND ABANDON IN PLACE 160 LF EXIST 8" SAN SWR SEE NOTE 1
PROP 155 LF 8" SAN SWR
ABANDON IN PLACE 61 LF EXISTING WL
ABANDON IN PLACE 56 LF EXISTING SS
1-1.5" CUT & PLUG
PROP 4' DIA SAN MH-29 STA 7+55, 4.00' RT
ABANDON AND FILL MANHOLE
CRITICAL LOCATE SEE SPEC 02317
PROP 50 LF 8" SAN SWR
PROP 24" SAN
9' MIN CLR
2-1.5" CUT & PLUGS
ABS 4' MIN CLR
PROP 4' DIA SAN MH-30 STA 8+22, 4.00' RT
ABANDON AND FILL MANHOLE
PROP 20 LF 8" SAN SWR SEE NOTE 3
PROP 5' DIA SAN MH-08 STA 8+04, 12.00' RT
PROP CONFLICT MANHOLE MH-55 STA 7+96.82, 10.83' RT SEE NOTE 5
REMOVE & DISPOSE 284 LF OF EXISTING WL
TRANSFER SERVICE CONNECTIONS TO PROP 8" SAN SWR LINE AND ABANDON IN PLACE 284 LF EXIST 6" SAN SWR SEE NOTE 1
PROP 173 LF 8" SAN SWR
PROP 4' DIA SAN MH-31 STA 9+95, 4.00' RT
PROP 105 LF 8" SAN SWR
POWER POLE
POWER POLE W/ TRANSFORMERS
PARKING LIGHT POLE
WATER METER
CHAIN LINK FENCE
WOOD FENCE
METAL FENCE
BRICK WALL
BUILDING
1- STORY BRICK BUILDING
SERVICE LINE PER GIMS
OVERHANG GAS STATION
SPRINKLER VALVE
METRO SIGN
LOT 6
LOT 5
LOT 4
LOT 3
LOT 2
LOT 1
LOT 24
LOT 23
LOT 22
LOT 21
LOT 20
LOT 19
LOT 18
LOT 17
LOT 16
LOT 15
LOT 14
LOT 43
LOT 44
LOT 45
LOT 46
LOT 47
LOT 48
LOT 25
LOT 26
LOT 27
LOT 28
LOT 29
LOT 30
LOT 31
LOT 32
LOT 33
LOT 34
LOT 35
VOLUME 55 PAGE 160 H.C.D.R.
BLOCK 68 DENVER ADDITION
VOLUME 55 PAGE 160 H.C.D.R.
VOLUME 55 PAGE 160 H.C.D.R.
VOLUME 55 PAGE 160 H.C.D.R.

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NO.	DATE	REVISION	APP.



0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.

KEY NOTES:
(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND
← FLOW DIRECTION

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

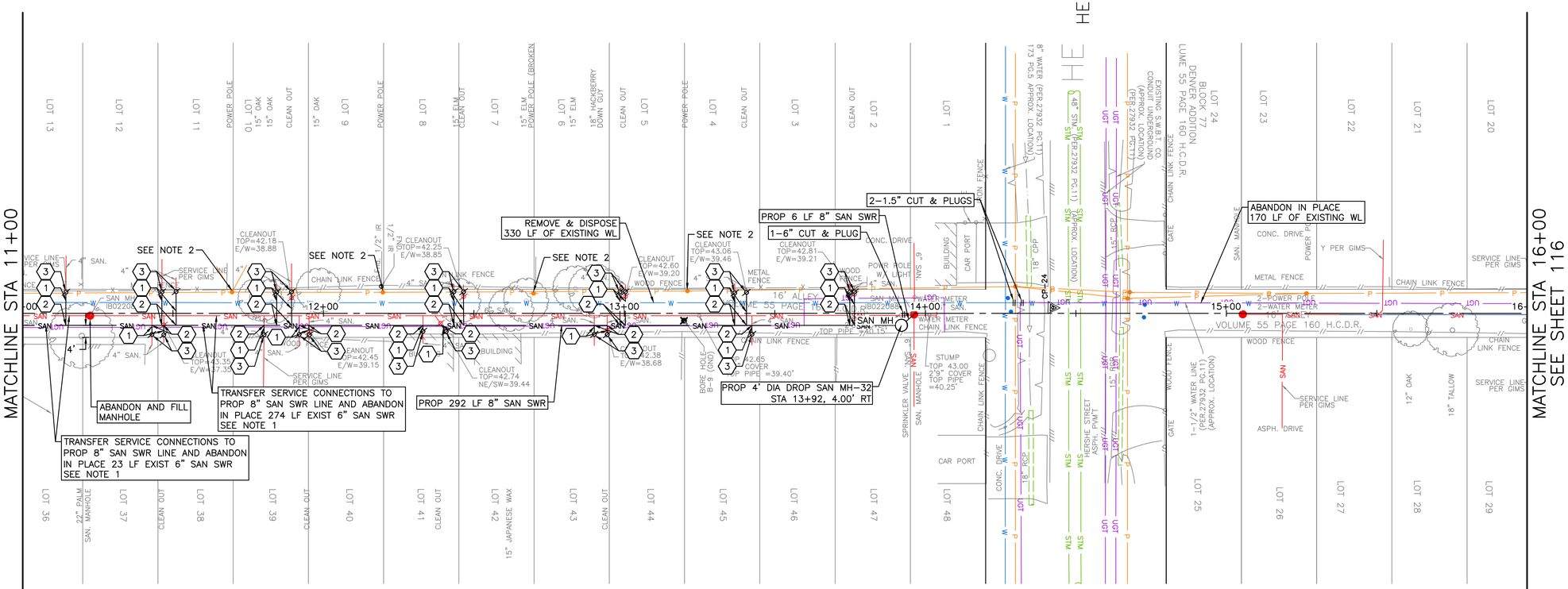
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY B PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 113 OF 339	

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BACKLOT ALLEY B

NO.	DATE	REVISION	APP.

N

0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

KEY NOTES:
1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-24 SET CONC NAIL IN ASP
14+42.21, 1.86' LT
EL=43.58

civitas ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

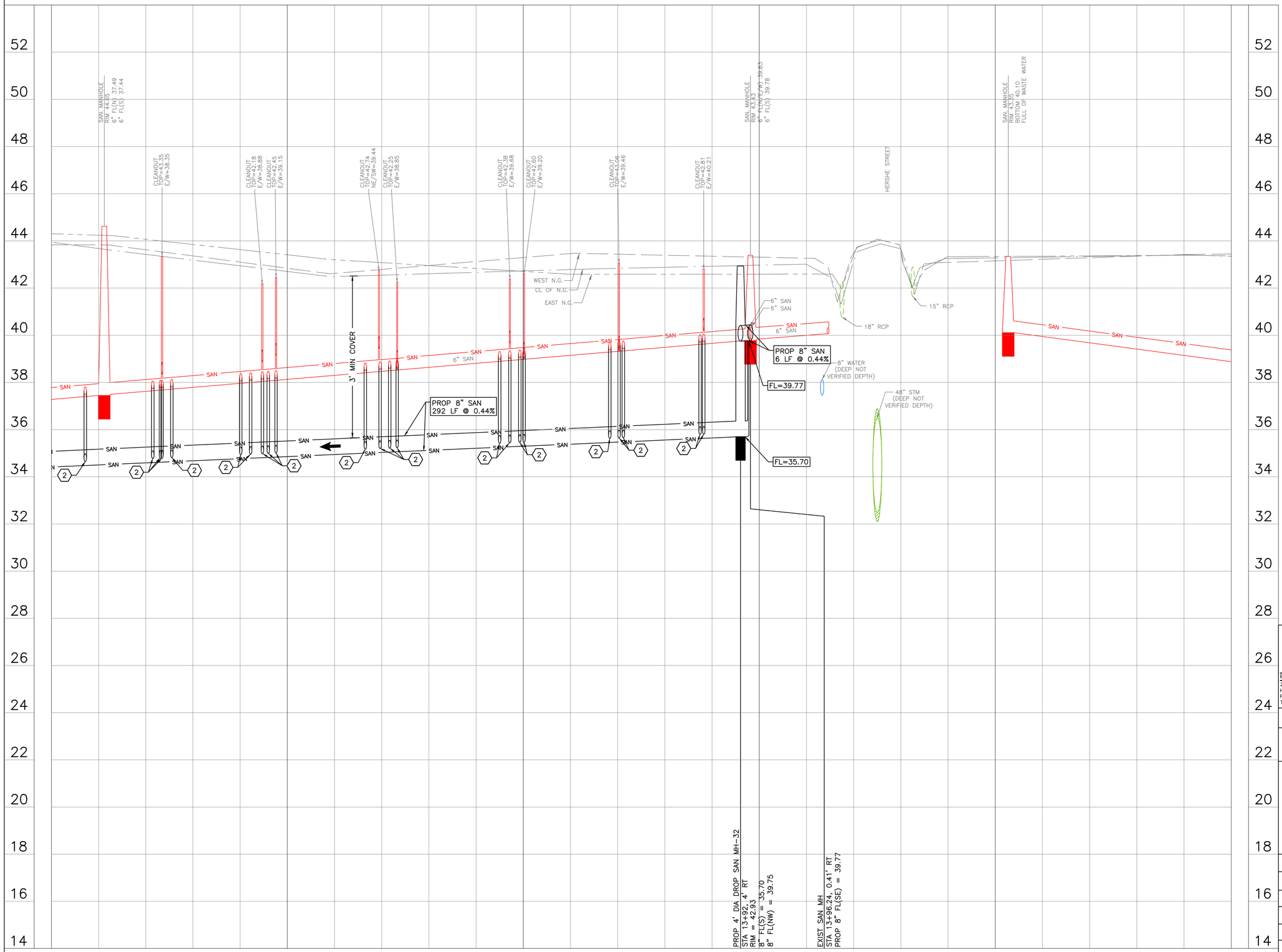
BACKLOT ALLEY B PLAN STA 11+00 TO 16+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 114 OF 339	

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PLOT STYLE: COH.ctb

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PROP 4' DIA DROP SAN MH-32
STA 13+92.4' RT
RIM = 42.93
8" FL(S) = 35.70
8" FL(NW) = 39.75

EXIST SAN MH
STA 13+96.24, 0.41' RT
PROP 8" FL(SE) = 39.77

0' 10' 20' 40'

SCALE: 1"=20'

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

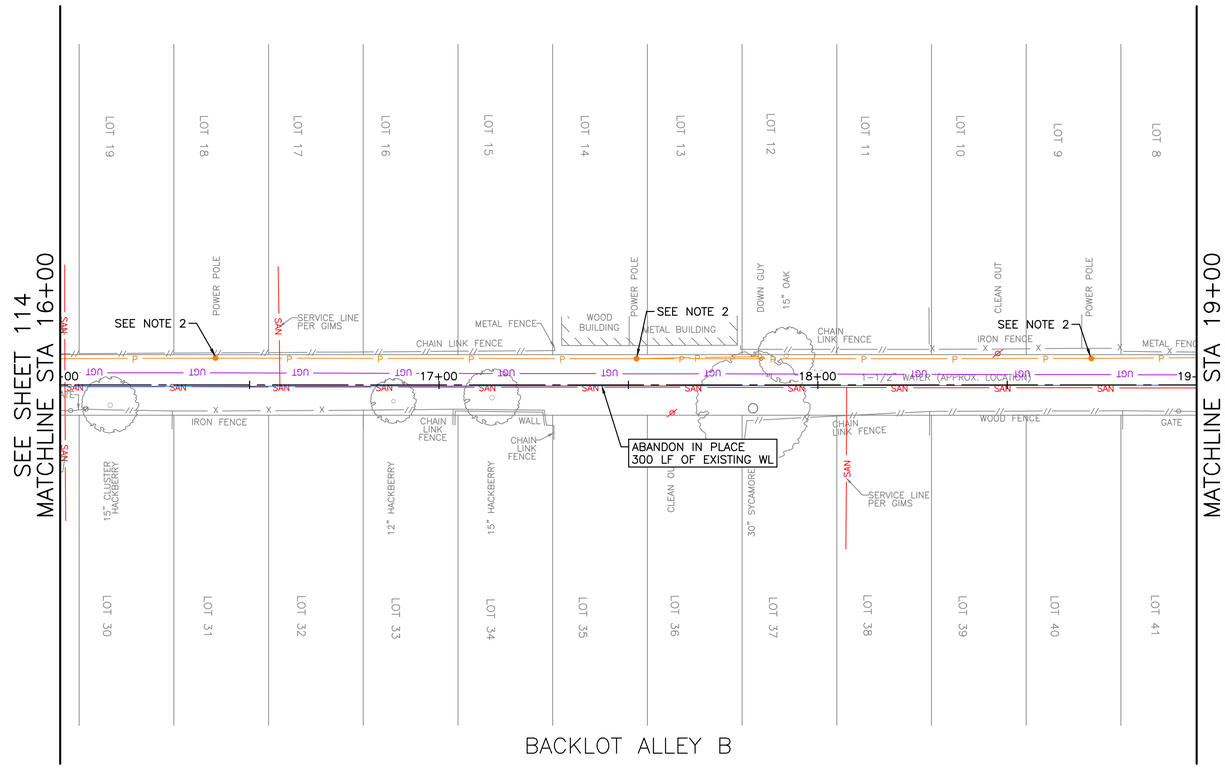
CITY OF HOUSTON

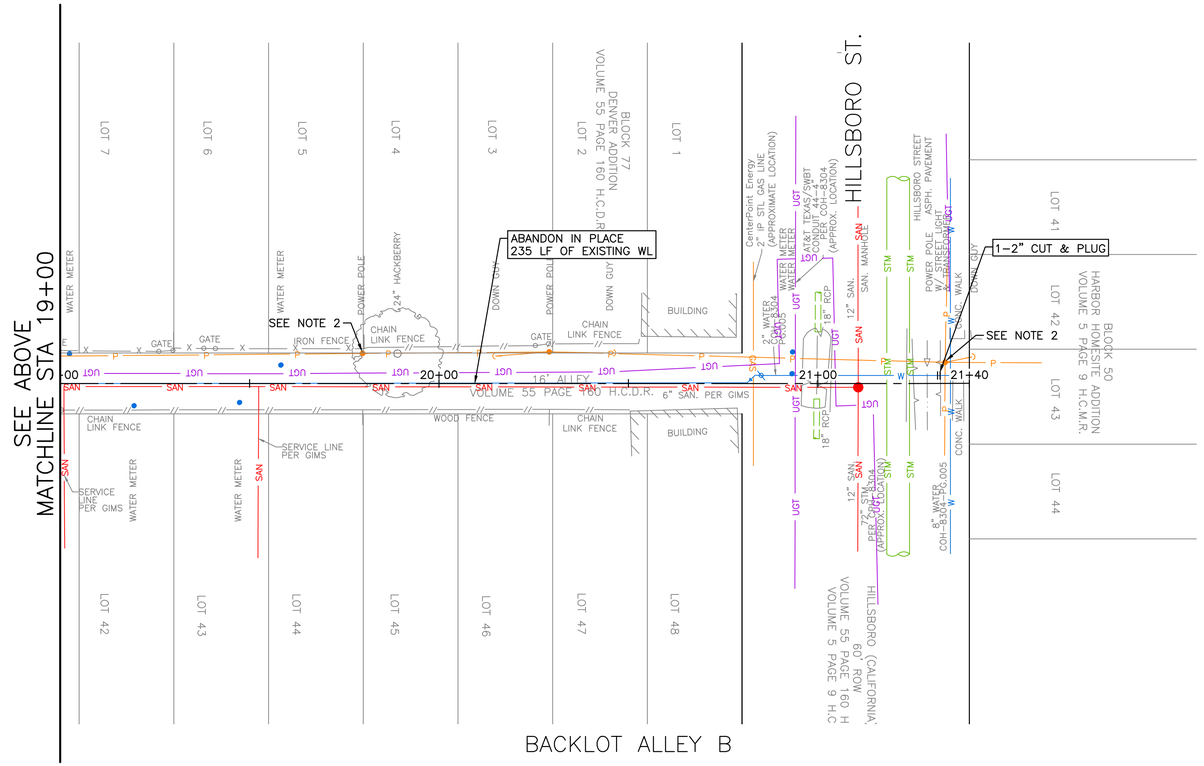
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY B PROFILE STA 11+00 TO 16+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 115 OF 339	





N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

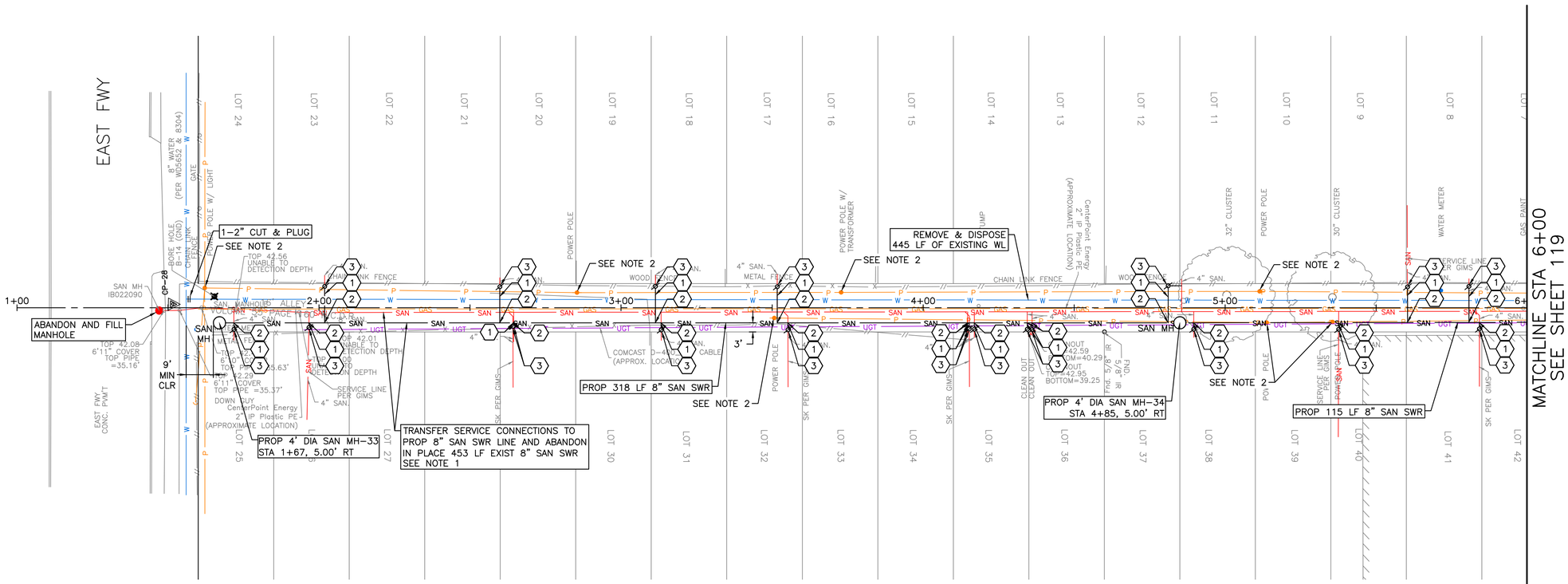
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY B PLAN STA 16+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 116 OF 339	

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BACKLOT ALLEY C

N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.

KEY NOTES:

1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-28 SET XCON
1+51.49, 1.18' LT
EL=42.24

civitas ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

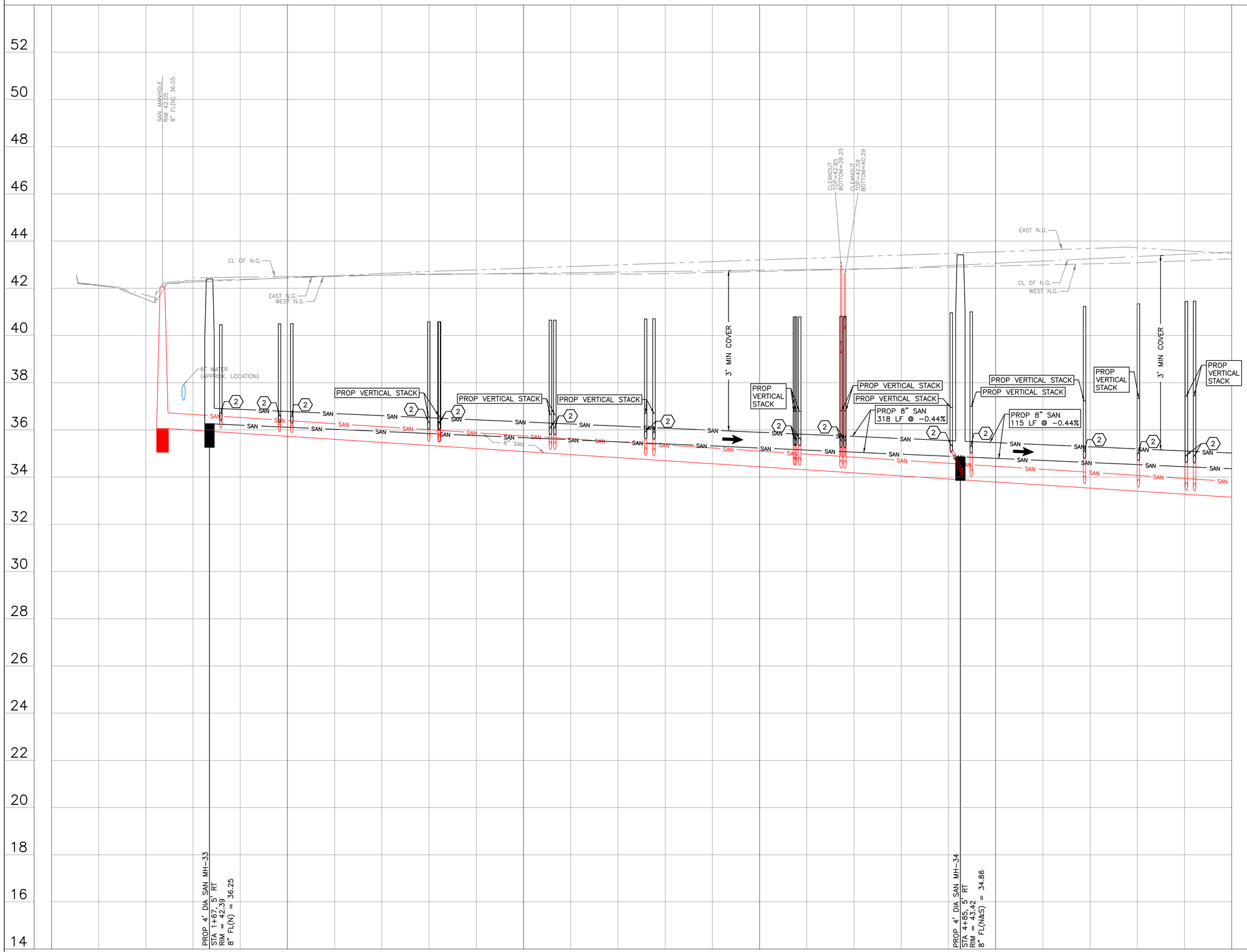
BACKLOT ALLEY C PLAN STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 117 OF 339	

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0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

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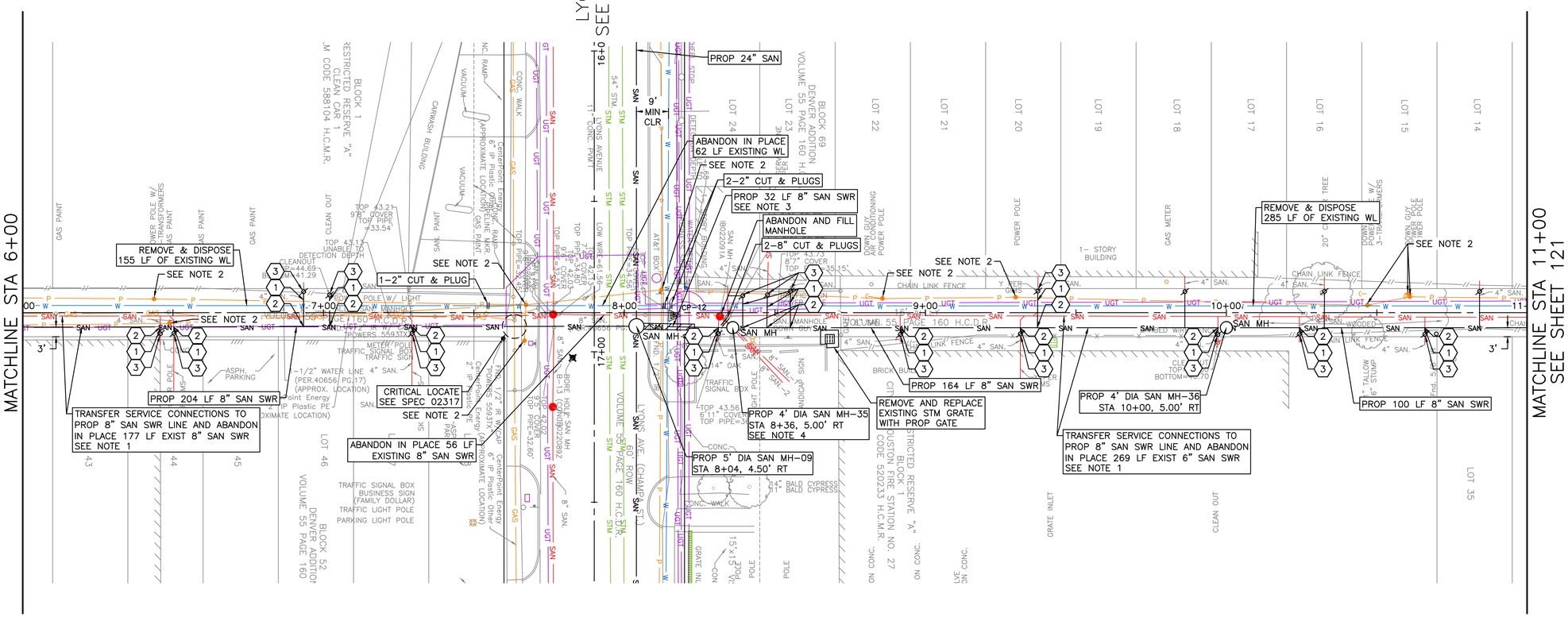
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P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

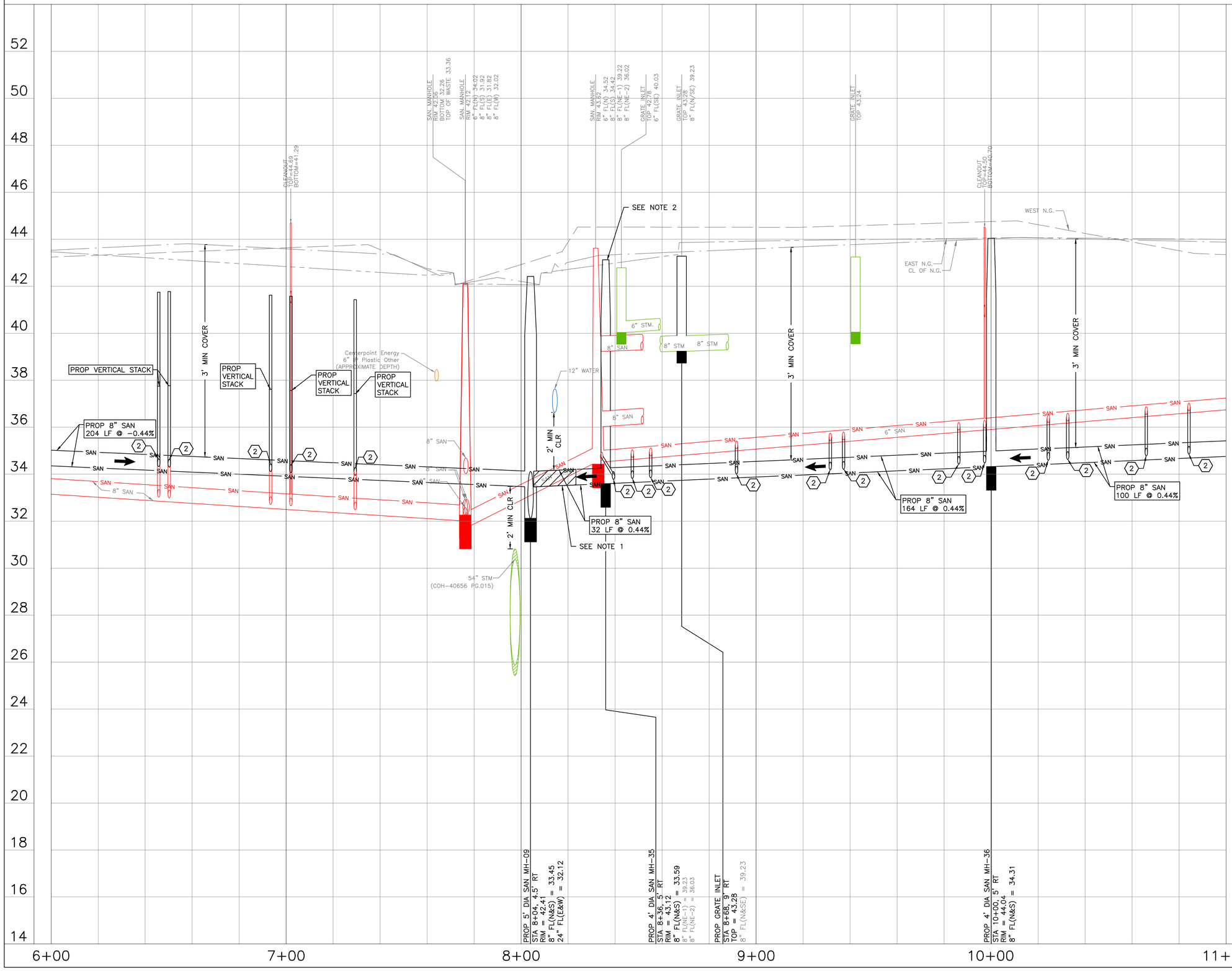
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY C PROFILE STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 118 OF 339	


SEE SHEET 117
MATCHLINE STA 6+00
MATCHLINE STA 11+00
SEE SHEET 121
LYONS AVE.
SEE SHEET 88
REMOVE & DISPOSE 155 LF OF EXISTING WL
SEE NOTE 2
1-2" CUT & PLUG
PROP 24" SAN
9' MIN CLR
ABANDON IN PLACE 62 LF EXISTING WL
SEE NOTE 2
2-2" CUT & PLUGS
PROP 32 LF 8" SAN SWR
SEE NOTE 3
ABANDON AND FILL MANHOLE
2-8" CUT & PLUGS
REMOVE & DISPOSE 285 LF OF EXISTING WL
SEE NOTE 2
PROP 204 LF 8" SAN SWR
TRANSFER SERVICE CONNECTIONS TO PROP 8" SAN SWR LINE AND ABANDON IN PLACE 177 LF EXIST 8" SAN SWR SEE NOTE 1
CRITICAL LOCATE SEE SPEC 02317
SEE NOTE 2
ABANDON IN PLACE 56 LF EXISTING 8" SAN SWR
PROP 5' DIA SAN MH-09 STA 8+04, 4.50' RT
PROP 4' DIA SAN MH-35 STA 8+36, 5.00' RT SEE NOTE 4
REMOVE AND REPLACE EXISTING STM GRATE WITH PROP GATE
PROP 164 LF 8" SAN SWR
PROP 4' DIA SAN MH-36 STA 10+00, 5.00' RT
TRANSFER SERVICE CONNECTIONS TO PROP 8" SAN SWR LINE AND ABANDON IN PLACE 269 LF EXIST 6" SAN SWR SEE NOTE 1
PROP 100 LF 8" SAN SWR
BLOCK 1 RESTRICTED RESERVE "A" CLEAN CAR 1 H.C.M.R. CLEAN CAR 1 H.C.M.R. CODE 588104
BLOCK 69 DENVER ADDITION VOLUME 55 PAGE 160 H.C.D.R.
BLOCK 52 DENVER ADDITION VOLUME 55 PAGE 160 H.C.D.R.
RESTRICTED RESERVE "A" BLOCK 1 HOUSTON FIRE STATION NO. 27 CODE 520233 H.C.M.R.
LOT 24
LOT 23
LOT 22
LOT 21
LOT 20
LOT 19
LOT 18
LOT 17
LOT 16
LOT 15
LOT 14
LOT 46
LOT 35
CP-12
SAN MH
1- STORY BUILDING
CHAIN LINK FENCE
WOODEN FENCE
BRICK BLDG.
GRATE INLET
CLEAN OUT
TRAFFIC SIGNAL BOX
TRAFFIC LIGHT POLE
PARKING LIGHT POLE
TRAFFIC SIGNAL BOX BUSINESS SIGN (FAMILY DOLLAR)
LYONS AVE. (CHAMPION) 80' ROW VOLUME 55 PAGE 160 H.C.D.R.
ASPH. PARKING
CONC. WALK
ASPH. PAVEMENT
CARWASH BUILDING
VACUUM
CONC. WALK
GAS METER
POWER POLE
TREE
DOWN GUY W/ 3-TRANSFORMERS
TOWER POLE W/ TRANSFORMERS
GAS PAINT
SAN PAINT
TOP 43.21' 9'0" COVER TOP PIPE=33.54'
TOP 43.13' UNABLE TO DETECT DEPTH
CLEANOUT E=44.69
E=41.29
TOP 43.70' 8'7" COVER TOP PIPE=35.15'
TOP 43.56' 6'11" COVER TOP PIPE=36.65'
TOP 43.70' 8'6" COVER TOP PIPE=32.60'
TOP 43.70' 8'6" COVER TOP PIPE=32.70'
TOP 43.70' 8'6" COVER TOP PIPE=32.70'
BOTTOM=41.70
TOP 43.70' 8'6" COVER TOP PIPE=32.70'
TOP 43.70' 8'6" COVER TOP PIPE=32.70'
TOP 43.70' 8'6" COVER TOP PIPE=32.70'

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NO.	DATE	REVISION	APP.

0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
2. CONTRACTOR TO PROVIDE BYPASS FOR INSTALLATION OF MH-35.

KEY NOTES:
(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND
FLOW DIRECTION

CIVITAS ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

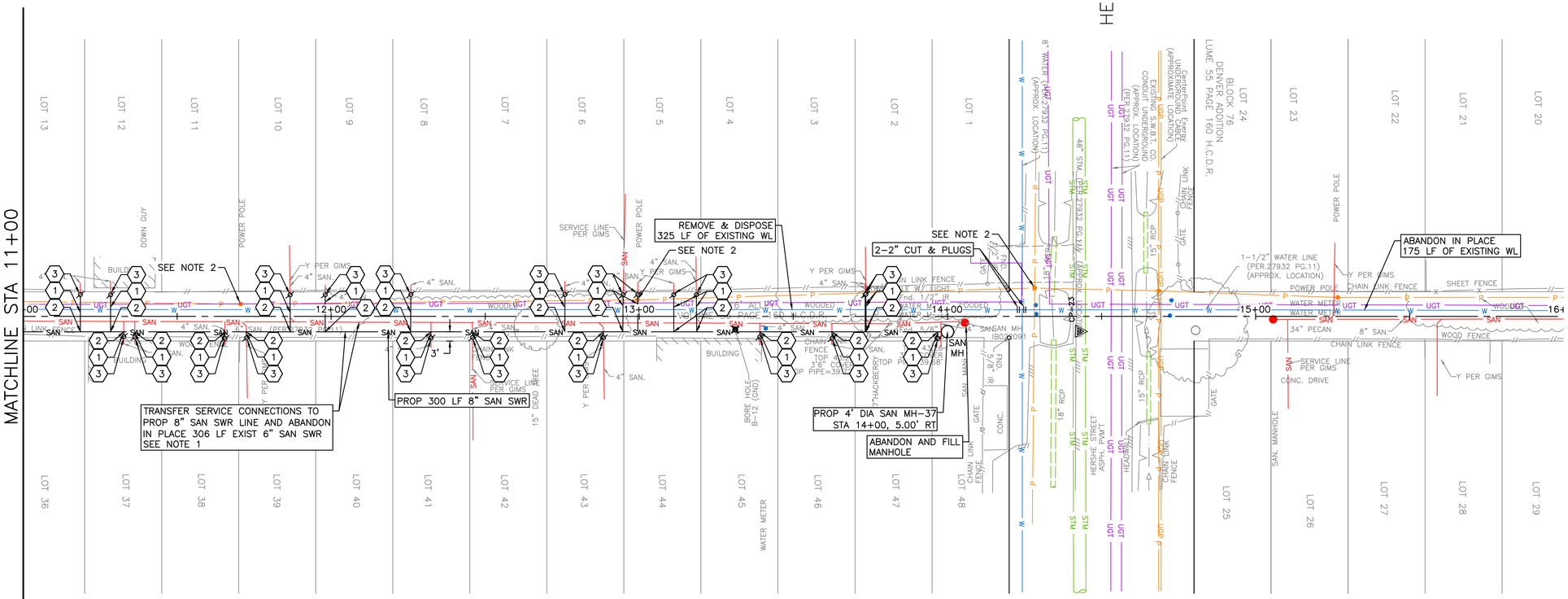
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY C PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 120 OF 339	

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BACKLOT ALLEY C

NO.	DATE	REVISION	APP.

0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

KEY NOTES:
1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-23 SET CONC NAIL IN ASP
14+42.91, 4.86' RT
EL=43.68

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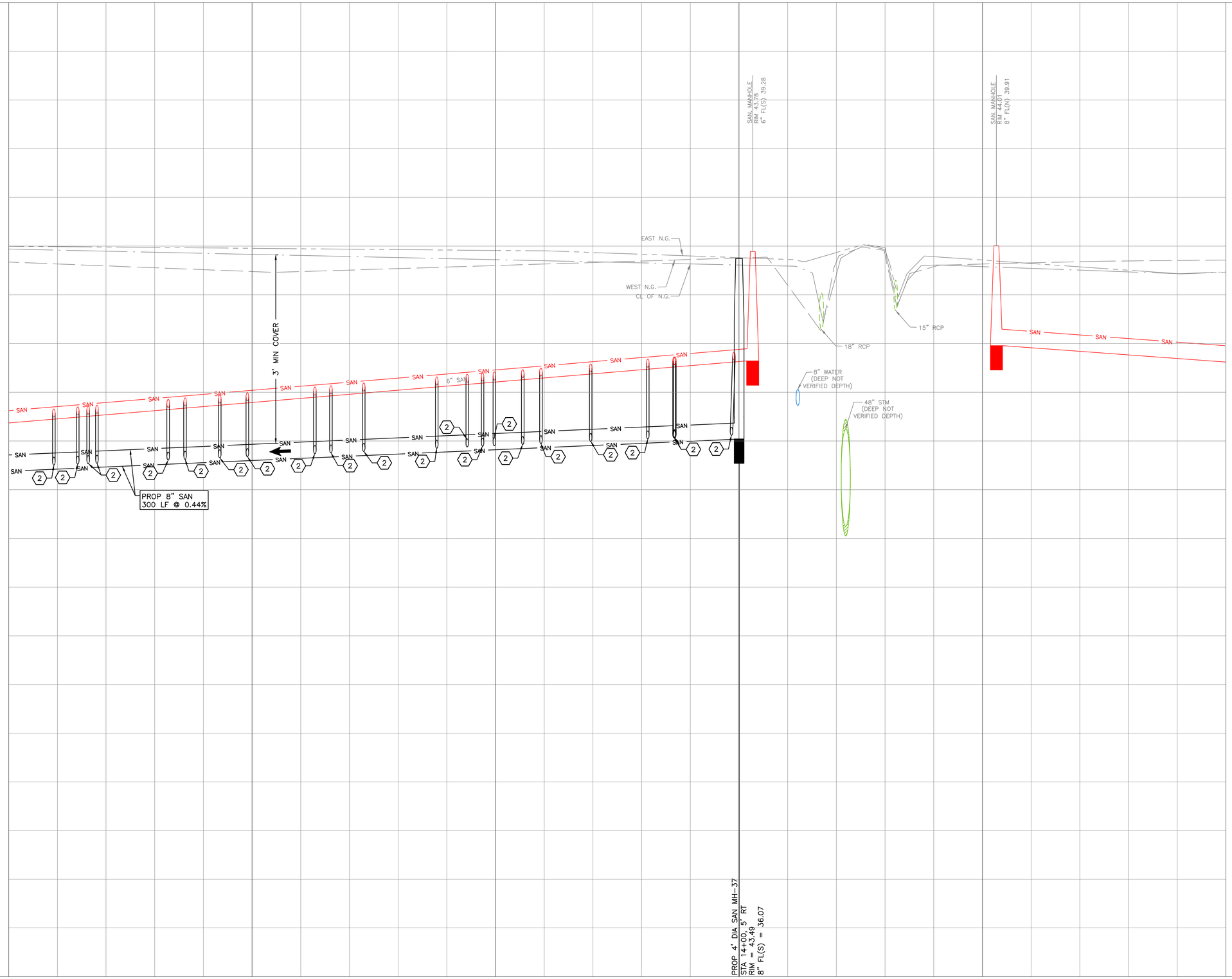
ENGINEER: YONGKI SHIM, PE
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DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY C PLAN STA 11+00 TO 16+00

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R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 121 OF 339	



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

← FLOW DIRECTION

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P.E. SERIAL No: 114557
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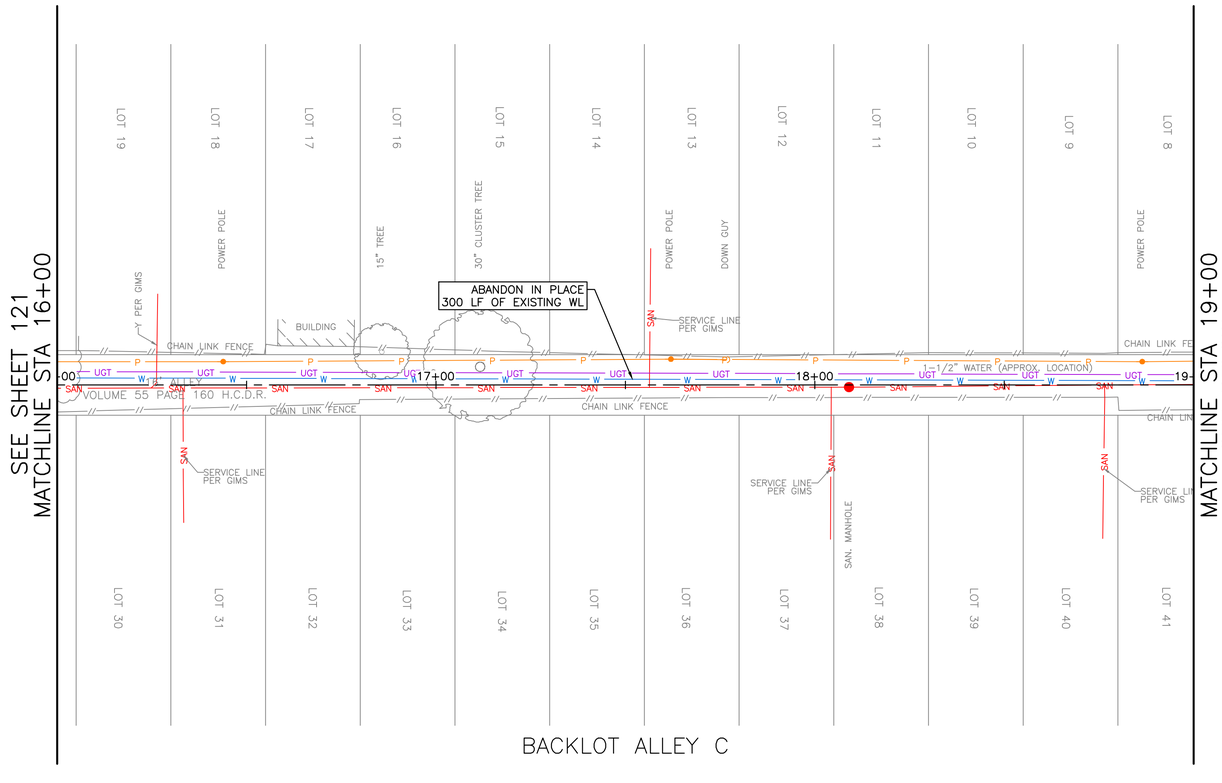
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

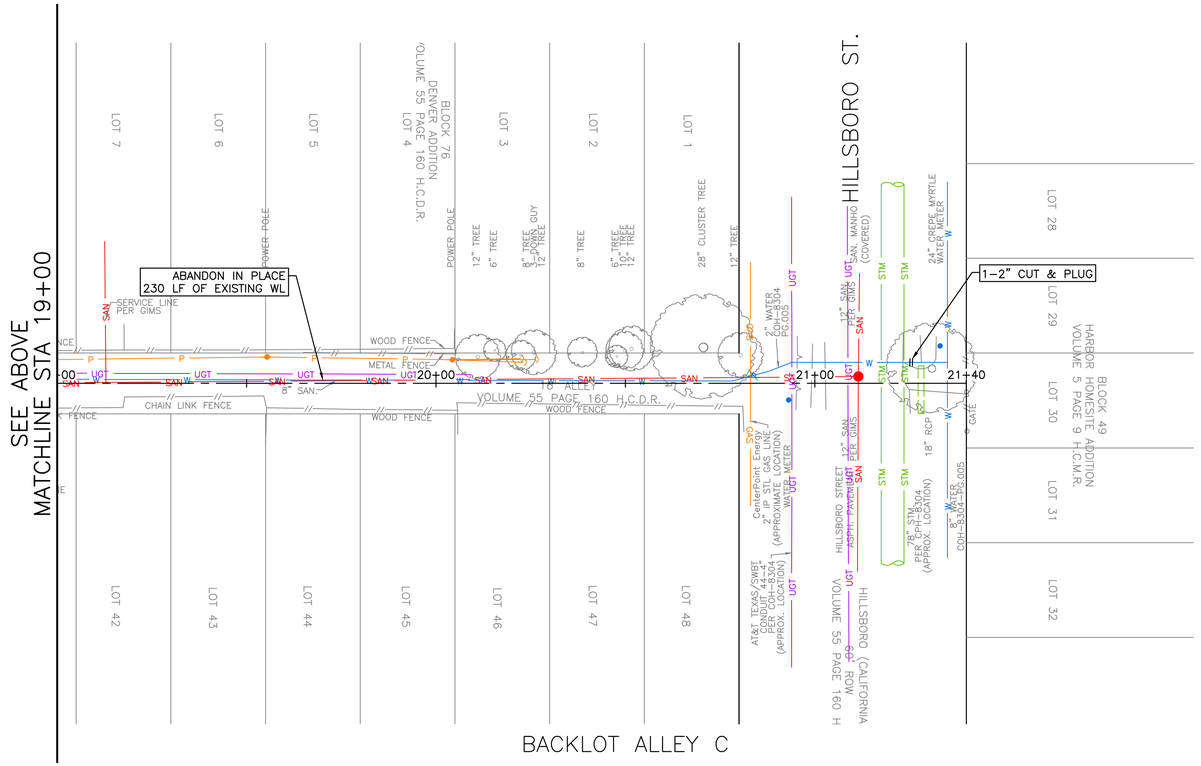
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY C PROFILE
STA 11+00 TO 16+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 122 OF 339	

PLOTTED: 10/28/2026 10:47 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY C PROFILE.dwg





N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

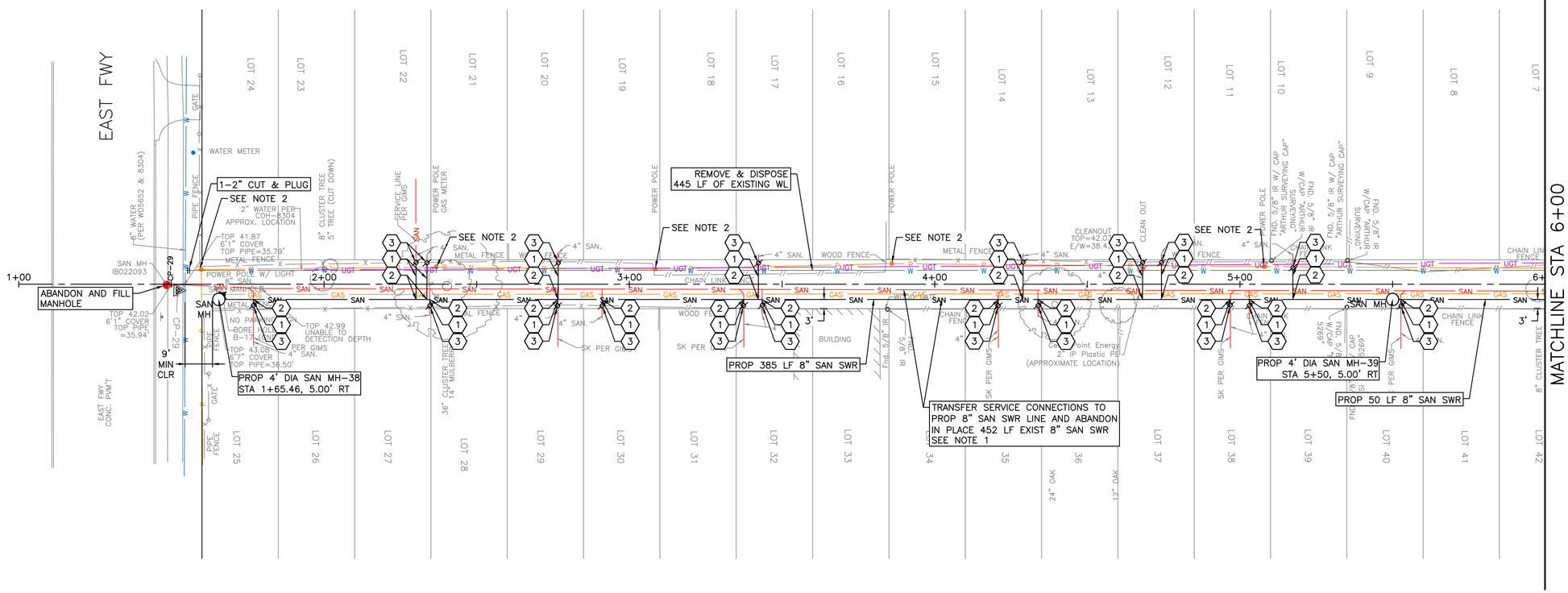
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY C PLAN STA 16+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 123 OF 339	

PLOTTED: 10/28/2026 10:46 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY C PLAN.dwg



BACKLOT ALLEY D

N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOTE FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.

KEY NOTES:
1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-29 SET XCON
1+52.17, 1.98' RT
EL=41.93

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FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

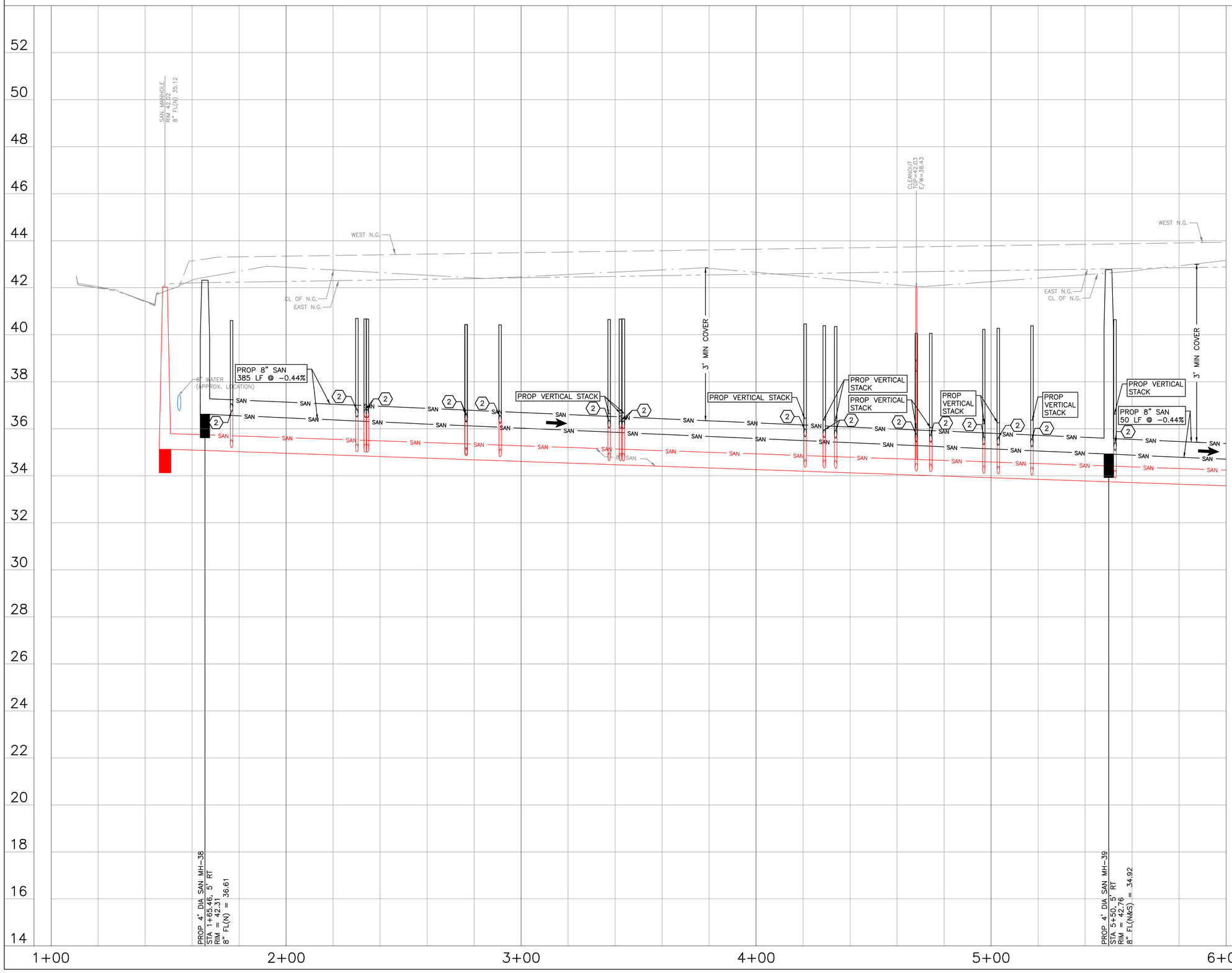
BACKLOT ALLEY D PLAN STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 124 OF 339	

PLOT STYLE: COH.ctb PLOTTED: 10/28/2026 10:55 AM

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PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY D PROFILE.dwg



0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

← FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Phone: (713)783-8700, Fax: (713)783-8747
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FB NO.

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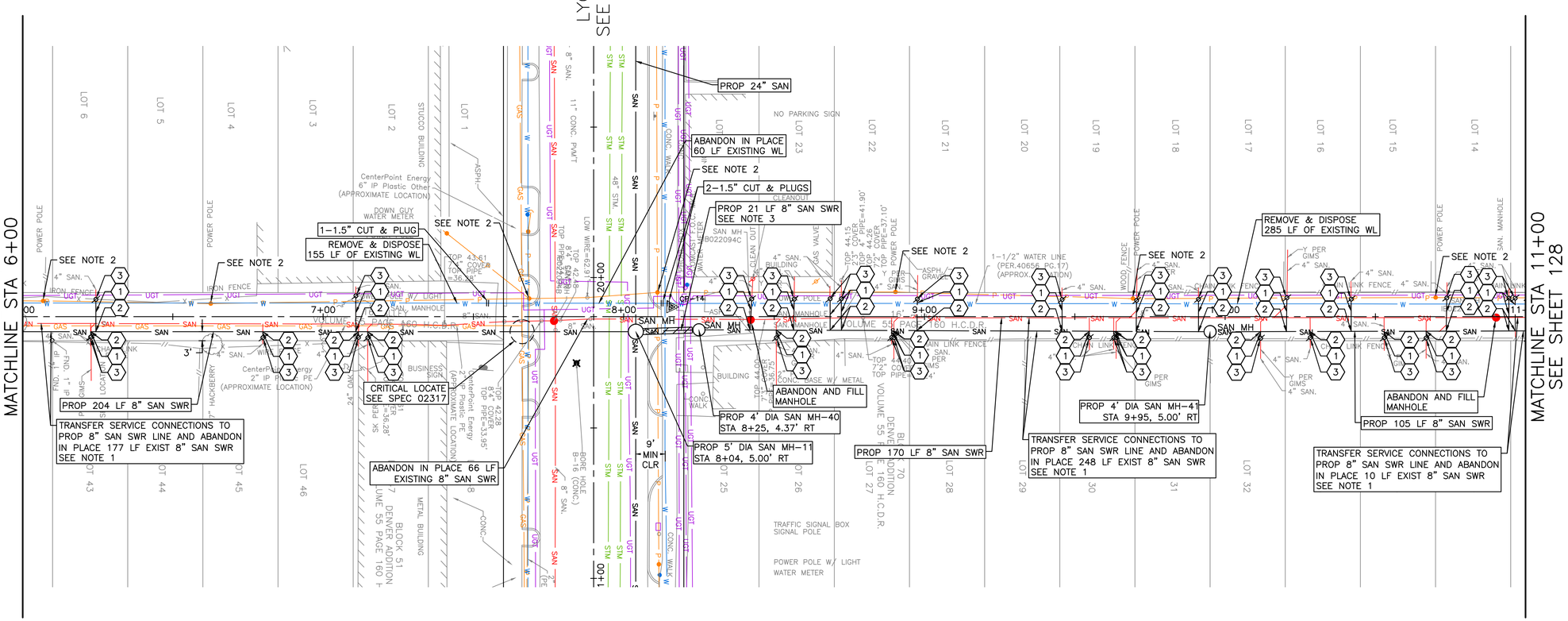
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY D PROFILE STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 125 OF 339	



BACKLOT ALLEY D

N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
4. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

KEY NOTES:

1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-14 SET XCON
8+15.72, 3.25' LT
EL=42.74

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

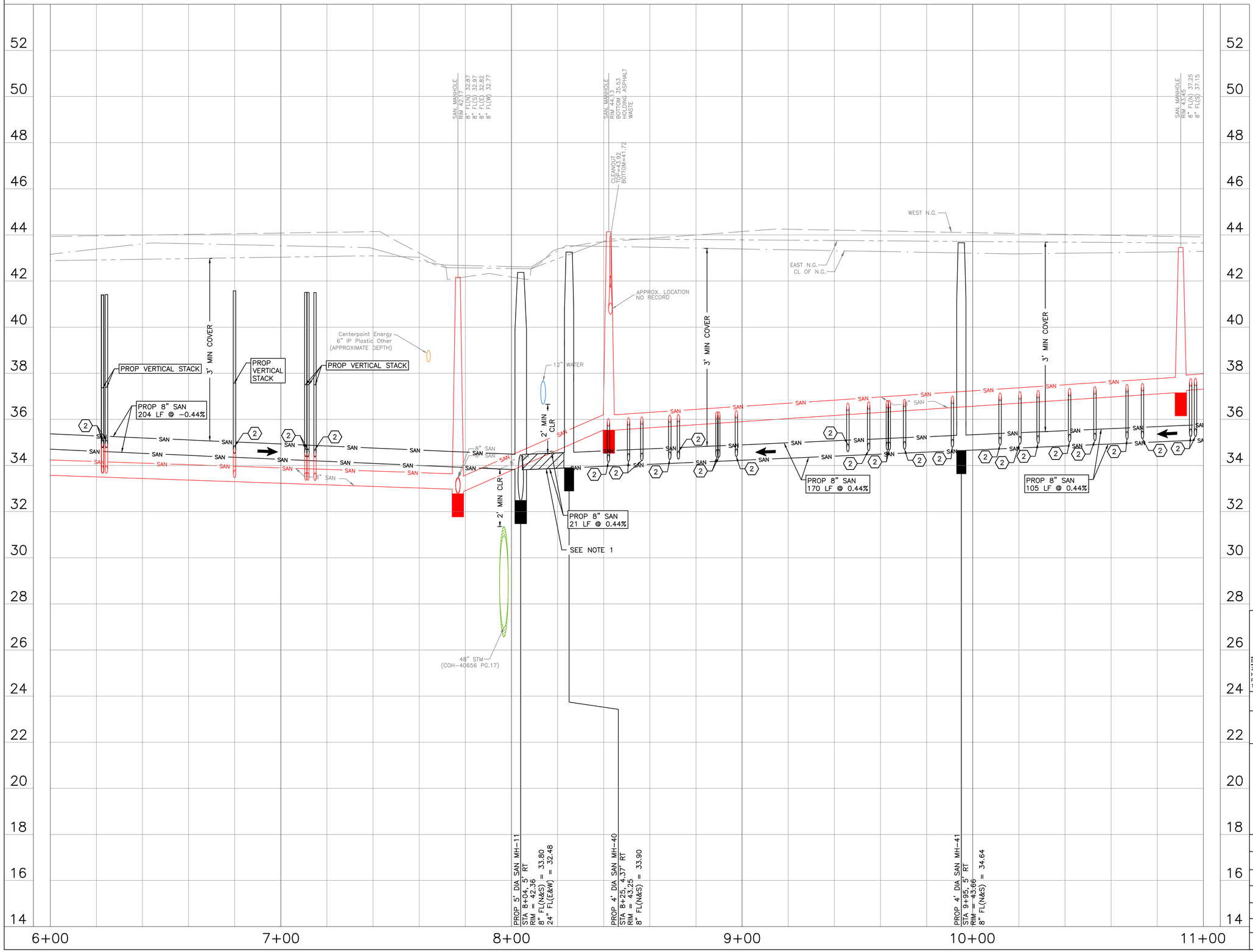
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY D PLAN STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 126 OF 339	

PLOTTED: 10/28/2026 10:42 AM
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PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY D PROFILE.dwg



NO.	DATE	REVISION	APP.

0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.

KEY NOTES:
(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND
FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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FB NO.

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DOCUMENT INCOMPLETE:
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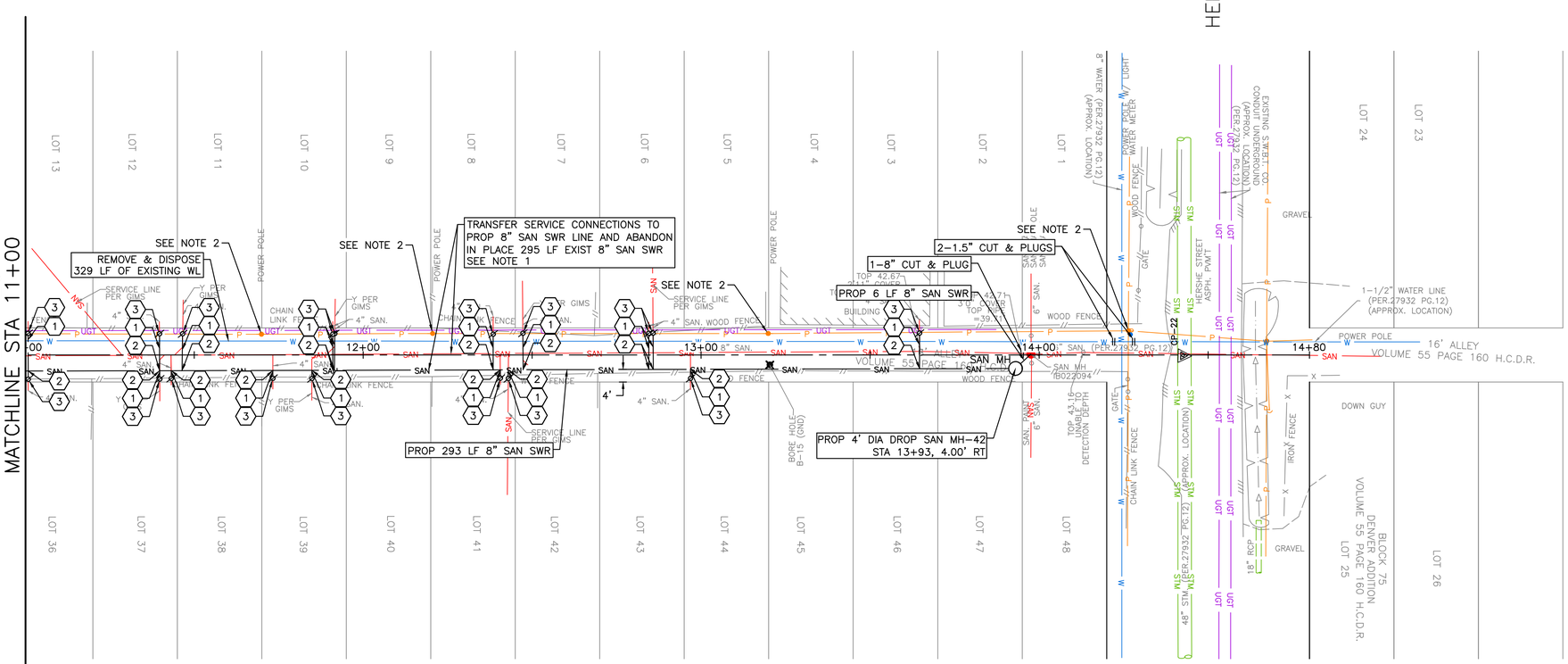
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY D PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 127 OF 339	



BACKLOT ALLEY D

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534–04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

KEY NOTES:
1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP–22 SET CONC NAIL IN ASP
14+42.57, 0.23' RT
EL=43.86

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

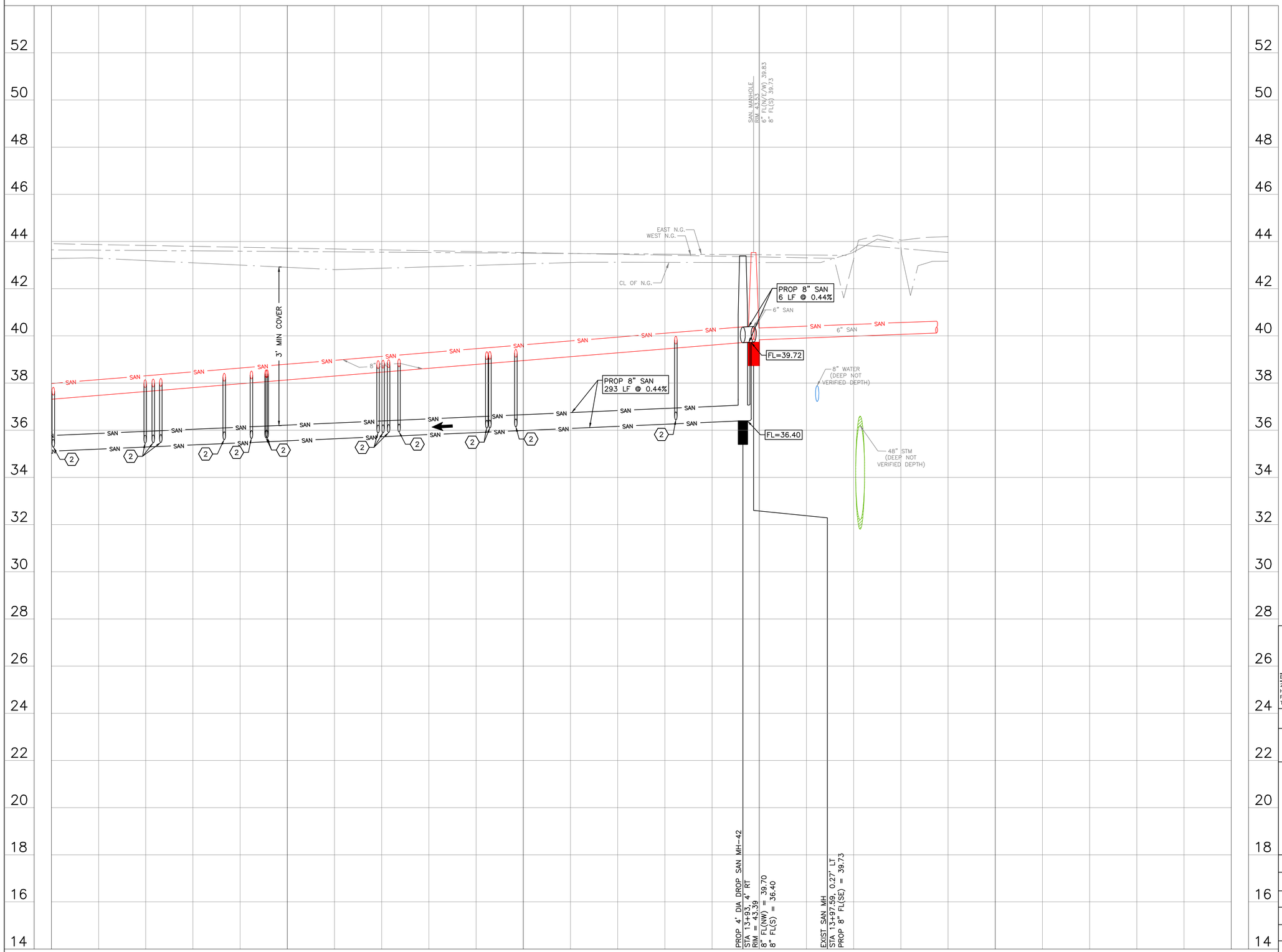
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY D PLAN STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 128 OF 339	

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PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY D PROFILE.dwg



0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

← FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
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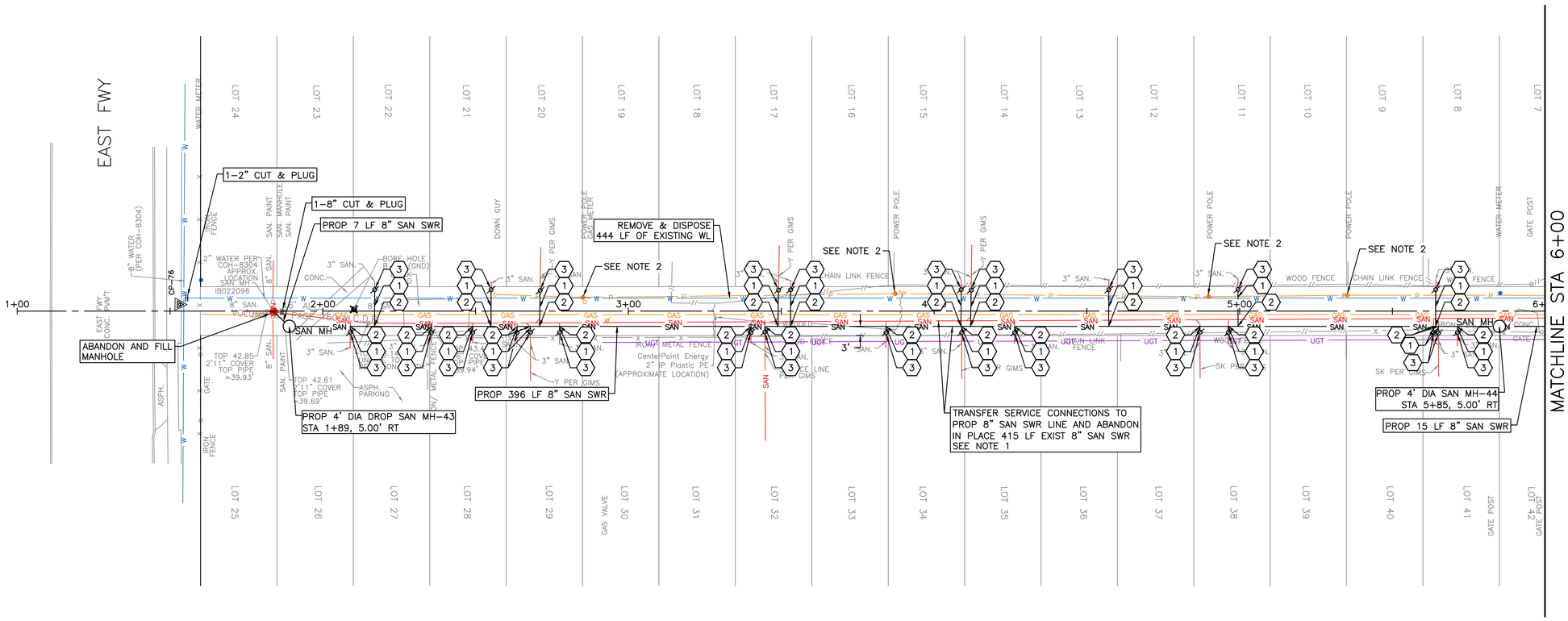
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY D PROFILE STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 129 OF 339	



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534–04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.

KEY NOTES:
1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP–76 SET XCON
1+53.02, 2.21' LT
EL=42.06

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

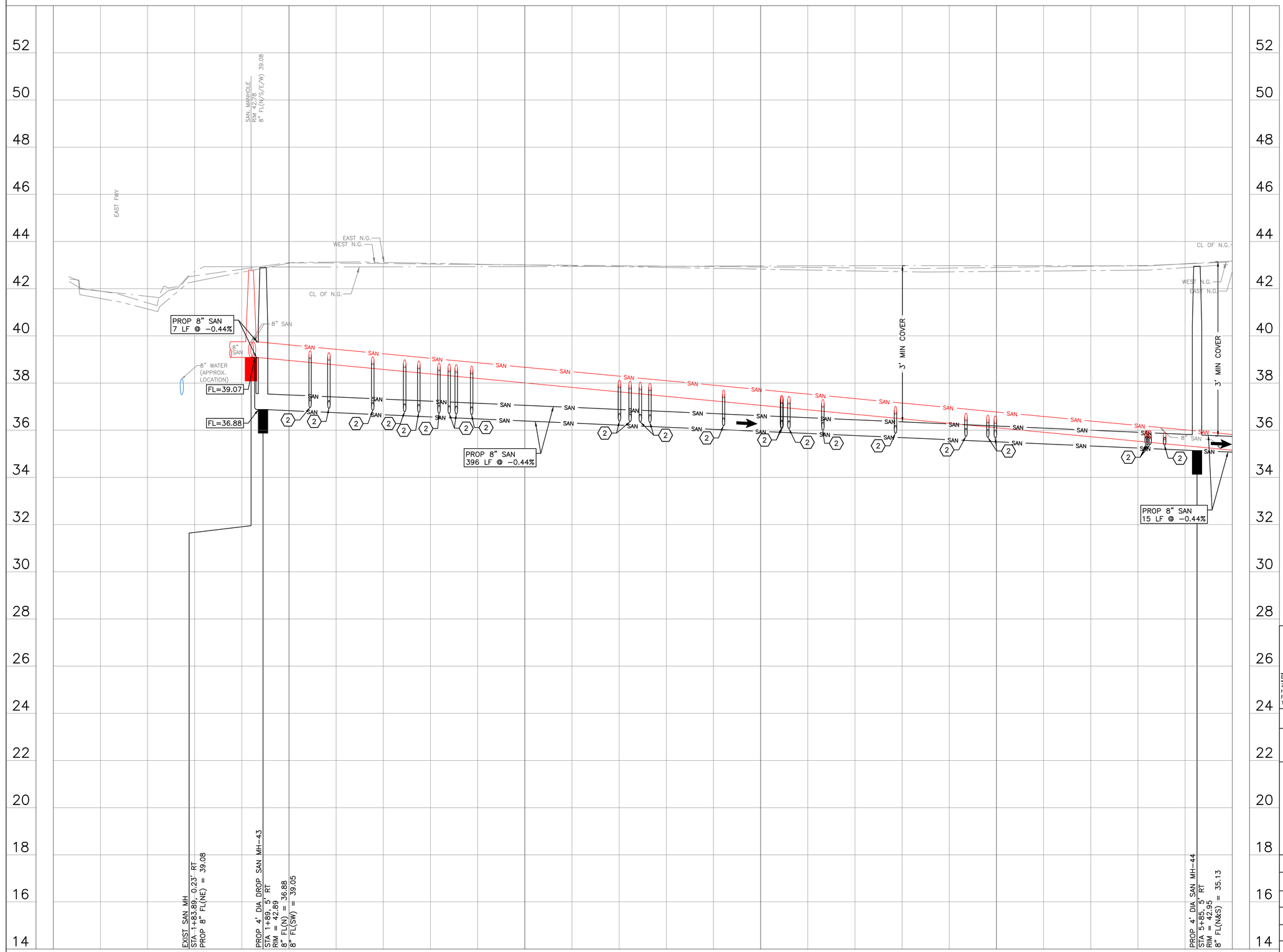
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY E PLAN STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 130 OF 339	

PLOTTED: 10/28/2026 10:44 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY E PLAN.dwg



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP

Engineers ● Planners ● Construction Managers

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FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

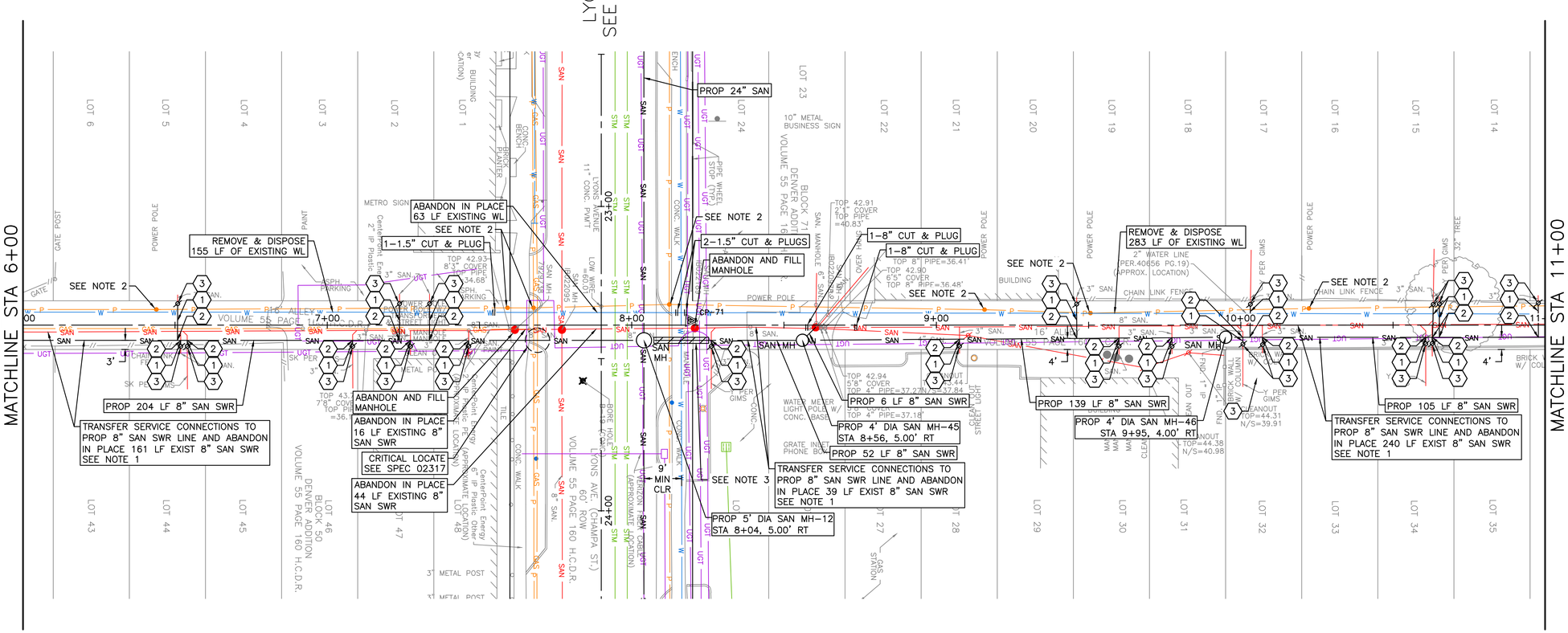
BACKLOT ALLEY E PROFILE STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 131 OF 339	

PLOTTED: 10/28/2026 10:54 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY E PROFILE.dwg



BACKLOT ALLEY E

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
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KEY NOTES:

1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-71 SET XCON
8+19.12, 1.51' LT
EL=42.38

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SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

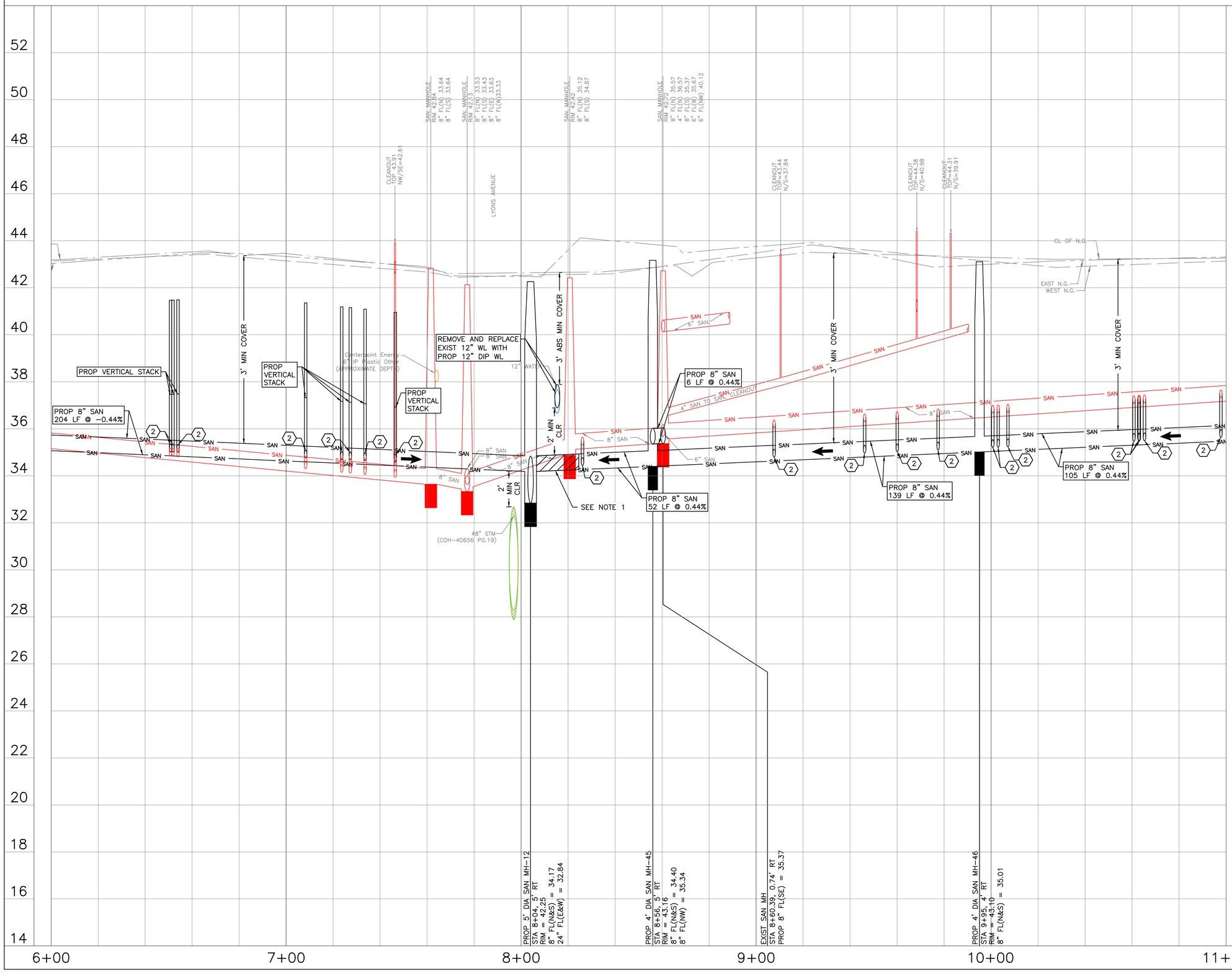
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY E PLAN STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 132 OF 339	

PLOTTED: 10/28/2026 10:42 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 1\BACKLOT ALLEY E PLAN.dwg



0' 10' 20' 40'

SCALE: 1"=20'

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

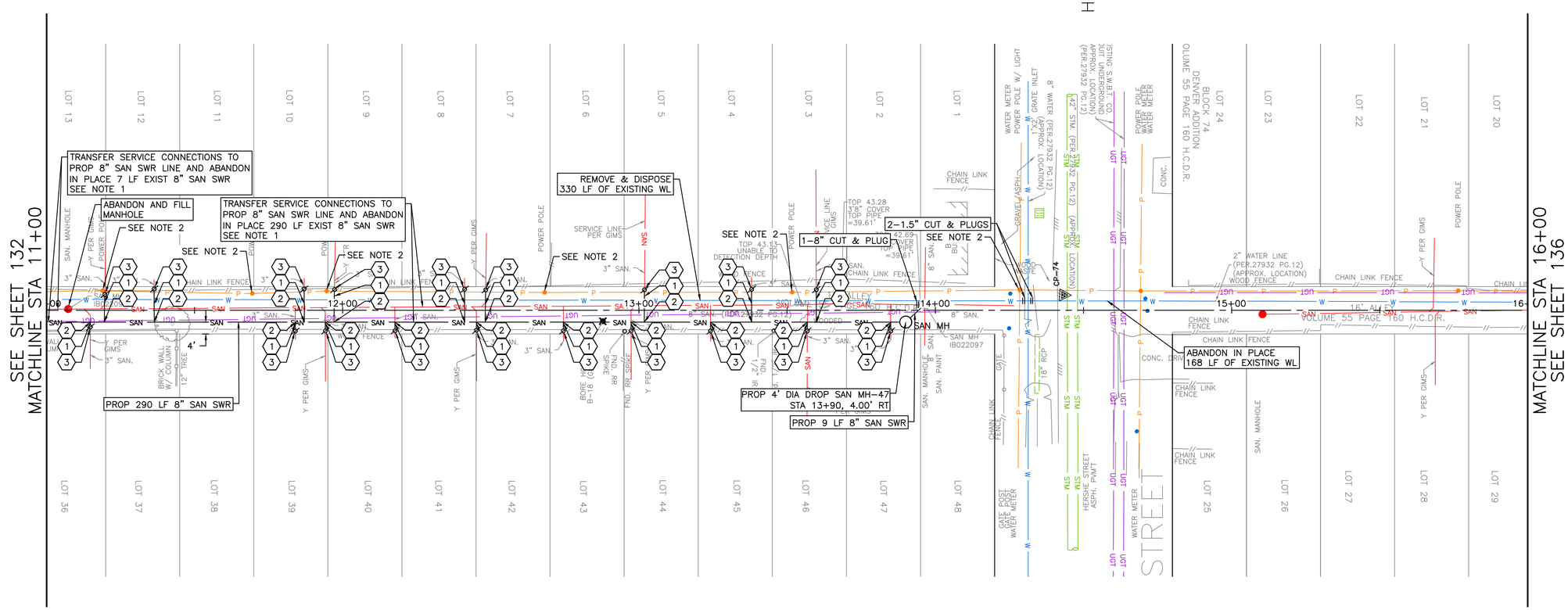
BACKLOT ALLEY E PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 133 OF 339	

PLOTTED: 10/28/2026 10:32 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSSI\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY E PROFILE.dwg



BACKLOT ALLEY E

NO.	DATE	REVISION	APP.

N

0' 10' 20' 40'

SCALE: 1"=20'

NOTES:

1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

KEY NOTES:

1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

IBM
CP-74 SET CONC NAIL IN ASP
14+43.39, 5.16' LT
EL=44.01

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

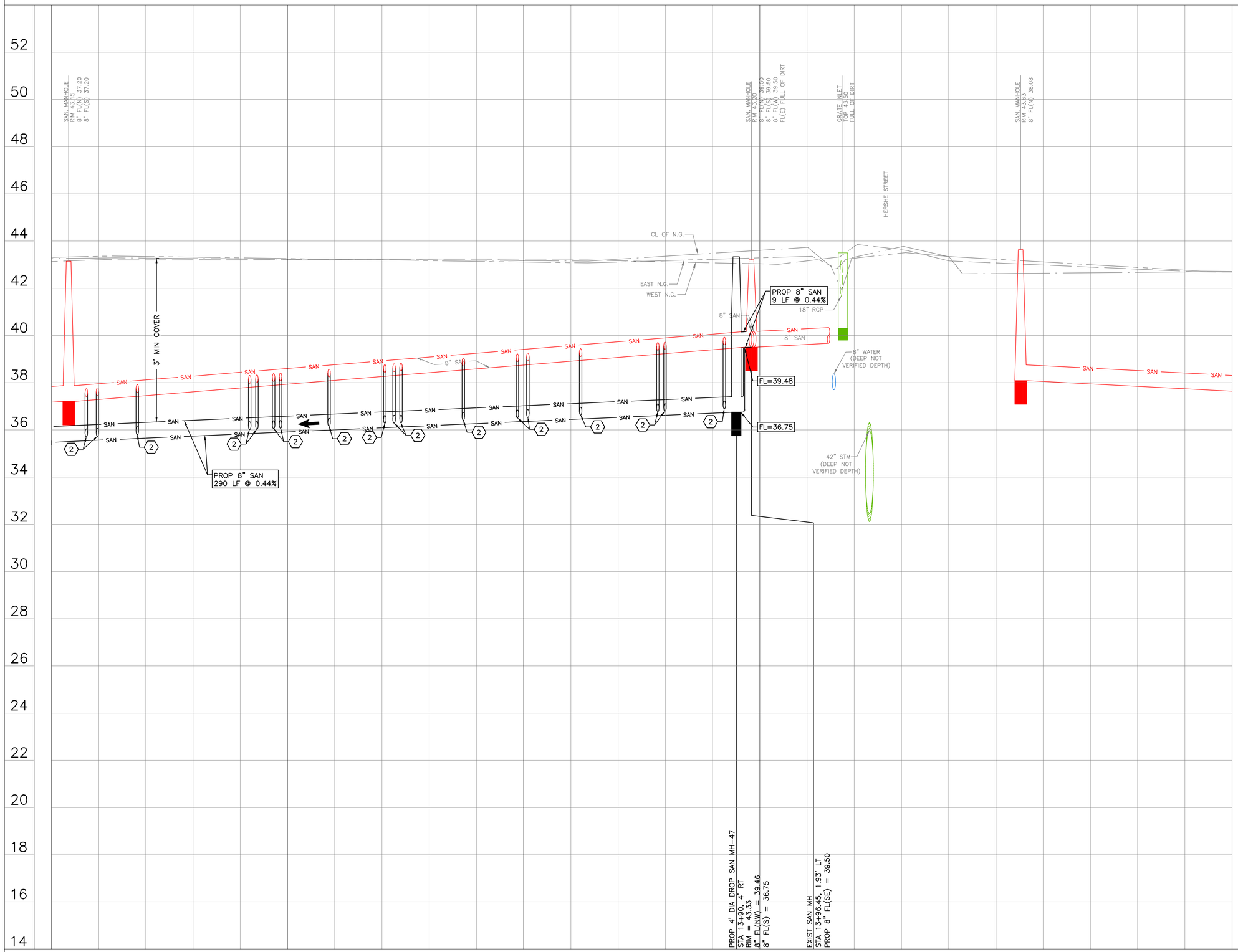
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY E PLAN STA 11+00 TO 16+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 134 OF 339	

PLOTTED: 10/28/2026 10:33 AM
PLOT STYLE: COH.ctb
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0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

← FLOW DIRECTION

CIVITAS ENGINEERING GROUP

Engineers ● Planners ● Construction Managers

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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

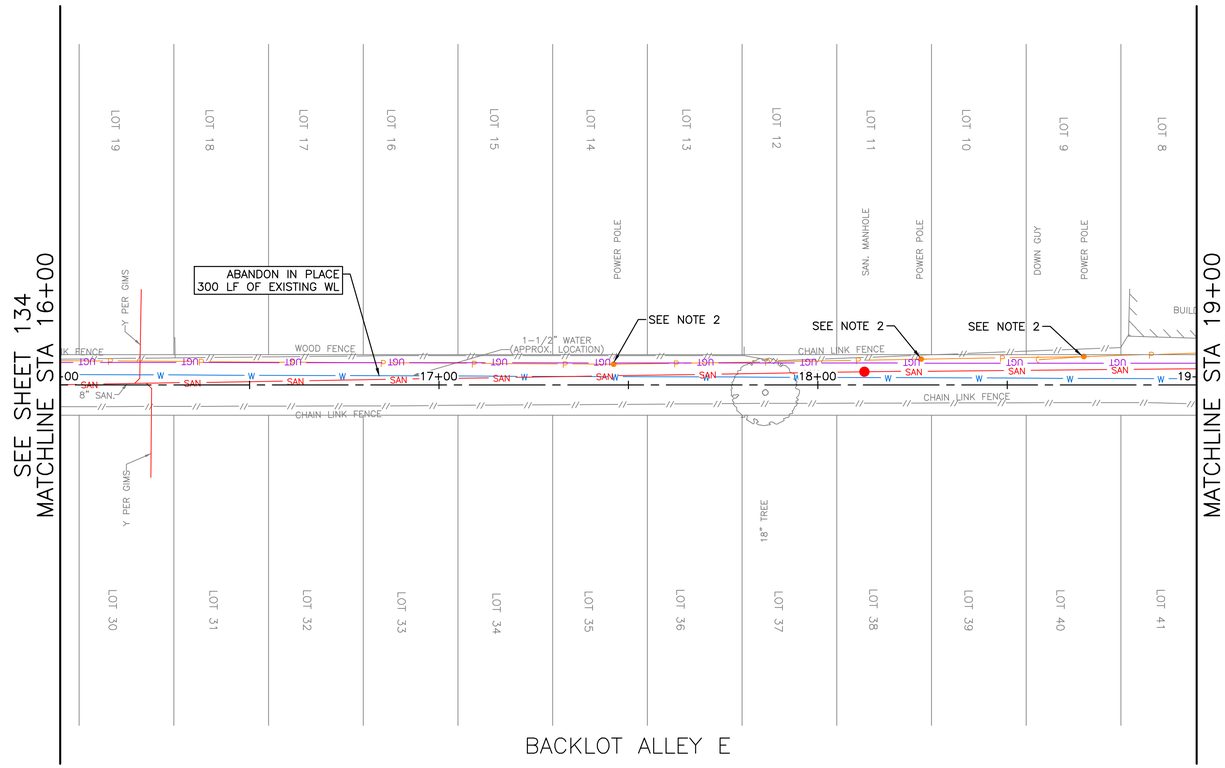
BACKLOT ALLEY E PROFILE STA 11+00 TO 16+00

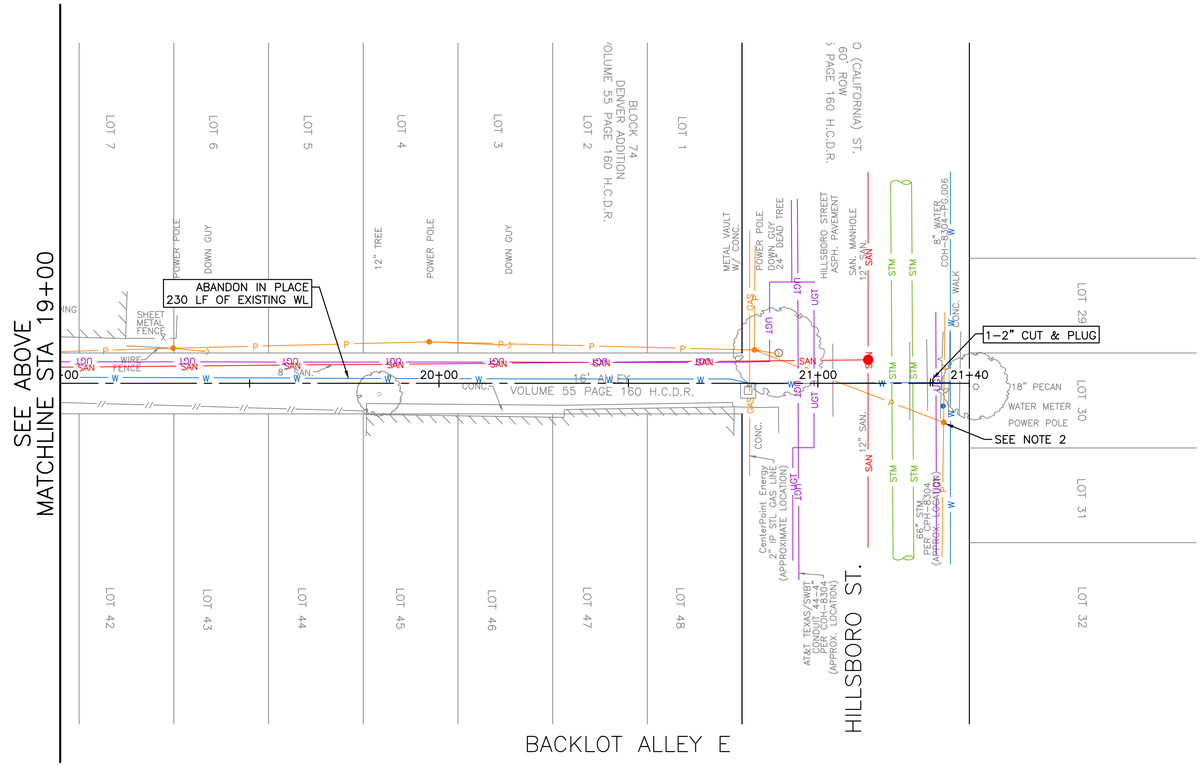
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R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 135 OF 339	

PLOTTED: 10/28/2026 10:42 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY E PROFILE.dwg





N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.

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TBPE Firm Registration No. F-4491

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DOCUMENT INCOMPLETE:
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

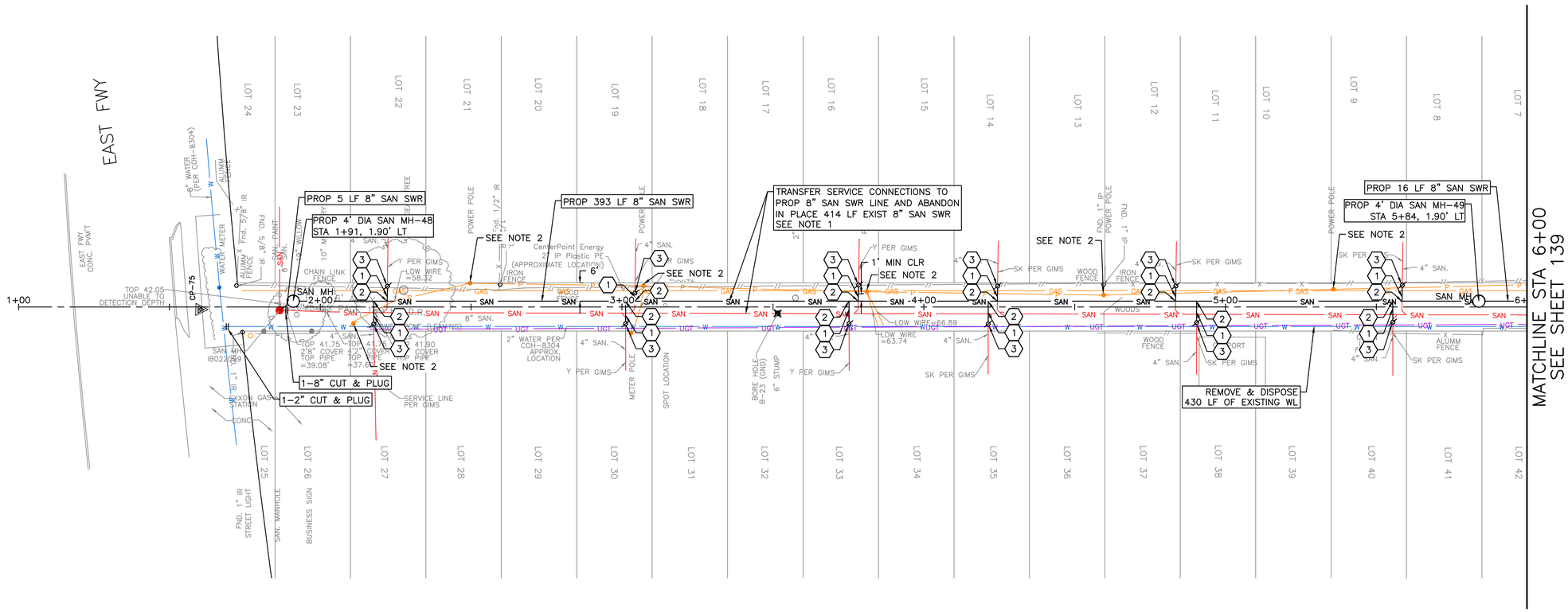
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY E PLAN STA 16+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 136 OF 339	

PLOTTED: 10/28/2026 10:43 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY E PLAN.dwg



BACKLOT ALLEY F

N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. SERVICE LEAD LOCATIONS ARE APPROXIMATE AND BASED ON CITY OF HOUSTON GEOLINK RECORDS.

KEY NOTES:
1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-75 SET XCON
1+60.12, 0.82' RT
EL=39.70

CIVITAS ENGINEERING GROUP
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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

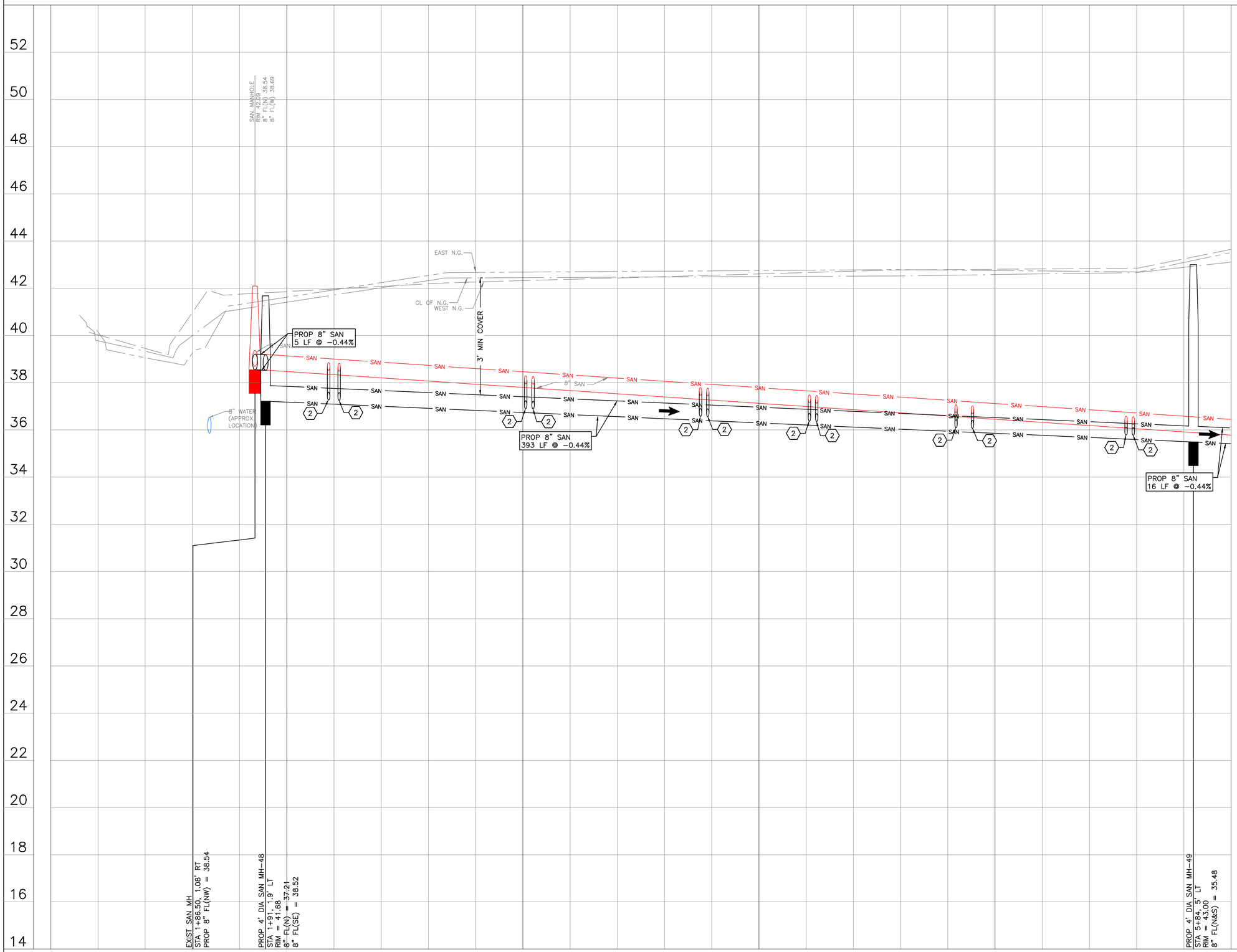
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY F PLAN STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 137 OF 339	

PLOTTED: 10/28/2026 10:35 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY F PLAN.dwg



0' 10' 20' 40'

SCALE: 1"=20'

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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TBPE Firm Registration No. F-4491

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FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

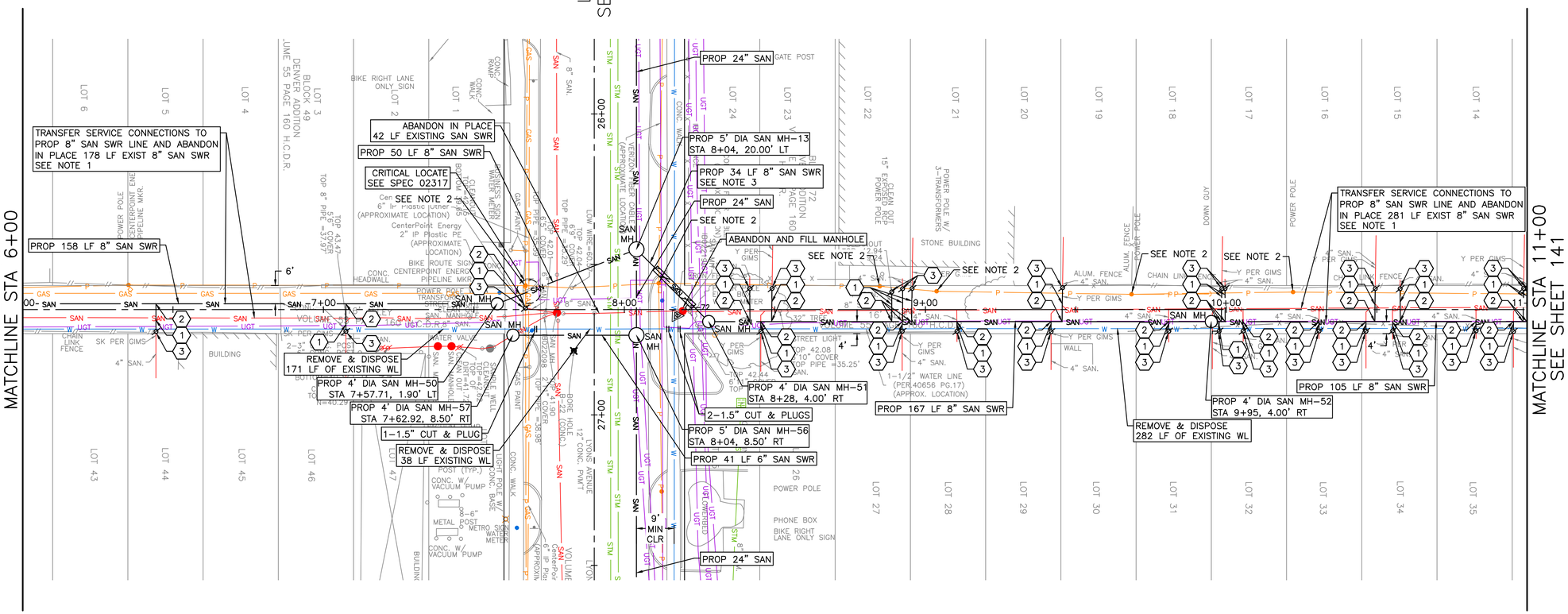
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY F PROFILE STA BEGIN TO 6+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 138 OF 339	

PLOTTED: 10/28/2026 10:35 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY F PROFILE.dwg



NOTES:

1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
3. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.
4. SERVICE LEAD LOCATIONS ARE APPROXIMATE AND BASED ON CITY OF HOUSTON GEOLINK RECORDS.
5. CONTRACTOR TO COORDINATE WITH THE CITY OF HOUSTON TO ISOLATE WATER LINES FOR CUT AND PLUGS. SEE SPEC 02516.

KEY NOTES:

1. REPLACE EXISTING SANITARY SERVICE LATERAL FROM ROW TO PROPOSED SANITARY SEWER. MATCH EXISTING SIZE AND MAINTAIN POSITIVE DRAINAGE TO PROPOSED SANITARY SEWER.
2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-72 SET XCON
8+17.34, 2.02' RT
EL=42.38

0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
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2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

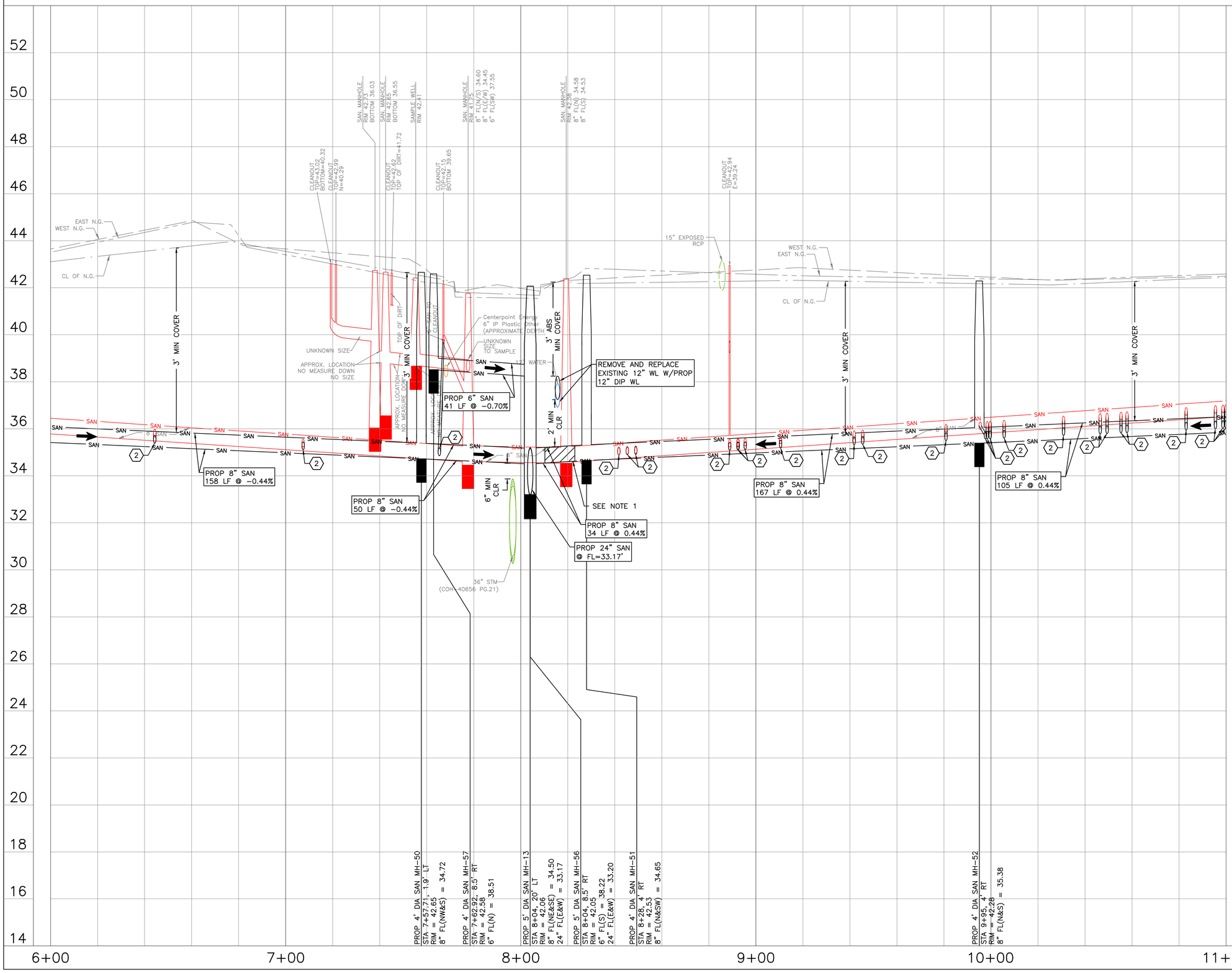
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY F PLAN STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 139 OF 339	

PLOTTED: 10/28/2026 10:45 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY F PLAN.dwg



0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. PLACE 1 FULL SECTION (MIN 18 FT) OF SS CENTERED AT WL CROSSING. PROVIDE RESTRAINED JOINTS ON SS, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF WL. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

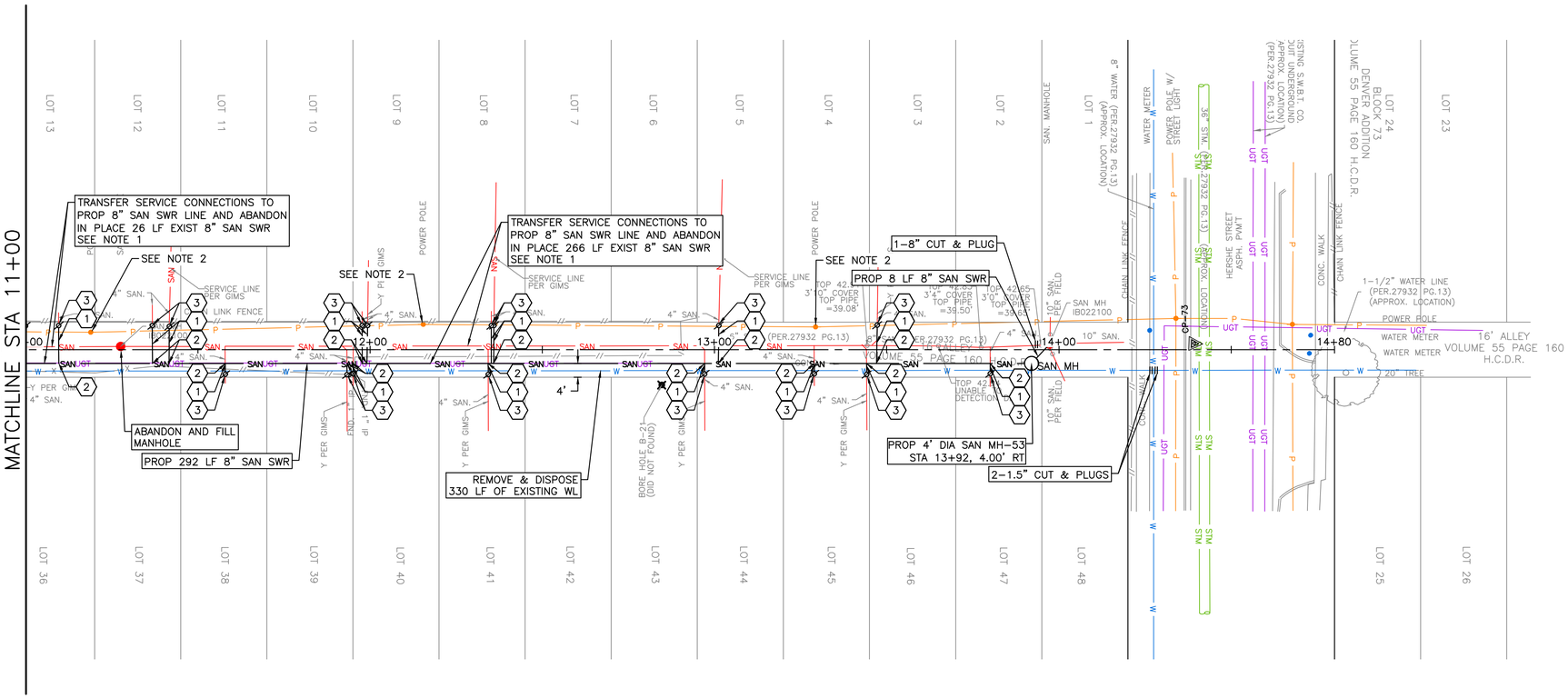
BACKLOT ALLEY F PROFILE STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
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CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 140 OF 339	

PLOTTED: 10/28/2026 10:48 AM

PLOT STYLE: COH.ctb

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\BACKLOT ALLEY F PROFILE.dwg



BACKLOT ALLEY F

NO.	DATE	REVISION	APP.

N

0' 10' 20' 40'

SCALE: 1"=20'

NOTES:
1. EXISTING SANITARY SERVICE PER CCTV INSPECTION REPORTS. (NOT FIELD VERIFIED) CONTRACTOR TO VERIFY SERIVCE CONNECTION AND INSTALL SERVICE LEAD PER COH STANDARD 02534-04.
2. CONTRACTOR TO PROTECT EXISTING POWER POLES PRIOR TO EXCAVATION AND INSTALLATION OF PROPOSED SANITARY SEWER IMPROVEMENTS.
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KEY NOTES:

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2. CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.
3. INSTALL PROP C.O. ON EXISTING SANITARY SERVICE LATERAL.

TBM
CP-73 SET CONC NAIL IN ASP
14+39.21, 1.77' LT
EL=41.57

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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TBPE Firm Registration No. F-4491

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FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

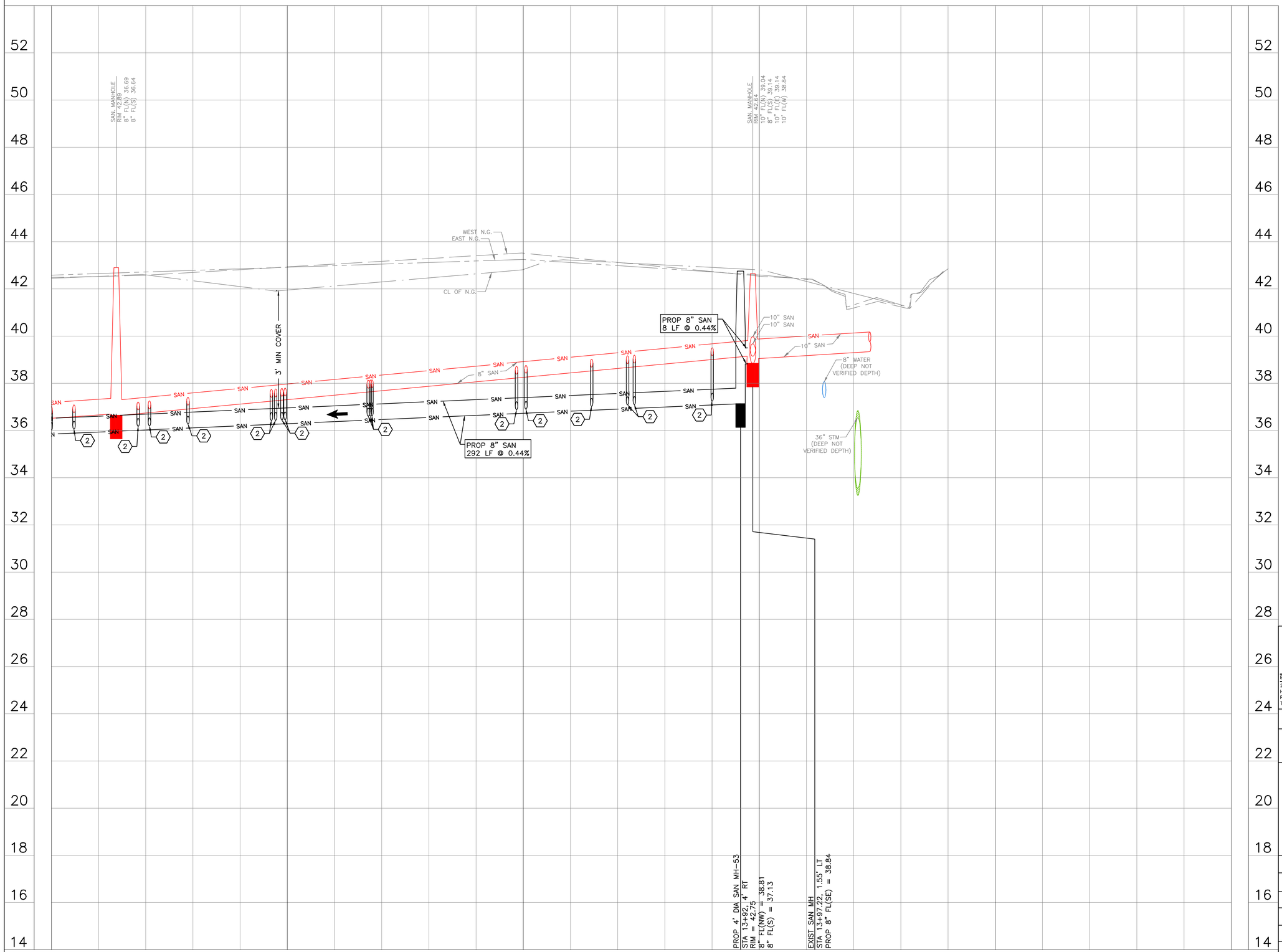
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY F PLAN STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 141 OF 339	

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NO.	DATE	REVISION	APP.

0' 10' 20' 40'
SCALE: 1"=20'

KEY NOTES:

(2) CONNECT EXISTING SANITARY SERVICE LATERAL TO PROPOSED SANITARY SEWER.

LEGEND

← FLOW DIRECTION

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Houston, Texas 77042
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TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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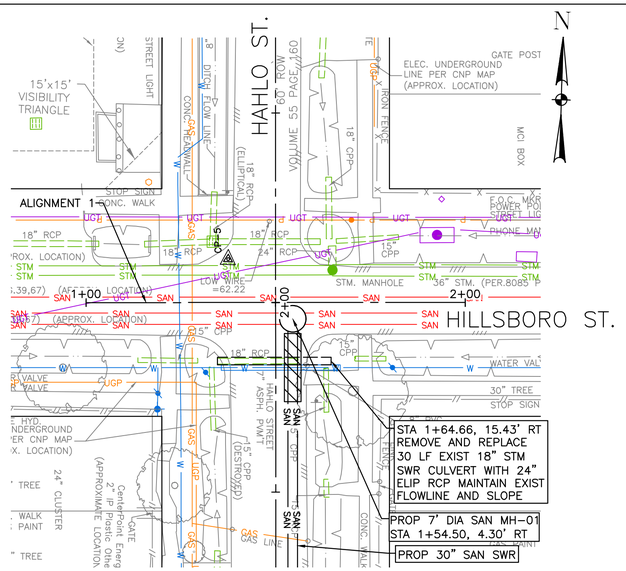
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P.E. SERIAL No: 114557
DATE: 10/28/2026

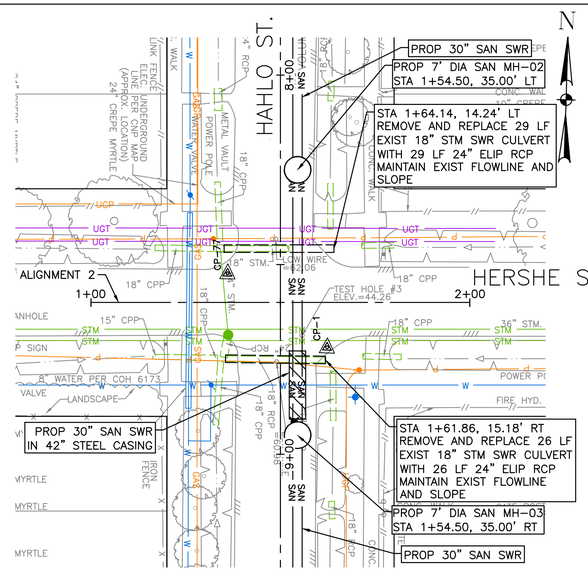
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

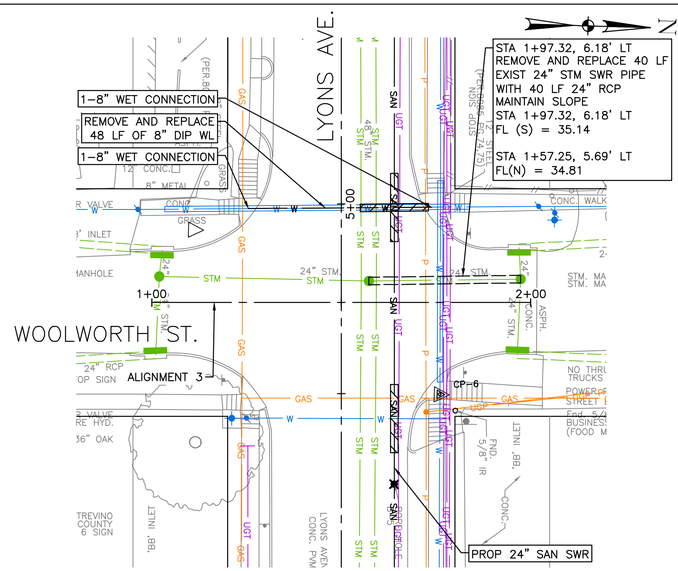
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

BACKLOT ALLEY F PROFILE STA 11+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 142 OF 339	







0' 10' 20' 40'

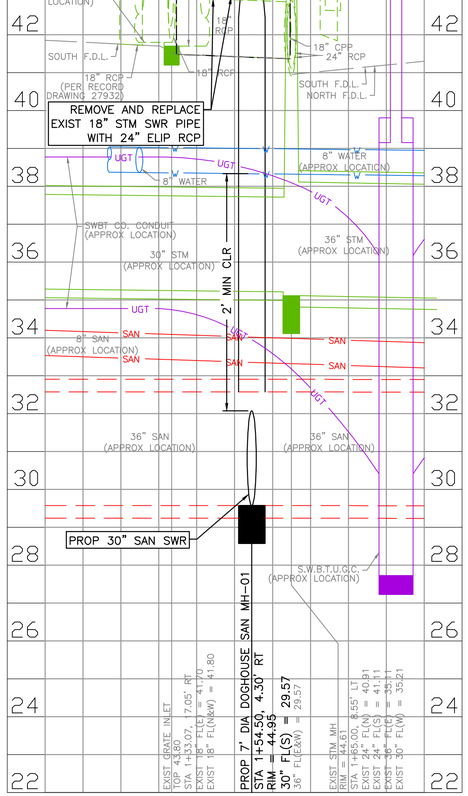
SCALE: 1"=20'

NOTES:

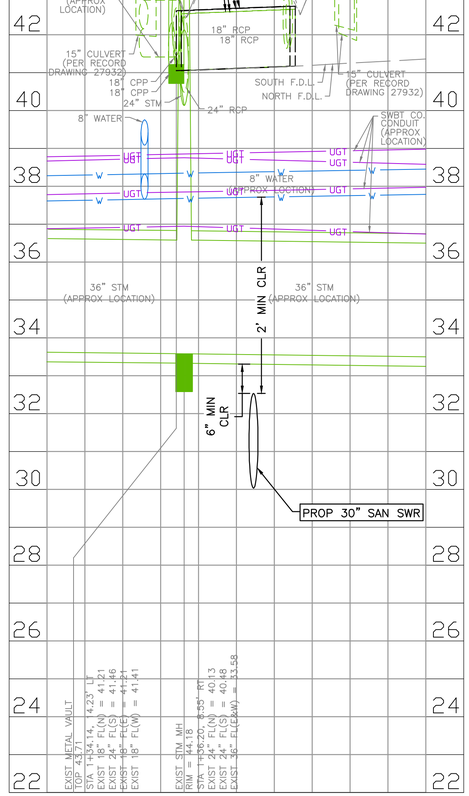
1. PLACE 1 FULL SECTION (MIN 18 FT) OF WL CENTERED AT SS CROSSING. PROVIDE RESTRAINED JOINTS ON WL, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF SS. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.

NO.	DATE	REVISION	APP.

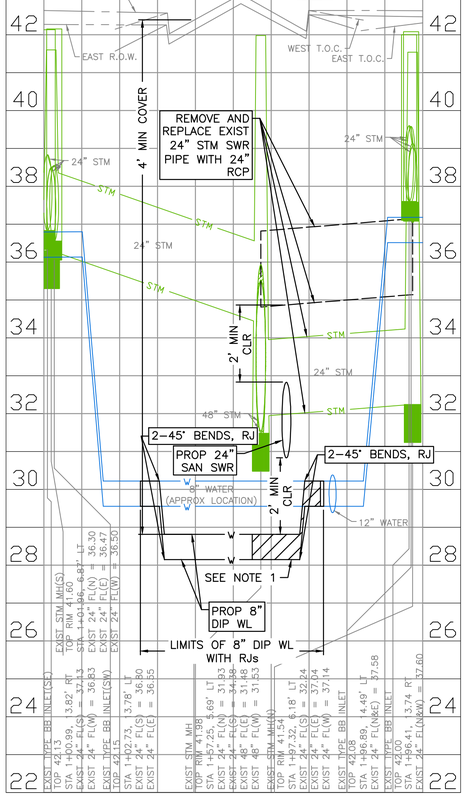
ALIGNMENT 1 (HILLSBORO ST)



ALIGNMENT 2 (HERSHE ST)



ALIGNMENT 3 (WOOLWORTH ST)



civitas ENGINEERING GROUP
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FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

CROSS SECTIONS I

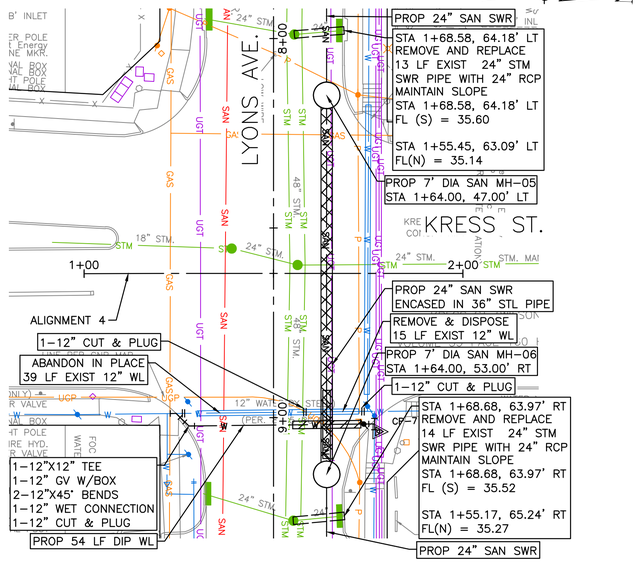
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DRAWING SCALE	
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CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 143 OF 339	

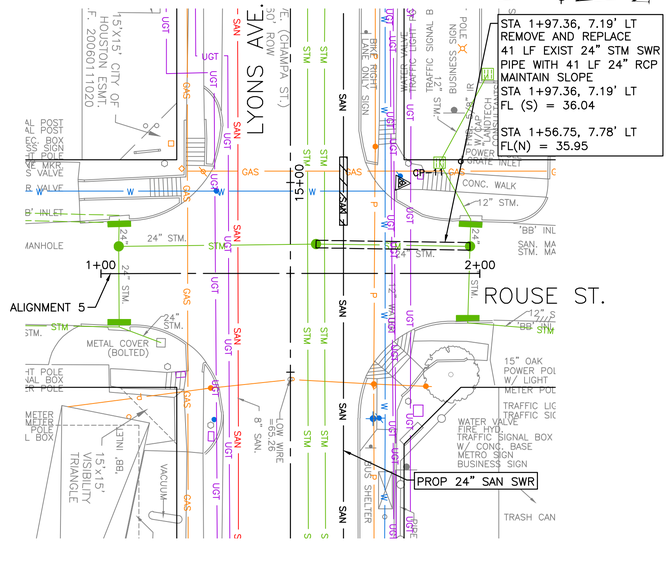
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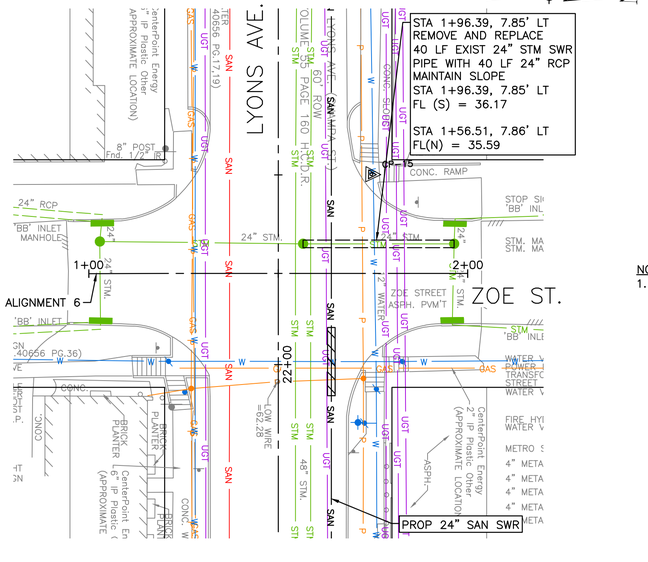
PLOT STYLE: COH.ctb

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PLOTTED: 10/28/2026 10:39 AM
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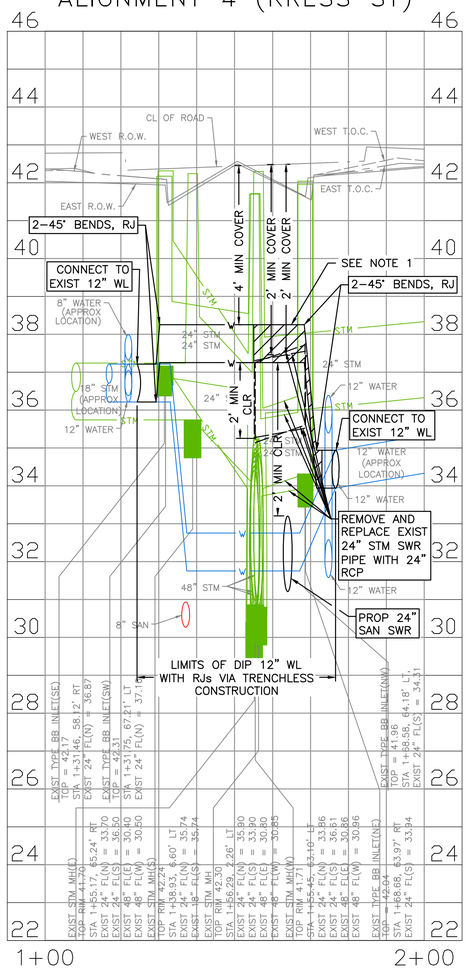


0' 10' 20' 40'
SCALE: 1"=20'

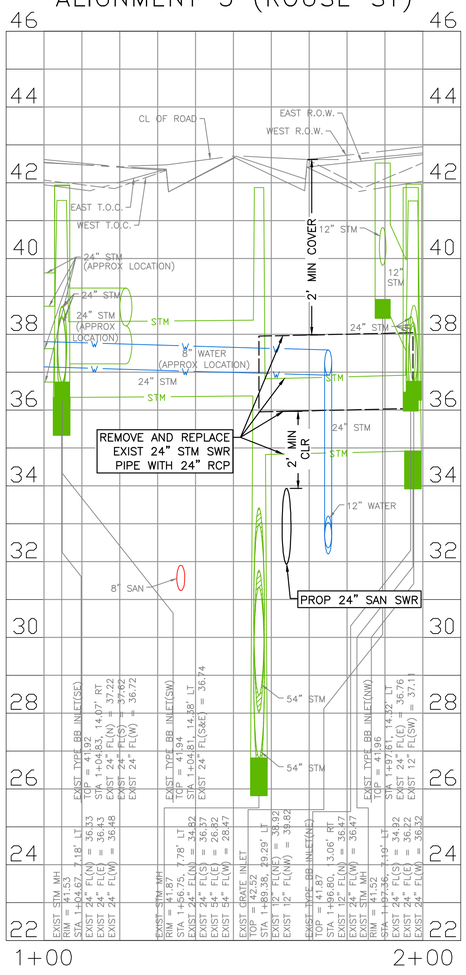
NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF WL CENTERED AT SS CROSSING. PROVIDE RESTRAINED JOINTS ON WL, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF SS. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.

NO.	DATE	REVISION	APP.

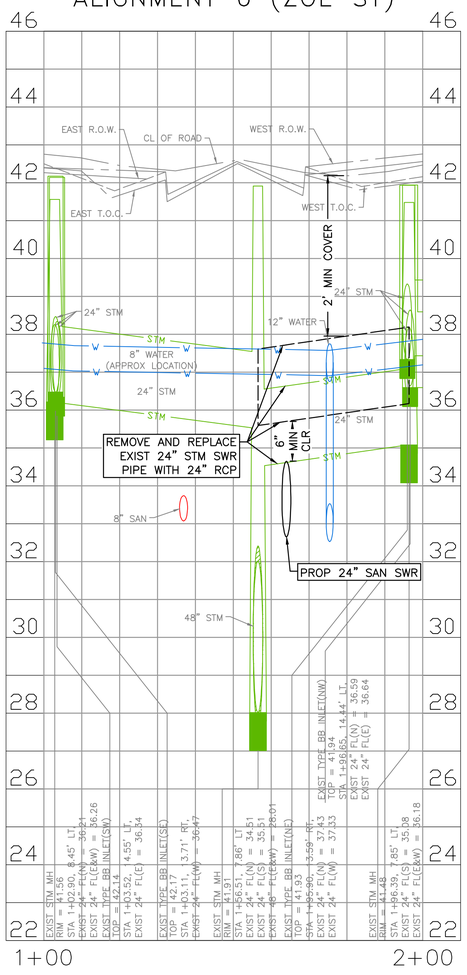
ALIGNMENT 4 (KRESS ST)



ALIGNMENT 5 (ROUSE ST)



ALIGNMENT 6 (ZOE ST)



civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

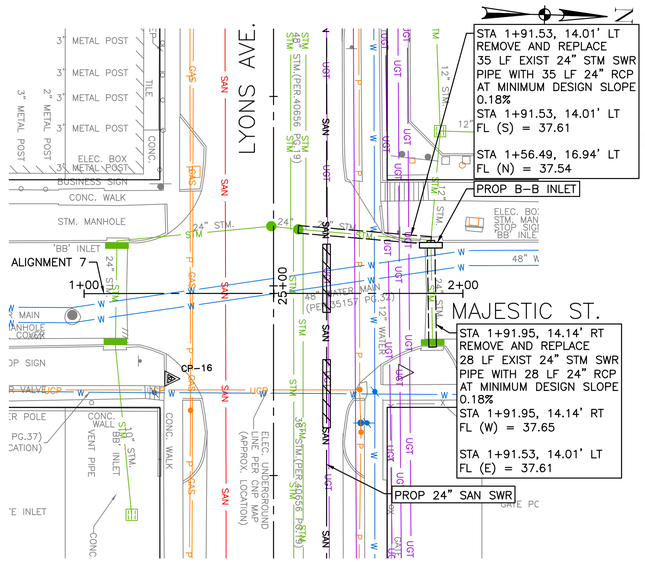
SURVEYED BY: LANDTECH, INC.
FB NO.

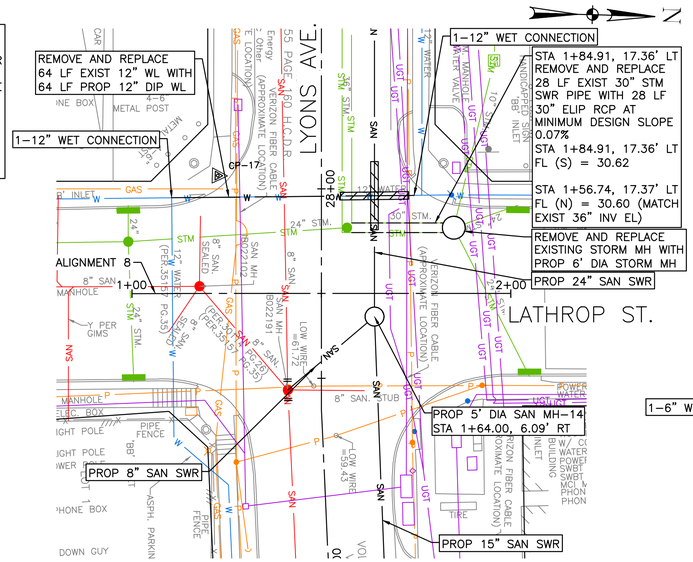
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

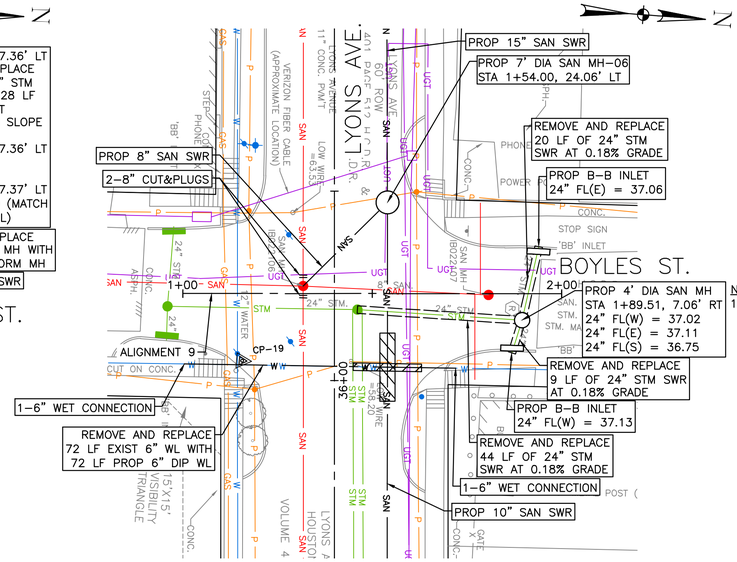
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

CROSS SECTIONS II

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 144 OF 339	







0' 10' 20' 40'
SCALE: 1"=20'

NOTES:
1. PLACE 1 FULL SECTION (MIN 18 FT) OF WL CENTERED AT SS CROSSING. PROVIDE RESTRAINED JOINTS ON WL, SPACED AT LEAST 9' HORIZONTALLY FROM CENTERLINE OF SS. EMBED SS WITH CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF 1 PIPE SEGMENT PLUS 1 FOOT BEYOND THE JOINTS ON EACH END.

NO.	DATE	REVISION	APP.

ALIGNMENT 7 (MAJESTIC ST)

ALIGNMENT 8 (LATHROP ST)

ALIGNMENT 9 (BOYLES ST)

civitas ENGINEERING GROUP
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TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

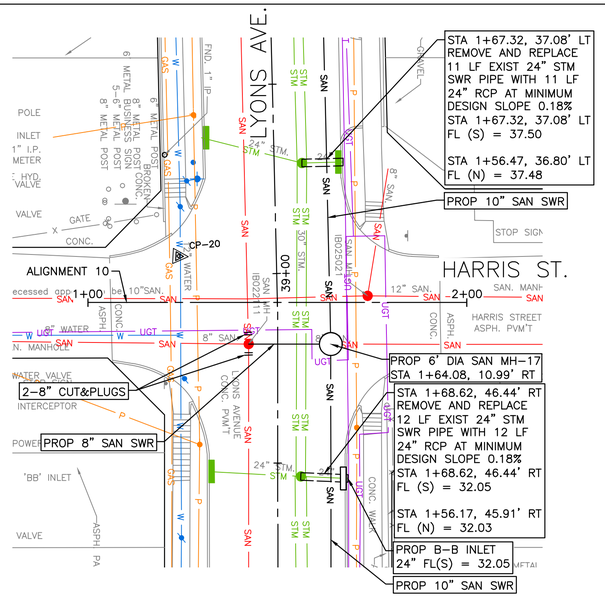
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

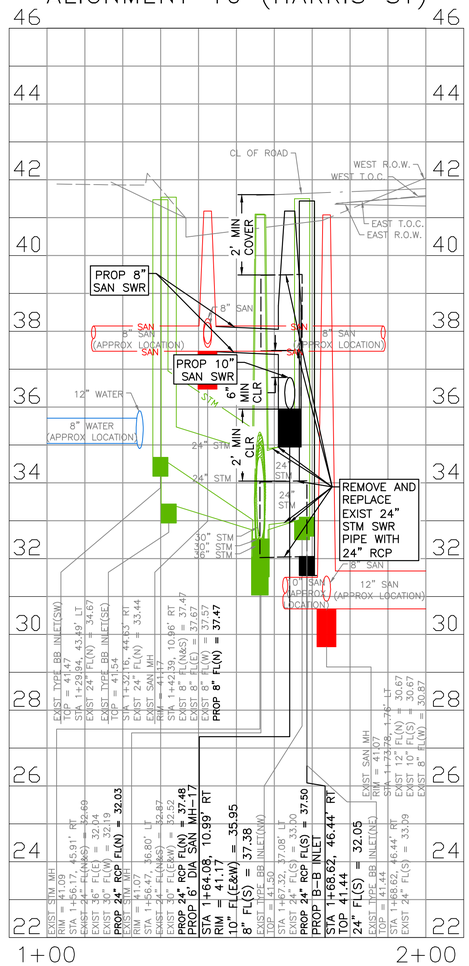
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

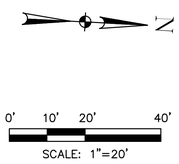
CROSS SECTIONS III

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R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 145 OF 339	

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FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\CROSS SECTIONS.dwg







NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Phone: (713)783-8700, Fax: (713)783-8747
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

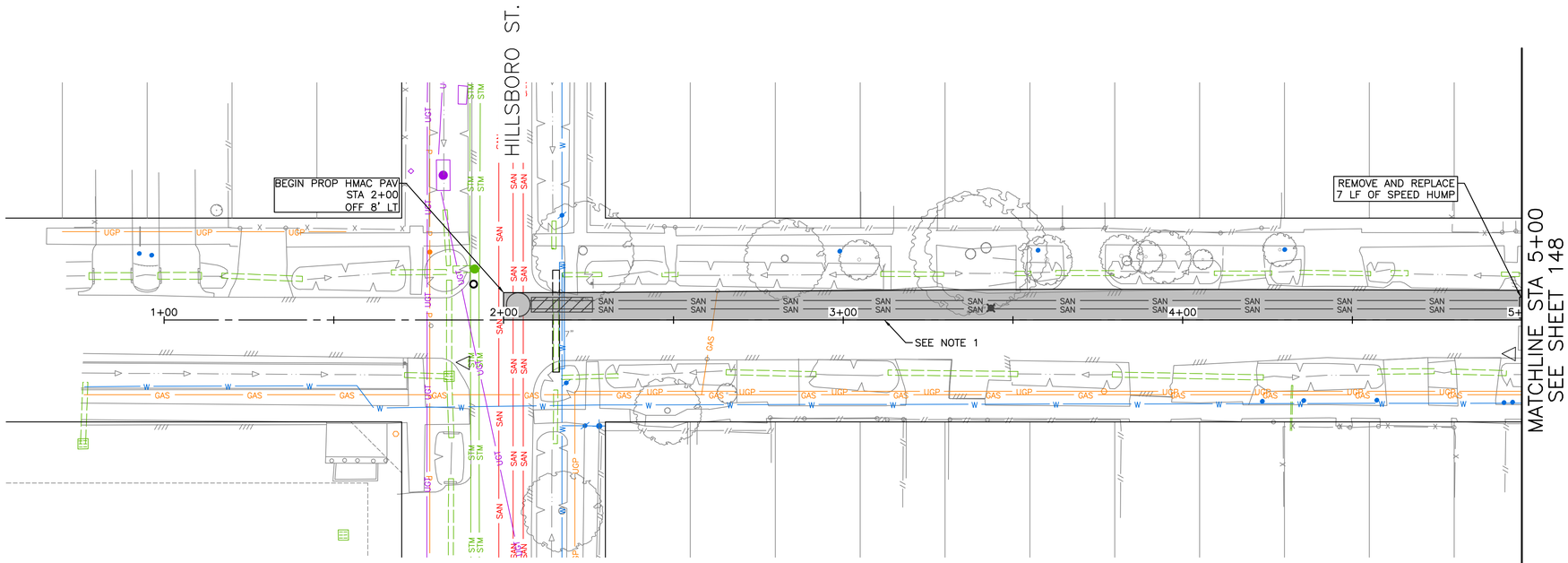
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

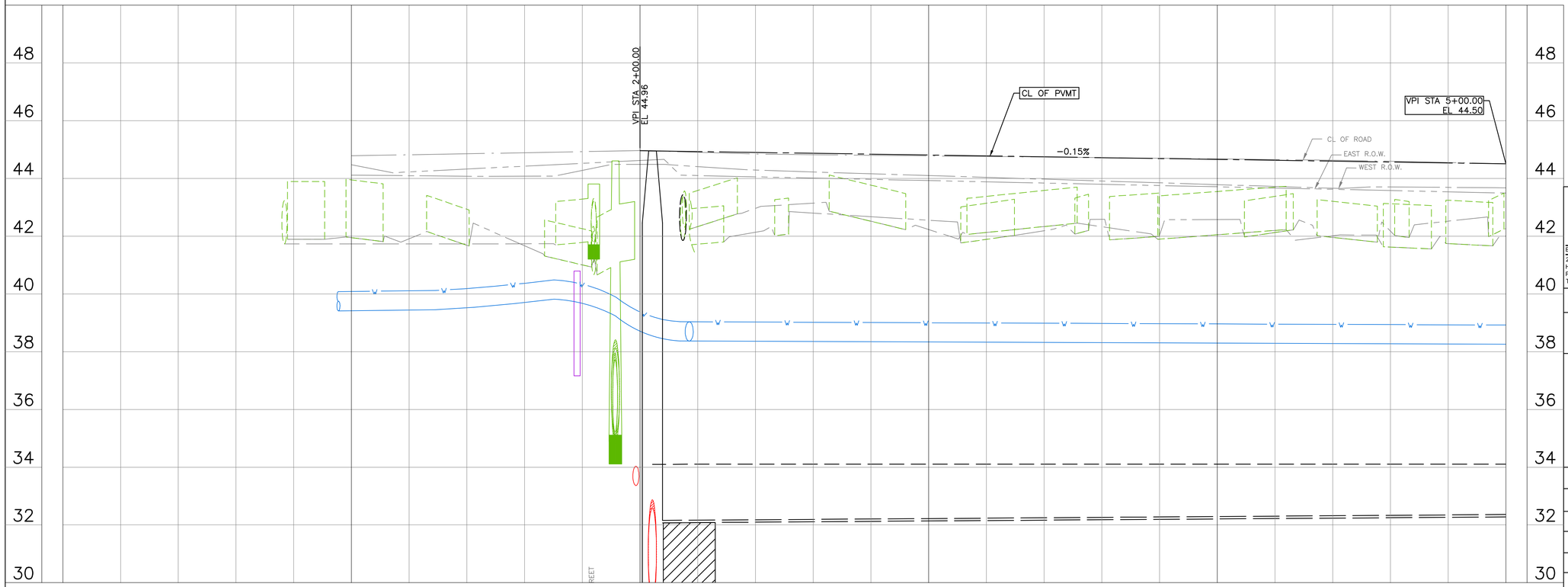
CROSS SECTIONS IV

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 146 OF 339	

PLOTTED: 10/28/2026 10:53 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 11\CROSS SECTIONS.dwg

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PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\HAHLO ST.PAVEMENT.dwg





N

0' 10' 20' 40'
SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:
1. CONTRACTOR TO REPLACE THE NORTHBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO FOLLOW CITY OF HOUSTON'S HOT ASPHALTIC CONCRETE PAVEMENT DETAIL (02741-01_2023) FOR SLOPE ON PAVEMENT.

LEGEND:

PROP ASPHALT PAVEMENT

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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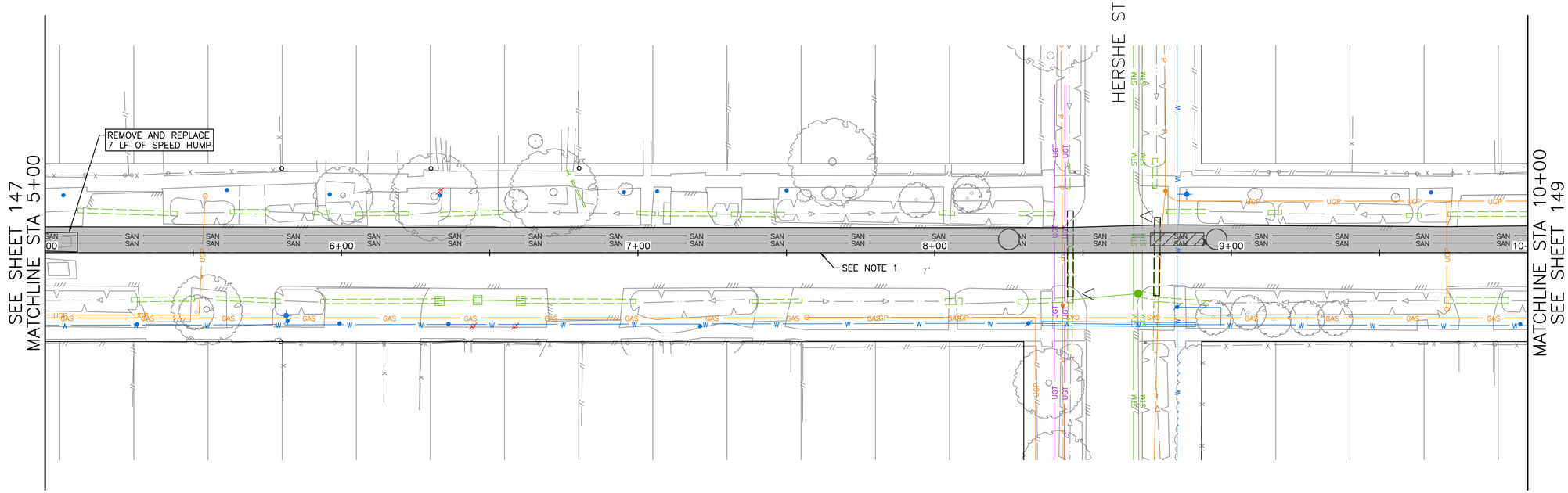
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

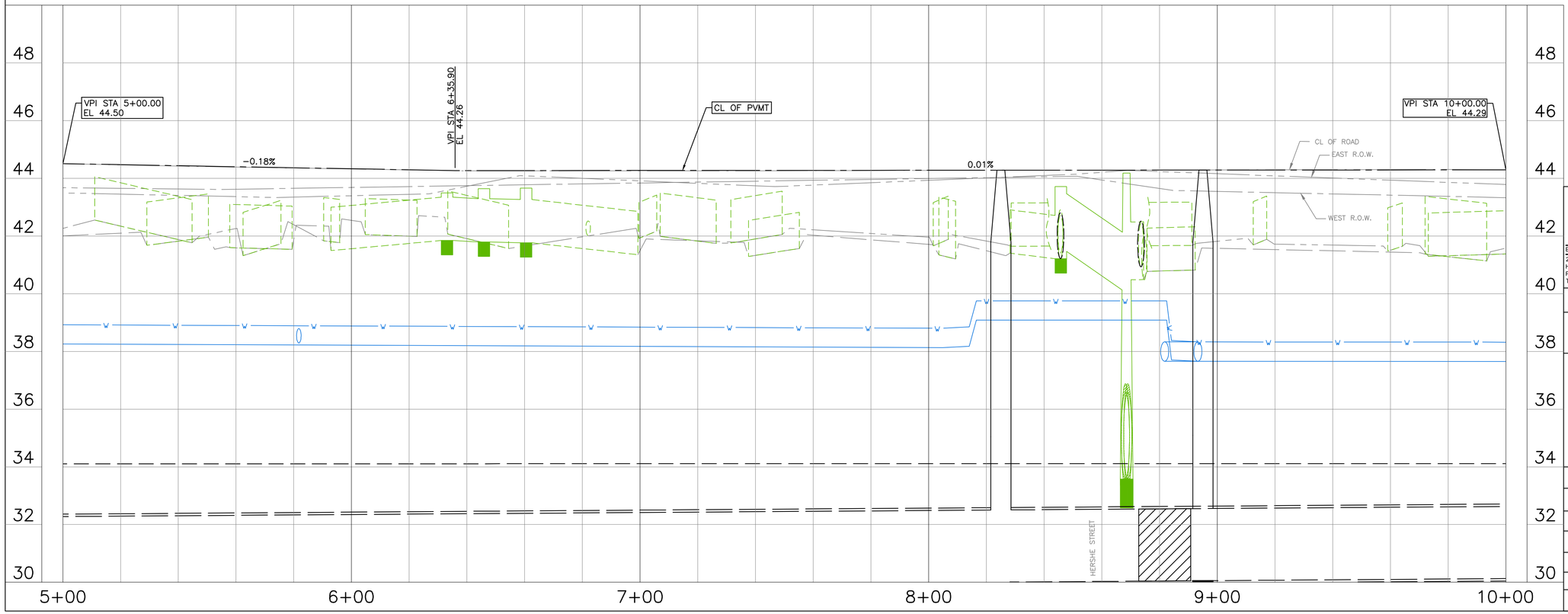
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST. PAVEMENT STA BEGIN TO 5+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 147 OF 339	





0' 10' 20' 40'

SCALE: 1"=20'

NOTES:
1. CONTRACTOR TO REPLACE THE NORTHBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO FOLLOW CITY OF HOUSTON'S HOT ASPHALTIC CONCRETE PAVEMENT DETAIL (02741-01_2023) FOR SLOPE ON PAVEMENT.

LEGEND:

PROP ASPHALT PAVEMENT

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

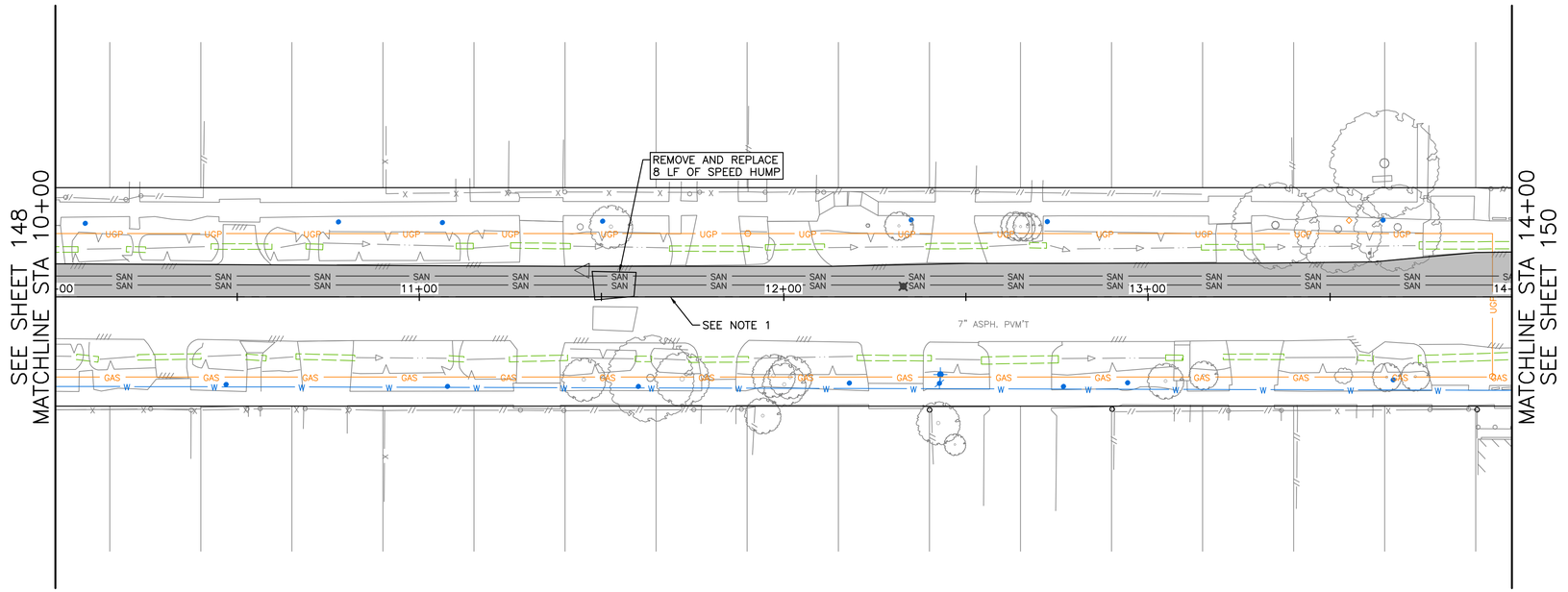
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

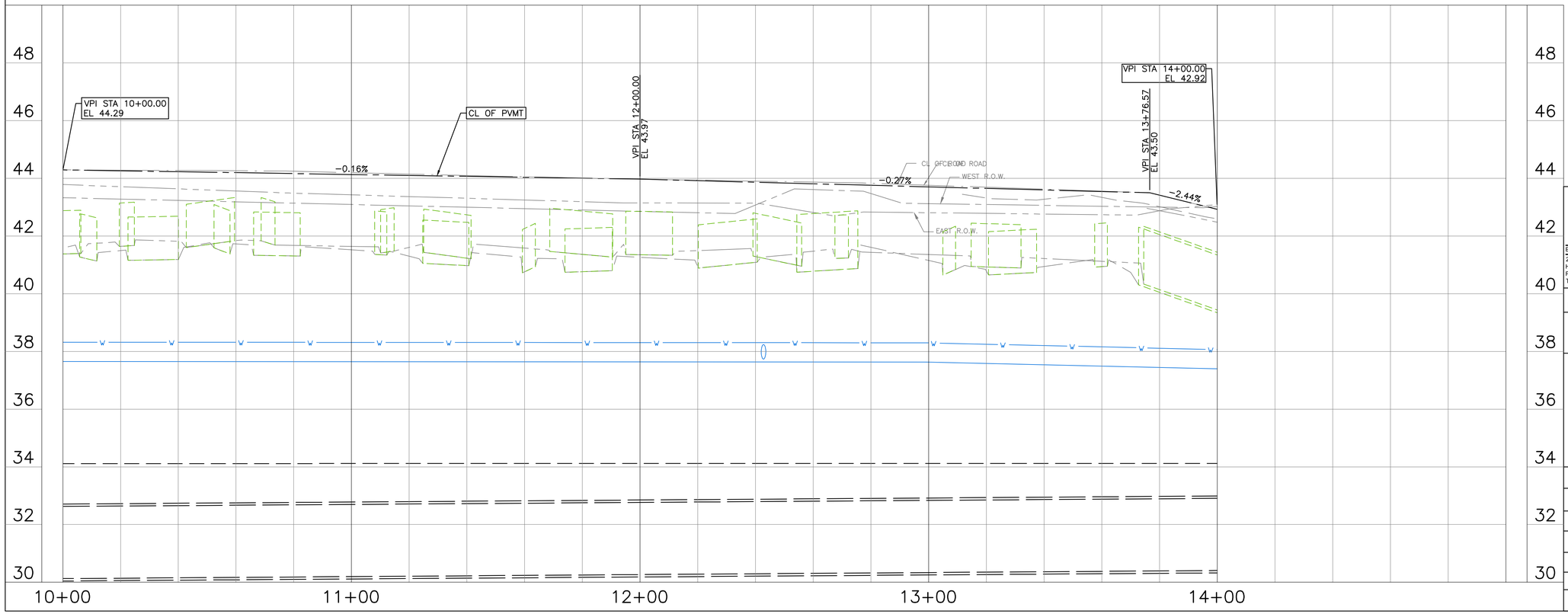
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST. PAVEMENT STA 5+00 TO 10+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 148 OF 339	

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FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\HAHLO ST.PAVEMENT.dwg





0' 10' 20' 40'

SCALE: 1"=20'

NOTES:
1. CONTRACTOR TO REPLACE THE NORTHBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO FOLLOW CITY OF HOUSTON'S HOT ASPHALTIC CONCRETE PAVEMENT DETAIL (02741-01_2023) FOR SLOPE ON PAVEMENT.

LEGEND:

PROP ASPHALT PAVEMENT

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

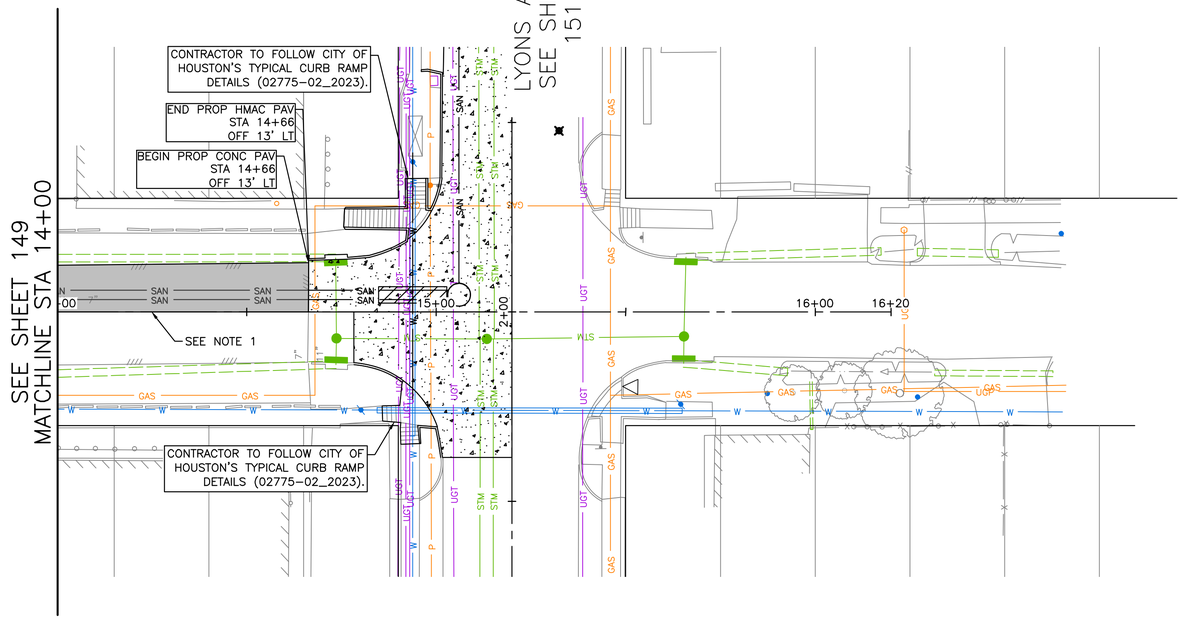
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

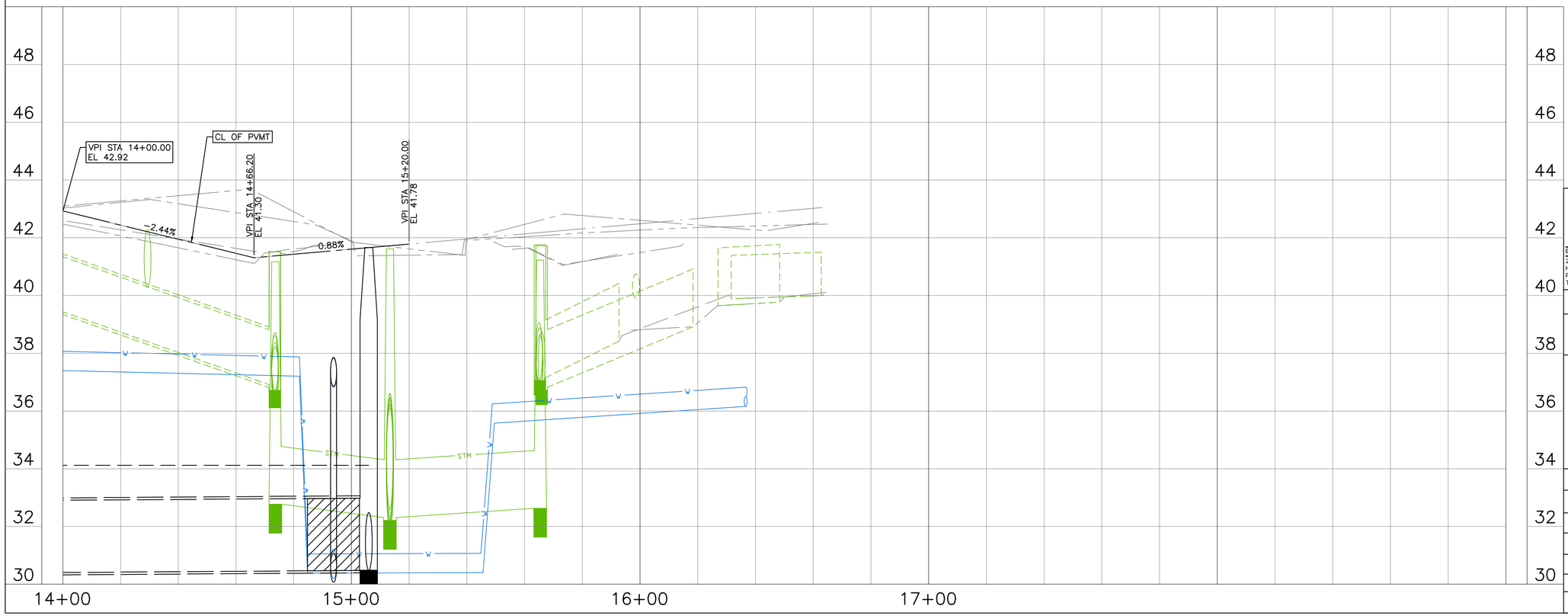
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST. PAVEMENT STA 10+00 TO 14+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 149 OF 339	

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NO.	DATE	REVISION	APP.

0' 10' 20' 40'

SCALE: 1"=20'

NOTES:
1. CONTRACTOR TO REPLACE THE NORTHBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO FOLLOW CITY OF HOUSTON'S HOT ASPHALTIC CONCRETE PAVEMENT DETAIL (02741-01_2023) FOR SLOPE ON PAVEMENT.

LEGEND:

PROP ASPHALT PAVEMENT

PROP CONCRETE PAVEMENT

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

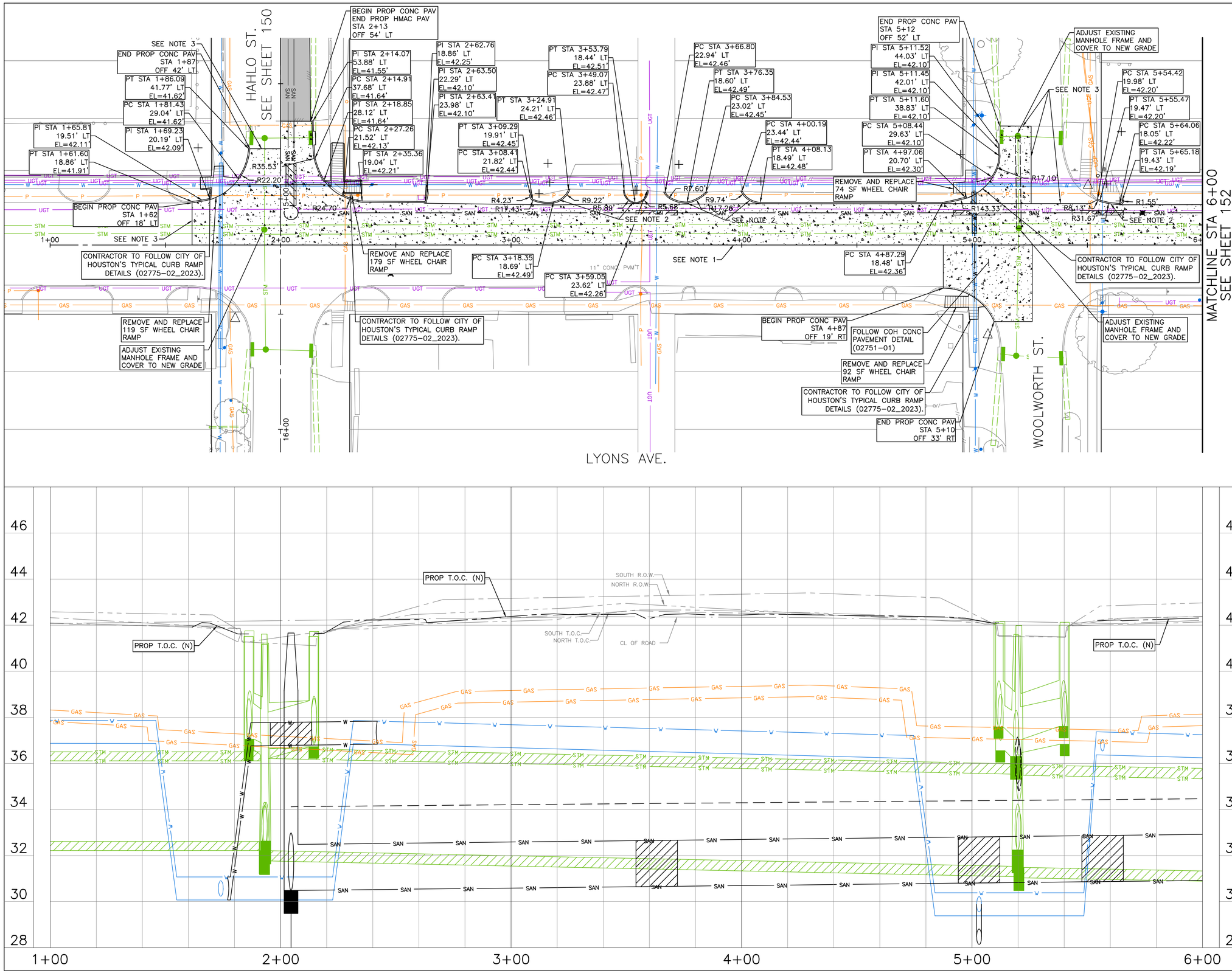
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

HAHLO ST. PAVEMENT STA 14+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 150 OF 339	

PLOTTED: 10/28/2026 10:52 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSSN\PROD\3.2 CAD\3.2.3 Civil\Area 11\HAHLO ST.PAVEMENT.dwg



N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. CONTRACTOR TO REPLACE THE WESTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO SAWCUT AT EXISTING CONSTRUCTION JOINT.
4. ALL WATER VALVES/METERS WITHIN PROPOSED PAVEMENT IMPROVEMENTS TO BE RAISED TO FINAL GRADE.
5. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1-INCH.

LEGEND:

PROP CONCRETE PAVEMENT

PROP ASPHALT PAVEMENT

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

LYONS AVE. PAVEMENT STA BEGIN TO 6+00

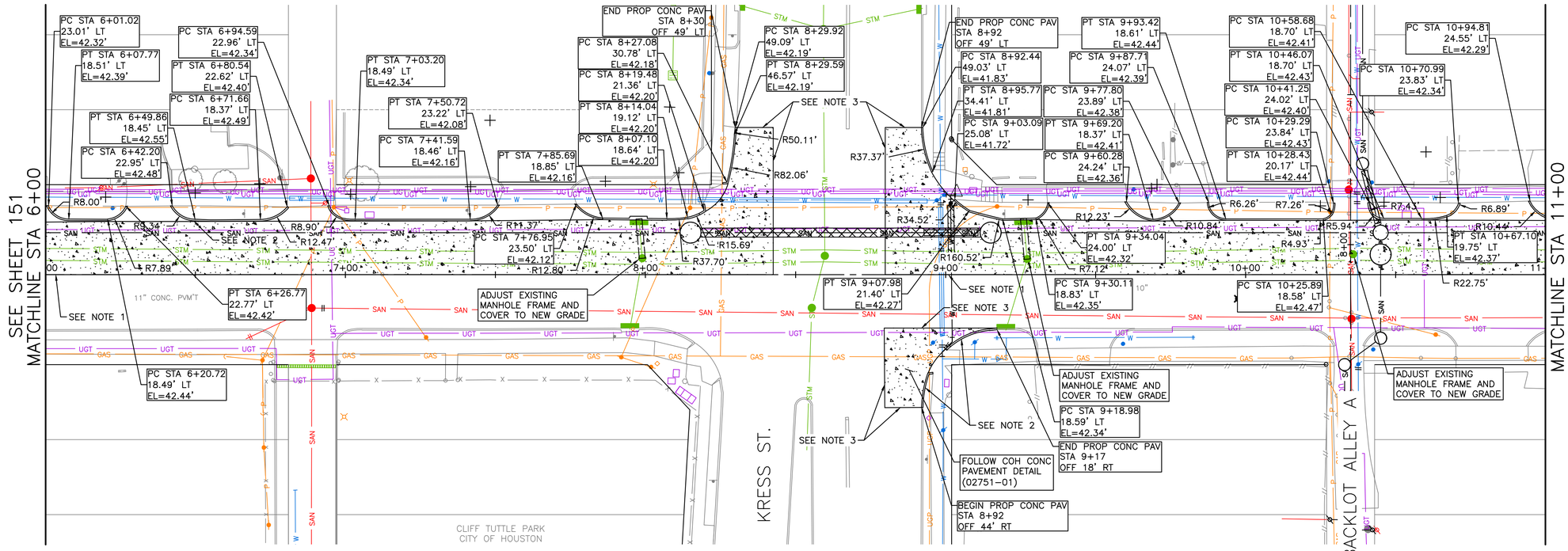
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DRAWING SCALE	H 1"=20', V 1"=2'
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO. 151 OF 339	

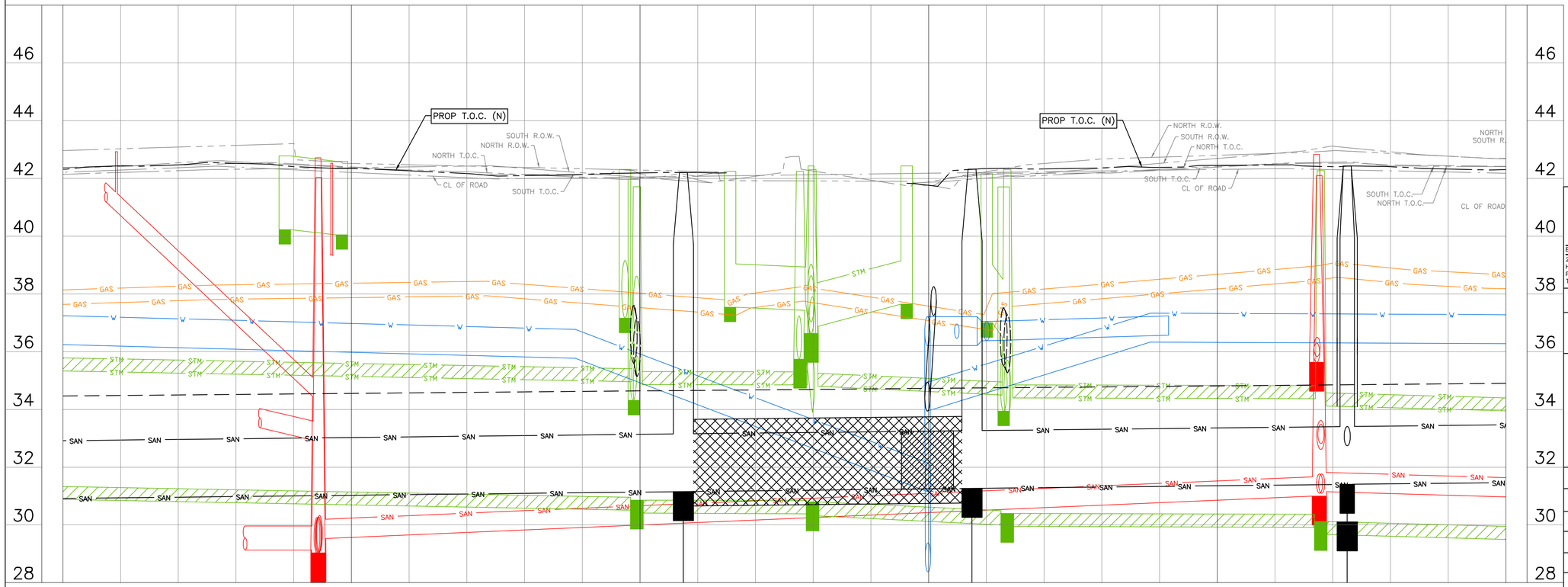
FOR CITY OF HOUSTON USE ONLY

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PLOT STYLE: COH.ctb

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N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. CONTRACTOR TO REPLACE THE WESTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO SAWCUT AT EXISTING CONSTRUCTION JOINT.
4. ALL WATER VALVES/METERS WITHIN PROPOSED PAVEMENT IMPROVEMENTS TO BE RAISED TO FINAL GRADE.
5. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1-INCH.

LEGEND:

PROP CONCRETE PAVEMENT

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

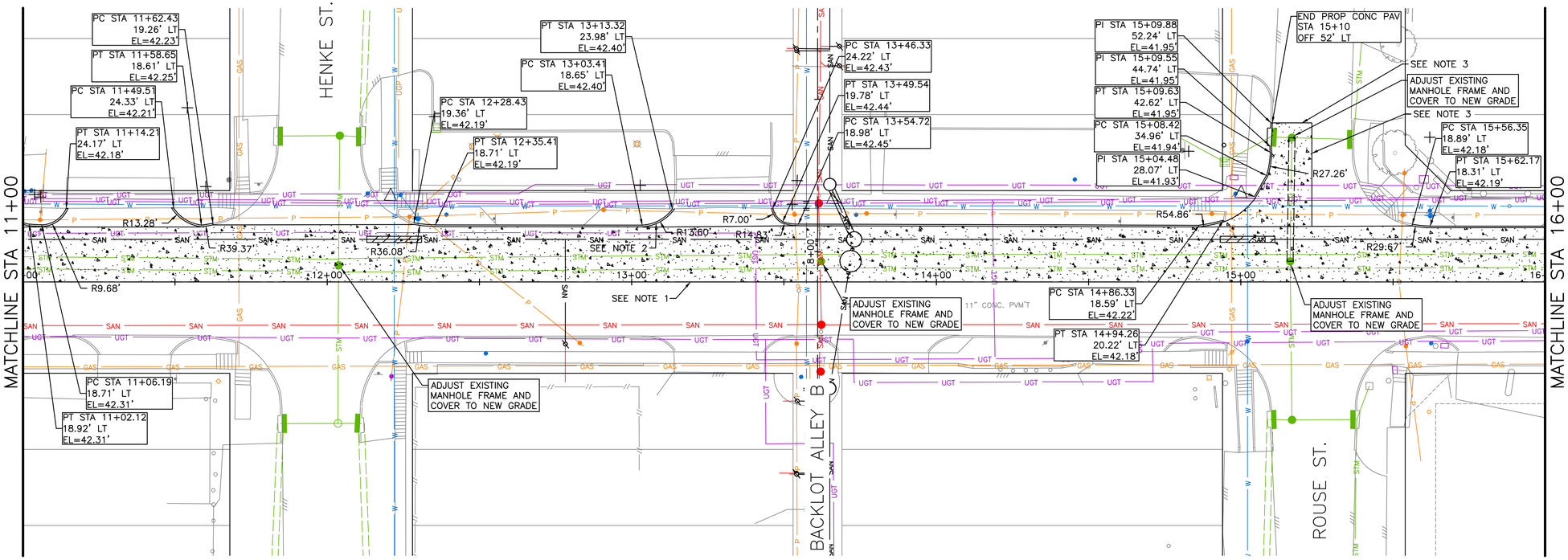
HOUSTON PUBLIC WORKS

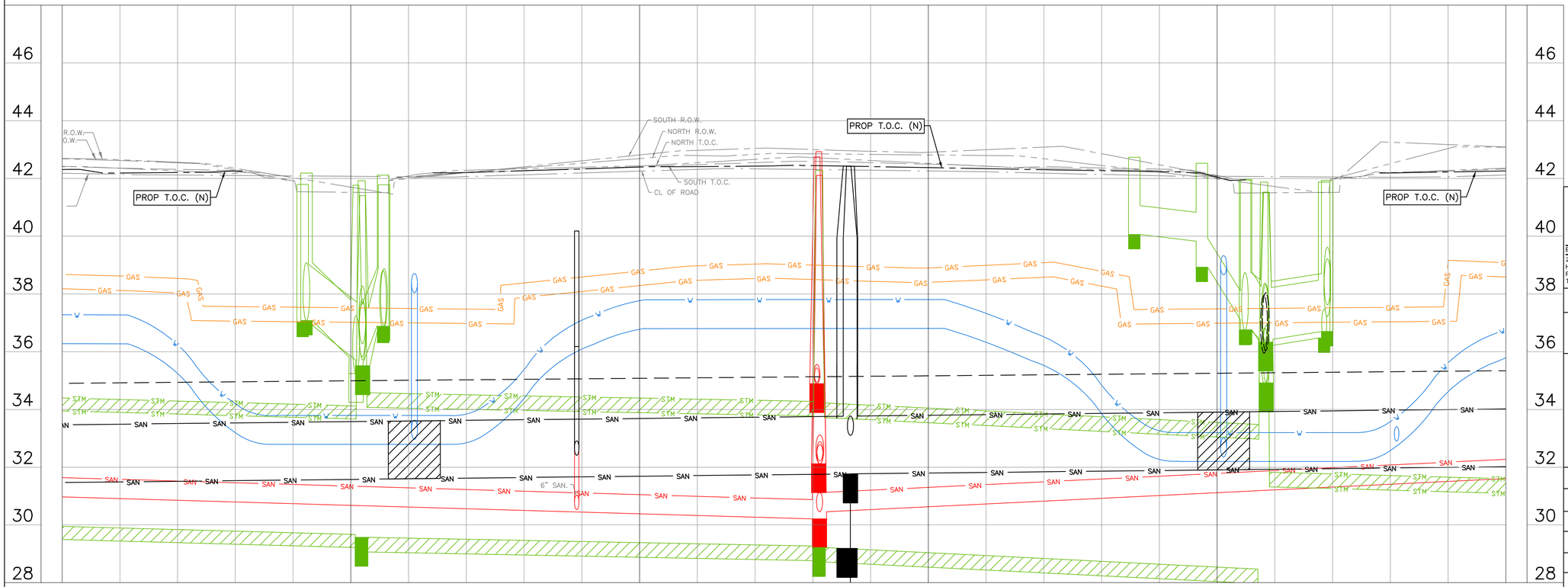
CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

LYONS AVE. PAVEMENT STA 6+00 TO 11+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 152 OF 339	

PLOTTED: 10/28/2026 10:54 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PAVEMENT.dwg





N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. CONTRACTOR TO REPLACE THE WESTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO SAWCUT AT EXISTING CONSTRUCTION JOINT.
4. ALL WATER VALVES/METERS WITHIN PROPOSED PAVEMENT IMPROVEMENTS TO BE RAISED TO FINAL GRADE.
5. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1-INCH.

LEGEND:

PROP CONCRETE PAVEMENT

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

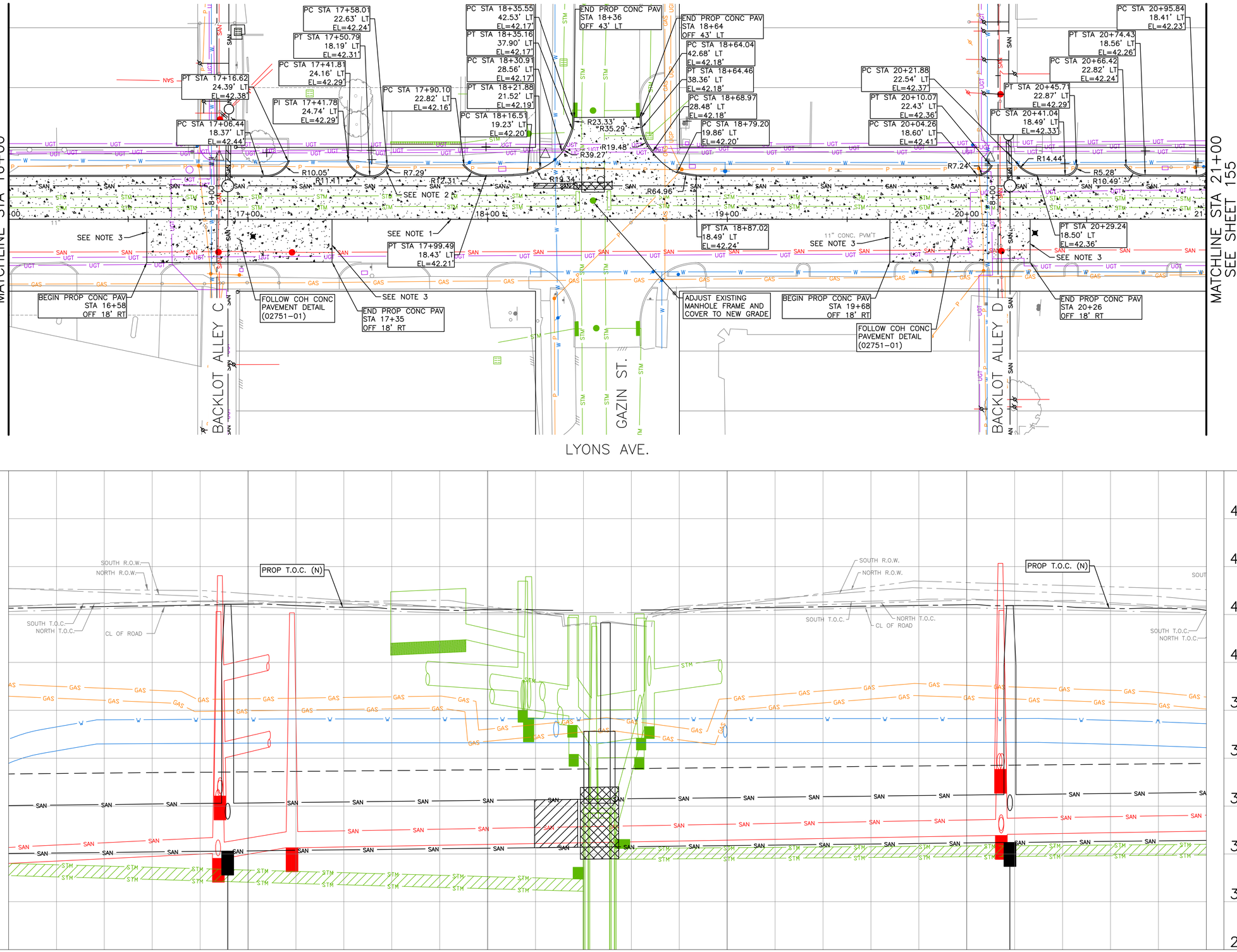
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

LYONS AVE. PAVEMENT STA 11+00 TO 16+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 153 OF 339	

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N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. CONTRACTOR TO REPLACE THE WESTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
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LEGEND:

PROP CONCRETE PAVEMENT

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

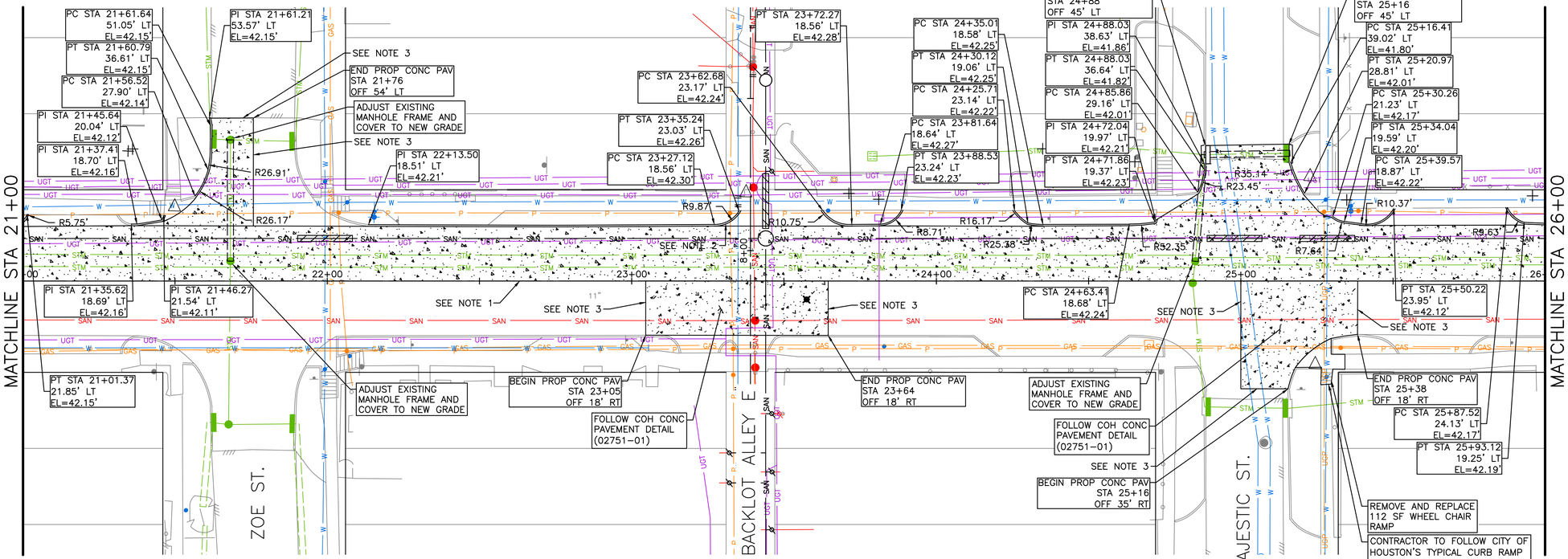
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

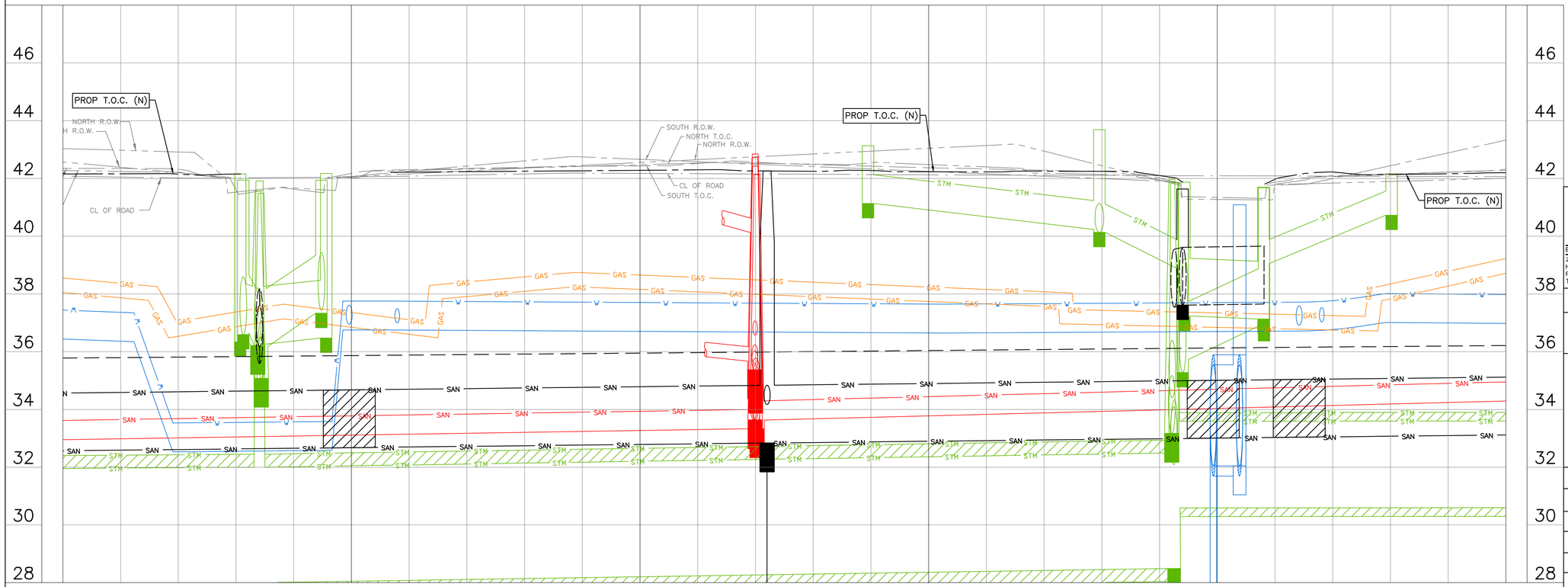
CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

LYONS AVE. PAVEMENT STA 16+00 TO 21+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 154 OF 339	

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N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. CONTRACTOR TO REPLACE THE WESTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO SAWCUT AT EXISTING CONSTRUCTION JOINT.
4. ALL WATER VALVES/METERS WITHIN PROPOSED PAVEMENT IMPROVEMENTS TO BE RAISED TO FINAL GRADE.
5. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1-INCH.

LEGEND:

PROP CONCRETE PAVEMENT

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

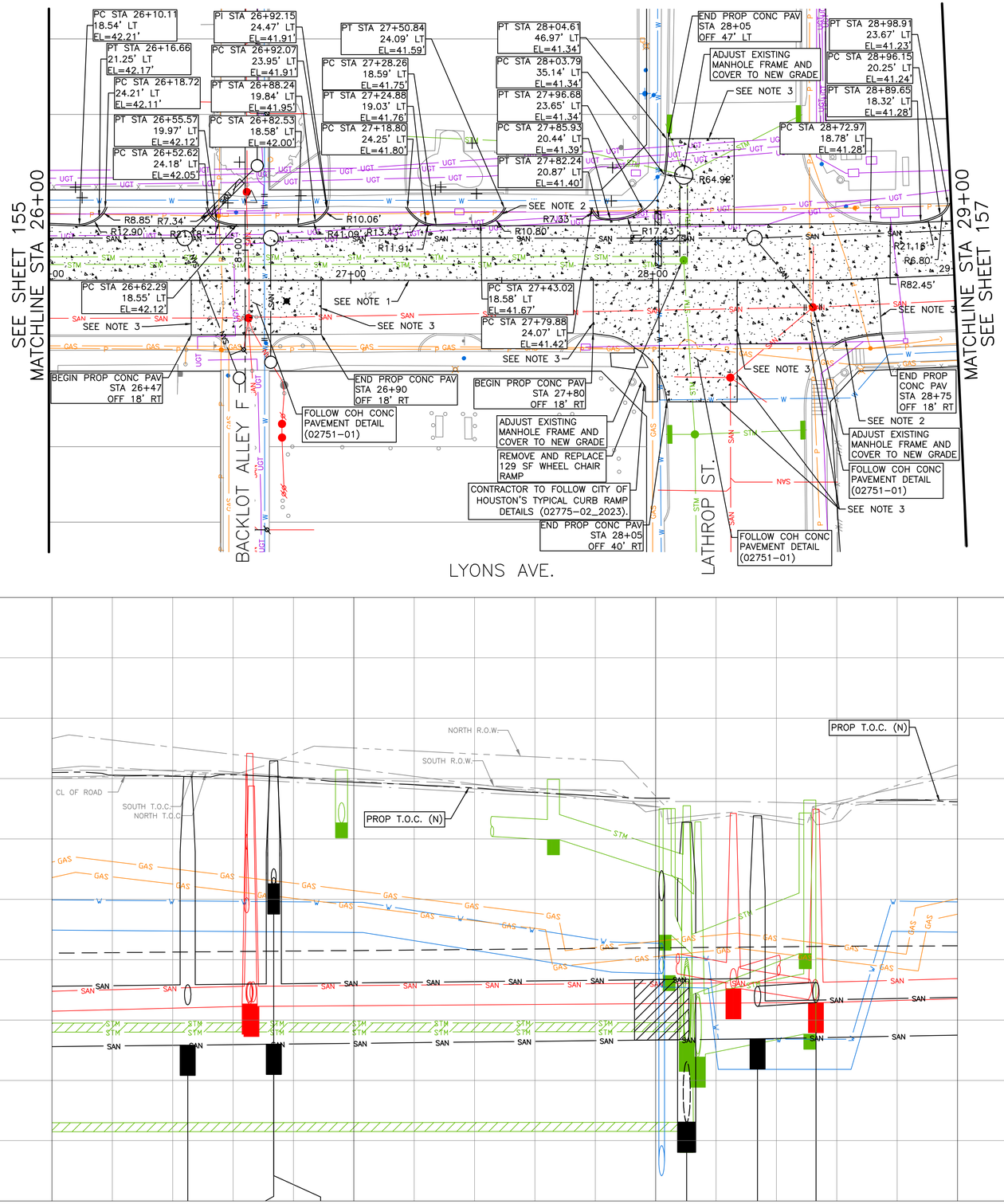
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

LYONS AVE. PAVEMENT STA 21+00 TO 26+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 155 OF 339	

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N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

1. CONTRACTOR TO REPLACE THE WESTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO SAWCUT AT EXISTING CONSTRUCTION JOINT.
4. ALL WATER VALVES/METERS WITHIN PROPOSED PAVEMENT IMPROVEMENTS TO BE RAISED TO FINAL GRADE.
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LEGEND:

PROP CONCRETE PAVEMENT

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Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
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FB NO.

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BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

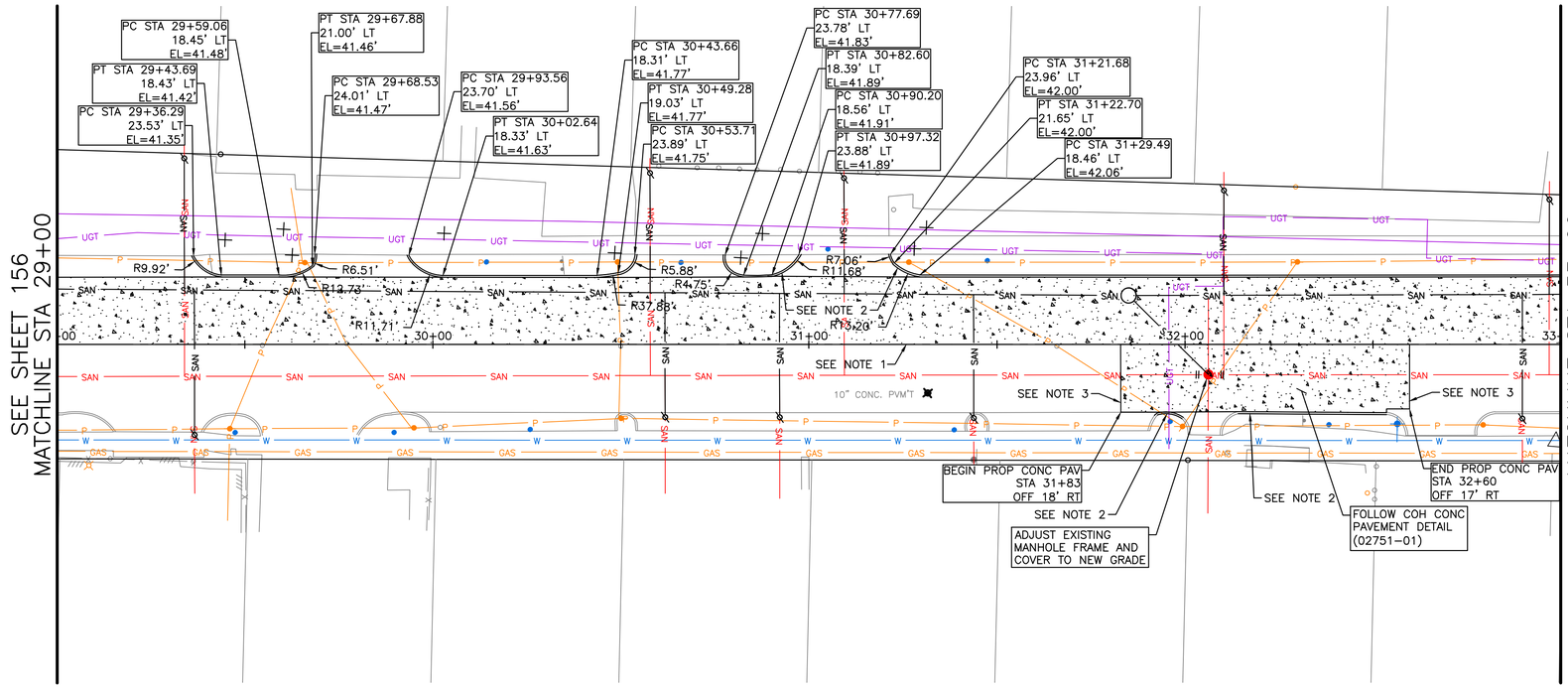
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

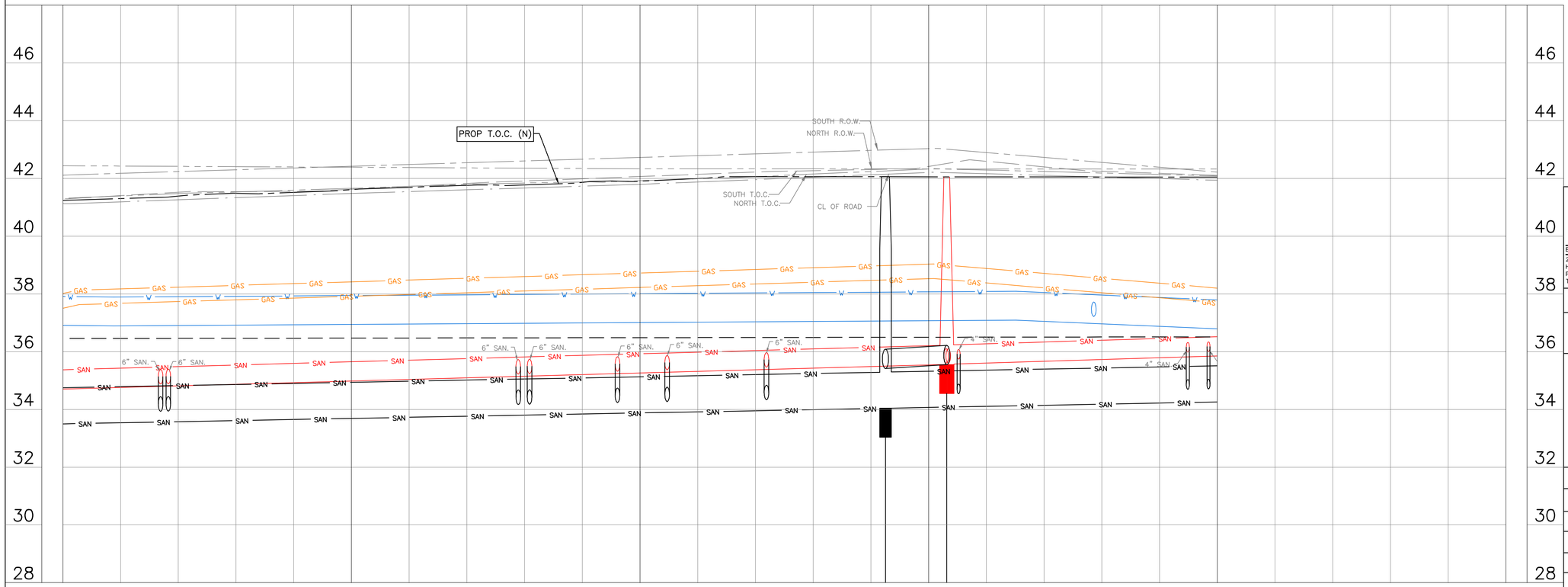
LYONS AVE. PAVEMENT STA 26+00 TO 29+00

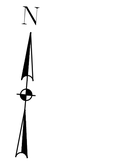
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DRAWING SCALE	
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CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 156 OF 339	

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FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Area 11\LYONS AVE.PAVEMENT.dwg



LYONS AVE.





NOTES:

1. CONTRACTOR TO REPLACE THE WESTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO SAWCUT AT EXISTING CONSTRUCTION JOINT.
4. ALL WATER VALVES/METERS WITHIN PROPOSED PAVEMENT IMPROVEMENTS TO BE RAISED TO FINAL GRADE.
5. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1-INCH.

LEGEND:

PROP CONCRETE PAVEMENT

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

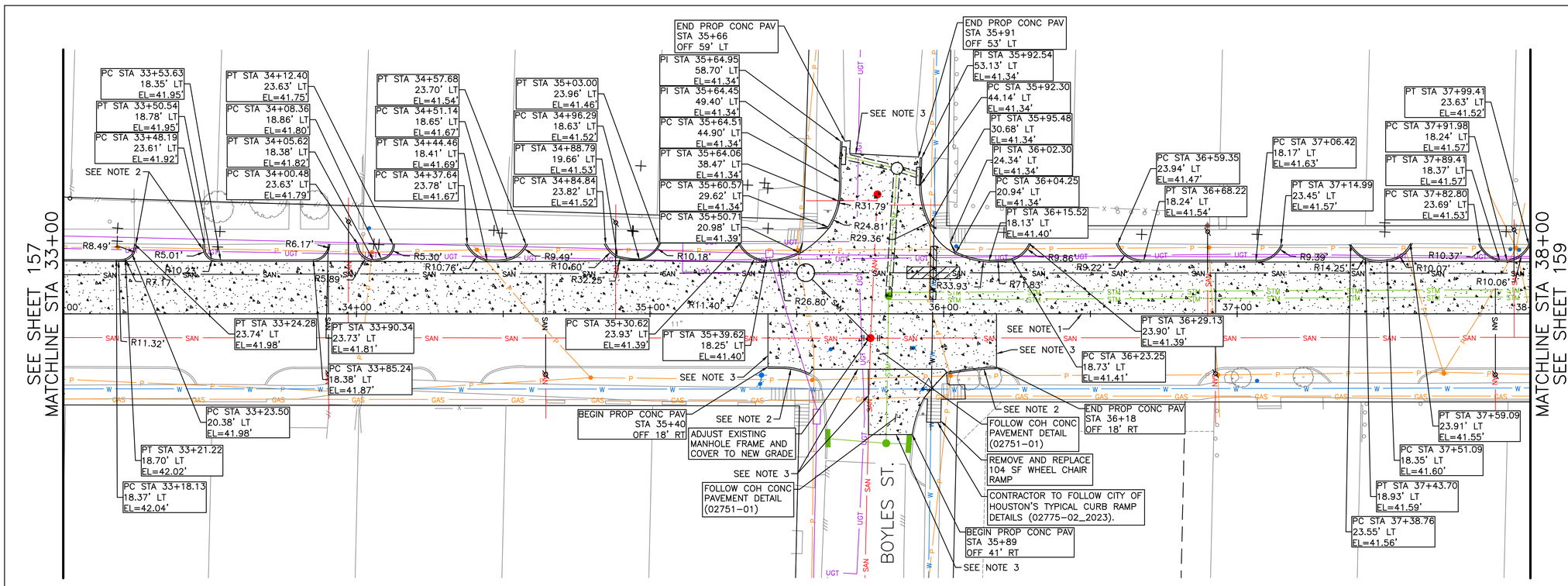
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

LYONS AVE. PAVEMENT
STA 29+00 TO 33+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 157 OF 339	

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N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

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LEGEND:

PROP CONCRETE PAVEMENT

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

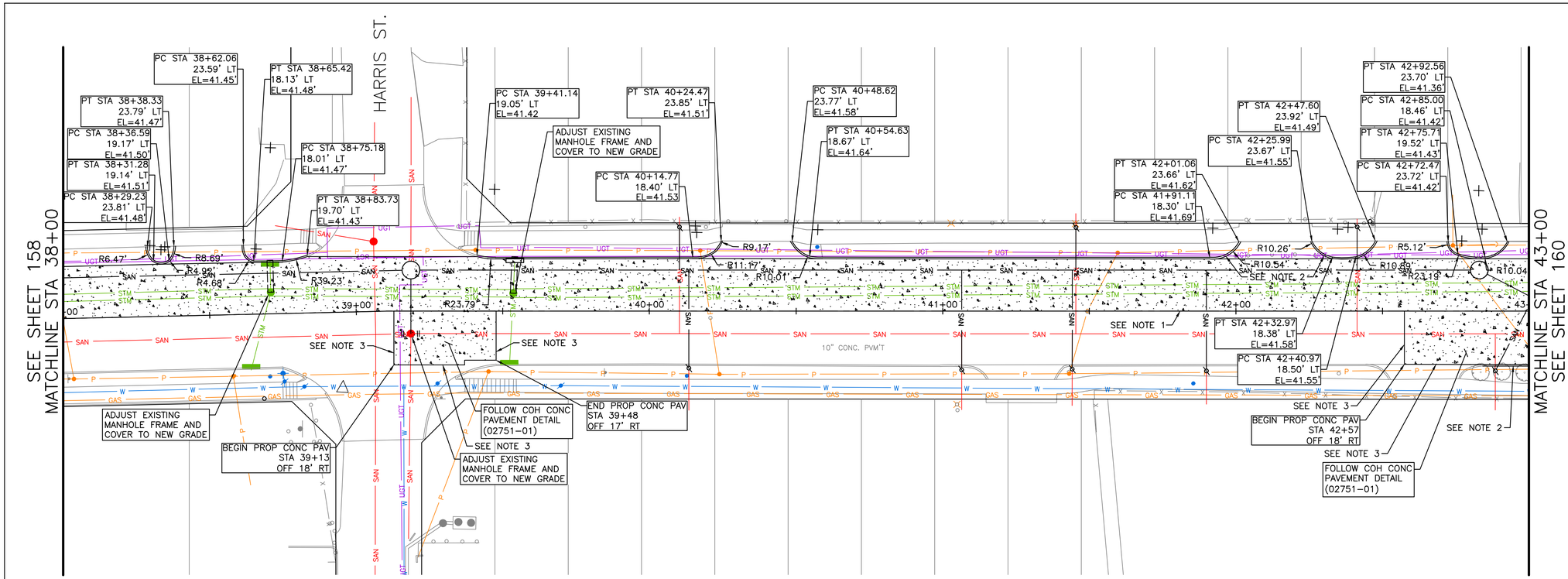
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

LYONS AVE. PAVEMENT STA 33+00 TO 38+00

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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CITY OF HOUSTON PM	
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SHEET NO. 158 OF 339	

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N

0' 10' 20' 40'

SCALE: 1"=20'

NO.	DATE	REVISION	APP.

NOTES:

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LEGEND:

PROP CONCRETE PAVEMENT

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

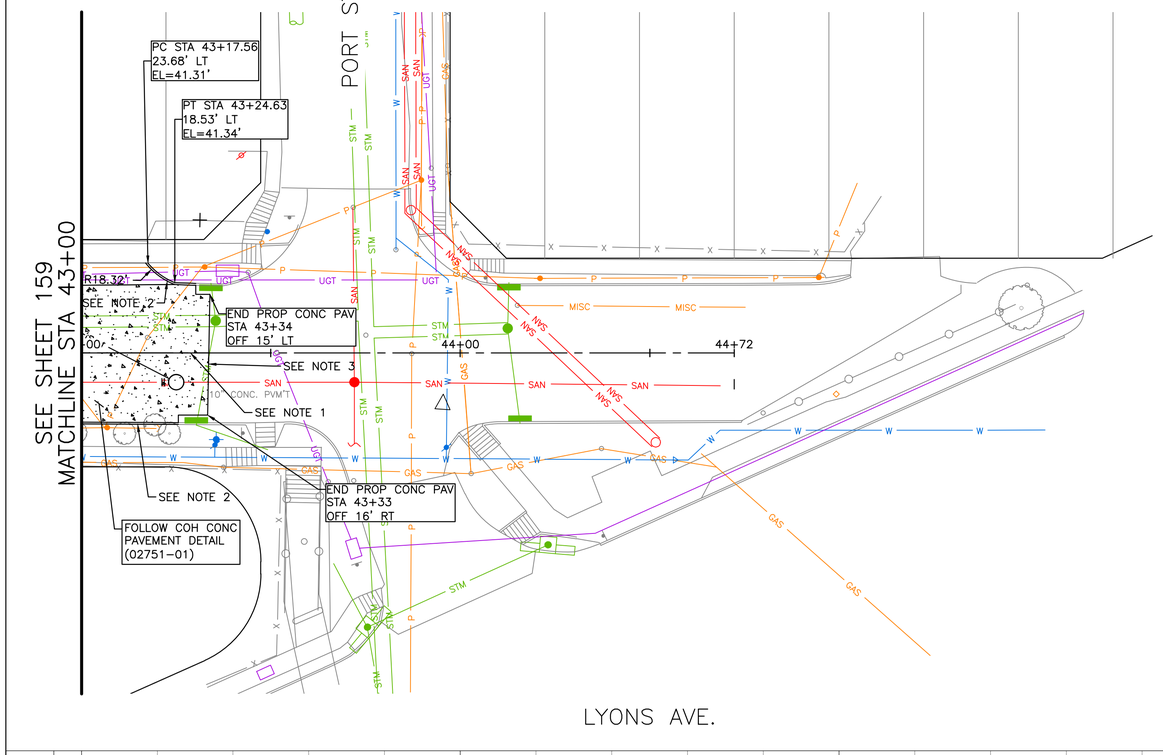
LYONS AVE. PAVEMENT STA 38+00 TO 43+00

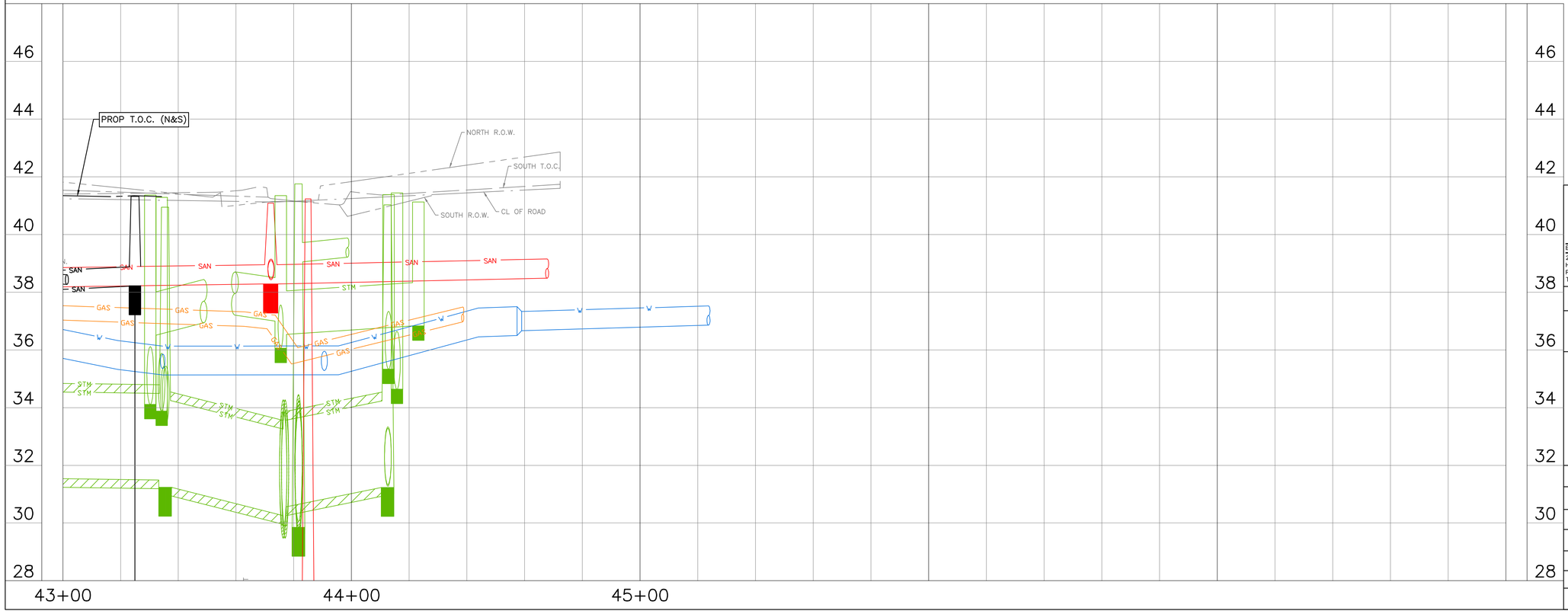
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SHEET NO. 159 OF 339	

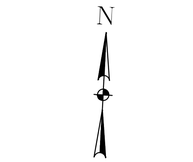
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NOTES:
1. CONTRACTOR TO REPLACE THE WESTBOUND TRAFFIC LANES. SAW CUT ALONG THE CENTERLINE TO REPLACE THE EXISTING PAVEMENT.
2. CONTRACTOR TO MATCH THE CURB RADIUS TO EXISTING CONDITION.
3. CONTRACTOR TO SAWCUT AT EXISTING CONSTRUCTION JOINT.
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5. DRIVEWAY APRON NEEDS TO BE RE-BUILT TO MATCH PROP EOP FROM SIDEWALK, IF THE DIFFERENCE BETWEEN PROP EOP AND DRIVEWAY EXTENDS BEYOND 1-INCH.

LEGEND:

PROP CONCRETE PAVEMENT

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

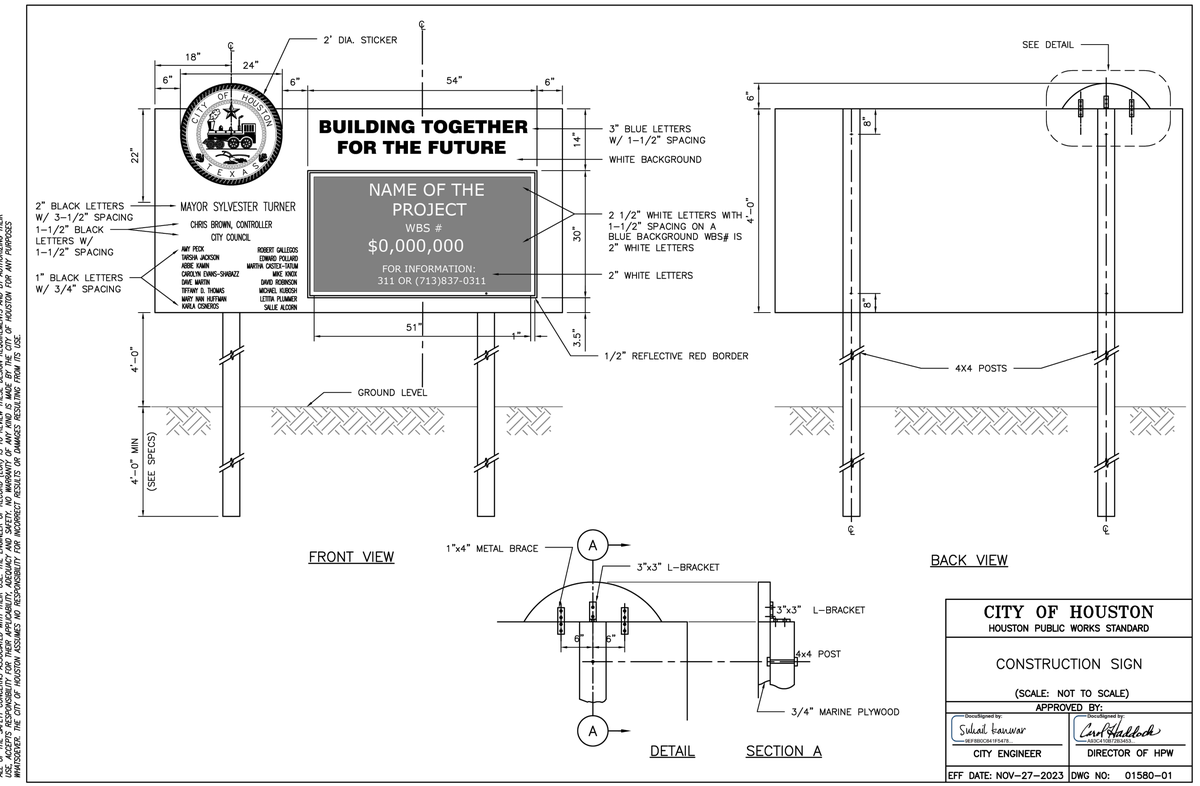
CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

LYONS AVE. PAVEMENT STA 43+00 TO END

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
H 1"=20', V 1"=2'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 160 OF 339	

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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 DETAILS OR DAMAGES RESULTING FROM ITS USE.

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
CONSTRUCTION SIGN (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: Suhail Kanwar CITY ENGINEER	DocuSigned by: Carol Haddock DIRECTOR OF HPW
EFF DATE: NOV-27-2023	DWG NO: 01580-01

NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
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DATE: 10/28/2026

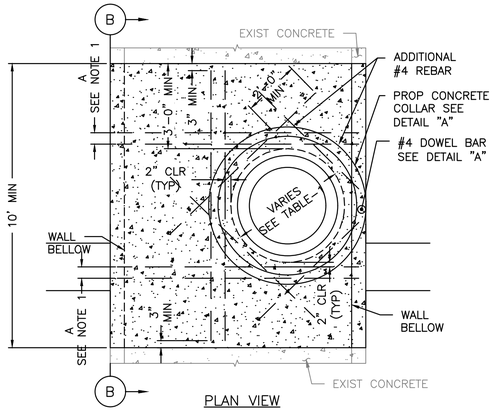
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

CONSTRUCTION SIGN DETAIL

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 161 OF 339	

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PLAN VIEW

NOTES:

1. TRANSITION SLAB SHALL MEET MIN REQUIREMENTS OF COH STANDARD SPECIFICATION SECTION 02081.
2. TIE THE PROPOSED COLLAR STEEL TO LONGITUDINAL AND ELLIPTICAL STEEL, WHERE APPLICABLE.
3. FOR CONCRETE COLLAR PROVIDE CLASS A CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AND GRADE 60 REINFORCING STEEL IN ACCORDANCE WITH COH STANDARD SPECIFICATION SECTION 03315.
4. REFER TO STORM SEWER TYPE "C" PRECAST ROUND MANHOLE DETAIL (02082-12) FOR REDUCED RISER DESIGN REQUIREMENTS.
5. REQUIRED MINIMUM 3' EXTENSION OF STORM BOX.
6. CONTRACTOR TO PROVIDE TX PE SIGNED & SEALED MANHOLE DRAWINGS.

TABLE-1

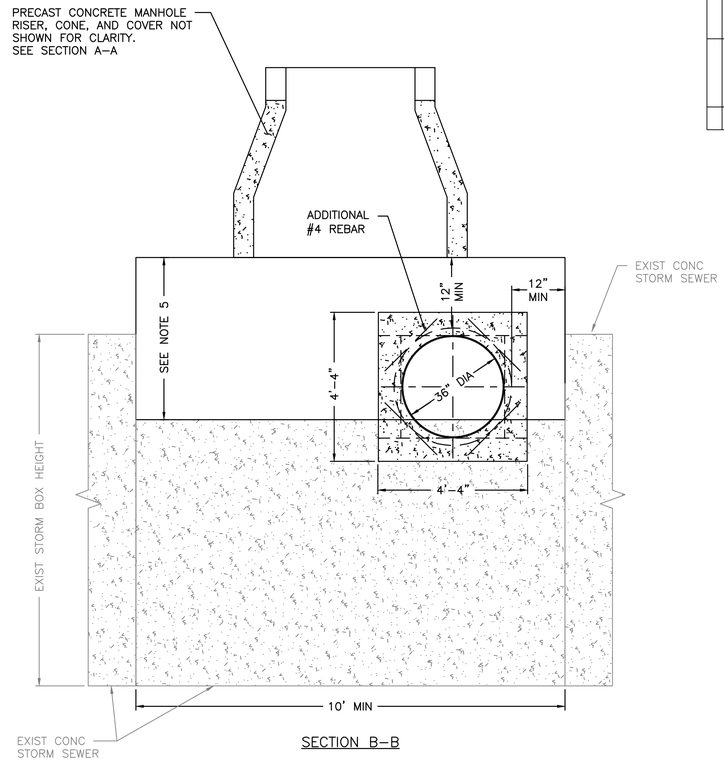
BOX WIDTH VS OPENING SIZE	
BOX WIDTH (INCHES)	OPENING SIZE (INCHES)
48"	36"
GREATER THAN 48"	48"

FABRICATION NOTES:

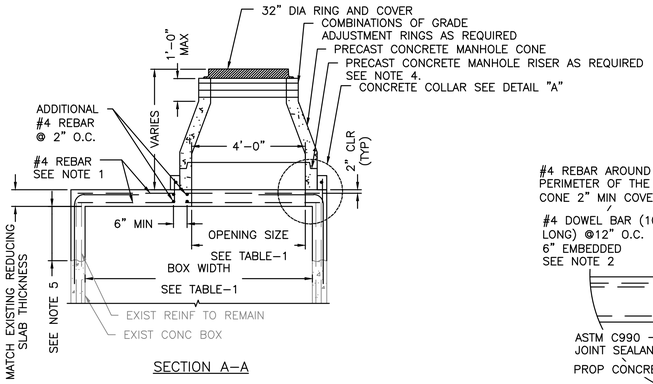
1. PROVIDE CLASS "H" CONCRETE IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION ITEM 421 AND HAVING A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI.
2. PROVIDE GRADE 60 REINFORCING STEEL OR EQUIVALENT AREA OF WWR. PROVIDE CIRCUMFERENTIAL REINFORCING STEEL IN VERTICAL WALLS OF RISER AND CONE IN ACCORDANCE WITH ASTM C478.
3. PROVIDE TYPICAL MINIMUM CONCRETE CLEAR COVER OF 1 ½" TO REINFORCING STEEL AT INTERIOR OR EXTERIOR WALLS.
4. SLABS WITH A THICKNESS OF 8" OR GREATER REQUIRE SHRINKAGE AND TEMPERATURE REINFORCING STEEL. PROVIDE STEEL AREA = 0.11 IN^2/FT EACH WAY.
5. DESIGN TONGUE AND GROOVE JOINTS FOR FULL CLOSURE ON BOTH SHOULDERS. MINIMUM SPIGOT DEPTH IS ¾".
6. PROVIDE LIFTING DEVICES IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. PROVIDE CAST IRON SOLID COVER, UNLESS NOTED OTHERWISE ELSEWHERE IN THE PLANS.
8. MAXIMUM SPACING OF REINFORCEMENT IS 8".
9. AT MANUFACTURERS OPTION, PROVIDE CAST OR CORED HOLES OR THIN WALL PANELS (KO) TO THE MAXIMUM DIA SHOWN FOR EACH. WHEN NO PENETRATION IS REQUIRED, IT IS ACCEPTABLE TO PROVIDE A WALL WITH NO SECTIONAL REDUCTION.
10. THREE DIFFERENT OPTIONS FOR CAPPING THE MANHOLE RISER NEAR THE FINISHED GRADE ARE ALLOWED. CONES CAN BE USED WHEN COVER IS SUFFICIENT TO ALLOW FOR PROPER PLACEMENT. FLAT LIDS ARE TO BE USED WHERE COVER IS LIMITED. REFER TO 02082-12 FOR OPTIONS.
11. BASES AND RISERS MAY HAVE CAST, CUT OR THIN WALL PANEL (KO) THAT ARE ROUND AND DO NOT EXTEND INTO THE FLOOR, INTO WALLS, OR WITHIN 6" OF THE JOINT ABOVE OR BELOW.

INSTALLATION NOTES:

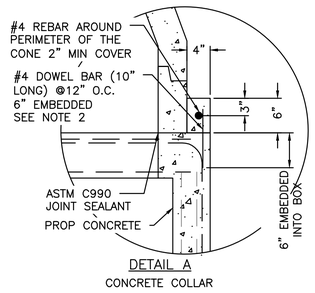
1. SEAL TONGUE AND GROOVE JOINTS WITH PREFORMED OR BULK MASTIC IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. TONGUE AND GROOVE JOINTS MAY BE GROUTED NO MORE THAN 1" BETWEEN EACH SECTION, OR ½ THE JOINT DEPTH, WHICHEVER IS GREATER.
2. DO NOT GROUT RUBBER GASKET JOINTS WITHOUT MANUFACTURER'S RECOMMENDATION.
3. FOR RIGID PIPE, CUT HOLE IN THIN WALL PANEL (KO) 4" MAX, 2" MIN LARGER THAN PIPE OD.
4. FOR FLEXIBLE PIPE, CONSULT BOOT/SEAL MANUFACTURER'S SPECIFICATION FOR PLACEMENT TOLERANCE AND HOLE SIZE. CENTER PIPE IN HOLE AND INSTALL BOOT/SEAL PER MANUFACTURER'S SPECIFICATION.
5. INITIAL INSTALLATION OF GRADE ADJUSTMENT RINGS IS LIMITED TO 1'-0" MAX AS SHOWN.
6. GRADE ADJUSTMENT RINGS MAY BE INCREASED TO 1'-6" MAX WHEN FUTURE CONSTRUCTION AFFECTS FINAL GRADE OF STRUCTURE. MAKE ADJUSTMENTS GREATER THAN 1'-6" WITH ADDITIONAL RISERS. ADJUSTMENTS MAY BE MADE UP TO THE MAX DEPTH OF 25'-0". STRUCTURE MUST BE EVALUATED IF MAX DEPTH WILL BE EXCEEDED.



SECTION B-B



SECTION A-A



DETAIL A
CONCRETE COLLAR

NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

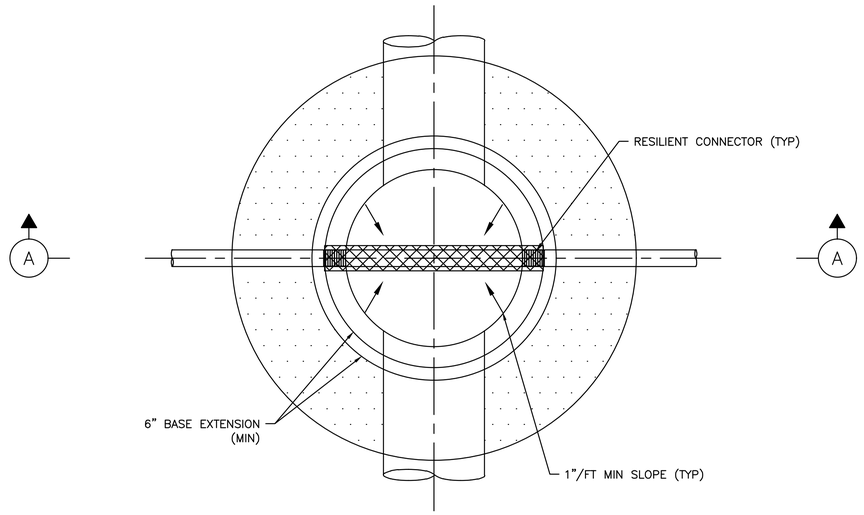
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE AT GAZIN ST CONFLICT MANHOLE DETAIL

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 162 OF 339	

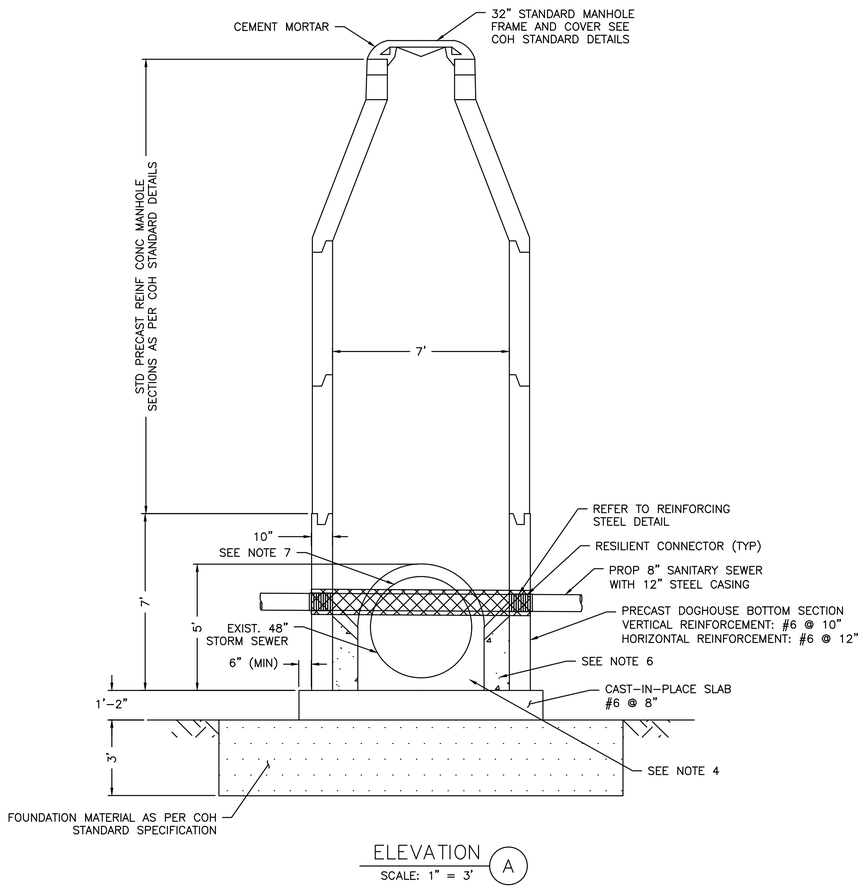
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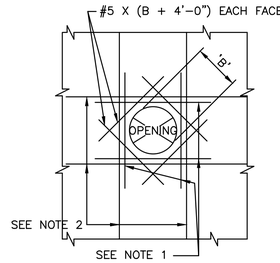
FOUNDATION PLAN

NOTES:

1. MANHOLE DEPTH AND RIM ELEVATION SHALL MATCH TO THE DRAWINGS.
2. CONTRACTOR TO MANUFACTURE BOTTOM SECTION OF DOGHOUSE MANHOLE WALLS TO ACCOMMODATE EXISTING 48–INCH STORM SEWER PIPE.
3. PROTECT EXISTING SEWER PIPE, INSTALL FOUNDATION AND CAST–IN–PLACE CONCRETE BASE.
4. INSTALL DOGHOUSE MANHOLE, FILL OPENINGS AROUND EXISTING PIPE AND GAPS BETWEEN CONCRETE BASE AND DOGHOUSE MANHOLE WITH NON–SHRINK WATERTIGHT GROUT.
5. PROVIDE GROUT SLOPE ON THE BOTTOM.
6. PERFORM VACUUM TESTING PRIOR TO COATING PER COH STANDARD SPECIFICATION.
7. CUT AND REMOVE TOP OF EXISTING PIPE FOR SERVICE.



ELEVATION (A)
SCALE: 1" = 3'



1. PROVIDE 2–#6 X (B+4'–0") ADDITIONAL REBARS @ TOP AND BOTTOM.
2. PROVIDE ADDITIONAL BARS EQUAL TO ONE–HALF OF BARS INTERRUPTED AT EACH SIDE OF OPENING AT 3" C/C. THESE BARS SHALL BE ORIGINAL SIZES AND LENGTHS AS THOSE OF THE INTERRUPTED BARS. TYPICAL FOR OPENINGS IN SLABS AND PRESSURE WALLS.

ADDITIONAL REINFORCING STEEL AT OPENINGS IN WALLS AND AT PIPE PENETRATIONS (B)
SCALE: NTS

NO.	DATE	REVISION	APP.

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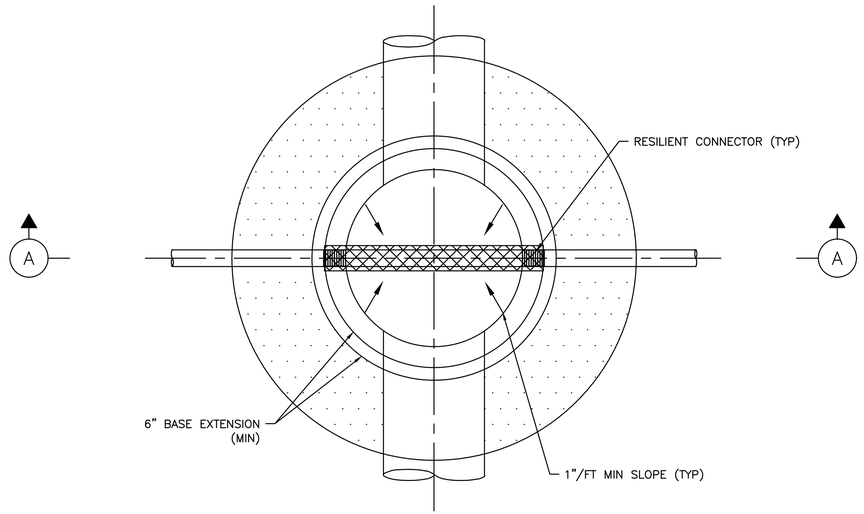
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

LYONS AVE AT BACKLOT ALLEY A CONFLICT MANHOLE DETAIL

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R–001000–0034–3	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 163 OF 339	

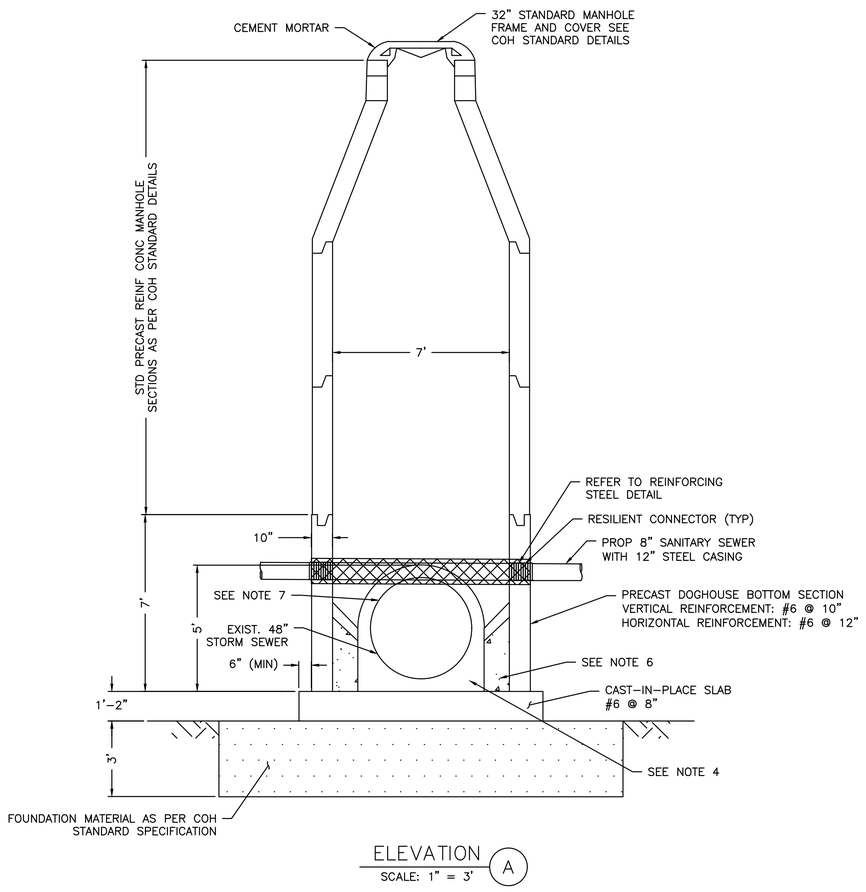
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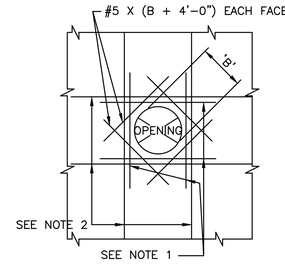
FOUNDATION PLAN

NOTES:

1. MANHOLE DEPTH AND RIM ELEVATION SHALL MATCH TO THE DRAWINGS.
2. CONTRACTOR TO MANUFACTURE BOTTOM SECTION OF DOGHOUSE MANHOLE WALLS TO ACCOMMODATE EXISTING 48–INCH STORM SEWER PIPE.
3. PROTECT EXISTING SEWER PIPE, INSTALL FOUNDATION AND CAST–IN–PLACE CONCRETE BASE.
4. INSTALL DOGHOUSE MANHOLE, FILL OPENINGS AROUND EXISTING PIPE AND GAPS BETWEEN CONCRETE BASE AND DOGHOUSE MANHOLE WITH NON–SHRINK WATERTIGHT GROUT.
5. PROVIDE GROUT SLOPE ON THE BOTTOM.
6. PERFORM VACUUM TESTING PRIOR TO COATING PER COH STANDARD SPECIFICATION.
7. CUT AND REMOVE TOP OF EXISTING PIPE FOR SERVICE.



ELEVATION (A)
SCALE: 1" = 3'



1. PROVIDE 2–#6 X (B+4'–0") ADDITIONAL REBARS @ TOP AND BOTTOM.
2. PROVIDE ADDITIONAL BARS EQUAL TO ONE–HALF OF BARS INTERRUPTED AT EACH SIDE OF OPENING AT 3" C/C. THESE BARS SHALL BE ORIGINAL SIZES AND LENGTHS AS THOSE OF THE INTERRUPTED BARS. TYPICAL FOR OPENINGS IN SLABS AND PRESSURE WALLS.

ADDITIONAL REINFORCING STEEL AT OPENINGS IN WALLS AND AT PIPE PENETRATIONS (B)
SCALE: NTS

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DATE: 10/28/2026

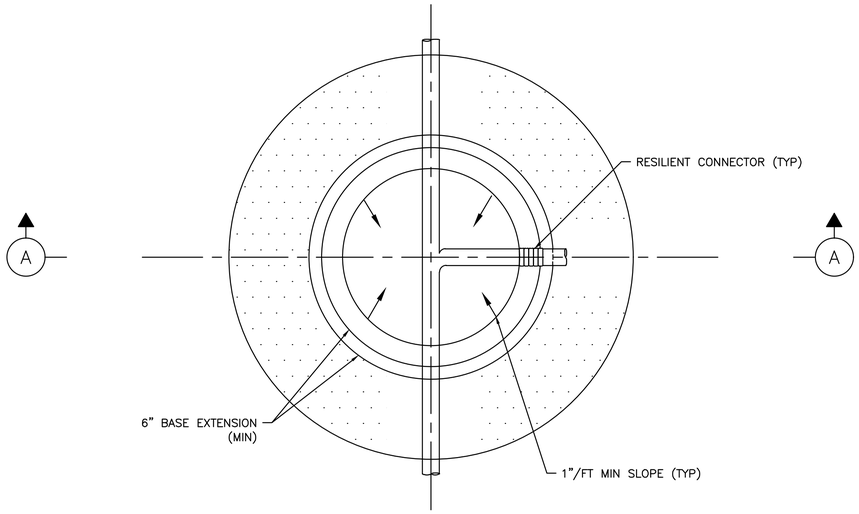
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

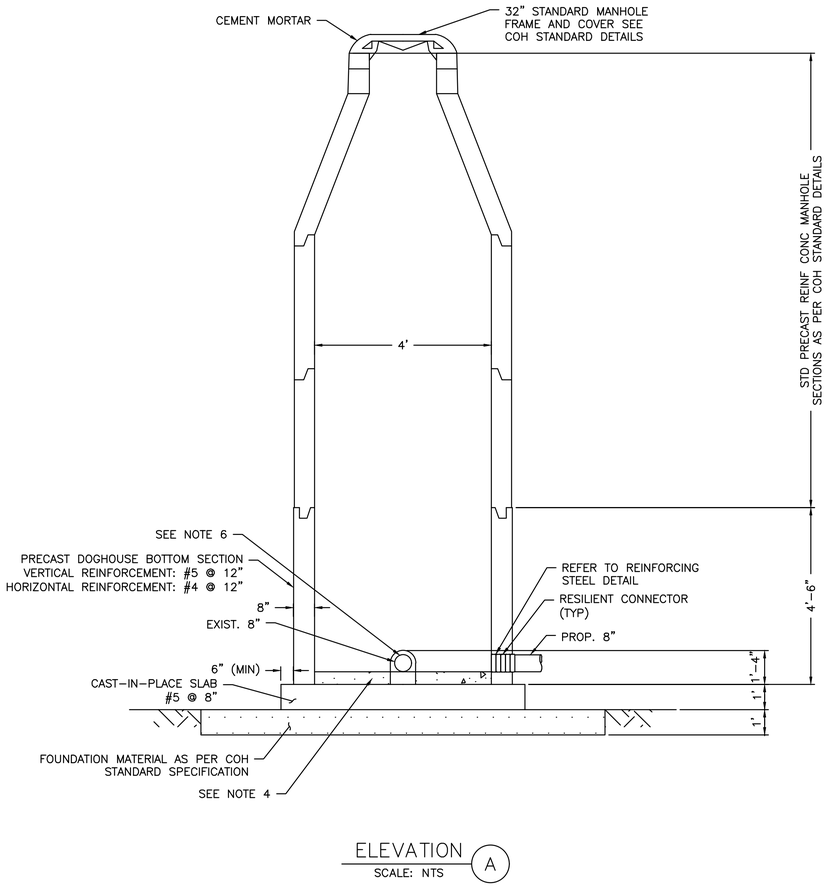
LYONS AVE AT BACKLOT ALLEY B CONFLICT MANHOLE DETAIL

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 164 OF 339	

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FOUNDATION PLAN



ELEVATION A
SCALE: NTS

NOTES:

1. MANHOLE DEPTH AND RIM ELEVATION SHALL MATCH TO THE DRAWINGS.
2. CONTRACTOR TO MANUFACTURE BOTTOM SECTION OF DOGHOUSE MANHOLE WALLS TO ACCOMMODATE EXISTING 8-INCH SANITARY SEWER PIPE.
3. PROTECT EXISTING SEWER PIPE, INSTALL FOUNDATION AND CAST-IN-PLACE CONCRETE BASE.
4. INSTALL DOGHOUSE MANHOLE, FILL OPENINGS AROUND EXISTING PIPE AND GAPS BETWEEN CONCRETE BASE AND DOGHOUSE MANHOLE WITH NON-SHRINK WATERTIGHT GROUT.
5. PERFORM VACUUM TESTING PRIOR TO COATING PER COH STANDARD SPECIFICATION.
6. CUT AND REMOVE TOP OF EXISTING PIPE FOR SERVICE.

NO.	DATE	REVISION	APP.

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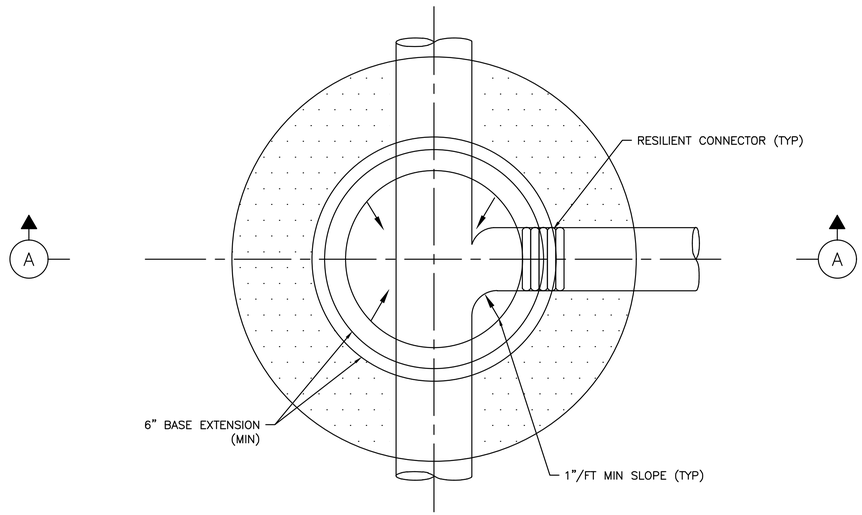
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

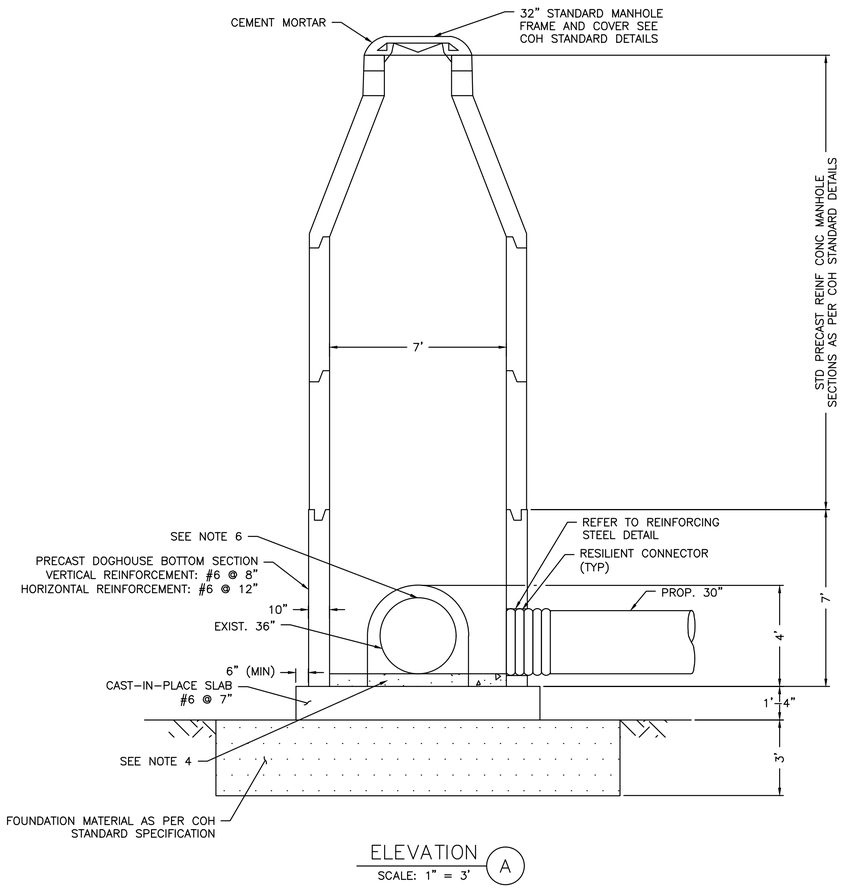
BONHAM DOGHOUSE MANHOLE DETAIL

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 165 OF 339	

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PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Details\BONHAM Doghouse Manhole Detail.dwg



FOUNDATION PLAN



ELEVATION A
SCALE: 1" = 3'

NOTES:

1. MANHOLE DEPTH AND RIM ELEVATION SHALL MATCH TO THE DRAWINGS.
2. CONTRACTOR TO MANUFACTURE BOTTOM SECTION OF DOGHOUSE MANHOLE WALLS TO ACCOMMODATE EXISTING 36-INCH SANITARY SEWER PIPE.
3. PROTECT EXISTING SEWER PIPE, INSTALL FOUNDATION AND CAST-IN-PLACE CONCRETE BASE.
4. INSTALL DOGHOUSE MANHOLE, FILL OPENINGS AROUND EXISTING PIPE AND GAPS BETWEEN CONCRETE BASE AND DOGHOUSE MANHOLE WITH NON-SHRINK WATERTIGHT GROUT.
5. PERFORM VACUUM TESTING PRIOR TO COATING PER COH STANDARD SPECIFICATION.
6. CUT AND REMOVE TOP OF EXISTING PIPE FOR SERVICE.

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

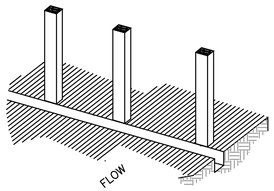
HAHLO DOGHOUSE MANHOLE DETAIL

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 166 OF 339	

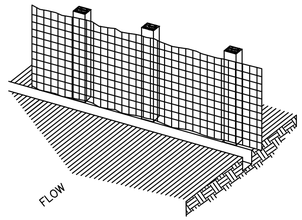
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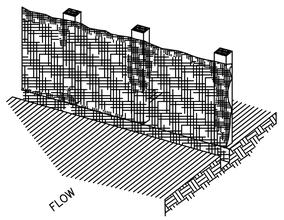
1. SET POSTS AND EXCAVATE 4"x4" TRENCH UPSLOPE ALONG LINE OF POSTS (SEE NOTE 1).



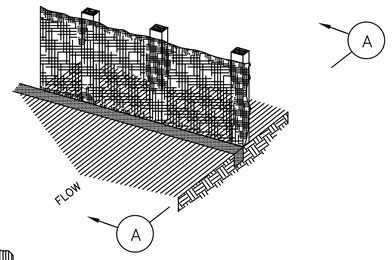
2. SECURE WIRE REINFORCING TO POSTS (SEE NOTE 2).

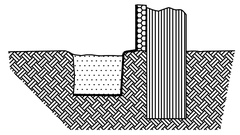


3. ATTACH FILTER MATERIAL TO WIRE REINFORCING AND EXTEND IT INTO THE TRENCH (SEE NOTE 3).



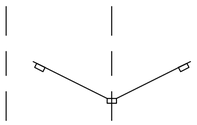
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



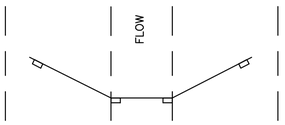


SECTION A–A

EXTENSION OF FABRIC INTO TRENCH

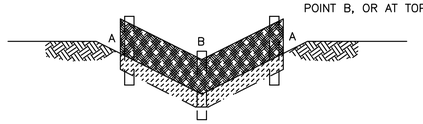


PLAN VIEW

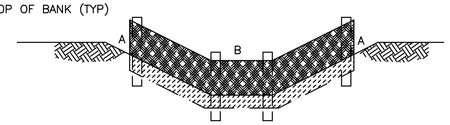


PLAN VIEW

POINTS A SHOULD BE HIGHER THAN POINT B, OR AT TOP OF BANK (TYP)



"V–DITCH" SECTION/ELEVATION



TRAPEZOIDAL SECTION/ELEVATION

CONSTRUCTION NOTES:

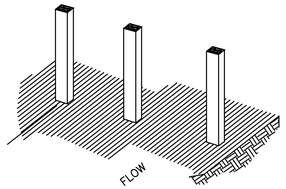
1. SET 2 INCH BY 2 INCH WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
2. WOVEN WIRE REINFORCING TO BE FASTENED SECURELY TO BARRIER POSTS WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE REINFORCING, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
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 01570 FOR FILTER FABRIC BARRIER.



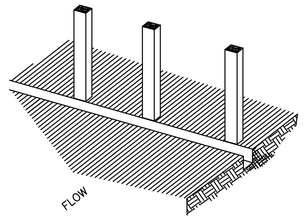
SYMBOL

REINFORCED FILTER FABRIC BARRIER

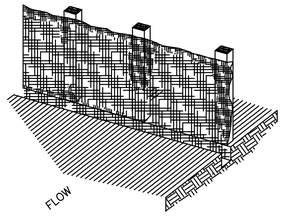
1. SET POSTS AT REQUIRED SPACING.



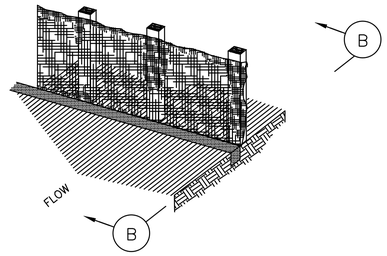
2. EXCAVATE A 4"x4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.

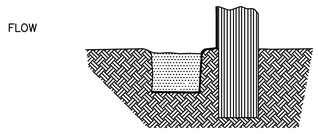


3. ATTACH FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.



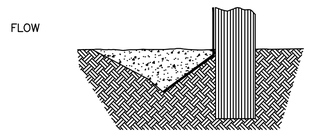
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.





SECTION B–B

EXTENSION OF FABRIC INTO TRENCH



SECTION B–B

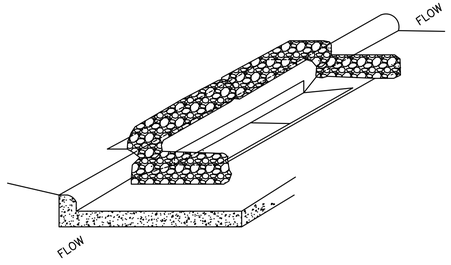
ALTERNATE

V–TRENCH EXTENSION OF FABRIC INTO TRENCH

CONSTRUCTION NOTES:

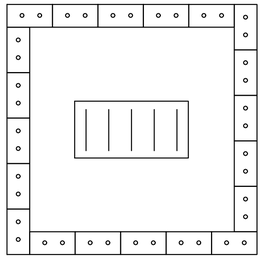
1. 2 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED BARRIER WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
2. ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC BARRIER SHALL HAVE A MIN HEIGHT OF 18 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 01570 FOR FILTER FABRIC BARRIER.

FILTER FABRIC BARRIER



INLET PROTECTION BARRIER

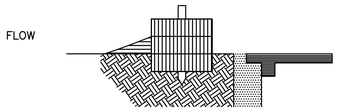
(FOR STAGE II INLETS)
BAGGED GRAVEL BARRIER



PLAN VIEW

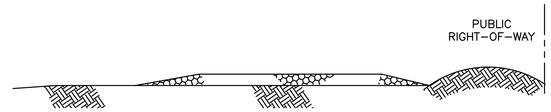
IPB

SYMBOL

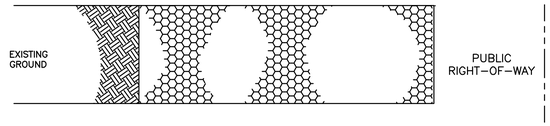


SECTION C–C

HAY BALE INLET PROTECTION BARRIER



PROFILE



PLAN VIEW

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 ACCOMODATE A WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE WASHING AREA.
6. COH STANDARD SPECIFICATION 01575 FOR STABILIZED CONSTRUCTION ACCESS.
7. STABILIZED CONSTRUCTION ACCESS SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.

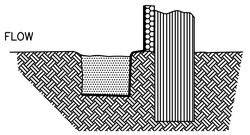


SYMBOL

STABILIZED CONSTRUCTION ACCESS

CONSTRUCTION NOTES:

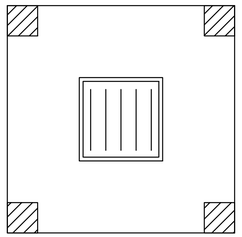
1. SEE CONSTRUCTION NOTES FOR RFB.



SECTION D–D

IPB

SYMBOL



PLAN VIEW

SILT FENCE INLET PROTECTION BARRIER

NO.	DATE	REVISION	APP.

APPROVED BY:	APPROVED BY:
Signed by: 18EB922672F84DC...	Signed by: B5463EFCDF4544B...
CITY ENGINEER	DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: MAR–02–2026	DWG NO: 01570–01

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

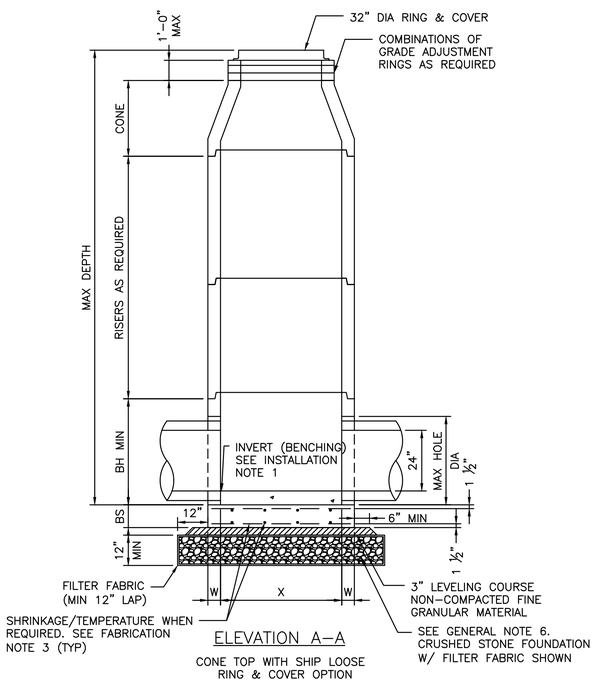
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

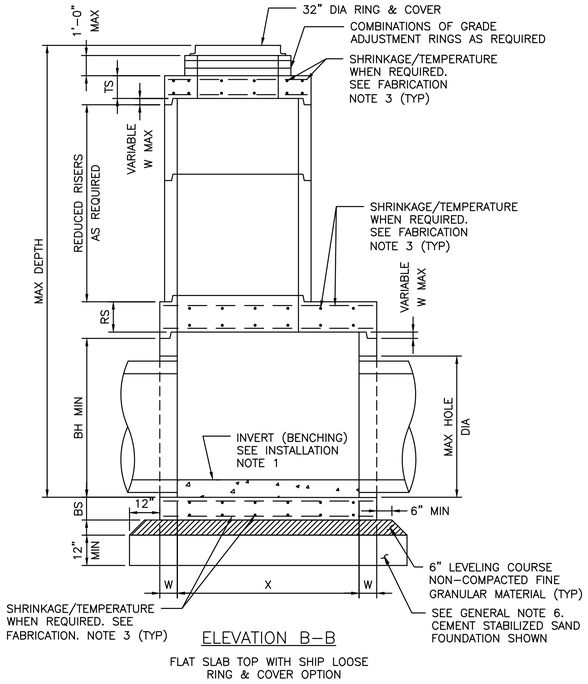
STORMWATER POLLUTION PREVENTION PLAN DETAILS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 167 OF 339	



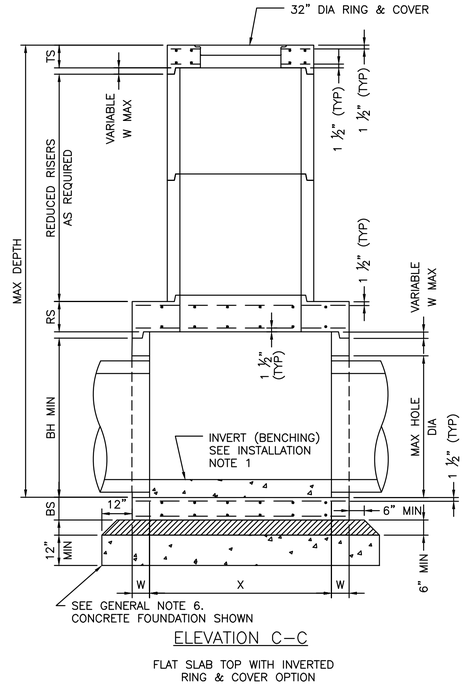
ELEVATION A–A

CONE TOP WITH SHIP LOOSE RING & COVER OPTION



ELEVATION B–B

FLAT SLAB TOP WITH SHIP LOOSE RING & COVER OPTION



ELEVATION C–C

FLAT SLAB TOP WITH INVERTED RING & COVER OPTION

FABRICATION NOTES:

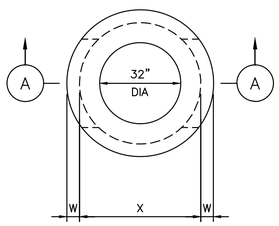
1. PROVIDE CLASS "H" CONCRETE IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION ITEM 421 AND HAVING A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI.
2. PROVIDE GRADE 60 REINFORCING STEEL OR EQUIVALENT AREA OF WWR. PROVIDE CIRCUMFERENTIAL REINFORCING STEEL IN VERTICAL WALLS OF BASE, RISER AND CONE IN ACCORDANCE WITH ASTM C478.
3. SLABS WITH A THICKNESS OF 8" OR GREATER REQUIRE SHRINKAGE AND TEMPERATURE REINFORCING STEEL. PROVIDE STEEL AREA = 0.11 IN^2/FT EACH WAY.
4. MANUFACTURE BASE AND RISERS TO NEAREST 3" INCREMENT.
5. DESIGN TONGUE AND GROOVE JOINTS FOR FULL CLOSURE ON BOTH SHOULDERS. MINIMUM SPIGOT DEPTH IS ¾".
6. PROVIDE LIFTING DEVICES IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. PROVIDE CAST IRON SOLID COVER, UNLESS NOTED OTHERWISE ELSEWHERE IN THE PLANS.
8. THREE DIFFERENT OPTIONS FOR CAPPING THE MANHOLE RISER NEAR THE FINISHED GRADE ARE SHOWN. CONES CAN BE USED WHEN COVER IS SUFFICIENT TO ALLOW FOR PROPER PLACEMENT. FLAT LIDS ARE TO BE USED WHERE COVER IS LIMITED.

INSTALLATION NOTES:

1. IF REQUIRED ELSEWHERE, INVERTS (BENCHING) TO BE PROVIDED BY CONTRACTOR. CONCRETE OR MORTAR USED FOR INVERT IS SUBSIDIARY TO THIS ITEM. REFER TO CITY OF HOUSTON SPECIFICATION 02082 FOR INVERT (BENCHING) REQUIREMENTS.
2. SEAL TONGUE AND GROOVE JOINTS WITH PREFORMED OR BULK MASTIC IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. TONGUE AND GROOVE JOINTS MAY BE GROUTED NO MORE THAN 1" BETWEEN EACH SECTION, OR ½ THE JOINT DEPTH, WHICHEVER IS GREATER.
3. DO NOT GROUT RUBBER GASKET JOINTS WITHOUT MANUFACTURER'S RECOMMENDATION.
4. INITIAL INSTALLATION OF GRADE ADJUSTMENT RINGS IS LIMITED TO 1'–0" MAX AS SHOWN.
5. GRADE ADJUSTMENT RINGS MAY BE INCREASED TO 1'–6" MAX WHEN FUTURE CONSTRUCTION AFFECTS FINAL GRADE OF STRUCTURE. MAKE ADJUSTMENTS GREATER THAN 1'–6" WITH ADDITIONAL RISERS. ADJUSTMENTS MAY BE MADE UP TO THE MAX DEPTH OF 25'–0". STRUCTURE MUST BE EVALUATED IF MAX DEPTH WILL BE EXCEEDED.

GENERAL NOTES:

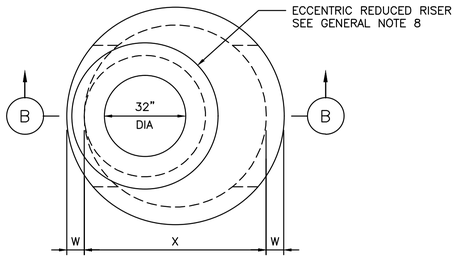
1. SEE TABLE–1 FOR MINIMUM DESIGN REQUIREMENTS. CONCENTRIC RISER WITH RESPECT TO BASE (ALTERNATIVE CONFIGURATION) FALLS OUTSIDE THE SCOPE OF REQUIREMENTS PROVIDED. ENGINEER OF RECORD ACCEPTS RESPONSIBILITY FOR SAFETY AND ADEQUACY OF MANHOLE IF THE ALTERNATIVE CONFIGURATION IS USED.
2. DESIGNED ACCORDING TO ASTM C478.
3. PAYMENT FOR PRECAST MANHOLE PER SECTION 02082–PRECAST CONCRETE MANHOLES.
4. PIPE OD + PLACEMENT TOLERANCE MUST BE EQUAL OR LESS THAN MAX HOLE DIA. FOR RIGID PIPE, PLACEMENT TOLERANCE IS 4" MAX, 2" MIN. FOR FLEXIBLE PIPE, CONSULT BOOT/SEAL MANUFACTURER'S SPECIFICATION FOR PLACEMENT TOLERANCE.
5. STORM WATER SEWER PIPE INTERNAL DIA SHALL NOT BE LESS THAN 24".
6. FOUNDATION/SUBGRADE TO BE DESIGNED BY ENGINEER AND MEET MINIMUM REQUIREMENTS ACCORDING TO SECTION 02082.
7. ALL STORM WATER MANHOLES ARE TO BE PRECAST CONCRETE, UNLESS OTHERWISE NOTED ELSEWHERE IN THE PLANS.
8. ECCENTRIC REDUCED RISER WITH RESPECT TO BASE IS THE PREFERRED MANHOLE CONFIGURATION. CONCENTRIC REDUCED RISER WITH RESPECT TO BASE MANHOLE CONFIGURATION IS AN ALTERNATIVE DESIGN THAT WILL BE ACCEPTED BASED ON THE NEEDS OF THE CITY OF HOUSTON.
9. CONES MAY BE CONCENTRIC OR ECCENTRIC. REDUCTION CONES ARE ACCEPTABLE. REFER TO MANUFACTURER FOR CONE DIMENSIONS.
10. MANHOLE SIZE SHALL CONSIDER ENGINEERING ECONOMY. THIS DETAIL IS NOT APPLICABLE TO ROUND MANHOLES LARGER THAN 6–FOOT DIA.



PLAN VIEW A

COVER NOT SHOWN

4–FT DIA MANHOLE

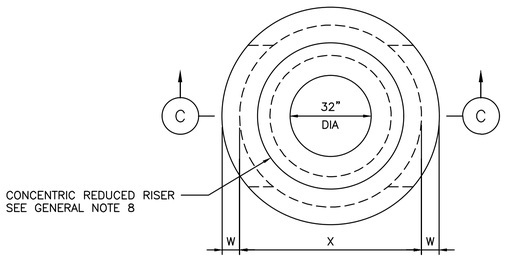


PLAN VIEW B

COVER NOT SHOWN

5–FT & 6–FT DIA MANHOLE

ECCENTRIC MANHOLE (PREFERRED CONFIGURATION)



PLAN VIEW C

COVER NOT SHOWN

5–FT & 6–FT DIA MANHOLE

ECCENTRIC MANHOLE (ALTERNATE CONFIGURATION)

TABLE–1

PRECAST ROUND MANHOLE (PRM) MINIMUM REQUIREMENTS FOR 24 IN. TO 42 IN. INTERNAL DIA STORM SEWER PIPES

	SIZE	BASE SLAB THICKNESS	BASE UNIT OR RISER THICKNESS	REDUCED RISER DIA	REDUCING SLAB THICKNESS	TOP SLAB THICKNESS	MAX DEPTH TO TOP OF BASE SLAB	MIN HEIGHT	MAX HOLE DIA
	X	BS	W	ID	RS	TS	MAX DEPTH	BH MIN	MAX HOLE DIA
	FT	IN.	IN.	IN.	IN.	IN.	FT.	IN.	IN.
PRM	4	9	5	–	–	9	25	42	35
	5	9	6	48	9	9	25	42	42
	6	9	7	48/60*	12	9	25	42	56

(*) 60–IN REDUCED RISER IS TO BE USED WHEN DEEMED NECESSARY TO SATISFY WALL PENETRATION SPACING REQUIREMENTS.

NO.	DATE	REVISION	APP.

APPROVED BY:	APPROVED BY:
Signed by: 19EB822C72F84DC...	Signed by: 05453EF0CF4541B...
CITY ENGINEER	DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: MAR–02–2026	DWG NO: 02082–12

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON

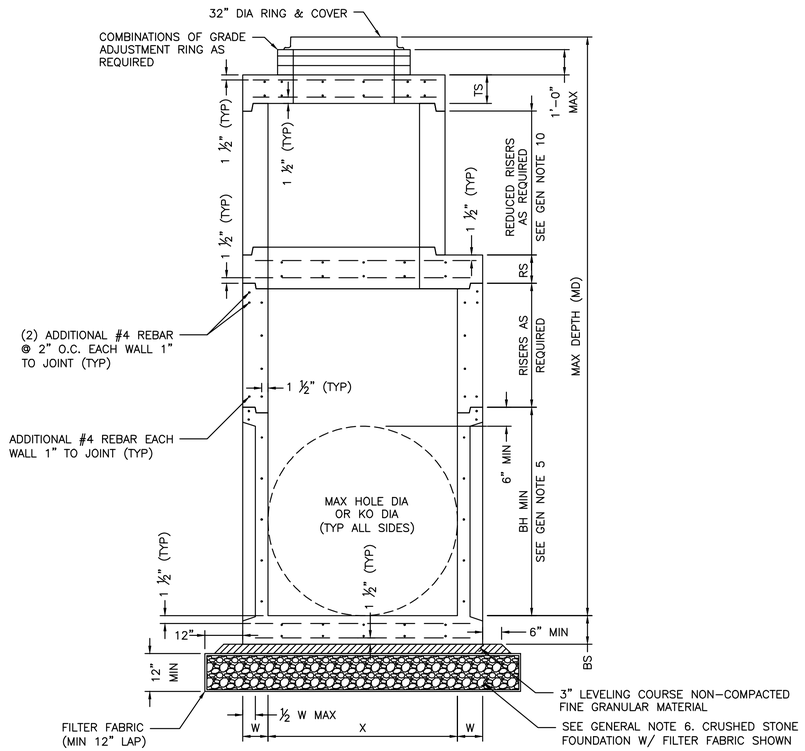
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

STORM SEWER TYPE C PRECAST ROUND MANHOLE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 168 OF 339	

FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Details\126 Storm Sewer Type C Precast Round Manhole Detail.dwg PLOT STYLE: COH.ctb PLOTTED: 10/28/2026 10:52 AM



ELEVATION A–A
FLAT SLAB TOP WITH SHIP LOOSE RING & COVER OPTION

FABRICATION NOTES:

1. PROVIDE CLASS "H" CONCRETE IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION ITEM 421 AND HAVING A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI.
2. PROVIDE GRADE 60 REINFORCING STEEL OR EQUIVALENT AREA OF WWR. PROVIDE CIRCUMFERENTIAL REINFORCING STEEL IN VERTICAL WALLS OF RISER AND CONE IN ACCORDANCE WITH ASTM C478.
3. PROVIDE TYPICAL MINIMUM CONCRETE CLEAR COVER OF 1 ½" TO REINFORCING STEEL AT INTERIOR OR EXTERIOR WALLS.
4. SLABS WITH A THICKNESS OF 8" OR GREATER REQUIRE SHRINKAGE AND TEMPERATURE REINFORCING STEEL. PROVIDE STEEL AREA = 0.11 IN²/FT EACH WAY.
5. MANUFACTURE BASE AND RISERS TO NEAREST 3" INCREMENT.
6. DESIGN TONGUE AND GROOVE JOINTS FOR FULL CLOSURE ON BOTH SHOULDERS. MINIMUM SPIGOT DEPTH IS ¾".
7. PROVIDE LIFTING DEVICES IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS.
8. PROVIDE CAST IRON SOLID COVER, UNLESS NOTED OTHERWISE ELSEWHERE IN THE PLANS.
9. MAXIMUM SPACING OF REINFORCEMENT IS 8".
10. AT MANUFACTURERS OPTION, PROVIDE CAST OR CORED HOLES OR THIN WALL PANELS (KO) TO THE MAXIMUM DIA SHOWN FOR EACH. WHEN NO PENETRATION IS REQUIRED, IT IS ACCEPTABLE TO PROVIDE A WALL WITH NO SECTIONAL REDUCTION.
11. THREE DIFFERENT OPTIONS FOR CAPPING THE MANHOLE RISER NEAR THE FINISHED GRADE ARE ALLOWED. CONES CAN BE USED WHEN COVER IS SUFFICIENT TO ALLOW FOR PROPER PLACEMENT. FLAT LIDS ARE TO BE USED WHERE COVER IS LIMITED. REFER TO 02082–12 FOR OPTIONS.
12. BASES AND RISERS MAY HAVE CAST, CUT OR THIN WALL PANEL (KO) THAT ARE ROUND AND DO NOT EXTEND INTO THE FLOOR, INTO WALLS, OR WITHIN 6" OF THE JOINT ABOVE OR BELOW.

INSTALLATION NOTES:

1. IF REQUIRED ELSEWHERE, INVERTS (BENCHING) TO BE PROVIDED BY CONTRACTOR. CONCRETE OR MORTAR USED FOR INVERT IS SUBSIDIARY TO MANHOLE/INLET. REFER TO CITY OF HOUSTON SPECIFICATION SECTION 02082 FOR INVERT (BENCHING) REQUIREMENTS FOR MANHOLES AND SECTION 02633 FOR INVERT (BENCHING) REQUIREMENTS FOR INLETS.
2. SEAL TONGUE AND GROOVE JOINTS WITH PREFORMED OR BULK MASTIC IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. TONGUE AND GROOVE JOINTS MAY BE GROUTED NO MORE THAN 1" BETWEEN EACH SECTION, OR ½ THE JOINT DEPTH, WHICHEVER IS GREATER.
3. DO NOT GROUT RUBBER GASKET JOINTS WITHOUT MANUFACTURER'S RECOMMENDATION.
4. FOR RIGID PIPE, CUT HOLE IN THIN WALL PANEL (KO) 4" MAX, 2" MIN LARGER THAN PIPE OD.
5. FOR FLEXIBLE PIPE, CONSULT BOOT/SEAL MANUFACTURER'S SPECIFICATION FOR PLACEMENT TOLERANCE AND HOLE SIZE. CENTER PIPE IN HOLE AND INSTALL BOOT/SEAL PER MANUFACTURER'S SPECIFICATION.
6. INITIAL INSTALLATION OF GRADE ADJUSTMENT RINGS IS LIMITED TO 1'–0" MAX AS SHOWN.
7. GRADE ADJUSTMENT RINGS MAY BE INCREASED TO 1'–6" MAX WHEN FUTURE CONSTRUCTION AFFECTS FINAL GRADE OF STRUCTURE. MAKE ADJUSTMENTS GREATER THAN 1'–6" WITH ADDITIONAL RISERS. ADJUSTMENTS MAY BE MADE UP TO THE MAX DEPTH OF 25'–0". STRUCTURE MUST BE EVALUATED IF MAX DEPTH WILL BE EXCEEDED.

GENERAL NOTES:

1. SEE TABLE–1 FOR MINIMUM DESIGN REQUIREMENTS. CONCENTRIC RISER WITH RESPECT TO BASE (ALTERNATIVE CONFIGURATION) FALLS OUTSIDE THE SCOPE OF REQUIREMENTS PROVIDED. ENGINEER OF RECORD ACCEPTS RESPONSIBILITY FOR SAFETY AND ADEQUACY OF INLET/MANHOLE IF THE ALTERNATIVE CONFIGURATION IS USED.
2. DESIGNED ACCORDING TO ASTM C478 AND/OR ASTM C913.
3. PAYMENT FOR PRECAST MANHOLE PER SECTION 02082 PRECAST CONCRETE MANHOLES AND FOR PRECAST INLETS PER SECTION 02633 PRECAST CONCRETE INLETS, HEADWALLS, AND WINGWALLS.
4. PRECAST BASE CONSISTS OF BASE SLAB, BASE UNIT, RISERS (AS REQUIRED), REDUCING SLAB (AS REQUIRED), AND REDUCED RISERS (AS REQUIRED).
5. MIN HEIGHT SHOWN FOR STOCK BASE UNITS. USE STOCK BASE UNITS WHENEVER PRACTICAL. SMALLER HEIGHT BASE UNITS CAN BE USED IN SPECIAL INSTALLATION CIRCUMSTANCES, WHEN NOTED ELSEWHERE IN THE PLANS. ABSOLUTE MINIMUM HEIGHT OF BASE UNITS IS 2'–6".
6. FOUNDATION/SUBGRADE TO BE DESIGNED BY ENGINEER AND MEET MINIMUM REQUIREMENTS ACCORDING TO SECTION 02082.
7. ALL STORM WATER INLETS/MANHOLES ARE TO BE PRECAST CONCRETE, UNLESS OTHERWISE NOTED ELSEWHERE IN THE PLANS.
8. ECCENTRIC REDUCED RISER WITH RESPECT TO BASE IS THE PREFERRED INLET/MANHOLE CONFIGURATION. CONCENTRIC REDUCED RISER WITH RESPECT TO BASE INLET/MANHOLE CONFIGURATION IS AN ALTERNATIVE DESIGN THAT WILL BE ACCEPTED BASED ON THE NEEDS OF THE CITY OF HOUSTON.
9. MANHOLE SIZE SHALL CONSIDER ENGINEERING ECONOMY. THIS DETAIL IS NOT APPLICABLE TO BOX INLETS/MANHOLES LARGER THAN 8–FOOT BY 8–FOOT.
10. REFER TO STORM SEWER TYPE 'C' PRECAST ROUND MANHOLE DETAIL (02082–12) FOR REDUCED RISER DESIGN REQUIREMENTS.

TABLE–1

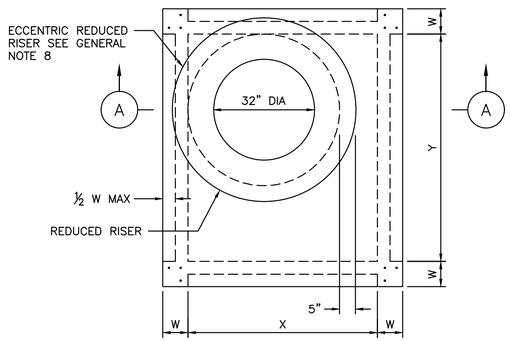
PRECAST BOX INLET (PBI) OR PRECAST BOX MANHOLE (PBM) MINIMUM REQUIREMENTS FOR 24 IN. TO 78 IN. INTERNAL DIA STORM SEWER PIPES.

	SIZE	BASE SLAB THICKNESS	BASE UNIT OR RISE WALL THICKNESS		REDUCED RISER DIA	REDUCED RISER SIZE	REDUCING SLAB THICKNESS	TOP SLAB THICKNESS	MIN HEIGHT (SEE GEN NOTE 5)	MAX HOLE DIA (SEE FAB NOTE 12)	MAX KO DIA (SEE FAB NOTE 12)
			MD ≤15 FT	15 FT < MD ≤ 25 FT (2)							
	X & Y	BS	W	W	ID	RWS x RWL	RS	TS	BH MIN	MAX HOLE DIA	KO DIA
	FT.	IN.	IN.	IN.	IN.	FT.	IN.	IN.	FT.	IN.	IN.
PBI/PBM	3X3 (1)	6	6	6	N/A	N/A	N/A	9	3.50	36	36
	4X4 (1)	6	6	6	N/A	N/A	N/A	9	4.50	48	48
	3X5 (1)	6	6	6	N/A	3X3	N/A	9	3.50	36/60	36/60
	4X5 (1)	6	6	6	48	3X3 / 4X4 / 3X5	9	9	4.50	48/60	48/60
	5X5 (1)	6	6	6	48	3X3 / 4X4 / 3X5	9	9	5.50	60	60
	5X6	9	6	8	48	3X3 / 4X4 / 3X5	9	9	5.50	60/72	60/72
	6X6	9	6	8	48	3X3 / 4X4 / 3X5	9	9	6.50	72	72
	8X8	9	8	10	48	3X3 / 4X4 / 3X5	12	9	8.50	96	72

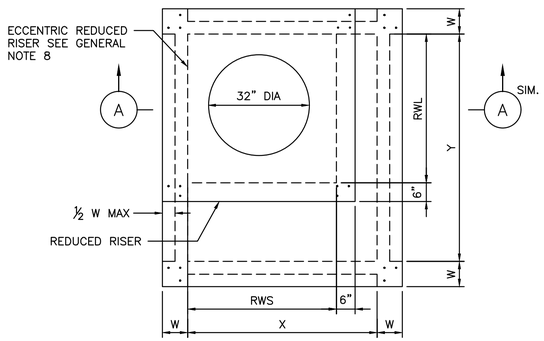
TABLE–1 NOTES:

(1) ROUND MANHOLES ARE PREFERRED FOR THESE SIZES.

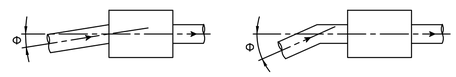
(2) MAX DEPTH (MD) DENOTES THE MAX INSTALLATION DEPTH MEASURED TO THE TOP OF BASE SLAB.



PLAN VIEW A
(ROUND REDUCED OPTION)
COVER NOT SHOWN



PLAN VIEW B
(SQUARE REDUCED OPTION)
COVER NOT SHOWN



(A) ANGLE OF ENTRY IS LESS THAN OR EQUAL TO 7°

(B) ANGLE OF ENTRY IS GREATER THAN 7°

CONNECT PIPES WITHIN 7° OF NORMAL TO PRECAST BASE WALL. IF NECESSARY, USE PIPE ELBOW OR CURVED APPROACH ALIGNMENT TO STAY WITHIN THIS LIMIT.

PIPE CONNECTION DETAIL

NO.	DATE	REVISION	APP.

APPROVED BY:	APPROVED BY:
Signed by: 1BEB822672F84DC...	Signed by: B0453EF0DF484EB...
CITY ENGINEER	DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: MAR–02–2026	DWG NO: 02082–13

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

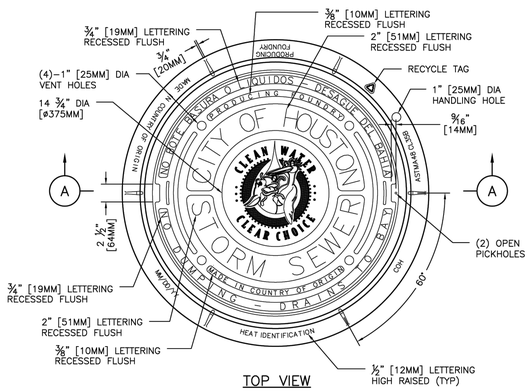
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

STORM SEWER PRECAST BOX INLET MANHOLE

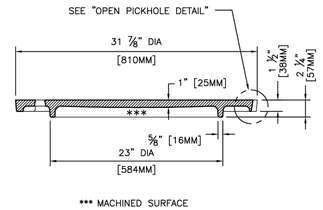
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 169 OF 339	

PLOTTED: 10/28/2026 10:52 AM
PLOT STYLE: COH.ctb
FILE PATH: R:\102 COH\2501 CRMP NSS\PROD\3.2 CAD\3.2.3 Civil\Details\127 Storm Sewer Precast Box Inlet Manhole.dwg

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 DESIGNS OR DAMAGES RESULTING FROM ITS USE.



TOP VIEW



*** MACHINED SURFACE

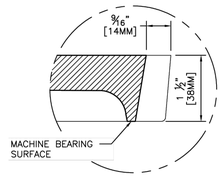
COVER SECTION

NOTES:

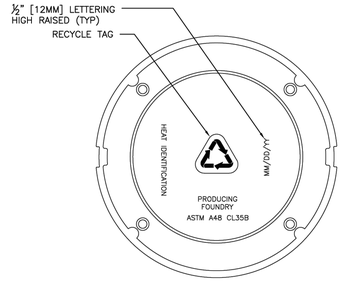
1. APPROXIMATE WEIGHTS:

   FRAME – 125 LBS (57KGS)
   COVER – 205 LBS (93KGS)
   UNIT – 330 LBS (150KGS)

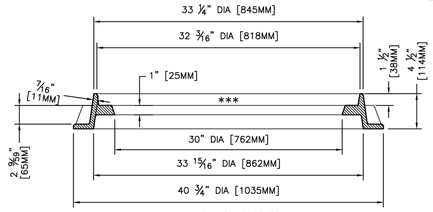
2. MATERIALS – GRAY IRON ASTM A48 CL35B.
3. CASTING MUST BE MANUFACTURED AND PROOF TESTED IN ACCORDANCE WITH AASHTO M306.
4. EJ V1430 ASY OR APPROVED EQUAL
5. IDENTIFICATION MARKINGS MUST COMPLY WITH CITY SPECIFICATIONS. MARKINGS NOT SHOWN ON THIS DETAIL MUST BE PLACED ON THE CASTING:
   A. PROVIDE ALL FRAME MARKINGS ON THE TOP SIDE OF THE FRAME.
   B. PROVIDE GRATE AND COVER MARKINGS ON EITHER TOP OR BOTTOM OF CASTING.



OPEN PICKHOLE DETAIL



BOTTOM VIEW OF COVER



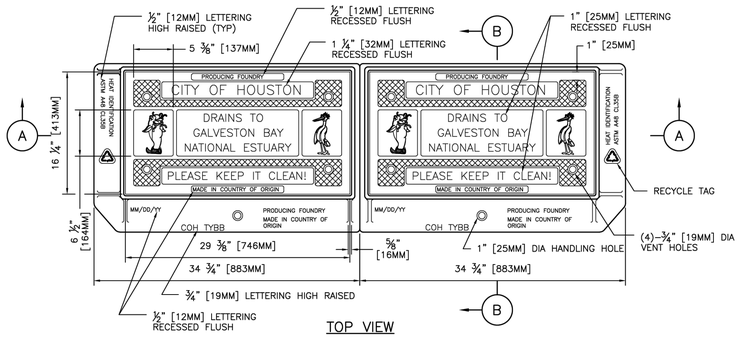
*** MACHINED SURFACE

FRAME SECTION

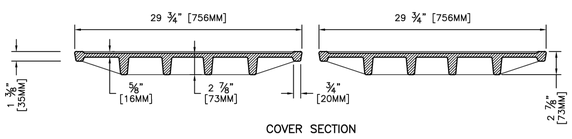
SECTION A–A

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
STORM SEWER MANHOLE FRAME AND COVER	
(SCALE: NOT TO SCALE)	
APPROVED BY:	
Signed by: CITY ENGINEER	Signed by: DIRECTOR OF HPW
EFF DATE: MAR–02–2026	DWG NO: 02090–02

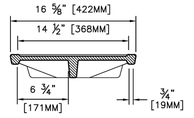
DISCLAIMER:
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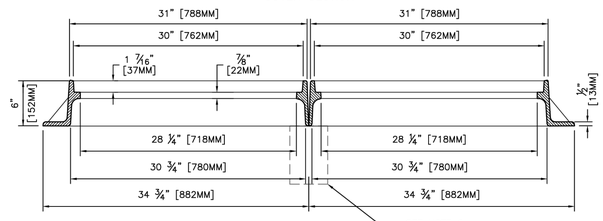
TOP VIEW



COVER SECTION

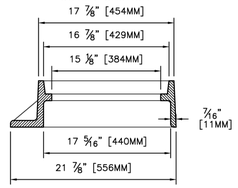


COVER SECTION



FRAME SECTION

SECTION A–A



FRAME SECTION

SECTION B–B

NOTES:

1. APPROXIMATE WEIGHTS:

   EACH FRAME – 125 LBS (57KGS)
   EACH COVER – 120 LBS (55KGS)
   EACH UNIT – 245 LBS (111KGS)

2. MATERIALS – GRAY IRON ASTM A48 CL35B.
3. CASTING MUST BE MANUFACTURED AND PROOF TESTED IN ACCORDANCE WITH AASHTO M306.
4. EJ V4243 ASY OR APPROVED EQUAL.
5. IDENTIFICATION MARKINGS MUST COMPLY WITH CITY SPECIFICATIONS. MARKINGS NOT SHOWN ON THIS DETAIL MUST BE PLACED ON THE CASTING:
   A. PROVIDE ALL FRAME MARKINGS ON THE TOP SIDE OF THE FRAME.
   B. PROVIDE GRATE AND COVER MARKINGS ON EITHER TOP OR BOTTOM OF CASTING.
6. FOR INLET MAINTENANCE REFER TO COH STD 02632–04. FOR NEW INLET CONSTRUCTION REFER TO COH STD 02633–02.

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
STORM SEWER TYPE "B–B" INLET DOUBLE ASSEMBLY	
(SCALE: NOT TO SCALE)	
APPROVED BY:	
Signed by: CITY ENGINEER	Signed by: DIRECTOR OF HPW
EFF DATE: MAR–02–2026	DWG NO: 02090–04

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

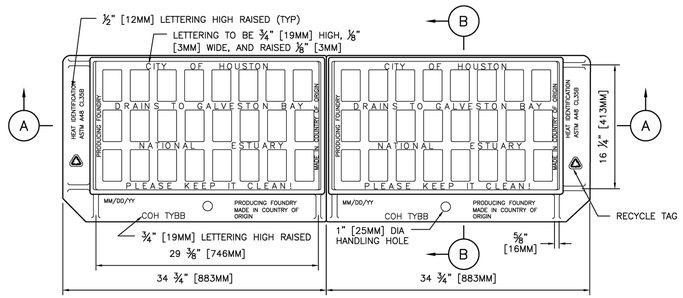
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

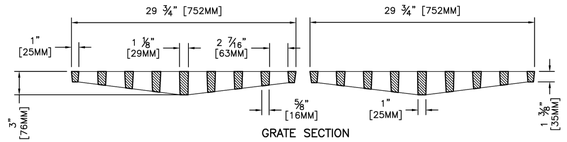
STORM SEWER DETAILS I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 170 OF 339	

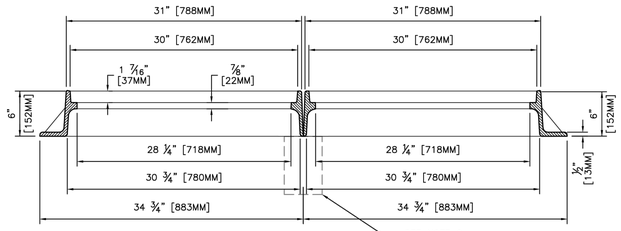
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TOP VIEW

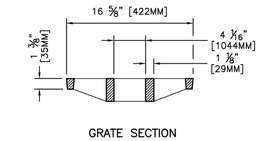


GRATE SECTION

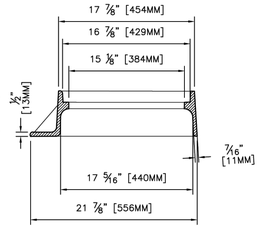


FRAME SECTION

SECTION A–A



GRATE SECTION



FRAME SECTION

SECTION B–B

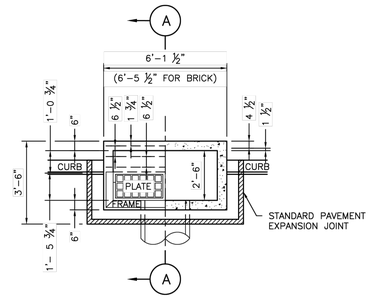
NOTES:

1. APPROXIMATE WEIGHTS:

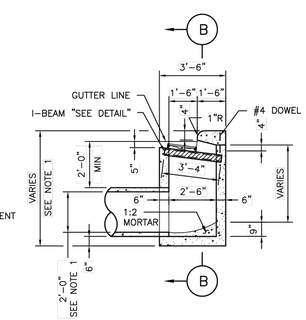
   EACH GRATE – 115 LBS (52KGS)
   EACH FRAME – 120 LBS (55KGS)
   EACH UNIT – 235 LBS (107KGS)

2. MATERIAL– GRAY IRON ASTM A48 CL35B.
3. CASTING MUST BE MANUFACTURED AND PROOF TESTED IN ACCORDANCE WITH AASHTO M306.
4. EJ V4243 ASY OR APPROVED EQUAL
   TYPE B–B 480 SQ. IN. [3096 SQ. CM.]
   TYPE B 240 SQ. IN. [1548 SQ. CM.]
5. IDENTIFICATION MARKINGS MUST COMPLY WITH CITY SPECIFICATIONS. MARKINGS NOT SHOWN ON THIS DETAIL MUST BE PLACED ON THE CASTING:
   A. PROVIDE ALL FRAME MARKINGS ON THE TOP SIDE OF THE FRAME.
   B. PROVIDE GRATE AND COVER MARKINGS ON EITHER TOP OR BOTTOM OF CASTING.
6. FOR INLET MAINTENANCE REFER TO COH STD 02632–04. FOR NEW INLET CONSTRUCTION REFER TO COH STD 02633–02.

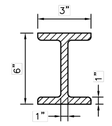
CITY OF HOUSTON	
HOUSTON PUBLIC WORKS STANDARD	
STORM SEWER FRAME AND GRATE FOR TYPE "B–B" INLET DOUBLE ASSEMBLY	
(SCALE: NOT TO SCALE)	
APPROVED BY:	
Signed by: 19B5B8220729404C... CITY ENGINEER	Signed by: 5E4E3EFDDF454EB... DIRECTOR OF HPW
EFF DATE: MAR–02–2026	DWG NO: 02090–05



PLAN VIEW



SECTION A–A



I–BEAM DETAIL

ACCEPTABLE ALTERNATE STEEL BEAM SIZES:

S6X17.25

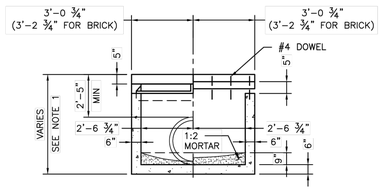
W6X16 (GALVANIZED)

NOTES:

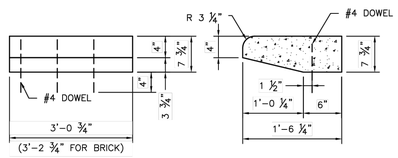
1. DIMENSION VARIES BASED ON PIPE DIAMETER AND WALL THICKNESS.
2. CENTER REINFORCING IN SLAB AND WALLS. CENTER STEEL BEAM ON INLET AND CAST INTO WALLS AS SHOWN.
3. WHEN TOP OF CURB TO FLOWLINE IS GREATER THAN 8 FEET USE TYPE "C" INLET.
4. WHEN AN EXISTING "B–B" INLET WILL BE REPLACED BY A NEW INLET USE COH STD 02633–02.
5. EXISTING INLETS THAT WERE CONSTRUCTED ACCORDING TO 02632–04 SHALL BE MAINTAINED AS SPECIFIED IN DETAIL 02632–04.
6. EOR TO BE RESPONSIBLE FOR DESIGNING STRUCTURAL COMPONENTS IN THIS DETAIL.

GENERAL NOTES:

1. USE STANDARD CAST IRON FRAME & PLATES.
2. LEAD SHALL LEAVE INLET AT LOCATION AND GRADE REQUIRED.



SECTION B–B



PRECAST CURB BEAM

CITY OF HOUSTON	
HOUSTON PUBLIC WORKS STANDARD	
STORM SEWER TYPE "B–B" INLET FOR MAINTENANCE ONLY	
(SCALE: NOT TO SCALE)	
APPROVED BY:	
Signed by: 19B5B8220729404C... CITY ENGINEER	Signed by: 5E4E3EFDDF454EB... DIRECTOR OF HPW
EFF DATE: MAR–02–2026	DWG NO: 02632–04

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

STORM SEWER DETAILS II

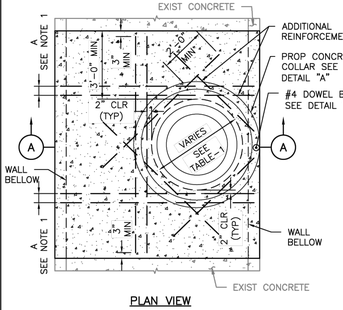
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 171 OF 339	

NO.	DATE	REVISION	APP.

DISCLAIMER:
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PLOTTED: 10/28/2026 10:27 AM
PLOT STYLE: COH.ctb
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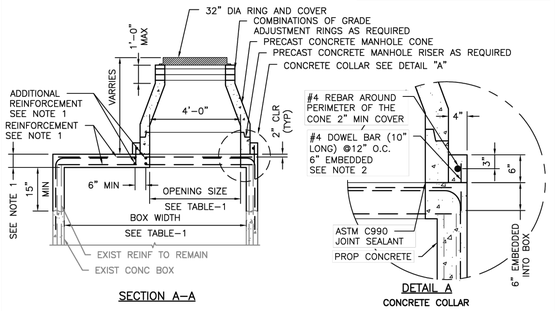
PLAN VIEW

NOTE:

1. TRANSITION SLAB TO BE DESIGNED BY ENGINEER AND MEET MIN REQUIREMENTS OF COH STANDARD SPECIFICATION SECTION 02081.
2. TIE THE PROPOSED COLLAR STEEL TO LONGITUDINAL AND ELLIPTICAL STEEL, WHERE APPLICABLE.
3. FOR CONCRETE COLLAR PROVIDE CLASS A CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AND GRADE 60 REINFORCING STEEL IN ACCORDANCE WITH COH STANDARD SPECIFICATION SECTION 03315.

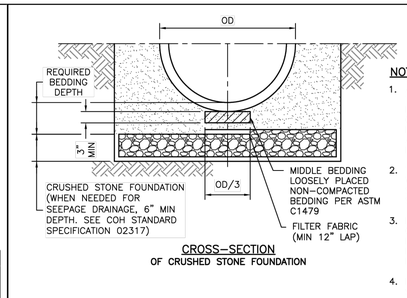
TABLE-1

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



SECTION A–A

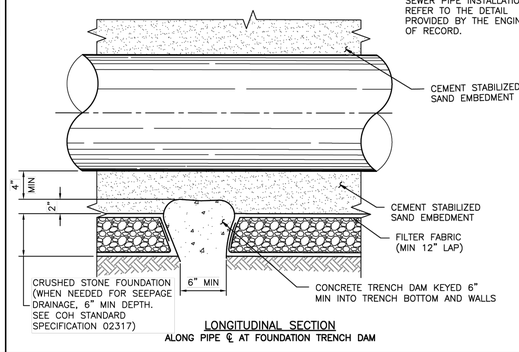
DETAIL A
CONCRETE COLLAR



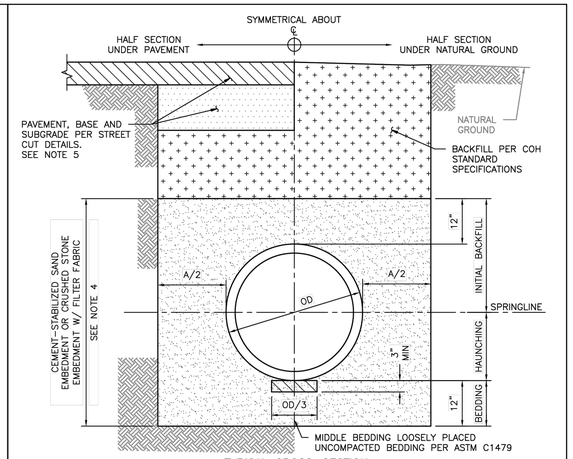
CROSS–SECTION
OF CRUSHED STONE FOUNDATION

NOTES:

1. ACTUAL SHAPE OF CONCRETE TRENCH DAM CROSS SECTION MAY BE DETERMINED BY CONTRACTOR IN FIELD, MEETING MINIMUM THICKNESS AND KEY DEPTH REQUIREMENTS.
2. THIS DETAIL SHALL BE USED WITH CEMENT STABILIZED SAND EMBEDMENT, IN WET STABLE TRENCH CONDITIONS.
3. PLACE TRENCH DAMS IN CLASS I EMBEDMENTS AT THE MIDPOINT OF LINE SEGMENTS LONGER THAN 100 FEET BETWEEN MANHOLES.
4. FOR THERMOPLASTIC STORM SEWER PIPE INSTALLATION REFER TO THE DETAIL PROVIDED BY THE ENGINEER OF RECORD.



LONGITUDINAL SECTION
ALONG PIPE ℄ AT FOUNDATION TRENCH DAM



TYPICAL CROSS–SECTION

NOTES:

1. THIS DETAIL MAY BE USED ONLY FOR DRY STABLE TRENCH CONDITIONS PER COH STANDARD. SEE COH STANDARD SPECIFICATION FOR REQUIREMENTS IN OTHER CONDITIONS.
2. MIN TRENCH WIDTH SHALL BE PIPE OD PLUS AN ALLOWANCE "A" FOR THE NOMINAL PIPE SIZE:

NOMINAL PIPE SIZE	"A"
30" OR LESS	24"
36" TO 42"	36"
GREATER THAN 42"	48"

3. MAX TRENCH WIDTH SHALL BE NOT GREATER THAN MIN TRENCH WIDTH PLUS 24 INCHES, UNLESS OTHERWISE NOTED.
4. ALTERNATIVE EMBEDMENT BACKFILL MATERIALS FOR FORCE MAINS MAY BE ALLOWED. SEE COH STANDARD SPECIFICATIONS.
5. REFER TO THE COH STD DETAILS 02951–01 THROUGH 05 FOR STREET CUT REQUIREMENTS.
6. FOR THERMOPLASTIC STORM SEWER PIPE INSTALLATION REFER TO COH STD DETAIL 02317–10G.

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.

APPROVED BY:

CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PROPOSED MANHOLE ON EXISTING BOX STORM SEWER

(SCALE: NOT TO SCALE)

EFF DATE: MAR–02–2026 | DWG NO: 02082–16

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.

APPROVED BY:

CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

SANITARY OR STORM SEWER
CRUSHED STONE FOUNDATION
FOR WET STABLE TRENCH

(SCALE: NOT TO SCALE)

EFF DATE: MAR–02–2026 | DWG NO: 02317–02

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.

APPROVED BY:

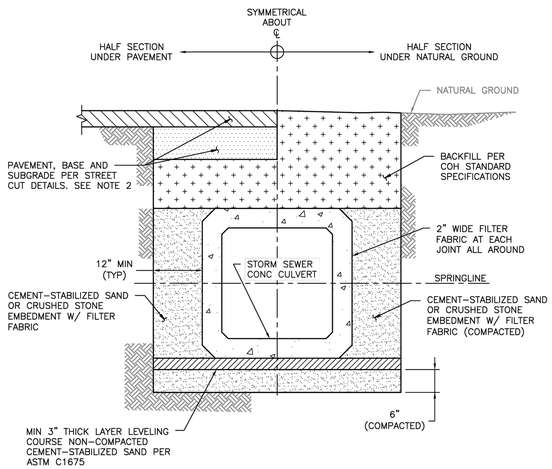
CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

SANITARY OR STORM SEWER
BEDDING AND BACKFILL FOR DRY
STABLE TRENCH

(SCALE: NOT TO SCALE)

EFF DATE: MAR–02–2026 | DWG NO: 02317–03



TYPICAL CROSS–SECTION

NOTES:

1. WHERE MULTIPLE BOX SEWER ARE USED IN THE SAME TRENCH, MIN OUTSIDE TO OUTSIDE BOX SEWER SEPARATION SHALL BE 6".
2. REFER TO COH STANDARD DETAILS 02951–01 THROUGH 05 FOR STREET CUT REQUIREMENTS.

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.

APPROVED BY:

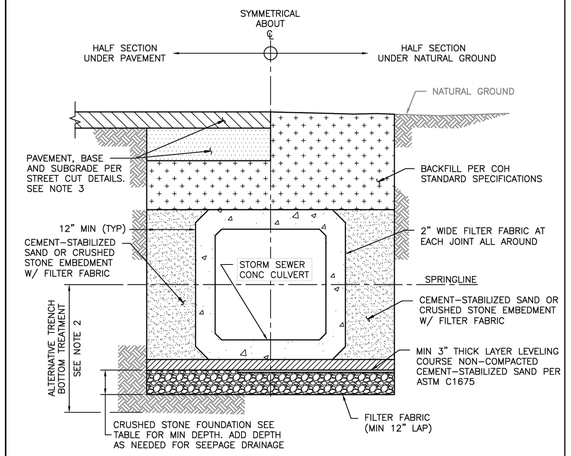
CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PRECAST CONCRETE BOX STORM
SEWER BEDDING AND BACKFILL
FOR DRY STABLE TRENCH

(SCALE: NOT TO SCALE)

EFF DATE: MAR–02–2026 | DWG NO: 02317–05



TYPICAL CROSS–SECTION

NOTES:

1. WHERE MULTIPLE BOX SEWERS ARE USED IN THE SAME TRENCH, MIN OUTSIDE TO OUTSIDE BOX SEWER SEPARATION SHALL BE 6".
2. ALTERNATIVE TRENCH BOTTOM TREATMENT MAY BE USED AS APPROVED BY THE CITY ENGINEERS AND AS PAID FOR IN THE PROPOSAL.
3. REFER TO COH STANDARD DETAILS 02951–01 THROUGH 05 FOR STREET CUT REQUIREMENTS.

TABLE

CULVERT SIZE (FT)	FOUNDATION DEPTH (INCHES)
3' X 2' TO 6' X 6'	12"
6' X 6' AND LARGER	18"

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.

APPROVED BY:

CITY ENGINEER | DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PRECAST CONCRETE BOX STORM
SEWER BEDDING AND BACKFILL
FOR WET STABLE TRENCH

(SCALE: NOT TO SCALE)

EFF DATE: MAR–02–2026 | DWG NO: 02317–06

NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

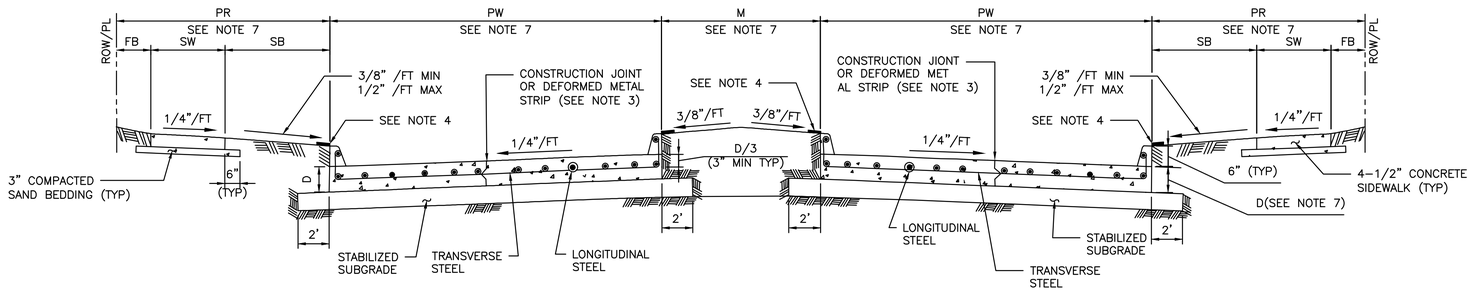
STORM SEWER DETAILS III

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 172 OF 339	

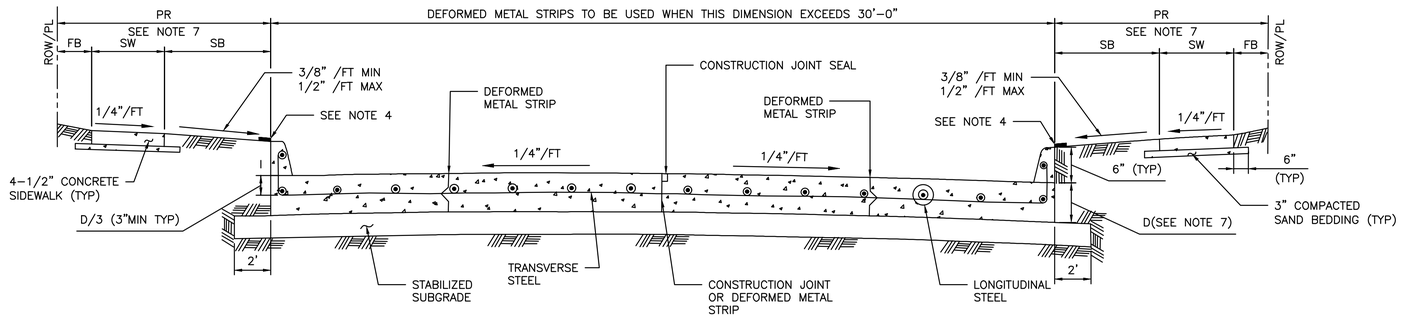
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TYPICAL DOUBLE ROADWAY SECTION FOR CONCRETE PAVEMENT WITH CURBS



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"
fc' = 4,000 PSI/28 DAYS AND FY = 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
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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:

1. THE MAXIMUM WIDTH BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 15'–0".
2. ALL EARTHEN AREAS ARE TO BE HYDROMULCHED UNLESS SHOWN OTHERWISE ON DRAWINGS.
3. CONTRACTOR MAY SAW CUT IN LIEU OF DEFORMED METAL STRIP.
4. USE STRIP OF SOD GRASS TO PREVENT EROSION UNTIL STAND OF GRASS IS ESTABLISHED.
5. AN EQUAL OR LARGER AREA OF WELDED REINFORCEMENT BAR CONFORMING TO ASTM A497, MAY BE SUBSTITUTED FOR REBARS LISTED IN TABLE 1.
6. IF AVAILABLE ROW IS NOT SUFFICIENT TO ACCOMMODATE SIDEWALK WIDTH (SW) ACCORDING TO IDM REQUIREMENTS, ENGINEER SHALL OBTAIN A VARIANCE FROM THE CITY ENGINEER.
7. 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.

NO.	DATE	REVISION	APP.

APPROVED BY: DocuSigned by: Suhail Kanwar 3EF8B0C841F5478... CITY ENGINEER

APPROVED BY: DocuSigned by: HAILING NGUYEN 95A28EFDA75B4CD... CITY TRAFFIC ENGINEER

APPROVED BY: DocuSigned by: Carol Haddock A93C41057283453... DIRECTOR OF HOUSTON PUBLIC WORKS

EFF DATE: NOV–27–2023

DWG NO: 02751–01

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
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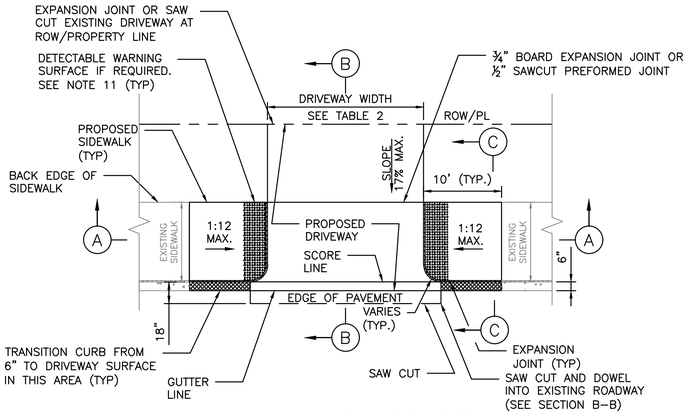
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

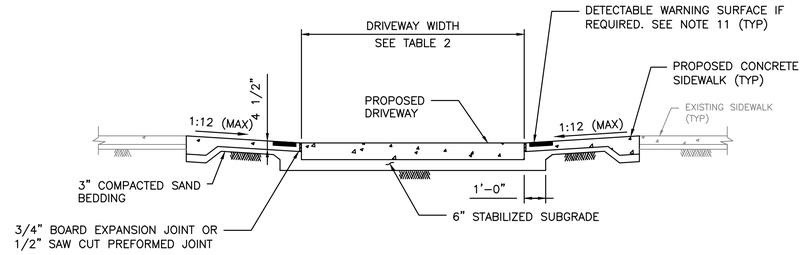
CONCRETE PAVEMENT DETAILS

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DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 173 OF 339	

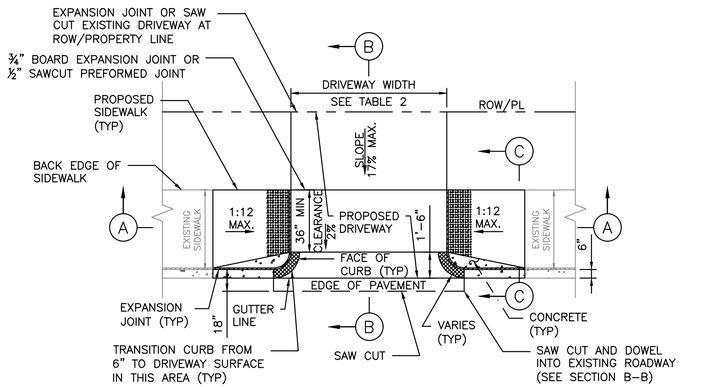
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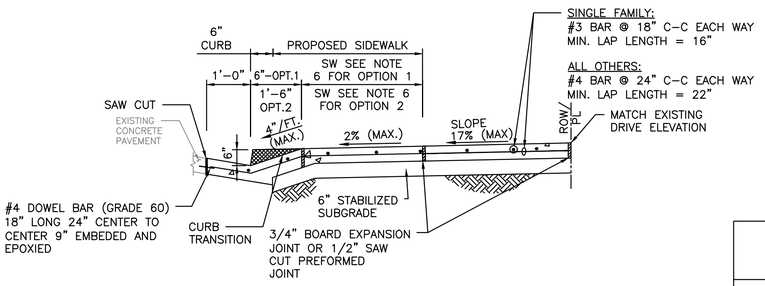
OPTION 1 – CURB LEVEL SIDEWALK
PLAN VIEW – DRIVEWAY WITHOUT CURB AT CURB RETURN



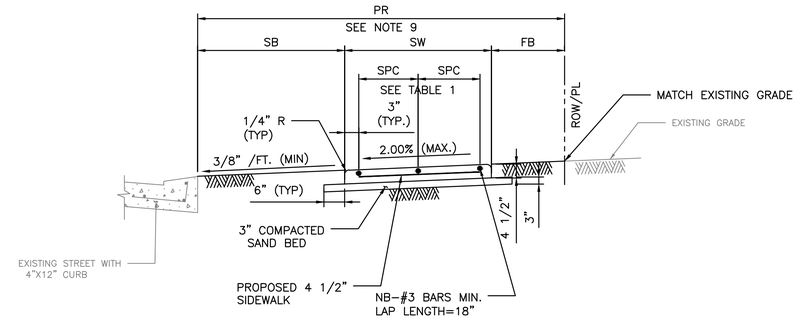
SECTION A–A
PROPOSED SIDEWALK THROUGH DRIVEWAY



OPTION 2 – CURB LEVEL SIDEWALK
PLAN VIEW – DRIVEWAY WITH CURB AT CURB RETURN



SECTION B–B
TYPICAL DRIVEWAY SECTION THROUGH DRIVEWAY



SECTION C–C
TYPICAL SIDEWALK SECTION

NOTES:

1. REPAIR, RECONSTRUCTION OR REPLACEMENT OF SIDEWALKS SHALL MEET PERMITTING REQUIREMENTS OF CODE OF ORDINANCES SECTION 40–552.
2. FOR REPAIR, RECONSTRUCTION, OR REPLACEMENT OF EXISTING SIDEWALKS:
   - 2.1. EXISTING SIDEWALKS LESS THAN OR EQUAL TO 20 FEET IN TOTAL LENGTH:
     - 2.1.1. THE PROPOSED SIDEWALK WIDTH WILL BE ALLOWED TO MATCH THE EXISTING SIDEWALK.
   - 2.2. EXISTING SIDEWALKS GREATER THAN 20 FEET IN TOTAL LENGTH:
     - 2.2.1. THE SIDEWALK WIDTH FOR THE ENTIRE PROPERTY WIDTH SHALL BE IMPROVED TO MEET WIDTH REQUIREMENTS ACCORDING TO THE LATEST INFRASTRUCTURE DESIGN MANUAL.
   - 2.3. 20 FOOT TOTAL LENGTH IS DEFINED AS:
     - 2.3.1. UP TO 10 FEET ON BOTH SIDES OF THE DRIVEWAY; OR
     - 2.3.2. UP TO 20 FEET WHEN SIDEWALK AFFECTED IS LOCATED ONLY ON ONE SIDE OF THE DRIVEWAY.
3. 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.
4. DRIVEWAY WIDTH VARIES TO MATCH EXISTING DRIVE.
5. DRIVEWAY DETAIL TO PROVIDE FOR SIDEWALK TRANSITION FROM EXISTING BACK OF CURB TO PROPOSED DRIVEWAY EDGE.
6. DRIVEWAY WITH WIDTH >5' @ 2% CROSS SLOPE QUALIFIES AS PASSING SPACE. (SEE OPTION 1 AND OPTION 2 PLANS)
7. 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.
8. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
9. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
10. 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.)
11. DETECTABLE WARNING SURFACES:
    - 11.1. SIDEWALK SHALL HAVE A DETECTABLE WARNING SURFACE WHERE:
      - 11.1.1. SIDEWALK INTERSECTS TYPE C DRIVEWAYS (COMMERCIAL DRIVEWAYS) THAT ARE STOP, YIELD OR TRAFFIC SIGNAL CONTROLLED; OR
      - 11.1.2. SIDEWALK SLOPE IS GREATER THAN 1:20 AND INTERSECTS A TYPE C DRIVEWAY (COMMERCIAL DRIVEWAY)
    - 11.2. 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).
    - 11.3. REFER TO STANDARD DETAILS 02775–06 TO 02775–07 FOR DETECTABLE WARNING SURFACE STANDARDS.

TABLE 1

REINFORCING STEEL INFORMATION
FOR 4 ½ " THICK SIDEWALKS
EXPANSION JOINT SPACING = 40 FT
fc' = 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)
		#3 BARS			
		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

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

NO.	DATE	REVISION	APP.

APPROVED BY: DocuSigned by: Sukat Kanwar 9EF6B0C841F5478... CITY ENGINEER

APPROVED BY: DocuSigned by: KHANG NGUYEN 95A28EFDA75B4CD... CITY TRAFFIC ENGINEER

APPROVED BY: DocuSigned by: Carol Haddock A50C410B72B2452... DIRECTOR OF HOUSTON PUBLIC WORKS

EFF DATE: NOV–27–2023 | DWG NO: 02754–03

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TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

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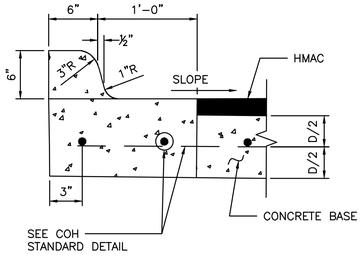
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

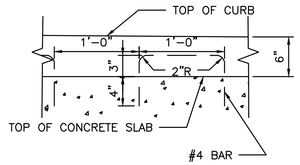
PROPOSED SIDEWALK THROUGH DRIVEWAY WITH EXCESSIVE ELEVATION DIFFERENCE

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R–001000–0034–3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 174 OF 339	

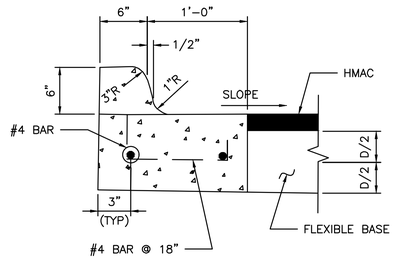
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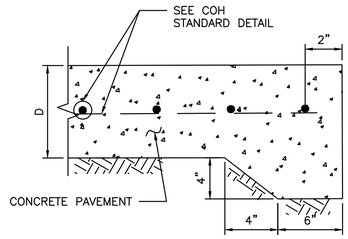
ESPLANADE CURB CONNECTED TO CONCRETE BASE



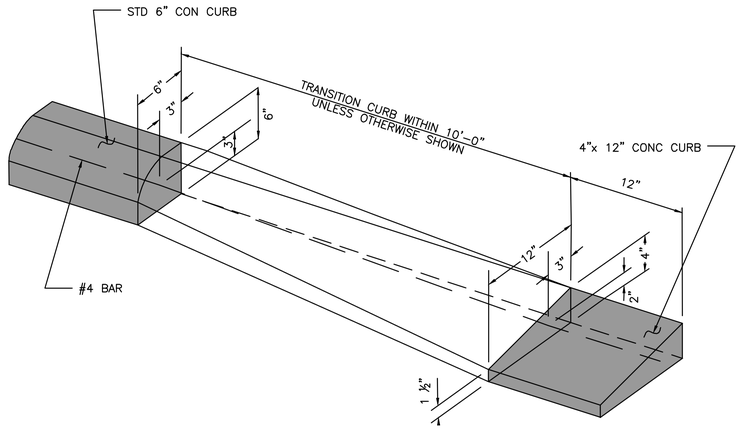
ALTERNATE CONCRETE CURB REINFORCEMENT



ESPLANADE CURB CONNECTED TO FLEXIBLE BASE

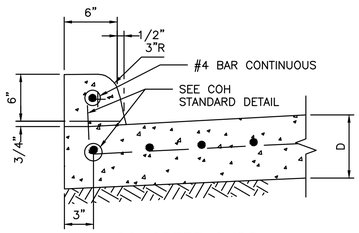


STANDARD CONCRETE PAVING HEADER

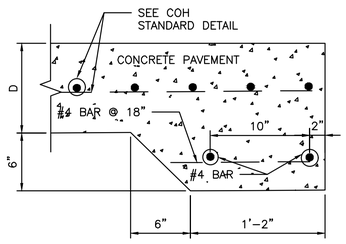


CURB TRANSITION

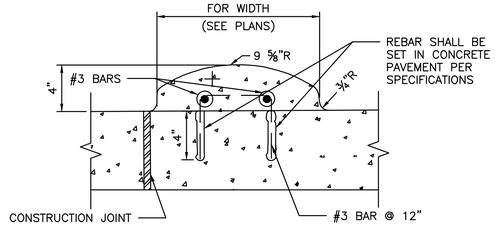
(SEE NOTES)



CONCRETE CURB

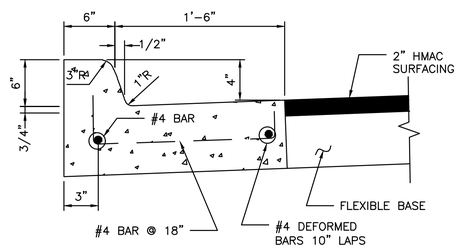


STANDARD RAILROAD HEADER

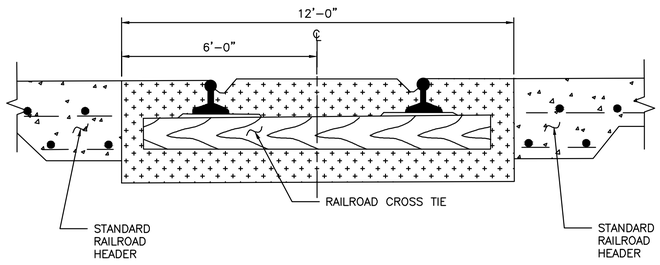


MOUNTABLE CURB

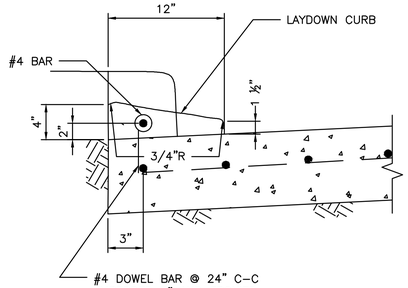
WHEN CONCRETE CURB IS TO BE PLACED EXISTING CONCRETE USE BASE #4 BAR @ 18x10" LONG, DOWELED AND SET IN EPOXY GROUT.
SET #4 DOWEL BARS, 25" LONG AT 12" C–C WHEN PAVEMENT SECTION POURED.



MONOLITHIC CURB AND GUTTER

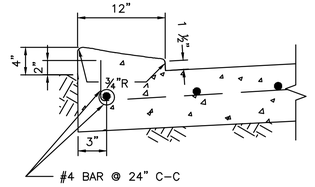


STANDARD RAILROAD CROSSING – SINGLE TRACK



4–INCH x 12–INCH TRANSITION CURB

(SEE NOTES)



4–INCH x 12–INCH MONOLITHIC CURB

(SEE NOTES)

4"x12" MONOLITHIC AND TRANSITION CURB NOTES:

1. 6–INCH CONCRETE CURB TO BE CONSTRUCTED ON ALL ESPLANADES, ISLANDS, NON–RESIDENTIAL STREETS, AND RESIDENTIAL STREETS.
2. 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.

NO.	DATE	REVISION	APP.

APPROVED BY:	APPROVED BY:
DocuSigned by: Suhail Nanwar 8EFB8D0341F5478...	DocuSigned by: HHING NGUYEN 95A28EFDA75B4CD...
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: DocuSigned by: Carol Haddock A3DC4150F2B34D3...	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV–27–2023	DWG NO: 02771–01

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P.E. SERIAL No: 114557
DATE: 10/28/2026

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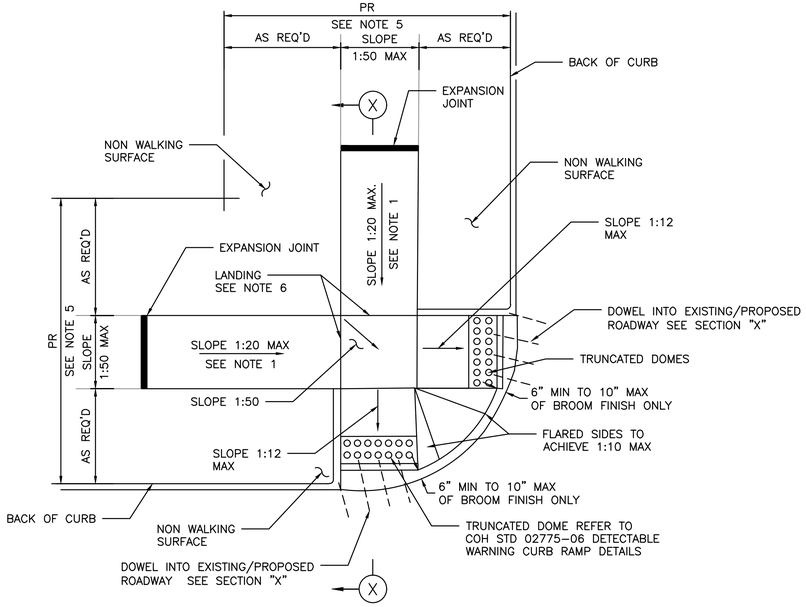
CITY OF HOUSTON
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CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

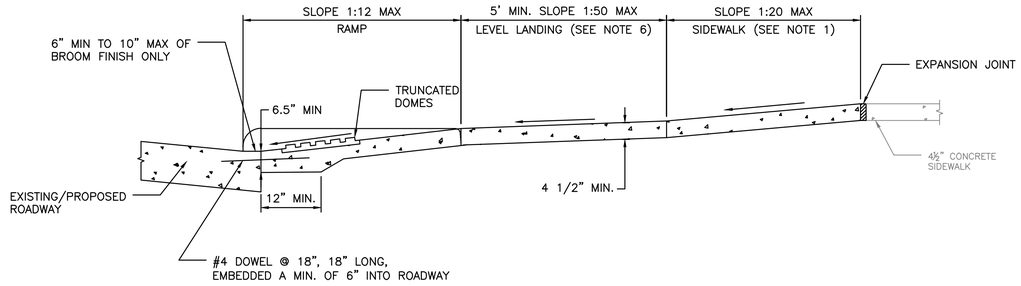
CURB, CURB AND GUTTER AND HEADER DETAILS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 175 OF 339	

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

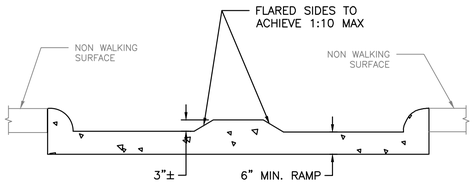


SECTION X-X

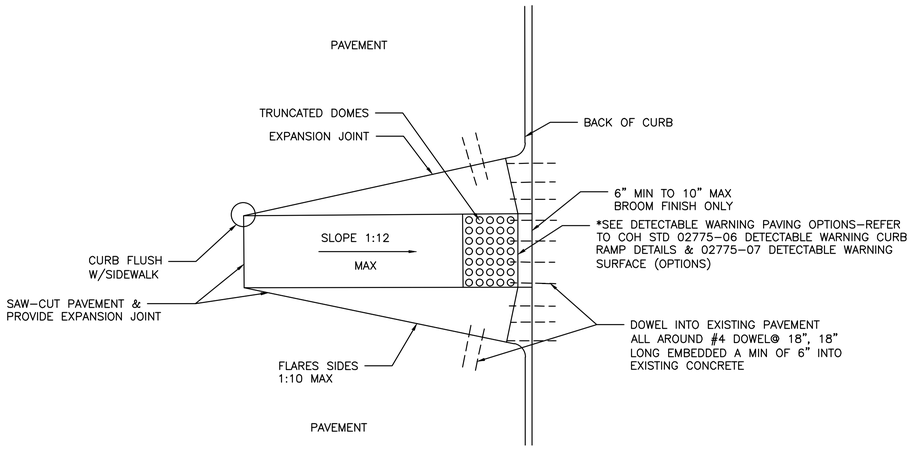
NOTES:

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.

NO.	DATE	REVISION	APP.



ELEVATION
LOOKING UP RAMP



CURB RAMP CONSTRUCTION FOR EXISTING PAVEMENT

APPROVED BY:	APPROVED BY:
DocuSigned by: Sukai Kanwar 9EF88C0841F5478...	DocuSigned by: KHANG NGUYEN 95A28EFDA75B4CD...
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: DocuSigned by: Carol Haddock A93C410B72B3453...	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02775-02

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

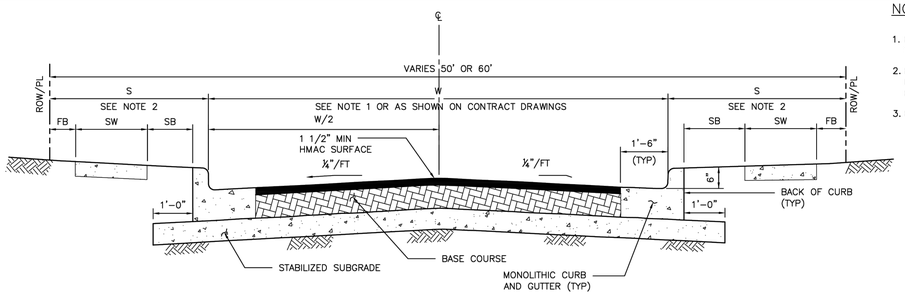
TYPICAL CURB RAMP DETAILS

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CITY OF HOUSTON PM	
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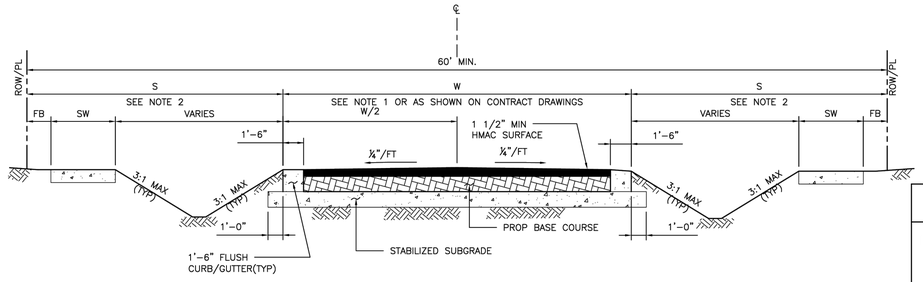
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HMAC PAVEMENT – CURB & GUTTER SECTION

(NOT APPLICABLE TO ETJ OF CITY OF HOUSTON)



HMAC PAVEMENT – DITCH SECTION

(NOT APPLICABLE TO ETJ OF CITY OF HOUSTON)

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

HOT MIX ASPHALTIC CONCRETE PAVEMENT DETAILS

(SCALE: NOT TO SCALE)

APPROVED BY:

DocuSigned by: Sukal Kanwar — CITY ENGINEER

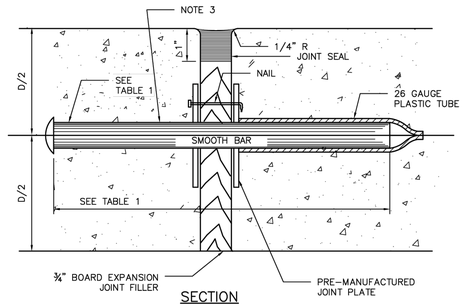
DocuSigned by: HANG NGUYEN — CITY TRAFFIC ENGINEER

DocuSigned by: Carl Haddock — DIRECTOR OF HPW

EFF DATE: NOV–27–2023 | DWG NO: 02741–01

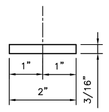
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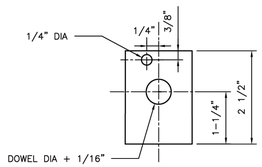
SECTION

DOWEL TYPE EXPANSION JOINT



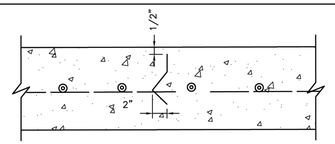
PLAN VIEW

JOINT PLATE



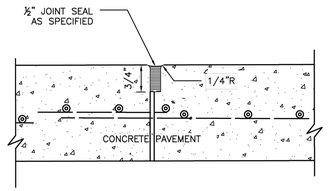
ELEVATION VIEW

JOINT PLATE



SECTION

DEFORMED METAL STRIP



SECTION

CONSTRUCTION JOINT SEAL

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.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PAVEMENT EXPANSION AND CONSTRUCTION JOINT DETAILS

(SCALE: NOT TO SCALE)

APPROVED BY:

DocuSigned by: Sukal Kanwar — CITY ENGINEER

DocuSigned by: HANG NGUYEN — CITY TRAFFIC ENGINEER

DocuSigned by: Carl Haddock — DIRECTOR OF HPW

EFF DATE: NOV–27–2023 | DWG NO: 02752–01

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DATE: 10/28/2026

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FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

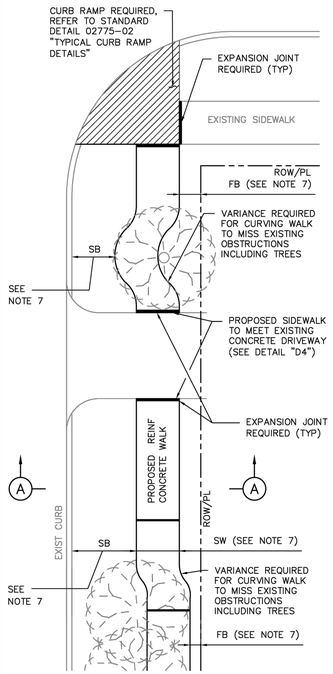
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

PAVEMENT DETAILS I

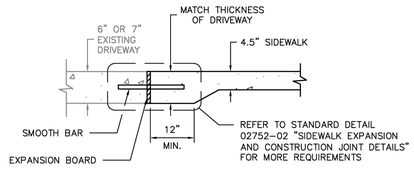
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NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 177 OF 339	

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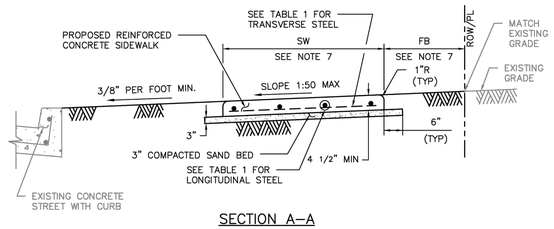


DETAIL D4
DRIVEWAY/SIDEWALK HEADER

TABLE 1

REINFORCING STEEL INFORMATION
FOR 4 ½ " 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 #3 BARS			TRANSVERSE STEEL #3 BARS SPACING (IN)
		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:

1. 6X6 – W2.9XW2.9 WELDED WIRE FABRIC MAY BE USED IN LIEU OF THE REINFORCING STEEL GIVEN IN TABLE 1.
2. 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.
3. MAXIMUM SPACING FOR EXPANSION JOINTS SHALL BE 40 FEET.
4. CONTRACTOR SHALL CONSTRUCT SIDEWALK IN A MANNER NOT TO BLOCK THE NATURAL DRAINAGE FROM ADJACENT PROPERTY.
5. 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.
6. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON UNLESS NOTED OTHERWISE.
7. REFER TO CONTRACT DRAWINGS FOR SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

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

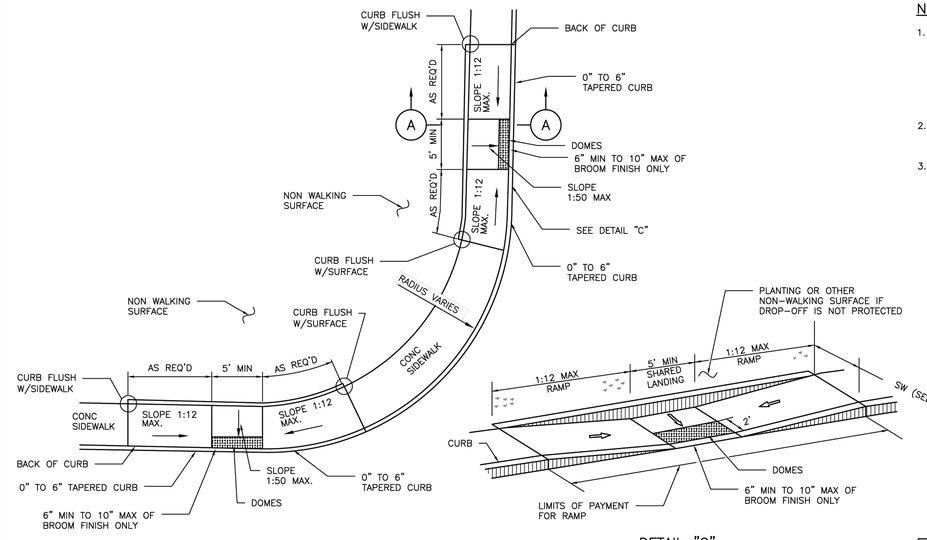
APPROVED BY:

DocuSigned by: Sulail Kanwar — CITY ENGINEER
DocuSigned by: HUNG NGUYEN — CITY TRAFFIC ENGINEER
DocuSigned by: Carol Haddock — DIRECTOR OF HPW

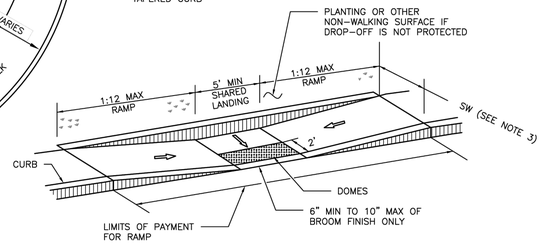
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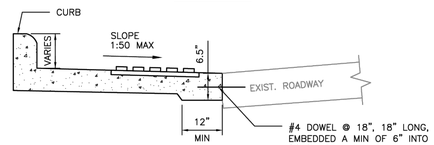
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SIDEWALK ON BACK OF CURB



DETAIL "C"



SECTION A–A

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. REFER TO CONTRACT DRAWINGS FOR S–DIMENSION (S), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PARALLEL CURB RAMP
(SCALE: NOT TO SCALE)

APPROVED BY:

DocuSigned by: Sulail Kanwar — CITY ENGINEER
DocuSigned by: HUNG NGUYEN — CITY TRAFFIC ENGINEER
DocuSigned by: Carol Haddock — DIRECTOR OF HPW

EFF DATE: NOV–27–2023 | DWG NO: 02775–03

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

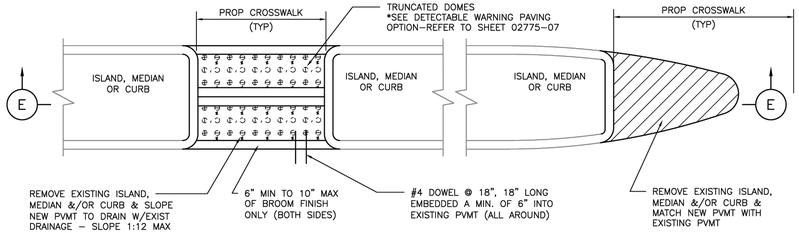
PAVEMENT DETAILS II

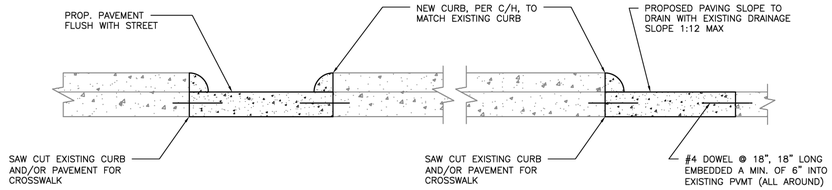
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WHATSOEVER, THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.





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.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

CURB MODIFICATION FOR CURB RAMPS & CROSSWALKS

(SCALE: NOT TO SCALE)

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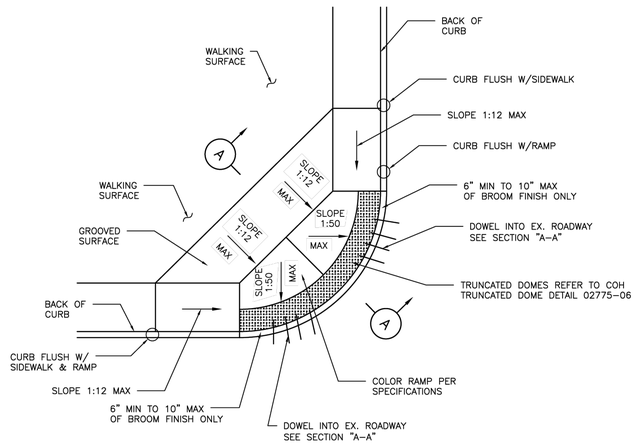
DocuSigned by: Sulail Kanwar — CITY ENGINEER
DocuSigned by: LHING NGUYEN — CITY TRAFFIC ENGINEER
DocuSigned by: Carl Haddock — DIRECTOR OF HPW

EFF DATE: NOV–27–2023 | DWG NO: 02775–04

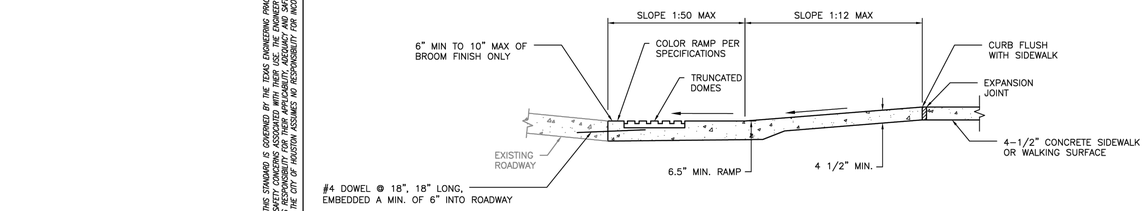
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WHATSOEVER, THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.



PLAN



SECTION A–A

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. THIS STANDARD DETAIL SHALL BE USED ONLY IF THE ROADWAY GEOMETRIC DOESN'T ALLOW STANDARD DETAILS 02775–02, 02775–03, AND 02775–09 TO BE USED.
4. THIS STANDARD DETAIL SHALL NOT BE USED IN LIEU OF STANDARD DETAILS 02775–02, 02775–03, AND 02775–09 UNLESS APPROVED BY THE CITY.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

COMMERCIAL & HIGH DENSITY CONDITIONS CURB RAMP DETAILS

(SCALE: NOT TO SCALE)

APPROVED BY:

DocuSigned by: Sulail Kanwar — CITY ENGINEER
DocuSigned by: LHING NGUYEN — CITY TRAFFIC ENGINEER
DocuSigned by: Carl Haddock — DIRECTOR OF HPW

EFF DATE: NOV–27–2023 | DWG NO: 02775–05

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2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

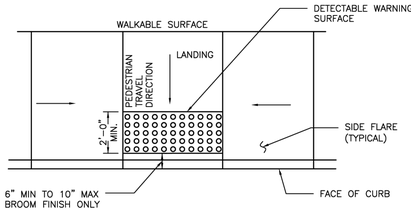
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

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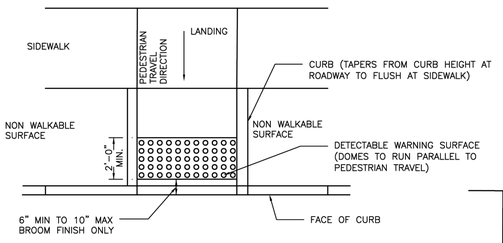
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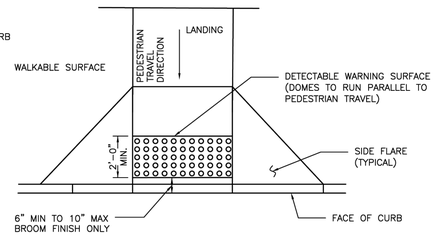
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TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE





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.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

DETECTABLE WARNING CURB RAMP DETAILS

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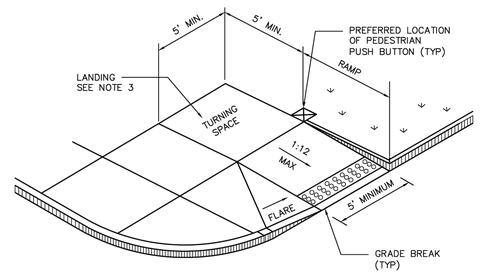
APPROVED BY:

CITY ENGINEER	DIRECTOR OF HPW
CITY TRAFFIC ENGINEER	

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NOTES:

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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:

CITY ENGINEER	CITY TRAFFIC ENGINEER	DIRECTOR OF HPW

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

NO.	DATE	REVISION	APP.

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2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
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TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

SURVEYED BY: LANDTECH, INC.
FB NO.

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HOUSTON PUBLIC WORKS

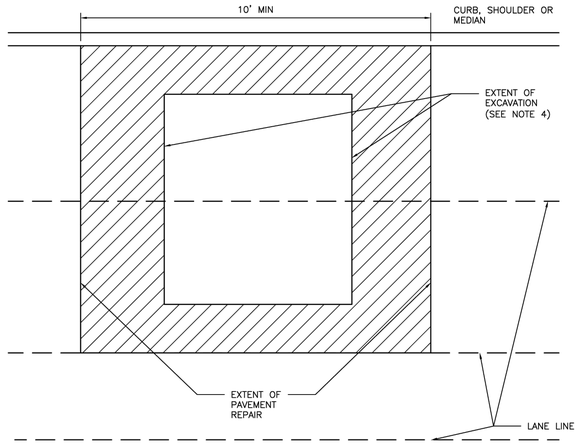
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PAVEMENT DETAILS IV

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NOTES:

1. EXTENT OF PAVEMENT REPAIR SHALL BE PERPENDICULAR AND PARALLEL TO TRAVEL WAY.
2. FLEXIBLE BASE: REPLACE BASE TO SAME THICKNESS PLUS TWO INCHES (2") FOR EXTENT OF EXCAVATION. USE APPROVED BASE MATERIAL TYPE.*
3. SURFACE COURSE:
   - 3.1. WIDTH: SURFACE MILL AND OVERLAY FULL WIDTH OF LANE(S) TO NEAREST LANE DIVIDER BEYOND EDGE OF EXCAVATION.
   - 3.2. LENGTH: MINIMUM LENGTH OF SURFACE MILL ALONG TRAVEL WAY IS 10'.
   - 3.3. REPLACE PAVEMENT MARKINGS IN ACCORDANCE WITH CITY OF HOUSTON STANDARD SPECIFICATIONS 02764–RAISED PAVEMENT MARKERS AND 02767–THERMOPLASTIC PAVEMENT MARKINGS.
4. EXTENT OF EXCAVATION INCLUDES 18" OVER CUT AS SHOWN ON STANDARD DETAIL 02951–04 PAVEMENT REPAIR DETAIL FOR STREET CUTS (FLEX–BASE PAVEMENT AND CONCRETE PAVEMENT).
5. ADDITIONAL REQUIREMENTS FOR ASPHALT OVERLAY ON CONCRETE PAVEMENT:
   - 5.1. REPLACE CONCRETE FOR EXTENT OF EXCAVATION. REPLACE TO SAME THICKNESS PLUS TWO INCHES (2").
   - 5.2. WIDTH:
     - 5.2.1. IF EXCAVATION EXTENDS MORE THAN HALF OF A LANE, REPLACE ENTIRE LANE OF CONCRETE. OTHERWISE USE STANDARD DETAIL 02951–04 THROUGH 05.
   - 5.3. SAW CUT AND EXPOSE 15" OF REINFORCING STEEL AROUND EDGE OF CONCRETE REPLACEMENT. IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS PER CITY OF HOUSTON STANDARD SPECIFICATION SECTION 02951–PAVEMENT REPAIR AND RESTORATION.
   - 5.4. REPLACE CURB WHEN ADJACENT LANE IS REPLACED.
   - 5.5. MAINTAIN CONCRETE EXPANSION JOINTS AT EXISTING LOCATIONS UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STREET CUT FOR ASPHALT PAVEMENT REPLACEMENT/RESTORATION FOR PAVEMENT OF ALL AGES
(SCALE: NOT TO SCALE)

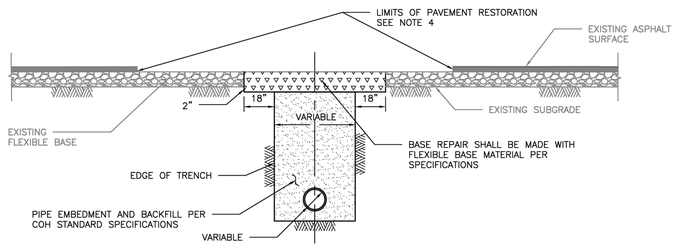
APPROVED BY:

DocuSigned by: Sulail Kanwar — CITY ENGINEER
DocuSigned by: Carl Haddock — DIRECTOR OF HPW
DocuSigned by: KHANG NGUYEN — CITY TRAFFIC ENGINEER

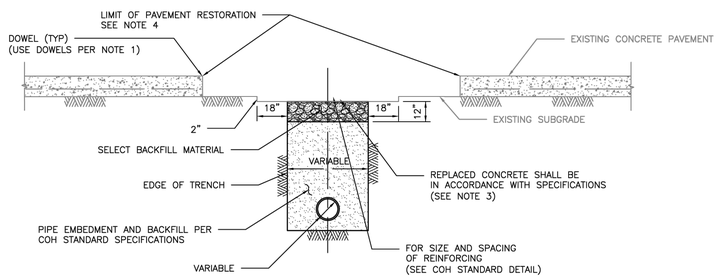
EFF DATE: NOV–27–2023 | DWG NO: 02951–03

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 THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE ACCEPTS RESPONSIBILITY FOR WORK PERFORMED IN ACCORDANCE WITH THESE REQUIREMENTS AND WARRANTS THAT THE EOR HAS THE AUTHORITY TO DO SO. WHATSOEVER, THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

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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.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PAVEMENT REPAIR DETAIL FOR STREET CUTS
(FLEX–BASE PAVEMENT & CONCRETE PAVEMENT)
(SCALE: NOT TO SCALE)

APPROVED BY:

DocuSigned by: Sulail Kanwar — CITY ENGINEER
DocuSigned by: Carl Haddock — DIRECTOR OF HPW
DocuSigned by: KHANG NGUYEN — CITY TRAFFIC ENGINEER

EFF DATE: NOV–27–2023 | DWG NO: 02951–04

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
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2000 W. Sam Houston Pkwy S., Suite 1400
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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

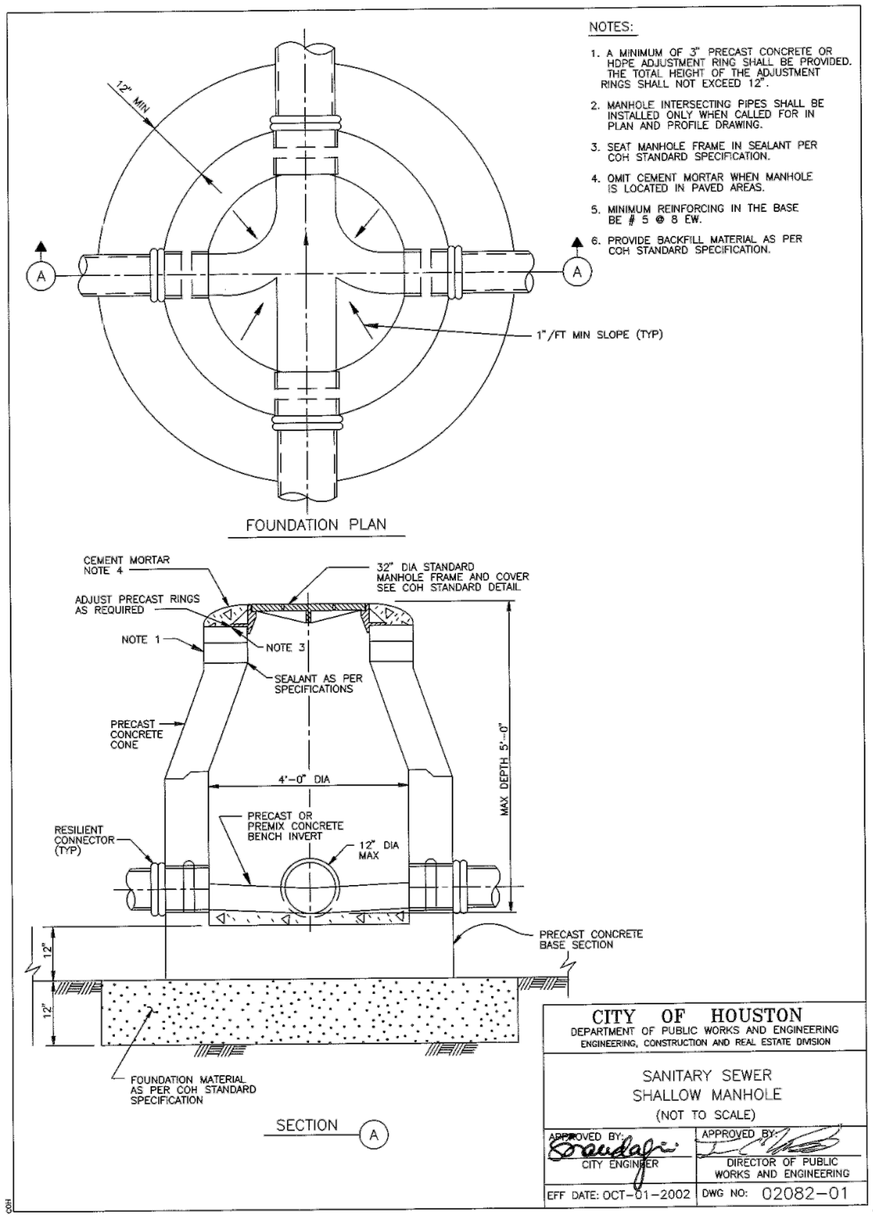
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

PAVEMENT DETAILS V

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0034–3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 181 OF 339	

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FOUNDATION PLAN

SECTION A

NOTES:

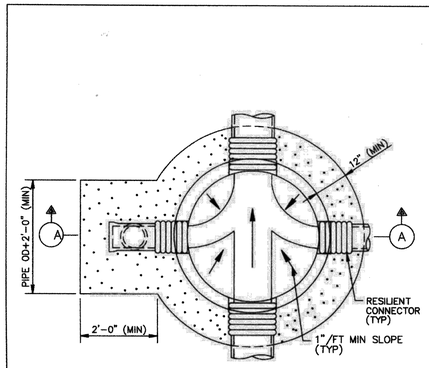
1. A MINIMUM OF 3" PRECAST CONCRETE OR HDPE ADJUSTMENT RING SHALL BE PROVIDED. THE TOTAL HEIGHT OF THE ADJUSTMENT RINGS SHALL NOT EXCEED 12".
2. MANHOLE INTERSECTING PIPES SHALL BE INSTALLED ONLY WHEN CALLED FOR IN PLAN AND PROFILE DRAWING.
3. SEAT MANHOLE FRAME IN SEALANT PER COH STANDARD SPECIFICATION.
4. OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
5. MINIMUM REINFORCING IN THE BASE BE # 5 @ 8 EW.
6. PROVIDE BACKFILL MATERIAL AS PER COH STANDARD SPECIFICATION.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

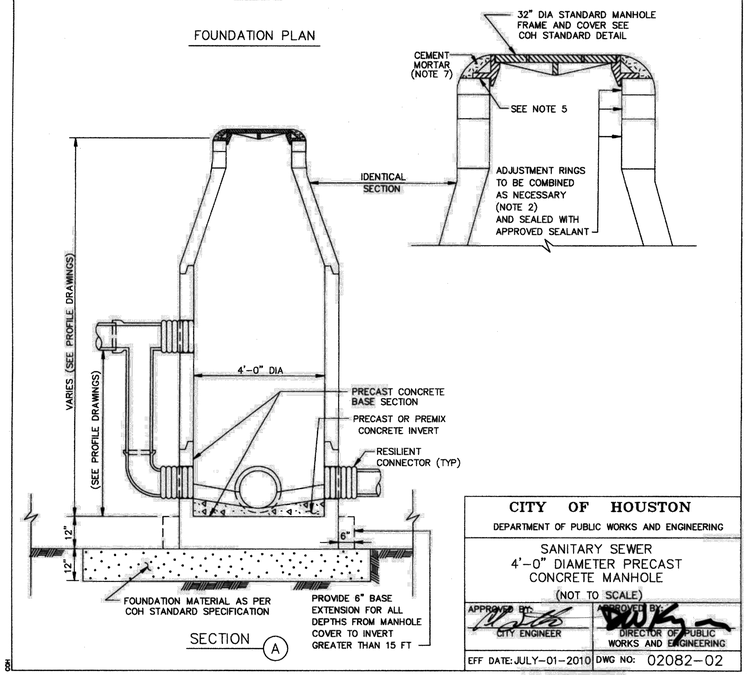
SANITARY SEWER
SHALLOW MANHOLE
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002	DWG NO: 02082-01

COH



FOUNDATION PLAN



SECTION A

NOTES:

1. DEPTH OF MANHOLE DETERMINES SECTIONS REQUIRED.
2. PRECAST CONCRETE RINGS SHALL BE PROVIDED FOR A COMBINED ADJUSTMENT HEIGHT OF AT LEAST 12". THE TOTAL HEIGHT OF THE ADJUSTMENT RINGS SHALL NOT EXCEED 1'-6".
3. MANHOLE WALL THICKNESS FOR DEPTH EXCEEDING 12'-0" SHALL BE DETERMINED TO MEET LOADING CONDITIONS. MIN THICKNESS 5".
4. MANHOLE DROP AND INTERSECTING PIPES SHALL BE INSTALLED ONLY WHEN CALLED FOR IN PLAN AND PROFILE DRAWING.
5. SEAT MANHOLE FRAME IN SEALANT PER COH STANDARD SPECIFICATION.
6. ECCENTRIC PRECAST CONCRETE MANHOLE MAY BE USED.
7. OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
8. MIN REINFORCING IN THE PRECAST CONCRETE BASE SHALL BE # 5 @ 8 EW.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

SANITARY SEWER
4'-0" DIAMETER PRECAST
CONCRETE MANHOLE
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 02082-02

SDH

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
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Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

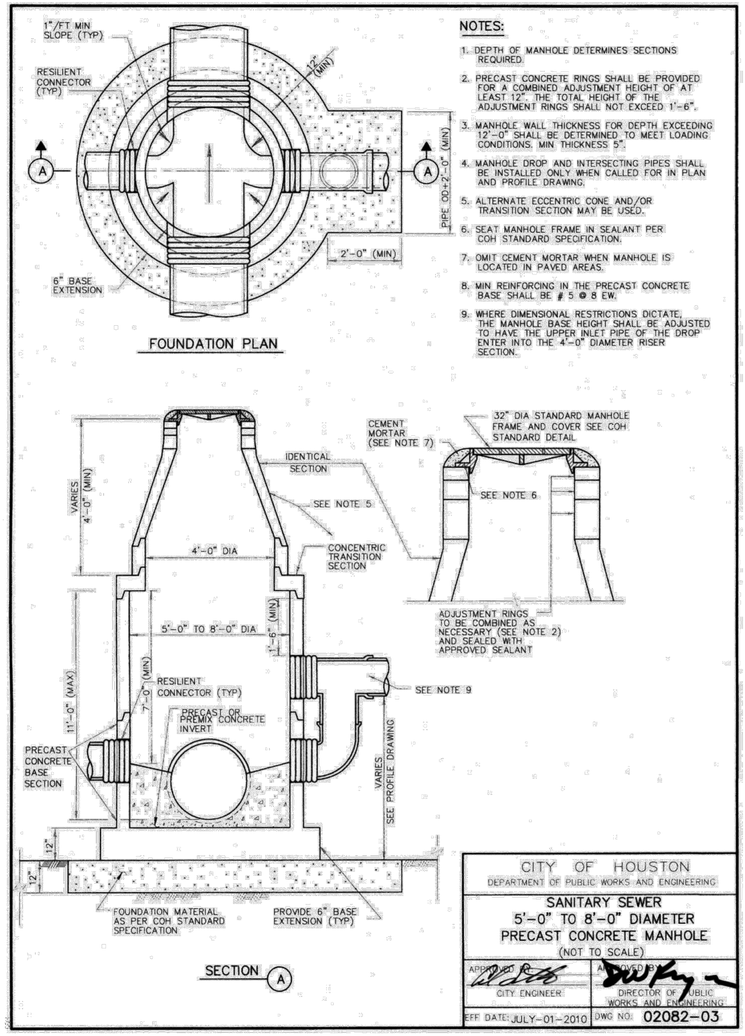
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

WASTEWATER DETAILS I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 182 OF 339	

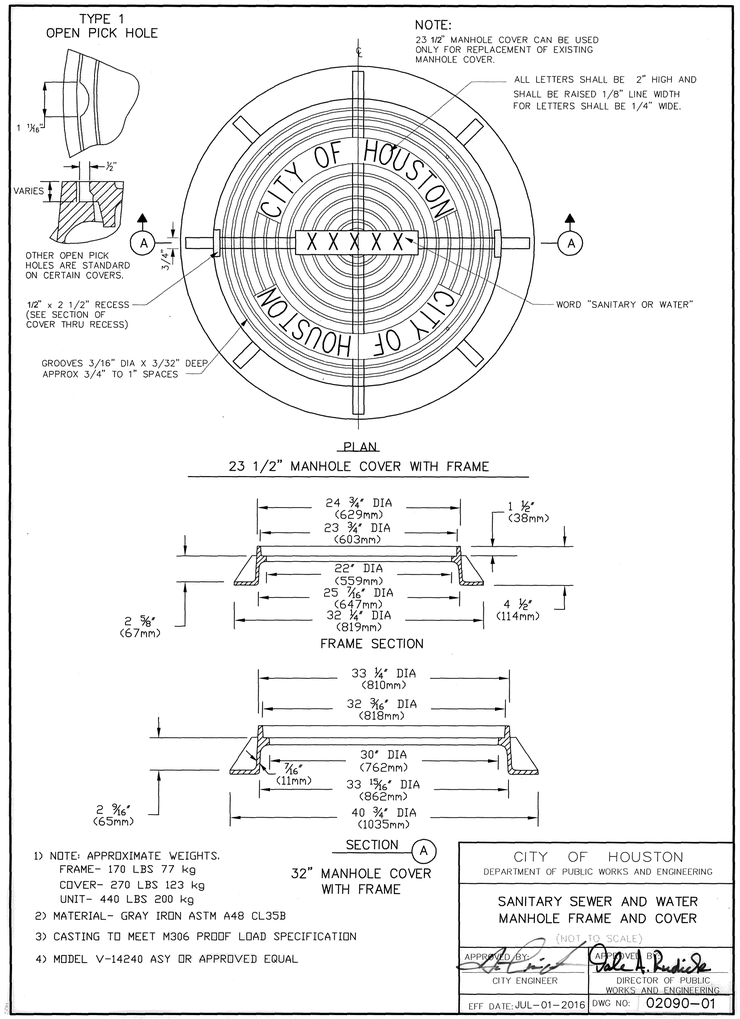
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CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

SANITARY SEWER
5'-0" TO 8'-0" DIAMETER
PRECAST CONCRETE MANHOLE
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 02082-03



1) NOTE: APPROXIMATE WEIGHTS.
FRAME- 170 LBS 77 kg
COVER- 270 LBS 123 kg
UNIT- 440 LBS 200 kg
2) MATERIAL- GRAY IRON ASTM A48 CL35B
3) CASTING TO MEET M306 PROOF LOAD SPECIFICATION
4) MODEL V-14240 ASY OR APPROVED EQUAL

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

SANITARY SEWER AND WATER
MANHOLE FRAME AND COVER
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2016	DWG NO: 02090-01

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
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2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

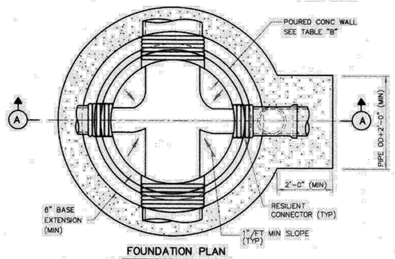
WASTEWATER DETAILS II

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 183 OF 339	

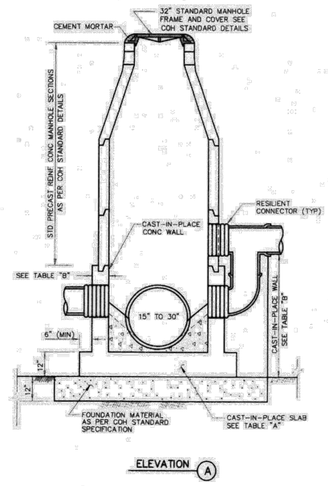
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NO.	DATE	REVISION	APP.



FOUNDATION PLAN



ELEVATION A

NOTES:

1. SEAT MANHOLE FRAME IN SEALANT PER COH STANDARD SPECIFICATION.
2. OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
3. MANHOLE DROP AND INTERSECTING PIPES SHALL BE INSTALLED ONLY WHEN CALLED FOR IN PLAN AND PROFILE DRAWING.

NOTES ON USE OF STANDARD DETAIL

TABLE "A"

BASE SLAB REINFORCING AND THICKNESS

MH INSIDE DIA (FT)	DEPTH TO INV. (FT)	BASE THICKNESS	REINFORCING (E. W. T. & B)
8	≤ 20	1'-0"	# 6 @ 10"
	≤ 25	1'-2"	# 6 @ 8"
	≤ 30	1'-4"	# 6 @ 7"
	≤ 40	1'-6"	# 6 @ 6"
	≤ 50	1'-8"	# 6 @ 6"
	≤ 60	1'-10"	# 6 @ 6"
6	≤ 15	1'-0"	# 5 @ 8"
	≤ 20	1'-0"	# 5 @ 8"
	≤ 25	1'-2"	# 5 @ 7"
	≤ 30	1'-2"	# 5 @ 6"
	≤ 40	1'-2"	# 6 @ 8"
	≤ 50	1'-4"	# 6 @ 8"
	≤ 60	1'-4"	# 6 @ 7"
5	≤ 15	1'-0"	# 5 @ 8"
	≤ 20	1'-0"	# 5 @ 7"
	≤ 25	1'-0"	# 5 @ 6"
	≤ 30	1'-0"	# 6 @ 10"
	≤ 40	1'-2"	# 6 @ 10"
	≤ 50	1'-2"	# 6 @ 9"
	≤ 60	1'-2"	# 6 @ 8"
4	≤ 20	1'-0"	# 5 @ 8"
	≤ 25	1'-0"	# 5 @ 8"
	≤ 30	1'-0"	# 5 @ 7"
	≤ 40	1'-0"	# 6 @ 10"

NOTE TO SPECIFIER:

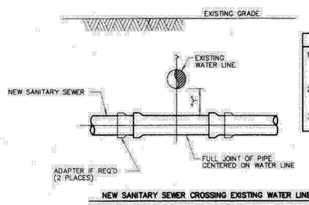
1. TABLES "A" AND "B" WILL BE USED TO DESIGN THE CAST-IN-PLACE BASE AND WALL FOR VARIOUS MANHOLE DIAMETER AND DEPTH.

TABLE "B"

WALL REINFORCING AND THICKNESS

MH INSIDE DIA (FT)	DEPTH TO PIPE TO INV. (FT)	MAXIMUM CAST-IN-PLACE WALL HEIGHT	WALL THICKNESS	REINFORCING AT EACH FACE	
				VERTICAL	HORIZONTAL
8	≤ 20	8'-0"	0'-10"	# 6 @ 10"	# 6 @ 12"
	≤ 25	8'-6"	0'-10"	# 6 @ 10"	
	≤ 30	7'-0"	0'-10"	# 6 @ 8"	
	≤ 40	8'-0"	1'-0"	# 6 @ 8"	
	≤ 50	9'-0"	1'-2"	# 6 @ 8"	
	≤ 60	10'-0"	1'-4"	# 6 @ 8"	
6	≤ 15	5'-0"	0'-8"	# 5 @ 12"	# 5 @ 12"
	≤ 20	5'-8"	0'-8"	# 5 @ 8"	
	≤ 25	6'-0"	0'-9"	# 5 @ 8"	# 5 @ 8"
	≤ 30	6'-0"	0'-9"	# 5 @ 8"	
	≤ 40	7'-0"	0'-10"	# 5 @ 8"	
	≤ 50	7'-0"	1'-0"	# 6 @ 8"	
	≤ 60	8'-0"	1'-2"	# 6 @ 7"	
5	≤ 15	5'-0"	0'-8"	# 5 @ 8"	# 4 @ 12"
	≤ 20	5'-4"	0'-8"	# 5 @ 7"	
	≤ 25	5'-8"	0'-10"	# 5 @ 6"	
	≤ 30	8'-0"	0'-10"	# 6 @ 10"	# 5 @ 12"
	≤ 40	6'-4"	0'-10"	# 6 @ 10"	
	≤ 50	6'-8"	1'-0"	# 6 @ 8"	
	≤ 60	7'-0"	1'-0"	# 6 @ 8"	
4	≤ 20	4'-6"	0'-8"	# 5 @ 12"	# 4 @ 12"
	≤ 25	5'-0"	0'-8"	# 5 @ 10"	
	≤ 30	5'-6"	0'-10"	# 6 @ 12"	
	≤ 40	6'-0"	0'-10"	# 6 @ 12"	

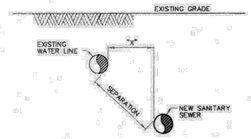
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
SANITARY SEWER
PRECAST CONCRETE MANHOLE WITH CAST-IN-PLACE BASE
(NOT TO SCALE)
APPROVED
CITY ENGINEER — DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF. DATE: JULY-01-2010 DWG NO: 02082-08



INSTALLATION REQUIREMENTS

1. IF "X" IS GREATER THAN 1' AND "Y" IS LESS THAN 2', USE MINIMUM 18 FT JOINT OF PRESSURE-RATED PIPE PER COH STANDARD DRAWING.
2. IF "X" IS GREATER THAN 2' AND "Y" IS LESS THAN 9', USE GRAVITY SEWER PIPE IN CEMENT-STABILIZED SAND EMBEDMENT.
3. IF "Y" IS GREATER THAN 9', USE STANDARD EMBEDMENT AND NORMAL JOINT SPACING.

NEW SANITARY SEWER CROSSING EXISTING WATER LINE



INSTALLATION REQUIREMENTS

1. IF SEPARATION IS LESS THAN 9', USE PRESSURE-RATED PIPE MH TO MH. "X" MUST BE AT LEAST 4 FT. VERTICAL SEPARATION. MUST BE AT LEAST 2 FT.
2. IF SEPARATION IS 9' OR GREATER, USE STANDARD PIPE AND EMBEDMENT.

NEW SANITARY SEWER PARALLEL TO EXISTING WATER LINE

INSTALLING SANITARY SEWERS CROSSING OR PARALLEL TO WATER LINES

NOTES:

1. SANITARY SEWER MUST BE BELOW WATER LINE WHEREVER POSSIBLE. WHEN WATERLINE IS BELOW THE SANITARY SEWER PROVIDE MINIMUM 2 FT SEPARATION AND INSTALL PIPE IN ACCORDANCE TO CHAPTER 7 TABLE 7.3 OF COH DESIGN MANUAL.
2. WHEN PRESSURE-RATED PIPE IS REQUIRED, PROVIDE PIPE WITH MINIMUM 150 psi PRESSURE RATING.
3. ADAPTERS MUST BE FACTORY MOLDED OR FABRICATED, WITH RING STIFFNES AT LEAST EQUAL TO THE ADJOINING SANITARY SEWER PIPE, AND USING RESILIENT GASKET OR SEAL MATERIAL. FLEXIBLE RUBBER "BOOT" TYPE ADAPTERS WILL NOT BE ACCEPTED.
4. INSTALL FORCE MAINS SAME AS FOR GRAVITY SEWER, USING SPECIFIED PRESSURE PIPE.
5. "Y" MUST ALWAYS BE GREATER THAN OR EQUAL TO 1 FT FOR PRESSURE RATED SS AND 2 FT FOR NON-PRESSURE RATED SS.
6. "X" MUST BE GREATER THAN OR EQUAL TO 4 FT.
7. ALTERNATIVES MAY BE SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS.
8. SEPARATION REQUIREMENTS SHOWN HERE DO NOT APPLY TO SERVICE CONNECTIONS – REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
SANITARY SEWER
INSTALLING SANITARY SEWERS CROSSING OR PARALLEL TO WATER LINES
(NOT TO SCALE)
APPROVED
CITY ENGINEER — DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF. DATE: JUL-01-2010 DWG NO: 02531-05

civitas ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
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TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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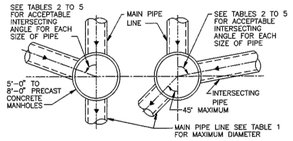
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

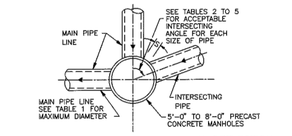
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

WASTEWATER DETAILS III

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 184 OF 339	



FOR MAIN PIPES FROM STRAIGHT THROUGH TO 45° DEFLECTION



FOR MAIN PIPE WITH 45° TO 90° DEFLECTION

TABLE 1

MAXIMUM MAIN PIPE DIAMETER (I D) IN INCHES

MANHOLE DIAMETER (FT)	STRAIGHT THROUGH TO 45° DEFLECTION	WITH 90° DEFLECTION	TABLE TO BE USED
5	36	27	2
6	42	33	3
7	48	36	4
8	60	42	5

TABLE 2

MINIMUM ANGLE AND INTERSECTING PIPE ID SIZES FOR 5'-0" DIA MANHOLE

INTERSECTING PIPE ID SIZES (INCHES)	MINIMUM INTERSECTING ANGLE IN DEGREES FOR VARIOUS MAIN PIPE ID SIZES IN INCHES								
	8"	10"	12"	15"	18"	21"	24"	27"	30"	33"	36"
8	49	50	54	58	61	66	69	73	77	82	86
10		53	57	61	64	68	71	76	79	84	88
12			61	65	68	72	75	80	83	88	--
15				68	71	75	79	83	87	--	--
18					75	79	82	87	90	--	--
21						83	86	90	--	--	--
24							90	--	--	--	--
27								--	--	--	--
30									--	--	--
33										--	--
36											--

NOTES ON USE OF STANDARD DETAIL 02082-03

TABLE 3

MINIMUM ANGLE AND INTERSECTING PIPE ID SIZES FOR 6'-0" DIA MANHOLE

INTERSECTING PIPE ID SIZES (INCHES)	MINIMUM INTERSECTING ANGLE IN DEGREES FOR VARIOUS MAIN PIPE ID SIZES IN INCHES										
	8"	10"	12"	15"	18"	21"	24"	27"	30"	33"	36"	42"
8	40	42	45	49	51	54	57	61	63	67	70	78
10		44	47	50	53	56	59	62	65	69	72	79
12			50	54	56	60	62	66	68	72	75	83
15				57	59	62	65	69	71	75	78	85
18					62	65	68	71	74	78	81	88
21						68	71	74	77	81	84	--
24							74	77	80	84	87	--
27								83	85	89	--	--
30									--	--	--	--
33										--	--	--
36											--	--
42												--

TABLE 4

MINIMUM ANGLE AND INTERSECTING PIPE ID SIZES FOR 7'-0" DIA MANHOLE

INTERSECTING PIPE ID SIZES (INCHES)	MINIMUM INTERSECTING ANGLE IN DEGREES FOR VARIOUS MAIN PIPE ID SIZES IN INCHES												
	8"	10"	12"	15"	18"	21"	24"	27"	30"	33"	36"	42"	48"
8	35	36	39	42	44	47	49	52	54	57	59	65	71
10		38	40	43	45	48	50	53	55	59	61	67	73
12			43	46	48	51	53	56	58	61	64	70	76
15				48	50	53	55	58	61	64	66	72	78
18					56	58	61	63	66	69	74	74	81
21						58	60	63	66	69	71	77	83
24							63	66	68	71	74	79	86
27								70	72	76	78	84	90
30									78	81	83	89	--
33										86	88	--	--
36											--	--	--
42												--	--
48													--

TABLE 5

MINIMUM ANGLE AND INTERSECTING PIPE ID SIZES FOR 8'-0" DIA MANHOLE

INTERSECTING PIPE ID SIZES (INCHES)	MINIMUM INTERSECTING ANGLE IN DEGREES FOR VARIOUS MAIN PIPE ID SIZES IN INCHES													
	8"	10"	12"	15"	18"	21"	24"	27"	30"	33"	36"	42"	48"	54"	60"
8	30	32	34	36	38	41	43	45	47	50	52	56	61	67	74
10		33	35	38	40	42	44	46	48	51	53	58	63	68	77
12			38	40	42	44	46	49	51	53	55	60	65	71	79
15				42	44	47	48	51	53	56	58	62	67	73	81
18					46	49	51	53	55	58	60	64	70	75	83
21						51	53	55	57	60	62	67	72	77	85
24							55	57	59	62	64	69	74	79	89
27								61	63	66	68	73	78	83	--
30									67	70	72	77	82	87	--
33										74	76	81	86	--	--
36											81	85	--	--	--
42												--	--	--	--
48													--	--	--
54														--	--
60															--

NOTES TO SPECIFIER:

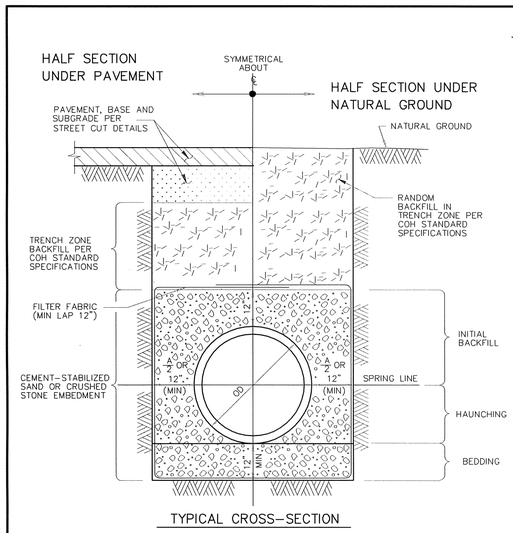
1. "--" INDICATES THAT A SPECIAL DESIGN OR THE NEXT LARGER MANHOLE SIZE SHALL BE USED.
2. TABLES 2 TO 6 ARE BASED ON A MIN SEPARATION DISTANCE "S" OF 15.5" OR INTERSECTION PIPE OD/2, WHICHEVER IS GREATER, BETWEEN MAIN AND INTERSECTING PIPES ALONG THE MANHOLE INSIDE WALL ARC.
3. PIPE WALL THICKNESS USED IN TABLES 2 TO 6 ARE BASED ON RCP. THE DESIGN ENGINEER MAY CALCULATE TO SEE IF THINNER WALL PIPES CAN MEET THE SEPARATION CRITERIA FOR ANGLES SMALLER THAN THE TABLES ALLOW.
4. LIMITATIONS TO BASE HEIGHT ARE BASED ON RESISTING BUOYANT UPLIFT FORCES BASED ON WATER AT GROUND SURFACE AND A SAFETY FACTOR OF 1.20.
5. A SPECIAL DESIGN IS REQUIRED IF MANHOLE ID IS GREATER THAN 8 FT.

* NOT APPLICABLE
(INTERSECTING PIPE GREATER THAN MAIN PIPE)

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE GROUP

SANITARY SEWER
5'-0" TO 8'-0" DIAMETER
PRECAST CONCRETE MANHOLE NOTES
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER
APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002
DWG NO: 02082N-03



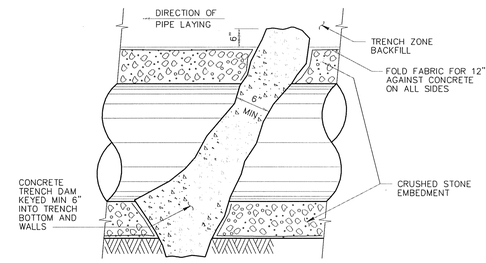
TYPICAL CROSS-SECTION

NOTES:

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

NOMINAL PIPE SIZE	"A"
18" TO 30"	24"
OVER 30"	36"

2. MAX TRENCH WIDTH SHALL BE NOT GREATER THAN MIN TRENCH WIDTH PLUS 24 INCHES, UNLESS OTHERWISE NOTED.
3. TRENCH DAM MAY BE FORMED OR UNFORMED.ACTUAL SHAPE OF CONCRETE TRENCH DAM CROSS SECTION MAY BE DETERMINED BY CONTRACTOR IN FIELD, MEETING MINIMUM THICKNESS AND KEY DEPTH REQUIREMENTS.
4. TRENCH DAM SHALL BE PLACED AT LEAST 5 FT AWAY FROM ANY PIPELINE STRUCTURE.SEE SPECIFICATIONS FOR OTHER REQUIREMENTS.
5. PLACE TRENCH DAMS IN CLASS I EMBEDMENTS AT THE MIDPOINT OF LINE SEGMENTS LONGER THAN 100 FEET BETWEEN MANHOLES.
6. CEMENT-STABILIZED SAND IS PREFERRED FOR EMBEDMENT, BUT CRUSHED STONE MAY BE USED ONLY WHEN SPECIFIED ON THE PLANS.



LONGITUDINAL SECTION ALONG PIPE ℄
AT EMBEDMENT TRENCH DAM

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

SANITARY SEWER EMBEDMENT AND TRENCH ZONE BACKFILL FOR DRY OR WET STABLE TRENCH
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER
APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2016
DWG NO: 02317-01

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

WASTEWATER DETAILS IV

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 185 OF 339	

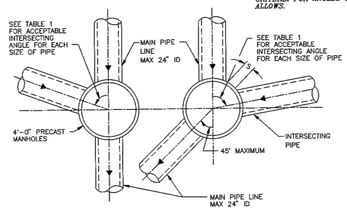
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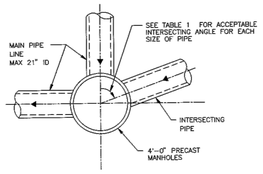
NOTES ON USE OF STANDARD DETAIL 02082-02

NOTES TO SPECIFIER:

1. "-" INDICATES THAT A SPECIAL DESIGN OR THE NEXT LARGER MANHOLE SIZE SHALL BE USED.
2. TABLE 1 IS BASED ON A MIN SEPARATION DISTANCE 1'-0" OR 1/2 D OR INTERSECTION PIPE OD/2, WHICHEVER IS GREATER, BETWEEN MAIN AND INTERSECTING PIPES ALONG THE MANHOLE INSIDE WALL ARC.
3. PIPE WALL THICKNESS USED IN TABLE 1 ARE BASED ON RCP. THE DESIGN ENGINEER MAY CALCULATE TO SEE IF THINNER WALL PIPES CAN MEET THE SEPARATION CRITERIA FOR ANGLES SMALLER THAN THE TABLE ALLOWS.



MAX 24" ID MAIN PIPE ALLOWED FOR STRAIGHT THROUGH TO 45° DEFLECTION



MAX 21" ID MAIN PIPE ALLOWED FOR 45° TO 90° DEFLECTION

TABLE 1

MIN ANGLE AND INTERSECTING PIPE SIZES FOR A 4'-0" DIA MANHOLE

INTERSECTING PIPE SIZE (INCHES)	MIN INTERSECTING ANGLE IN DEGREES FOR VARIOUS MAIN PIPE SIZES IN INCHES							
	6"	8"	10"	12"	15"	18"	21"	24"
6	55	58	60	65	70	75	80	85
8		60	63	68	73	77	82	87
10			66	71	75	80	85	90
12				76	80	85	90	–
15					85	90	–	–
18	NOT APPLICABLE UNLESS HYDRAULICS DICTATE (INTERSECTING PIPE > MAIN PIPE)					–	–	–
21							–	–
24								–

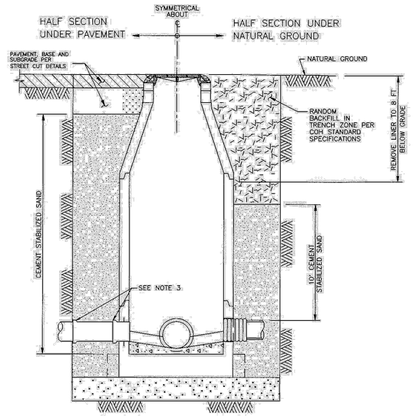
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
4'-0" DIAMETER PRECAST CONCRETE MANHOLE NOTES
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER — APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02082N-02

NOTES:

1. GROUTING OF MANHOLE STRUCTURE ANNULAR SPACE WILL BE PERMITTED IN CASES WHERE INSUFFICIENT WORK SPACE EXISTS FOR PLACEMENT AND COMPACTATION OF CEMENT STABILIZED SAND, PER COH STANDARD SPECIFICATION FOR TUNNEL GROUT.
2. THIS DETAIL ALSO APPLIES TO BACKFILL OF SHAFTS WITHOUT STRUCTURES.
3. ARRANGE PIPE JOINTS AS SHOWN WHEN USING RIGID CONNECTION TO CAST IN PLACE MANHOLE BASE.



TYPICAL CROSS – SECTION

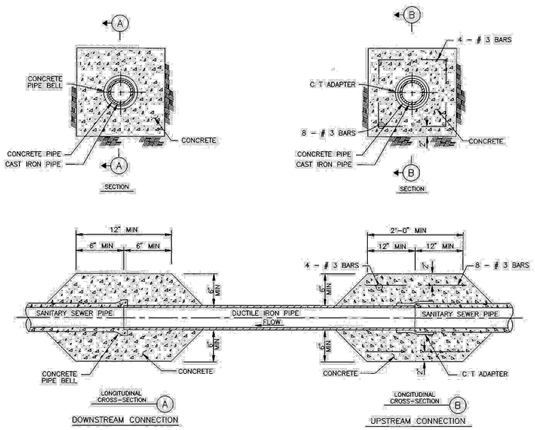
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
BACKFILL OF SHAFTS
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER — APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02317-08

NOTE:

1. THE CONTRACTOR SHALL CENTER A MINIMUM OF 18 FOOT JOINT OF DUCTILE IRON PIPE OR C900 PVC PIPE ACROSS THE CENTER OF THE PROPOSED STORM SEWER.



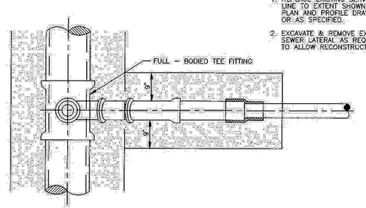
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
DUCTILE IRON PIPE STORM SEWER CROSSING
(NOT TO SCALE)

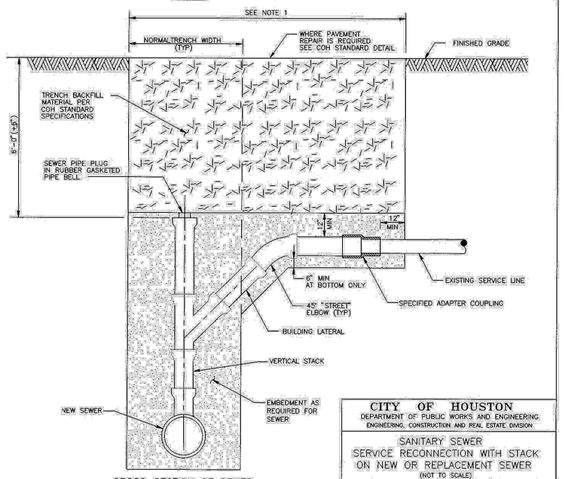
APPROVED BY: CITY ENGINEER — APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02531-03

NOTES:

1. REPLACE EXISTING SERVICE LINE TO EXTENT SHOWN ON PLAN AND PROFILE DRAWINGS, OR AS SPECIFIED.
2. EXCAVATE & REMOVE EXISTING SEWER LATERAL AS REQUIRED TO ALLOW RECONSTRUCTION.



PLAN

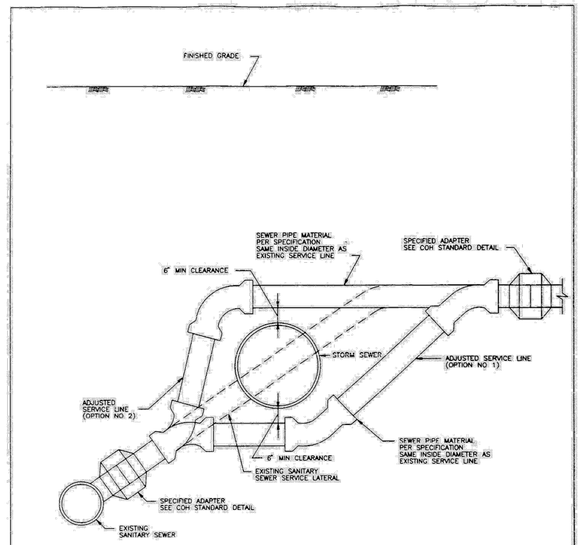


CROSS-SECTION OF SEWER AT SERVICE CONNECTION

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
SERVICE RECONNECTION WITH STACK ON NEW OR REPLACEMENT SEWER
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER — APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02534-02



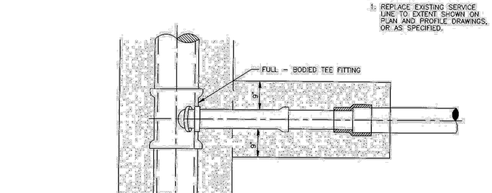
CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
SERVICE LINE RECONNECTION FOR STORM SEWER CONFLICTS
(NOT TO SCALE)

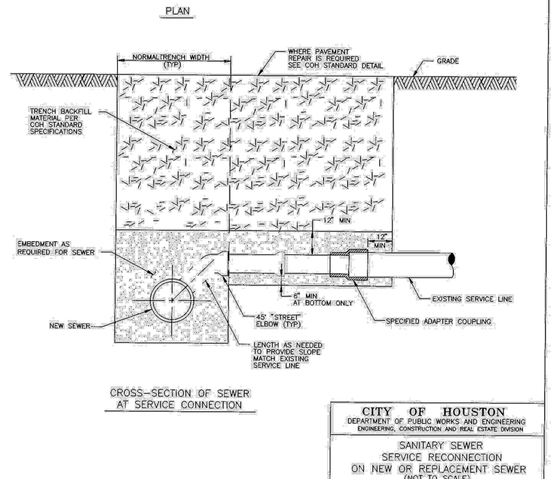
APPROVED BY: CITY ENGINEER — APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02534-03

NOTE:

1. REPLACE EXISTING SERVICE LINE TO EXTENT SHOWN ON PLAN AND PROFILE DRAWINGS, OR AS SPECIFIED.



PLAN



CROSS-SECTION OF SEWER AT SERVICE CONNECTION

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
ENGINEERING, CONSTRUCTION AND REAL ESTATE DIVISION

SANITARY SEWER
SERVICE RECONNECTION ON NEW OR REPLACEMENT SEWER
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER — APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: OCT-01-2002 | DWG NO: 02534-04

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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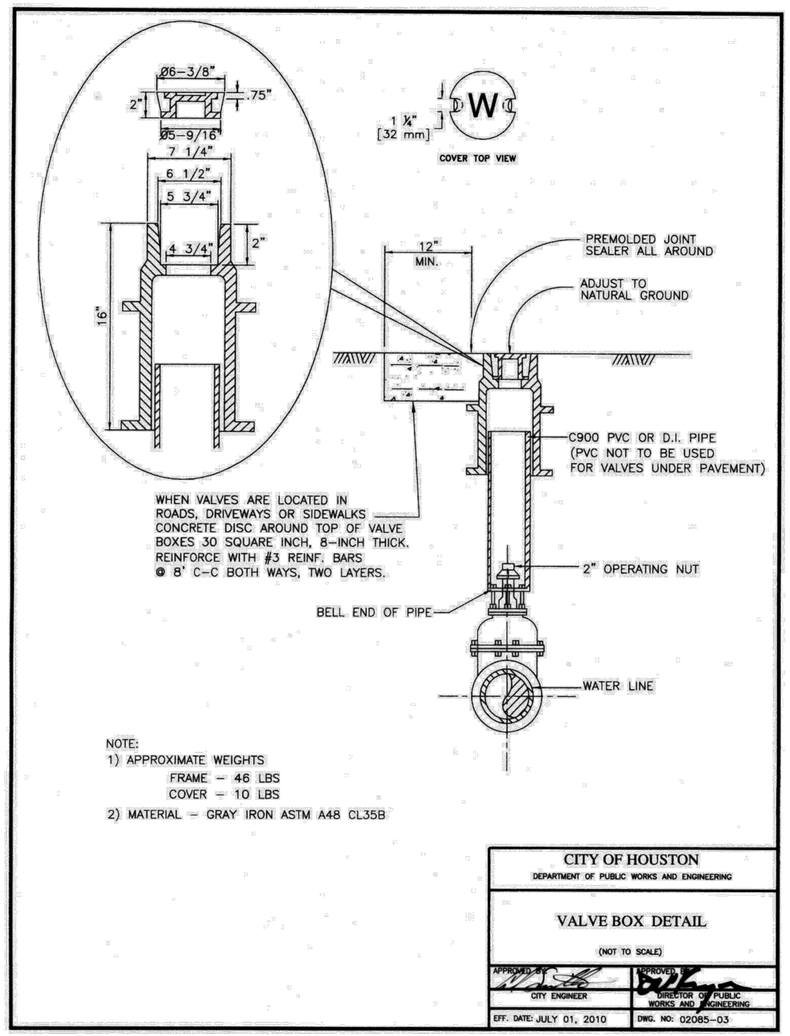
ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

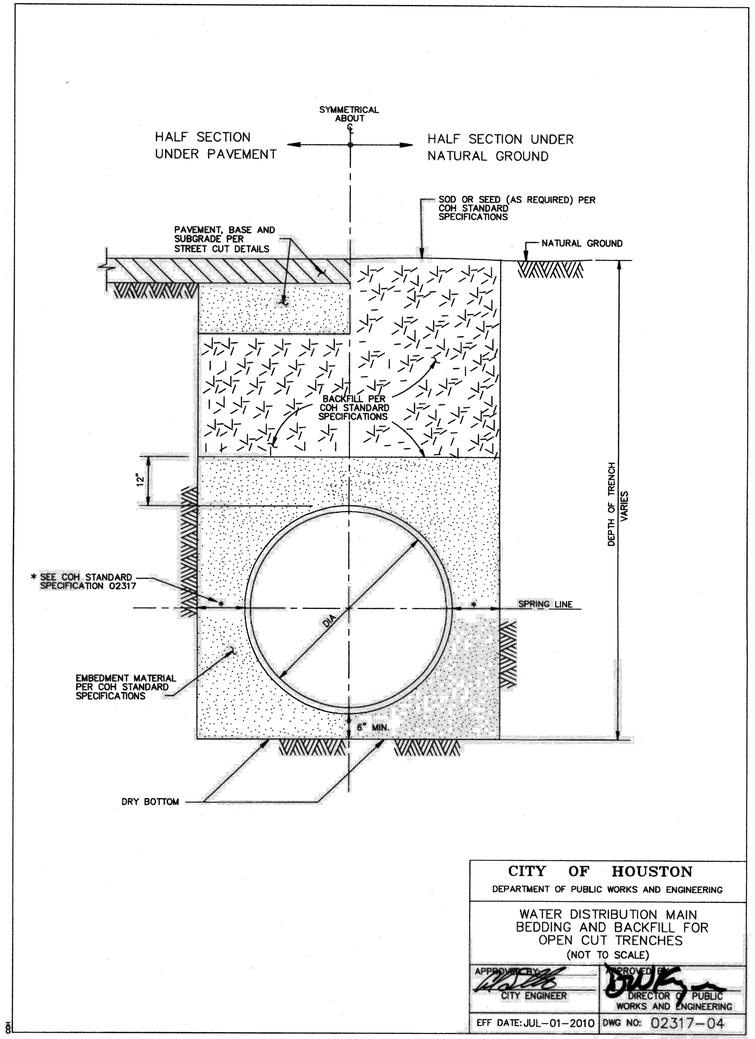
WASTEWATER DETAILS V

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 186 OF 339	



NOTE:
1) APPROXIMATE WEIGHTS
FRAME – 46 LBS
COVER – 10 LBS
2) MATERIAL – GRAY IRON ASTM A48 CL35B

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
VALVE BOX DETAIL (NOT TO SCALE)	
APPROVED BY CITY ENGINEER	APPROVED BY DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF. DATE: JULY 01, 2010	DWG. NO: 02085-03



CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
WATER DISTRIBUTION MAIN BEDDING AND BACKFILL FOR OPEN CUT TRENCHES (NOT TO SCALE)	
APPROVED BY CITY ENGINEER	APPROVED BY DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010	DWG NO: 02317-04

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

WATER DETAILS I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 187 OF 339	

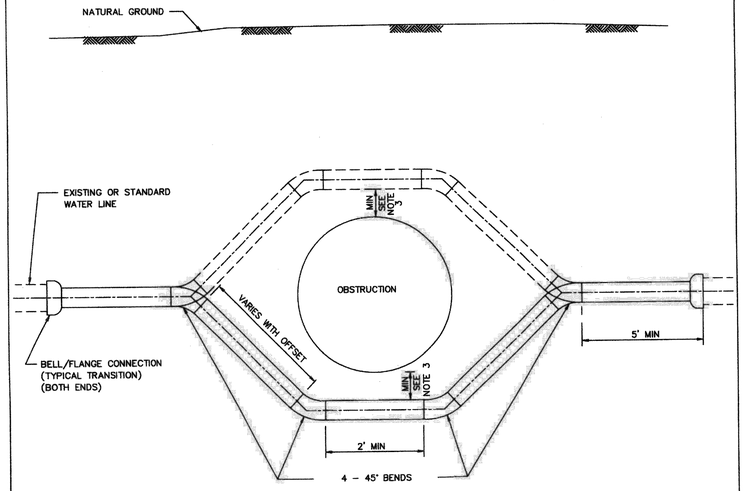
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NO.	DATE	REVISION	APP.

NOTE:

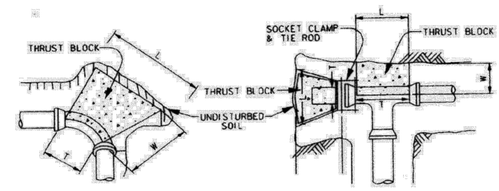
1. MATERIALS AND COATINGS TO BE IN ACCORDANCE WITH WATER LINE STANDARD SPECIFICATIONS.
2. RESTRAIN EXISTING PIPING BEYOND STEEL SECTION AS REQUIRED TO PREVENT MOVEMENT.
3. AS PER DESIGN GUIDELINE.



PIPE OFFSET ALTERNATES

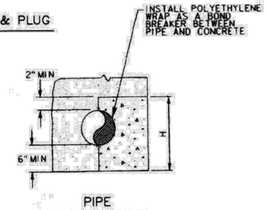
1. DUCTILE IRON PIPE PRESSURE 250 PSI WITH APPROVED RESTRAINED JOINTS.
2. PVC PIPE WITH INTEGRAL RESTRAINED JOINT SYSTEM, OR DUCTILE - IRON RESTRINED JOINT FITTINGS, EPOXY LINED AND COATED. USE 250 PSI AWWA C900 DR 14 FOR PVC RESTRAINED JOINTS.
3. PVC NOT ALLOWED FOR GREATER THAN 20 FT OF COVER OR FOR DIAMETER LARGER THAN 20 IN.
4. USE ONLY DUCTILE IRON AND PVC PRODUCTS LISTED ON OCE DIVISION APPROVED PRODUCTS LIST AND IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS.

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
TYPICAL STEEL PIPE OFFSET SECTION FOR WATER LINES (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 02511-01



90° BEND
(45° BENDS SIMILAR)

TEE & PLUG



PIPE
CROSS SECTION

MINIMUM BLOCKING DIMENSION IN INCHES

PIPE SIZE	90° BEND				45° BEND				TEE/PLUG			
	W	H	L	T	W	H	L	T	W	H	L	T
4"	6	12	14	10	6	8	11	8	6	10	12	12
6"	8	14	26	12	8	14	14	12	8	14	19	19
8"	10	16	40	16	10	18	20	16	10	18	26	26
10"	12	24	42	18	12	22	25	18	12	24	30	30
12"	14	36	40	30	14	26	30	22	14	26	40	40

CORRECTION FACTORS

SOIL TYPE	SOIL BEARING STRENGTH S_b (lb/ft²)	MULTIPLY "L" AND "H" BY
SOFT CLAY	1000	1.73
SILT	1500	1.41
SANDY SILT	3000	1.00
SAND	4000	0.87
SANDY CLAY	6000	0.71
HARD CLAY	9000	0.58

NOTES:

1. DEPTH "W" MAY BE GREATER THAN SPECIFIED TO ALLOW WORKING SPACE.
2. BLOCKING MUST BE PLACED AGAINST UNDISTURBED EARTH. WHERE THIS IS NOT POSSIBLE, THE FILL BETWEEN THE BEARING SURFACE AND UNDISTURBED SOIL MUST BE COMPACTED TO AT LEAST 90% STANDARD PROCTOR DENSITY.
3. PROVIDE CONCRETE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 03315 - CONCRETE FOR UTILITY CONSTRUCTION.
4. BLOCKING DIMENSIONS SHOWN ARE BASED ON 3000 PSI SOIL BEARING STRENGTH AND 125 PSI INTERNAL WATER PRESSURE. FOR OTHER SOIL CONDITIONS, MULTIPLY DIMENSIONS "L" AND "H" BY THE APPROPRIATE CORRECTION FACTOR.

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
THRUST BLOCK DETAIL FOR WATER LINES (4-INCH TO 12 INCH) (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 02511-02

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

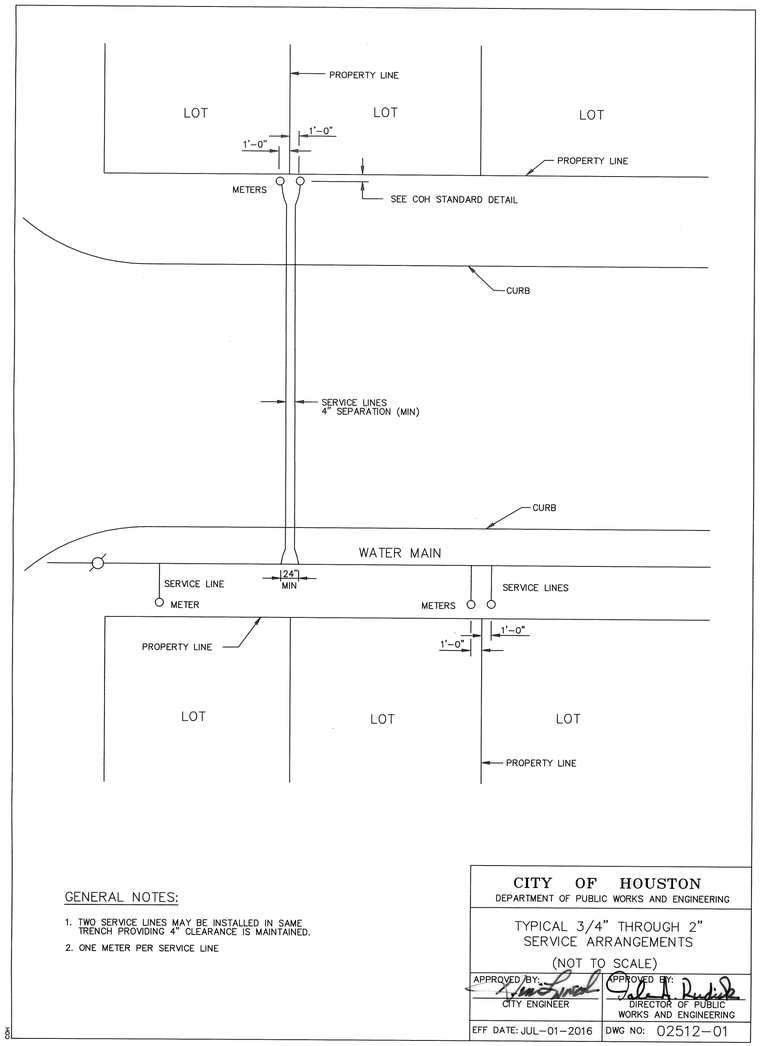
SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

WATER DETAILS II

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 188 OF 339	



GENERAL NOTES:

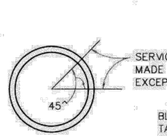
1. TWO SERVICE LINES MAY BE INSTALLED IN SAME TRENCH PROVIDING 4" CLEARANCE IS MAINTAINED.
2. ONE METER PER SERVICE LINE

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
TYPICAL 3/4" THROUGH 2" SERVICE ARRANGEMENTS (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2016	DWG NO: 02512-01

PIPE TAPPING SCHEDULE

WATER MAIN TYPE AND DIAMETER	SERVICE SIZE			
	3/4"	1"	1 1/2"	2"
4" CAST IRON OR DUCTILE IRON	DSS, WBSS	DSS, WBSS	DSS, WBSS	DSS, WBSS
4" ASBESTOS (EXISTING) CEMENT	WBSS	WBSS	DSS, WBSS	DSS, WBSS
4" PVC (AWWA C900)	DSS, WBSS	DSS, WBSS	DSS, WBSS	DSS, WBSS
6" AND 8" CAST IRON OR DUCTILE IRON	DSS, WBSS	DSS, WBSS	DSS, WBSS	DSS, WBSS
6" AND 8" ASBESTOS (EXISTING) CEMENT	DSS, WBSS	DSS, WBSS	DSS, WBSS	DSS, WBSS
6" AND 8" CAST IRON OR DUCTILE IRON	DSS, WBSS	DSS, WBSS	DSS, WBSS	DSS, WBSS
6" AND 8" PVC (AWWA C900)	DSS, WBSS	DSS, WBSS	DSS, WBSS	DSS, WBSS
12" CAST IRON OR DUCTILE IRON	DSS, WBSS	DSS, WBSS	DSS, WBSS	DSS, WBSS
12" ASBESTOS (EXISTING) CEMENT	DSS, WBSS	DSS, WBSS	DSS, WBSS	DSS, WBSS
12" PVC (AWWA C900)	DSS, WBSS	DSS, WBSS	DSS, WBSS	DSS, WBSS
16" AND UP CAST IRON OR DUCTILE IRON	DWBSS	DWBSS	DWBSS	DWBSS
16" AND UP ASBESTOS (EXISTING) CEMENT	DWBSS	DWBSS	DWBSS	DWBSS
16" AND UP PVC (AWWA C900)	DWBSS	DWBSS	DWBSS	DWBSS

DSS - DUAL STRAP SADDLES
WBSS - WIDE BAND STRAP SADDLES
DWBSS - DUAL WIDE BAND STRAP SADDLES



SERVICE TAPS TO BE MADE IN THIS ZONE EXCEPT FOR PVC FASTTAP

BLOW-OFF & CHLORINATION TAPS ARE MADE IN VERTICAL POSITION



WIDE BAND SINGLE SADDLE OR DUAL SADDLES

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
SERVICE TAPS (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010	DWG NO: 02512-02

NO.	DATE	REVISION	APP.

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

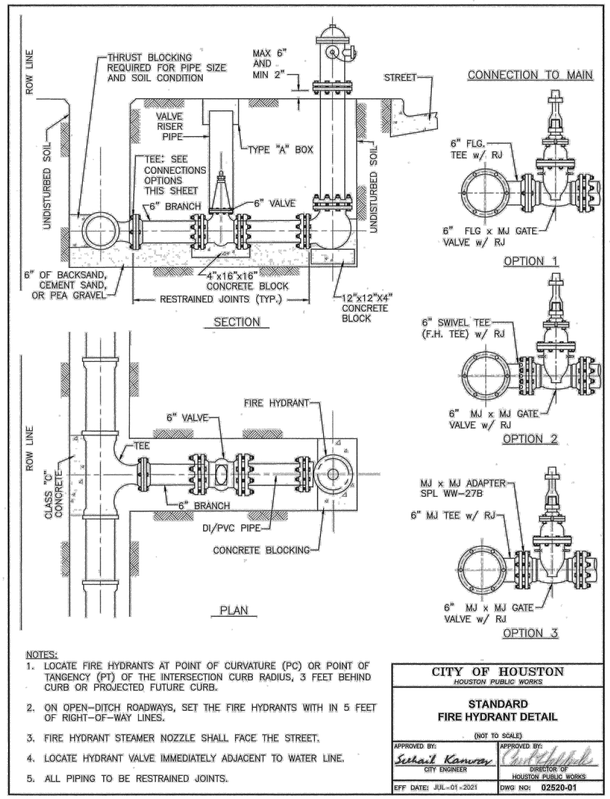
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 - AREAS 8 AND 11 - BASINS IB032 AND IB022

WATER DETAILS III

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
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CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 189 OF 339	

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PLOT STYLE: COH.ctb
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NOTES:

1. LOCATE FIRE HYDRANTS AT POINT OF CURVATURE (PC) OR POINT OF TANGENCY (PT) OF THE INTERSECTION CURB RADIUS, 3 FEET BEHIND CURB OR PROJECTED FUTURE CURB.
2. ON OPEN-DITCH ROADWAYS, SET THE FIRE HYDRANTS WITH IN 5 FEET OF RIGHT-OF-WAY LINES.
3. FIRE HYDRANT STEAMER NOZZLE SHALL FACE THE STREET.
4. LOCATE HYDRANT VALVE IMMEDIATELY ADJACENT TO WATER LINE.
5. ALL PIPING TO BE RESTRAINED JOINTS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

STANDARD FIRE HYDRANT DETAIL

(NOT TO SCALE)

APPROVED BY:	APPROVED BY:
Suhail Kanuwar, CITY ENGINEER	DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: JUL-01-2021	DWG NO: 02520-01

NO.	DATE	REVISION	APP.

civitas ENGINEERING GROUP
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TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

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DOCUMENT INCOMPLETE:
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ENGINEER: YONGKI SHIM, PE
P.E. SERIAL No: 114557
DATE: 10/28/2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

WATER DETAILS IV

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NOT TO SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 190 OF 339	

PLOT STYLE: COH.ctb
PLOTTED: 10/28/2026 10:47 AM
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WBS NO: R-001000-0034-3 - CRMP CIP PACKAGE 9 AREA 8 AND 11

CONSTRUCTION SEQUENCE OF WORK

CITY OF HOUSTON PUBLIC WORKS TRAFFIC NOTES
GENERAL TRAFFIC CONTROL 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 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) 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.
8. 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.
9. A MINIMUM OF 10 FOOT LANES ARE NEEDED AT ALL TIMES, TEMPORARY PAVEMENT CAN BE PLACED IF NEEDED. DETOUR TO NEXT BLOCK CAN BE DONE DURING WORKING HOURS AND TEMORARY SIGNAGE AND/OR FLAGGERS.

TRAFFIC CONTROL PLAN - AREA 8

TRAFFIC CONTROL SHALL BE DONE TO INSTALL ALL UTILITIES INCLUDING THE SANIARY SEWER LINES THAT ARE PROPOSED. REFER TO PLAN AND PROFILE SHEETS FOR LOCATIONS AND DEPTHS OF CONSTRUCTION.

IN AREA 8 THERE WILL BE TWO PHASES FOR ROADWAY IMPROVEMENTS AND UTILITY ADJUSTMENTS BUT AS A ROLLING OPERATION BETWEEN STREETS TO MINIMIZE THE IMPACT TO THE NEIGBORHOODS AND BUSINESSES. ALL UTILITY TIE INS SHALL BE COMPLETED DURING WORKING HOURS OR THE USE OF STEEL PLATES AND OTHER TCP MAY BE NEEDED.

1. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES IN AREA 8 ON CROWN STREET FROM ABILENE STREET TO LYONS STREET INCLUDING ROADWAY REPAIRS OF PAVEMENT AFTER COMPLETION.
2. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES ON TREMPER STREET FROM HARBOR STREET TO PAST WAYSIDE DRIVE FOR UTILITY CONNECTION INCLUDING ROADWAY REPAIRS OF ASPHALT PAVEMENT AFTER COMPLETION.
3. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES ON DENISION STREET FROM HARBOR STREET TO PAST WAYSIDE DRIVE FOR UTILITY CONNECTION INCLUDING ROADWAY REPAIRS OF ASPHALT PAVEMENT AFTER COMPLETION.
4. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES ON BONHAM STREET FROM CROWN STREET TO WAYSIDE DRIVE INCLUDING ROADWAY REPAIRS OF PAVEMENT AFTER COMPLETION.
5. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES ON ABILENE STREET FROM HARBOR STREET TO WAYSIDE DRIVE INCLUDING ROADWAY REPAIRS OF PAVEMENT AFTER COMPLETION.
6. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES ON MARKET STREET FROM HARBOR STREET TO WAYSIDE DRIVE INCLUDING ROADWAY REPAIRS OF PAVEMENT AFTER COMPLETION.
7. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES ON ANZAC STREET FROM HARBOR STREET TO WAYSIDE DRIVE INCLUDING ROADWAY REPAIRS OF PAVEMENT AFTER COMPLETION
8. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES ON AMARILLO STREET FROM HARBOR STREET TO WAYSIDE DRIVE INCLUDING ROADWAY REPAIRS OF PAVEMENT AFTER COMPLETION.
9. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES ON LYONS STREET FROM CROWN STREET TO WAYSIDE DRIVE INCLUDING ROADWAY REPAIRS OF PAVEMENT AFTER COMPLETION
10. SANITARY SEWER TIE INS WILL BE CONSTRUCTED ALONG THE TCP ROUTE INCLUDING ALL UNDERGROUND UTILITY ADJUSTMENTS.
11. AT NIGHT, THE CONTRCATOR SHALL USE STEEL PLATES AND BARRICADES TO COVER ALL OPEN HOLES OR TRENCHES IN THE WORK ZONE.
12. DURING WORKING HOURS FLAGGER OPERATIONS, UNIFORM POLICE, AND COORDINATION SHALL BE DONE BY CONTRACTOR AND SUBCONTRACTORS.
13. CONTRACTOR SHALL INSTALL ALL SWPPP AS SHOWN ON PLAN AS SILT FENCING AND INLET PROTECTION. MAINTAINING AND INSPECTING SWPPP PER CITY OF HOUSTON CREITERIA.
14. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS DURING NON-WORKING HOURS AND COORDINATE WITH RESIDENTS AND COMMERICAL BUISNESS DURING WORKING HOURS FOR ANY CLOSURES OR ISSUE IN THE AREA.
15. WHEN NEEDED THE CONTRACTOR SHALL REFER TO ONE LANE CLOSURE AND FLAGGING OPERATION PLAN FOR ADDITIONAL TRAFFIC CONTROL (TCP) SET UPS FOR CLOSURES.
16. REMOVE ALL PAVEMENT MARKINGS IN CONFLICT WITH CONSTRUCTION FOR EACH PHASE.
17. PROJECT SITE SHALL BE CLEAN OF DEBRIS AND BROKEN TCP EQUIPMENT SHALL BE REPLACED DAILY.

TRAFFIC CONTROL PLAN - AREA 11

TRAFFIC CONTROL SHALL BE DONE TO INSTALL ALL UTILITIES INCLUDING THE SANIARY SEWER LINES THAT ARE PROPOSED. REFER TO PLAN AND PROFILE SHEETS FOR LOCATIONS AND DEPTHS OF CONSTRUCTION.

IN AREA 11 THERE WILL BE ONE PHASE BUT AS A ROLLING OPERATION BETWEEN STREETS TO MINIMIZE THE IMPACT TO THE NEIGBORHOODS AND BUSINESSES. ALL UTILITY TIE INS SHALL BE COMPLETED DURING WORKING HOURS AND/OR THE USE OF STEEL PLATES AND OTHER TCP MAY BE NEEDED. CONCRETE PAVEMENT SHALL BE REMOVED TO JOINTS, REFER TO CONCRETE PAVEMENT DETAILS FOR REPLACEMENT AND REPAIRS. ALL CHIPPED CONCRETE SHALL BE REPLACED BY BLOCK OUTS OR AT THE DIRECTION OF THE ENGINEER OR INSPECTOR.

1. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES IN AREA 11 FROM JUST EAST OF HILLSBORO STREET TO LYONS AVE. ON HALO STREET INCLUDING ROADWAY REPAIRS OF ASPHALT PAVEMENT AFTER COMPLETION.
2. CONSTRUCT A SANITARY SEWER AND OTHER UTILITIES FROM HALO STREET. TO PORT STREET ON LYONS AVE. INCLUDING ROADWAY REPAIRS OF ASPHALT PAVEMENT AFTER COMPLETION. SANITARY SEWER TIE INS WILL BE CONSTRUCTED ALONG THE TCP ROUTE INCLUDING ALL UNDERGROUND UTILITY ADJUSTMENTS.
3. INTERSECTION CONSTRUCTION SHOULD BE DONE BY QUADRANTS OR STEPS SHOWN IN TCP PLAN. LYONS SHALL BE OPEN DURING NONWORKING HOURS AND FLAGGERS SHALL BE USED DURING WORKING HOURS.
4. AT NIGHT, THE CONTRCATOR SHALL USE STEEL PLATES AND BARRICADES TO COVER ALL OPEN HOLES OR TRENCHES IN THE WORK ZONE.
5. DURING WORKING HOURS FLAGGER OPERATIONS, UNIFORM POLICE, AND COORDINATION SHALL BE DONE BY CONTRACTOR AND SUBCONTRACTORS.
6. ALL SANITARY CROSSINGS SHALL BE CONSTRUCTED WITH FLAGGER OPERATIONS AND OPEN DURING NONWORKING HOURS.
7. CONTRACTOR SHALL INSTALL ALL SWPPP AS SHOWN ON PLAN AS SILT FENCING AND INLET PROTECTION. MAINTAINING AND INSPECTING SWPPP PER CITY OF HOUSTON CREITERIA.
8. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS DURING NON-WORKING HOURS AND COORDINATE WITH RESIDENTS AND COMMERICAL BUISNESS DURING WORKING HOURS FOR ANY CLOSURES OR ISSUE IN THE AREA.
9. WHEN NEEDED THE CONTRACTOR SHALL REFER TO ONE LANE CLOSURE AND FLAGGING OPERATION PLAN FOR ADDITIONAL TRAFFIC CONTROL (TCP) SET UPS FOR CLOSURES.
10. REMOVE ALL PAVEMENT MARKINGS IN CONFLICT WITH CONSTRUCTION FOR EACH PHASE.
11. PROJECT SITE SHALL BE CLEAN OF DEBRIS AND BROKEN TCP EQUIPMENT SHALL BE REPLACED DAILY.

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd, STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

SURVEYED BY: LANDTECH, INC.

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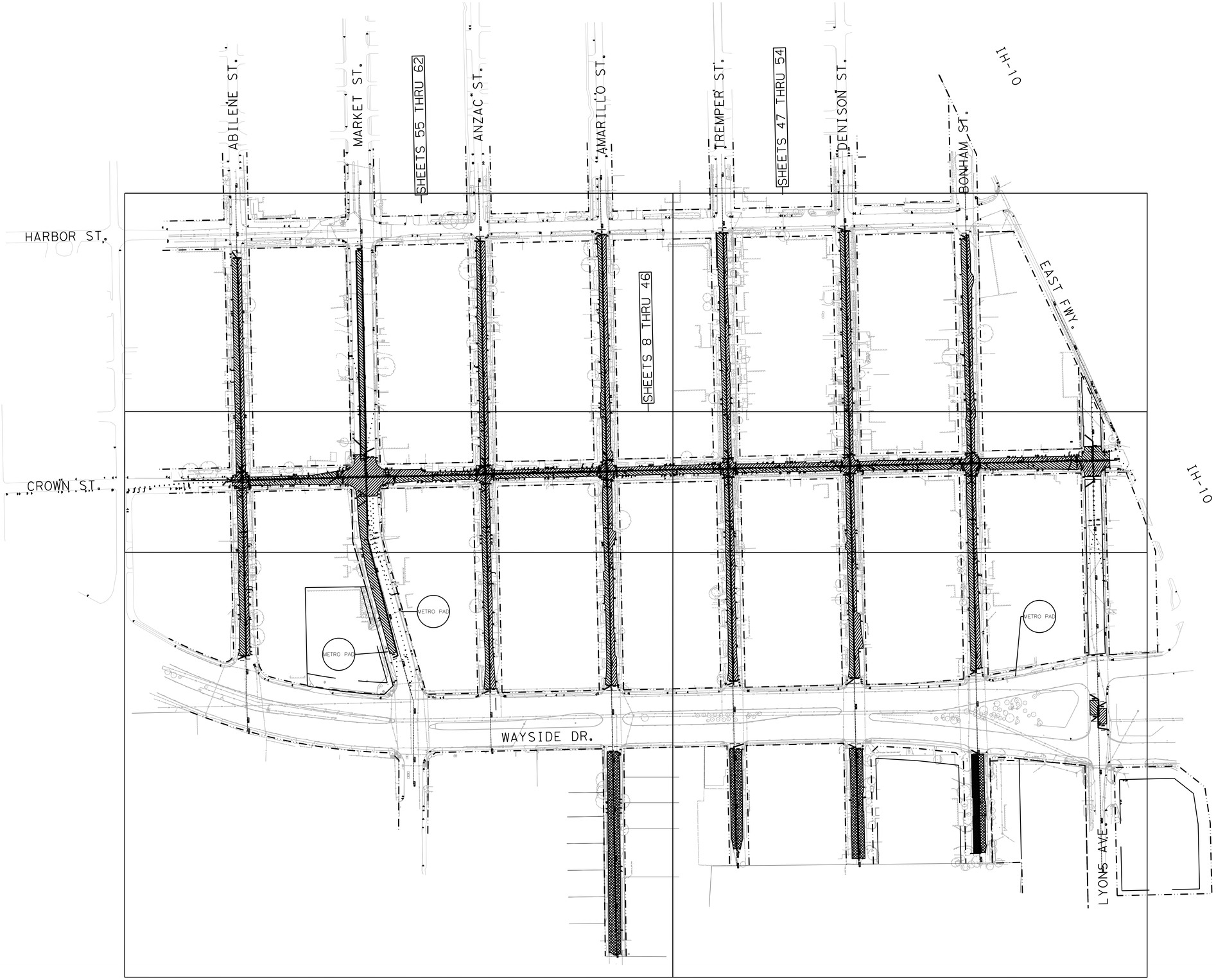
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TRAFFIC CONTROL PLAN
SEQUENCE OF WORK
SHEET 1 OF 110

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 191 OF 339	

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PLOT STYLE: COH.CTB
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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8
OVERALL PROJET LAYOUT
SHEET 2 OF 110

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 192 OF 339	

PLOT STYLE: COH.CTB PLOTTED: 12-OCT-2026

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IH-10

SHEETS 70 THRU 72

SHEETS 63 THRU 69

HOFFMAN ST.

LYONS AVE.

METRO PAD

HAHLO ST.

METRO PAD

HERSHE ST.

HILLSBORO ST.

WOOLWORTH ST.

SHEETS 73 THRU 85

METRO PAD

KRESS ST.

METRO PAD

HENKE ST.

METRO PAD

METRO PAD

ROUSE ST.

EAST FWY.

IH-10

MATCHLINE SHEET 4 STA 16+00

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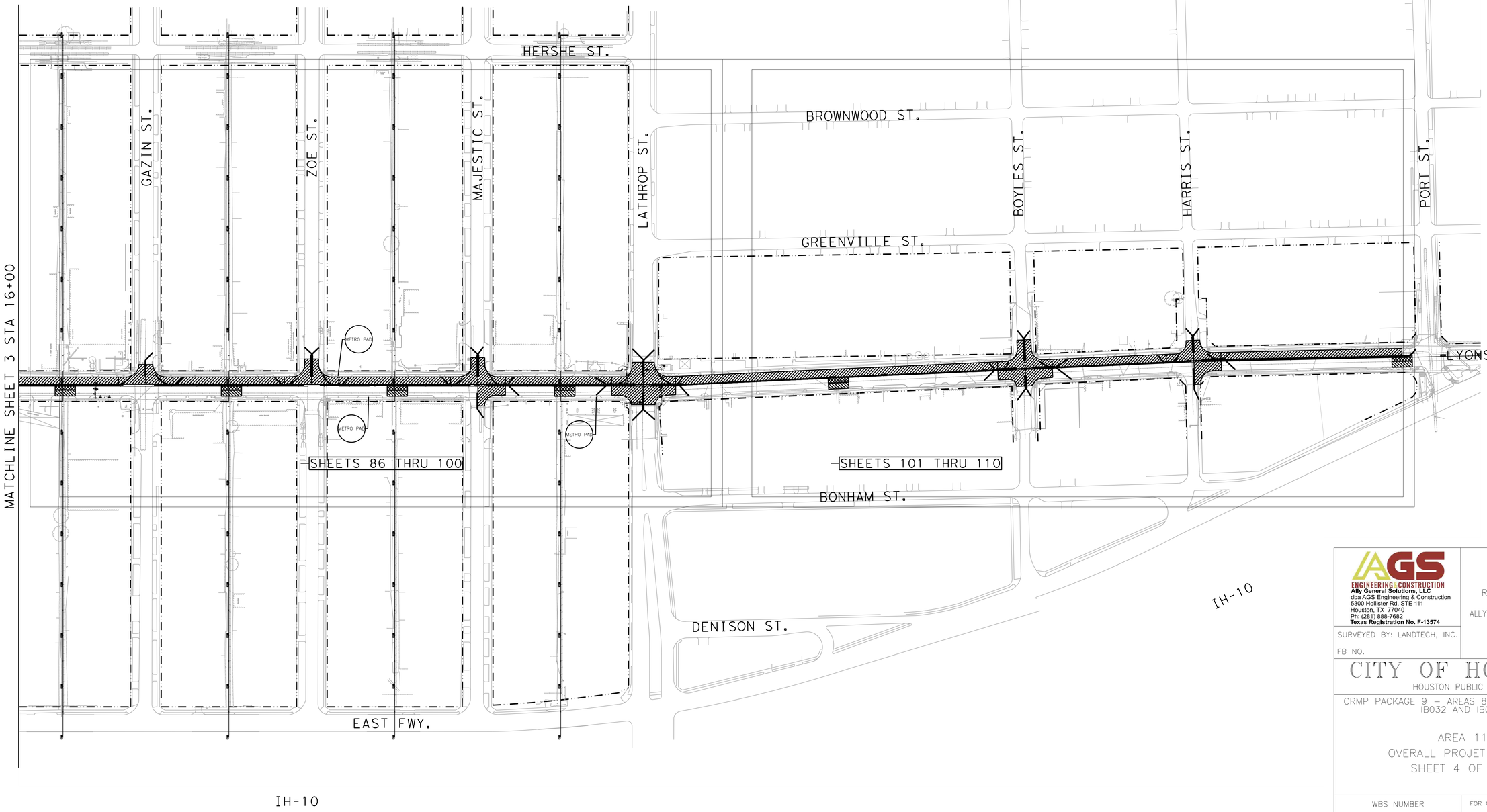
CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11
OVERALL PROJET LAYOUT
SHEET 3 OF 110

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SHEET NO. 193 OF 339	



PLOT STYLE: COH.CTB

PLOTTED: 12-OCT-2026

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CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11
OVERALL PROJET LAYOUT
SHEET 4 OF 110

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SHEET NO. 194 OF 339	

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.

INSTALL TYPE III BARRICADE

ALL SIDE STREETS WITHIN TCP ARE TO HAVE ADVANCED WARNING OF ROADWORK.

ROAD WORK AHEAD CW20-1

DRIVEWAY

DRIVEWAY

STREET 2

STREET 1

SIDE STREET

STREET 2

INSTALL ONE WAY SIGNS AT EFFECTED DRIVEWAYS WITHIN TCP WHERE APPLICABLE.

ONE WAY R6-2(R)

LOW PROFILE BARRIERS TO BE INSTALLED SURROUNDING ALL OPEN DITCH.

ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY. CONTRACTOR SHALL COORDINATE CONSTRUCTION AND ALLOW CONTINUOUS ACCESS FOR RESIDENTS THROUGH WORK ZONE.

TYPICAL BUFFER/TAPER LENGTH AND SIGN SPACING.

100' BUFFER — 100' TAPER — 120' SIGN SPACING — 120' SIGN SPACING — 120' SIGN SPACING

STREET 1

STREET 1

SIDE STREET

SIDE STREET

R9-12 BIKE LANE CLOSED / SIDEWALK CLOSED R9-9

SIDEWALK CLOSED CROSS HERE R9-11aL

ALLOWED USE OF FULL LANE R9-20

CW20-5b BIKE LANE CLOSED AHEAD

TYPICAL PEDESTRIAN/BICYCLE TCP

POSTED SPEED
STREET 1 = 30 MPH
STREET 2 = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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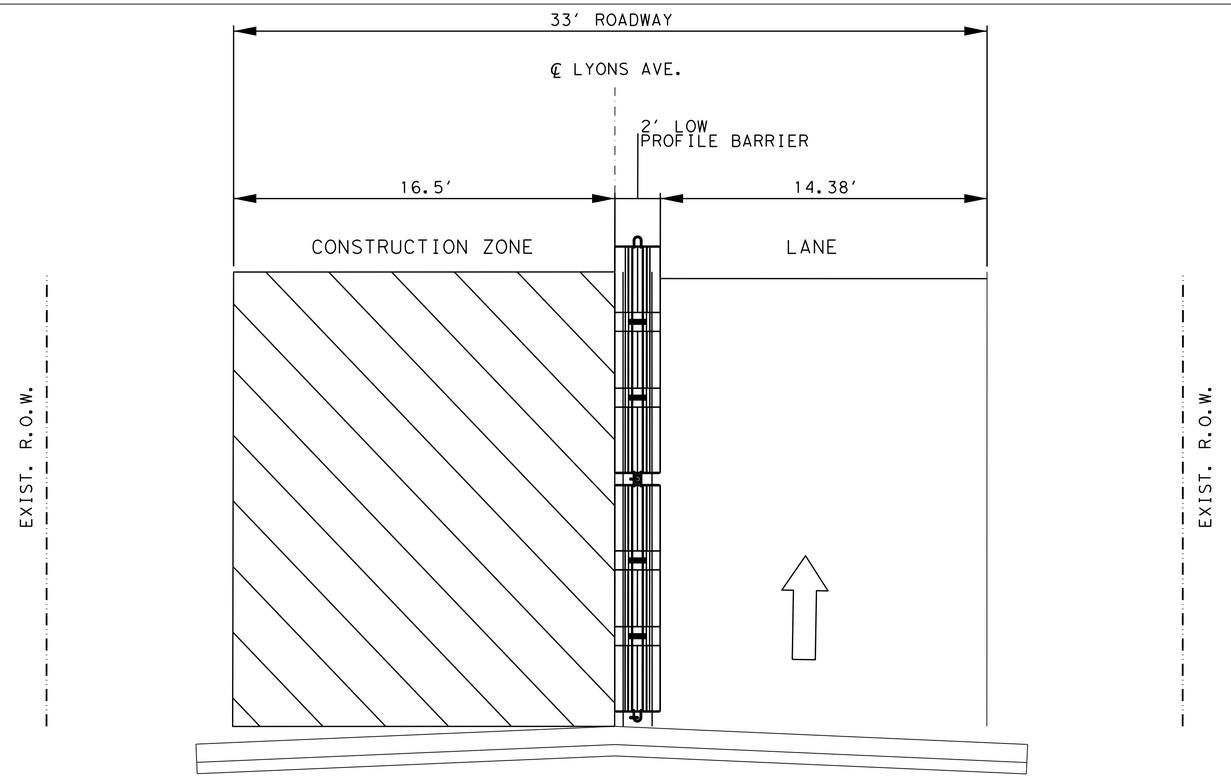
TYPICAL TCP DETAIL
SHEET 5 OF 110

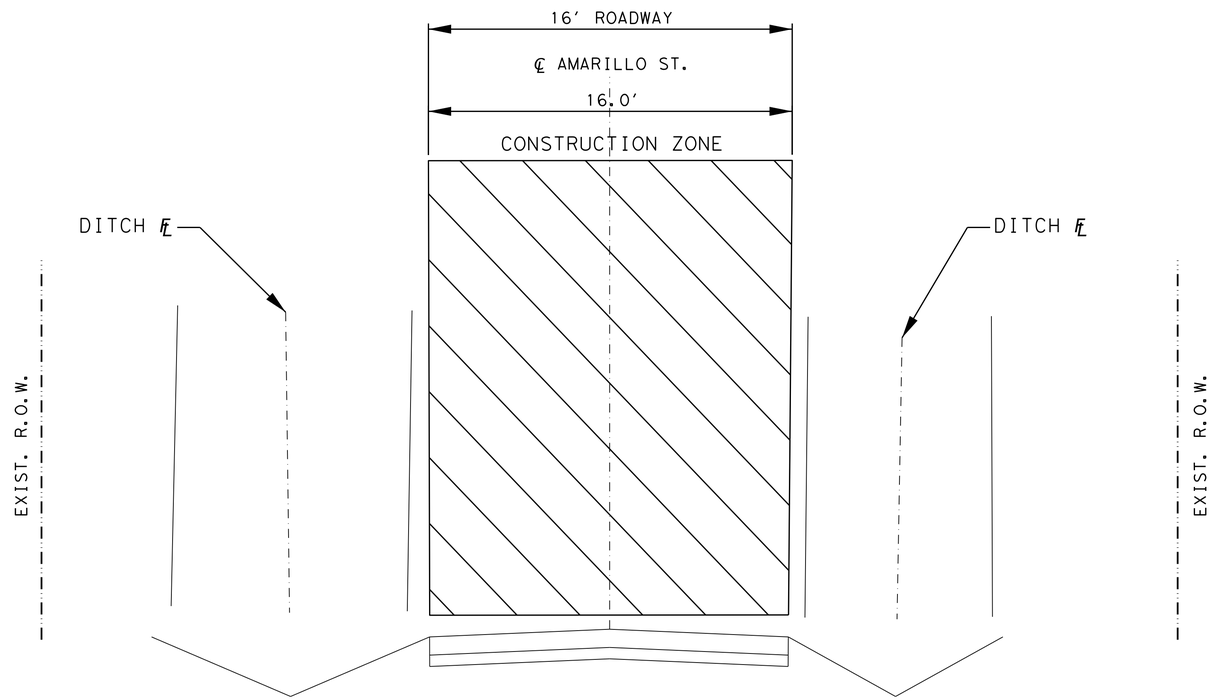
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 195 OF 339	

PLOTTED: 15-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS53\Waylon Solutions Dropbox\AGS Projects\Crmp\WBS No R-001000-0034-3 - SWPPP & TCP\CAD\000-TCP DETAIL.dgn





AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8

TYPICAL SECTIONS

SHEET 6 OF 110

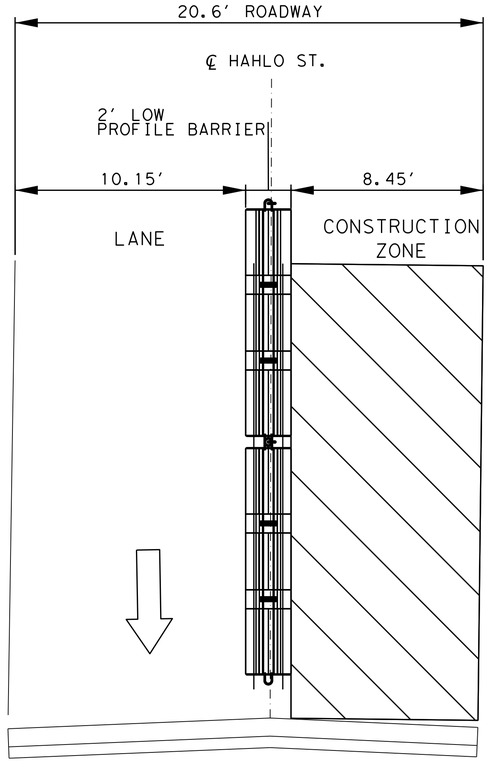
DETOUR ROUTING WITH ONE LANE CLOSURE & ROAD CLOSURE LYONS ST. & AMARILLO ST. AT CROWN ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 196 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-SAM\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\CMP\AS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\006-Typical Sections R.dgn



PLOT STYLE: COH.CTB PLOTTED: 12-OCT-2026

FILE PATH: C:\Users\AGS-SAVA\Ally Solutions Dropbox\AGS Dropbox\AGS Projects\GMMS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\007-Typical Sections 11.dgn

AGS ENGINEERING & CONSTRUCTION Ally General Solutions, LLC dba AGS Engineering & Construction 5300 Hollister Rd. STE 111 Houston, TX 77040 Ph: (281) 888-7682 **Texas Registration No. F-13574**	PRELIMINARY ROLANDO CASTANEDA P.E. TX 98276 ALLY GENERAL SOLUTIONS,LLC OCT 14, 2026
SURVEYED BY: LANDTECH, INC. FB NO.	

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11

TYPICAL SECTIONS

SHEET 7 OF 110

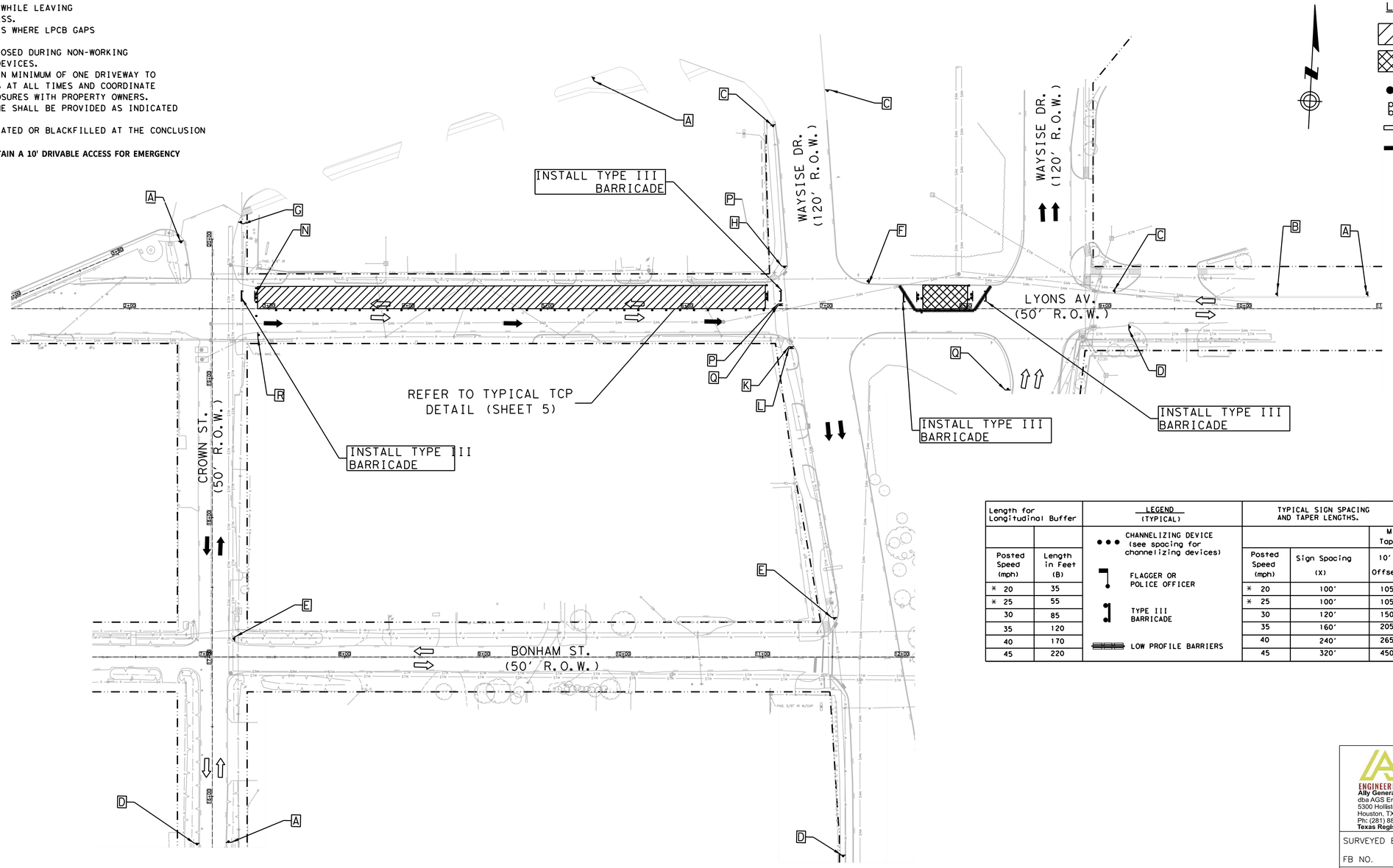
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)

HAHLO ST. AT HERSHE ST. & HILLSBORO ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 197 OF 339	

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL PHASE 1 STEP 1
- CONSTRUCTION ZONELAYDOWN AREA FOR MATERIAL PHASE 1 STEP 1
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3
J	K	L	M	N	O	P	Q	R
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6

POSTED SPEED
LYONS ST = 30 MPH
CROWN ST = 30 MPH
WAYSIDE DR = 45 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC

OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PAHSE 1 STEP 1
TRAFFIC CONTROL PLAN
SHEET 8 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
LYONS ST. AT CROWN ST. & WAYSIDE DR.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 198 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

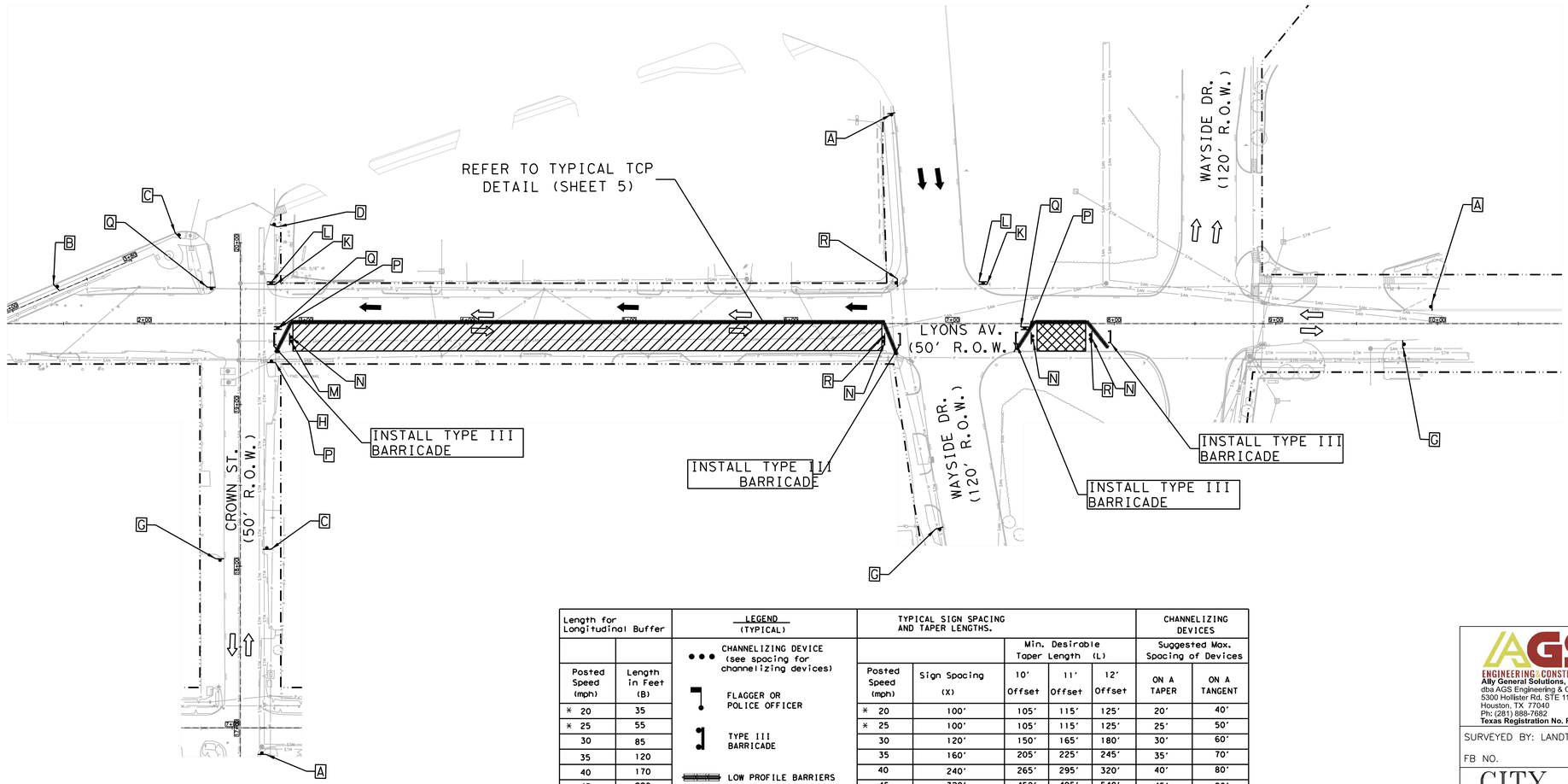
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL PHASE 1 STEP 2
- CONSTRUCTION ZONELAYDOWN AREA FOR MATERIAL PHASE 1 STEP 2
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I	S	
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY	
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1	
J	K	L	M	N	O	P	Q	R	T	
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR	
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)	

POSTED SPEED
LYON ST = 30 MPH
CROWN ST = 30 MPH
WAYSIDE ST = 45 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 1 STEP 2
TRAFFIC CONTROL PLAN
SHEET 9 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
LYONS ST. AT CROWN ST. & WAYSIDE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 199 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

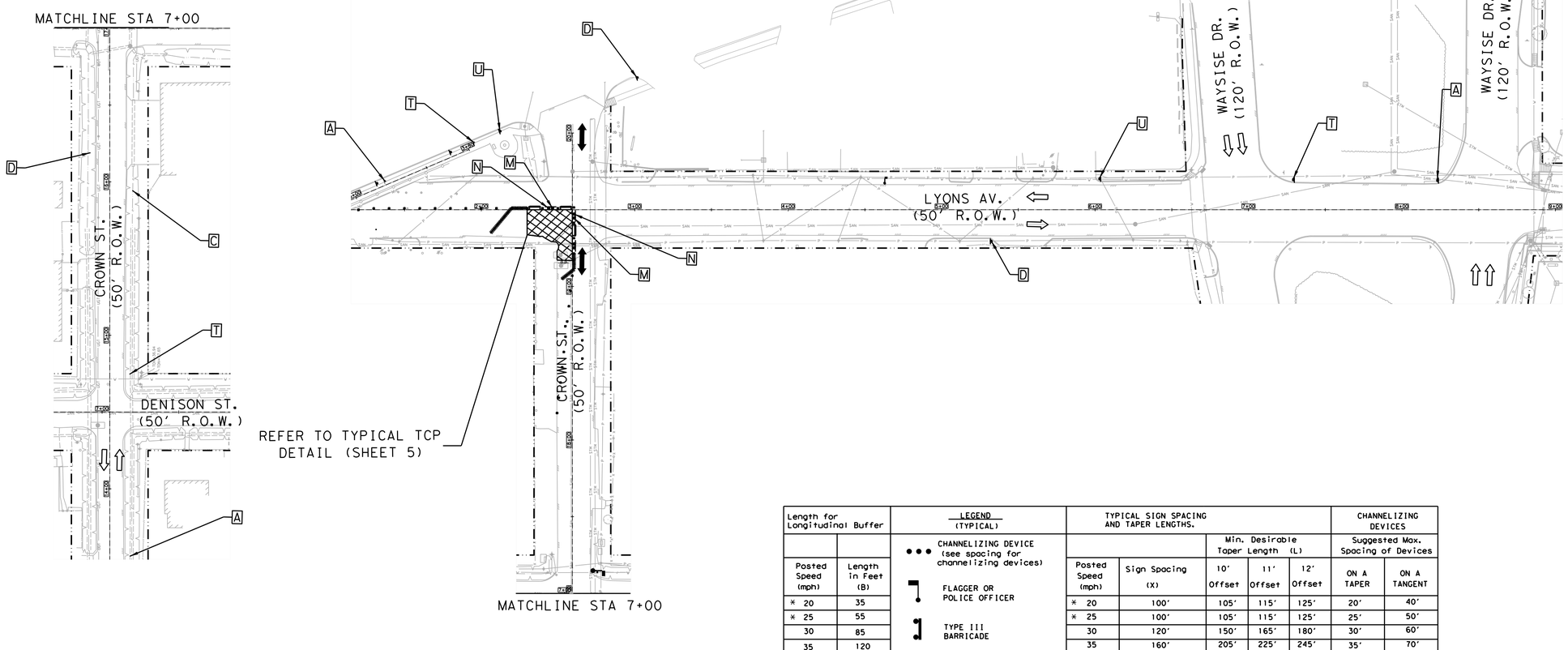
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	 CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

POSTED SPEED
CROWN ST = 30 MPH
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 1 STEP 3A
TRAFFIC CONTROL PLAN
SHEET 10 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT LYONS ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 200 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

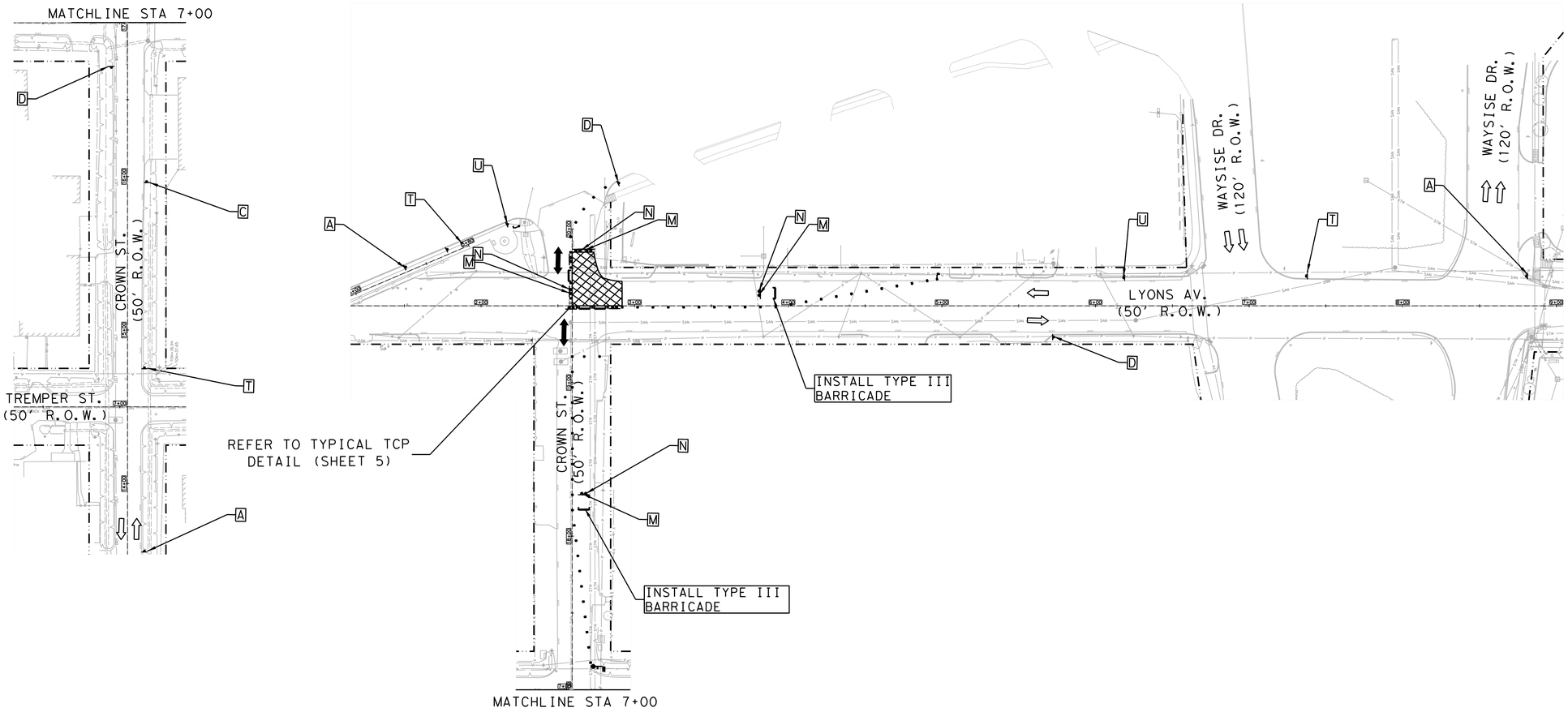
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	 CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

Length for Longitudinal Buffer		LEGEND (TYPICAL)
Posted Speed (mph)	Length in Feet (B)	
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)
* 25	55	FLAGGER OR POLICE OFFICER
30	85	TYPE III BARRICADE
35	120	LOW PROFILE BARRIERS
40	170	
45	220	

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

POSTED SPEED
LYONS ST = 30 MPH
CROWN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 1 STEP 3B
TRAFFIC CONTROL PLAN
SHEET 11 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AV. AT CROWN ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 201 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

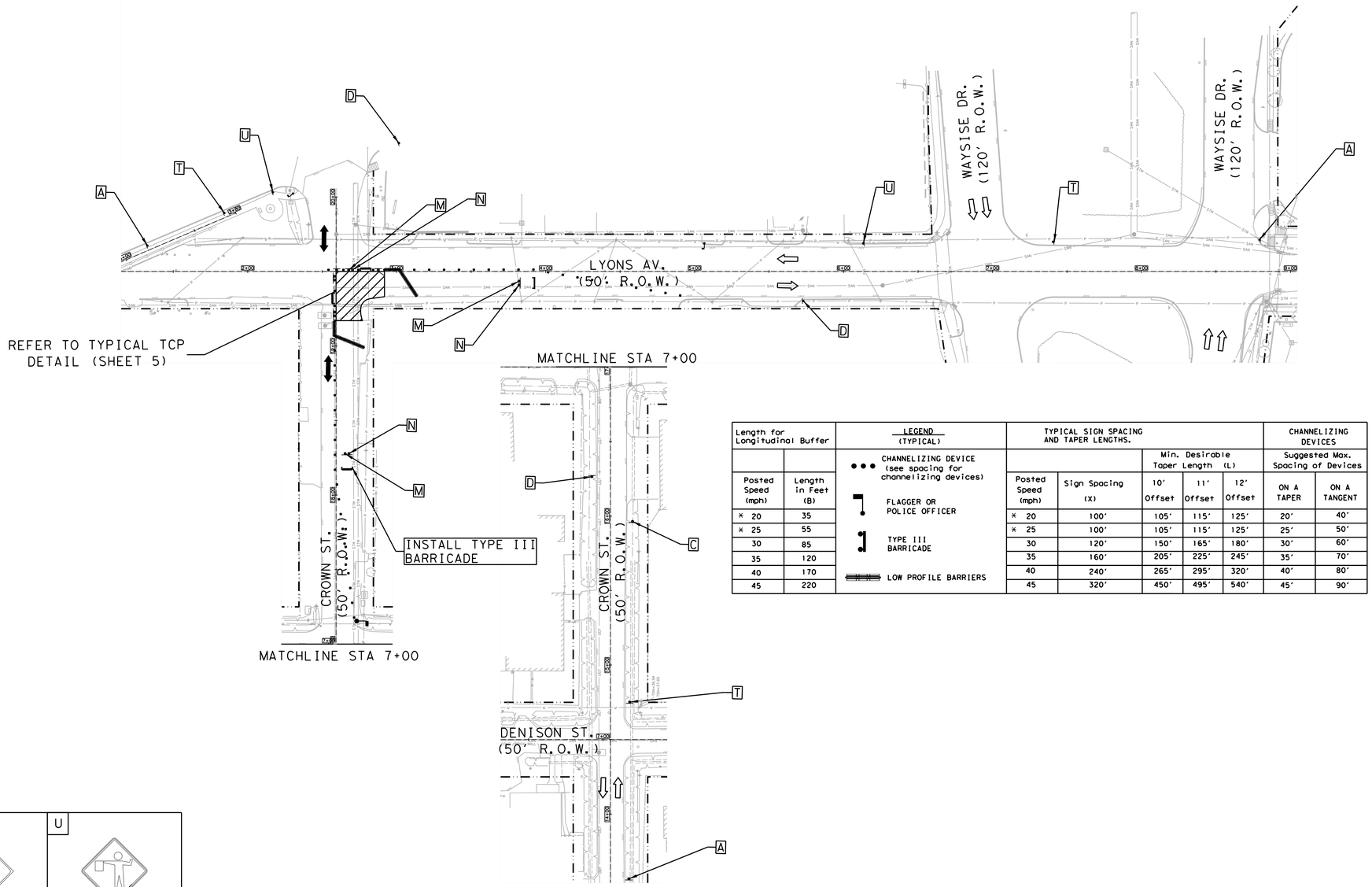
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	 CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

POSTED SPEED
CROWN ST = 30 MPH
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 1 STEP 3C
TRAFFIC CONTROL PLAN
SHEET 12 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT LYONS ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 202 OF 339	

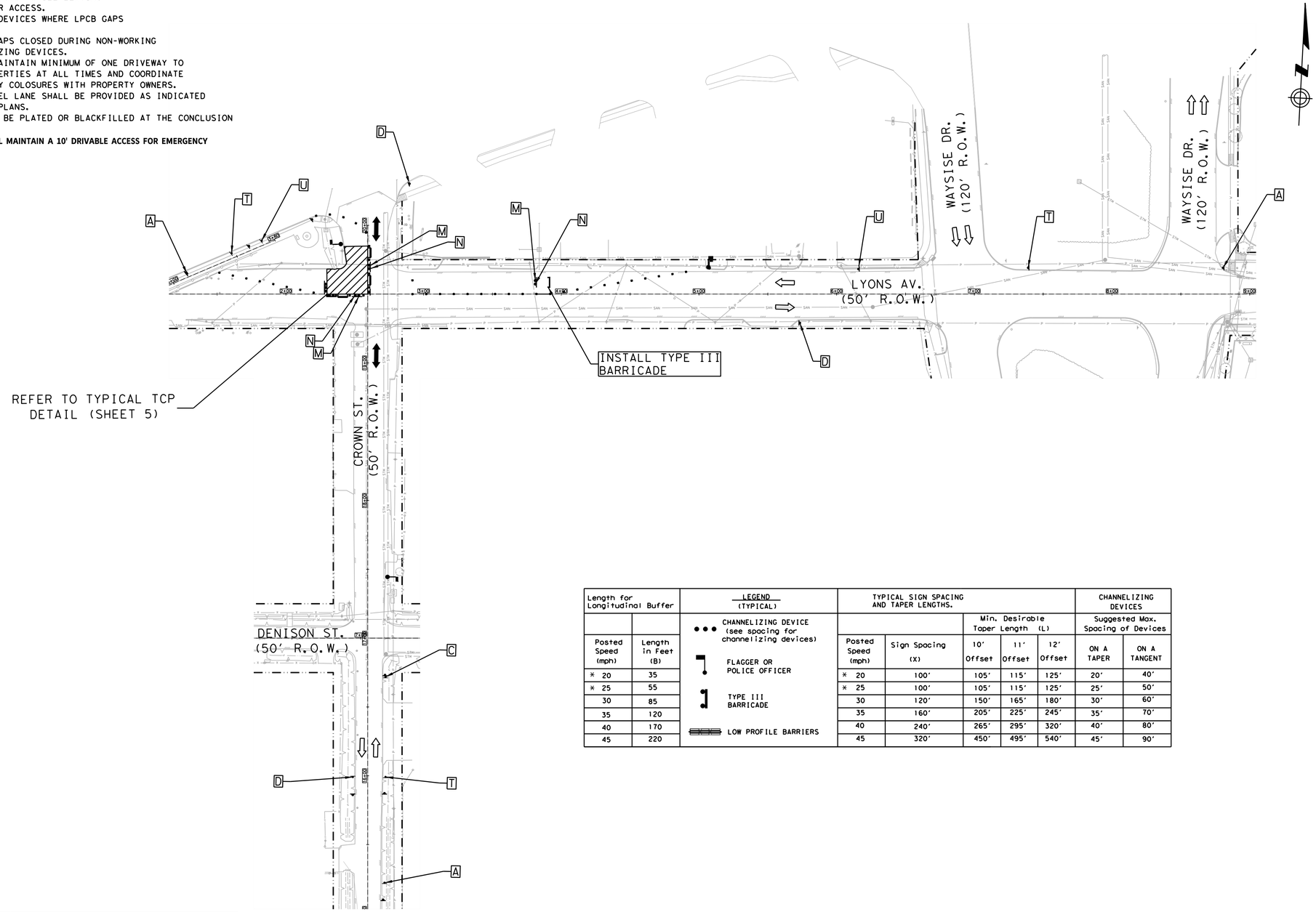
PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-SA\AppData Dropbox\AGS Dropbox\AGS Projects\Current WBS No R-001000-0034-3 - SWPPP & TCP\CAD\012-TCP INT Crown and Lyons 4 .dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



LEGEND-TRAFFIC CONTROL

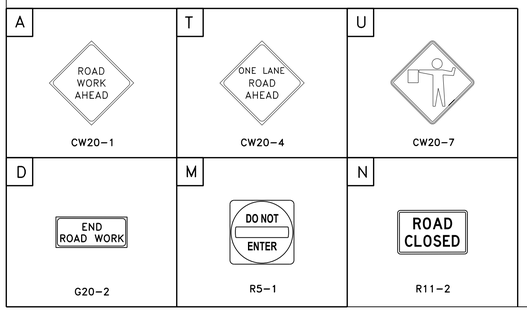
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'



POSTED SPEED
LYONS ST = 30 MPH
CROWN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 1 STEP 3D
TRAFFIC CONTROL PLAN
SHEET 13 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AV. AT CROWN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 203 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\VKS5-54\MyDocs - Solutions Dropbox\VKS Dropbox\VKS Projects\GM\TAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\013-TCP.dwt Crown and Lyons 1.dgn

TCP NOTES:

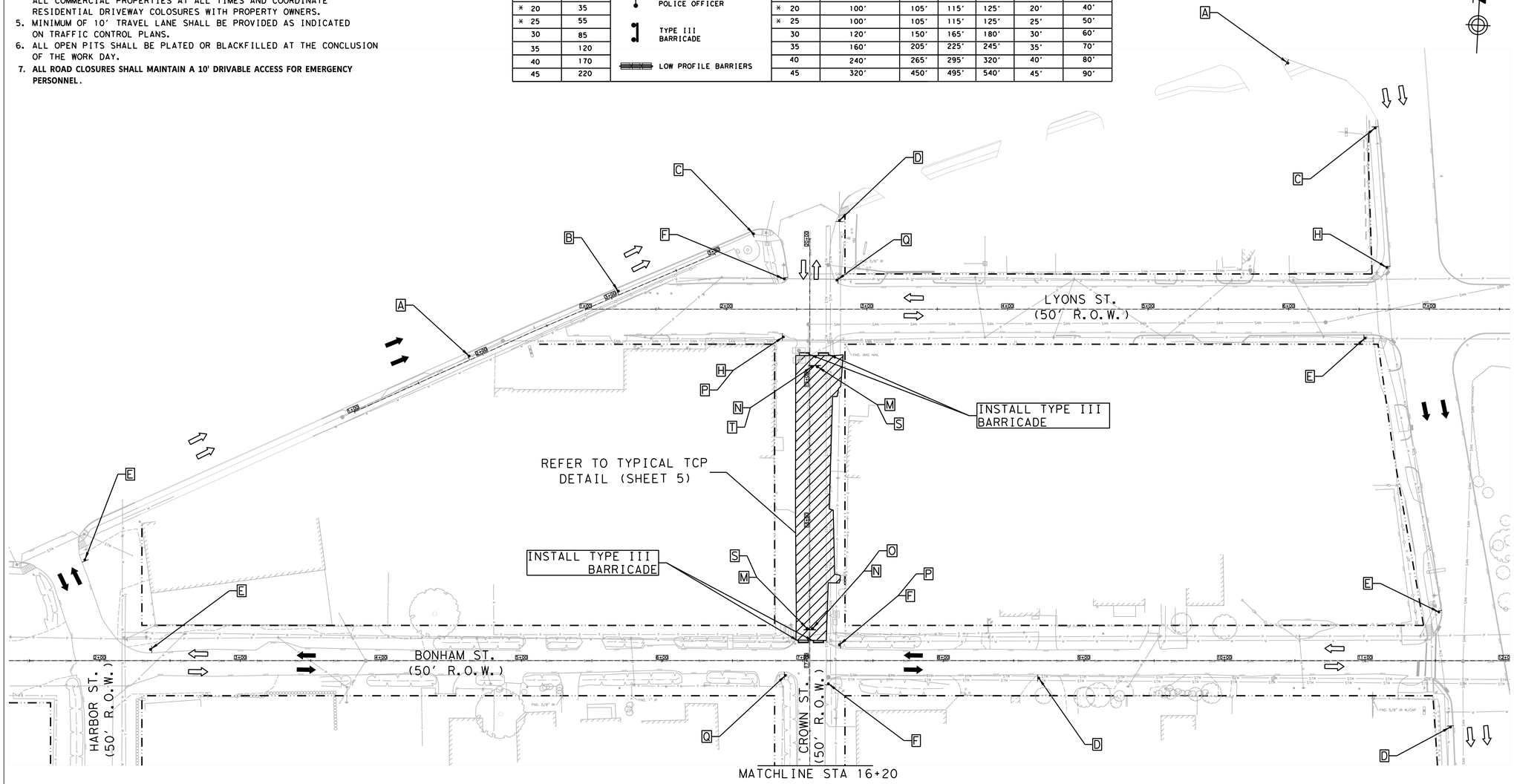
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

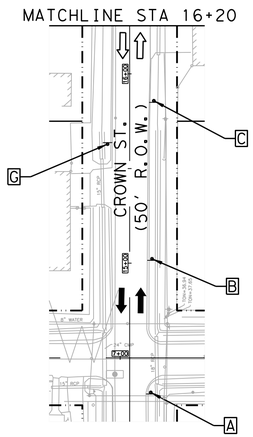
Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'





LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	S	
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY	
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1	
J	K	L	M	N	O	P	Q	R	T	
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR ←			BEGIN ONE WAY	DETOUR →	
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)	

POSTED SPEED
CROWN ST = 30 MPH
MARKET ST = 30 MPH
ABILENE ST = 30 MPH
WAYSIDE DR = 45 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 1
TRAFFIC CONTROL PLAN
SHEET 14 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
CROWN ST. AT MARKET ST. & ABILENE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 204 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

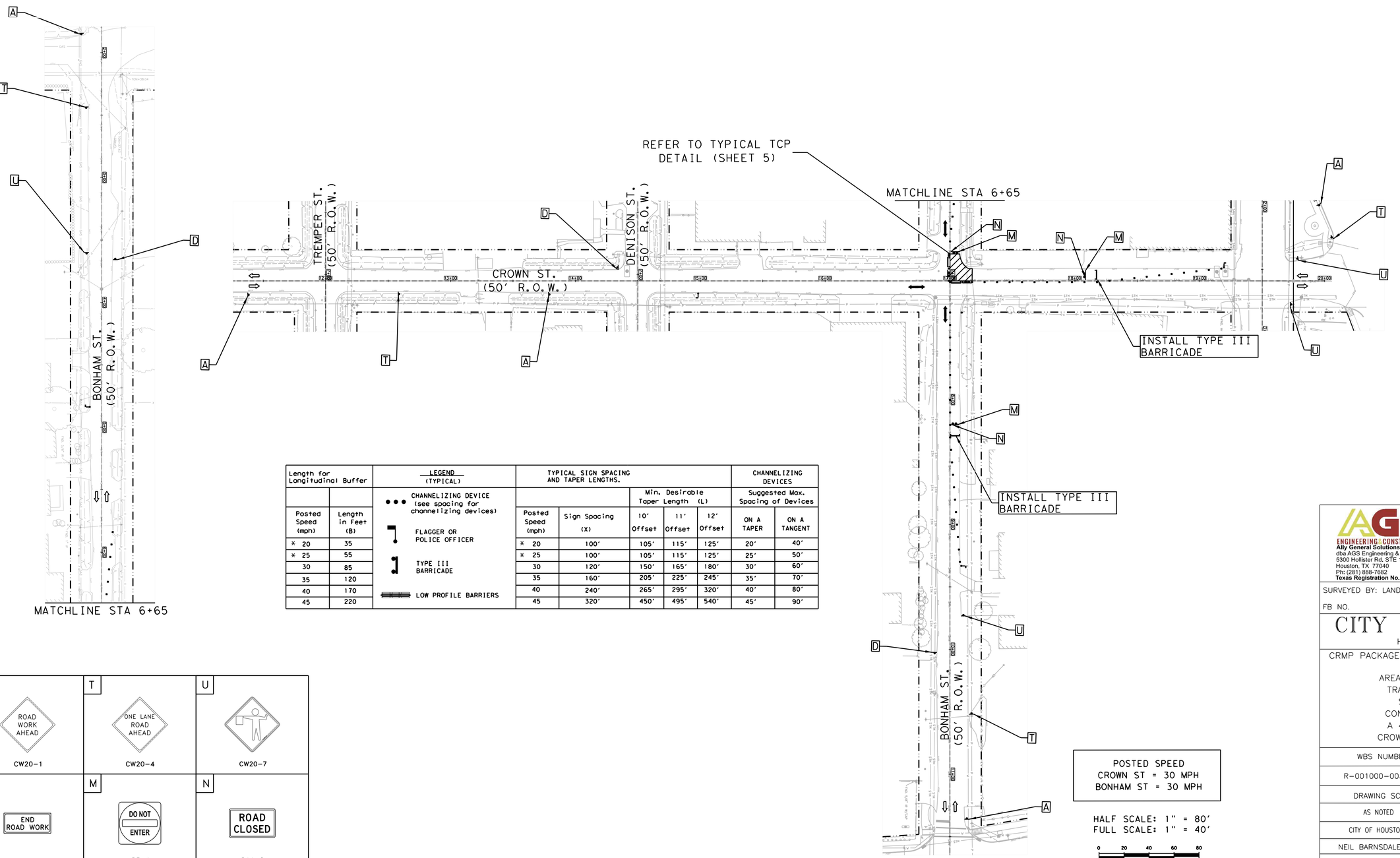
FILE PATH: C:\Users\AGS-SA\AppData Dropbox\AGS Dropbox\AGS Projects\Cmf\IS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\014-TCP Crown Street 1.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	 CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

POSTED SPEED
CROWN ST = 30 MPH
BONHAM ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 1A
TRAFFIC CONTROL PLAN
SHEET 15 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT BONHAM ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 205 OF 339	

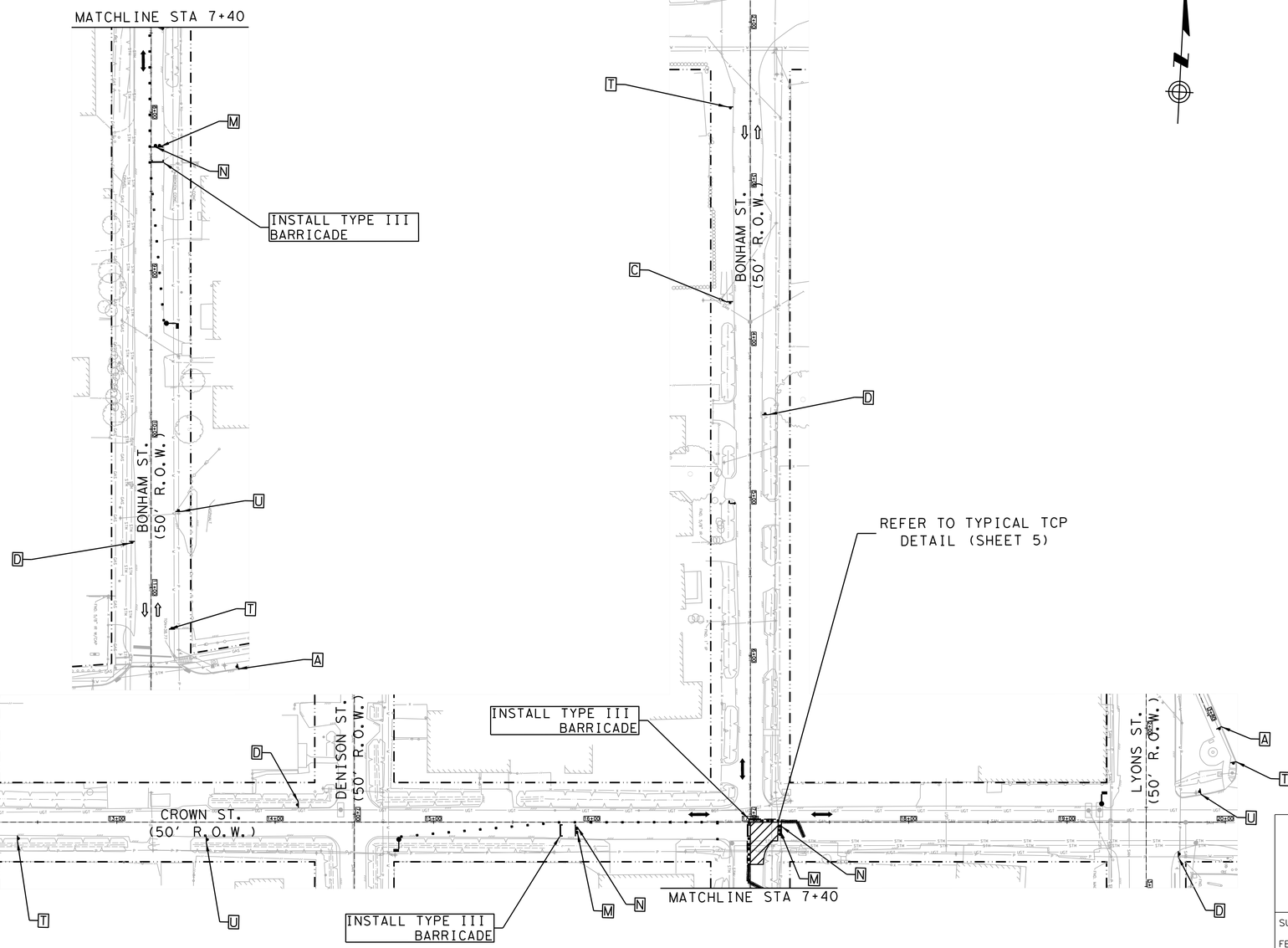
PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-SA\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\015-TCP INT Crown and Bonham 2.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

POSTED SPEED
CROWN ST = 30 MPH
BONHAM ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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dba AGS Engineering & Construction
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Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 1B
TRAFFIC CONTROL PLAN
SHEET 16 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT BONHAM ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 206 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

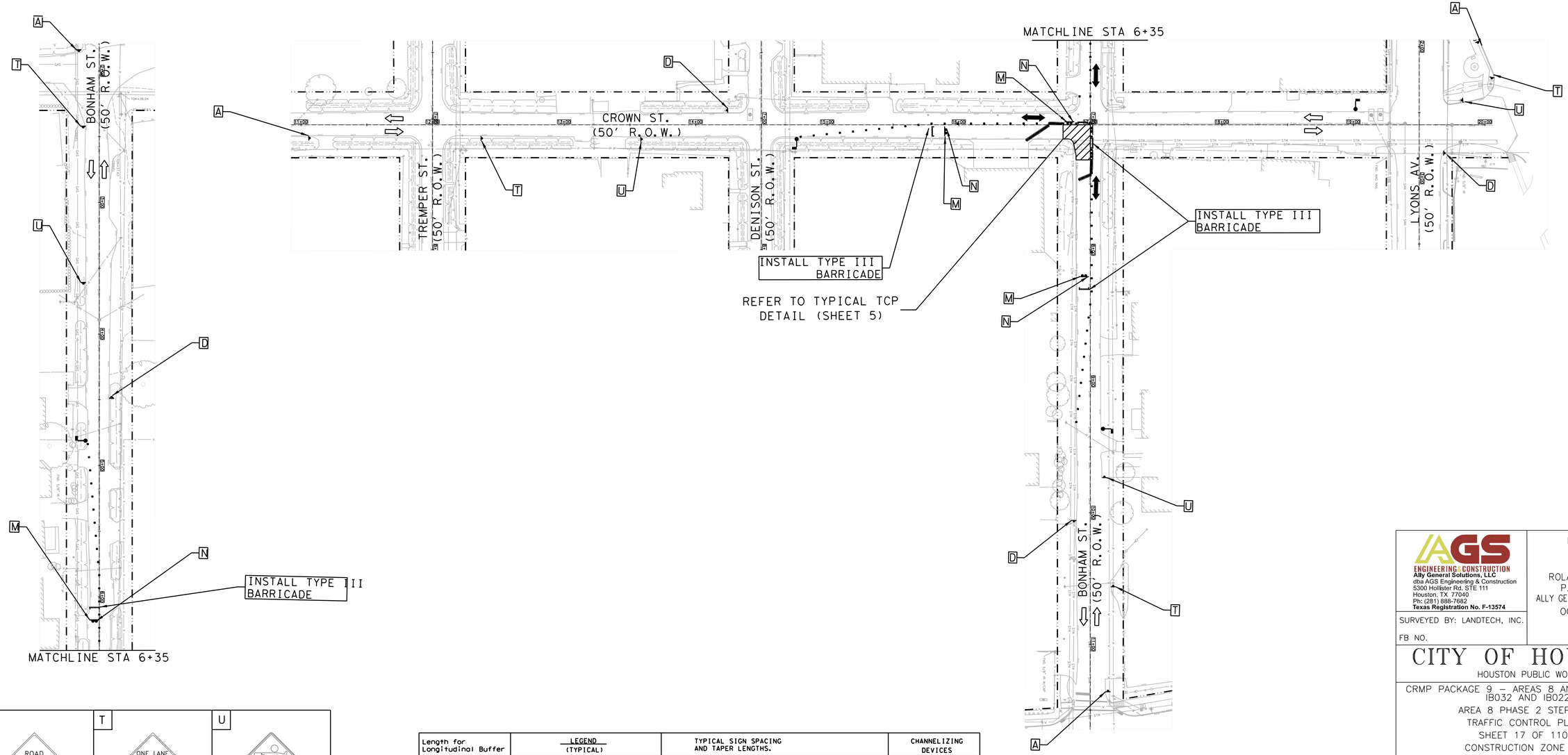
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	 CW20-7
D	M	N
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

POSTED SPEED
CROWN ST = 30 MPH
BONHAM ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 1C
TRAFFIC CONTROL PLAN
SHEET 17 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT BONHAM ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 207 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-54\MyGet Solutions Dropbox\AGS Dropbox\AGS Projects\CMMP&G WBS No R-001000-0034-3 - SWPPP & TCP\CAD\017-TCP INT Crown and Bonham 4.dgn

TCP NOTES:

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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

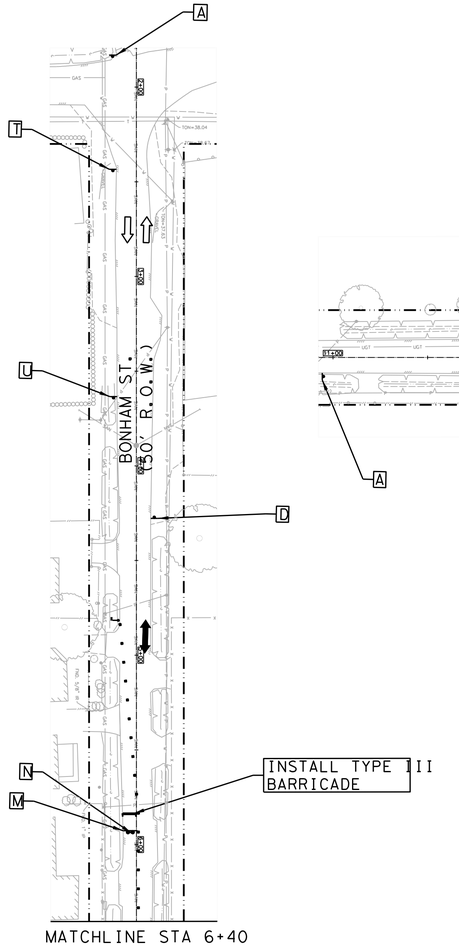
LEGEND (TYPICAL)

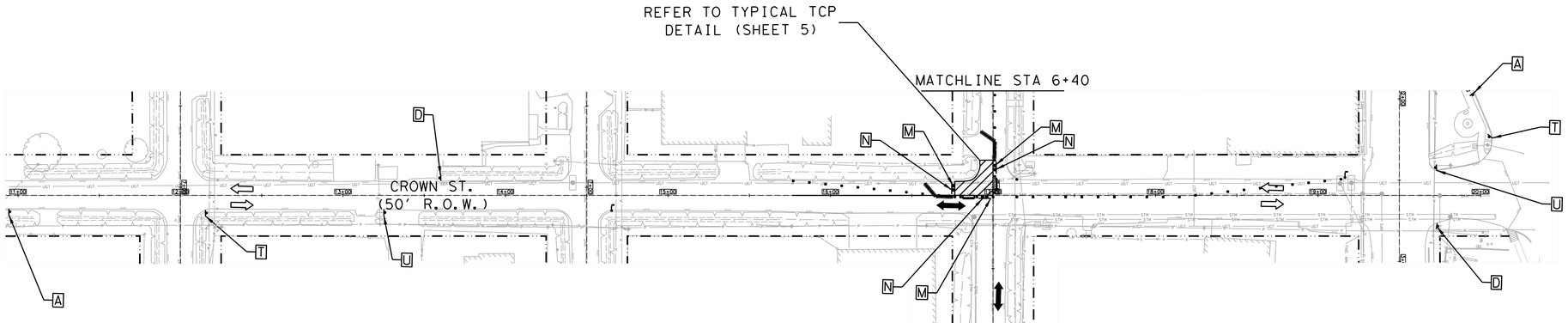
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

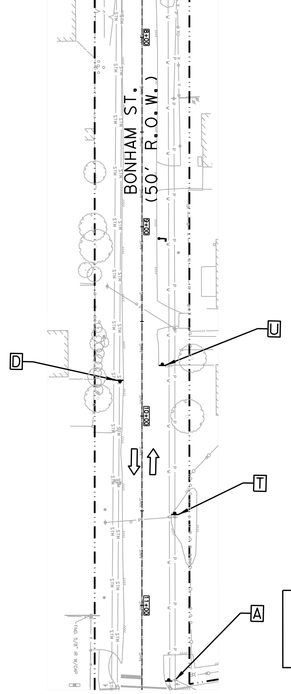
TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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45	320'	450'	495'	540'	45'	90'

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY







A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
CROWN ST = 30 MPH
BONHAM ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 1D
TRAFFIC CONTROL PLAN
SHEET 18 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT BONHAM ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 208 OF 339	

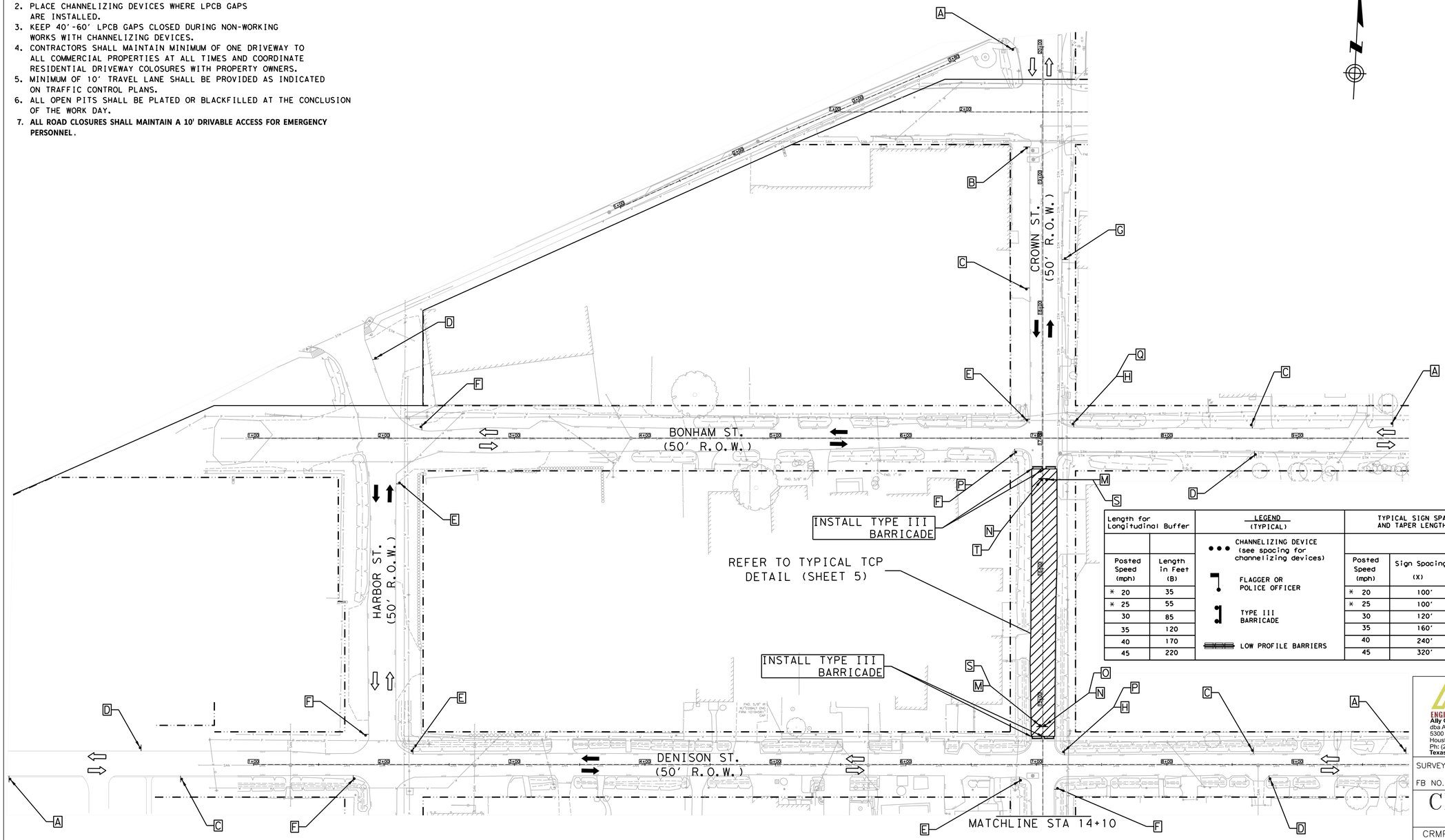
PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

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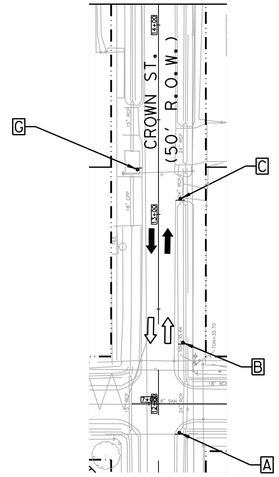
TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I	S
									
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
									
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
CROWN ST = 30 MPH
HARBOR ST = 30 MPH
BONHAM ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 2
TRAFFIC CONTROL PLAN
SHEET 19 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
CROWN ST. AT BONHAM ST. & DENISON ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 209 OF 339	

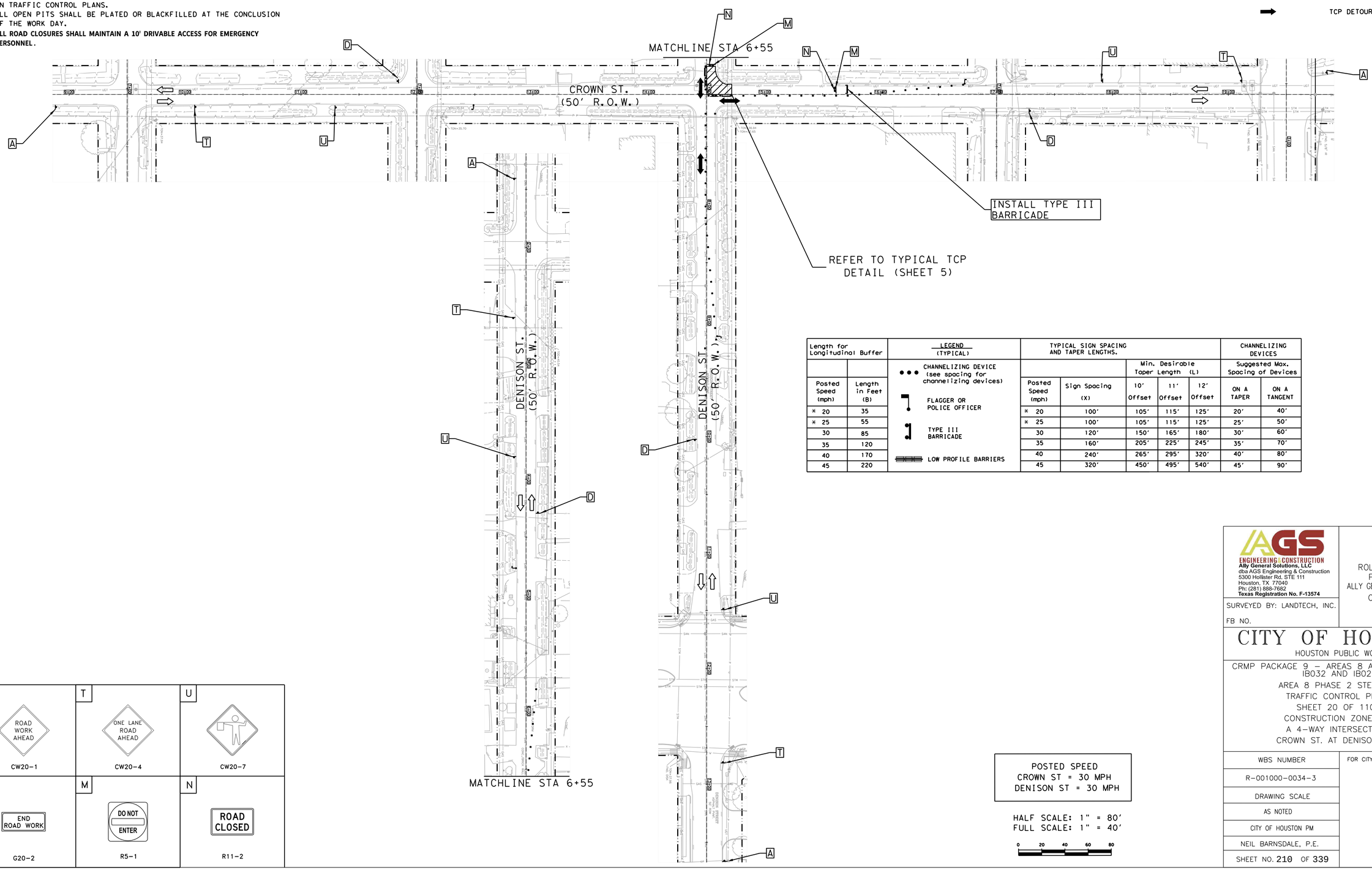
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PLOT STYLE: COH.CTB
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
CROWN ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 2A
TRAFFIC CONTROL PLAN
SHEET 20 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT DENISON ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 210 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

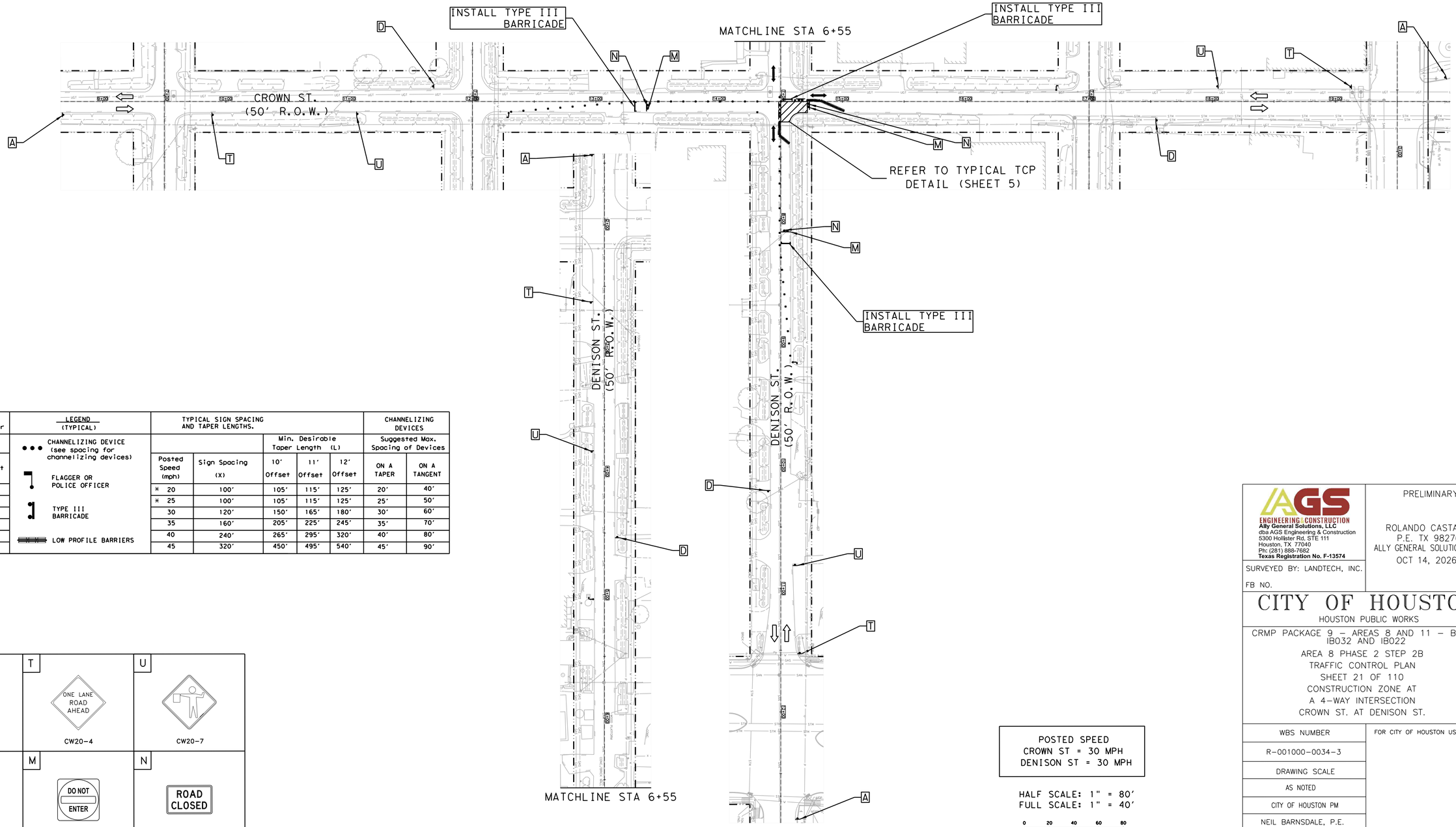
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
 ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	M	N
 END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
CROWN ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

SURVEYED BY: LANDTECH, INC.

FB NO.

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 2B
TRAFFIC CONTROL PLAN
SHEET 21 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT DENISON ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 211 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

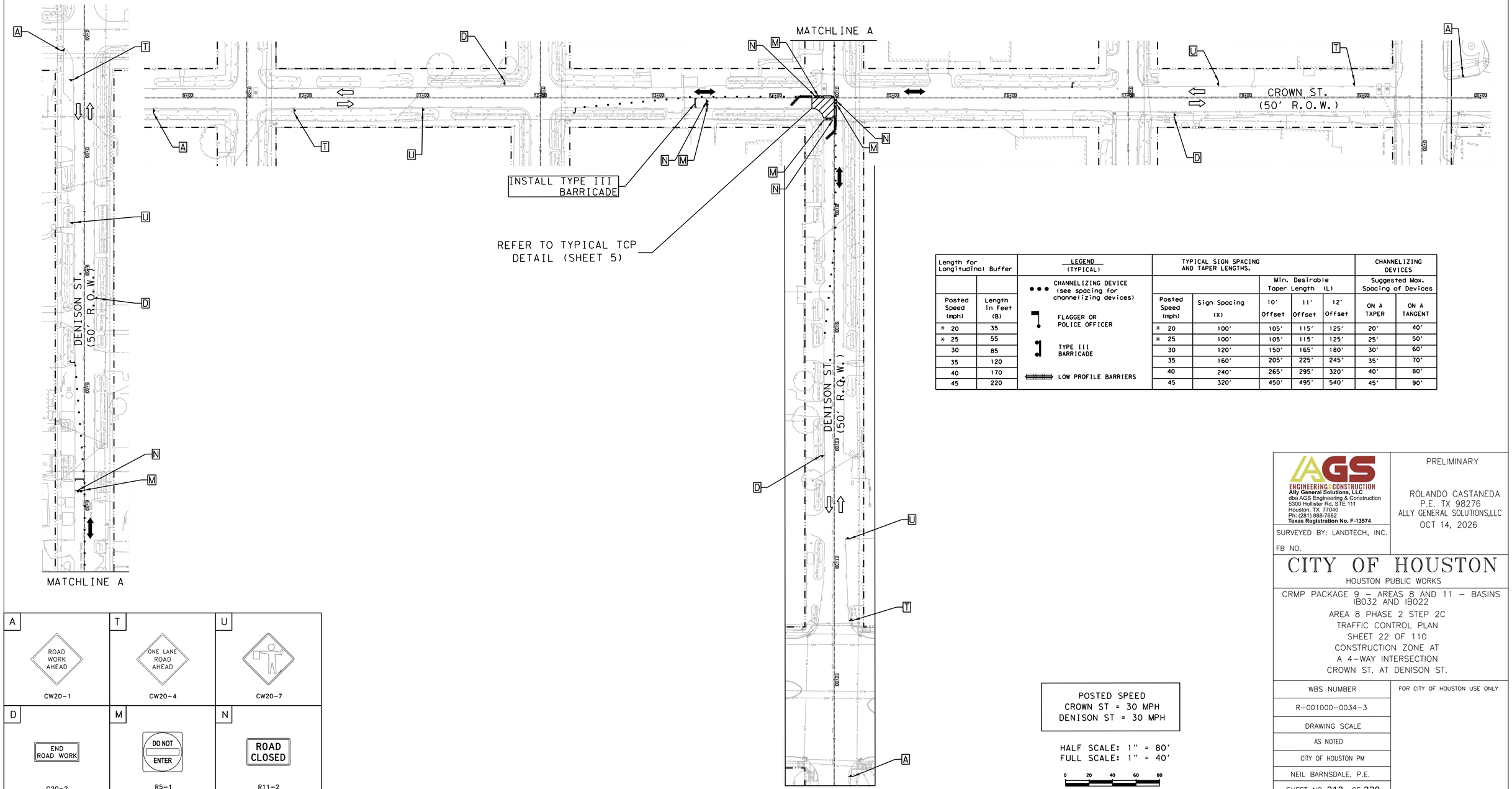
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TCP NOTES:

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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- ••• CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.						
		Min. Desirable Taper Length (L)			CHANNELIZING DEVICES	
					Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
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30	120'	150'	165'	180'	30'	60'
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40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

POSTED SPEED
CROWN ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 2C
TRAFFIC CONTROL PLAN
SHEET 22 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT DENISON ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 212 OF 339	

PLOTTED: 12-OCT-2026

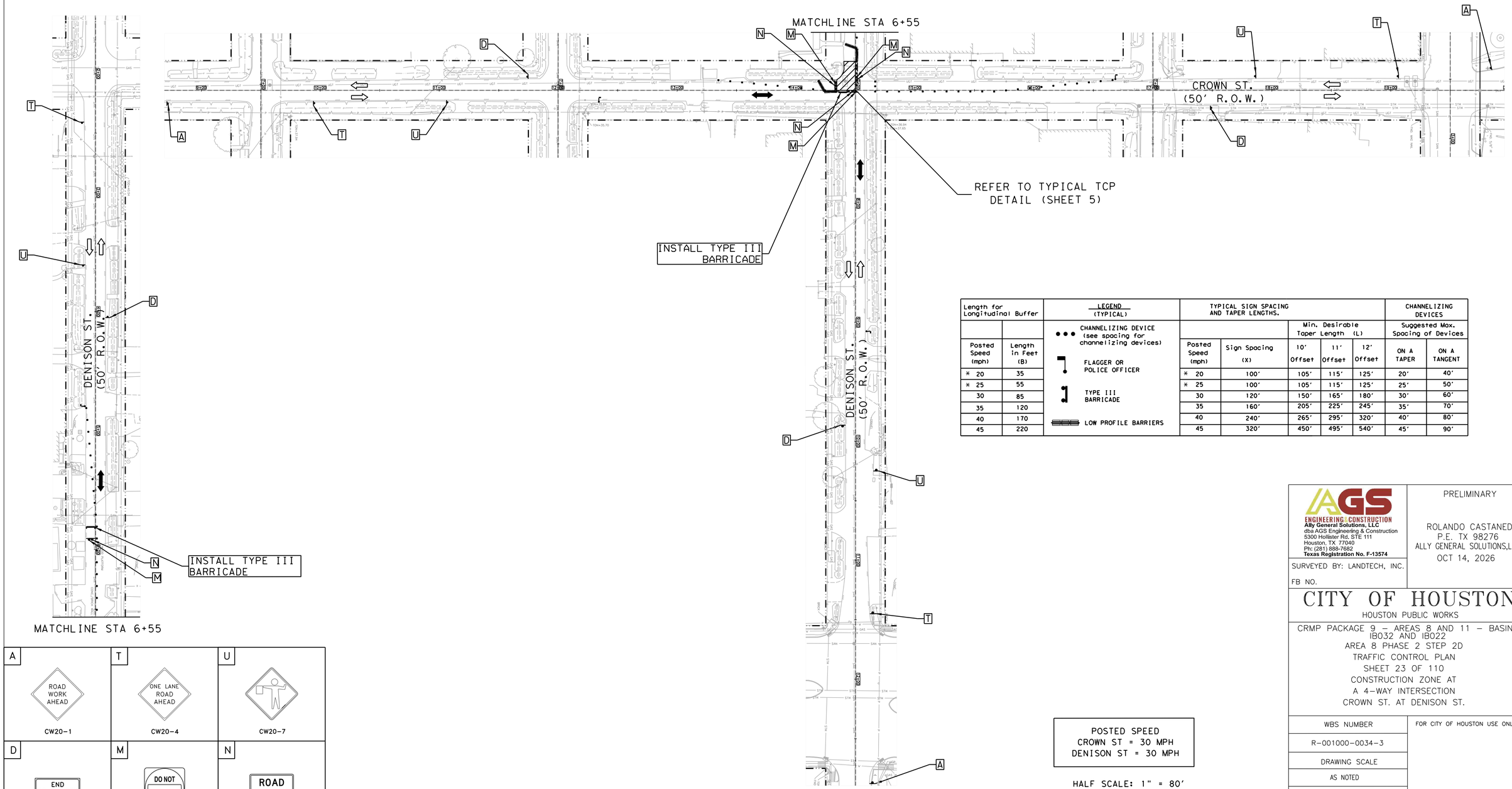
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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
CROWN ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 2D
TRAFFIC CONTROL PLAN
SHEET 23 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT DENISON ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 213 OF 339	

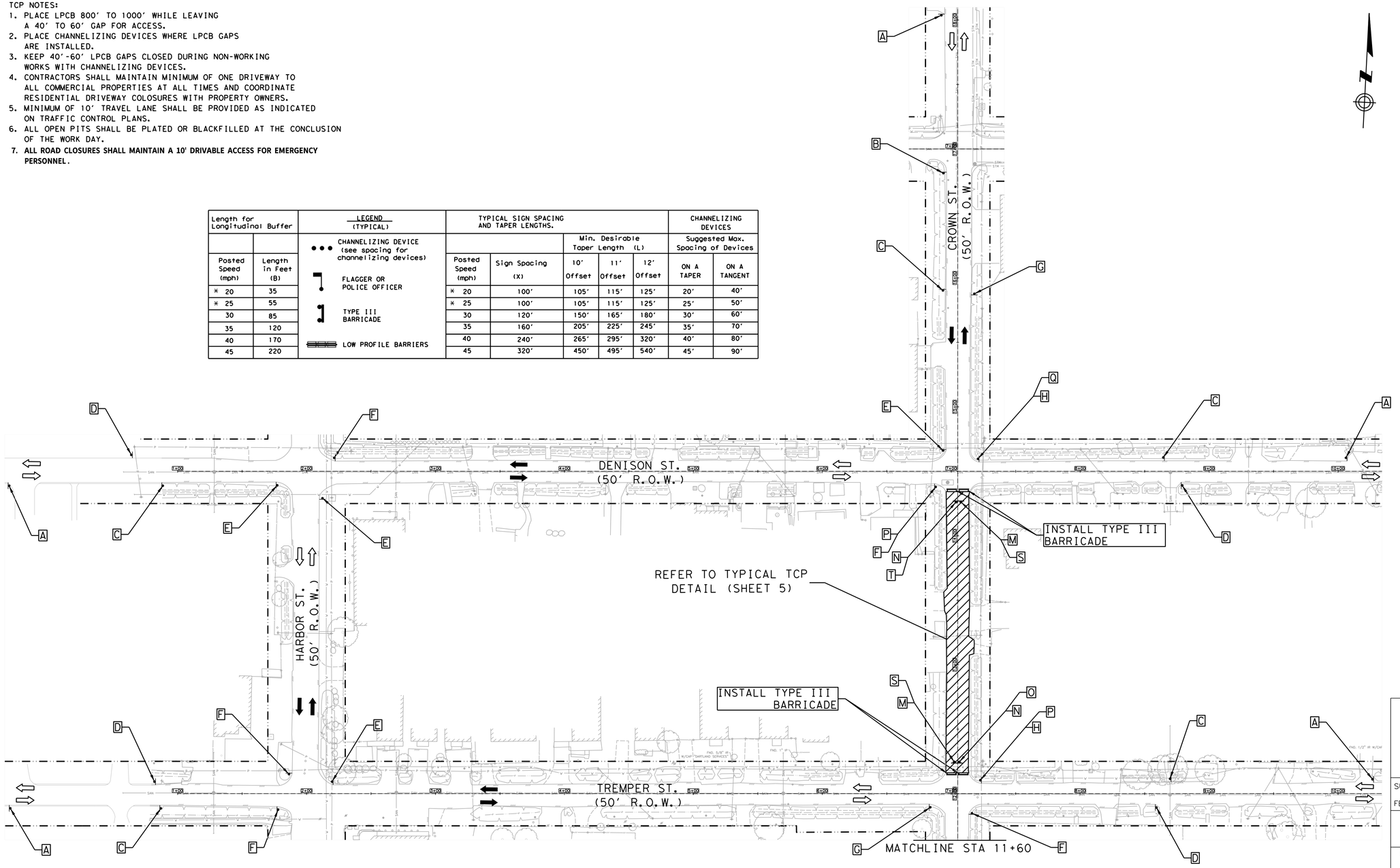
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PLOT STYLE: COH.CTB
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TCP NOTES:

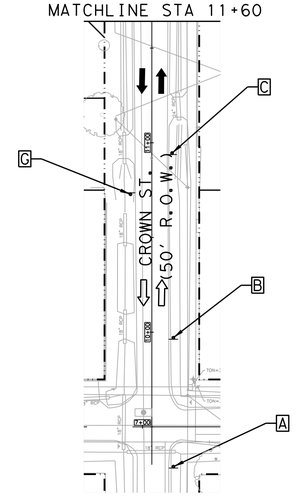
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Length for Longitudinal Buffer		LEGEND (TYPICAL)
Posted Speed (mph)	Length in Feet (B)	
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)
* 25	55	FLAGGER OR POLICE OFFICER
30	85	TYPE III BARRICADE
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40	170	LOW PROFILE BARRIERS
45	220	

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
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MATCHLINE STA 11+60



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	**K**	**L**	**M**	**N**	**O**	**P**	**Q**	**R**	**T**
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
CROWN ST = 30 MPH
DENISON ST = 30 MPH
TREMPER ST = 30 MPH
HARBOR ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 3
TRAFFIC CONTROL PLAN
SHEET 24 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
CROWN ST. AT DENISON ST. & TREMPER ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 214 OF 339	

PLOTTED: 12-OCT-2026

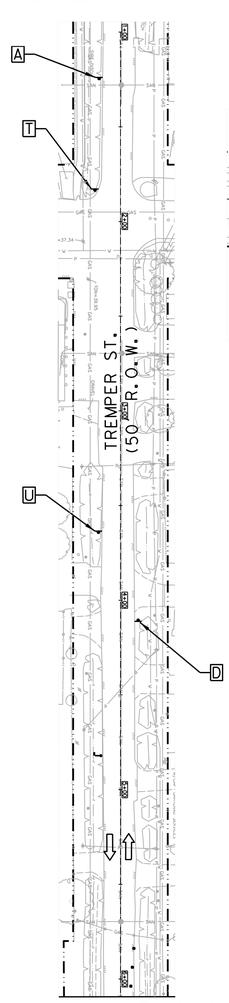
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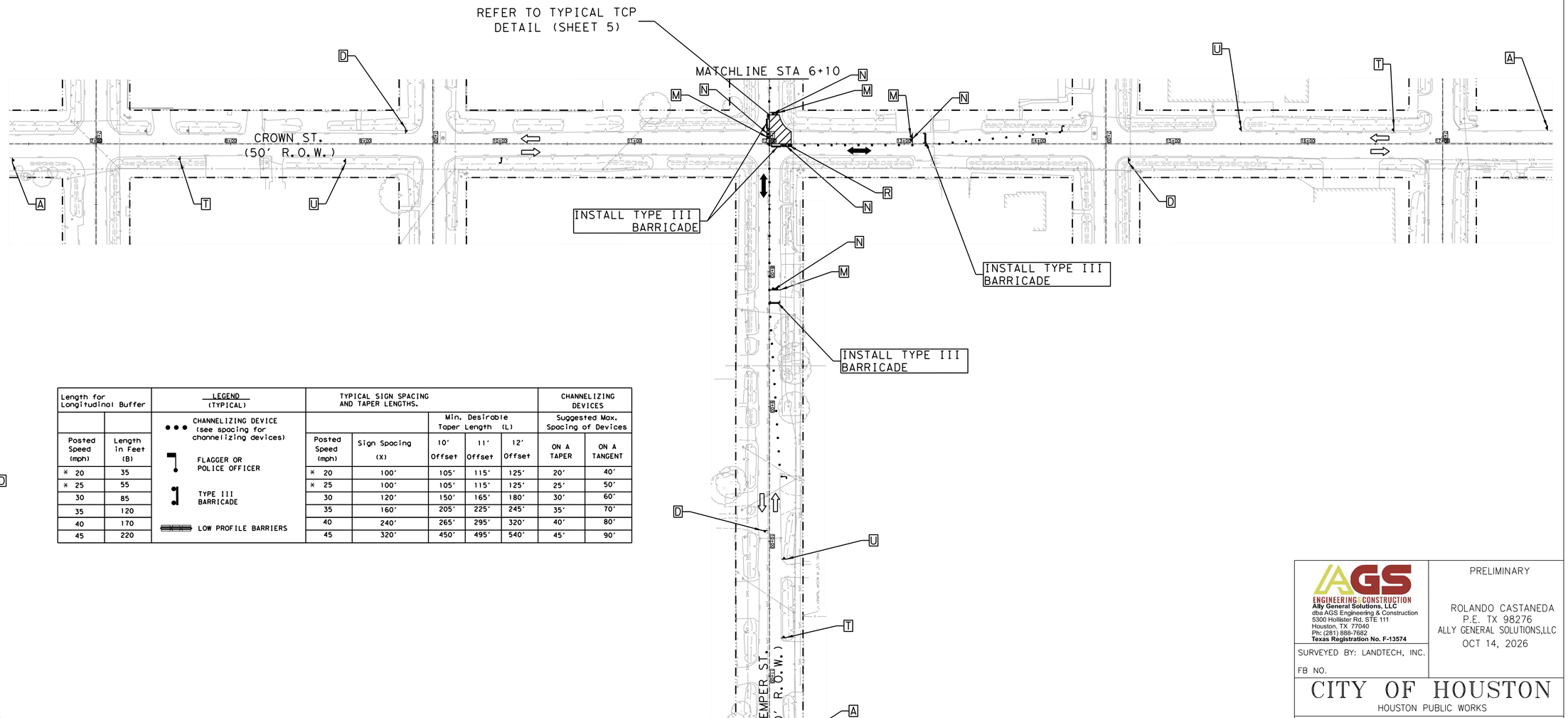
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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

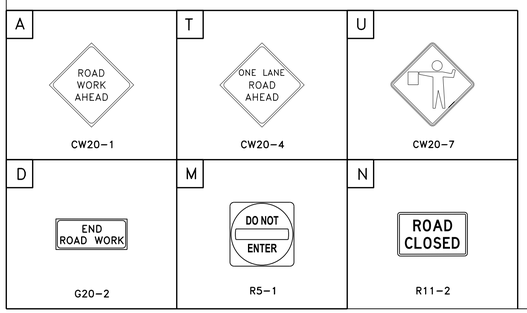
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY





Length for Longitudinal Buffer		TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
				Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	* 20	100'	105'	115'	125'	20'	40'
* 25	55	* 25	100'	105'	115'	125'	25'	50'
30	85	30	120'	150'	165'	180'	30'	60'
35	120	35	160'	205'	225'	245'	35'	70'
40	170	40	240'	265'	295'	320'	40'	80'
45	220	45	320'	450'	495'	540'	45'	90'

LEGEND (TYPICAL)
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS



POSTED SPEED
CROWN ST = 30 MPH
TREMPER ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
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Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC

OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 3A
TRAFFIC CONTROL PLAN
SHEET 25 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT TREMPER ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 215 OF 339	

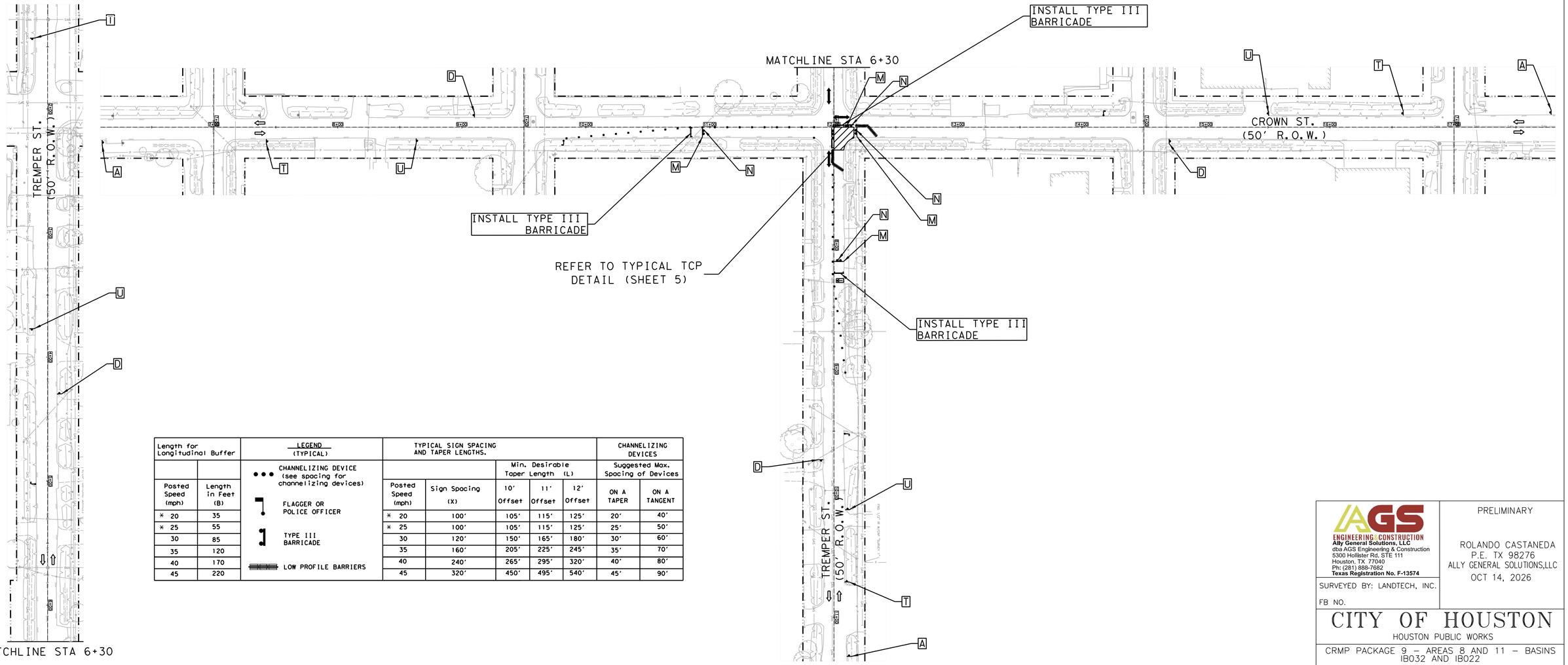
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PLOT STYLE: COH.CTB
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
CROWN ST = 30 MPH
TREMPER ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 3B
TRAFFIC CONTROL PLAN
SHEET 26 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT TREMPER ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 216 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
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Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

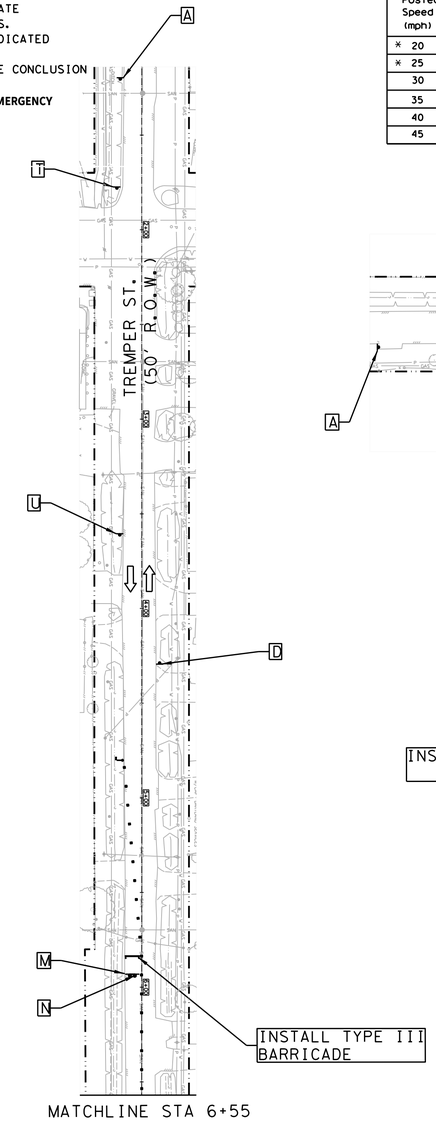
LEGEND (TYPICAL)

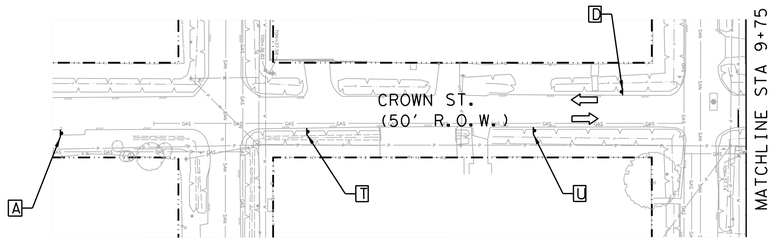
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

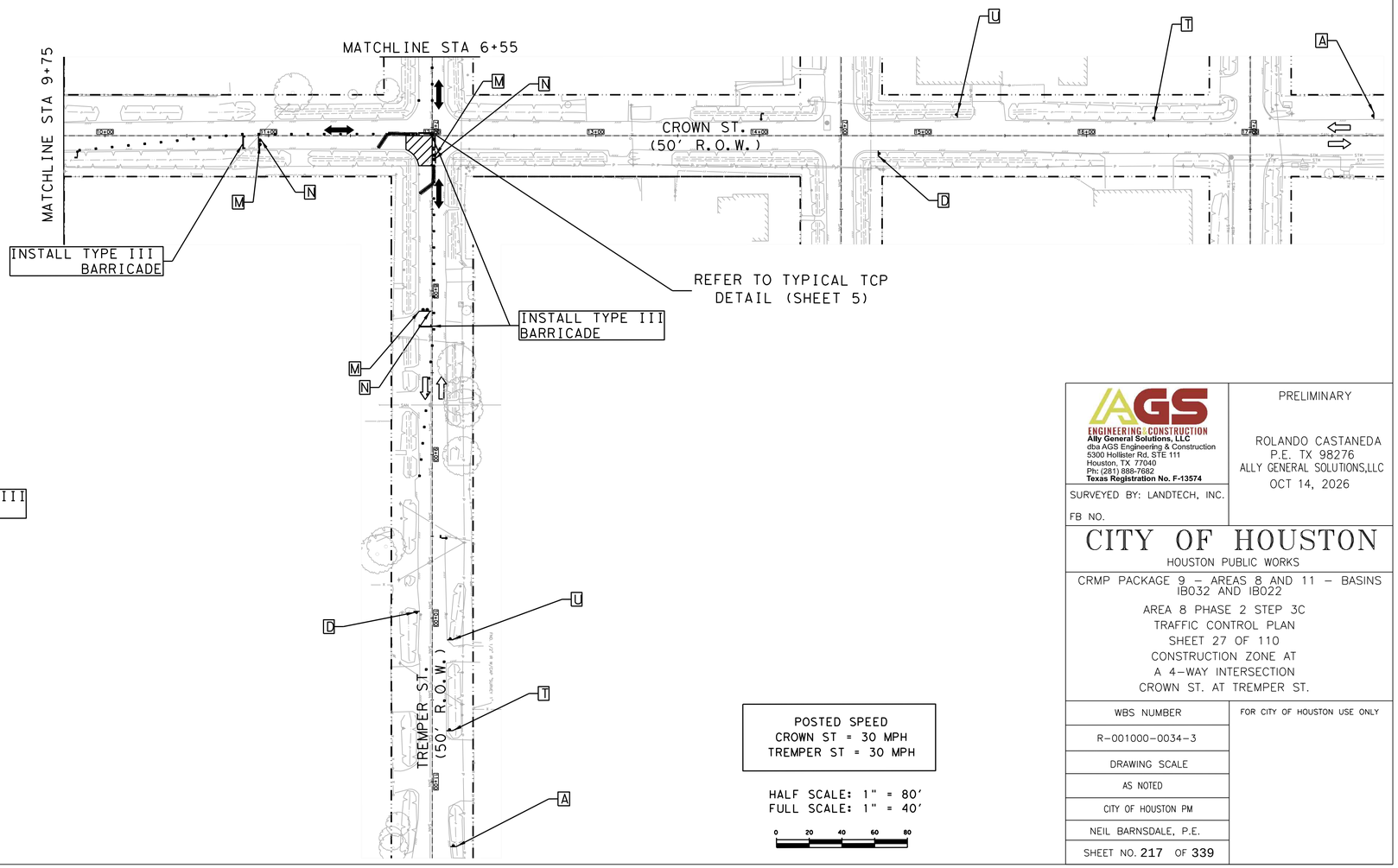
TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY







A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

POSTED SPEED
CROWN ST = 30 MPH
TREMPER ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING | CONSTRUCTION
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dba AGS Engineering & Construction
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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 3C
TRAFFIC CONTROL PLAN
SHEET 27 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT TREMPER ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 217 OF 339	

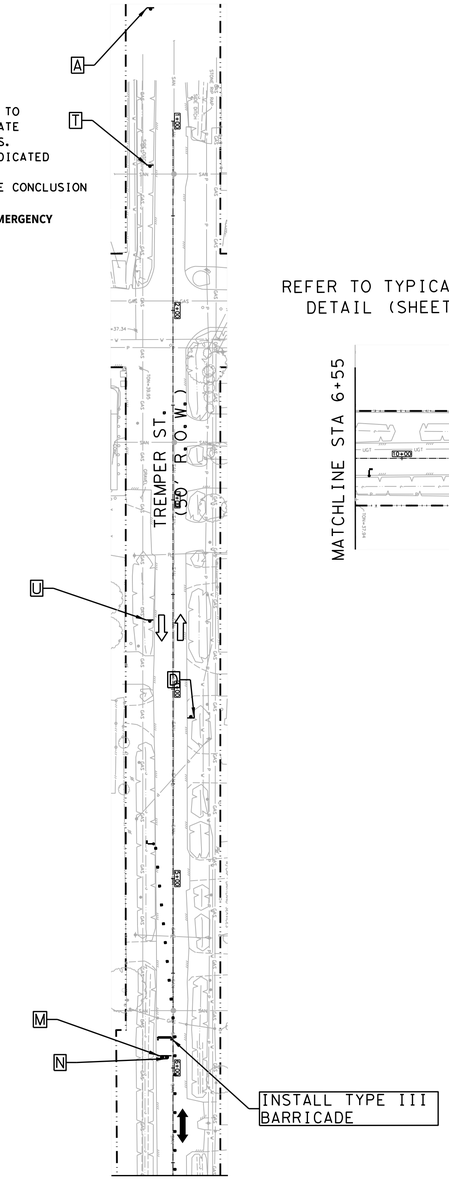
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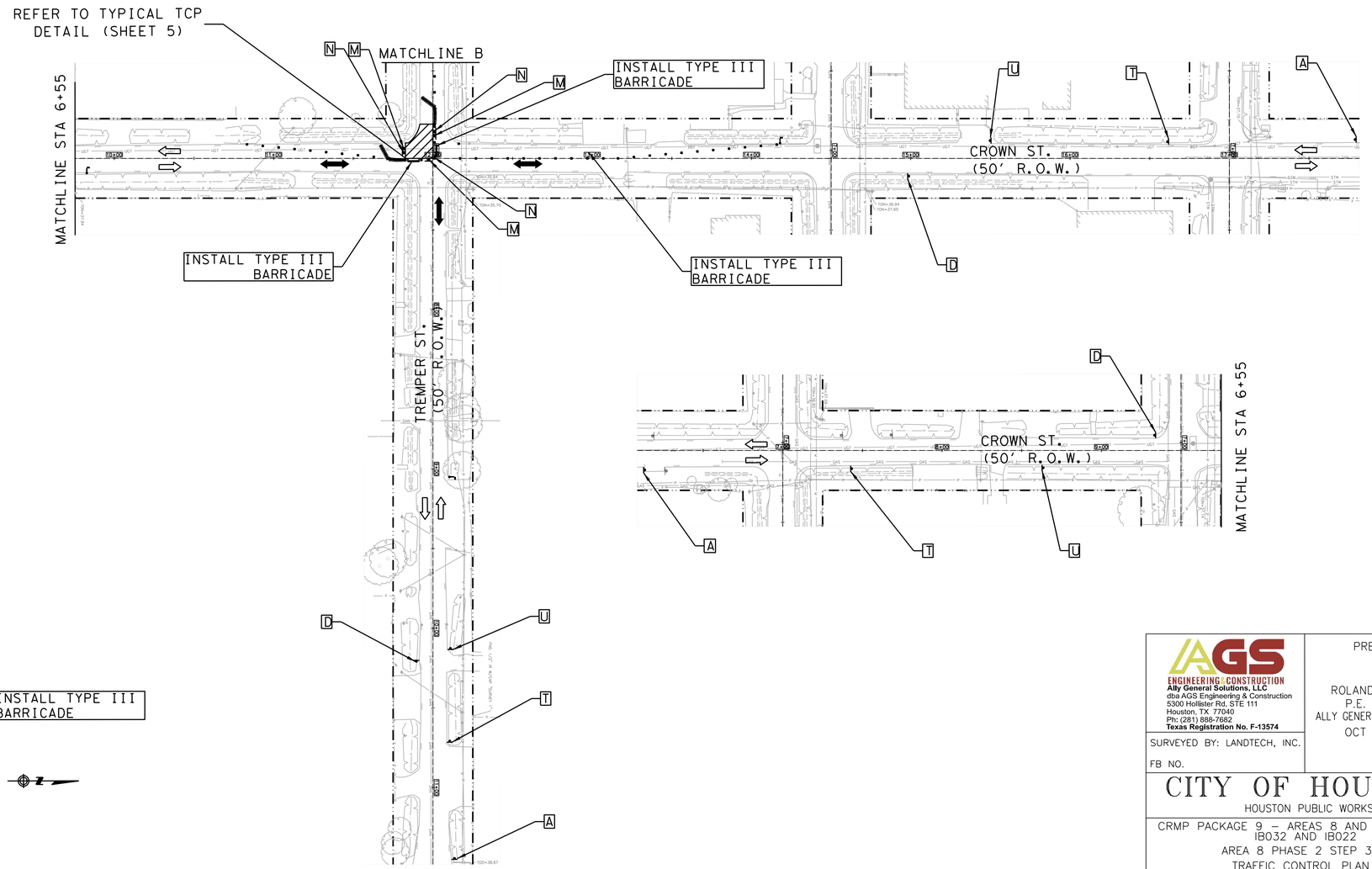
PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-34\MyDan Solutions Dropbox\AGS Projects\CAMS WBS No R-001000-0034-3 - SWMP & TCP\CAD\027-TCP INT Crown and Tremper 4.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**





LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
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40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

POSTED SPEED
CROWN ST = 30 MPH
TREMPER ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 3D
TRAFFIC CONTROL PLAN
SHEET 28 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT TREMPER ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 218 OF 339	

PLOTTED: 12-OCT-2026

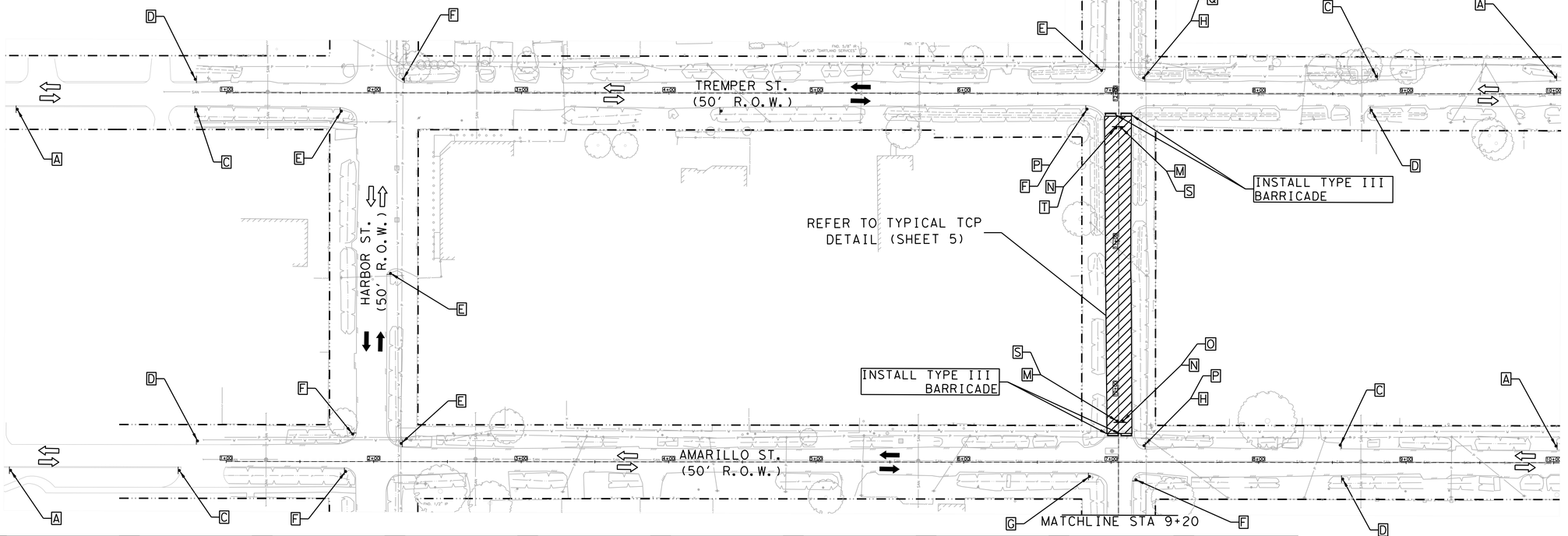
PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-SA\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\CMTAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\G28-TCP INT Crown and Tremper 1.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
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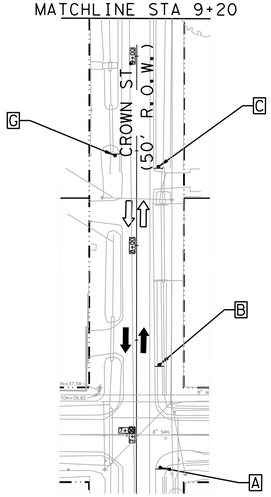
Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

MATCHLINE STA 9+20



A ROAD WORK AHEAD CW20-1	B ROAD CLOSED AHEAD CW20-3	C DETOUR AHEAD CW20-2	D END ROAD WORK G20-2	E STREET NAME DETOUR → M4-9R	F STREET NAME DETOUR ← M4-9L	G END DETOUR M4-8a	H STREET NAME DETOUR ↑ M4-9T	I RIGHT LANE CLOSED AHEAD CW20-5(2) CW16-3	S LOCAL TRAFIC ONLY SP-1
J LEFT LANE CLOSED AHEAD CW20-5(1) CW16-3	K ONE WAY ← R6-2(L)	L ONE WAY → R6-2(R)	M DO NOT ENTER R5-1	N ROAD CLOSED R11-2	O DETOUR ← M4-10(L)	P R3-1	Q R3-2	R BEGIN ONE WAY R6-6	T DETOUR → M4-10(R)

POSTED SPEED
CROWN ST = 30 MPH
HARBOR ST = 30 MPH
AMARILLO ST = 30 MPH
TREMPER ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 4
TRAFFIC CONTROL PLAN
SHEET 29 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
CROWN ST. AT AMARILLO ST. & TRMPER ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 219 OF 339	

PLOTTED: 12-OCT-2026

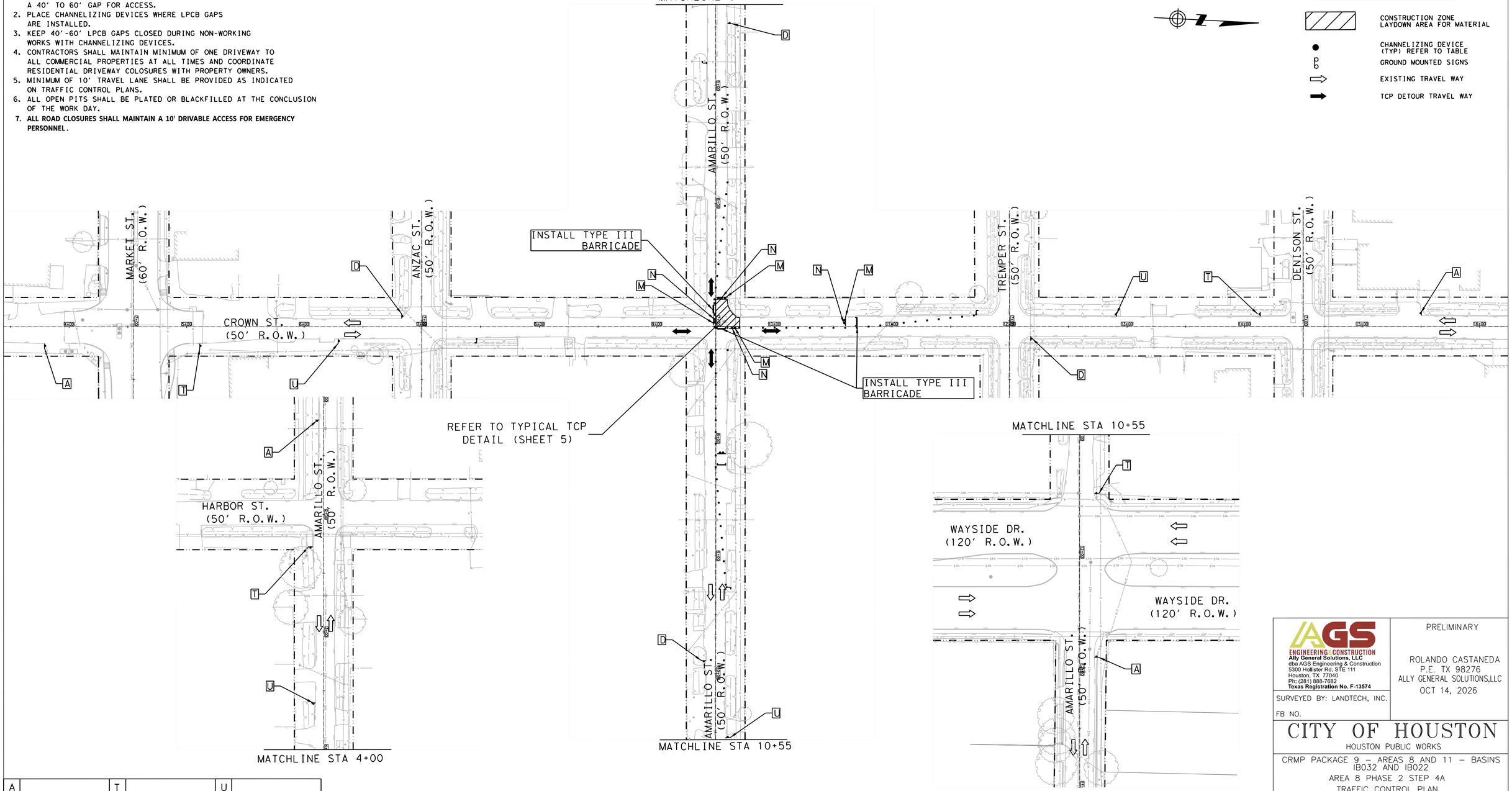
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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



A ROAD WORK AHEAD CW20-1	T ONE LANE ROAD AHEAD CW20-4	U CW20-7
D END ROAD WORK G20-2	M DO NOT ENTER R5-1	N ROAD CLOSED R11-2

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

POSTED SPEED
CROWN ST = 30 MPH
AMARILLO ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 4A
TRAFFIC CONTROL PLAN
SHEET 30 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT AMARILLO ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 220 OF 339	

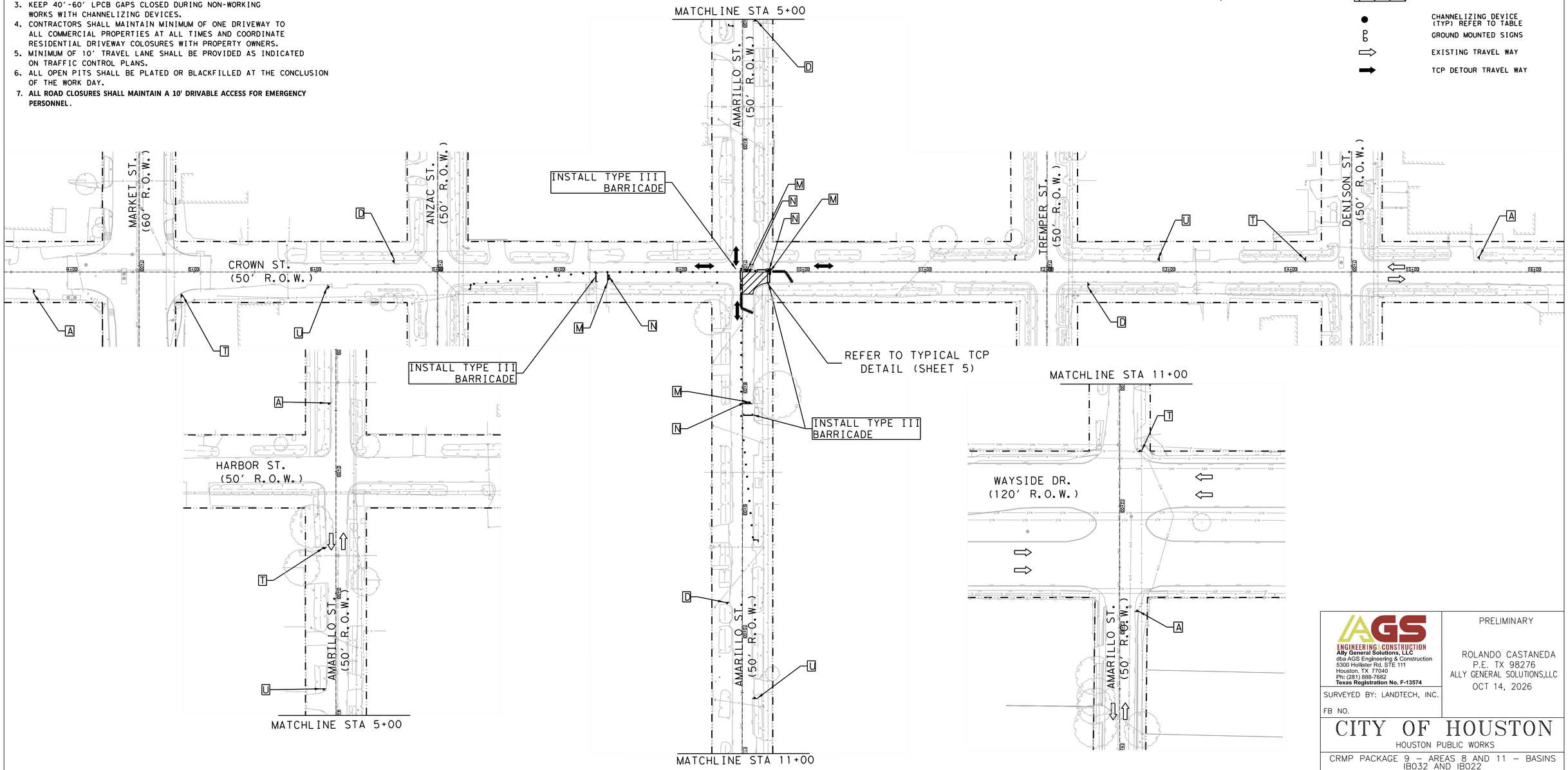
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PLOT STYLE: COH.CTB
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TCP NOTES:

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3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	 CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

Length for Longitudinal Buffer		LEGEND (TYPICAL)
Posted Speed (mph)	Length in Feet (B)	
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)
* 25	55	FLAGGER OR POLICE OFFICER
30	85	TYPE III BARRICADE
35	120	
40	170	LOW PROFILE BARRIERS
45	220	

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

POSTED SPEED
CROWN ST = 30 MPH
AMARILLO ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

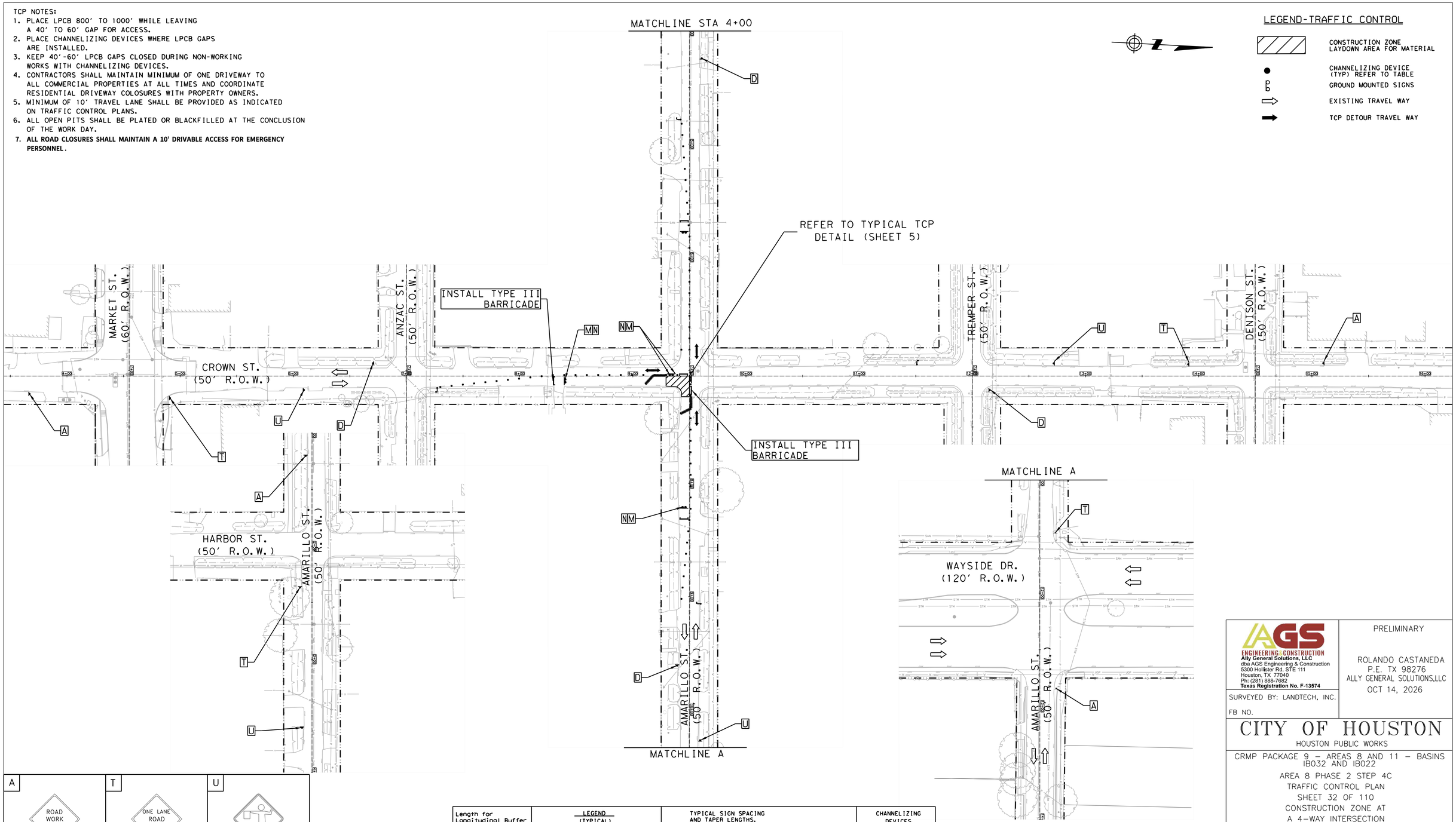
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 4B
TRAFFIC CONTROL PLAN
SHEET 31 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT AMARILLO ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 221 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\VKS-54\MyDocs\ Solutions Dropbox\VKS Dropbox\VKS Projects\GMWS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\31-TCP INT Crown and Amarillo 3.dgn

TCP NOTES:
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A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
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40	240'	265'	295'	320'	40'	80'
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POSTED SPEED
CROWN ST = 30 MPH
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HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

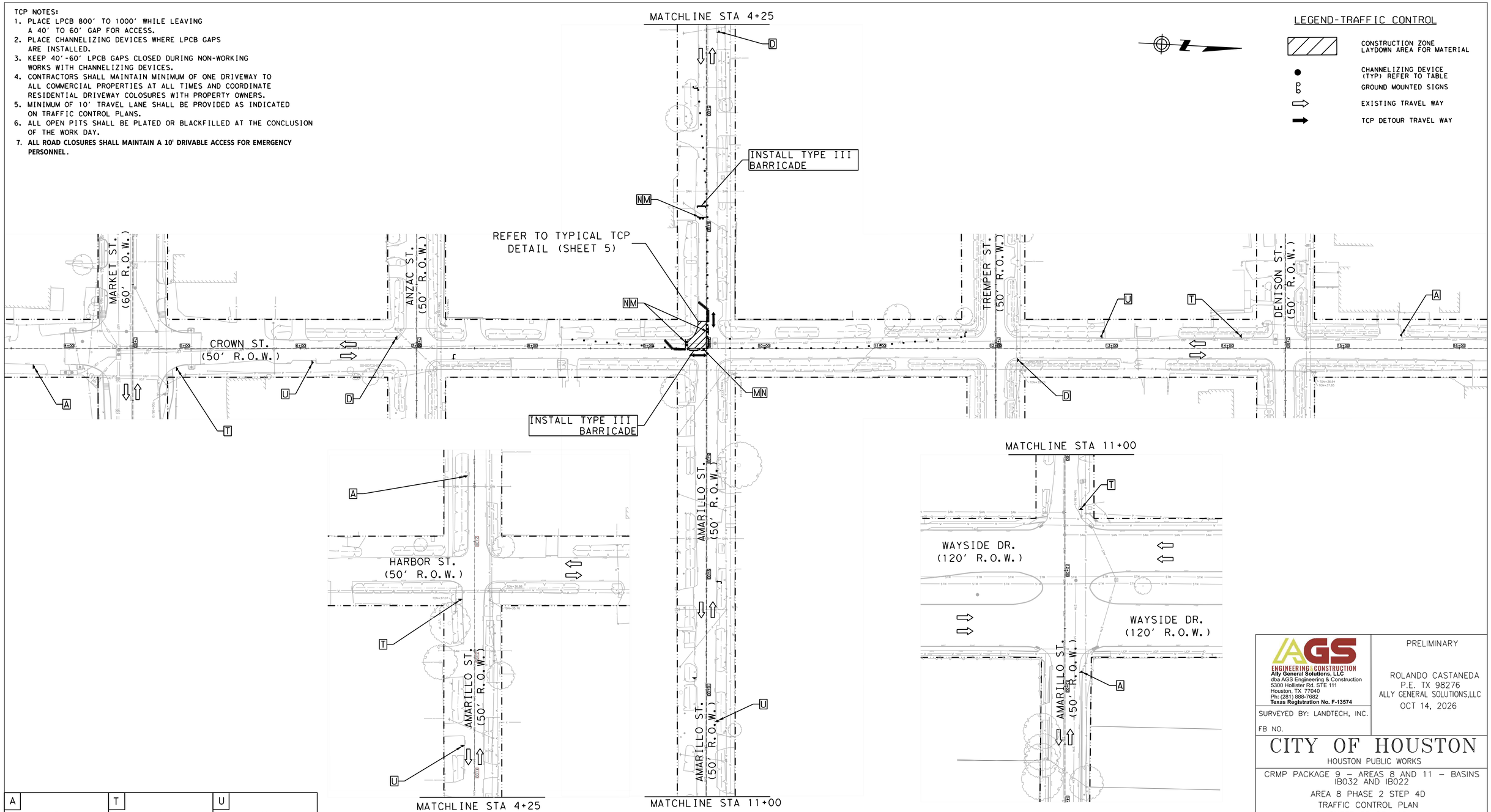
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 4C
TRAFFIC CONTROL PLAN
SHEET 32 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT AMARILLO ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 222 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-SA\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\Cmtrs WBS No R-001000-0034-3 - SWPPP & TCP\CAD\032-TCP INT Crown and Amarillo 4.dgn

TCP NOTES:
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
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40	240'	265'	295'	320'	40'	80'
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POSTED SPEED
CROWN ST = 30 MPH
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HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 4D
TRAFFIC CONTROL PLAN
SHEET 33 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT AMARILLO ST.

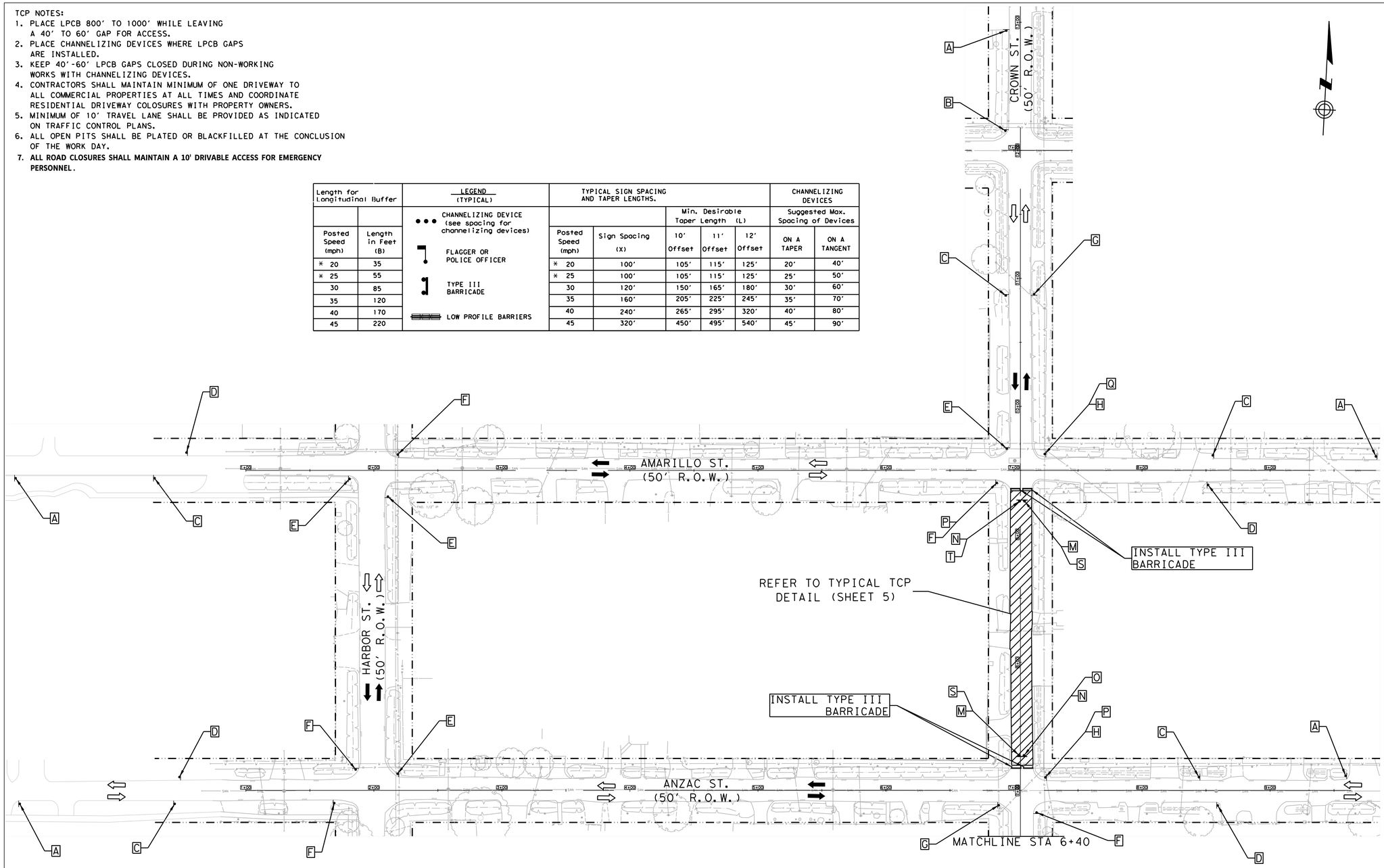
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DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 223 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-34\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\CMPAG WBS No R-001000-0034-3 - SWPPP & TCP\CAD\033-TCP INT Crown and Amarillo 1.dgn

TCP NOTES:

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Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)		Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)	* 20	100'	105'	115'	125'	20'	40'
* 25	55	FLAGGER OR POLICE OFFICER	* 25	100'	105'	115'	125'	25'	50'
30	85	TYPE III BARRICADE	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED / AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
LEFT LANE CLOSED / AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
CROWN ST = 30 MPH
ANZAC ST = 30 MPH
HARBOR ST = 30 MPH
AMARILLO ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 5
TRAFFIC CONTROL PLAN
SHEET 34 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
CROWN ST. AT ANZAC ST. & AMARILLO ST.

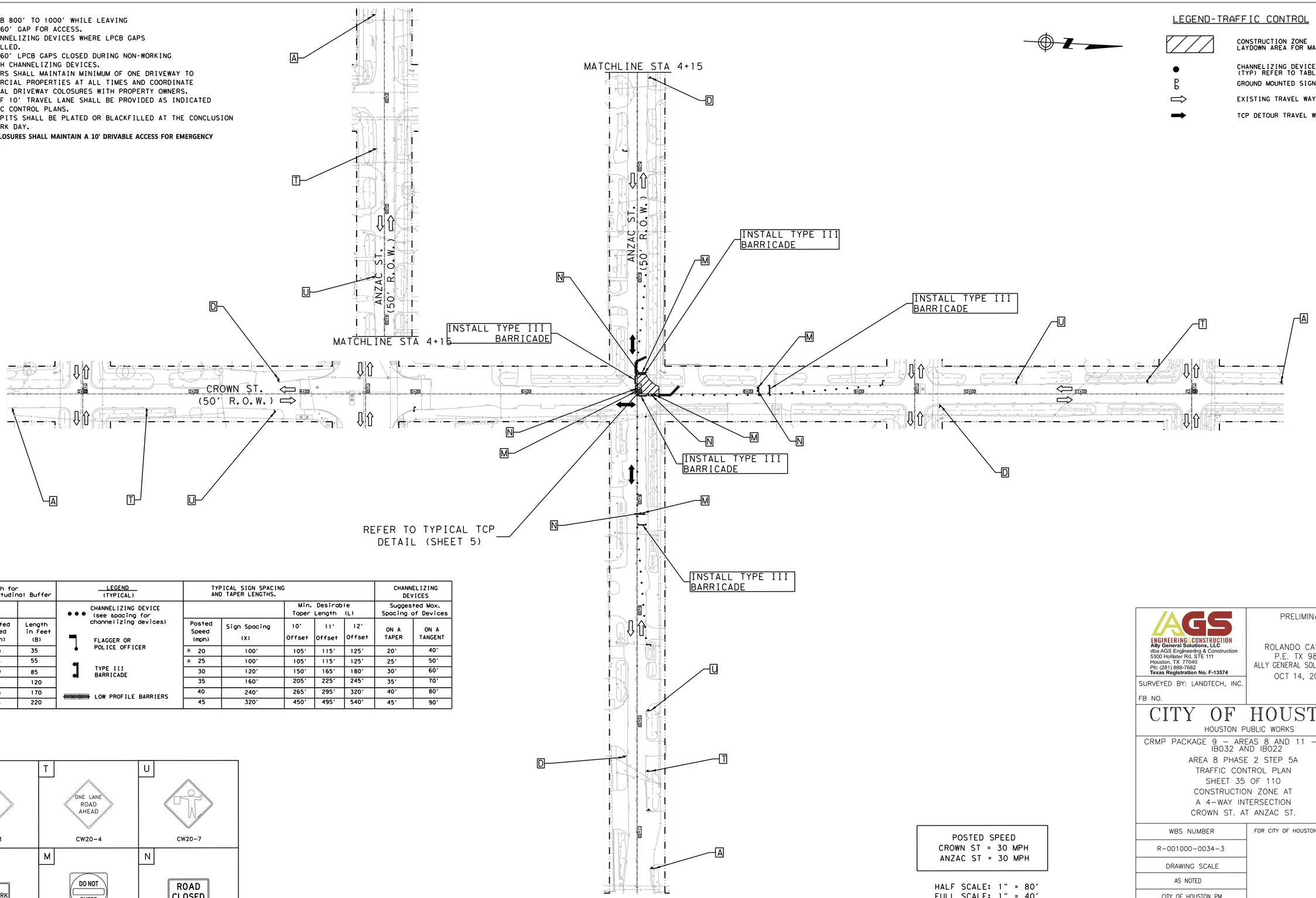
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DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 224 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-34\MyDesk Solutions Dropbox\AGS Dropbox\AGS Projects\CMRS WBS No R-001000-0034-3 - SWMP & TCP\CAD\034-TCP Crown Street 9.dgn

TCP NOTES:
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LEGEND-TRAFFIC CONTROL

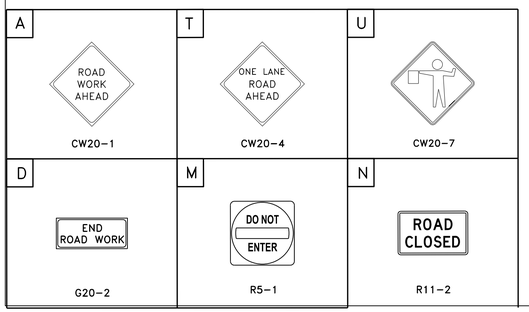
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)
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- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
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POSTED SPEED
CROWN ST = 30 MPH
ANZAC ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 5A
TRAFFIC CONTROL PLAN
SHEET 35 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT ANZAC ST.

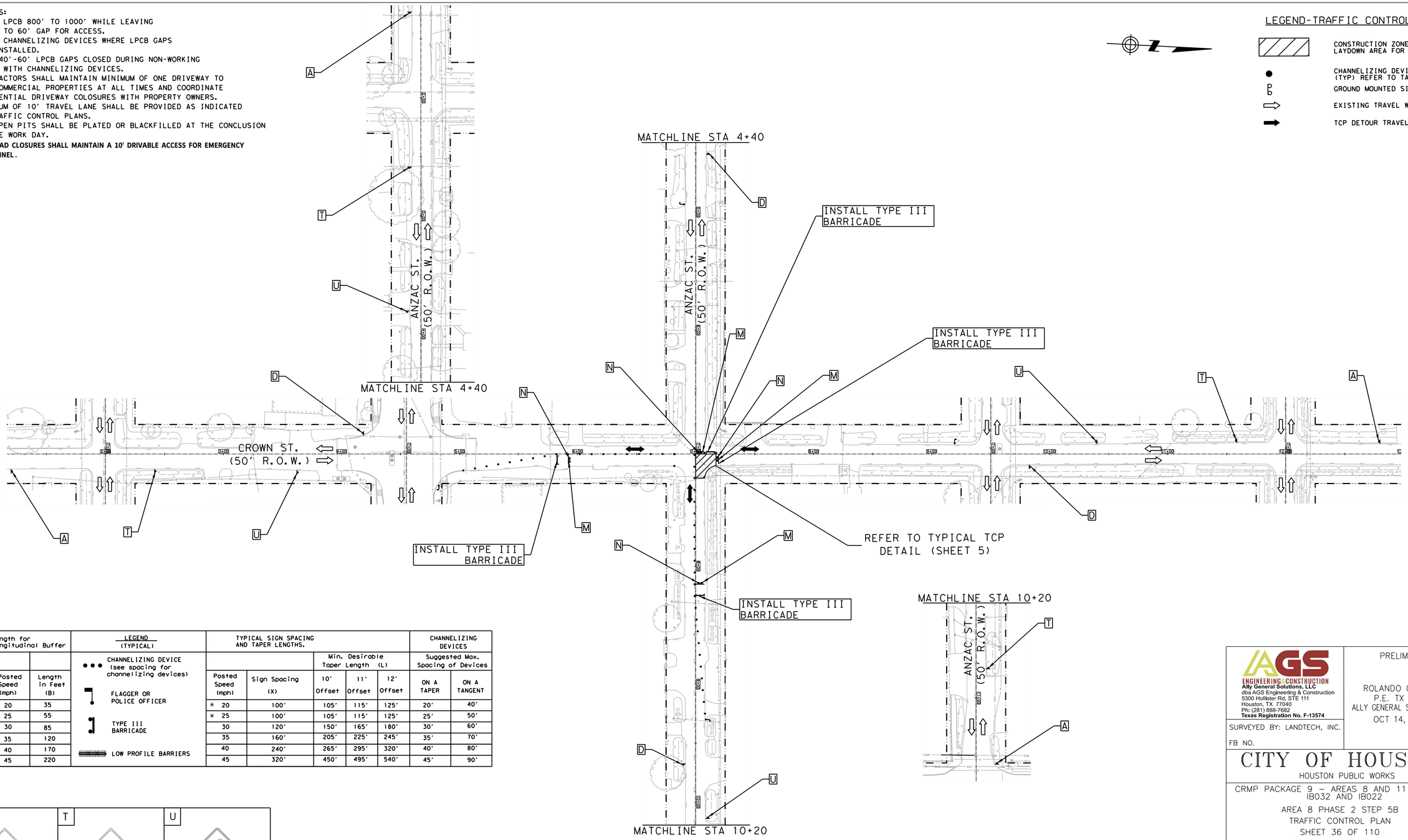
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DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 225 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-SA\MyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\035-TCP INT Crown and Anzac 2.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
CROWN ST = 30 MPH
ANZAC ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 5B
TRAFFIC CONTROL PLAN
SHEET 36 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT ANZAC ST.

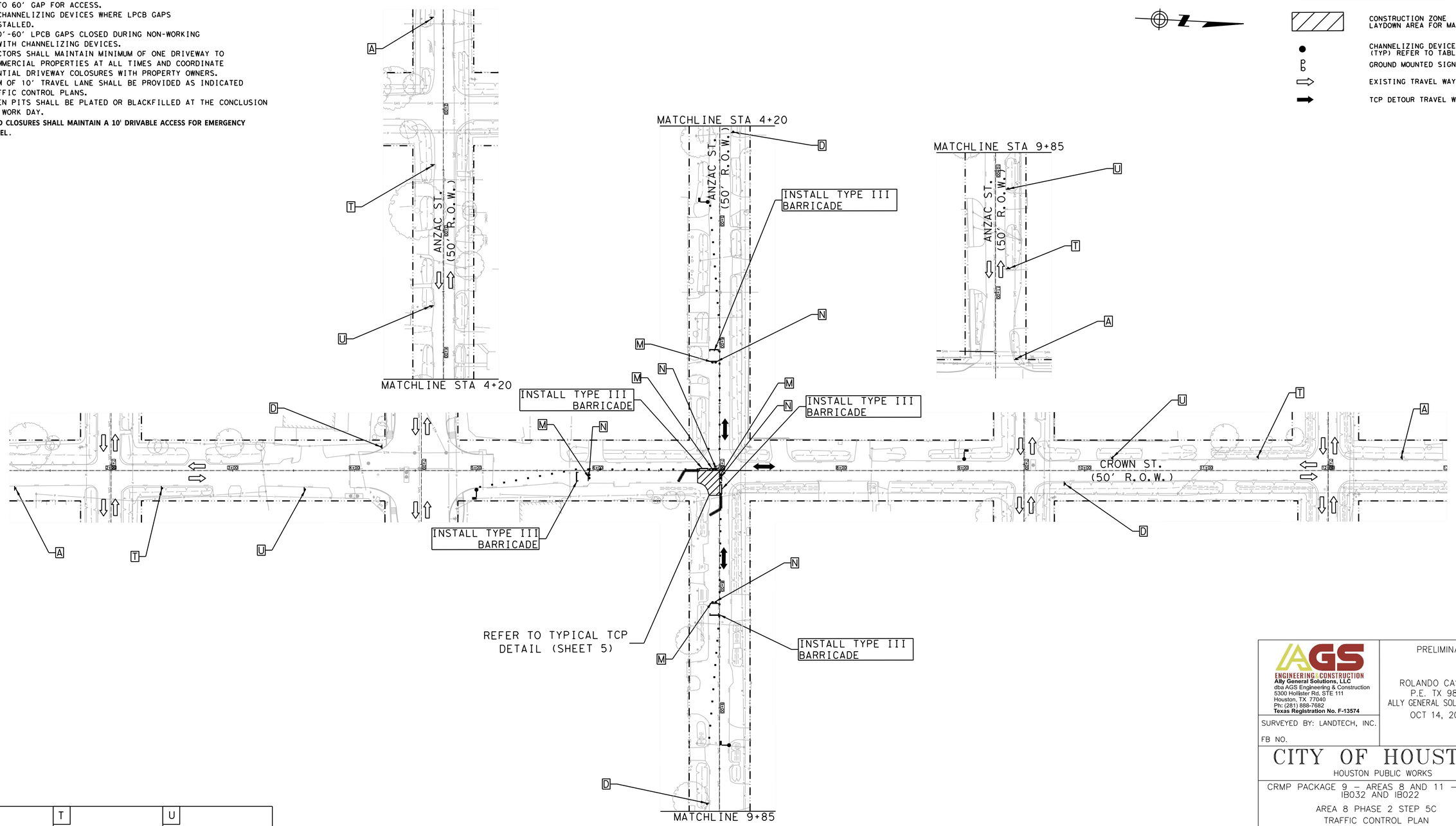
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 226 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-54\MyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMMP& WBS No R-001000-0034-3 - SWPPP & TCP\CAD\036-TCP INT Crown and Anzac 3.dgn

TCP NOTES:
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	 CW20-7
D	M	N
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

POSTED SPEED
CROWN ST = 30 MPH
ANZAC ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

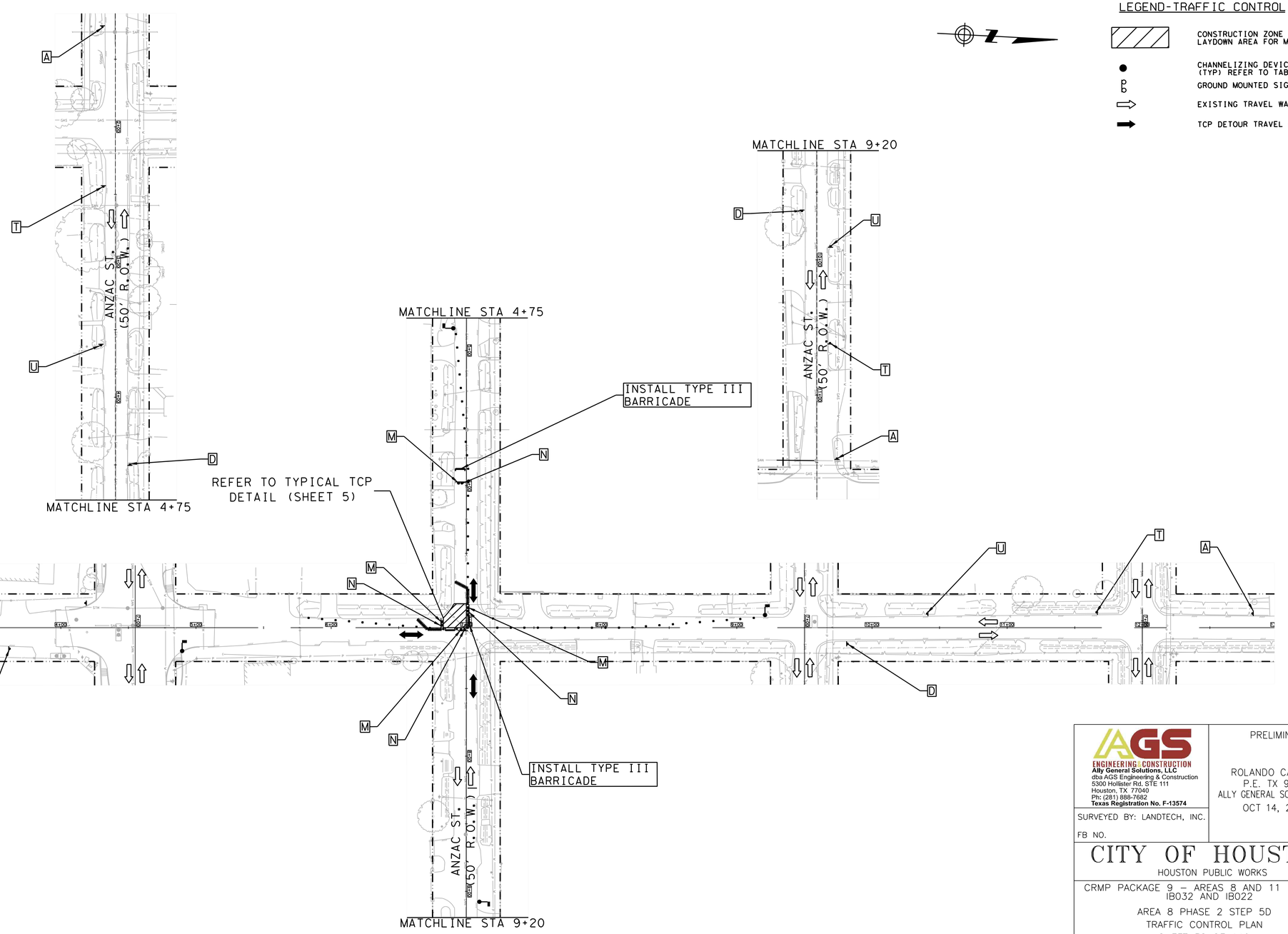
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 5C
TRAFFIC CONTROL PLAN
SHEET 37 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT ANZAC ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 227 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-54\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\037-TCP INT Crown and Anzac 4.dgn

TCP NOTES:

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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.						
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
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35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

CHANNELIZING DEVICES

POSTED SPEED
CRWON ST = 30 MPH
ANZAC ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 5D
TRAFFIC CONTROL PLAN
SHEET 38 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT ANZAC ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 228 OF 339	

PLOTTED: 12-OCT-2026

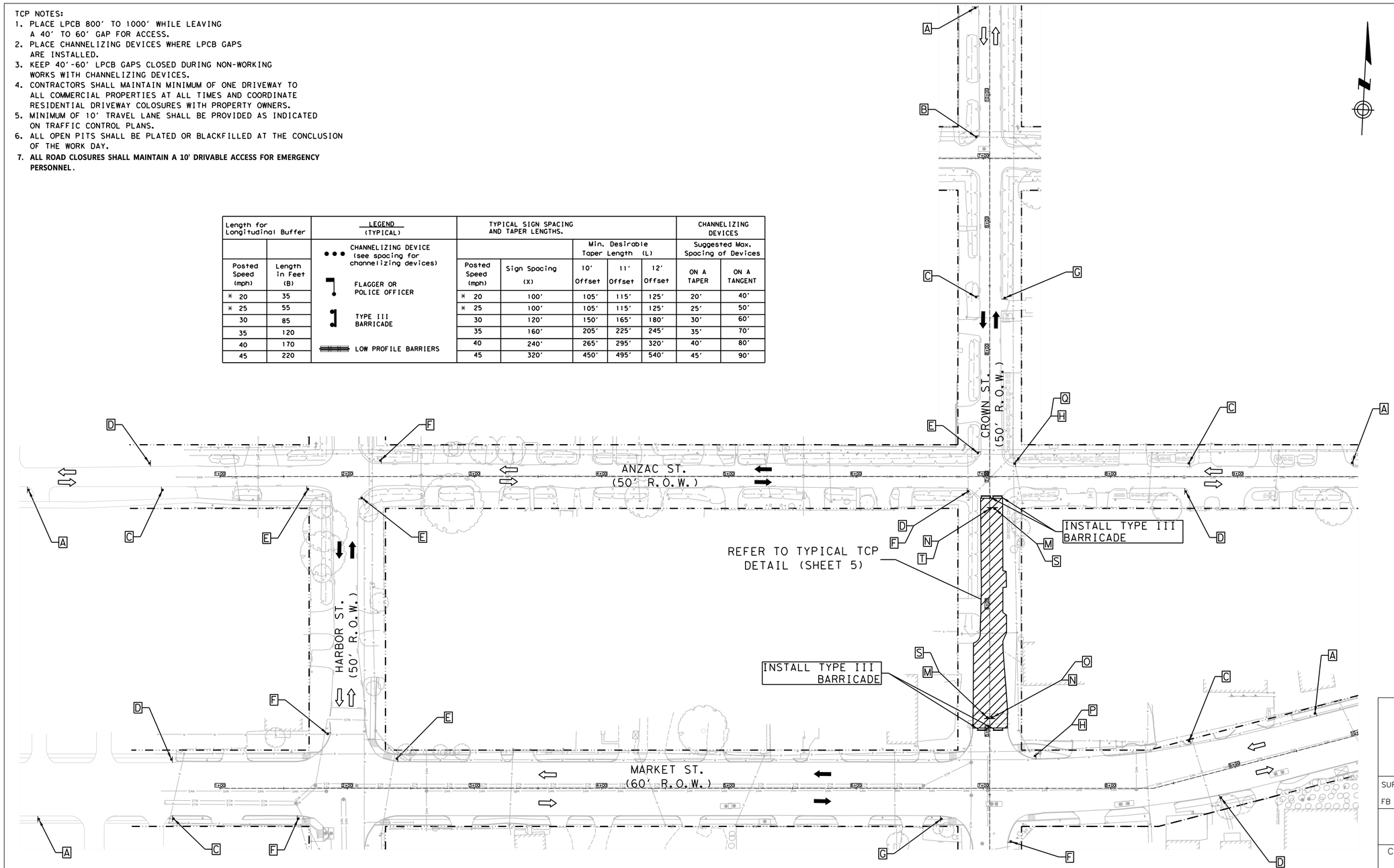
PLOT STYLE: COH.CTB

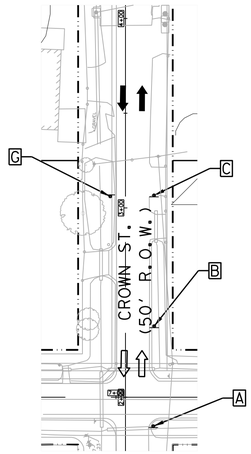
FILE PATH: C:\Users\AGS-SA\AppData Dropbox\AGS Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\G38-TCP INT Crown and Anzac 1.dgn

TCP NOTES:

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Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
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45	220		45	320'	450'	495'	540'	45'	90'





LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	← DETOUR			BEGIN ONE WAY	DETOUR →
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
CROWN ST = 30 MPH
HARBOR ST = 30 MPH
ANZAC ST = 30 MPH
MARKET ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 6
TRAFFIC CONTROL PLAN
SHEET 39 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
CROWN ST. AT ANZAC ST. & MARKET ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 229 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

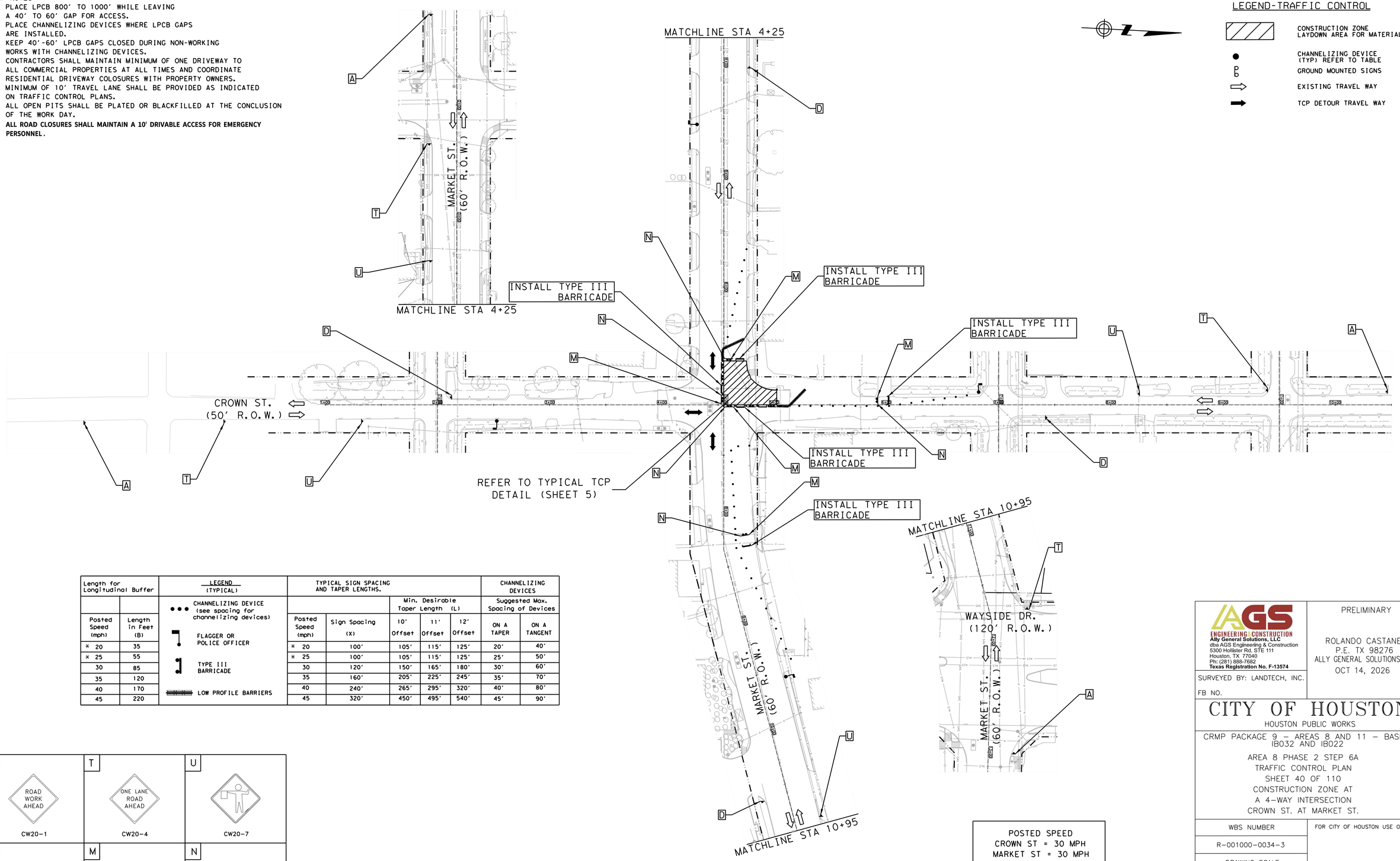
FILE PATH: C:\Users\AGS-SAM\Ally Solutions Dropbox\AGS Projects\CMPRS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\039-TCP Crown Street 11.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
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- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
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A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	 CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

POSTED SPEED
CROWN ST = 30 MPH
MARKET ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 6A
TRAFFIC CONTROL PLAN
SHEET 40 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT MARKET ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 230 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

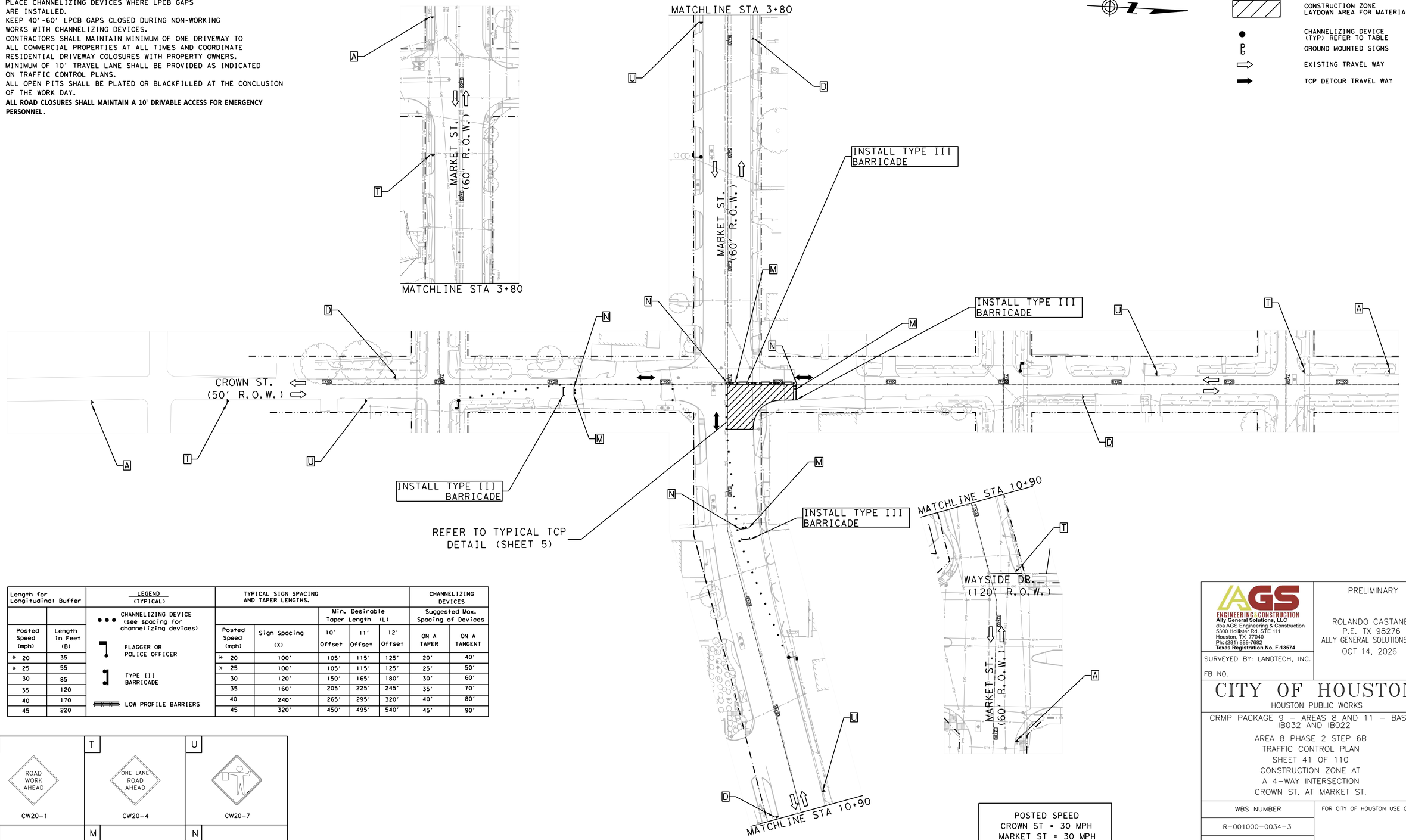
FILE PATH: C:\Users\AGS-54\MyDan Solutions Dropbox\AGS Dropbox\AGS Projects\CMPKG WBS No R-001000-0034-3 - SWMPP & TCP\CAD\040-TCP INT Crown and Market 2.dgn

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40	170		40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
CROWN ST = 30 MPH
MARKET ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 6B
TRAFFIC CONTROL PLAN
SHEET 41 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT MARKET ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 231 OF 339	

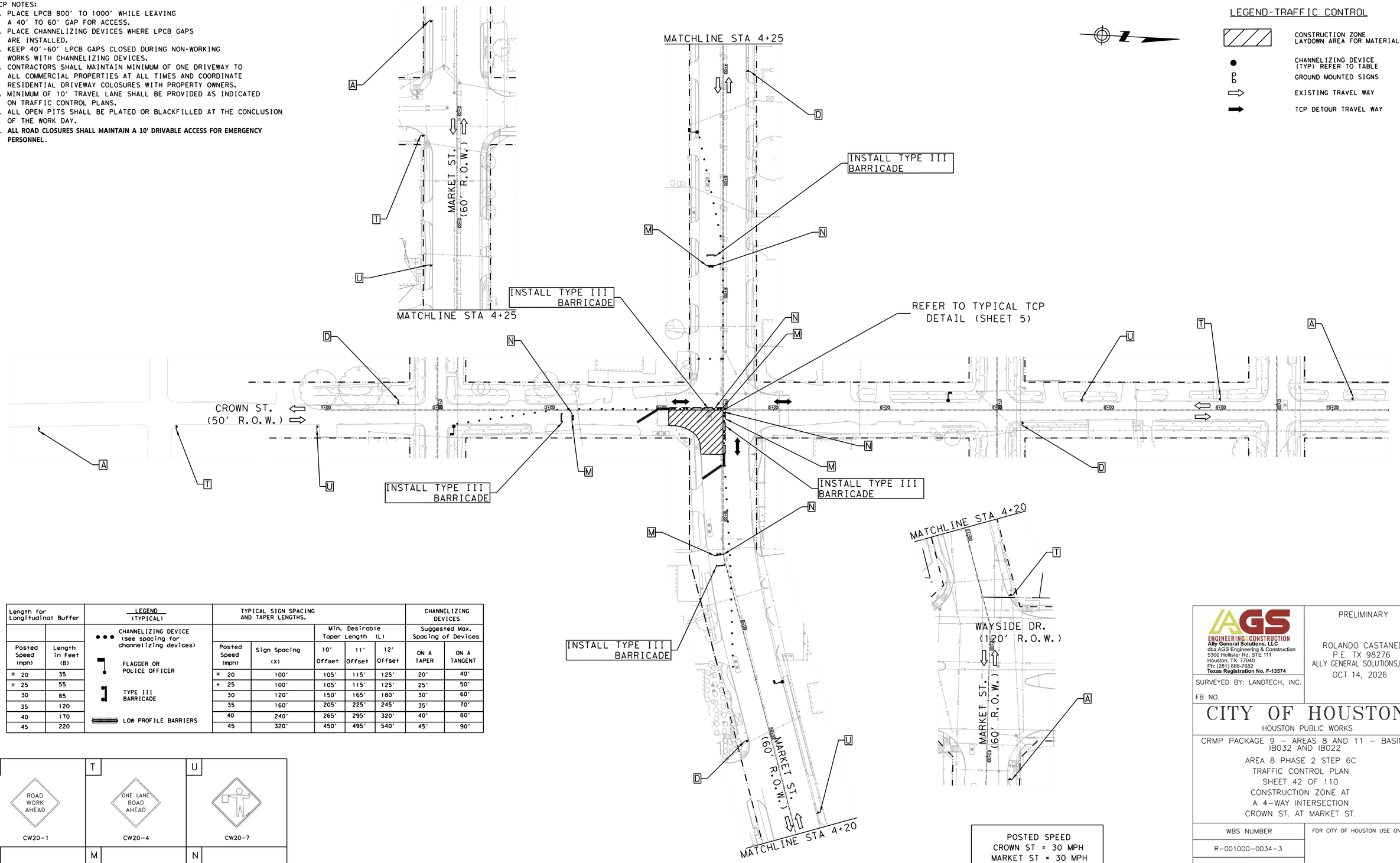
PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-34\MyGen Solutions Dropbox\AGS Projects\CMMS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\041-TCP INT Crown and Market 3.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)		Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)	* 20	100'	105'	115'	125'	20'	40'
* 25	55	FLAGGER OR POLICE OFFICER	* 25	100'	105'	115'	125'	25'	50'
30	85	TYPE III BARRICADE	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'

A	T	U
CW20-1	CW20-4	CW20-7
D	M	N
		
G20-2	R5-1	R11-2

POSTED SPEED
CROWN ST = 30 MPH
MARKET ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 6C
TRAFFIC CONTROL PLAN
SHEET 42 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT MARKET ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 232 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

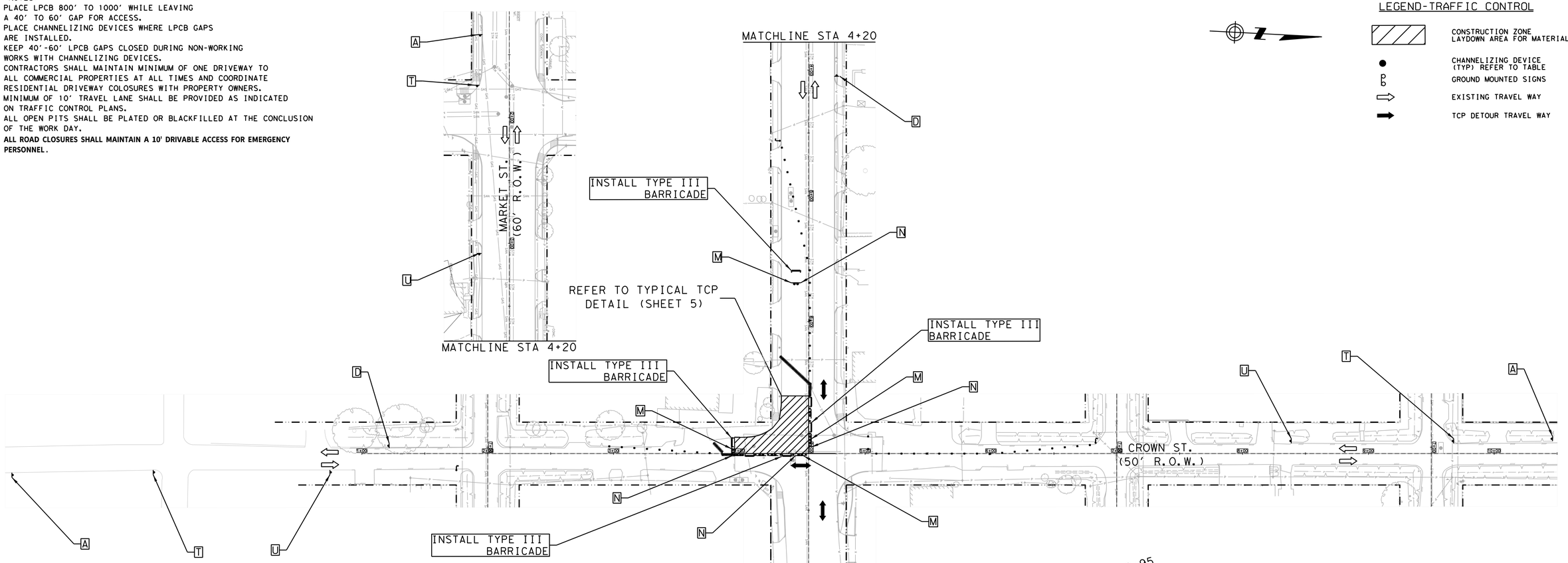
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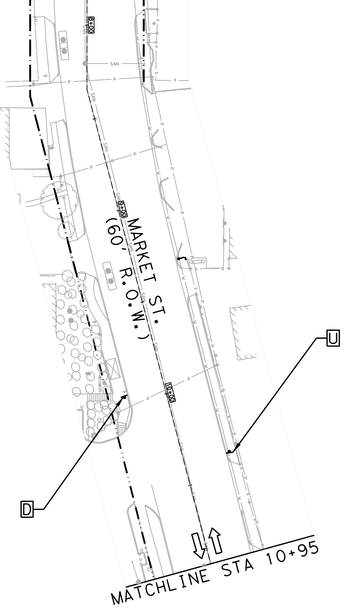
TCP NOTES:

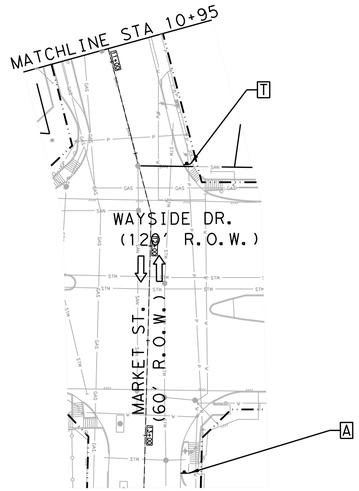
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

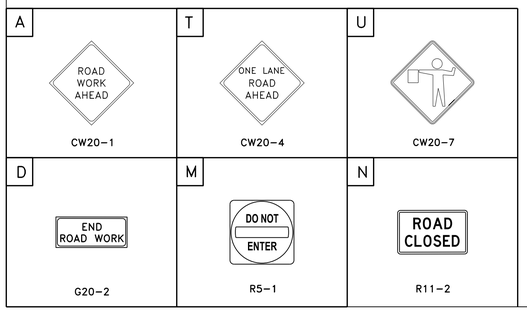
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY







Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)		Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)	* 20	100'	105'	115'	125'	20'	40'
* 25	55		* 25	100'	105'	115'	125'	25'	50'
30	85	FLAGGER OR POLICE OFFICER	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170	TYPE III BARRICADE	40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'



POSTED SPEED
CROWN ST = 30 MPH
MARKET ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 6D
TRAFFIC CONTROL PLAN
SHEET 43 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT MARKET ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 233 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-54\AppData\Roaming\Autodesk\Vault Client 2026\Working Folders\AGS Projects\AGS Projects\CMTRB WBS No R-001000-0034-3 - SWPPP & TCP\CAD\043-TCP #47 Crown and Market 1.dgn

TCP NOTES:

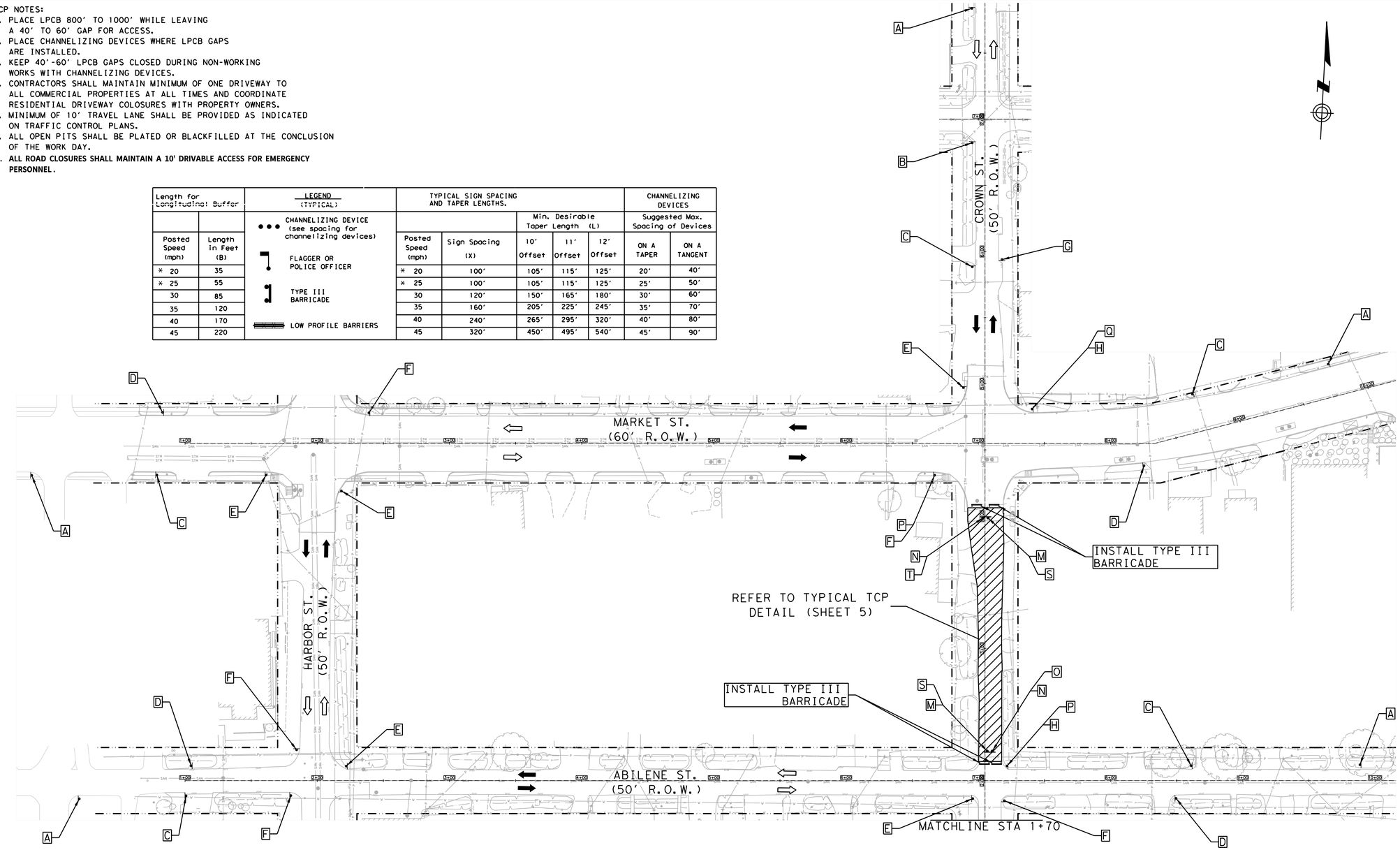
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3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

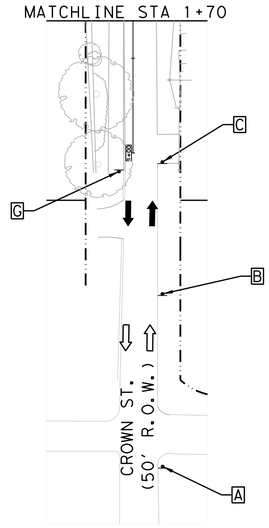
Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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* 25	100'	105'	115'	125'	25'	50'
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40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'





LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	S	
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY	
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1	
J	K	L	M	N	O	P	Q	R	T	
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR	
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)	

POSTED SPEED
CROWN ST = 30 MPH
HARBOR ST = 30 MPH
MARKET ST = 30 MPH
ABILENE ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 7
TRAFFIC CONTROL PLAN
SHEET 44 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
CROWN ST. AT MARKET ST. & ABILENE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 234 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

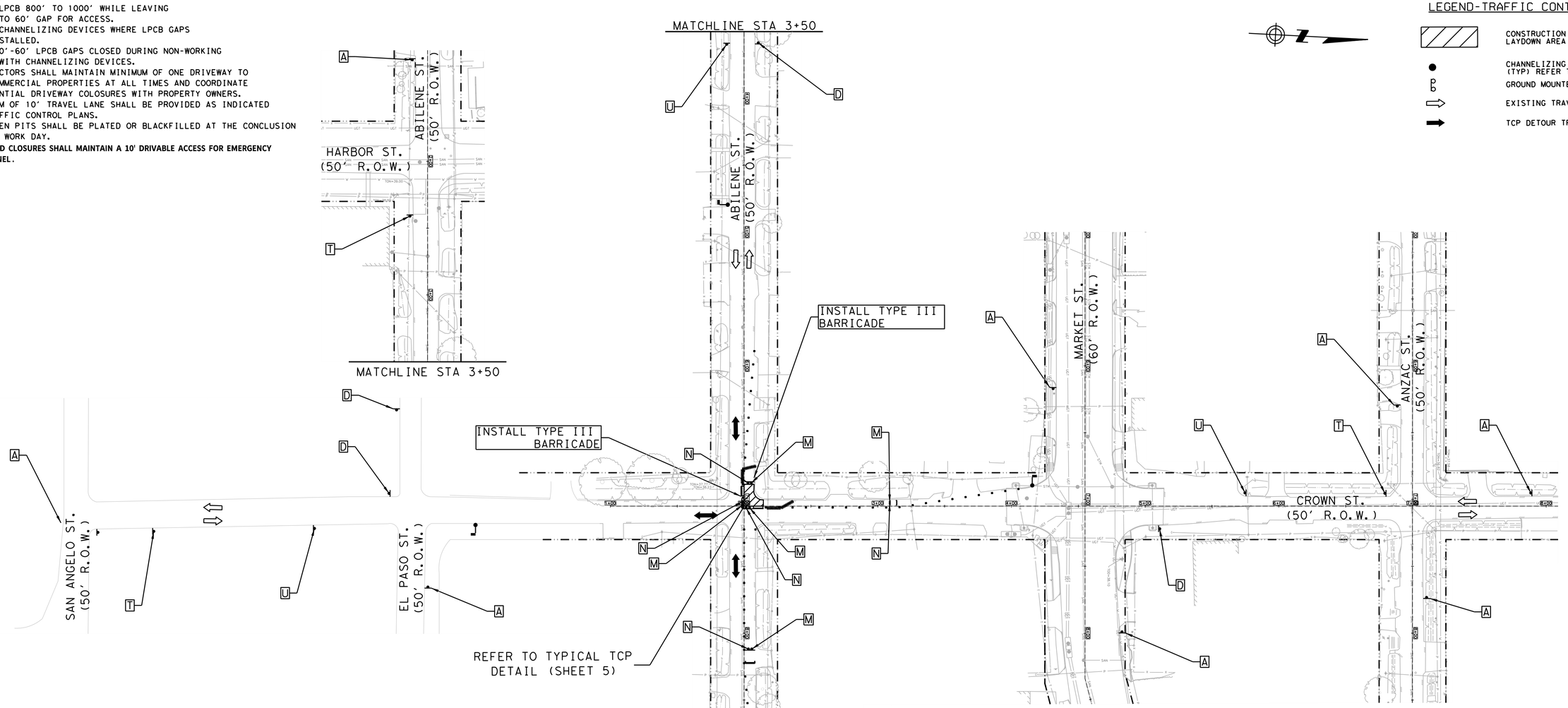
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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LEGEND-TRAFFIC CONTROL

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Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
ABILENE ST = 30 MPH
CROWN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 7A
TRAFFIC CONTROL PLAN
SHEET 45 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT ABILENE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 235 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

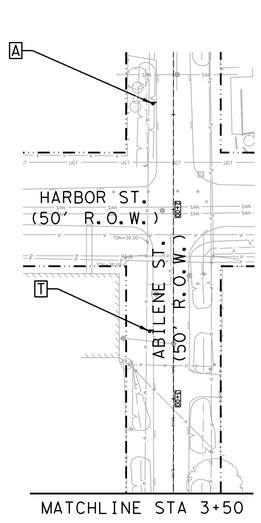
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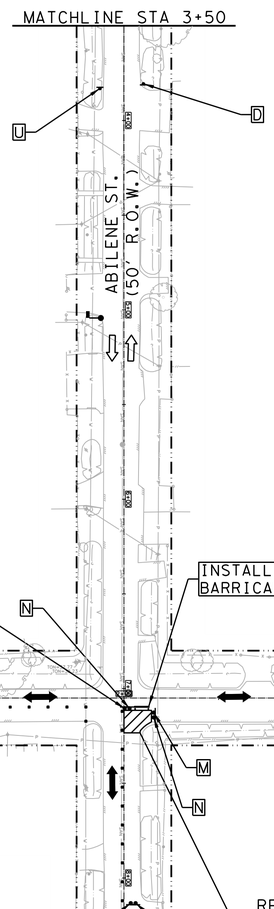
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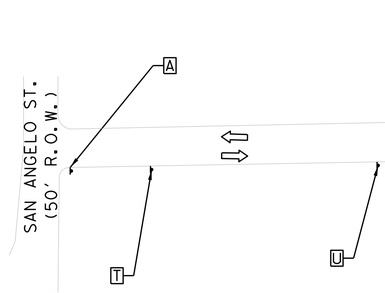
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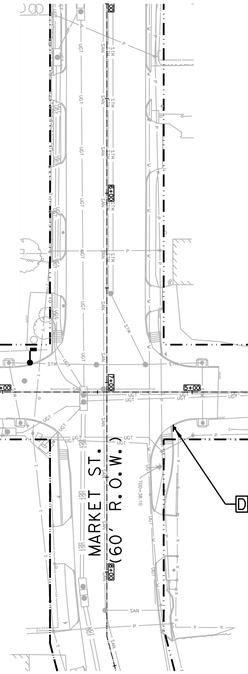
LEGEND-TRAFFIC CONTROL

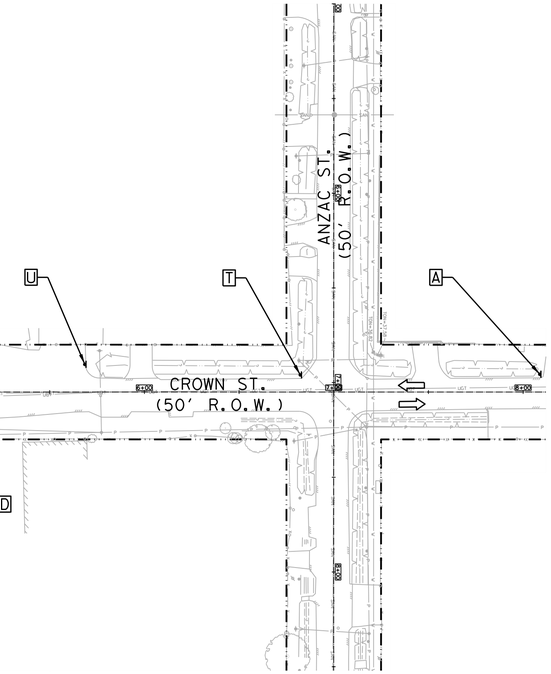
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- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY











Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
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A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	M	N
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G20-2	R5-1	R11-2

POSTED SPEED
ABILENE ST = 30 MPH
CROWN ST = 30 MPH

HALF SCALE: 1" = 80'
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0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 7B
TRAFFIC CONTROL PLAN
SHEET 46 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT ABILENE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 236 OF 339	

PLOTTED: 12-OCT-2026

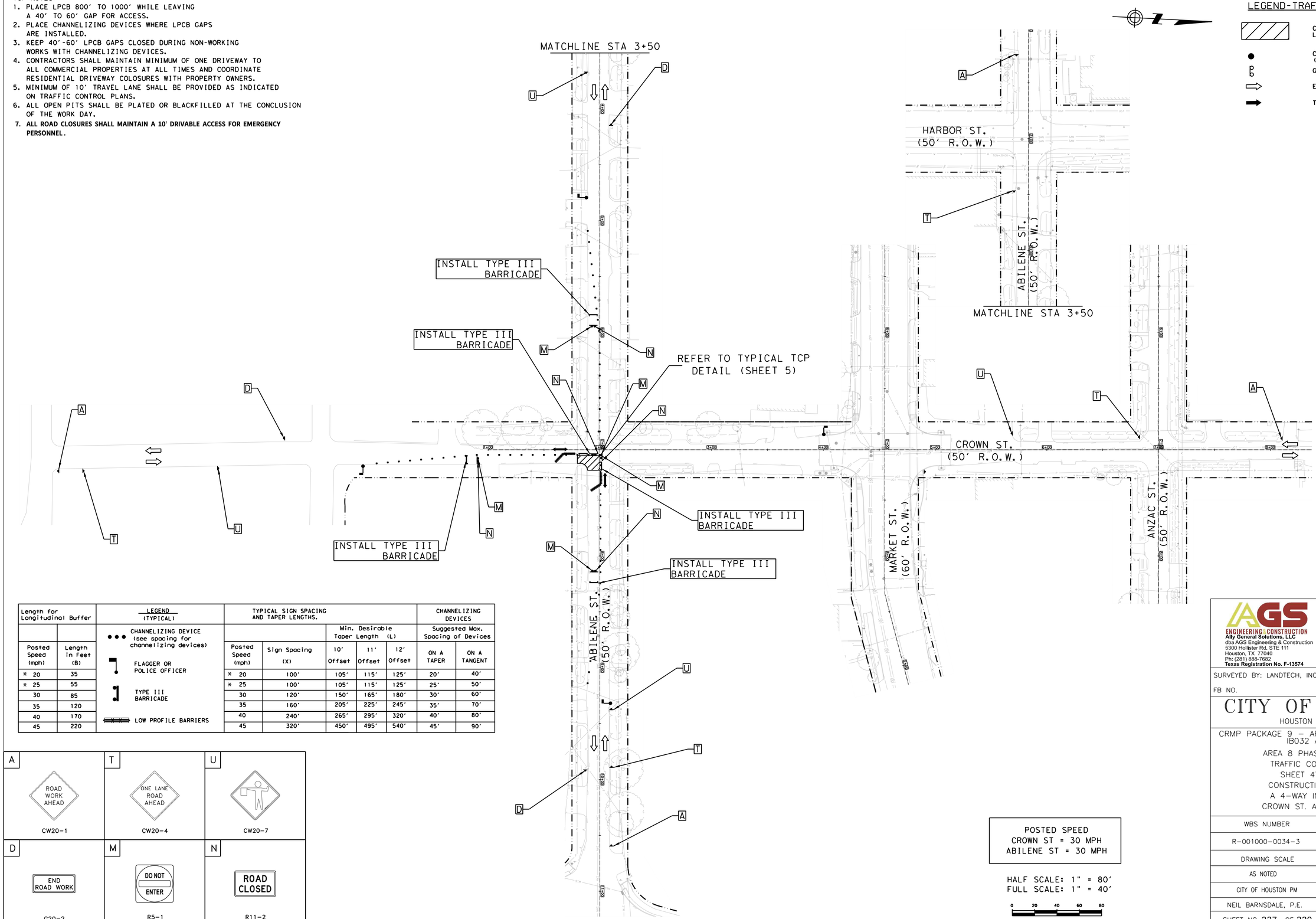
PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-54\AppData\Roaming\Dropbox\AGS Projects\CMYMS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\046-TCP #47 Crown and Abilene 24sp

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Length for Longitudinal Buffer		LEGEND (TYPICAL)
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35	120	LOW PROFILE BARRIERS
40	170	
45	220	

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1	T — ONE LANE ROAD AHEAD — CW20-4	U — CW20-7
D — END ROAD WORK — G20-2	M — DO NOT ENTER — R5-1	N — ROAD CLOSED — R11-2

POSTED SPEED
CROWN ST = 30 MPH
ABILENE ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 2 STEP 7C
TRAFFIC CONTROL PLAN
SHEET 47 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT ABILENE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 237 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

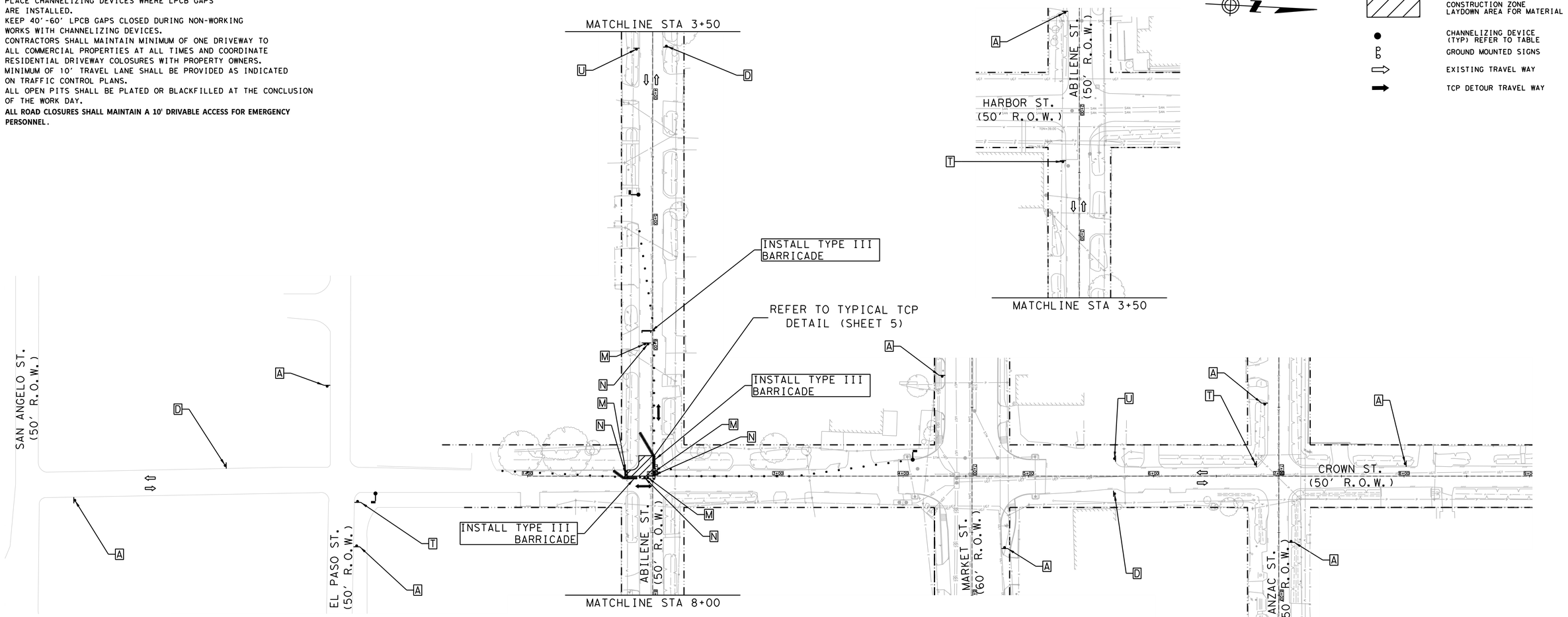
FILE PATH: C:\Users\AGS-SAVidyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMTAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\047-TCP INT Crown and Abilene 4.dgn

TCP NOTES:

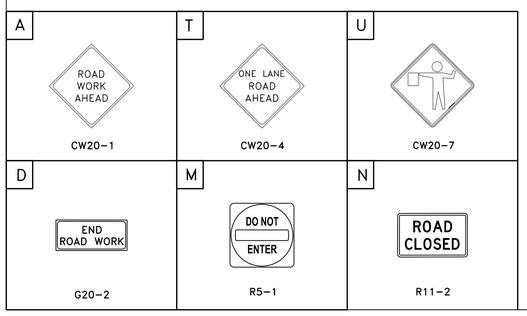
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

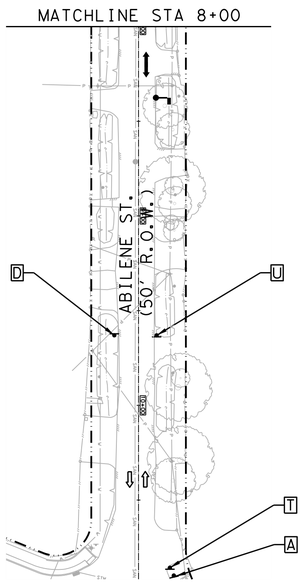
LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	FLAGGER OR POLICE OFFICER	* 20	100'	105'	115'	125'	20'	40'
* 25	55	TYPE III BARRICADE	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170	LOW PROFILE BARRIERS	40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'





POSTED SPEED
ABILENE ST = 30 MPH
CROWN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 2 STEP 7D
TRAFFIC CONTROL PLAN
SHEET 48 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
CROWN ST. AT ABILENE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 238 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\VKS5-54\MyDsn Solutions Dropbox\VKS Dropbox\VKS Projects\GM\TAS WBS No R-001000-0034-3 - SWPPP & TCP\DWG\048-TCP INT Crown and Abilene 1.dgn

TCP NOTES:

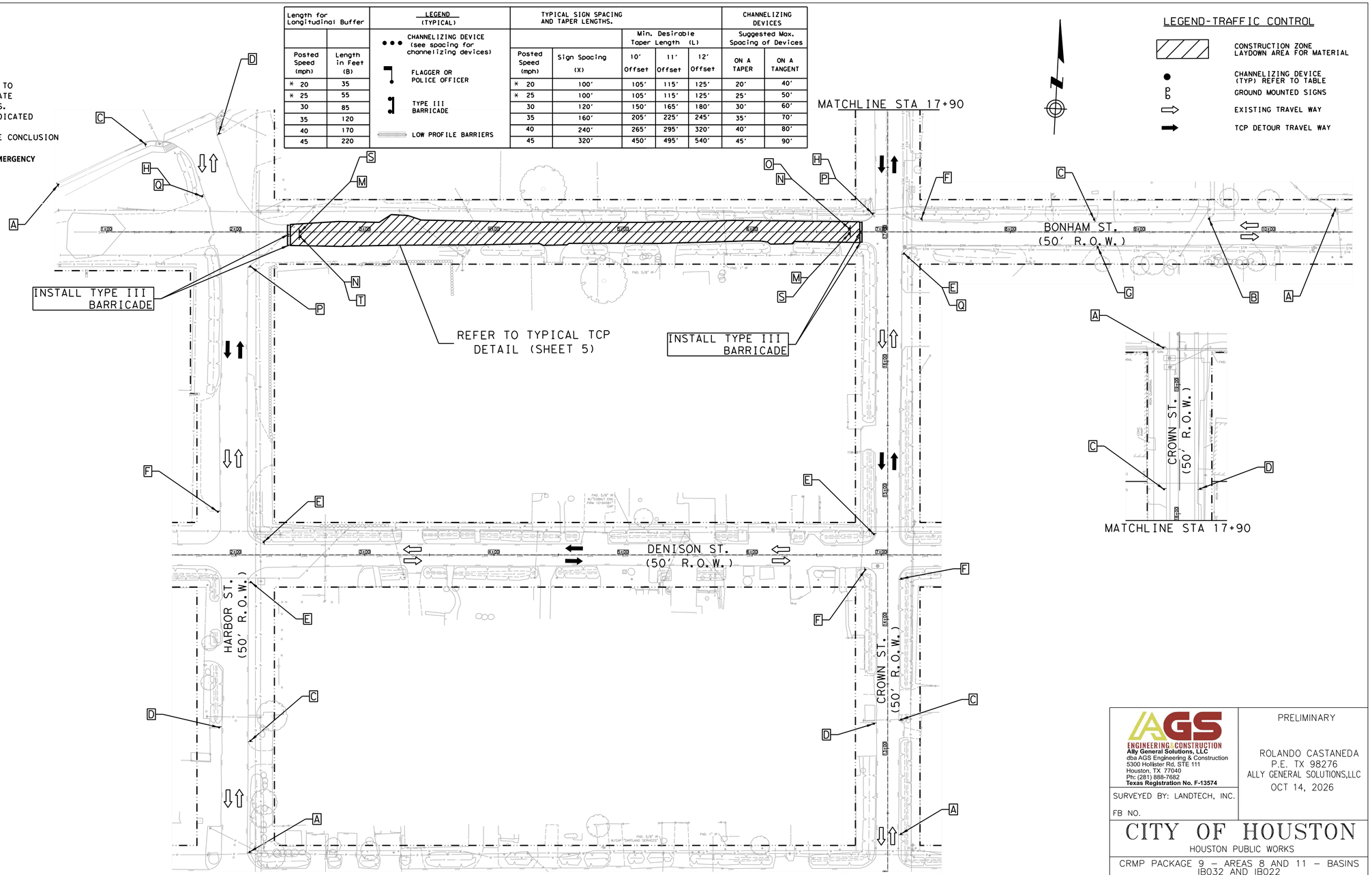
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	S	
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY	
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1	
J	K	L	M	N	O	P	Q	R	T	
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR	
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)	

POSTED SPEED
CROWN ST = 30 MPH
DENISON ST = 30 MPH
BONHAM ST = 30 MPH
HARBOR ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 3 STEP 1
TRAFFIC CONTROL PLAN
SHEET 49 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
BONHAM ST. AT CROWN ST. & HARBOR ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 239 OF 339	

PLOTTED: 12-OCT-2026

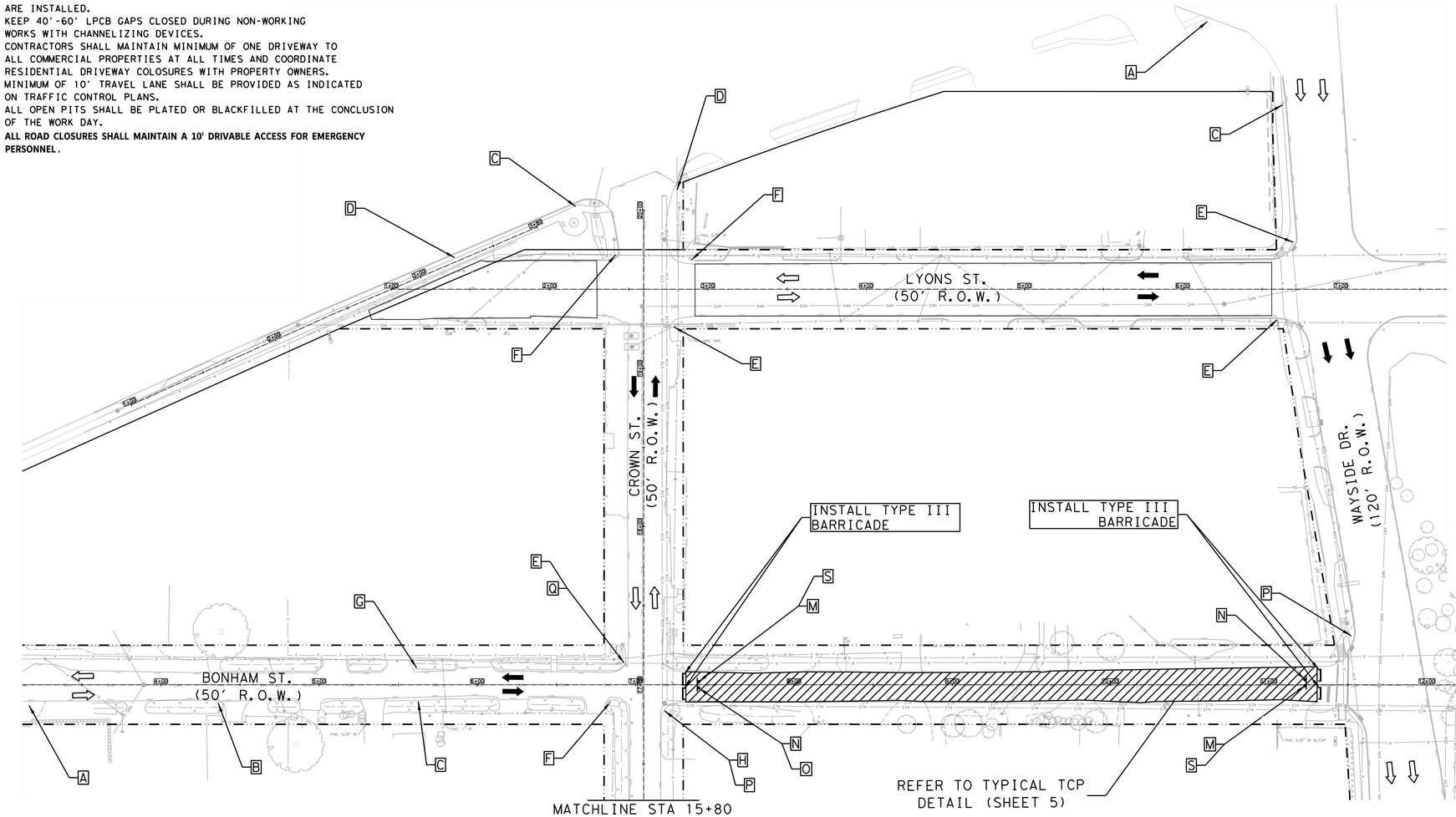
PLOT STYLE: COH.CTB

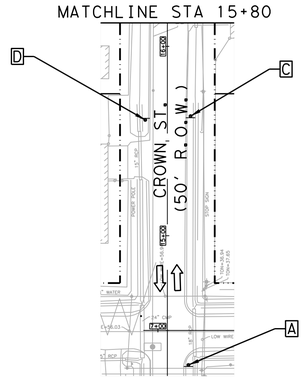
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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL PHASE 3 STEP 3
- CONSTRUCTION ZONELAYDOWN AREA FOR MATERIAL PHASE 3 STEP 2
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY





Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)		Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)	* 20	100'	105'	115'	125'	20'	40'
* 25	55		* 25	100'	105'	115'	125'	25'	50'
30	85	FLAGGER OR POLICE OFFICER	30	120'	150'	165'	180'	30'	60'
35	120	TYPE III BARRICADE	35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
BONHAM ST = 30 MPH
LYONS AVE = 30 MPH
CROWN ST = 30 MPH
WAYSIDE DR = 45 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 3 STEP 2 & 3
TRAFFIC CONTROL PLAN
SHEET 50 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
BONHAM ST. AT CROWN ST. & WAYSIDE DR.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 240 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-54\AppData Dropbox\AGS Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWMP & TCP\CAD\050-TCP Bonham Sheet 2.dgn

TCP NOTES:

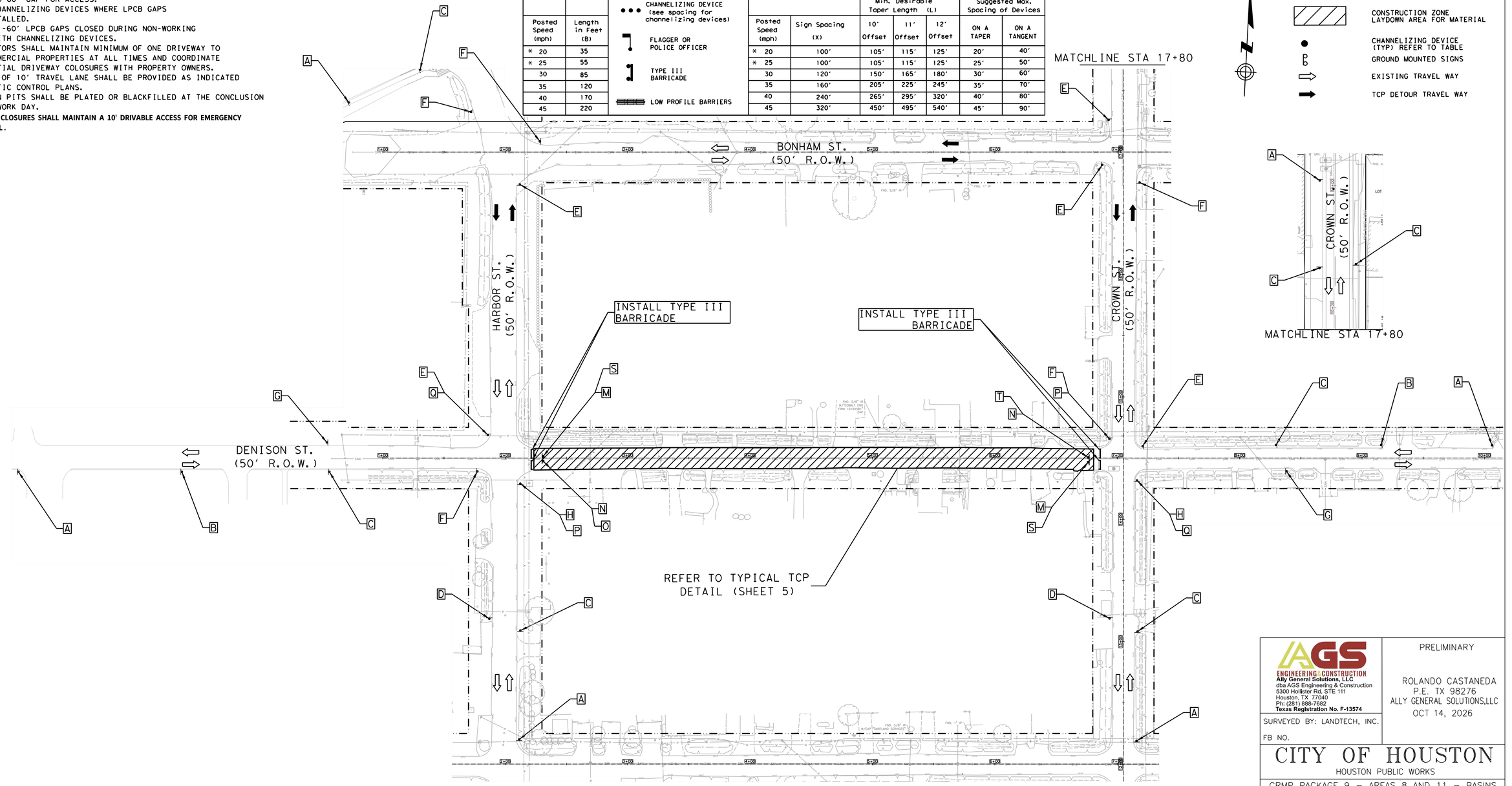
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
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40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	S	
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY	
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1	
J	K	L	M	N	O	P	Q	R	T	
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR ←			BEGIN ONE WAY	DETOUR →	
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)	

POSTED SPEED
DENISON ST = 30 MPH
CROWN ST = 30 MPH
HARBOR ST = 30 MPH
BONHAM ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 4 STEP 1
TRAFFIC CONTROL PLAN
SHEET 51 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
DENISON ST. AT CROWN ST. & HARBOR ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 241 OF 339	

PLOTTED: 12-OCT-2026

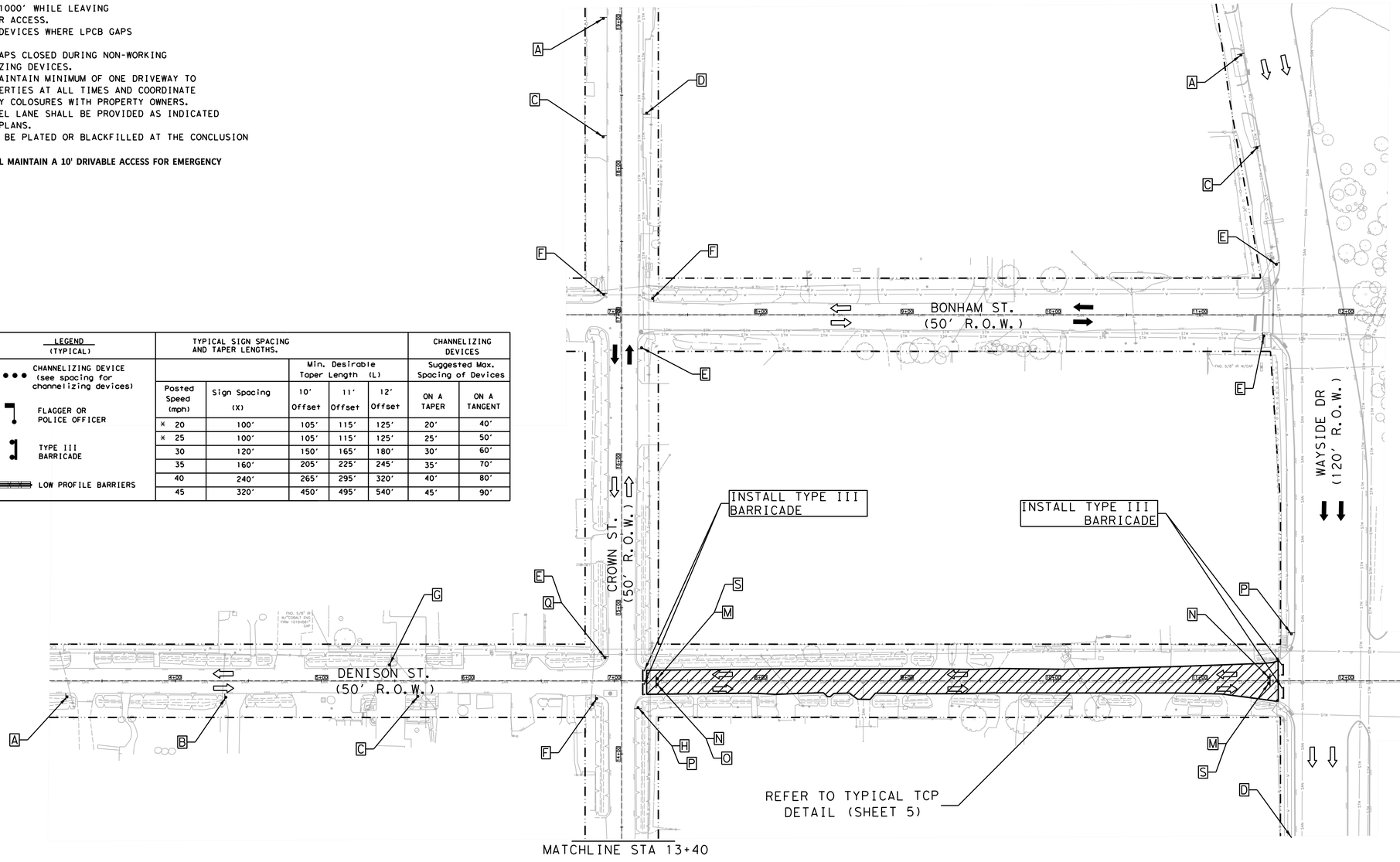
PLOT STYLE: COH.CTB

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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL PHASE 4 STEP 3
- CONSTRUCTION ZONELAYDOWN AREA FOR MATERIAL PHASE 4 STEP 2
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	**K**	**L**	**M**	**N**	**O**	**P**	**Q**	**R**	**T**
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
DENISON ST = 30 MPH
BONHAM ST = 30 MPH
CROWN ST = 30 MPH
WAYSIDE ST = 45 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 4 STEP 2 & 3
TRAFFIC CONTROL PLAN
SHEET 52 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
DENISON ST. AT CROWN ST. & WAYSIDE DR.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 242 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-54\AGS\Ally General Solutions Dropbox\AGS Projects\AGS Projects\2024\IB WBS No R-001000-0034-3 - SWPPP & TCP\CAD\052-TCP Denison Street 2.dgn

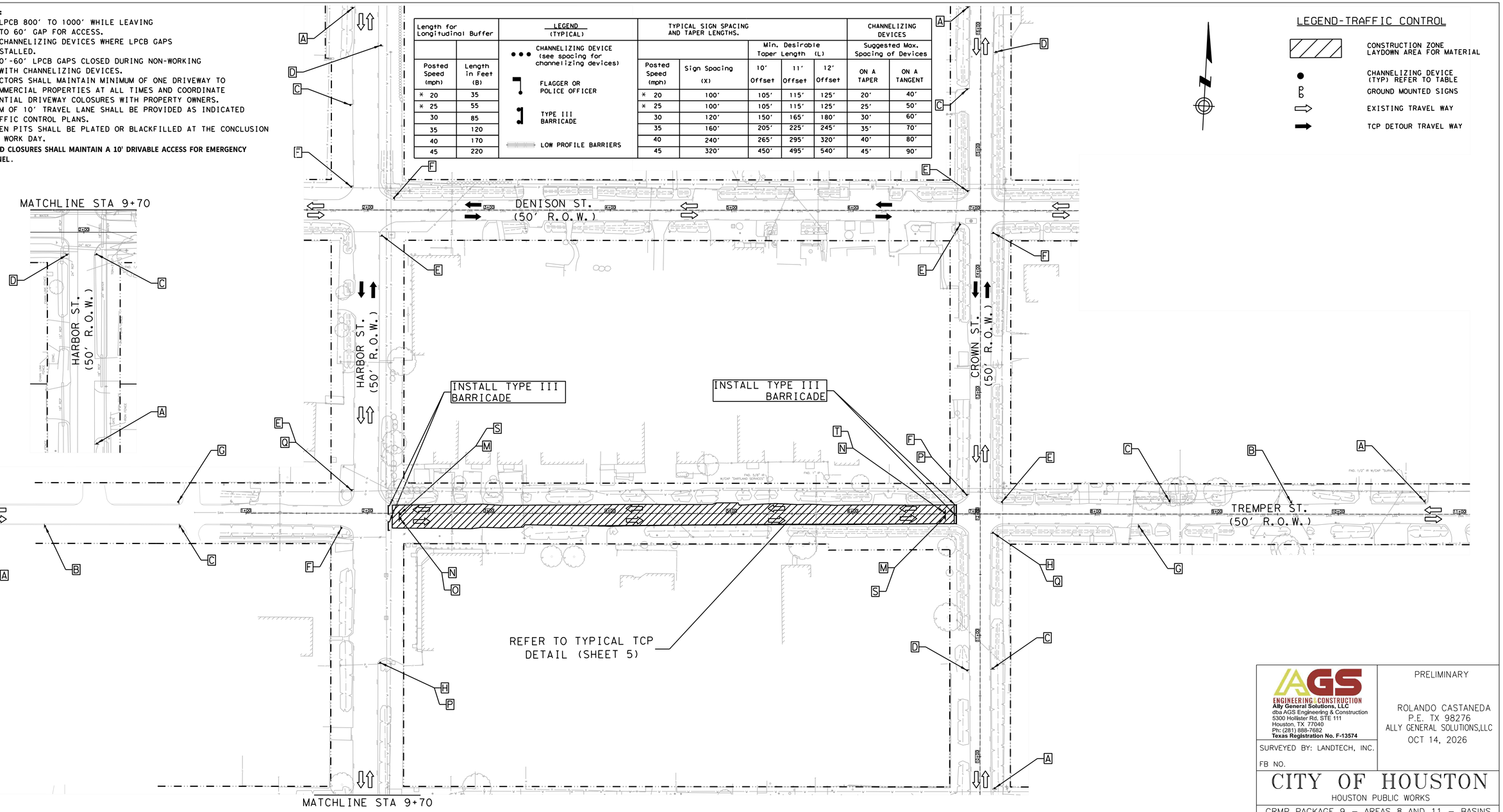
TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

LEGEND-TRAFFIC CONTROL
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



A	B	C	D	E	F	G	H	I	S	J	K	L	M	N	O	P	Q	R	T
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY	LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1	CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
TREMPER ST = 30 MPH
CROWN ST = 30 MPH
HARBOR ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

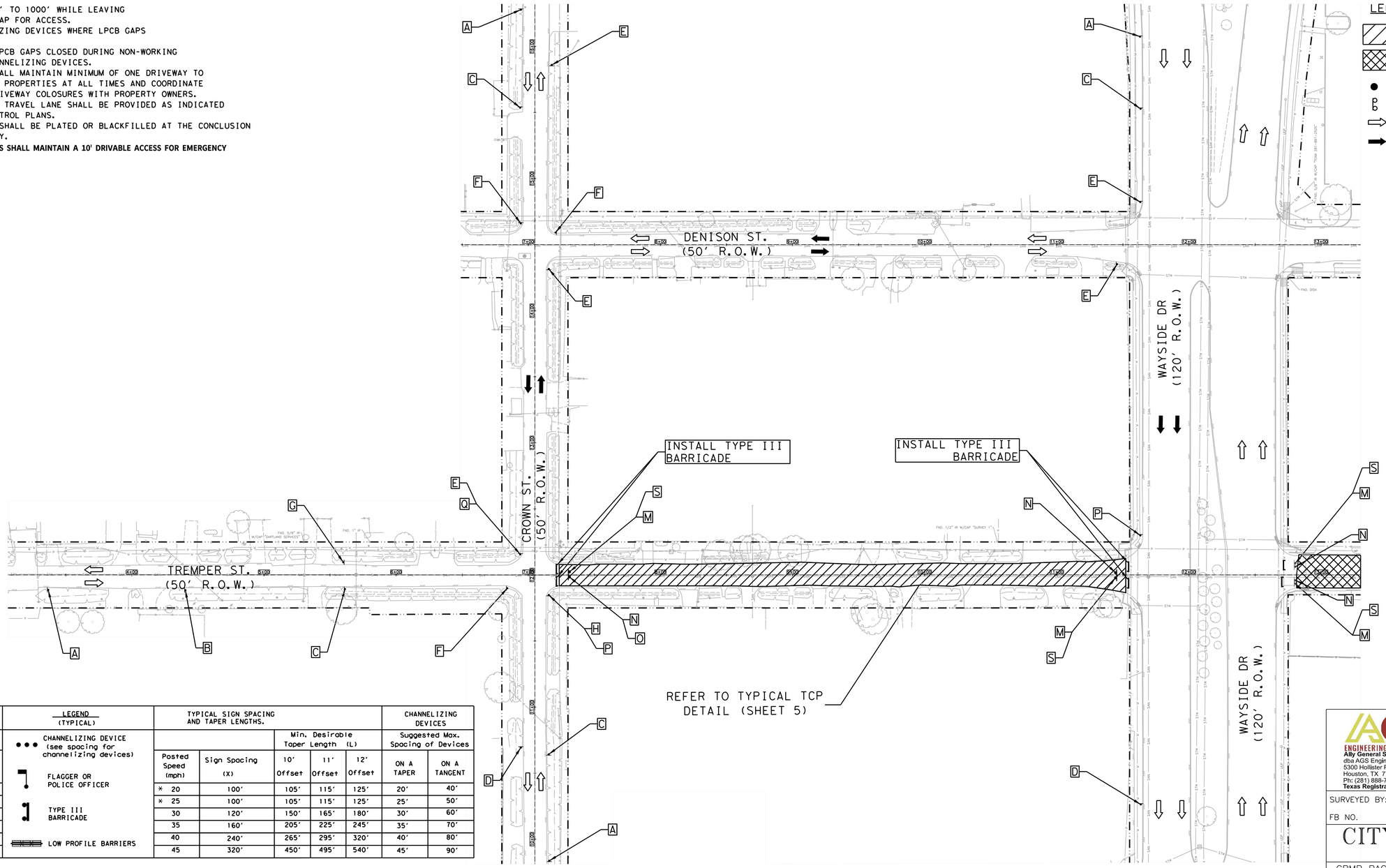
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 5 STEP 1
TRAFFIC CONTROL PLAN
SHEET 53 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
TREMPER ST. AT CROWN ST. & HARBOR ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 243 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-34\AgSm Solutions Dropbox\AGS Dropbox\AGS Projects\CMP\AG WBS No R-001000-0034-3 - SWPPP & TCP\CAD\053-TCP Tremper Street 1.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL PHASE 5 STEP 3
- CONSTRUCTION ZONELAYDOWN AREA FOR MATERIAL PHASE 5 STEP 2
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR ←			BEGIN ONE WAY	DETOUR →
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
ABILENE ST = 30 MPH
CROWN ST = 30 MPH
HARBOR ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 5 STEP 2 & 3
TRAFFIC CONTROL PLAN
SHEET 54 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
ABILENE ST. AT CROWN ST. & HARBOR ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 244 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

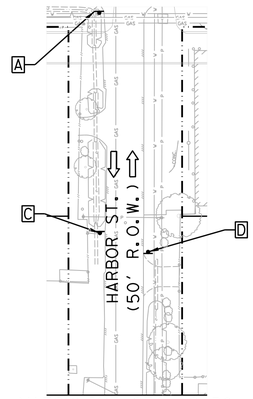
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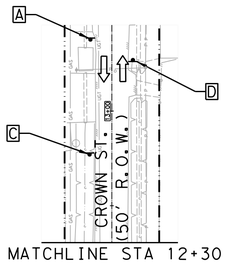
TCP NOTES:

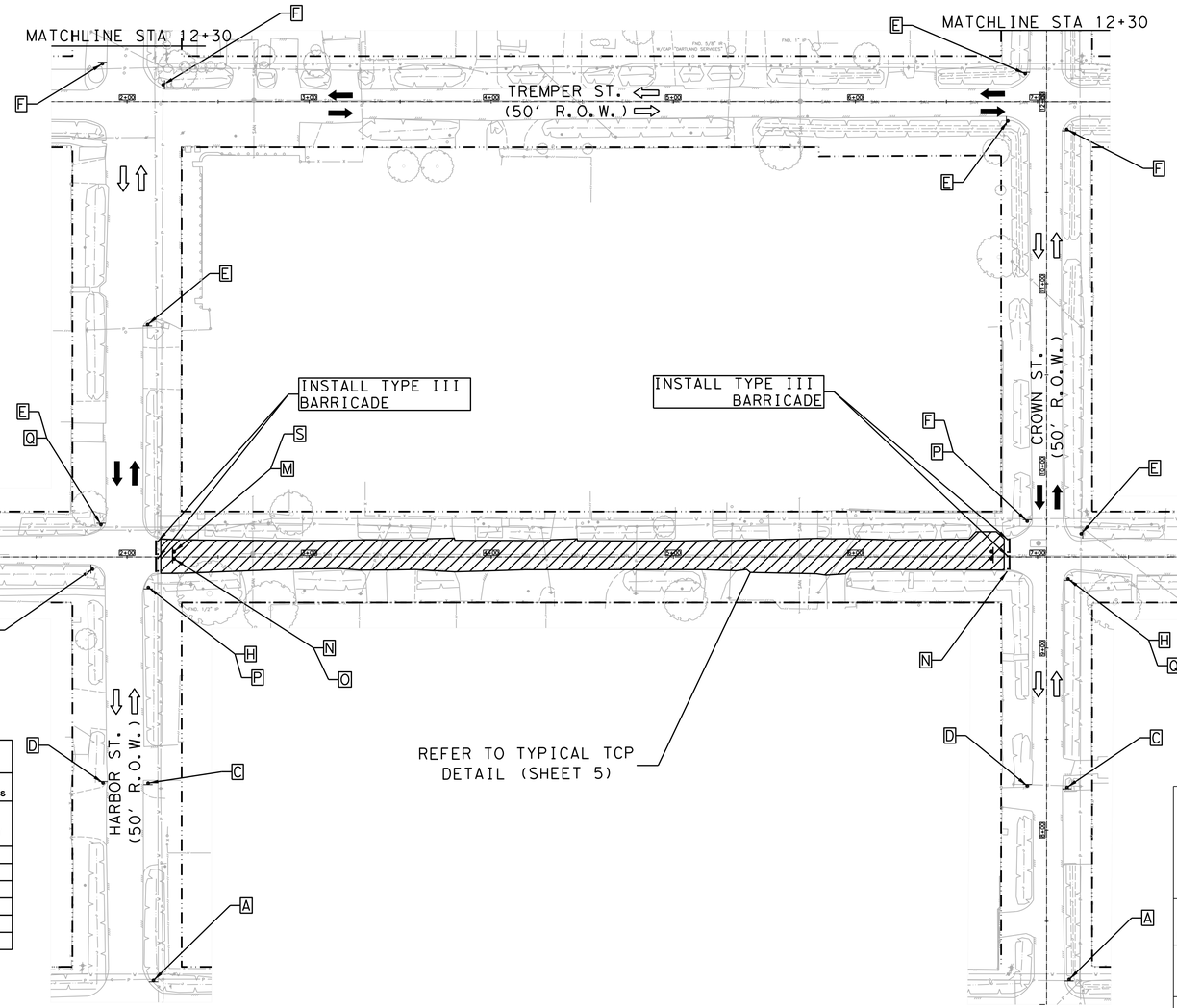
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY







Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
AMARILLO ST = 30 MPH
HARBOR ST = 30 MPH
TREMPER ST = 30 MPH
CROWN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 6 STEP 1
TRAFFIC CONTROL PLAN
SHEET 55 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
AMARILLO ST. AT HARBOR ST. & CROWN ST.

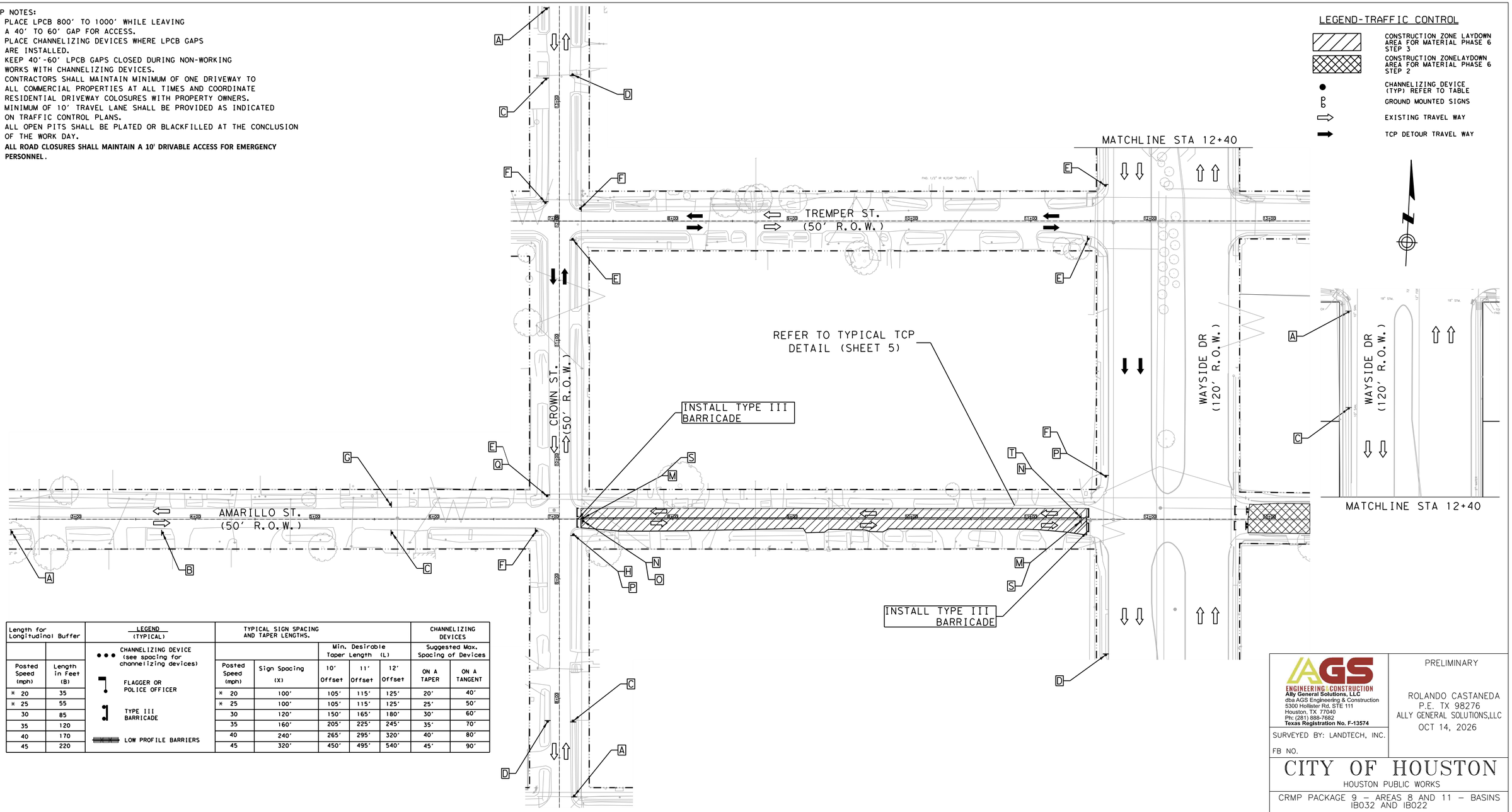
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R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 245 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-SAVAgEm Solutions Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\055-TCP Amarillo Street 1.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL PHASE 6 STEP 3
- CONSTRUCTION ZONELAYDOWN AREA FOR MATERIAL PHASE 6 STEP 2
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR ←			BEGIN ONE WAY	DETOUR →
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
AMARILLO ST = 30 MPH
HARBOR ST = 30 MPH
CROWN ST = 30 MPH
TREMPER ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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ALLY GENERAL SOLUTIONS,LLC
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 6 STEP 2 & 3
TRAFFIC CONTROL PLAN
SHEET 56 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
AMARILLO ST. AT HARBOR ST. & CROWN ST.

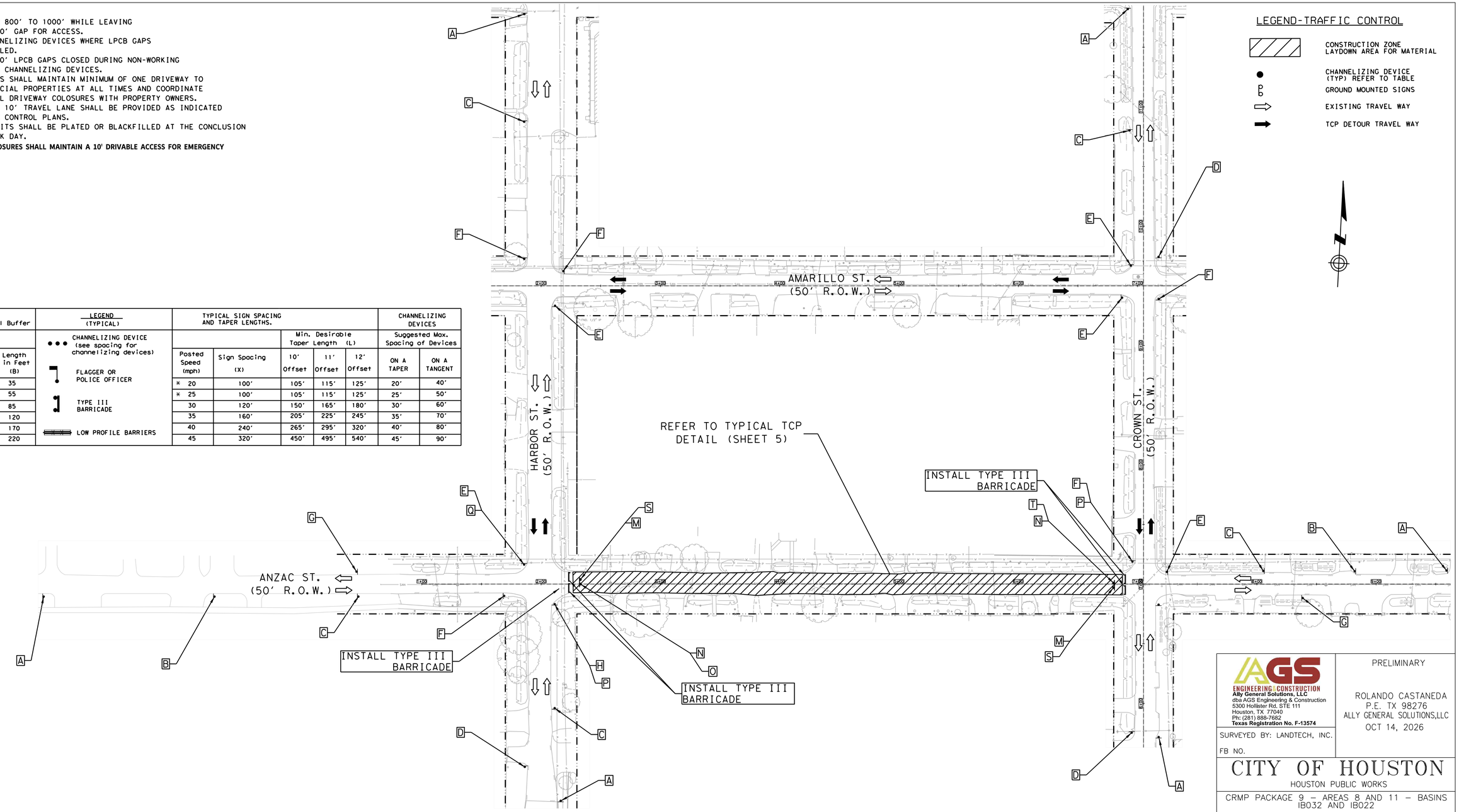
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DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 246 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-SA\AppData\Local\Ally General Solutions, LLC\AGS Dropbox\AGS Projects\CMTAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\056-TCP Amarillo Street 2.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
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40	170		40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	**K**	**L**	**M**	**N**	**O**	**P**	**Q**	**R**	**T**
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
ANZAC ST = 30 MPH
AMARILLO ST = 30 MPH
HARBOR ST = 30 MPH
CROWN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 7 STEP 1
TRAFFIC CONTROL PLAN
SHEET 57 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
ANZAC ST. AT HARBOR ST. & CROWN ST.

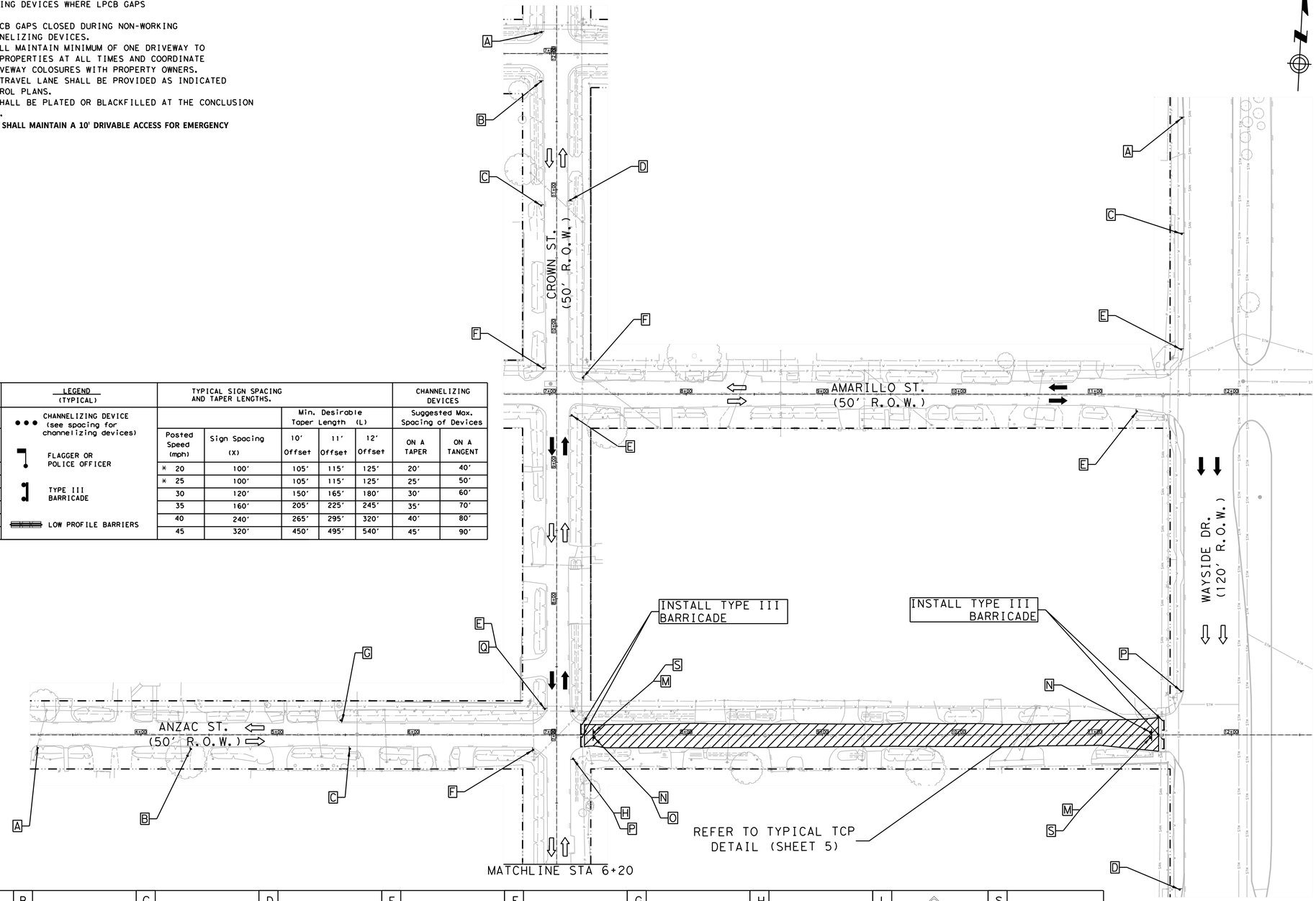
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 247 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-34\MyDesktop Solutions Dropbox\AGS Projects\CAD\RAS WBS No R-001000-0034-3 - SWMP & TCP\CAD\057-TCP Anzac Street 1.dgn

TCP NOTES:

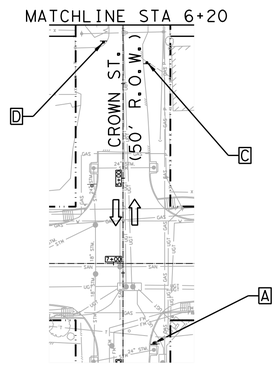
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)		Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)	* 20	100'	105'	115'	125'	20'	40'
* 25	55		* 25	100'	105'	115'	125'	25'	50'
30	85	FLAGGER OR POLICE OFFICER	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170	TYPE III BARRICADE	40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
ANZAC ST = 30 MPH
CROWN ST = 30 MPH
CROWN ST = 30 MPH
WAYSIDE DR = 45 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd, STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC

OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 7 STEP 2
TRAFFIC CONTROL PLAN
SHEET 58 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
ANZAC ST. AT CROWN ST. & WAYSIDE DR.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 248 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-SA\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 – SWPPP & TCP\CAD\D58-TCP Areas Sheet 2.dgn

TCP NOTES:

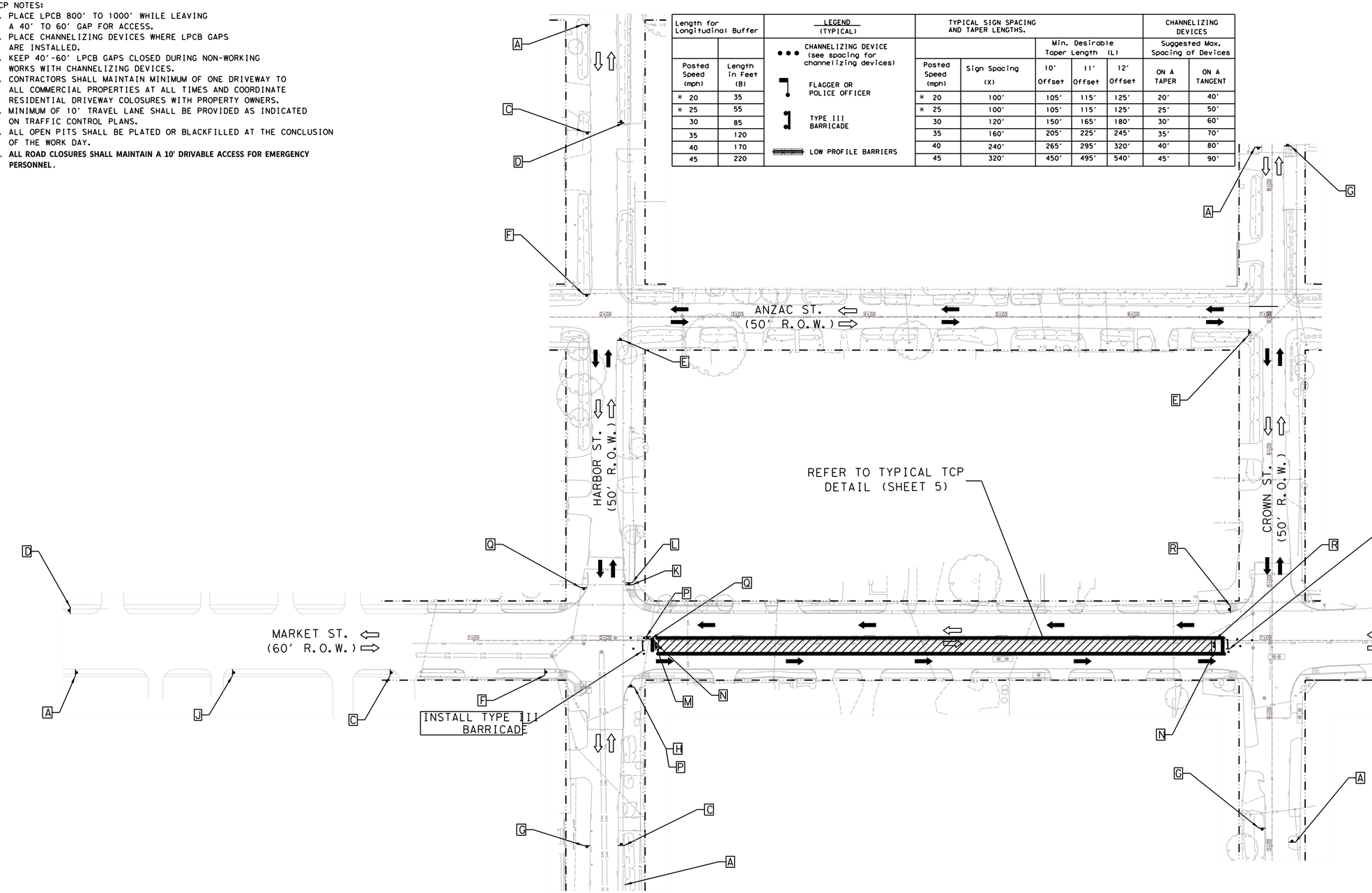
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

A	B	C	D	E	F	G	H	I	
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED / AHEAD	
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	
J	K	L	M	N	O	P	Q	R	
LEFT LANE CLOSED / AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	

POSTED SPEED
MARKET ST = 30 MPH
HARBOR ST = 30 MPH
ANZAC ST = 30 MPH
CROWN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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Texas Registration No. F-13574

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

SURVEYED BY: LANDTECH, INC.

FB NO.

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 8 STEP 1
TRAFFIC CONTROL PLAN
SHEET 59 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
MARKET ST. AT HARBOR ST. & CROWN ST.

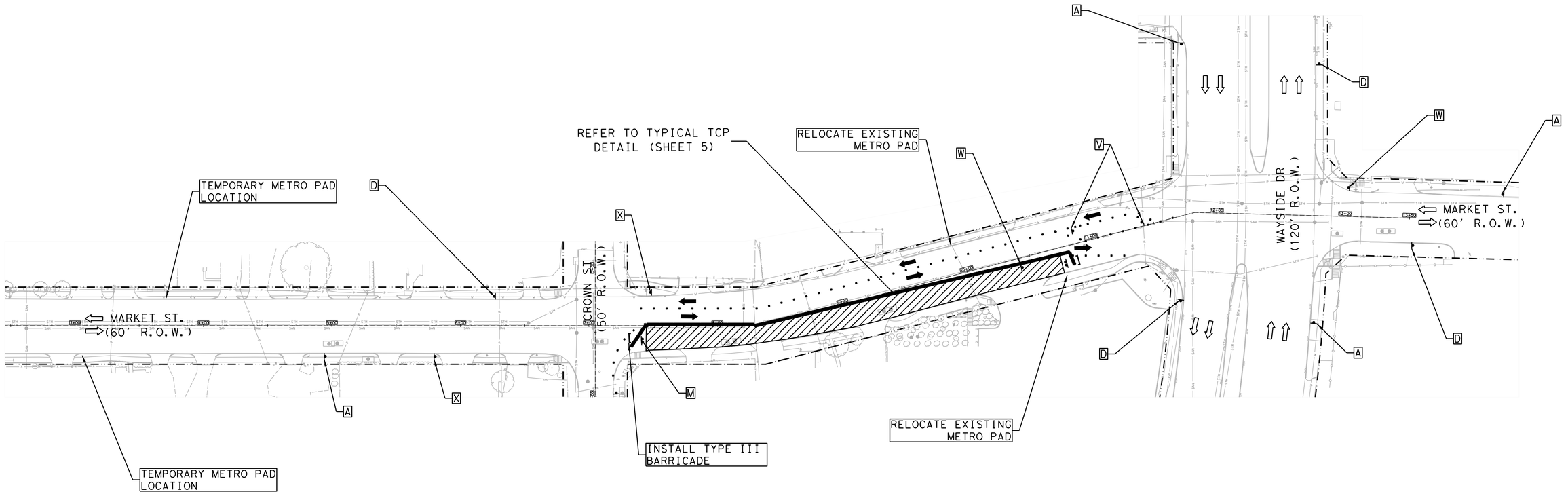
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 249 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-34\AlyGen Solutions Dropbox\AGS Projects\CMRP&B WBS No. R-001000-0034-3 - SWPPP & TCP\CAD\026-TCP Revised Sheet 2.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



A	D	V
ROAD WORK AHEAD CW20-1	END ROAD WORK G20-2	CW1-4L

W	X
CW1-4R	CW1-6aT

Length for Longitudinal Buffer		LEGEND (TYPICAL)
Posted Speed (mph)	Length in Feet (B)	
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)
* 25	55	FLAGGER OR POLICE OFFICER
30	85	TYPE III BARRICADE
35	120	
40	170	LOW PROFILE BARRIERS
45	220	

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

POSTED SPEED
MARKET ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

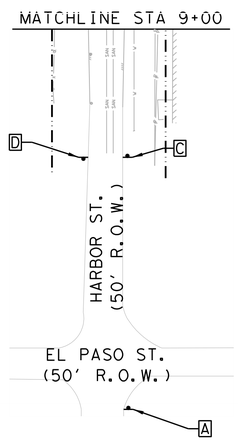
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

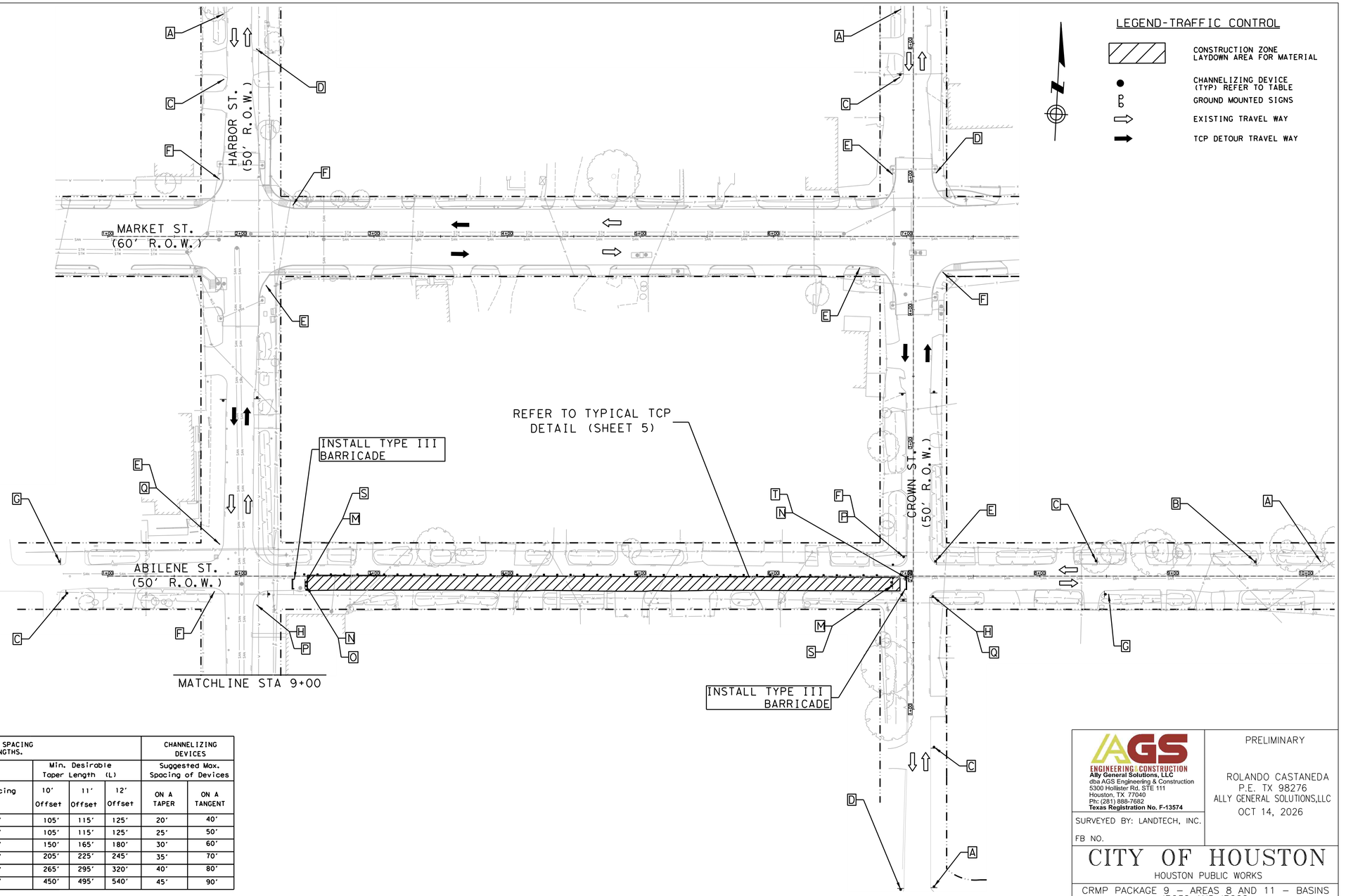
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 8 PHASE 8 STEP 2
TRAFFIC CONTROL PLAN
SHEET 60 OF 110
TRAFFIC SHIFT ON
FOUR LANE ROAD
MARKET ST. AT CROWN ST. & WAYSIDE DR.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 250 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-54\AgSun Solutions Dropbox\AGS Dropbox\AGS Projects\CoH\TAS WBS No R-001000-0034-3 - SWMPP & TCP\CAD\06b-TCP Market Street 1.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**





LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY	DETOUR
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
ABILENE ST = 30 MPH
CROWN ST = 30 MPH
HARBOR ST = 30 MPH
MARKET ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

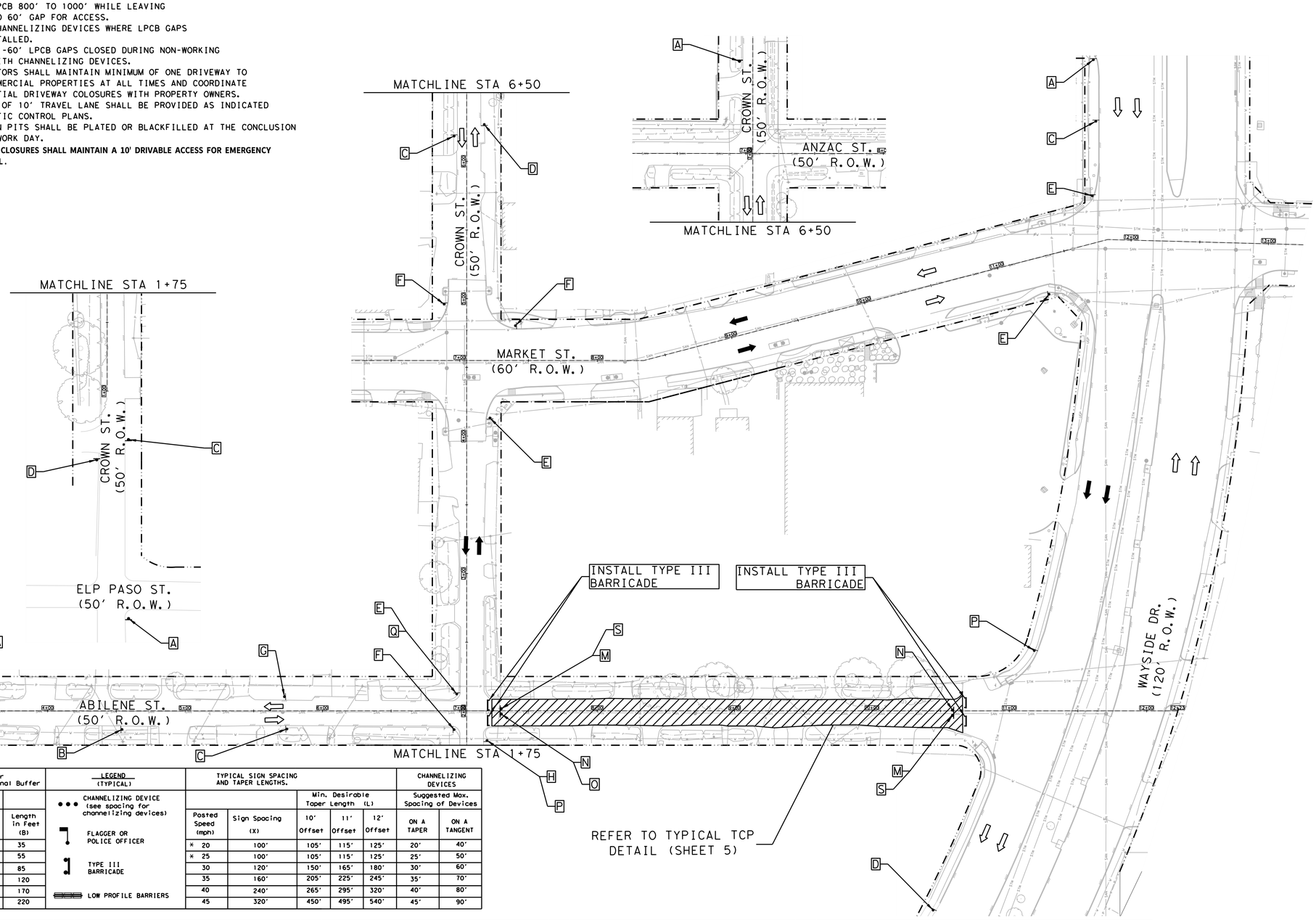
AREA 8 PHASE 9 STEP 1
TRAFFIC CONTROL PLAN
SHEET 61 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
ABILENE ST. AT CROWN ST. & HARBOR ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 251 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-SAVA\Ally General Solutions Dropbox\AGS Projects\COH\15 WBS No R-001000-0034-3 - SWPPP & TCP\CAD\04-TCP Abilene Street 1.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- B — GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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A	B	C	D	E	F	G	H	I	S
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD	LOCAL TRAFIC ONLY
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3	SP-1
J	K	L	M	N	O	P	Q	R	T
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR ←			BEGIN ONE WAY	DETOUR →
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6	M4-10(R)

POSTED SPEED
ABILENE ST = 30 MPH
CROWN ST = 30 MPH
MARKET ST = 30 MPH
WAYSIDE DR = 45 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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FB NO.

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ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 8 PHASE 9 STEP 2
TRAFFIC CONTROL PLAN
SHEET 62 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
ABILENE ST. AT CROWN ST. & WAYSIDE DR.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 252 OF 339	

PLOTTED: 12-OCT-2026

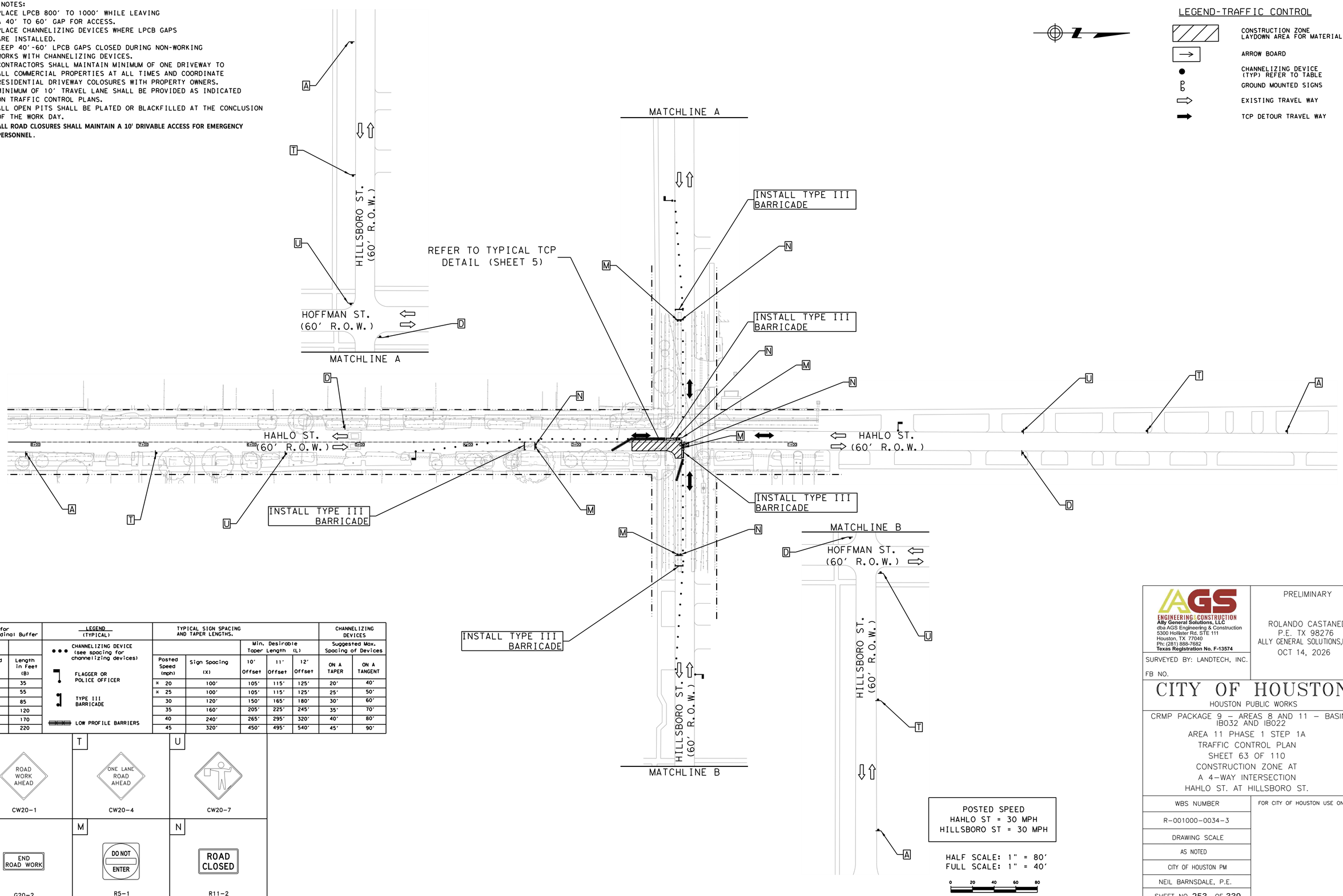
PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-SAVA\Ags Solutions Dropbox\AGS Dropbox\AGS Projects\CRMP\WBS WBS No R-001000-0034-3 - SWMP & TCP\CAD\R62-TCP Abilene Street 2.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
HAHLO ST = 30 MPH
HILLSBORO ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd, STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 1A
TRAFFIC CONTROL PLAN
SHEET 63 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
HAHLO ST. AT HILLSBORO ST.

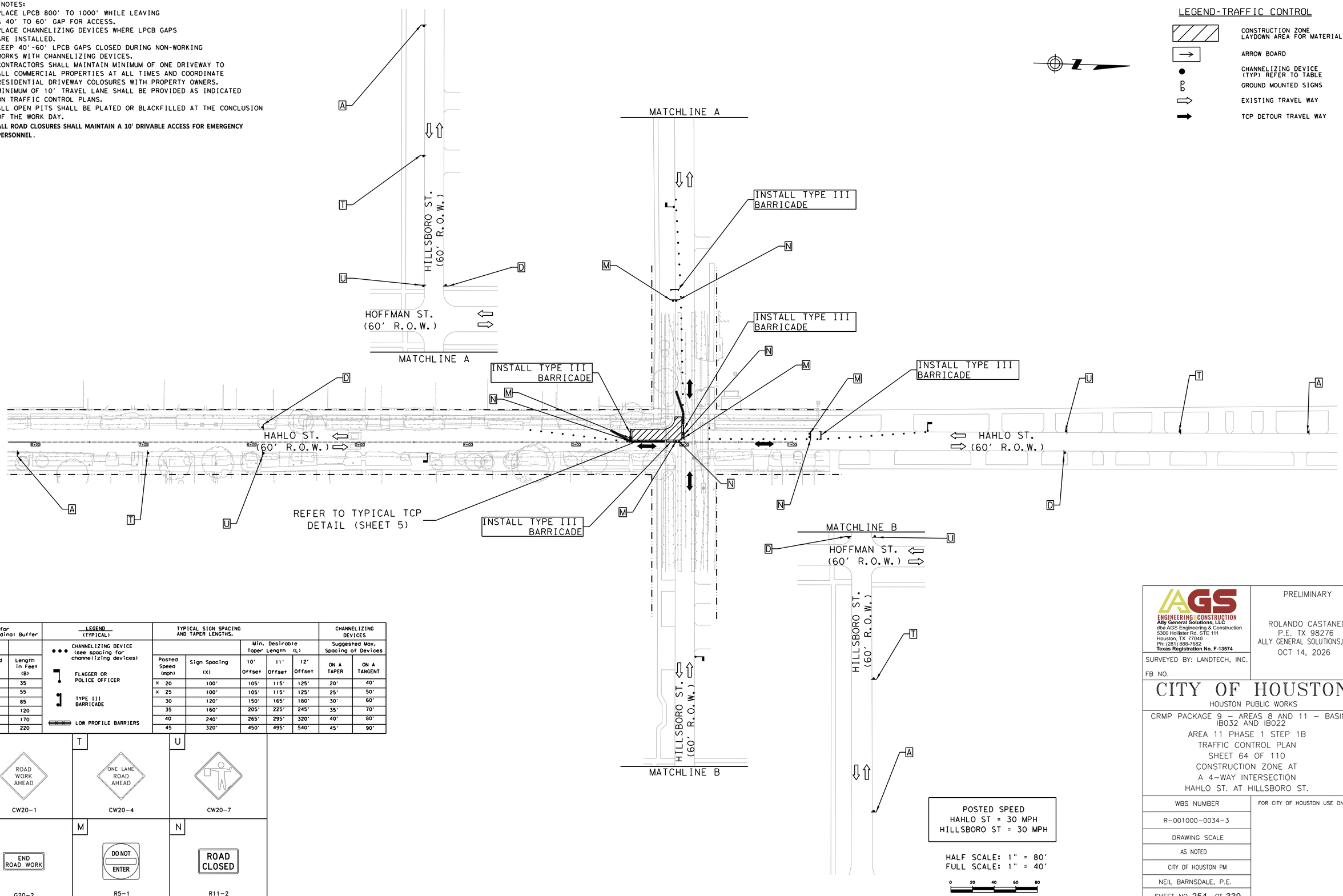
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 253 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS33\AlyGen Solutions Dropbox\AGS Projects\CMARS WBS No. R-001000-0034-3 - SWPPP & TCP\CAD\063-TCP HI.51 Hahlo at Hillsboro.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
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Length for Longitudinal Buffer	
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35	120
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LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
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TYPICAL SIGN SPACING AND TAPER LENGTHS.						
		Min. Desirable Taper Length (L)			CHANNELIZING DEVICES	
					Suggested Max. Spacing of Devices	
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A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
HAHLO ST = 30 MPH
HILLSBORO ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 1B
TRAFFIC CONTROL PLAN
SHEET 64 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
HAHLO ST. AT HILLSBORO ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 254 OF 339	

PLOTTED: 12-OCT-2026

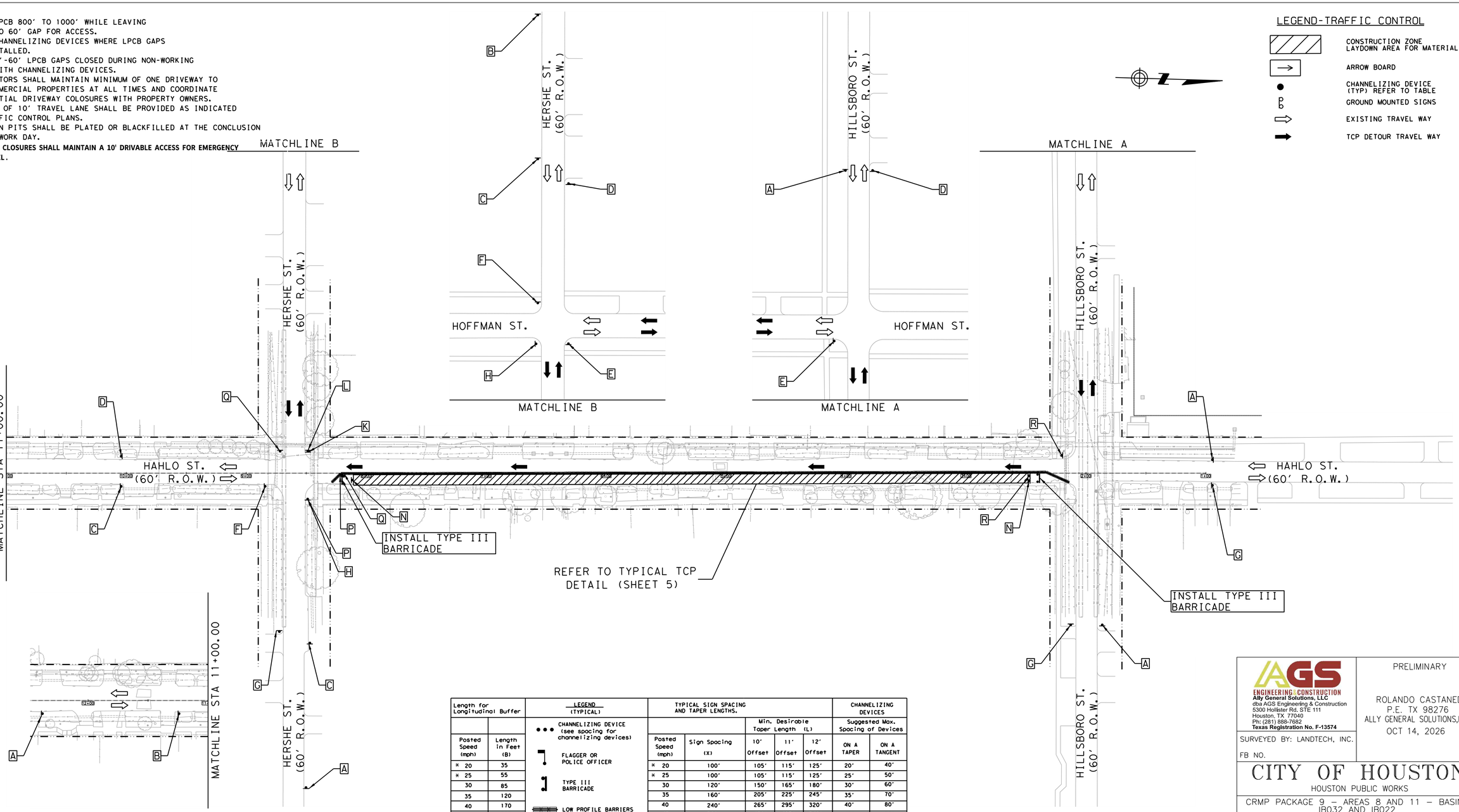
PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS53\MyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMARS WBS No. R-001000-0034-3 - SWPPP & TCP\CAD\064-TCP H1.52 Hahlo at Hillsboro.dgn

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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
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30	85
35	120
40	170
45	220

LEGEND (TYPICAL)
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TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
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40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3
J	K	L	M	N	O	P	Q	R
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6

POSTED SPEED
HAHLO ST = 30 MPH
HERSHE ST = 30 MPH
HILLSBORO ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 2
TRAFFIC CONTROL PLAN
SHEET 65 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
HAHLO ST. AT HERSHE ST. & HILLSBORO ST.

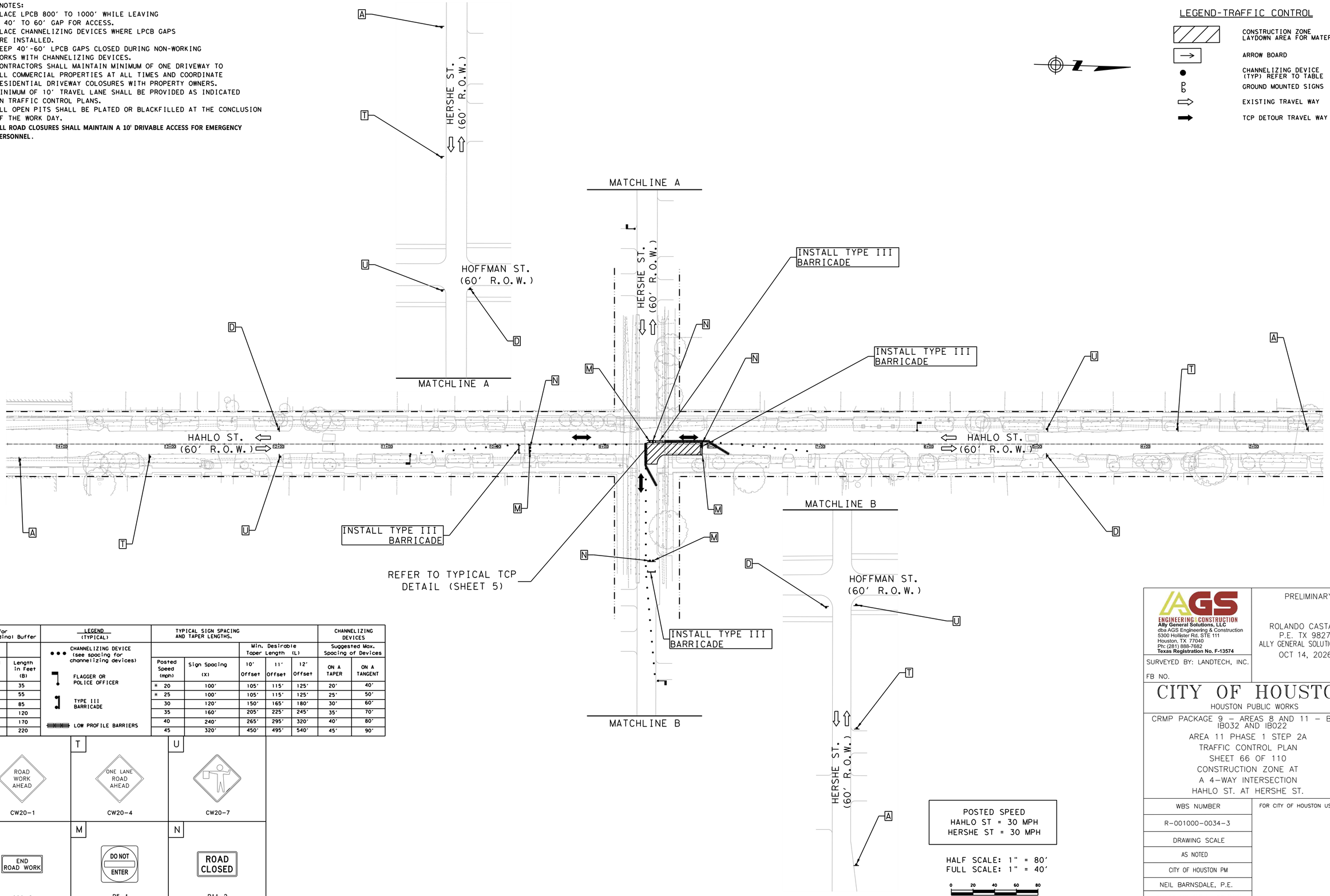
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 255 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS53\AppData\Local\Ally General Solutions Dropbox\AGS Projects\CMRP\R-001000-0034-3 - SWPPP & TCP\CAD\MS-TCP SHT.53 Hahlo at Hillsboro at Hershe.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		••• CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
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* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
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45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7

D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
HAHLO ST = 30 MPH
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HALF SCALE: 1" = 80'
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0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 2A
TRAFFIC CONTROL PLAN
SHEET 66 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
HAHLO ST. AT HERSHE ST.

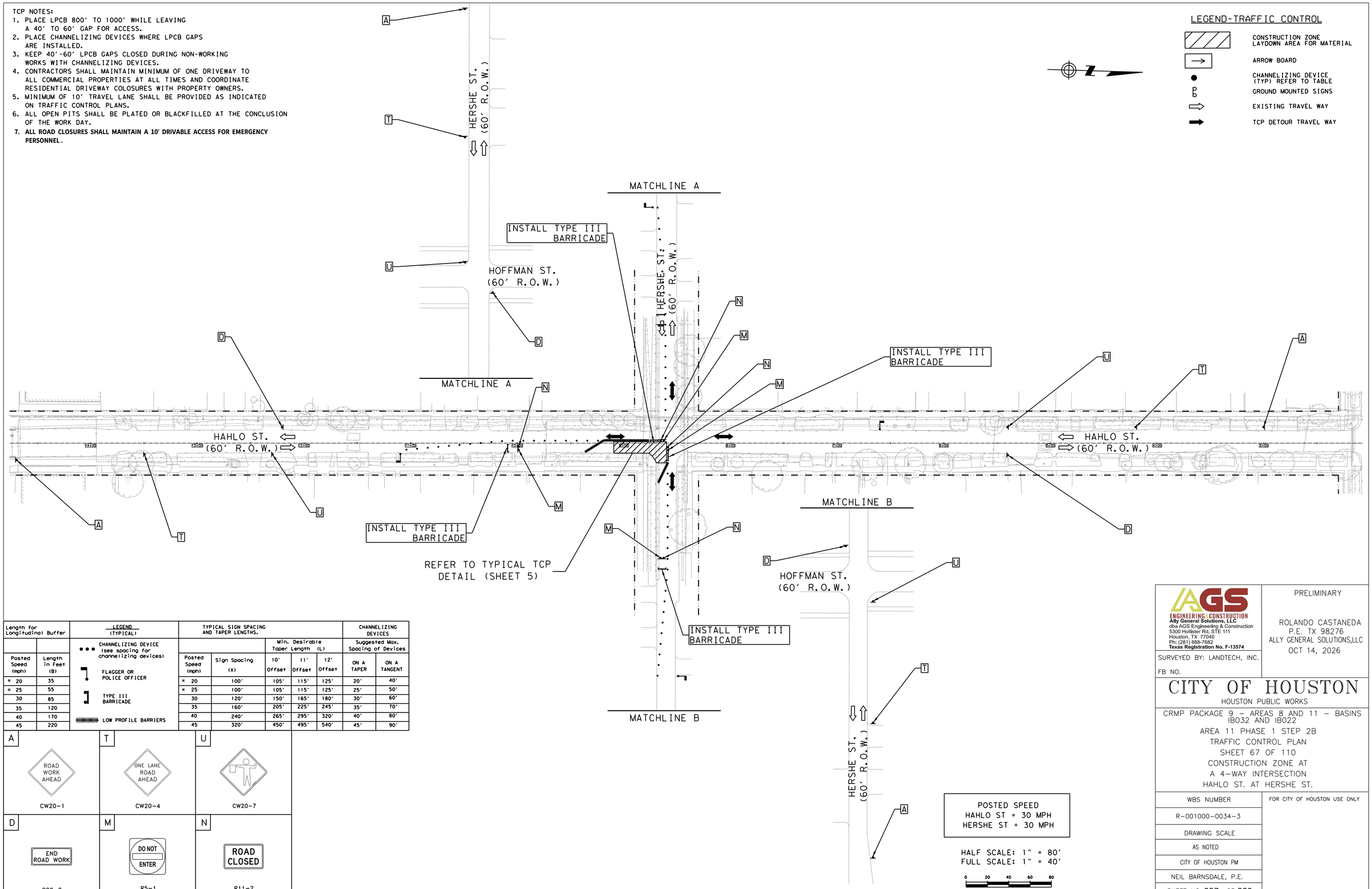
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R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 256 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
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- CHANNELIZING DEVICE (TYP) REFER TO TABLE
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Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
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LEGEND (TYPICAL)

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TYPICAL SIGN SPACING AND TAPER LENGTHS.		Min. Desirable Taper Length (L)			CHANNELIZING DEVICES Suggested Max. Spacing of Devices	
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A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
HAHLO ST = 30 MPH
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HALF SCALE: 1" = 80'
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0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 2B
TRAFFIC CONTROL PLAN
SHEET 67 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
HAHLO ST. AT HERSHE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
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SHEET NO. 257 OF 339	

PLOTTED: 12-OCT-2026

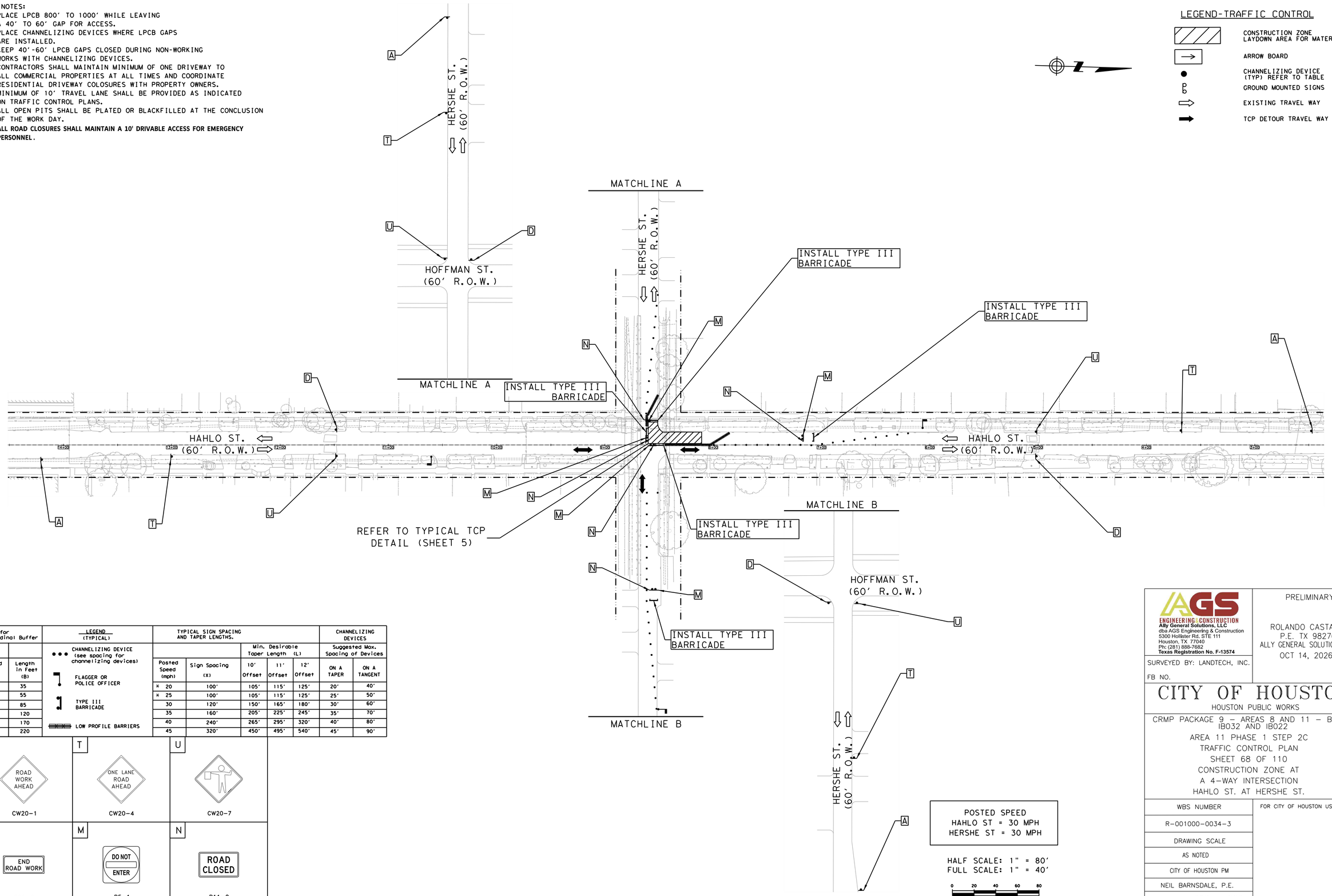
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TCP NOTES:
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0 20 40 60 80

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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 2C
TRAFFIC CONTROL PLAN
SHEET 68 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
HAHLO ST. AT HERSHE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 258 OF 339	

PLOTTED: 12-OCT-2026

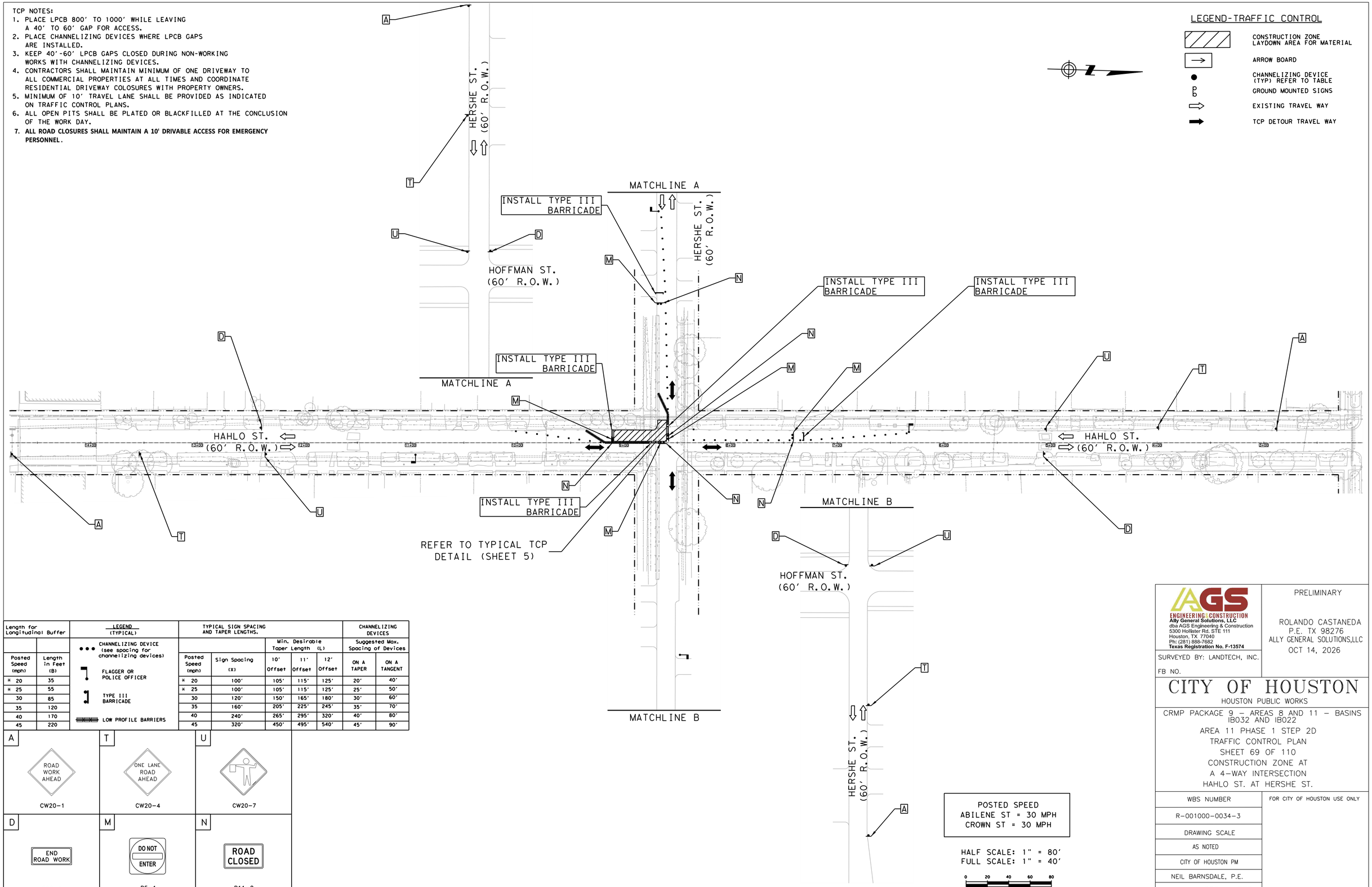
PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS53\AppData\Local\Ally General Solutions Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\008-TCP INT.56 Hahlo at Hershe.dgn

TCP NOTES:
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- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
ABILENE ST = 30 MPH
CROWN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 2D
TRAFFIC CONTROL PLAN
SHEET 69 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
HAHLO ST. AT HERSHE ST.

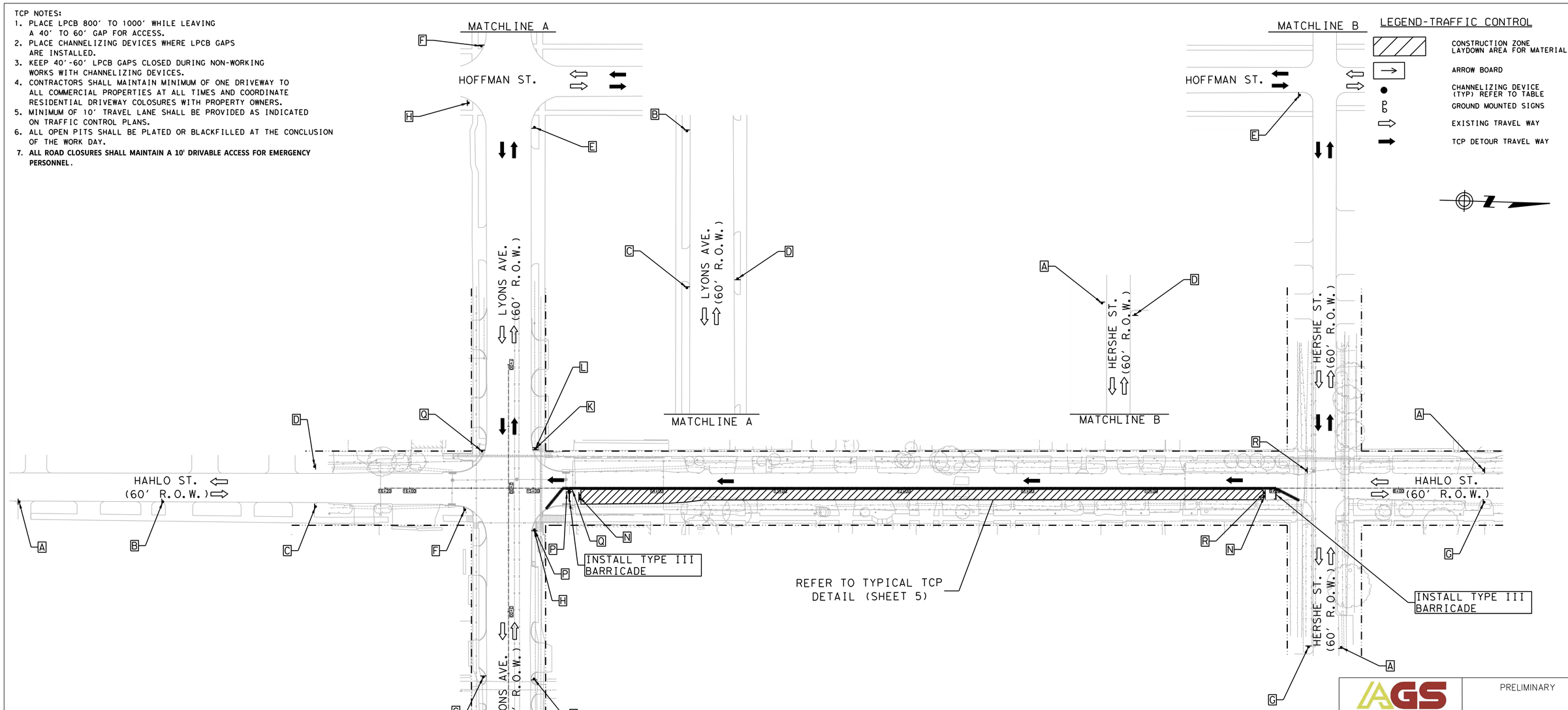
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 259 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS53\MyGen Solutions Dropbox\AGS Projects\CWMTA WBS No R-001000-0034-3 - SWPPP & TCP\CAD\069-TCP INT.ST Hahlo at Hershe.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	B	C	D	E	F	G	H	I
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑	RIGHT LANE CLOSED AHEAD
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T	CW20-5(2) CW16-3
J	K	L	M	N	O	P	Q	R
LEFT LANE CLOSED AHEAD	ONE WAY ←	ONE WAY →	DO NOT ENTER	ROAD CLOSED	DETOUR			BEGIN ONE WAY
CW20-5(1) CW16-3	R6-2(L)	R6-2(R)	R5-1	R11-2	M4-10(L)	R3-1	R3-2	R6-6

POSTED SPEED
HAHLO ST = 30 MPH
LYONS AVE = 30 MPH
HERSHE ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'
0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
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Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 3
TRAFFIC CONTROL PLAN
SHEET 70 OF 110
DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)
HAHLO ST. AT LYONS AVE. & HERSHE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 260 OF 339	

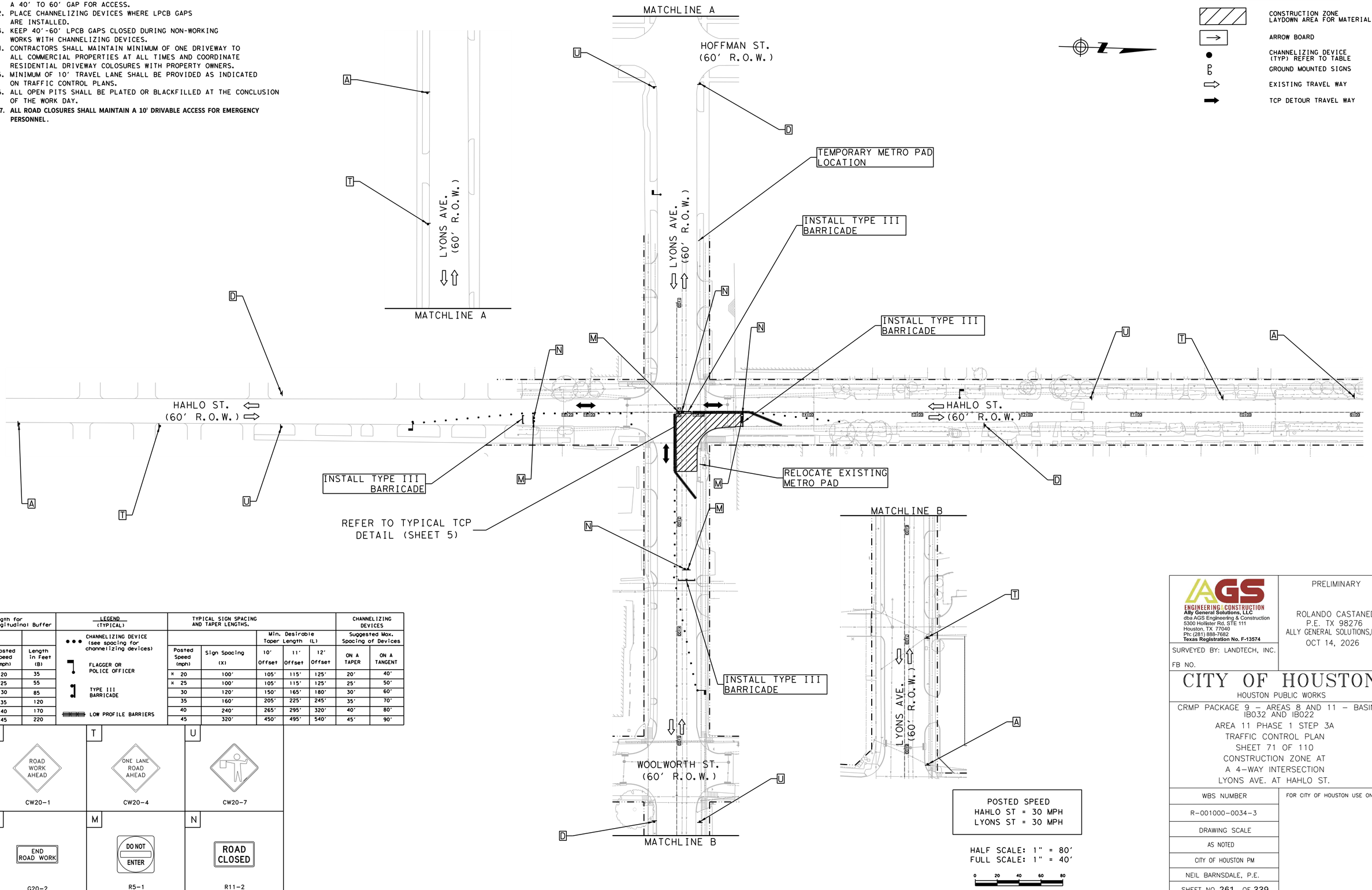
PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS53\AyGen Solutions Dropbox\AGS Projects\CMYHG WBS No R-001000-0034-3 - SWPPP & TCP\CAD\070-TCP DET.B Hahlo at Hershe at Lyons.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7

D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
HAHLO ST = 30 MPH
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 3A
TRAFFIC CONTROL PLAN
SHEET 71 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT HAHLO ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 261 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

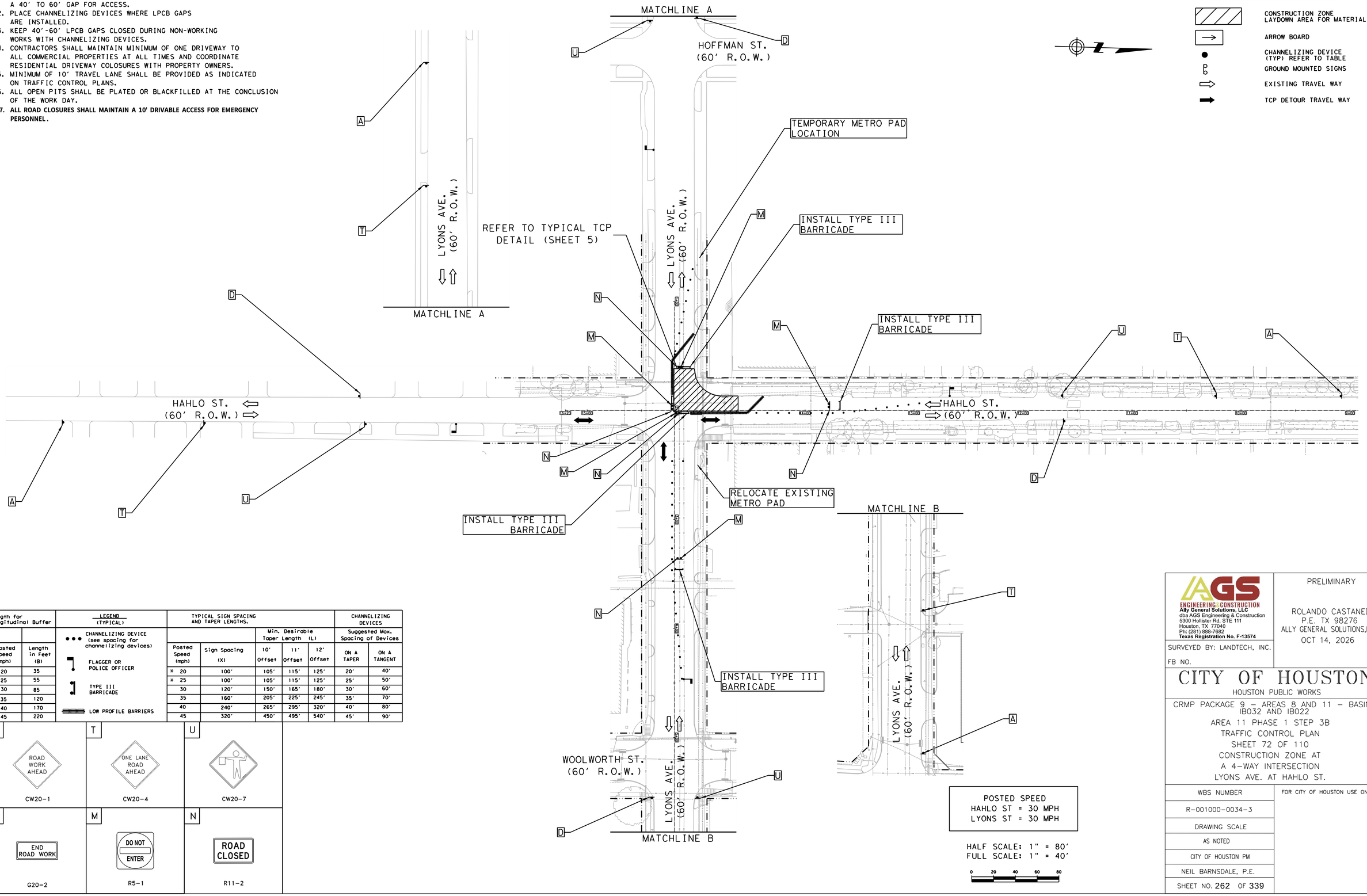
FILE PATH: C:\Users\AGS03\MyDen Solutions Dropbox\AGS Dropbox\AGS Projects\CMTAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\071-TCP INT59 Lyons at Hahlo.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
HAHLO ST = 30 MPH
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 1 STEP 3B
TRAFFIC CONTROL PLAN
SHEET 72 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT HAHLO ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 262 OF 339	

PLOTTED: 12-OCT-2026

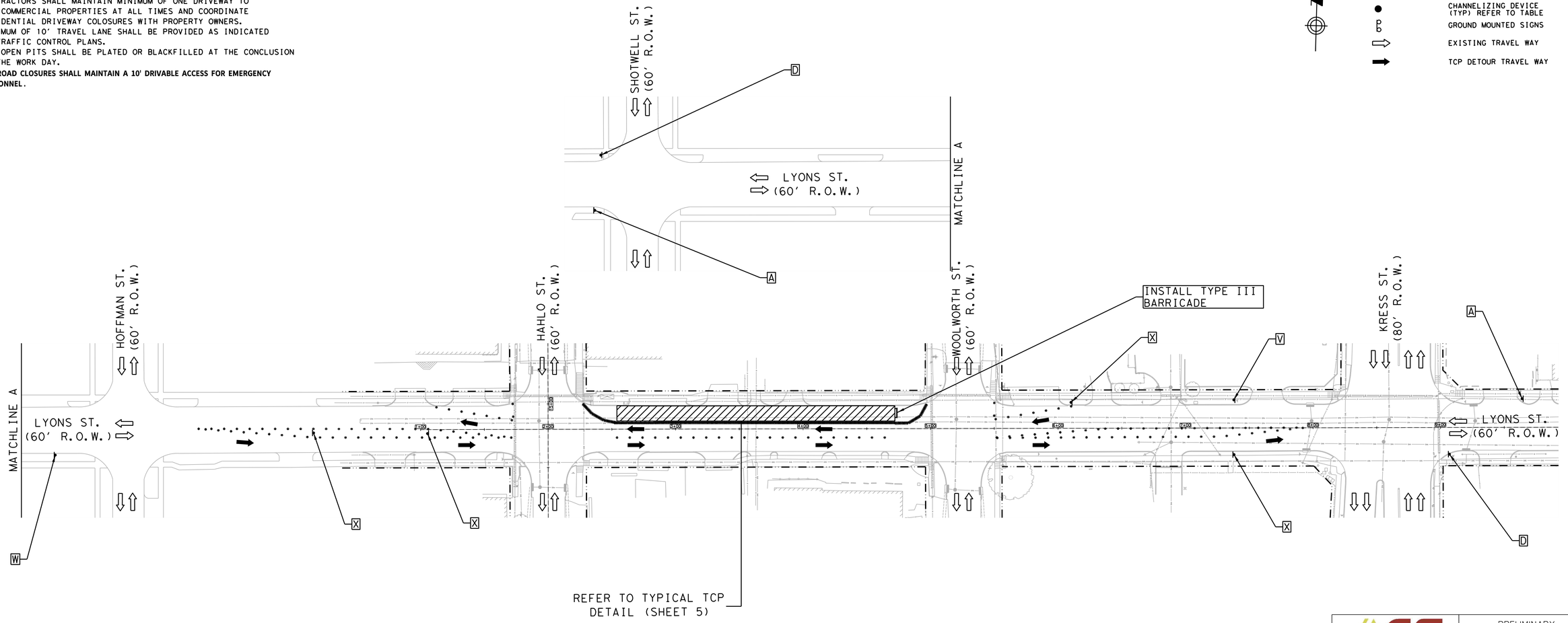
PLOT STYLE: COH.CTB

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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING | CONSTRUCTION
Ally General Solutions, LLC
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Houston, TX 77040
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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 1
TRAFFIC CONTROL PLAN
SHEET 73 OF 110
TRAFFIC SHIFT ON
TWO LANE ROAD
LYONS ST. AT HAHLO ST. & WOOLWORTH ST.

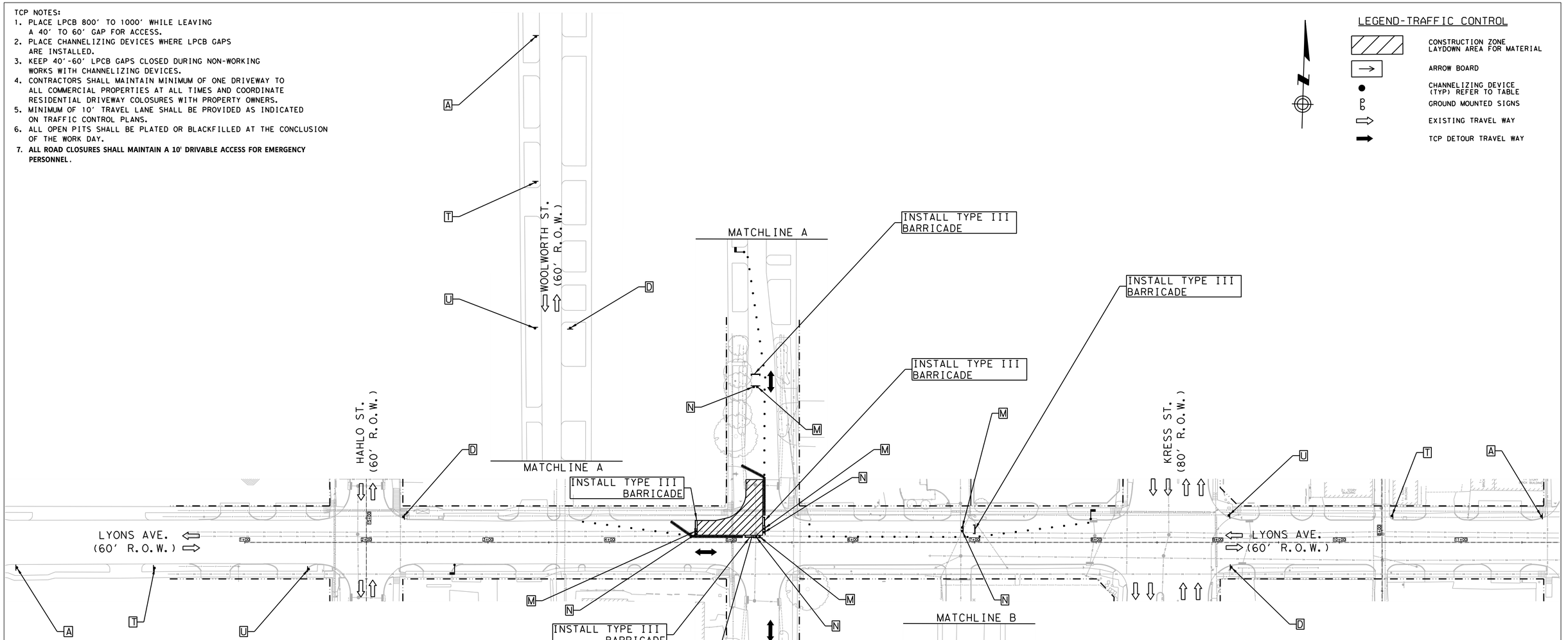
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 263 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS53\AppData\Local\Bentley\ProjectWise\Drafts\WBS No R-001000-0034-3 - SHPPP & TCP\CAD\073-TCP SHT131 Lyons at Hahlo at Woolworth.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
WOOLWORTH = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 1A
TRAFFIC CONTROL PLAN
SHEET 74 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT WOOLWORTH ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 264 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

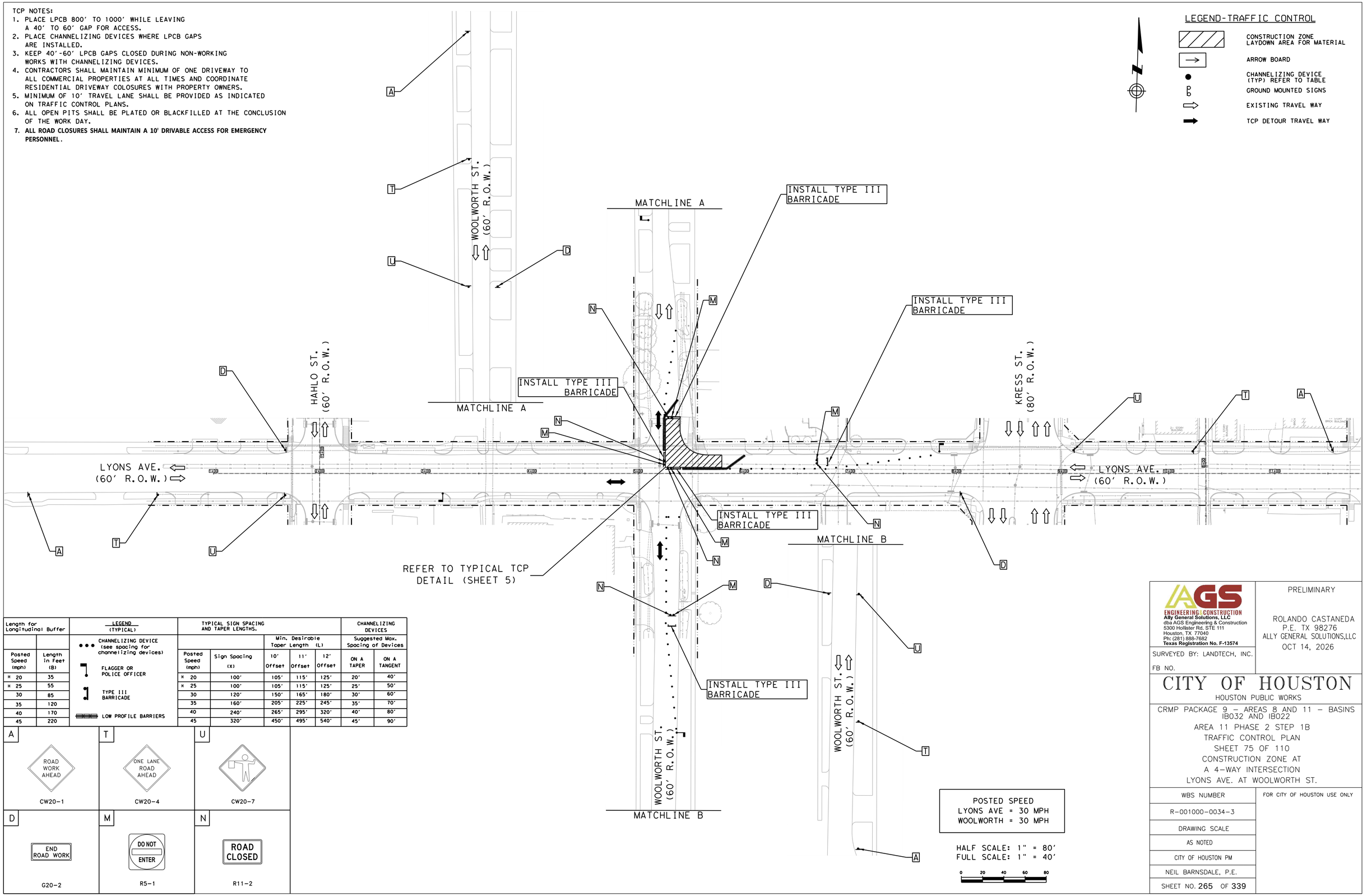
FILE PATH: C:\Users\AGS03\MyDen Solutions Dropbox\AGS Dropbox\AGS Projects\CVHS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\074-TCP INT.512 Lyons at Woolworth.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.		Min. Desirable Taper Length (L)			CHANNELIZING DEVICES Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
WOOLWORTH = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 1B
TRAFFIC CONTROL PLAN
SHEET 75 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT WOOLWORTH ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 265 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

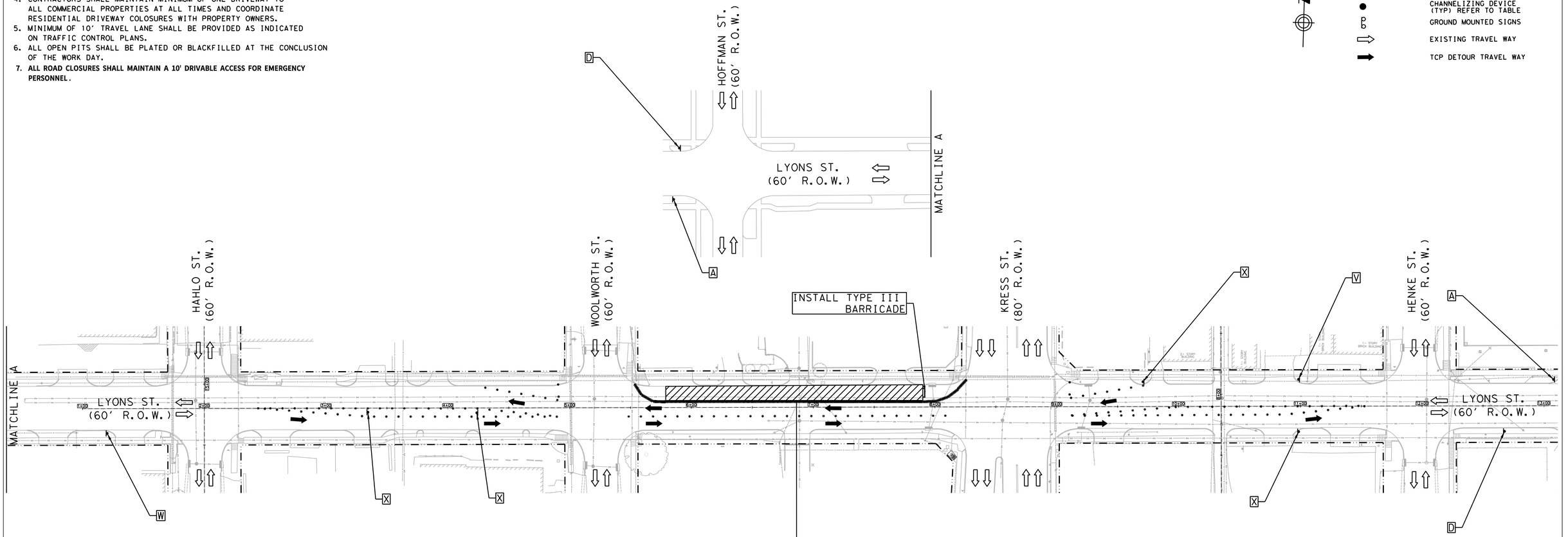
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	FLAGGER OR POLICE OFFICER	* 20	100'	105'	115'	125'	20'	40'
* 25	55	TYPE III BARRICADE	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 2

TRAFFIC CONTROL PLAN

SHEET 76 OF 110

TRAFFIC SHIFT ON

TWO LANE ROAD

LYONS ST. AT WOOLWORTH ST. & KRESS ST.

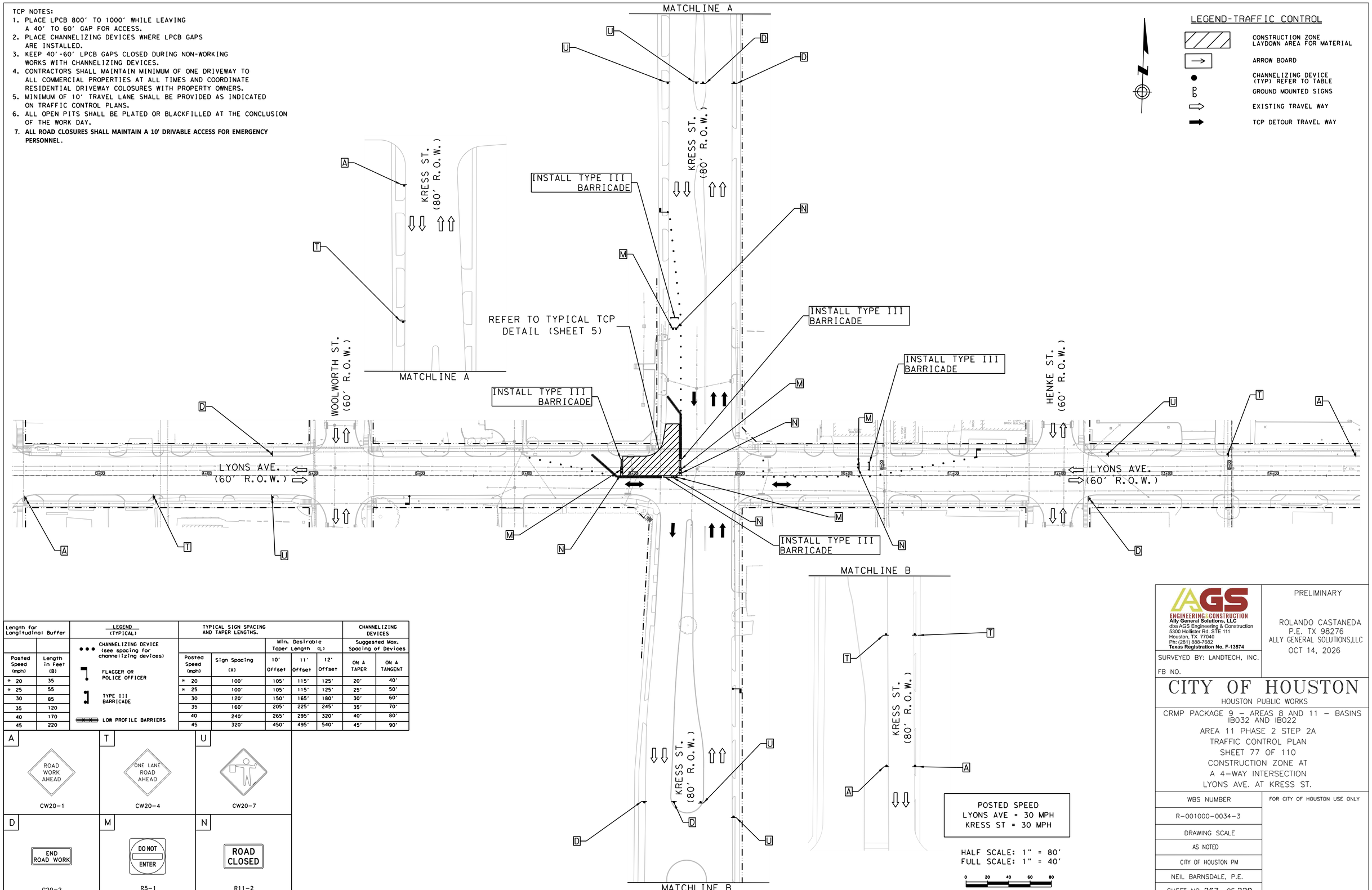
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 266 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS53\AppData\Local\Solutions Dropbox\AGS Dropbox\AGS Projects\CMMS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\076-TCP SHT 134 Lyons at Woolworth & Kress.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
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3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
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30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7

D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
KRESS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 2A
TRAFFIC CONTROL PLAN
SHEET 77 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT KRESS ST.

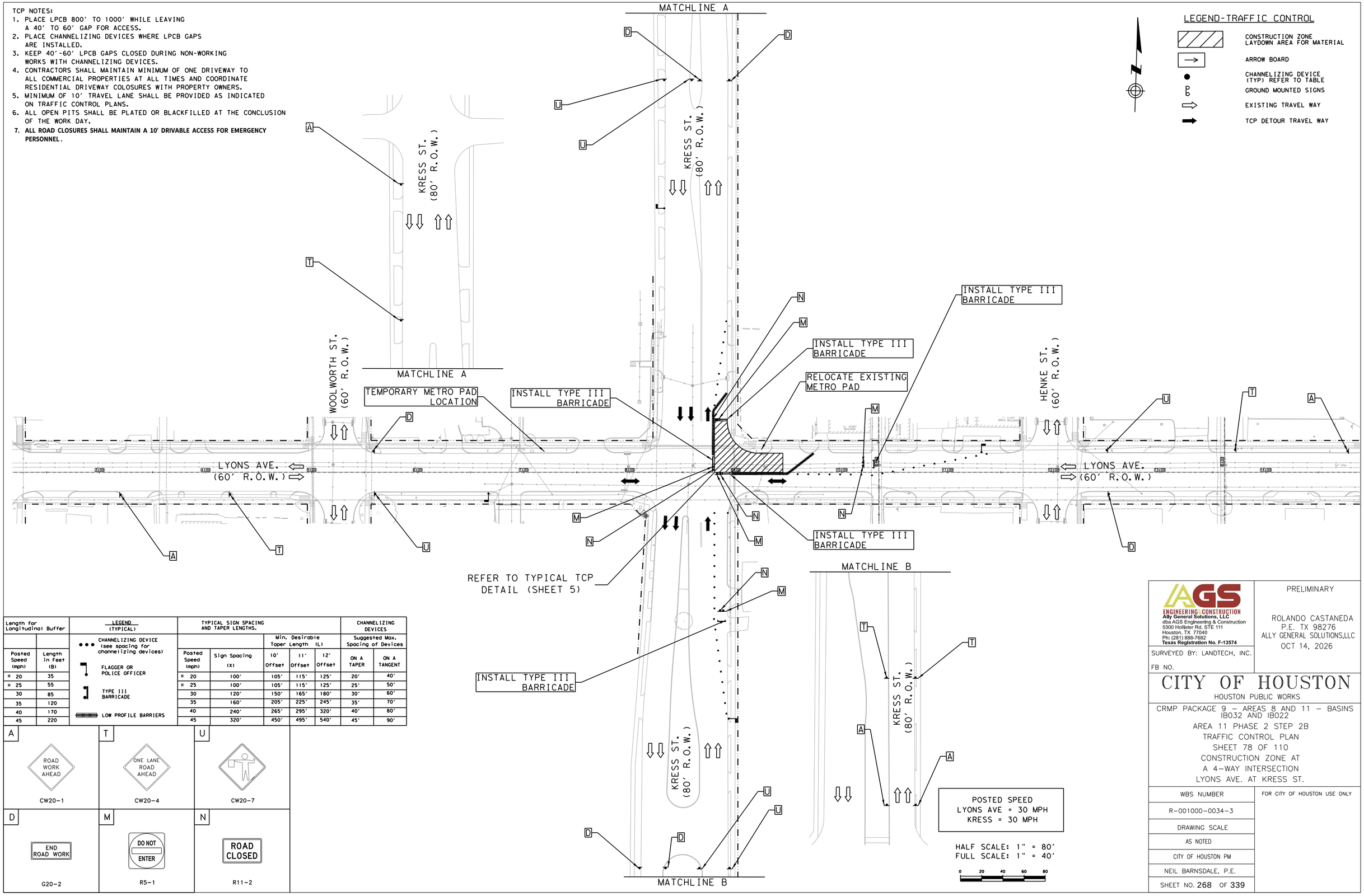
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 267 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS3\Wejdan Solutions Dropbox\AGS Dropbox\AGS Projects\CMRS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\077-TCP W1515 Lyons at Kress.dgn

TCP NOTES:
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7

D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
KRESS = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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SURVEYED BY: LANDTECH, INC.

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

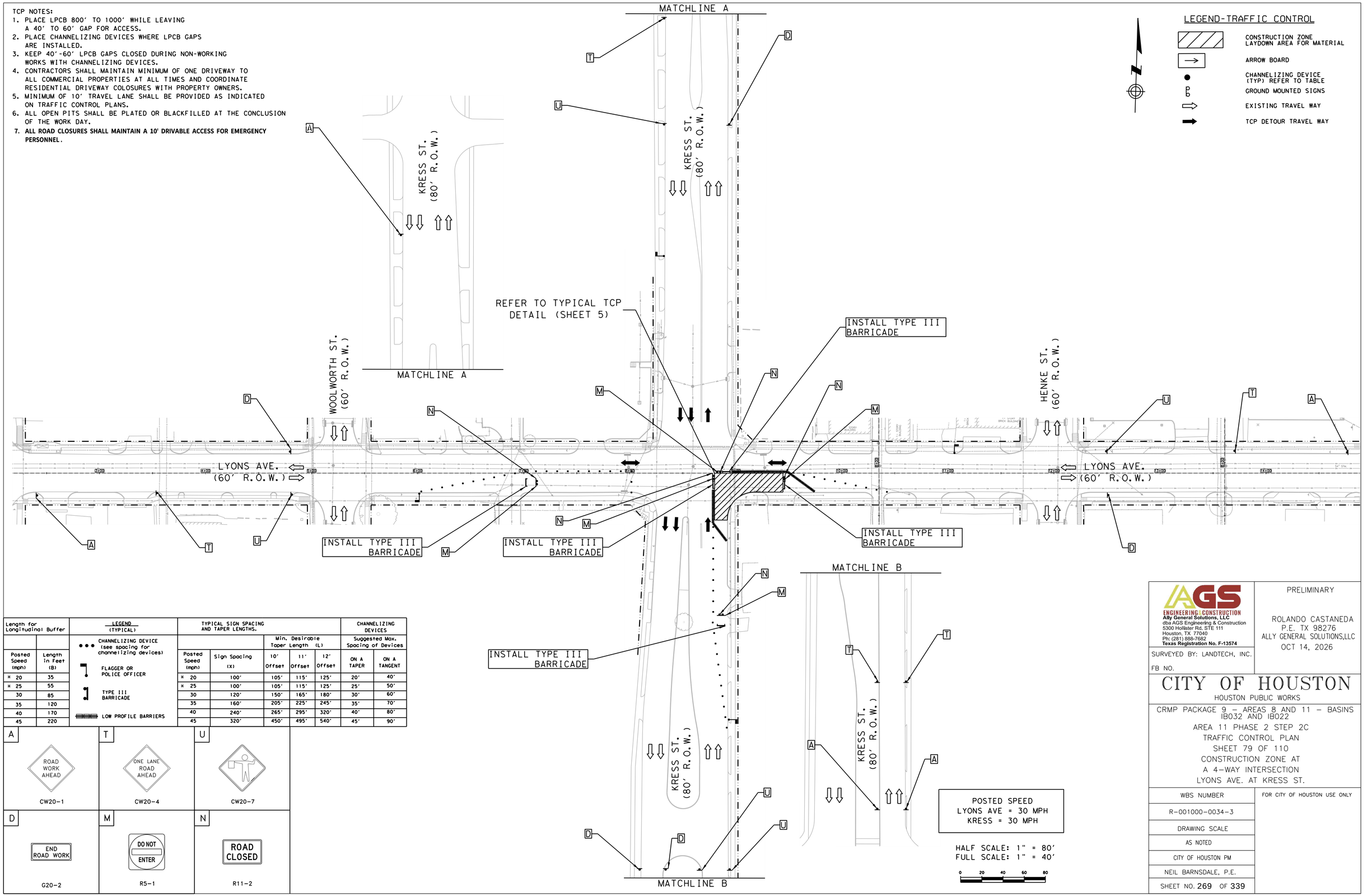
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 2B
TRAFFIC CONTROL PLAN
SHEET 78 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT KRESS ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 268 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS3\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\CVHSS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\078-TCP INT\516 Lyons at Kress.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
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30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1	T — ONE LANE ROAD AHEAD — CW20-4	U — CW20-7
D — END ROAD WORK — G20-2	M — DO NOT ENTER — R5-1	N — ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
KRESS = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 2C
TRAFFIC CONTROL PLAN
SHEET 79 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT KRESS ST.

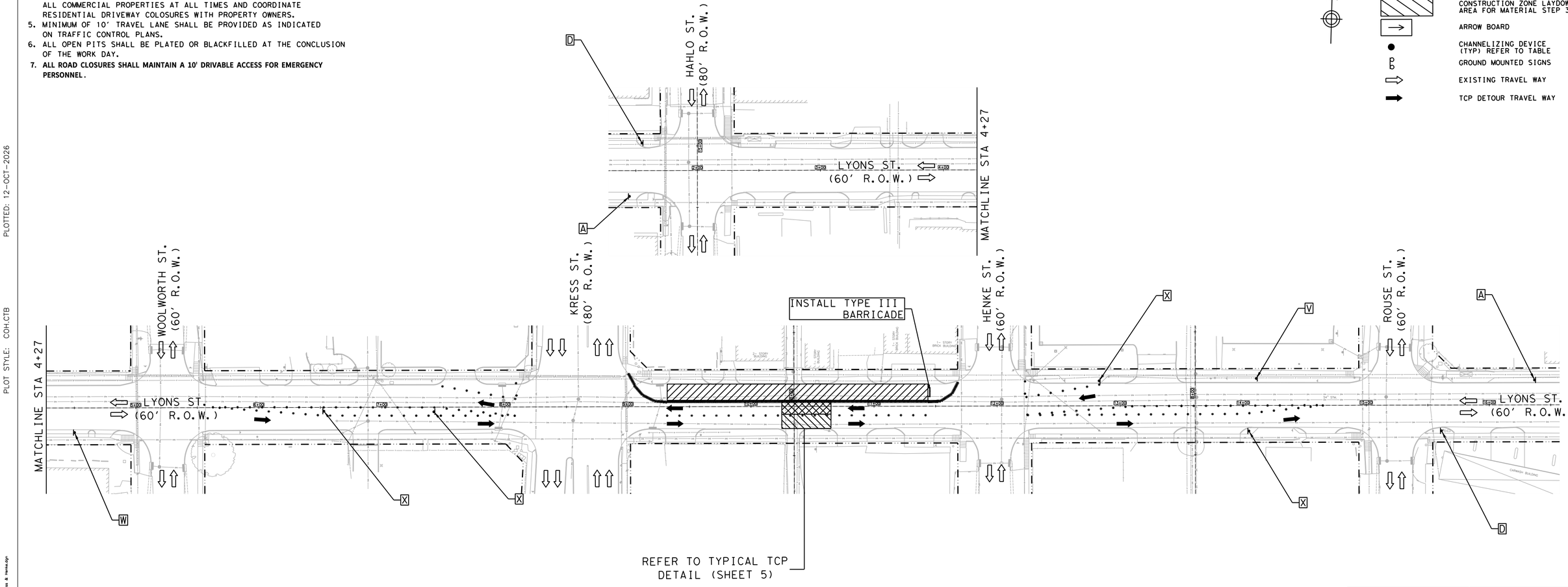
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 269 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS53\MyGen Solutions Dropbox\AGS Dropbox\AGS Projects\Current WBS No R-001000-0034-3 - SWPPP & TCP\CAD\079-TCP #1517 Lyons at Kress.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 3A
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 3B
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 3C
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A: ROAD WORK AHEAD — CW20-1	D: END ROAD WORK — G20-2	V: CW1-4L
W: CW1-4R	X: CW1-6aT	

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 3A, 3B AND 3C
TRAFFIC CONTROL PLAN
SHEET 80 OF 110
TRAFFIC SHIFT ON
TWO LANE ROAD
LYONS ST. AT KRESS ST. & HENKE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 270 OF 339	

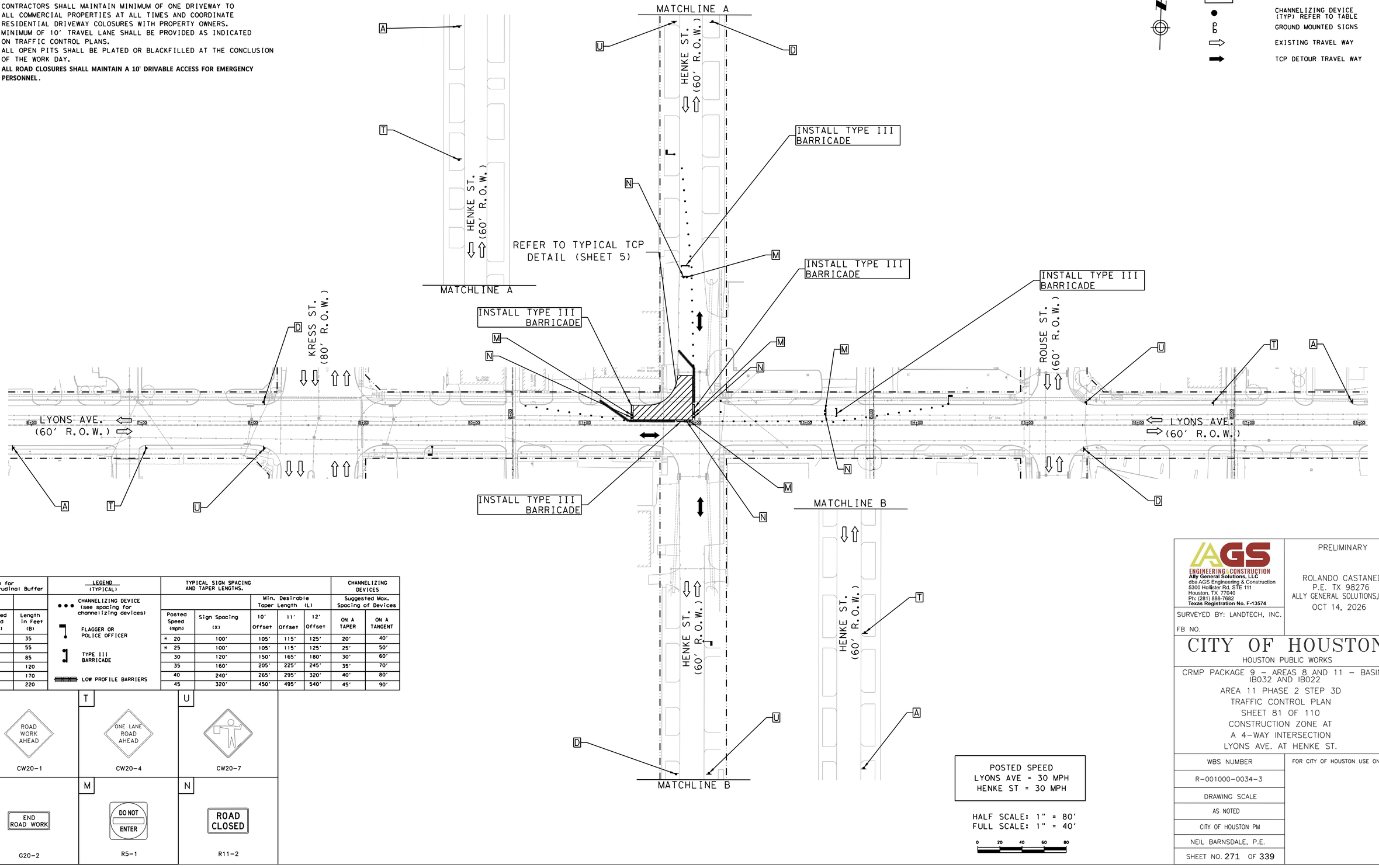
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PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS53\MyDesk Solutions Dropbox\AGS Dropbox\AGS Projects\CAMS WBS No R-001000-0034-3 - SWMP & TCP\CAD\006-TCP Sht1518 Lyons at Kress & Henke.dgn

TCP NOTES:

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3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
HENKE ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 3D
TRAFFIC CONTROL PLAN
SHEET 81 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT HENKE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 271 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

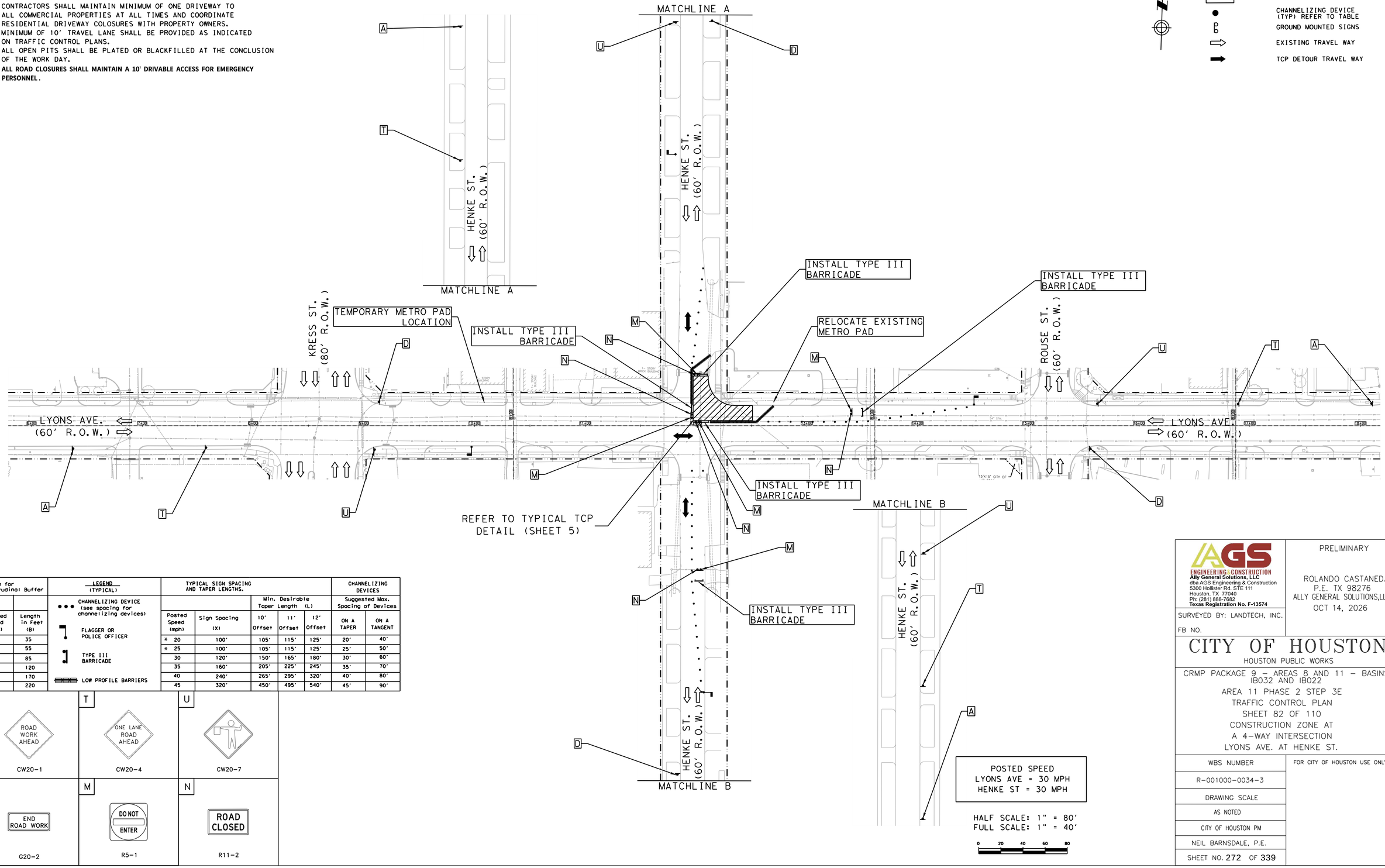
FILE PATH: C:\Users\AGS53\WinSys Solutions Dropbox\AGS Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\081-TCP INT 519 Lyons at Henke.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



POSTED SPEED
LYONS AVE = 30 MPH
HENKE ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 3E
TRAFFIC CONTROL PLAN
SHEET 82 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT HENKE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 272 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

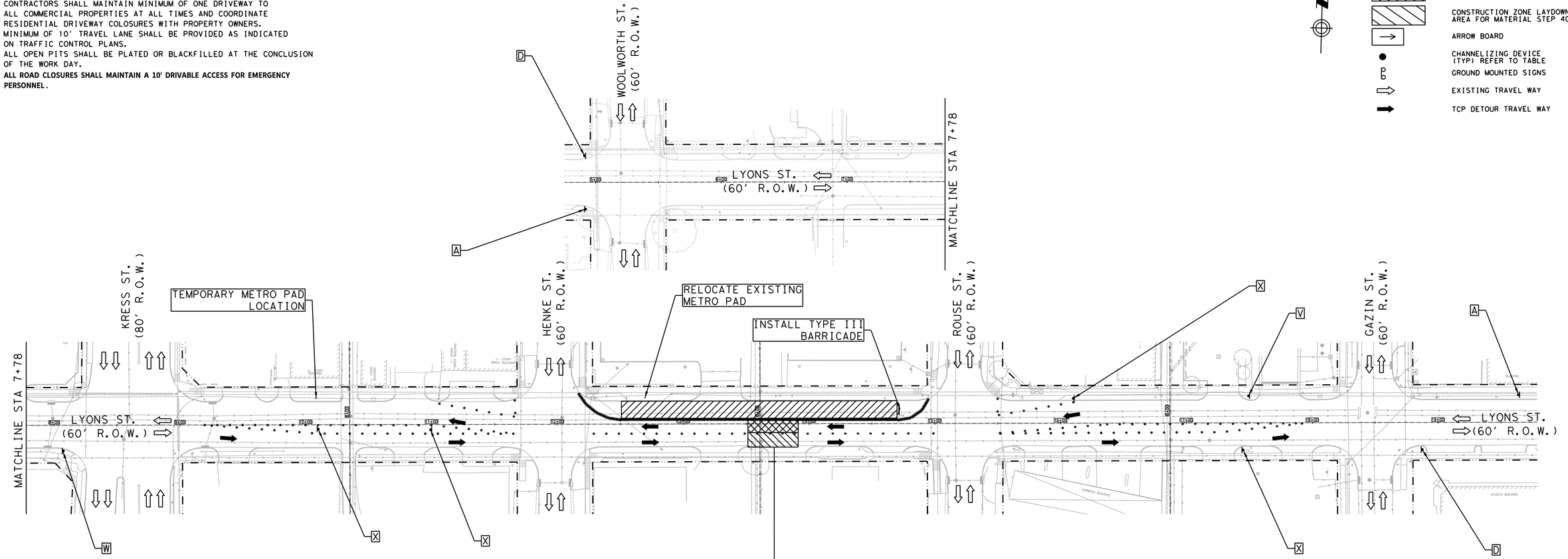
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 4A
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 4B
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 4C
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)		Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)	* 20	100'	105'	115'	125'	20'	40'
* 25	55	FLAGGER OR POLICE OFFICER	* 25	100'	105'	115'	125'	25'	50'
30	85	TYPE III BARRICADE	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 4A. 4B AND 4C
TRAFFIC CONTROL PLAN
SHEET 83 OF 110
TRAFFIC SHIFT ON
TWO LANE ROAD
LYONS ST. AT HENKE ST. & ROUSE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 273 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

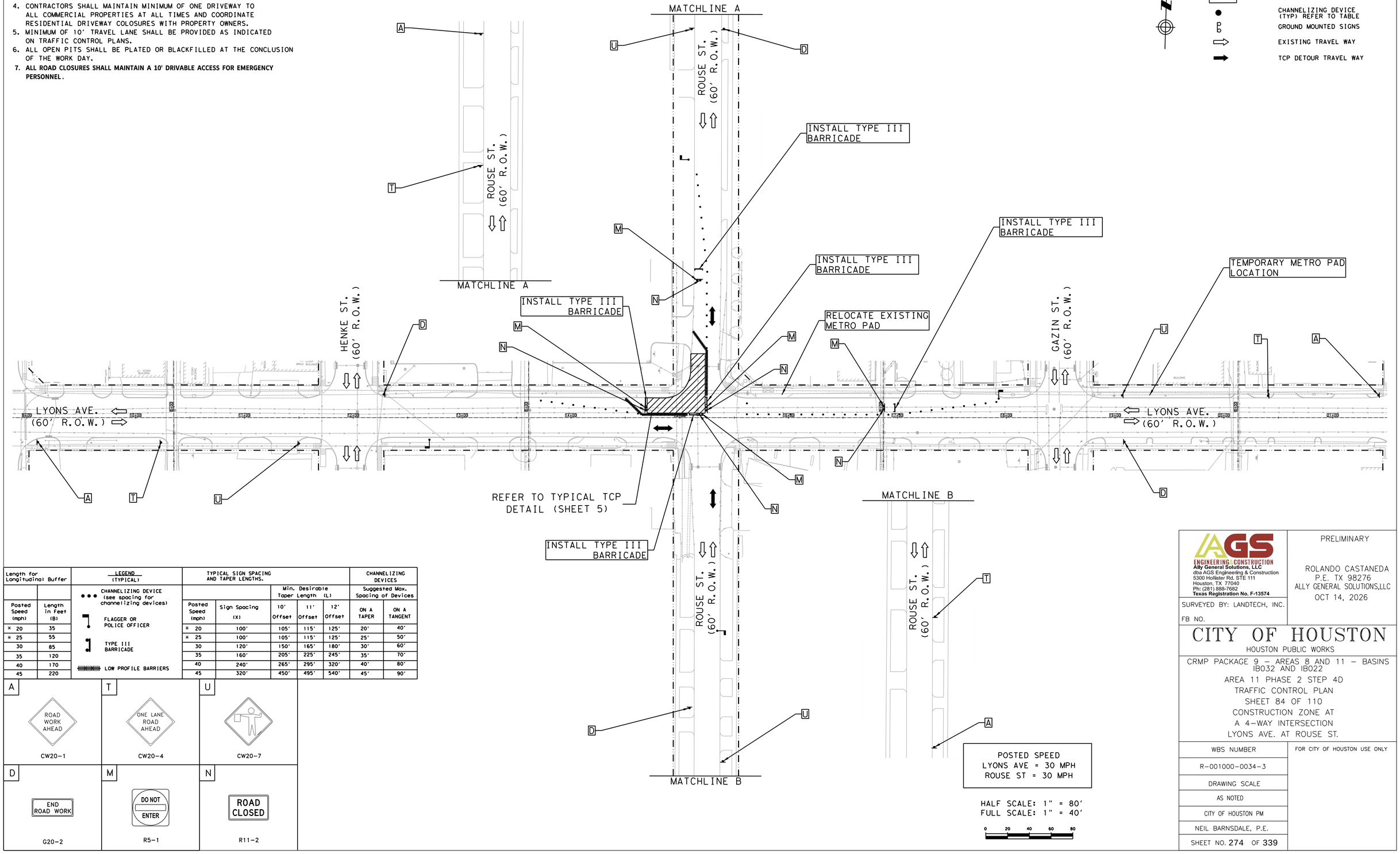
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	FLAGGER OR POLICE OFFICER	* 20	100'	105'	115'	125'	20'	40'
* 25	55	TYPE III BARRICADE	* 25	100'	105'	115'	125'	25'	50'
30	85	LOW PROFILE BARRIERS	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
ROUSE ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 4D
TRAFFIC CONTROL PLAN
SHEET 84 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT ROUSE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 274 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

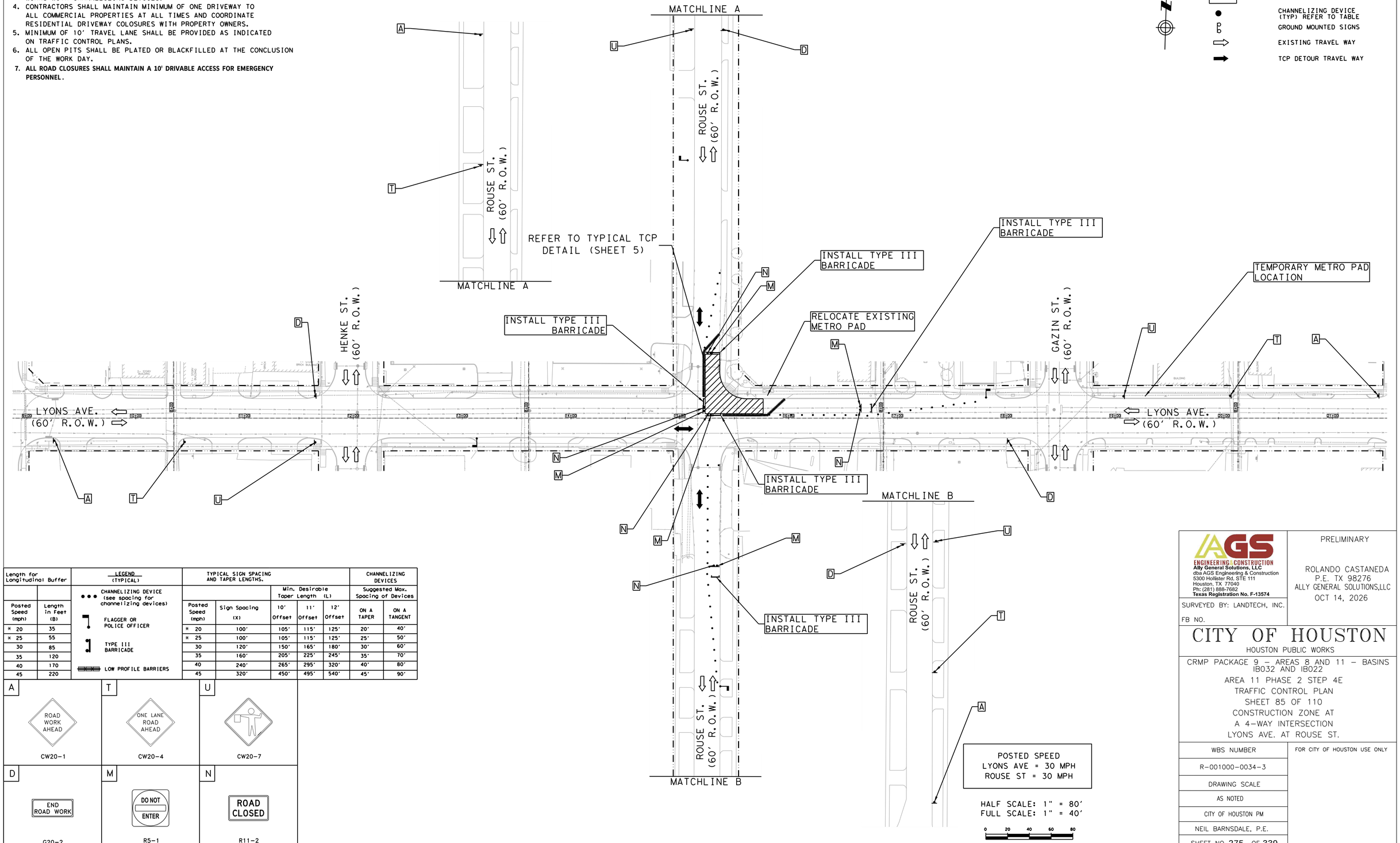
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
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6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
ROUSE ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 4E
TRAFFIC CONTROL PLAN
SHEET 85 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT ROUSE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 275 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

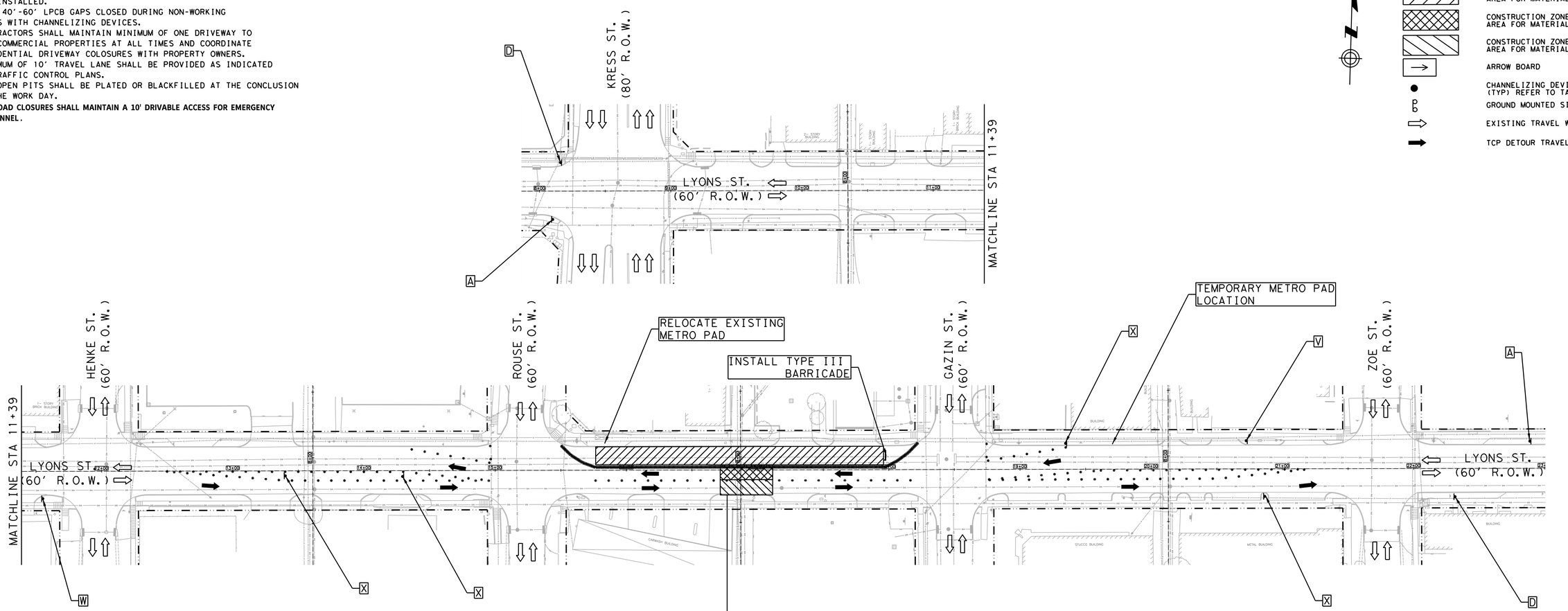
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 5A
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 5B
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 5C
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 5A, 5B AND 5C
TRAFFIC CONTROL PLAN
SHEET 86 OF 110
TRAFFIC SHIFT ON
TWO LANE ROAD
LYONS ST. AT ROUSE ST. & GAZIN ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 276 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

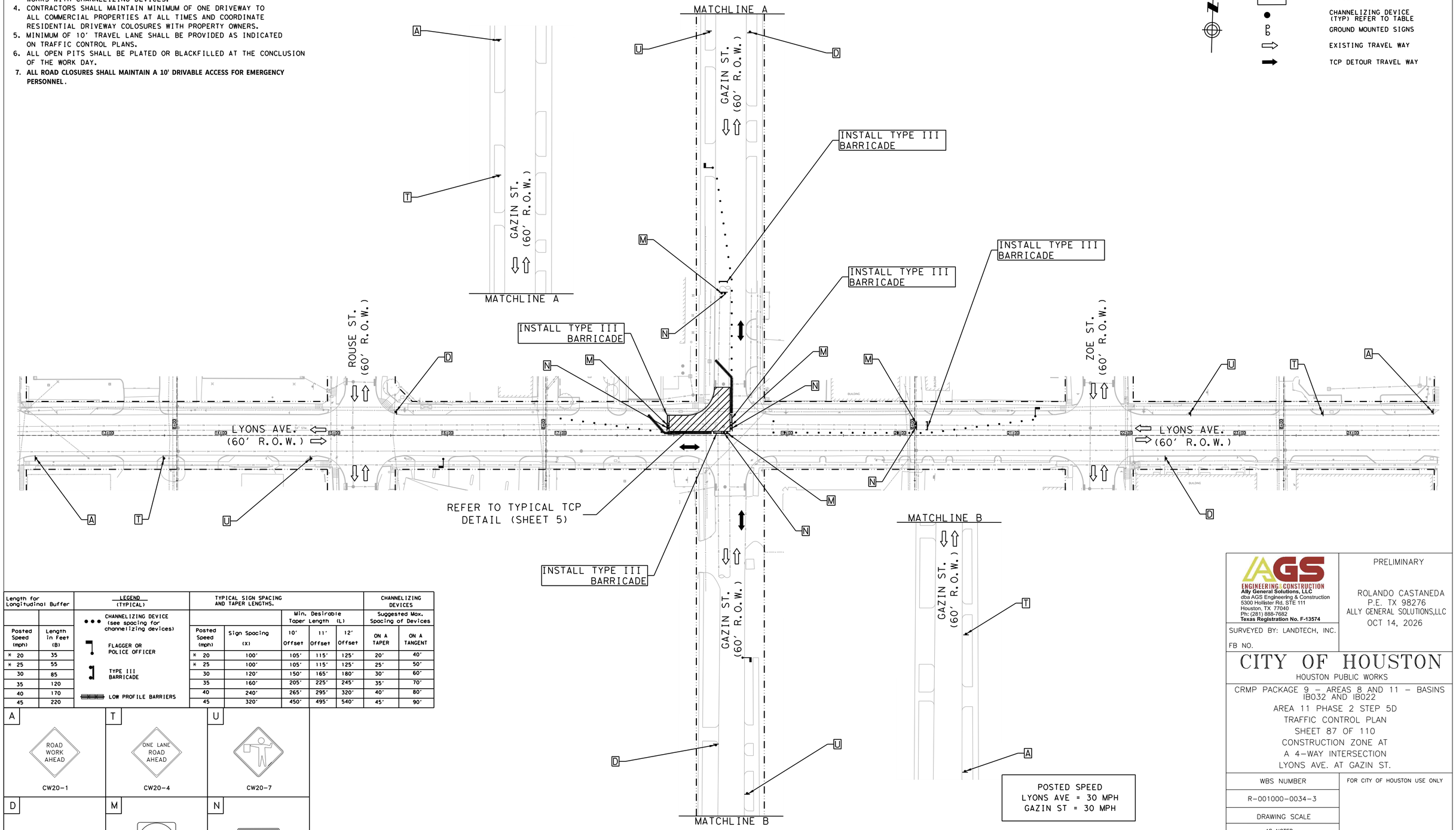
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)
Posted Speed (mph)	Length in Feet (B)	
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)
* 25	55	FLAGGER OR POLICE OFFICER
30	85	TYPE III BARRICADE
35	120	
40	170	LOW PROFILE BARRIERS
45	220	

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
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40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
GAZIN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 5D
TRAFFIC CONTROL PLAN
SHEET 87 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT GAZIN ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 277 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

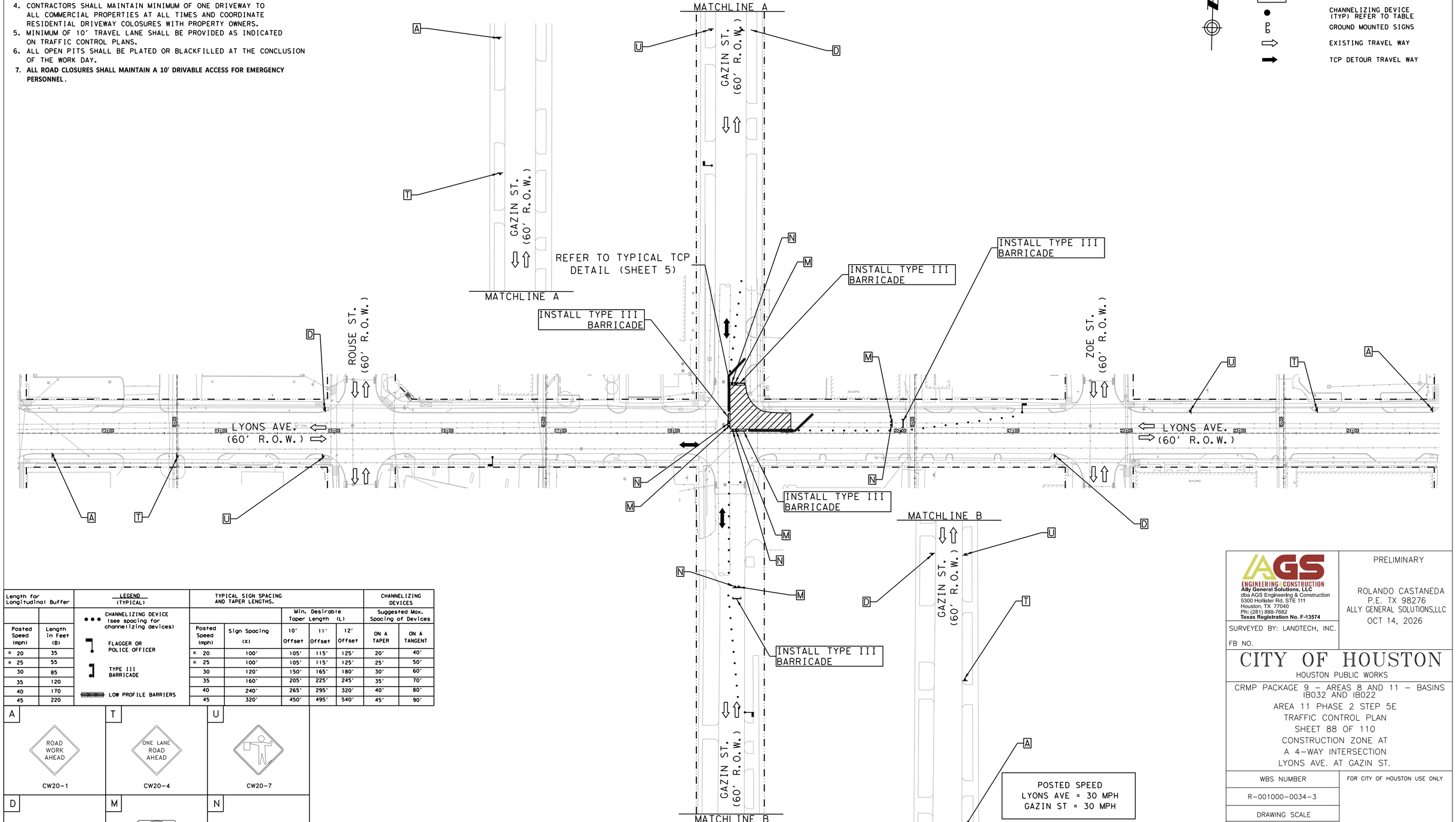
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)
Posted Speed (mph)	Length in Feet (B)	
* 20	35	••• CHANNELIZING DEVICE (see spacing for channelizing devices)
* 25	55	FLAGGER OR POLICE OFFICER
30	85	TYPE III BARRICADE
35	120	
40	170	LOW PROFILE BARRIERS
45	220	

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7

D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
GAZIN ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING | CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 5E
TRAFFIC CONTROL PLAN
SHEET 88 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT GAZIN ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 278 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

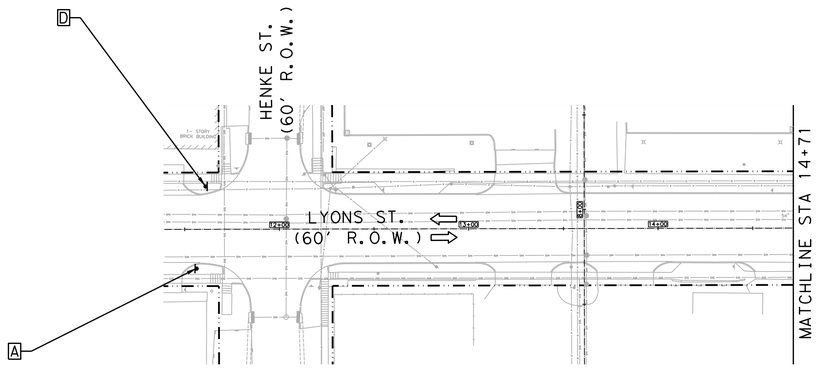
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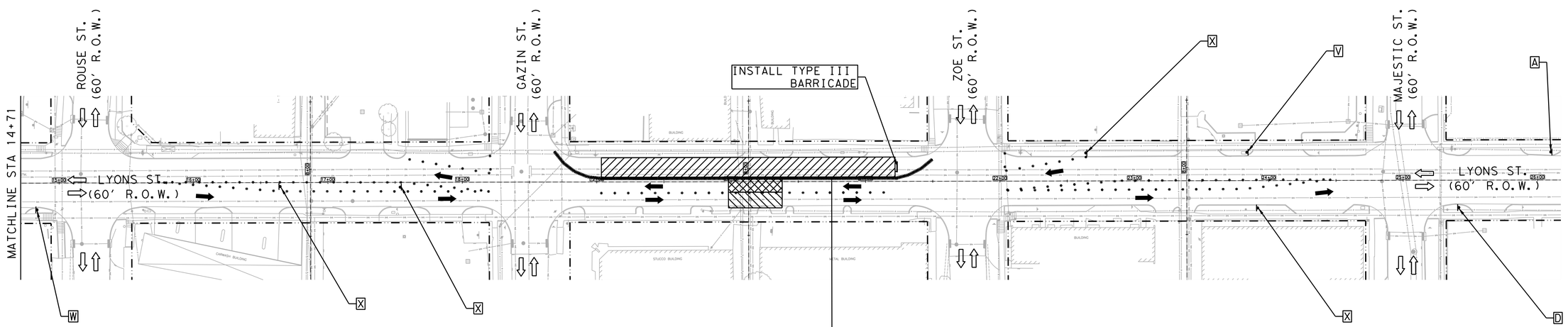
TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 6A
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 6B
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 6C
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY





REFER TO TYPICAL TCP DETAIL (SHEET 5)

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	FLAGGER OR POLICE OFFICER	* 20	100'	105'	115'	125'	20'	40'
* 25	55	TYPE III BARRICADE	* 25	100'	105'	115'	125'	25'	50'
30	85	LOW PROFILE BARRIERS	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
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Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 6A, 6B AND 6C
TRAFFIC CONTROL PLAN
SHEET 89 OF 110
TRAFFIC SHIFT ON
TWO LANE ROAD
LYONS ST. AT GAZIN ST. & ZOE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 279 OF 339	

PLOTTED: 12-OCT-2026

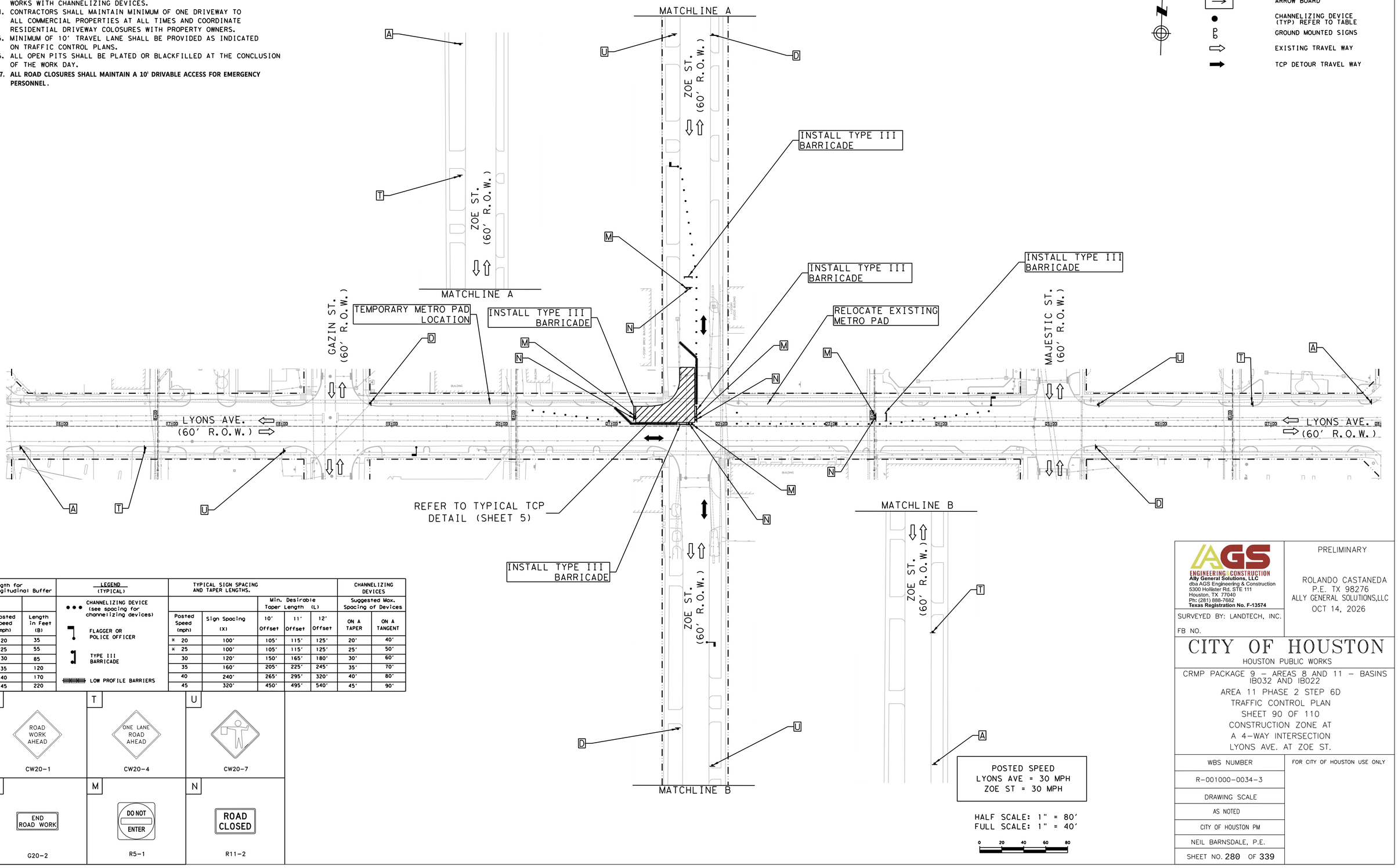
PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS53\AyleGen Solutions Dropbox\AGS Projects\CMMP& WBS No R-001000-0034-3 - SWPPP & TCP\CAD\IB9-TCP SHT1327 Lyons at Gazin & Zoe.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7

D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
ZOE ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 6D
TRAFFIC CONTROL PLAN
SHEET 90 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT ZOE ST.

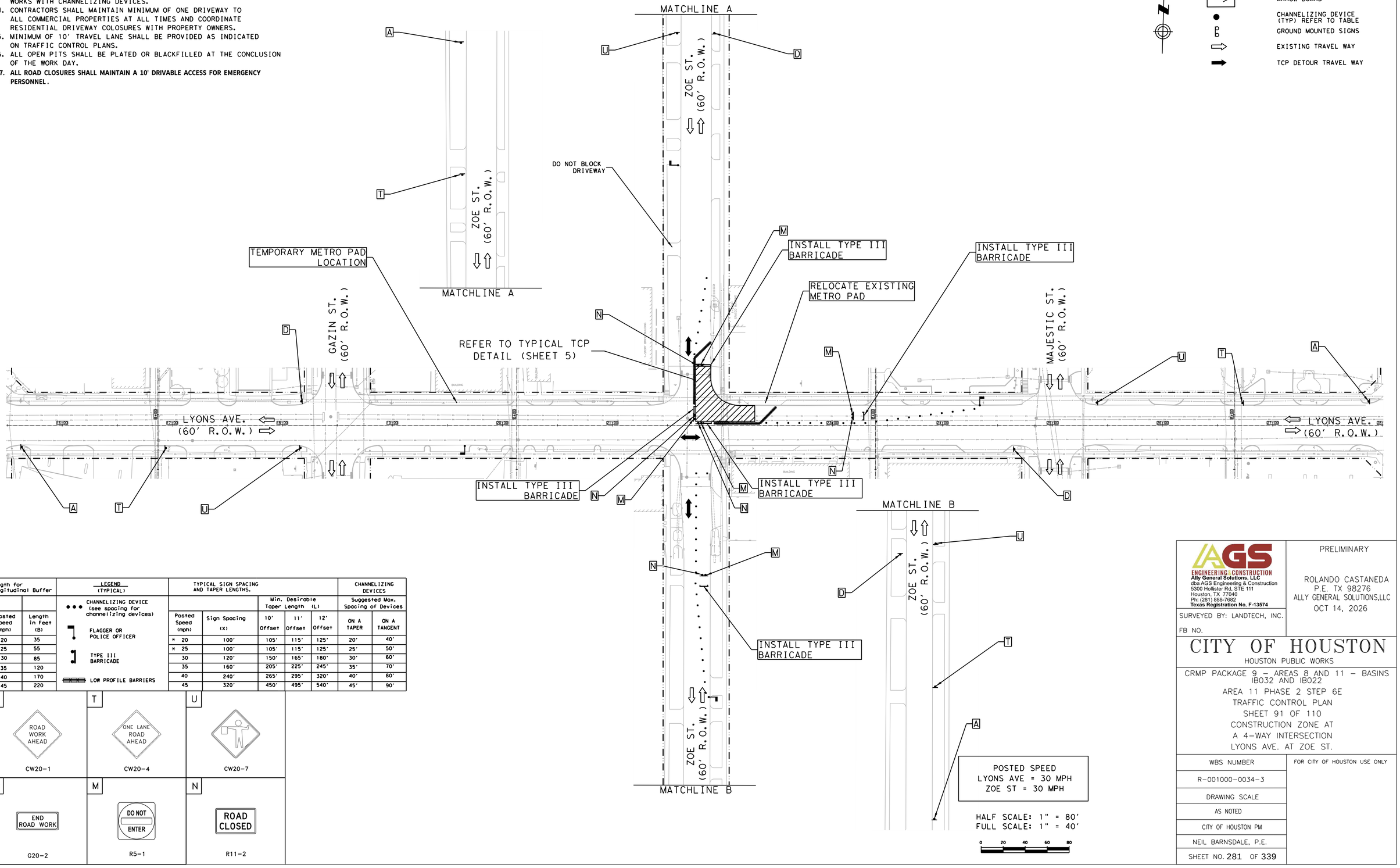
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 280 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS37\AppData Dropbox\AGS Projects\CMMS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\IB-TCP NT.S28 Lyons at Zoe.dgn

TCP NOTES:
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd, STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 6E
TRAFFIC CONTROL PLAN
SHEET 91 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT ZOE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 281 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

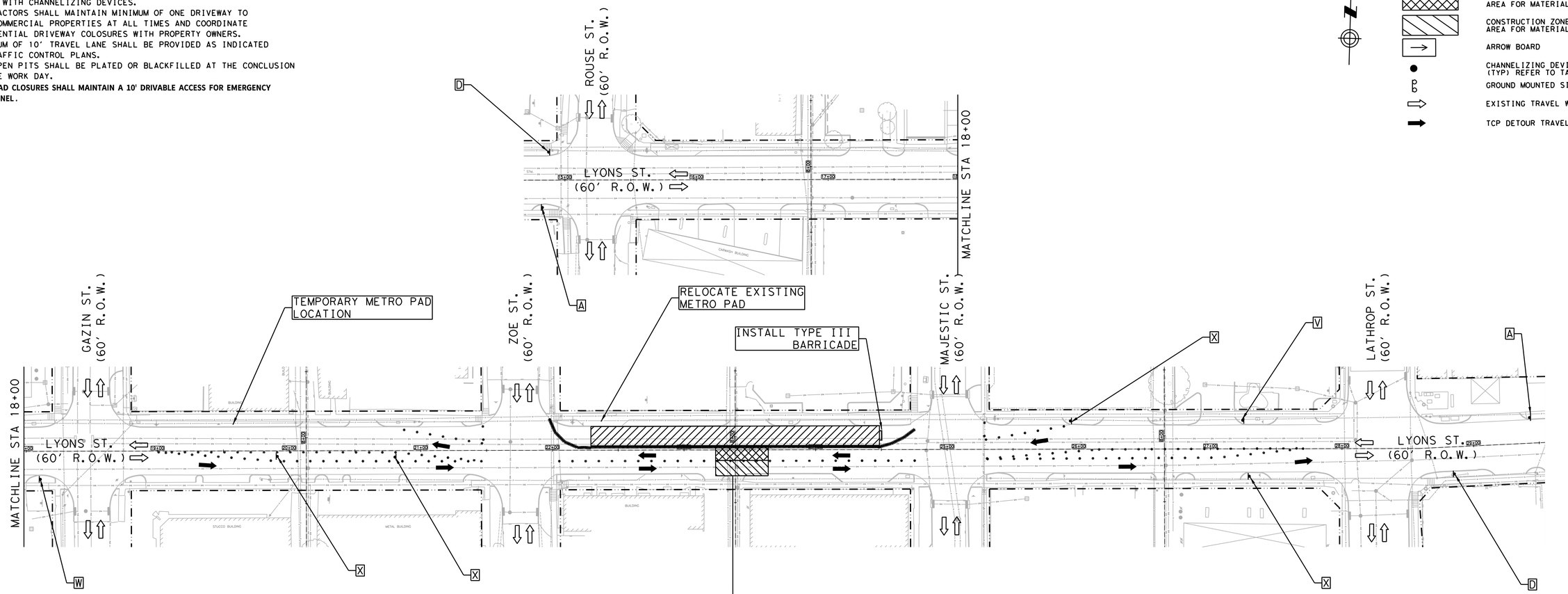
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TCP NOTES:

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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 7A
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 7B
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL PHASE 7C
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



REFER TO TYPICAL TCP DETAIL (SHEET 5)

Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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PRELIMINARY

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ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 7A, 7B AND 7C
TRAFFIC CONTROL PLAN
SHEET 92 OF 110
TRAFFIC SHIFT ON
TWO LANE ROAD
LYONS ST. AT ZOE ST. & MAJESTIC ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 282 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

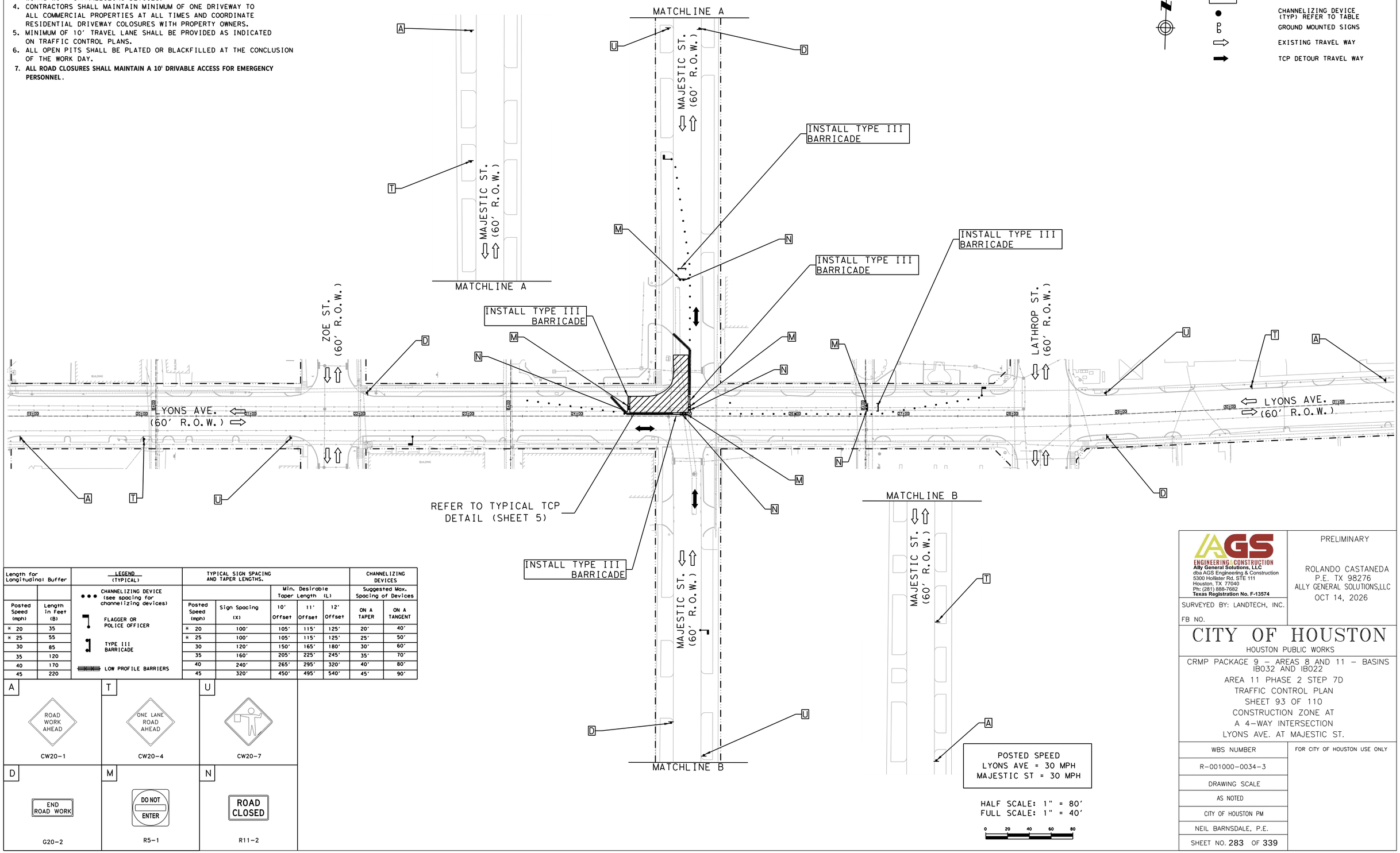
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TCP NOTES:

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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		••• CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
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45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7

D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
MAJESTIC ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 7D
TRAFFIC CONTROL PLAN
SHEET 93 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT MAJESTIC ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 283 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS53\AllyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\093-TCP MTJ31 Lyons at Majestic.dgn

TCP NOTES:
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2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

MATCHLINE A

MAJESTIC ST. (60' R.O.W.)

ZOE ST. (60' R.O.W.)

LATHROP ST. (60' R.O.W.)

LYONS AVE. (60' R.O.W.)

INSTALL TYPE III BARRICADE

REFER TO TYPICAL TCP DETAIL (SHEET 5)

MATCHLINE B

POSTED SPEED
LYONS AVE = 30 MPH
MAJESTIC ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	FLAGGER OR POLICE OFFICER	* 20	100'	105'	115'	125'	20'	40'
* 25	55	TYPE III BARRICADE	* 25	100'	105'	115'	125'	25'	50'
30	85	LOW PROFILE BARRIERS	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7

D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd, STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 7E
TRAFFIC CONTROL PLAN
SHEET 94 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT MAJESTIC ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 284 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

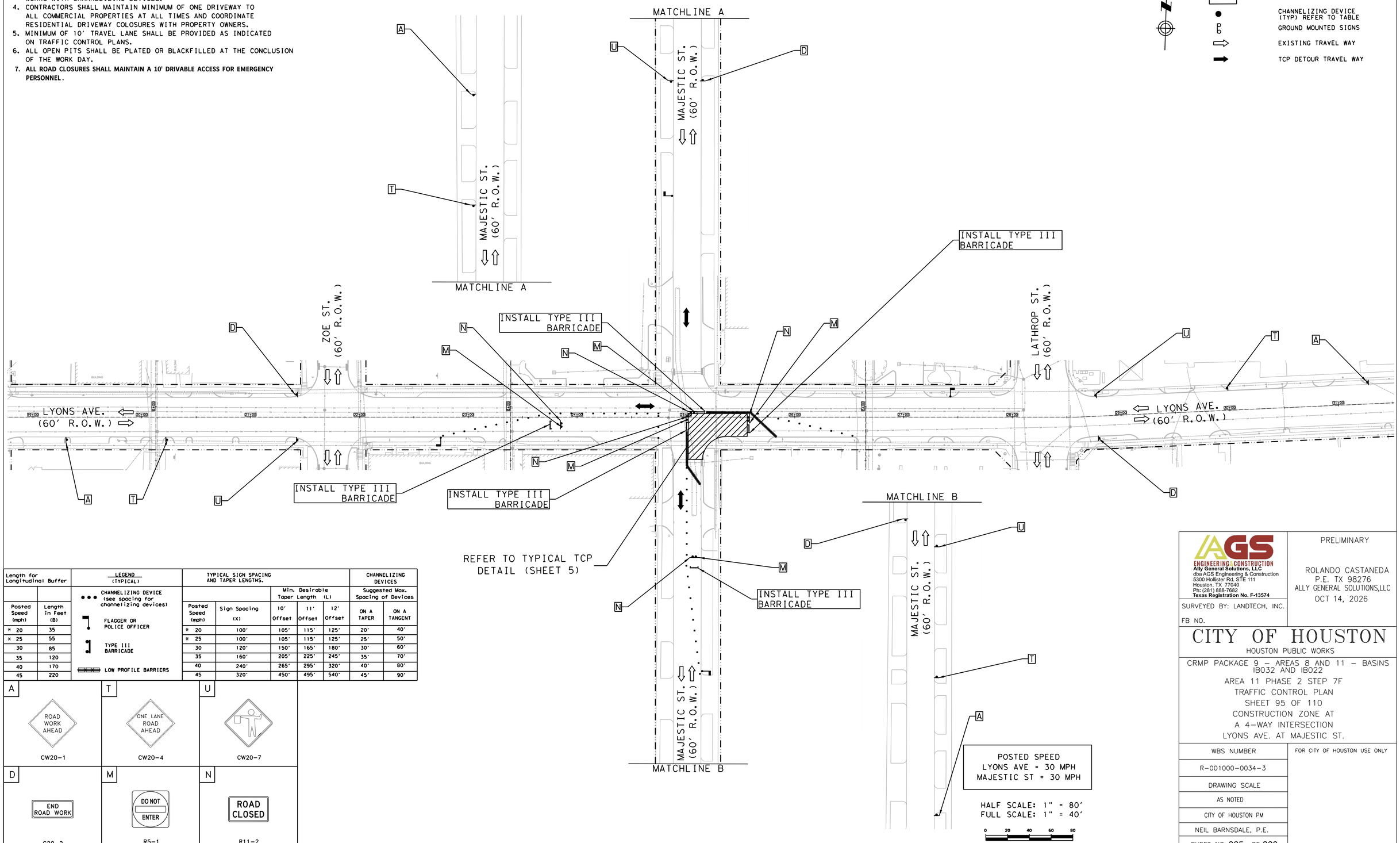
FILE PATH: C:\Users\AGS53\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\CH\TAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\094-TCP INT.532 Lyons at Majestic.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		••• CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
MAJESTIC ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC

OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 7F
TRAFFIC CONTROL PLAN
SHEET 95 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT MAJESTIC ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 285 OF 339	

PLOTTED: 12-OCT-2026

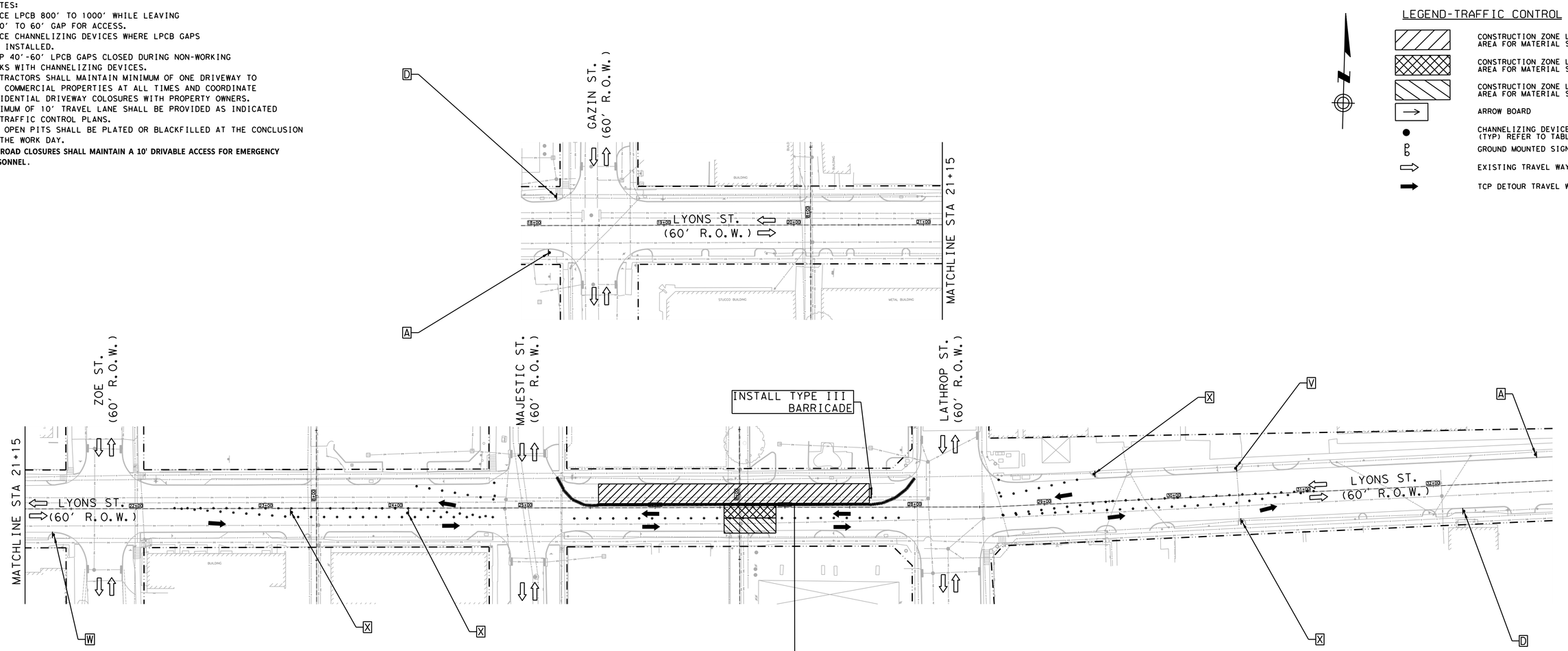
PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS53\MyDesk Solutions Dropbox\AGS Dropbox\AGS Projects\CAVINS WBS No R-001000-0034-3 - SWMP & TCP\CAD\095-TCP INT333 Lyons at Majestic.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 8A
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 8B
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 8C
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 8A, 8B AND 8C
TRAFFIC CONTROL PLAN
SHEET 96 OF 110
TRAFFIC SHIFT ON
TWO LANE ROAD
LYONS ST. AT MAJESTIC ST. & LATHROP ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 286 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

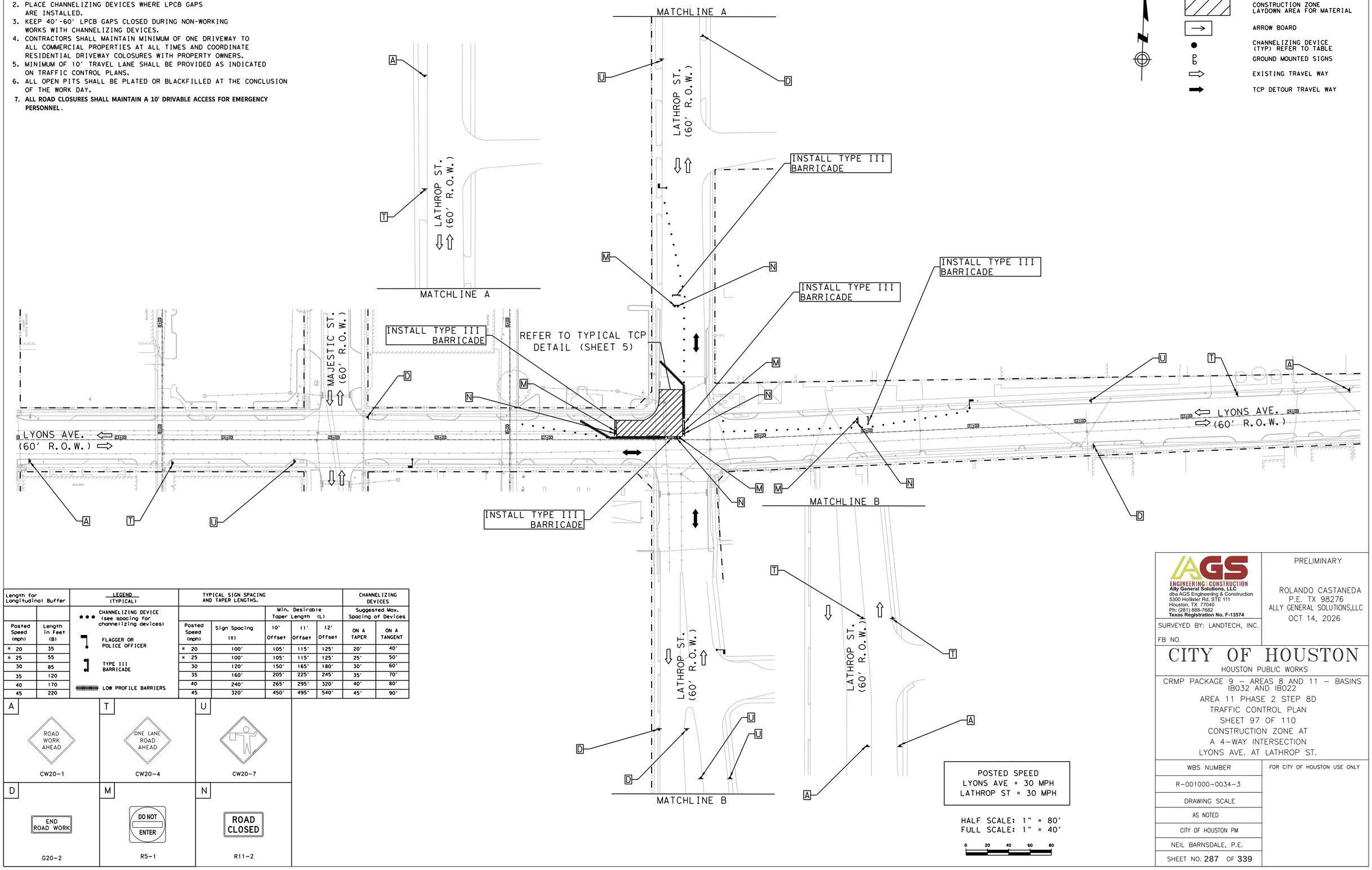
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)
Posted Speed (mph)	Length in Feet (B)	
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)
* 25	55	FLAGGER OR POLICE OFFICER
30	85	TYPE III BARRICADE
35	120	LOW PROFILE BARRIERS
40	170	
45	220	

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
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* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
LATHROP ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 8D
TRAFFIC CONTROL PLAN
SHEET 97 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT LATHROP ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 287 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

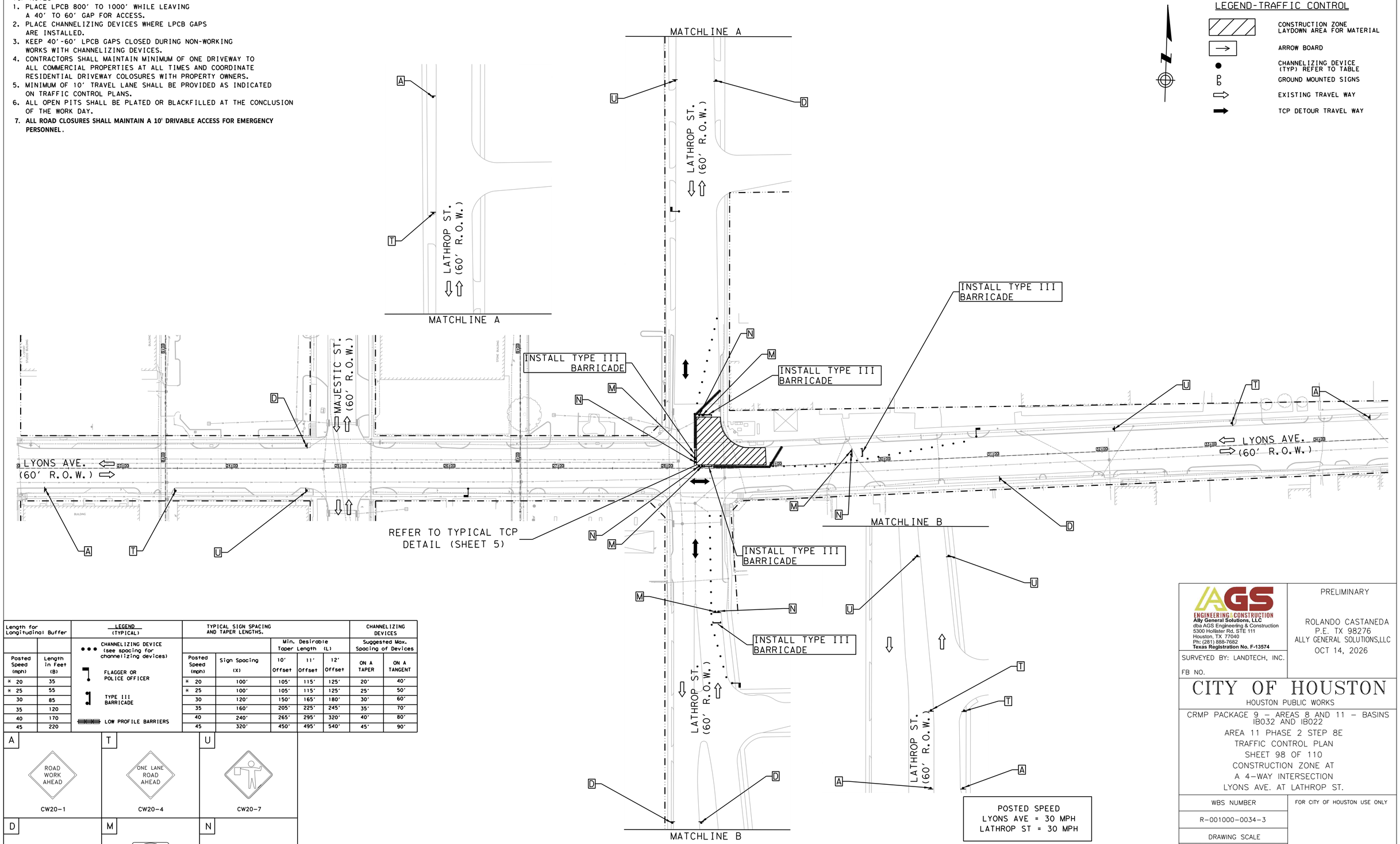
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
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35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
LATHROP ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 8E
TRAFFIC CONTROL PLAN
SHEET 98 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT LATHROP ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 288 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

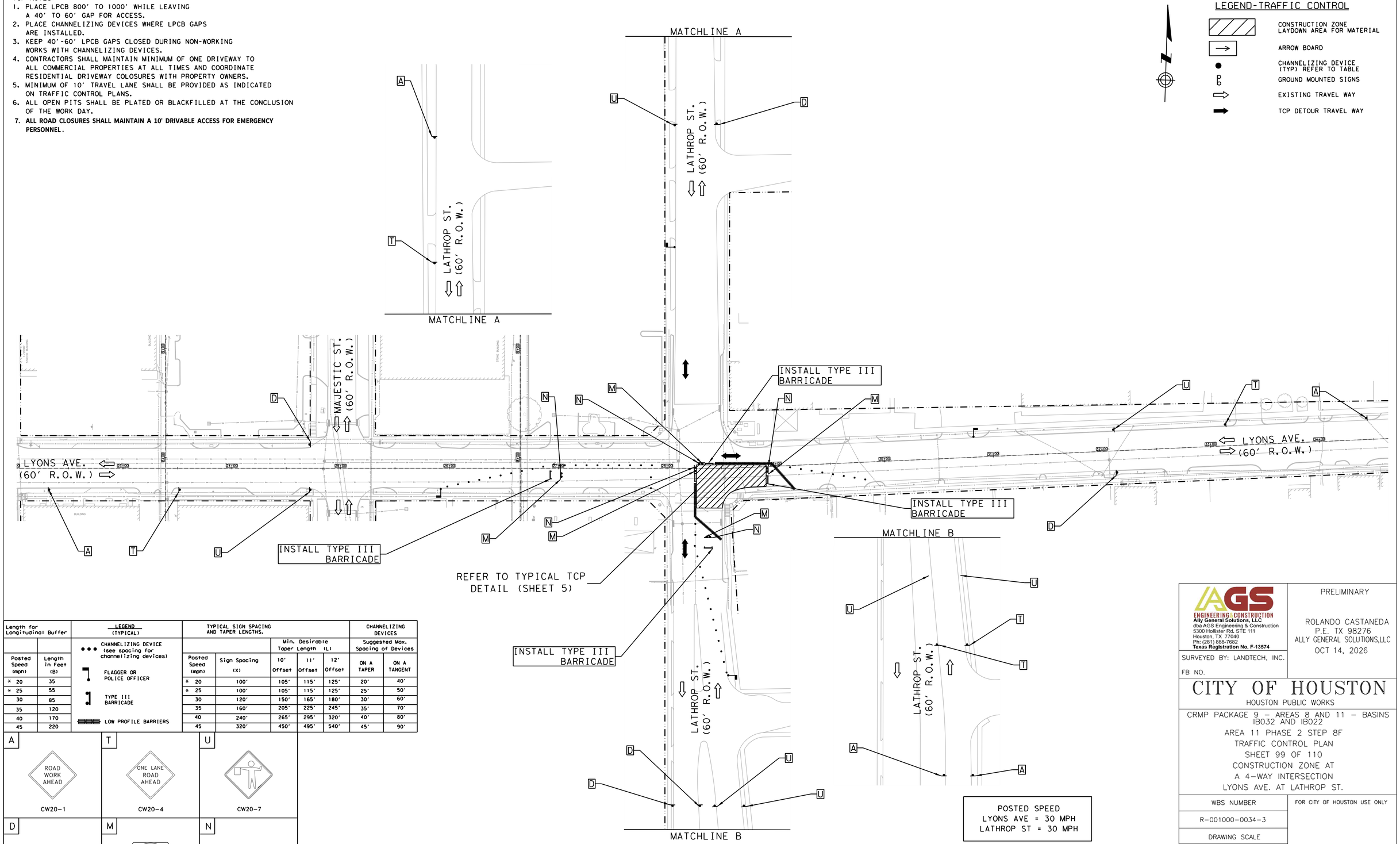
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)

- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
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40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

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OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

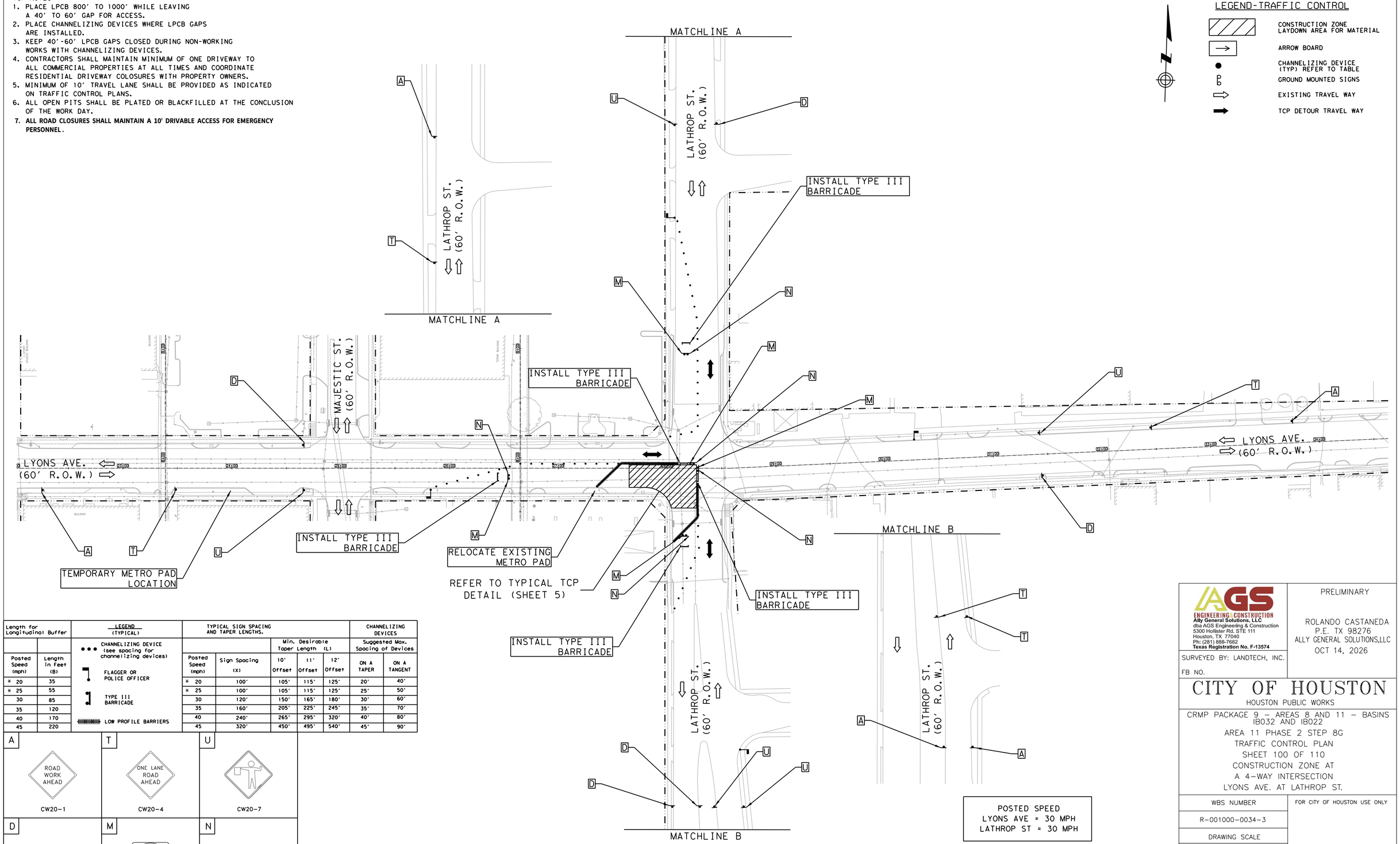
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 8F
TRAFFIC CONTROL PLAN
SHEET 99 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT LATHROP ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 289 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS03\AppData Solutions Dropbox\AGS Dropbox\AGS Projects\CAHAS WBS No R-001000-0034-3 - SWMP & TCP\CAD\099-TCP INT137 Lyons at Lathrop.dgn

TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		••• CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
LATHROP ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 8G
TRAFFIC CONTROL PLAN
SHEET 100 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT LATHROP ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 290 OF 339	

PLOTTED: 12-OCT-2026

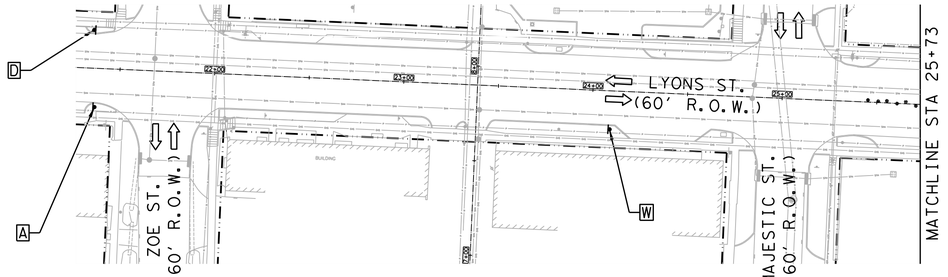
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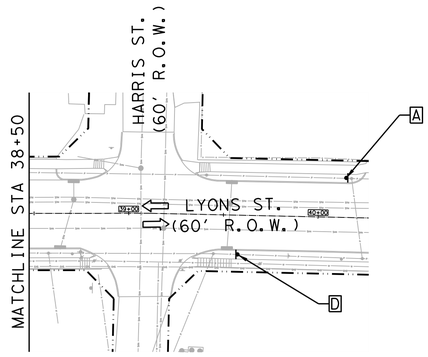
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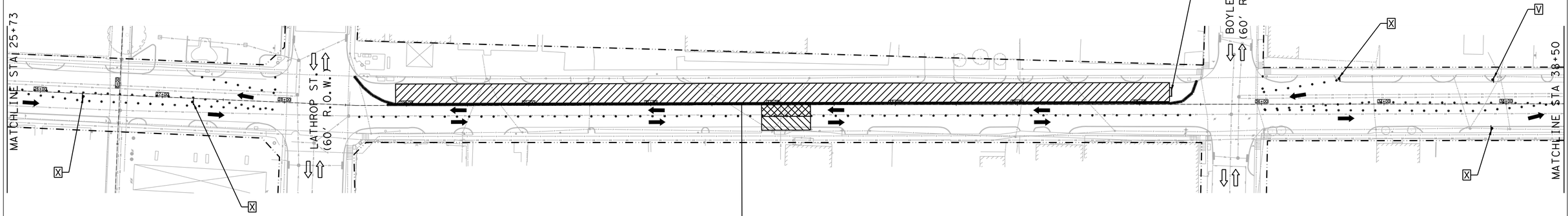
TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 9A
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 9B
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 9C
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY







REFER TO TYPICAL TCP DETAIL (SHEET 5)

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC

OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 9A, 9B AND 9C
TRAFFIC CONTROL PLAN
SHEET 101 OF 110
TRAFFIC SHIFT ON
TWO LANE ROAD
LYONS ST. AT LATHROP ST. & BOYLES ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 291 OF 339	

PLOTTED: 12-OCT-2026

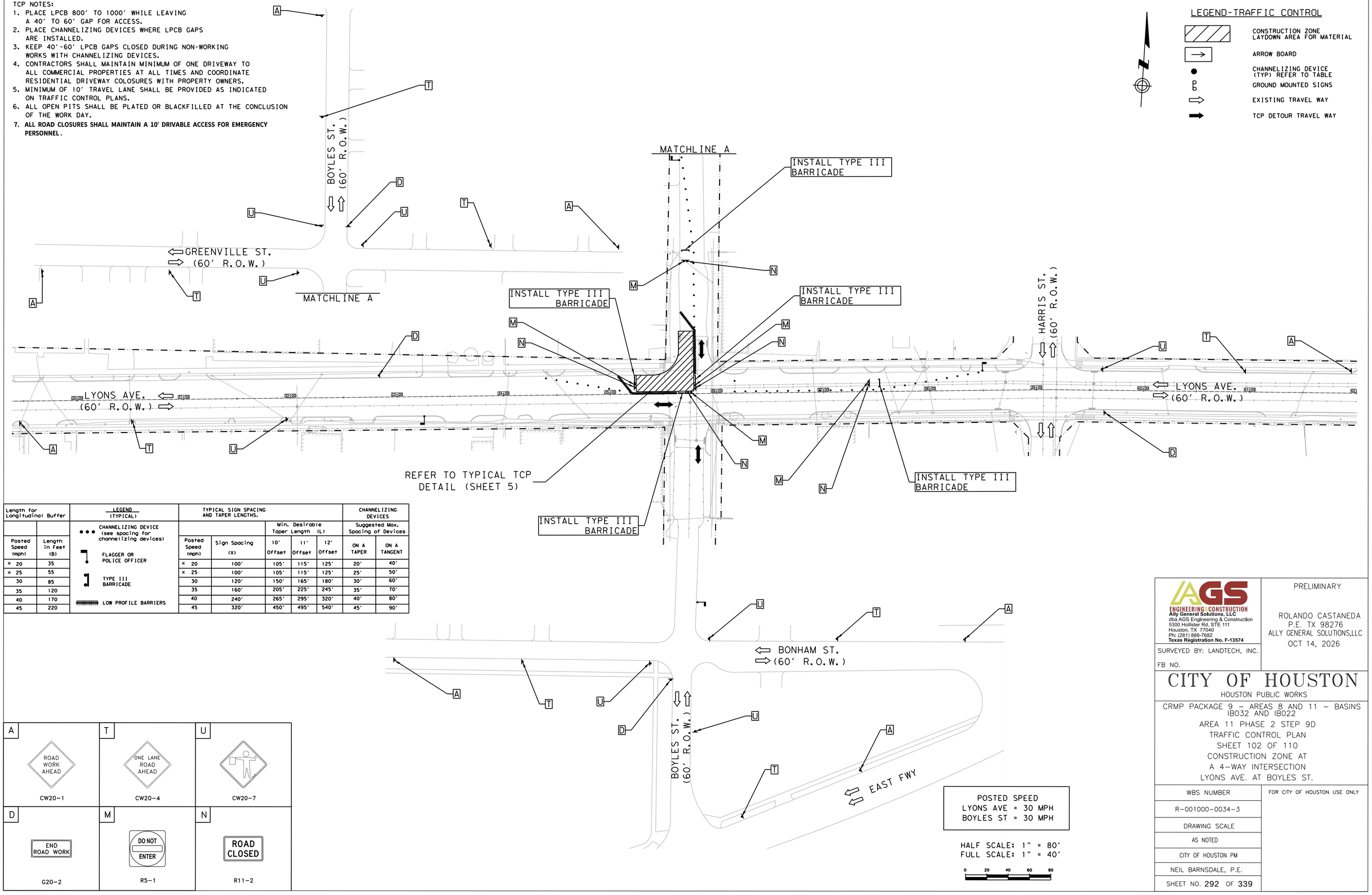
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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK G20-2	DO NOT ENTER R5-1	ROAD CLOSED R11-2

POSTED SPEED
LYONS AVE = 30 MPH
BOYLES ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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PRELIMINARY

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 9D
TRAFFIC CONTROL PLAN
SHEET 102 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT BOYLES ST.

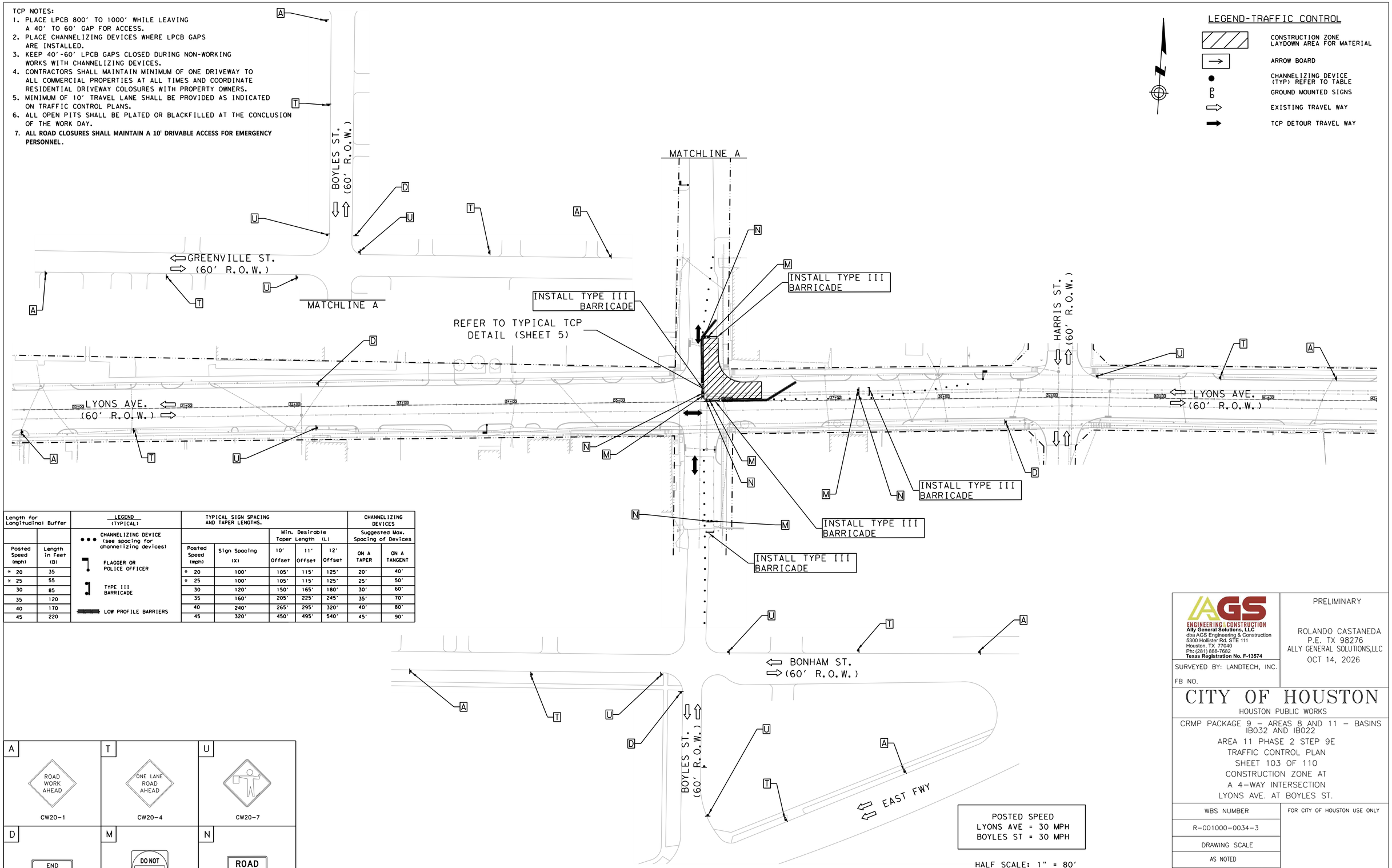
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R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 292 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
30	85
35	120
40	170
45	220

LEGEND (TYPICAL)
- CHANNELIZING DEVICE (see spacing for channelizing devices)
- FLAGGER OR POLICE OFFICER
- TYPE III BARRICADE
- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
BOYLES ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

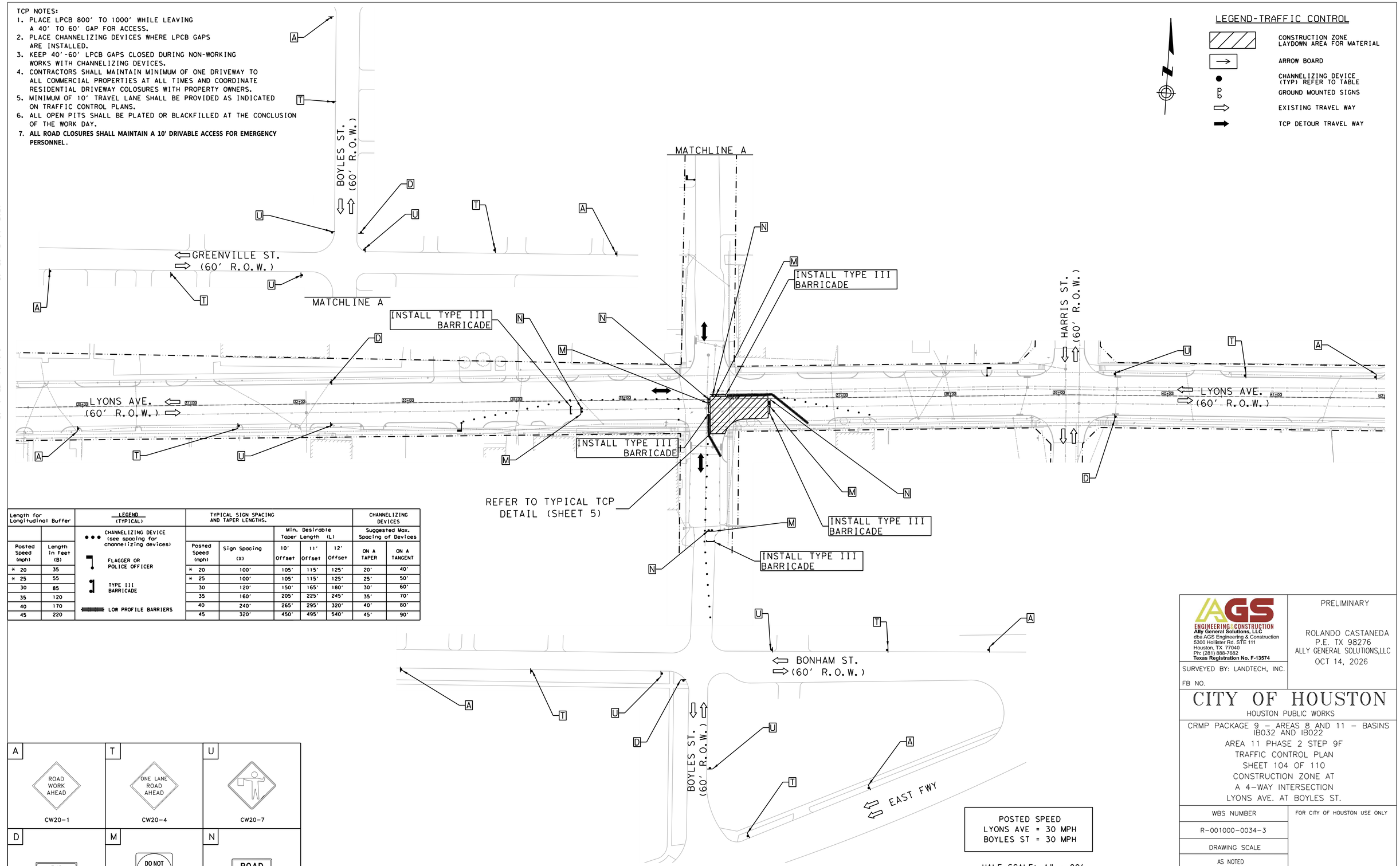
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 9E
TRAFFIC CONTROL PLAN
SHEET 103 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT BOYLES ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 293 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**



LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	FLAGGER OR POLICE OFFICER	* 20	100'	105'	115'	125'	20'	40'
* 25	55	TYPE III BARRICADE	* 25	100'	105'	115'	125'	25'	50'
30	85	LOW PROFILE BARRIERS	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1	T — ONE LANE ROAD AHEAD — CW20-4	U — CW20-7
D — END ROAD WORK — G20-2	M — DO NOT ENTER — R5-1	N — ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
BOYLES ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 9F
TRAFFIC CONTROL PLAN
SHEET 104 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT BOYLES ST.

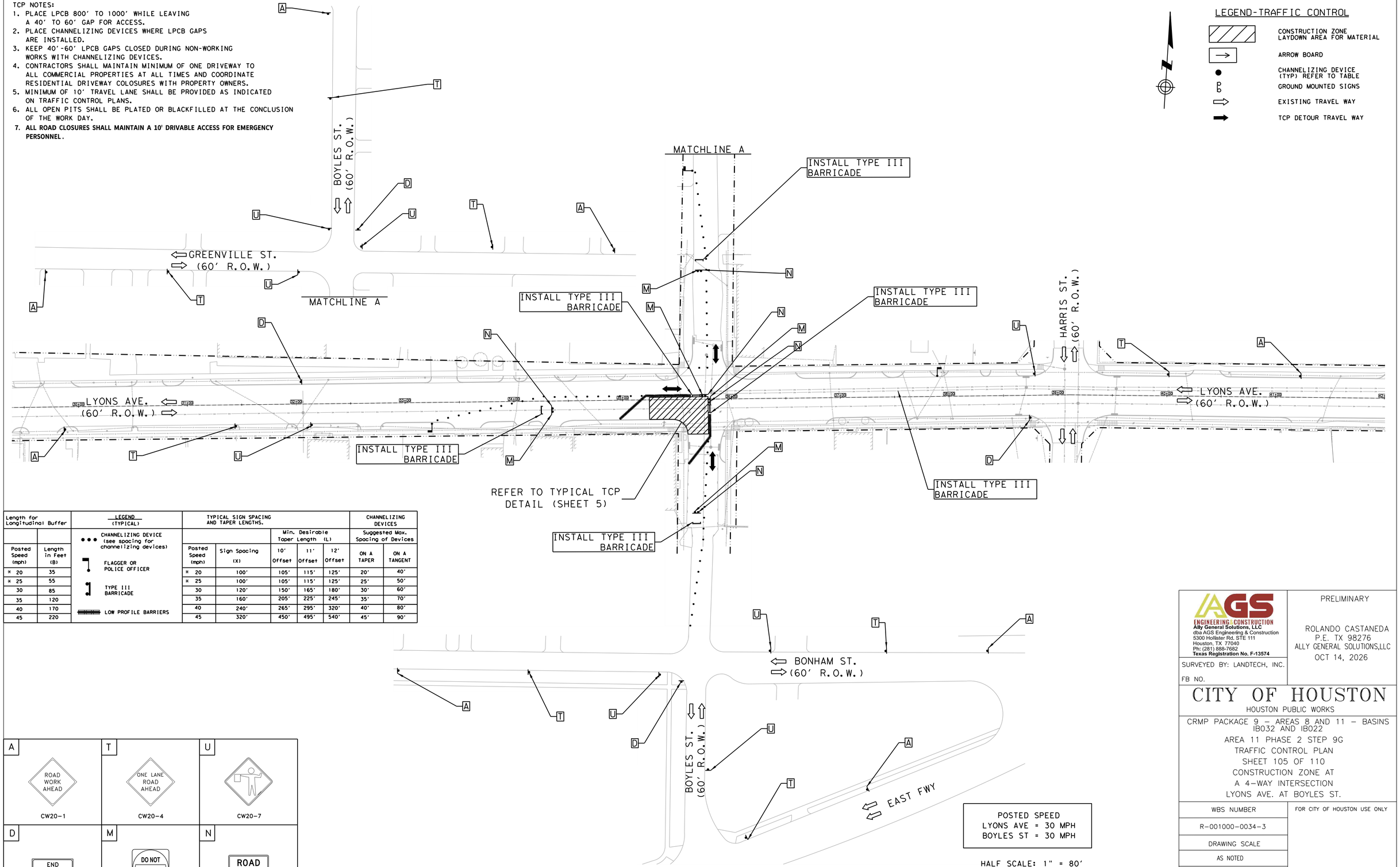
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
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NEIL BARNSDALE, P.E.	
SHEET NO. 294 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS53\WinDen Solutions Dropbox\AGS Dropbox\AGS Projects\CivilAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\104-TCP sht 542 Lyons at Boyles.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer	
Posted Speed (mph)	Length in Feet (B)
* 20	35
* 25	55
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35	120
40	170
45	220

LEGEND (TYPICAL)
- CHANNELIZING DEVICE (see spacing for channelizing devices)
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- LOW PROFILE BARRIERS

TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
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40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7
D	**M**	**N**
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
BOYLES ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 9G
TRAFFIC CONTROL PLAN
SHEET 105 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT BOYLES ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
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NEIL BARNSDALE, P.E.	
SHEET NO. 295 OF 339	

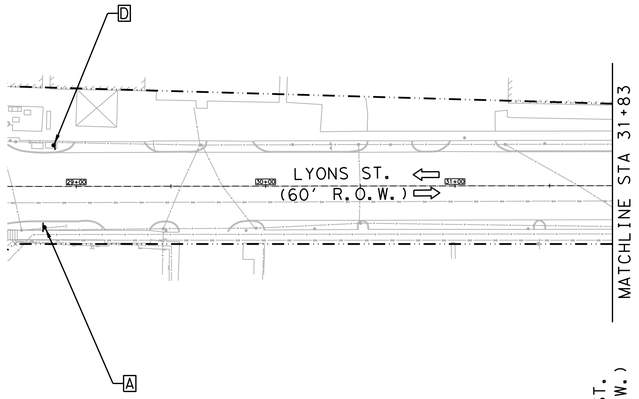
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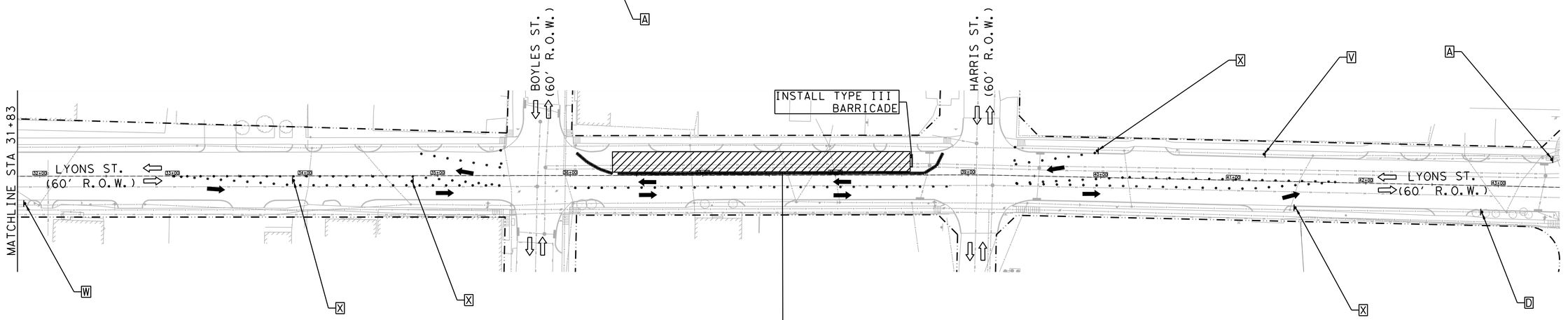
TCP NOTES:

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2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY





REFER TO TYPICAL TCP DETAIL (SHEET 5)

Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	FLAGGER OR POLICE OFFICER	* 20	100'	105'	115'	125'	20'	40'
* 25	55	TYPE III BARRICADE	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220	LOW PROFILE BARRIERS	45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd, STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC

OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 10

TRAFFIC CONTROL PLAN

SHEET 106 OF 110

TRAFFIC SHIFT ON TWO LANE ROAD

LYONS ST. AT BOYLES ST. & HARRIS ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 296 OF 339	

PLOTTED: 12-OCT-2026

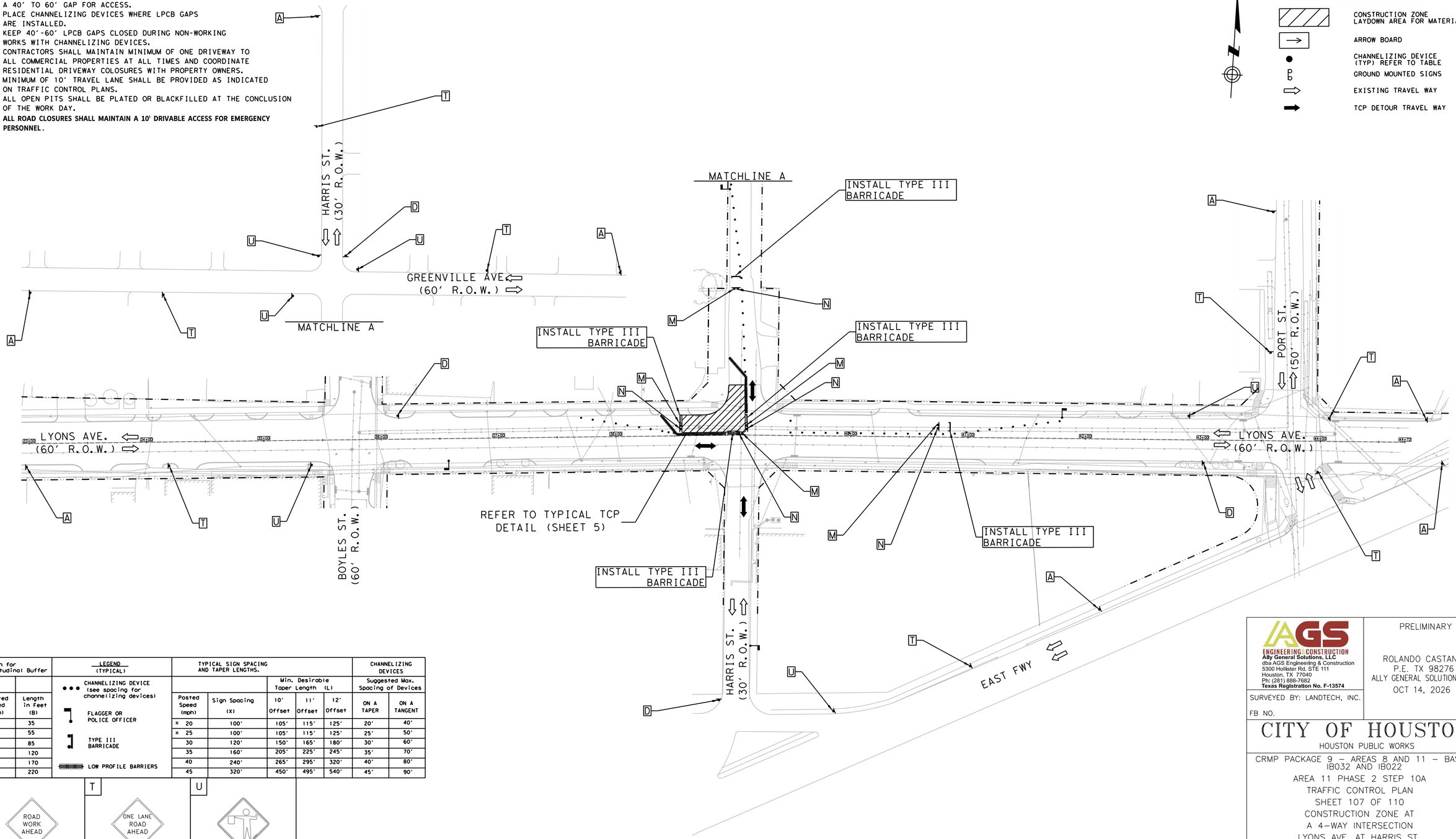
PLOT STYLE: COH.CTB

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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)
Posted Speed (mph)	Length in Feet (B)	
* 20	35	CHANNELIZING DEVICE (see spacing for channelizing devices)
* 25	55	FLAGGER OR POLICE OFFICER
30	85	TYPE III BARRICADE
35	120	
40	170	LOW PROFILE BARRIERS
45	220	

TYPICAL SIGN SPACING AND TAPER LENGTHS.		Min. Desirable Taper Length (L)			CHANNELIZING DEVICES Suggested Max. Spacing of Devices	
Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	100'	105'	115'	125'	20'	40'
* 25	100'	105'	115'	125'	25'	50'
30	120'	150'	165'	180'	30'	60'
35	160'	205'	225'	245'	35'	70'
40	240'	265'	295'	320'	40'	80'
45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

T — ONE LANE ROAD AHEAD — CW20-4

U — CW20-7

D — END ROAD WORK — G20-2

M — DO NOT ENTER — R5-1

N — ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
HARRIS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING | CONSTRUCTION
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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 10A
TRAFFIC CONTROL PLAN
SHEET 107 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT HARRIS ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 297 OF 339	

PLOTTED: 12-OCT-2026

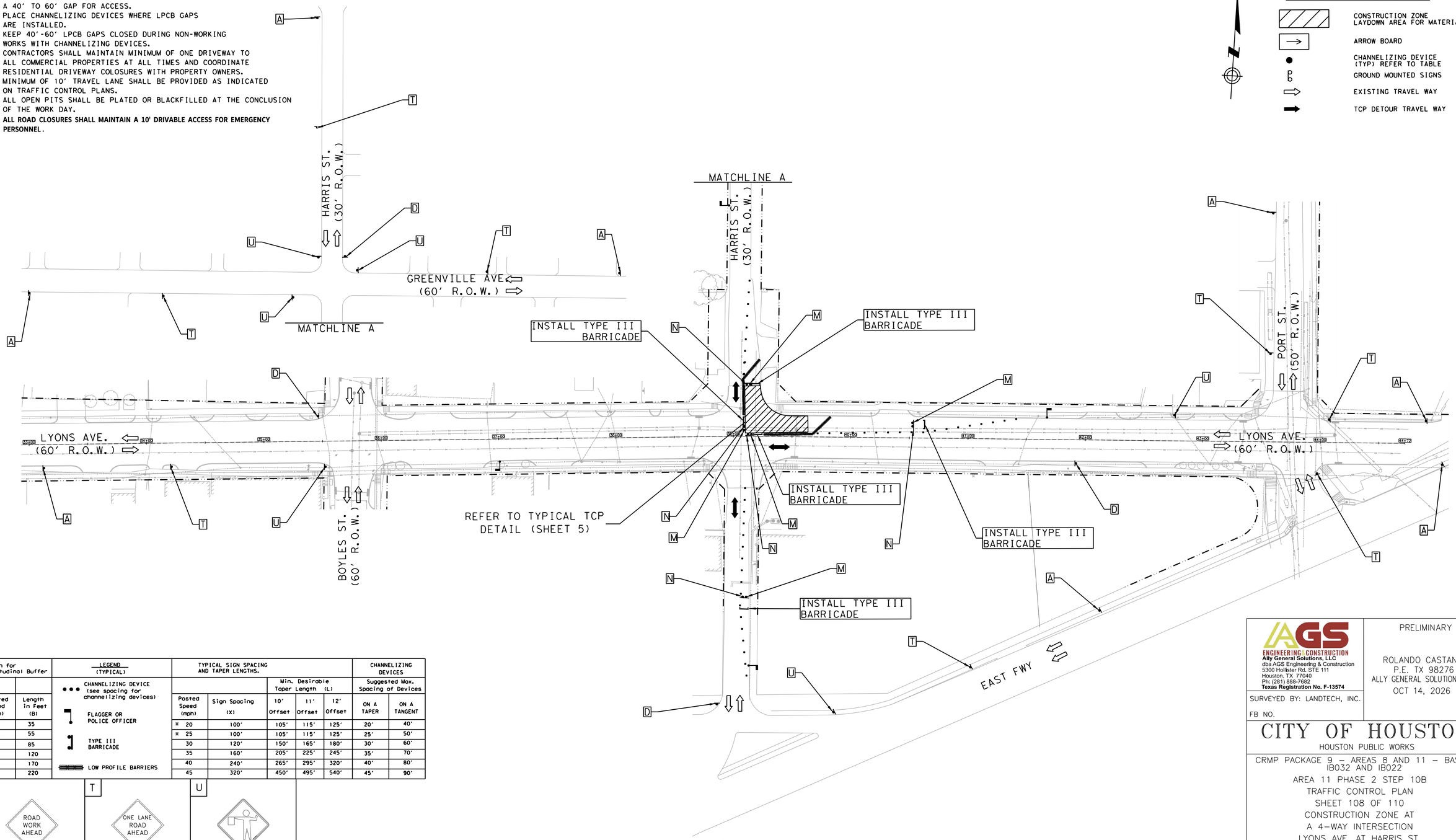
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TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
4. CONTRACTORS SHALL MAINTAIN MINIMUM OF ONE DRIVEWAY TO ALL COMMERCIAL PROPERTIES AT ALL TIMES AND COORDINATE RESIDENTIAL DRIVEWAY COLOSURES WITH PROPERTY OWNERS.
5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
6. ALL OPEN PITS SHALL BE PLATED OR BLACKFILLED AT THE CONCLUSION OF THE WORK DAY.
7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
		CHANNELIZING DEVICE (see spacing for channelizing devices)			Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	FLAGGER OR POLICE OFFICER	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	TYPE III BARRICADE	* 20	100'	105'	115'	125'	20'	40'
* 25	55	LOW PROFILE BARRIERS	* 25	100'	105'	115'	125'	25'	50'
30	85		30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A	T	U
ROAD WORK AHEAD	ONE LANE ROAD AHEAD	
CW20-1	CW20-4	CW20-7

D	M	N
END ROAD WORK	DO NOT ENTER	ROAD CLOSED
G20-2	R5-1	R11-2

POSTED SPEED
LYONS AVE = 30 MPH
HARRIS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

AGS ENGINEERING | CONSTRUCTION
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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 10B
TRAFFIC CONTROL PLAN
SHEET 108 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT HARRIS ST.

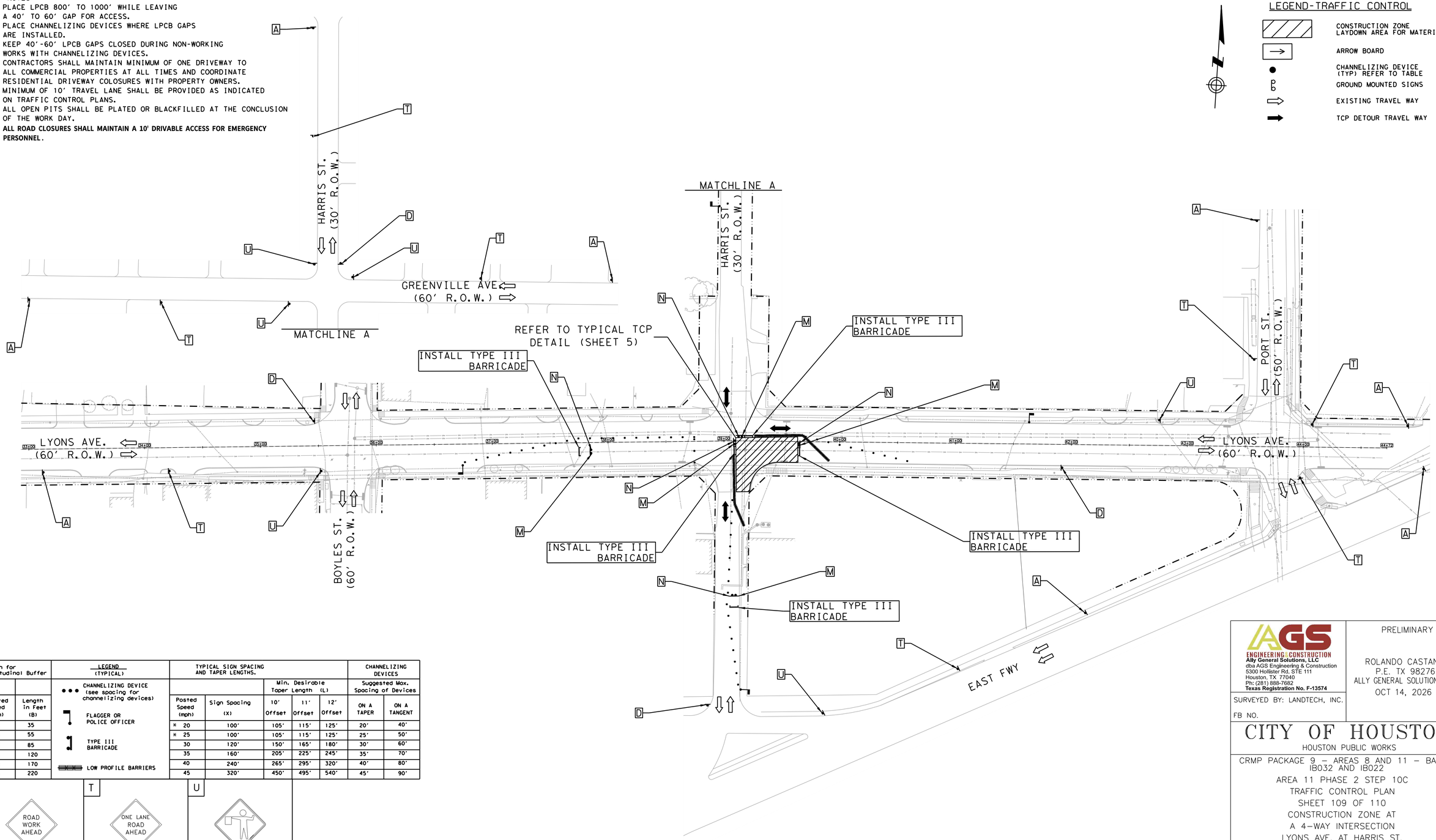
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 298 OF 339	

PLOTTED: 12-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\VA2553\AllyGen Solutions Dropbox\AGS Dropbox\AGS Projects\Cont\45 WBS No R-001000-0034-3 - SWPPP & TCP\CAD\108-TCP INT.546 Lyons at Harris.dgn

TCP NOTES:
1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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5. MINIMUM OF 10' TRAVEL LANE SHALL BE PROVIDED AS INDICATED ON TRAFFIC CONTROL PLANS.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	FLAGGER OR POLICE OFFICER	* 20	100'	105'	115'	125'	20'	40'
* 25	55	TYPE III BARRICADE	* 25	100'	105'	115'	125'	25'	50'
30	85	LOW PROFILE BARRIERS	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170		40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A: ROAD WORK AHEAD — CW20-1	T: ONE LANE ROAD AHEAD — CW20-4	U: CW20-7
D: END ROAD WORK — G20-2	M: DO NOT ENTER — R5-1	N: ROAD CLOSED — R11-2

POSTED SPEED
LYONS AVE = 30 MPH
HARRIS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

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ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022
AREA 11 PHASE 2 STEP 10C
TRAFFIC CONTROL PLAN
SHEET 109 OF 110
CONSTRUCTION ZONE AT
A 4-WAY INTERSECTION
LYONS AVE. AT HARRIS ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 299 OF 339	

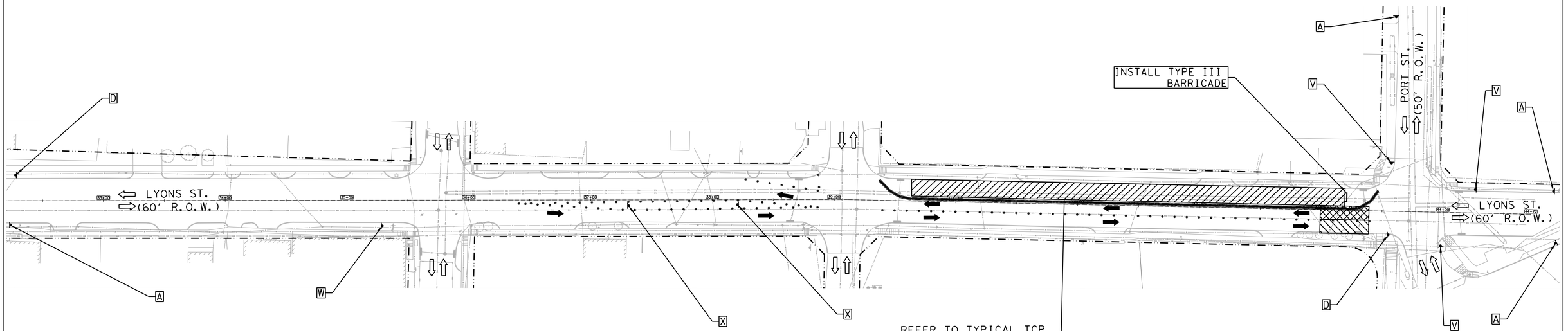
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PLOT STYLE: COH.CTB
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TCP NOTES:

1. PLACE LPCB 800' TO 1000' WHILE LEAVING A 40' TO 60' GAP FOR ACCESS.
2. PLACE CHANNELIZING DEVICES WHERE LPCB GAPS ARE INSTALLED.
3. KEEP 40'-60' LPCB GAPS CLOSED DURING NON-WORKING WORKS WITH CHANNELIZING DEVICES.
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7. **ALL ROAD CLOSURES SHALL MAINTAIN A 10' DRIVABLE ACCESS FOR EMERGENCY PERSONNEL.**

LEGEND-TRAFFIC CONTROL

- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 11A
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 11B
- CONSTRUCTION ZONE LAYDOWN AREA FOR MATERIAL STEP 11C
- ARROW BOARD
- CHANNELIZING DEVICE (TYP) REFER TO TABLE
- GROUND MOUNTED SIGNS
- EXISTING TRAVEL WAY
- TCP DETOUR TRAVEL WAY



Length for Longitudinal Buffer		LEGEND (TYPICAL)	TYPICAL SIGN SPACING AND TAPER LENGTHS.					CHANNELIZING DEVICES	
					Min. Desirable Taper Length (L)			Suggested Max. Spacing of Devices	
Posted Speed (mph)	Length in Feet (B)	CHANNELIZING DEVICE (see spacing for channelizing devices)	Posted Speed (mph)	Sign Spacing (X)	10' Offset	11' Offset	12' Offset	ON A TAPER	ON A TANGENT
* 20	35	FLAGGER OR POLICE OFFICER	* 20	100'	105'	115'	125'	20'	40'
* 25	55		* 25	100'	105'	115'	125'	25'	50'
30	85	TYPE III BARRICADE	30	120'	150'	165'	180'	30'	60'
35	120		35	160'	205'	225'	245'	35'	70'
40	170	LOW PROFILE BARRIERS	40	240'	265'	295'	320'	40'	80'
45	220		45	320'	450'	495'	540'	45'	90'

A — ROAD WORK AHEAD — CW20-1

D — END ROAD WORK — G20-2

V — CW1-4L

W — CW1-4R

X — CW1-6aT

POSTED SPEED
LYONS ST = 30 MPH

HALF SCALE: 1" = 80'
FULL SCALE: 1" = 40'

0 20 40 60 80

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Texas Registration No. F-13574

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PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

AREA 11 PHASE 2 STEP 11A, 11B AND 11C
TRAFFIC CONTROL PLAN
SHEET 110 OF 110
TRAFFIC SHIFT ON
TWO LANE ROAD
LYONS ST. AT HARRIS ST. & PORT ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 300 OF 339	

PLOTTED: 12-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS37\AppData Solutions Dropbox\AGS Projects\GMS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\110-TCP SHT1548 Lyons Harris & Port.dgn

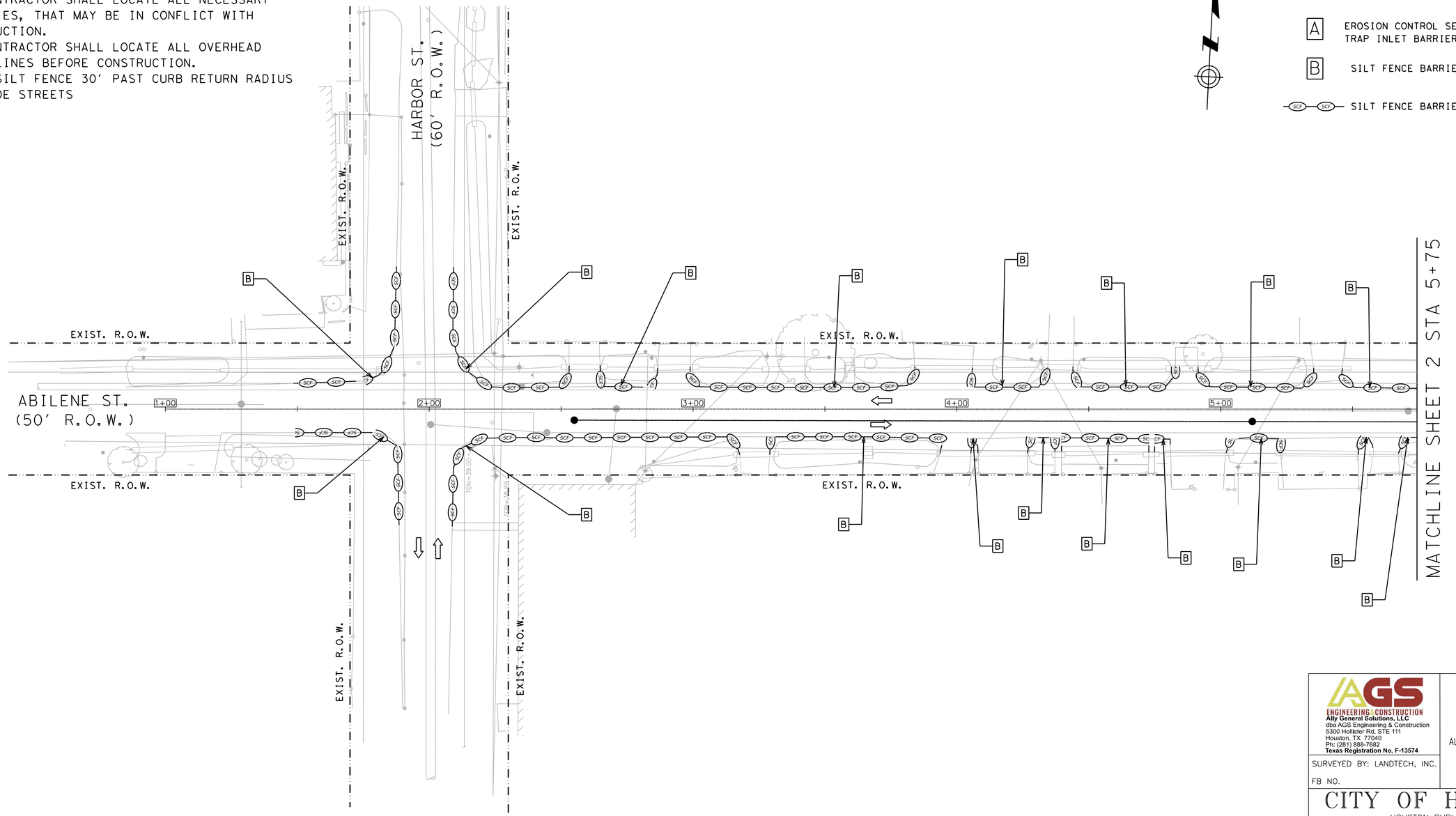
NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

A EROSION CONTROL SEDIMENT TRAP INLET BARRIER

B SILT FENCE BARRIER

SCF SCF SILT FENCE BARRIER



DESIGN & POSTED SPEED
HARBOR ST = 30 MPH
ABILENE ST = 30 MPH
MARKET ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

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OCT 14, 2026

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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 1 OF 24
HARBOR ST. AT
ABILENE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 301 OF 339	

PLOTTED: 14-OCT-2026

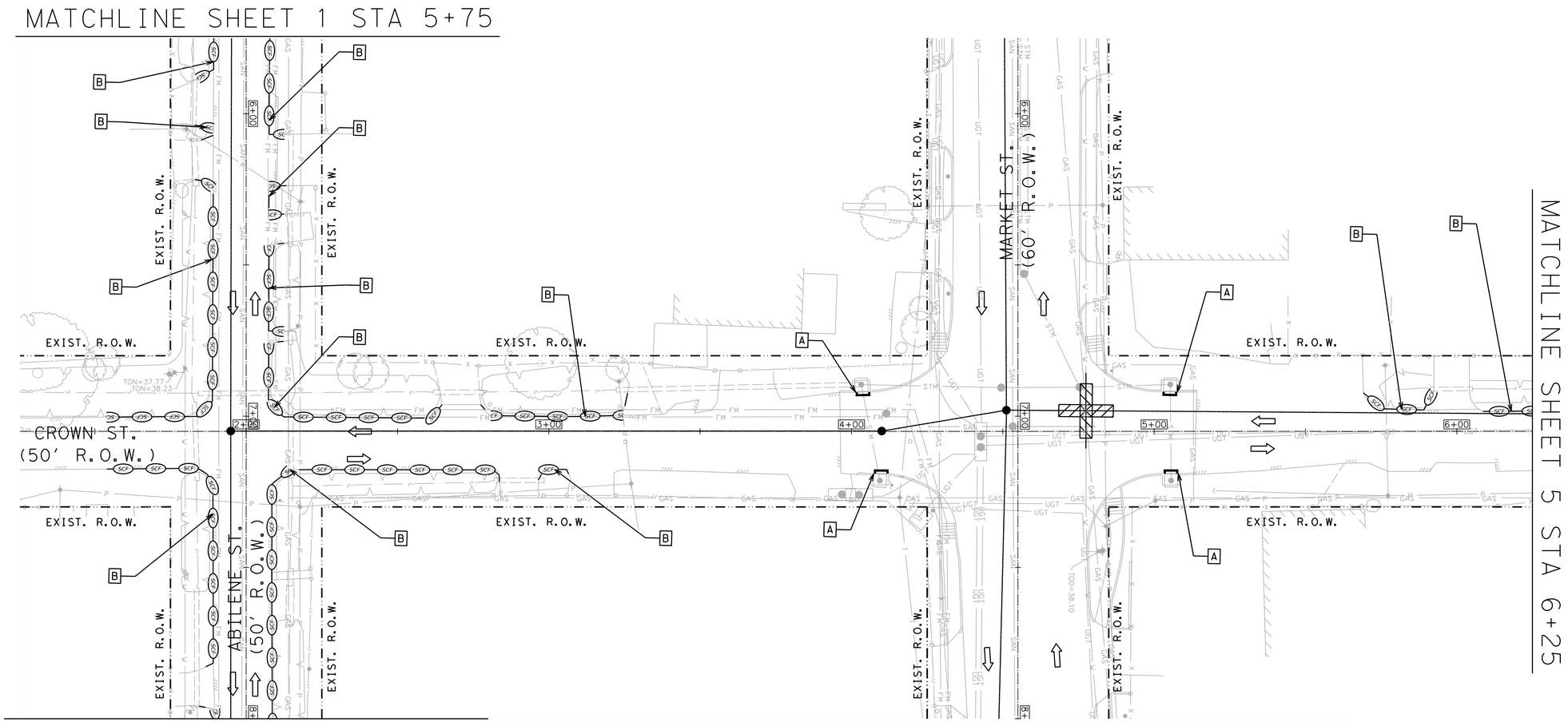
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NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
CROWN ST = 30 MPH
ABILENE ST = 30 MPH
MARKET ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 2 OF 24
CROWN ST. AT
ABILENE ST. & MARKET ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 302 OF 339	

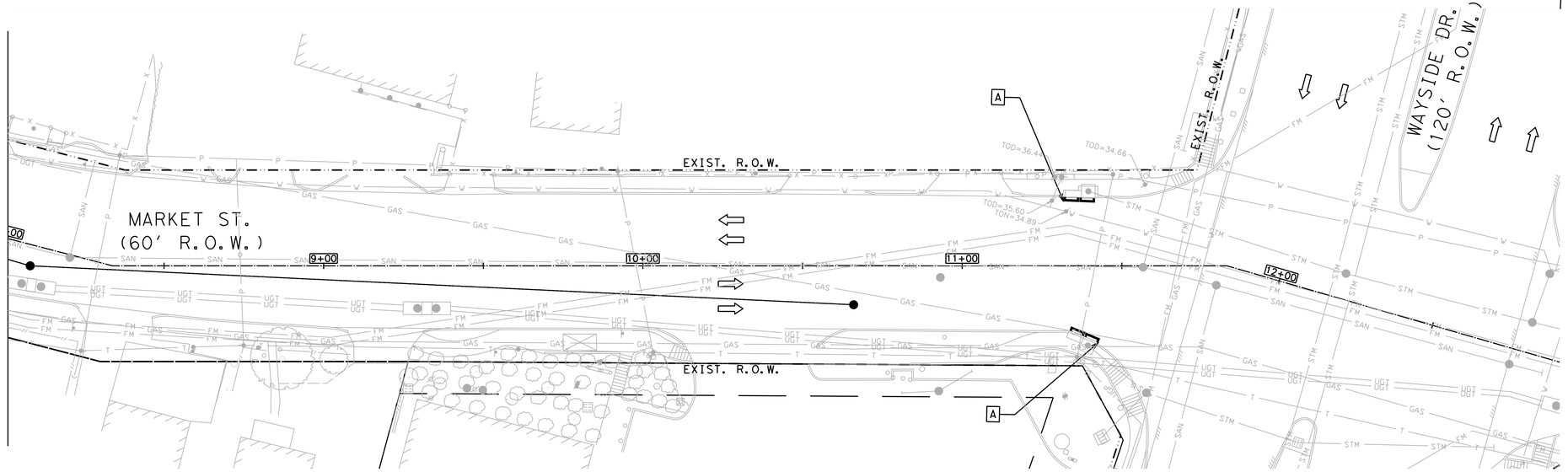
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NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

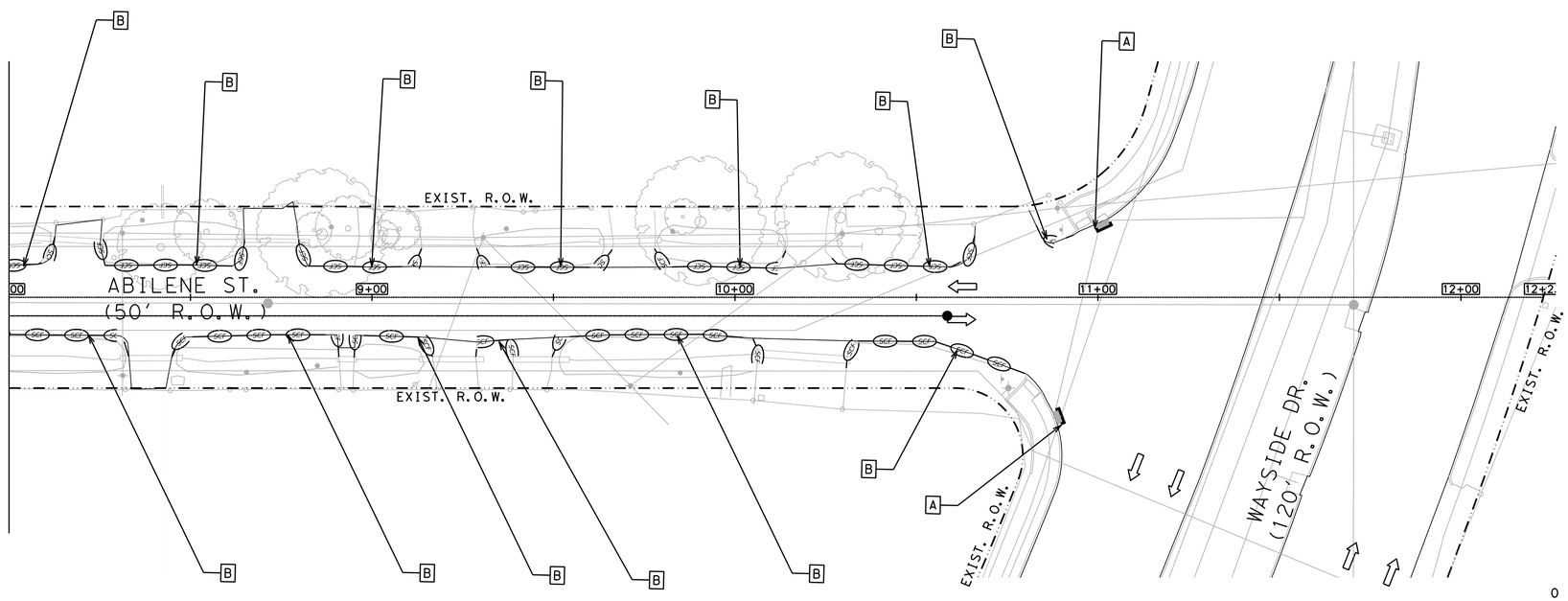
GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER

MATCHLINE SHEET 2 STA 8+00



MATCHLINE SHEET 2 STA 8+00



DESIGN & POSTED SPEED
WAYSIDE DR = 45 MPH
ABILENE ST = 30 MPH
MARKET ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 3 OF 24
WAYSIDE DR. AT
ABILENE ST. & MARKET ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 303 OF 339	

PLOTTED: 14-OCT-2026

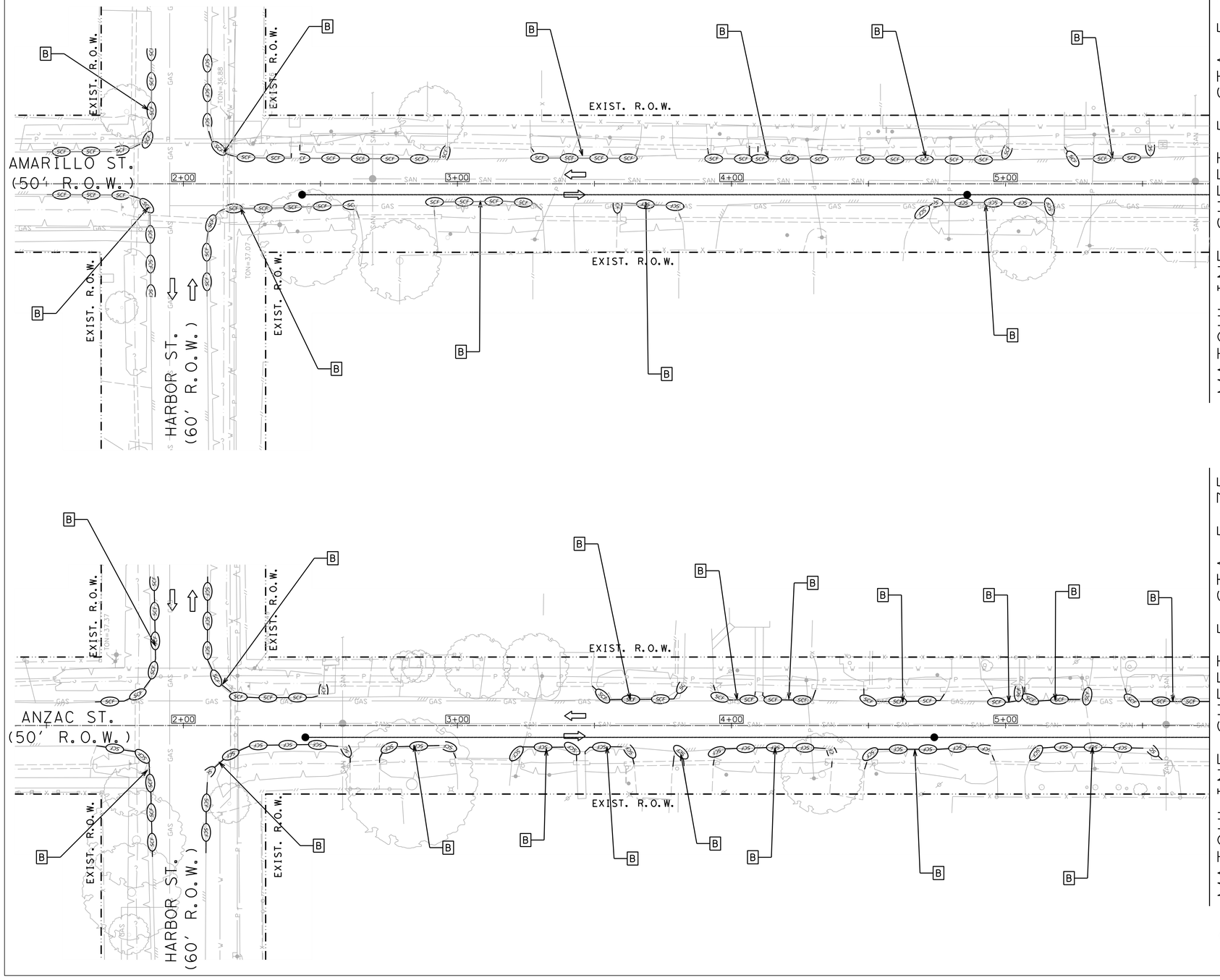
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FILE PATH: C:\Users\AGS-SAVEgen Solutions Dropbox\AGS Dropbox\AGS Projects\CH745 WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWPPP\111-SWPPPB Wayside at Abilene & Market.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- [A] EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- [B] SILT FENCE BARRIER
- SCF SCF SILT FENCE BARRIER



DESIGN & POSTED SPEED
HARBOR ST = 30 MPH
ANZAC ST = 30 MPH
AMARILLO ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 4 OF 24
HARBOR ST. AT
ANZAC ST. & AMARILLO ST.

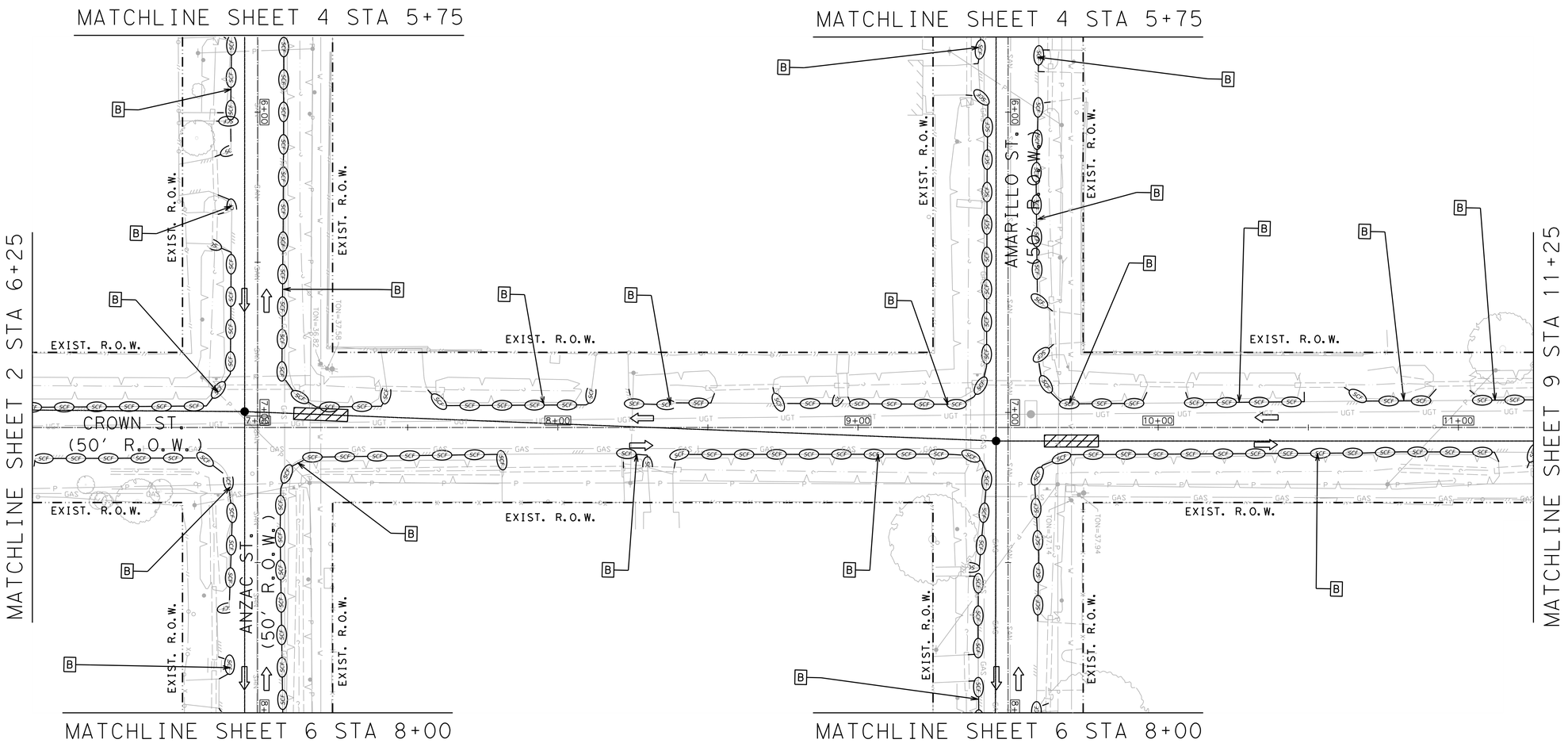
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 304 OF 339	

PLOTTED: 14-OCT-2026
PLOT STYLE: COH.CTB
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NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- [A] EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- [B] SILT FENCE BARRIER
- SILT FENCE BARRIER



DESIGN & POSTED SPEED
CROWN ST = 30 MPH
ANZAC ST = 30 MPH
AMARILLO ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
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5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 5 OF 24
CROWN ST. AT
ANZAC ST. & AMARILLO ST.

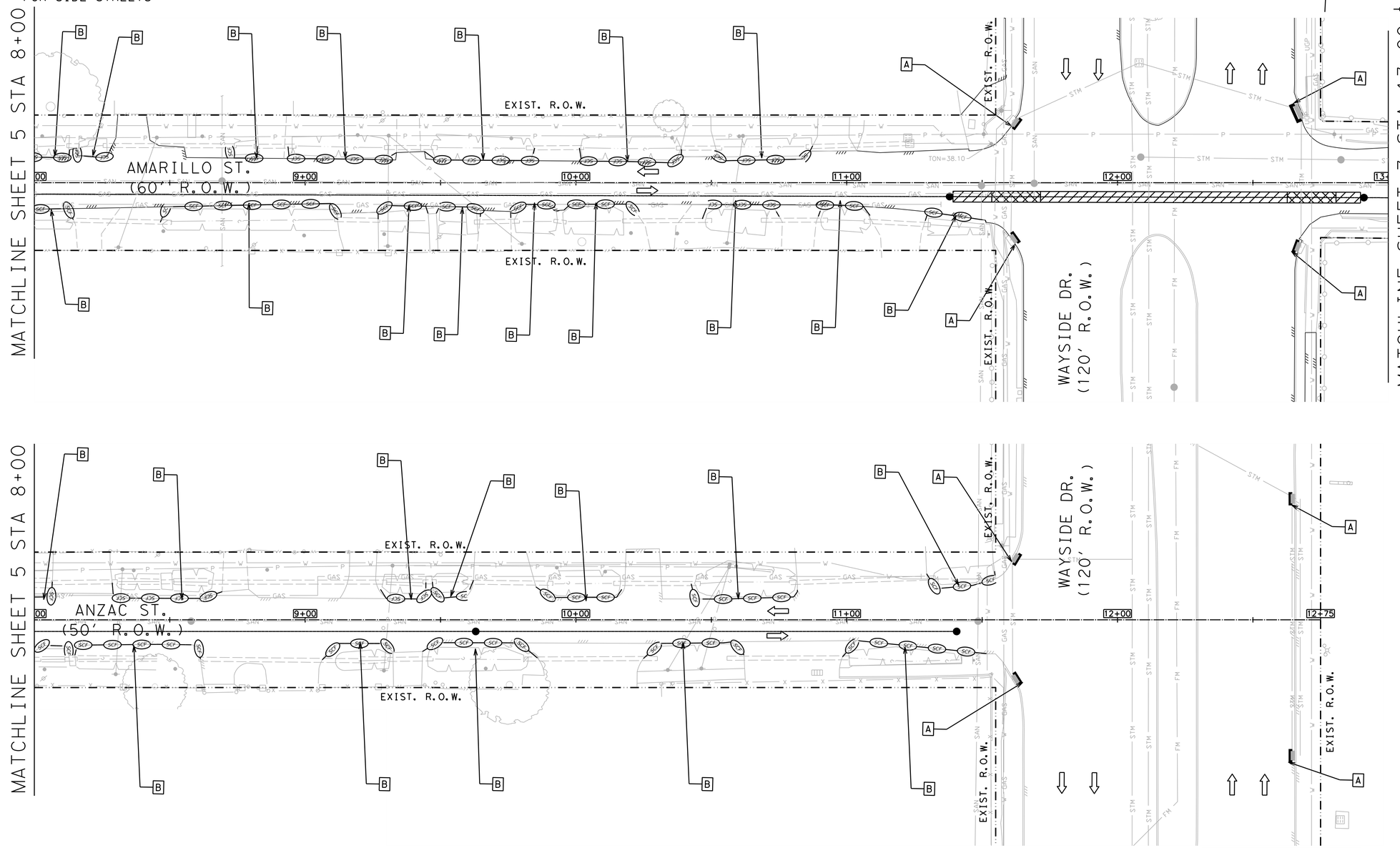
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R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 305 OF 339	

PLOTTED: 14-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-54\MyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMPAG WBS No. R-001000-0034-3 - SWPPP & TCP\CAD\SWPPP\115-SWPPP8 Crown at Anzac & Amarillo.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
WAYSIDE DR = 45 MPH
ANZAC ST = 30 MPH
AMARILLO ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
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5300 Hollister Rd, STE 111
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Ph: (281) 888-7682
Texas Registration No. F-13574

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FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 6 OF 24
WAYSIDE DR. AT
ANZAC ST. & AMARILLO ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 306 OF 339	

PLOTTED: 14-OCT-2026

PLOT STYLE: COH.CTB

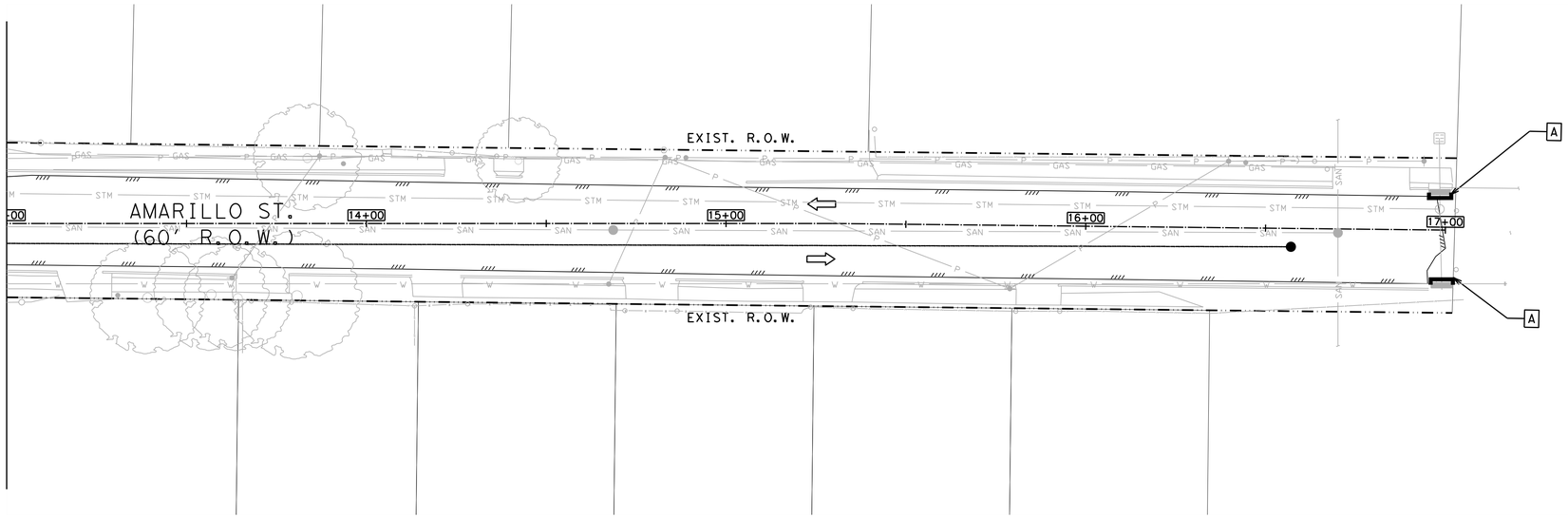
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NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- [A] EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- [B] SILT FENCE BARRIER
- SCF — SCF SILT FENCE BARRIER

MATCHLINE SHEET 6 STA 13+00



DESIGN & POSTED SPEED
AMARILLO ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
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5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 7 OF 24
AMARILLO ST.

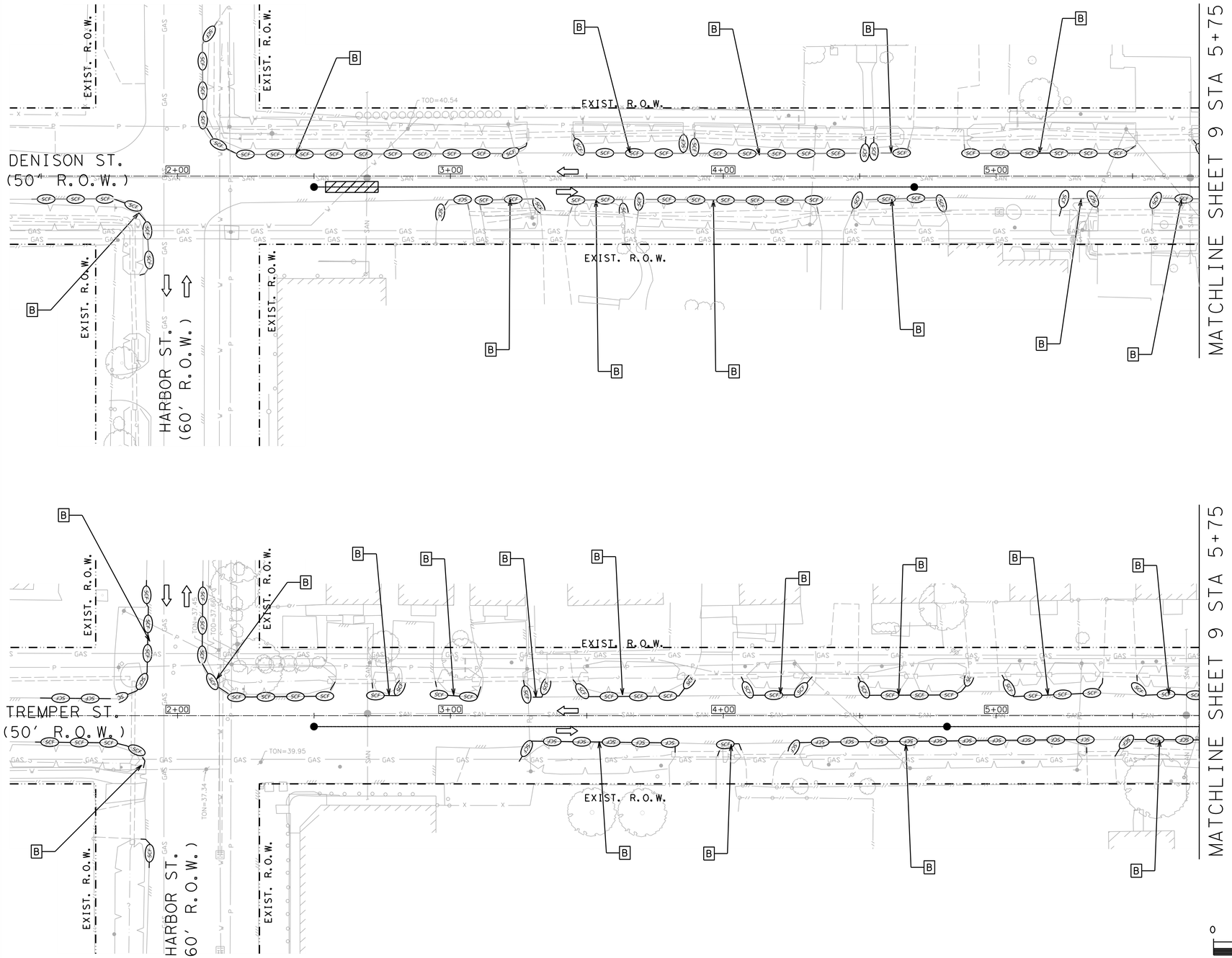
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 307 OF 339	

PLOTTED: 14-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-SAVidyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMMS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SW3P\117-SWPPP8 Amarillo.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- [A] EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- [B] SILT FENCE BARRIER
- SCF SILT FENCE BARRIER



DESIGN & POSTED SPEED
HARBOR ST = 30 MPH
TREMPER ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

SURVEYED BY: LANDTECH, INC.

FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 8 OF 24
HARBOR ST. AT
TREMPER ST. & DENISON ST.

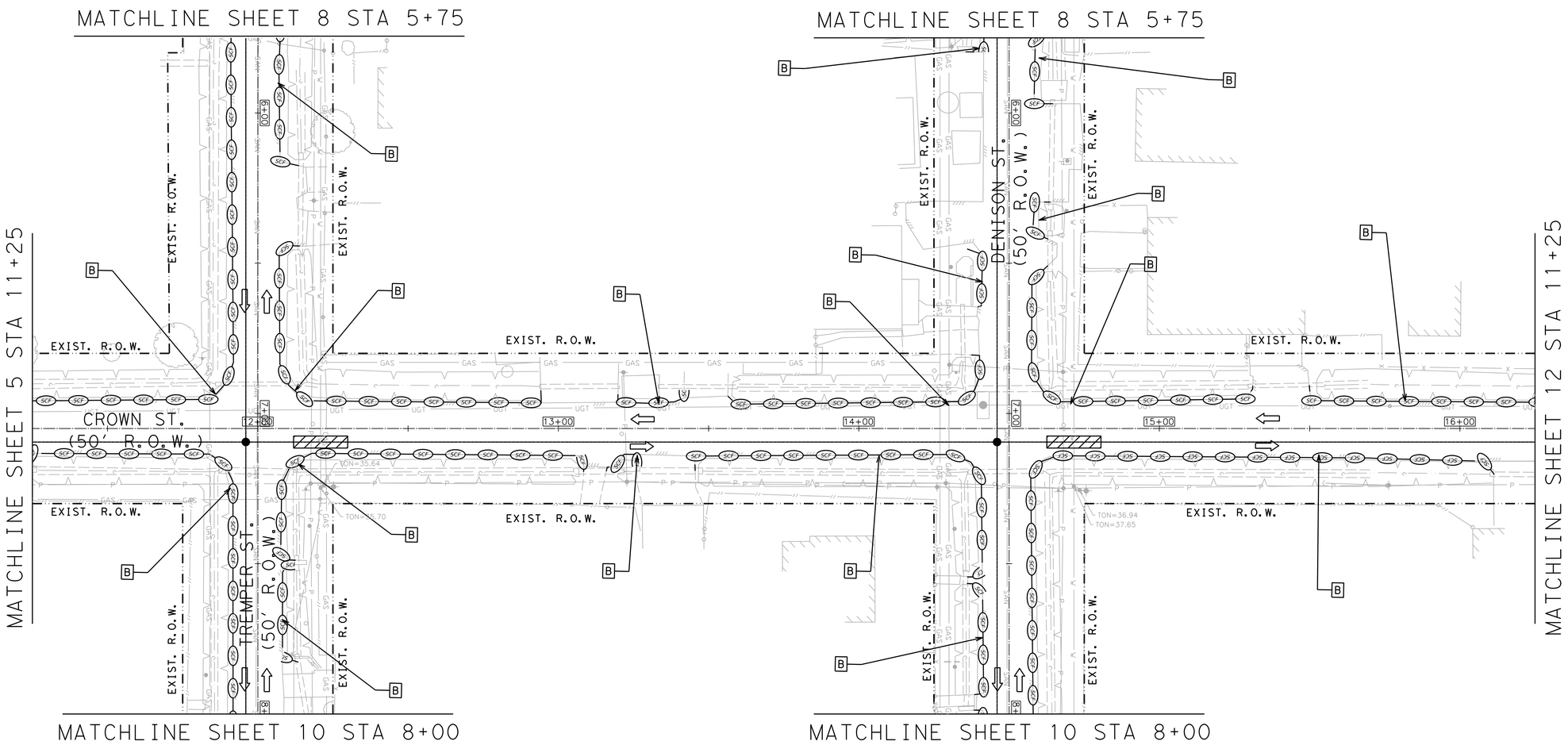
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 308 OF 339	

PLOTTED: 14-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-SAVA\Ayvion Solutions Dropbox\AGS Dropbox\AGS Projects\CRMP45 WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWPPP\118-SWPPP8 Harbor at Tremper & Denison.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
CROWN ST = 30 MPH
TREMPER ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 9 OF 24
CROWN ST. AT
TREMPER ST. & DENISON ST.

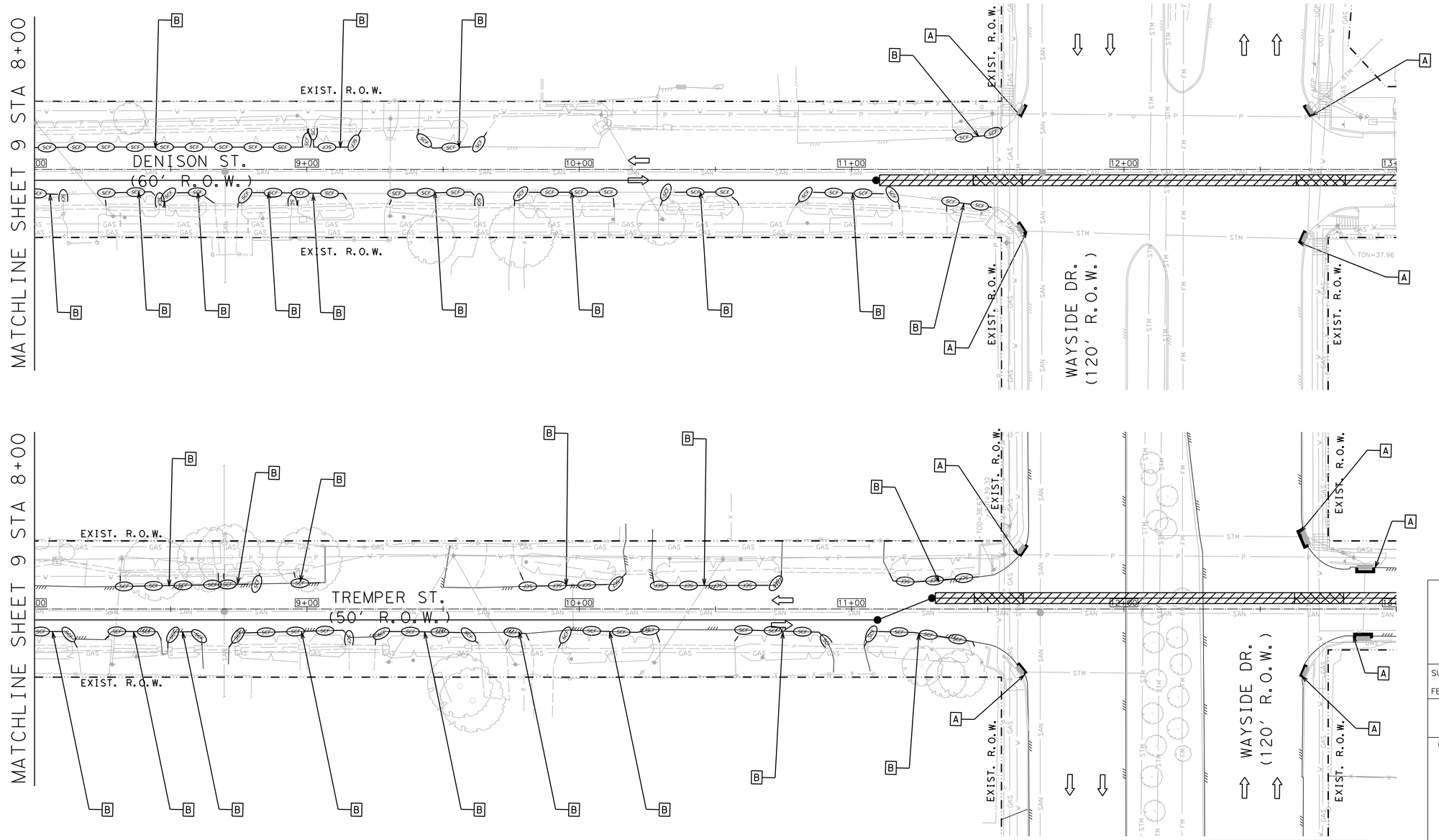
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 309 OF 339	

PLOTTED: 14-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-SAVeyDen Solutions Dropbox\AGS Dropbox\AGS Projects\DAYAS WBS No R-001000-0034-3 - SWPPP & TCPCAD\SWPP\119-SWPPP8 Crown st Tremper & Denison.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
WAYSIDE DR = 45 MPH
TREMPER ST = 30 MPH
DENISON ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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Houston, TX 77040
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Texas Registration No. F-13574

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FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 10 OF 24
WAYSIDE DR. AT
TREMPER ST. & DENISON ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 310 OF 339	

PLOTTED: 14-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-54\AppData Dropbox\AGS Dropbox\AGS Projects\Civil\AG WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWPPP\120-SWPPP8 Wayside at Tremper & Denison.dgn

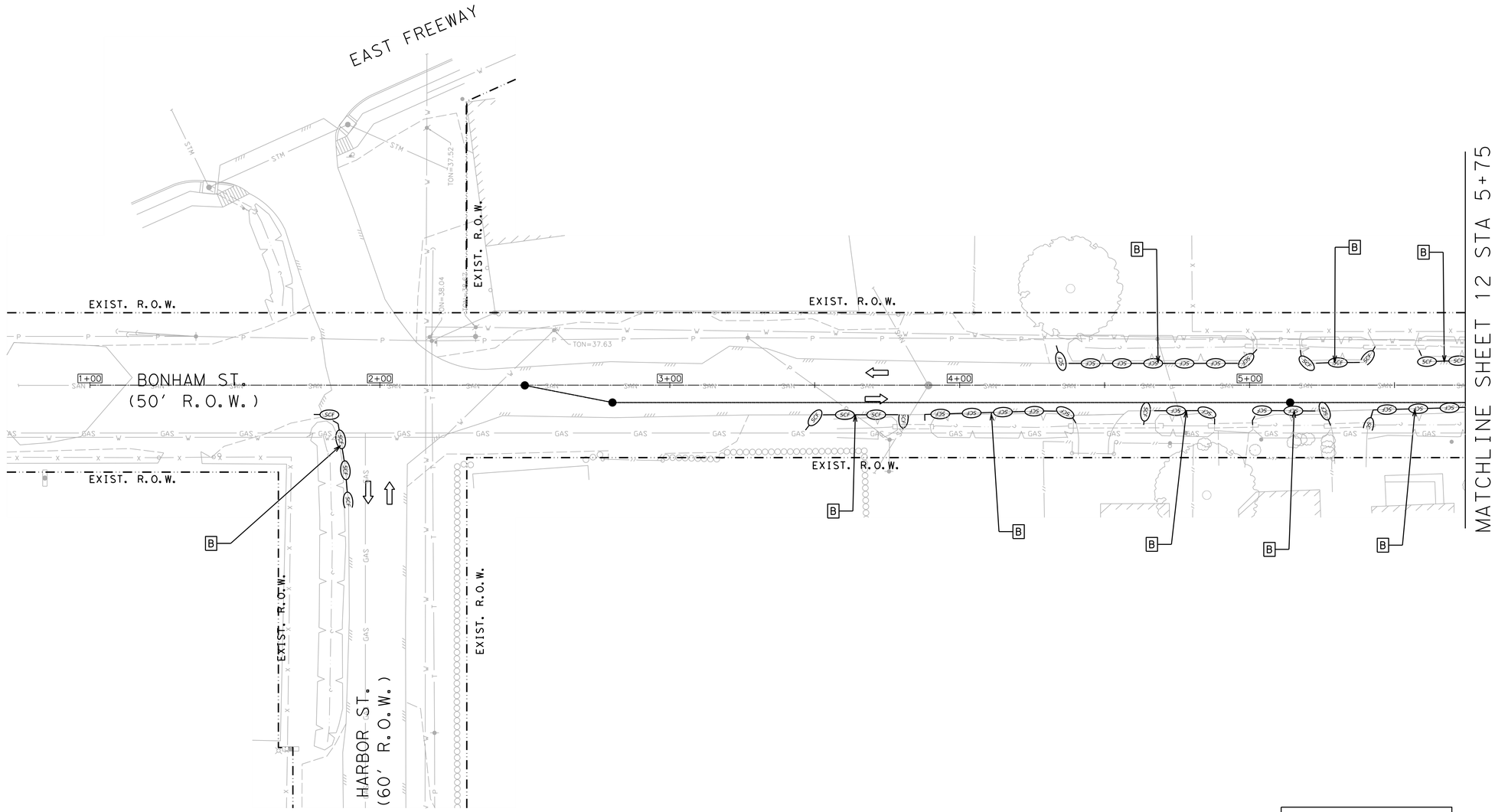
NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER

B — SILT FENCE BARRIER

SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
HARBOR ST = 30 MPH
BONHAM ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING | CONSTRUCTION
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Houston, TX 77040
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SURVEYED BY: LANDTECH, INC.

FB NO.

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 11 OF 24
HARBOR ST. AT
BONHAM ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 311 OF 339	

PLOTTED: 14-OCT-2026

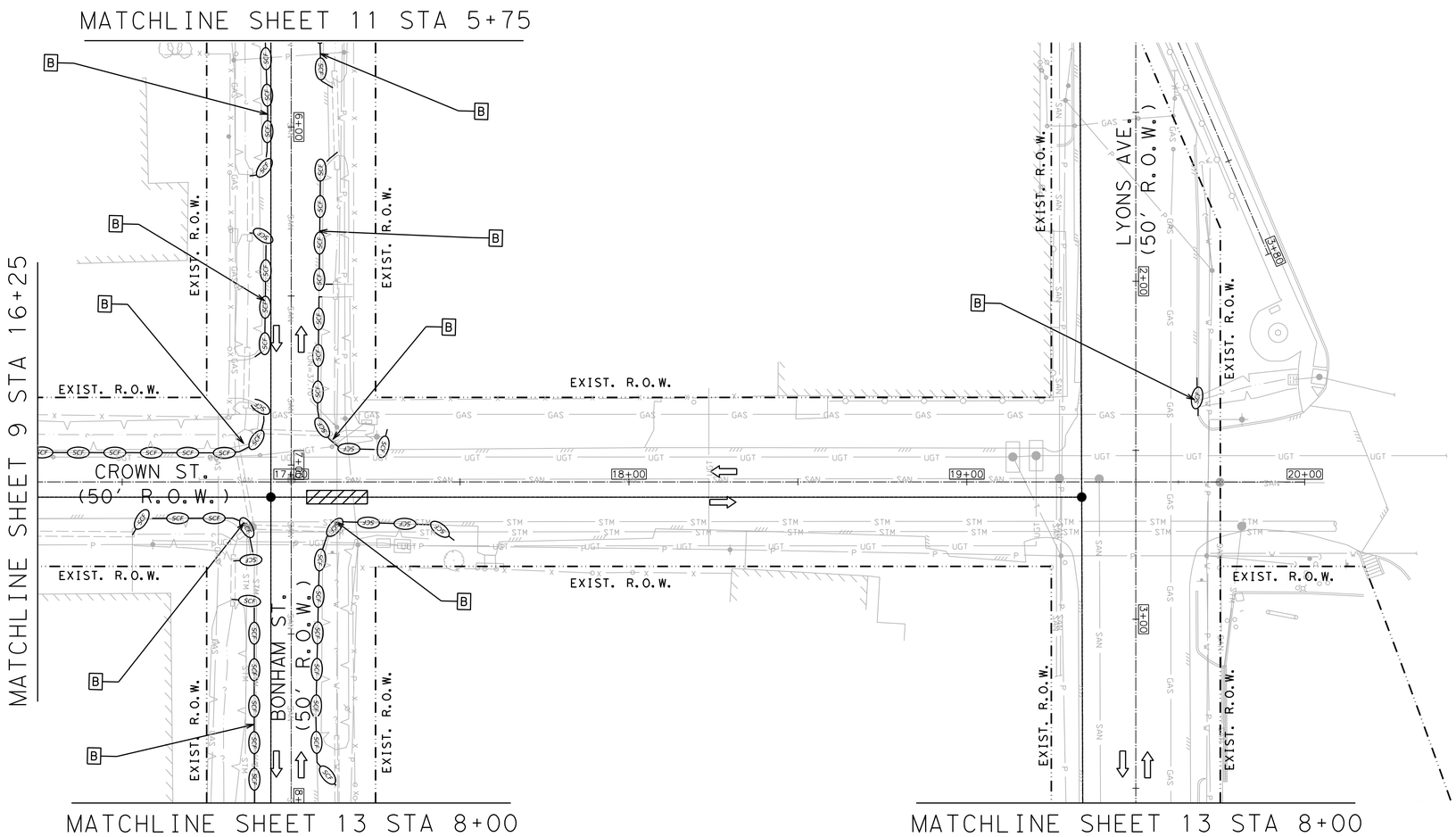
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NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- [A] EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- [B] SILT FENCE BARRIER
- SCF SILT FENCE BARRIER



DESIGN & POSTED SPEED
CROWN ST = 30 MPH
BONHAM ST = 30 MPH
LYONS AVE = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 12 OF 24
CROWN ST. AT
BONHAM ST. & LYONS AVE.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 312 OF 339	

PLOTTED: 14-OCT-2026
PLOT STYLE: COH.CTB
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NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER

MATCHLINE SHEET 12 STA 13+00

EXIST. R.O.W.

LYONS AVE. (50' R.O.W.)

4+00 5+00 6+00 7+00 8+00

EXIST. R.O.W.

EXIST. R.O.W.

WAYSIDE DR. (120' R.O.W.)

EXIST. R.O.W.

MATCHLINE SHEET 14 STA 8+50

MATCHLINE SHEET 12 STA 13+00

EXIST. R.O.W.

BONHAM ST. (50' R.O.W.)

9+00 10+00 11+00 12+00 13+

EXIST. R.O.W.

TON=38.77

EXIST. R.O.W.

WAYSIDE DR. (120' R.O.W.)

EXIST. R.O.W.

EXIST. R.O.W.

MATCHLINE SHEET 14 STA 13+00

DESIGN & POSTED SPEED
WAYSIDE DR = 45 MPH
BONHAM ST = 30 MPH
LYONS AVE = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

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SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 13 OF 24
WAYSIDE DR. AT
BONHAM ST. & LYONS AVE.

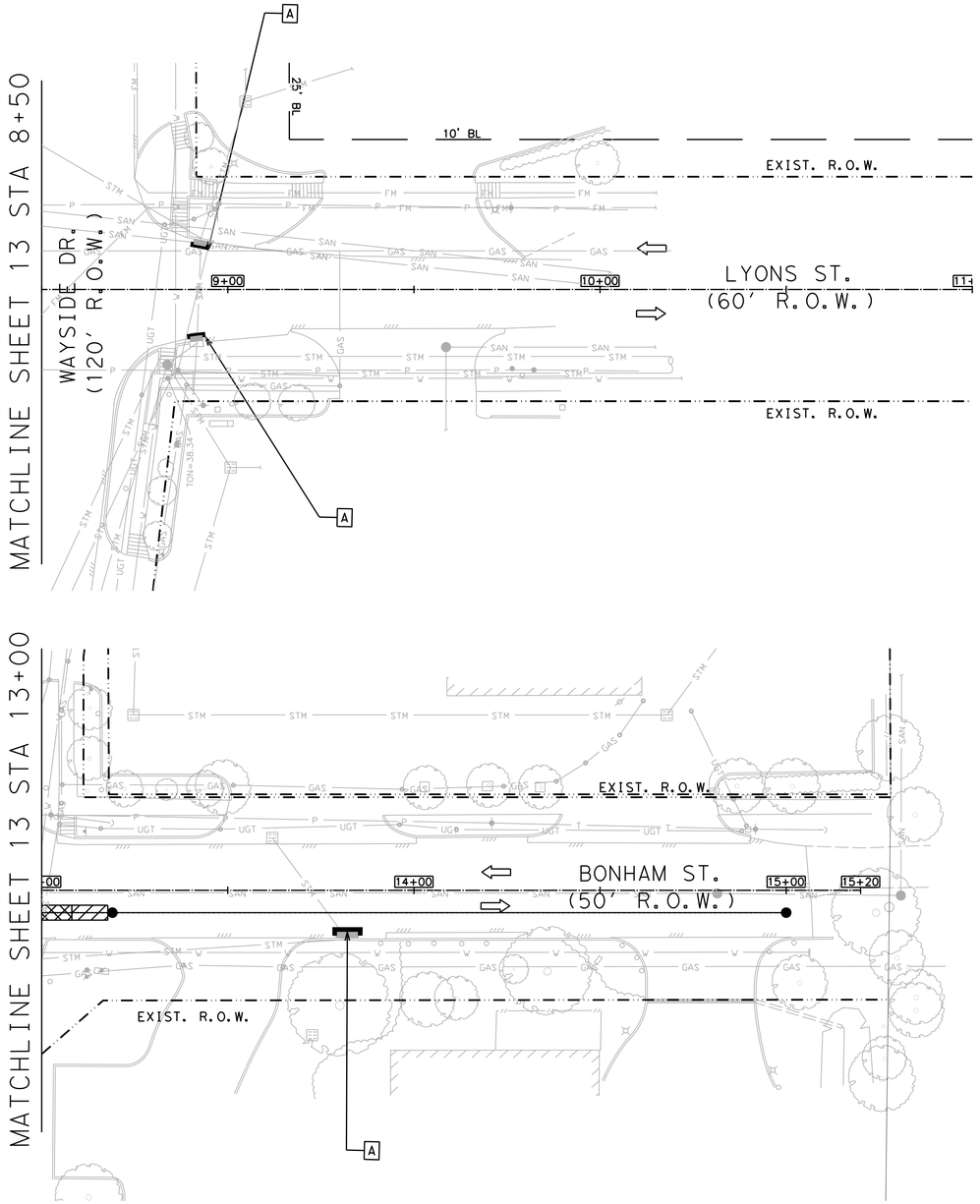
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 313 OF 339	

PLOTTED: 14-OCT-2026

PLOT STYLE: COH.CTB

FILE PATH: C:\Users\AGS-54\AGS Solutions Dropbox\AGS Dropbox\AGS Projects\CMTAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWPPP\21-SWPPP Wayside at Bonham & Lyons.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS



GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SILT FENCE BARRIER

DESIGN & POSTED SPEED
BONHAM ST = 30 MPH
LYONS AVE = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 8
SHEET 14 OF 24
BONHAM ST. & LYONS AVE.

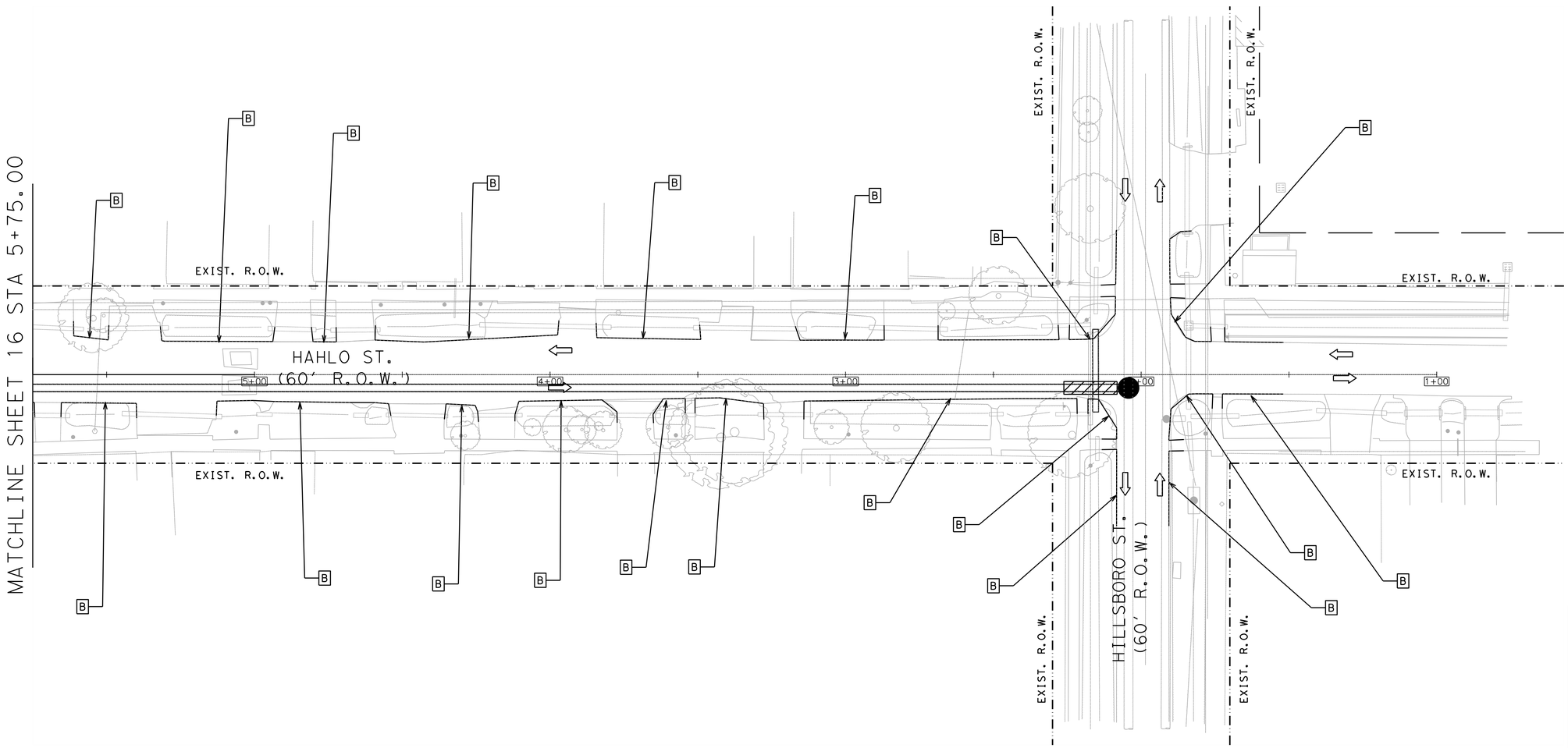
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R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 314 OF 339	

PLOTTED: 14-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS-54\AppData Solutions Dropbox\AGS Projects\CMTAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWPPP\24-SWPPPB Bonham & Lyons.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- [A] EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- [B] SILT FENCE BARRIER
- SCF — SCF SILT FENCE BARRIER



DESIGN & POSTED SPEED
HAHLO ST = 30 MPH
HILLSBORO ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP & TREE PROTECTION
SHEET 15 OF 24
HAHLO ST.
AT HILLSBORO ST.

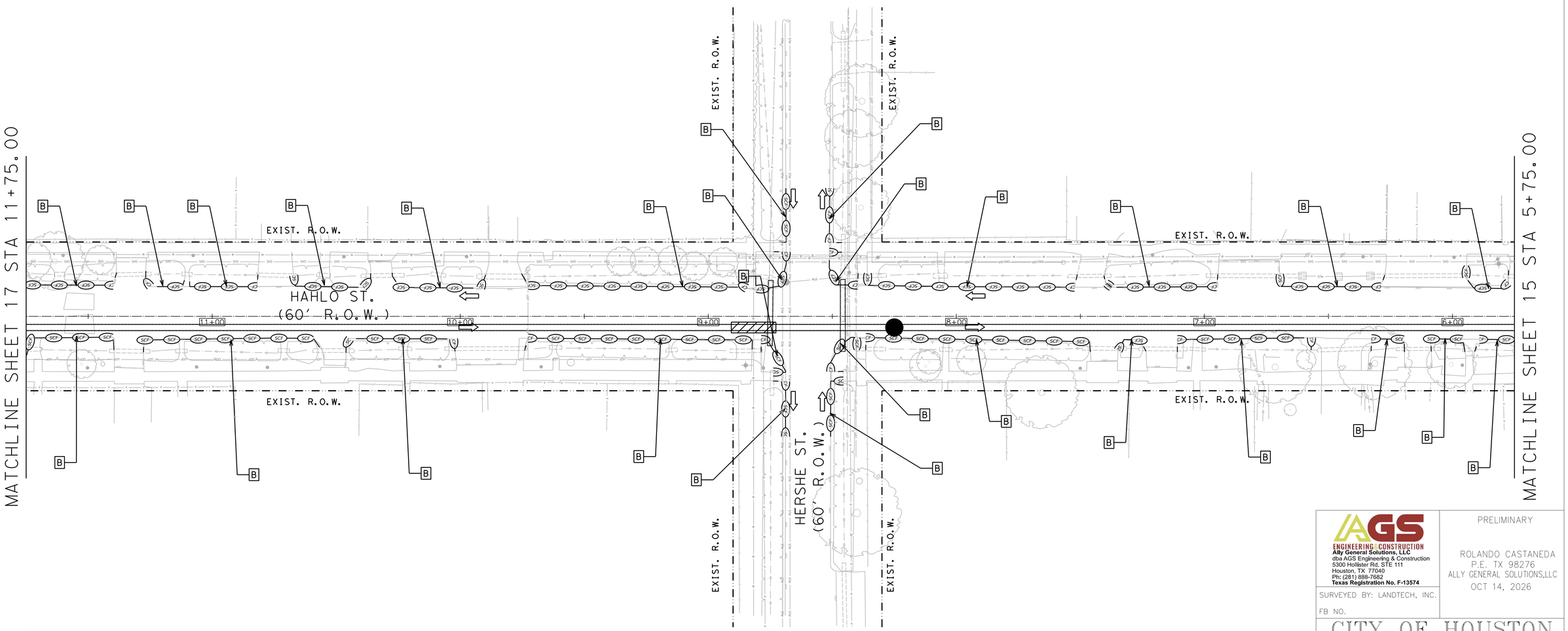
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R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 315 OF 339	

PLOTTED: 13-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS3\AmyGee Solutions Dropbox\AGS Dropbox\AGS Projects\CMTAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWPPP\123-SWPPP11 Hahlo at Hillsboro.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- [A] EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- [B] SILT FENCE BARRIER
- SCF SILT FENCE BARRIER



DESIGN & POSTED SPEED
HAHLO ST = 30 MPH
HERSHE ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP & TREE PROTECTION
SHEET 16 OF 24
HAHLO ST.
AT HERSHE ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
SHEET NO. 316 OF 339	

PLOTTED: 13-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS3\AllyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMTAS #BIS No R-001000-0034-3 - SWPPP & TCP\CAD\SWPPP\24-SWPPP11 Hahlo at Hershe.dgn

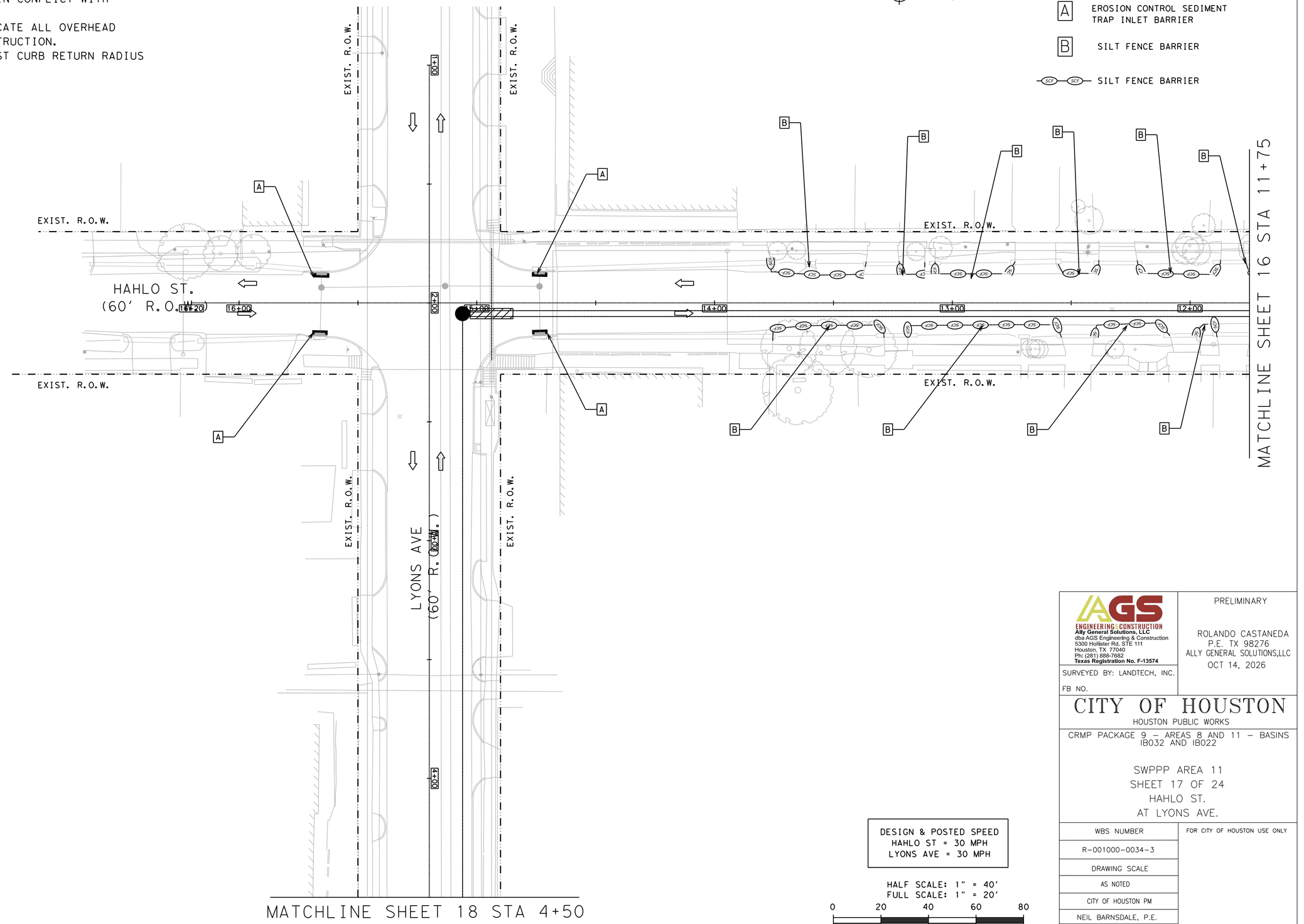
NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER

B — SILT FENCE BARRIER

SCF SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
HAHLO ST = 30 MPH
LYONS AVE = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC

OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 11
SHEET 17 OF 24
HAHLO ST.
AT LYONS AVE.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 317 OF 339	

PLOTTED: 13-OCT-2026

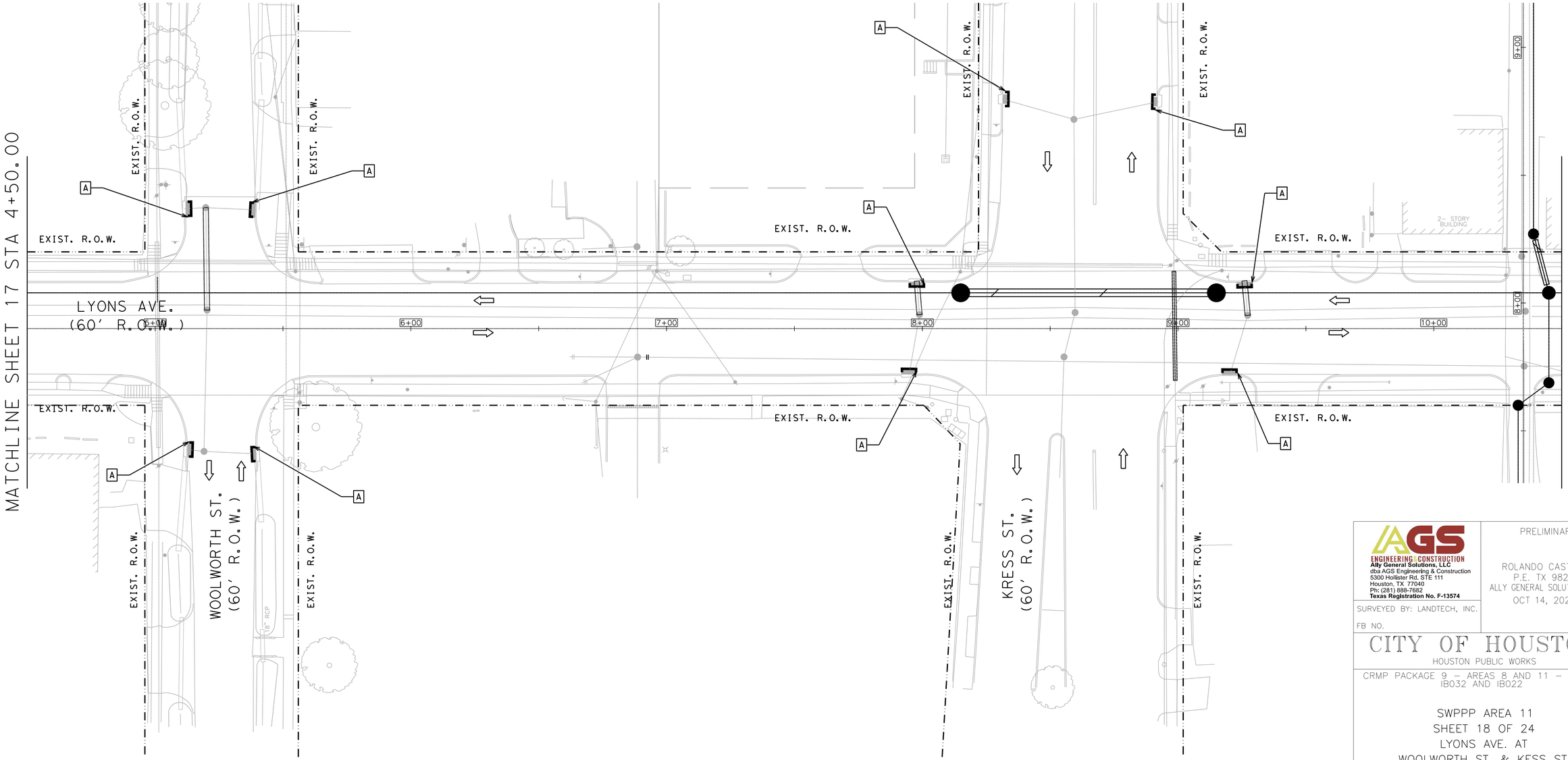
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NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
LYONS AVE = 30 MPH
WOOLWORTH ST= 30 MPH
KESS ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
PH: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 11
SHEET 18 OF 24
LYONS AVE. AT
WOOLWORTH ST. & KESS ST.

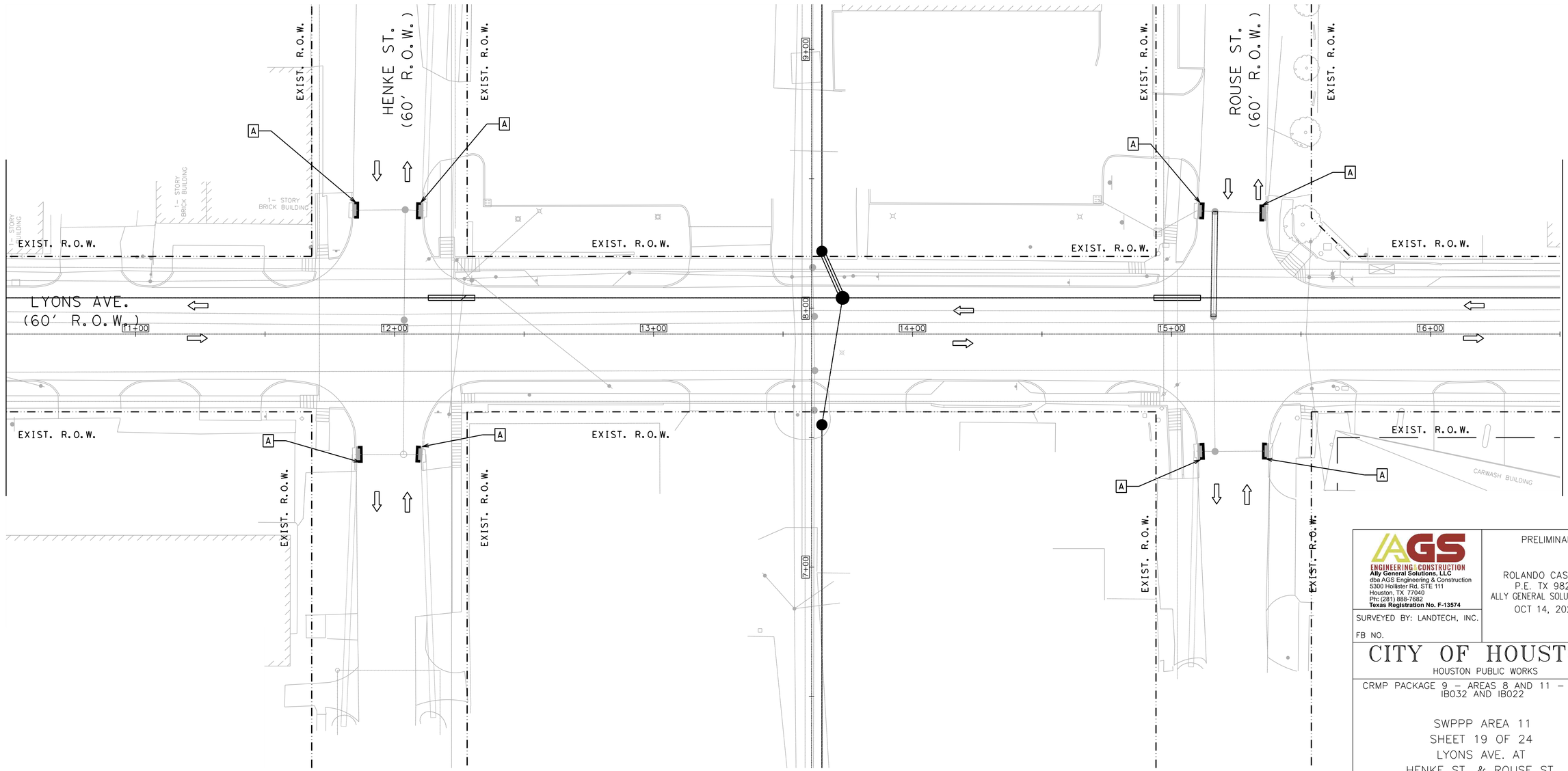
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R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
SHEET NO. 318 OF 339	

PLOTTED: 13-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS53\AllyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CAT45 WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWPPP11 Lyons at Woolworth & Kess.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
LYONS AVE = 30 MPH
HENKE ST = 30 MPH
ROUSE ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 11
SHEET 19 OF 24
LYONS AVE. AT
HENKE ST. & ROUSE ST.

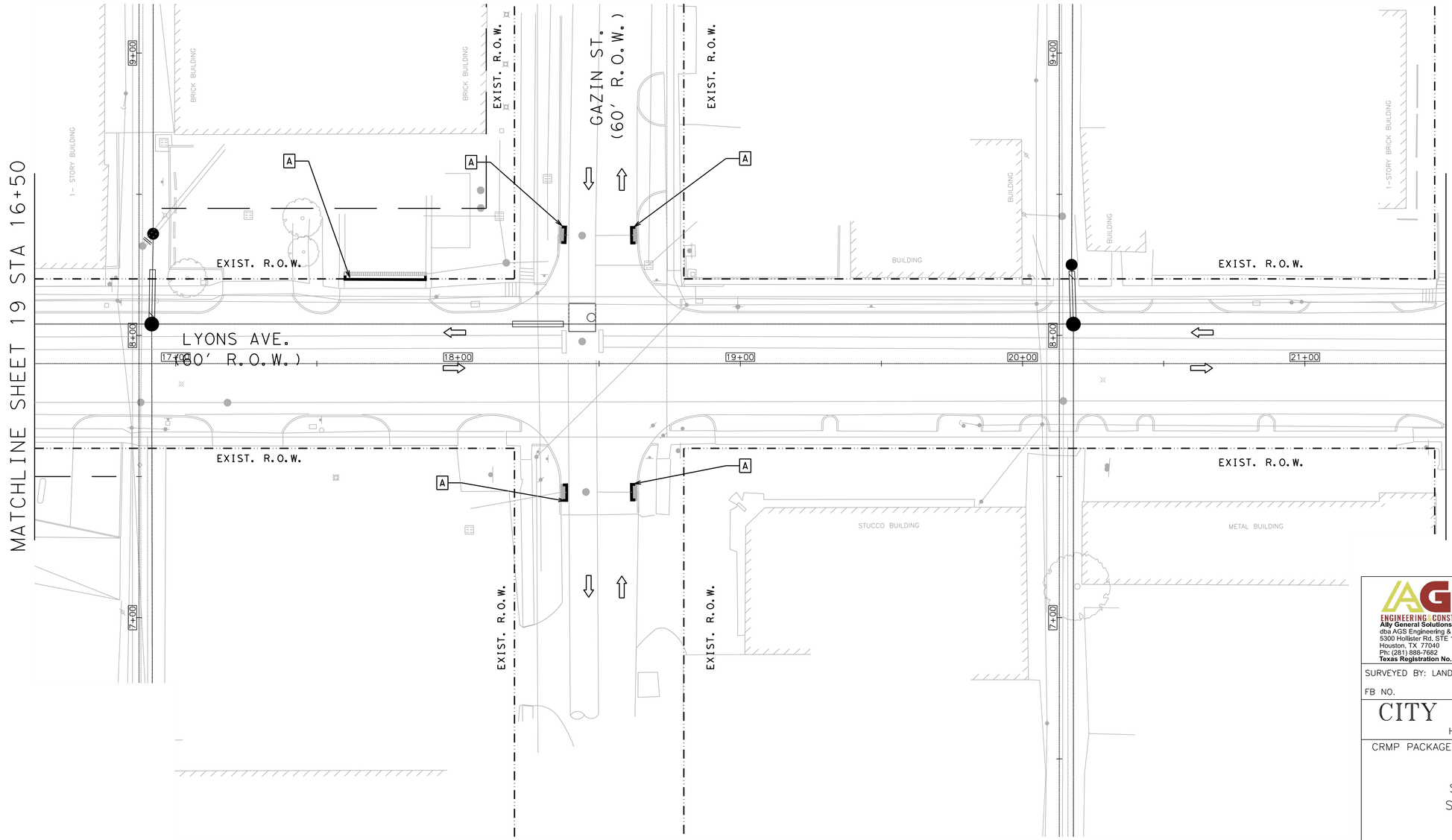
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 319 OF 339	

PLOTTED: 13-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS37\AGS Solutions Dropbox\AGS Projects\CMTRS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWSP\127-SWPP11 Lyons at Henke & Rouse.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- [A] EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- [B] SILT FENCE BARRIER
- SILT FENCE BARRIER



DESIGN & POSTED SPEED
LYONS AVE = 30 MPH
GAZIN ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 11
SHEET 20 OF 24
LYONS AVE. AT
GAZIN ST.

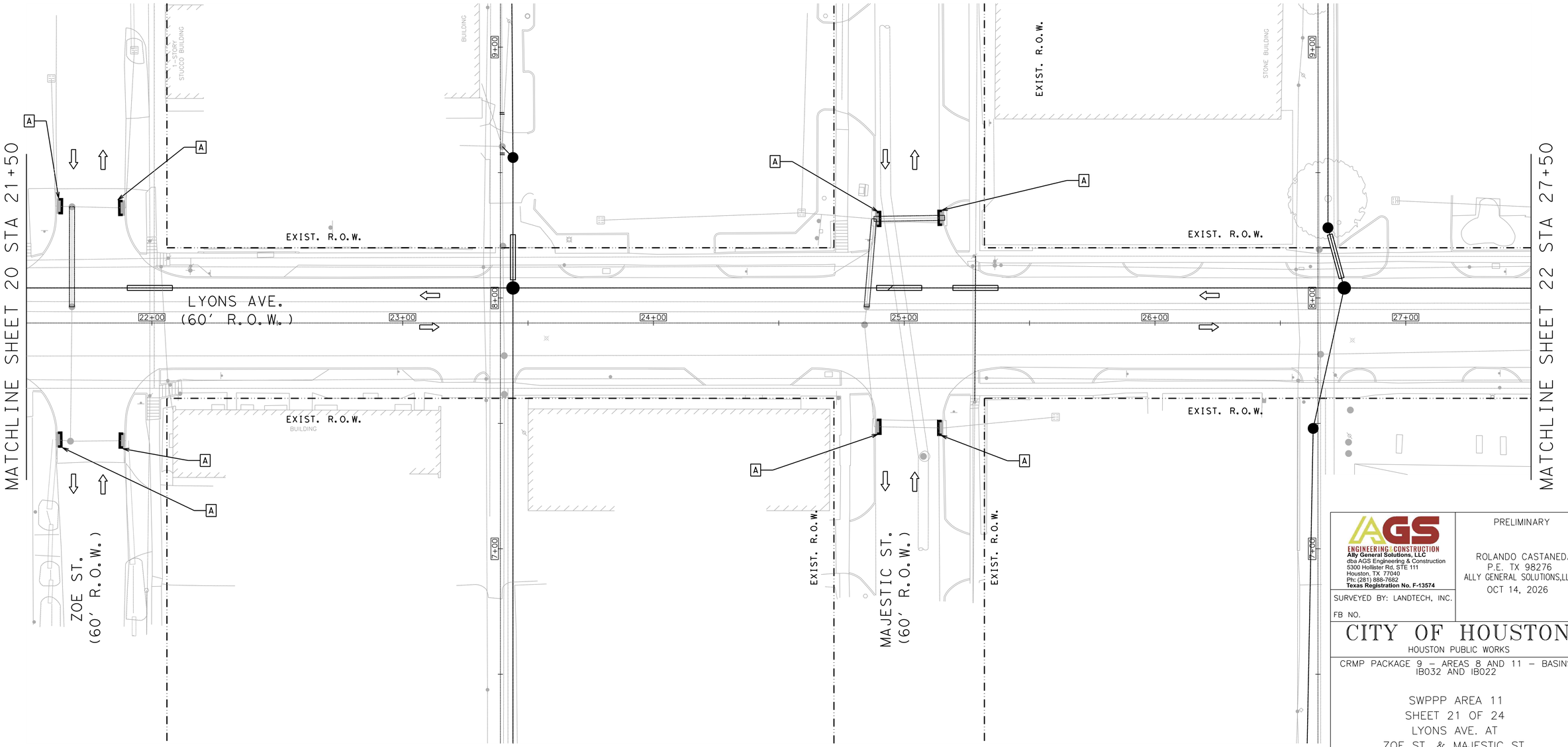
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 320 OF 339	

PLOTTED: 13-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS33\AllyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMMP& WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWSPV 12B-SWPPP11 Lyons at Gazin.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
LYONS AVE = 30 MPH
ZOE ST = 30 MPH
MAJESTIC ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
5300 Hollister Rd. STE 111
Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

SURVEYED BY: LANDTECH, INC.

FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 11
SHEET 21 OF 24
LYONS AVE. AT
ZOE ST. & MAJESTIC ST.

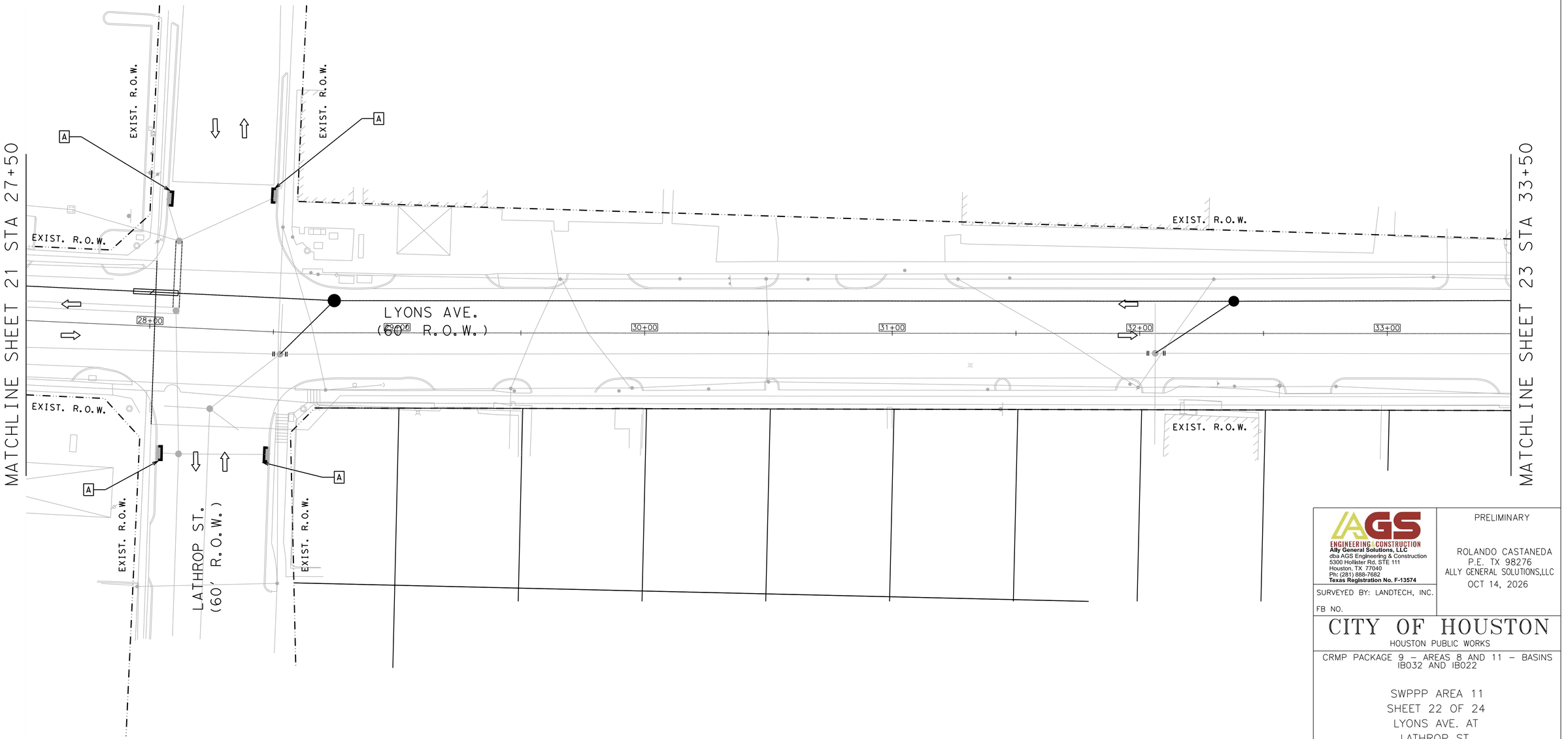
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DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 321 OF 339	

PLOTTED: 13-OCT-2026
PLOT STYLE: COH.CTB
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NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
LYONS AVE = 30 MPH
LATHROP ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
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Houston, TX 77040
Ph: (281) 888-7682
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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 11
SHEET 22 OF 24
LYONS AVE. AT
LATHROP ST.

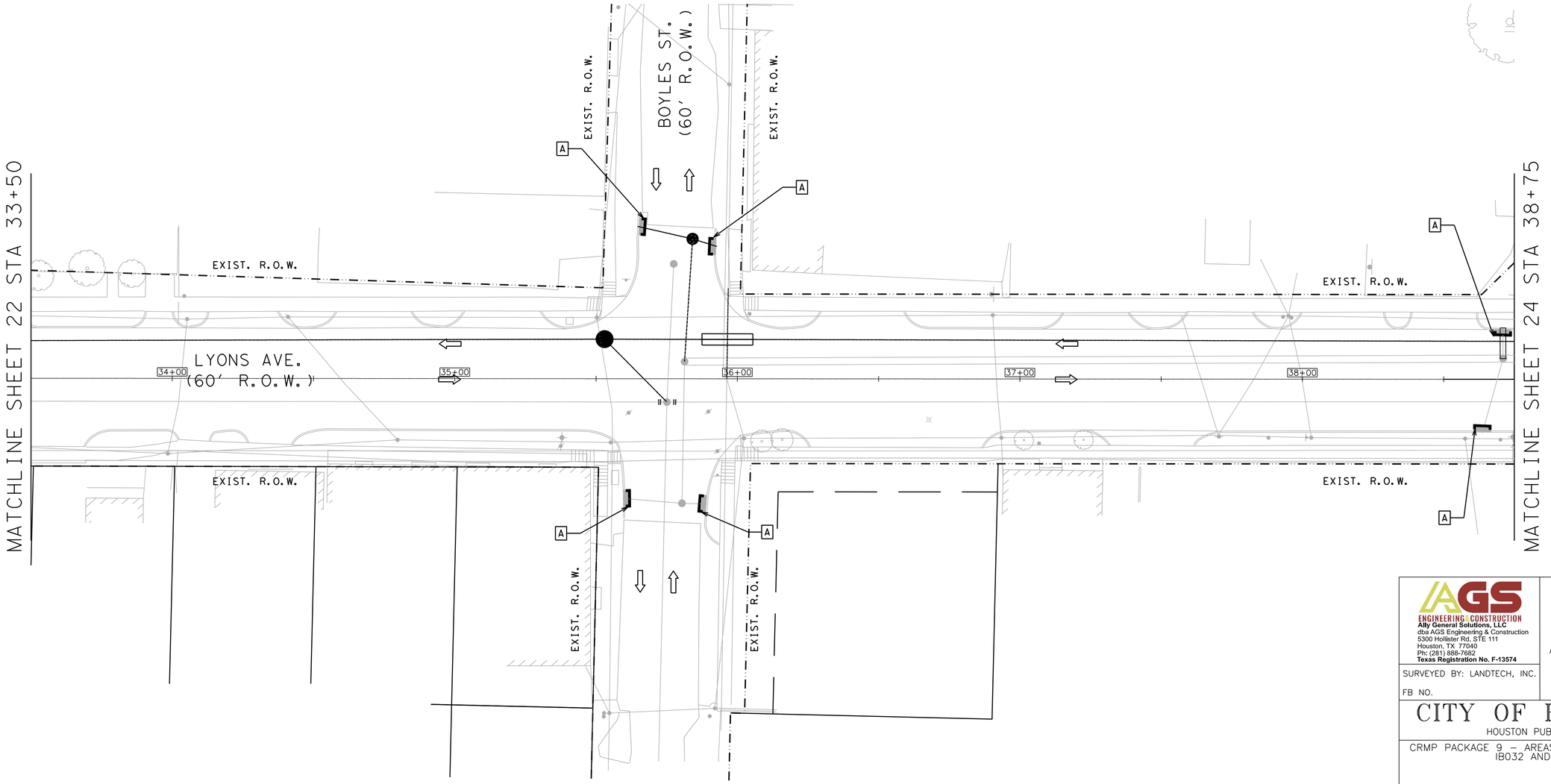
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 322 OF 339	

PLOTTED: 13-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS53\AllyGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMP\RG WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWSPPP\130-SWPPP11 Lyons at Lathrop.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
LYONS AVE = 30 MPH
BOYLES ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
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P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP & AREA 11
SHEET 23 OF 24
LYONS AVE. AT
BOYLES ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 323 OF 339	

PLOTTED: 13-OCT-2026

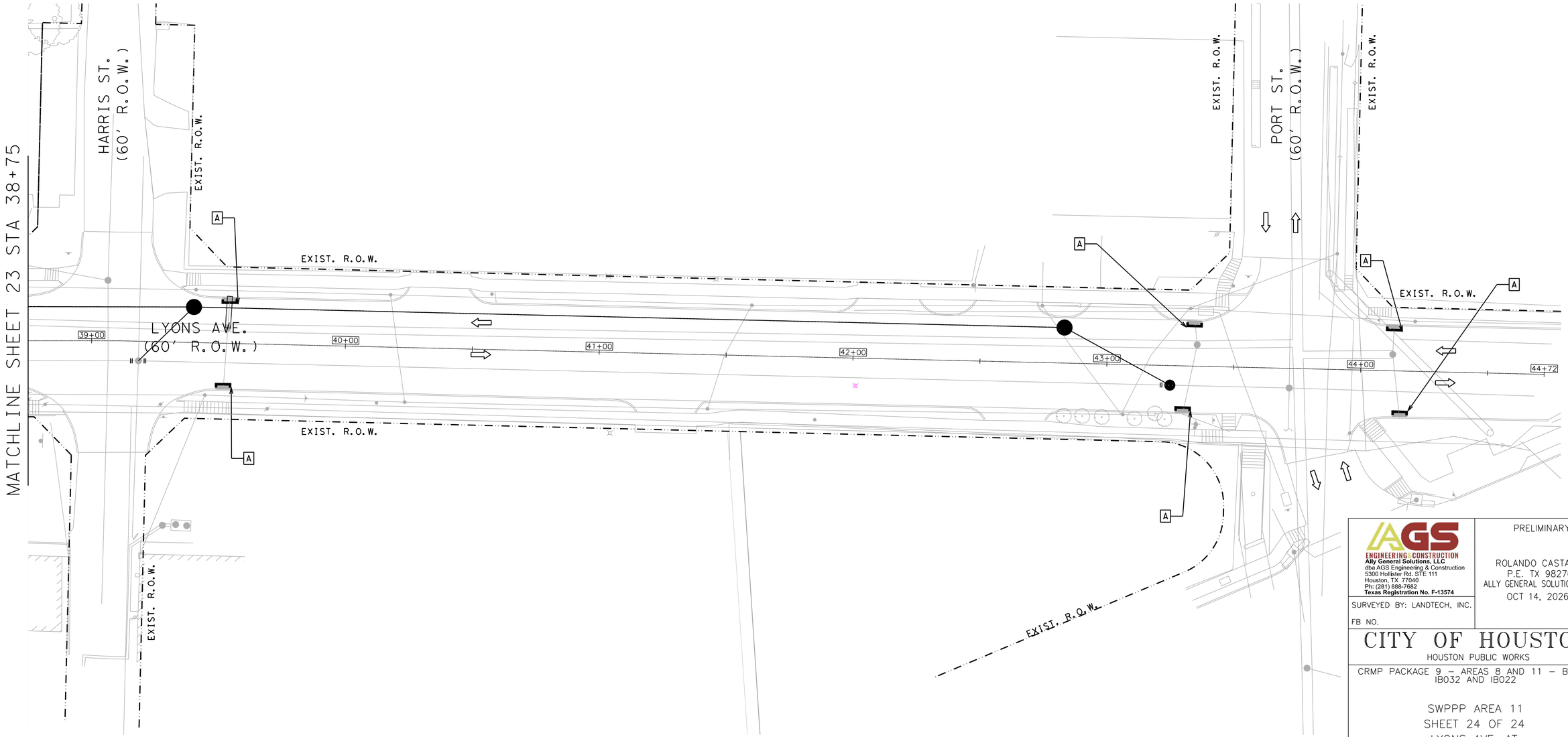
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FILE PATH: C:\Users\ACOSTA\AyGon Solutions Dropbox\AGS Projects\CMTS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWSP\131-SWPPP11 Lyons at Boyles.dgn

NOTES:
1. THE CONTRACTOR SHALL LOCATE ALL NECESSARY UTILITIES, THAT MAY BE IN CONFLICT WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL LOCATE ALL OVERHEAD POWER LINES BEFORE CONSTRUCTION.
3. PLACE SILT FENCE 30' PAST CURB RETURN RADIUS FOR SIDE STREETS

GENERAL-LEGEND

- A — EROSION CONTROL SEDIMENT TRAP INLET BARRIER
- B — SILT FENCE BARRIER
- SCF — SILT FENCE BARRIER



DESIGN & POSTED SPEED
LYONS AVE = 30 MPH
HARRIS ST = 30 MPH
PORT ST = 30 MPH

HALF SCALE: 1" = 40'
FULL SCALE: 1" = 20'

0 20 40 60 80

AGS ENGINEERING & CONSTRUCTION
Ally General Solutions, LLC
dba AGS Engineering & Construction
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Houston, TX 77040
Ph: (281) 888-7682
Texas Registration No. F-13574

SURVEYED BY: LANDTECH, INC.

FB NO.

PRELIMINARY

ROLANDO CASTANEDA
P.E. TX 98276
ALLY GENERAL SOLUTIONS,LLC
OCT 14, 2026

CITY OF HOUSTON

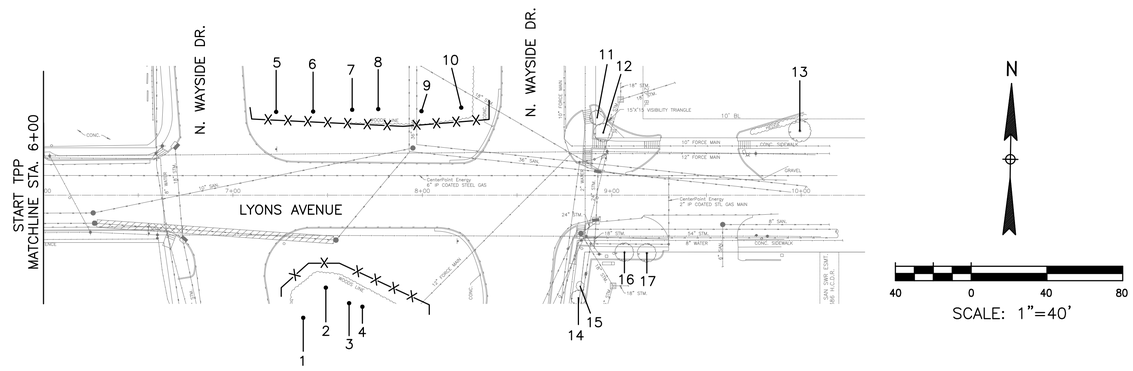
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

SWPPP AREA 11
SHEET 24 OF 24
LYONS AVE. AT
HARRIS ST. & PORT ST.

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0034-3	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 324 OF 339	

PLOTTED: 13-OCT-2026
PLOT STYLE: COH.CTB
FILE PATH: C:\Users\AGS33\AlfaGen Solutions Dropbox\AGS Dropbox\AGS Projects\CMPAS WBS No R-001000-0034-3 - SWPPP & TCP\CAD\SWSPV\132-SWPPP11 Lyons at Harris & Port.dgn



NOTE:

1. THIS TREE PROTECTION PLAN WAS DEVELOPED WITH INFORMATION PROVIDED BY DESIGN ENGINEER IN DRAWINGS DATED APRIL 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 01562 AND 02915.
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 / ①	TREE NUMBER/LOCATION TREE TO BE REMOVED
–X–X–	TREE PROTECTION FENCE
⊢-----⊣	ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Lyons Avenue					
1	Median	4" Pine	Protected		Fence
2	Median	21" Black Willow	Protected		Fence
3	Median	4 " Live Oak	Protected		Fence
4	Median	4" Live Oak	Protected		Fence
5	Median	11" Cedar Elm	Protected		Fence
6	Median	4" Cedar Elm	Protected		Fence
7	Median	5" Cedar Elm	Protected		Fence
8	Median	8" Cedar Elm	Protected		Fence
9	Median	6" Cedar Elm	Protected		Fence
10	Median	5" Cedar Elm	Protected		Fence
11	Not available	10" Live Oak	Not protected	Private tree, Not impacted	
12	7604 East Fwy	10" Live Oak	Not protected	Not impacted, Private tree	
13	7604 East Fwy	15" Live Oak	Not protected	Not impacted, Private tree	
14	7614 Lyons	12" Live Oak	Protected	Not impacted	
15	7614 Lyons	10" Live Oak	Protected	Not impacted	
16	7614 Lyons	11" Live Oak	Protected	Not impacted	
17	7614 Lyons	10" Live Oak	Protected	Not impacted	

NO.	DATE	REVISION	APP.

C.N. Koehl
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APPROVED:

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TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

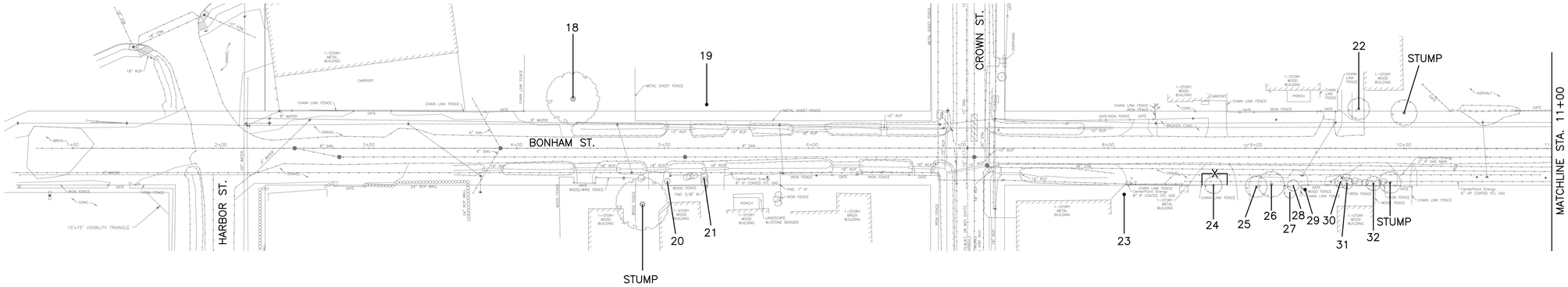
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

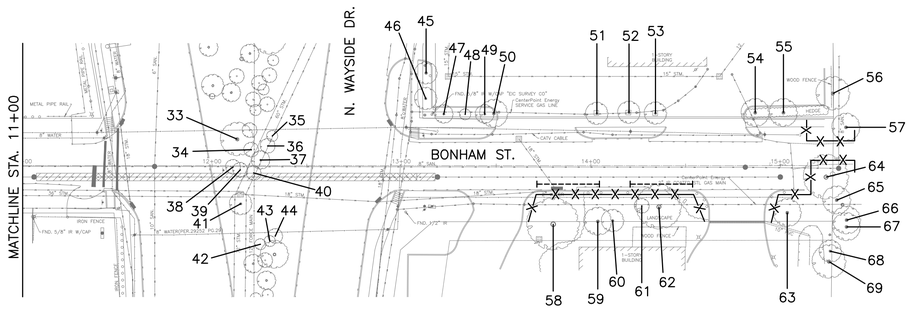
TREE PROTECTION PLAN

SHEET 1 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 325 OF 339	

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NOTE:

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TREE PRESERVATION PLAN LEGEND	
1	TREE NUMBER/LOCATION
(1)	TREE TO BE REMOVED
–X–X–	TREE PROTECTION FENCE
⊢-----⊣	ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Bonham Street					
18	Not available	31" Pecan	Corridor Tree	Private tree, 90% dead, Not impacted	
19	7438 Lyons	28" American Elm	Protected	Pruned by CPE, Private tree, Not impacted	
20	7424 Bonham	3" Eastern Red Cedar	Not protected	Not protected	
21	7424 Bonham	6" Peach	Not protected	Not impacted	
22	7514 Bonham	16" Magnolia	Not protected	50% dieback, Large trunk scars, Private tree, Not impacted	
23	7514 Bonham	23" Pecan	Corridor Tree	Private tree, Not impacted	
24	Not available	8" Water Oak	Protected		Fence
25	7514 Bonham	9" Crepe Myrtle	Not protected	Private tree, Not impacted	
26	7514 Bonham	16" Crepe Myrtle	Not protected	60% dieback	
27	7514 Bonham	3" Crepe Myrtle	Not protected	Private tree, Not impacted	
28	7514 Bonham	3" Crepe Myrtle	Not protected	Private tree, Not impacted	
29	7514 Bonham	17" Crepe Myrtle	Not protected	Private tree, Not impacted	
30	7514 Bonham	6" Crepe Myrtle	Not protected		
31	7514 Bonham	3" Crepe Myrtle	Not protected		
32	7514 Bonham	5" Crepe Myrtle	Not protected	Topped	
33	Median	15" Live Oak	Protected		Trenchless construction
34	Median	5" Pine	Protected		Trenchless construction
35	Median	3" Live Oak	Protected		Trenchless construction
36	Median	6" Live Oak	Protected		Trenchless construction
37	Median	7" Live Oak	Protected		Trenchless construction
38	Median	5" Live Oak	Protected		Trenchless construction
39	Median	5" Live Oak	Protected		Trenchless construction
40	Median	5" Live Oak	Protected		Trenchless construction
41	Median	7" Sweet Gum	Protected		Trenchless construction
42	Median	5" Pine	Protected		Trenchless construction
43	Median	23" Sweet Gum	Protected		Trenchless construction
44	Median	6" Sweet Gum	Protected		Trenchless construction
45	7614 Lyons	10" Live Oak	Not protected	Private tree, Not impacted	
46	7614 Lyons	11" Live Oak	Not protected	Private tree, Not impacted	
47	7614 Lyons	9" Live Oak	Not protected	Private tree, pruned by CPE, Not impacted	
48	7614 Lyons	7" Live Oak	Not protected	Private tree, pruned by CPE, Not impacted	
49	7614 Lyons	9" Live Oak	Not protected	Private tree, pruned by CPE, Not impacted	
50	7614 Lyons	8" Vitex	Not protected	Not impacted, Private tree	
51	7614 Lyons	12" Live Oak	Not protected	Private tree, pruned by CPE, Not impacted	
52	7614 Lyons	10" Live Oak	Not protected	Private tree, pruned by CPE, Not impacted	
53	7614 Lyons	12" Live Oak	Not protected	Private tree, pruned by CPE, Not impacted	
54	7614 Lyons	17" Live Oak	Not protected	Private tree, pruned by CPE, Not impacted	
55	7614 Lyons	13" Live Oak	Not protected	Private tree, pruned by CPE, Not impacted	
56	7614 Lyons	22" Arizona Ash	Not protected	Private tree, Not impacted	
57	7614 Lyons	21" Arizona Ash	Protected		Fence
58	Not available	22" Live Oak	Corridor Tree	Private tree	Root prune for sanitary sewer, Fence, Clearance prune
59	1500 N Wayside	12" Live Oak	Protected		Fence, Clearance prune
60	1500 N Wayside	11" Live Oak	Protected		Fence, Clearance prune
61	1500 N Wayside	6" Live Oak	Protected	Suppressed	Fence, Clearance prune
62	1500 N Wayside	23" Live Oak	Protected		Fence, Clearance prune, Root prune for sanitary
63	1500 N Wayside	11" Live Oak	Protected		Fence, Clearance prune
64	1500 N Wayside	22" Cottonwood	Protected	Codominant	Fence, Clearance prune
65	1500 N Wayside	14" Arizona Ash	Not protected		
66	1500 N Wayside	11" Arizona Ash	Not protected		
67	1500 N Wayside	11" Arizona Ash	Not protected		
68	1500 N Wayside	10" Arizona Ash	Not protected		
69	1500 N Wayside	15" Arizona Ash	Not protected	Private tree, Not impacted	

N

40 0 40 80

SCALE: 1"=40'

NO.	DATE	REVISION	APP.

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HOUSTON PUBLIC WORKS

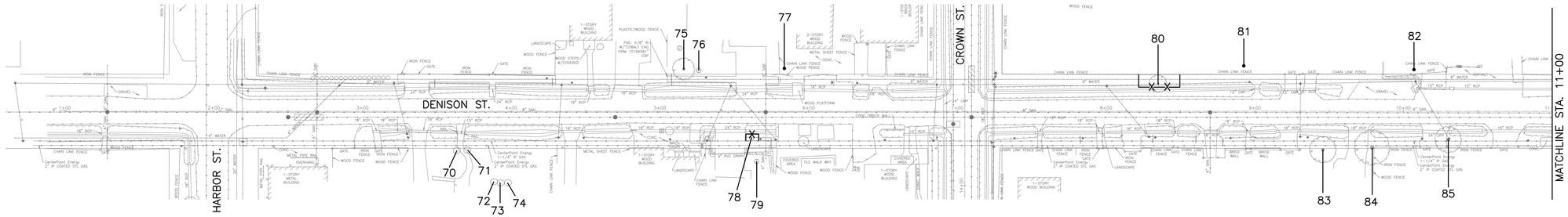
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

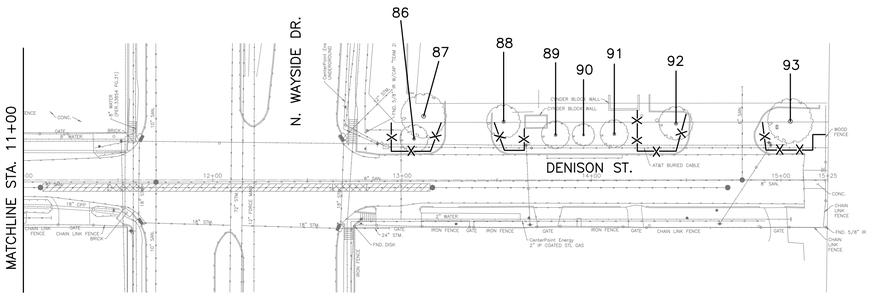
TREE PROTECTION PLAN

SHEET 2 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 326 OF 339	

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TREE PRESERVATION PLAN LEGEND

- 1 — TREE NUMBER/LOCATION
- (1) — TREE TO BE REMOVED
- –X–X– — TREE PROTECTION FENCE
- ⊢-----⊣ — ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Denison Street					
70	7412 Denison	2" Nandina	Not protected	Private tree, Not impacted	
71	7412 Denison	2" Nandina	Not protected	Private tree, Not impacted	
72	7412 Denison	2" Nandina	Not protected	Private tree, Not impacted	
73	7412 Denison	2" Nandina	Not protected	Private tree, Not impacted	
74	7412 Denison	2" Nandina	Not protected	Private tree, Not impacted	
75	7421 Denison	15" Pecan	Not protected	Topped by CPE, Not impacted, Private tree	
76	7421 Denison	3" Live Oak	Not protected	Private tree, Not impacted	
77	7421 Denison	15" Pecan	Not protected	Topped by CPE, Not impacted, Private tree	
78	7426 Denison	4" Live Oak	Protected		Fence
79	7426 Denison	3" Peach	Not protected	Private tree, Not impacted	
80	7515 Denison	11" Pecan	Protected	Topped by CPE	Fence, Clearance prune
81	7515 Denison	25" Pecan	Corridor Tree	Topped by CPE, Private tree, Not impacted	
82	7527 Denison	11" Sugarberry	Not protected	Private tree, Not impacted	
83	7520 Denison	14" Yew	Not protected	80% Dieback, Not impacted	
84	7520 Denison	Stump	Not protected		
85	7522 Denison	14" Crepe Myrtle	Not protected		
86	Not available	14" Live Oak	Protected	Topped by CPE	Fence, Clearance prune
87	Not available	17" Live Oak	Not protected	Private tree, Pruned by CPE, Not impacted	
88	Not available	15" Live Oak	Not protected	Private tree	Fence
89	1500 N Wayside	15" Bradford Pear	Not protected	Pruned by CPE	
90	1500 N Wayside	12" Bradford Pear	Not protected	Pruned by CPE	
91	1500 N Wayside	14" Bradford Pear	Not protected	Pruned by CPE	
92	1500 N Wayside	15" Live Oak	Protected	Pruned by CPE	Fence
93	1500 N Wayside	18" Live Oak	Protected	Pruned by CPE	Fence

N

40 0 40 80

SCALE: 1"=40'

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON

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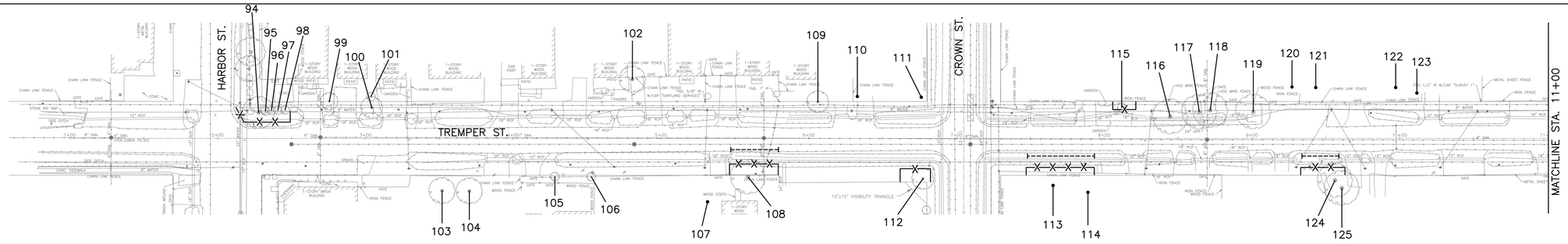
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

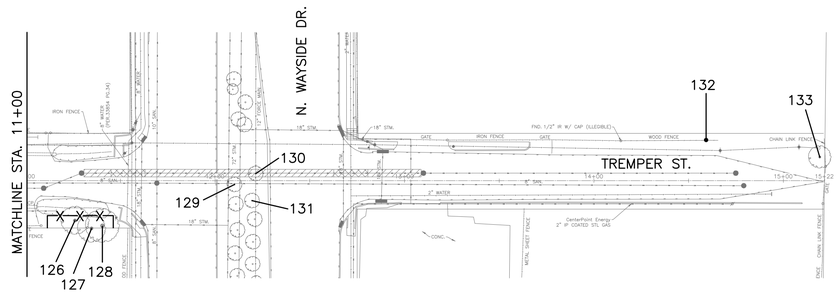
TREE PROTECTION PLAN

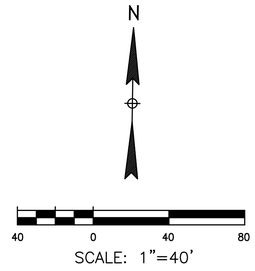
SHEET 3 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 327 OF 339	

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NOTE:

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TREE PRESERVATION PLAN LEGEND

- 1 — TREE NUMBER/LOCATION
- (1) — TREE TO BE REMOVED
- –X–X– — TREE PROTECTION FENCE
- ⊢------⊣ — ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Tremper Street					
94	7403 Tremper	23" Arizona Ash	Protected	Topped, Trunk wound	Fence
95	7403 Tremper	6" Loquat	Not protected	Not impacted	
96	7403 Tremper	6" Loquat	Not protected	Not impacted	
97	7403 Tremper	6" Loquat	Not protected	Not impacted	
98	7403 Tremper	6" Loquat	Not protected	Not impacted	
99	7407 Tremper	11" Arizona Ash	Not protected	Private tree, Not impacted	
100	7411 Tremper	7" Loquat	Not protected	Topped, Private tree	
101	7411 Tremper	11" Arizona Ash	Not protected	Topped	
102	7421 Tremper	26" China Berry	Not protected	Private tree, Not impacted	
103	7412 Tremper	11" Live Oak	Not protected	Private tree, Not impacted	
104	7412 Tremper	11" Live Oak	Not protected	Private tree, Not impacted	
105	7416 Tremper	8" Sugarberry	Not protected	Private tree, Not impacted	
106	7416 Tremper	7" Sugarberry	Not protected	Topped, Private tree	
107	7430 Tremper	24" Tallow	Not protected	Private tree, Not impacted	
108	7430 Tremper	21" Black Walnut	Protected	Corridor tree, Private tree, 20% dieback	Root prune for sanitary sewer, Fence
109	7427 Tremper	22" Eastern Red Cedar	Protected	Pruned by CPE, Not impacted	
110	7429 Tremper	8" American Elm	Not protected	Private tree, Not impacted	
111	7429 Tremper	11" Sugarberry	Not protected	Private tree, Not impacted	
112	7436 Tremper	14" American Sycamore	Protected	New house impacts	Fence
113	7504 Tremper	23" Sweet Gum	Corridor Tree	One sided, Private tree	Fence, Clearance prune, Root prune for sanitary
114	7504 Tremper	27" Sweet Gum	Corridor Tree	80% Dieback, Not impacted	
115	7505 Tremper	4" Magnolia	Protected	Thin, Fence	Fence
116	7511 Tremper	14" Crepe Myrtle	Not protected	Topped	
117	7511 Tremper	14" Crepe Myrtle	Not protected	Topped	
118	7511 Tremper	14" Crepe Myrtle	Not protected	Topped	
119	7519 Tremper	14" Crepe Myrtle	Not protected	Topped	
120	7519 Tremper	10" Pecan	Not protected	Topped by CPE, Private tree, Not impacted	
121	7519 Tremper	10" Pecan	Not protected	Topped by CPE, Private tree, Not impacted	
122	7521 Tremper	17" Pecan	Not protected	Topped by CPE, Private tree, Not impacted	
123	7521 Tremper	19" Pecan	Not protected	Topped by CPE, Private tree, Not impacted	
124	7518 Tremper	26" Sweet Gum	Corridor Tree	Private tree	Fence, Clearance prune, Root prune for sanitary
125	7518 Tremper	22" Sweet Gum	Not protected	Private tree, 70% dieback, Not impacted	
126	7532 Tremper	9" Mulberry	Protected		Clearance prune, Fence
127	7532 Tremper	12" Pine	Protected	Thin	Fence
128	7532 Tremper	13" Bald Cypress	Protected	Dead, Not impacted	
129	Median	5" Shumard Oak	Protected		Trenchless Construction
130	Median	6" Shumard Oak	Protected		Trenchless construction
131	Median	6" Shumard Oak	Protected		Trenchless construction
132	7615 Tremper	10" Chinaberry	Not protected		
133	7615 Tremper	16" Cottonwood	Not protected		

NO.	DATE	REVISION	APP.

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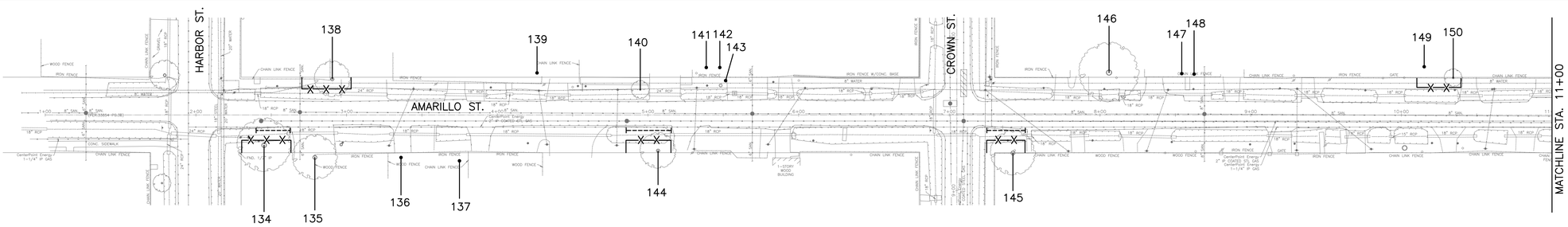
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

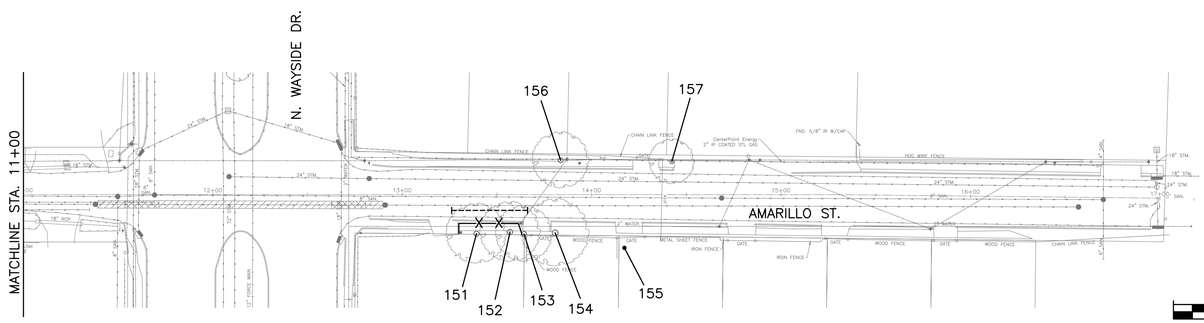
TREE PROTECTION PLAN

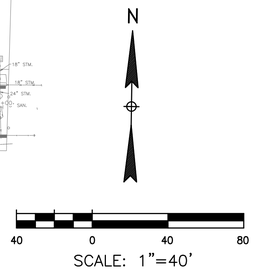
SHEET 4 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 328 OF 339	

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TREE PRESERVATION PLAN LEGEND	
1	TREE NUMBER/LOCATION
(1)	TREE TO BE REMOVED
–X–X–	TREE PROTECTION FENCE
------	ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Amarillo Street					
134	7402 Amarillo	23" Tallow	Protected		Fence, Clearance prune, Root prune for sanitary
135	7402 Amarillo	24" Sweetgum	Corridor Tree	Private tree, 90% dieback, Not impacted	
136	2110 Amarillo	24" Pecan	Corridor Tree	Private tree, Topped, Poor, Not impacted	
137	2110 Amarillo	23" Pecan	Not protected	Private tree, Topped, Poor, Not impacted	
138	7407 Amarillo	22" Pecan	Protected	Topped by CPE	Fence
139	7415 Amarillo	11" Magnolia	Not protected	Pruned by CPE, Private tree, Not impacted	
140	7423 Amarillo	9" Crepe Myrtle	Not protected		
141	7427 Amarillo	10" Live Oak	Not protected	Topped, Private tree	
142	7427 Amarillo	12" Live oak	Not protected	Topped, Private tree	
143	7427 Amarillo	3" Eastern Red Cedar	Not protected		
144	7422 Amarillo	22" Pecan	Protected	Broken top	Fence, Clearance prune, Root prune for sanitary
145	7502 Amarillo	22" Tallow	Protected	Pruned by CPE, Covered in Poison Ivy	Fence, Clearance prune, Root prune for sanitary
146	7507 Amarillo	31" Pecan	Corridor Tree	Private tree, Dead, Not impacted	
147	7511 Amarillo	4" Arborvitae	Not protected	Not impacted	
148	7511 Amarillo	4" Arborvitae	Not protected	Not impacted	
149	7525 Amarillo	22" Pecan	Not protected	Pruned by CPE, Private tree, Not impacted	
150	7525 Amarillo	11" Bald Cypress	Protected	Pruned by CPE	Fence
151	7610 Amarillo	18" Live Oak	Protected		Fence, Clearance prune, Root prune for sanitary
152	7610 Amarillo	23" Live Oak	Protected		Fence, Clearance prune, Root prune for sanitary
153	7610 Amarillo	35' Palm	Not protected		
154	7610 Amarillo	35' Palm	Not protected		
155	7610 Amarillo	10" Sugarberry	Not protected	Private tree, Not impacted	
156	7619 Amarillo	23" Sugarberry	Protected	Topped by CPE, 60% dieback, Not impacted	
157	7619 Amarillo	12" Sugarberry	Protected	Not impacted	

NO.	DATE	REVISION	APP.

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APPROVED:

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TBPE Firm Registration No. F-4491

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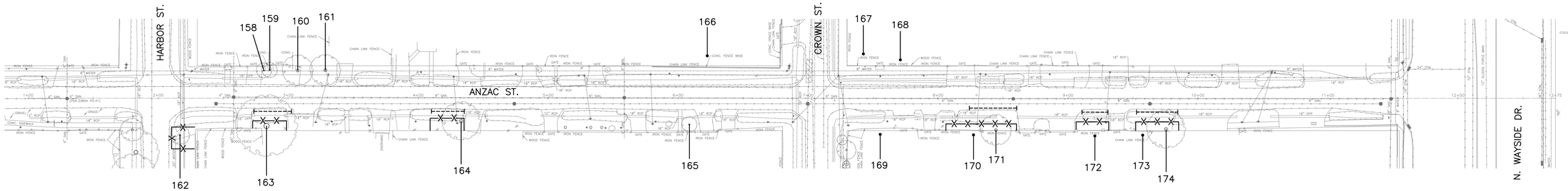
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREE PROTECTION PLAN

SHEET 5 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 329 OF 339	

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TREE PRESERVATION PLAN LEGEND

- 1 — TREE NUMBER/LOCATION
- (1) — TREE TO BE REMOVED
- –X–X– TREE PROTECTION FENCE
- ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Anzac Street					
158	7403 Anzac	8" Chinaberry	Not protected		Clearance prune
159	7403 Anzac	12" Chinaberry	Not protected		Clearance prune
160	7403 Anzac	13" Chinaberry	Not protected		Clearance prune
161	7403 Anzac	13" Chinaberry	Not protected		Clearance prune
162	815 Harbor	13" Live Oak	Protected	Pruned by CPE	Clearance prune
163	815 Harbor	46" Cottonwood	Protected	Pruned by CPE	Fence, Clearance prune, Root prune for sanitary
164	7420 Anzac	22" Post Oak	Protected		Fence, Clearance prune, Root prune for sanitary
165	7432 Anzac	12" Crepe Myrtle	Not protected		
166	7419 Anzac	26" Cottonwood	Not protected	Pruned by CPE, Private tree, Not impacted	
167	7501 Anzac	11" Magnolia	Not protected	Private tree, Not impacted	
168	7501 Anzac	18" Live Oak	Not protected	pruned by CPE, Private tree, Not impacted	
169	7502 Anzac	19" Sugarberry	Not protected	Topped, Poor, Private tree	
170	7504 Anzac	19" Pecan	Not protected	Pruned by CPE, Private tree	Fence
171	7504 Anzac	24" Pecan	Protected		Fence, Clearance prune, Root prune for sanitary
172	7516 Anzac	25" Live Oak	Corridor Tree	Private tree	Fence, Clearance prune, Root prune for sanitary
173	7524 Anzac	22" Crepe Myrtle	Not protected	Private tree, Not impacted	
174	7524 Anzac	16" Live Oak	Protected		Fence, Clearance prune, Root prune for sanitary

N

40 0 40 80

SCALE: 1"=40'

NO.	DATE	REVISION	APP.

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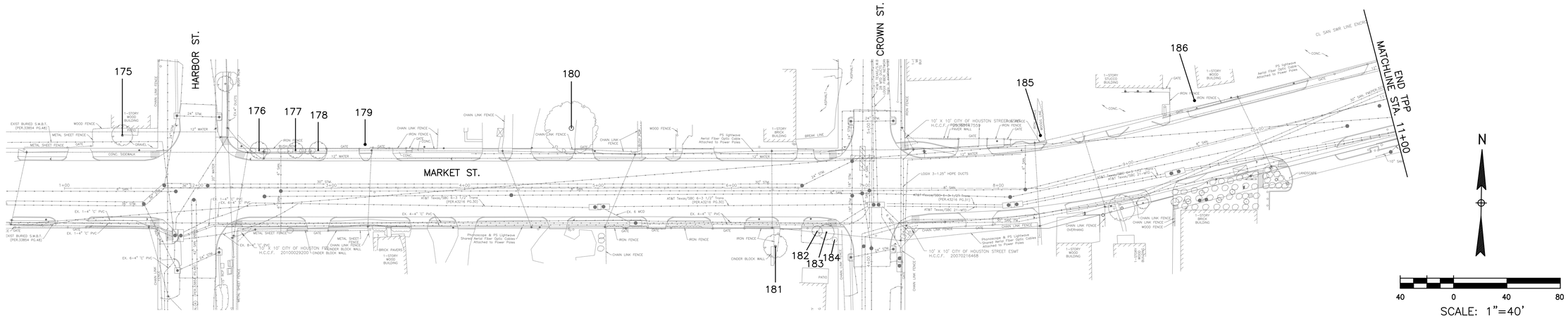
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREE PROTECTION PLAN

SHEET 6 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 330 OF 339	

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Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Market Street					
175	7335 Market	8" Ligustrum	Not protected	90% dieback, Private tree	
176	7401 Market	13" Live Oak	Protected	Topped by CPE, Behind retaining wall, Not impacted	
177	7401 Market	7" Green Ash	Protected	Topped by CPE, Behind retaining wall, Not impacted	
178	7401 Market	12" Live Oak	Protected	Topped by CPE, Behind retaining wall, Not impacted	
179	7401 Market	16" Live Oak	Protected	Topped by CPE, Behind retaining wall, Not impacted	
180	7409 Market	31" Live Oak	Corridor Tree	Pruned by CPE, Private tree, Not impacted	
181	7438 Market	17" American Elm	Not protected	Private tree, 50% dieback	Clearance prune
182	7438 Market	7" Crepe Myrtle	Not protected	Private tree, Not impacted	
183	7438 Market	14" Sugarberry	Not protected	Private tree	Clearance prune
184	7438 Market	7" Sugarberry	Not protected	Private tree, Not impacted	
185	7507 Market	11" Sugarberry	Not protected	Private tree, Topped by CPE	Clearance prune
186	7513 Market	26" Cottonwood	Not protected	Private tree, Pruned by CPE	Clearance prune

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TREE PRESERVATION PLAN LEGEND

1	TREE NUMBER/LOCATION
(1)	TREE TO BE REMOVED
–X–X–	TREE PROTECTION FENCE
⊢------⊣	ROOT PRUNING TRENCH

NO.	DATE	REVISION	APP.

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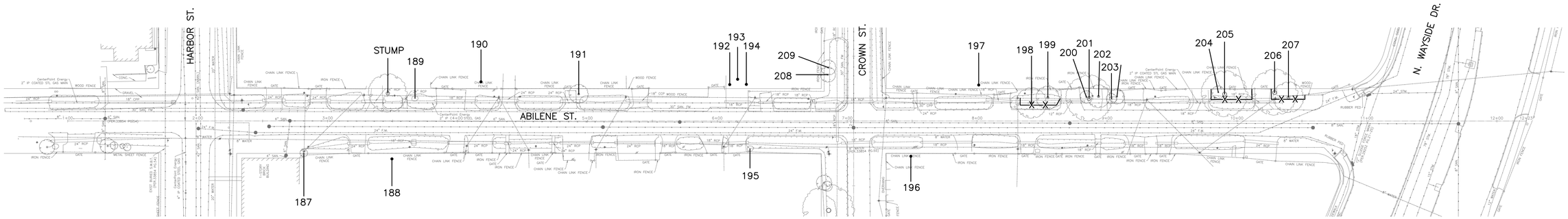
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREE PROTECTION PLAN

SHEET 7 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 331 OF 339	

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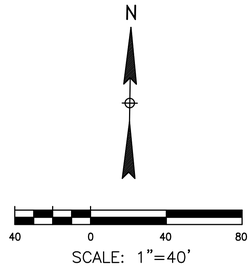


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TREE PRESERVATION PLAN LEGEND	
1	TREE NUMBER/LOCATION
①	TREE TO BE REMOVED
–X–X–	TREE PROTECTION FENCE
⊢-----⊣	ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Abilene Street					
187	7406 Abilene	6" Sugarberry	Protected	Not impacted	
188	7412 Abilene	37" Water Oak	Corridor Tree	Private tree, 85% dieback, Not impacted	
189	7409 Abilene	13" Crepe Myrtle	Not protected		
190	7415 Abilene	22" Pecan	Not protected	Pruned by CPE, Private tree, Not impacted	
191	Not Available	9" Crepe Myrtle	Not protected	Topped by CPE	
192	7425 Abilene	15" Pecan	Not protected	Pruned by CPE, Private tree	Clearance prune
193	7425 Abilene	16" Box Elder	Not protected	Topped by CPE, Private tree	Clearance prune
194	7425 Abilene	15" Box Elder	Not protected	Dead, Private tree, Not impacted	
195	7426 Abilene	8" Crepe Myrtle	Not protected		
196	917 Crown	10" Crepe Myrtle	Not protected	Private tree, Clearance prune	
197	7507 Abilene	9" Live Oak	Not protected	Topped by CPE, Private tree, Not impacted	
198	7509 Abilene	7" Mulberry	Protected	Topped by CPE	Fence, Clearance prune
199	7509 Abilene	9" American Elm	Protected	Topped by CPE	Fence, Clearance prune
200	7515 Abilene	10" Crepe Myrtle	Not protected	Topped by CPE	
201	7515 Abilene	5" Arborvitae	Not protected		
202	7515 Abilene	5" Arborvitae	Not protected		
203	7515 Abilene	10" Crepe Myrtle	Not protected		
204	7523 Abilene	19" Pecan	Protected	Pruned by CPE	Fence
205	7523 Abilene	21" Camphor	Protected	Topped by CPE	Fence, Clearance prune
206	7529 Abilene	23" Sugarberry	Protected	Topped by CPE	Fence, Clearance prune
207	7529 Abilene	13" Sugarberry	Protected	Topped by CPE	Fence



SCALE: 1"=40'

NO.	DATE	REVISION	APP.

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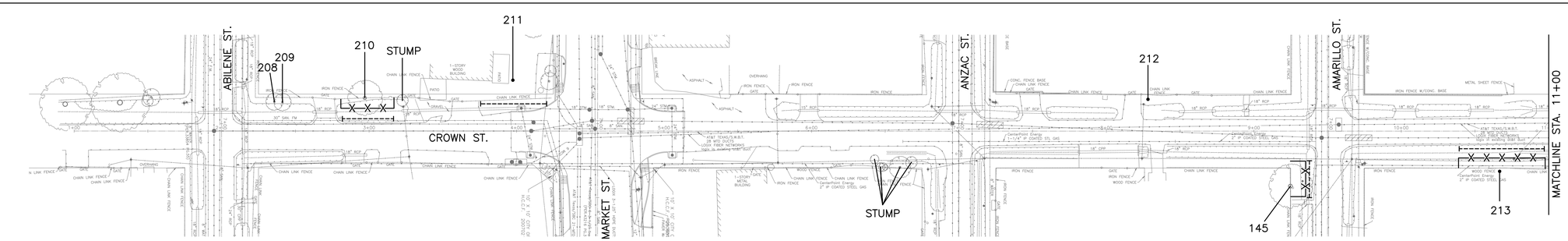
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

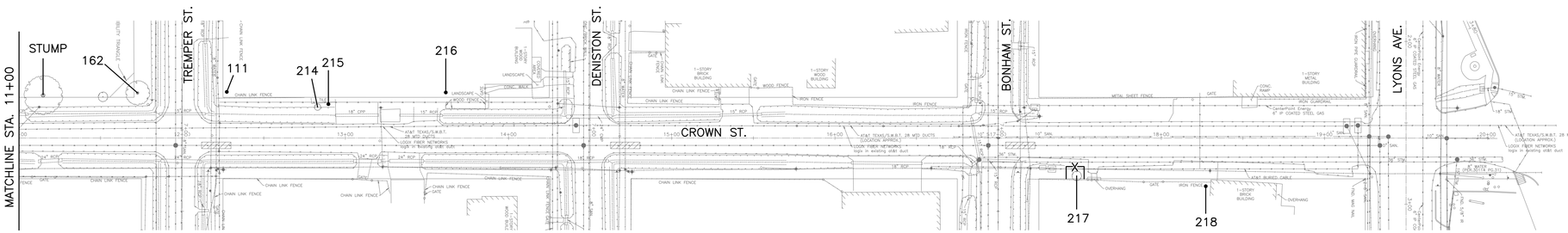
TREE PROTECTION PLAN

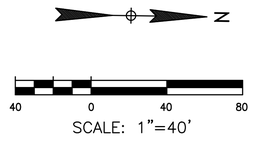
SHEET 8 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 332 OF 339	

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TREE PRESERVATION PLAN LEGEND	
1 / ①	TREE NUMBER/LOCATION TREE TO BE REMOVED
–X–X–	TREE PROTECTION FENCE
⊢------⊣	ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Crown Street					
208	7499 Abilene	8" Crepe Myrtle	Not protected	Topped	
209	7499 Abilene	8" Crepe Myrtle	Not protected	Topped	
210	7438 Market	14" Pecan	Protected		Fence, Root prune for sanitary, Clearance prune
211	7438 Market	35" Green Ash	Corridor Tree	Private tree	Root prune, Clearance prune
212	Not Available	15" Sugarberry	Protected		Clearance prune
213	7501 Amarillo	23" Live Oak	Protected	Pruned by CPE	Fence, Root prune for sanitary, Clearance prune
214	7429 Tremper	5" Peach	Not protected		
215	7429 Tremper	5' Sago	Not protected		
216	7436 Denison	18" Chinaberry	Not protected	Private tree	Clearance prune
217	709 Bonham	5" Texas Mountain Laurel	Protected		Fence
218	Not Available	11" Ligustrum	Not protected	Private tree	Clearance prune

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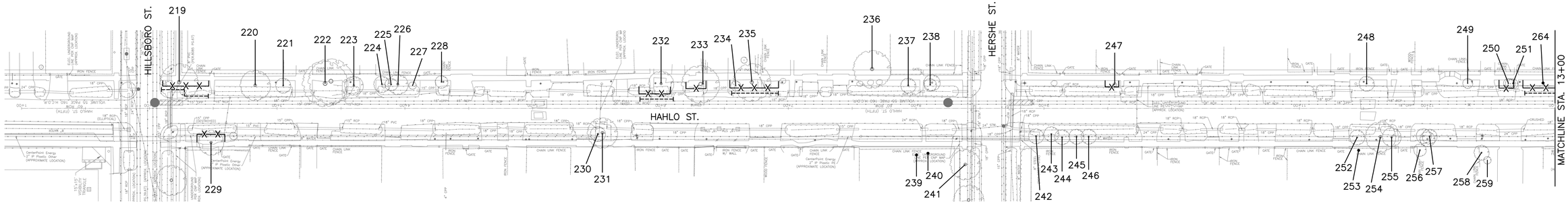
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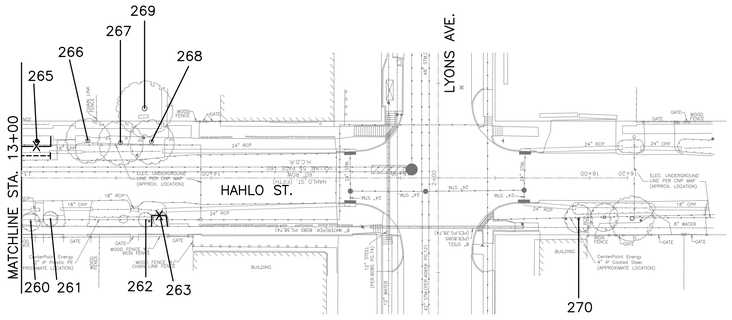
TREE PROTECTION PLAN

SHEET 9 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 333 OF 339	

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TREE PRESERVATION PLAN LEGEND

- 1 — TREE NUMBER/LOCATION
- (1) — TREE TO BE REMOVED
- –X–X– — TREE PROTECTION FENCE
- ⊢-----⊣ — ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Hahlo Street					
219	501 Hahlo	26" Sycamore	Protected	50% dieback	Fence, Root prune for sanitary, Clearance prune
220	505 Hahlo	18" Tallow	Not protected		Clearance prune
221	505 Hahlo	11" Crepe Myrtle	Not protected	Topped	Clearance prune
222	509 Hahlo	6" Oleander	Not protected		
223	509 Hahlo	11" Crepe Myrtle	Not protected		Clearance prune
224	509 Hahlo	12" Crepe Myrtle	Not protected		Clearance prune
225	509 Hahlo	12" Crepe Myrtle	Not protected		Clearance prune
226	509 Hahlo	7" Crepe Myrtle	Not protected		Clearance prune
227	509 Hahlo	7" Crepe Myrtle	Not protected		Clearance prune
228	509 Hahlo	9" Crepe Myrtle	Not protected		Clearance prune
229	502 Hahlo	10" Water Oak	Protected	Chlorotic	Fence
230	528 Hahlo	5" Crepe Myrtle	Not protected		
231	528 Hahlo	8" Crepe Myrtle	Not protected		
232	529 Hahlo	13" Pecan	Protected		Fence, Root prune for sanitary, Clearance prune
233	529 Hahlo	19" Sycamore	Protected	75% dieback	Fence
234	533 Hahlo	9" Tallow	Not protected		
235	533 Hahlo	21" Tallow	Protected		Fence, Root prune for sanitary, Clearance prune
236	541 Hahlo	11" Mulberry	Not protected	Stump sprouts, Private tree, Not impacted	
237	547 Hahlo	9" Crepe Myrtle	Not protected	Dead	
238	547 Hahlo	7" Crepe Myrtle	Not protected	Topped	
239	516 Hershe	15" Crepe Myrtle	Not protected	Topped, Private tree	
240	516 Hershe	15" Crepe Myrtle	Not protected	Topped, Private tree	
241	516 Hershe	11" Crepe Myrtle	Not protected	Topped	
242	604 Hahlo	5" Crepe Myrtle	Not protected	Topped	
243	604 Hahlo	5" Crepe Myrtle	Not protected	Topped	
244	604 Hahlo	5" Crepe Myrtle	Not protected	Topped	
245	604 Hahlo	5" Crepe Myrtle	Not protected	Topped	
246	604 Hahlo	5" Crepe Myrtle	Not protected	Topped	
247	601 Hahlo	2" Nutall Oak	Protected		Fence
248	621 Hahlo	7" Crepe Myrtle	Not protected		
249	622 Hahlo	5" Loquat	Not protected	Dead	
250	622 Hahlo	7" Pecan	Protected		Fence, Clearance prune
251	622 Hahlo	9" Pecan	Protected		Fence, Clearance prune
252	622 Hahlo	3' Sago	Not protected		
253	622 Hahlo	33" Live Oak	Corridor Tree	Private tree	Clearance prune
254	622 Hahlo	4" Oleander	Not protected		
255	622 Hahlo	3' Sago	Not protected		
256	622 Hahlo	16" Sugarberry	Not protected	Private tree	Clearance prune
257	622 Hahlo	3' Sago	Not protected		
258	639 Hahlo	10" American Elm	Not protected	Private tree, Not impacted	
259	639 Hahlo	5" Live Oak	Not protected	Private tree, Not impacted	
260	634 Hahlo	6" Crepe Myrtle	Not protected		
261	634 Hahlo	4" Crepe Myrtle	Not protected		
262	638 Hahlo	4" Crepe Myrtle	Not protected		
263	638 Hahlo	9" Sweet Gum	Protected		Fence
264	641 Hahlo	22" Sugarberry	Protected		Fence, Clearance prune
265	641 Hahlo	17" Catalpa	Not protected		
266	637 Hahlo	12" Crepe Myrtle	Not protected		
267	637 Hahlo	12" Crepe Myrtle	Not protected		
268	637 Hahlo	12" Crepe Myrtle	Not protected		
269	637 Hahlo	25" Live Oak	Corridor Tree	Private tree, Not impacted	
270	706 Hahlo	18" Tallow	Not protected	Topped	

N

40 0 40 80

SCALE: 1"=40'

NO.	DATE	REVISION	APP.

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

APPROVED:

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREE PROTECTION PLAN

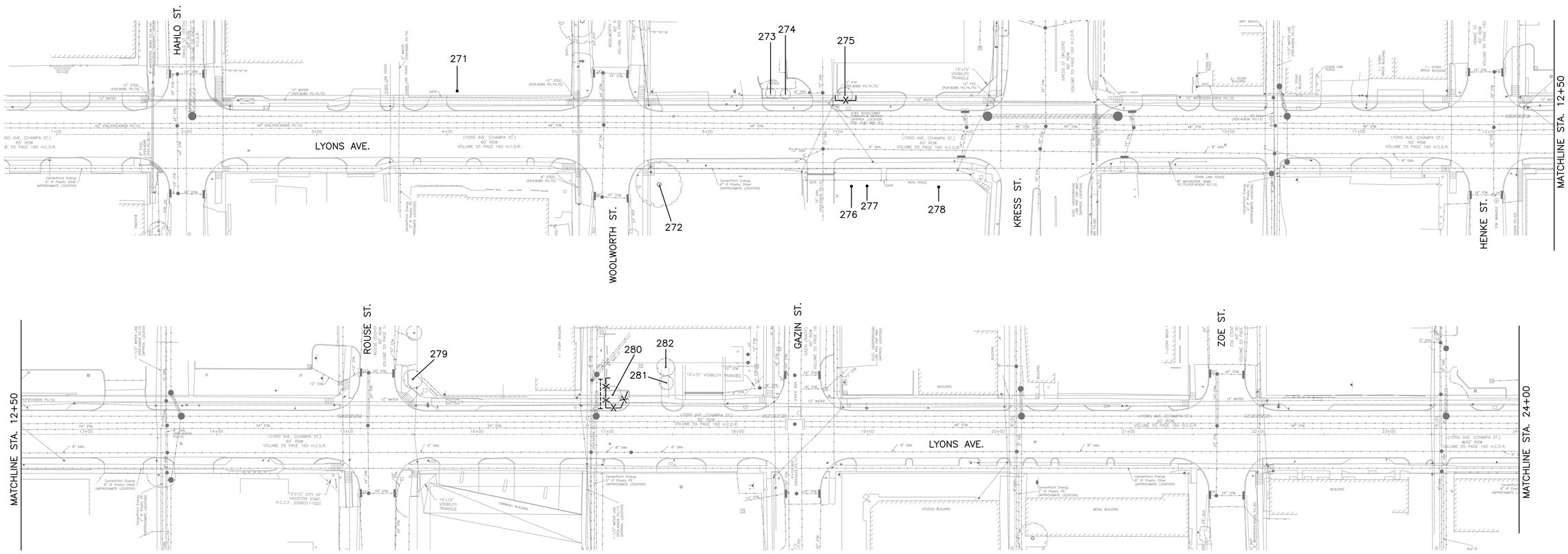
SHEET 10 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 334 OF 339	

PLOTTED: 6/29/2026 7:06 PM

PLOT STYLE: CNKoehl.ctb

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NOTE:

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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.
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TREE PRESERVATION PLAN LEGEND	
1	TREE NUMBER/LOCATION
①	TREE TO BE REMOVED
–X–X–	TREE PROTECTION FENCE
------	ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Lyons Avenue					
271	6112 Lyons	7" Mulberry	Not protected	Private tree	
272	6200 Lyons	28" Live Oak	Protected	Park tree	Clearance prune
273	6213 Lyons	10" Redtip Photinia	Not protected	Private tree, Not impacted	
274	6213 Lyons	10" Redtip Photinia	Not protected	Private tree, Not impacted	
275	6213 Lyons	8" Magnolia	Protected		Fence
276	702 Kress	12" Crepe Myrtle	Not protected	Private tree, Not impacted	
277	702 Kress	5" Crepe Myrtle	Not protected	Private tree, Not impacted	
278	702 Kress	35" Live Oak	Corridor Tree	Private tree	Clearance prune
279	663 Rouse	16" Live Oak	Protected	Topped, Not impacted	
280	6515 Lyons	16" Live Oak	Protected	Pruned by CPE	Fence, Root prune for sanitary, Clearance prune
281	6515 Lyons	13" Baldcypress	Protected	COH Fire station, Not impacted	
282	6515 Lyons	12" Baldcypress	Protected	COH Fire station, Not impacted	

N

40 0 40 80

SCALE: 1"=40'

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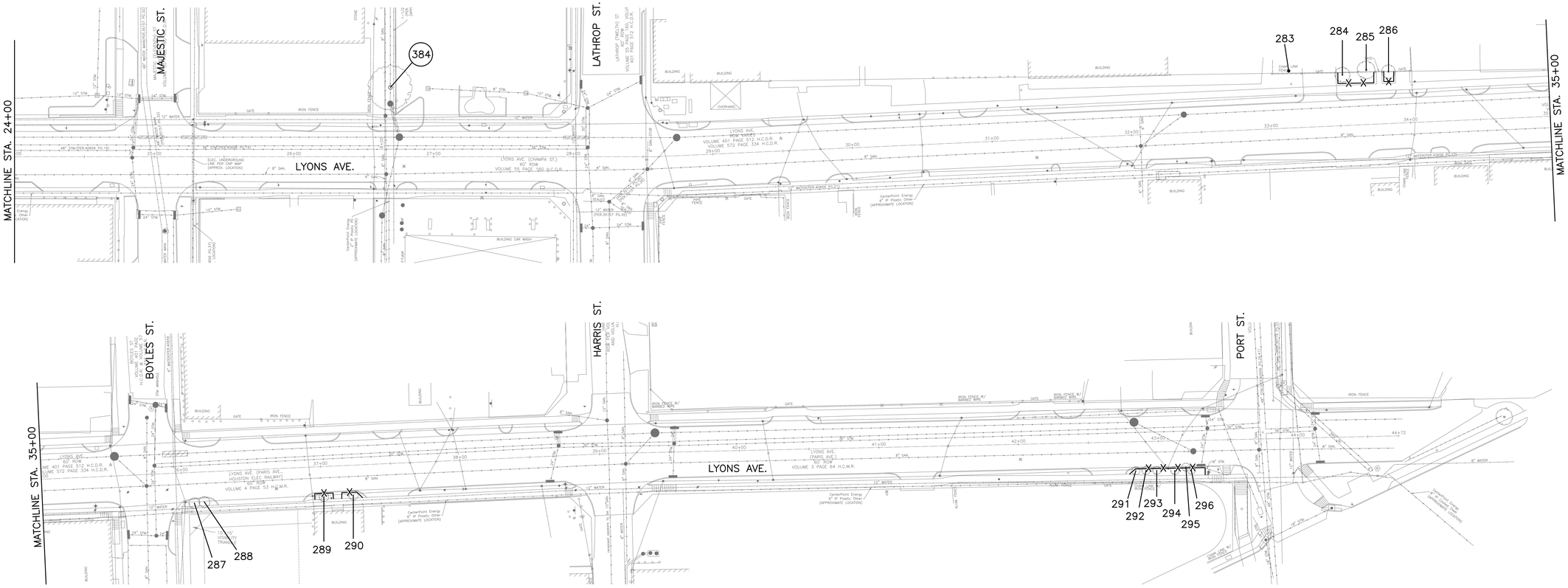
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREE PROTECTION PLAN

SHEET 11 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 335 OF 339	

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TREE PRESERVATION PLAN LEGEND	
1	TREE NUMBER/LOCATION
①	TREE TO BE REMOVED
–X–X–	TREE PROTECTION FENCE
⊢-----⊣	ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees on Lyons Avenue					
283	7019 Lyons	15" Live Oak	Not protected	Private tree, Pruned by CPE	Clearance prune
284	7019 Lyons	12" Live Oak	Protected	Pruned by CPE	Fence
285	7019 Lyons	14" Live Oak	Protected	Pruned by CPE	Fence, Clearance prune
286	7019 Lyons	11" Live Oak	Protected	Pruned by CPE	Fence
287	7102 Lyons	3' Palm	Not protected		
288	7102 Lyons	3' Palm	Not protected		
289	7110 Lyons	8" Live Oak	Protected	Topped by CPE	Fence, Clearance prune
290	7110 Lyons	10" Live Oak	Protected	Topped by CPE	Fence, Clearance prune
291	7218 Lyons	6" Cedar Elm	Protected		Fence
292	7218 Lyons	3" Cedar Elm	Protected		Fence
293	7218 Lyons	6" Cedar Elm	Protected		Fence
294	7218 Lyons	5" Cedar Elm	Protected		Fence
295	7218 Lyons	4" Cedar Elm	Protected		Fence
296	7218 Lyons	7" Cedar Elm	Protected		Fence

N

40 0 40

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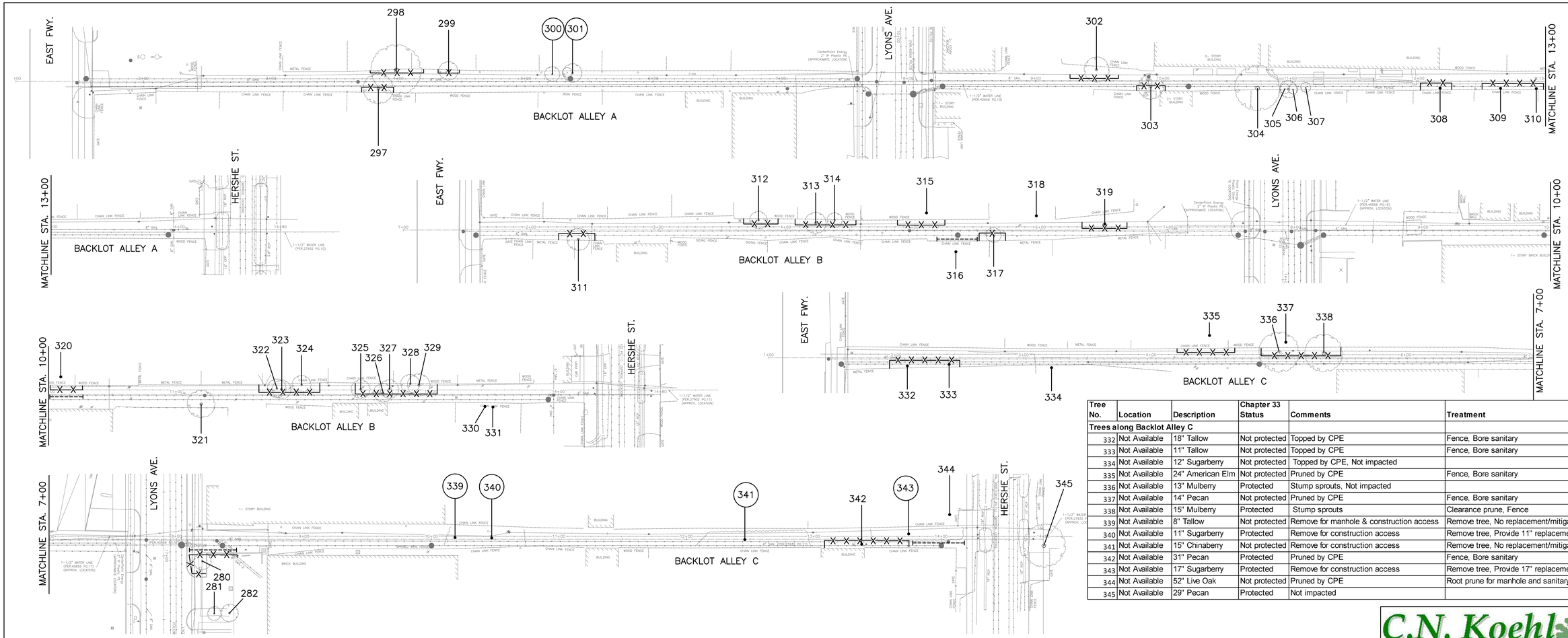
CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREE PROTECTION PLAN

SHEET 12 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 336 OF 339	

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Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees along Backlot Alley A					
297	Not Available	16" Sugarberry	Not protected	Pruned by CPE	Fence, Bore sanitary
298	Not Available	33" Water Oak	Not protected	Pruned by CPE	Fence, Bore sanitary
299	Not Available	16" Sugarberry	Not protected	Pruned by CPE	Fence, Bore sanitary
300	Not Available	11" Mulberry	Protected	Remove for manhole construction	Remove tree, Provide 11" replacement or mitigation
301	Not Available	12" Live Oak	Protected	Remove for manhole construction	Remove tree, Provide 12" replacement or mitigation
302	Not Available	20" Live Oak	Not protected	Pruned by CPE	Fence, Bore sanitary
303	Not Available	13" Live Oak	Protected	Topped by CPE	Fence, Bore sanitary
304	Not Available	24" American Elm	Not protected	Dead, Not impacted	
305	Not Available	6" Sugarberry	Protected	Not impacted	
306	Not Available	10" Sugarberry	Protected	Not impacted	
307	Not Available	8" Sugarberry	Protected	Not impacted	
308	Not Available	18" American Elm	Not protected	Topped by CPE	Fence, Bore sanitary
309	Not Available	17" Sugarberry	Not protected	Topped by CPE	Fence, Bore sanitary
310	Not Available	14" Sugarberry	Not protected	Topped by Cope	Fence, Bore sanitary

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees along Backlot Alley B					
311	Not Available	17" Sugarberry	Protected	Pruned by CPE	Fence, Bore sanitary
312	Not Available	15" Sugarberry	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
313	Not Available	18" Pecan	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
314	Not Available	13" Tallow	Not protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
315	Not Available	21" Green Ash	Not protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
316	Not Available	33" Sycamore	Not protected	Pruned by CPE	Root prune for manhole and sanitary
317	Not Available	11" Sugarberry	Protected	Pruned by CPE	Fence, Bore sanitary
318	Not Available	13" Mulberry	Not protected	Pruned by CPE	Clearance prune
319	Not Available	18" Sugarberry	Protected	Pruned by CPE	Fence, Bore sanitary
320	Not Available	17" Pecan	Not protected	Pruned by CPE	Root prune for manhole and sanitary
321	Not Available	12' Palm	Not protected	Not impacted	
322	Not Available	13" Sugarberry	Protected	Pruned by CPE	Fence, Bore sanitary
323	Not Available	13" Sugarberry	Protected	Pruned by CPE	Fence, Bore sanitary
324	Not Available	14" Sugarberry	Protected	Pruned by CPE	Fence, Bore sanitary
325	Not Available	12" Ligustrum	Not protected	Pruned by CPE	Fence, Bore sanitary
326	Not Available	15" Chinaberry	Not protected	Pruned by CPE	Fence, Bore sanitary
327	Not Available	14" Chinaberry	Not protected	Pruned by CPE	Fence, Bore sanitary
328	Not Available	14" Tallow	Not protected	Pruned by CPE	Fence, Bore sanitary
329	Not Available	17" Sugarberry	Protected	Pruned by CPE	Fence, Bore sanitary
330	Not Available	14" Sugarberry	Not protected	Pruned by CPE	Clearance prune
331	Not Available	15" Sugarberry	Not protected	Pruned by CPE	Clearance prune

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees along Backlot Alley C					
332	Not Available	18" Tallow	Not protected	Topped by CPE	Fence, Bore sanitary
333	Not Available	11" Tallow	Not protected	Topped by CPE	Fence, Bore sanitary
334	Not Available	12" Sugarberry	Not protected	Topped by CPE, Not impacted	
335	Not Available	24" American Elm	Not protected	Pruned by CPE	Fence, Bore sanitary
336	Not Available	13" Mulberry	Protected	Stump sprouts, Not impacted	
337	Not Available	14" Pecan	Not protected	Pruned by CPE	Fence, Bore sanitary
338	Not Available	15" Mulberry	Protected	Stump sprouts	Clearance prune, Fence
339	Not Available	8" Tallow	Not protected	Remove for manhole & construction access	Remove tree, No replacement/mitigation required
340	Not Available	11" Sugarberry	Protected	Remove for construction access	Remove tree, Provide 11" replacement or mitigation
341	Not Available	15" Chinaberry	Not protected	Remove for construction access	Remove tree, No replacement/mitigation required
342	Not Available	31" Pecan	Protected	Pruned by CPE	Fence, Bore sanitary
343	Not Available	17" Sugarberry	Protected	Remove for construction access	Remove tree, Provide 17" replacement or mitigation
344	Not Available	52" Live Oak	Not protected	Pruned by CPE	Root prune for manhole and sanitary
345	Not Available	29" Pecan	Protected	Not impacted	

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N

40 0 40

SCALE: 1"=40'

TREE PRESERVATION PLAN LEGEND

- 1 — TREE NUMBER/LOCATION
- (1) — TREE TO BE REMOVED
- –X–X– — TREE PROTECTION FENCE
- ----- — ROOT PRUNING TRENCH

NO.	DATE	REVISION	APP.

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CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREE PROTECTION PLAN

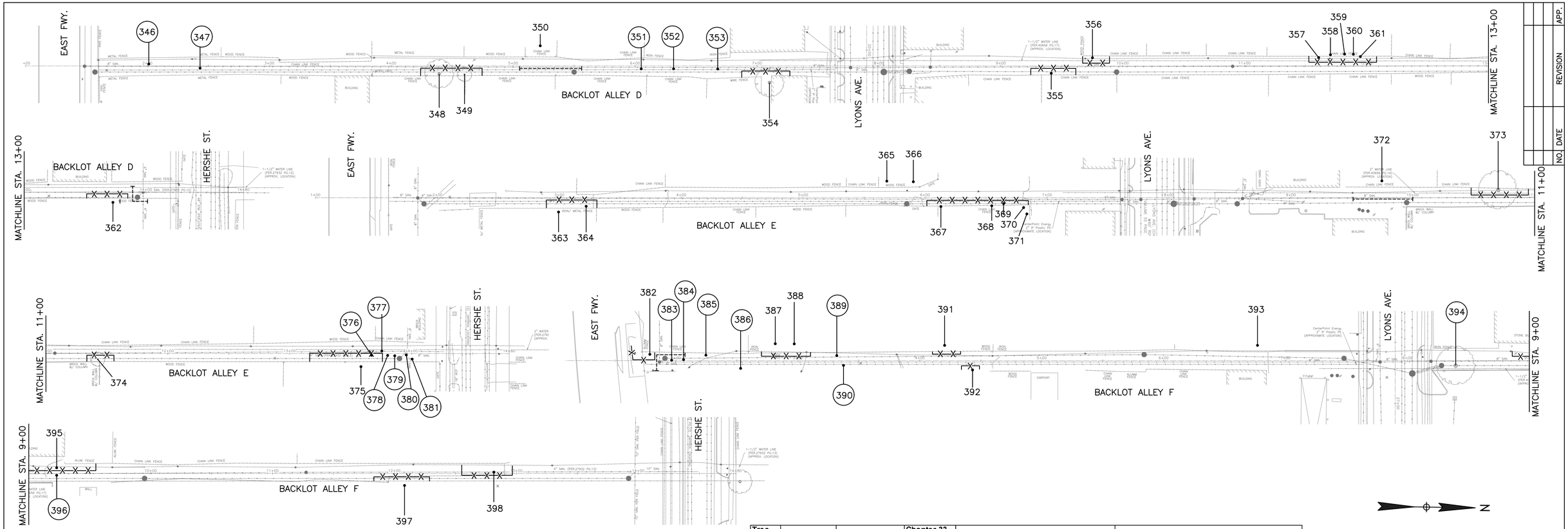
SHEET 13 OF 15

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SHEET NO. 337 OF 339	

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PLOT STYLE: CNKoehl.ctb

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Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees along Backlot Alley D					
346	Not Available	5" American Elm	Protected	Remove for construction access	Remove tree, Provide 5" replacement or mitigation
347	Not Available	14" Mulberry	Protected	Remove for construction access	Remove tree, Provide 14" replacement or mitigation
348	Not Available	21" Tallow	Protected	Pruned by CPE	Fence, Bore sanitary
349	Not Available	11" Water Oak	Protected		Fence, Bore sanitary
350	Not Available	28" Water Oak	Not protected	50% dieback, Pruned by CPE	Clearance prune, Fence, Bore sanitary
351	Not Available	8" Sugarberry	Protected	Remove for construction access	Remove tree, Provide 8" replacement or mitigation
352	Not Available	8" Sugarberry	Protected	Remove for construction access	Remove tree, Provide 8" replacement or mitigation
353	Not Available	7" Sugarberry	Protected	Remove for construction access	Remove tree, Provide 7" replacement or mitigation
354	Not Available	18" Sugarberry	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
355	Not Available	13" Sugarberry	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
356	Not Available	8" Water Oak	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
357	Not Available	19" Camphor	Not protected	Topped by CPE	Clearance prune, Fence, Bore sanitary
358	Not Available	15" Sugarberry	Protected	Pruned by CPE	Fence, Bore sanitary
359	Not Available	12" Sugarberry	Protected	Pruned by CPE	Fence, Bore sanitary
360	Not Available	20" Tallow	Protected	Pruned by CPE	Fence, Bore sanitary
361	Not Available	17" Tallow	Not protected	Pruned by CPE	Fence, Bore sanitary
362	Not Available	27" Pecan	Not protected	Pruned by CPE	Root prune for manhole, Fence, Bore sanitary, Clearance prune

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TREE PRESERVATION PLAN LEGEND

- 1 — TREE NUMBER/LOCATION
- (1) — TREE TO BE REMOVED
- –X–X– TREE PROTECTION FENCE
- ROOT PRUNING TRENCH

Tree No.	Location	Description	Chapter 33 Status	Comments	Treatment
Trees along Backlot Alley E					
363	Not Available	18" Tallow	Not protected	Pruned by CPE	Fence, Bore sanitary
364	Not Available	12" Mulberry	Protected		Clearance prune, Fence, Bore sanitary
365	Not Available	13" Pecan	Not protected	Topped, Not impacted	
366	Not Available	13" Live Oak	Not protected	Topped, Not impacted	
367	Not Available	14" Sugarberry	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
368	Not Available	13" Sugarberry	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
369	Not Available	11" Sugarberry	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
370	Not Available	10" Sugarberry	Not protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
371	Not Available	23" Tallow	Not protected	Pruned by CPE	Fence, Bore sanitary
372	Not Available	21" Mesquite	Not protected	Pruned by CPE	Root prune for manhole and sanitary
373	Not Available	23" Sugarberry	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
374	Not Available	9" Live Oak	Protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
375	Not Available	33" Water Oak	Not protected	70% dieback, Pruned by CPE	Clearance prune, Fence, Bore sanitary
376	Not Available	13" American Elm	Protected	Remove for manhole & construction access	Remove tree, Provide 13" replacement or mitigation
377	Not Available	9" American Elm	Protected	Remove for manhole & construction access	Remove tree, Provide 9" replacement or mitigation
378	Not Available	7" Sugarberry	Protected	Remove for manhole & construction access	Remove tree, Provide 7" replacement or mitigation
379	Not Available	11" Mulberry	Protected	Remove for manhole & construction access	Remove tree, Provide 11" replacement or mitigation
380	Not Available	10" Mulberry	Protected	Remove for manhole & construction access	Remove tree, Provide 10" replacement or mitigation
381	Not Available	8" Sugarberry	Protected	Remove for manhole & construction access	Remove tree, Provide 8" replacement or mitigation
Trees along Backlot Alley F					
382	Not Available	14" Pecan	Protected		Fence, Root prune for manhole, Clearance prune
383	Not Available	19" Black Willow	Protected	Remove for manhole & construction access	Remove tree, Provide 19" replacement or mitigation
384	Not Available	10" Mulberry	Protected	Remove for construction access	Remove tree, Provide 11" replacement or mitigation
385	Not Available	34" Water Oak	Not protected	Dead, Remove for construction access	Remove tree, No replacement/mitigation required
386	Not Available	15" Mulberry	Protected	Broken top, Poor, Remove for construction access	Remove tree, No replacement/mitigation required
387	Not Available	13" Pecan	Not protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
388	Not Available	14" Pecan	Not protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
389	Not Available	6" Mulberry	Protected	Remove for construction access	Remove tree, Provide 6" replacement or mitigation
390	Not Available	5" Mulberry	Protected	Remove for construction access	Remove tree, Provide 5" replacement or mitigation
391	Not Available	23" Pecan	Not protected	Pruned by CPE	Fence, Bore sanitary
392	Not Available	23" Green Ash	Not protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
393	Not Available	4" Sugarberry	Not protected		Clearance prune
394	Not Available	28" American Elm	Protected	Remove for manhole & construction access	Remove tree, Provide 28" replacement or mitigation
395	Not Available	24" American Elm	Not protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
396	Not Available	12" Sugarberry	Protected	Remove for construction access	Remove tree, Provide 12" replacement or mitigation
397	Not Available	25" Post Oak	Not protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary
398	Not Available	15" Sugarberry	Not protected	Pruned by CPE	Clearance prune, Fence, Bore sanitary

N

40 0 40

SCALE: 1"=40'

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SHEET 14 OF 15

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Tree Removal List

Tree No.	Location	Description	Replacement requirement
300	Not Available	11" Mulberry	11
301	Not Available	12" Live Oak	12
339	Not Available	8" Tallow	0
340	Not Available	11" Sugarberry	11
341	Not Available	15" Chinaberry	0
343	Not Available	17" Sugarberry	17
346	Not Available	5" American Elm	5
347	Not Available	14" Mulberry	14
351	Not Available	8" Sugarberry	8
352	Not Available	8" Sugarberry	8
353	Not Available	7" Sugarberry	7
376	Not Available	13" American Elm	13
377	Not Available	9" American Elm	9
378	Not Available	7" Sugarberry	7
379	Not Available	11" Mulberry	11
380	Not Available	10" Mulberry	10
381	Not Available	8" Sugarberry	8
383	Not Available	19" Black Willow	19
384	Not Available	10" Mulberry	10
385	Not Available	34" Water Oak	0
386	Not Available	15" Mulberry	0
389	Not Available	6" Mulberry	6
390	Not Available	5" Mulberry	5
394	Not Available	28" American Elm	28
396	Not Available	12" Sugarberry	12
		TOTAL REPLACEMENT INCHES REQUIRED	**231**

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.

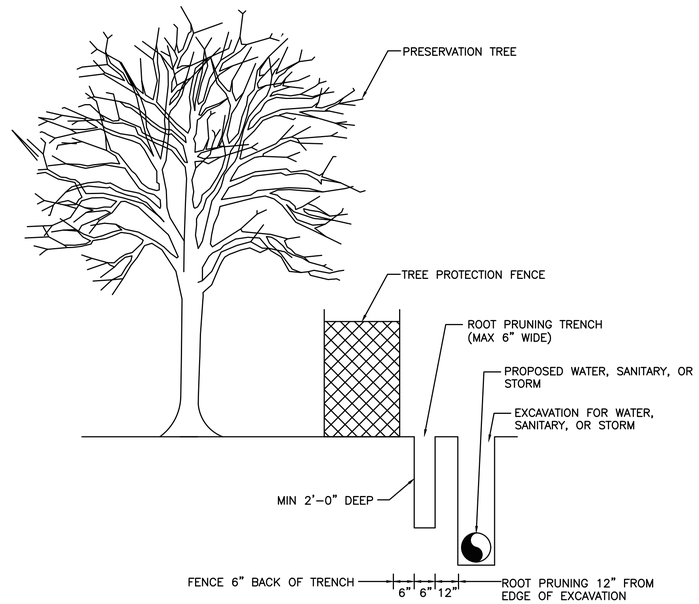
Cash Allowance Due Parks from HPW for Balance of Mitigation Not Planted on Project

	Required Mitigation total	Mitigation rate/inch	
setback		$ 132.51	
0-5.99"	10	$ 302.12	$ 3,021.20
6-11.99"	106	$ 503.55	$ 53,376.30
12" +	115	$ 671.40	$ 77,211.00
		TOTAL REQUIRED MITIGATION FEE	**$ 133,608.50**

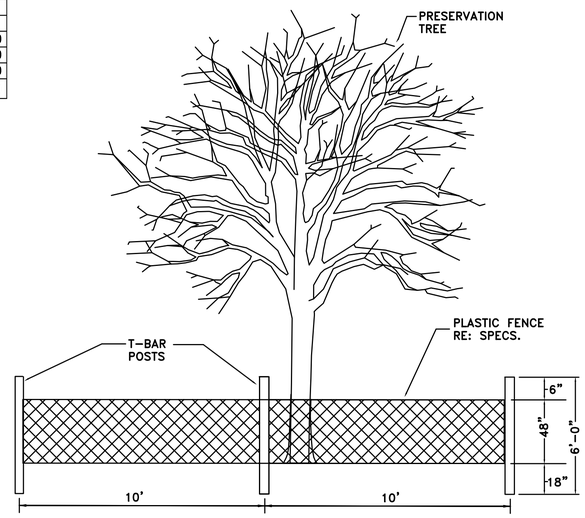
Arboriculturally Significant Tree List

Tree No.	Location	Description
19	7438 Lyons	28" American Elm
81	7515 Denison	25" Pecan
108	7430 Tremper	21" Black Walnut
114	7504 Tremper	27" Sweet Gum
124	7518 Tremper	26" Sweet Gum
135	7402 Amarillo	24" Sweetgum
136	2110 Amarillo	24" Pecan
146	7507 Amarillo	31" Pecan
163	815 Harbor	46" Cottonwood
166	7419 Anzac	26" Cottonwood
171	7504 Anzac	24" Pecan
172	7516 Anzac	25" Live Oak
180	7409 Market	31" Live Oak
186	7513 Market	26" Cottonwood
188	7412 Abilene	37" Water Oak
211	7438 Market	35" Green Ash
219	501 Hahlo	26" Sycamore
253	622 Hahlo	33" Live Oak
269	637 Hahlo	25" Live Oak
272	6200 Lyons	28" Live Oak
278	702 Kress	35" Live Oak
298	Not Available	33" Water Oak
304	Not Available	24" American Elm
316	Not Available	33" Sycamore
335	Not Available	24" American Elm
342	Not Available	31" Pecan
344	Not Available	52" Live Oak
345	Not Available	29" Pecan
350	Not Available	28" Water Oak
362	Not Available	27" Pecan
375	Not Available	33" Water Oak
385	Not Available	34" Water Oak
394	Not Available	28" American Elm
395	Not Available	24" American Elm
397	Not Available	25" Post Oak

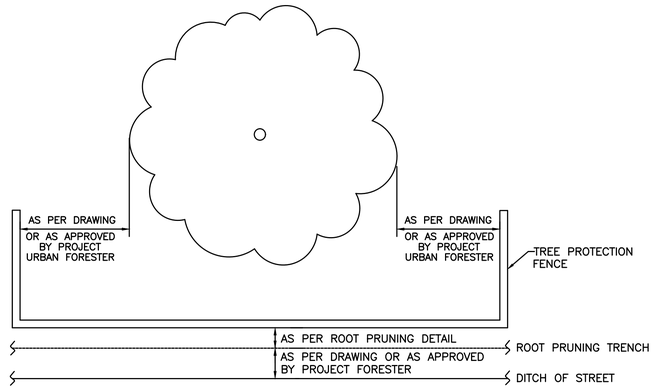
Trees Identified by City of Houston Forestry/Parks & Recreation Department as Arboriculturally Significant are identified here and/or in treatment schedule included on TPP sheets. Arboriculturally Significant trees are to be pruned under direct supervision of City of Houston Forestry. Minimal pruning 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.



ROOT PRUNE FOR WATER, SANITARY, OR STORM LINE
NOT TO SCALE



TREE PROTECTION FENCING DETAIL A
NOT TO SCALE



TREE PROTECTION FENCING DETAIL B
NOT TO SCALE

NO.	DATE	REVISION	APP.

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

APPROVED:

CIVITAS ENGINEERING GROUP
Engineers ● Planners ● Construction Managers
2000 W. Sam Houston Pkwy S., Suite 1400
Houston, Texas 77042
Phone: (713)783-8700, Fax: (713)783-8747
TBPE Firm Registration No. F-4491

SURVEYED BY: LANDTECH, INC.
FB NO.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 9 – AREAS 8 AND 11 – BASINS IB032 AND IB022

TREE PROTECTION PLAN

SHEET 15 OF 15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-034	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 339 OF 339	

PLOTTED: 6/29/2026 7:06 PM
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