FOR REDUCED PLANS
original scale in inches
3 2 1 0

CITY OF HOUSTON

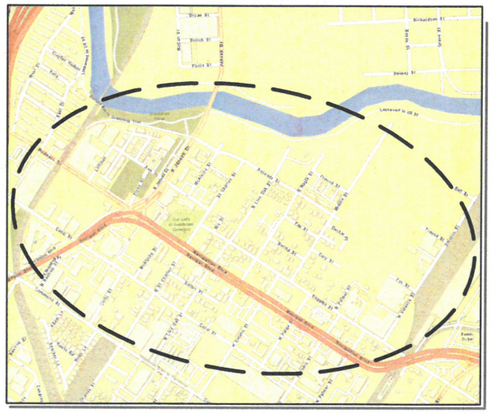
HOUSTON PUBLIC WORKS CAPITAL PROJECTS WATERLINE REPLACEMENT IN SECOND WARD

WBS NO. S-000035-0312-4

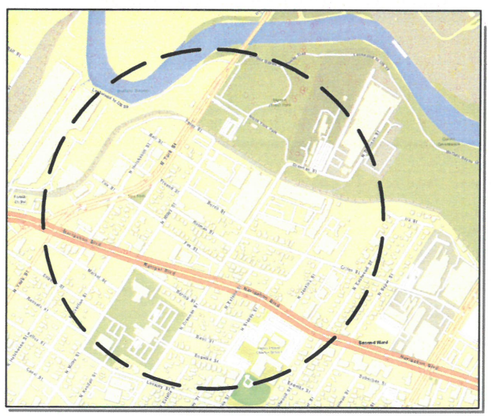
90% COMPLETION SUBMITTAL



PROJECT AREA A - VICINITY MAP
KEY MAP NO. 493R, 494J, 494N, 494P



PROJECT AREA B - VICINITY MAP
KEY MAP NO. 493R, 494J, 494N, 494P



PROJECT AREA C - VICINITY MAP
KEY MAP NO. 493R, 494J, 494N, 494P

TDLR EABPR = NOT APPLICABLE

MAYOR
JOHN WHITMIRE

CONTROLLER
CHRIS HOLLINS

DISTRICT
COUNCIL MEMBERS

AMY PECK
DISTRICT A

TARSHA JACKSON
DISTRICT B

ABBIE KAMIN
DISTRICT C

CAROLYN EVANS-SHABAZZ
DISTRICT D

FRED FLICKINGER
DISTRICT E

TIFFANY D. THOMAS
DISTRICT F

MARY ANN HUFFMAN
DISTRICT G

MARIO CASTILLO
DISTRICT H

JOAQUIN MARTINEZ
DISTRICT I

EDWARD POLLARD
DISTRICT J

MARTHA CASTEX-TATUM
DISTRICT K

COUNCIL MEMBERS
AT-LARGE

JULIAN RAMIREZ
POSITION 1

WILLIE DAVIS
POSITION 2

TWILA CARTER
POSITION 3

LETITIA PLUMMER
POSITION 4

SALLIE ALCORN
POSITION 5

NOTE:

1. AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET ROW OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713.223.4567

No.	Date	Revisions	App.

NO.	DATE	REVISION	APP.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation

SURVEYED BY: JAG ENGINEERING, INC.
FB NO. P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: 09/23/2026

PARKS-FORESTRY DEPT.

METRO

HOUSTON WATER

TRANSPORTATION & DRAINAGE OPERATIONS

CAPITAL PROJECTS

SURVEY

CITY ENGINEER DATE

DIRECTOR OF HPW DATE

FOR CITY OF HOUSTON USE ONLY

SHEET NO 1 OF 362 SHEETS

PLOTTED ON: Wednesday, September 23, 2026 9:12:54 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\WLP-SECOND WARD-COVER SHEET.DWG

SHEET	DESCRIPTION
	GENERAL
1	PROJECT COVER SHEET
2	PROJECT INDEX SHEET
3	PROJECT INDEX SHEET
5	GENERAL & CONSTRUCTION NOTES
6	UTILITY NOTES
7	PROJECT SPECIFIC CONSTRUCTION NOTES
	SURVEY CONTROL
8	TOPO LEGEND
9-10	SURVEY CONTROL MAP AREA-A
11-14	SCM AREA-A SWING TIES
15-19	SCM AREA-A TABLES
20-21	SURVEY CONTROL MAP AREA-B
22-25	SCM AREA-B SWING TIES
26-30	SCM AREA-B TABLES
31-32	SURVEY CONTROL MAP AREA-C
33-35	SCM AREA-C SWING TIES
36-39	SCM AREA-C TABLES
	PROJECT OVERALLS
40	REC-OVERALL PPCA LAYOUT AREA-A
41	REC-OVERALL PPCA LAYOUT AREA-B
42	REC-OVERALL PPCA LAYOUT AREA-C
43	OVERALL PROJECT LAYOUT
44	OVERALL SHEET LAYOUT AREA-A
45	OVERALL SHEET LAYOUT AREA-B
46	OVERALL SHEET LAYOUT AREA-C
47	OVERALL DESIGN LAYOUT AREA-A
48	OVERALL DESIGN LAYOUT AREA-B
49	OVERALL DESIGN LAYOUT AREA-C
	PLAN & PROFILE
	AREA-A
	COMMERCE ST
50	FROM STA. 5+00.00 TO STA. 8+00.00
51	FROM STA. 8+00.00 TO STA. 11+98.64
	FRANKLIN AVE
52	FROM STA. 5+00.00 TO STA. 8+36.20
53	FROM STA. 8+36.20 TO STA. 12+82.05
	CONGRESS AVE
54	FROM STA. 5+00.00 TO STA. 8+60.00
55	FROM STA. 8+60.00 TO STA. 13+00.00
56	FROM STA. 13+00.00 TO STA. 17+00.00
57	FROM STA. 17+00.00 TO STA. 19+79.86
	PRESTON AVE
58	FROM STA. 5+00.00 TO STA. 8+60.00
59	FROM STA. 8+60.00 TO STA. 13+00.00
60	FROM STA. 13+00.00 TO STA. 17+00.00
61	FROM STA. 17+00.00 TO STA. 21+00.00
62	FROM STA. 21+00.00 TO STA. 24+98.79
	PRAIRIE AVE
63	FROM STA. 5+00.00 TO STA. 9+40.00
64	FROM STA. 9+40.00 TO STA. 13+80.00
	TEXAS AVE
65	FROM STA. 5+40.00 TO STA. 9+80.00
66	FROM STA. 9+80.00 TO STA. 13+71.27
67	FROM STA. 13+71.27 TO STA. 18+64.05
	ST EMANUEL ST
68	FROM STA. 9+00.00 TO STA. 13+40.00
69	FROM STA. 13+40.00 TO STA. 17+80.00
70	FROM STA. 17+80.00 TO STA. 22+00.00
	HUTCHINS ST
71	FROM STA. 5+00.00 TO STA. 9+40.00
72	FROM STA. 9+40.00 TO STA. 13+40.00
73	FROM STA. 13+40.00 TO STA. 15+97.31
	BASTROP ST
74	FROM STA. 5+00.00 TO STA. 9+60.00
75	FROM STA. 9+60.00 TO STA. 14+00.00
76	FROM STA. 14+00.00 TO STA. 19+03.25
	EMANCIPATION
77	FROM STA. 5+00.00 TO STA. 9+40.00
78	FROM STA. 9+40.00 TO STA. 13+80.00
79	FROM STA. 13+80.00 TO STA. 18+53.83
	SHRIMPF ST
80	FROM STA. 1+00.00 TO STA. 5+60.00
	ST CHARLES ST
81	FROM STA. 1+00.00 TO STA. 5+40.00
82	FROM STA. 5+40.00 TO STA. 9+70.26
	PRESTON AVE @ RAILROAD CROSSING
83	FROM STA. 1+00.00 TO STA. 2+80.00
	AREA-B
	BAYOU PARKVIEW DR
84	FROM STA. 1+00.00 TO STA. 5+40.00
85	FROM STA. 5+40.00 TO STA. 9+40.00
86	FROM STA. 9+40.00 TO STA. 13+80.00
87	FROM STA. 13+80.00 TO STA. 18+20.00
	ANN ST
88	FROM STA. 1+00.00 TO STA. 5+00.00
89	FROM STA. 5+00.00 TO STA. 9+00.00
	BERING ST
90	FROM STA. 1+00.00 TO STA. 5+37.63
	SALTUS ST
91	FROM STA. 5+20.00 TO STA. 9+87.10
	LOTTMAN ST
92	FROM STA. 1+00.00 TO STA. 4+00.00
93	FROM STA. 4+00.00 TO STA. 5+72.37
	JENSEN DR
94	FROM STA. 9+00.00 TO STA. 13+40.00
95	FROM STA. 13+40.00 TO STA. 17+80.00
96	FROM STA. 17+80.00 TO STA. 21+89.51
	N ST CHARLES ST
97	FROM STA. 5+00.00 TO STA. 9+20.00
98	FROM STA. 9+20.00 TO STA. 13+00.27
	N LIVE OAK (N-2)
99	FROM STA. 1+64.71 TO STA. 4+40.00
100	FROM STA. 4+40.00 TO STA. 8+80.00
101	FROM STA. 8+80.00 TO STA. 12+25.47
	N NAGLE ST
102	FROM STA. 5+00.00 TO STA. 9+60.00
103	FROM STA. 9+60.00 TO STA. 14+40.00
	NORTH ENNIS ST (N)
104	FROM STA. 2+00.00 TO STA. 5+73.89
	VELASCO ST
105	FROM STA. 1+00.00 TO STA. 5+40.00
106	FROM STA. 5+40.00 TO STA. 10+00.00
107	FROM STA. 10+00.00 TO STA. 14+60.00
108	FROM STA. 14+60.00 TO STA. 19+12.97
	CARY ST
109	FROM STA. 2+00.00 TO STA. 5+40.00
	AREA-C
	FREUND ST
110	FROM STA. 3+00.00 TO STA. 6+00.00
111	FROM STA. 6+00.00 TO STA. 7+86.67
	BURCH ST
112	FROM STA. 1+00.00 TO STA. 4+80.00
113	FROM STA. 4+80.00 TO STA. 7+88.53
	ROTTMAN ST
114	FROM STA. 1+00.00 TO STA. 4+80.00
115	FROM STA. 4+80.00 TO STA. 8+29.32
	N YORK ST
116	FROM STA. 12+20.00 TO STA. 16+60.00
117	FROM STA. 16+60.00 TO STA. 20+55.82
	N HUTCHESON ST
118	FROM STA. 2+00.00 TO STA. 6+00.00
119	FROM STA. 6+00.00 TO STA. 9+46.07
	N EVERTON ST
120	FROM STA. 2+00.00 TO STA. 6+40.00
121	FROM STA. 6+40.00 TO STA. 10+80.00
	MILBY ST
122	FROM STA. 1+00.00 TO STA. 4+00.00
123	FROM STA. 4+00.00 TO STA. 7+80.00
124	FROM STA. 7+80.00 TO STA. 10+71.46
	N DRENNAN ST
125	FROM STA. 1+00.00 TO STA. 4+40.00
126	FROM STA. 4+40.00 TO STA. 8+00.00
127	FROM STA. 8+00.00 TO STA. 12+20.00
128	FROM STA. 12+20.00 TO STA. 15+20.00
129	FROM STA. 15+20.00 TO STA. 19+00.00
130	FROM STA. 19+00.00 TO STA. 21+16.99
	JENKINS ST
131	FROM STA. 1+00.00 TO STA. 5+00.00
132	FROM STA. 5+00.00 TO STA. 7+73.21
	ABANDON WATERLINE PLANS
133	ABANDON WATERLINE AREA-A
134	ABANDON WATERLINE AREA B-1
135	ABANDON WATERLINE AREA B-2
136	ABANDON WATERLINE AREA C-1
137	ABANDON WATERLINE AREA C-2

No.	Date	Revisions	App.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES. EPIFANIO E. SALAZAR JR., P.E. TEXAS SERIAL NO. 67749 DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PROJECT INDEX SHEET

1 OF 3

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 2 OF 362	

FOR REDUCED PLANS original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 9:17:22 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\WLP-SECOND WARD-INDEX OF DRAWINGS.DWG

SHEET	DESCRIPTION
	STORMWATER POLLUTION PREVENTION
138	STORM WATER POLLUTION PREVENTION DETAIL
139	OVERALL SWPPP LAYOUT AREA~A
140	OVERALL SWPPP LAYOUT AREA~B
141	OVERALL SWPPP LAYOUT AREA~C
	AREA A
	COMMERCE ST
142	FROM STA. 5+00.00 TO STA. 8+00.00
143	FROM STA. 8+00.00 TO STA. 11+98.64
	FRANKLIN AVE
144	FROM STA. 5+00.00 TO STA. 8+36.20
145	FROM STA. 8+36.20 TO STA. 12+82.05
	CONGRESS AVE
146	FROM STA. 5+00.00 TO STA. 8+60.00
147	FROM STA. 8+60.00 TO STA. 13+00.00
148	FROM STA. 13+00.00 TO STA. 17+00.00
149	FROM STA. 17+00.00 TO STA. 19+79.86
	PRESTON AVE
150	FROM STA. 5+00.00 TO STA. 8+60.00
151	FROM STA. 8+60.00 TO STA. 13+00.00
152	FROM STA. 13+00.00 TO STA. 17+00.00
153	FROM STA. 17+00.00 TO STA. 21+00.00
154	FROM STA. 21+00.00 TO STA. 24+98.79
	PRAIRIE AVE
155	FROM STA. 5+00.00 TO STA. 9+40.00
156	FROM STA. 9+40.00 TO STA. 13+80.00
	TEXAS AVE
157	FROM STA. 5+00.00 TO STA. 9+80.00
158	FROM STA. 9+80.00 TO STA. 13+71.27
159	FROM STA. 13+71.27 TO STA. 18+64.05
	ST EMANUEL ST
160	FROM STA. 9+00.00 TO STA. 13+40.00
161	FROM STA. 13+40.00 TO STA. 17+80.00
162	FROM STA. 17+80.00 TO STA. 22+00.00
	HUTCHINS ST
163	FROM STA. 5+00.00 TO STA. 9+40.00
164	FROM STA. 9+40.00 TO STA. 13+40.00
165	FROM STA. 13+40.00 TO STA. 15+97.31
	BASTROP ST
166	FROM STA. 5+00.00 TO STA. 9+60.00
167	FROM STA. 9+60.00 TO STA. 14+00.00

SHEET	DESCRIPTION
	BASTROP ST(cont.)
168	FROM STA. 14+00.00 TO STA. 19+03.25
	EMANCIPATION
169	FROM STA. 5+00.00 TO STA. 9+40.00
170	FROM STA. 9+40.00 TO STA. 13+80.00
171	FROM STA. 13+80.00 TO STA. 18+53.83
	SHRIMPF ST
172	FROM STA. 1+00.00 TO STA. 5+60.00
	ST CHARLES ST
173	FROM STA. 1+00.00 TO STA. 5+40.00
174	FROM STA. 5+40.00 TO STA. 9+70.26
	PRESTON AVE @ RAILROAD CROSSING
175	FROM STA. 1+00.00 TO STA. 2+80.00
	AREA B
	BAYOU PARKVIEW DR
176	FROM STA. 1+00.00 TO STA. 5+40.00
177	FROM STA. 5+40.00 TO STA. 9+40.00
178	FROM STA. 9+40.00 TO STA. 13+80.00
179	FROM STA. 13+80.00 TO STA. 18+20.00
	ANN ST
180	FROM STA. 1+00.00 TO STA. 5+00.00
181	FROM STA. 5+00.00 TO STA. 9+00.00
	BERING ST
182	FROM STA. 1+00.00 TO STA. 5+37.63
	SALTUS ST
183	FROM STA. 5+20.00 TO STA. 9+87.10
	LOTTMAN ST
184	FROM STA. 1+00.00 TO STA. 4+00.00
185	FROM STA. 4+00.00 TO STA. 5+72.37
	JENSEN DR
186	FROM STA. 9+00.00 TO STA. 13+40.00
187	FROM STA. 13+40.00 TO STA. 17+80.00
188	FROM STA. 17+80.00 TO STA. 21+89.51
	N ST CHARLES ST
189	FROM STA. 5+00.00 TO STA. 9+20.00
190	FROM STA. 9+20.00 TO STA. 13+00.27

SHEET	DESCRIPTION
	N LIVE OAK (N-2)
191	FROM STA. 1+64.71 TO STA. 4+40.00
192	FROM STA. 4+40.00 TO STA. 8+80.00
193	FROM STA. 8+80.00 TO STA. 12+25.47
	N NAGLE ST
194	FROM STA. 5+00.00 TO STA. 9+60.00
195	FROM STA. 9+60.00 TO STA. 14+40.00
	NORTH ENNIS ST (N)
196	FROM STA. 2+94.15 TO STA. 5+73.89
	VELASCO ST
197	FROM STA. 1+00.00 TO STA. 5+40.00
198	FROM STA. 5+40.00 TO STA. 10+00.00
199	FROM STA. 10+00.00 TO STA. 14+60.00
200	FROM STA. 14+60.00 TO STA. 19+12.97
	CARY ST
201	FROM STA. 2+00.00 TO STA. 5+40.00
	AREA C
	FREUND ST
202	FROM STA. 3+00.00 TO STA. 6+00.00
203	FROM STA. 6+00.00 TO STA. 7+86.67
	BURCH ST
204	FROM STA. 1+00.00 TO STA. 4+80.00
205	FROM STA. 4+80.00 TO STA. 7+88.53
	ROTTMAN ST
206	FROM STA. 1+00.00 TO STA. 4+80.00
207	FROM STA. 4+80.00 TO STA. 8+29.32
	N YORK ST
208	FROM STA. 11+80.99 TO STA. 16+60.00
209	FROM STA. 16+60.00 TO STA. 20+55.82
	N HUTCHESON ST
210	FROM STA. 2+00.00 TO STA. 6+00.00
211	FROM STA. 6+00.00 TO STA. 9+46.07
	N EVERTON ST
212	FROM STA. 2+00.00 TO STA. 6+40.00
213	FROM STA. 6+40.00 TO STA. 10+80.00
	MILBY ST
214	FROM STA. 1+00.00 TO STA. 4+00.00

SHEET	DESCRIPTION
	MILBY ST(cont.)
215	FROM STA. 4+00.00 TO STA. 7+80.00
216	FROM STA. 7+80.00 TO STA. 10+71.46
	N DRENNAN ST
217	FROM STA. 1+00.00 TO STA. 4+40.00
218	FROM STA. 4+40.00 TO STA. 8+00.00
219	FROM STA. 8+00.00 TO STA. 12+20.00
220	FROM STA. 12+20.00 TO STA. 15+20.00
221	FROM STA. 15+20.00 TO STA. 19+00.00
222	FROM STA. 19+00.00 TO STA. 21+16.99
	JENKINS ST
223	FROM STA. 1+00.00 TO STA. 5+00.00
224	FROM STA. 5+00.00 TO STA. 7+73.21
	TREE PRESERVATION
225-226	TREE TREATMENT SPECIFICATIONS
227-230	TREE PRESERVATION AND PROTECTION DETAILS
231	OVERALL TREE LAYOUT AREA~A
232	OVERALL TREE LAYOUT AREA~B
233	OVERALL TREE LAYOUT AREA~C
	AREA A
	COMMERCE ST
234	FROM STA. 5+00.00 TO STA. 8+00.00
235	FROM STA. 8+00.00 TO STA. 11+98.64
	FRANKLIN AVE
236	FROM STA. 5+00.00 TO STA. 8+36.20
237	FROM STA. 8+36.20 TO STA. 12+82.05
	CONGRESS AVE
238	FROM STA. 5+00.00 TO STA. 8+60.00
239	FROM STA. 8+60.00 TO STA. 13+00.00
240	FROM STA. 13+00.00 TO STA. 17+00.00
241	FROM STA. 17+00.00 TO STA. 19+79.86
	PRESTON AVE
242	FROM STA. 5+00.00 TO STA. 8+60.00
243	FROM STA. 8+60.00 TO STA. 13+00.00
244	FROM STA. 13+00.00 TO STA. 17+00.00
245	FROM STA. 17+00.00 TO STA. 21+00.00
246	FROM STA. 21+00.00 TO STA. 24+98.79
	PRAIRIE AVE
247	FROM STA. 5+00.00 TO STA. 9+40.00
248	FROM STA. 9+40.00 TO STA. 13+80.00

FOR REDUCED PLANS original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 9:17:29 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\WLP-SECOND WARD-INDEX OF DRAWINGS.DWG

No.	Date	Revisions	Appr.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PROJECT INDEX SHEET

2 OF 3

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 3 OF 362	

SHEET	DESCRIPTION
	TEXAS AVE
249	FROM STA. 5+00.00 TO STA. 9+80.00
250	FROM STA. 9+80.00 TO STA. 13+71.27
251	FROM STA. 13+71.27 TO STA. 18+64.05
	ST EMANUEL ST
252	FROM STA. 9+00.00 TO STA. 13+40.00
253	FROM STA. 13+40.00 TO STA. 17+80.00
254	FROM STA. 17+80.00 TO STA. 22+00.00
	HUTCHINS ST
255	FROM STA. 5+00.00 TO STA. 9+40.00
256	FROM STA. 9+40.00 TO STA. 13+40.00
257	FROM STA. 13+40.00 TO STA. 15+97.31
	BASTROP ST
258	FROM STA. 5+00.00 TO STA. 9+60.00
259	FROM STA. 9+60.00 TO STA. 14+00.00
260	FROM STA. 14+00.00 TO STA. 19+03.25
	EMANCIPATION
261	FROM STA. 5+00.00 TO STA. 9+40.00
262	FROM STA. 9+40.00 TO STA. 13+80.00
263	FROM STA. 13+80.00 TO STA. 18+53.83
	SHRIMPF ST
264	FROM STA. 1+00.00 TO STA. 5+60.00
	ST CHARLES ST
265	FROM STA. 1+00.00 TO STA. 5+40.00
266	FROM STA. 5+40.00 TO STA. 9+70.26
	PRESTON AVE @ RAILROAD CROSSING
267	FROM STA. 1+00.00 TO STA. 2+80.00
	AREA B
	BAYOU PARKVIEW DR
268	FROM STA. 1+00.00 TO STA. 5+40.00
269	FROM STA. 5+40.00 TO STA. 9+40.00
270	FROM STA. 9+40.00 TO STA. 13+80.00
271	FROM STA. 13+80.00 TO STA. 18+20.00
	ANN ST
272	FROM STA. 1+00.00 TO STA. 5+00.00
273	FROM STA. 5+00.00 TO STA. 9+00.00
	BERING ST
274	FROM STA. 1+00.00 TO STA. 5+37.63

SHEET	DESCRIPTION
	SALTUS ST
275	FROM STA. 5+20.00 TO STA. 9+87.10
	LOTTMAN ST
276	FROM STA. 1+00.00 TO STA. 4+00.00
277	FROM STA. 4+00.00 TO STA. 5+72.37
	JENSEN DR
278	FROM STA. 9+00.00 TO STA. 13+40.00
279	FROM STA. 13+40.00 TO STA. 17+80.00
280	FROM STA. 17+80.00 TO STA. 21+89.51
	N ST CHARLES ST
281	FROM STA. 5+00.00 TO STA. 9+20.00
282	FROM STA. 9+20.00 TO STA. 13+00.27
	N LIVE OAK (N-2)
283	FROM STA. 1+64.71 TO STA. 4+40.00
284	FROM STA. 4+40.00 TO STA. 8+80.00
285	FROM STA. 8+80.00 TO STA. 12+25.47
	N NAGLE ST
286	FROM STA. 5+00.00 TO STA. 9+60.00
287	FROM STA. 9+60.00 TO STA. 14+40.00
	NORTH ENNIS ST (N)
288	FROM STA. 2+94.15 TO STA. 5+73.89
	VELASCO ST
289	FROM STA. 1+00.00 TO STA. 5+40.00
290	FROM STA. 5+40.00 TO STA. 10+00.00
291	FROM STA. 10+00.00 TO STA. 14+60.00
292	FROM STA. 14+60.00 TO STA. 19+12.97
	CARY ST.
293	FROM STA. 2+00.00 TO STA. 5+40.00
	AREA C
	FREUND ST
294	FROM STA. 3+00.00 TO STA. 6+00.00
295	FROM STA. 6+00.00 TO STA. 7+86.67
	BURCH ST
296	FROM STA. 1+00.00 TO STA. 4+80.00
297	FROM STA. 4+80.00 TO STA. 7+88.53

SHEET	DESCRIPTION
	ROTTMAN ST
298	FROM STA. 1+00.00 TO STA. 4+80.00
299	FROM STA. 4+80.00 TO STA. 8+29.32
	N YORK ST
300	FROM STA. 11+80.99 TO STA. 16+60.00
301	FROM STA. 16+60.00 TO STA. 20+55.82
	N HUTCHESON ST
302	FROM STA. 2+00.00 TO STA. 6+00.00
303	FROM STA. 6+00.00 TO STA. 9+46.07
	N EVERTON ST
304	FROM STA. 2+00.00 TO STA. 6+40.00
305	FROM STA. 6+40.00 TO STA. 10+80.00
	MILBY ST
306	FROM STA. 1+00.00 TO STA. 4+00.00
307	FROM STA. 4+00.00 TO STA. 7+80.00
308	FROM STA. 7+80.00 TO STA. 10+71.46
	N DRENNAN ST
309	FROM STA. 1+00.00 TO STA. 4+40.00
310	FROM STA. 4+40.00 TO STA. 8+00.00
311	FROM STA. 8+00.00 TO STA. 12+20.00
312	FROM STA. 12+20.00 TO STA. 15+20.00
313	FROM STA. 15+20.00 TO STA. 19+00.00
314	FROM STA. 19+00.00 TO STA. 21+16.99
	JENKINS ST
315	FROM STA. 1+00.00 TO STA. 5+00.00
316	FROM STA. 5+00.00 TO STA. 7+73.21

TRAFFIC CONTROL STANDARD DETAILS

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CITY OF HOUSTON STANDARDS

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No.	Date	Revisions	App.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PROJECT INDEX SHEET

3 OF 3

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 4 OF 362	

FOR REDUCED PLANS original scale in inches

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FOR REDUCED PLANS
original scale in inches

GENERAL & CONSTRUCTION NOTES

1. PROFILE VIEW DOES NOT REFLECT TRUE LENGTH OF PIPES, SEE PLAN VIEW FOR CLARIFICATION.
2. ENTIRE PROJECT WILL BE CONSTRUCTED USING TRENCHLESS TECHNOLOGY (DIRECTIONAL DRILLING) METHOD EXCEPT AT TIE-IN LOCATION TO EXISTING WATER LINE.
3. THE CONTRACTOR IS REQUIRED TO COORDINATE THE RECONSTRUCTION OF EXISTING DRIVEWAYS WITH RESIDENTS, BUSINESS, ETC. 72 HOURS PRIOR TO CONSTRUCTION. THE DRIVEWAYS MUST BE CONSTRUCTED IN HALVES TO PROVIDE CONTINUOUS USE/ACCESS BY RESIDENTS AND BUSINESSES.
4. THE REMOVAL AND REPLACEMENT OF STREET INTERSECTIONS MUST BE CONSTRUCTED IN QUARTERS TO ALLOW VEHICULAR TRAFFIC USE FOR FLAGGING OPERATION DURING WORKING HOURS AND "YIELD TO INCOMING TRAFFIC" SIGNING WHEN FLAGGERS ARE NOT PRESENT. REFER TO "TYPICAL CUL-DE-SAC & DEAD-END TRAFFIC CONTROL" PLAN SHEET FOR REQUIRED SIGN DETAILS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS
STORM 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.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS
STREET & BRIDGE CONSTRUCTION NOTES

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

CITY OF HOUSTON
HOUSTON PUBLIC WORKS
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.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS
TRAFFIC NOTES

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

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

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) LATEST EDITION WITH REVISIONS DURING THE ENTIRE CONSTRUCTION PERIOD.
2. NO WORK SHALL BE PERFORMED IN RESIDENTIAL AREAS FROM 7:00PM TO 7:00AM.
3. CONTRACTOR SHALL MAINTAIN APPROVED NUMBER OF LANES OF TRAFFIC IN EACH DIRECTION DURING CONSTRUCTION WORKING HOURS. TRAFFIC CONTROL PLANS SHALL INCLUDE ONE-WAY AND/OR DETOUR PLANS. CONTRACTOR SHALL MAINTAIN ADA COMPLAINT PEDESTRIAN ACCESS TO BUS STOPS AND ADEQUATE BUS ACCESS TO THE BUS STOP.
4. CONTRACTOR SHALL COVER OPEN PAVEMENT EXCAVATIONS FOR MINOR UTILITY WORK WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS, OPEN LANES FOR NORMAL TRAFFIC FLOW WHEN FEASIBLE.
5. CONTRACTOR SHALL SECURE 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.

No.	Date	Revisions	App.

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

GENERAL & CONSTRUCTION NOTES

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 5 OF 362	

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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\CONSTRUCTION UTILITY NOTES.DWG

FOR REDUCED PLANS
original scale in inches

CENTERPOINT ENERGY - GENERAL NOTES

CAUTION: UNDERGROUND GAS FACILITIES

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 PIPELINE MARKINGS ARE NOT VISIBLE, CALL (713) 207-5463 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
- WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
- WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
- FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-2111 OR (713) 207-4200.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

WARNING: OVERHEAD ELECTRICAL LINES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:

- ANY ACTIVITY WHERE PERSON 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.

PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222.

ACTIVITIES ON/OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY

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

WARNING: UNDERGROUND ELECTRICAL UTILITIES

THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

- ALL INFORMATION CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTORS ARE RESPONSIBLE MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND PIPELINES, CONDUITS, AND STRUCTURES BY CONTACTING OWNERS OF UNDERGROUND UTILITIES OR BY EXCAVATING IN ADVANCE OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES WHEN AND WHERE THEY FALL IN THE PATH OF CONSTRUCTION.
- THE CONTRACTOR IS ALSO RESPONSIBLE FOR CONTACTING THE UTILITY COORDINATING COMMITTEE AT (713) 223-4567 AND TEXAS ONE CALL AT 1-800-245-4545, FORTY-EIGHT (48) HOURS PRIOR TO ANY CONSTRUCTION.
- THE LOCATION OF ANY CENTERPOINT ENERGY UTILITIES ARE SHOWN IN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. THEY AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
- ALL PROPOSED FACILITIES SHALL MAINTAIN 12" CLEAR FROM ALL EXISTING UTILITIES

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/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 KEVIN RAY AT (713) 614-1983 OR EMAIL HIM AT KR7896@ATT.COM IF CABLE LOCATE REQUESTS ARE NOT COMPLETED FOR OUR AT&T TEXAS/SWBT FACILITIES.

No.	Date	Revisions	Appr.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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SURVEYED BY:
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FB NO.: P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

UTILITY NOTES

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 6 OF 362	

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FOR REDUCED PLANS
original scale in inches

PROJECT SPECIFIC CONSTRUCTION NOTES

1. THE CONSTRUCTION METHODOLOGY FOR THIS PROJECT IS BY TRENCHLESS INSTALLATION. OPEN CUT CONSTRUCTION METHODOLOGY WILL BE ONLY REQUIRED WHEN PROPOSED WATER LINES WILL HAVE A CHANGE IN HORIZONTAL DIRECTION, THE INSTALLATION OF PROPOSED WATER LINE APPURTENANCES, PROPOSED FIRE HYDRANTS, PROPOSED VALVES AND CONNECTIONS BETWEEN THE PROPOSED WATER LINE AND THE EXISTING WATER LINE. STEEL PLATES ARE REQUIRED ON ALL OPEN CUT EXCAVATIONS TO ALLOW FOR CONTINUOUS TRAFFIC OPERATIONS AND MOVEMENTS DURING AND AFTER DAILY CONSTRUCTION ACTIVITY.
2. THE CONTRACTOR IS REQUIRED TO COORDINATE THE RECONSTRUCTION OF EXISTING DRIVEWAYS & SIDEWALKS WITH RESIDENTS, BUSINESSES, ETC., 72 HOURS PRIOR TO CONSTRUCTION. THE PAVEMENT, DRIVEWAYS & SIDEWALKS MUST BE CONSTRUCTED IN HALVES/PHASES TO PROVIDE CONTINUANCE USE/ACCESS BY RESIDENTS AND BUSINESSES.
3. THE REMOVAL AND REPLACEMENT OF STREET INTERSECTIONS MUST BE CONSTRUCTED IN QUARTERS TO ALLOW VEHICULAR TRAFFIC USE FOR FLAGGING OPERATION DURING WORKING HOURS.
4. CONTRACTOR WILL BE REQUIRED TO PROVIDE STEEL PLATES OVER ALL OPEN EXCAVATIONS INCLUDING PAVEMENT AND SIDEWALKS AT THE END OF THE WORKING DAY, WHEN CONSTRUCTION IS NOT ACTIVE. NO OVERNIGHT ROADWAY OR SIDEWALK CLOSURES ARE ALLOWED.
5. RESTORE THE SITE INCLUDING LANDSCAPING TO THE EXISTING CONDITION BEFORE CONSTRUCTION, OR BETTER.
6. THE CONTRACTOR IS REQUIRED TO INSTALL TEMPORARY "NO PARKING" SIGNS AS REQUIRED WHEN EXISTING PARKING SPACES ARE IMPACTED DUE TO CONSTRUCTION ACTIVITY.
7. WHEN MORE THAN ONE SIDE OF THE SIDEWALK HAS BEEN OBSTRUCTED CONTRACTOR MUST PROVIDE A TEMPORARY PEDESTRIAN ACCESS ADA COMPLAINT TEMPORARY SIDEWALK.
8. COORDINATE ALL CONSTRUCTION ACTIVITY WITH ADJACENT STAKEHOLDERS.

No.	Date	Revisions	Appr.

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN:

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PROJECT SPECIFIC CONSTRUCTION NOTES

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 7 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:17:52 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\CONSTRUCTION UTILITY NOTES.DWG

FOR REDUCED PLANS
original scale in inches

3 2 1 0

TOPOGRAPHIC SURVEY
SYMBOL LEGEND

- POWER POLE
- DOWN GUY
- GROUND BOX/ELECTRIC JUNCTION BOX
- TRAFFIC SIGN
- STORM MANHOLE
- B OR BB INLET
- GRATE INLET
- C-INLET
- E-INLET
- SANITARY MANHOLE
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- REDUCER
- BUILDING
- BUSH OR SHRUB
- TREE
- PALM TREE
- CREPE MYRTLE
- UTILITY PAINT MARKER
- CONTROL POINT & TEMPORARY BENCH MARK
- STREET LIGHT OR LIGHT STANDARD
- BOLLARD
- C.O.H. MONUMENT
- FOUND BOUNDARY MONUMENT
- CLEANOUT
- GAS METER
- GAS VALVE
- CENTERPOINT ENERGY/HL&P MANHOLE
- AT&T/SWBT MANHOLE
- ELEC. METER POLE
- RECORD DRAWING REFERENCE
- SPRINKLER HEAD
- SPRINKLER VALVE
- MAIL BOX
- TRAFFIC SIGNAL POLE

TOPOGRAPHIC SURVEY
LINE STYLE LEGEND

- FENCE (CHAIN LINK, WOOD, WROUGHT IRON)
- HIGH BANK
- CENTERLINE DITCH
- HEDGE
- OVERHEAD POWER LINE
- WATER LINE 24" AND SMALLER
- WATER LINE 30" AND LARGER
- SANITARY SEWER LINE 24" AND SMALLER
- SANITARY SEWER LINE 30" AND LARGER
- STORM SEWER LINE 24" AND SMALLER
- STORM SEWER LINE 30" AND LARGER
- GAS LINE
- CENTERPOINT UNDERGROUND CABLE
- TELEPHONE LINE
- ASPHALT PAVEMENT
- BUILDING LINE
- EASEMENT LINE

ABBREVIATION LEGEND

D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
H.C.F.C.D.	=	HARRIS COUNTY FLOOD CONTROL DISTRICT
H.C.C.F. NO.	=	COUNTY CLERK FILE NUMBER
C.C.F. NO.	=	COUNTY CLERK FILE NUMBER
C.F. NO.	=	COUNTY CLERK FILE NUMBER
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
F.C. NO.	=	FILM CODE NUMBER
T.C.E.	=	TEMPORARY CONSTRUCTION EASEMENT
ESM'T	=	EASEMENT
BRS.	=	BEARS
P.O.B.	=	POINT OF BEGINNING
P.O.C.	=	POINT OF COMMENCING
AC.	=	ACRES
SQ. FT.	=	SQUARE FEET
FND	=	FOUND
IP	=	IRON PIPE
IR	=	IRON ROD
CIR	=	CAPPED IRON ROD
PTP	=	PINCHED TOP PIPE

ABBREVIATION LEGEND

D.E.	=	DRAINAGE EASEMENT
W.L.E.	=	WATER LINE EASEMENT
TEMP.	=	TEMPORARY
P.A.E.	=	PRIVATE ACCESS EASEMENT
RCP	=	REINFORCED CONCRETE PIPE
℄	=	BASELINE
F , FL	=	FLOWLINE
SAN SWR	=	SANITARY SEWER
STM SWR	=	STORM SEWER
STA	=	ALIGNMENT STATION
SWBT	=	SOUTHWESTERN BELL TELEPHONE
H.L.&P.	=	CENTERPOINT ENERGY ELECTRIC
ENTEX	=	CENTERPOINT ENERGY GAS
IP	=	INTERMEDIATE PRESSURE
HP	=	HIGH PRESSURE
STL	=	STEEL
℄	=	CENTER LINE
MH	=	MANHOLE
DESC	=	DESCRIPTION
SB / BH	=	SOIL BORING / BORE HOLE
ROW	=	RIGHT OF WAY
PNT	=	POINT
NL	=	NAIL
COH	=	CITY OF HOUSTON
FM	=	FORCE MAIN
PT	=	POINT OF TANGENT
LT	=	LEFT
RT	=	RIGHT
DIP	=	DUCTILE IRON PIPE
FH	=	FIRE HYDRANT
PROP	=	PROPOSED
(N) (E) (S) (W)	=	DIRECTION
C-C	=	CENTER TO CENTER
W/	=	WITH
MIN	=	MINIMUM
MAX	=	MAXIMUM
@	=	AT
WL	=	WATER LINE
CONC.	=	CONCRETE
HMAC	=	HOT MIX ASPHALTIC CONCRETE
TSV	=	TAPPING SLEEVE AND VALVE
GV	=	GATE VALVE
℄	=	PROPERTY LINE

No.	Date	Revisions	App.

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SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

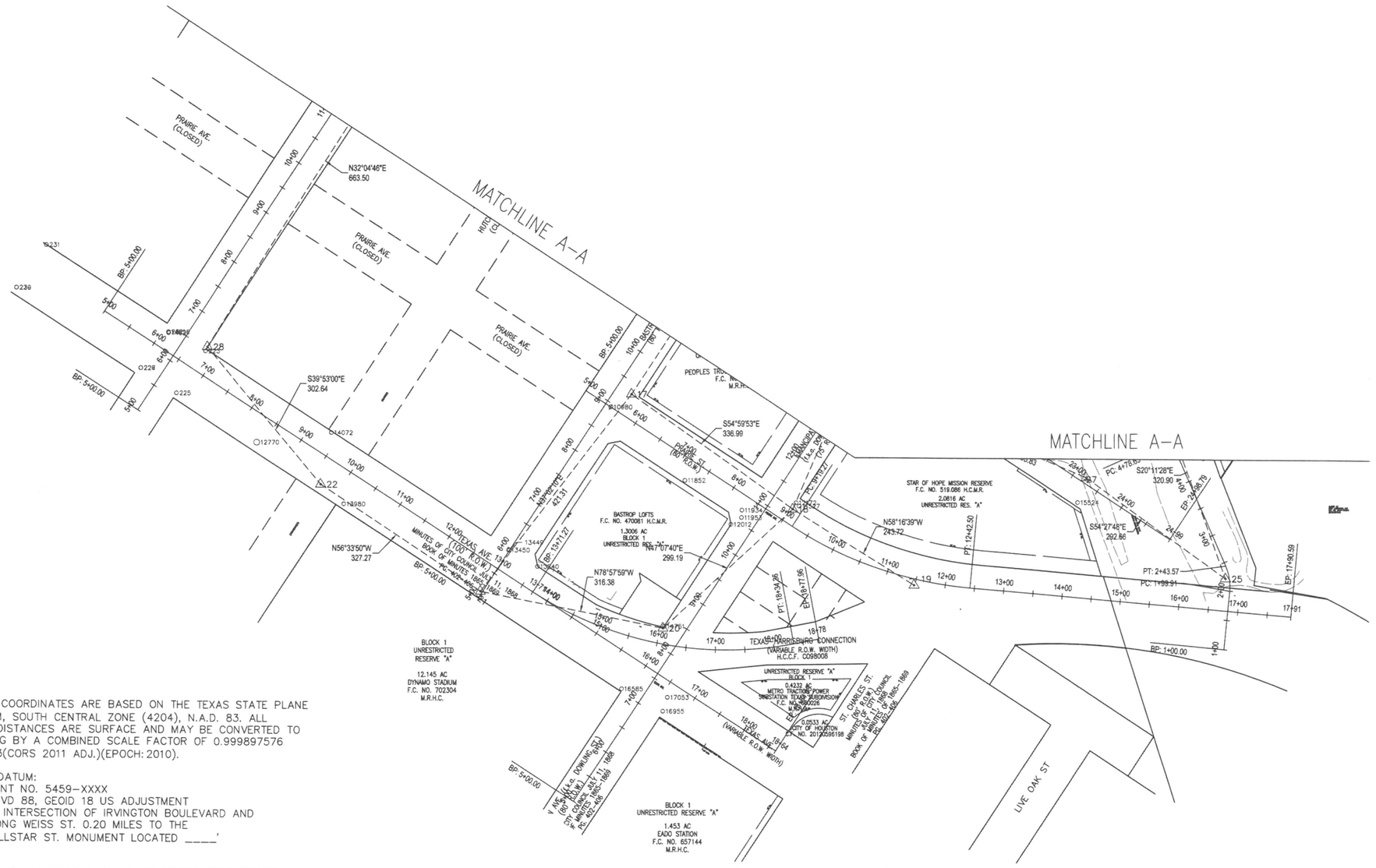
WATERLINE REPLACEMENT IN SECOND WARD

TOPO LEGEND

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 8 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:38:39 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\TOPO LEGEND.DWG


CANAL PLACE
F.C. NO. 588076 H.C.M.R.
2.458
UNRESTRICTED RES. "A"
NAVIGATION BLVD. (80' R.O.W. WIDTH VARIES)
VOL. 746, PG. 229, D.R.H.C.
VOL. 749, PG. 495, D.R.H.C.
VOL. 779, PG. 4, D.R.H.C.
CANAL ST. (VOL. 9, PG. 401, D.R.H.C.)
UNRESTRICTED RESERVE "A"
BLOCK 1
1.3310 AC
SHOPS AT CANAL
F.C. NO. 675856
M.R.H.C.
CALLED 0.340 AC
BAYOU VISTA LTD
TO
ESTATE LAND COMPANY
V620760 552-28-8537
05-23-2002
CALLED 0.5653 AC
HELEN F. SAUERMANN
TO
J.R. STUBBLEFIELD
E318249 113-12-1240
12-5-1974
0.5775 AC
H T LAND COMPANY
H.C.C.F NO. S275789
O.P.R.R.P.H.C.
0.5825 AC
TRACT 1
3316 WEST 11TH STREET, LLC
C.F. NO. 2018-338307
O.P.R.R.P.H.C.
KMQ REALTY GROUP, LTD.
TO
2315 COMMERCE, LTD
20130447101 048-86-2012
08-30-2013
BRASTROP (BASTROP ALLEY; BROADWAY ALLEY)
(50' R.O.W.)
VOL. 139, PG. 439, D.R.H.C.
BELL & MCCOY, INC.
TO
ESTATE LAND COMPANY
20960151 538-60-2899
04-02-2001
0.4953 AC
VPAM HOLDINGS, LLC
C.F. NO. RP-2018-182416
O.P.R.R.P.H.C.
UNRESTRICTED RESERVE "A"
BLOCK 1
1.1869 AC
SEARCH HOMEESS SERVICES
F.C. NO. 675538
LOT 6
BLOCK 187
S.S.B.B. ADDITION
LOT 12
BLOCK 187
S.S.B.B. ADDITION
1.2391 AC
TRACT IV
LOT 3, 4, 9, 10, 11 & PART OF 5
IN BLOCK 209
& PART OF LOT 5, 7, 8 AND 12
IN BLOCK 210
3316 WEST 11TH STREET, LLC
C.F. NO. 2018-338307
O.P.R.R.P.H.C.
0.347 AC
LOT 6, 7, & 8
BLOCK 209
2211 CONGRESS INVESTMENTS, LLC.
C.F. NO. RP-2023-229885
O.P.R.R.P.H.C.
1.449 AC
BLOCK 193
URBAN PROPERTIES, LLC
C.F. NO. RP-2019-448089
O.P.R.R.P.H.C.
0.4473 AC
A PORTION OF LOTS
1, 2, 7, 8, 9, & 12
AND ALL OF LOT 6
BLOCK 214
MSC PROPERTIES, LP
C.F. NO. RP-2021-719245
O.P.R.R.P.H.C.
0.7289 AC
3316 WEST 11TH STREET LLC
C.F. NO. RP-2018-338308
O.P.R.R.P.H.C.
S.M. WILLIAMS SUB.
BOOK 0, PG. 401, D.R.H.C.
RESIDUE OF LOT 46
BLOCK 1
RES "A"
ADAM LN (PRIVATE)
BLOCK 2
COMMERCE AVE. (80' R.O.W.)
BOOK 0, PG. 401, D.R.H.C.
SPERBER LN (PRIVATE)
BLOCK 5
RILEY LN (PRIVATE)
BLOCK 3
ROUFA RD. (PRIVATE)
4.2272 AC
WATERHILL HOMES LIMITED
F.C. NO. 603240
M.R.H.C.
BLOCK 4
UNION PACIFIC RR COMPANY
COMMERCE ST. RAILYARD
G.H. & H. RR COMPANY
(100' R.O.W.)
SCHRIMPF ST
(60' R.O.W.)
W. R.O.W. LINE G.H. & S.A.
S71°40'30"E
319.81
S40°17'21"W
360.06
N52°01'04"W
285.38
N31°25'34"E
276.12
S54°52'21"E
277.43
S58°44'25"E
318.07
N58°59'23"W
322.77
N22°19'30"E
260.57
S45°09'23"E
331.61
S24°28'47"W
339.07
S66°55'18"E
337.51
N32°29'18"E
338.32
S45°29'53"E
327.06
S58°17'50"E
277.46
N33°02'06"E
324.81
N30°50'01"E
381.96
S66°08'47"E
384.57
S41°32'39"W
269.80
30723 SQ FT
(STYLED PARCEL THREE)
MSC FAMILY PROPERTIES, LP
C.F. NO. 20130640694
O.P.R.R.P.H.C.
S40°07'59"W
210.86
N52°24'06"E
323.50
N72°41'06"W
316.39
MATCHLINE A-A
MATCHLINE A-A
FND MAG. NAIL W/ WASHER
BP: 5+00.00
EP: 25+39.58
EP: 14+98.62
EP: 12+85.66
EP: 19+78.86
EP: 9+70.26
EP: 6+88.84
PT: 12+05.66
PT: 5+63.82
PRC: 14+97.30
PRC: 15+03.25
PRC: 9+59.35
PRC: 10+07.94
PRC: 4+57.94
PRC: 5+00.00
PRC: 5+00.00
PRC: 5+00.00



NOTES:

1. ALL BEARINGS AND COORDINATES ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204), N.A.D. 83. ALL COORDINATES AND DISTANCES ARE SURFACE AND MAY BE CONVERTED TO GRID BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.999897576 (REF FAME: NAD_83(CORS 2011 ADJ.)(EPOCH: 2010).

2. PROJECT VERTICAL DATUM:
   C.O.H. SITE MONUMENT NO. 5459-XXXX
   ELEV. = _____ NAVD 88, GEOID 18 US ADJUSTMENT
   LOCATED FROM THE INTERSECTION OF IRVINGTON BOULEVARD AND WEISS ST. EAST ALONG WEISS ST. 0.20 MILES TO THE INTERSECTION AT HILLSTAR ST. MONUMENT LOCATED _____' FROM INTERSECTION.

   PROJECT VERTICAL DATUM WAS TIED TO HARRIS COUNTY RM# 050135
   ELEV. = 33.73' (NAVD 88, 2001 ADJUSTMENT), LOCATED AT THE CENTER OF SIDEWALK AT THE MAIN ST. BRIDGE AT LITTLE WHITE OAK BAYOU (UNIT NO. E101-00-00).

   TO CONVERT FROM PROJECT VERTICAL DATUM (NAVD 88, GEOID 18) TO NAVD88, 2001 ADJUSTMENT SUBTRACT 0.18'.

3. THIS PROJECT IS LOCATED WITHIN UNSHADED ZONE X, AREA OF MINIMAL FLOOD HAZARD, OUTSIDE THE 0.2% CHANCE (500-YR) FLOOD ACCORDING TO THE FLOOD INSURANCE RATE MAP (FIRM) NO. 48201C0690N, WITH AN EFFECTIVE DATE OF 01/06/2017 BY GRAPHICAL PLOTTING.

4. UNDERGROUND UTILITIES SHOWN ARE BASED ON SURFACE UTILITY FEATURES FIELD SURVEY, AND AVAILABLE INFORMATION. PUBLIC AND PRIVATE UTILITIES MAY EXIST WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567/800-669-4349 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.

5. THIS MAP IS A TRUE REPRESENTATION OF A SURVEY COMPLETED ON THE GROUND IN ACCORDANCE WITH TSPS STANDARDS FOR CATEGORY 6, CONDITION III, AND THE FACTS FOUND ON THE GROUND AT THE TIME OF THE SURVEY, PERFORMED IN SEPT. 8, 2025.

FILE NAME: X:\PROJ-2025\25037\DGN\SCM\AREA A\25037-AREA A-TOPO-SCM.DWG
PLOT STYLE: COH_JAG_07_2016.ctb

0 100' 200'
SCALE: 1" = 100'

KEY MAP NO. 455-P,Q

LEGEND

1 △	SURVEY BASELINE CONTROL POINT/TBM
112 ○	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 ○	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
9100 SOUTHWEST FWY., SUITE 130, HOUSTON TX 77074
(713) 977-7550 FAX (713) 977-7317

JAG ENGINEERING, INC.
9100 SW FRWY., SUITE 130
HOUSTON, TX 77074
(713) 977-7550
TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

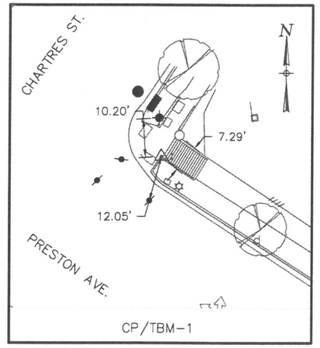
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

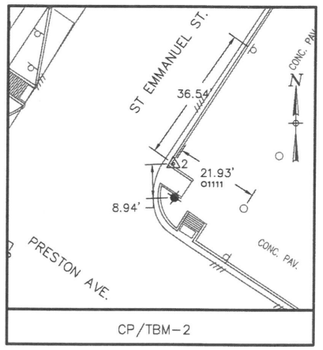
SURVEY CONTROL MAP AREA "A"

SHEET 2 OF 2

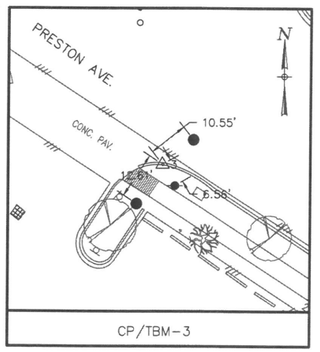
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S-000035-0312-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 10 OF 362	



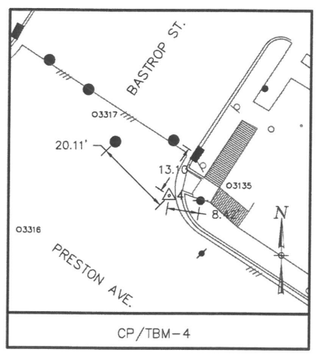
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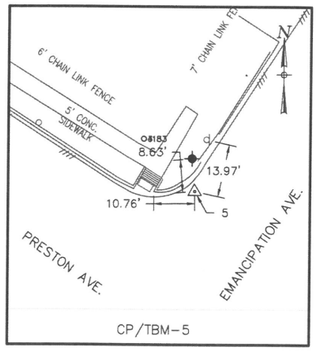
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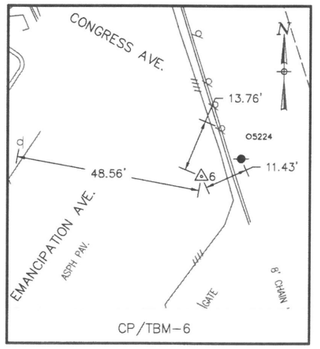
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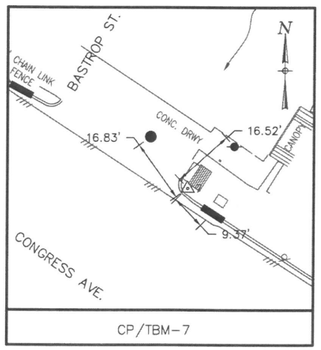
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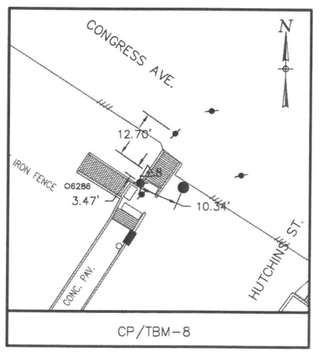
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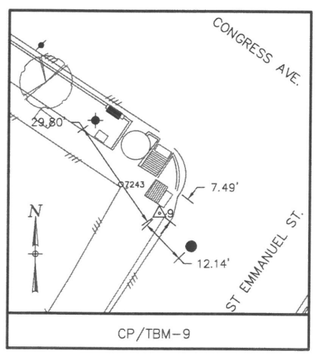
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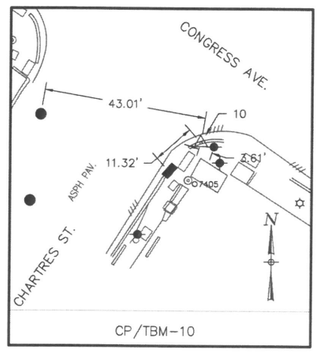
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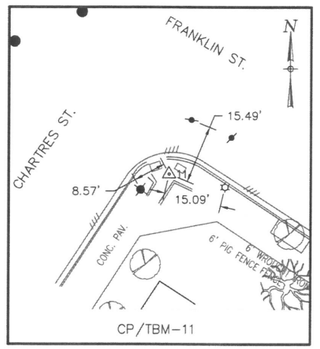
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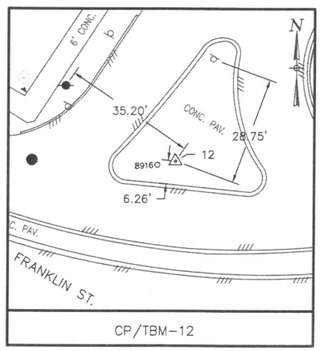
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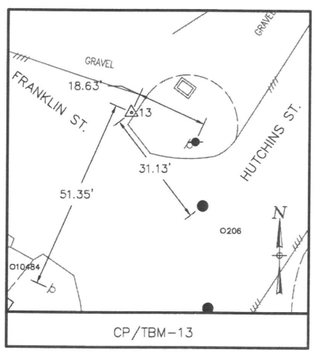
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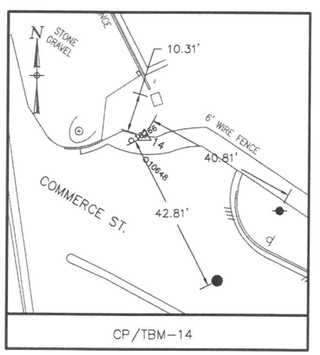
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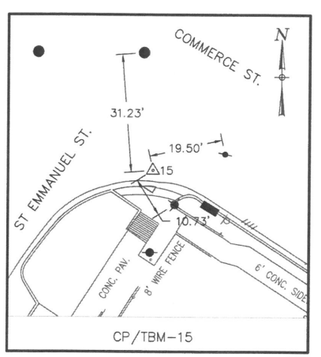
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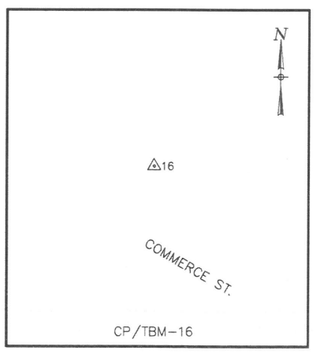
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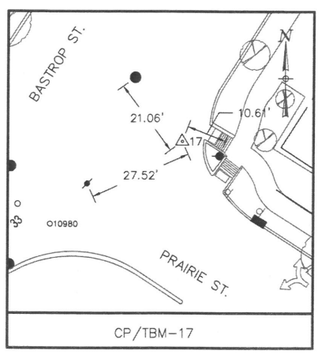
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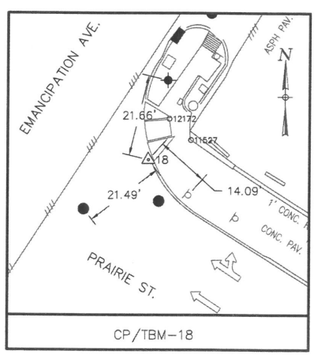
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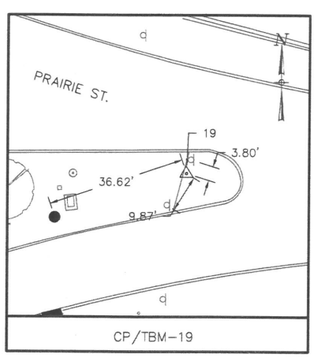
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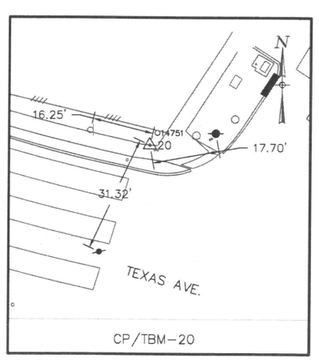
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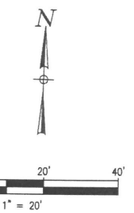
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CP/TBM-19



CP/TBM-20



KEY MAP NO. 455-P,Q

LEGEND

1 / 0	SURVEY BASELINE CONTROL POINT/TBM
112 o	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 O	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
9100 SOUTHWEST FWY.,SUITE 130, HOUSTON TX 77074
(713) 977-7550 FAX (713) 977-7317

JAG ENGINEERING, INC.
9100 SW FRWY., SUITE 130
HOUSTON, TX 77074
(713) 977-7550
TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

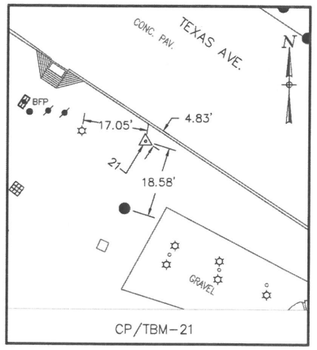
WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "A" SWING TIES

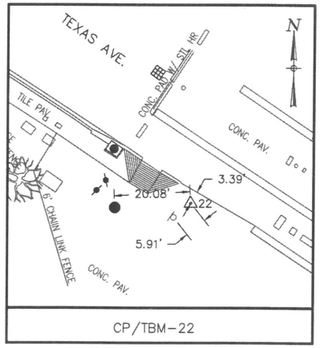
SHEET 1 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 11 OF 362	

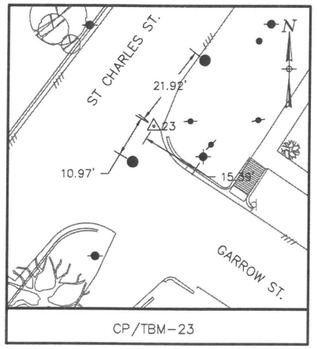
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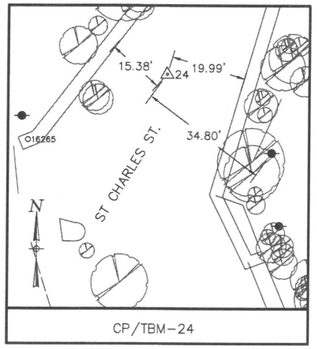
CP/TBM-21



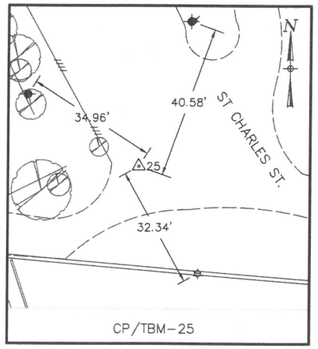
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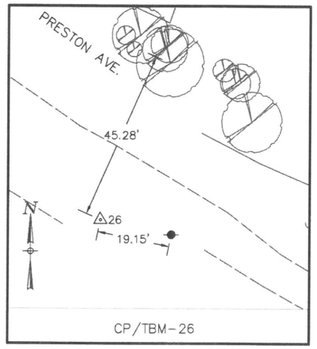
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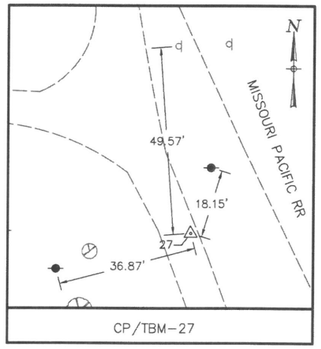
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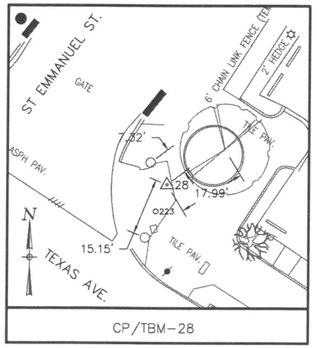
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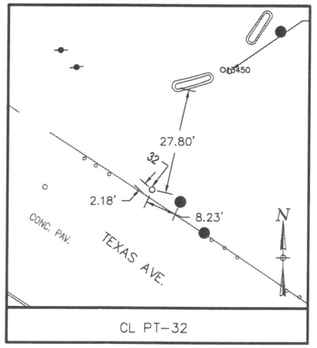
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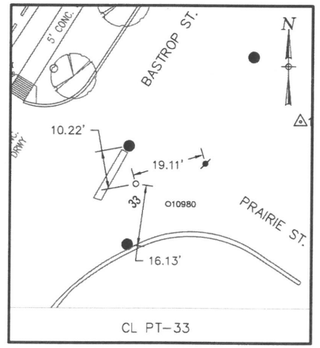
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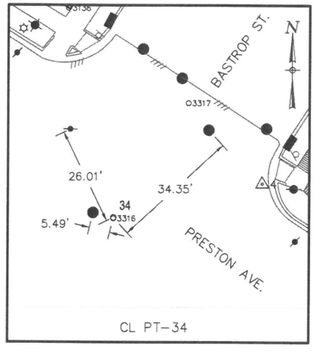
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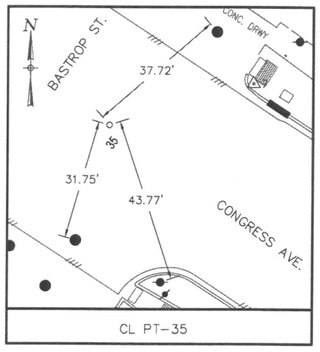
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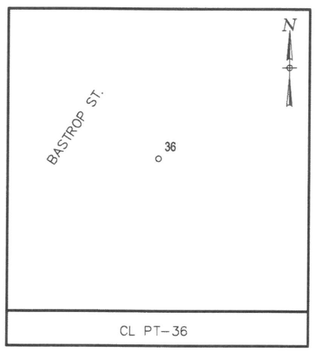
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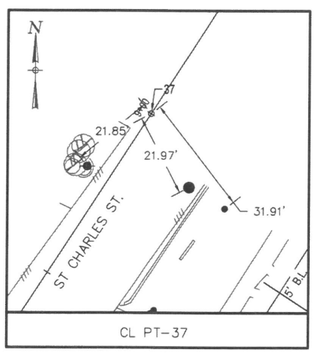
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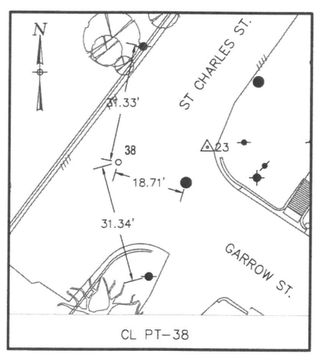
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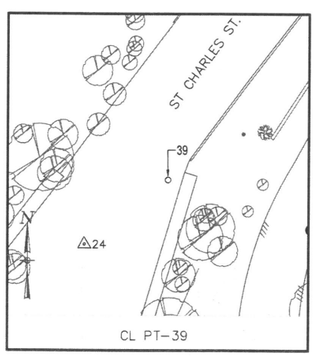
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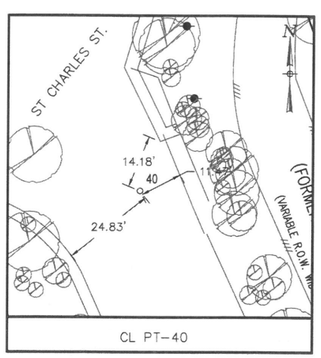
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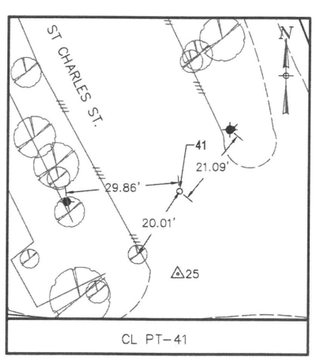
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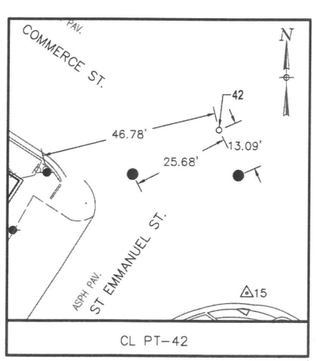
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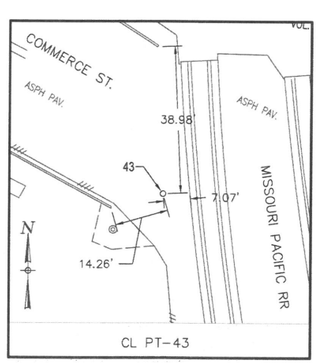
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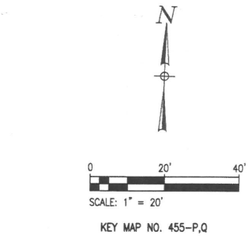
CL PT-41



CL PT-42



CL PT-43



KEY MAP NO. 455-P,Q

LEGEND

1 / 0	SURVEY BASELINE CONTROL POINT/TBM
112 o	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 O	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
9100 SOUTHWEST FWY.,SUITE 130, HOUSTON TX 77074
(713) 977-7550 FAX (713) 977-7317

JAG ENGINEERING, INC.
9100 SW FRWY., SUITE 130
HOUSTON, TX 77074
(713) 977-7550
TX FIRM 10017100

FOR INTERIM REVIEW ONLY

NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

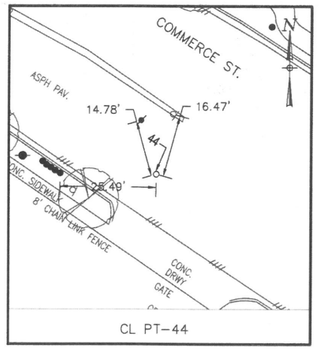
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

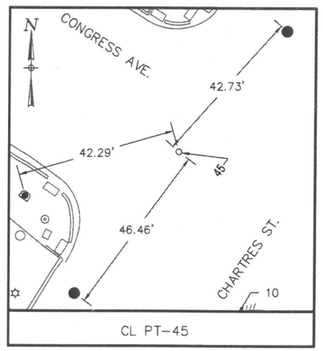
SURVEY CONTROL MAP AREA "A" SWING TIES

SHEET 2 OF 4

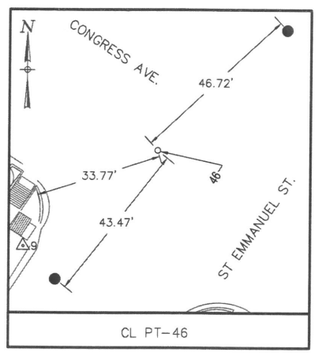
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DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 12 OF 362	



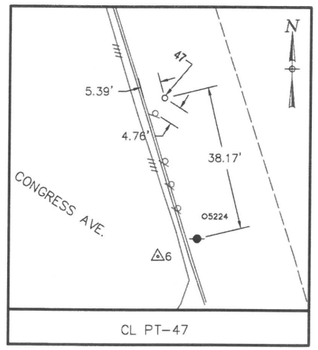
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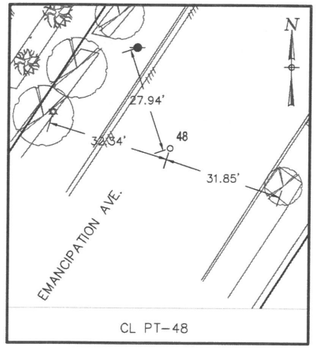
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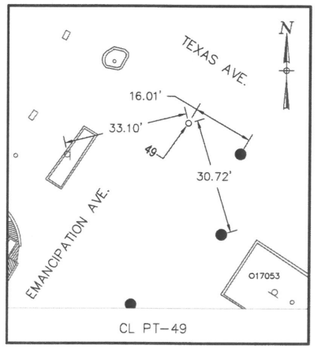
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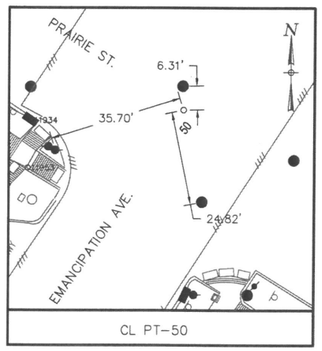
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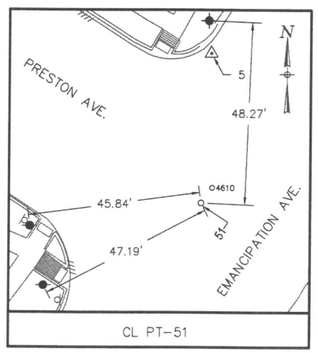
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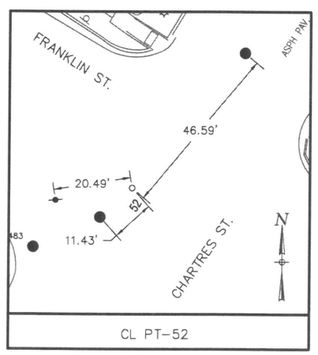
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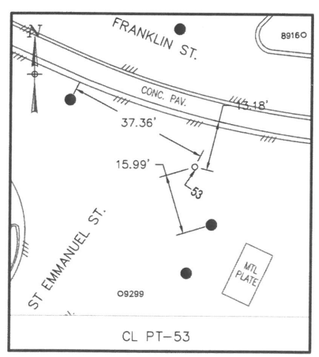
CL PT-50



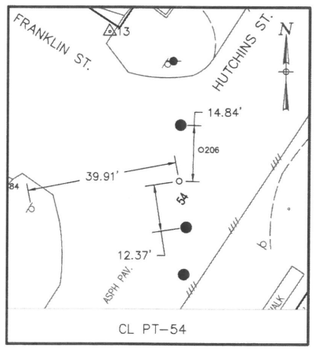
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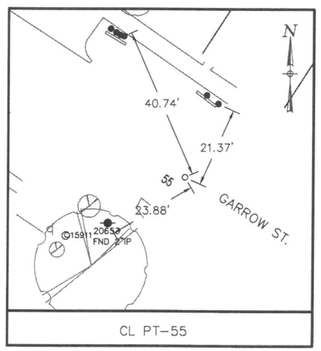
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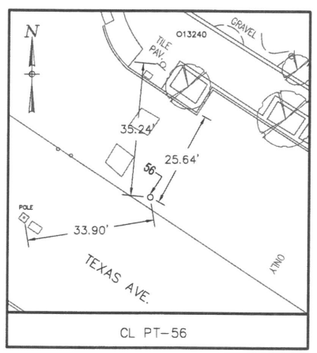
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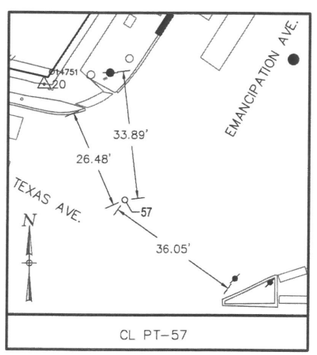
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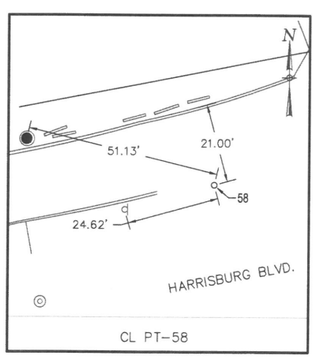
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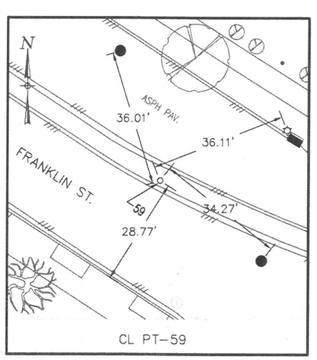
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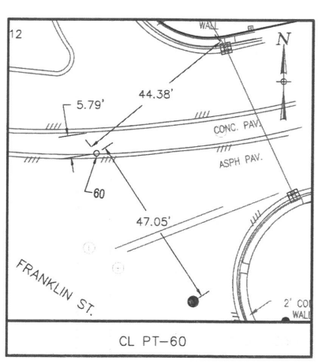
CL PT-57



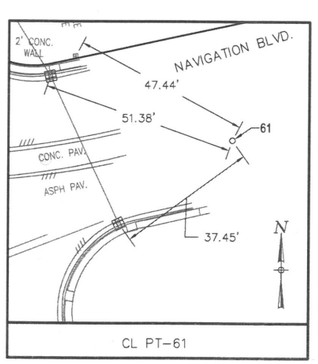
CL PT-58



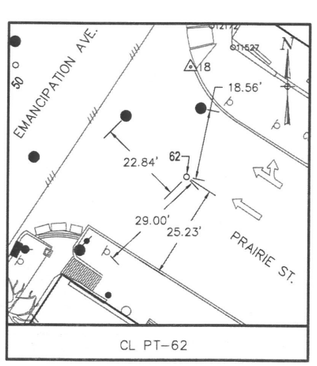
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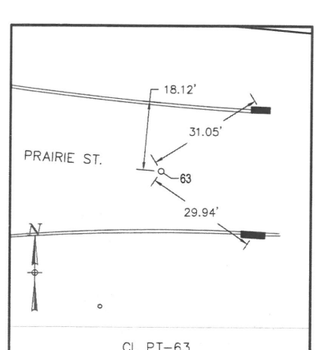
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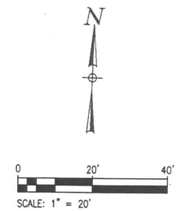
CL PT-61



CL PT-62



CL PT-63



KEY MAP NO. 455-P,Q

LEGEND

△1	SURVEY BASELINE CONTROL POINT/TBM
112 o	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 O	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
9100 SOUTHWEST FWY.,SUITE 130, HOUSTON TX 77074
(713) 977-7550 FAX (713) 977-7317

JAG ENGINEERING, INC.
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TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

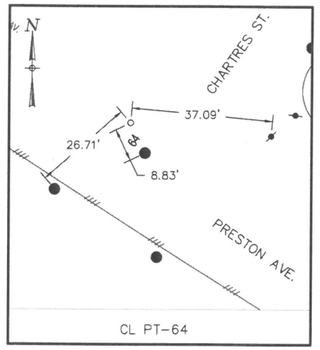
WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "A" SWING TIES

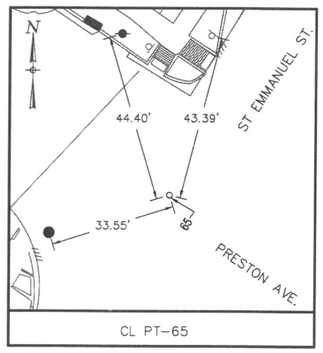
SHEET 3 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 13 OF 362	

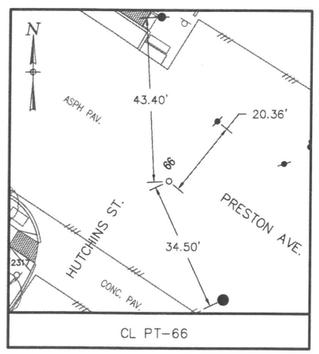
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PLOT STYLE: COLLAC_07_2016.ctb



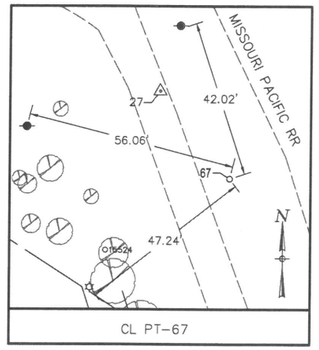
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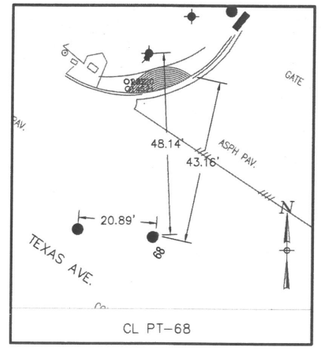
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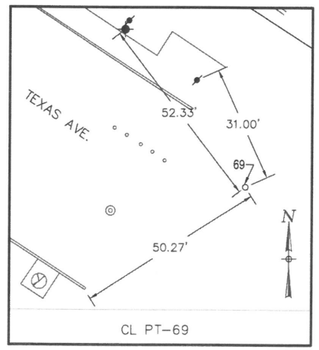
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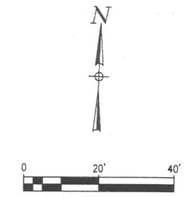
CL PT-67



CL PT-68



CL PT-69



KEY MAP NO. 455-P,Q

LEGEND

1	SURVEY BASELINE CONTROL POINT/TBM
112 o	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 O	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

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No.	Date	Revisions	App.

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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "A" SWING TIES

SHEET 4 OF 4

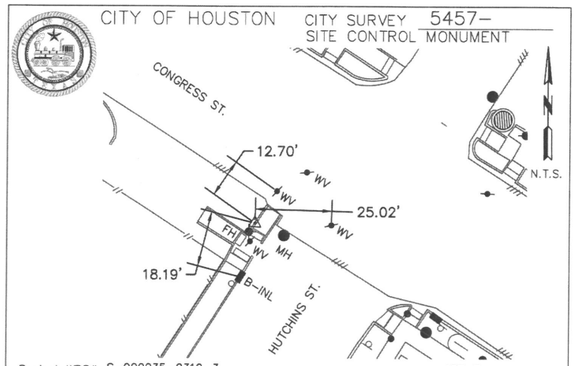
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 14 OF 362	

FILE NAME: X:\PROJ\2016\2016-0243-2200-A\DWG\SURVEY\AREA A\2016243-AREA A-SURVEY-SWING TIES.dwg
PLOT STYLE: CTB, JUL 07 2016 4:49

CONTROL POINTS (CP)/TEMPORARY BENCHMARKS (TBM)

CP/TBM					SURVEY	DESIGN CENTERLINE	
PT NO	NORTHING	EASTING	ELEV	DESCRIPTION	B.L. STA	STATION	OFFSET
BASTROP ST							
21	13840925.23	3126325.65	43.88	SET CUT X	1+00.00	5+11.51	-3.18'
17	13841261.54	3126579.41	41.75	SET CUT X	5+21.31	9+31.70	27.45'
4	13841533.84	3126756.48	41.81	SET MAG NL W/SHR	8+46.12	12+56.51	28.40'
7	13841819.21	3126938.20	42.47	SET CUT X	11+84.44	15+94.82	26.17'
CHARTRES ST							
1	13842065.03	3125938.97	43.04	SET CUT X	1+00.00	6+17.09	43.64'
10	13842300.65	3126082.94	43.20	SET CUT X	3+76.12	8+93.12	36.70'
11	13842570.68	3126261.08	43.13	FND 5/8 CIR	6+99.62	12+16.60	39.78'
COMMERCE ST							
15	13842677.90	3126711.49	44.46	SET MAG NL W/SHR	2+00.00	6+87.37	32.04'
14	13842577.35	3127015.08	45.91	SET CUT X	5+19.81	9+96.95	48.22'
CONGRESS AVE							
10	13842300.65	3126082.94	43.20	SET CUT X	1+00.00	6+14.91	29.56'
9	13842141.02	3126309.84	43.41	SET CUT X	3+77.43	8+92.12	40.53'
8	13841974.73	3126586.48	43.67	FND MONU	7+00.20	12+14.72	30.12'
7	13841819.21	3126938.20	42.47	SET CUT X	10+84.77	15+94.55	-30.09'
6	13841589.96	3127171.47	43.31	SET MAG NL W/SHR	14+11.83	19+14.88	35.91'
EMMANCIPATION AVE							
20	13840864.68	3126636.18	42.68	SET CUT X	2+00.00	8+29.20	-34.60'
18	13841068.24	3126855.45	42.56	SET CUT X	4+99.19	11+19.17	39.11'
5	13841388.03	3126992.54	42.85	SET MAG NL W/SHR	8+74.13	14+62.17	-19.29'
6	13841589.96	3127171.47	43.31	SET MAG NL W/SHR	11+43.93	17+28.88	21.41'
FRANKLIN ST							
11	13842570.68	3126261.08	43.13	FND 5/8 CIR	2+00.00	6+17.29	34.60'
12	13842478.33	3126557.31	42.83	SET CUT X	5+10.29	9+16.24	-48.56'
13	13842302.70	3126782.25	44.79	SET CUT X	7+95.67	12+00.48	-23.08'
PRAIRIE AVE							
17	13841261.54	3126579.41	41.75	SET CUT X	1+00.00	5+67.45	-37.57'
18	13841068.24	3126855.45	42.56	SET CUT X	4+36.99	9+04.21	-24.98'
19	13840940.09	3127062.76	39.43	SET CUT X	6+80.71	11+48.95	10.39'
PRESTON ST							
1	13842065.03	3125938.97	43.04	SET CUT X	2+00.00	6+22.56	-31.66'
2	13841899.98	3126210.86	44.11	SET CUT X	5+18.07	9+40.50	-40.55'
3	13841666.14	3126445.98	43.20	SET CUT X	8+49.68	12+64.88	28.31'
4	13841533.84	3126756.48	41.81	SET MAG NL W/SHR	11+87.19	15+97.49	-29.04'
5	13841388.03	3126992.54	42.85	SET MAG NL W/SHR	14+64.65	18+74.89	-34.64'
26	13841201.15	3127165.33	43.95	SET COTTON SPNDL	17+19.17	21+21.43	28.59'
27	13841124.41	3127354.16	45.12	SET COTTON SPNDL	19+23.00	23+21.69	-9.41'
25	13840954.31	3127592.31	43.19	SET MAG NL W/SHR	22+15.66	-	-
ST CHARLES ST							
25	13840954.31	3127592.31	43.19	SET MAG NL W/SHR	1+00.00	2+21.83	-6.63'
24	13841255.49	3127481.55	31.13	SET CUT X	4+20.90	5+40.67	-12.88'
23	13841416.70	3127617.46	40.80	SET MAG NL W/SHR	6+31.76	7+46.67	17.49'
ST EMMANUEL ST							
28	13841337.79	3125858.48	43.44	FND MAG NL	2+00.00	6+54.58	40.67'
2	13841899.98	3126210.86	44.11	SET CUT X	8+63.50	13+18.02	31.55'
9	13842141.02	3126309.84	43.41	SET CUT X	11+24.07	15+74.19	-16.12'
12	13842478.33	3126557.31	42.83	SET CUT X	15+42.42	19+19.81	8.68'
15	13842677.90	3126711.49	44.46	SET MAG NL W/SHR	17+94.61	22+43.11	29.88'
TEXAS AVE							
28	13841337.79	3125858.48	43.44	FND MAG NL	2+00.00	6+79.49	-44.89'
22	13841105.56	3126052.54	44.87	FND CUT X	5+02.64	9+68.50	44.89'
21	13840925.23	3126325.65	43.88	SET CUT X	8+29.91	12+95.76	48.18'
20	13840864.68	3126636.18	42.68	SET CUT X	11+46.29	15+89.46	-69.45'
HUTCHINS ST							
3	13841666.14	3126445.98	43.20	SET CUT X	2+00.00	5+21.32	25.91'
8	13841974.73	3126586.48	43.67	FND MONU	5+39.07	8+56.77	-23.55'
13	13842302.70	3126782.25	44.79	SET CUT X	9+21.03	12+38.48	-37.10'
14	13842577.35	3127015.08	45.91	SET CUT X	12+81.09	-	-

CITY OF HOUSTON CITY SURVEY 5457–
SITE CONTROL MONUMENT



Project WBS# S-000035-0312-3
Texas Coordinate System of 1983,
South Central Zone, U. S. Survey Feet
X= 3,126,253.41
Y= 13,840,500.18

Lat.= 29° 45' 21.68399" N
Lon.= 95° 21' 1.97978" W

Keymap Page: 493-R
Orthometric Elevation = 43.56'
Ellipsoid Height= -46.08'
Geoid: GEOID '18
Datum Source & Adjustment:
NAD '83 (CORS ADJ)
(OBSERVED 05-07-2026)

Reference Frame Used: NAD 83 (2011)(EPOCH: 2010)
Vertical Adjustment used: NAVD 88, CORS ADJ.
General Location: AT THE INTERSECTION OF CONGRESS ST. AND HUTCHINS ST. ON THE SOUTHWEST SIDE BEHIND SIDEWALK.

Date Set: UNK Type of Mark: TXDOT ALUM DISK (CONTROL MARK NO. H-5010)

3 Nearest project control points (bearings and distances stated below):
1. MONU. NO. 5457-____ TO CP3 S24° 28' 32"W – 339.15' (GRID)
2. MONU. NO. 5457-____ TO CP7 S66° 07' 45"E – 384.55' (GRID)
3. MONU. NO. 5457-____ TO CP9 N59° 00' 34"W – 322.71' (GRID)

NOTE:
1. Bearings are grid bearings.
2. Scale Factor = (S.F.09998934643).
3. Surface= Grid / S.F.

Surveyed By: JAG ENGINEERING, INC.
9100 SOUTHWEST FWY, STE 130
HOUSTON, TX 77074

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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/06/2026

Revision date if applicable

No.	Date	Revisions	App.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "A" TABLES

SHEET 1 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
FREDDY ORDONEZ	
SHEET NO. 15 OF 362	

FOUND BOUNDARY MONUMENTS STATION AND OFFSET

BASTROP ST

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
13449	13840995.37	3126374.75	13839520.81	3126041.68	5+97.07	-0.00'	FND CUT X
3316	13841524.64	3126716.84	13840050.02	3126383.73	12+27.27	0.10'	FND MAG NL /SHR
3317	13841555.17	3126736.71	13840080.55	3126403.60	12+63.69	0.22'	FND MAG NL /SHR
208	13841792.02	3126842.25	13840317.37	3126509.13	15+19.91	-39.67'	FND 1 PTP
3136	13841580.25	3126704.85	13840105.63	3126371.74	12+67.47	-40.15'	FND 5/8 IR
207	13841748.62	3126909.28	13840273.98	3126576.15	15+19.83	40.19'	FND 1 IP
3135	13841536.52	3126772.27	13840061.90	3126439.16	12+67.33	40.21'	FND 1 IP
209	13841469.47	3126729.03	13839994.86	3126395.92	11+87.54	40.28'	FND 5/8 CIR MILLER GROUP
3669	13841524.32	3126660.27	13840049.70	3126327.17	11+96.30	-47.24'	FND CUT X
13240	13840967.92	3126422.65	13839493.36	3126089.57	6+00.01	55.12'	FND CUT X

CHARTRES ST

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
1011	13842110.84	3125872.07	13840636.16	3125539.05	6+19.26	-37.41'	FND CUT X
971	13842096.10	3125887.78	13840621.42	3125554.76	6+15.40	-16.22'	FND MAG NL
790	13842008.04	3125905.51	13840533.37	3125572.49	5+51.06	46.46'	FND MAG NL W/SHR
7405	13842289.72	3126081.35	13840815.02	3125748.31	8+83.08	41.29'	FND MAG NL W/SHR
7786	13842357.10	3126126.30	13840882.39	3125793.26	9+64.07	42.48'	FND MAG NL W/SHR LTRA
8483	13842608.48	3126211.46	13841133.75	3125878.41	12+21.43	-22.41'	FND MONU COH

COMMERCE AVE

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
10046	13842776.32	3126692.80	13841301.57	3126359.70	6+18.27	-40.49'	FND 5/8 CIR
10119	13842732.82	3126759.87	13841258.07	3126426.76	6+98.21	-40.34'	FND 5/8 IR
10266	13842576.27	3127011.63	13841101.54	3126678.49	9+94.63	-45.44'	FND ROW MONU HCTRA

CONGRESS AVE

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
207	13841748.62	3126909.28	13840273.98	3126576.15	16+08.56	44.90'	FND 1 IP
5418	13841700.37	3127000.81	13840225.73	3126667.67	17+11.62	35.77'	FND 1 IP
6541	13841998.93	3126683.09	13840524.26	3126349.99	12+82.74	-42.63'	FND 1 IP
208	13841792.02	3126842.25	13840317.37	3126509.13	15+28.70	44.81'	FND 1 PTP
7147	13842177.05	3126404.01	13840702.36	3126070.94	9+51.67	-40.83'	FND 3/4 IP SQ
7048	13842109.32	3126509.02	13840634.64	3126175.94	10+76.63	-40.91'	FND 3/4 IR SQ
5257	13841703.45	3127138.09	13840228.81	3126804.94	18+25.27	-41.31'	FND 4 IP
6286	13841970.99	3126564.92	13840496.33	3126231.83	11+98.64	44.96'	FND 5/8 CIR
5797	13841851.61	3126761.77	13840376.96	3126428.66	14+28.77	38.43'	FND 5/8 IR
5224	13841600.57	3127183.85	13840125.95	3126850.69	19+19.53	20.28'	FND 5/8 IR BENT
5715	13841939.36	3126635.23	13840464.70	3126302.13	12+74.86	33.38'	FND CUT X
6248	13841917.72	3126792.78	13840443.06	3126459.66	14+18.95	-33.93'	FND CUT X
7143	13842177.71	3126401.39	13840703.02	3126068.32	9+49.11	-39.96'	FND CUT X
7211	13842106.64	3126355.97	13840631.96	3126022.90	9+49.52	44.38'	FND MAG NL W/SHR
7243	13842148.63	3126299.60	13840673.95	3125966.54	8+79.39	39.70'	FND MAG NL W/SHR
7405	13842289.72	3126081.35	13840815.02	3125748.31	6+19.50	39.60'	FND MAG NL W/SHR
7608	13842221.03	3126336.85	13840746.34	3126003.78	8+71.39	-41.33'	FND MAG NL W/SHR
7609	13842223.40	3126338.45	13840748.71	3126005.38	8+71.45	-44.19'	FND MAG NL W/SHR
7635	13842222.25	3126346.71	13840747.56	3126013.64	8+79.01	-47.70'	FND MAG NL W/SHR
7786	13842357.10	3126126.30	13840882.39	3125793.26	6+20.70	-41.39'	FND MAG NL W/SHR LTRA
3409	13841797.71	3126849.49	13840323.06	3126516.37	15+31.70	36.11'	FND MAG/J NL W/SHR
8	13841974.73	3126586.48	13840500.07	3126253.39	12+14.72	30.12'	FND MONU

EMMANCIPATION AVE

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
4183	13841401.86	3126979.00	13839927.26	3126645.87	14+66.44	-38.17'	FND 1 IP
16955	13840723.67	3126637.00	13839249.14	3126303.90	7+11.20	42.62'	FND 3 IP
5257	13841703.45	3127138.09	13840228.81	3126804.94	18+06.09	-68.22'	FND 4 IP
3133	13841401.83	3126979.11	13839927.23	3126645.98	14+66.47	-38.06'	FND 5/8 IR
4690	13841369.82	3127051.89	13839895.22	3126718.75	14+79.08	40.44'	FND 5/8 IR
14751	13840867.93	3126638.14	13839393.38	3126305.04	8+32.99	-34.71'	FND 5/8 IR
5224	13841600.57	3127183.85	13840125.95	3126850.69	17+44.51	26.05'	FND 5/8 IR BENT
11953	13841053.17	3126767.73	13839578.60	3126434.62	10+58.91	-26.40'	FND CUT X
12012	13841041.52	3126749.87	13839566.95	3126416.76	10+39.43	-35.07'	FND CUT X
12172	13841079.10	3126860.94	13839604.53	3126527.82	11+31.27	37.82'	FND CUT X
16585	13840761.14	3126566.55	13839286.60	3126233.46	7+04.44	-36.89'	FND CUT X
17053	13840747.33	3126644.48	13839272.80	3126311.38	7+35.14	36.06'	FND MAG NL W/SHR COTT
11527	13841073.46	3126866.63	13839598.89	3126533.51	11+29.62	45.66'	FND MAGNL W/SHNR
11934	13841065.73	3126768.53	13839591.16	3126435.42	10+69.89	-32.54'	FND TBM CUT SQ

FOUND BOUNDARY MONUMENTS STATION AND OFFSET

FRANKLIN ST

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
15911	13841307.25	3127700.97	13839832.66	3127367.76	6+77.02	30.00'	FND 0.15 IP
15985	13841360.00	3127619.66	13839885.40	3127286.46	5+80.10	30.07'	FND 1.5 IP

GARROW ST

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
15911	13841307.25	3127700.97	13839832.66	3127367.76	6+77.02	30.00'	FND 0.15 IP
15985	13841360.00	3127619.66	13839885.40	3127286.46	5+80.10	30.07'	FND 1.5 IP

HARRISBURG CONNECTION

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
14751	13840867.93	3126638.14	13839393.38	3126305.04	16+06.74	-30.16'	FND 5/8 IR
17053	13840747.33	3126644.48	13839272.80	3126311.38	16+31.39	87.84'	FND MAG NL W/SHR COTT
16585	13840761.14	3126566.55	13839286.60	3126233.46	15+62.38	89.77'	FND CUT X

HUTCHINS ST

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
206	13842271.50	3126806.61	13840796.80	3126473.49	12+25.50	0.29'	FND 5/8 CIR
10648	13842571.25	3127015.48	13841096.52	3126682.34	15+90.62	13.06'	FND 1 IR
8	13841974.73	3126586.48	13840500.07	3126253.39	8+56.77	-23.55'	FND MONU
6286	13841970.99	3126564.92	13840496.33	3126231.83	8+41.93	-39.63'	FND 5/8 CIR
2951	13841799.68	3126548.84	13840325.03	3126215.75	6+89.31	39.83'	FND CUT X
10484	13842261.64	3126751.06	13840786.94	3126417.95	11+87.07	-41.02'	FND 5/8 CIR DESTRY
6541	13841998.93	3126683.09	13840524.26	3126349.99	9+29.52	44.46'	FND 1 IP
5715	13841939.36	3126635.23	13840464.70	3126302.13	8+53.52	36.59'	FND CUT X

NAVIGATION BLVD

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
8916	13842477.34	3126552.43	13841002.62	3126219.34	9+27.64	-27.74'	FND CUT X
10691	13842639.80	3127003.24	13841165.06	3126670.10	14+30.27	-29.10'	FND 5/8 IR
10266	13842576.27	3127011.63	13841101.54	3126678.49	14+08.73	31.25'	FND ROW MONU HCTRA
10648	13842571.25	3127015.48	13841096.52	3126682.34	14+09.86	37.48'	FND 1 IR
9299	13842408.63	3126504.21	13840933.92	3126171.13	8+96.04	49.56'	FND MGA NL W/SHR

PRAIRIE ST

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
10980	13841239.60	3126544.55	13839765.01	3126211.46	5+50.08	-0.23'	FND CUT X
11934	13841065.73	3126768.53	13839591.16	3126435.42	8+32.56	24.29'	FND TBM CUT SQ
11852	13841115.97	3126671.35	13839641.40	3126338.25	7+23.67	34.82'	FND CUT X
11953	13841053.17	3126767.73	13839578.60	3126434.62	8+38.70	35.28'	FND CUT X
11527	13841073.46	3126866.63	13839598.89	3126533.51	9+10.77	-35.43'	FND MAGNL W/SHNR
12012	13841041.52	3126749.87	13839566.95	3126416.76	8+30.02	54.75'	FND CUT X

PRESTON ST

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
3316	13841524.64	3126716.84	13840050.02	3126383.73	15+69.18	0.20'	FND MAG NL /SHR
3669	13841524.32	3126660.27	13840049.70	3126327.17	15+21.84	31.16'	FND CUT X
1011	13842110.84	3125872.07	13840636.16	3125539.05	5+41.51	-33.84'	FND CUT X
15524	13841082.18	3127339.56	13839607.61	3127006.39	23+32.34	33.99'	FND 5/8 IR
790	13842008.04	3125905.51	13840533.37	3125572.49	6+25.38	34.36'	FND MAG NL W/SHR
205	13841875.21	3126111.04	13840400.56	3125778.00	8+70.09	34.42'	FND MG NL W/SHR TX DOT
15012	13841294.28	3127004.20	13839819.69	3126671.06	19+35.55	37.78'	FND 1/2 IP O/S 3.00 E
15013	13841295.00	3126999.59	13839820.41	3126666.45	19+31.29	39.68'	FND 1/2 IP O/S 3.00 NE
3135	13841536.52	3126772.27	13840061.90	3126439.16	16+09.30	-39.85'	FND 1 IP
209	13841469.47	3126729.03	13839994.86	3126395.92	16+09.36	39.93'	FND 5/8 CIR MILLER GROUP
3136	13841580.25	3126704.85	13840105.63	3126371.74	15+28.94	-40.01'	FND 5/8 IR
1585	13841826.79	3126175.04	13840352.14	3125841.99	9+50.13	40.37'	FND MAG NL W/SHR TX DOT
1111	13841894.65	3126218.87	13840419.99	3125885.82	9+50.12	-40.41'	FND MAG NL W/SHR TXDOT
2317	13841682.28	3126396.84	13840207.65	3126063.77	12+14.85	41.41'	FND SQ STL P 3X3
2921	13841722.11	3126488.42	13840247.47	3126155.34	12+70.16	-41.74'	FND CUT X
1841	13841936.55	3126162.46	13840461.89	3125829.41	8+80.01	-45.00'	FND 5/8CIR L TRA
655	13842023.40	3126028.05	13840548.73	3125695.02	7+19.98	-45.03'	FND MAG NL W/SHR
4610	13841352.52	3126992.89	13839877.92	3126659.75	18+94.45	-5.00'	FND MUNU 5427-7807
4690	13841369.82	3127051.89	13839895.22	3126718.75	19+34.63	-51.54'	FND 5/8 IR
1659	13841821.09	3126159.01	13840346.44	3125825.96	9+39.75	53.86'	FND TBM CUT X

No.	Date	Revisions	App.

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FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "A" TABLES

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
FREDDY ORDONEZ	
SHEET NO. 16 OF 362	

FOUND BOUNDARY MONUMENTS STATION AND OFFSET

ST CHARLES ST							
	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
16265	13841238.25	3127444.89	13839763.66	3127111.71	5+22.62	-45.59'	FND 5/8 IR BEND
16196	13841265.82	3127558.52	13839791.23	3127225.32	5+87.93	49.76'	FND 5/8 IR
15528	13841529.85	3127729.15	13840055.23	3127395.94	9+02.30	50.00'	FND 5/8 CIR MCKIM & CREED
15985	13841360.00	3127619.66	13839885.40	3127286.46	7+00.22	50.08'	FND 1.5 IP

ST EMMANUEL ST							
	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
9299	13842408.63	3126504.21	13840933.92	3126171.13	19+04.45	1.91'	FND MGA NL W/SHR
14621	13841360.86	3125792.12	13839886.26	3125459.11	6+37.95	-27.59'	FND CUT X
232	13841362.76	3125791.87	13839888.16	3125458.86	6+39.41	-28.83'	FND CUT X
7243	13842148.63	3126299.60	13840673.95	3125966.54	15+75.03	-28.85'	FND MAG NL W/SHR
14620	13841362.79	3125791.78	13839888.19	3125458.77	6+39.38	-28.92'	FND CUT X
1841	13841936.55	3126162.46	13840461.89	3125829.41	13+22.47	-28.95'	FND 5/8CIR L TRA
8152	13842299.10	3126396.40	13840824.40	3126063.33	17+53.94	-29.21'	FND MAG NL W/SHR LTRA
7635	13842222.25	3126346.71	13840747.56	3126013.64	16+62.43	-29.24'	FND MAG NL W/SHR
1659	13841821.09	3126159.01	13840346.44	3125825.96	12+23.62	30.81'	FND TBM CUT X
226	13841301.37	3125745.13	13839826.78	3125412.13	5+62.48	-34.77'	FND MAG NL
227	13841301.38	3125745.12	13839826.79	3125412.12	5+62.48	-34.79'	FND MAG NL
8217	13842303.11	3126390.04	13840828.41	3126056.97	17+53.86	-36.72'	FND MAG NL W/SHR
7609	13842223.40	3126338.45	13840748.71	3126005.38	16+58.91	-36.80'	FND MAG NL W/SHR
7608	13842221.03	3126336.85	13840746.34	3126003.78	16+56.05	-36.86'	FND MAG NL W/SHR
205	13841875.21	3126111.04	13840400.56	3125778.00	12+43.04	-38.85'	FND MG NL W/SHR TX DOT
10046	13842776.32	3126692.80	13841301.57	3126359.70	23+15.63	-39.23'	FND 5/8 CIR
225	13841259.19	3125806.02	13839784.60	3125473.01	5+60.09	39.26'	FND 1 IP
28	13841337.79	3125858.48	13839863.19	3125525.46	6+54.58	40.67'	FND MAG NL
10119	13842732.82	3126759.87	13841258.07	3126426.76	23+15.49	40.71'	FND 5/8 IR
7143	13842177.71	3126401.39	13840703.02	3126068.32	16+54.69	40.86'	FND CUT X
1111	13841894.65	3126218.87	13840419.99	3125885.82	13+17.89	41.17'	FND MAG NL W/SHR TXDOT
1585	13841826.79	3126175.04	13840352.14	3125841.99	12+37.10	41.18'	FND MAG NL W/SHR TX DOT
7211	13842106.64	3126355.97	13840631.96	3126022.90	15+70.35	41.28'	FND MAG NL W/SHR
223	13841330.73	3125855.50	13839856.13	3125522.48	6+47.04	42.00'	FND CUT X
7147	13842177.05	3126404.01	13840702.36	3126070.94	16+55.56	43.42'	FND 3/4 IP SQ
8916	13842477.34	3126552.43	13841002.62	3126219.34	19+88.33	5.12'	FND CUT X

TEXAS AVE							
	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
17053	13840747.33	3126644.48	13839272.80	3126311.38	16+60.11	24.62'	FND MAG NL W/SHR COTT
14621	13841360.86	3125792.12	13839886.26	3125459.11	6+11.23	-28.26'	FND CUT X
14620	13841362.79	3125791.78	13839888.19	3125458.77	6+09.90	-29.70'	FND CUT X
232	13841362.76	3125791.87	13839888.16	3125458.86	6+09.99	-29.72'	FND CUT X
13450	13840995.75	3126373.06	13839521.19	3126039.99	12+97.32	-36.78'	FND CUT X
223	13841330.73	3125855.50	13839856.13	3125522.48	6+80.82	-37.34'	FND CUT X
13449	13840995.37	3126374.75	13839520.81	3126041.68	12+98.95	-37.38'	FND CUT X
12172	13841079.10	3126860.94	13839604.53	3126527.82	16+61.92	-371.51'	FND CUT X
14072	13841193.34	3126069.87	13839718.76	3125736.83	9+35.43	-38.25'	FND CUT X
13240	13840967.92	3126422.65	13839493.36	3126089.57	13+54.08	-40.31'	FND CUT X
12770	13841176.25	3125944.08	13839701.67	3125611.06	8+39.04	44.36'	FND TBM CUT X
22	13841105.56	3126052.54	13839630.99	3125719.50	9+68.50	44.89'	FND CUT X
28	13841337.79	3125858.48	13839863.19	3125525.46	6+79.49	-44.89'	FND MAG NL
227	13841301.38	3125745.12	13839826.79	3125412.12	6+04.02	47.20'	FND MAG NL
226	13841301.37	3125745.13	13839826.78	3125412.13	6+04.04	47.21'	FND MAG NL
16955	13840723.67	3126637.00	13839249.14	3126303.90	16+66.66	48.55'	FND 3 IP
225	13841259.19	3125806.02	13839784.60	3125473.01	6+78.07	49.60'	FND 1 IP
13980	13841072.52	3126091.76	13839597.95	3125758.72	10+19.38	51.36'	FND CUT X
16585	13840761.14	3126566.55	13839286.60	3126233.46	15+87.15	55.30'	FND CUT X
14751	13840867.93	3126638.14	13839393.38	3126305.04	15+89.34	-73.24'	FND 5/8 IR

No.	Date	Revisions	App.

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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "A" TABLES

SHEET 3 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
FREDDY ORDONEZ	
SHEET NO. 17 OF 362	

DESIGN CENTERLINES

Alignment: BASTROP ST
Description:

Tangent Data

PT NO.	Description	PT Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting	Description
N.A.	Start:	5+00.000	13840913.84	3126322.08	13839439.29	3125989.01	N.A.
13	Intersection PT: Texas Ave	5+59.69	13842302.70	3126782.25	13840828.00	3126449.14	
33	Intersection PT: Prairie St	8+94.12	13841244.88	3126535.96	13839770.29	3126202.87	
34	Intersection PT: Preston Ave	12+27.47	13841524.86	3126716.86	13840050.25	3126383.76	FND MAG NL W/SHNR (PT # 3316)
35	Intersection PT: Congress Ave	15+64.73	13841808.14	3126899.89	13840333.49	3126566.76	
36	POT	18+00.00	13842005.75	3127027.57	13840531.08	3126694.43	
N.A.	End:	19+03.246	13842092.47	3127083.60	13840617.79	3126750.45	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	1403.246	Course:	N 32° 52' 00.2920" E

Alignment: CHARTRES ST
Description:

Tangent Data

PT NO.	Description	PT Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting	
N.A.	Start:	5+00.000	13841990.37	3125838.77	13840515.70	3125505.76	N.A.
64	Intersection PT: Preston Ave	5+85.42	13842062.11	3125885.13	13840587.44	3125552.11	
45	Intersection PT: Congress Ave	9+22.68	13842345.39	3126068.15	13840870.69	3125735.12	
52	Intersection PT: Franklin Ave	12+51.20	13842621.32	3126246.44	13841146.59	3125913.38	
N.A.	End:	13+46.154	13842701.08	3126297.97	13841226.34	3125964.91	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	846.154	Course:	N 32° 52' 00.2920" E

Alignment: COMMERCE ST
Description:

Tangent Data

PT NO.	Description	PT Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting	
N.A.	Start:	5+00.000	13842806.48	3126571.48	13841331.73	3126238.39	N.A.
42	Intersection PT: St Emanuel St	6+57.50	13842721.03	3126703.78	13841246.28	3126370.68	
43	Intersection PT: Navigation St	9+32.35	13842571.90	3126934.66	13841097.17	3126601.53	
71	Intersection PT: Hutchins St	9+87.53	13842541.96	3126981.01	13841067.23	3126647.87	
44	POT	11+00.00	13842480.93	3127075.48	13841006.21	3126742.34	
N.A.	End:	11+98.643	13842427.41	3127158.34	13840952.70	3126825.19	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	698.643	Course:	S 57° 08' 23.9412" E

Alignment: CONGRESS AVE
Description:

Tangent Data

PT NO.	Description	PT Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting	
N.A.	Start:	5+00.000	13842387.83	3126002.46	13840913.12	3125669.42	N.A.
45	Intersection PT: Chartres St	5+78.21	13842345.39	3126068.15	13840870.69	3125735.12	
46	Intersection PT: St Emanuel St	9+08.24	13842166.32	3126345.38	13840691.63	3126012.31	
70	Intersection PT: Hutchins St	12+38.27	13841987.25	3126622.60	13840512.58	3126289.51	
35	Intersection PT: Bastrop St	15+68.38	13841808.14	3126899.89	13840333.49	3126566.76	
47	Intersection PT: Emancipation Ave	18+93.48	13841631.74	3127172.97	13840157.11	3126839.82	
N.A.	End:	19+79.859	13841584.87	3127245.54	13840110.25	3126912.37	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	1479.859	Course:	S 57° 08' 23.9412" E

Alignment: EMANCIPATION AVE
Description:

Tangent Data

PT NO.	Description	PT Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting	
N.A.	Start:	5+00.000	13840569.40	3126486.59	13839094.88	3126153.51	N.A.
48	POT	6+00.00	13840653.39	3126540.86	13839178.87	3126207.77	
49	Intersection PT: Texas Ave	7+59.75	13840787.57	3126627.55	13839313.04	3126294.46	
57	Intersection PT: Harrisburg Conn	8+15.24	13840834.18	3126657.66	13839359.64	3126324.56	
50	Intersection PT: Prairie Ave	10+94.19	13841068.48	3126809.05	13839593.91	3126475.93	
51	Intersection PT: Preston Ave	14+27.53	13841348.47	3126989.95	13839873.87	3126656.81	
47	Intersection PT: Congress Ave	17+64.19	13841631.74	3127172.97	13840157.11	3126839.82	
N.A.	End:	18+53.831	13841706.53	3127221.29	13840231.89	3126888.13	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	1353.831	Course:	N 32° 52' 00.2920" E

Alignment: FRANKLIN AVE
Description:

Tangent Data

PT NO.	Description	PT Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting	
N.A.	Start:	5+00.000	13842663.38	3126181.32	13841188.65	3125848.27	N.A.
52	Intersection PT: Chartres St	5+77.52	13842621.32	3126246.44	13841146.59	3125913.38	
59	POT: Beg of Navigation Blvd	8+36.20	13842480.97	3126463.73	13841006.25	3126130.65	
53	Intersection PT: St Emauel St	9+07.55	13842442.25	3126523.66	13840967.54	3126190.58	
54	Intersection PT: Hutchins St	12+37.55	13842263.18	3126800.89	13840788.49	3126467.77	
N.A.	End:	12+82.052	13842239.05	3126838.25	13840764.36	3126505.13	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	782.052	Course:	S 57° 08' 23.9412" E

Alignment: GARROW ST
Description:

Tangent Data

	Description	PT Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting
N.A.	Start:	5+00.000	13841428.85	3127568.88	13839954.24	3127235.68
38	Intersection PT: St Charles St	5+29.92	13841412.55	3127593.97	13839937.94	3127260.77
55	End:	6+94.943	13841322.64	3127732.35	13839848.05	3127399.13

Tangent Data

Parameter	Value	Parameter	Value
Length:	194.943	Course:	S 56° 59' 16.0000" E

Alignment: HARRISBURG CONNECTION
Description:

Curve Point Data

	Description	Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting
56	PC: Harrisburg Conn, POT Texas Ave	13+71.270	13840924.73	3126415.219	13839450.18	3126082.14
	RP:		13841431.73	3126742.709	13839957.12	3126409.60
57	Intersection PT: Emancipation Ave		13840834.18	3126657.66	13839359.64	3126324.56
58	PT:	18+34.357	13840839.45	3126858.91	13839364.91	3126525.79

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	43° 57' 36.0588"	Type:	LEFT
Radius:	603.57		
Length:	463.087	Tangent:	243.613
Mid-Ord:	43.871	External:	47.309
Chord:	451.812	Course:	S 79° 07' 11.9706" E

Tangent Data

	Description	PT Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting
58	Start:	18+34.357	13840839.45	3126858.91	13839364.91	3126525.79
N.A.	End:	18+77.957	13840847.84	3126901.69	13839373.30	3126568.57

Tangent Data

Parameter	Value	Parameter	Value
Length:	43.599	Course:	N 78° 54' 00.0000" E

Alignment: HUTCHINS ST
Description:

Tangent Data

	Description	PT Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting
	Start:	5+00.000	13841662.29	3126412.65	13840187.66	3126079.57
66	Intersection PT: Preston Ave		13841703.97	3126439.58	13840229.34	3126106.50
70	Intersection PT: Congress Ave		13841987.25	3126622.60	13840512.58	3126289.51
54	Intersection PT: Franklin St.		13842263.18	3126800.89	13840788.49	3126467.77
71	Intersection PT: Commerce St		13842541.96	3126981.01	13841067.23	3126647.87
	End:	15+97.305	13842583.95	3127008.14	13841109.22	3126675.00

Tangent Data

Parameter	Value	Parameter	Value
Length:	1097.305	Course:	N 32° 52' 00.2886" E

Alignment: NAVIGATION BLVD
Description:

Curve Point Data

	Description	Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting
59	PC: Navigation Blvd, POT Franklin St	8+36.200	13842480.97	3126463.73	13841006.25	3126130.65
	RP:		13842653.17	3126574.96	13841178.43	3126241.87
61	Intersection PT: St Emanuel St	9+09.08	13842453.02	3126530.62	13840978.30	3126197.53
60	PCC:	9+66.284	13842448.55	3126587.47	13840973.83	3126254.37

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	36° 21' 26.0982"	Type:	LEFT
Radius:	205		
Length:	130.084	Tangent:	67.316
Mid-Ord:	10.232	External:	10.769
Chord:	127.912	Course:	S 75° 19' 07.0196" E

Curve Point Data

	Description	Station	Surface Coords Northing	Surface Coords Easting	Grid Coords Northing	Grid Coords Easting	
60	PCC:	9+66.284	13842448.55	3126587.465	13840973.83	3126254.37	
	RP:		13843027.34	3126552.093	13841552.56	3126219.00	
N.A.	PT:	12+05.831	13842511.44	3126816.848	13841036.72	3126483.73	N.A.

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 40' 09.0862"	Type:	LEFT
Radius:	579.87		
Length:	239.547	Tangent:	121.507
Mid-Ord:	12.326	External:	12.594
Chord:	237.848	Course:	N 74° 40' 05.4175" E

No.	Date	Revisions	App.

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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "A" TABLES

SHEET 4 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
FREDDY ORDONEZ	
SHEET NO. 18 OF 362	

DESIGN CENTERLINES (NAVIGATION BLVD. CONT'D)

	Curve Point Data		Surface Coords		Grid Coords		
	Description	Station	Northing	Easting	Northing	Easting	
60	PCC:	9+66.284	13842448.55	3126587.465	13840973.83	3126254.37	
	RP:		13843027.34	3126552.093	13841552.56	3126219.00	
N.A.	PT:	12+05.831	13842511.44	3126816.848	13841036.72	3126483.73	N.A.

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 40' 09.0862"	Type:	LEFT
Radius:	579.87		
Length:	239.547	Tangent:	121.507
Mid-Ord:	12.326	External:	12.594
Chord:	237.848	Course:	N 74° 40' 05.4175" E

	Tangent Data		Surface Coords		Grid Coords		
	Description	PT Station	Northing	Easting	Northing	Easting	
N.A.	Start:	12+05.831	13842511.44	3126816.848	13841036.72	3126483.73	N.A.
43	Intersection PT: Commerce St	13+38.25	13842571.90	3126934.66	13841097.17	3126601.53	
N.A.	End:	14+96.540	13842644.17	3127075.486	13841169.43	3126742.34	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	290.709	Course:	N 62° 50' 00.0000" E

Alignment: PRAIRIE ST

Description:

	Tangent Data		Surface Coords		Grid Coords		
	Description	PT Station	Northing	Easting	Northing	Easting	
	Start:	5+00.000	13841266.58	3126502.363	13839791.99	3126169.28	
33	Intersection PT: Bastrop St	5+40.00	13841244.88	3126535.96	13839770.29	3126202.87	
50	Intersection PT: Emancipation Ave	8+65.10	13841068.48	3126809.05	13839593.91	3126475.93	
62	End:	9+19.267	13841039.09	3126854.547	13839564.52	3126521.43	

Tangent Data

Parameter	Value	Parameter	Value
Length:	419.267	Course:	S 57° 08' 23.9412" E

	Curve Point Data		Surface Coords		Grid Coords		
	Description	Station	Northing	Easting	Northing	Easting	
62	PC:	9+19.267	13841039.09	3126854.547	13839564.52	3126521.43	
	RP:		13841593.17	3127212.449	13840118.55	3126879.29	
63	PT:	12+42.501	13840935.85	3127157.445	13839461.29	3126824.29	

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	28° 04' 36.0588"	Type:	LEFT
Radius:	659.62		
Length:	323.234	Tangent:	164.931
Mid-Ord:	19.7	External:	20.307
Chord:	320.01	Course:	S 71° 10' 41.9706" E

	Tangent Data		Surface Coords		Grid Coords		
	Description	PT Station	Northing	Easting	Northing	Easting	
63	Start:	12+42.501	13840935.85	3127157.445	13839461.29	3126824.29	
N.A.	End:	17+90.591	13840890.14	3127703.625	13839415.59	3127370.41	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	548.089	Course:	S 85° 13' 00.0000" E

Alignment: PRESTON AVE

Description:

	Tangent Data		Surface Coords		Grid Coords		
	Description	PT Station	Northing	Easting	Northing	Easting	
	Start:	5+00.000	13842104.93	3125818.838	13840630.26	3125485.83	
64	Intersection PT: Chartres St	5+78.92	13842062.11	3125885.13	13840587.44	3125552.11	
65	Intersection PT: St Emanuel St	9+08.95	13841883.04	3126162.35	13840408.39	3125829.31	
66	Intersection PT: Hutchins St	12+38.98	13841703.97	3126439.58	13840229.34	3126106.50	
34	Intersection PT: Bastrop St	15+69.08	13841524.86	3126716.86	13840050.25	3126383.76	FND MAG NL W/SHNR
51	Intersection PT: Emancipation Ave	18+94.18	13841348.47	3126989.95	13839873.87	3126656.81	
67	POT	26+50.00	13841101.15	3127372.84	13839626.57	3127039.66	
	End:	24+98.794	13841020.41	3127497.823	13839545.85	3127164.63	

Tangent Data

Parameter	Value	Parameter	Value
Length:	1998.794	Course:	S 57° 08' 23.9412" E

Alignment: ST CHARLES ST

Description:

	Tangent Data		Surface Coords		Grid Coords		
	Description	PT Station	Northing	Easting	Northing	Easting	
N.A.	Start:	1+00.000	13840834.05	3127590.67	13839359.51	3127257.47	N.A.
N.A.	End:	1+99.908	13840933.55	3127599.67	13839459.00	3127266.46	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	99.908	Course:	N 05° 09' 49.0000" E

(ST CHARLES ST. CONT'D)

	Curve Point Data		Surface Coords		Grid Coords		
	Description	Station	Northing	Easting	Northing	Easting	
N.A.	PC:	1+99.908	13840933.55	3127599.67	13839459.00	3127266.46	
	RP:		13840941.29	3127514.01	13839466.74	3127180.82	
41	PT:	2+43.573	13840976.17	3127592.62	13839501.62	3127259.42	

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 05' 27.9303"	Type:	LEFT
Radius:	86		
Length:	43.665	Tangent:	22.314
Mid-Ord:	2.756	External:	2.848
Chord:	43.198	Course:	N 09° 22' 54.9651" W

	Tangent Data		Surface Coords		Grid Coords		
	Description	PT Station	Northing	Easting	Northing	Easting	
41	Start:	2+43.573	13840976.17	3127592.62	13839501.62	3127259.42	
	End:	4+78.628	13841191.03	3127497.29	13839716.45	3127164.10	

Tangent Data

Parameter	Value	Parameter	Value
Length:	235.056	Course:	N 23° 55' 38.9303" W

	Curve Point Data		Surface Coords		Grid Coords		
	Description	Station	Northing	Easting	Northing	Easting	
40	PC:	4+78.628	13841191.03	3127497.29	13839716.45	3127164.10	
	RP:		13841225.91	3127575.90	13839751.32	3127242.70	
39	PT:	5+63.819	13841272.53	3127503.63	13839797.94	3127170.44	

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	56° 45' 22.9303"	Type:	RIGHT
Radius:	86		
Length:	85.19	Tangent:	46.458
Mid-Ord:	10.335	External:	11.746
Chord:	81.75	Course:	N 04° 27' 02.5349" E

	Tangent Data		Surface Coords		Grid Coords		
	Description	PT Station	Northing	Easting	Northing	Easting	
39	Start:	5+63.819	13841272.53	3127503.63	13839797.94	3127170.44	
38	Intersection PT: Garrow St	7+46.67	13841412.55	3127593.97	13839937.94	3127260.77	
37	POT	9+00.00	13841555.02	3127685.89	13840080.40	3127352.68	
N.A.	End:	9+70.263	13841614.06	3127723.98	13840139.44	3127390.76	

Tangent Data

Parameter	Value	Parameter	Value
Length:	406.444	Course:	N 32° 49' 44.0000" E

Alignment: ST EMANUEL ST

Description:

	Tangent Data		Surface Coords		Grid Coords		
	Description	PT Station	Northing	Easting	Northing	Easting	
	Start:	5+00.000	13841230.02	3125740.43	13839755.43	3125407.43	
68	Intersection PT: Texas Ave	6+09.69	13841322.15	3125799.96	13839847.56	3125466.95	
65	Intersection PT: Preston St	12+77.47	13841883.04	3126162.35	13840408.39	3125829.31	
46	Intersection PT: Congress Ave	16+14.73	13842166.32	3126345.38	13840691.63	3126012.31	
53	Intersection PT: Franklin St	19++43.25	13842442.25	3126523.66	13840967.54	3126190.58	
61	Intersection PT: Navigation Blvd	19+56.06	13842453.02	3126530.62	13840978.30	3126197.53	
42	Intersection PT: Commerce St	22+75.15	13842721.03	3126703.78	13841246.28	3126370.68	
	End:	25+39.580	13842943.13	3126847.29	13841468.37	3126514.17	

Tangent Data

Parameter	Value	Parameter	Value
Length:	2039.58	Course:	N 32° 52' 00.2920" E

Alignment: TEXAS AVE

Description:

	Tangent Data		Surface Coords		Grid Coords		
	Description	PT Station	Northing	Easting	Northing	Easting	
N.A.	Start:	5+00.000	13841397.47	3125683.35	13839922.87	3125350.36	N.A.
68	Intersection PT: St Emanuel St	6+38.82	13841322.15	3125799.96	13839847.56	3125466.95	
32	Intersection PT: Bastrop St	12+98.95	13840963.97	3126354.47	13839489.41	3126021.40	
56	POT: Beg of Harrisburg Conn	13+71.27	13840924.73	3126415.22	13839450.18	3126082.14	
49	Intersection PT: Emancipation Ave	16+24.05	13840787.57	3126627.55	13839313.04	3126294.46	
69	POT:	18+00.00	13840692.11	3126775.35	13839217.58	3126442.24	
N.A.	End:	18+64.050	13840657.35	3126829.15	13839182.83	3126496.03	N.A

Tangent Data

Parameter	Value	Parameter	Value
Length:	1364.05	Course:	S 57° 08' 23.9412" E

No.	Date	Revisions	App.

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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

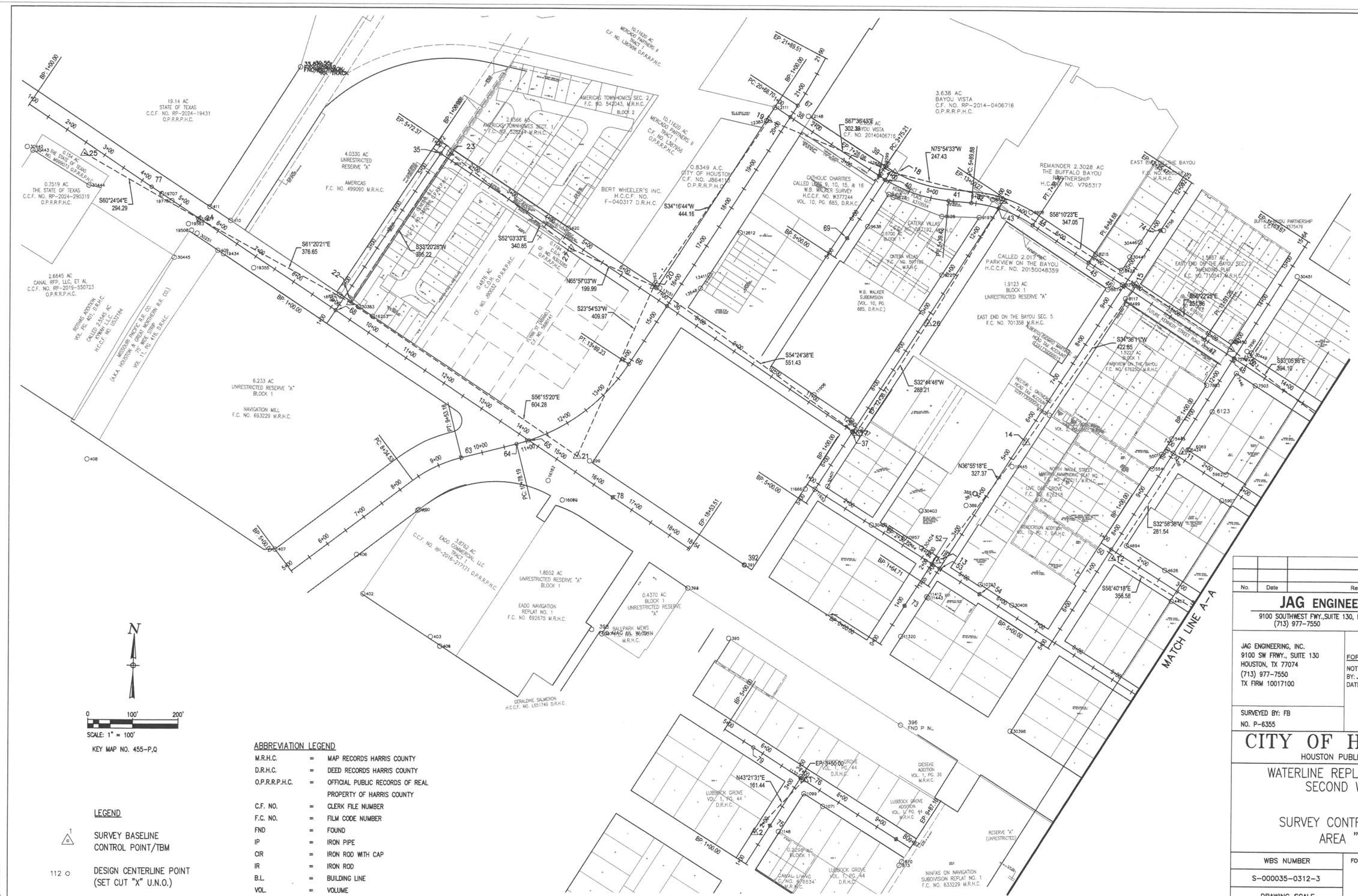
WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP

AREA "A" TABLES

SHEET 5 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
FREDDY ORDONEZ	
SHEET NO. 19 OF 362	



N

0 100' 200'

SCALE: 1" = 100'

KEY MAP NO. 455-P,Q

LEGEND

1 / ◇	SURVEY BASELINE CONTROL POINT/TBM
112 ○	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 ○	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

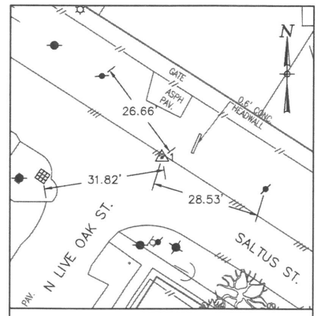
SURVEY CONTROL MAP AREA "B"

SHEET 1 OF 2

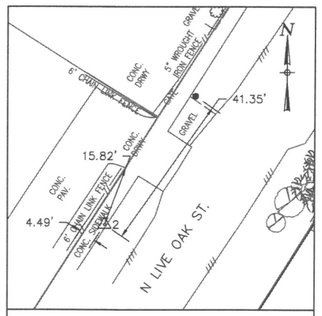
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S-000035-0312-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 20 OF 362	

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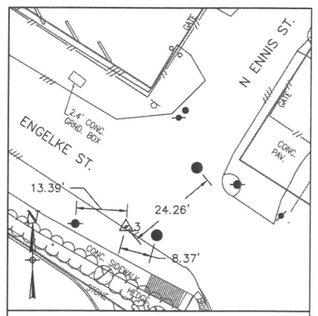

MATCH LINE A-A
EP: 11+64.19
EP: 18+61.21
EP: 19+12.97
EP: 5+36.75
EP: 5+47.89
EP: 23+62.87
BP: 1+00.00
BP: 2+00.00
BP: 2+94.15
BP: 7+00.00
PI: 12+21.82
PI: 14+38.03
N 27°09'39" E
N 62°50'21" W
S 27°09'39" W
S 62°50'21" E
N 62°50'21" W
S 62°50'21" E
N 27°09'39" E
S 27°09'39" W



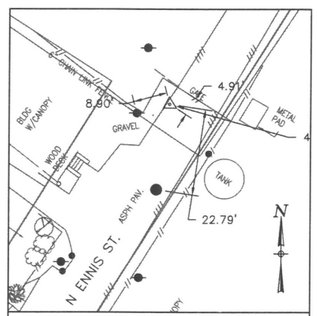
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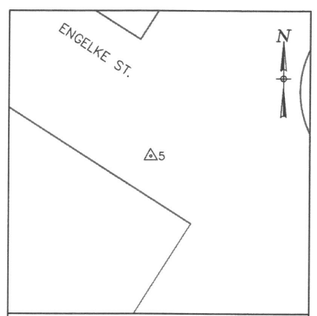
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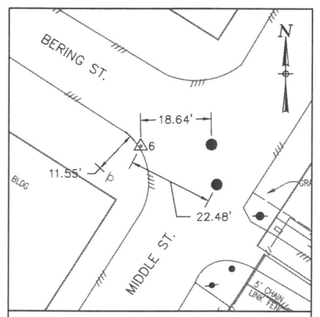
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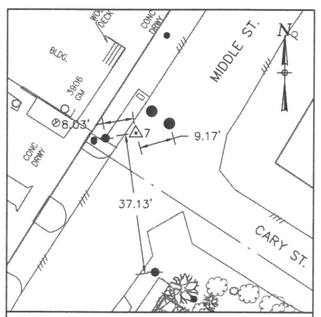
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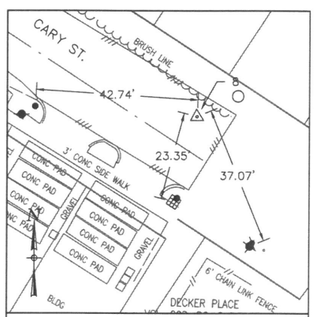
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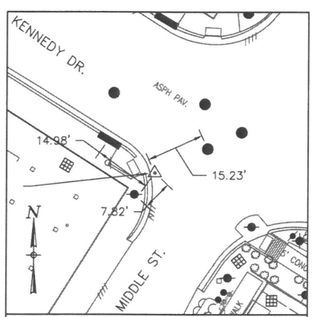
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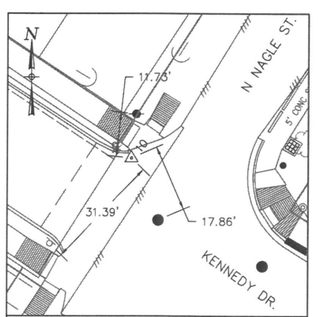
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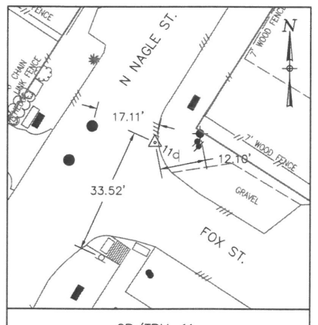
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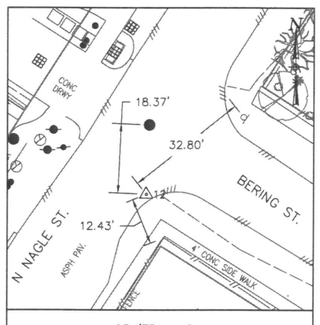
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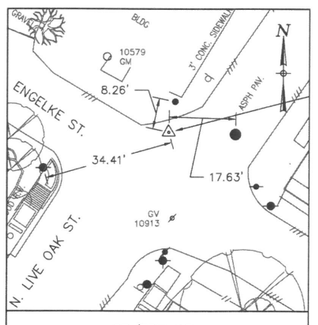
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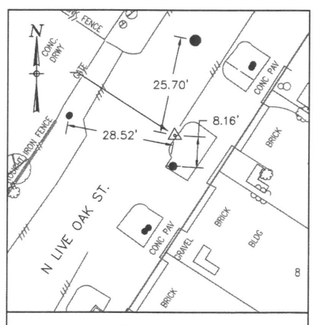
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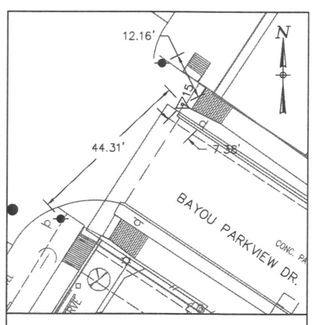
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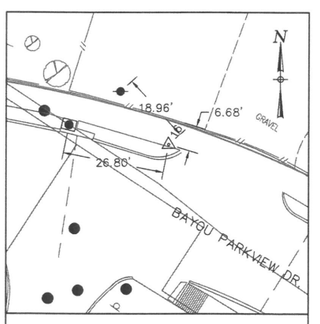
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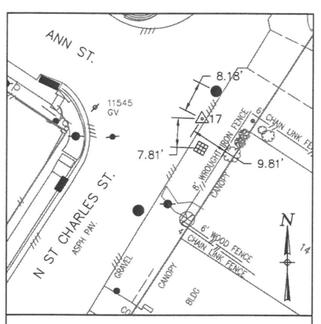
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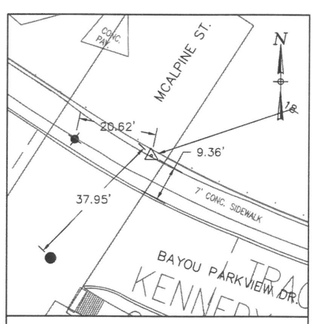
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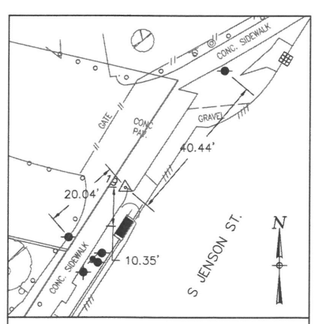
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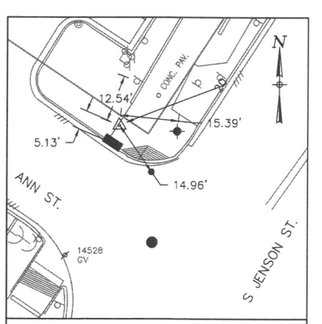
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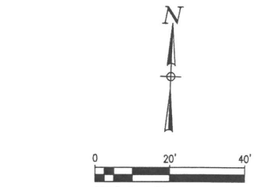
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CP/TBM-19



CP/TBM-20



KEY MAP NO. 455-P,Q

LEGEND

△1	SURVEY BASELINE CONTROL POINT/TBM
112 ○	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 ○	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
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JAG ENGINEERING, INC.
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HOUSTON, TX 77074
(713) 977-7550
TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

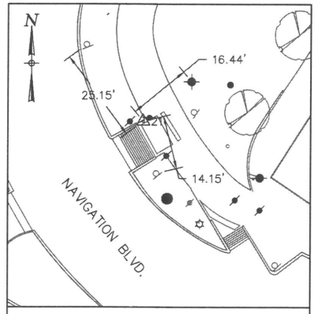
WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "B" SWING TIES

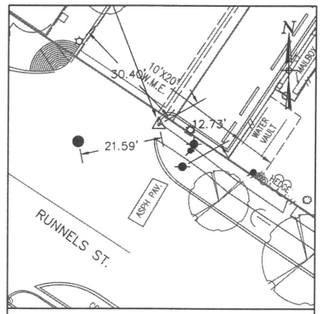
SHEET 1 OF 4

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DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 22 OF 362	

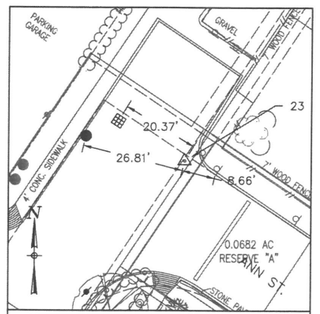
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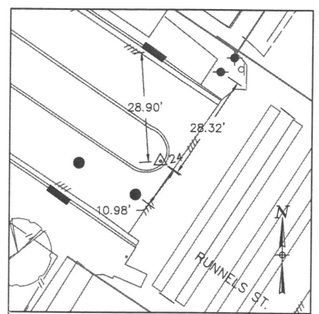
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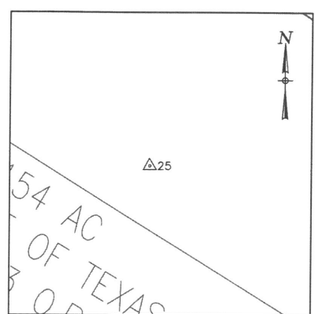
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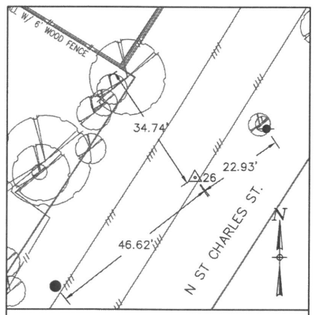
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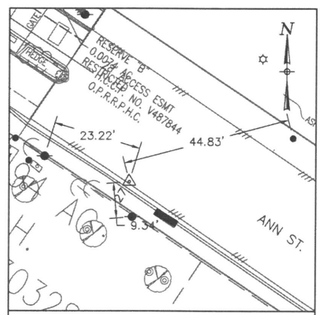
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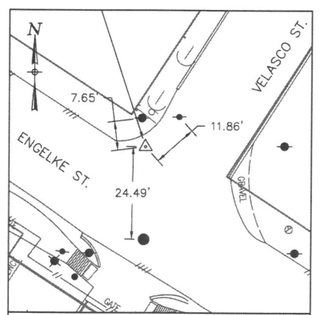
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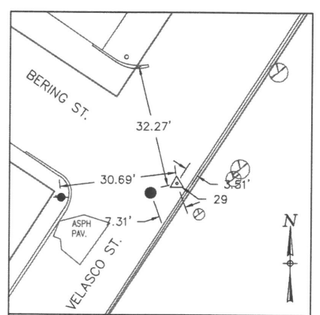
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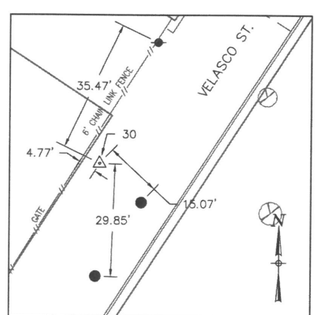
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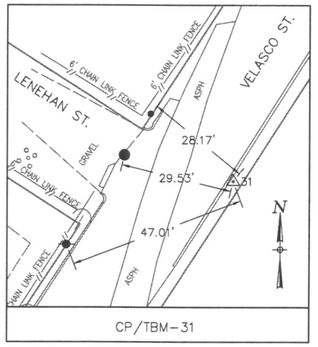
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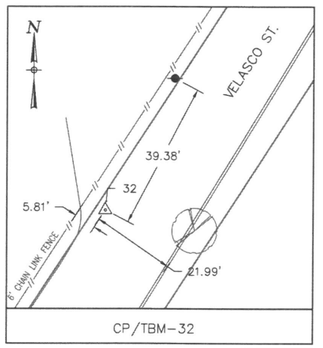
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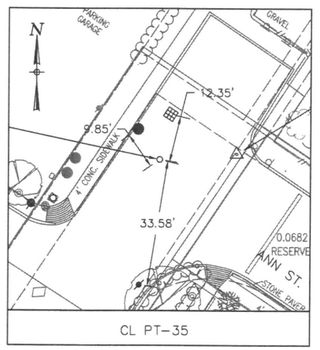
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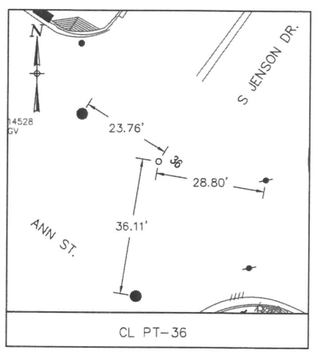
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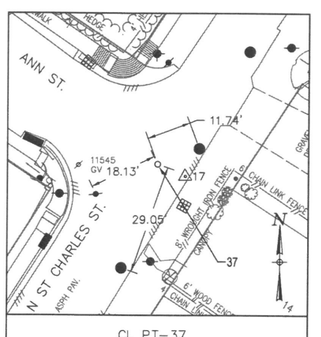
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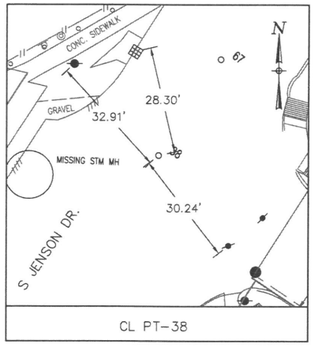
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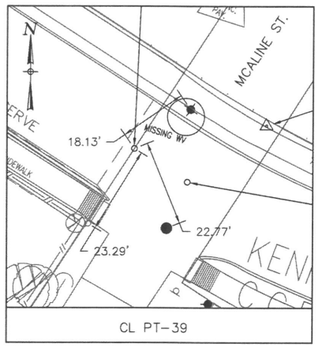
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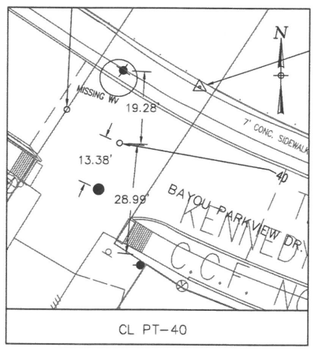
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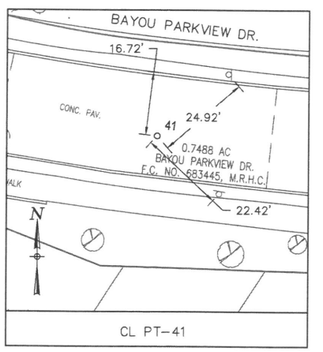
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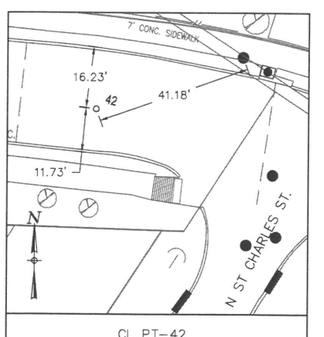
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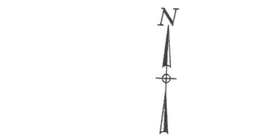
CL PT-40



CL PT-41



CL PT-42



KEY MAP NO. 455-P,Q

LEGEND

1	SURVEY BASELINE CONTROL POINT/TBM
112	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
9100 SOUTHWEST FWY.,SUITE 130, HOUSTON TX 77074
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JAG ENGINEERING, INC.
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TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

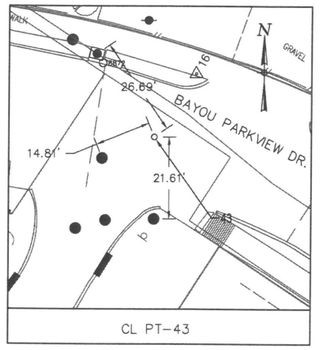
WATERLINE REPLACEMENT IN SECOND WARD

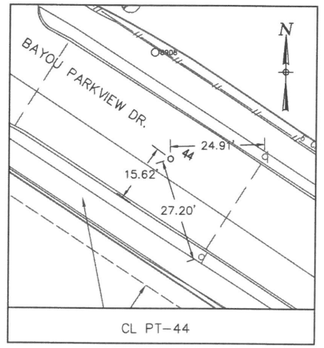
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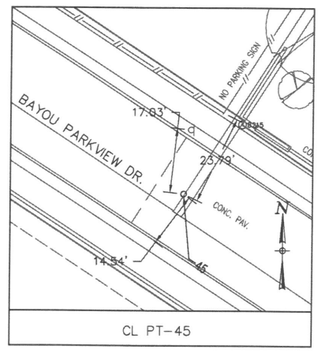
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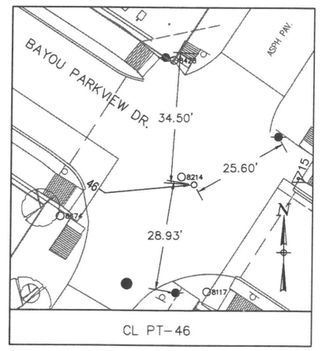
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CITY OF HOUSTON PM	
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SHEET NO. 23 OF 362	

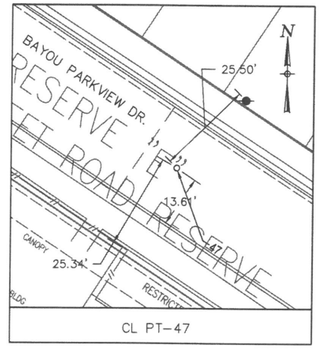
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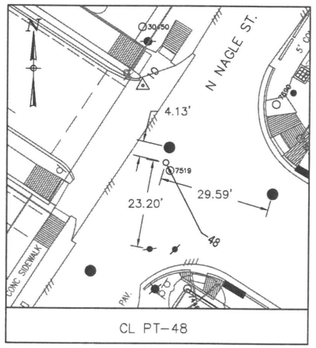


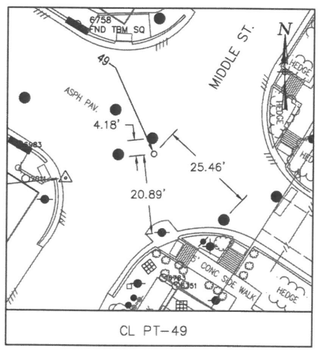


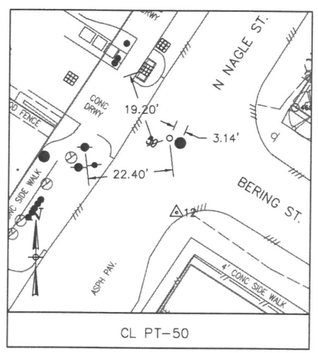


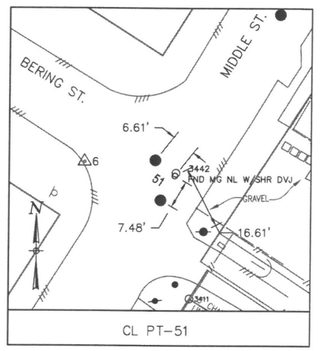


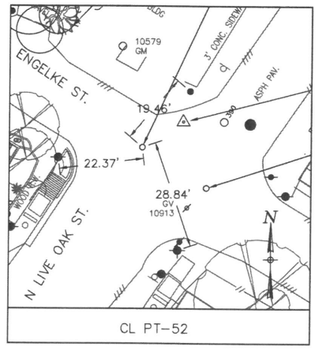


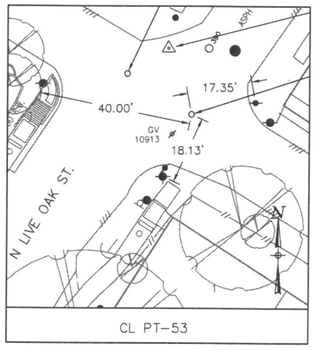


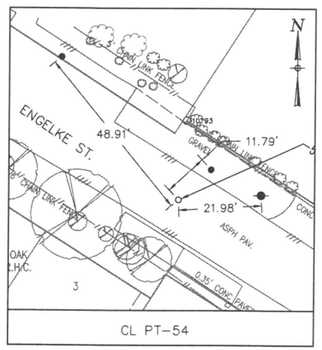


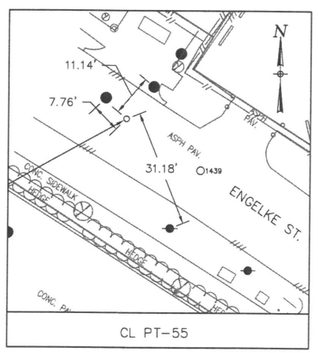


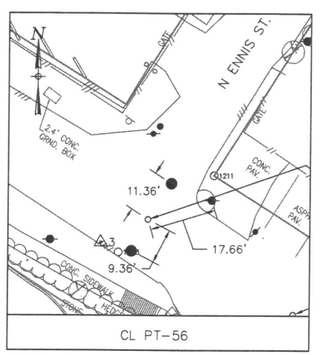


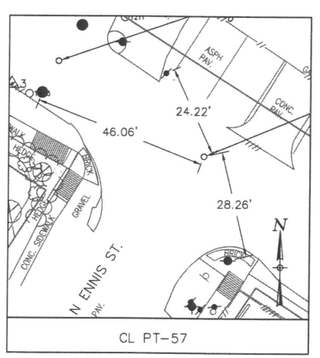


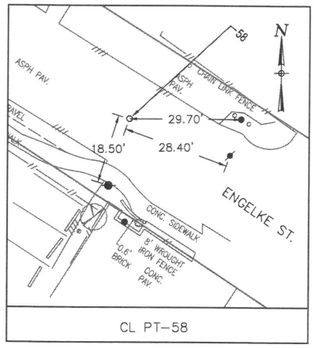


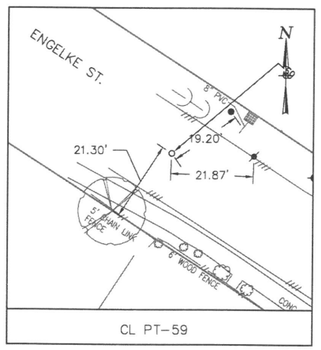


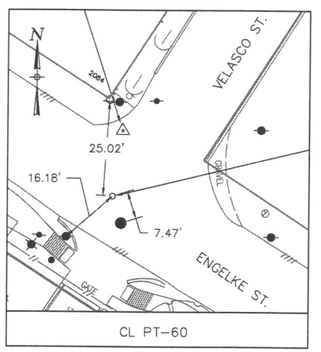


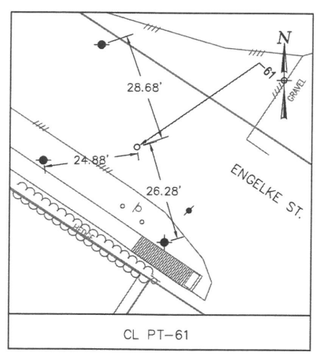


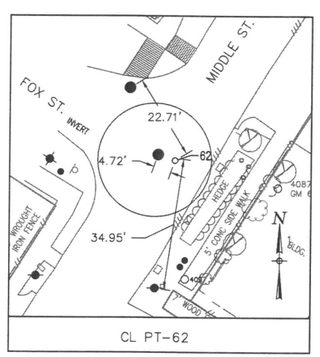


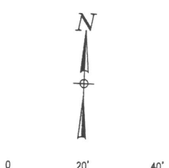












KEY MAP NO. 455-P,Q

LEGEND

1 △	SURVEY BASELINE CONTROL POINT/TBM
112 o	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 O	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
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9100 SW FRWY., SUITE 130
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(713) 977-7550
TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

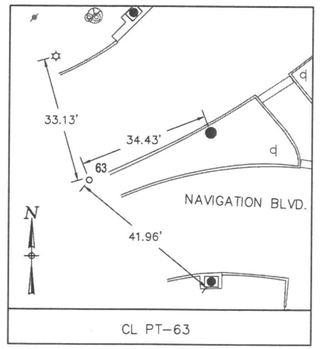
WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "B" SWING TIES

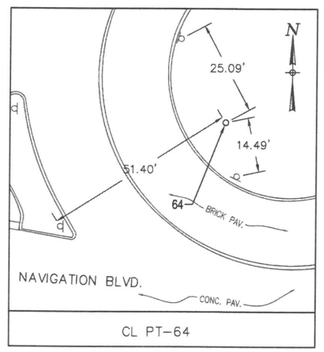
SHEET 3 OF 4

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DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 24 OF 362	

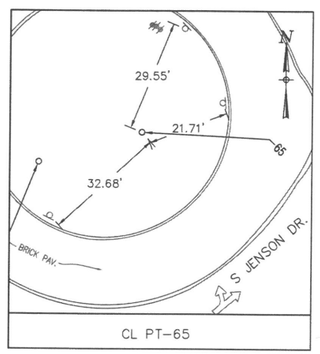
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PLOT STYLE: Default.ctb_JAG.ctb



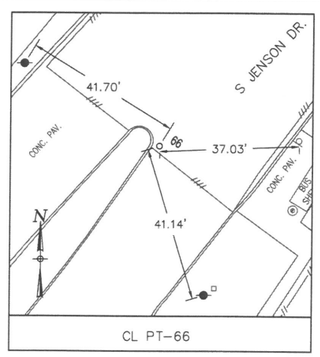
CL PT-63



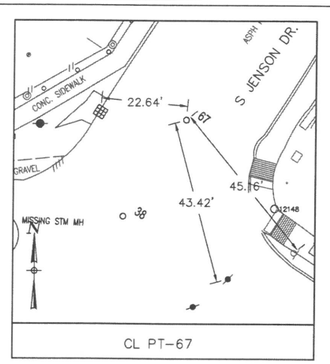
CL PT-64



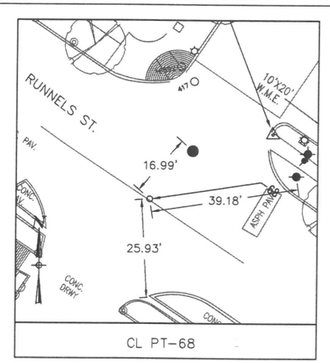
CL PT-65



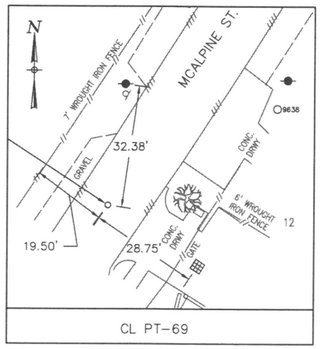
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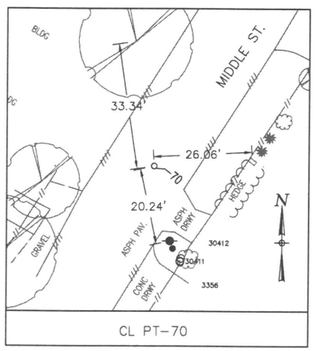
CL PT-67



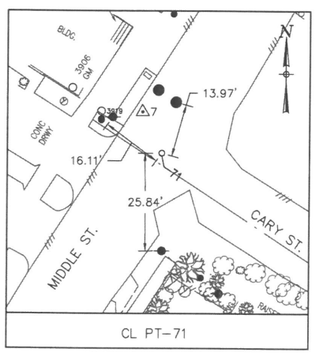
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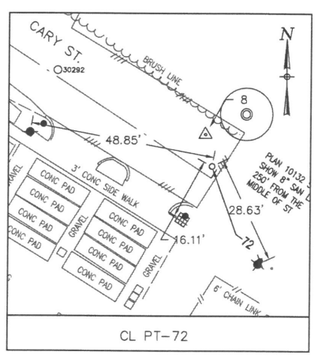
CL PT-69



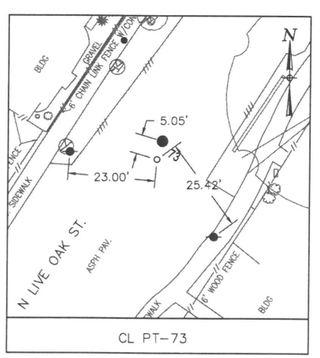
CL PT-70



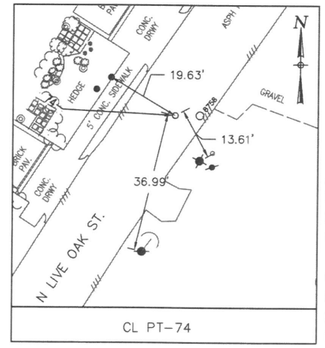
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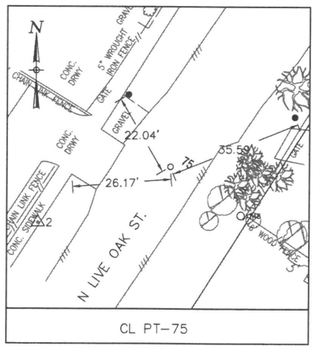
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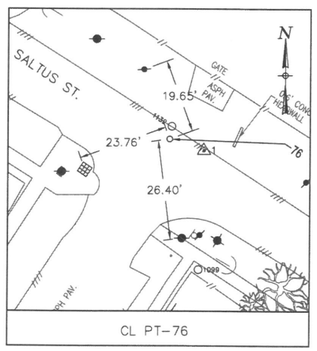
CL PT-73



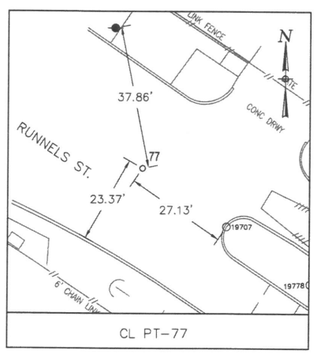
CL PT-74



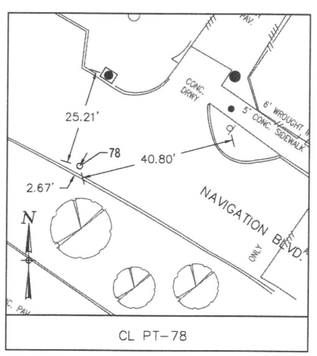
CL PT-75



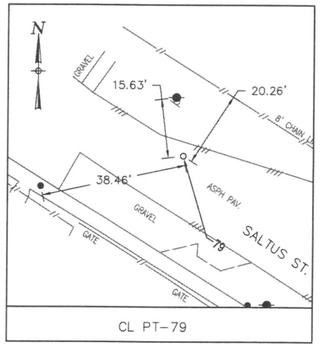
CL PT-76



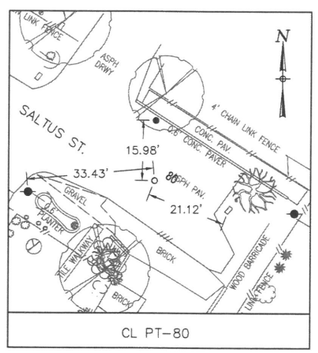
CL PT-77



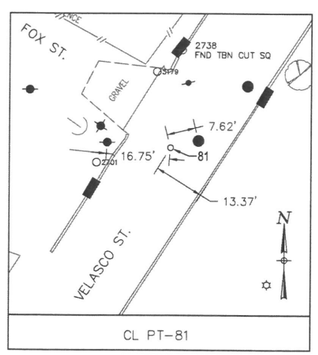
CL PT-78



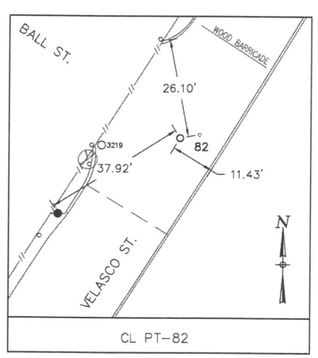
CL PT-79



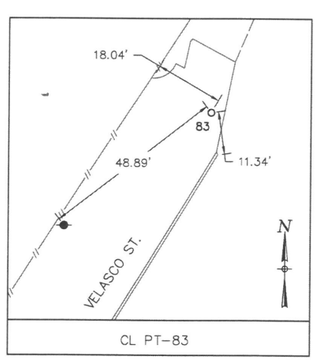
CL PT-80



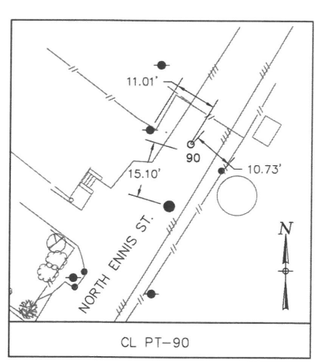
CL PT-81



CL PT-82



CL PT-83



CL PT-90

0 20' 40'

SCALE: 1" = 20'

KEY MAP NO. 455-P,Q

LEGEND

1 △	SURVEY BASELINE CONTROL POINT/TBM
112 ○	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 ○	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
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IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
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JAG ENGINEERING, INC.
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(713) 977-7550
TX FIRM 10017100

FOR INTERIM REVIEW ONLY

NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY:
FB NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "B" SWING TIES

SHEET 4 OF 4

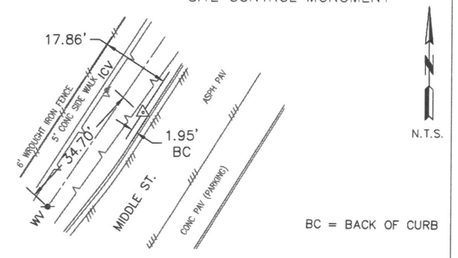
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S-000035-0312-3	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 25 OF 362	

FILE NAME:N:\AREA 2025\UNASSIGNED\SM\AREA B\SHT-SCV.DWG
PLOT STYLE: CO-JAG.CTB PLOTTED: 05/05/2026 BY: JAG

CONTROL POINTS (CP)/TEMPORARY BENCHMARKS (TBM)

CP/TBM	SURVEY	SURFACE COORDS		GRID COORDS			DESIGN CENTERLINE		
PT NO	B.L. STA	NORTHING	EASTING	NORTHING	EASTING	ELEV	DESCRIPTION	STATION	OFFSET
ANN ST									
23	5+00.00	13843821.50	3127899.15	13842346.64	3127565.92	38.68	SET CUT X	1+36.40	-12.51
27	8+40.85	13843611.93	3128167.96	13842137.09	3127834.70	35.21	SET MG NL W/SHR	4+76.29	13.08
20	10+40.84	13843530.43	3128350.59	13842055.60	3128017.31	34.89	SET CUT X	6+73.49	-20.22
17	15+92.27	13843209.51	3128799.02	13841734.71	3128465.69	29.69	SET MG NL W//SHR	12+25.60	-1.41
BAYOU PARKVIEW DR									
19	5+00.00	13843897.44	3128600.75	13842422.57	3128267.44	31.17	SET CUT X	1+04.09	31.93
18	8+02.38	13843782.27	3128880.34	13842307.41	3128547.00	29.27	SET CUT X	4+02.92	-23.48
16	10+49.81	13843722.03	3129120.33	13842247.18	3128786.97	23.73	SET CUT X	6+57.00	-19.29
15	13+96.86	13843539.01	3129415.20	13842064.18	3129081.81	34.34	SET CUT X	9+99.82	-16.69
10	16+48.82	13843399.48	3129625.00	13841924.66	3129291.58	35.82	SET CUT X	12+52.02	-13.93
9	20+42.92	13843162.85	3129940.15	13841688.06	3129606.70	32.58	FND MG NL W/SHR	16+44.83	17.92
BERING ST									
12	5+00.00	13842936.70	3129366.36	13841461.93	3129032.97	34.90	FND MG NL W/SHR	1+38.78	15.47
6	8+58.58	13842750.26	3129672.66	13841275.51	3129339.24	33.84	FND MG NL W/SHR	4+97.32	9.60
CARY ST									
7	1+00.00	13842862.58	3129757.76	13841387.82	3129424.33	33.93	SET MAG NL W/SHR	1+09.79	-6.37
8	3+69.39	13842715.05	3129983.16	13841240.31	3129649.71	32.08	SET MAG NL W/SHR	4+79.18	-6.12
ENGELKE ST									
5	10+00.00	13842536.23	3129562.33	13841061.51	3129228.92	34.43	FND MG NL W/SHR	11+34.44	8.95
3	14+99.72	13842258.38	3129977.68	13840783.69	3129644.23	33.55	SET MAG NL W/SHR	16+34.30	11.86
28	20+37.13	13841988.85	3130442.61	13840514.18	3130109.11	38.71	SET MG NL W/SHR	21+70.98	-15.99
JENSEN ST									
21	10+00.00	13843155.66	3128184.40	13841680.87	3127851.14	36.93	SET CUT X	11+84.53	74.14
20	14+09.97	13843530.43	3128350.59	13842055.60	3128017.31	34.89	SET CUT X	15+62.61	-47.90
19	18+54.13	13843897.44	3128600.75	13842422.57	3128267.44	31.17	SET CUT X	20+06.63	-36.88
LOTTMAN ST									
22	5+00.00	13843491.33	3127681.93	13842016.50	3127348.72	43.31	SET CUT X	1+67.30	17.52
23	8+95.22	13843821.50	3127899.15	13842346.64	3127565.92	38.68	SET CUT X	5+62.51	16.12
MIDDLE ST									
5	5+00.00	13842536.23	3129562.33	13841061.51	3129228.92	34.43	FND MG NL W/SHR	1+09.40	-1.14
6	7+40.79	13842750.26	3129672.66	13841275.51	3129339.24	33.84	FND MG NL W/SHR	3+49.28	-22.11
7	8+81.71	13842862.58	3129757.76	13841387.82	3129424.33	33.93	SET MAG NL W/SHR	4+89.69	-10.11
9	12+33.03	13843162.85	3129940.15	13841688.06	3129606.70	32.58	FND MG NL W/SHR	8+40.96	-16.18
N LIVE OAK ST (N-2)									
13	5+00.00	13842929.24	3128978.41	13841454.47	3128645.06	35.41	SET MG NL W/SHR	2+21.61	-14.60
14	8+27.37	13843190.96	3129175.07	13841716.17	3128841.70	34.86	SET CUT X	5+48.13	8.95
15	12+50.22	13843539.01	3129415.20	13842064.18	3129081.81	34.34	SET CUT X	9+70.77	22.28
N LIVE OAK ST (S)									
2	5+00.00	13842327.86	3128580.51	13840853.16	3128247.20	37.22	SET CUT X	1+68.85	-21.49
1	6+61.44	13842445.24	3128691.35	13840970.53	3128358.03	37.81	FND MAG NL W/SHR	3+27.34	9.25
RUNNELS ST									
25	5+00.00	13843817.34	3127095.54	13842342.48	3126762.39	46.01	SET CUT X	2+60.73	21.38
24	7+94.29	13843671.98	3127351.43	13842197.13	3127018.26	41.59	SET CUT X	5+54.29	0.56
22	11+70.94	13843491.33	3127681.93	13842016.50	3127348.72	43.31	SET CUT X	9+29.51	-32.25
21	17+75.22	13843155.66	3128184.40	13841680.87	3127851.14	36.93	SET CUT X	15+33.78	-31.32
VELASCO ST									
28	5+00.00	13841988.85	3130442.61	13840514.18	3130109.11	38.71	SET MG NL W/SHR	1+43.96	-7.22
29	7+75.14	13842209.55	3130606.91	13840734.86	3130273.39	37.34	SET CUT X	4+18.51	10.86
30	13+03.77	13842664.81	3130875.58	13841190.07	3130542.03	34.93	SET CUT X	9+46.69	-10.83
31	16+28.58	13842924.05	3131071.27	13841449.28	3130737.70	33.51	FND MONU HPW	12+70.64	12.67
32	19+73.49	13843226.54	3131236.98	13841751.74	3130903.39	31.13	SET CUT X	16+14.63	-12.49

CITY OF HOUSTON CITY SURVEY 5457-8211
SITE CONTROL MONUMENT



BC = BACK OF CURB

Project WBS# S-000035-0312-3
Texas Coordinate System of 1983,
South Central Zone, U. S. Survey Feet
X= 3,129,843.77
Y= 13,842,045.58

Lat.= 29° 45' 35.86529" N
Lon.= 95° 20' 20.71468" W

Keymap Page: 494-J
Orthometric Elevation = 33.22'
Ellipsoid Height= -56.42'
Geoid: 18 US
Datum Source & Adjustment:
NAD '83 (CORS ADJ)
(OBSERVED 05-07-2026)

Reference Frame Used: NAD 83 (2011)(EPOCH: 2010)
Vertical Adjustment used: NAVD 88, CORS ADJ.
General Location: LOCATED ALONG THE WEST SIDE OF MIDDLE ST. APPROX. 430' NORTH OF BAYOU PARKVIEW DRIVE.

Date Set: OCT. 2005 Type of Mark: 4B (COH BRASS DISK)
3 Nearest project control points (bearings and distances stated below):
1. MONU. NO. 5457-8211 TO CP9 S33° 32' 54"W - 428.98' (GRID)
2. MONU. NO. 5457-8211 TO CP10 S77° 38' 54"W - 565.28' (GRID)
3. MONU. NO. 5457-8211 TO CP15 N88° 36' 06"W - 762.19' (GRID)

NOTE:
1. Bearings are grid bearings.
2. Scale Factor = (S.F.0.9998934643).
3. Surface= Grid / S.F.

Surveyed By: JAG ENGINEERING, INC.
9100 SOUTHWEST FWY, STE 130
HOUSTON, TX 77074

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/06/2026

Revision date if applicable

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "B" TABLES

SHEET 1 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 26 OF 362	

FOUND BOUNDARY MONUMENTS STATION AND OFFSET

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
ANN ST							
100	13843212.59	3128791.65	13841737.79	3128458.32	12+16.76	0.10'	FND 5/8 IR
11906	13843293.59	3128705.88	13841818.79	3128372.56	11+00.48	-19.83'	FND 5/8 CIR
13162	13843527.32	3128356.41	13842052.49	3128023.13	6+80.05	-20.86'	FND CUT X
420	13843657.34	3128161.38	13842182.50	3127828.12	4+45.66	-21.08'	FND 1 IR
13151	13843526.67	3128363.12	13842051.84	3128029.84	6+86.00	-24.03'	FND CUT X
BAYOU PARKVIEW DR							
12111	13843924.97	3128614.45	13842450.10	3128281.14	1+00.53	1.39'	FND CUT X
12383	13843895.82	3128595.76	13842420.95	3128262.45	1+00.79	36.01'	FND CUT X
12148	13843906.25	3128688.79	13842431.38	3128355.47	1+73.03	-23.52'	FND CUT X
9413	13843735.07	3128866.97	13842260.22	3128533.63	4+13.30	24.46'	FND 1/2 IR BENT
9627	13843728.51	3128876.55	13842253.66	3128543.21	4+23.98	26.12'	FND 5/8 CIR MOMEN
9628	13843687.47	3128983.80	13842212.62	3128650.45	5+29.05	35.77'	FND 5/8 CIR MOMEN
9197	13843685.17	3129066.21	13842210.32	3128732.85	6+12.44	29.56'	FND 5/8 CIR MOMENTUM
8872	13843724.77	3129095.58	13842249.92	3128762.22	6+33.77	-15.16'	FND TBM CUT SQ
8908	13843697.52	3129181.31	13842222.67	3128847.94	7+18.59	-21.67'	FND CUT X
8215	13843606.48	3129325.13	13842131.64	3128991.75	8+87.51	-23.76'	FND 5/8 CIR GRULLER
8674	13843528.69	3129352.29	13842053.86	3129018.90	9+52.85	26.42'	FND 2 PTP
8428	13843569.97	3129381.90	13842095.14	3129048.51	9+55.00	-24.34'	FND CUT X
8214	13843539.23	3129384.19	13842064.40	3129050.80	9+73.76	0.12'	FND CUT X
8117	13843508.89	3129391.14	13842034.06	3129057.75	9+96.20	21.69'	FND CUT X
8499	13843497.67	3129393.46	13842022.84	3129060.07	10+04.29	29.81'	FND 5/8 IR
30450	13843414.97	3129624.80	13841940.15	3129291.38	12+43.58	-26.92'	FND 1/2 IR LAY DWN
7519	13843377.00	3129632.32	13841902.19	3129298.90	12+70.21	1.18'	FND MAG NL
7690	13843394.67	3129660.46	13841919.85	3129327.04	12+84.57	-28.79'	FND CUT X
7446	13843345.75	3129637.19	13841870.94	3129303.77	12+91.01	25.00'	FND 5/8 IR
8213	13843385.71	3129666.97	13841910.90	3129333.55	12+94.86	-24.69'	FND CUT X
7503	13843319.15	3129679.49	13841844.34	3129346.07	13+40.98	24.91'	FND 1/2 CIR
7030	13843186.43	3129891.46	13841711.64	3129558.01	15+91.07	23.98'	FND 5/8 IR
6758	13843203.47	3129942.87	13841728.67	3129609.42	16+25.44	-17.88'	FND TBM SQ
6983	13843171.58	3129927.94	13841696.79	3129594.49	16+29.84	17.06'	FND CUT SQ
7011	13843162.60	3129929.71	13841687.81	3129596.26	16+36.13	23.71'	FND 5/8 CIR BENT
6783	13843136.60	3129966.18	13841661.81	3129632.73	16+80.85	26.22'	FND 5/8 CIR JONES
6351	13843134.54	3129969.49	13841659.75	3129636.04	16+84.75	26.20'	FND 5/8 CIR 5476
CARY ST							
3919	13842862.75	3129746.78	13841387.99	3129413.35	2+00.51	-0.51'	FND CUT X
30292	13842731.94	3129944.10	13841257.19	3129610.65	4+37.24	1.10'	FND MAG NL
4314	13842762.06	3129846.99	13841287.31	3129513.55	3+39.47	28.99'	FND 5/8 IR
ENGELKE ST							
11666	13843085.83	3128688.07	13841611.05	3128354.75	1+01.78	11.13'	FND CUT X
11652	13843085.41	3128709.57	13841610.63	3128376.25	1+20.18	0.00'	FND MG NL W/SHR
30401	13843091.89	3128737.66	13841617.11	3128404.34	1+40.47	-20.48'	FND 5/8 CIR SOUTH TEXAS SURV
30402	13843007.07	3128834.23	13841532.30	3128500.90	2+67.41	-0.33'	FND MAG NL
10957	13842978.79	3128906.56	13841504.02	3128573.22	3+43.67	-15.05'	FND 2 IP
11464	13842978.62	3128907.03	13841503.85	3128573.69	3+44.16	-15.15'	FND FNC POST 2
30404	13842953.40	3128940.13	13841478.63	3128606.79	3+85.61	-11.51'	FND 2 IP O/S 6.23 S
390	13842929.24	3128989.09	13841454.47	3128655.74	4+39.90	-17.22'	FND PK NL W/SHN
10793	13842876.87	3129075.13	13841402.11	3128741.77	5+40.62	-18.89'	FND 2 PTP
30406	13842831.93	3129145.24	13841357.17	3128811.87	6+23.89	-18.33'	FND 5/8 CIR
30408	13842609.18	3129429.22	13841134.45	3129095.82	9+82.94	18.35'	FND 1 IR
30409	13842608.39	3129463.70	13841133.66	3129130.30	10+12.51	0.61'	FND PK NL
30410	13842607.20	3129464.51	13841132.47	3129131.11	10+13.83	1.18'	FND PK NL
1439	13842328.00	3129891.25	13840853.30	3129557.80	15+23.88	0.69'	FND MG NL
1283	13842255.83	3129982.28	13840781.14	3129648.83	16+39.54	11.49'	FND MAG NL
1211	13842276.14	3130007.48	13840801.44	3129674.02	16+49.58	-19.28'	FND CUT X
2085	13841997.06	3130438.55	13840522.39	3130105.05	21+63.10	-20.66'	FND 1 IP O/ 0.45 S
FOX ST							
5458	13843169.48	3129498.87	13841694.69	3129165.47	1+20.14	-0.11'	FND MAG NL/WSHR
5962	13843122.41	3129615.56	13841647.62	3129282.14	2+43.94	-22.60'	FND 1/2 CIR DESTRY
5424	13843177.01	3129530.99	13841702.22	3129197.58	1+43.28	-23.62'	FND 2 IP
5443	13843201.16	3129495.27	13841726.36	3129161.87	1+00.19	-24.98'	FND 1/2 IR
4097	13842928.25	3129833.82	13841453.48	3129500.38	5+32.15	25.06'	FND CUT X
6069	13843177.26	3129533.58	13841702.47	3129200.17	1+45.34	-25.22'	FND CC MONU 0.35X0.35
JENSEN							
12148	13843906.25	3128688.79	13842431.38	3128355.47	20+61.80	32.30'	FND CUT X
13151	13843526.67	3128363.12	13842051.84	3128029.84	15+66.25	-35.33'	FND CUT X
13548	13843526.49	3128452.79	13842051.66	3128119.50	16+14.75	40.09'	FND 1 STL P
12383	13843895.82	3128595.76	13842420.95	3128262.45	20+02.56	-40.19'	FND CUT X
12111	13843924.97	3128614.45	13842450.10	3128281.14	20+37.19	-40.31'	FND CUT X
13411	13843555.75	3128472.63	13842080.92	3128139.34	16+50.09	40.88'	FND 1/2 CIR PRESS
13162	13843527.32	3128356.41	13842052.49	3128023.13	15+63.15	-41.32'	FND CUT X
406	13842936.60	3127699.00	13841461.83	3127365.79	6+37.69	56.87'	FND 2 IP
401	13843034.37	3127833.66	13841559.59	3127500.43	8+04.08	59.42'	FND 2 IP
400	13843035.97	3127836.65	13841561.19	3127503.42	8+07.43	59.93'	FND 3/4 CIR NO MARK

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
MCALPINE ST							
9638	13843664.14	3128821.19	13842189.30	3128487.86	5+95.71	23.80'	FND 1/2 IR
9413	13843735.07	3128866.97	13842260.22	3128533.63	6+80.13	23.88'	FND 1/2 IR BENT
MIDDLE ST							
3442	13842747.30	3129696.72	13841272.55	3129363.30	3+59.62	-0.18'	FND MG NL W/SHR DVJ
30412	13842630.09	3129645.56	13841155.36	3129312.14	2+33.20	19.13'	FND 1.25 GALV IP
4097	13842928.25	3129833.82	13841453.48	3129500.38	5+85.82	19.15'	FND CUT X
30411	13842629.37	3129645.33	13841154.64	3129311.91	2+32.47	19.32'	FND 5/8 CIR
3356	13842629.21	3129645.37	13841154.48	3129311.95	2+32.36	19.44'	FND 5/8 CIR
3919	13842862.75	3129746.78	13841387.99	3129413.35	4+83.97	-19.48'	FND CUT X
6783	13843136.60	3129966.18	13841661.81	3129632.73	8+32.66	19.84'	FND 5/8 CIR JONES
3411	13842714.09	3129700.52	13841239.35	3129367.10	3+33.57	20.76'	FND 5/8 CIR
6266	13843076.28	3129930.18	13841601.50	3129596.73	7+62.43	21.61'	FND MAG NL
6351	13843134.54	3129969.49	13841659.75	3129636.04	8+32.68	23.74'	FND 5/8 CIR 5476
7011	13843162.60	3129929.71	13841687.81	3129596.26	8+35.17	-24.87'	FND 5/8 CIR BENT
N ENNIS ST (N)							
1956	13842393.05	3130071.23	13840918.34	3129737.77	4+76.68	0.00'	FND MAG NL
1283	13842255.83	3129982.28	13840781.14	3129648.83	3+13.16	-1.93'	FND MAG NL
1211	13842276.14	3130007.48	13840801.44	3129674.02	3+43.79	8.53'	FND CUT X
N ENNIS (S)							
1211	13842276.14	3130007.48	13840801.44	3129674.02	3+43.96	-37.80'	FND CUT X
1283	13842255.83	3129982.28	13840781.14	3129648.83	3+13.19	-47.84'	FND MAG NL
30392	13842079.99	3129888.96	13840605.31	3129555.52	1+14.91	30.08'	FND 1/2 CIR 4218 REKHA
30390	13842048.19	3129939.83	13840573.52	3129606.38	1+16.03	29.9'	FND 5/8 IR
N LIVE OAK (N-1)							
390	13842929.24	3128989.09	13841454.47	3128655.74	2+27.48	14.58'	FND PK NL W/SHN
11320	13842761.73	3128900.25	13841286.98	3128566.91	0+38.45	29.37'	FND 0.15 STL P
11412	13842849.66	3128956.83	13841374.90	3128623.48	1+43.01	30.00'	FND CUT X
11443	13842847.22	3128959.97	13841372.46	3128626.62	1+42.63	33.96'	FND 5/8 IR
30404	13842953.40	3128940.13	13841478.63	3128606.79	2+21.63	-39.70'	FND 2 IP O/S 6.23 S
30405	13842960.48	3128937.25	13841485.71	3128603.91	2+26.07	-45.93'	FND 2 IP O/S 8.27 W
N LIVE OAK (N-2)							
389	13843051.20	3129042.14	13841576.42	3128708.79	3+58.65	-27.09'	FND 5/8 IR
388	13843077.78	3129060.80	13841603.00	3128727.44	3+91.10	-25.80'	FND 1 IP
387	13843076.88	3129062.73	13841602.10	3128729.37	3+91.39	-23.69'	FND 5/8 IR IN 2 IP
10445	13843137.33	3129143.71	13841662.54	3128810.34	4+86.07	11.64'	FND 5/8 IR
9782	13843251.38	3129225.83	13841776.58	3128892.46	6+26.42	18.89'	FND CUT X
8499	13843497.67	3129393.46	13842022.84	3129060.07	9+24.25	26.40'	FND 5/8 IR
8674	13843528.69	3129352.29	13842053.86	3129018.90	9+28.02	-25.01'	FND 2 PTP
8117	13843508.89	3129391.14	13842034.06	3129057.75	9+32.42	18.37'	FND CUT X
8214	13843539.23	3129384.19	13842064.40	3129050.80	9+54.16	-3.91'	FND CUT X
8428	13843569.97	3129381.90	13842095.14	3129048.51	9+78.76	-22.48'	FND CUT X
30447	13843600.85	3129399.60	13842126.01	3129066.21	10+14.30	-24.33'	FND 5/8 IR BENT
30446	13843633.48	3129422.09	13842158.64	3129088.69	10+53.92	-23.10'	FND 5/8 CIR GRULLER
N LIVE OAK (S)							
1132	13842451.59	3128682.84	13840976.87	3128349.52	3+28.14	-1.34'	FND PK NL
1148	13842329.78	3128634.00	13840855.08	3128300.69	1+99.12	22.65'	FND 1/2 IR
1099	13842413.72	3128690.01	13840939.01	3128356.69	3+00.00	25.00'	FND 1/2 IR
1194	13842445.25	3128691.33	13840970.54	3128358.01	3+27.33	9.23'	FND MAG NL W/SHR

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
N NAGLE ST							
5501	13843166.81	3129473.03	13841692.02	3129139.63	9+94.41	-20.42'	FND 1/2 CIR
5541	13843134.74	3129452.81	13841659.95	3129119.41	9+56.50	-20.40'	FND 3/4 PTP
4694	13842964.66	3129397.65	13841489.89	3129064.26	7+83.23	23.75'	FND 5/8 IR
12	13842936.70	3129366.36	13841461.93	3129032.97	7+42.89	12.22'	FND MG NL W/SHR
6069	13843177.26	3129533.58	13841702.47	3129200.17	10+35.57	25.20'	FND CC MONU 0.35X0.35
5443	13843201.16	3129495.27	13841726.36	3129161.87	10+35.33	-19.96'	FND 1/2 IR
5424	13843177.01	3129530.99	13841702.22	3129197.58	10+33.98	23.14'	FND 2 IP
5458	13843169.48	3129498.87	13841694.69	3129165.47	10+10.46	0.00'	FND MAG NL/WSHR
30449	13843391.45	3129670.76	13841916.63	3129337.34	12+89.92	26.85'	FND 5/8 CIR BENT
7690	13843394.67	3129660.46	13841919.85	3129327.04	12+87.14	16.42'	FND CUT X
30450	13843414.97	3129624.80	13841940.15	3129291.38	12+85.27	-24.57'	FND 1/2 IR LAY DWN
8213	13843385.71	3129666.97	13841910.90	3129333.55	12+83.04	26.71'	FND CUT X
7519	13843377.00	3129632.32	13841902.19	3129298.90	12+57.18	2.06'	FND MAG NL
7446	13843345.75	3129637.19	13841870.94	3129303.77	12+33.35	22.86'	FND 5/8 IR
7883	13843319.47	3129571.35	13841844.66	3129237.94	11+75.98	-18.78'	FND 1/2 CIR
6122	13843262.26	3129582.30	13841787.46	3129248.89	11+33.45	21.02'	FND 1/2 CIR O/S 2.0 W
6123	13843261.16	3129582.13	13841786.36	3129248.72	11+32.43	21.46'	FND 1/2 CIR O/S 1.85 SWW
30451	13843560.28	3129770.55	13842085.45	3129437.12	14+85.95	21.10'	FND 5/8 CIR GRULLER

No.	Date	Revisions	App.

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TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "B" TABLES

SHEET 2 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 27 OF 362	

FOUND BOUNDARY MONUMENTS STATION AND OFFSET (Cont'd)

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
N NAGLE ST							
5501	13843166.81	3129473.03	13841692.02	3129139.63	9+94.41	-20.42'	FND 1/2 CIR
5541	13843134.74	3129452.81	13841659.95	3129119.41	9+56.50	-20.40'	FND 3/4 PTP
4694	13842964.66	3129397.65	13841489.89	3129064.26	7+83.23	23.75'	FND 5/8 IR
12	13842936.70	3129366.36	13841461.93	3129032.97	7+42.89	12.22'	FND MG NL W/SHR
6069	13843177.26	3129533.58	13841702.47	3129200.17	10+35.57	25.20'	FND CC MONU 0.35X0.35
5443	13843201.16	3129495.27	13841726.36	3129161.87	10+35.33	-19.96'	FND 1/2 IR
5424	13843177.01	3129530.99	13841702.22	3129197.58	10+33.98	23.14'	FND 2 IP
5458	13843169.48	3129498.87	13841694.69	3129165.47	10+10.46	0.00'	FND MAG NL/WSHR
30449	13843391.45	3129670.76	13841916.63	3129337.34	12+89.92	26.85'	FND 5/8 CIR BENT
7690	13843394.67	3129660.46	13841919.85	3129327.04	12+87.14	16.42'	FND CUT X
30450	13843414.97	3129624.80	13841940.15	3129291.38	12+85.27	-24.57'	FND 1/2 IR LAY DWN
8213	13843385.71	3129666.97	13841910.90	3129333.55	12+83.04	26.71'	FND CUT X
7519	13843377.00	3129632.32	13841902.19	3129298.90	12+57.18	2.06'	FND MAG NL
7446	13843345.75	3129637.19	13841870.94	3129303.77	12+33.35	22.86'	FND 5/8 IR
7883	13843319.47	3129571.35	13841844.66	3129237.94	11+75.98	-18.78'	FND 1/2 CIR
6122	13843262.26	3129582.30	13841787.46	3129248.89	11+33.45	21.02'	FND 1/2 CIR O/S 2.0 W
6123	13843261.16	3129582.13	13841786.36	3129248.72	11+32.43	21.46'	FND 1/2 CIR O/S 1.85 SWW
30451	13843560.28	3129770.55	13842085.45	3129437.12	14+85.95	21.10'	FND 5/8 CIR GRULLER
N ST CHARLES ST							
100	13843212.59	3128791.65	13841737.79	3128458.32	6+87.73	-0.01'	FND 5/8 IR
11652	13843085.41	3128709.57	13841610.63	3128376.25	5+36.36	-0.10'	FND MG NL W/SHR
11666	13843085.83	3128688.07	13841611.05	3128354.75	5+25.07	-18.40'	FND CUT X
30401	13843091.89	3128737.66	13841617.11	3128404.34	5+57.03	20.00'	FND 5/8 CIR SOUTH TEXAS SURV
8872	13843724.77	3129095.58	13842249.92	3128762.22	12+82.89	-22.03'	FND TBM CUT SQ
9121	13843558.40	3128984.90	13842083.57	3128651.55	10+83.09	-24.92'	FND 5/8 CIR
9197	13843685.17	3129066.21	13842210.32	3128732.85	12+33.69	-25.26'	FND 5/8 CIR MOMENTUM
RUNNELS ST							
30442	13843831.18	3126969.31	13842356.32	3126636.18	1+47.99	79.82'	FND 3/4 IR BENT
30443	13843823.33	3126982.04	13842348.47	3126648.90	1+62.94	79.30'	FND MAGNL W//SHNR LTRA
30382	13843440.94	3127735.31	13841966.12	3127402.09	10+01.86	-19.89'	FND 1/2 IR O/S 20.48 SW
16162	13843101.33	3128120.37	13841626.55	3127787.11	15+10.60	49.39'	FND TBM CUT SQ
16070	13843058.73	3128152.06	13841583.95	3127818.80	15+60.58	67.28'	FND CUT V
16069	13843058.62	3128152.16	13841583.84	3127818.90	15+60.73	67.32'	FND CUT V
399	13843145.23	3128212.15	13841670.44	3127878.88	15+62.66	-38.02'	FND CUT X
30444	13843746.99	3127105.37	13842272.14	3126772.22	3+07.90	74.49'	FND MAGNL W//SHNR LTRA
19707	13843728.70	3127266.42	13842253.85	3126933.25	4+52.09	0.46'	FND MG NL
19778	13843713.46	3127288.66	13842238.61	3126955.49	4+79.05	0.82'	FND TBM CUT SQ
19583	13843662.97	3127324.90	13842188.13	3126991.73	5+37.20	22.76'	FND TBM CUT SQ
19611	13843673.66	3127347.44	13842198.81	3127014.27	5+50.04	1.37'	FND MAG NL W/SHR
19508	13843648.77	3127331.84	13842173.93	3126998.67	5+50.84	30.73'	FND CUT X
411	13843700.76	3127371.48	13842225.91	3127038.30	5+55.03	-34.51'	FND CHISELED X
30251	13843642.27	3127344.18	13842167.43	3127011.01	5+64.72	29.30'	FND CUT X
410	13843670.69	3127417.29	13842195.84	3127084.11	6+09.82	-34.87'	FND 5/8 CIR EHRA
409	13843604.83	3127389.23	13842129.99	3127056.05	6+22.97	35.50'	FND 5/8 CIR
19434	13843597.56	3127401.84	13842122.72	3127068.66	6+37.49	34.56'	FND CUT X
19355	13843566.94	3127468.51	13842092.11	3127135.32	7+09.96	23.10'	FND TBM CUT SQ
16892	13843509.13	3127657.47	13842034.30	3127324.26	8+99.28	-33.50'	FND MAG NL
417	13843505.23	3127660.97	13842030.40	3127327.76	9+04.36	-32.20'	FND CUT X
30383	13843482.31	3127700.25	13842007.48	3127367.04	9+49.75	-34.89'	FND 1/2 IR
16253	13843461.22	3127731.99	13841986.40	3127398.77	9+87.86	-34.93'	FND 5/8 IR
SALTUS ST							
1132	13842451.59	3128682.84	13840976.87	3128349.52	6+98.66	-3.14'	FND PK NL
1194	13842445.25	3128691.33	13840970.54	3128358.01	7+09.23	-2.33'	FND MAG NL W/SHR
1099	13842413.72	3128690.01	13840939.01	3128356.69	7+25.00	25.00'	FND 1/2 IR
1071	13842386.10	3128731.87	13840911.39	3128398.55	7+75.14	25.91'	FND 1/2 IR
873	13842256.56	3128900.38	13840781.87	3128567.04	9+86.82	45.06'	FND 5/8 CIR TERRA
VELASCO ST							
2826	13842920.58	3131053.85	13841445.81	3130720.28	12+58.27	-0.07'	FND MAG NL
2827	13842921.12	3131053.19	13841446.35	3130719.62	12+58.36	-0.92'	FND MAG NL
2738	13842472.77	3130750.48	13840998.05	3130416.94	7+17.50	-11.56'	FND TBN CUT SQ
3179	13842467.01	3130743.82	13840992.29	3130410.28	7+09.04	-14.03'	FND 5/8 CIR
2701	13842442.97	3130727.97	13840968.26	3130394.44	6+80.25	-14.28'	FND 2" IP IN CC
2084	13841997.08	3130439.18	13840522.41	3130105.68	1+49.01	-14.57'	FND 1 IP O/ 0.43 E
3058	13842913.43	3131031.44	13841438.67	3130697.87	12+40.09	-15.00'	FND 3/8 CIR 1445
2085	13841997.06	3130438.55	13840522.39	3130105.05	1+48.65	-15.09'	FND 1 IP O/ 0.45 S
3182	13843207.88	3131220.55	13841733.08	3130886.96	15+90.04	-16.15'	FND 5/8 CIR LANDPOINT
3219	13843150.19	3131182.93	13841675.40	3130849.35	15+21.17	-16.40'	FND CUT X
2633	13842294.68	3130628.84	13840819.98	3130295.32	5+01.90	-16.97'	FND 1 PTP IN 4 STL PIPE

DESIGN CENTERLINE ALIGNMENT DATA

Alignment: ANN ST

Tangent Data

PT NO	Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	Description
N.A.	Start:	1+00.000	13843831.25	3127861.92	13842356.39	3127528.69	N.A.
35	Intersection Pt: with Lottman St	1+20.30	13843820.00	3127878.82	13842345.14	3127545.59	
36	Intersection Pt: with S Jensen Dr	7+21.66	13843486.91	3128379.50	13842012.09	3128046.22	
37	Intersection Pt: with N St Charles St	12+16.77	13843212.67	3128791.72	13841737.88	3128458.39	FND 5/8 IR MONU
N.A.	End:	12+36.767	13843201.59	3128808.37	13841726.80	3128475.04	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	1136.77	Course:	S 56° 21' 54" E

Alignment: BAYOU PARKVIEW DR

Tangent Data

PT NO	Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	Description
N.A.	Start:	1+00.000	13843926.42	3128614.76	13842451.55	3128281.45	N.A.
38	Intersection Pt: with S Jensen Dr	1+40.83	13843904.13	3128648.97	13842429.26	3128315.66	
	End:	3+75.213	13843776.14	3128845.32	13842301.28	3128511.99	

Tangent Data

Parameter	Value	Parameter	Value
Length:	275.21	Course:	S 56° 54' 08" E

Curve Point Data

PT NO	Description	Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	Description
39	PC:	3+75.213	13843776.14	3128845.32	13842301.28	3128511.99	
	RP:		13844050.47	3129028.75	13842575.58	3128695.39	
40	Intersection Pt: with McAlpine St.	3+91.77	13843767.28	3128859.31	13842292.43	3128525.97	
	PT:	5+39.424	13843721.85	3128998.51	13842247.00	3128665.16	

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	28° 30' 39.1718"	Type:	LEFT
Radius:	330.00		
Length:	164.21	Tangent:	83.84
Mid-Ord:	10.16	External:	10.48
Chord:	162.52	Course:	S 70° 29' 14.6" E

Tangent Data

PT NO	Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	Description
41	Start: PT	5+39.424	13843721.85	3128998.51	13842247.00	3128665.16	
42	End: PC	5+89.878	13843717.23	3129048.75	13842242.38	3128715.39	

Tangent Data

Parameter	Value	Parameter	Value
Length:	50.45	Course:	S 84° 44' 40.0300" E

Curve Point Data

PT NO	Description	Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	Description
42	PC:	5+89.878	13843717.23	3129048.75	13842242.38	3128715.39	
	RP:		13843418.49	3129021.27	13841943.67	3128687.92	
43	Intersection Pt: with N St Charles St	6+51.64	13843705.31	3129109.24	13842230.46	3128775.88	
44	PT:	7+36.357	13843669.43	3129185.68	13842194.59	3128852.31	

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 58' 31.0300"	Type:	RIGHT
Radius:	300.00		
Length:	146.48	Tangent:	74.73
Mid-Ord:	8.90	External:	9.17
Chord:	145.03	Course:	S 70° 45' 24.5" E

Tangent Data

PT NO	Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	Description
44	Start:	7+36.357	13843669.43	3129185.68	13842194.59	3128852.31	
45	End: Angle Point	8+84.683	13843588.15	3129309.75	13842113.31	3128976.36	

Tangent Data

Parameter	Value	Parameter	Value
Length:	148.33	Course:	S 56° 46' 09.0000" E

Tangent Data

PT NO	Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	Description
45	Start:	8+84.683	13843588.15	3129309.75	13842113.31	3128976.36	
46	Intersection Pt: with N Live Oak St	9+77.67	13843537.19	3129387.52	13842062.36	3129054.13	
47	End: Angle PT	11+91.258	13843420.14	3129566.19	13841945.32	3129232.78	

Tangent Data

Parameter	Value	Parameter	Value
Length:	306.58	Course:	S 56° 46' 09.5" E

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
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JAG ENGINEERING, INC.
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FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "B" TABLES

SHEET 3 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 28 OF 362	

Alignment: BAYOU PARKVIEW DR (Cont'd)

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
47	Start: Angle PT	11+91.258	13843420.14	3129566.19	13841945.32	3129232.78	
48	Intersection Pt: with N Nagle St	12+68.15	13843379.09	3129631.21	13841904.28	3129297.79	
49	Intersection Pt: with Middle St	16+61.01	13843169.37	3129963.40	13841694.58	3129629.95	
N.A.	End:	18+81.208	13843051.82	3130149.60	13841577.04	3129816.12	N.A.
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	689.95	Course:	S 57° 44' 04" E			

Alignment: BERING ST

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13842970.48	3129341.82	13841495.71	3129008.44	N.A.
51	Intersection Pt: with Nagle St	1+26.56	13842746.58	3129696.48	13841271.83	3129363.05	
52	Intersection Pt: with Middle St	5+19.42	13842922.48	3128967.53	13841447.72	3128634.19	
N.A.	End:	5+37.629	13842736.86	3129711.87	13841262.11	3129378.45	N.A.
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	437.63	Course:	S 57° 44' 04" E			

Alignment: CARY ST

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	2+00.000	13842862.6	3129746.08	13841387.84	3129412.65	N.A.
71	Intersection Pt: with Middle St	2+20.00	13842851.66	3129762.82	13841376.91	3129429.39	
72	POT	4+85.27	13842706.60	3129984.91	13841231.86	3129651.46	
N.A.	End:	5+39.999	13842676.67	3130030.73	13841201.93	3129697.27	N.A.
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	340.00	Course:	S 56° 50' 54.8" E			

Alignment: ENGELKE ST

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13843096.19	3128692.51	13841621.40	3128359.19	N.A.
11652	Intersection Pt: with N. St Charles St	1+20.18	13843085.36	3128709.65	13841610.58	3128376.33	FND MAG NL W/SHNR
52	Intersection Pt: with Live Oak St (N-1)	4+25.29	13842922.48	3128967.53	13841447.72	3128634.19	
53	Intersection Pt: with Live Oak St (N-2)	4+45.37	13842911.76	3128984.51	13841436.99	3128651.17	
54	POT	5+50.00	13842855.89	3129072.98	13841381.13	3128739.62	
N.A.	End:	12+21.815	13842497.14	3129640.99	13841022.42	3129307.57	N.A.
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	1121.82	Course:	S 57° 43' 26" E			

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start: Angle PT	12+21.815	13842497.14	3129640.99	13841022.42	3129307.57	N.A.
N.A.	End: Angle PT	14+30.630	13842379.46	3129813.49	13840904.76	3129480.05	N.A.
	Tangent Data						
PT NO	Parameter	Value	Parameter	Value			
	Length:	208.81	Course:	S 55° 41' 59.9" E			

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	14+30.630	13842379.46	3129813.49	13840904.76	3129480.05	N.A.
55	POT	15+00.00	13842341.61	3129871.62	13840866.90	3129538.17	
56	Intersection Pt: with N Ennis St	16+41.31	13842264.49	3129990.03	13840789.80	3129656.58	
N.A.	End:	23+62.873	13841870.73	3130594.68	13840396.08	3130261.16	N.A.
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	932.24	Course:	S 56° 55' 37" E			

Alignment: FOX ST

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13843180.14	3129481.78	13841705.35	3129148.38	N.A.
5458	Intersection PT: with N Nagle St	1+20.14	13843169.39	3129498.81	13841694.60	3129165.41	FND MAG NL W/SHNR
62	Intersection PT: with Middle St	5+13.00	13842959.66	3129831.00	13841484.89	3129497.57	
N.A.	End:	5+36.752	13842946.98	3129851.09	13841472.21	3129517.65	N.A.
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	436.75	Course:	S 57° 44' 04" E			

Alignment: JENSEN DR

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	5+00.000	13842899.51	3127554.72	13841424.75	3127221.53	N.A.
N.A.	End:	8+34.533	13843100.18	3127822.39	13841625.40	3127489.16	N.A.
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	334.53	Course:	N 53° 08' 28" E			

	Curve Point Data		SURFACE		GRID		
PT NO	Description	Station	Northing	Easting	Northing	Easting	Description
N.A.	PC:	8+34.533	13843100.18	3127822.39	13841625.40	3127489.16	N.A.
	RP:		13842860.15	3128002.34	13841385.39	3127669.10	
63	PT:	9+53.179	13843150.98	3127928.75	13841676.19	3127595.52	
	Circular Curve Data						
	Parameter	Value	Parameter	Value			
	Delta:	22° 39' 34.9907"	Type:	RIGHT			
	Radius:	300.00					
	Length:	118.65	Tangent:	60.11			
	Mid-Ord:	5.85	External:	5.96			
	Chord:	117.87	Course:	N 64° 28' 15" E			

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
63	Start:	9+53.179	13843150.98	3127928.75	13841676.19	3127595.52	
64	End:	10+78.193	13843181.65	3128049.95	13841706.85	3127716.70	
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	125.01	Course:	N 75° 48' 03" E			

	Curve Point Data		SURFACE		GRID		
PT NO	Description	Station	Northing	Easting	Northing	Easting	Description
64	PC:	10+78.193	13843181.65	3128049.95	13841706.85	3127716.70	
	RP:		13843583.97	3127948.15	13842109.13	3127614.91	
65	Intersection PT: with Runnels St	11+06.43	13843189.50	3128077.07	13841714.70	3127743.81	
66	PT:	13+89.234	13843358.81	3128296.76	13841884.00	3127963.48	
	Circular Curve Data						
	Parameter	Value	Parameter	Value			
	Delta:	42° 56' 34.9907"	Type:	LEFT			
	Radius:	415.00					
	Length:	311.04	Tangent:	163.24			
	Mid-Ord:	28.80	External:	30.95			
	Chord:	303.81	Course:	N 54° 19' 45" E			

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	13+89.234	13843358.81	3128296.76	13841884.00	3127963.48	N.A.
36	Intersection PT: with Ann St	15+41.74	13843486.91	3128379.50	13842012.09	3128046.22	
38	Intersection PT: w/ Bayou Parkview Dr	20+38.41	13843904.13	3128648.97	13842429.26	3128315.66	
67	End:	20+68.703	13843929.57	3128665.41	13842454.70	3128332.09	
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	679.47	Course:	N 32° 51' 28" E			

	Curve Point Data		SURFACE		GRID		
PT NO	Description	Station	Northing	Easting	Northing	Easting	Description
67	PC:	20+68.703	13843929.57	3128665.41	13842454.70	3128332.09	
	RP:		13844678.00	3127482.25	13843203.05	3127149.06	
N.A.	PT:	21+89.514	13844034.33	3128725.51	13842559.45	3128392.19	N.A.
	Circular Curve Data						
	Parameter	Value	Parameter	Value			
	Delta:	04° 56' 39.3673"	Type:	LEFT			
	Radius:	1400.00					
	Length:	120.81	Tangent:	60.44			
	Mid-Ord:	1.30	External:	1.30			
	Chord:	120.77	Course:	N 29° 50' 38.6" E			

Alignment: LOTTMAN ST

	Tangent Data		SURFACE		GRID		
PT NO	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13843444.92	3127630.14	13841970.10	3127296.94	N.A.
68	Intersection PT: with Runnels St	1+35.09	13843474.16	3127649.53	13841999.34	3127316.33	
35	Intersection PT: with Ann St	5+50.03	13843820.00	3127878.82	13842345.14	3127545.59	
N.A.	End:	5+72.374	13843838.63	3127891.16	13842363.76	3127557.93	N.A.
	Tangent Data						
	Parameter	Value	Parameter	Value			
	Length:	472.37	Course:	N 33° 32' 36" E			

No.	Date	Revisions	App.

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FOR INTERIM REVIEW ONLY

NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "B" TABLES

SHEET 4 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 29 OF 362	

Alignment: MCALPINE ST

Tangent Data

PT NO	Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	Description
N.A.	Start:	5+00.000	13843596.56	3128749.35	13842121.72	3128416.03	N.A.
69	Intersection PT: with Ann St	5+50.00	13843638.60	3128776.43	13842163.76	3128443.10	
40	Intersection PT: with Ann St	7+03.07	13843767.28	3128859.31	13842292.43	3128525.97	
N.A.	End:	7+28.078	13843788.31	3128872.85	13842313.45	3128539.52	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	228.08	Course:	N 32° 47' 03" E

Alignment: MIDDLE ST

Tangent Data

PT NO	Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	Description
N.A.	Start:	1+00.000	13842527.67	3129558.27	13841052.95	3129224.86	N.A.
70	POT	2+50.00	13842654.51	3129638.35	13841179.77	3129304.93	
51	Intersection PT: with Bering St	3+58.88	13842746.58	3129696.48	13841271.83	3129363.05	
71	Intersection PT: with Cary St	4+83.16	13842851.66	3129762.82	13841376.91	3129429.39	
62	Intersection PT: with Fox St	5+13.00	13842959.66	3129831.00	13841484.89	3129497.57	
49	Intersection PT: with Kennedy Dr	16+61.01	13843169.37	3129963.40	13841694.58	3129629.95	
N.A.	End:	11+64.195	13843427.54	3130126.39	13841952.72	3129792.92	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	1064.20	Course:	N 32° 15' 56" E

Alignment: N LIVE OAK (N-1)

Tangent Data

Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	
Start:	0+00.000	13842745.01	3128854.85	13841270.27	3128521.51	N.A.
POT	1+00.00	13842829.43	3128908.45	13841354.68	3128575.11	
Intersection PT: with Engelke St	2+10.22	13842922.48	3128967.53	13841447.72	3128634.19	
End:	2+30.220	13842939.37	3128978.25	13841464.60	3128644.90	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	230.22	Course:	N 32° 24' 47" E

Alignment: N LIVE OAK (N-2)

Tangent Data

Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	
Start:	1+64.710	13842873.5	3128959.86	13841398.74	3128626.52	N.A.
Intersection PT: with Engelke St	2+10.22	13842911.76	3128984.51	13841436.99	3128651.17	
Intersection PT: Bayou Parkview Dr.	9+54.25	13843537.19	3129387.52	13842062.36	3129054.13	
End:	12+25.465	13843765.17	3129534.43	13842290.32	3129201.02	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	1060.76	Course:	N 32° 47' 47" E

Alignment: N LIVE OAK ST (S)

Tangent Data

Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	
Start:	1+00.000	13842258.21	3128561.79	13840783.51	3128228.49	N.A.
POT	2+00.00	13842342.66	3128615.34	13840867.95	3128282.03	
Intersection PT: with Saltus St	3+25.00	13842448.22	3128682.29	13840973.51	3128348.97	
End:	3+50.000	13842469.33	3128695.67	13840994.62	3128362.36	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	250.00	Course:	N 32° 22' 49" E

Alignment: N NAGLE ST

Tangent Data

Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	
Start:	5+00.000	13842737.84	3129226.36	13841263.10	3128892.99	N.A.
Intersection PT: with Bering St	7+58.35	13842956.30	3129364.28	13841481.53	3129030.89	
Intersection PT: with Fox St	10+10.35	13843169.39	3129498.81	13841694.60	3129165.41	FND MAG NL W/SHNR
Intersection PT: w/Bayou Parkview Dr	12+58.35	13843379.09	3129631.21	13841904.28	3129297.79	
End:	15+63.665	13843637.26	3129794.20	13842162.42	3129460.76	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	1063.67	Course:	N 32° 15' 56" E

Alignment: N ST CHARLES ST

Tangent Data

Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	
Start:	5+00.000	13843054.79	3128689.96	13841580.01	3128356.64	N.A.
Intersection PT: with Engelke St	5+36.36	13843085.36	3128709.65	13841610.57	3128376.33	FND MAG NL W/SHNR
Intersection PT: with Ann St	6+87.83	13843212.67	3128791.72	13841737.88	3128458.39	FND 5/8 IR
Intersection PT: w/Bayou Parkview Dr	12+73.93	13843705.31	3129109.24	13842230.46	3128775.88	
End:	13+00.267	13843727.44	3129123.51	13842252.59	3128790.14	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	800.27	Course:	N 32° 48' 13" E

Alignment: NORTH ENNIS ST (N)

Tangent Data

Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	
Start:	2+94.150	13842238.72	3129973.76	13840764.03	3129640.30	N.A.
Intersection PT: with Engelke St	3+24.63	13842264.49	3129990.03	13840789.80	3129656.58	
End:	5+73.886	13842475.24	3130123.14	13841000.52	3129789.67	

Tangent Data

Parameter	Value	Parameter	Value
Length:	279.74	Course:	N 32° 16' 34" E

Alignment: NORTH ENNIS ST (S)

Tangent Data

Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	
Start:	2+00.000	13842134.88	3129960.60	13840660.20	3129627.15	N.A.
Intersection PT: with Engelke St	3+24.68	13842239.35	3130028.64	13840764.66	3129695.18	
End:	3+44.476	13842255.95	3130039.44	13840781.25	3129705.98	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	144.48	Course:	N 33° 04' 23" E

Alignment: RUNNELS ST

Tangent Data

Description	PT Station	SURFACE Northing	SURFACE Easting	GRID Northing	GRID Easting	
Start:	1+00.000	13843924.22	3126973.60	13842449.35	3126640.47	N.A.
POT	4+25.00	13843744.10	3127244.12	13842269.24	3126910.96	
Intersection PT: with Lottman St	9+12.05	13843474.16	3127649.53	13841999.34	3127316.33	
Intersection PT: with Jensen Dr	14+25.69	13843189.50	3128077.07	13841714.70	3127743.81	
POT	16+50.00	13843065.18	3128263.78	13841590.40	3127930.51	
End:	18+53.510	13842952.39	3128433.17	13841477.62	3128099.88	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	1753.51	Course:	S 56° 20' 35" E

Alignment: SALTUS ST

Tangent Data

Description	PT Station	Northing	Easting			
Start:	5+00.000	13842555.33	3128513.38	13841080.60	3128180.08	N.A.
POT	5+75.00	13842515.16	3128576.72	13841040.44	3128243.42	
Intersection PT: with N Live Oak St	7+00.00	13842448.22	3128682.29	13840973.51	3128348.97	
POT	9+50.00	13842314.34	3128893.41	13840839.64	3128560.07	
End:	9+87.100	13842294.47	3128924.75	13840819.77	3128591.40	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	487.10	Course:	S 57° 37' 11" E

Alignment: VELASCO ST

Tangent Data

Description	PT Station	Northing	Easting			
Start:	1+00.000	13841948.02	3130424.80	13840473.35	3130091.30	N.A.
Intersection PT: with Engelke St	1+27.95	13842446.83	3130747.48	13840972.12	3130413.94	
POT	6+94.09	13843152.13	3131203.72	13841677.34	3130870.13	
POT	15+34.09	13843291.44	3131293.83	13841816.63	3130960.24	
End:	19+12.970	13843470.26	3131409.51	13841995.43	3131075.90	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	1812.97	Course:	N 32° 53' 52.9" E

No.	Date	Revisions	App.

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TX FIRM 10017100

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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "B" TABLES

SHEET 5 OF 5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 30 OF 362	

N

0 100' 200'

SCALE: 1" = 100'

KEY MAP NO. 455-P,Q

LEGEND

- SURVEY BASELINE CONTROL POINT/TBM
- 112 ○ DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
- 500 ○ FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

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DATE: 05/05/26

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "C"

SHEET 1 OF 2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 31 OF 362	

FILE NAME: X:\PROJ-2025\25037\DGN\SCM\AREA C\SCM-25037-AREA C-TOPO SURVEY.DWG
PLOT STYLE: COH_JAG_07_2016.ctb



N

0 100' 200'

SCALE: 1" = 100'

KEY MAP NO. 455-P,Q

LEGEND

1	SURVEY BASELINE CONTROL POINT/TBM
112	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
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O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

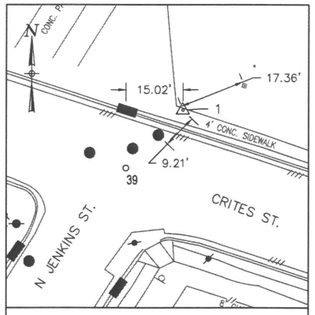
WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "C"

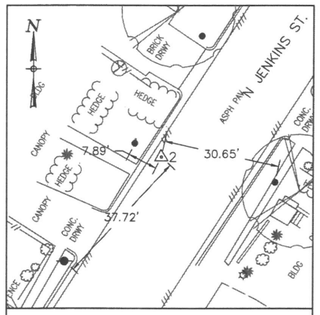
SHEET 2 OF 2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
1"=100'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 32 OF 362	

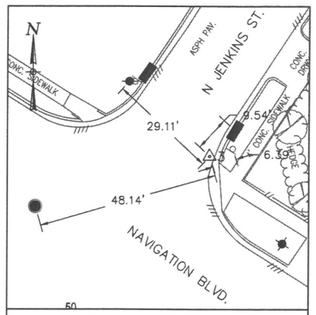
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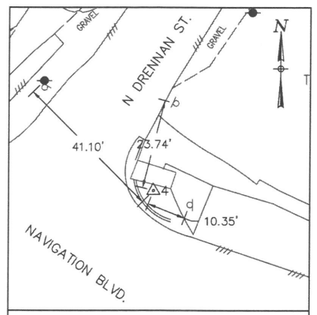
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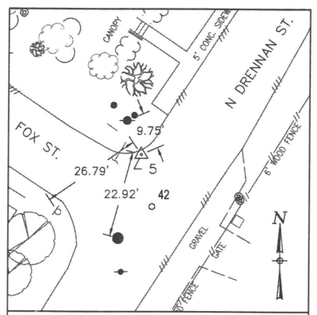
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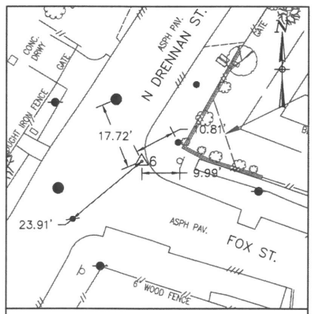
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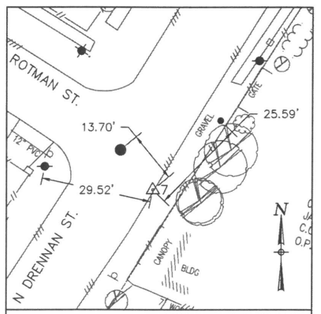
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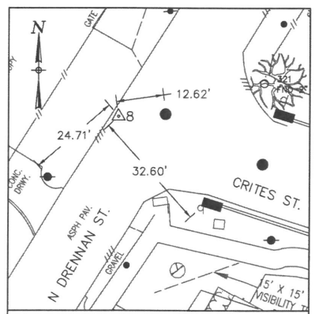
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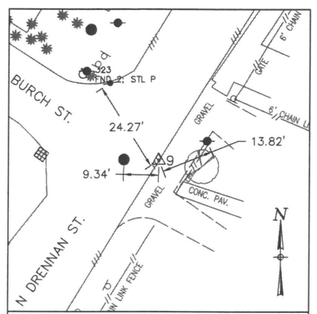
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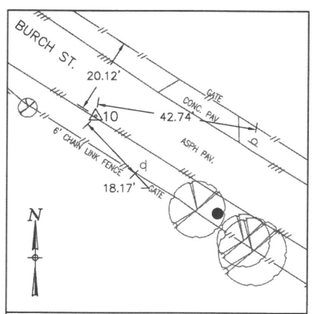
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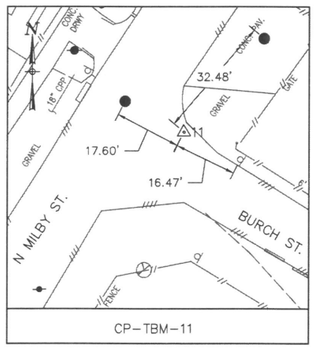
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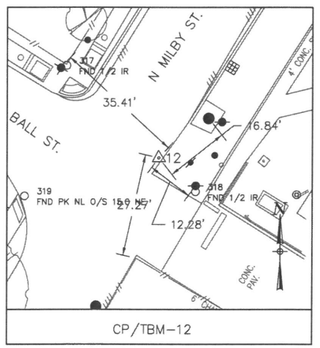
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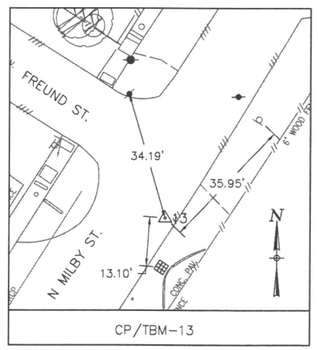
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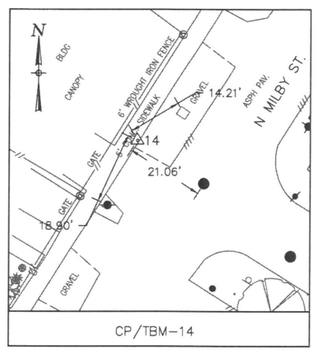
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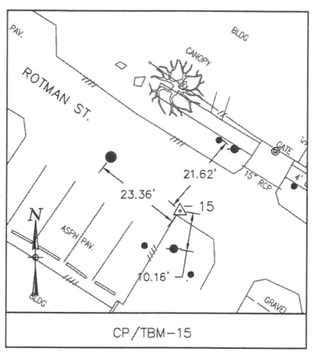
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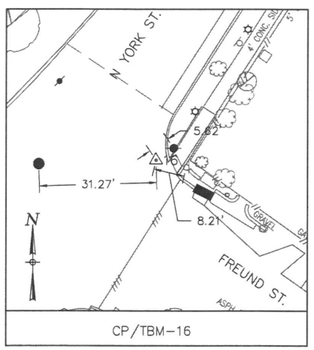
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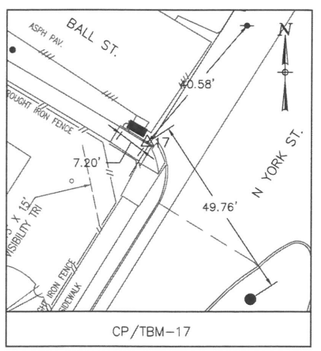
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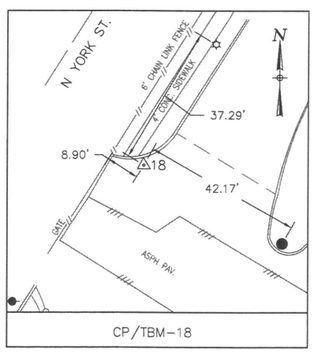
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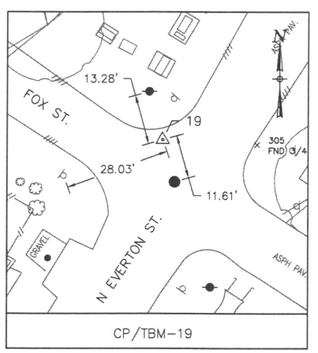
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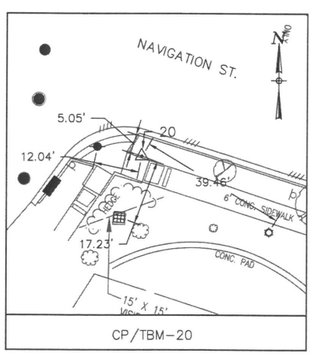
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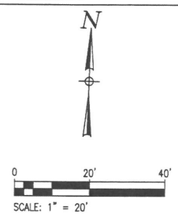
CP/TBM-18



CP/TBM-19



CP/TBM-20



KEY MAP NO. 455-P,Q

LEGEND

1 △	SURVEY BASELINE CONTROL POINT/TBM
112 o	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 ○	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
9100 SOUTHWEST FWY.,SUITE 130, HOUSTON TX 77074
(713) 977-7550 FAX (713) 977-7317

JAG ENGINEERING, INC.
9100 SW FRWY., SUITE 130
HOUSTON, TX 77074
(713) 977-7550
TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

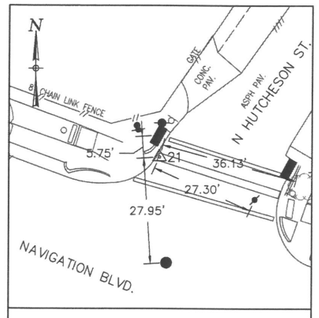
WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "C" SWING TIES

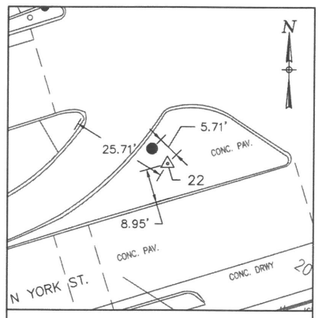
SHEET 1 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 33 OF 362	

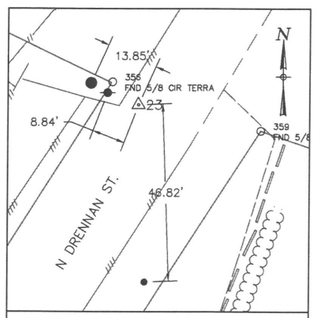
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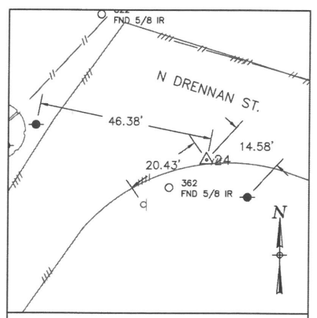
CP/TBM-21



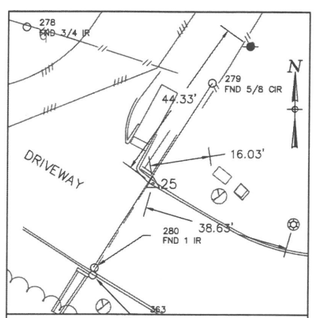
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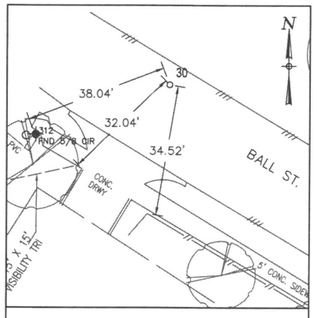
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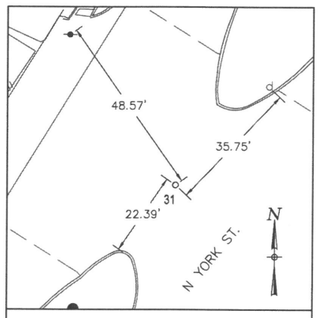
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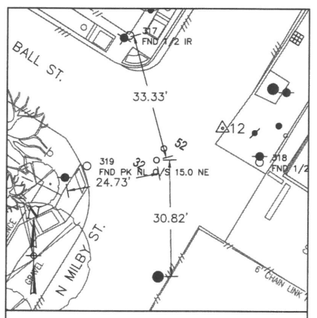
CP/TBM-25



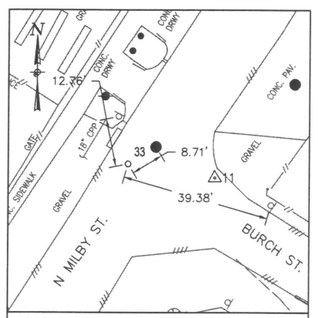
CL PT-30



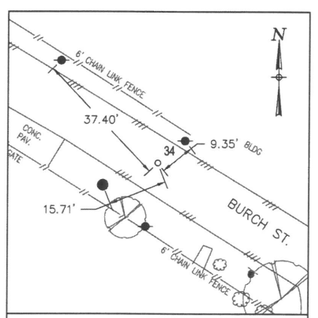
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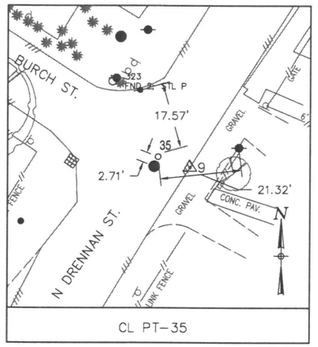
CL PT-32



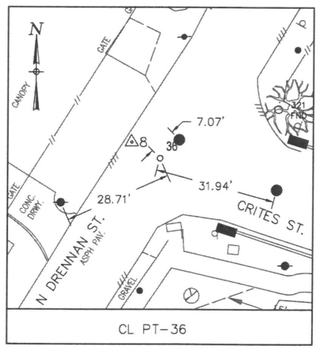
CL PT-33



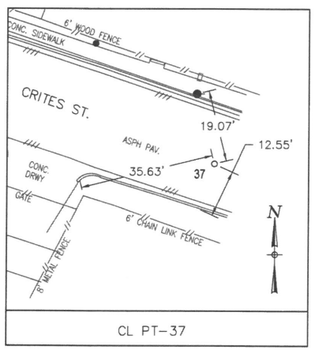
CL PT-34



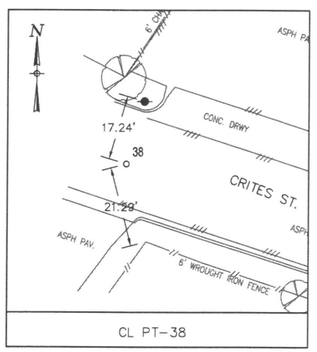
CL PT-35



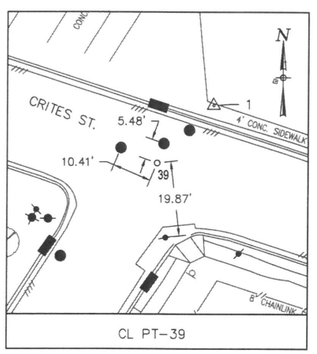
CL PT-36



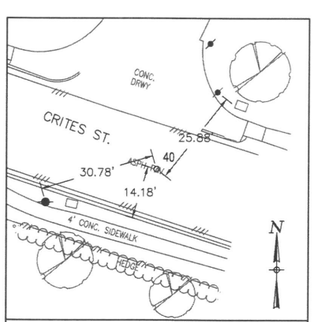
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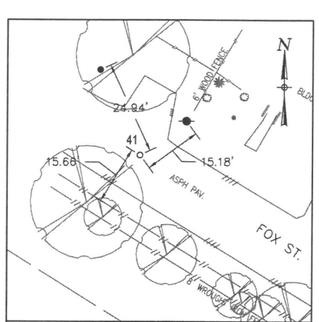
CL PT-38



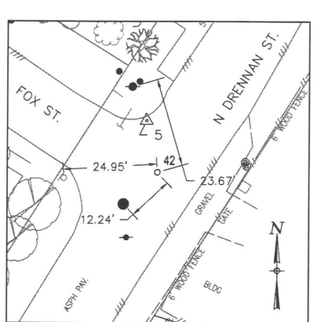
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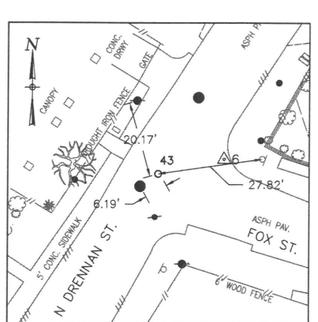
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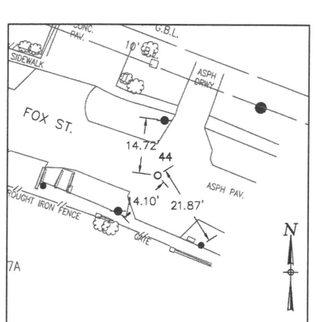
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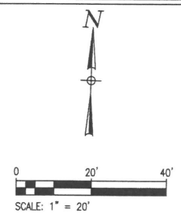
CL PT-42



CL PT-43



CL PT-44



KEY MAP NO. 455-P,Q

LEGEND

1 △	SURVEY BASELINE CONTROL POINT/TBM
112 o	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 ○	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
9100 SOUTHWEST FWY.,SUITE 130, HOUSTON TX 77074
(713) 977-7550 FAX (713) 977-7317

JAG ENGINEERING, INC.
9100 SW FRWY., SUITE 130
HOUSTON, TX 77074
(713) 977-7550
TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

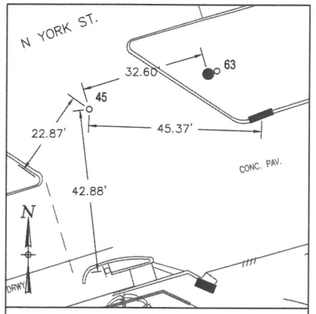
WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "C" SWING TIES

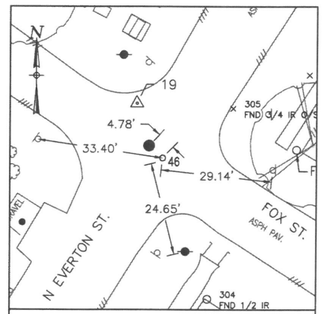
SHEET 2 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 34 OF 362	

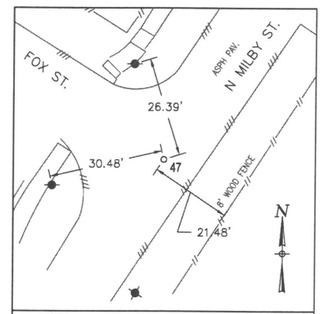
NAME: K:\PROJ-2025\2503\ENGN\SCMAREA (SCU-2503-AREA (-SCU-2503-AREA (-SCU-2503-AREA (-SCU-SURVEY.DWG
STYLE: COH_SAS_ISO_20 ltab



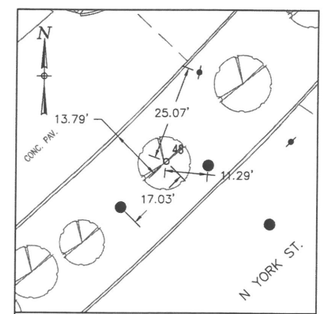
CL PT-45



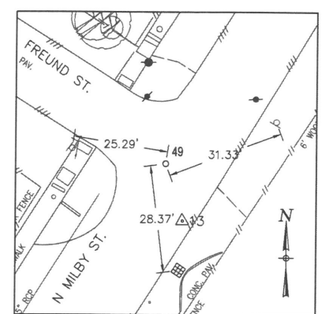
CL PT-46



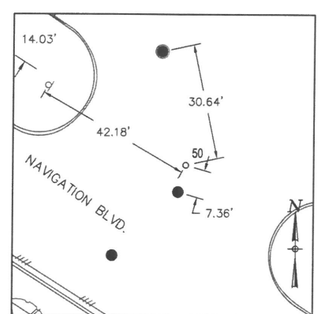
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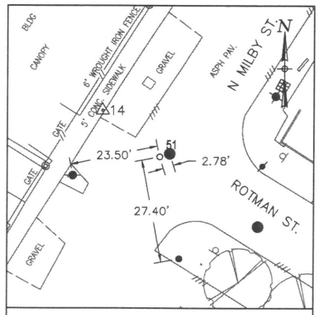
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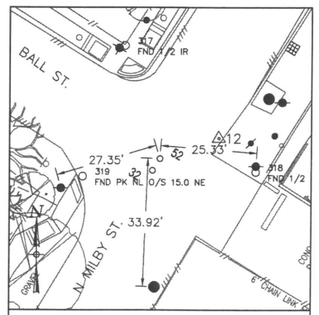
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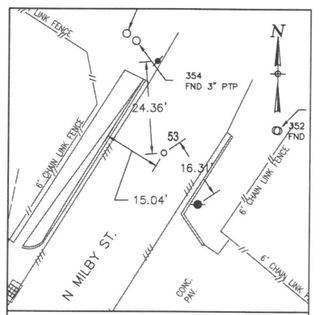
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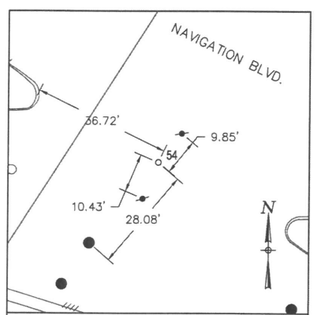
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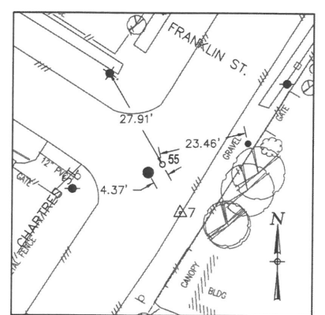
CL PT-52



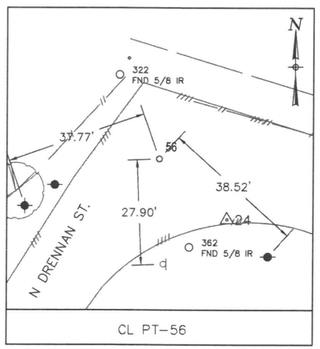
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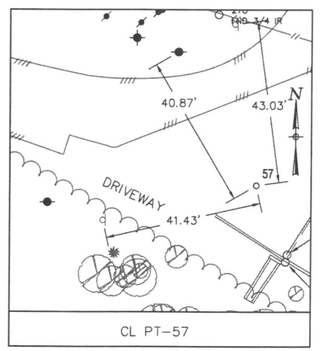
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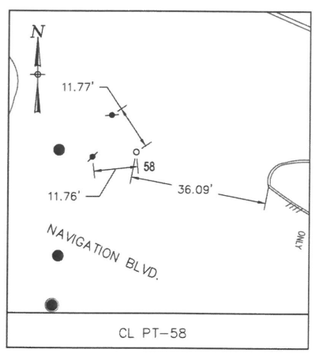
CL PT-55



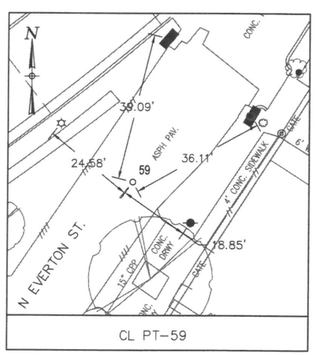
CL PT-56



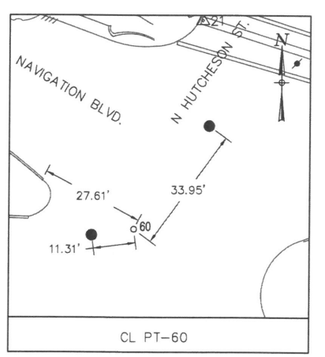
CL PT-57



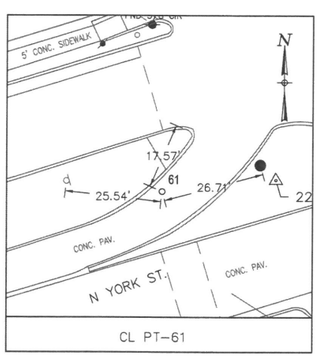
CL PT-58



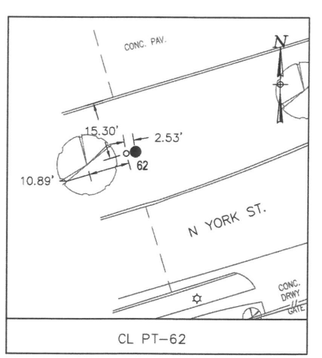
CL PT-59



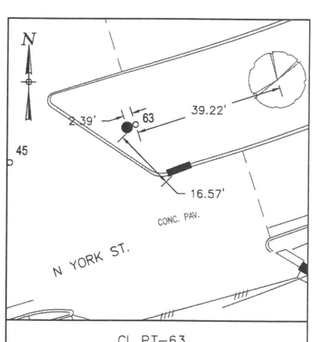
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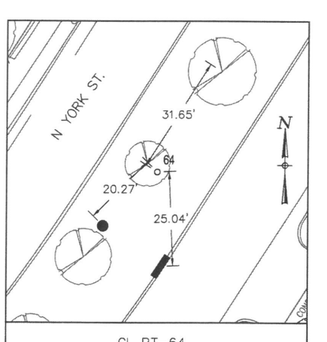
CL PT-61



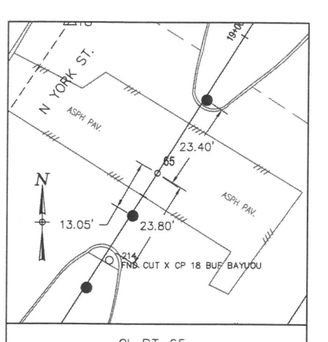
CL PT-62



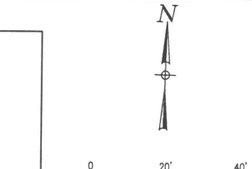
CL PT-63



CL PT-64



CL PT-65



KEY MAP NO. 455-P,Q

LEGEND

1	SURVEY BASELINE CONTROL POINT/TBM
112 o	DESIGN CENTERLINE POINT (SET CUT "X" U.N.O.)
500 O	FOUND BOUNDARY MONUMENT

ABBREVIATION LEGEND

M.R.H.C.	=	MAP RECORDS HARRIS COUNTY
D.R.H.C.	=	DEED RECORDS HARRIS COUNTY
O.P.R.R.P.H.C.	=	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY
C.F. NO.	=	CLERK FILE NUMBER
F.C. NO.	=	FILM CODE NUMBER
FND	=	FOUND
IP	=	IRON PIPE
CIR	=	IRON ROD WITH CAP
IR	=	IRON ROD
B.L.	=	BUILDING LINE
VOL.	=	VOLUME
PG.	=	PAGE
TBM	=	TEMPORARY BENCHMARK

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
9100 SOUTHWEST FWY.,SUITE 130, HOUSTON TX 77074
(713) 977-7550 FAX (713) 977-7317

JAG ENGINEERING, INC.
9100 SW FRWY., SUITE 130
HOUSTON, TX 77074
(713) 977-7550
TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP AREA "C" SWING TIES

SHEET 3 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 35 OF 362	

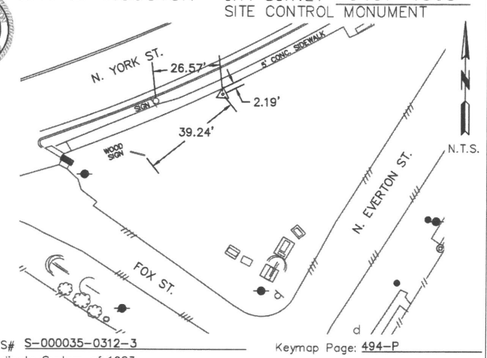
NAME: X:\PROJ-7025\2503Y\CON SCM\AREA C\SCM-2503Y-AREA C-TOPO SURVEY.DWG
STYLE: CDH_JAG_01_ANSI B.ctb

CONTROL POINTS (CP)/TEMPORARY BENCHMARKS (TBM)

CP/TBM	SURVEY	SURFACE COORDS		GRID COORDS				DESIGN CENTERLINE	
PT NO	B.L. STA	NORTHING	EASTING	NORTHING	EASTING	ELEV	DESCRIPTION	STATION	OFFSET
BALL ST									
17	1+00.00	13842483.22	3132626.99	13841008.50	3132293.25	34.16	SET CUT X	4+48.61	21.65
12	4+25.91	13842342.15	3132920.79	13840867.45	3132587.02	35.78	FND MAG NL	7+72.11	-16.49
BURCH ST									
11	2+00.00	13842136.32	3132804.81	13840661.64	3132471.05	41.88	FND MAG NL	1+46.21	-9.16
10	4+82.24	13841970.97	3133033.54	13840496.31	3132699.76	42.03	SETMAG NL W/SHR	4+27.84	9.44
9	8+73.63	13841772.04	3133370.60	13840297.40	3133036.78	39.57	FND MAG NL	8+19.08	-2.15
FOX ST (W)									
22	2+00.00	13842042.74	3132166.41	13840568.07	3131832.72	39.31	SET CUT X	1+78.61	40.93
19	4+17.77	13841970.13	3132371.72	13840495.47	3132038.01	41.76	SET MAG NL W/SHNR	3+90.69	-8.55
FREUND ST									
16	1+00.00	13842214.16	3132565.86	13840739.47	3132232.13	40.43	SET CUT X	5+40.99	-18.83
13	3+36.35	13842062.52	3132747.15	13840587.85	3132413.40	41.92	FND MAG NL W/SHR	7+75.55	10.18
JENKINS ST									
3	1+00.00	13840996.93	3133785.60	13839522.37	3133451.74	37.90	SET MAG NL W/SHR	2+17.83	10.40
2	3+38.22	13841207.99	3133896.07	13839733.41	3133562.20	38.61	SET MAG NL W/SHR	4+55.20	-9.74
1	6+56.86	13841468.88	3134079.02	13839994.27	3133745.13	37.46	SET CUT X	7+73.52	37.73
N MILBY ST									
14	1+00.00	13841958.24	3132644.87	13840483.58	3132311.13	41.78	SET CUT X	2+91.67	-19.24
13	2+46.07	13842062.52	3132747.15	13840587.85	3132413.40	41.92	FND MAG NL W/SHR	4+34.38	11.90
11	3+39.72	13842136.32	3132804.81	13840661.64	3132471.05	41.88	FND MAG NL	5+27.54	21.47
12	5+75.98	13842342.15	3132920.79	13840867.45	3132587.02	35.78	FND MAG NL	7+63.51	10.23
N DRENNAN ST									
4	1+00.00	13841302.27	3133086.84	13839827.68	3132753.05	40.05	SET CUT X	2+72.13	23.12
5	2+28.82	13841424.89	3133126.31	13839950.28	3132792.52	40.58	FND MAG NL W/SHR	3+96.67	-9.82
6	3+13.87	13841481.80	3133189.52	13840007.19	3132855.72	40.36	SET MAG NL W/SHR	4+78.69	12.69
7	4+21.02	13841572.91	3133245.92	13840098.29	3132912.12	40.62	FND MAG NL W/SHR	5+85.83	11.01
8	5+61.26	13841700.38	3133304.38	13840225.74	3132970.57	39.95	FND MAG NL W/PLSH	7+24.69	-8.55
9	6+58.83	13841772.04	3133370.60	13840297.40	3133036.78	39.57	FND MAG NL	8+20.76	8.53
23	11+74.81	13842216.77	3133632.23	13840742.08	3133298.39	36.90	SET MAG NL	13+36.36	-11.18
24	13+58.10	13842349.50	3133758.63	13840874.80	3133424.77	37.70	FND MAG NL W/SH	15+41.99	9.96
25	19+38.01	13842195.55	3134317.73	13840720.86	3133983.81	35.60	SET CUT X	21+21.52	-37.25
N EVERTON ST									
20	1+00.00	13841485.91	3132118.49	13840011.30	3131784.81	39.78	SET CUT X	2+68.04	34.25
19	6+46.44	13841970.13	3132371.72	13840495.47	3132038.01	41.76	SET MAG NL W/SHNR	8+12.40	-13.40
16	9+58.27	13842214.16	3132565.86	13840739.47	3132232.13	40.43	SET CUT X	11+22.35	44.51
N HUTCHESON ST									
21	1+00.00	13841675.35	3131886.30	13840200.72	3131552.64	38.99	SET MAG NL W/SHR	3+68.03	-14.43
22	5+61.99	13842042.74	3132166.41	13840568.07	3131832.72	39.31	SET CUT X	8+28.46	23.53
N YORK ST									
22	1+00.00	13842042.74	3132166.41	13840568.07	3131832.72	39.31	SET CUT X	8+65.23	5.82
16	5+34.68	13842214.16	3132565.86	13840739.47	3132232.13	40.43	SET CUT X	12+86.08	53.04
17	8+10.60	13842483.22	3132626.99	13841008.50	3132293.25	34.16	SET CUT X	15+37.20	-50.48
18	11+51.88	13842766.59	3132817.19	13841291.84	3132483.43	29.33	SET CUT X	18+78.37	-41.43
NAVIGATION BLVD									
21	1+00.00	13841675.35	3131886.30	13840200.72	3131552.64	38.99	SET MAG NL W/SHR	7+80.20	-58.19
20	3+99.67	13841485.91	3132118.49	13840011.30	3131784.81	39.78	SET CUT X	10+59.11	51.40
ROTTMAN ST									
14	2+00.00	13841958.24	3132644.87	13840483.58	3132311.13	41.78	SET CUT X	1+06.44	-2.49
15	5+45.89	13841766.88	3132933.00	13840292.24	3132599.23	41.77	SET MAG NL W/SHR	4+52.16	8.31
7	9+14.05	13841572.91	3133245.92	13840098.29	3132912.12	40.62	FND MAG NL W/SHR	8+20.32	8.26

CITY OF HOUSTON

CITY SURVEY 5457-1508
SITE CONTROL MONUMENT



Project WBS# S-000035-0312-3
Texas Coordinate System of 1983, South Central Zone, U. S. Survey Feet
X= 3,132,018.74
Y= 13,840,586.07

Lat.= 29° 45' 20.74872" N
Lon.= 95° 19' 56.56793" W

Keymap Page: 494-P
Orthometric Elevation = 40.63'
Ellipsoid Height= -48.9569'
Geoid: GEOID '18
Datum Source & Adjustment: CONVENTIONAL (OBSERVED 05-06-2026)

Reference Frame Used: NAD 83 (2011)(EPOCH: 2010)
Vertical Adjustment used: NAVD 88, CORS ADJ.
General Location: AT THE INTERSECTION OF FOX ST. AND N. YORK ST. ON THE EAST SIDE BEHIND SIDEWALK, ALONG N. YORK ST.

Date Set: 06/24/1975 Type of Mark: 4B

3 Nearest project control points (bearings and distances stated below):
1. MONU. NO. 5457-1508 TO CP22 S84° 28' 23"W - 186.89' (GRID)
2. MONU. NO. 5457-1508 TO CP19 S12° 00' 27"E - 92.63' (GRID)
3. MONU. NO. 5457-1508 TO CP16 N54° 17' 19"E - 262.81' (GRID)

NOTE:
1. Bearings are grid bearings.
2. Scale Factor = (S.F.0.9998934643).
3. Surface= Grid / S.F.

Surveyed By: JAG ENGINEERING, INC.
9100 SOUTHWEST FWY, STE 130
HOUSTON, TX 77074

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/06/2026

Revision date if applicable

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
9100 SOUTHWEST FWY.,SUITE 130, HOUSTON TX 77074
(713) 977-7550 FAX (713) 977-7317

JAG ENGINEERING, INC.
9100 SW FRWY., SUITE 130
HOUSTON, TX 77074
(713) 977-7550
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FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "C" TABLES

SHEET 1 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 36 OF 362	

NAME: X:\PROJ-2025\25037\DGN\SCM\AREA C\25037-AREA C-TABLES.DWG
STYLE: COH_JAG_07_2016.ctb

FOUND BOUNDARY MONUMENTS STATION AND OFFSET

	SURFACE COORDS		GRID COORDS				
PT NO.	NORTHING	EASTING	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
BALL ST							
7106	13842333.23	3132930.61	13840858.53	3132596.84	7+85.18	-14.21'	FND 1/2 IR
7568	13842427.60	3132710.82	13840952.89	3132377.07	5+49.01	23.75'	FND MAG NL IN CC
7419	13842366.64	3132896.19	13840891.93	3132562.42	7+38.22	-24.00'	FND 1/2 IR
7563	13842336.74	3132905.35	13840862.04	3132571.58	7+61.96	-3.65'	FND MAG NL
BURCH ST							
5814	13841912.66	3133163.62	13840438.00	3132829.83	5+68.98	-10.26'	FND 1 IP
6966	13842134.34	3132810.59	13840659.66	3132476.83	1+52.16	-10.55'	FND 2 STL PIPE
5799	13841995.94	3132983.25	13840521.27	3132649.48	3+71.97	15.00'	FND 5/8 IR BENT
CRITES ST							
613	13841508.15	3133894.68	13840033.54	3133560.81	7+37.80	-0.57'	FND MAG NL W/SHR
6910	13841727.23	3133308.30	13840252.59	3132974.49	1+12.46	-28.58'	FND MAG NL
N EVERTON ST							
226	13841957.86	3132413.65	13840483.20	3132079.94	8+24.66	28.53'	FND 1/2 IP IN CC
9469	13841957.83	3132413.64	13840483.17	3132079.93	8+24.63	28.54'	FND 3/4 IR
11554	13841497.63	3132050.76	13840023.02	3131717.08	2+41.41	-29.12'	FND 2 IP
11219	13841549.10	3132079.95	13840074.48	3131746.27	3+00.50	-32.27'	FND COTT SPN
FOX ST (E-1)							
3346	13841408.62	3133129.53	13839934.02	3132795.74	7+81.63	1.96'	FND MAG NL
3344	13841405.75	3133099.79	13839931.15	3132766.00	7+57.82	20.00'	FND 5/8 IR
20219	13841441.83	3133119.70	13839967.22	3132785.91	7+55.85	-21.16'	FND 1/2 IP
20220	13841405.63	3133094.92	13839931.03	3132761.13	7+53.73	22.66'	FND 1 GALV PIPE BENT
FOX ST (E-2)							
3596	13841485.08	3133201.05	13840010.47	3132867.25	1+47.12	-16.91'	FND 5/8 IR
FOX ST (W)							
9469	13841957.83	3132413.64	13840483.17	3132079.93	4+32.63	-20.78'	FND 3/4 IR
226	13841957.86	3132413.65	13840483.20	3132079.94	4+32.62	-20.81'	FND 1/2 IP IN CC
20216	13841819.30	3132545.72	13840344.65	3132211.99	6+18.54	24.73'	FND 1/2 IR
FREUND ST							
20218	13842071.15	3132710.12			7+39.76	23.02'	FND 5/8 IR
JENKINS ST							
206	13841015.12	3133758.82	13839540.56	3133424.96	2+18.79	-21.96'	FND 5/8 IR
205	13841105.99	3133816.50	13839631.42	3133482.64	3+26.42	-22.09'	FND 3/4 IR
201	13841355.66	3133975.43	13839881.06	3133641.55	6+22.38	-22.09'	FND 5/8 IR
203	13841269.93	3133920.02	13839795.34	3133586.15	5+20.31	-22.80'	FND 5/8 IR
204	13841204.17	3133932.26	13839729.59	3133598.38	4+71.41	22.84'	FND 5/8 IR
202	13841313.10	3133947.32	13839838.51	3133613.44	5+71.39	-22.95'	FND I/2 CIR PRES
207	13841017.19	3133756.00	13839542.63	3133422.14	2+19.02	-25.45'	FND 4 IP
977	13841361.69	3134035.84	13839887.09	3133701.95	6+59.91	25.63'	FND 5/8 CIR
200	13841423.60	3134075.69	13839948.99	3133741.80	7+33.54	26.00'	FND 5/8 CIR
N MILBY							
7563	13842336.74	3132905.35	13840862.04	3132571.58	7+50.74	0.00'	FND MAG NL
12	13842342.15	3132920.79	13840867.45	3132587.02	7+63.51	10.23'	FND MAG NL
13	13842062.52	3132747.15	13840587.85	3132413.40	4+34.38	11.90'	FND MAG NL W/SHR
7565	13842237.50	3132866.69	13840762.81	3132532.93	6+46.14	20.05'	FND MAG NL W/SHR
5114	13841775.36	3132577.30	13840300.72	3132243.57	1+00.87	20.81'	FND 5/8 IR LDOWN
11	13842136.32	3132804.81	13840661.64	3132471.05	5+27.54	21.47'	FND MAG NL
7354	13842451.68	3132950.07	13840976.96	3132616.30	8+71.91	-22.98'	FND 5/8 CI
20217	13841951.38	3132690.60	13840476.72	3132356.86	3+10.19	23.13'	FND 5/8 IR
5387	13842019.08	3132733.13	13840544.41	3132399.38	3+90.14	23.13'	FND 5/8 IR BENT
7106	13842333.23	3132930.61	13840858.53	3132596.84	7+61.15	23.28'	FND 1/2 IR
7419	13842366.64	3132896.19	13840891.93	3132562.42	7+71.24	-23.61'	FND 1/2 IR
20218	13842071.15	3132710.12	13840596.48	3132376.37	4+21.99	-24.05'	FND 5/8 IR
5373	13841952.17	3132692.44	13840477.51	3132358.70	3+11.84	24.27'	FND CUT X
7021	13842284.83	3132843.94	13840810.13	3132510.18	6+74.12	-24.39'	FND 5/8 IR
6966	13842134.34	3132810.59	13840659.66	3132476.83	5+28.94	27.42'	FND 2 STL PIPE
20216	13841819.30	3132545.72	13840344.65	3132211.99	1+21.28	-29.30'	FND 1/2 IR

FOUND BOUNDARY MONUMENTS STATION AND OFFSET (Cont'd)

N DRENNAN ST							
3346	13841408.62	3133129.53	13839934.02	3132795.74	3+84.71	1.67'	FND MAG NL
7	13841572.91	3133245.92	13840098.29	3132912.12	5+85.83	11.01'	FND MAG NL W/SHR
6910	13841727.23	3133308.30	13840252.59	3132974.49	7+49.42	-19.74'	FND MAG NL
3596	13841485.08	3133201.05	13840010.47	3132867.25	4+87.67	20.63'	FND 5/8 IR
2673	13841317.16	3133094.59	13839842.57	3132760.80	2+88.85	21.61'	FND 2 STL PTP
3344	13841405.75	3133099.79	13839931.15	3132766.00	3+66.24	-21.82'	FND 5/8 IR
2953	13841218.76	3132979.83	13839744.18	3132646.06	1+44.08	-21.91'	FND 5/8 CIR
20222	13841205.06	3133023.17	13839730.48	3132689.39	1+55.93	21.97'	FND 5/8 IR
20220	13841405.63	3133094.92	13839931.03	3132761.13	3+63.51	-25.85'	FND 1 GALV PIPE BENT
20221	13841326.81	3133036.72	13839852.21	3132702.94	2+65.75	-32.32'	FND 1 1/2 P
3252	13841326.80	3133036.68	13839852.20	3132702.90	2+65.72	-32.35'	FND 0.15 IP
13453	13842311.34	3134027.78	13840836.64	3133693.89	18+10.19	-34.40'	FND CUT X
13454	13842312.04	3134026.27	13840837.34	3133692.38	18+08.54	-34.62'	FND CUT X
N HUTHESON ST							
20200	13841972.42	3132125.26			7+47.05	26.76'	FND 1/2 IR
12328	13841932.26	3132103.77			7+01.64	30.30'	FND CUT X
N YORK ST							
214	13842703.29	3132828.11	13841228.55	3132494.35	18+30.73	1.67'	FND CUT X CP 18 BUF BAYUOU
226	13841957.86	3132413.65	13840483.20	3132079.94	10+50.42	169.47'	FND 1/2 IP IN CC
9469	13841957.83	3132413.64	13840483.17	3132079.93	10+50.40	169.49'	FND 3/4 IR
20200	13841972.42	3132125.26	13840497.76	3131791.58	8+05.32	61.03'	FND 1/2 IR
12328	13841932.26	3132103.77	13840457.60	3131770.09	7+73.03	93.16'	FND CUT X
NAVIGATION BLVD							
3252	13841326.80	3133036.68	13839852.20	3132702.90	19+82.35	-60.07'	FND 0.15 IP
20223	13841144.23	3133213.33	13839669.65	3132879.53	22+06.23	60.00'	FND 1 1.5 IP
20221	13841326.81	3133036.72	13839852.21	3132702.94	19+82.38	-60.09'	FND 1 1/2 P
209	13841001.62	3133557.78	13839527.06	3133223.94	25+97.04	60.00'	FND 1/2 IR
210	13840758.88	3133941.65	13839284.35	3133607.77	30+51.21	60.00'	FND 120DD L
11554	13841497.63	3132050.76	13840023.02	3131717.08	9+91.03	60.90'	FND 2 IP
208	13841141.96	3133555.10	13839667.38	3133221.26	25+19.76	-57.18'	FND 3/8 IR
20222	13841205.06	3133023.17	13839730.48	3132689.39	20+06.57	60.00'	FND 5/8 IR
11219	13841549.10	3132079.95	13840074.48	3131746.27	10+03.13	2.98'	FND COTT SPN
3074	13841261.10	3132851.86	13839786.51	3132518.10	18+24.66	54.70'	FND CUT X
11253	13841521.66	3132157.03	13840047.04	3131823.34	10+84.91	5.60'	FND MAG NL W/SHR SOLAR SURV

No.	Date	Revisions	App.

JAG ENGINEERING, INC.
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JAG ENGINEERING, INC.
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HOUSTON, TX 77074
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TX FIRM 10017100

FOR INTERIM REVIEW ONLY
NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "C" TABLES

SHEET 2 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 37 OF 362	

NAME: X:\PROJ-2025\25037\DGN\SCM\AREA C\25037-AREA C-TABLES.DWG
STYLE: COH_JAG_07_2016.ctb

Alignment: BALL ST

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
	Start:	3+00.000	13842581.99	3132513.86	13841107.26	3132180.14	
30	POT	3+25.00	13842568.43	3132534.87	13841093.71	3132201.14	
31	Intersection PT: with N York St	4+98.91	13842474.48	3132681.21	13840999.77	3132347.47	
32	Intersection PT: with N Milby St	7+61.98	13842333.65	3132903.41	13840858.95	3132569.64	
	End:	4+48.999	13842501.20	3132639.06	13841026.48	3132305.32	

Tangent Data

Parameter	Value	Parameter	Value
Length:	148.999	Course:	S 57° 09' 57" E

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	4+48.999	13842501.20	3132639.06	13841026.48	3132305.32	N.A.
33	Intersection PT: with N Milby St	1+24.74	13842139.97	3132781.75	13840665.29	3132448.00	
34	Angle PT	5+66.06	13841905.55	3133155.66	13840430.89	3132821.87	
35	Intersection PT: with N Drennan St	8+10.53	13841774.80	3133362.24	13840300.15	3133028.42	
N.A.	End:	7+86.358	13842320.60	3132924.00	13840845.90	3132590.23	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	337.358	Course:	S 57° 37' 57" E

Alignment: BURCH ST

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13842153.11	3132760.79	13840678.43	3132427.04	N.A.
34	End:	5+66.058	13841905.55	3133155.66	13840430.89	3132821.87	

Tangent Data

Parameter	Value	Parameter	Value
Length:	466.058	Course:	S 57° 54' 54" E

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
34	Start: Angle PT	5+66.058	13841905.55	3133155.66	13840430.89	3132821.87	
N.A.	End:	8+30.535	13841764.10	3133379.14	13840289.46	3133045.32	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	264.477	Course:	S 57° 40' 01" E

Alignment: CRITES ST

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13841703.87	3133287.65	13840229.24	3132953.84	N.A.
36	Intersection PT: with N Drennan St	1+25.36	13841696.07	3133311.78	13840221.44	3132977.97	
37	POT	3+00.00	13841642.33	3133477.95	13840167.70	3133144.12	
38	Angle PT	7+37.80	13841507.61	3133894.51	13840032.99	3133560.64	
39	Intersection PT: with Jenkins St	9+15.66	13841453.58	3134063.95	13839978.97	3133730.06	
40	POT	10+50.00	13841412.77	3134191.95	13839938.17	3133858.05	
N.A.	End:	7+37.804	13841507.61	3133894.51	13840032.99	3133560.64	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	637.804	Course:	S 72° 04' 41.8" E

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
38	Start: Angle PT	7+37.804	13841507.61	3133894.51	13840032.99	3133560.64	
N.A.	End:	11+85.018	13841371.76	3134320.59	13839897.16	3133986.67	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	447.214	Course:	S 72° 18' 57.0000" E

Alignment: FOX ST (E-1)

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	6+00.000	13841505.55	3132975.91	13840030.93	3132642.13	
41	POT	6+50.00	13841479.32	3133018.48	13840004.71	3132684.70	
42	Intersection PT: with N Drennan St	7+80.00	13841411.15	3133129.16	13839936.54	3132795.37	
N.A.	End:	8+00.000	13841400.66	3133146.20	13839926.05	3132812.40	

Tangent Data

Parameter	Value	Parameter	Value
Length:	200	Course:	S 58° 22' 09" E

Alignment: FOX ST (E-2)

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13841485.82	3133150.99	13840011.20	3132817.20	N.A.
43	Intersection PT: with N Drennan St	1+22.41	13841477.94	3133171.97	13840003.33	3132838.18	
44	End:	2+49.238	13841433.34	3133290.70	13839958.73	3132956.89	

Tangent Data

Parameter	Value	Parameter	Value
Length:	149.238	Course:	S 69° 24' 41.6" E

Alignment: FOX ST (W)

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13842119.59	3132122.25	13840644.91	3131788.57	N.A.
45	Intersection PT: with N York St	2+05.80	13842062.57	3132211.37	13840587.89	3131877.68	
46	Intersection PT: with N Everton St	4+04.09	13841955.71	3132378.40	13840481.04	3132044.69	
47	Intersection PT: with N Milby St	6+47.64	13841824.45	3132583.56	13840349.80	3132249.83	
N.A.	End:	6+70.760	13841811.99	3132603.03	13840337.34	3132269.30	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	570.76	Course:	S 57° 23' 23" E

Alignment: FREUND ST

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	3+00.000	13842329.12	3132353.22	13840854.41	3132019.51	N.A.
48	Intersection PT: with N York St	4+83.26	13842229.67	3132507.16	13840754.98	3132173.43	
49	Intersection PT: with N Milby St	7+63.52	13842077.59	3132742.57	13840602.92	3132408.82	
N.A.	End:	7+86.667	13842065.04	3132762.01	13840590.36	3132428.26	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	486.667	Course:	S 57° 08' 13.5" E

Alignment: JENKINS ST

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13840903.12	3133713.55	13839428.57	3133379.70	N.A.
50	Intersection PT: with Navigation Blvd	1+60.00	13840953.73	3133745.77	13839479.18	3133411.92	
39	Intersection PT: with Crites St	7+52.53	13841453.58	3134063.95	13839978.97	3133730.06	
N.A.	End:	7+73.212	13841471.03	3134075.06	13839996.42	3133741.17	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	673.212	Course:	N 32° 28' 44.7" E

Alignment: MILBY ST

			SURFACE COORDS		GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
N.A.	Start:	1+00.000	13841785.70	3132559.21	13840311.05	3132225.48	N.A.
47	Intersection PT: with Fox St	1+45.77	13841824.45	3132583.56	13840349.80	3132249.83	
51	Intersection PT: with Rottman St	2+89.29	13841945.99	3132659.90	13840471.33	3132326.16	
49	Intersection PT: with Freund St	4+44.71	13842077.59	3132742.57	13840602.92	3132408.82	
33	Intersection PT: with Burch St	5+18.37	13842139.97	3132781.75	13840665.29	3132448.00	
32	Intersection PT: with Ball St	7+47.09	13842333.65	3132903.41	13840858.95	3132569.64	
52	End: Angle PT	7+50.739	13842336.74	3132905.35	13840862.04	3132571.58	

Tangent Data

Parameter	Value	Parameter	Value
Length:	650.739	Course:	N 32° 08' 05.7" E

					GRID COORDS		
PT NO.	Description	PT Station	Northing	Easting	Northing	Easting	Description
52	Start: Angle PT	7+50.739	13842336.74	3132905.35	13840862.04	3132571.58	
N.A.	End:	10+71.462	13842608.73	3133075.31	13841134.00	3132741.52	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	320.723	Course:	N 31° 59' 59.5" E

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BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "C" TABLES

SHEET 3 OF 4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 38 OF 362	

NAME: X:\PROJ-2025\25037\DGN\SCM\AREA C\25037-AREA C-TABLES.DWG
STYLE: COH_JAG_07_2016.ctb

Alignment: N DRENNAN ST

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
N.A.	Start:	1+00.000	13841169.82	3132974.49	13839695.24	3132640.72	
54	Intersection PT: with Navigation Blvd.	2+12.17	13841264.26	3133035.02	13839789.68	3132701.24	
42	Intersection PT: with Fox St (E-1)	3+86.64	13841411.15	3133129.16	13839936.54	3132795.37	
43	Intersection PT: with Fox St (E-2)	4+65.97	13841477.94	3133171.97	13840003.33	3132838.18	
55	Intersection PT: with Rottman St	5+93.92	13841585.66	3133241.02	13840111.04	3132907.21	
36	Intersection PT: with Crites St	7+25.06	13841696.07	3133311.78	13840221.44	3132977.97	
35	Intersection PT: with Burch St	8+18.57	13841774.80	3133362.24	13840300.15	3133028.42	
56	End: Angle PT	15+20.224	13842365.53	3133740.86	13840890.83	3133407.00	

Tangent Data

Parameter	Value	Parameter	Value
Length:	1420.224	Course:	N 32° 39' 25" E

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
56	Start: Angle PT	15+20.224	13842365.53	3133740.86	13840890.83	3133407.00	
57	POT	21+00.00	13842191.56	3134293.91	13840716.87	3133960.00	
N.A.	End:	21+16.994	13842186.46	3134310.13	13840711.77	3133976.21	

Tangent Data

Parameter	Value	Parameter	Value
Length:	596.77	Course:	S 72° 32' 18.3" E

Alignment: N EVERTON ST

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
N.A.	Start:	2+00.000	13841447.05	3132052.98	13839972.44	3131719.30	N.A.
58	Intersection PT: with Navigation Blvd.	3+12.14	13841541.51	3132113.41	13840066.89	3131779.73	
46	Intersection PT: with Fox St (W)	8+03.85	13841955.71	3132378.40	13840481.04	3132044.69	
59	POT	10+00.00	13842120.94	3132484.11	13840646.26	3132150.39	
N.A.	End:	10+75.228	13842184.31	3132524.66	13840709.62	3132190.93	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	875.228	Course:	N 32° 36' 37" E

Alignment: N HUTCHESON ST

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
N.A.	Start:	2+00.000	13841526.04	3131807.90	13840051.42	3131474.25	N.A.
60	Intersection PT: with Navigation Blvd.	3+11.66	13841620.09	3131868.08	13840145.46	3131534.42	
61	Intersection PT: with N York St	8+09.78	13842039.69	3132136.53	13840565.01	3131802.84	
N.A.	End:	9+46.075	13842154.50	3132209.98	13840679.81	3131876.29	N.A.

Tangent Data

Parameter	Value	Parameter	Value
Length:	746.075	Course:	N 32° 36' 37" E

Alignment: N YORK ST

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
N.A.	Start:	5+00.000	13841941.52	3131815.44	13840466.86	3131481.78	N.A.
62	POT	6+00.00	13841970.76	3131911.07	13840496.10	3131577.41	
61	Intersection PT: with N Hutcheson St	8+35.76	13842039.69	3132136.53	13840565.01	3131802.84	
45	Intersection PT: with N Fox St (W)	9+14.03	13842062.57	3132211.37	13840587.89	3131877.68	
63	End:	9+49.018	13842072.80	3132244.84	13840598.12	3131911.14	

Tangent Data

Parameter	Value	Parameter	Value
Length:	449.018	Course:	N 73° 00' 03.1" E

Curve Point Data

PT NO.	Description	Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
63	PC:	9+49.018	13842072.80	3132244.84	13840598.12	3131911.14	
	RP:		13842681.97	3132058.60	13841207.23	3131724.93	
48	Intersection PT: with Freund St	12+57.68	13842229.67	3132507.16	13840754.98	3132173.43	
64	PT:	14+00.969	13842341.12	3132596.74	13840866.41	3132263.01	

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	40° 39' 04.8198"	Type:	LEFT
Radius:	637		
Length:	451.951	Tangent:	235.96
Mid-Ord:	39.664	External:	42.30
Chord:	442.531	Course:	N 52° 40' 30.7" E

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
64	Start:	14+00.969	13842341.12	3132596.74	13840866.41	3132263.01	
31	Intersection PT: with Ball St	15+58.83	13842474.48	3132681.21	13840999.77	3132347.47	
65	POT	18+57.05	13842726.41	3132840.78	13841251.67	3132507.02	
	End:	20+55.820	13842894.34	3132947.14	13841419.57	3132613.37	

Tangent Data

Parameter	Value	Parameter	Value
Length:	654.851	Course:	N 32° 20' 58.3" E

Alignment: NAVIGATION BLVD

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
	Start:	5+00.000	13841717.73	3131606.01	13840243.09	3131272.38	
	End: Angle PT	7+50.366	13841629.04	3131840.14	13840154.41	3131506.49	

Tangent Data

PT NO.	Parameter	Value	Parameter	Value
	Length:	250.366	Course:	S 69° 15' 13.7" E

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
	Start: Angle PT	7+50.366	13841629.04	3131840.14	13840154.41	3131506.49	
	End:	13+92.349	13841433.21	3132451.53	13839958.61	3132117.81	

Tangent Data

Parameter	Value	Parameter	Value
Length:	641.984	Course:	S 72° 14' 23.6" E

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
	Start:	13+92.349	13841433.21	3132451.53	13839958.61	3132117.81	
	End:	19+65.543	13841274.71	3133002.37	13839800.12	3132668.60	

Tangent Data

Parameter	Value	Parameter	Value
Length:	573.194	Course:	S 73° 56' 49" E

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
	Start:	19+65.543	13841274.71	3133002.37	13839800.12	3132668.60	
	End:	24+66.588	13841122.05	3133479.59	13839647.48	3133145.77	

Tangent Data

Parameter	Value	Parameter	Value
Length:	501.045	Course:	S 72° 15' 40" E

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
	Start:	24+66.588	13841122.05	3133479.59	13839647.48	3133145.77	
	End:	30+51.215	13840809.59	3133973.72	13839335.05	3133639.84	

Tangent Data

Parameter	Value	Parameter	Value
Length:	584.626	Course:	S 57° 41' 34.1" E

Alignment: ROTTMAN ST

Tangent Data

PT NO.	Description	PT Station	SURFACE COORDS Northing	SURFACE COORDS Easting	GRID COORDS Northing	GRID COORDS Easting	Description
N.A.	Start:	1+00.000	13841959.52	3132638.09	13840484.85	3132304.35	
51	Intersection PT: with N Milby St		13841945.99	3132659.90	13840471.33	3132326.16	
55	Intersection PT: with N Drennan St		13841585.66	3133241.02	13840111.04	3132907.21	
N.A.	End:	8+29.318	13841575.18	3133257.92	13840100.56	3132924.12	

Tangent Data

Parameter	Value	Parameter	Value
Length:	729.318	Course:	S 58° 11' 55.2" E

No.	Date	Revisions	App.

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FOR INTERIM REVIEW ONLY

NOT FOR RECORDING FOR ANY PURPOSE
BY: JOHN A. GUAJARDO RPLS NO. 5945
DATE: 05/05/26

SURVEYED BY: FB
NO. P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SURVEY CONTROL MAP
AREA "C" TABLES

SHEET 4 OF4

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-000035-0312-3	
DRAWING SCALE	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 39 OF 362	

FILE NAME: X:\PROJ-2025\25037\DGN\SCM\AREA C\25037-AREA C-TABLES.DWG
STYLE: COH_A6_07_2016.ctb

FOR REDUCED PLANS
original scale in inches

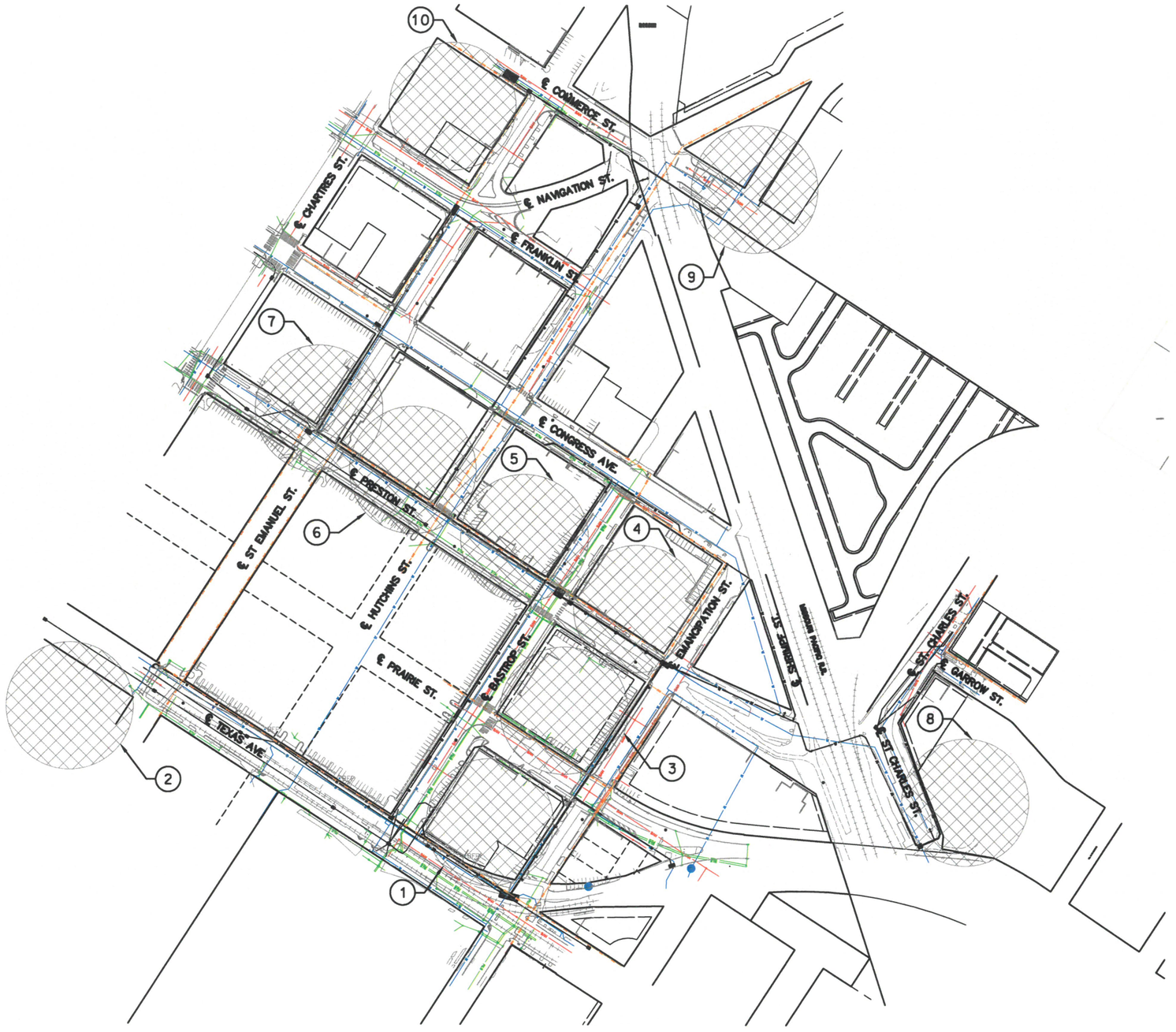
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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL PPCA LAYOUT AREA A.DWG

LEGEND

POTENTIALLY PETROLEUM CONTAMINATED AREA

No.	Date	Revisions	App.



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

REC-OVERALL PPCA LAYOUT AREA-A

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 140'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 40 OF 362	

FOR REDUCED PLANS
original scale in inches

3
2
1
0

LEGEND

POTENTIALLY PETROLEUM CONTAMINATED AREA

No.	Date	Revisions	App.



SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

REC-OVERALL PPCA LAYOUT AREA-B

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 140'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 41 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:24:20 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL PPCA LAYOUT AREA B.DWG

FOR REDUCED PLANS
original scale in inches
3 2 1 0

PLOTTED ON: Wednesday, September 23, 2026 9:25:25 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL PPCA LAYOUT AREA C.DWG

LEGEND

POTENTIALLY PETROLEUM CONTAMINATED AREA

No.	Date	Revisions	App.



N
W E
S

0 70' 140'

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

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FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

REC-OVERALL PPCA LAYOUT AREA-C

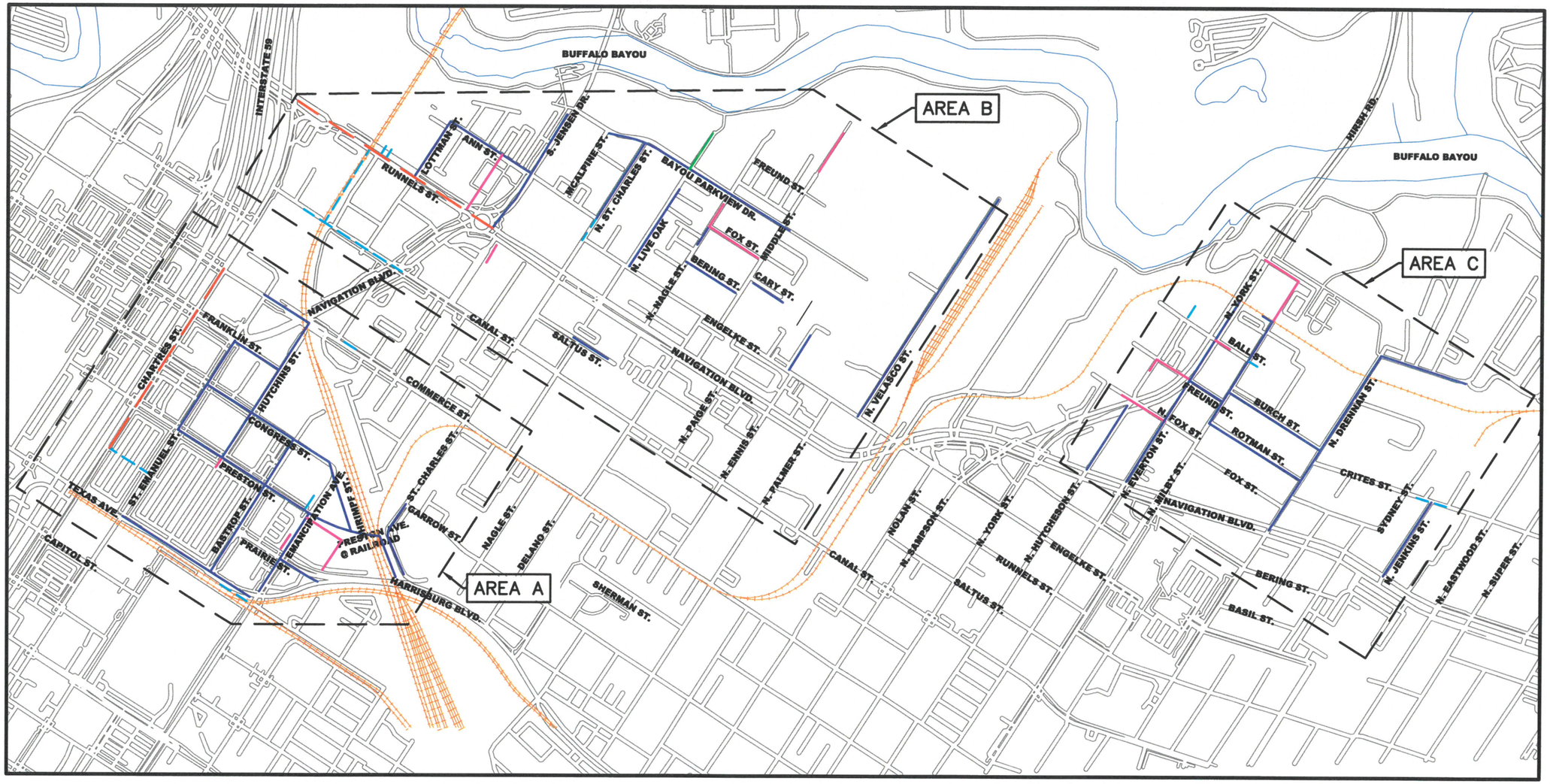
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 140'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 42 OF 362	

FOR REDUCED PLANS
original scale in inches
3 2 1 0

LEGEND

- PROJECT AREA LIMITS
- PROPOSED WATER LINE
- ABANDON WATER LINE
- PROPOSED WATER LINE REMOVED FROM SCOPE
- PROPOSED ABANDONED WATER LINE REMOVED FROM SCOPE
- RAIL TRACK
- PROPOSED LOOP WATER LINE

No.	Date	Revisions	App.



NOTE:
ABANDONED WATER LINES ARE INCLUDED ON SEPARATE EXHIBITS. REFER TO PROJECT INDEX FOR ADDITIONAL INFORMATION.

N
W E
S

0 70' 140'

SES HORIZON
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

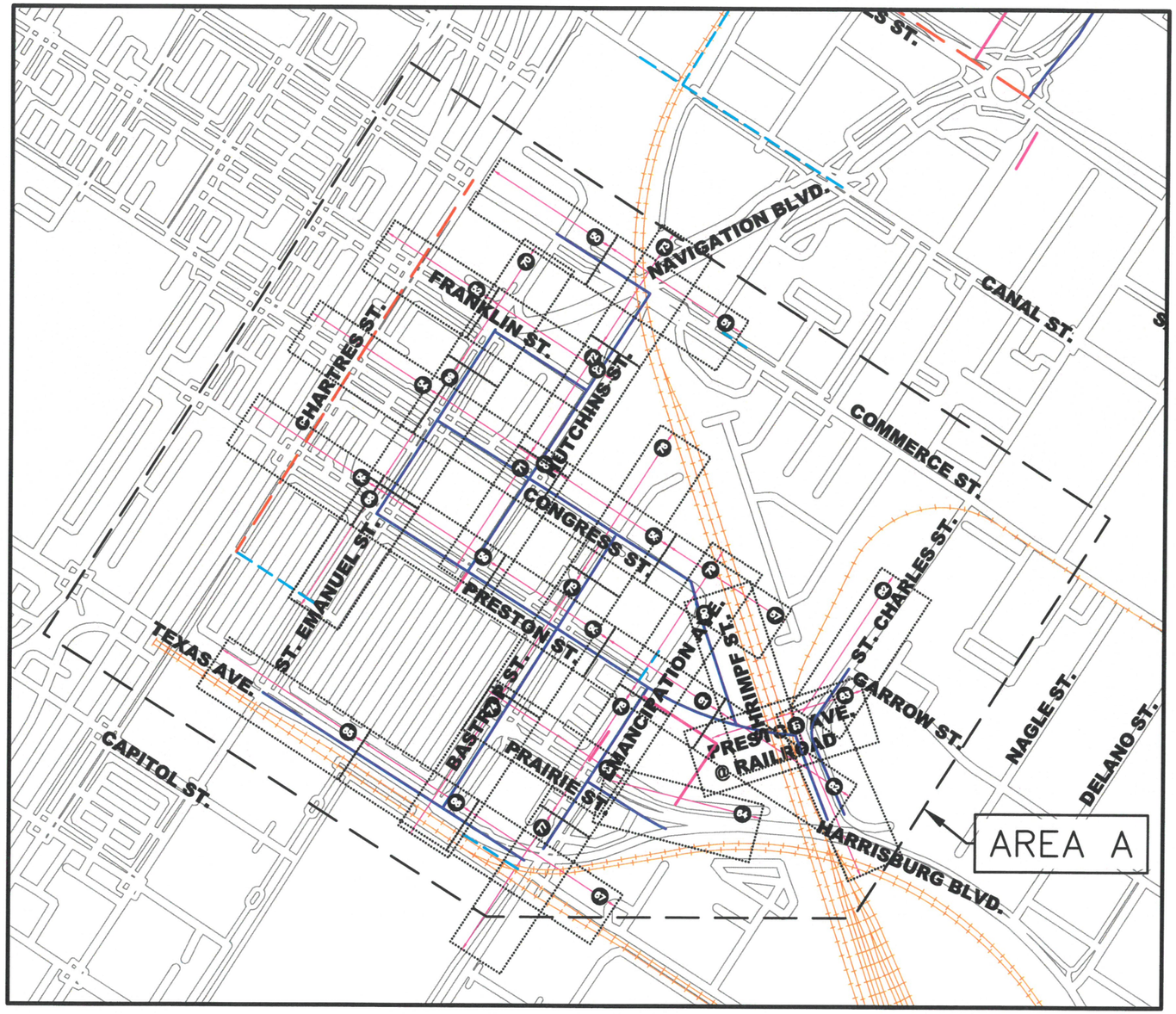
WATERLINE REPLACEMENT IN SECOND WARD

OVERALL PROJECT LAYOUT

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 140'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 43 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:25:37 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL PROJECT LAYOUT AREA ABC.DWG

FOR REDUCED PLANS
original scale in inches



LEGEND

- PLAN AND PROFILE SHEET NUMBER
- PROJECT AREA LIMITS
- PROJECT SHEET LIMITS
- PROPOSED WATER LINE
- ABANDON WATER LINE
- PROPOSED WATER LINE REMOVED FROM SCOPE
- PROPOSED ABANDONED WATER LINE REMOVED FROM SCOPE
- RAIL TRACK
- PROPOSED LOOP WATER LINE

NOTE:
ABANDONED WATER LINES ARE INCLUDED ON SEPARATE EXHIBITS. REFER TO PROJECT INDEX FOR ADDITIONAL INFORMATION.

No.	Date	Revisions	App.

N
W E
S

0 70' 140'

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TEXAS SERIAL NO. 87749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

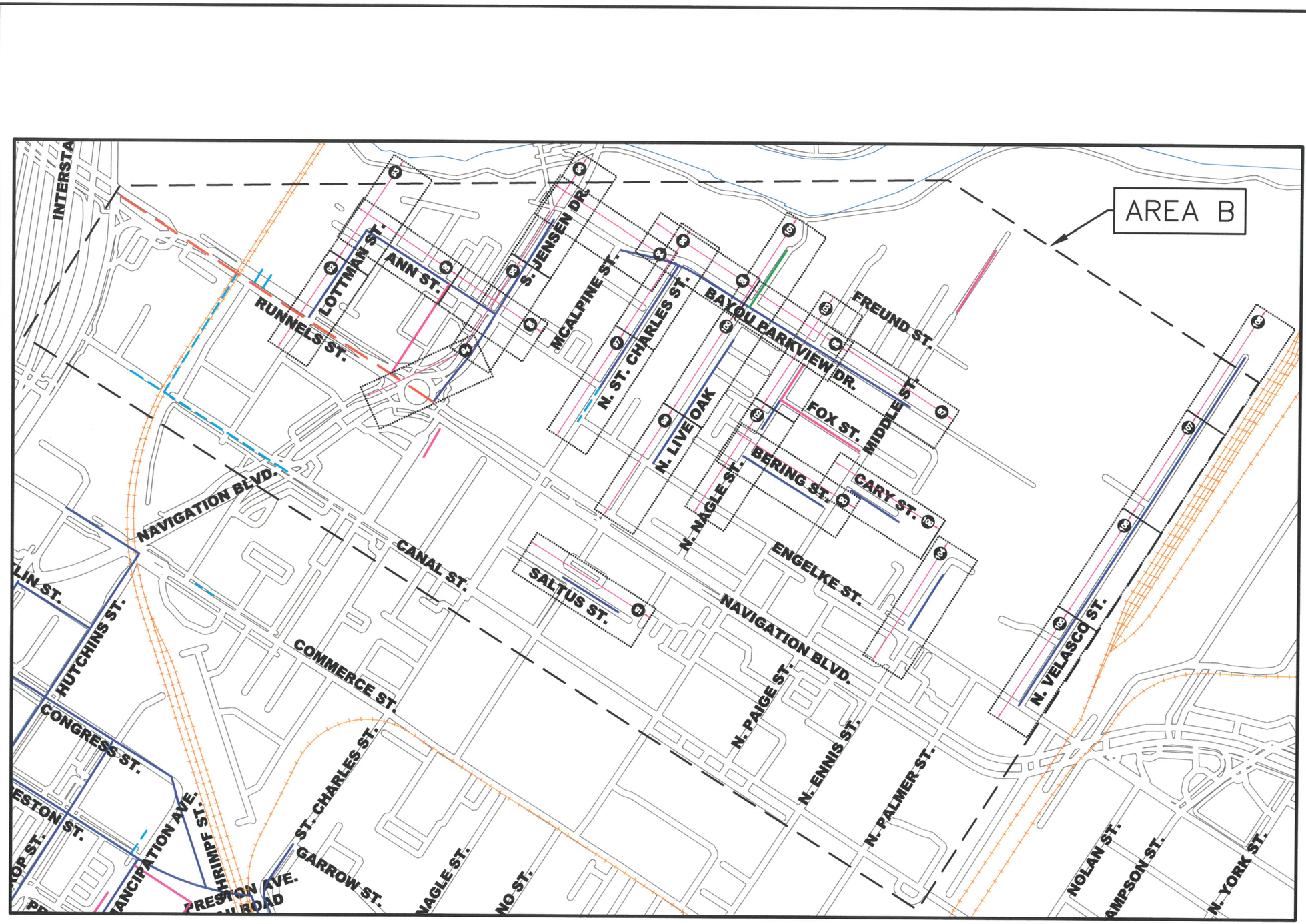
WATERLINE REPLACEMENT IN SECOND WARD

OVERALL SHEET LAYOUT AREA-A

SHEET LAYOUT

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 44 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:25:43 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL PROJECT LAYOUT AREA ABC.DWG



FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 9:25:48 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL PROJECT LAYOUT AREA ABC.DWG

LEGEND

- PLAN AND PROFILE SHEET NUMBER
- PROJECT AREA LIMITS
- PROJECT SHEET LIMITS
- PROPOSED WATER LINE
- ABANDON WATER LINE
- PROPOSED WATER LINE REMOVED FROM SCOPE
- PROPOSED ABANDONED WATER LINE REMOVED FROM SCOPE
- RAIL TRACK
- PROPOSED LOOP WATER LINE

NOTE:
ABANDONED WATER LINES ARE INCLUDED ON SEPARATE EXHIBITS. REFER TO PROJECT INDEX FOR ADDITIONAL INFORMATION.

No.	Date	Revisions	App.

N
W E
S

0 70' 140'

SES HORIZON
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Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

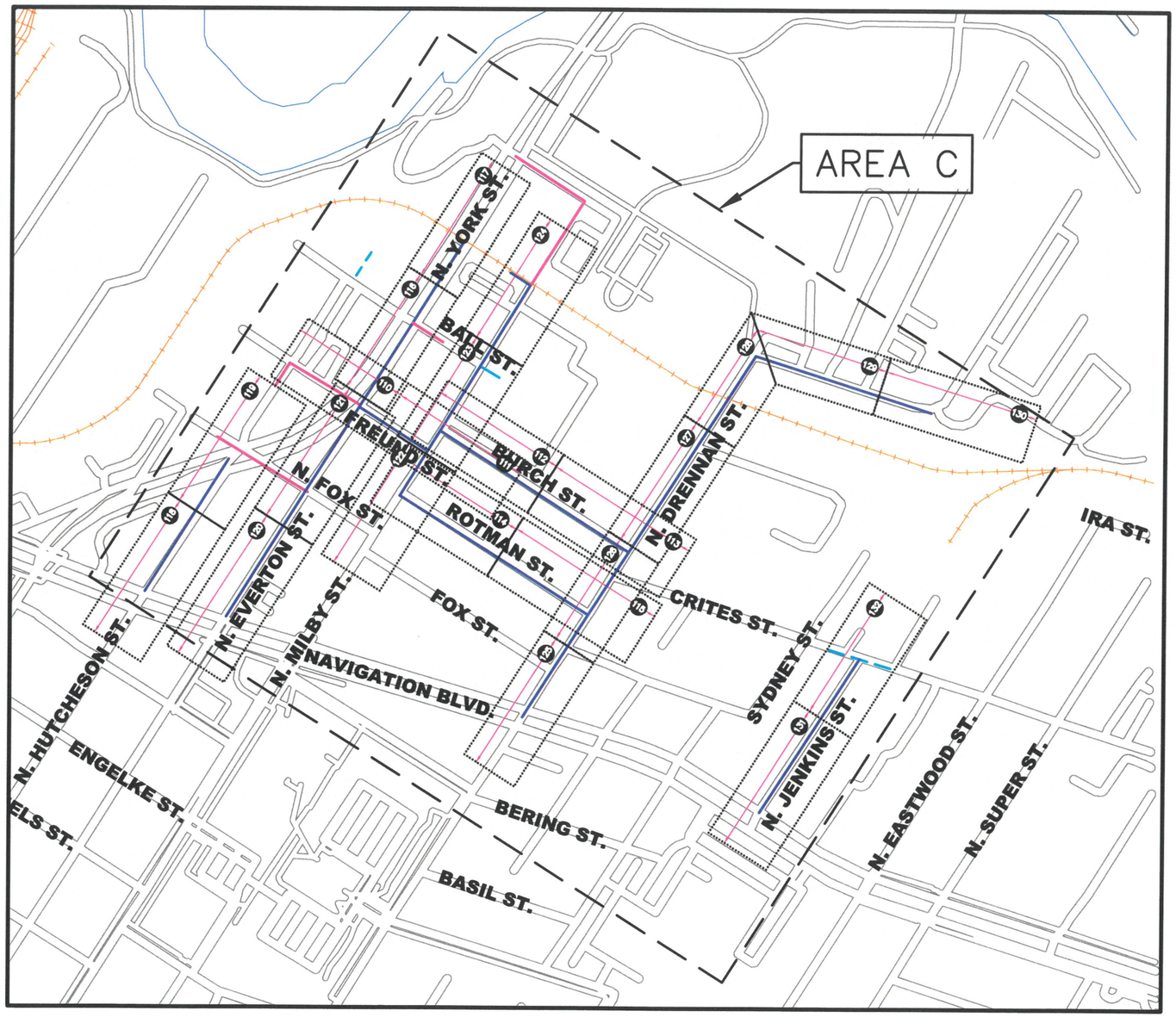
WATERLINE REPLACEMENT IN SECOND WARD

OVERALL SHEET LAYOUT AREA-B

SHEET LAYOUT

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 45 OF 362	

FOR REDUCED PLANS
original scale in inches
0 1 2 3



LEGEND

- PLAN AND PROFILE SHEET NUMBER
- PROJECT AREA LIMITS
- PROJECT SHEET LIMITS
- PROPOSED WATER LINE
- ABANDON WATER LINE
- PROPOSED WATER LINE REMOVED FROM SCOPE
- PROPOSED ABANDONED WATER LINE REMOVED FROM SCOPE
- RAIL TRACK
- PROPOSED LOOP WATER LINE

No.	Date	Revisions	App.

NOTE:
ABANDONED WATER LINES ARE INCLUDED ON SEPARATE EXHIBITS. REFER TO PROJECT INDEX FOR ADDITIONAL INFORMATION.

N
W E
S

0 70' 140'

SES HORIZON
CONSULTING ENGINEERS, INC.
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SES HORIZON CONSULTING ENGINEERS, INC.
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

OVERALL SHEET LAYOUT AREA-C

SHEET LAYOUT

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 46 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:25:53 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL PROJECT LAYOUT AREA ABC.DWG



No.	Date	Revisions	App.

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CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

OVERALL DESIGN LAYOUT AREA-A

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 140'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 47 OF 362	

FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 9:26:58 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL LAYOUT AREA A CALLOUTS.DWG

FOR REDUCED PLANS
original scale in inches

3 2 1 0

PROP. 8"WATER
PROP. F.H.
PROP. 8" WET CONNECTION
8"water
24"water
2"water
4"water
6"water
E. LOTMAN ST.
E. RUNNELS ST.
E. ANN ST.
E. BENSON DR.
E. MCALPINE ST.
E. N. ST.CHARLES ST.
E. LIVE OAK ST.
E. BAYOU PARKVIEW DR.
E. N. NAGLE ST.
E. FOX ST.
E. WHOLE ST.
E. BERING ST.
E. GARY ST.
E. ENGELKE ST.
E. N. LIVE OAK ST.(S)
E. SALTUS ST.
E. N. CHARLES ST.
E. HARRISBURG BLVD.

N
W E
S

0 70' 140'

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
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SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

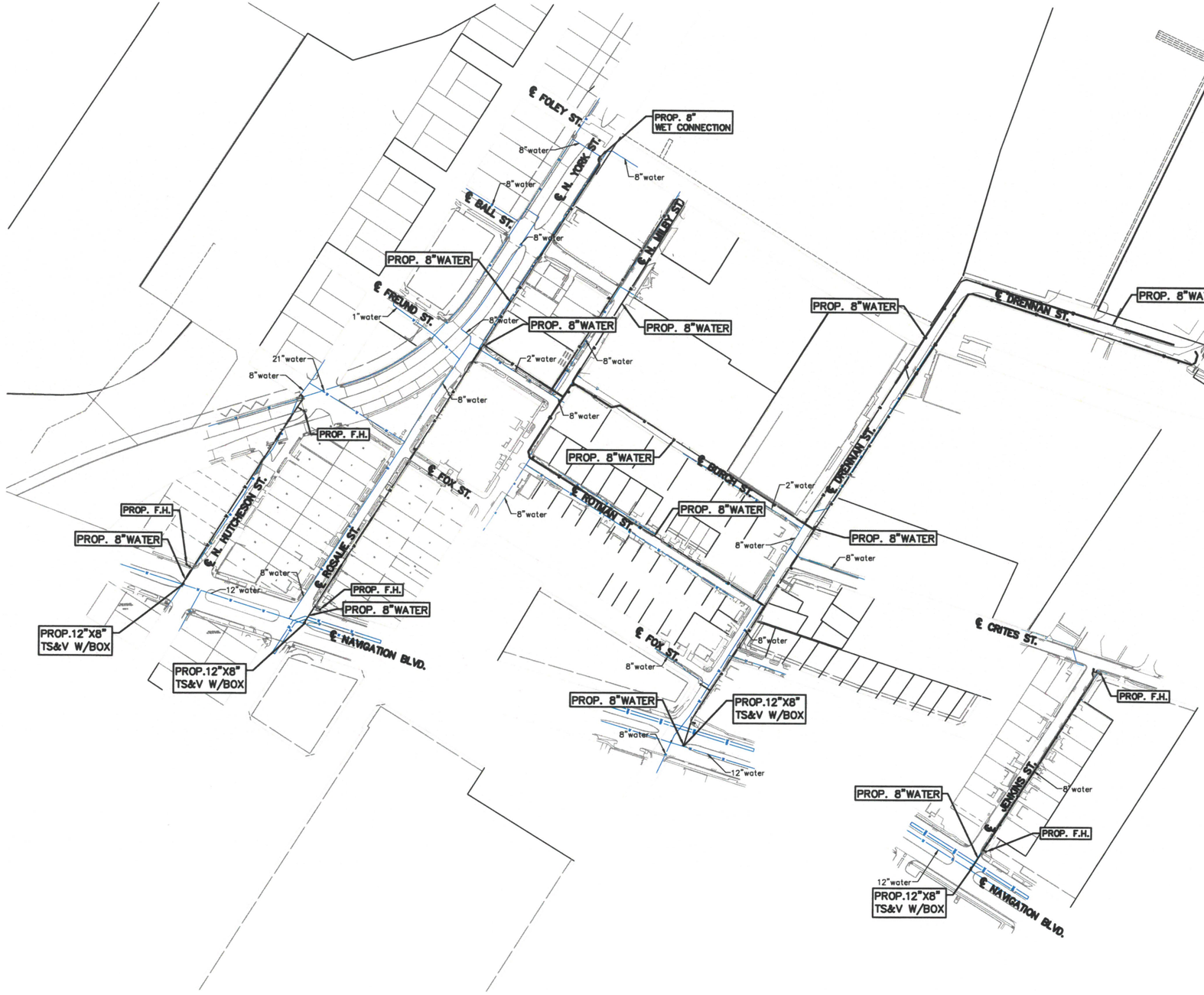
OVERALL DESIGN LAYOUT
AREA-B

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 140'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 48 OF 362	

No.	Date	Revisions	App.

PLOTTED ON: Wednesday, September 23, 2026 9:28:11 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL LAYOUT AREA B CALLOUTS.DWG

FOR REDUCED PLANS
original scale in inches



N
W E
S

0 70' 140'

No.	Date	Revisions	App.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

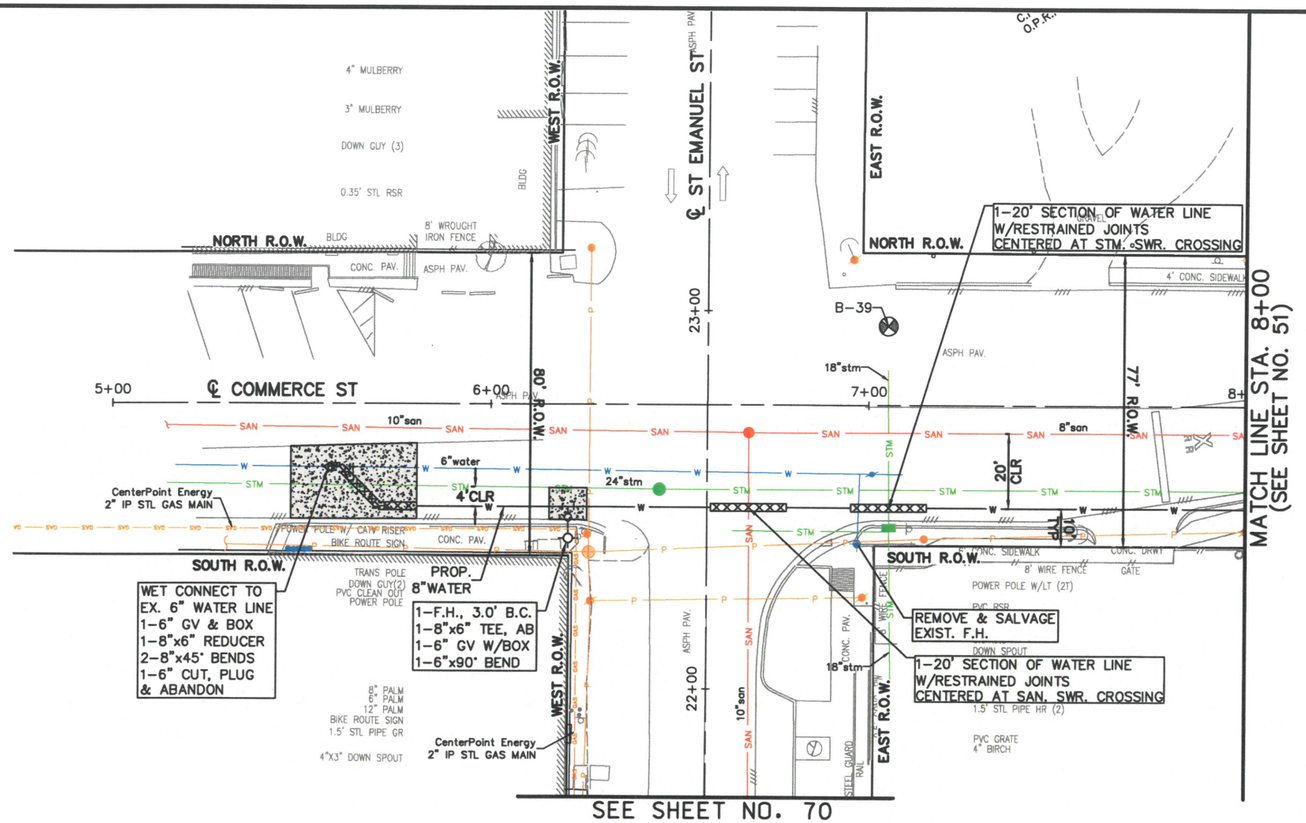
OVERALL DESIGN LAYOUT AREA-C

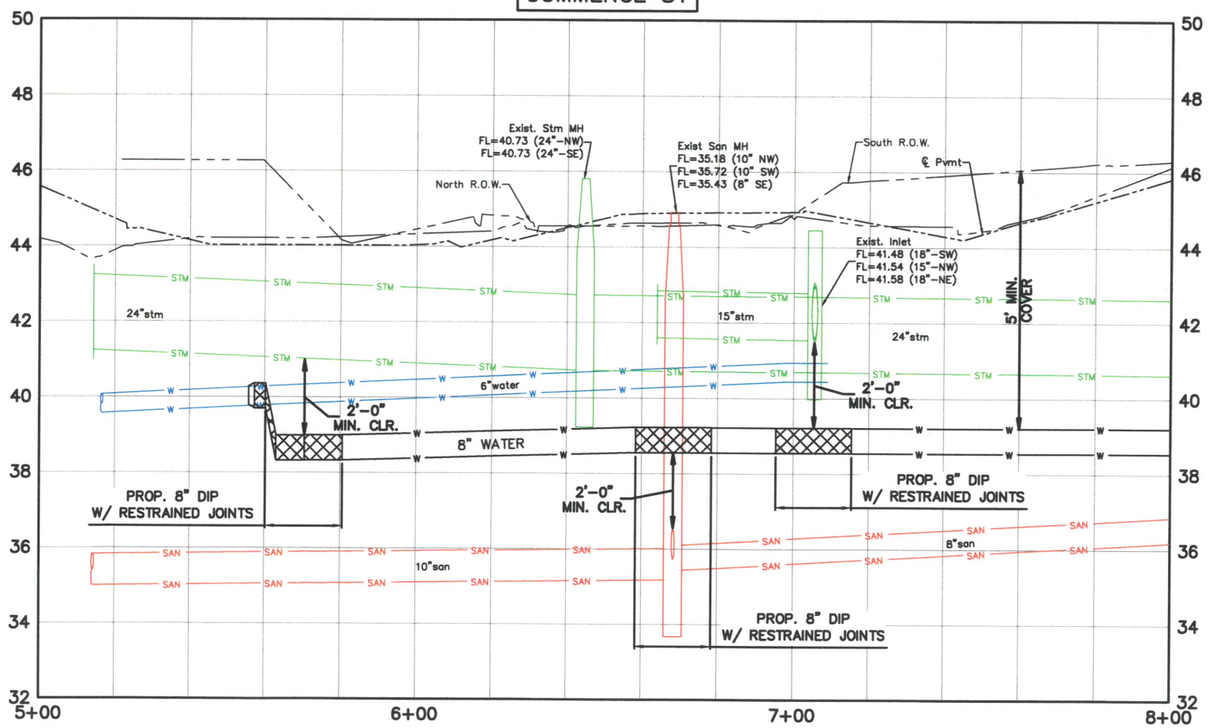
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 140'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 49 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:29:12 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\GENERAL\OVERALL LAYOUT AREA C CALLOUTS.DWG

FOR REDUCED PLANS
original scale in inches

3 2 1 0





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 15 ELEVATION 44.46'
STA. 6+87.37, 32.04' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Site service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for 60 months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for 60 months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

COMMERCE ST

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 8+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 50 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 11:34:01 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 50)
MATCH LINE STA. 8+00

NORTH R.O.W.

SOUTH R.O.W.

℄ COMMERCE ST

℄ NAVIGATION ST

℄ HUTCHINS ST

PONTENTIALLY PETROLEUM CONTAMINATED AREA

CenterPoint Energy
15" IP STL GAS MAIN

COH ESMT ACCROSS RR ROW
VOL 788, PG. 107

CITY VOL. 749,

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

2-8"x45° BENDS, AB

PROP. 8"WATER

CITY OF HOUSTON
VOL. 837, PG. 404 H.C.D.R.

B-41

SEE SHEET NO. 73

8"water
6"water
24"water
8"san
24"stm
24"water
8" chain link fence
6' wire fence
5' conc. sidewalk
4' conc. sidewalk
3' conc. sidewalk
conc. drwy
gate
asph pav.
gravel
stone gravel
conc. strip
20' clr
4'clr
80' r.o.w.
0.5'd rr arm w/conc base sign
stop sign
w/stl gr
power pole w/lt
rr shed

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 14 ELEVATION 45.91'
STA. 9+96.95, 48.22' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Use service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

COMMERCE ST

PLAN AND PROFILE
FROM STA. 8+00.00 TO STA. 11+98.64

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 51 OF 362	

COMMERCE ST

North R.O.W.
South R.O.W.
℄ Pvmt
5' MIN. COVER
STM STM
24"stm
STM STM
Exist San MH
FL=36.30 (8" NW)
FL=35.95 (8" SE)
8" WATER
PROP. 8" WATER
SAN SAN
8"san
SAN SAN
Exist San MH
FL=39.22 (8" SE)
Exist San MH
FL=39.22 (8" SE)
SAN SAN SAN SAN SAN
SAN SAN SAN SAN SAN
8"san
8"water
8"water
24"water
24"water

50 48 46 44 42 40 38 36 34 32

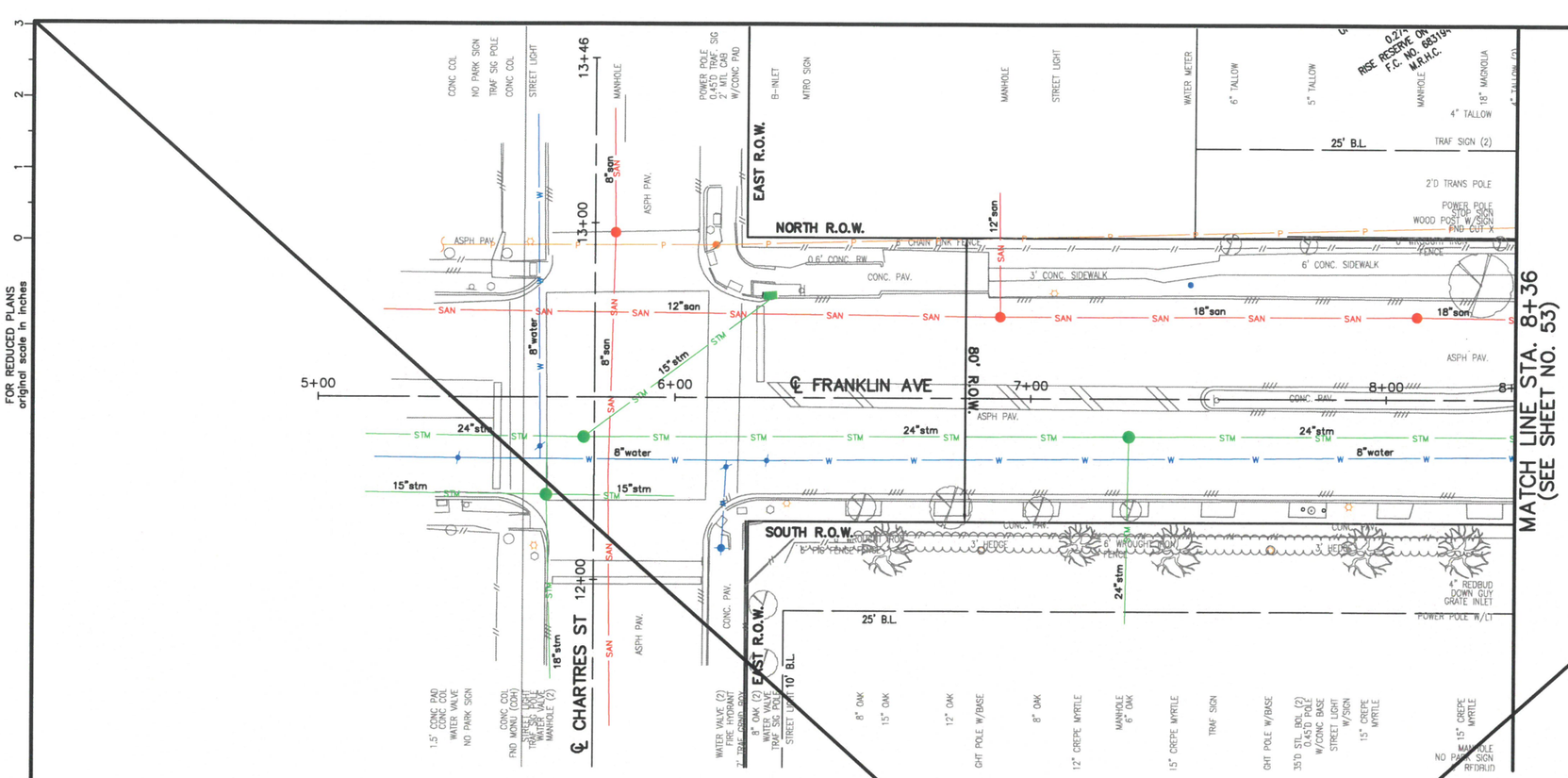
8+00 9+00 10+00 11+00 12+00

PLOTTED ON: Wednesday, September 23, 2026 11:34:17 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 8:28:47 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG



LEGEND

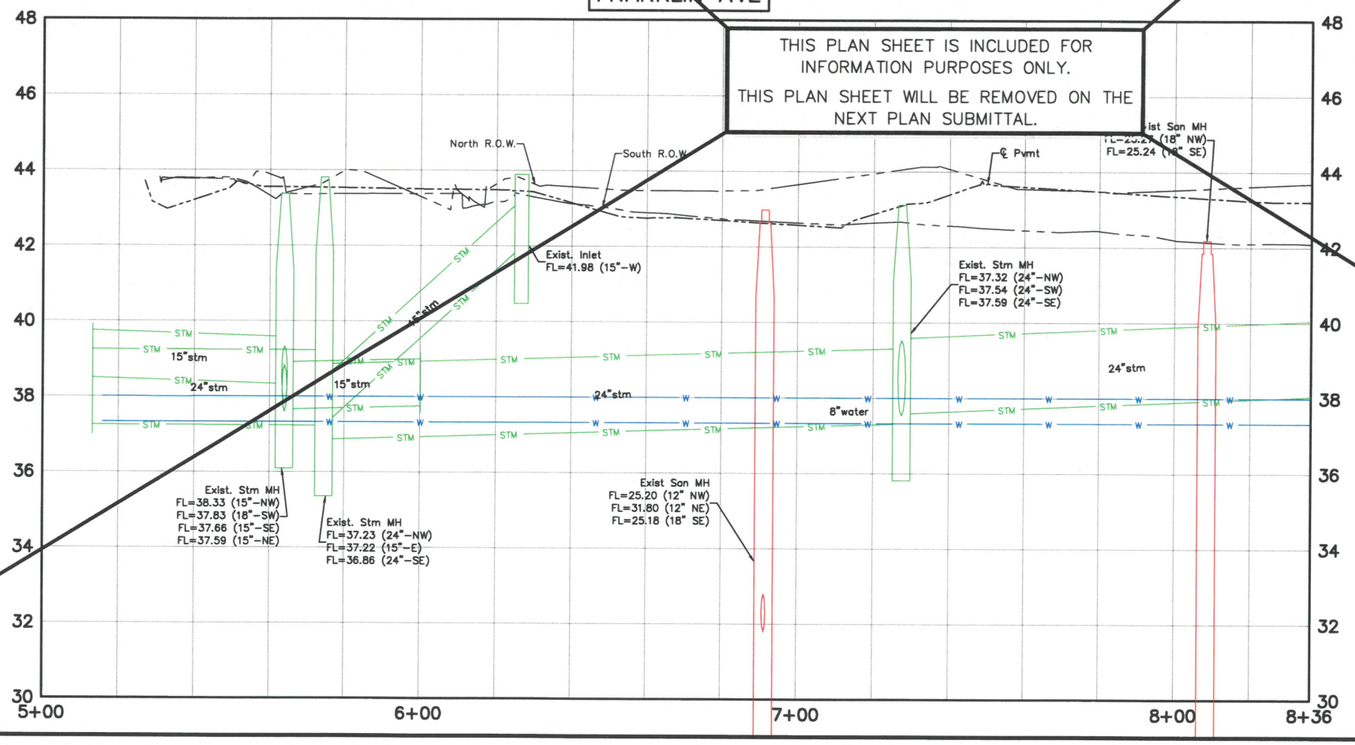
- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

THIS PLAN SHEET IS INCLUDED FOR INFORMATION PURPOSES ONLY.

THIS PLAN SHEET WILL BE REMOVED ON THE NEXT PLAN SUBMITTAL.

FRANKLIN AVE



PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# ELEVATION

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(No Signature required.
This Section is not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies electric underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN:

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

FRANKLIN AVE

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 8+36.20

WBS NUMBER	CITY DWG NO.:
S-000035-0042-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 52 OF 362	

No.	Date	Revisions	Apk

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 52)
MATCH LINE STA. 8+36

SEE SHEET NO. 73

SEE SHEET NO. 70

SEE SHEET NO. 72

NORTH R.O.W.
SOUTH R.O.W.
WEST R.O.W.
EAST R.O.W.
61' R.O.W.

℄ FRANKLIN AVE
℄ ST EMANUEL ST
℄ HUTCHINS ST

CenterPoint Energy
2" IP STL GAS MAIN

CenterPoint Energy
12" IP STL GAS MAIN

PROP. 8"WATER

1-8" TEE, AB
1-8" GV

B-42

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

REMOVE & SALVAGE EXIST. F.H.

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

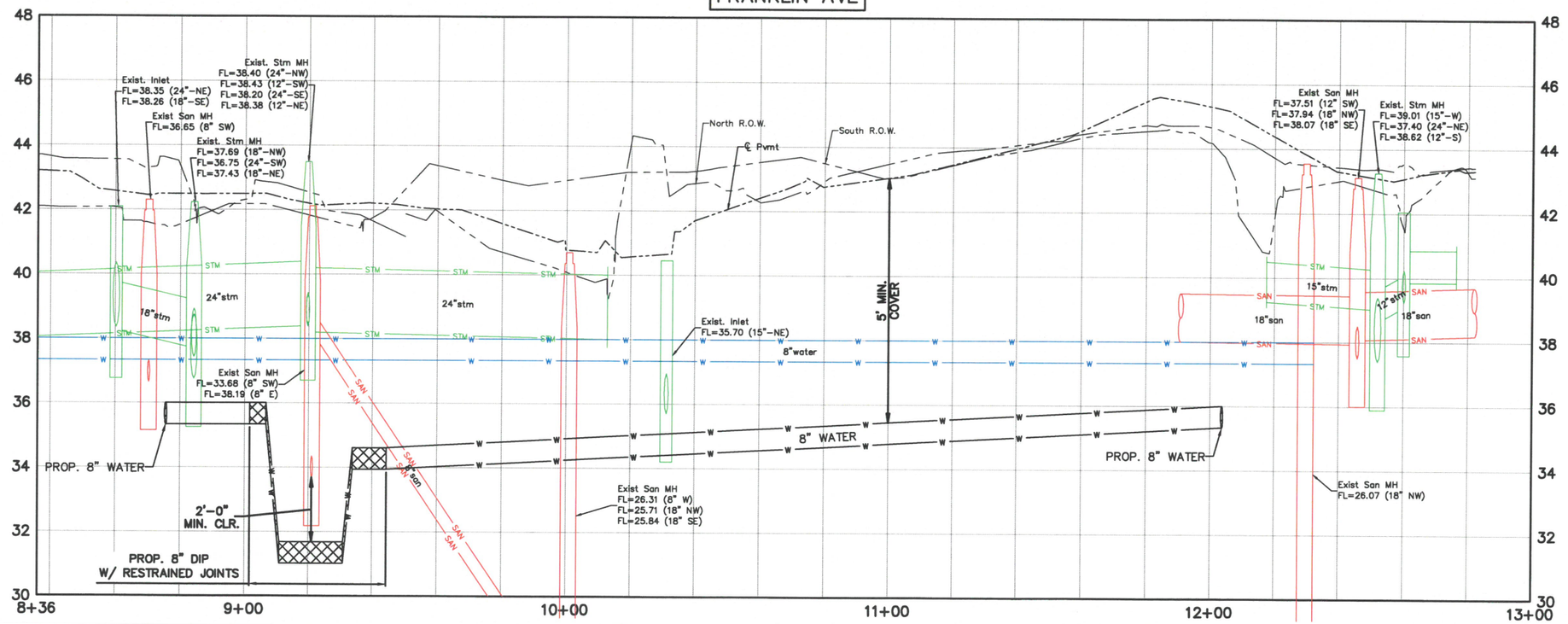
1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

5' TYP

45' CLR

21' CLR

FRANKLIN AVE



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	Appr.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY MARKER ELEV.

PROJECT T.B.M.
TBM# 12 ELEVATION 42.83'
STA. 9+16.24, 46.56' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Use across this on not down.)
(No Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

FRANKLIN AVE

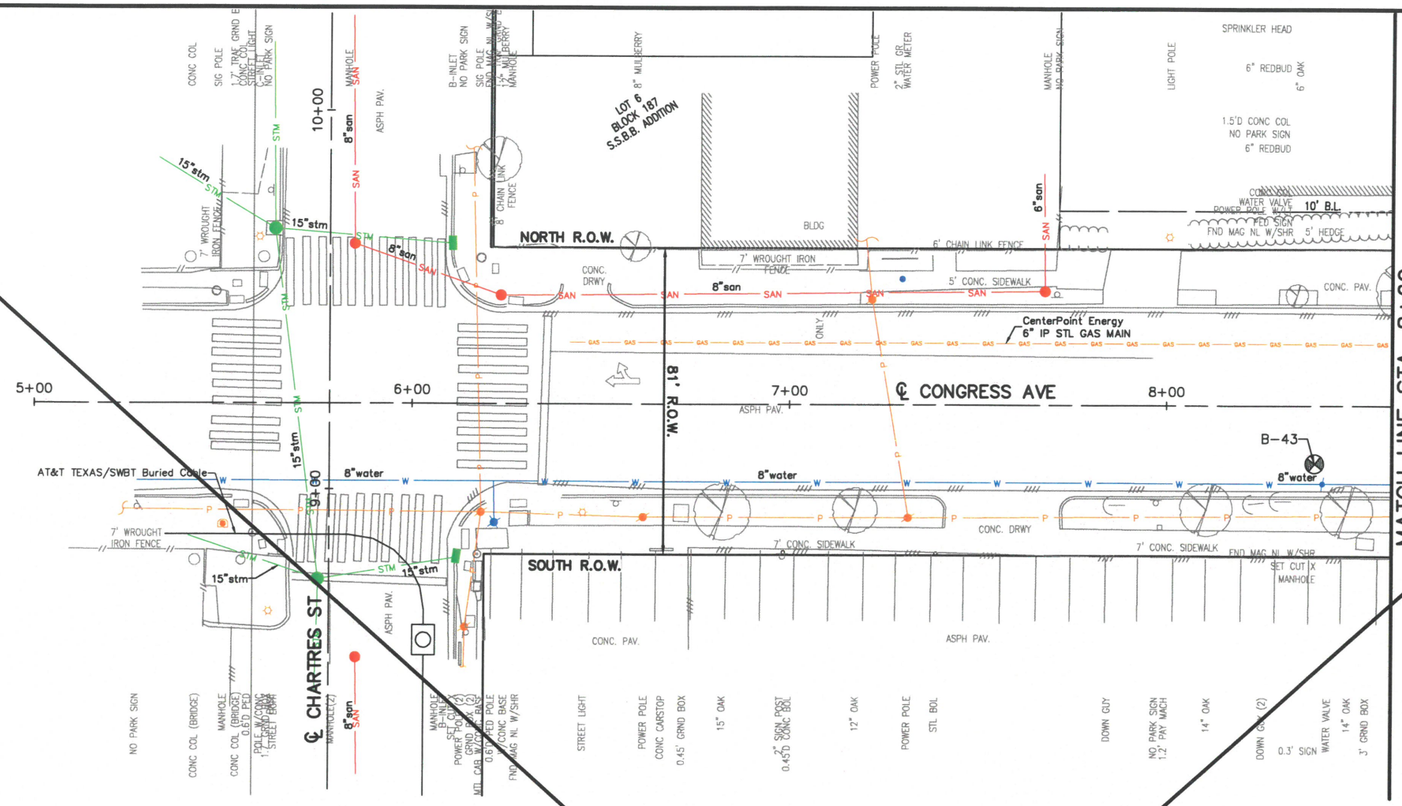
PLAN AND PROFILE
FROM STA. 8+36.20 TO STA. 12+82.05

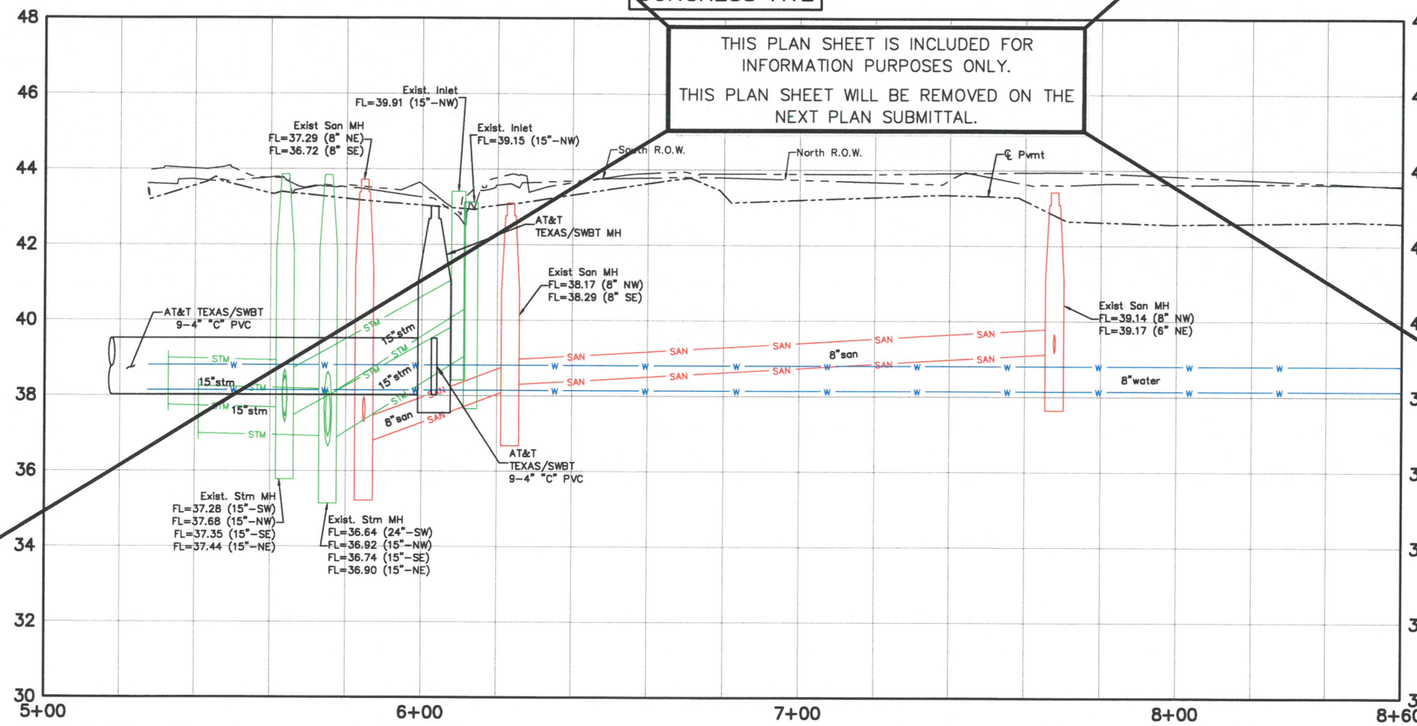
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 53 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:29:03 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

3 2 1 0





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	Apb

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM## ELEVATION

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Not to scale.)
(This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities--not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 8+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0342-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 54 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:29:17 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 70

SEE SHEET NO. 72

(SEE SHEET NO. 54)
MATCH LINE STA. 8+60

MATCH LINE STA. 13+00
(SEE SHEET NO. 56)

SEE SHEET NO. 69

SEE SHEET NO. 71

PROP. 8"WATER

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STM. SWR. CROSSING

WET CONNECT TO EX. 8" WATER LINE
1-8" GV & BOX
2-45° BENDS, AB
1-8" TEE
1-8" CUT, PLUG & ABANDON

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

1-8" TEE, AB

1-8" GV

1-8" CROSS, AB

1-8" GV

5' TYP

℄ CONGRESS AVE

℄ HUTCHINS

℄ ST EMANUEL ST

NORTH R.O.W.

SOUTH R.O.W.

85' R.O.W.

EAST R.O.W.

EAST R.O.W.

REMOVE & SALVAGE EXIST. F.H.

PROP. 8"WATER

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

PROP. 8"WATER

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STM. SWR. CROSSING

PROP. 8"WATER

CenterPoint Energy 12" IP STL GAS MAIN

9+00

10+00

11+00

12+00

13+00

8+00

ASPH PAV.

CONC. PAV.

CONC. DRWY

GRAVEL

BLDG

GATE

6' CONC. SIDEWALK

5' CONC. SIDEWALK

8" WROUGHT IRON FENCE

6' CHAIN

NO PARK SIGN

MTL PLATE

1"X1.25" MTL PLATE (10)

FIRE HYDRANT

PAV. 2.2' GRND BOX

B-INLET

6"D TRANS POLE

2" STL POST

WATER METER

POWER POLE

MANHOLE

TELE PED SIGN

4" MULBERRY

DOWN GUY

WATER VALVE (3)

GROUND MONU

MANHOLE

FIRE HYDRANT

WATER VALVE

4'CLR

18"stm

15"stm

6"water

8"water

2"water

4"san

SAN

STM

W

P

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W — PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 8 ELEVATION 43.67'
STA. 12+14.72, 30.12' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities--not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

PLAN AND PROFILE
FROM STA. 8+60.00 TO STA. 13+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 55 OF 362	

CONGRESS AVE

Exist. Inlet FL=39.41 (18"-SE)
Exist. Inlet
Exist. Inlet FL=39.41 (18"-SE)
North R.O.W.
South R.O.W.
Exist. Inlet FL=39.15 (15"-W) FL=38.21 (18"-SE) FL=38.42 (15"-NE)
Exist. Stm MH FL=38.15 (18"-NW) FL=38.25 (18"-SW) FL=38.07 (18"-SE)
Exist. Inlet FL=37.08 (18"-SW)
Exist. Stm MH FL=37.63 (18"-NW) FL=38.35 (18"-NE) FL=37.56 (18"-SE)
5' MIN. COVER
18"stm
15"stm
8"water
6"water
2'-0" MIN. CLR.
2'-0" MIN. CLR.
PROP. 8" WATER
8" WATER
PROP. 8" DIP W/ RESTRAINED JOINTS
PROP. 8" WATER
PROP. 8" DIP W/ RESTRAINED JOINTS

48 46 44 42 40 38 36 34 32 30

8+60 9+00 10+00 11+00 12+00 13+00

PLOTTED ON: Wednesday, September 23, 2026 12:55:34 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 55)
MATCH LINE STA. 13+00

MATCH LINE STA. 17+00
(SEE SHEET NO. 57)

NORTH R.O.W.
SOUTH R.O.W.
WEST R.O.W.
EAST R.O.W.
87' R.O.W.

℄ CONGRESS AVE
℄ BASTROP ST

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STM. SWR. CROSSING

1-8" TEE, AB

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

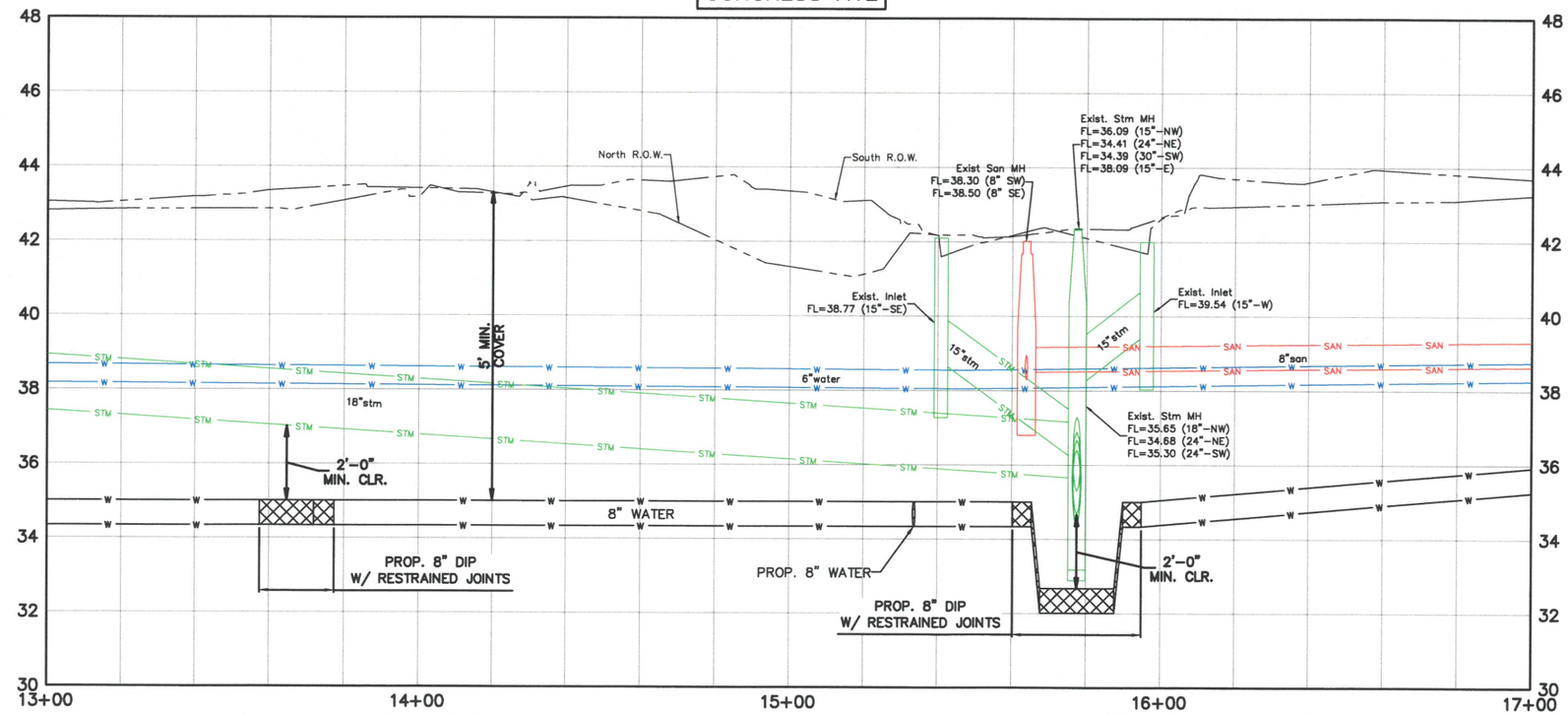
PROP. 8"WATER

CenterPoint Energy 2" IP STL GAS MAIN

B-44

SEE SHEET NO. 76

CONGRESS AVE



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 7 ELEVATION 42.47'
STA. 15+94.55, 30.09' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

PLAN AND PROFILE
FROM STA. 13+00.00 TO STA. 17+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 56 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:29:48 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 56)
MATCH LINE STA. 17+00

NORTH R.O.W.

SOUTH R.O.W.

WEST R.O.W.

EAST R.O.W.

℄ CONGRESS AVE

℄ EMANCIPATION

REMOVE & SALVAGE EXIST. F.H.

2–8"x45° BENDS, AB

1–F.H., 3.0' B.C.
1–8"x6" TEE, AB
1–6" GV W/BOX
1–6"x90° BEND

1–8"x45° BEND, AB

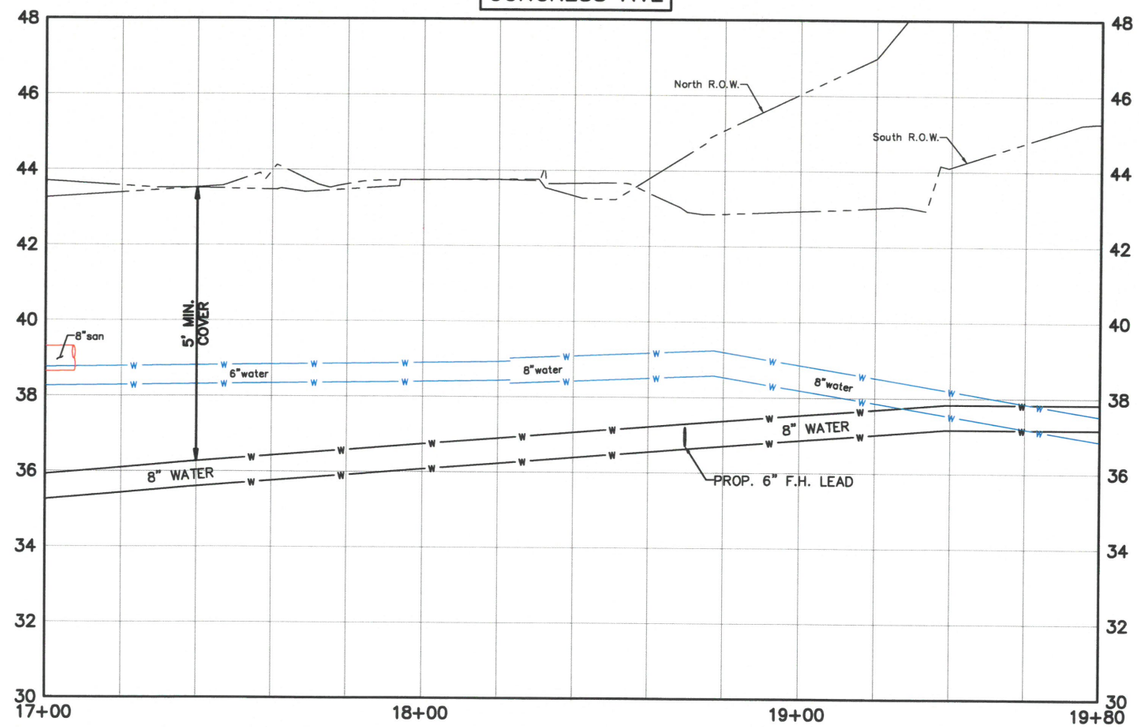
PROP. 8"WATER

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

CenterPoint Energy
2" IP STL GAS MAIN

SEE SHEET NO. 79

CONGRESS AVE



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 6 ELEVATION 43.31'
STA. 19+14.88, 35.91' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Use symbol on sheet.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities—not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

PLAN AND PROFILE
FROM STA. 17+00.00 TO STA. 19+79.86

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 57 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 1:03:10 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 8:30:17 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

PONTENTIALLY PETROLEUM CONTAMINATED AREA

℄ CHARTRES ST

℄ PRESTON AVE

NORTH R.O.W.

SOUTH R.O.W.

EAST R.O.W.

80' R.O.W.

MATCH LINE STA. 8+60
(SEE SHEET NO. 59)

B-46

THIS PLAN SHEET IS INCLUDED FOR INFORMATION PURPOSES ONLY.

THIS PLAN SHEET WILL BE REMOVED ON THE NEXT PLAN SUBMITTAL.

PRESTON AVE

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	Apv

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# ELEVATION

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
EABLE Approved for underground conduit facilities only.

SES HORIZON
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Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
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SURVEYED BY:
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 8+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0342-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 58 OF 362	

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 69

SEE SHEET NO. 71

(SEE SHEET NO. 58)
MATCH LINE STA. 8+60

MATCH LINE STA. 13+00
(SEE SHEET NO. 60)

SEE SHEET NO. 68

PONTENTIALLY PETROLEUM CONTAMINATED AREA

WEST R.O.W.

EAST R.O.W.

℄ ST EMANUEL ST

℄ HUTCHINS ST

℄ PRESTON AVE

80' R.O.W.

NORTH R.O.W.

SOUTH R.O.W.

PROP. 8"WATER

PROP. 12"WATER

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

REMOVE & SALVAGE EXIST. F.H.

ABANDON EXISTING 12" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 12" WATER LINE

1-12" GV

1-12"x8" TEE, AB

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STM. SWR. CROSSING

WET CONNECT TO EX. 12" WATER LINE
1-12" TEE
1-12" GV & BOX
2-12"x45° BENDS
1-12" CUT, PLUG & ABANDON

CenterPoint Energy 2" IP STL GAS MAIN

CenterPoint Energy 6" IP STL GAS MAIN

CenterPoint Energy 12" IP STL GAS MAIN

4'CLR

10'

5' CONC. SIDEWALK

ASPH PAV.

CONC. PAV.

9+00 10+00 11+00 12+00 13+00

12+00 5+00

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PRESTON AVE

Exist. Inlet
FL=40.04 (24"-SE)

Exist. Stm MH
FL=37.08 (24"-NW)
FL=37.21 (24"-SW)
FL=37.06 (24"-SE)

Exist. Inlet
FL=37.26 (24"-NW)
FL=37.75 (24"-SE)

North R.O.W.
℄ Pvmt
South R.O.W.

AT&T TEXAS/SWBT MH

AT&T TEXAS/SWBT
2-4" DUCTS

5' MIN COVER

2'-0" MIN. CLR.

PROP. 8" DIP
W/ RESTRAINED JOINTS

12" WATER

Exist. Inlet
FL=39.97 (15"-SW)

Exist. Inlet
FL=39.95 (18"-SW)
FL=39.84 (18"-NE)

Exist. Strm MH
FL=38.13 (18"-SW)
FL=37.84 (15"-NE)
FL=38.00 (18"-SE)

AT&T TEXAS/SWBT MH

Exist. Inlet
FL=39.78 (12"-W)
FL=39.67 (15"-E)

AT&T TEXAS/SWBT
5 FIBER DUCTS

Exist. Strm MH
FL=39.35 (15"-W)
FL=38.12 (18"-NE)

Exist. Inlet
FL=39.35 (15"-W)
FL=38.12 (18"-NE)

Exist. Strm MH
FL=37.16 (18"-NW)
FL=37.39 (18"-SW)
FL=36.86 (18"-SE)
FL=37.04 (15"-NE)

PROP. 8" WATER

48 46 44 42 40 38 36 34 32 30

8+60 9+00 10+00 11+00 12+00 13+00

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 2 ELEVATION 44.11'
STA. 9+40.50, 40.55' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Use service flow are not shown.)
This Signature not to be used for conflict notification.)
Signature Valid for 60 months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(Use Signature verifies existing underground facilities-not to be used for conflict notification.)
Signature Valid for 60 months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

PLAN AND PROFILE
FROM STA. 8+60.00 TO STA. 13+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 59 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 1:12:09 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

PONTENTIALLY PETROLEUM CONTAMINATED AREA

(SEE SHEET NO. 59)
MATCH LINE STA. 13+00

ABANDON EXISTING 12" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 12" WATER LINE

CenterPoint Energy 4" IP STL GAS MAIN

NORTH R.O.W.

SOUTH R.O.W.

WEST R.O.W.

EAST R.O.W.

80' R.O.W.

℄ PRESTON AVE

℄ BASTROP ST

1-8" GV

PROP. 8"WATER

PROP. 12"WATER

REMOVE & SALVAGE EXIST. F.H.

1-12" GV

4'CL

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. & STRM. SWR. CROSSING

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

2-12"x45° BENDS, AB

B-47

B-53

MATCH LINE STA. 17+00
(SEE SHEET NO. 61)

SEE SHEET NO. 75

PRESTON AVE

Exist. Stm MH
FL=37.22 (15"-NW)
FL=33.78 (24"-NW)
FL=36.17 (18"-N)
FL=33.32 (30"-SW)
FL=35.03 (15"-E)
FL=38.25 (15"-SE)
FL=33.36 (42"-NE)

Exist San MH
FL=36.69 (8" SW)
FL=36.70 (8" NE)

Exist San MH
FL=36.95 (8" SW)
FL=36.98 (8" SE)
FL=36.97 (8" NE)

Exist. Stm MH
FL=35.14 (18"-NW)
FL=33.42 (42"-SW)
FL=35.25 (15"-E)
FL=36.02 (15"-SE)
FL=33.90 (30"-NE)

Exist. Inlet
FL=39.13 (15"-NW)
FL=39.32 (12"-SE)

℄ Pvmt
North R.O.W.
South R.O.W.
5' MIN. COVER
12"water
18"stm
15"stm
8"san
12"stm
12" WATER
PROP. 8" WATER
2'-0" MIN. CLR.
PROP. 8" DIP W/ RESTRAINED JOINTS

13+00 14+00 15+00 16+00 17+00
30 32 34 36 38 40 42 44 46 48

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 4 ELEVATION 41.81'
STA. 15+97.49, 29.04' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature will be used for conflict verification.)
Signature Valid for 24 months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature will be used for conflict verification.)
Signature Valid for 24 months.
AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

PLAN AND PROFILE
FROM STA. 13+00.00 TO STA. 17+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 60 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:30:47 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

PONTENTIALLY PETROLEUM CONTAMINATED AREA

ABANDON EXISTING 12" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 12" WATER LINE

REMOVE & SALVAGE EXIST. F.H.

1-12" 22.5° BEND, AB

1-12"x8" TEE, AB

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

(SEE SHEET NO. 60) MATCH LINE STA. 17+00

MATCH LINE STA. 21+00 (SEE SHEET NO. 62)

℄ PRESTON AVE

℄ EMANCIPATION

NORTH R.O.W.

SOUTH R.O.W.

WEST R.O.W.

EAST R.O.W.

80' R.O.W.

PROP. 12"WATER

PROP. 8"WATER

CenterPoint Energy 4" IP STL GAS MAIN

CenterPoint Energy 2" IP STL GAS MAIN

B-48

SEE SHEET NO. 79

PRESTON AVE

Exist San MH
FL=40.53 (8" NW)
FL=40.59 (4" NE)

Exist San MH
FL=36.56 (8" SW)
FL=36.79 (8" NW)
FL=36.61 (8" NE)

North R.O.W.

South R.O.W.

℄ Pvmt

5' MIN. COVER

2'-0" MIN. CLR.

12" WATER

PROP. 8" WATER

PROP. 8" DIP W/ RESTRAINED JOINTS

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 5 ELEVATION 42.85'
STA. 18+74.89, 34.64' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature is not to be used for conflict verification.)
Signature Valid for 60 months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for 60 months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
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FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

PLAN AND PROFILE
FROM STA. 17+00.00 TO STA. 21+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 61 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 1:39:27 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 61)
MATCH LINE STA. 21+00

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

1-12" GV

1-12"x45° BEND, AB

1-12" TEE, AB

2-12"x45° BENDS, AB

1-12" GV

ABANDON EXISTING 12" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 12" WATER LINE

NORTH R.O.W.
SOUTH R.O.W.
℄ PRESTON AVE
PRESTON AVE

PROP. 12"WATER
8"water
12"water
6' CHAIN LINK FENCE
GRAVEL
TCS 12" GRND BOX
SIGN POLE (2)
RAILROAD SIGN
PRIVATE PROPERTY SIGN
POWER POLE W/ 1-5'D FLAG POLE
POWER POLE W/ 2 GUYS (2) DOWN GUY (2)
5' B.L
10' B.L
B-49
MISSOURI PACIFIC RAILROAD (150'W. WIDTH VARIES)
21+00
22+00
23+00
24+00
24+99
4+90

6" ELM
15" ELM
10" ELM
18" ELM
6" MULBERRY
8" ELM
10" ELM
24" ELM
POWER POLE
16" ELM
12" MULBERRY
8" ELM
6" HACKBERRY
6" MULBERRY
24" ELM
8" HACKBERRY(2)
6" MESQUITE
5" HACKBERRY
POWER POLE W/ ELEC. RISER
DOWN GUY(2)
POWER POLE W/ 2 GUYS (2) DOWN GUY (2)
4" MULBERRY(2)
5" HACKBERRY
7" ELM
5" MULBERRY (2)
DOWN GUY
MULBERRY
5" MULBERRY
8" MULBERRY
GND 5/8 JR. LIGHT POLE W/C BASE
12" MULBERRY (2)

48
46
44
42
40
38
36
34
32
30
21+00
22+00
23+00
24+00
25+00

South R.O.W.
℄ Pvmt
North R.O.W.
12"water
12" WATER
8"water

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W — PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	Appr.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 26 ELEVATION 43.95'
STA. 21+21.43, 28.59' RT

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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Date:
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(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
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Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

PLAN AND PROFILE
FROM STA. 21+00.00 TO STA. 24+98.79

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 62 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 1:41:05 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 75

SEE SHEET NO. 74

SEE SHEET NO. 79

SEE SHEET NO. 78

MATCH LINE STA. 9+40
(SEE SHEET NO. 64)

PONTENTIALLY PETROLEUM CONTAMINATED AREA

WEST R.O.W.

EAST R.O.W.

NORTH R.O.W.

SOUTH R.O.W.

℄ BASTROP ST

℄ PRAIRIE AVE

℄ EMANCIPATION

80' R.O.W.

CenterPoint Energy
12" IP STL GAS MAIN

CenterPoint Energy
2" IP STL GAS MAIN

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. & STRM. SWR. CROSSING

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

PROP. 8"WATER

B-52

B-54

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PRAIRIE AVE

Exist San MH FL=35.65 (8" SW) FL=35.98 (8" NW) FL=35.46 (8" NE) FL=35.53 (8" SE)

Exist. Strm MH FL=32.63 (30"-SW) FL=33.64 (18"-NW) FL=35.07 (15"-SE) FL=34.74 (15"-E) FL=32.55 (30"-NE)

Exist. Inlet FL=38.20 (15"-NW)

Exist. Inlet FL=38.98 (15"-W)

South R.O.W.

North R.O.W.

℄ Pvmt

Exist. Inlet FL=38.50 (30"-NW) FL=38.84 (12"-SW) FL=38.48 (24"-SE)

Exist. Inlet FL=39.21 (24"-NW) FL=40.97 (12"-SW)

Exist. Strm MH FL=39.45 (15"-SW) FL=37.89 (15"-N) FL=40.09 (18"-NE) FL=39.82 (4"-SE)

Exist. Inlet FL=37.74 (15"-N)

Exist. Inlet FL=39.03 (15"-S)

Exist. Strm MH FL=37.10 (15"-S) FL=39.00 (4"-SE) FL=36.18 (15"-NE)

Exist. Inlet FL=38.15 (15"-S)

Exist. Inlet FL=38.87 (15"-E)

Exist. Strm MH FL=35.62 (15"-E) FL=35.01 (15"-NW) FL=34.90 (15"-SE) FL=36.33 (15"-SE)

Exist. Strm MH FL=38.42 (15"-NW) FL=29.02 (48"-NW) FL=38.50 (15"-W) FL=41.28 (4"-S) FL=29.04 (48"-SE)

Exist. Strm MH FL=38.15 (15"-N) FL=37.30 (15"-W)

5' MIN. COVER

PROP. 8" WATER

2'-0" MIN. CLR.

PROP. 8" DIP W/ RESTRAINED JOINTS

8" WATER

Exist San MH FL=35.29 (8" SW) FL=34.90 (8" NW) FL=35.17 (8" NE) FL=34.85 (8" SE)

Exist San MH FL=34.61 (8" NW) FL=34.67 (8" SE) FL=34.81 (8" NE) FL=35.16 (8" SW)

5+00 6+00 7+00 8+00 9+00 9+40

30 32 34 36 38 40 42 44 46 48

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 17 ELEVATION 41.75'
STA. 5+67.45, 37.57' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for 60 months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground bullhe-not to be used for conflict verification.)
Signature Valid for 60 months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRAIRIE AVE

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 63 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 1:48:11 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 63)
MATCH LINE STA. 9+40

NORTH R.O.W.

25' B.L.

1' CONC. RW W/7' CHAIN LINK FENCE

℄ PRAIRIE AVE

B-55

9+40 10+00 11+00 12+00 13+00

PROP. 8"WATER

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

2-8"x45° BENDS, AB

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE
1-8" GV & BOX
1-8" CUT, PLUG & ABANDON

6"water
8"water
4"san
8"san
24"stm
48"stm

BB-INLET
TRAFFIC SIGN
SHIPPING CONTAINER W/CANOPY
CONC. PAV.
CONC. RW W/7' CHAIN LINK FENCE
MANHOLE
INTERCEPTOR MANHOLE (2)
0.4'D CLEAN OUT
KEEP RIGHT SET CUT X DO NOT

PRAIRIE AVE

North R.O.W.
South R.O.W.
℄ Pvmt
Exist San MH
FL=41.11 (4" NW)
FL=41.61 (4" SE)
Exist. Stm MH
FL=28.69 (48"-W)
FL=36.01 (24"-N)
FL=21.68 (48"-E)
FL=34.89 (24"-S)
Exist. Inlet
FL=34.91 (24"-N)
Exist San MH
FL=33.52 (8" NW)
FL=33.67 (8" SW)
FL=33.82 (8" SE)
Exist. Stm MH
FL=25.00 (24"-N)
FL=23.50 (48"-W)
Exist. Inlet
FL=29.68 (24"-S)
Exist. Inlet
FL=29.17 (24"-N)
FL=28.89 (24"-S)
5' MIN COVER
2'-0" MIN. CLR.
8" WATER
PROP. 8" DIP W/ RESTRAINED JOINTS
6"water
8"water
8"san
4"san
24"stm
48"stm

48 46 44 42 40 38 36 34 32 30

9+40 10+00 11+00 12+00 13+00 13+80

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 19 ELEVATION 39.43'
STA. 11+48.95, 10.39' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRAIRIE AVE

PLAN AND PROFILE
FROM STA. 9+40.00 TO STA. 13+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 64 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 1:48:24 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&PS\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

CenterPoint Energy
8" IP STL GAS MAIN

WEST R.O.W.

REMOVE & SALVAGE
EXIST. F.H.

1-F.H., 3.0' B.C.
1-12"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

7+00

ABANDON EXISTING 12"
WATER LINE AND
TRANSFER SERVICE CONNECTIONS
TO PROPOSED 12" WATER LINE

EAST R.O.W.

NORTH R.O.W.

5' TYP

CenterPoint Energy
4" IP STL GAS MAIN

PROP.
12"WATER

MATCH LINE STA. 9+80
(SEE SHEET NO. 66)

12"water

24"stm

2-12"x45° BENDS, AB

AT&T TEXAS/SWBT Buried Cable

WET CONNECT TO
EX. 12" WATER LINE
1-12" TEE
1-12" GV & BOX
2-12"x45° BENDS
1-12" CUT, PLUG
& ABANDON

5+00

6+00

7+00

8+00

9+00

℄ TEXAS AVE

100' R.O.W.

10"san

6"water

8"stm

B-50

1-20' SECTION OF WATER LINE
W/RESTRAINED JOINTS
CENTERED AT STM. SWR. CROSSING

CenterPoint Energy
6" IP STL GAS MAIN

30"stm

℄ ST EMANUEL ST

SOUTH R.O.W.

WEST R.O.W.

EAST R.O.W.

SEE SHEET NO. 68

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 28 ELEVATION 43.44'
STA. 6+79.49, 44.89' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
The Signatory not to be used for comfort verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signatory verifies existing underground facilities-not to be used for comfort verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
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FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

TEXAS AVE

PLAN AND PROFILE
FROM STA. 5+40.00 TO STA. 9+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 65 OF 362	

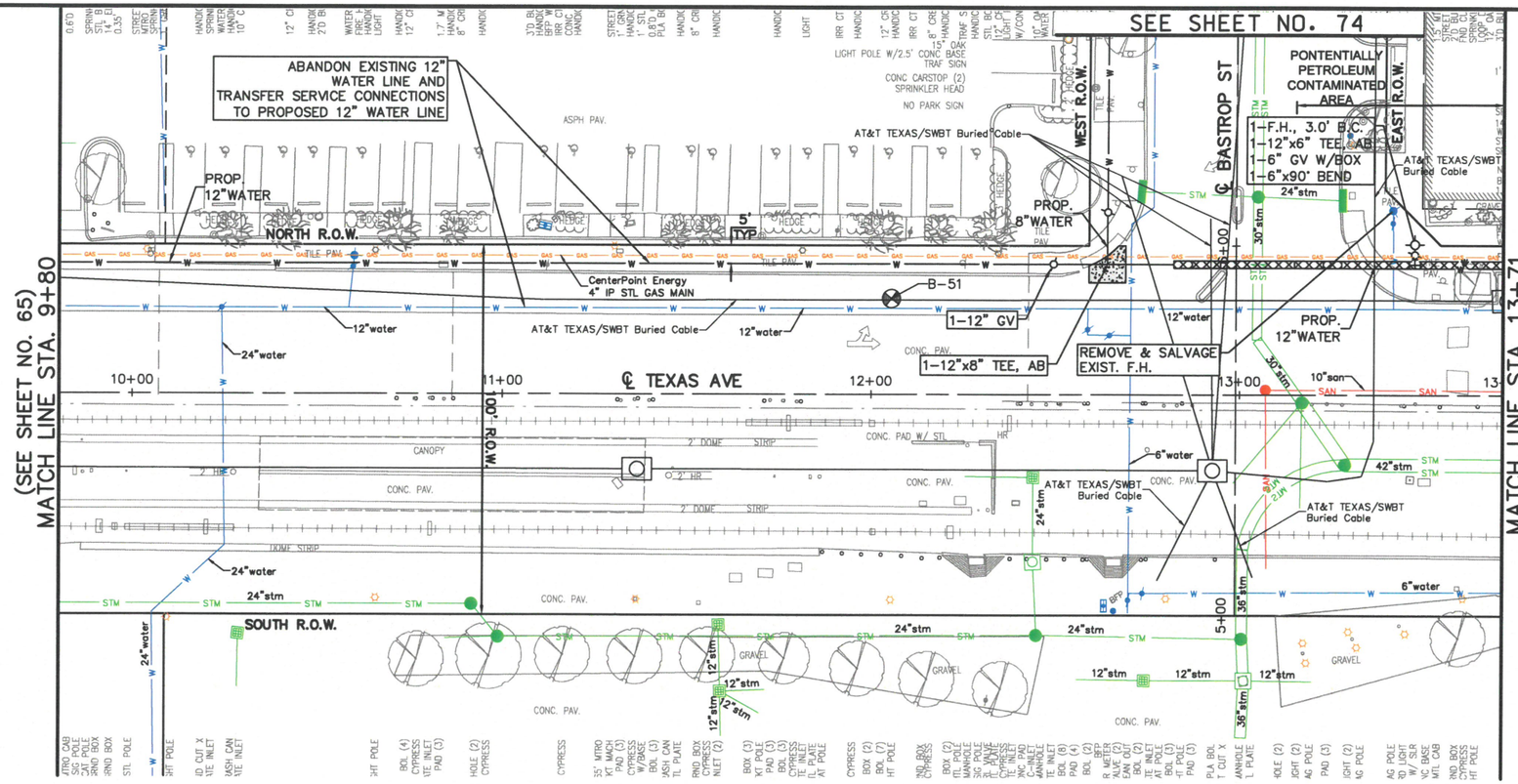
TEXAS AVE

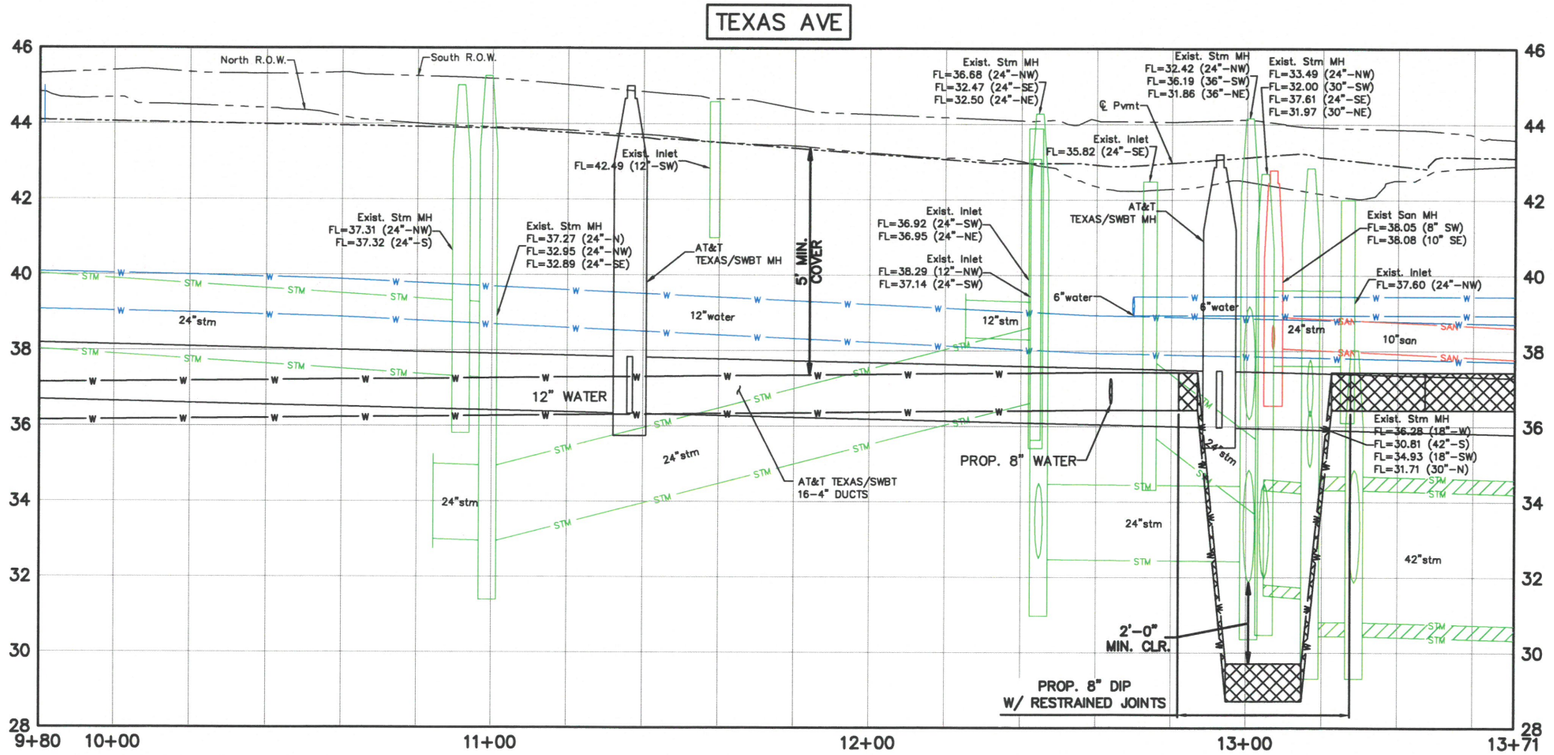
Exist. Stm MH FL=38.95 (24"-SW) FL=38.90 (24"-SE)
Exist. Stm MH FL=38.48 (24"-NW) FL=38.79 (24"-NE)
Exist. Stm MH FL=35.85 (30"-SW) FL=35.77 (24"-NW) FL=35.77 (24"-SE)
Exist. Inlet FL=39.00 (24"-NW)
Exist. Stm MH FL=37.34 (24"-S) FL=38.14 (8"-NE)
Exist. Stm MH FL=36.50 (24"-NW) FL=37.34 (24"-N) FL=36.75 (24"-SE)
℄ Pvmt
North R.O.W.
South R.O.W.
Exist. Inlet FL=38.41 (24"-NE) FL=38.40 (24"-S)
AT&T TEXAS/SWBT MH
Exist. Inlet FL=37.84 (24"-SW)
Exist. Stm MH FL=37.00 (24"-NW) FL=37.84 (24"-NE)
Exist. Inlet FL=37.30 (24"-SE)
AT&T TEXAS/SWBT 16-4" DUCTS
5' MIN. COVER
Exist. Inlet FL=38.50 (24"-SW)
PROP. 12" WATER
2'-0" MIN. CLR.
12" WATER
Exist. Inlet FL=38.90 (24"-NW) FL=38.90 (24"-SE)
PROP. 8" DIP W/ RESTRAINED JOINTS
Exist. Stm MH FL=38.27 (24"-N) FL=38.21 (24"-SE)
Exist San MH FL=32.41 (10" NW)

48 46 44 42 40 38 36 34 32 30
5+40 6+00 7+00 8+00 9+00 9+80

PLOTTED ON: Wednesday, September 23, 2026 2:52:22 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 21 ELEVATION 43.88'
STA. 12+95.76, 48.18' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(No Signature)
This Standard not to be used for comfirst verification.)
Signature Valid for six months

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature verifies existing underground facilities-not to be used for comfirst verification.)
Signature Valid for six months

AT&T TEXAS/SWBT UTILITY LINES SHOWN:

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only

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TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TEXAS AVE

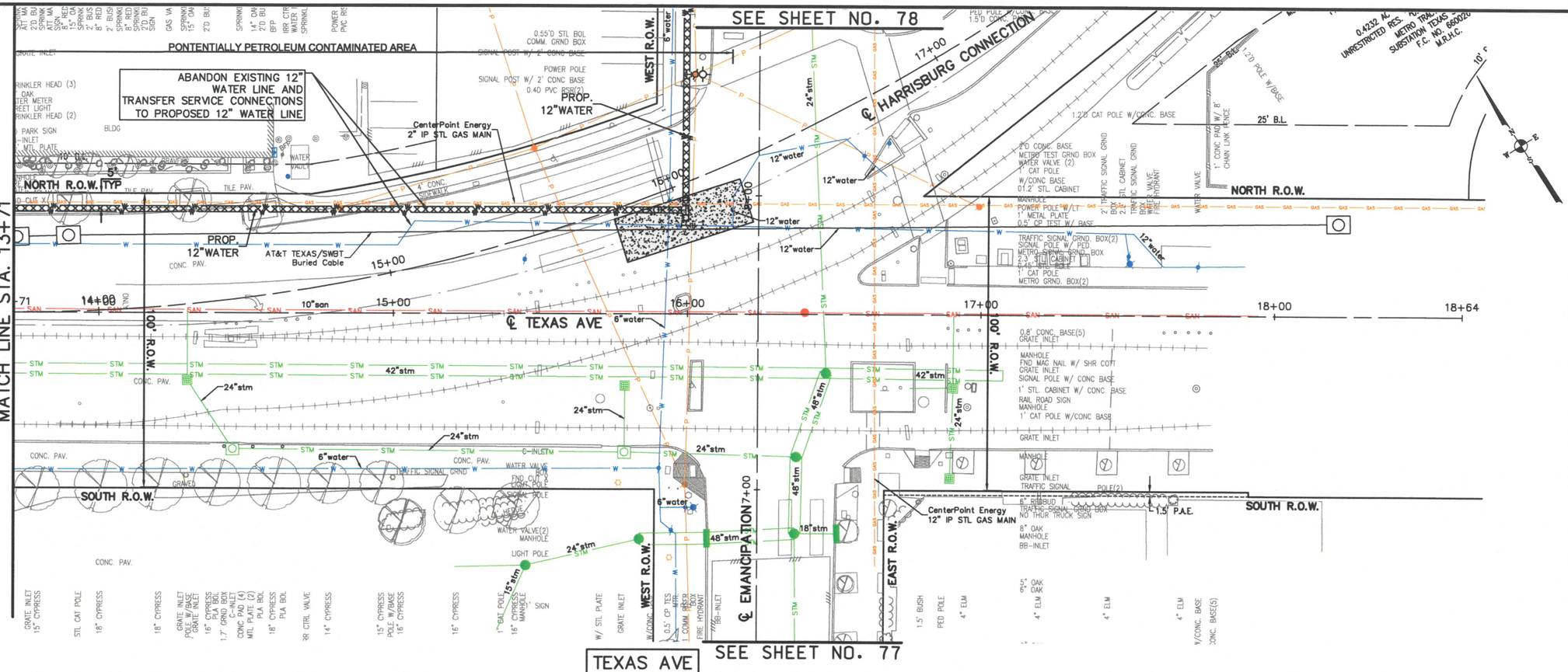
PLAN AND PROFILE
FROM STA. 9+80.00 TO STA. 13+71.27

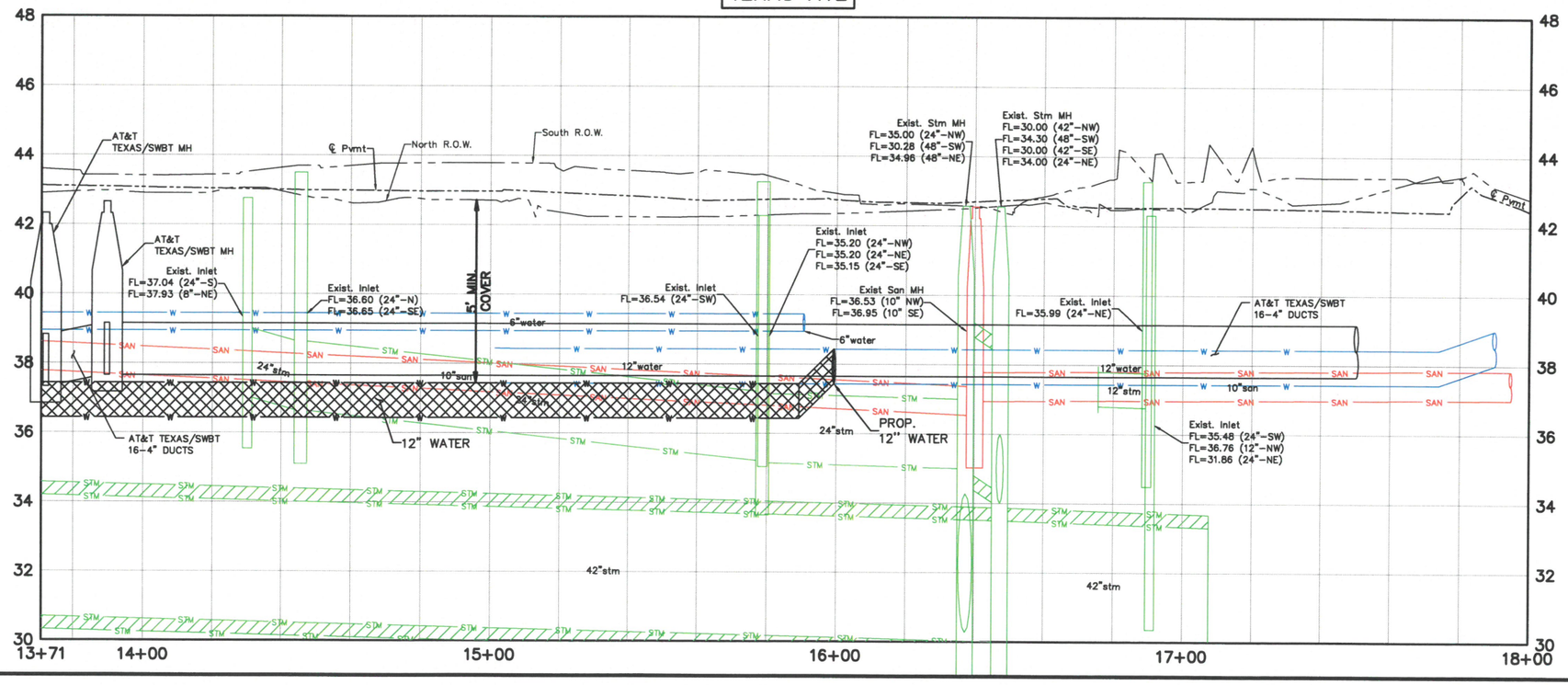
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 66 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 2:13:13 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 66)
MATCH LINE STA. 13+71





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 20 ELEVATION 42.68'
STA. 15+89.46, 69.45' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, BORE OR BLAST TO LOCATE UNDERGROUND UTILITY LINES. (IN TEXAS, IT'S THE LAW!) (IF ANY EXCAVATION IS TO BE MADE). THIS VERIFICATION DOES NOT FULFILL YOUR OBLIGATION TO CALL 811.

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature will be used for conflict verification.)
Signature valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature will be used for conflict verification.)
Signature valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

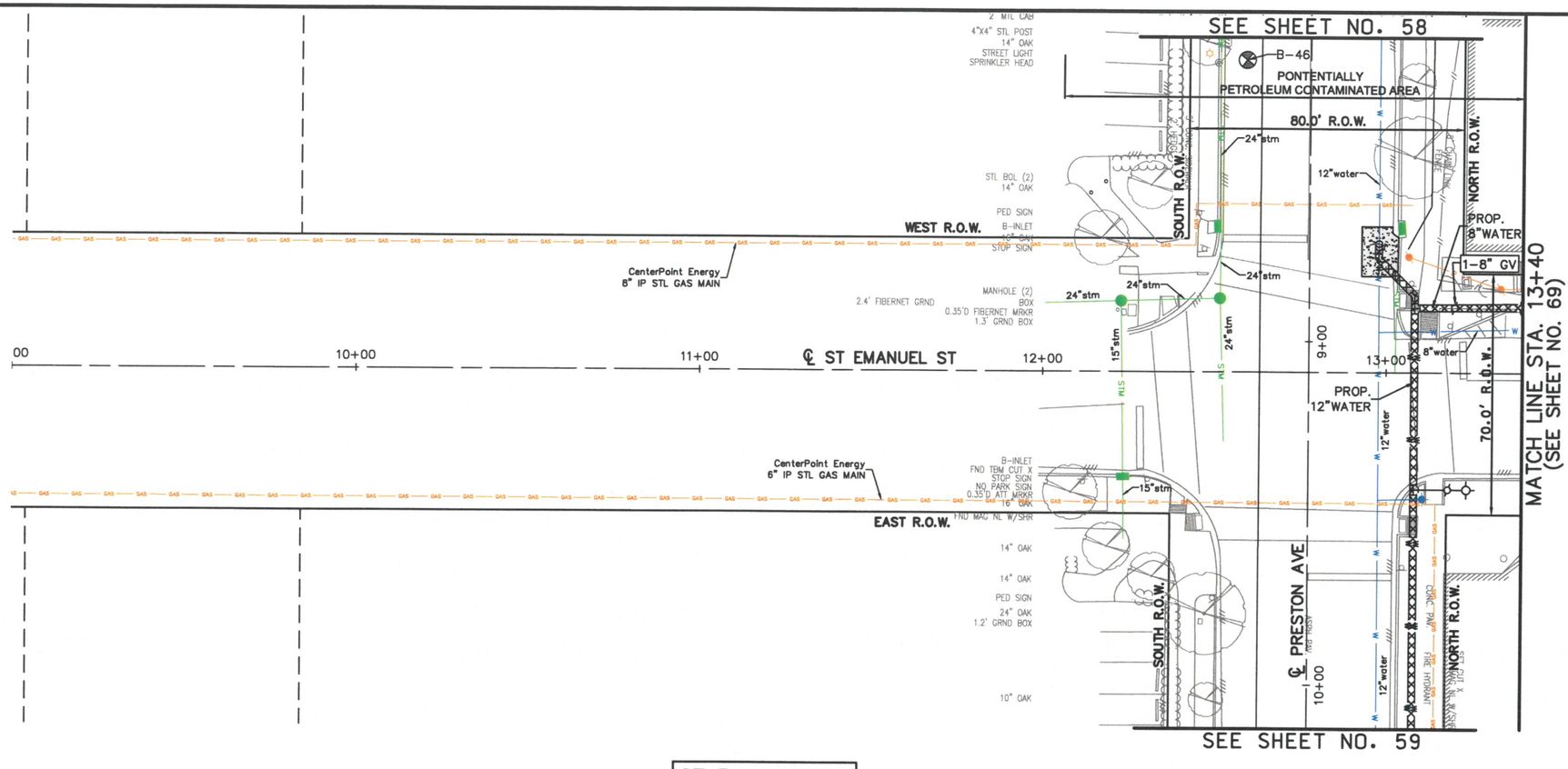
TEXAS AVE

PLAN AND PROFILE
FROM STA. 13+71.27 TO STA. 18+64.05

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 67 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 2:19:56 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM## 2 ELEVATION 44.11'
STA. 13+18.02, 31.55' RT

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG. DO THAT UNDERGROUND LINE CAN BE MARKED. THIS VERIFICATION DOES NOT FULFILL YOUR OBLIGATION TO CALL 811.

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas strips lines are not shown.)
(No Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

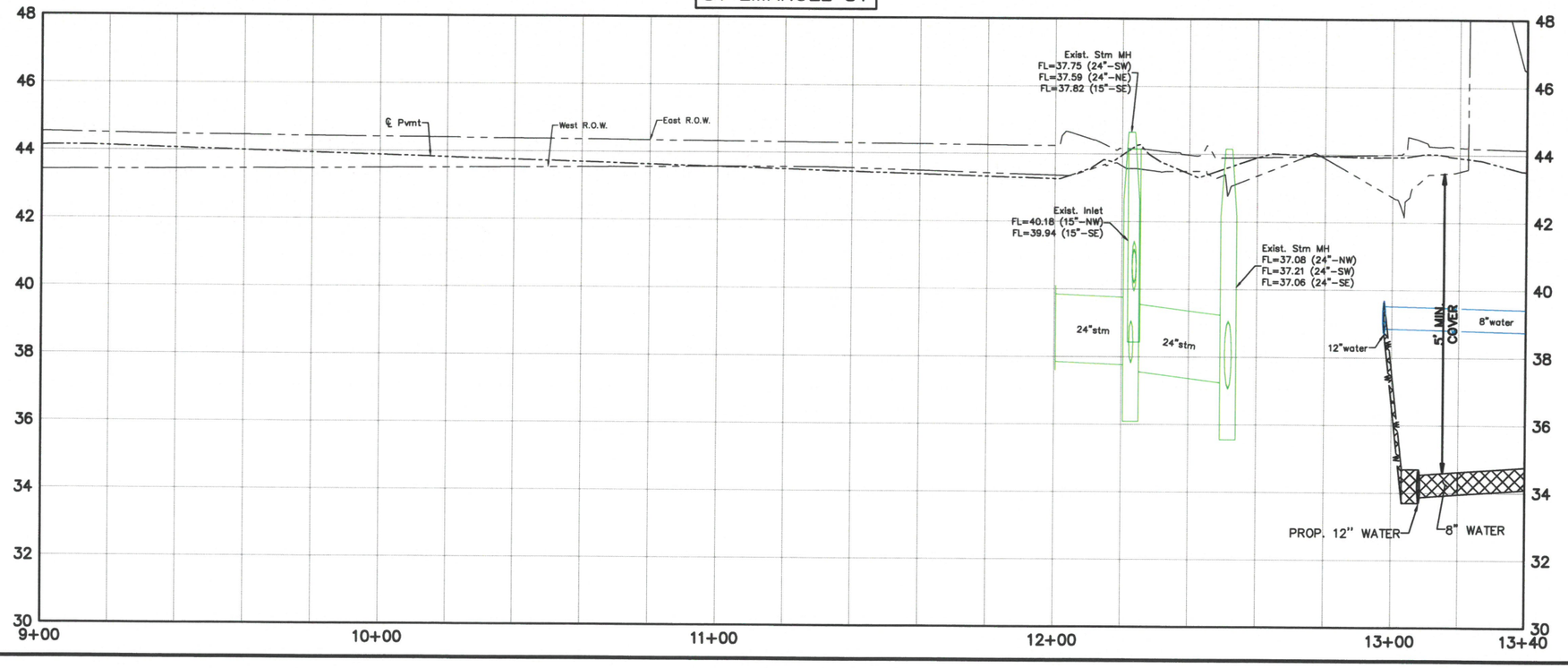
WATERLINE REPLACEMENT IN SECOND WARD

ST EMANUEL ST

PLAN AND PROFILE
FROM STA. 9+00.00 TO STA. 13+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 68 OF 362	

ST EMANUEL ST



PLOTTED ON: Wednesday, September 23, 2026 2:25:35 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

PONTENTIALLY PETROLEUM CONTAMINATED AREA

(SEE SHEET NO. 68)
MATCH LINE STA. 13+40

SEE SHEET NO. 54

MATCH LINE STA. 17+80
(SEE SHEET NO. 70)

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-8" TEE, AB

1-8" GV

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

PROP. 8"WATER

WEST R.O.W.

EAST R.O.W.

SOUTH R.O.W.

NORTH R.O.W.

81.0' R.O.W.

70.0' R.O.W.

CenterPoint Energy 6" IP STL GAS MAIN

CenterPoint Energy 2" IP STL GAS MAIN

℄ ST EMANUEL ST

℄ CONGRESS AVE

B-43

B-45

14+00 15+00 16+00 17+00

9+00 10+00

SEE SHEET NO. 55

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

ST EMANUEL ST

West R.O.W. | East R.O.W. | ℄ Pvmt

Exist San MH
FL=39.50 (4" SW)
FL=39.50 (4" S)
FL=39.45 (8" NE)

Exist. Inlet
FL=39.41 (18"-SE)

5' MIN. COVER

2'-0" MIN. CLR.

8"water | 4"san | 8"san

8" WATER | PROP. 8" WATER | PROP. 8" DIP W/ RESTRAINED JOINTS

48 46 44 42 40 38 36 34 32 30

13+40 14+00 15+00 16+00 17+00 17+80

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 9 ELEVATION 43.41'
STA. 15+74.19, 16.12' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
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Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ST EMANUEL ST

PLAN AND PROFILE
FROM STA. 13+40.00 TO STA. 17+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 69 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:33:42 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 52

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE
1-8" GV & BOX
1-8" CUT, PLUG & ABANDON

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

(SEE SHEET NO. 69)
MATCH LINE STA. 17+80

WEST R.O.W.
77.5' R.O.W.
EAST R.O.W.
79.7' R.O.W.
81.0' R.O.W.

℄ ST EMANUEL ST
℄ FRANKLIN AVE
℄ NAVIGATION ST

PROP. 8"WATER
2-8"x45° BENDS, AB
1-8" TEE, AB
1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

CenterPoint Energy
2" IP STL GAS MAIN

SEE SHEET NO. 53

ST EMANUEL ST

Exist San MH
FL=38.43 (8" SE)

Exist. Stm MH
FL=38.40 (24"-NW)
FL=38.43 (12"-SW)
FL=38.20 (24"-SE)
FL=38.38 (12"-NE)

Exist. Inlet
FL=36.61 (18"-NE)

Exist San MH
FL=36.65 (8" SW)

Exist San MH
FL=38.80 (8" NW)
FL=38.72 (4" SE)

Exist San MH
FL=38.49 (8" SW)
FL=38.93 (8" NW)
FL=38.47 (8" NE)

Exist. Inlet
FL=37.21 (18"-E)

Exist. Inlet
FL=36.09 (12"-E)
FL=40.97 (15"-SE)

Exist San MH
FL=37.92 (8" NW)
FL=36.90 (10" NE)
FL=36.88 (8" SE)

Exist. Stm MH
FL=37.69 (18"-NW)
FL=36.75 (24"-SW)
FL=37.43 (18"-NE)

Exist San MH
FL=33.68 (8" SW)
FL=38.19 (8" E)

5' MIN. COVER
2'-0" MIN. CLR.
8" WATER
PROP. 8" DIP W/ RESTRAINED JOINTS
PROP. 8" WATER

48 46 44 42 40 38 36 34 32 30
17+80 18+00 19+00 20+00 21+00 22+00

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W — PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 12 ELEVATION 42.83'
STA. 19+19.81, 8.66' RT

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas works lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ST EMANUEL ST

PLAN AND PROFILE
FROM STA. 17+80.00 TO STA. 22+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 70 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:33:57 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 59

SEE SHEET NO. 60

SEE SHEET NO. 55

SEE SHEET NO. 56

PONTENTIALLY PETROLEUM CONTAMINATED AREA

℄ PRESTON AVE

℄ HUTCHINS ST

℄ CONGRESS AVE

WEST R.O.W.

EAST R.O.W.

79.0' R.O.W.

MATCH LINE STA. 9+40
(SEE SHEET NO. 72)

PROP. 12"WATER

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

PROP. 8"WATER

1-12"x8" TEE, AB

REMOVE & SALVAGE EXIST. F.H.

1-8" GV

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

CenterPoint Energy
2" IP STL GAS MAIN

CenterPoint Energy
12" IP STL GAS MAIN

12" WATER

8"WATER

24"water

18"stm

15"stm

12"water

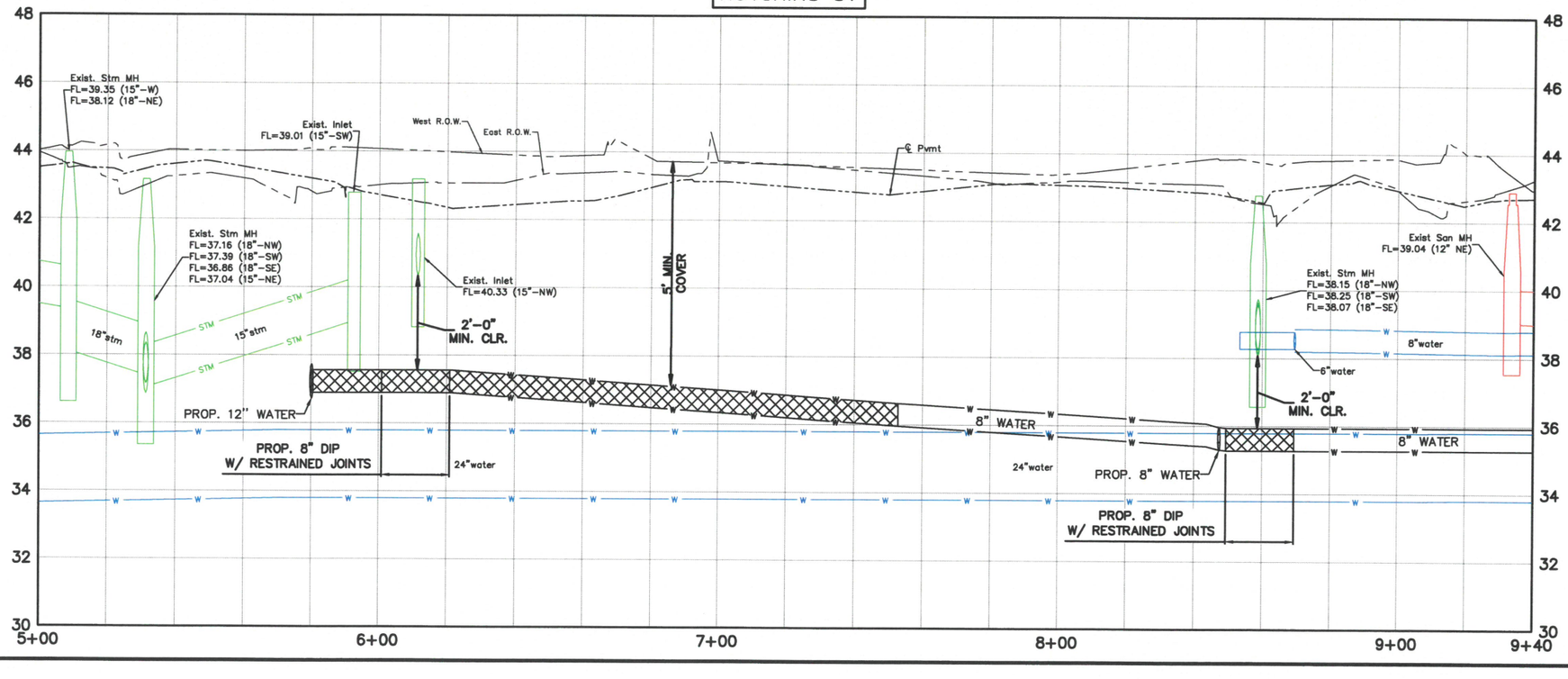
6"water

8"water

B-47

B-44

HUTCHINS ST



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 3 ELEVATION 43.20'
STA. 5+21.32, 25.91' RT

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
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Date:
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AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

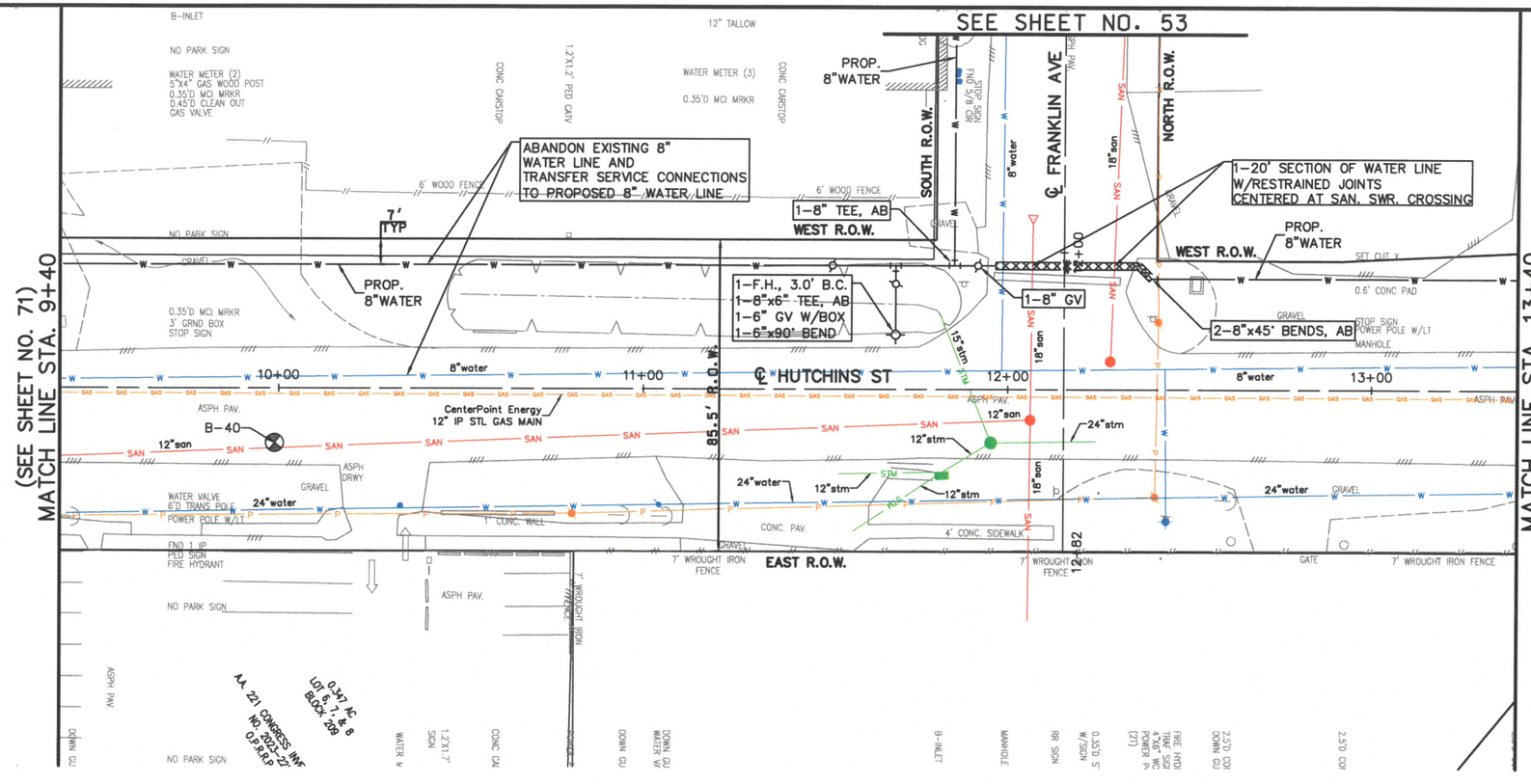
HUTCHINS ST

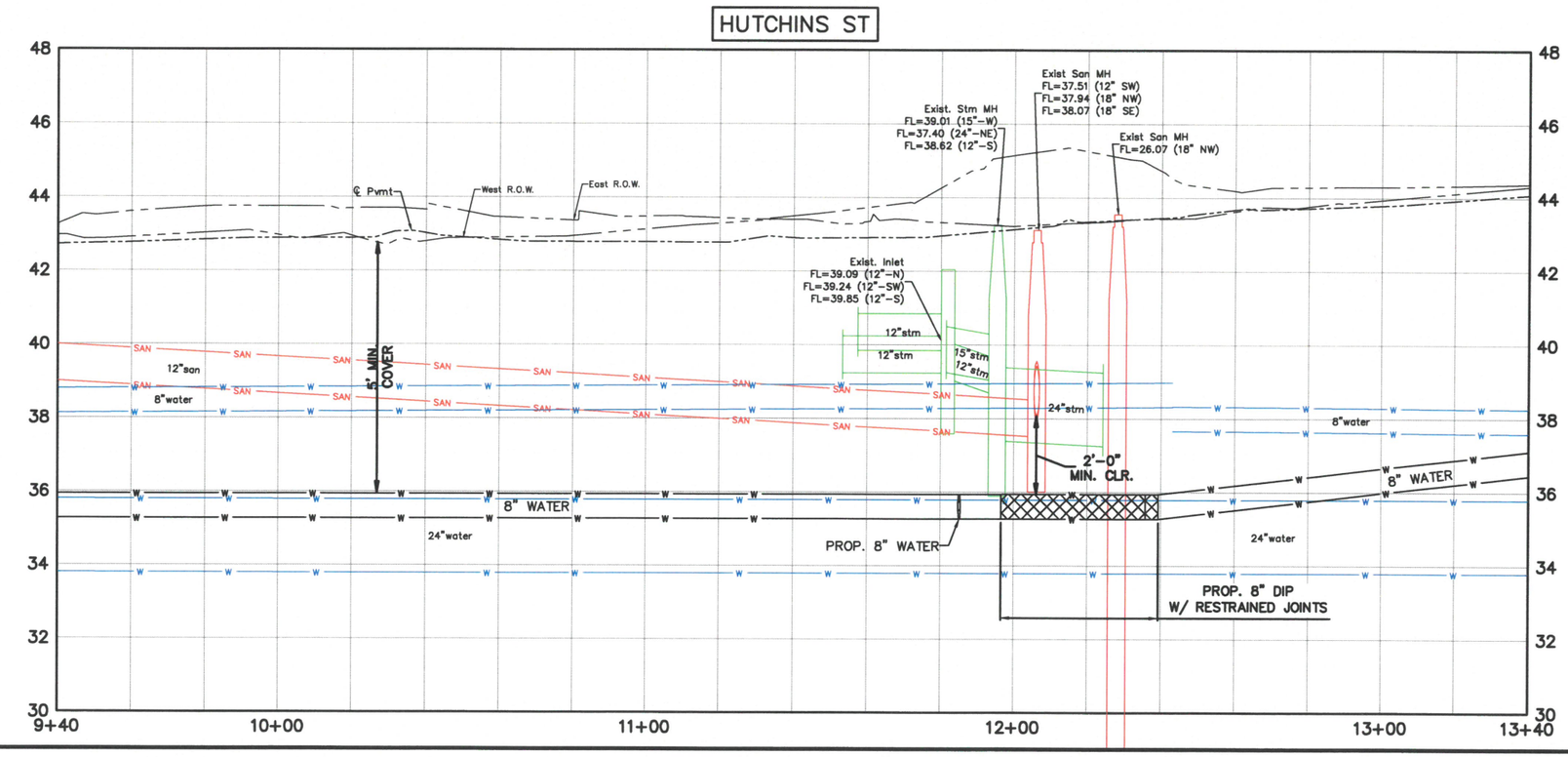
PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 71 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 2:32:17 PM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
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- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 13 ELEVATION 44.79'
STA. 12+38.48, 37.10' LF

NOTICE:
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TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

HUTCHINS ST

PLAN AND PROFILE
FROM STA. 9+40.00 TO STA. 13+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 72 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 2:33:58 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 72)
MATCH LINE STA. 13+40

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

2-8"x45° BENDS, AB

WEST R.O.W.

PROP. 8"WATER

1-8" GV

B-41

CenterPoint Energy 12" IP STL GAS MAIN

℄ HUTCHINS ST

83.0' R.O.W.

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE
1-8" GV & BOX
1-8" CUT, PLUG & ABANDON

EAST R.O.W.

24"water

8"water

6"water

GAS METER

WATER METER 15" OAK

POWER POLE W/LT

WATER METER (5)

BIKE SIGN

CITY OF HOUSTON VOL. 837, PG. 404 H.C.D.R.

ESMT ACCESS RR ROW VOL. 788, PG. 107 H.C.D.R.

℄ NAVIGATION ST

CITY OF HOUSTON VOL. 749, PG. 408 H.C.D.R.

CenterPoint Energy 15" IP STL GAS MAIN

℄ COMMERCE ST

8" san

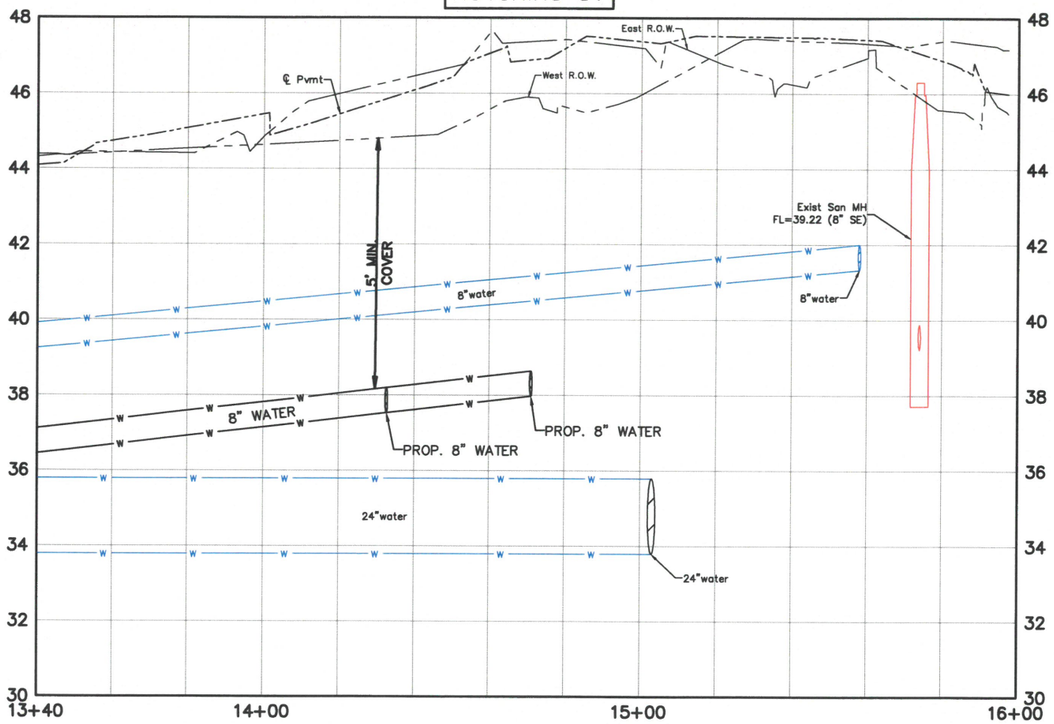
6' WIRE FENCE

5' CONC. SIDEWALK

3+00 9+00 10+00 14+00 15+00 15+97

SEE SHEET NO. 51

HUTCHINS ST



LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W — PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM## 13 ELEVATION 44.79'
STA. 12+38.48, 37.10' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature will be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities--not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

HUTCHINS ST

PLAN AND PROFILE
FROM STA. 13+40.00 TO STA. 15+97.31

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 73 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:34:42 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 66

SEE SHEET NO. 67

SEE SHEET NO. 63

MATCH LINE STA. 9+60
(SEE SHEET NO. 75)

100.0' R.O.W.

℄ TEXAS AVE

NORTH R.O.W.

SOUTH R.O.W.

WEST R.O.W.

EAST R.O.W.

℄ BASTROP ST

80.3' R.O.W.

℄ PRAIRIE AVE

80.1' R.O.W.

PROP. 12"WATER

1-8" GV

1-12"x8" TEE, AB

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

REMOVE & SALVAGE EXIST. F.H.

1-F.H., 3.0' B.C.
8"x6" TEE, AB
6" GV W/BOX
1-6"x90° BEND

PROP. 8" WATER

5' TYP.

CenterPoint Energy
4" IP STL GAS MAIN

CenterPoint Energy
12" IP STL GAS MAIN

T&T TEXAS/SWBT Buried Cable

AT&T TEXAS/SWBT Buried Cable

B-51

B-52

5+00

6+00

7+00

8+00

9+00

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	Appr.

BASTROP ST

Exist. Stm MH
FL=36.28 (18"-W)
FL=30.81 (42"-S)
FL=34.93 (18"-SW)
FL=31.71 (30"-N)

Exist. Stm MH
FL=33.49 (24"-NW)
FL=32.00 (30"-SW)
FL=37.61 (24"-SE)
FL=31.97 (30"-NE)

Exist. Stm MH
FL=32.76 (30"-SW)
FL=35.23 (24"-SE)
FL=32.88 (30"-NE)

West R.O.W.
East R.O.W.
℄ Pvmt

Exist San MH
FL=38.05 (8" SW)
FL=38.08 (10" SE)

Exist. Inlet
FL=37.60 (24"-NW)

Exist. Inlet
FL=35.82 (24"-SE)

5' MIN. COVER

Exist San MH
FL=36.98 (8" NW)
FL=36.15 (8" SW)
FL=36.56 (8" SE)
FL=36.24 (8" NE)

Exist. Stm MH
FL=32.63 (30"-SW)
FL=33.64 (18"-NW)
FL=35.07 (15"-SE)
FL=34.74 (15"-E)
FL=32.55 (30"-NE)

Exist San MH
FL=35.65 (8" SW)
FL=35.98 (8" NW)
FL=35.46 (8" NE)
FL=35.53 (8" SE)

PROP. 12" WATER

2'-0" MIN. CLR.

PROP. 8" DIP
W/ RESTRAINED JOINTS

8" WATER

2'-0" MIN. CLR.

PROP. 8" DIP
W/ RESTRAINED JOINTS

2'-0" MIN. CLR.

48 46 44 42 40 38 36 34 32 30

5+00 6+00 7+00 8+00 9+00 9+60

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 21 ELEVATION 43.88'
STA. 5+11.51, 3.18' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:

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

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:

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

Date:

CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BASTROP ST

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 9+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 74 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:34:58 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 60

POTENTIALLY PETROLEUM CONTAMINATED AREA

(SEE SHEET NO. 74)
MATCH LINE STA. 9+60

MATCH LINE STA. 14+00
(SEE SHEET NO. 76)

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. & STRM. SWR. CROSSING

WEST R.O.W.
EAST R.O.W.
SOUTH R.O.W.
NORTH R.O.W.
80.0' R.O.W.
80.1' R.O.W.
79.9' R.O.W.

℄ BASTROP ST
℄ PRESTON AVE

PROP. 8"WATER
PROP. 12"WATER
PROP. 8"WATER
PROP. 12"WATER

CenterPoint Energy
4" IP STL GAS MAIN

B-53

SEE SHEET NO. 61

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 4 ELEVATION 41.81'
STA. 12+56.51, 28.40' RT

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for comAst earthwork.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for comAst earthwork.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BASTROP ST

PLAN AND PROFILE
FROM STA. 9+60.00 TO STA. 14+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 75 OF 362	

BASTROP ST

Exist. Stm MH
FL=37.22 (15"-NW)
FL=33.78 (24"-NW)
FL=36.17 (18"-N)
FL=33.32 (30"-SW)
FL=35.03 (15"-E)
FL=38.25 (15"-SE)
FL=33.36 (42"-NE)

Exist. Inlet
FL=38.75 (15"-W)
FL=41.12 (12"-SE)

Exist. Stm MH
FL=35.14 (18"-NW)
FL=33.42 (42"-SW)
FL=35.25 (15"-E)
FL=36.02 (15"-SE)
FL=33.90 (30"-NE)

Exist. Stm MH
FL=39.09 (15"-NW)
FL=38.29 (18"-SE)

West R.O.W.
East R.O.W.
℄ Pvmt

5' MIN. COVER

Exist. Inlet
FL=36.25 (15"-SE)

Exist San MH
FL=36.69 (8" SW)
FL=36.70 (8" NE)

Exist. Inlet
FL=39.49 (15"-NW)
Exist. Inlet
FL=39.47 (15"-SE)
Exist. Stm MH
FL=38.04 (15"-W)
FL=38.64 (15"-SE)

6"water
8"san
30"stm
42"stm
18"stm

PROP. 12" WATER
2'-0" MIN. CLR.

PROP. 8" DIP
W/ RESTRAINED JOINTS

Exist San MH
FL=36.95 (8" SW)
FL=36.98 (8" SE)
FL=36.97 (8" NE)

9+60 10+00 11+00 12+00 13+00 14+00
48 46 44 42 40 38 36 34 32 30

PLOTTED ON: Wednesday, September 23, 2026 8:35:13 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 56

PONTENTIALLY PETROLEUM CONTAMINATED AREA

ABANDON EXISTING 6" WATER LINE AND SERVICE CONNECTIONS TRANSFER TO PROPOSED 8" WATER LINE

REMOVE & SALVAGE EXIST. F.H.

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

1-8" TEE, AB

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

PROP. 8"WATER

WEST R.O.W.

SOUTH R.O.W.

NORTH R.O.W.

EAST R.O.W.

79.9' R.O.W.

74.1' R.O.W.

84.9' R.O.W.

86.8' R.O.W.

℄ BASTROP ST

℄ CONGRESS AVE

(SEE SHEET NO. 75)
MATCH LINE STA. 14+00

14+00 15+00 16+00 17+00 18+00

CenterPoint Energy
2" IP STL GAS MAIN

SEE SHEET NO. 57

BASTROP ST

Exist. Stm MH
FL=36.09 (15"-NW)
FL=34.41 (24"-NE)
FL=34.39 (30"-SW)
FL=38.09 (15"-E)

Exist San MH
FL=38.30 (8" SW)
FL=38.50 (8" SE)

Exist. Inlet
FL=38.77 (15"-SE)

Exist. Inlet
FL=36.35 (24"-NW)

Exist San MH
FL=37.32 (8" SW)
FL=38.19 (8" NE)
FL=37.34 (6" E)

Exist. Inlet
FL=39.54 (15"-W)

Exist. Inlet
FL=36.87 (15"-NE)

Exist. Stm MH
FL=35.65 (18"-NW)
FL=34.68 (24"-NE)
FL=35.30 (24"-SW)

Exist. Stm MH
FL=35.33 (24"-SW)
FL=36.33 (24"-W)
FL=35.99 (18"-NW)
FL=36.23 (24"-SE)

West R.O.W.
East R.O.W.
℄ Pvmt

5' MIN. COVER

2'-0" MIN. CLR.

PROP. 8" DIP
W/ RESTRAINED JOINTS

PROP. 8" WATER

48 46 44 42 40 38 36 34 32 30

14++00 15+00 16+00 17+00 18+00 18+40

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 7 ELEVATION 42.47'
STA. 15+94.82, 26.17' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature notifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BASTROP ST

PLAN AND PROFILE
FROM STA. 14+00.00 TO STA. 19+03.25

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 76 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:35:28 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 67

MATCH LINE STA. 9+40
(SEE SHEET NO. 78)

POTENTIALLY PETROLEUM CONTAMINATED AREA

WEST R.O.W.
SOUTH R.O.W.
EAST R.O.W.
NORTH R.O.W.
75.5' R.O.W.
100.2' R.O.W.
78.4' R.O.W.

℄ TEXAS AVE
℄ EMANCIPATION
℄ HARRISBURG CONNECTION

PROP. 12"WATER
1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND
ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE
1-12" TEE, AB
1-12"x8" REDUCER
PROP. 8"WATER
WET CONNECT TO EX. 12" WATER LINE
1-12" TEE
1-12" GV & BOX
1-12" CUT, PLUG & ABANDON

CenterPoint Energy
12" IP STL GAS MAIN

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

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 20 ELEVATION 42.68'
STA. 8+29.20, 34.60' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(No Signature will be given.)
This Blanket is not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature will be given.)
This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

EMANCIPATION

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 77 OF 362	

EMANCIPATION

Exist. Stm MH
FL=34.05 (48"-NW)
FL=33.88 (18"-SW)
FL=33.60 (18"-SE)
FL=30.17 (48"-NE)

Exist. Stm MH
FL=35.00 (24"-NW)
FL=30.28 (48"-SW)
FL=34.96 (48"-NE)

Exist. Stm MH
FL=30.00 (42"-NW)
FL=34.30 (48"-SW)
FL=30.00 (42"-SE)
FL=34.00 (24"-NE)

Exist. Stm MH
FL=33.32 (24"-SW)
FL=33.36 (24"-W)
FL=33.37 (24"-E)

West R.O.W.
East R.O.W.
℄ Pvmt

Exist San MH
FL=36.53 (10" NW)
FL=36.95 (10" SE)

Exist. Inlet
FL=34.23 (18"-NW)

Exist. Inlet
FL=30.88 (48"-NW)
FL=31.04 (48"-SE)

Exist. Inlet
FL=33.85 (24"-E)

Exist. Inlet
FL=33.72 (24"-W)

6"water
12"water
18"stm
24"stm
48"stm
PROP. 12" WATER
12" WATER
8" WATER
5' MIN. COVER

48 46 44 42 40 38 36 34 32 30

5+00 6+00 7+00 8+00 9+00 9+40

PLOTTED ON: Wednesday, September 23, 2026 2:39:31 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 63

(SEE SHEET NO. 77)
MATCH LINE STA. 9+40

MATCH LINE STA. 13+80
(SEE SHEET NO. 79)

SEE SHEET NO. 64

EMANCIPATION

POTENTIALLY PETROLEUM CONTAMINATED AREA

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

1-8" TEE, AB

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. & STRM. SWR. CROSSING

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

ABANDON EXISTING 1" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

PROP. 8"WATER

CenterPoint Energy
12" IP STL GAS MAIN

CenterPoint Energy
2" IP STL GAS MAIN

SOUTH R.O.W.
80.1' R.O.W.
NORTH R.O.W.
75.5' R.O.W.
74.8' R.O.W.
86.3' R.O.W.

WEST R.O.W.
EAST R.O.W.

℄ PRAIRIE AVE
℄ EMANCIPATION

B-54

10+00
11+00
12+00
13+00

ASPH PAV.
CONC. PAV.
CONC. DRWY
5' CONC. SIDEWALK
7' CONC. SIDEWALK
10' TYP
10' B.L.
25' B.L.
10' WROUGHT IRON FENCE
DO NOT ENTER SIGN
NO PARK SIGN
TRAF SIGN
0.8' CONC CARSTOP (2)
B-INLET
MANHOLE
WATER METER
SIG POLE
GAS METER
WATER VALVE
FIRE HYDRANT
POWER POLE
POWER POLE W/ CABLE RISER
0.15'D STL POST
0.27'D PIA BOL
0.5'D CONC MK
0.35'D CLEAN OUT
FND CUT X
FND 1/2" IR
SET 1/2" IR W/ CAP
1' CONC RW W/7' CHAIN LINK FENCE
BRICK PLANTER AREA
HEDGE
GRAVEL
BLDG
2" IRON PIPE POST
0.6'D PIPE
FDC SIGN
2'D MTL PLATE
WATER METER
WATER VAULT
2'D MTL PLATE
2'D MTL PLATE
0.5'D PIV
WATER VAULT
0.6'D CONC BOL
0.45'D STL BOL
0.45'D STL BOL
MTL CAB
W/CONC PAD
POWER POLE
6" HACKBERRY(2)
3'X3' GRATE INLET
4" RETURN VALVE
4" GRND BOX
6" STL BOL
4" OAK STUMP
3'D BUSH (2)
5'D BUSH (3)
5'D BUSH (6)
4'D BUSH
15" OAK
6" OAK
10" OAK
12" OAK
5" OAK
8" OAK
11" OAK
16" OAK
2'D BUSH
3'D BUSH
1.5'D BUSH
14" OAK
2'D BUSH (3)
2'D BUSH (2)
3' GRND BOX
2" MTL VERIZON CABLE RISER
2" HACKBERRY
14" ELM
8" CREPE MYRTLE
10" OAK
18" CREPE MYRTLE
3'D BUSH
8" CREPE MYRTLE (2)
1.5'D BUSH
14" OAK
2'D BUSH (3)
2'D BUSH (2)
2'D BUSH
2'D BUSH
2'D BUSH

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 60

PONTENTIALLY PETROLEUM CONTAMINATED AREA

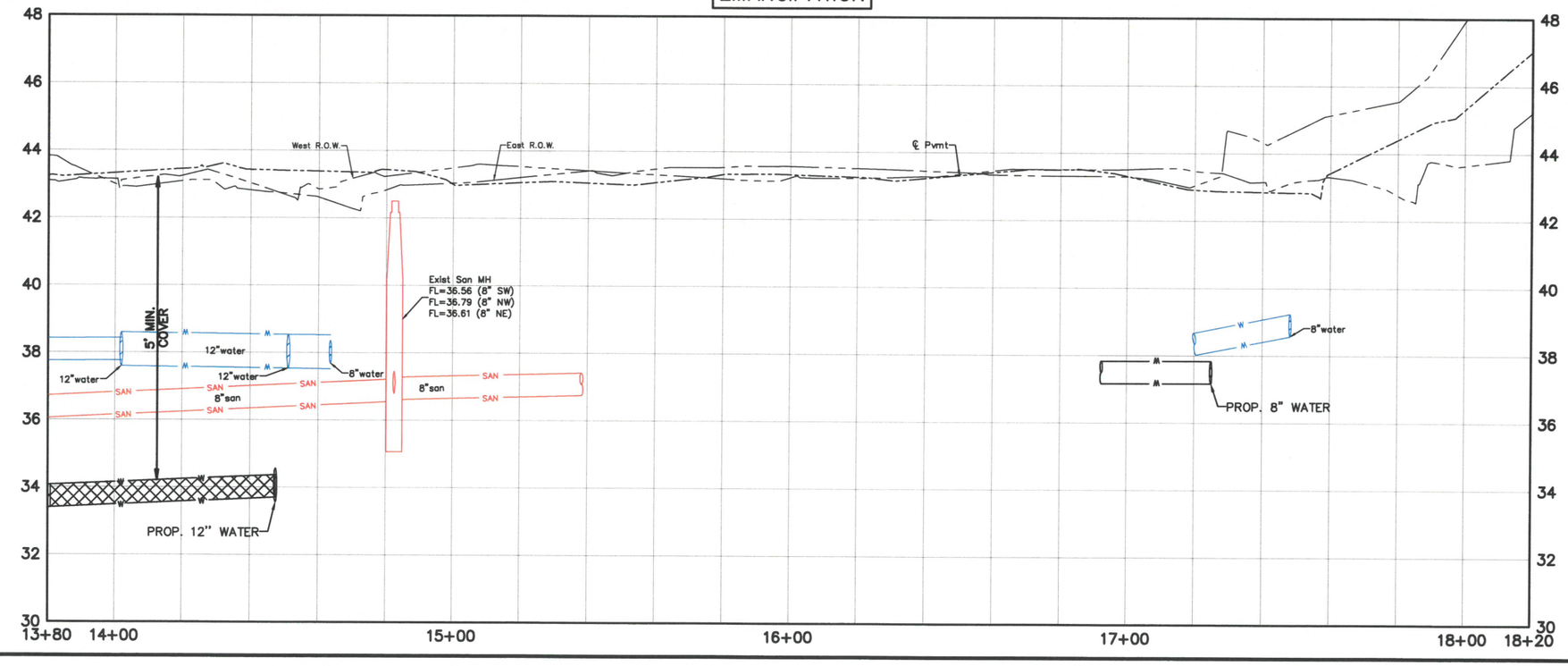
(SEE SHEET NO. 78)
MATCH LINE STA. 13+80

℄ PRESTON AVE
80.0' R.O.W.
NORTH R.O.W.
WEST R.O.W.
EAST R.O.W.
75.4' R.O.W.
SOUTH R.O.W.
84.9' R.O.W.
℄ CONGRESS AVE
℄ EMANCIPATION

PROP. 12"WATER
CenterPoint Energy 4" IP STL GAS MAIN
REMOVE & SALVAGE EXIST. F.H.
CenterPoint Energy 2" IP STL GAS MAIN
1-12"x8" TEE, AB
PROP. 8"WATER
1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND
PROP. 12"WATER
1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING
CONC PAD
1-12"x45° BEND, AB
PROP. 8"WATER
8"WATER
6"water

SEE SHEET NO. 61

EMANCIPATION



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 5 ELEVATION 42.85'
STA. 14+62.17, 19.29' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
EARTH Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

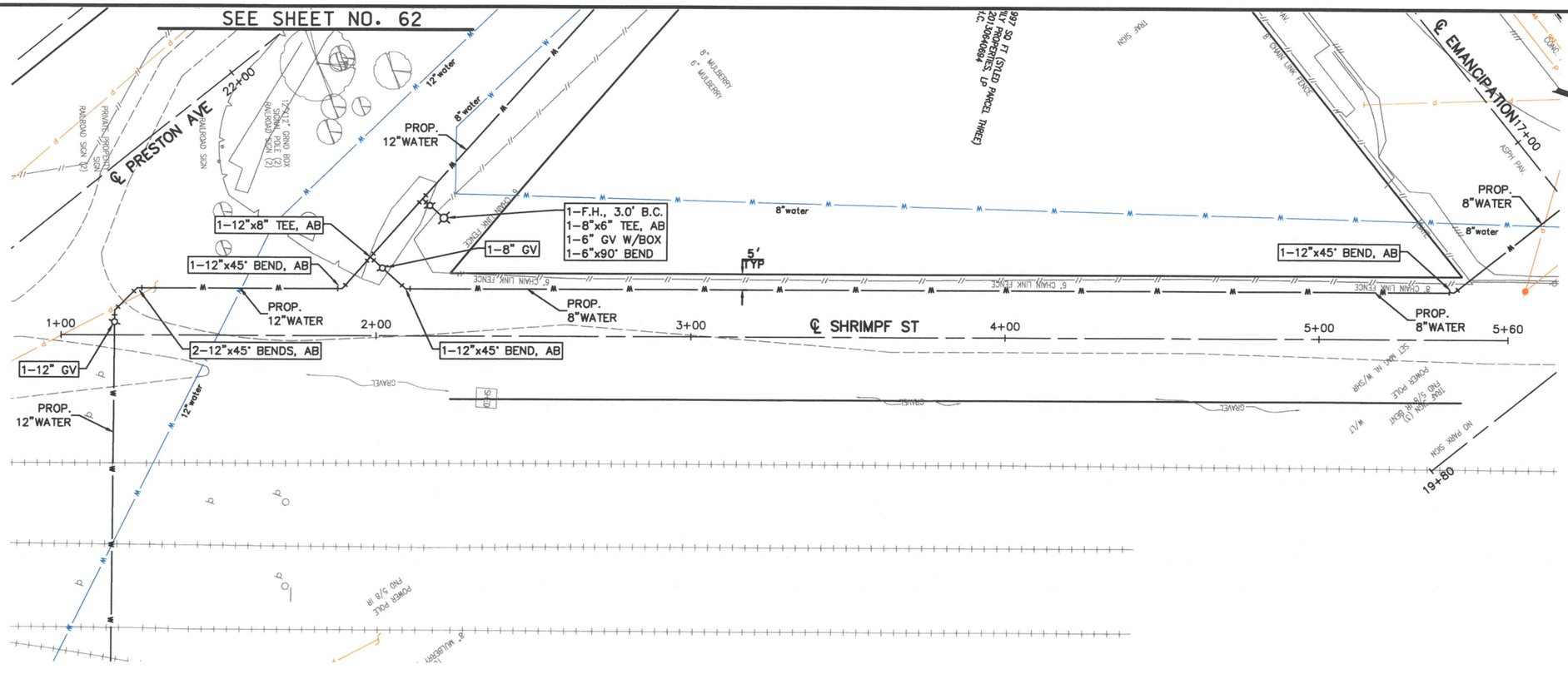
EMANCIPATION

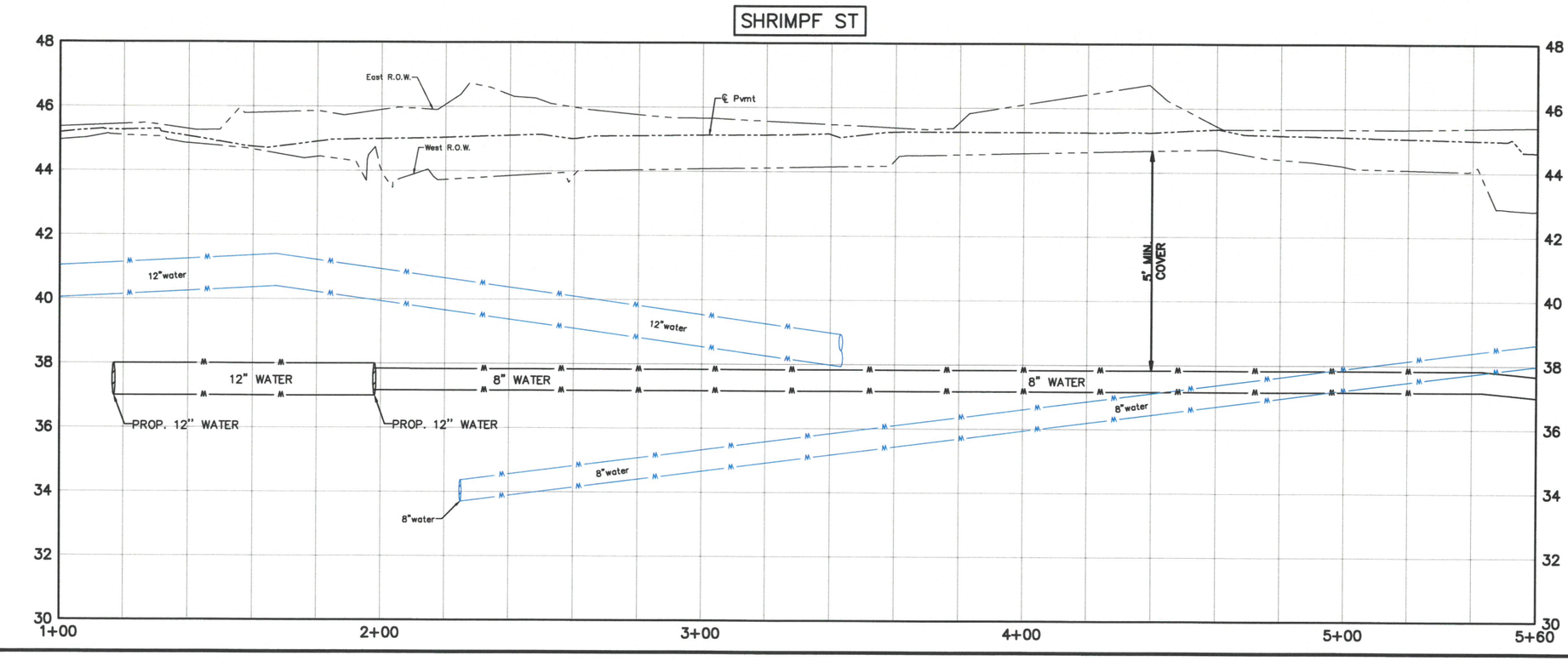
PLAN AND PROFILE
FROM STA. 13+80.00 TO STA. 18+53.83

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 79 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 2:44:55 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&PS\WLP-SECOND WARD-P&PS-A-V.DWG

SEE SHEET NO. 62





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 5 ELEVATION 42.85'
STA. 14+62.17, 19.29' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SHRIMPF ST

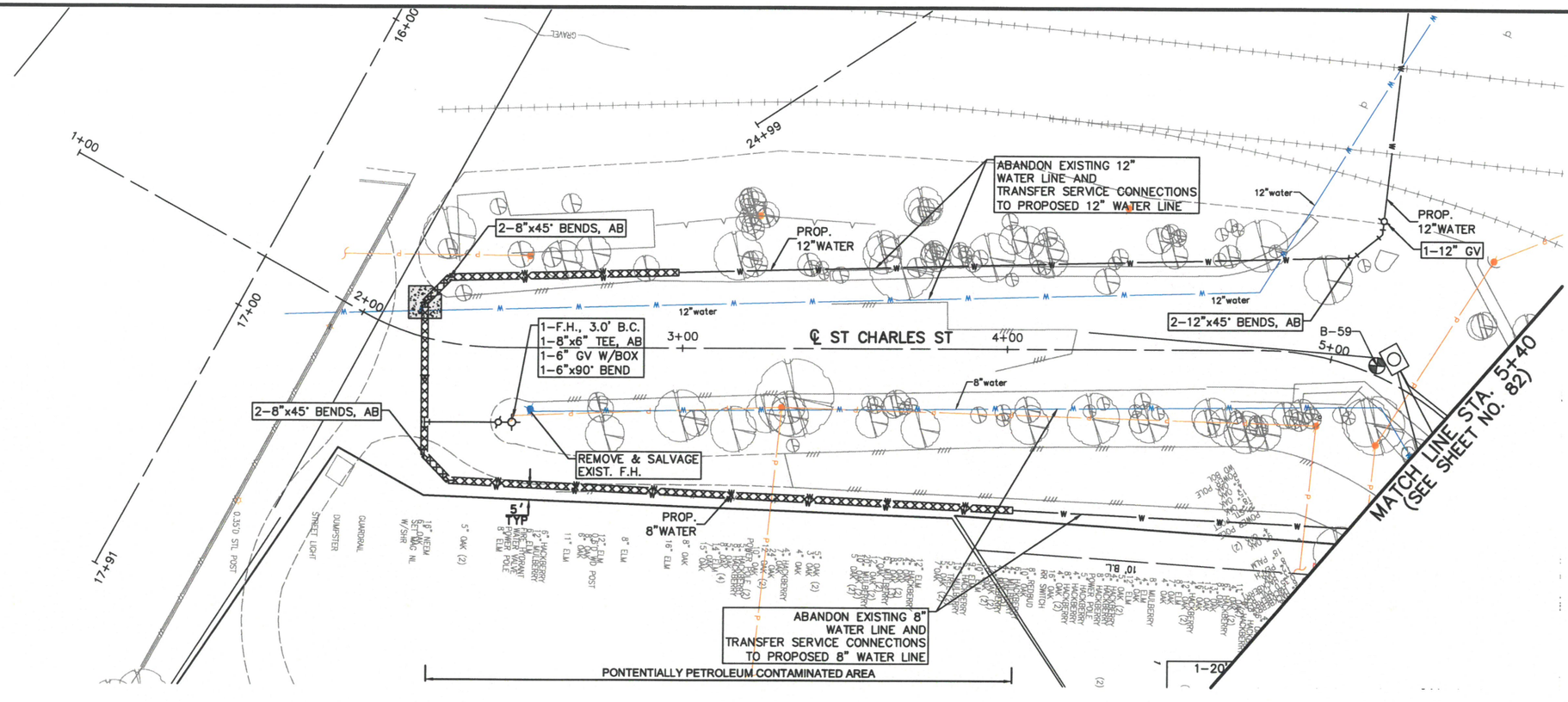
PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 5+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 80 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 2:47:52 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches



LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 25 ELEVATION 43.19'
STA. 2+21.83, 6.63' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

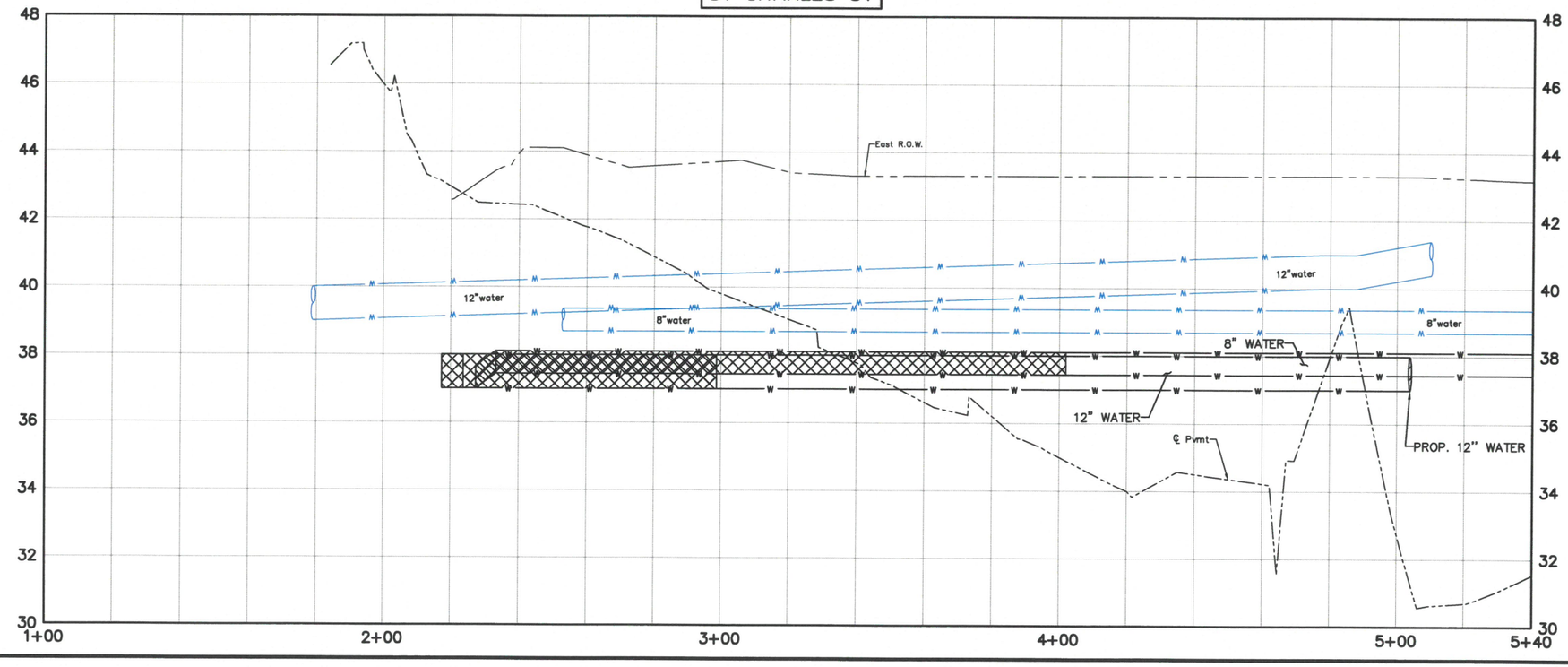
WATERLINE REPLACEMENT IN SECOND WARD

ST CHARLES ST

PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 81 OF 382	

ST CHARLES ST



PLOTTED ON: Wednesday, September 23, 2026 2:51:42 PM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

3 2 1 0

(SEE SHEET NO. 81)
MATCH LINE STA. 5+40

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

WEST R.O.W.

5+00 6+00 7+00 8+00 9+00 9+70

℄ ST CHARLES ST

79.7' R.O.W.

79.9' R.O.W.

EAST R.O.W.

NORTH R.O.W.

SOUTH R.O.W.

GARROW ST 5+00

1-8"x45° BEND, AB

1-8"x45° BEND, AB

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE
1-8" GV & BOX
1-8" CUT, PLUG & ABANDON

CenterPoint Energy
2" IP STL GAS MAIN

0.3998 AC SETTEGAST LEON V. ROBINSON VOL. 3489 PG. 11 M.H.C.

5' B.L. 10' B.L. 3' B.L.

5' TYP

ST CHARLES ST

48 46 44 42 40 38 36 34 32 30

5+40 6+00 7+00 8+00 9+00 9+80

East R.O.W.

Exist San MH
FL=40.84 (4" S)
FL=40.49 (8" NE)

4"san 8"san 8"water 6"san

2'-0" MIN. CLR.

West R.O.W.

8" WATER

PROP. 8" DIP W/ RESTRAINED JOINTS

℄ Pvmt

Exist San MH
FL=37.12 (8" SW)
FL=36.99 (8" NW)
FL=36.96 (8" NE)
FL=37.30 (8" SE)

Exist San MH
FL=36.76 (8" SW)
FL=36.93 (8" NW)
FL=36.73 (8" NE)
FL=36.89 (8" S)

Exist San MH
FL=37.29 (6" W)
FL=36.92 (8" NE)
FL=37.10 (8" SE)
FL=37.40 (8" SW)

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 23 ELEVATION 40.80'
STA. 7+46.87, 17.49' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ST CHARLES ST

PLAN AND PROFILE
FROM STA. 5+40.00 TO STA. 9+70.26

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 82 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:36:58 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-A-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 62

SEE SHEET NO. 97

1–12" TEE, AB

2–12"x45° BENDS, AB

ABANDON EXISTING 12" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 12" WATER LINE

2–12"x45° BENDS, AB

2–12"x45° BENDS, AB

1–12" GV

PROP. 12"WATER

12"WATER

12"water

8"WATER

8"water

6"water

SOUTH R.O.W.

℄ PRESTON AVE.

℄ ST CHARLES ST

22+00

23+00

1+00

2+00

2+80

5+00

6+00

B-49

12"x12" GRND BOX SIGNAL POLE (2) RAILROAD SIGN (2)

RAILROAD SIGN

PRIVATE PROPERTY SIGN

RAILROAD SIGN (2)

POWER POLE W/ 1.5'D FLAG POLE

POWER POLE COTTON SPNDL DOWNGUY (2)

POWER POLE W/ ELEC. RISER

DOWN GUY(2) POWER POLE

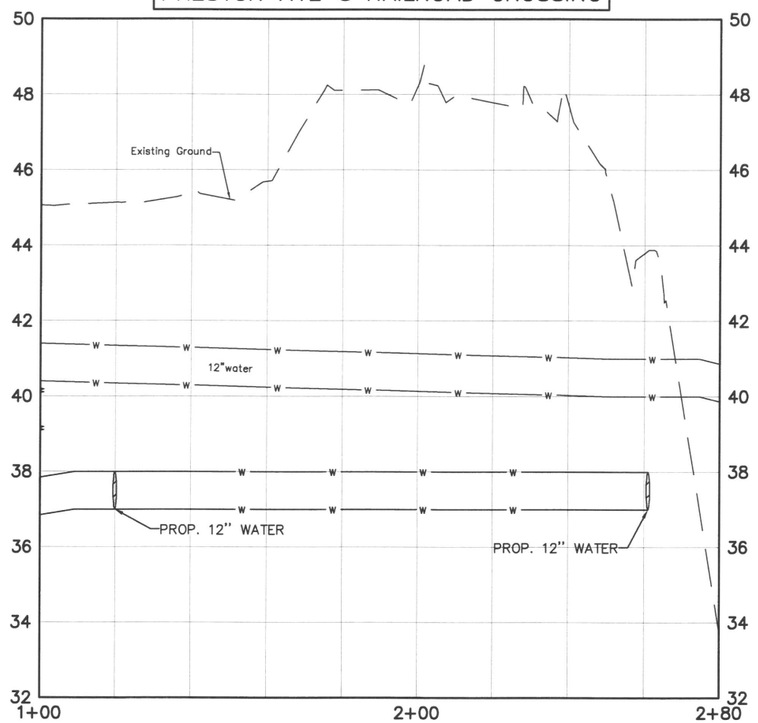
5' B/L

10' B/L

SEE SHEET NO. 62

SEE SHEET NO. 81

PRESTON AVE @ RAILROAD CROSSING



0 20' 40'

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM# 27 ELEVATION 45.12'
STA. 23+21.69, 9.41'LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
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Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE @ RAILROAD CROSSING

PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 2+80.00

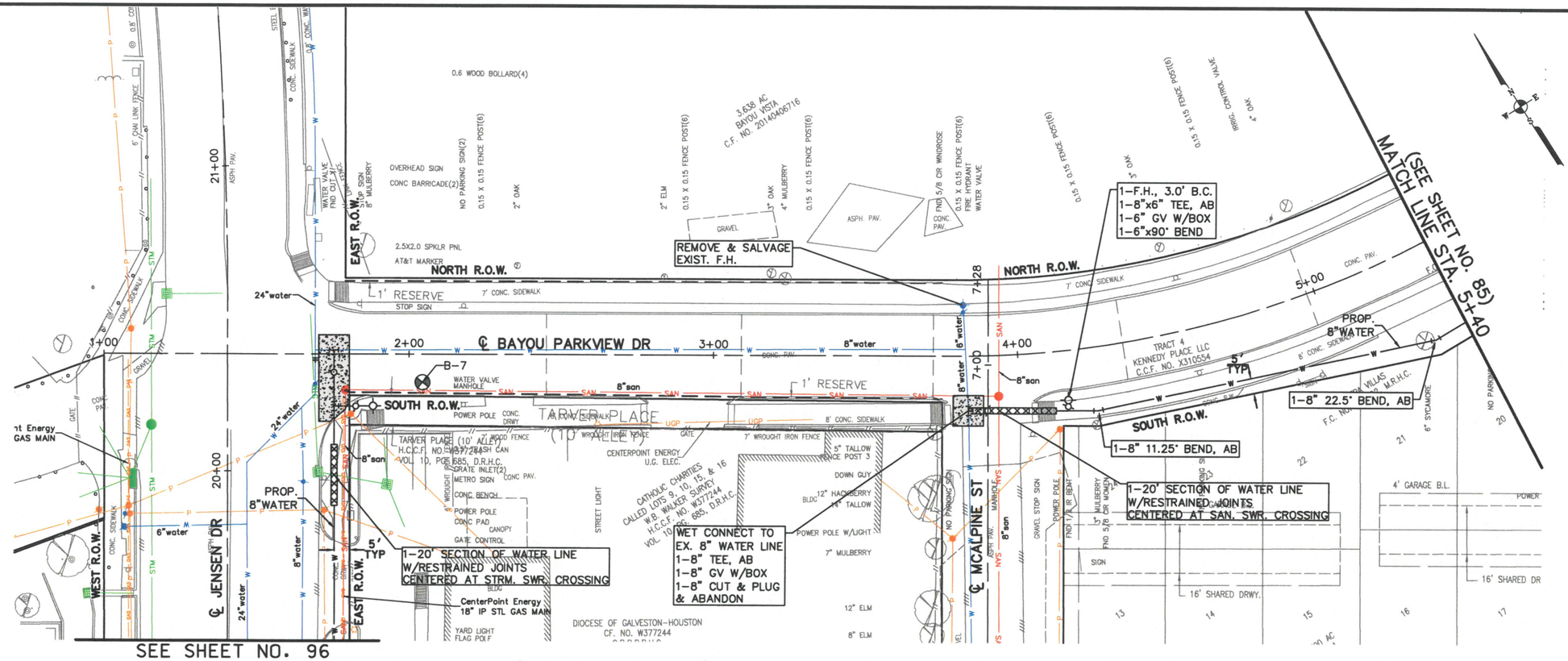
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 83 OF 362	

No.	Date	Revisions	App.

PLOTTED ON: Wednesday, September 23, 2026 8:37:41 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-PRESTON@RAILROAD CROSSING.DWG

FOR REDUCED PLANS
original scale in inches

0 1 2 3



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 19 ELEVATION 31.17'
STA. 1+04.09, 31.93' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature are to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature within existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-9355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

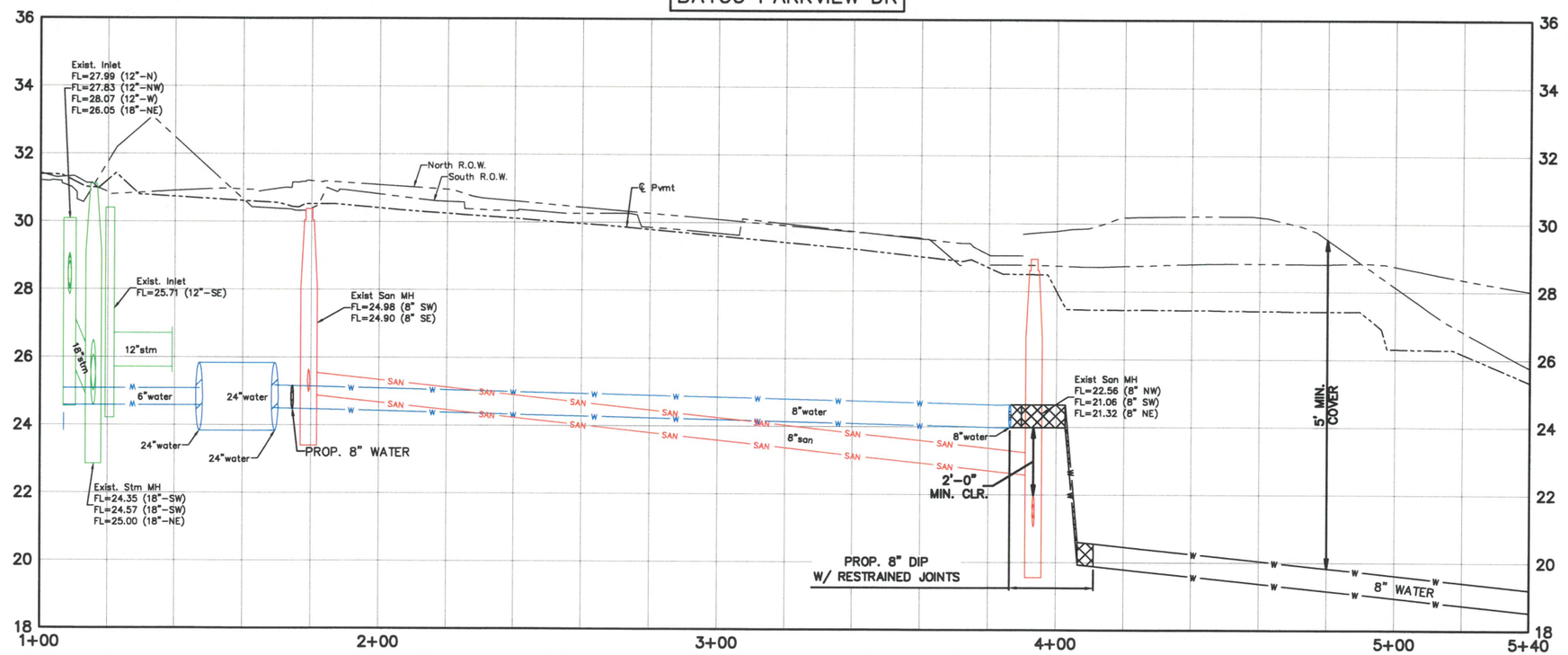
WATERLINE REPLACEMENT IN SECOND WARD

BAYOU PARKVIEW DR

PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 5+40.00

WBS NUMBER	S-000035-0312-4
DRAWING SCALE	
HORIZ: 1"= 20'	VERT: 1"=2
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO.	84 OF 362
CITY DWG NO.:	

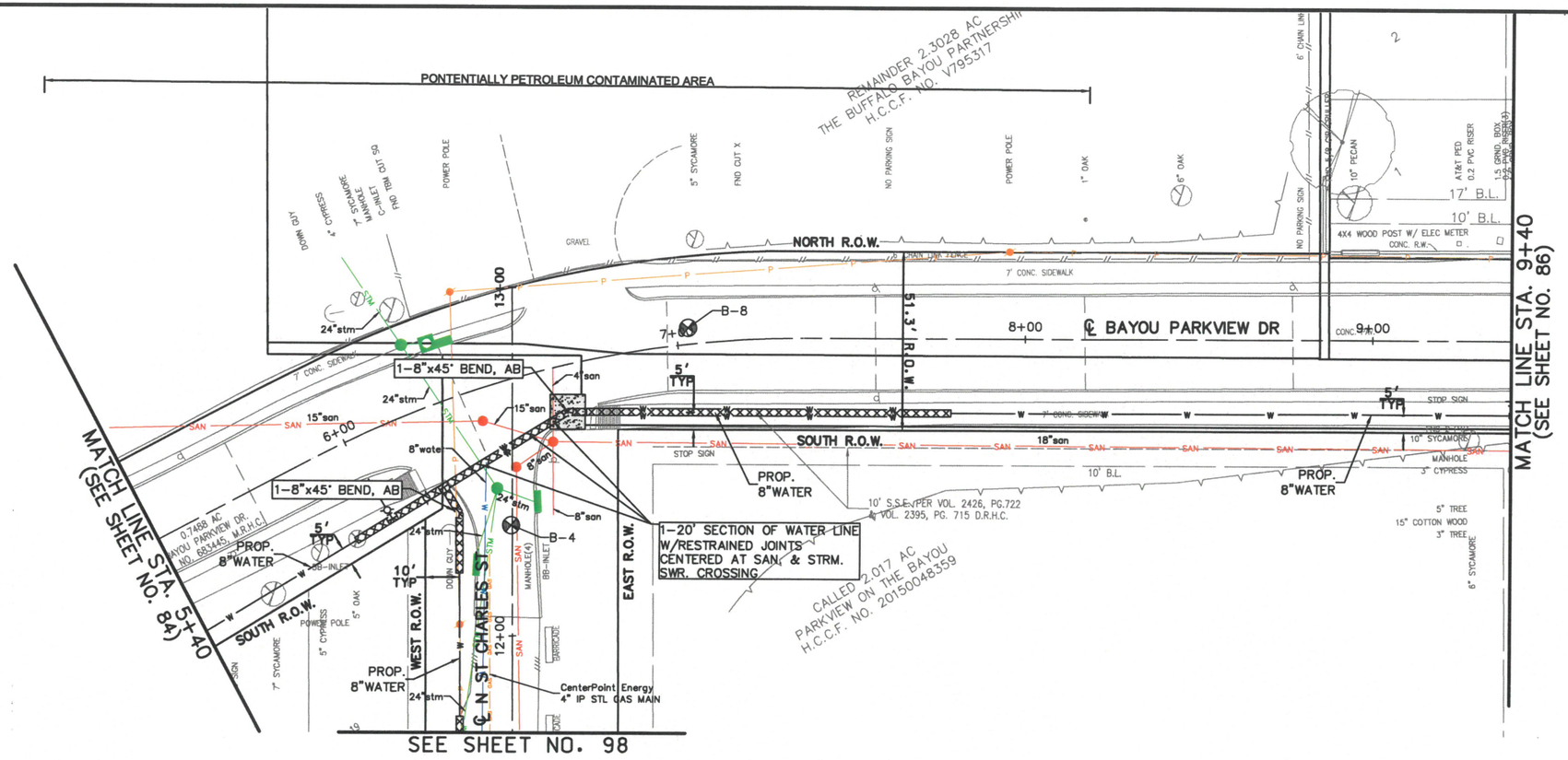
BAYOU PARKVIEW DR



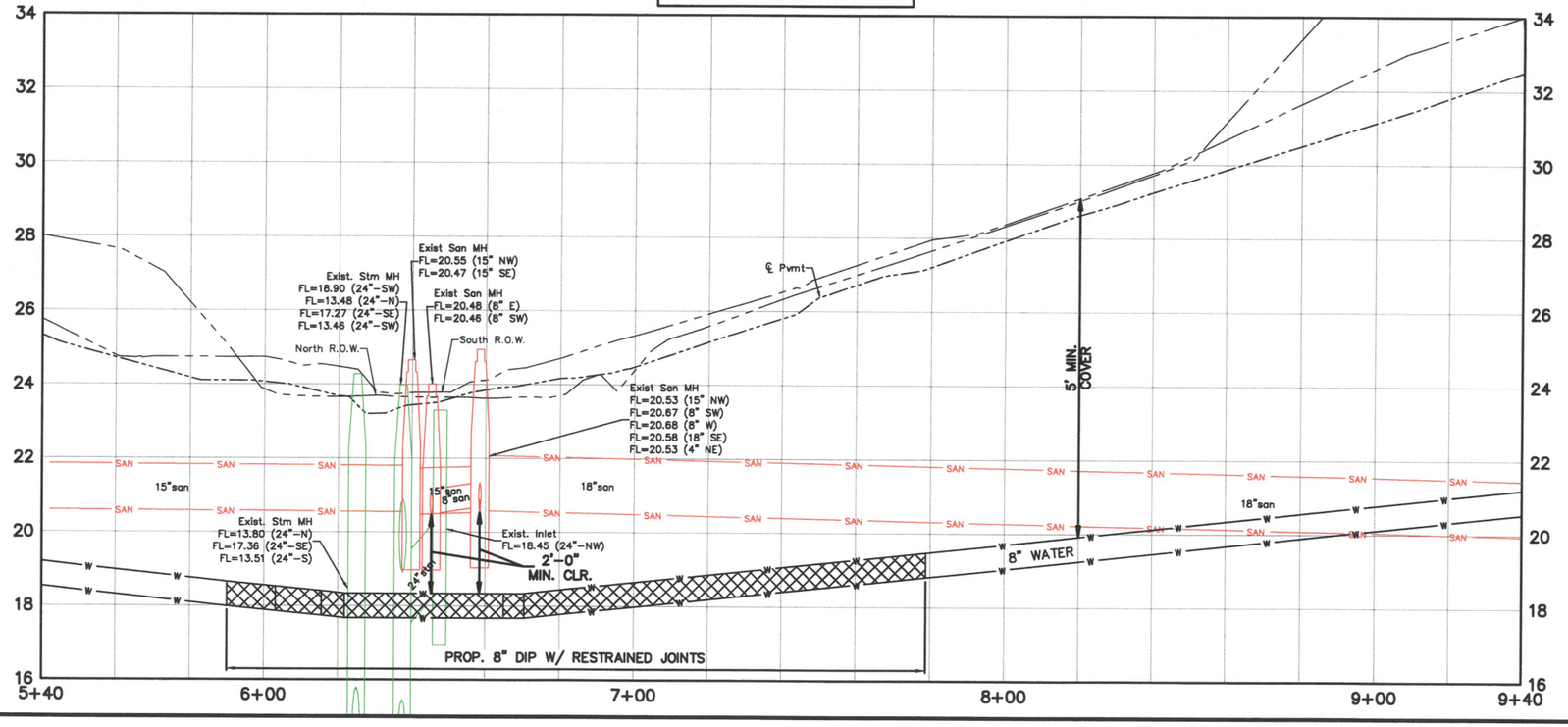
PLOTTED ON: Wednesday, September 23, 2026 8:39:47 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-H.DWG

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 8:40:04 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&PS\WLP-SECOND WARD-P&PS-B-H.DWG



BAYOU PARKVIEW DR



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 16 ELEVATION 23.73'
STA. 6+57.00, 19.29' LF

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BAYOU PARKVIEW DR

PLAN AND PROFILE
FROM STA. 5+40.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 85 OF 362	

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 101

(SEE SHEET NO. 85)
MATCH LINE STA. 9+40

SEE SHEET NO. 100

SEE SHEET NO. 103

MATCH LINE STA. 13+80
(SEE SHEET NO. 87)

WEST R.O.W.
EAST R.O.W.
NORTH R.O.W.
SOUTH R.O.W.
50.0' R.O.W.
47.8' R.O.W.

℄ N LIVE OAK
℄ N NAGLE ST
℄ BAYOU PARKVIEW DR
RESTRICTED RESERVE "E"
FUTURE KENNEDY STREET ROAD RESERVE

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

1-8" GV, AB

1-8" TEE, AB

2-8"x45° BENDS, AB

1-20' SECTION OF WATER LINE
W/RESTRAINED JOINTS
CENTERED AT SAN. SWR. CROSSING

1-20' SECTION OF WATER LINE
W/RESTRAINED JOINTS
CENTERED AT STRM. SWR. CROSSING

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE
W/RESTRAINED JOINTS
CENTERED AT SAN. & STRM.
SWR. CROSSING

CenterPoint Energy
2" IP STL GAS MAIN

8"water
18"san
24"stm
8"san
2"water

B-9

5' TYP.

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM## 15 ELEVATION 34.34'
STA. 9+99.82, 16.69' LF

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

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(Gas service lines are not shown.)
(No Signature will be used for conflict verification.)
Signature Valid for six months.

Date:
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AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

BAYOU PARKVIEW DR

North R.O.W. ℄ Pvmt South R.O.W. ℄ Pvmt

5' MIN. COVER

Exist. Stm MH
FL=0.46 (102"-SW)
FL=24.85 (24"-SE)
FL=24.23 (24"-E)
FL=0.46 (102"-NE)

Exist. Stm MH
FL=24.85 (24"-NW)
FL=30.32 (24"-S)
FL=30.50 (24"-NE)
FL=25.08 (24"-SE)

Exist San MH
FL=19.87 (18" NW)
FL=26.77 (8" SW)
FL=23.50 (8" NE)
FL=19.97 (18" SE)

Exist San MH
FL=19.59 (18" SW)
FL=20.85 (18" SE)

Exist San MH
FL=19.90 (18" NW)
FL=19.90 (8" SW)
FL=19.50 (18" NE)

8" WATER
PROP. 8" WATER
PROP. 8" DIP
W/ RESTRAINED JOINTS
2'-0" MIN. CLR.

9+40 10+00 11+00 12+00 13+00 13+80
20 22 24 26 28 30 32 34 36 38

SES HORIZON
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BAYOU PARKVIEW DR

PLAN AND PROFILE
FROM STA. 9+40.00 TO STA. 13+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 86 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:40:19 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-H.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 86)
MATCH LINE STA. 13+80

3' B.L. | 18' SHARED DRIVEWAY | 3' B.L. | 3' B.L. | 3' BUSH(3) | SPRINKLER HEAD | BLDG. | ASPH DRWY | 24"stm | 24"san

NORTH R.O.W.

6' WROUGHT IRON FENCE | HEDGE | 5' CONC SIDE WALK

SPRINKLER HEAD(2) | 6" MAGNOLIA | 0.2 PVC RISER | 34 | SPRINKLER HEAD(2) | 5" MAGNOLIA | WATER METER(2) | IRRIG. CONTROL VALVE | 33 | SPRINKLER HEAD | 6" MAGNOLIA | 32 | SPRINKLER HEAD(3) | WATER METER(2) | 6" MAGNOLIA | IRRIG. CONTROL VALVE | 31 | SPRINKLER HEAD(2) | 6" MAGNOLIA | 30 | SPRINKLER HEAD(2) | WATER METER | 6" MAGNOLIA | 29 | SPRINKLER HEAD | 6" MAGNOLIA | WATER METER | 28 | SPRINKLER HEAD | 6" MAGNOLIA | SPRINKLER HEAD(3) | WATER METER(2) | 27 | SPRINKLER HEAD(2) | 5" MAGNOLIA | GRATE INLET | MANHOLE | 8" MAGNOLIA | SPRINKLER HEAD(2) | POWER POLE | SPRINKLER HEAD CONTROL VALVE | WATER METER 6 UNITS | BLDG.

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

49.7' R.O.W.

℄ BAYOU PARKVIEW DR

14+00 | 18"san | SAN | 24"stm | STM | 15+00 | 16+00 | MANHOLE(3) | ASPH PAV. | 17+00 | 18+00

CENTERPOINT ENERGY U.G. ELEC.

PROP. 8"WATER

SOUTH R.O.W.

7' METAL FENCE | CONC DRWY | CANOPY | 3' BUSH(4) | BLDG. | 8" MULBERRY | MANHOLE | 5" MULBERRY | 5' BUSH | POWER POLE W/ANCHOR | 9" CREPE MYRTLE | MAILBOX | WATER METER | 10 | 11 | 12

FACTORY ADDITION VOL. 3, PG. 69 D.R.H.C. BLOCK 4

0.1148 AC. BLOCK 1

OKOLO ESTATES 696582, M.R.H.C.

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

CenterPoint Energy 2" IP STL GAS MAIN

2-8"x45° BENDS, AB

5' TYP.

0.6 MONTWELL | 0.6 CPP RISER | CONC COLUMN(4) | MAILBOX(2) | CLEANOUT(2) | 17' B.L. | 10' B.L.

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. & STRM. SWR. CROSSING

WEST R.O.W.

℄ MIDDLE ST

EAST R.O.W.

MANHOLE | POWER POLE W/ 1" AT&T RISER | GRATE INLET 2'X6' AT&T CABINET | 2' BUSH(3) | FIRE HYDRANT | WATER VALVE | POWER POLE | 1" ELEC. RISER | HEDGE | 5' CONC SIDE WALK | 12"stm | 12"san | 8"water | 18"san | 8"san | 24"stm | 10' B.L. | 5' E.A.E.

NORTH R.O.W.

POWER POLE | ELEC. RISER | BLDG. | 4" BUSH | 2' BUSH(3) | FIRE HYDRANT | WATER VALVE | POWER POLE | 2' BUSH(10) | GRATE INLET | CATV RISER | IRRIG. CONTROL VALVE(2) | WATER METER(2)

SOUTH R.O.W.

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE, AB
1-8" GV W/BOX
2-8"x45° BENDS, AB
1-8" CUT & PLUG & ABANDON

4" REDBERRY | BLDG. | GAS METER | POWER POLE W/ 1" ELEC RISER | 1.664 AC. BLOCK 1 | 5' B.L.

CenterPoint Energy 2" IP STL GAS MAIN

FND CUT SQ
FND MAG NL
GRATE INLET

LEGEND

- —STM— EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- —SAN— EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- —W— EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- —W— PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	Appr.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 9 ELEVATION 32.58'
STA. 16+44.83, 17.92' RT

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

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AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
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Signature valid for one year.

Date:
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BAYOU PARKVIEW DR

PLAN AND PROFILE
FROM STA. 13+80.00 TO STA. 18+20.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 87 OF 382	

BAYOU PARKVIEW DR

38 | 36 | 34 | 32 | 30 | 28 | 26 | 24 | 22 | 20

North R.O.W. | South R.O.W. | ℄ Pvmt | 5' MIN. COVER

Exist. Stm MH FL=25.45 (24"-NW) FL=25.65 (24"-SE)
Exist. Stm MH FL=25.81 (24"-NW) FL=25.61 (24"-SE)
Exist. Stm MH FL=25.92 (24"-NW) FL=28.10 (24"-S) FL=27.59 (24"-SE) FL=27.51 (24"-NE)
Exist San MH FL=25.86 (8" SW) FL=27.17 (6" NW) FL=25.80 (24" NE)
Exist. Inlet FL=29.35 (24"-N) FL=30.39 (24"-SE)
Exist. Inlet FL=28.55 (24"-SW) FL=28.70 (24"-NE)
Exist San MH FL=19.31 (18" N) FL=18.69 (24" SW) FL=19.28 (12" SE)
Exist San MH FL=20.71 (18" SE)
Exist. Inlet FL=28.76 (24"-SE) FL=28.73 (24"-NW) FL=28.76 (24"-SE)
Exist. Stm MH FL=22.94 (24"-SE) FL=22.98 (24"-N)
Exist San MH FL=19.60 (12" NW) FL=19.57 (12" NE) FL=19.66 (8" SE)
Exist San MH FL=19.10 (18" NW) FL=25.78 (8" NE) FL=19.35 (8" NE) FL=19.09 (18" S)

8"water | 8" WATER | 6"san | 24"stm | STM | SAN | NYS | 18"san | 8"san

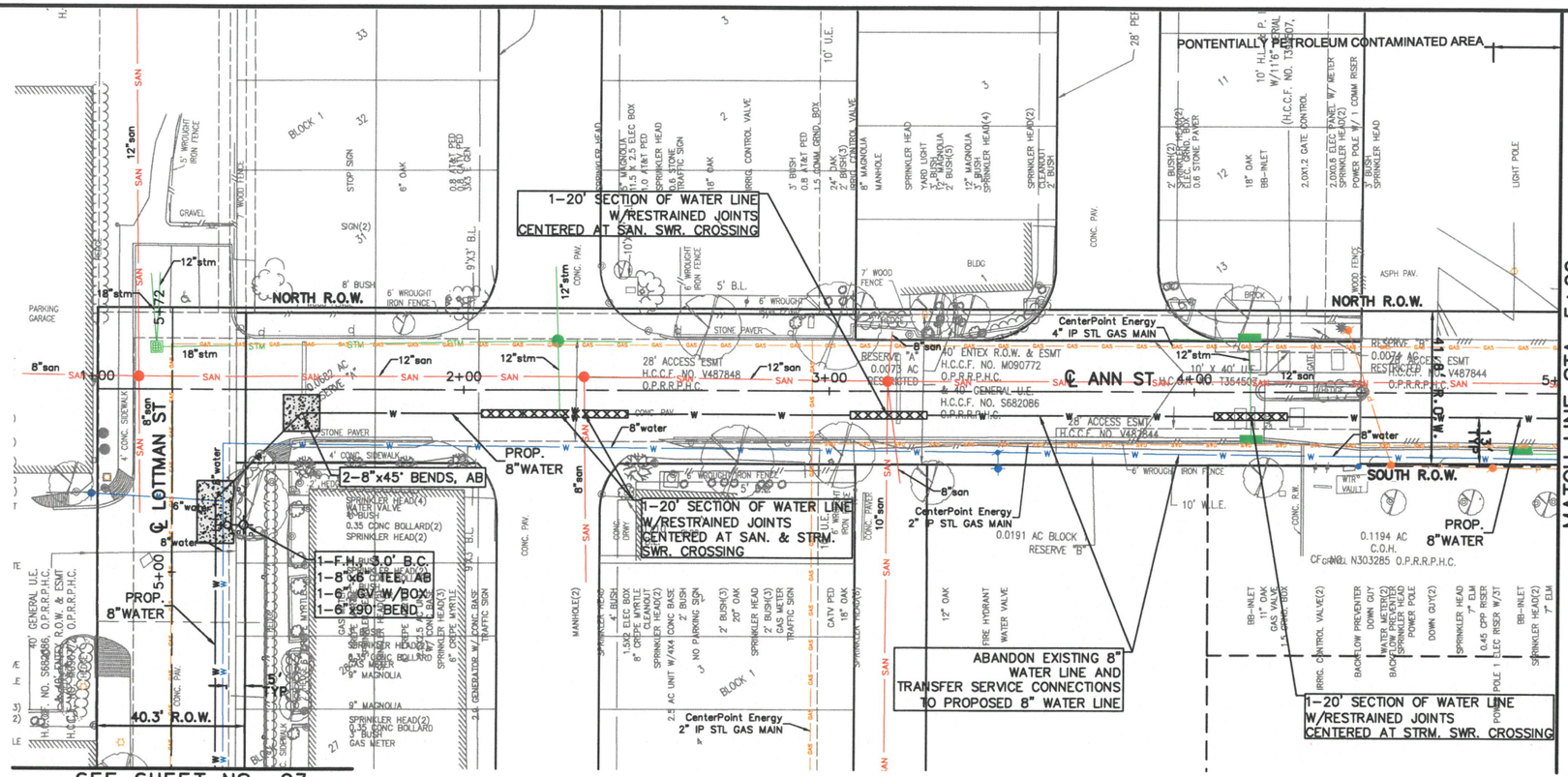
PROP. 8" DIP W/ RESTRAINED JOINTS

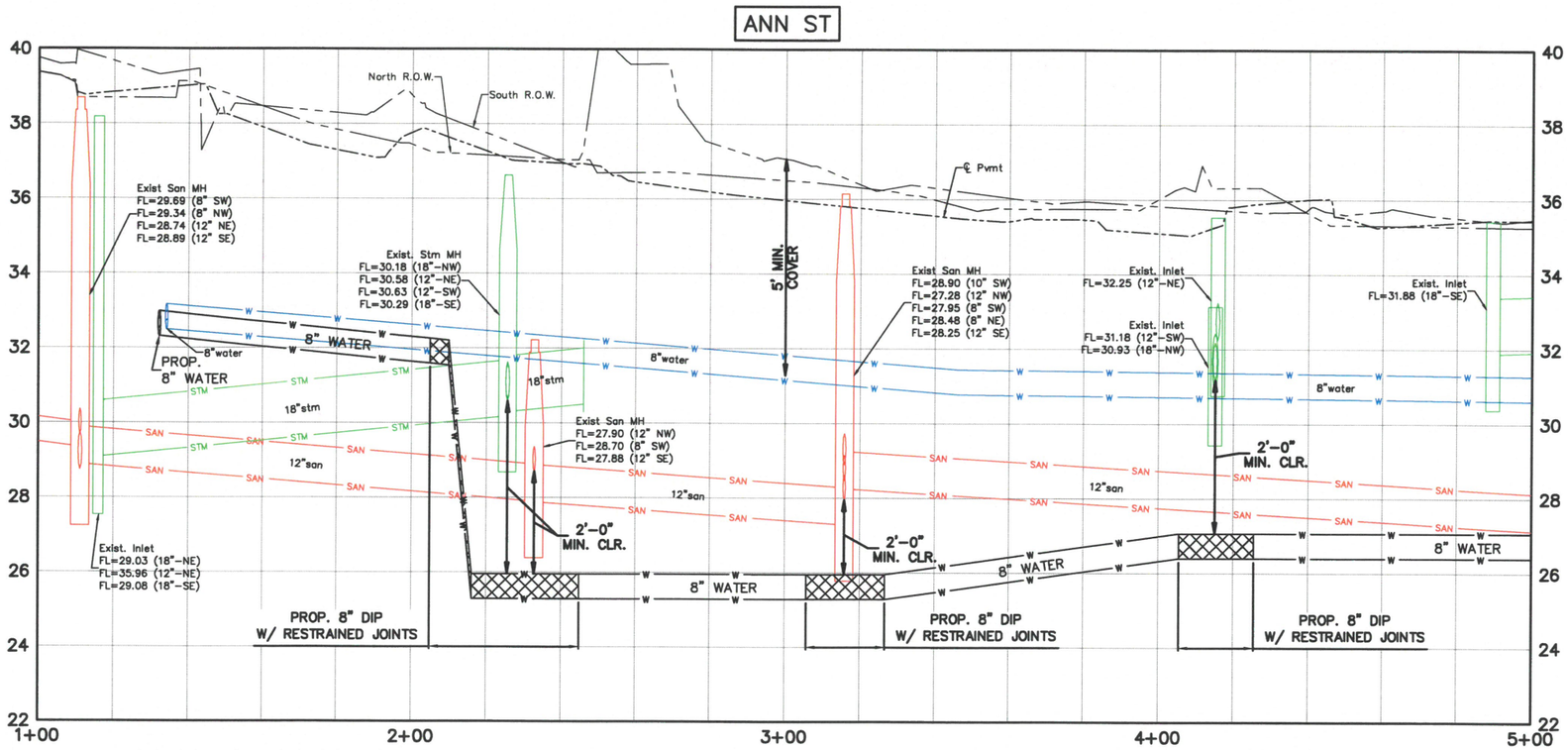
2'-0" MIN. CLR.

13+80 | 14+00 | 15+00 | 16+00 | 17+00 | 18+00 | 18+20

PLOTTED ON: Wednesday, September 23, 2026 8:40:34 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-H.DWG

FOR REDUCED PLANS
original scale in inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
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- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 23 ELEVATION 38.68'
STA. 1+36.40, 12.51' LF

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AT&T TEXAS/SWBT UTILITY LINES SHOWN:

Date:
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Signature valid for one year.

Date:
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ANN ST

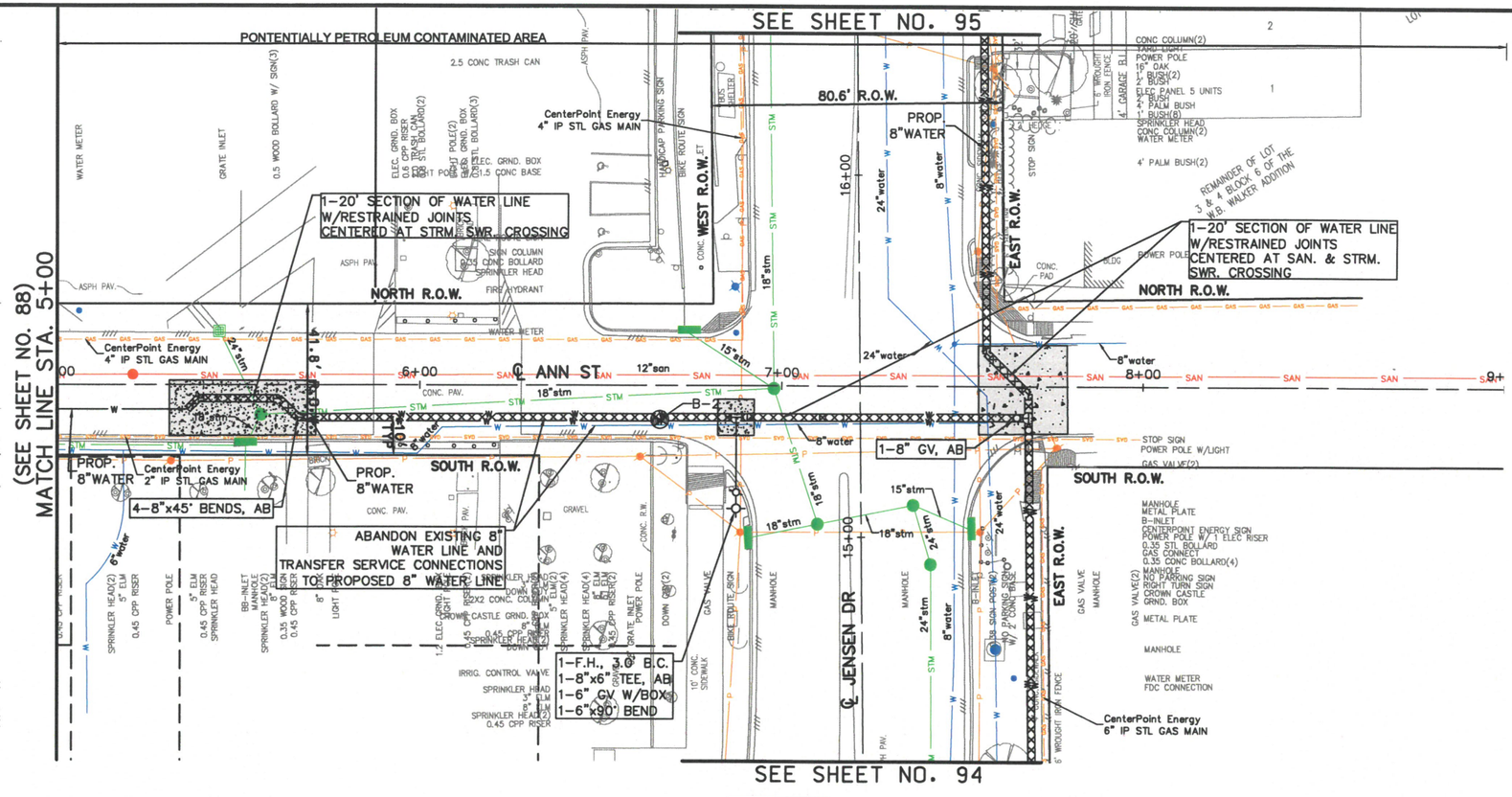
PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 5+00.00

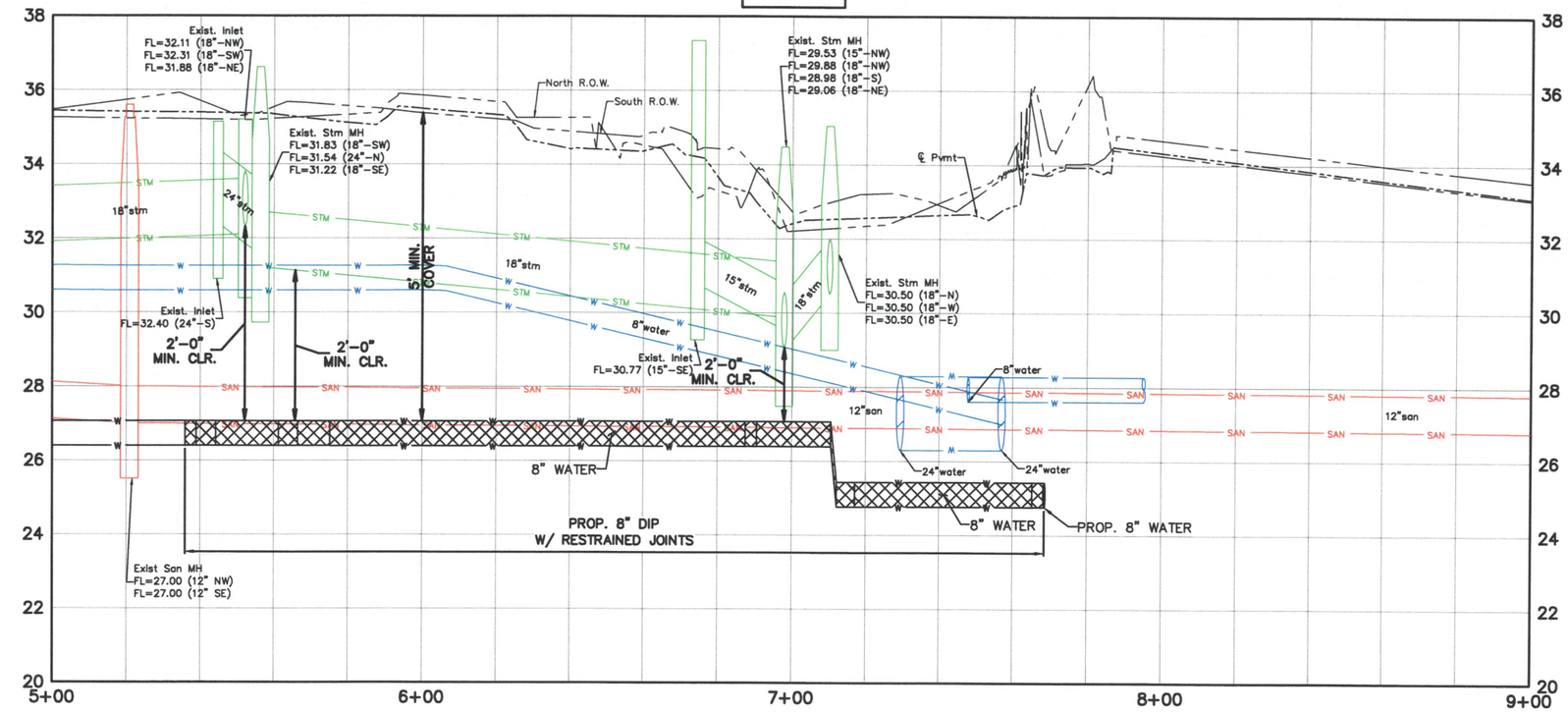
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 88 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:40:49 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-H.DWG

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 8:41:04 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-H.DWG





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 20 ELEVATION 34.89'
STA. 6+73.49, 20.22' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Site works that are not shown.)
The Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(Site Signature within existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN:

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ANN ST

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 9+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 89 OF 362	

SEE SHEET NO. 103

SEE SHEET NO. 102

1–20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. & STRM. SWR. CROSSING

1–20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

NORTH R.O.W.

SOUTH R.O.W.

℄ BERING ST

50.0' R.O.W.

49.8' R.O.W.

℄ N NAGLE ST

℄ MIDDLE ST

WEST R.O.W.

EAST R.O.W.

CenterPoint Energy 2" IP STL GAS MAIN

PROP. 8"WATER

1–F.H., 3.0' B.C.
1–8"x6" TEE, AB
1–6" GV W/BOX
1–6"x90' BEND

ABANDON EXISTING 2" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1–F.H., 3.0' B.C.
1–8"x6" TEE, AB
1–6" GV W/BOX
1–6"x90' BEND

WET CONNECT TO EX. 8" WATER LINE
1–8" TEE, AB
1–8" GV W/BOX
1–8" CUT & PLUG & ABANDON

5' TYP

B-10

B-11

FACTORY ADDITION VOL. 3, PG. 69 D.R.H.C. BLOCK 3

FACTORY ADDITION VOL. 3, PG. 69 D.R.H.C. BLOCK 2

0.098 AC ADRIAN MARTINEZ C.F. NO. RP-2021-

FRANCISCO BARBEREN C.F. NO. 3424-

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

FOR REDUCED PLANS original scale in inches

BERING ST

Exist. Inlet FL=33.17 (21"–SW) FL=32.97 (21"–NE)
Exist. Inlet FL=32.96 (21"–SW) FL=32.91 (15"–SE) FL=32.95 (21"–NE)
℄ Pvmt
South R.O.W.
North R.O.W.
15"stm
Exist San MH FL=30.77 (8" SW) FL=30.62 (8" W) FL=30.65 (8" NE) FL=30.56 (8" SE)
Exist San MH FL=30.77 (6" N) FL=30.63 (8" E)
Exist San MH FL=29.43 (8" N) FL=30.43 (8" NE) FL=30.28 (8" SW)
Exist San MH FL=29.78 (6" NW) FL=29.68 (8" NE) FL=29.62 (8" S)
5' MIN. COVER
2'–0" MIN. CLR.
8" WATER
PROP. 8" WATER
PROP. 8" DIP W/ RESTRAINED JOINTS
8"san
2"water
8"water

40 38 36 34 32 30 28 26 24 22

1+00 2+00 3+00 4+00 5+00 5+40

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457–8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 12 ELEVATION 34.90'
STA. 1+38.78, 15.47' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature will be valid for emitel verification.)
Signature Valid for 6m months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature verifies existing underground facilities–will to be used for emitel verification.)
Signature Valid for 6m months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES. EPIFANIO E. SALAZAR JR., P.E. TEXAS SERIAL NO. 67749 DATE: Sep-26

SURVEYED BY: JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BERING ST

PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 5+37.63

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 90 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:41:26 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-H.DWG

FOR REDUCED PLANS
original scale in inches

WET CONNECT TO EX. 8" WATER LINE
1–8" TEE, AB
1–8" GV W/BOX
2–8"x45° BENDS, AB
1–8" CUT & PLUG & ABANDON

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

PROP. 8"WATER

2–8"x45° BENDS, AB

1–8" GV, AB

WET CONNECT TO EX. 8" WATER LINE
1–8" TEE, AB
1–8" GV W/BOX

REMOVE & SALVAGE EXIST. F.H.

1–F.H., 3.0' B.C.
1–8"x6" TEE, AB
1–6" GV W/BOX
1–6"x90° BEND

PROP. 8"WATER

2–8"x45° BENDS, AB

NORTH R.O.W.

SOUTH R.O.W.

℄ SALTUS ST

℄ N LIVE OAK ST (S)

B-56

SEE SHEET NO. 99

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 1 ELEVATION 37.81'
STA. 3+27.34, 9.25' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Use centerline only as real distance)
(The Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(The Signature verifies utilities underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SALTUS ST

PLAN AND PROFILE
FROM STA. 5+20.00 TO STA. 9+87.10

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 91 OF 362	

SALTUS ST

North R.O.W. — South R.O.W. — ℄ Pvmt

6"water — 8"water — 4"water

5' MIN. COVER

8" WATER

PROP. 8" WATER

42 40 38 36 34 32 30 28 26 24

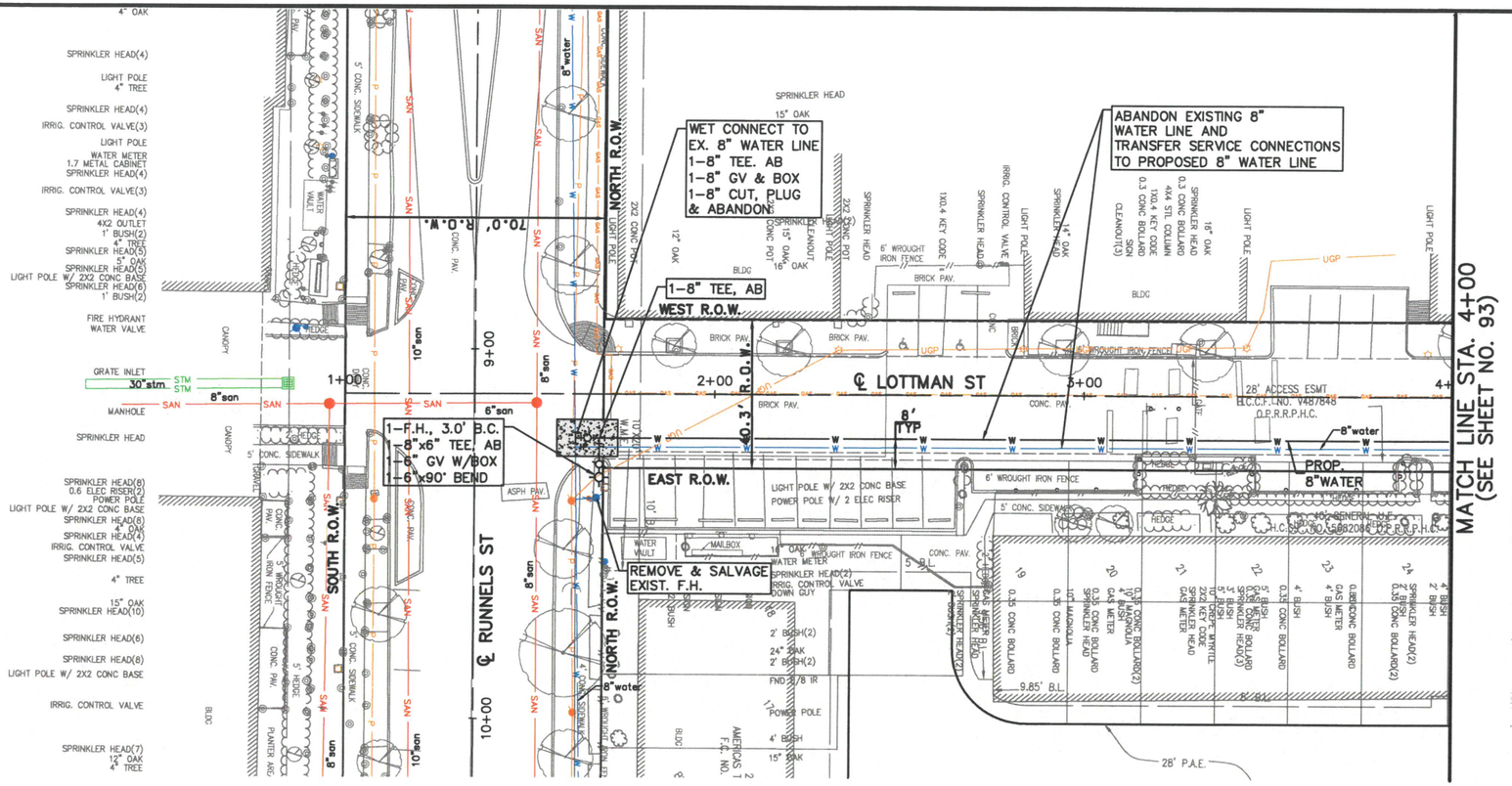
5+40 6+00 7+00 8+00 9+00 9+87

PLOTTED ON: Wednesday, September 23, 2026 8:41:44 AM
FILE NAME: F:\ON-CALL_WLP_2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-H.DWG

FOR REDUCED PLANS
original scale in inches

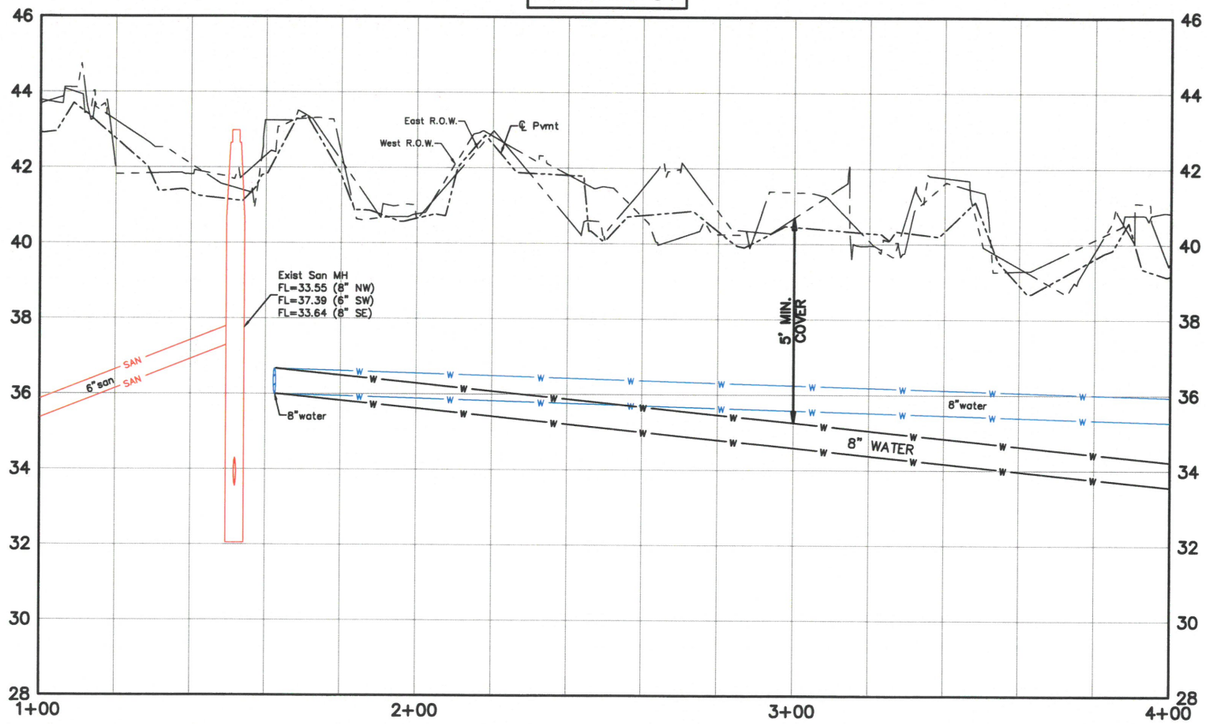
3 2 1 0

4" OAK
SPRINKLER HEAD(4)
LIGHT POLE
4" TREE
SPRINKLER HEAD(4)
IRRIG. CONTROL VALVE(3)
LIGHT POLE
WATER METER
1.7 METAL CABINET
SPRINKLER HEAD(4)
IRRIG. CONTROL VALVE(3)
SPRINKLER HEAD(4)
4X2 OUTLET
1' BUSH(2)
4" TREE
SPRINKLER HEAD(5)
5" OAK
SPRINKLER HEAD(3)
LIGHT POLE W/ 2X2 CONC BASE
SPRINKLER HEAD(6)
1' BUSH(2)
FIRE HYDRANT
WATER VALVE
GRATE INLET
30"stm
MANHOLE
SPRINKLER HEAD
SPRINKLER HEAD(8)
0.6 ELEC RISER(2)
POWER POLE
LIGHT POLE W/ 2X2 CONC BASE
SPRINKLER HEAD(8)
4" OAK
SPRINKLER HEAD(4)
IRRIG. CONTROL VALVE
SPRINKLER HEAD(5)
4" TREE
15" OAK
SPRINKLER HEAD(10)
SPRINKLER HEAD(6)
SPRINKLER HEAD(8)
LIGHT POLE W/ 2X2 CONC BASE
IRRIG. CONTROL VALVE
SPRINKLER HEAD(7)
12" OAK
4" TREE



PLOTTED ON: Wednesday, September 23, 2026 8:42:42 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

LOTTMAN ST



LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 22 ELEVATION 43.31'
STA. 1+67.30, 17.52' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Site survey map and drawing.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

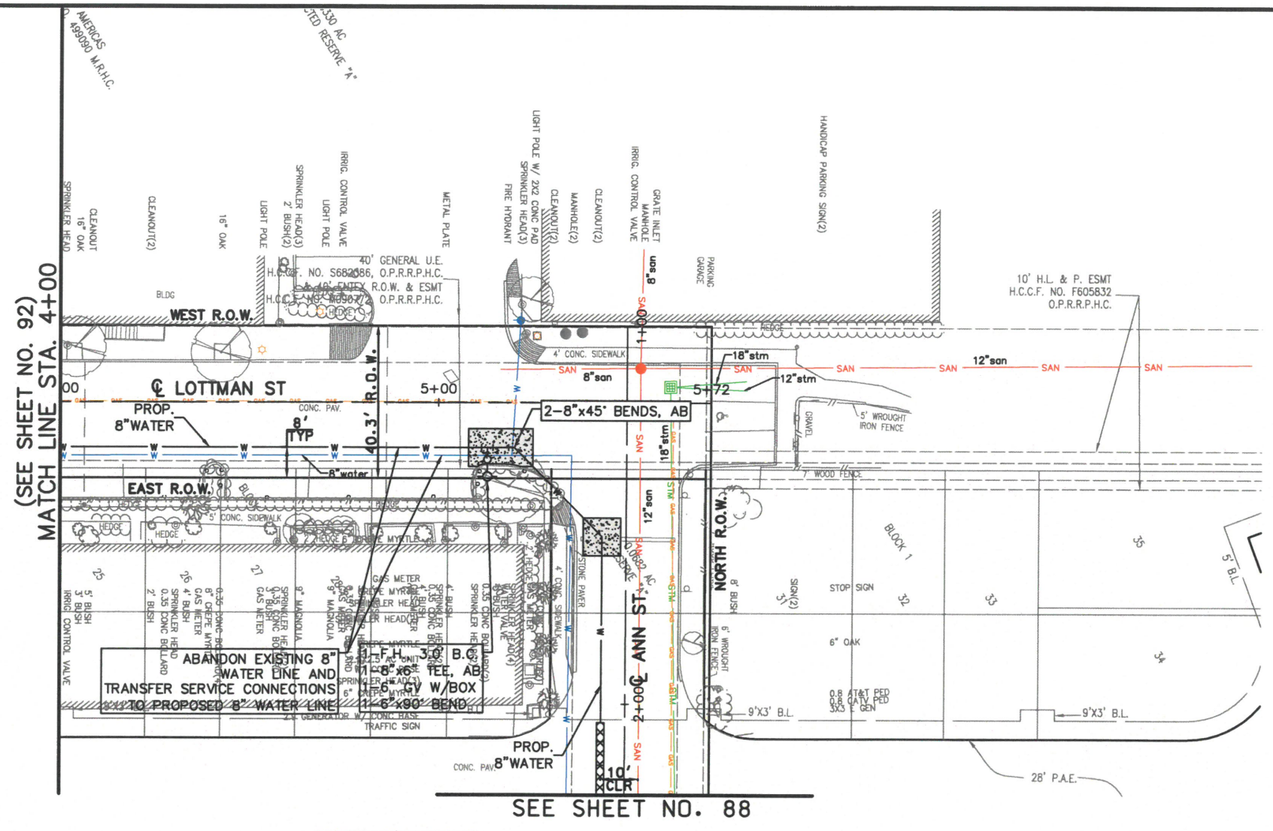
LOTTMAN ST

PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 4+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 92 OF 362	

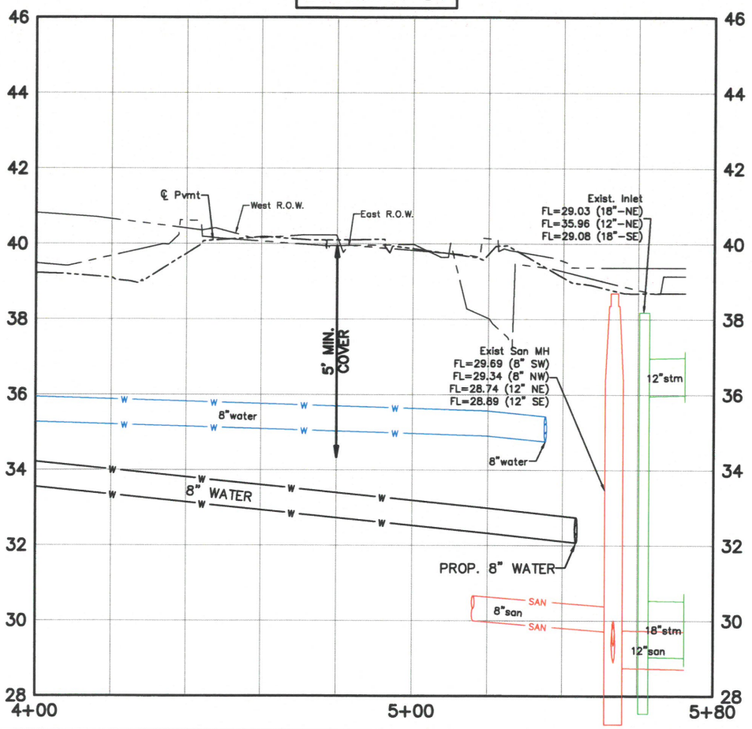
FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 92)
MATCH LINE STA. 4+00



SEE SHEET NO. 88

LOTTMAN ST



PLOTTED ON: Wednesday, September 23, 2026 8:43:00 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W — PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 23 ELEVATION 38.68'
STA. 5+62.51, 16.12' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(No service lines are not shown.)
(No Signature valid for 48 months.)

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature within existing underground facilities-not to be used for conflict verification.)
Signature Valid for 48 months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

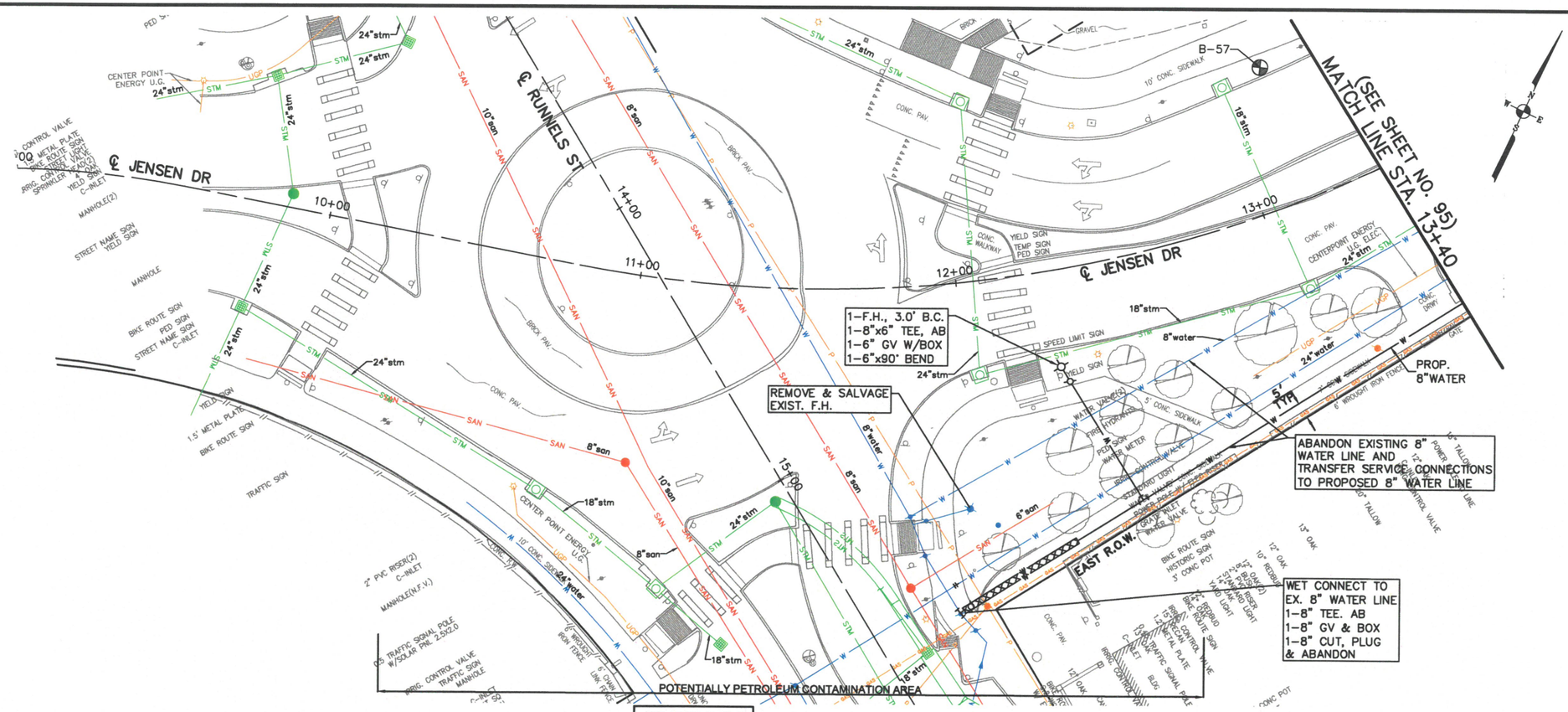
LOTTMAN ST

PLAN AND PROFILE
FROM STA. 4+00.00 TO STA. 5+72.37

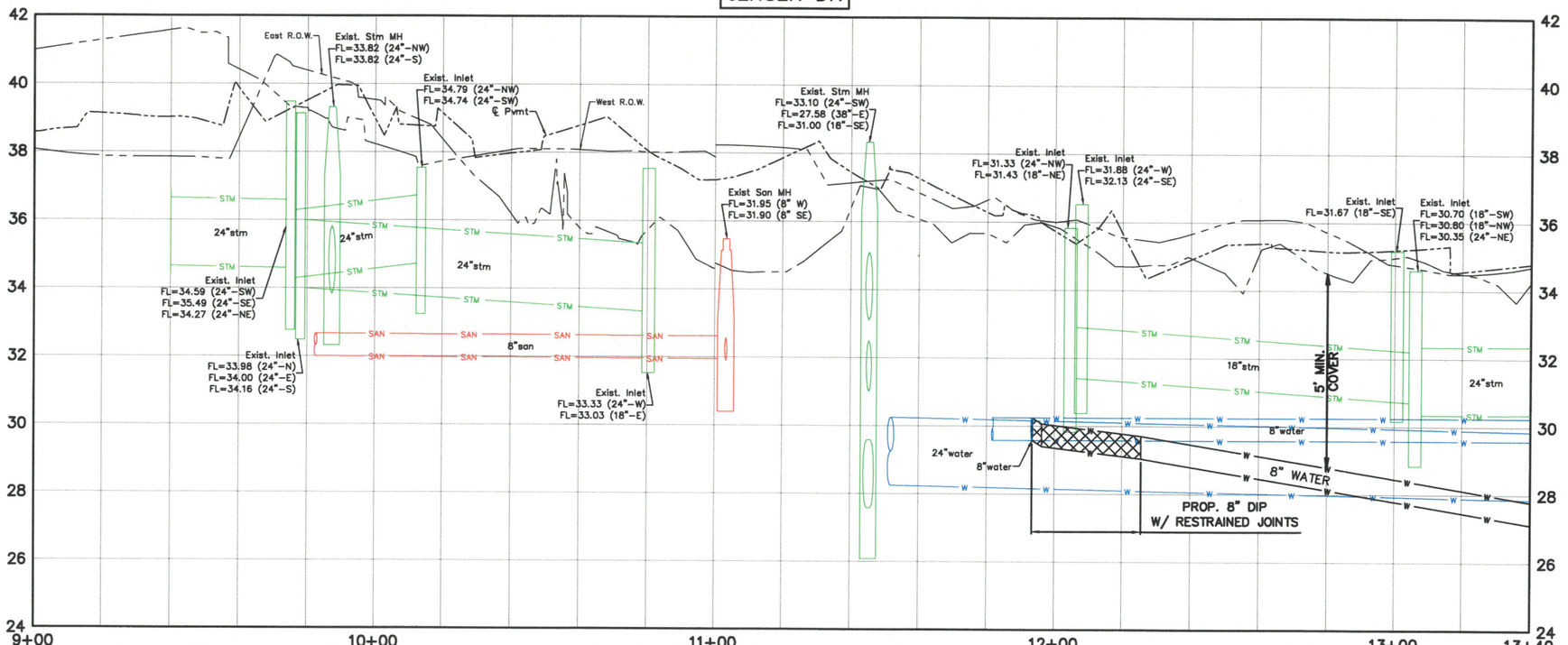
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 93 OF 362	

FOR REDUCED PLANS
original scale in inches

0 1 2 3



JENSEN DR



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 21 ELEVATION 36.93'
STA. 11+84.53, 74.14' RT

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, BORE OR BLAST TO HAVE UNDERGROUND LINES MARKED. THIS VERIFICATION DOES NOT FULFILL YOUR OBLIGATION TO CALL 811.

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas entries from ms not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENSEN DR

PLAN AND PROFILE
FROM STA. 9+00.00 TO STA. 13+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 94 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:43:15 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 88

(SEE SHEET NO. 94)
MATCH LINE STA. 13+40

MATCH LINE STA. 17+80
(SEE SHEET NO. 96)

SEE SHEET NO. 89

JENSEN DR

PROP. 8"WATER

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-8" GV

1-8" TEE, AB

2-8"x45° BENDS, AB

POTENTIALLY PETROLEUM CONTAMINATION AREA

EAST R.O.W.

WEST R.O.W.

80.6' R.O.W.

℄ JENSEN DR

℄ ANN ST

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 20 ELEVATION 34.89'
STA. 15+62.61, 47.90' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(the service fees are not shown.)
(the Signatory not to be used for comfort verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(the Signatory verifies existing underground facilities-not to be used for comfort verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENSEN DR

PLAN AND PROFILE
FROM STA. 13+40.00 TO STA. 17+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 95 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:43:31 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 95)
MATCH LINE STA. 17+80

WEST R.O.W.

EAST R.O.W.

80.6' R.O.W.

ASPH PAV.

CONC. R.W.

CONC. SIDEWALK

18+00 19+00 ℄ JENSEN DR 20+00 21+00 21+90

B-58

B-7

5' TYP

PROP. 8"WATER

1-8" GV

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE. AB
1-8" GV & BOX
1-8" CUT, PLUG & ABANDON

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

℄ BAYOU PARKVIEW DR

S 39°10'00" W

SEE SHEET NO. 84

JENSEN DR

℄ Pvmt

West R.O.W.

East R.O.W.

Exist. Inlet
FL=27.99 (12"-N)
FL=27.83 (12"-NW)
FL=28.07 (12"-W)
FL=26.05 (18"-NE)

Exist San MH
FL=26.92 (8" SW)
FL=25.94 (8" NE)

5' MIN. COVER

8" WATER

6" water

Exist. Inlet
FL=25.49 (15"-NE)
FL=25.89 (12"-SE)

Exist. Stm MH
FL=24.35 (18"-SW)
FL=24.57 (18"-SW)
FL=25.00 (18"-NE)

Exist San MH
FL=24.98 (8" SW)
FL=24.90 (8" SE)

Exist. Inlet
FL=25.71 (12"-SE)

17+80 18+00 19+00 20+00 21+00 22+00

20 22 24 26 28 30 32 34 36 38

LEGEND

- STM EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 19 ELEVATION 31.17'
STA. 20+06.63, 36.88' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(See Signature text is to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities--not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENSEN DR

PLAN AND PROFILE
FROM STA. 17+80.00 TO STA. 21+89.51

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 96 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:43:50 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE. AB
1-8" GV & BOX
1-8" CUT, PLUG & ABANDON

1-20° SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

PROP. 8"WATER

℄ ANN ST

℄ N ST CHARLES ST

℄ ENGELKE ST

WEST R.O.W.

EAST R.O.W.

40.0' R.O.W.

5' TYP.

B-3

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

MATCH LINE STA. 9+20
(SEE SHEET NO. 98)

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 17 ELEVATION 29.89'
STA. 12+25.60, 1.41'LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N ST CHARLES ST

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 9+20.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 97 OF 362	

N ST CHARLES ST

Exist. Stm MH FL=29.87 (15"-N) FL=20.61 (24"-SW) FL=29.92 (15"-SE) FL=20.62 (24"-NE)
Exist. Inlet FL=29.38 (15"-S)
Exist. Stm MH FL=27.48 (15"-NW) FL=29.69 (15"-S) FL=25.29 (24"-NE)
Exist San MH FL=28.02 (8" NE)
Exist. Inlet FL=26.40 (24"-SW) West R.O.W. East R.O.W.
Exist. Stm MH FL=23.19 (15"-NW) FL=20.74 (24"-SW) FL=20.76 (24"-NE)
Exist San MH FL=24.12 (8" SW) FL=25.45 (8" SE) FL=24.08 (12" NE)
℄ Pvmt
Exist. Inlet FL=26.28 (15"-NW) FL=25.18 (15"-E)
Exist. Stm MH FL=22.49 (24"-SW) FL=24.02 (15"-W) FL=24.42 (24"-NE) FL=21.49 (24"-NE)
Exist San MH FL=21.22 (12" SW) FL=21.53 (8" SE) FL=21.27 (12" NE)
5' MIN. COVER
2'-0" MIN. CLR.
PROP. 8" DIP W/ RESTRAINED JOINTS
8" WATER

PLOTTED ON: Wednesday, September 23, 2026 8:44:05 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 84

(SEE SHEET NO. 97)
MATCH LINE STA. 9+20

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

POTENTIALLY PETROLEUM CONTAMINATION AREA

℄ BAYOU PARKVIEW BLVD

1-8"x45° BEND, AB
WEST R.O.W.

1-8" TEE, AB

1-8"x45° BEND, AB

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

PROP. 8"WATER

℄ N ST CHARLES ST

EAST R.O.W.

50.4' R.O.W.

5' TYP.

10+00 | 11+00 | 12+00 | 13+00

SEE SHEET NO. 85

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W — PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 16 ELEVATION 23.73'
STA. 6+57.00, 19.29' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Site service lines are not shown.)
The Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature within existing underground buffalo-net is to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N ST CHARLES ST

PLAN AND PROFILE
FROM STA. 9+20.00 TO STA. 13+00.27

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 98 OF 362	

N ST CHARLES ST

Exist San MH FL=20.70 (8" SW) FL=20.70 (8" NE)
West R.O.W.
℄ Pvmt
East R.O.W.
Exist. Inlet FL=21.16 (24"-SW) FL=21.11 (24"-NE)
Exist San MH FL=20.48 (8" E) FL=20.46 (8" SW)
Exist San MH FL=20.53 (15" NW) FL=20.67 (8" SW) FL=20.68 (8" W) FL=20.58 (18" SE) FL=20.53 (4" NE)
Exist. Stm MH FL=18.90 (24"-SW) FL=13.48 (24"-N) FL=17.27 (24"-SE) FL=13.46 (24"-SW)
Exist San MH FL=20.55 (15" NW) FL=20.47 (15" SE)
Exist. Stm MH FL=20.70 (24"-SW) FL=20.32 (24"-NE)
Exist San MH FL=20.80 (12" SW) FL=20.80 (8" NE)
Exist. Inlet FL=18.45 (24"-NW)
Exist. Inlet FL=19.34 (24"-NE)
5' MIN. COVER
2'-0" MIN. CLR.
8" WATER
PROP. 8" DIP W/ RESTRAINED JOINTS
Exist. Stm MH FL=13.80 (24"-N) FL=17.36 (24"-SE) FL=13.51 (24"-S)
PROP. 8" WATER

30 28 26 24 22 20 18 16 14 12
9+20 | 10+00 | 11+00 | 12+00 | 13+00

PLOTTED ON: Wednesday, September 23, 2026 8:44:20 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS original scale in inches

POTENTIALLY PETROLEUM CONTAMINATION AREA

WEST R.O.W.

EAST R.O.W.

℄ N LIVE OAK

℄ ENGELKE ST

REMOVE & SALVAGE EXIST. F.H.

1-8" GV

PROP. 8"WATER

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE. AB
1-8" GV & BOX
1-8" CUT, PLUG & ABANDON

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

MATCH LINE STA. 4+40 (SEE SHEET NO. 100)

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 13 ELEVATION 35.41'
STA. 2+21.61, 14.60' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(No Service within existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Service within existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

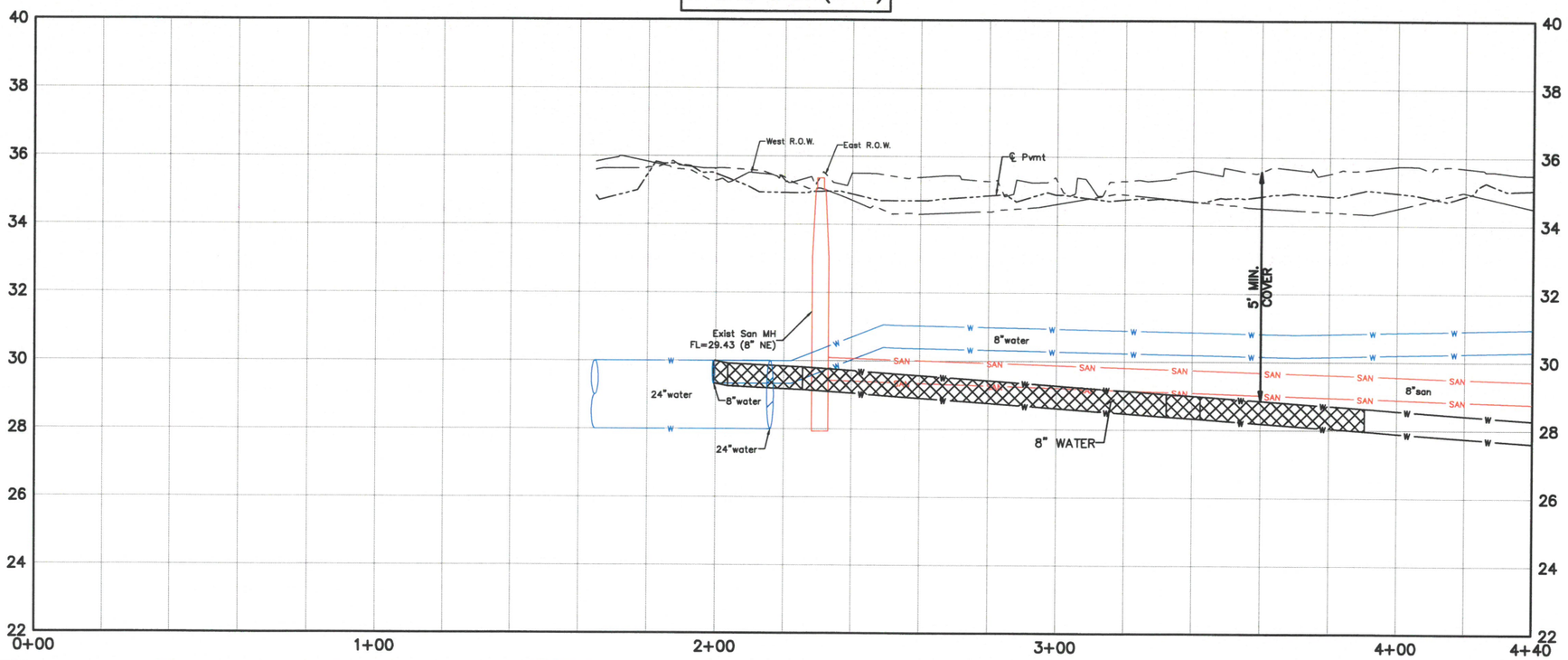
WATERLINE REPLACEMENT IN SECOND WARD

N LIVE OAK (N-2)

PLAN AND PROFILE
FROM STA. 1+64.71 TO STA. 4+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 99 OF 362	

N LIVE OAK (N-2)



PLOTTED ON: Wednesday, September 23, 2026 8:44:35 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 99)
MATCH LINE STA. 4+40

MATCH LINE STA. 8+80
(SEE SHEET NO. 101)

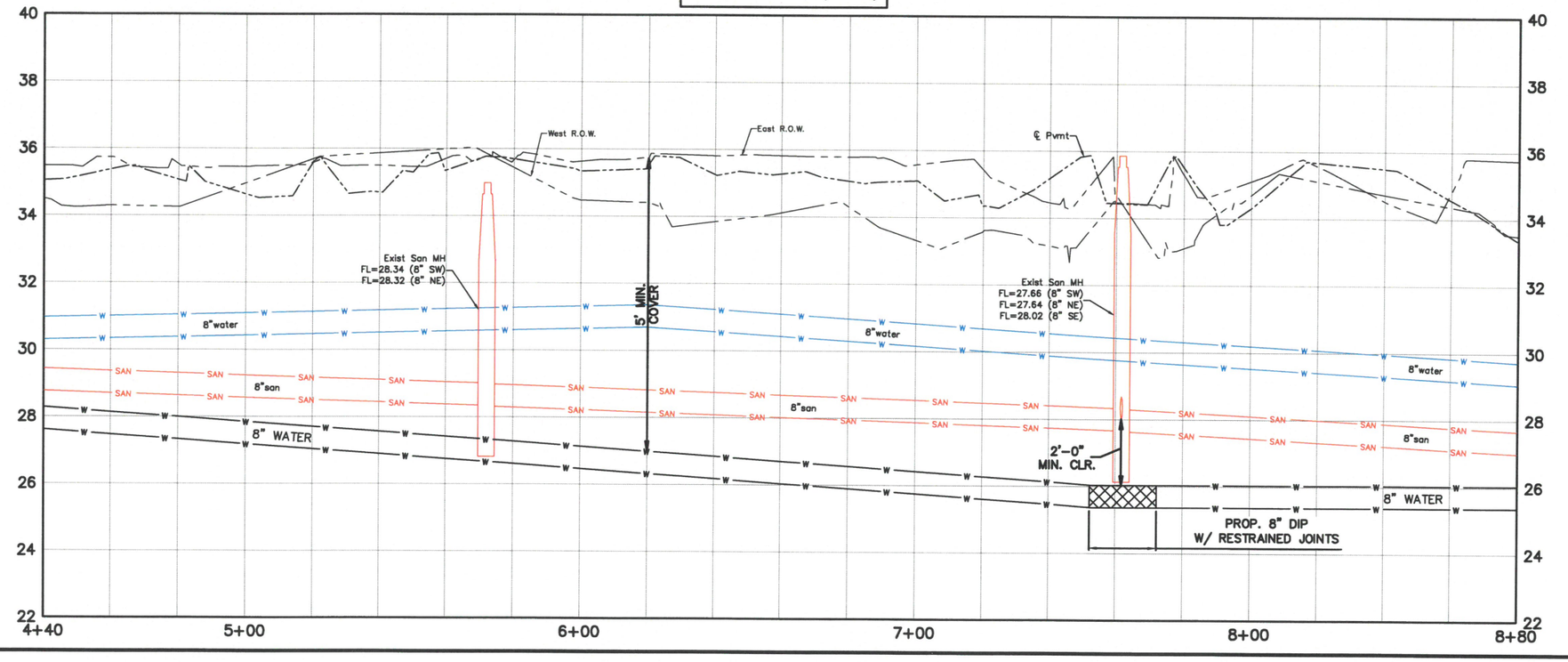
1-20' SECTION OF WATER LINE
W/RESTRAINED JOINTS
CENTERED AT SAN. SWR. CROSSING

ABANDON EXISTING 8"
WATER LINE AND
TRANSFER SERVICE CONNECTIONS
TO PROPOSED 8" WATER LINE

PROP.
8"WATER

℄ N LIVE OAK

N LIVE OAK (N-2)



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 14 ELEVATION 34.86'
STA. 5+48.13, 8.95' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : F-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

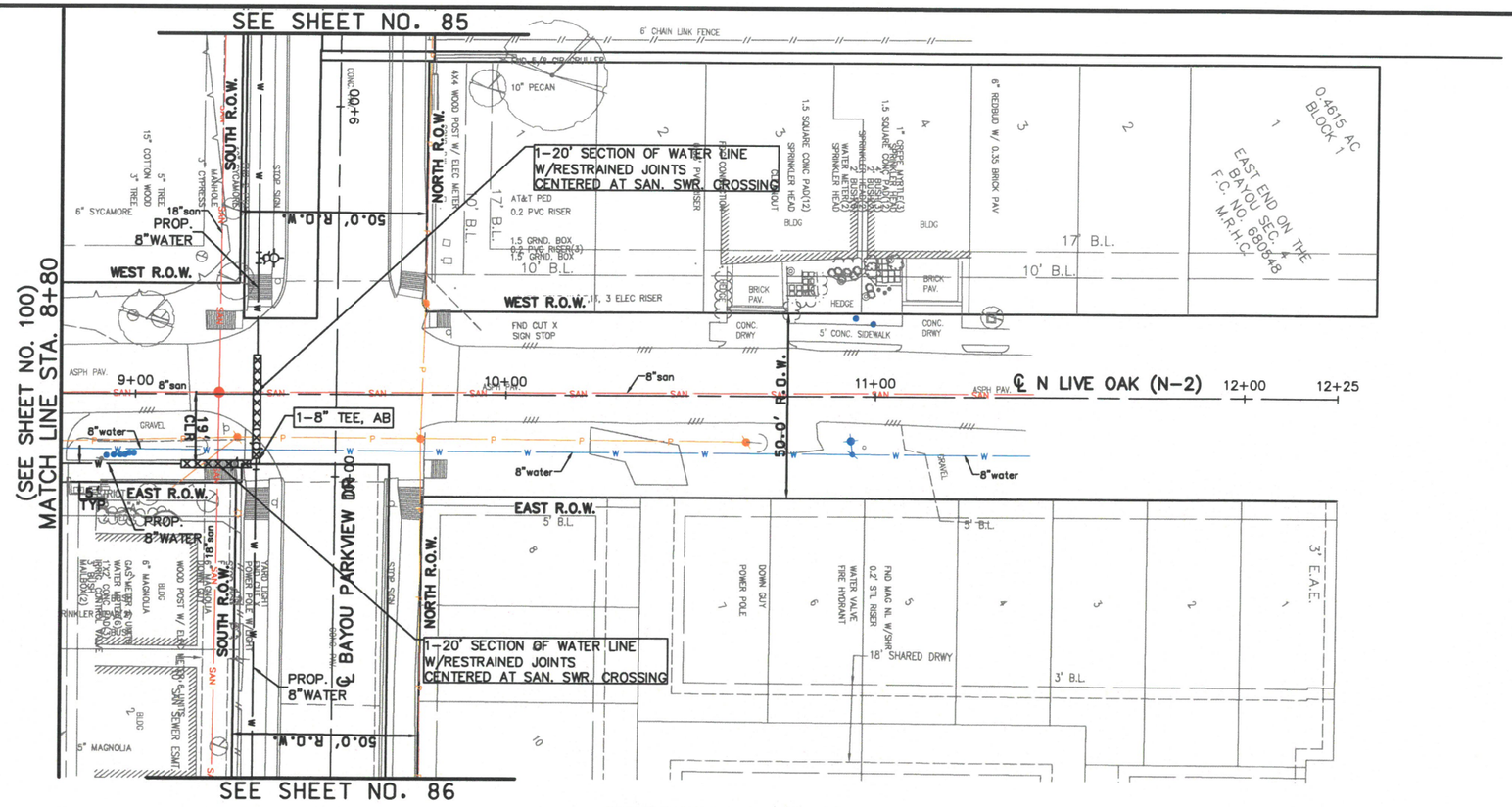
N LIVE OAK (N-2)

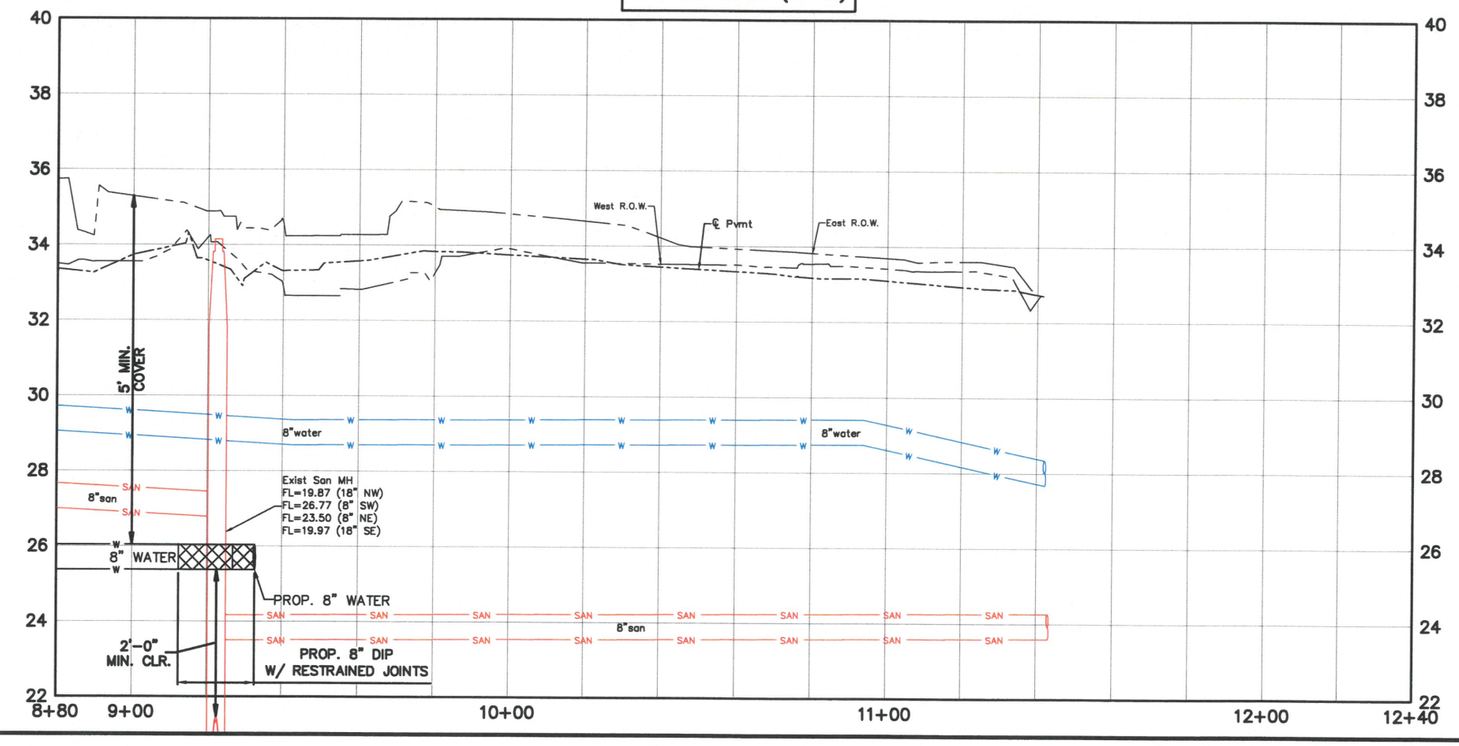
PLAN AND PROFILE
FROM STA. 4+40.00 TO STA. 8+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 100 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:44:50 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 15 ELEVATION 34.34'
STA. 9+70.77, 22.28' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities--not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N LIVE OAK (N-2)

PLAN AND PROFILE
FROM STA. 8+80.00 TO STA. 12+25.47

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 101 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:45:05 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

1–20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

ABANDON EXISTING 2" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

REMOVE & SALVAGE EXIST. F.H.

2–8"x45° BENDS, AB

PROP. 8"WATER

WEST R.O.W.

EAST R.O.W.

SOUTH R.O.W.

NORTH R.O.W.

℄ N NAGLE ST

℄ BERING ST

1–20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. & STRM. SWR. CROSSING

MATCH LINE STA. 9+60 (SEE SHEET NO. 103)

SEE SHEET NO. 90

N NAGLE ST

Exist San MH FL=32.01 (8" NE)

West R.O.W.

East R.O.W.

℄ Pvmt

Exist. Inlet FL=32.96 (21"-SW) FL=32.91 (15"-SE) FL=32.95 (21"-NE)

Exist. Inlet FL=33.17 (21"-SW) FL=32.97 (21"-NE)

Exist. Inlet FL=32.49 (21"-SW) FL=32.65 (21"-NE)

Exist. Inlet FL=34.24 (21"-SW) FL=34.23 (21"-NW) FL=34.30 (21"-NE)

Exist. Inlet FL=32.43 (21"-SW) FL=32.44 (21"-NE)

Exist. Inlet FL=32.87 (21"-SW) FL=32.99 (21"-NW) FL=33.16 (21"-NE)

Exist San MH FL=29.24 (8" SW) FL=29.11 (8" SE) FL=29.22 (8" NW) FL=28.95 (8" NE)

Exist San MH FL=30.77 (6" N) FL=30.63 (8" E)

Exist. Inlet FL=32.57 (21"-SW) FL=32.64 (21"-NE)

Exist. Inlet FL=32.47 (21"-SW) FL=32.45 (21"-NE)

Exist San MH FL=30.77 (8" SW) FL=30.62 (8" W) FL=30.65 (8" NE) FL=30.56 (8" SE)

2'–0" MIN. CLR.

5' MIN. COVER

PROP. 8" WATER

PROP. 8" DIP W/ RESTRAINED JOINTS

8" WATER

PROP. 8" DIP W/ RESTRAINED JOINTS

5+00 6+00 7+00 8+00 9+00 9+60

22 24 26 28 30 32 34 36 38 40

LEGEND

- STM EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457–8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 12 ELEVATION 34.90'
STA. 1+38.78, 15.47' RT

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, DO THAT UNDERGROUND LINE CAN BE MARKED.
THIS VERIFICATION DOES NOT FULFILL YOUR OBLIGATION TO CALL 811.

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service line not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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Civil Structural Transportation
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(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N NAGLE ST

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 9+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 102 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:45:20 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 86

(SEE SHEET NO. 102)
MATCH LINE STA. 9+60

ABANDON EXISTING 2" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

PROP. 8"WATER 5' TYP

PROP. 8"WATER 5' TYP

℄ N NAGLE ST

℄ FOX ST

℄ BAYOU PARKVIEW DR

WEST R.O.W.

EAST R.O.W.

SOUTH R.O.W.

NORTH R.O.W.

42.9' R.O.W.

10' B.L.

3' B.L.

5' B.L.

18' SHARED DRWY

18' SHARED DRIVEWAY

SEE SHEET NO. 87

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 10 ELEVATION 35.82'
STA. 12+52.02, 13.93' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:

CenterPoint Energy/ Natural Gas Facilities Shown.
(Site service lines are not shown.)
(No Signature will be used for conflict verification.)
Signature Valid for six months.

Date:

CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature will be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:

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

Date:

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N NAGLE ST

PLAN AND PROFILE
FROM STA. 9+60.00 TO STA. 14+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 103 OF 362	

N NAGLE ST

Exist. Stm MH
FL=1.27 (102"-SW)
FL=28.05 (18"-S)
FL=26.12 (18"-NW)
FL=28.12 (18"-NE)
FL=1.27 (102"-NE)
Exist. Inlet
FL=29.37 (18"-N)

Exist San MH
FL=28.50 (8" SW)
FL=29.41 (8" NE)

Exist. Inlet
FL=33.08 (12"-SW)
FL=34.10 (12"-NE)

Exist. Stm MH
FL=23.46 (24"-NW)
FL=0.76 (102"-SW)
FL=0.76 (102"-NE)

Exist. Stm MH
FL=24.85 (24"-NW)
FL=30.32 (24"-S)
FL=30.50 (24"-NE)
FL=25.08 (24"-SE)

Exist. Stm MH
FL=0.46 (102"-SW)
FL=24.85 (24"-SE)
FL=24.23 (24"-E)
FL=0.46 (102"-NE)

West R.O.W.
East R.O.W.
℄ Pvmt

15"stm
12"stm
18"stm
24"stm
8"san
8"water
2"water
5' MIN. COVER
8" WATER

Exist. Inlet
FL=28.66 (18"-SW)

Exist. Inlet
FL=26.81 (12"-SW)
FL=26.81 (18"-SE)

Exist San MH
FL=19.90 (18" NW)
FL=19.90 (8" SW)
FL=19.50 (18" NE)

PROP. 8" WATER

Exist San MH
FL=19.59 (18" SW)
FL=20.85 (18" SE)

Exist. Stm MH
FL=24.09 (24"-SW)
FL=24.55 (24"-NW)
FL=26.28 (24"-NE)
FL=28.30 (24"-SE)

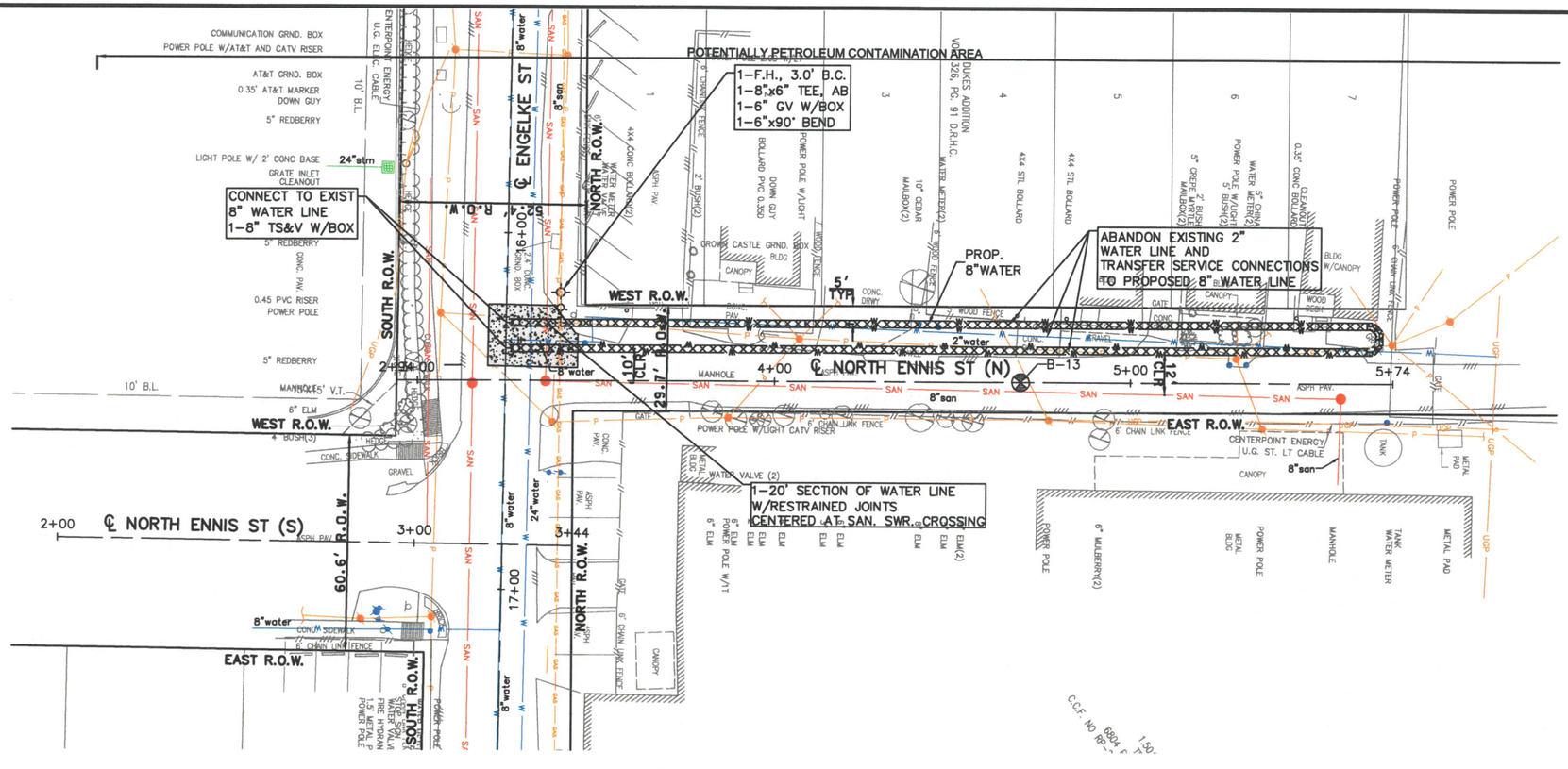
Exist. Inlet
FL=24.23 (24"-W)
FL=24.30 (24"-NE)

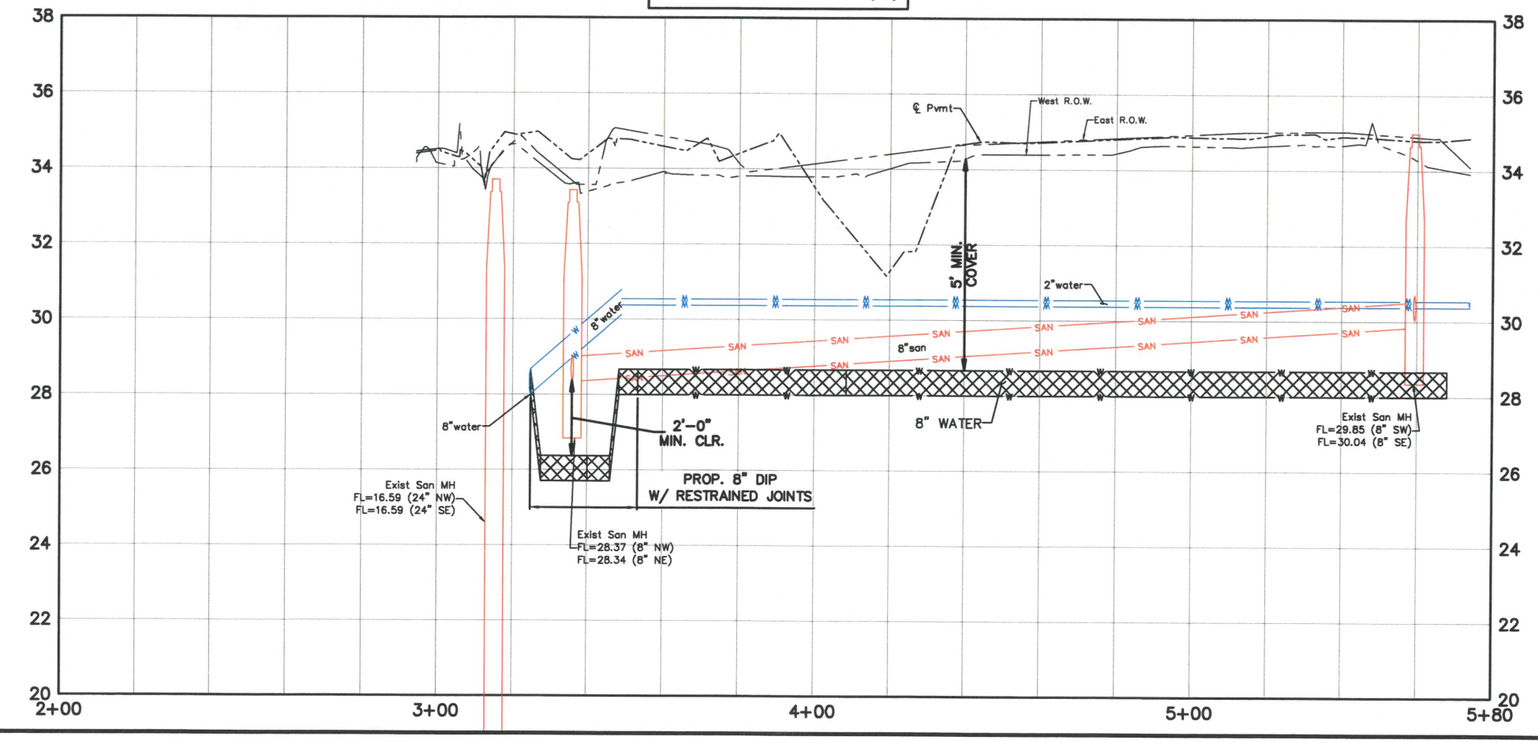
9+60 10+00 11+00 12+00 13+00 14+00 14+20

22 24 26 28 30 32 34 36 38 40

PLOTTED ON: Wednesday, September 23, 2026 8:45:35 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale is inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 3 ELEVATION 33.55'
STA. 16+34.30, 11.86' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature will be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature verifies existing underground facilities--not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
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Signature valid for one year.

Date:
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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
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FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

NORTH ENNIS ST (N)

PLAN AND PROFILE
FROM STA. 2+00.00 TO STA. 5+73.89

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 104 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:45:50 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

POTENTIALLY PETROLEUM CONTAMINATION AREA

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE. AB
1-8" GV & BOX
1-8" CUT, PLUG & ABANDON

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

REMOVE & SALVAGE EXIST. F.H.

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE. AB
1-8" GV & BOX
1-8" CUT, PLUG & ABANDON

ABANDON EXISTING 2" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

MATCH LINE STA. 5+40
(SEE SHEET NO. 106)

SOUTHERN PACIFIC RAILROAD COMPANY
(SAN ANTONIO AND ARANSAS PASS RAILWAY)
REMAINDER OF A CALLED 30 ACRE TRACT
VOL. 6, PG. 344 D.R.H.C.

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM## 28 ELEVATION 38.71'
STA. 1+43.96, 7.22' LF

NOTICE:
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AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
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Signature valid for one year.

Date:
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TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

VELASCO ST

PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 105 OF 362	

VELASCO ST

West R.O.W.
℄ Pvmt
East R.O.W.
5' MIN. COVER
Exist San MH
FL=30.49 (8" SW)
FL=30.40 (8" NW)
FL=30.60 (8" SE)
FL=30.42 (8" NE)
Exist San MH
FL=15.45 (24" NW)
FL=15.20 (24" SE)
FL=34.16 (8" SW)
FL=28.10 (8" NE)
8" WATER (E&W)
8" WATER (E&W)

PLOTTED ON: Wednesday, September 23, 2026 8:46:05 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

POTENTIALLY PETROLEUM CONTAMINATION AREA

(SEE SHEET NO. ####)
MATCH LINE STA. 5+40

MATCH LINE STA. 10+00
(SEE SHEET NO. 107)

30.0' R.O.W.

WEST R.O.W.

EAST R.O.W.

℄ VELASCO ST

REMOVE & SALVAGE EXIST. F.H.

PROP. 8"WATER

ABANDON EXISTING 6" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

ABANDON EXISTING 2" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

B-15

6+00 8"water 2"water 8"san 18"stm 7+00 8+00 9+00 10

4' CLR 5' CLR 5' TYP

6' CHAIN LINK FENCE

10' CHAIN LINK FENCE

GRAVEL

GATE

CANOPY

BLDG

POWER POLE

WATER METER

0.5' FENCE POST

FIRE HYDRANT

POWER POLE W/LIGHT

4" MULBERRY

5" MULBERRY

WATER VALVE

B-INLET/ FND TRM CUT SQ

8" SYCAMORE B-INLET

8" HACKBERRY

LIGHT POLE

GAS MARKER

4" SYCAMORE

MANHOLE

6" TREE

5" WILLOW

24" ELM

10" OAK

5" ELM (MAG)

18" HACKBERRY

18" SYCAMORE

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W — PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM## 30 ELEVATION 34.93'
STA. 9+46.69, 10.83' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(This signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities--not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

VELASCO ST

PLAN AND PROFILE
FROM STA. 5+40.00 TO STA. 10+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 106 OF 362	

VELASCO ST

40 38 36 34 32 30 28 26 24 22

5+40 6+00 7+00 8+00 9+00 10+00

West R.O.W. East R.O.W.

Exist San MH FL=31.26 (8" SW) FL=31.31 (8" NE)

Exist. Stm MH FL=28.86 (18"-NW) FL=31.18 (18"-SE) FL=28.99 (18"-NE)

℄ Pvmt

Exist. Inlet FL=32.78 (18"-NE)

Exist. Inlet FL=31.24 (18"-NW)

Exist. Inlet FL=31.17 (18"-SW) FL=29.96 (18"-SE)

5' MIN. COVER

Exist San MH FL=32.29 (8" SW) FL=32.37 (6" NW) FL=32.38 (6" NE) FL=32.33 (8" SE)

Exist San MH FL=32.39 (6" SW) FL=33.00 (4" NE)

8"san 8"water 2"water 18"stm 4"san

8" WATER (E&W)

8" WATER (E&W)

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FOR REDUCED PLANS
original scale in inches

POTENTIALLY PETROLEUM CONTAMINATION AREA

POTENTIALLY PETROLEUM CONTAMINATION AREA

(SEE SHEET NO. 106)
MATCH LINE STA. 10+00

MATCH LINE STA. 14+60
(SEE SHEET NO. 108)

30.0' R.O.W.

WEST R.O.W.

EAST R.O.W.

℄ VELASCO ST

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

ABANDON EXISTING 2" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

PROP. 8"WATER

PROP. 8"WATER

PROP. 8"WATER

5' TYP

4' CLR

11' CLR

6' CHAIN LINK FENCE

BLDG

POWER POLE

POWER POLE W/ NO LINE

POWER POLE W/LIGHT

POWER POLE W/T

WATER METER(2)

GUY WIRE

B-INLET

MANHOLE

GAS VALVE W/ 1.5' CONC BASE

MONIT WELL

4" CYPRESS

SOUTHERN PACIFIC RAILROAD COMPANY
(SAN ANTONIO AND ARANSAS PASS RAILWAY)
REMAINDER OF A CALLED 30 ACRE TRACT
VOL. 6, PG. 344 D.R.H.C.

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM## 31 ELEVATION 33.51'
STA. 12+70.64, 12.57' RT

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
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(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : F-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

VELASCO ST

PLAN AND PROFILE
FROM STA. 10+00.00 TO STA. 14+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 107 OF 362	

VELASCO ST

East R.O.W.
West R.O.W.
℄ Pvmt
Exist. Inlet FL=28.47 (18"-NW)
4"san
5' MIN. COVER
2"water
18"stm
8"water
Exist. Inlet FL=28.41 (18"-SE)
Exist. Stm MH FL=27.36 (18"-SW) FL=28.63 (18"-NW) FL=27.28 (18"-N) FL=27.43 (18"-SE)
Exist. Stm MH FL=26.59 (18"-NW) FL=26.64 (18"-S)
8" WATER (E&W)
8" WATER (E&W)

38 36 34 32 30 28 26 24 22 20

10+00 11+00 12+00 13+00 14+00 14+60

PLOTTED ON: Wednesday, September 23, 2026 8:46:36 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 107)
MATCH LINE STA. 14+60

POTENTIALLY PETROLEUM CONTAMINATION AREA

30.0' R.O.W.

POWER POLE W/LIGHT

0.8' STL BOLLARD

5" MULBERRY

FND CUT X

0.8' STL BOLLARD

FND 5/8 OR LANDMARK

POWER POLE

POWER POLE W/LT

5" MEZ TREE

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

PROP. 8"WATER

6' CHAIN LINK FENCE

WEST R.O.W.

5' TYP

℄ VELASCO ST

30.0' R.O.W.

B-17

GRAVEL

5' TYP

EAST R.O.W.

PROP. 8"WATER

2-8"x45° BENDS, AB

2-8"x45° BENDS, AB

GATE

8' CHAIN LINK FENCE

15+00 16+00 17+00 18+00 19+00 19+13

0.8' MONUMENT

12" MESQUITE

8" ELM

8" ELM

6" MOTOR

6" MOTOR

SOUTHERN PACIFIC RAILROAD COMPANY
(SAN ANTONIO AND ARANSAS PASS RAILWAY)
REMAINDER OF A CALLED 30 ACRE TRACT
VOL. 6, PG. 344 D.R.H.C.

VELASCO ST

East R.O.W.

℄ Pvmt

West R.O.W.

5' MIN. COVER

8" WATER (E&W)

38 36 34 32 30 28 26 24 22 20

14+60 15+00 16+00 17+00 18+00 19+00 19+20

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
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- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 32 ELEVATION 31.13'
STA. 16+14.63, 12.49' LF

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
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(Gas service lines are not shown.)
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Signature Valid for six months.

Date:
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(This Signature verifies existing underground facilities-not to be used for conflict verification.)
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AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

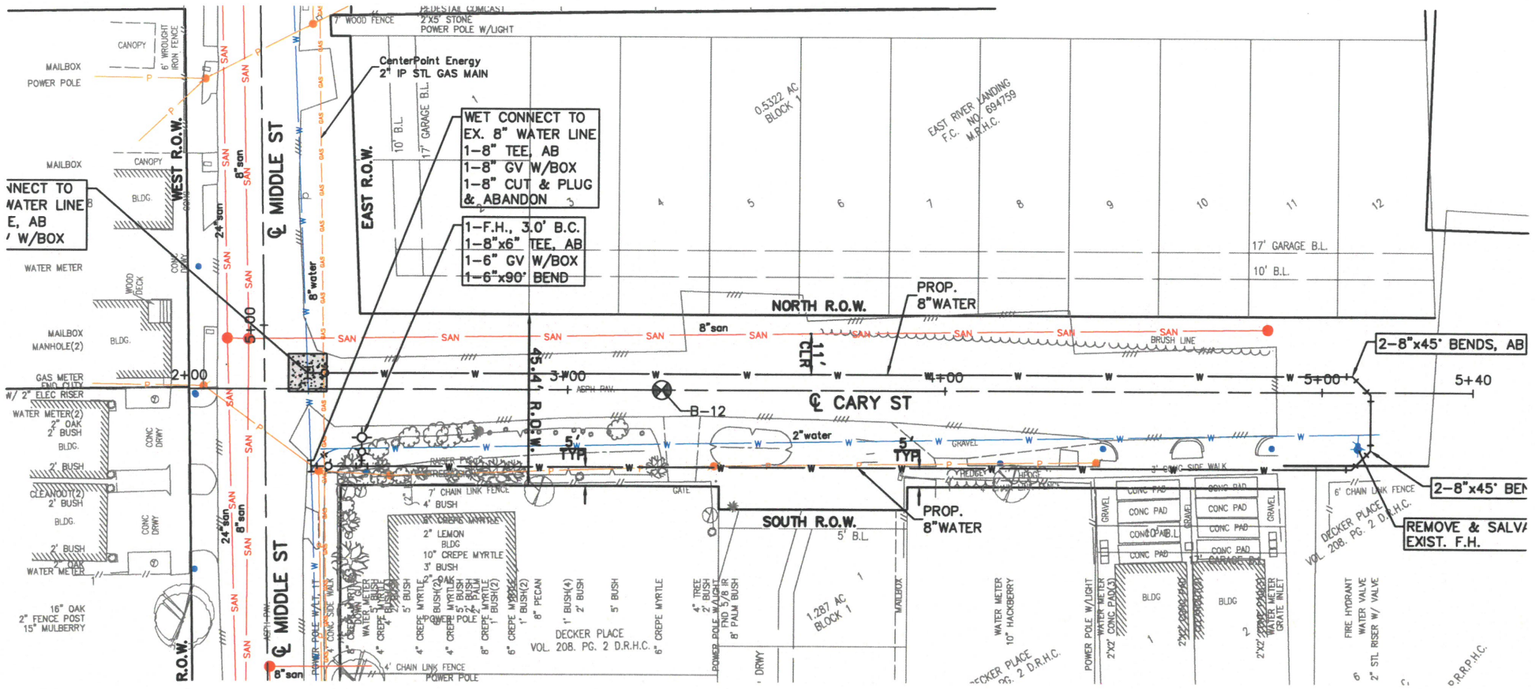
VELASCO ST

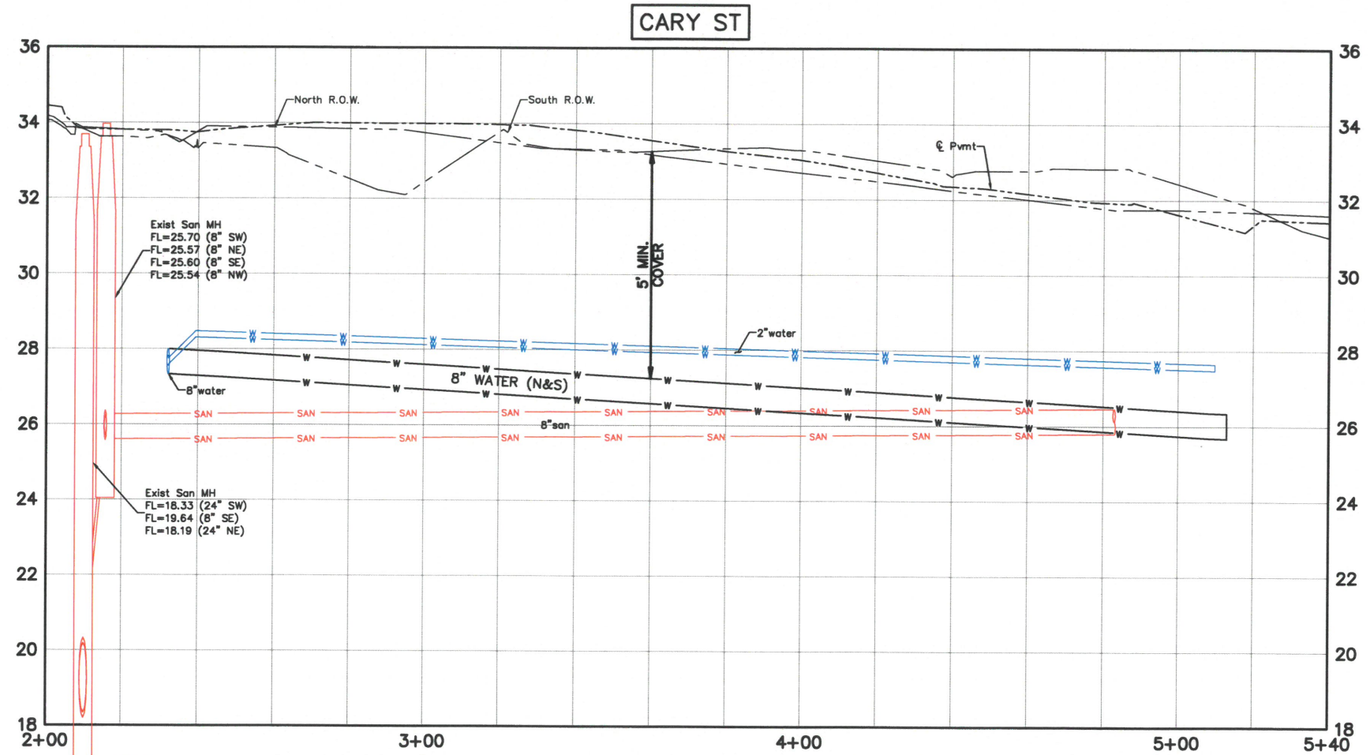
PLAN AND PROFILE
FROM STA. 14+60.00 TO STA. 19+12.97

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 108 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:46:50 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# 8 ELEVATION 32.08'
STA. 4+79.18, 6.12' LF

NOTICE:
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AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
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Signature valid for one year.

Date:
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CARY ST

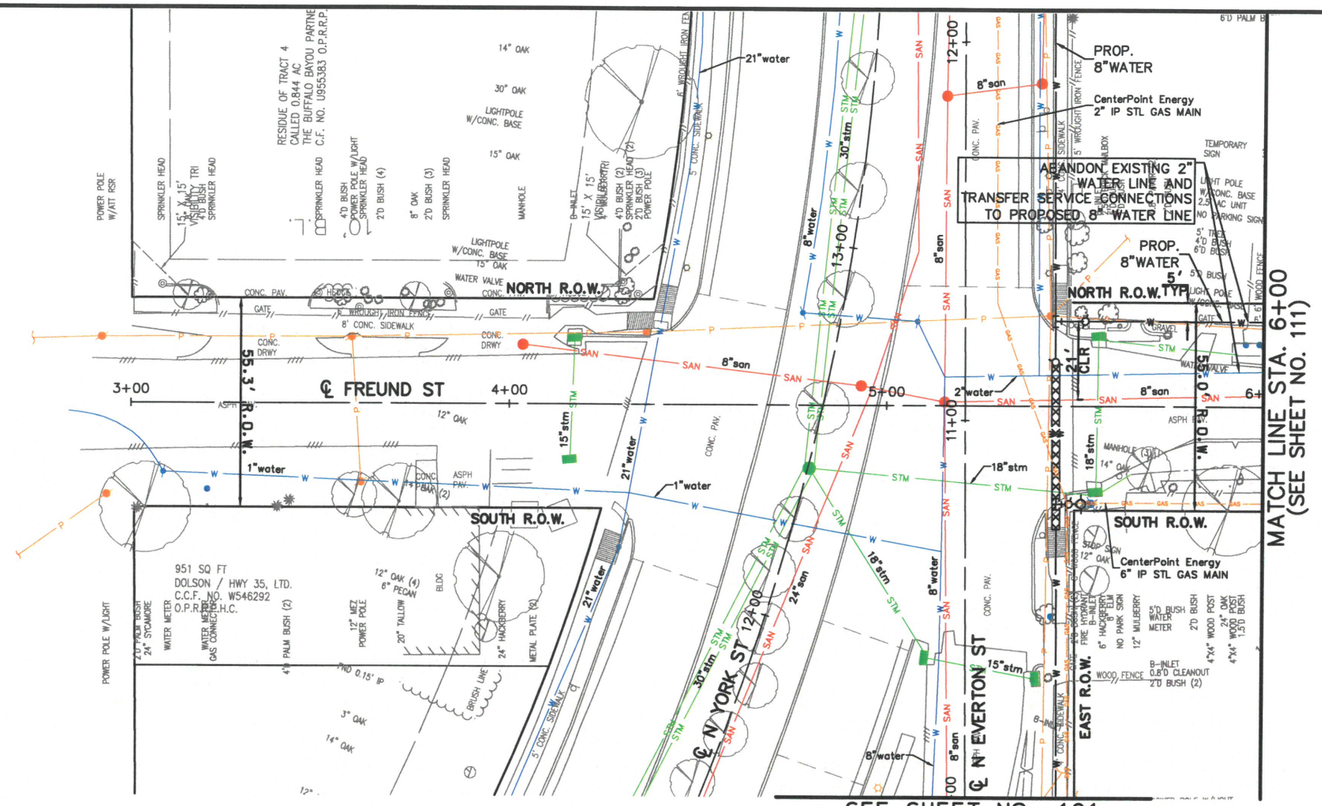
PLAN AND PROFILE
FROM STA. 2+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 109 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:47:39 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-B-H.DWG

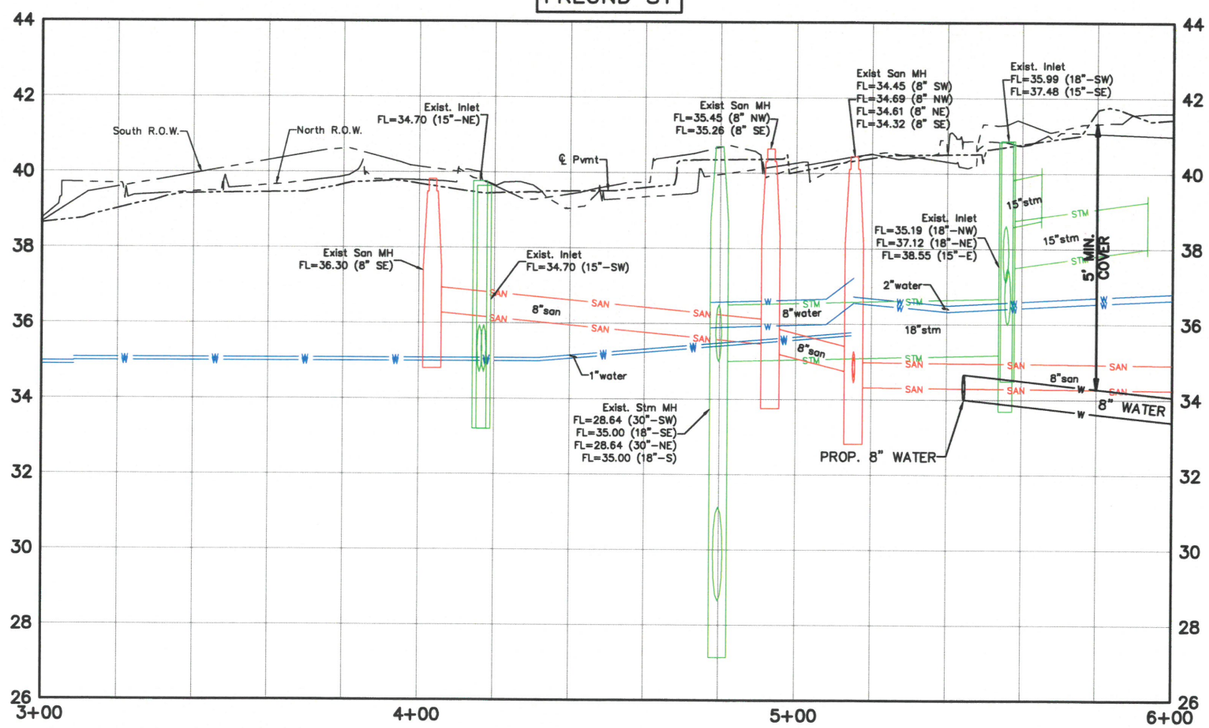
FOR REDUCED PLANS
original scale is inches

3 2 1 0



SEE SHEET NO. 121

FREUND ST



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
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- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 16 ELEVATION 40.43'
STA. 5+40.99, 18.83' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

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(Gas service lines are not shown.)
The Operators not to be used for conflict verification.)
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Date:
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(Gas service lines are not shown.)
Signature Valid for six months.
AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

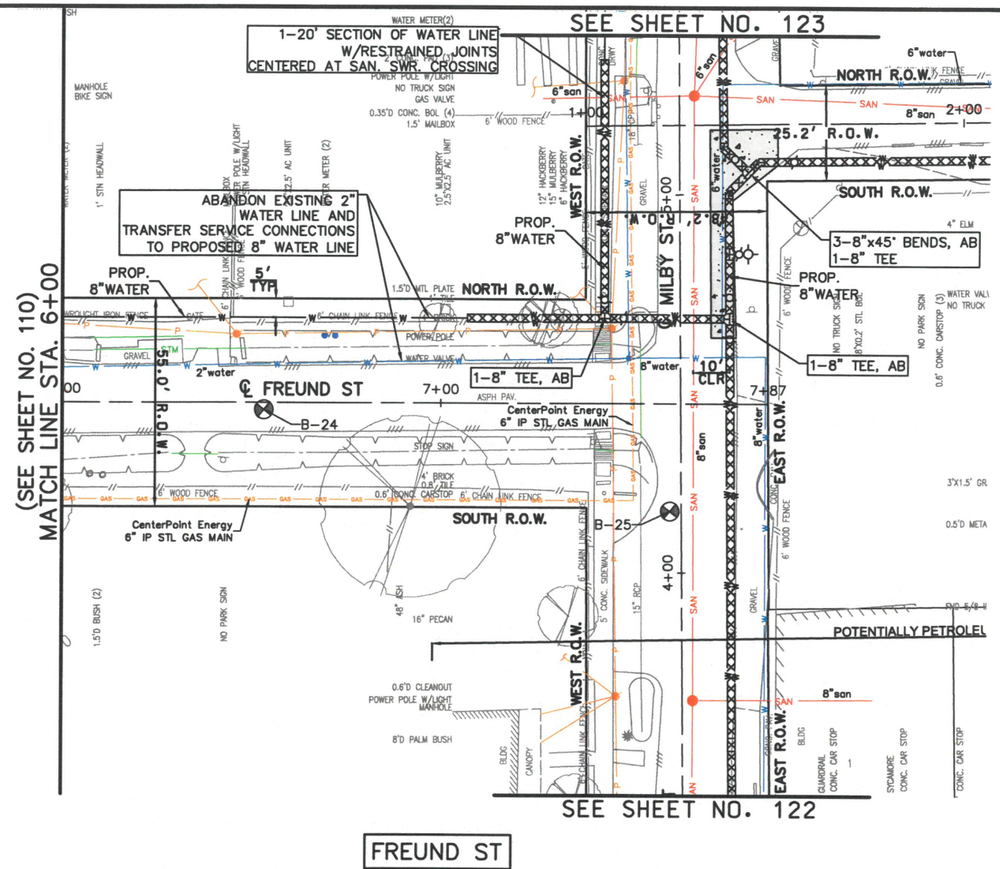
WATERLINE REPLACEMENT IN SECOND WARD

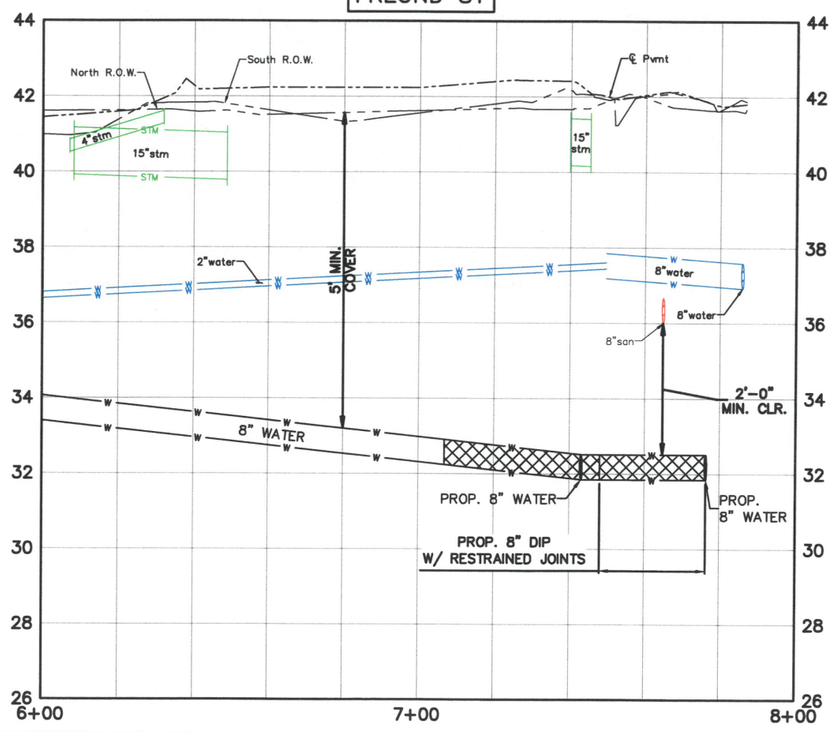
FREUND ST

PLAN AND PROFILE
FROM STA. 3+00.00 TO STA. 6+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 110 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:50:47 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-H.DWG





LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 13 ELEVATION 41.92'
STA. 7+75.55, 10.18' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Services within vicinity underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

FREUND ST

PLAN AND PROFILE
FROM STA. 6+00.00 TO STA. 7+86.67

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 111 OF 362	

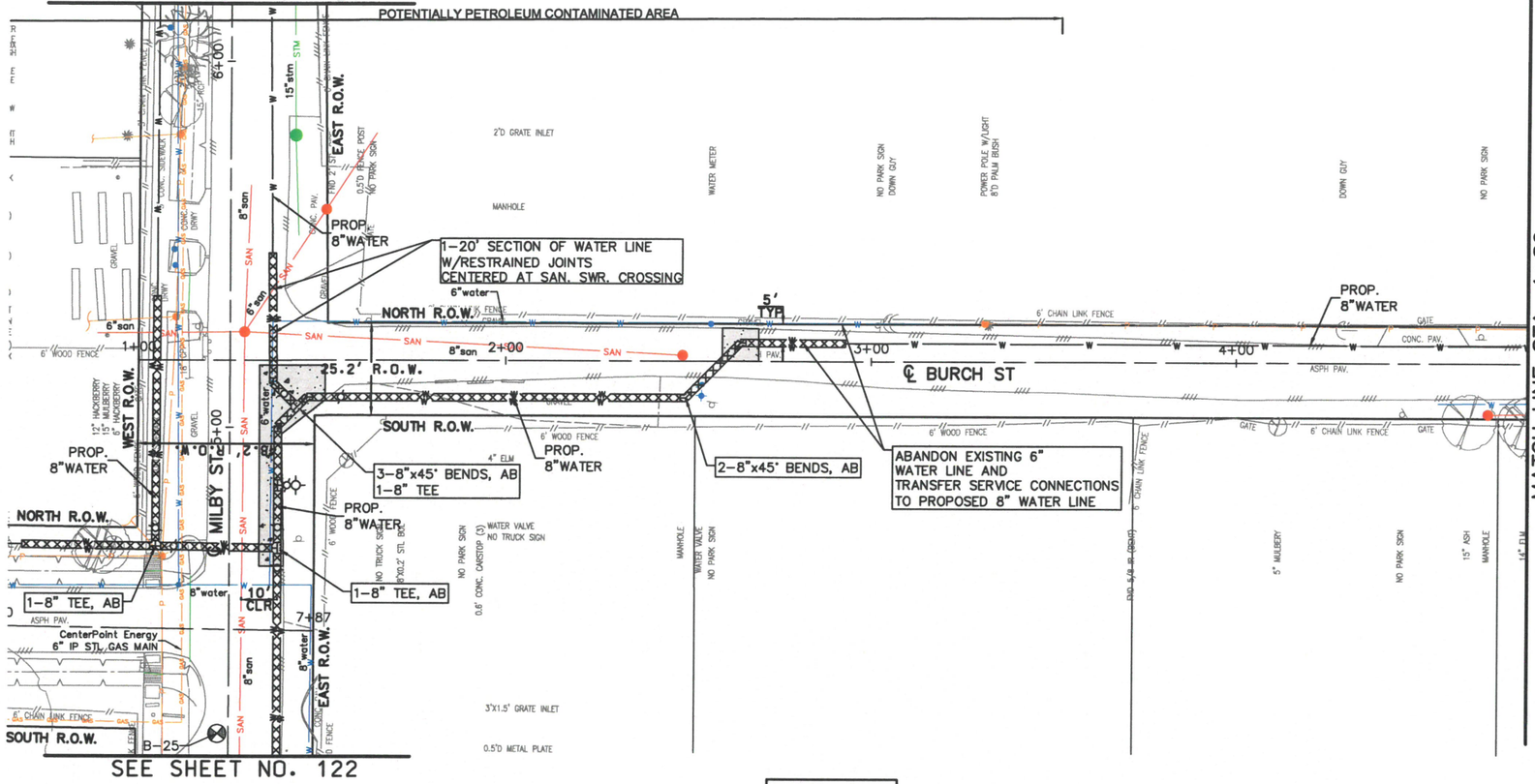
FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 8:51:00 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-H.DWG

FOR REDUCED PLANS
original scale in inches

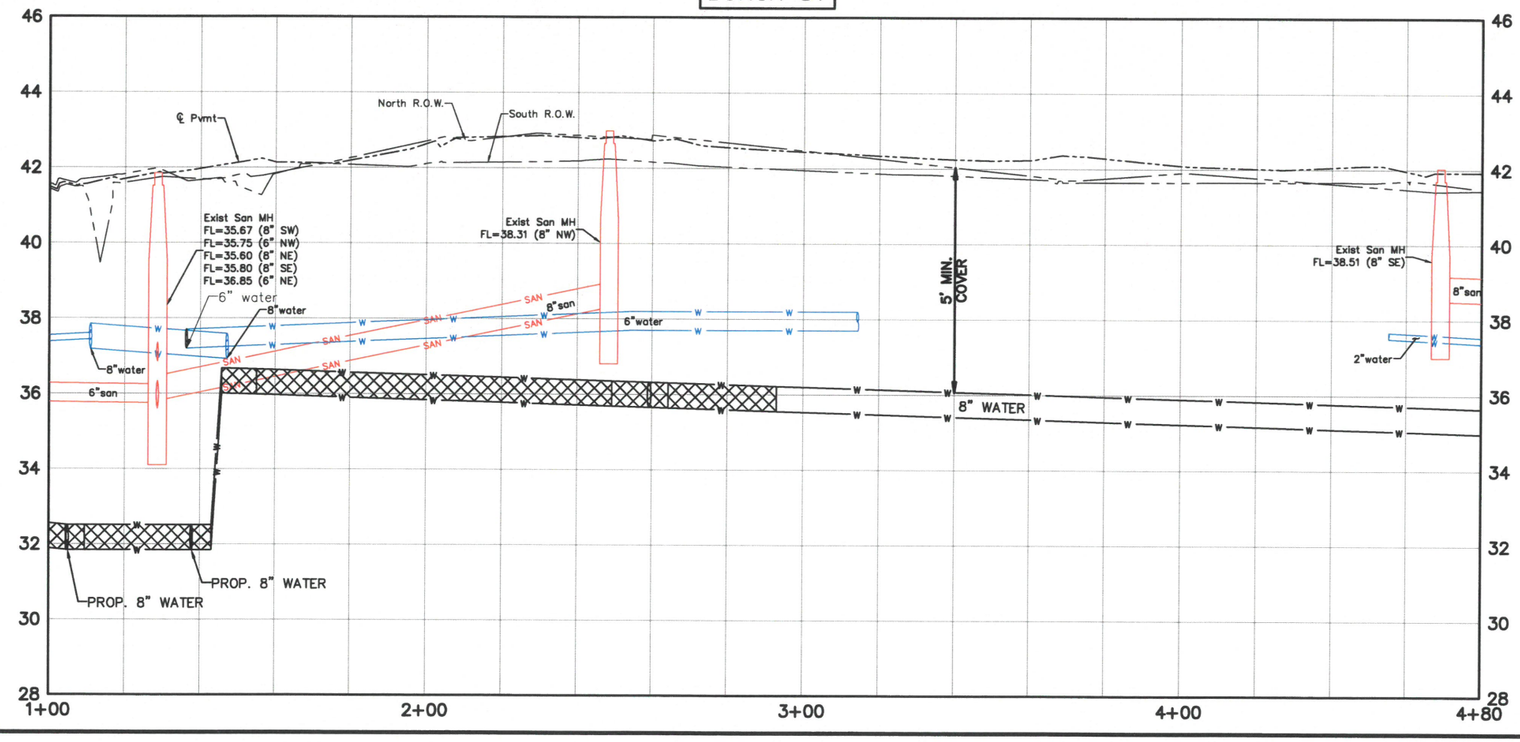
SEE SHEET NO. 123

POTENTIALLY PETROLEUM CONTAMINATED AREA



SEE SHEET NO. 122

BURCH ST



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 11 ELEVATION 41.88'
STA. 1+46.21, 9.16' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN:

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BURCH ST

PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 4+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 112 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:51:10 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-H.DWG

FOR REDUCED PLANS
original scale in inches

3 2 1 0

(SEE SHEET NO. 112)
MATCH LINE STA. 4+80

SEE SHEET NO. 127

SEE SHEET NO. 126

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

PROP. 8"WATER

5' TYP.

℄ BURCH ST

25.2' R.O.W.

NORTH R.O.W.

SOUTH R.O.W.

℄ N DRENNAN ST

EAST R.O.W.

1-8" TEE, AB

ABANDON EXISTING 2" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

CenterPoint Energy 6" IP STL GAS MAIN

CenterPoint Energy 4" IP STL GAS MAIN

B-27

B-31

TR 1

TR 2 & 3

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 9 ELEVATION 39.57'
STA. 8+19.08, 2.15' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature will be accepted for conflict verification.)
Signature Valid for 60 months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature will be accepted for conflict verification.)
Signature Valid for 60 months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BURCH ST

PLAN AND PROFILE
FROM STA. 4+80.00 TO STA. 7+88.53

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 113 OF 362	

BURCH ST

Exist San MH
FL=38.23 (8" NW)
FL=38.25 (8" SE)
FL=38.56 (6" NE)

Exist San MH
FL=37.25 (4" SW)
FL=34.62 (8" S)
FL=34.65 (8" NE)

Exist San MH
FL=34.52 (8" SW)
FL=34.58 (8" N)
FL=34.58 (8" NW)
FL=34.55 (8" NE)
FL=34.60 (6" SE)

North R.O.W.
South R.O.W.
℄ Pvmt

2'-0" MIN. COVER
2'-0" MIN. CLR.
PROP. 8" DIP W/ RESTRAINED JOINTS
8" WATER
PROP. 8" WATER

44 42 40 38 36 34 32 30 28 26

4+80 5+00 6+00 7+00 8+00 8+40

PLOTTED ON: Wednesday, September 23, 2026 8:51:20 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-H.DWG

FOR REDUCED PLANS
original scale in inches

POTENTIALLY PETROLEUM CONTAMINATED AREA

WEST R.O.W.

EAST R.O.W.

℄ MILBY ST

PROP. 8"WATER

1+00

3+00

8"san

10' TYP

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

NORTH R.O.W.

8"water

STOP SIGN

WATER VALVE

FND CUT X

ABANDON EXISTING 1" & 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

10' TYP

1"water

PROP. 8"WATER

2+00

B-28

℄ ROTTMAN ST

3+00

CenterPoint Energy
2" IP STL GAS MAIN

4+00

MATCH LINE STA. 4+80
(SEE SHEET NO. 115)

41.7' R.O.W.

SOUTH R.O.W.

2-8"x45° BENDS, AB

8"water

2"water

15"stm

15" RCP

STM

SAN

W

P

GAS

6' CHAIN LINK FENCE

4' CHAIN LINK FENCE

5' CONC. CARSTOP
5' FLAG POLE

0.45'D CLEANOUT

0.6' CONC. CARSTOP (3)

0.6' CONC. CARSTOP

1.5' CONC. PAD

8' WOOD FENCE

5' CONC. SIDEWALK

6" MEDIAN CURB

CANOPY

GATE

GRAVEL

ASPH PAV.

CONC. PAV.

BLDG

WATER METER

MANHOLE

TRUCK SIGN

DOWN GUY

POWER POLE

FND 5/8 IR (BENT)

FND 1/2 IR

FND 1" IP

FND CUT X

MILLER ADDITION
VOL. 451, PG. 19 D.R.H.C.

STL CHANDRAL
0.6' CONC. CAR STOP

30" SYCAMORE
0.6' CONC. CAR STOP

0.6' CONC. CAR STOP

POWER POLE

3" METAL STRUCTURE W/270 TEPS (3)

POWER POLE

0.8' CONC. RSR
DOWN SPOUT

FND 1" IP
0.8' CONC. RSR

0.6' CONC. CARSTOP

0.6' CONC. CARSTOP

1.5' CONC. PAD

0.6' CONC. CARSTOP

10" CREPE MYRTLE
MAILBOX

WATER METER

0.6' PVC RSR

BLDG

CANOPY

5' CHAIN LINK FENCE

WATER METER
0.6' PVC RSR

TR 25

TR 26

TR 27

TR 28

TR 29

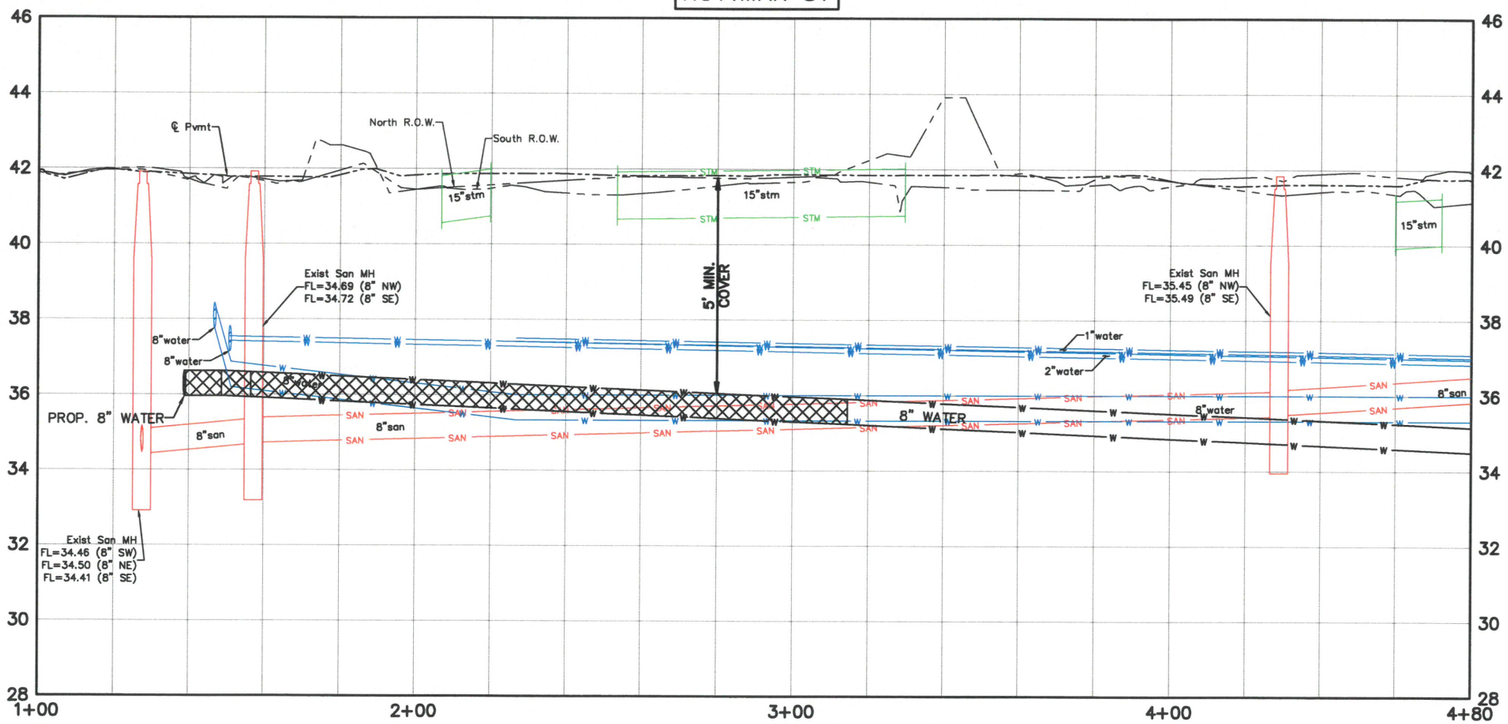
TR 30

TR 31

TR 32

SEE SHEET NO. 122

ROTTMAN ST



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 14 ELEVATION 41.78'
STA. 1+06.44, 2.49' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature verifies existing underground bullfrog--not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN:

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-8355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ROTTMAN ST

PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 4+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 114 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:51:30 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-H.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 114)
MATCH LINE STA. 4+80

SEE SHEET NO. 127

ENZO HEIGHTS
F.C. NO. 696673 M.R.H.C.

BLOCK NO. 1

1–20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

1–F.H., 3.0' B.C.
1–8"x6" TEE, AB
1–6" GV W/BOX
1–6"x90° BEND

PROP. 8"WATER

NORTH R.O.W.

SOUTH R.O.W.

℄ ROTTMAN ST

℄ N DRENNAN ST

EAST R.O.W.

41.0' R.O.W.

22' CLR

5' CLR

10' TYP

REMOVE & SALVAGE EXIST. F.H.

ABANDON EXISTING 1" & 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

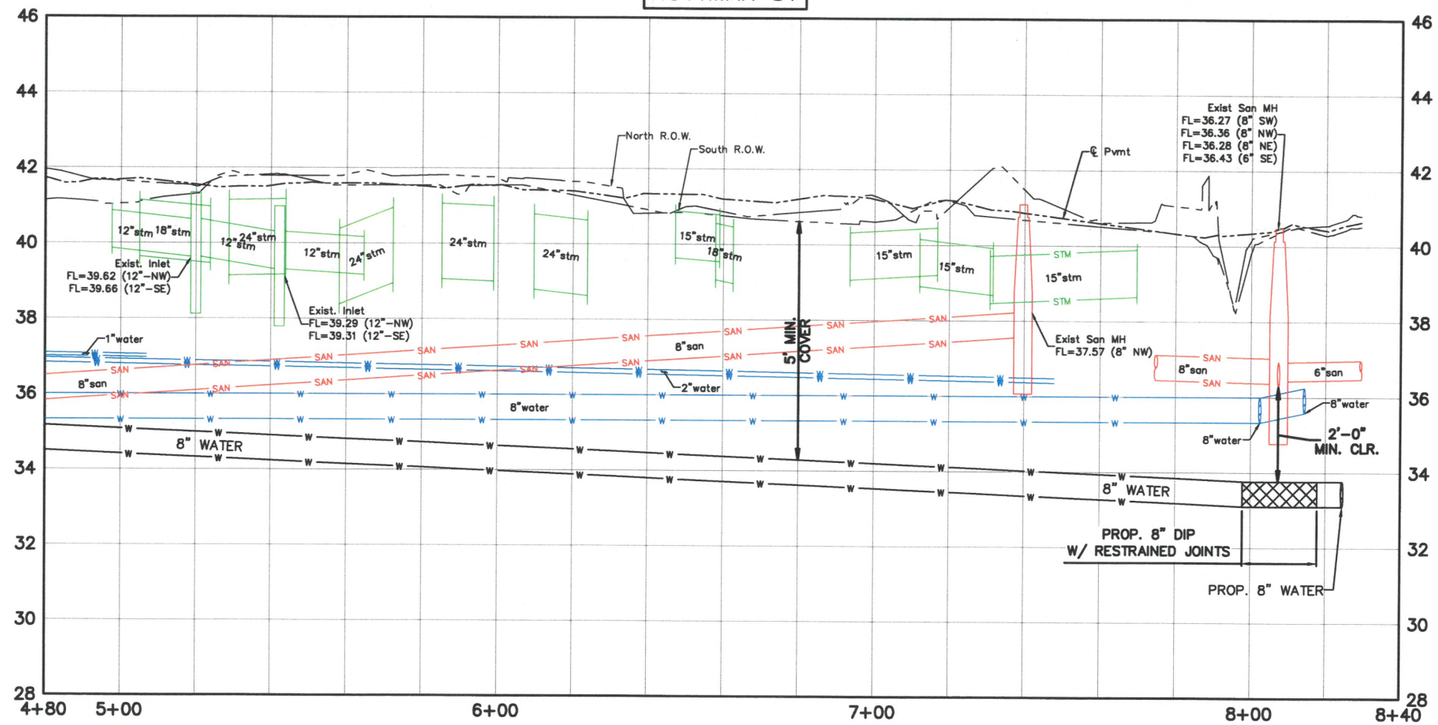
CenterPoint Energy 6" IP STL GAS MAIN

CenterPoint Energy 2" IP STL GAS MAIN

B-29

SEE SHEET NO. 126

ROTTMAN ST



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 7 ELEVATION 40.62'
STA. 8+20.32, 8.26' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Use service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
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Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : F-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ROTTMAN ST

PLAN AND PROFILE
FROM STA. 4+80.00 TO STA. 8+29.32

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 115 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:51:40 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-H.DWG

FOR REDUCED PLANS original scale in inches

SEE SHEET NO. 111

MATCH LINE STA. 16+60 (SEE SHEET NO. 117)

1-F.H., 3.0' B.C.
1-8"x8" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT SAN. SWR. CROSSING

1-8" TEE, AB

ABANDON EXISTING 2" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-20' SECTION OF WATER LINE W/RESTRAINED JOINTS CENTERED AT STRM. SWR. CROSSING

1-F.H., 3.0' B.C.
1-8"x8" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

PROP. 8"WATER

PROP. 8"WATER

CenterPoint Energy 6" IP STL GAS MAIN

CenterPoint Energy 2" IP STL GAS MAIN

℄ N EVERTON ST

℄ FREUND ST

℄ N YORK ST

℄ BALL ST

B-21

N YORK ST

Exist San MH FL=35.45 (8" NW) FL=35.26 (8" SE)

Exist San MH FL=34.45 (8" SW) FL=34.69 (8" NW) FL=34.61 (8" NE) FL=34.32 (8" SE)

Exist San MH FL=34.92 (8" SW) FL=34.96 (8" NE) FL=34.97 (8" SE)

℄ Pvmt

Exist. Stm MH FL=28.64 (30"-SW) FL=28.49 (30"-NE) FL=31.74 (18"-SE)

Exist. Stm MH FL=24.77 (30"-SW) FL=24.77 (18"-NW) FL=24.74 (30"-NE) FL=23.95 (18"-E)

Exist. Inlet FL=28.51 (18"-W) FL=28.60 (18"-NE)

Exist. Stm MH FL=28.64 (30"-SW) FL=35.00 (18"-SE) FL=28.64 (30"-NE) FL=35.00 (18"-S)

2'-0" MIN. CLR.

PROP. 8" WATER

PROP. 8" DIP W/ RESTRAINED JOINTS

5' MIN. COVER

8" WATER

PROP. 8" DIP W/ RESTRAINED JOINTS

2'-0" MIN. CLR.

West R.O.W.

East R.O.W.

12+20 13+00 14+00 15+00 16+00 16+60

24 26 28 30 32 34 36 38 40 42

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 16 ELEVATION 40.43'
STA 12+86.06, 53.04' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature valid for six months underground facilities--not to be used for conflict verification.)

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY: JAG ENGINEERING, INC.
FB NO. : P-8355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N YORK ST

PLAN AND PROFILE
FROM STA. 12+20.00 TO STA. 16+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 116 OF 382	

PLOTTED ON: Wednesday, September 23, 2026 8:52:29 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 116)
MATCH LINE STA. 16+60

25' B.L. (C.O.H. ORD. 85-1878)

POTENTIALLY PETROLEUM CONTAMINATED AREA

25' B.L. (C.O.H. ORD. 85-1878)

WEST R.O.W.

EAST R.O.W.

100.3' R.O.W.

49.3' R.O.W.

℄ N YORK ST

℄ FOLEY ST

16+00 17+00 18+00 19+00 20+00 20+56

B-22

38' CLR

PROP. 8"WATER

2-8"x45° BENDS, AB

WET CONNECT TO EX. 8" WATER LINE
1-8" TEE. AB
1-8" GV & BOX
1-8" CUT & PLUG

ABANDON EXISTING 2" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

CenterPoint Energy 2" IP STL GAS MAIN

21"water 4' CONC. SIDEWALK

5' CONC. SIDEWALK

6' CHAIN LINK FENCE

CONC. PAV.

ASPH. PAV.

30"stm 24"san 8"water 18"stm 2"water 6"water 21"water

GATE

BRICK PAD 18" OAK 30" OAK 24" OAK CONC. BASE BIKE SIGN WATER METER METRO SIGN 4' BRICK MANHOLE 4' DIA. TILE MANHOLE 1.5"D MTL PL POWER POLE LIGHT POLE W/ 1.5"D LIGHT

N YORK ST

Exist. Inlet FL=24.01 (18"-NW)

℄ Pvmt East R.O.W. West R.O.W.

15' MIN. COVER

8" WATER

Exist. Stm MH
FL=22.52 (30"-SW)
FL=22.47 (18"-NW)
FL=22.42 (30"-NE)
FL=22.41 (18"-SE)

Exist. Stm MH
FL=22.36 (30"-SW)
FL=22.31 (30"-NE)
FL=22.61 (24"-SE)

Exist. Stm MH
FL=22.10 (30"-SW)
FL=22.04 (30"-NE)
FL=22.40 (18"-SE)

16+60 17+00 18+00 19+00 20+00 20+60
18 20 22 24 26 28 30 32 34 36

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 18 ELEVATION 29.33'
STA. 18+78.37, 41.43' LF

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

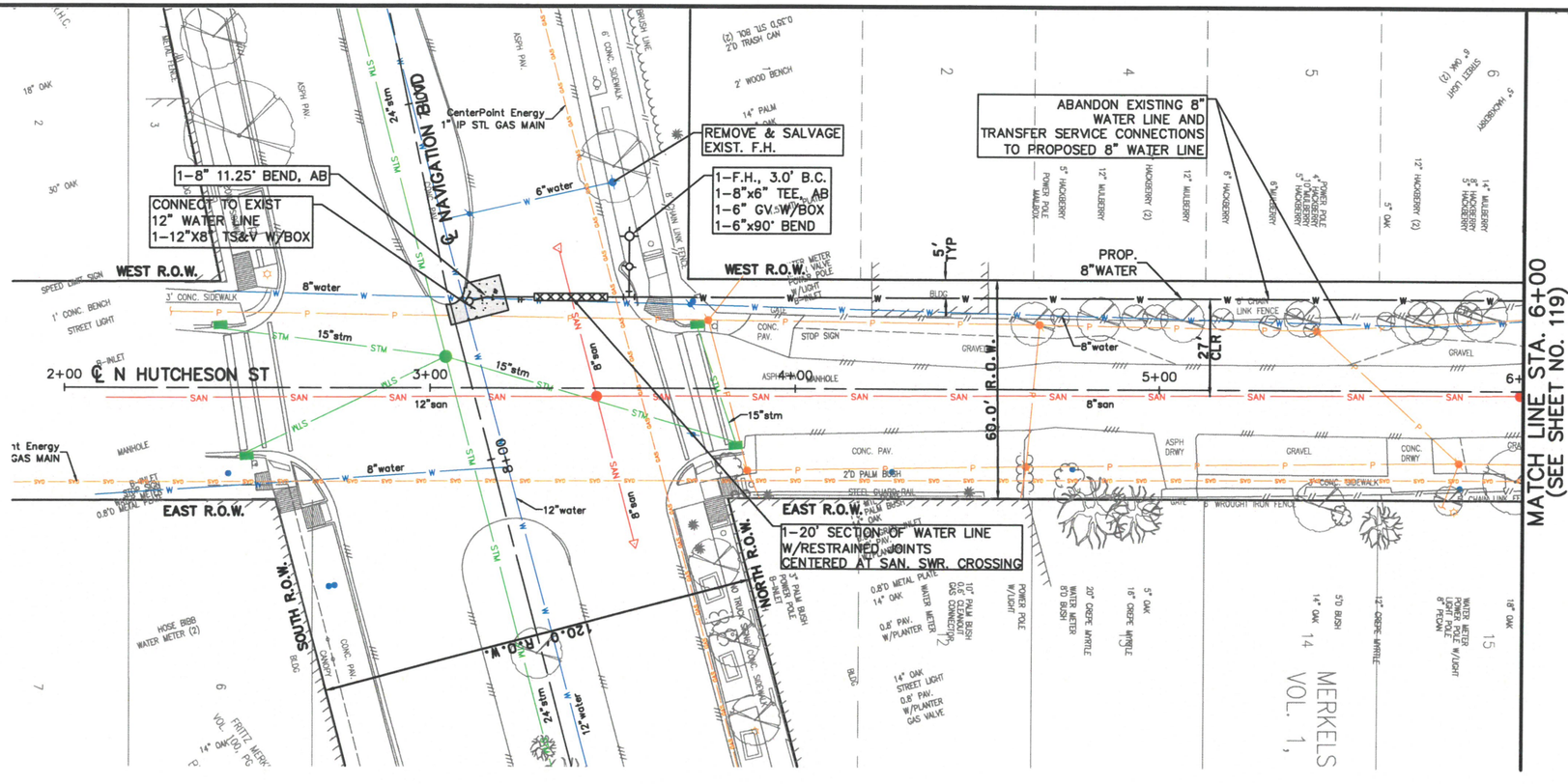
N YORK ST

PLAN AND PROFILE
FROM STA. 16+60.00 TO STA. 20+55.82

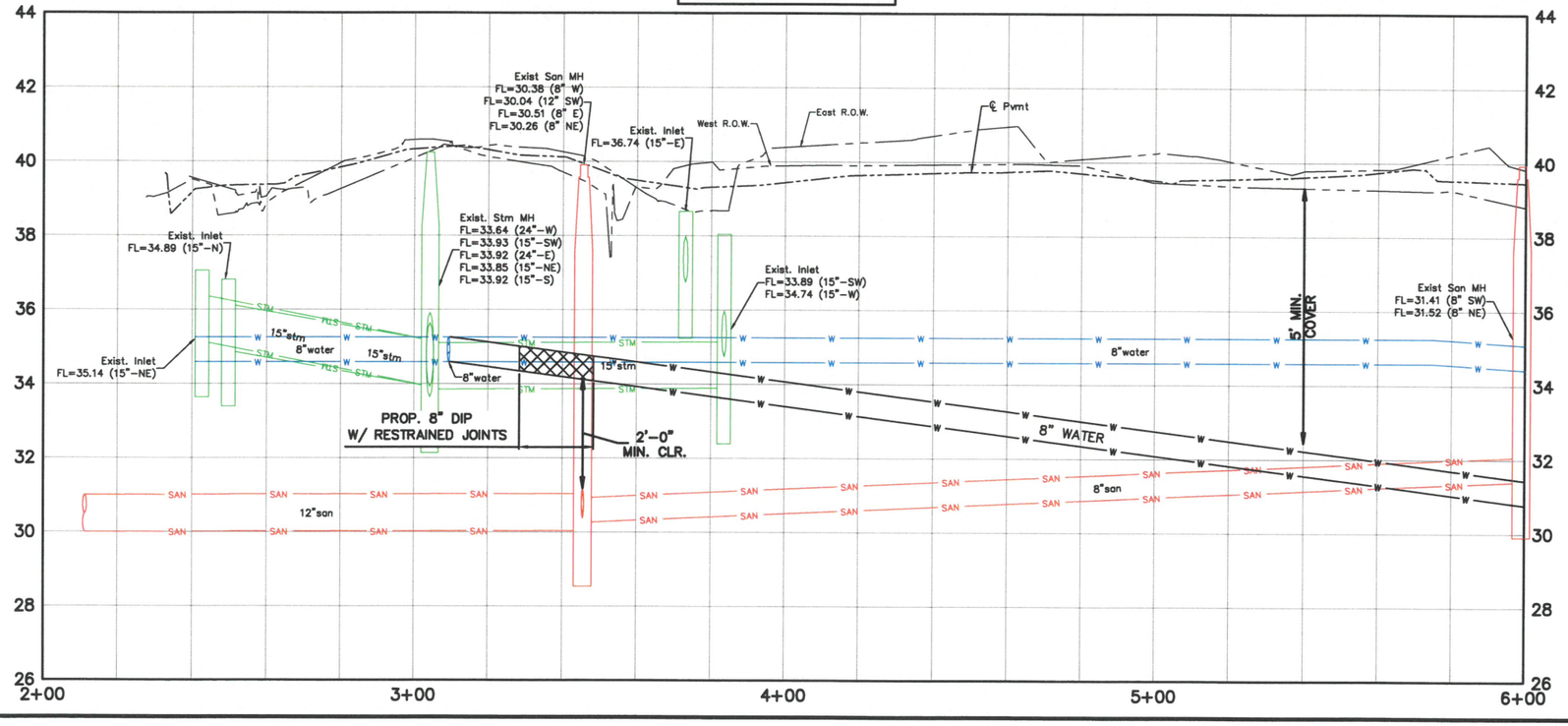
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 117 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:52:44 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches



N HUTCHESON ST



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 21 ELEVATION 38.99'
STA. 3+68.03, 14.43' LF

NOTICE:
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Date:
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Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N HUTCHESON ST

PLAN AND PROFILE
FROM STA. 2+00.00 TO STA. 6+00.00

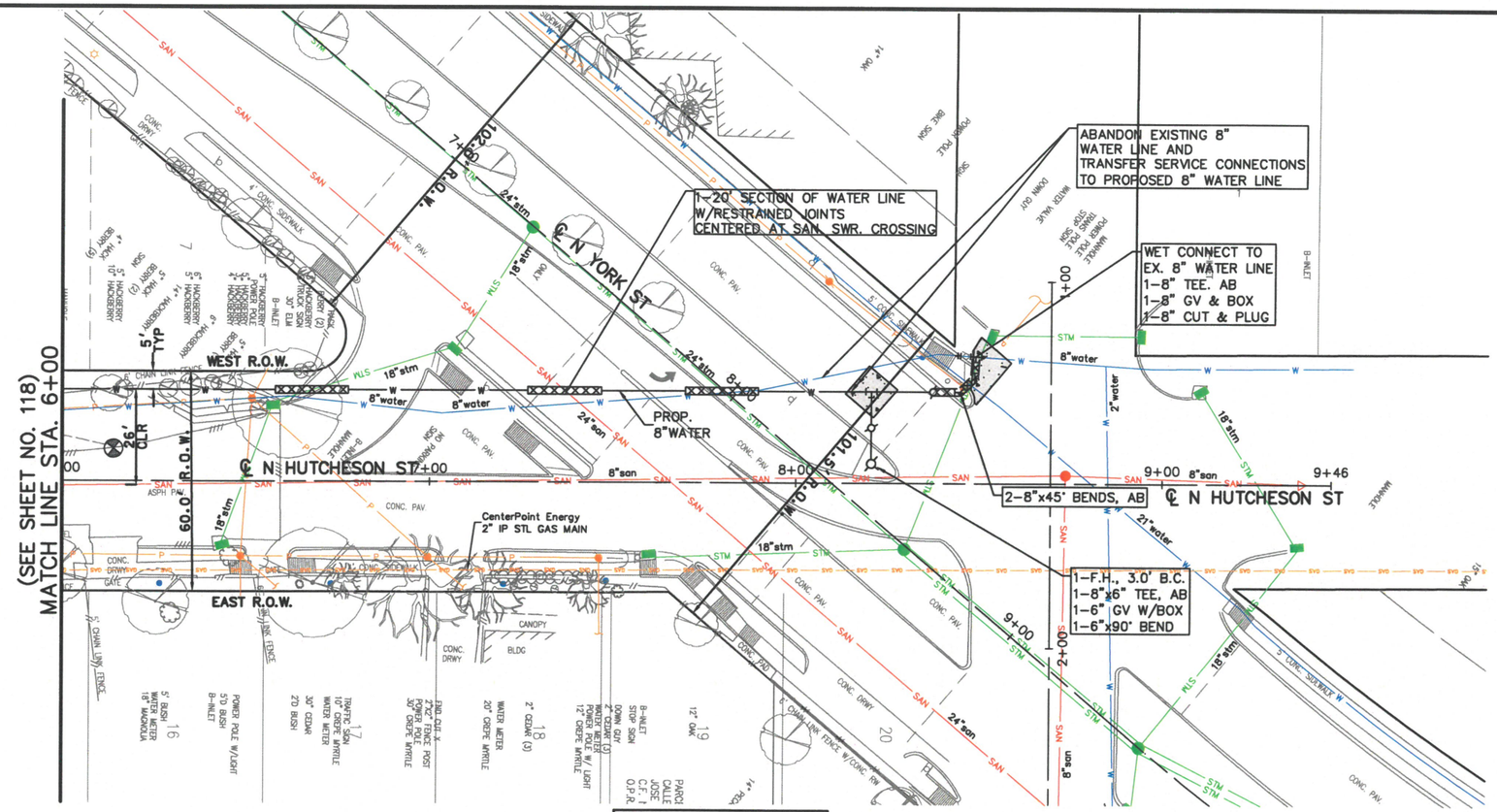
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 118 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:52:56 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&PS\WLP-SECOND WARD-P&PS-C-V.DWG

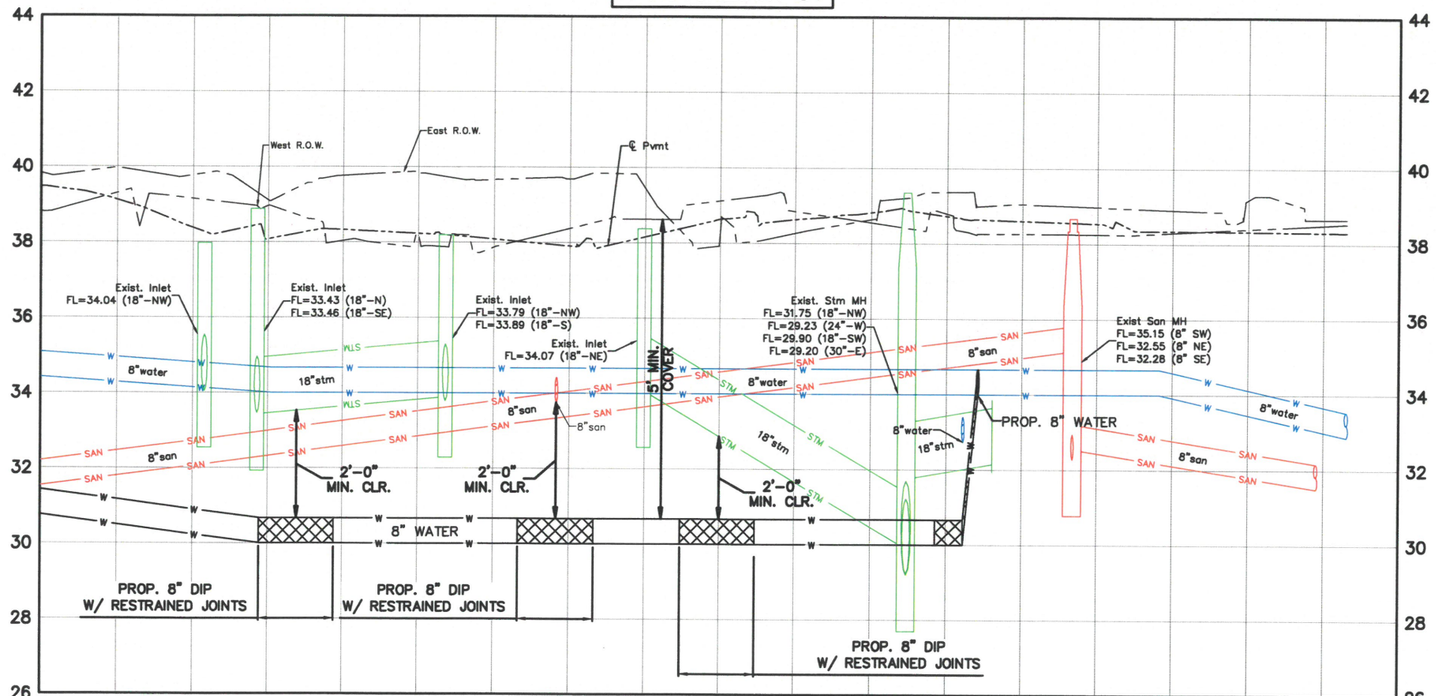
FOR REDUCED PLANS
original scale in inches

3 2 1 0

(SEE SHEET NO. 118)
MATCH LINE STA. 6+00



N HUTCHESON ST



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 22 ELEVATION 39.31'
STA. 8+28.46, 23.53' RT

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, DO THAT UNDERGROUND LINE CAN BE MARKED. THIS VERIFICATION DOES NOT FULFILL YOUR OBLIGATION TO CALL 811.

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature verifies visible underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

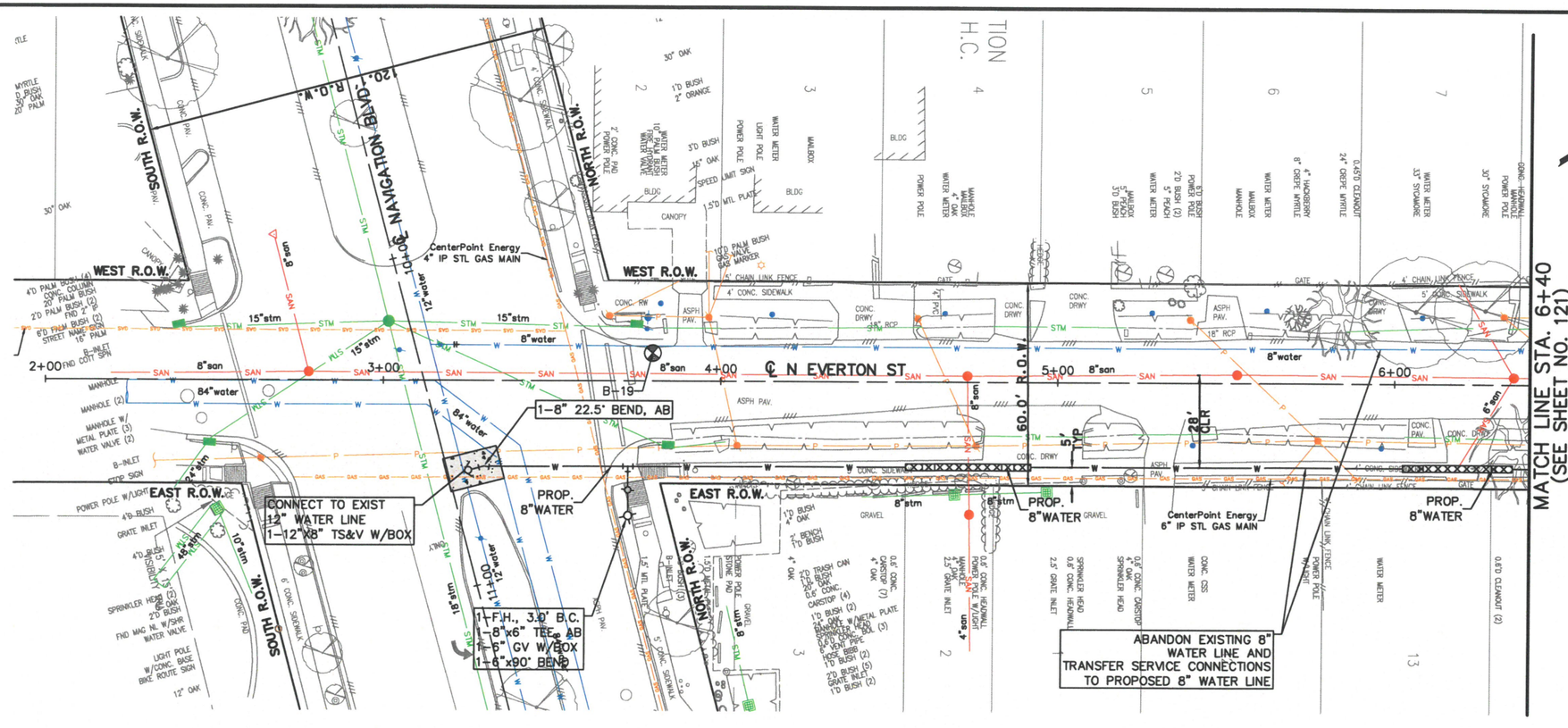
N HUTCHESON ST

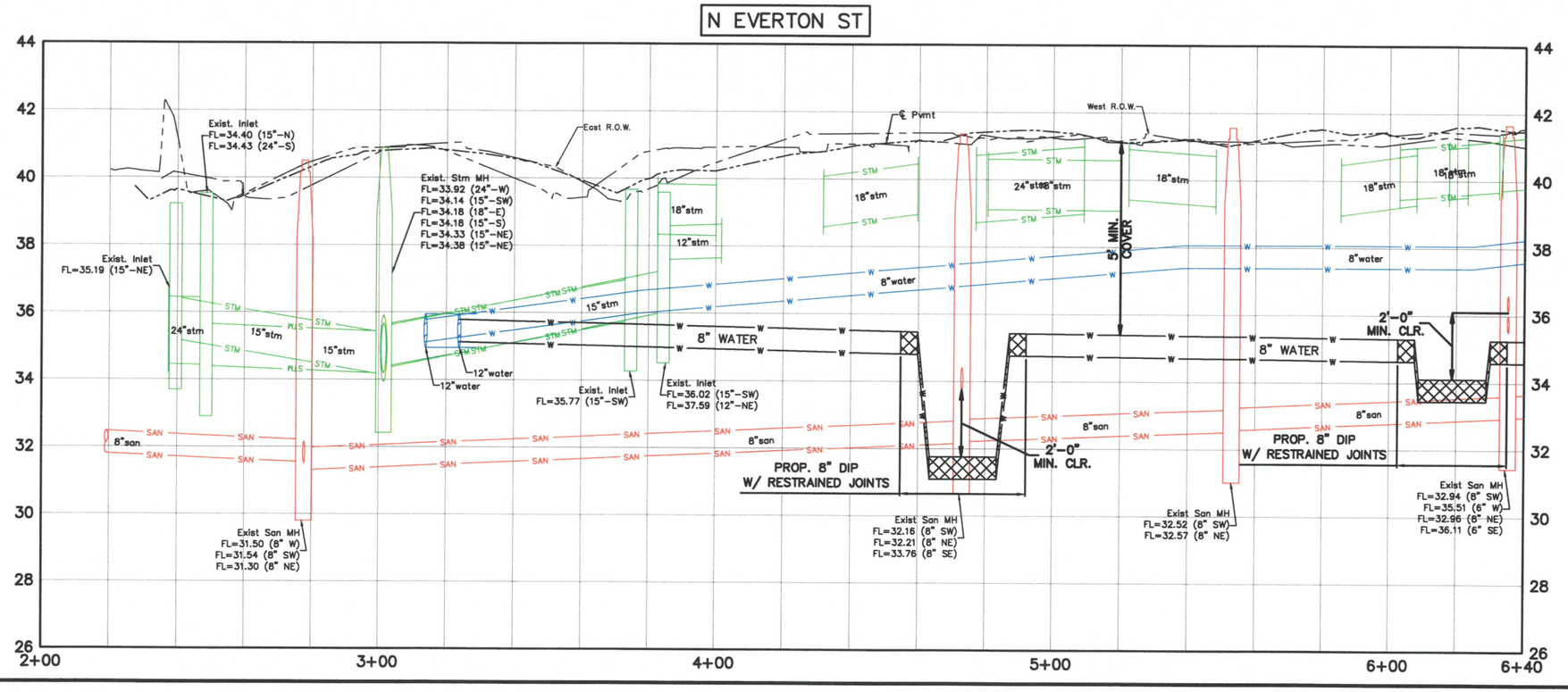
PLAN AND PROFILE
FROM STA. 6+00.00 TO STA. 9+46.07

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 119 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:53:11 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&PS\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 20 ELEVATION 39.78'
STA. 2+68.04, 34.25' RT

NOTICE:
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Date:
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(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
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Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N EVERTON ST

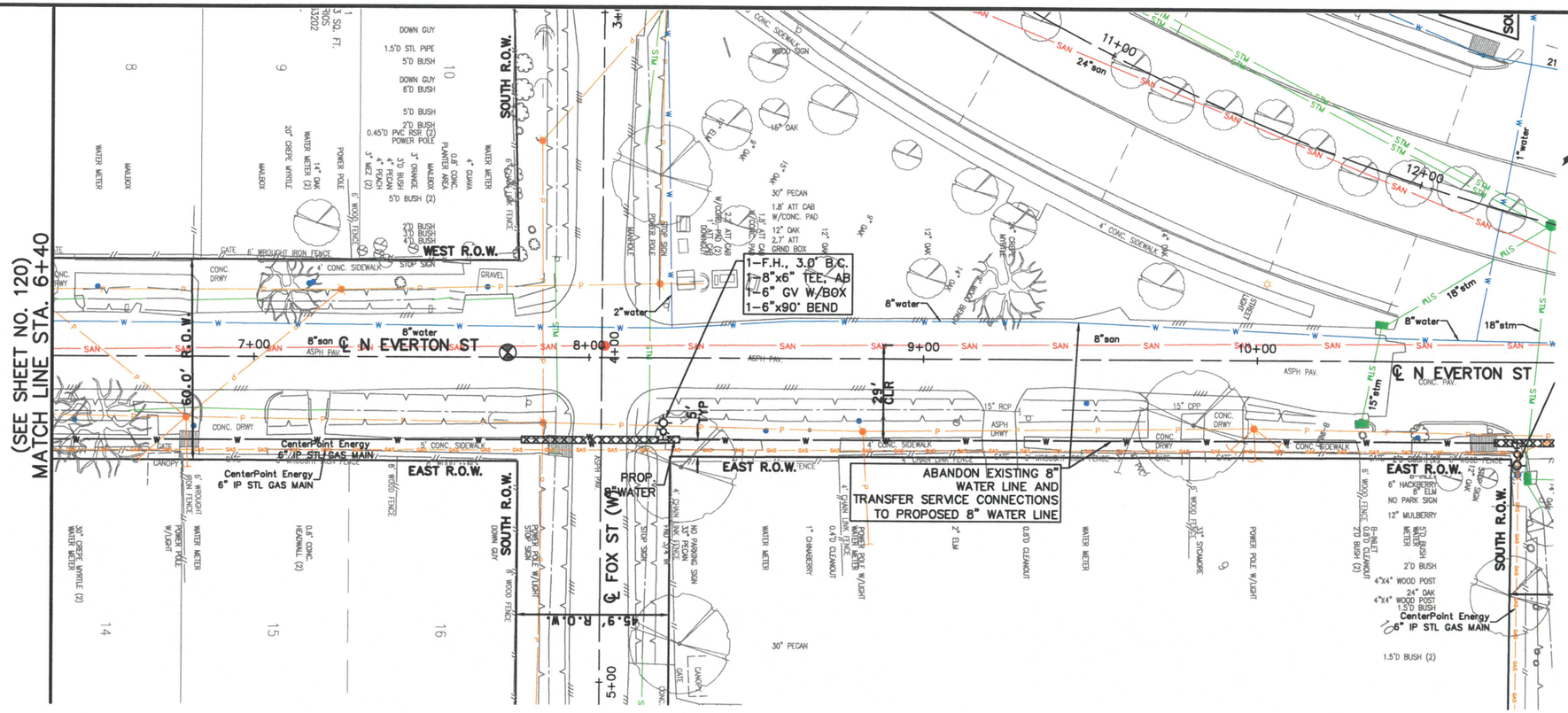
PLAN AND PROFILE
FROM STA. 2+00.00 TO STA. 6+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 120 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:53:26 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 120)
MATCH LINE STA. 6+40



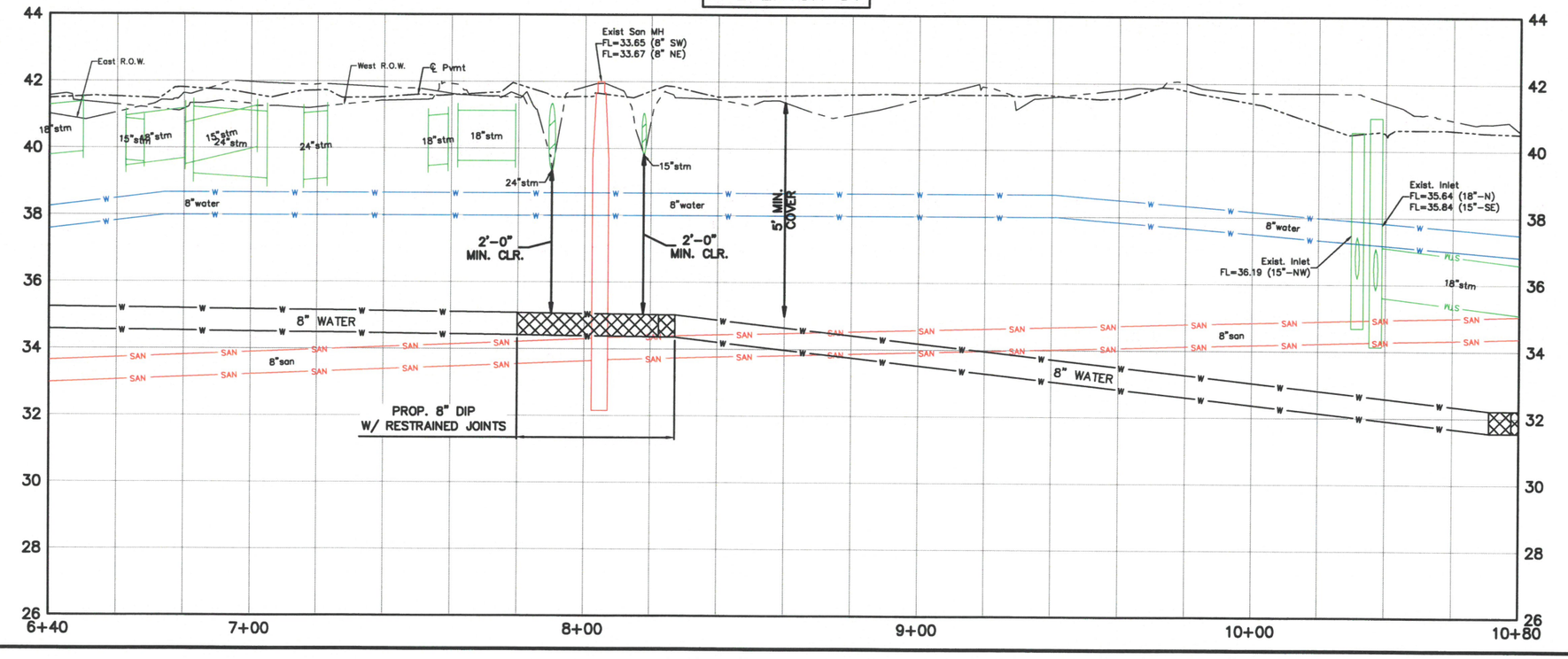
LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

N EVERTON ST



PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 19 ELEVATION 41.76'
STA. 8+12.40, 13.40' LF

NOTICE:
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VERIFICATION OF PRIVATE UTILITY LINES

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AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
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Date:
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

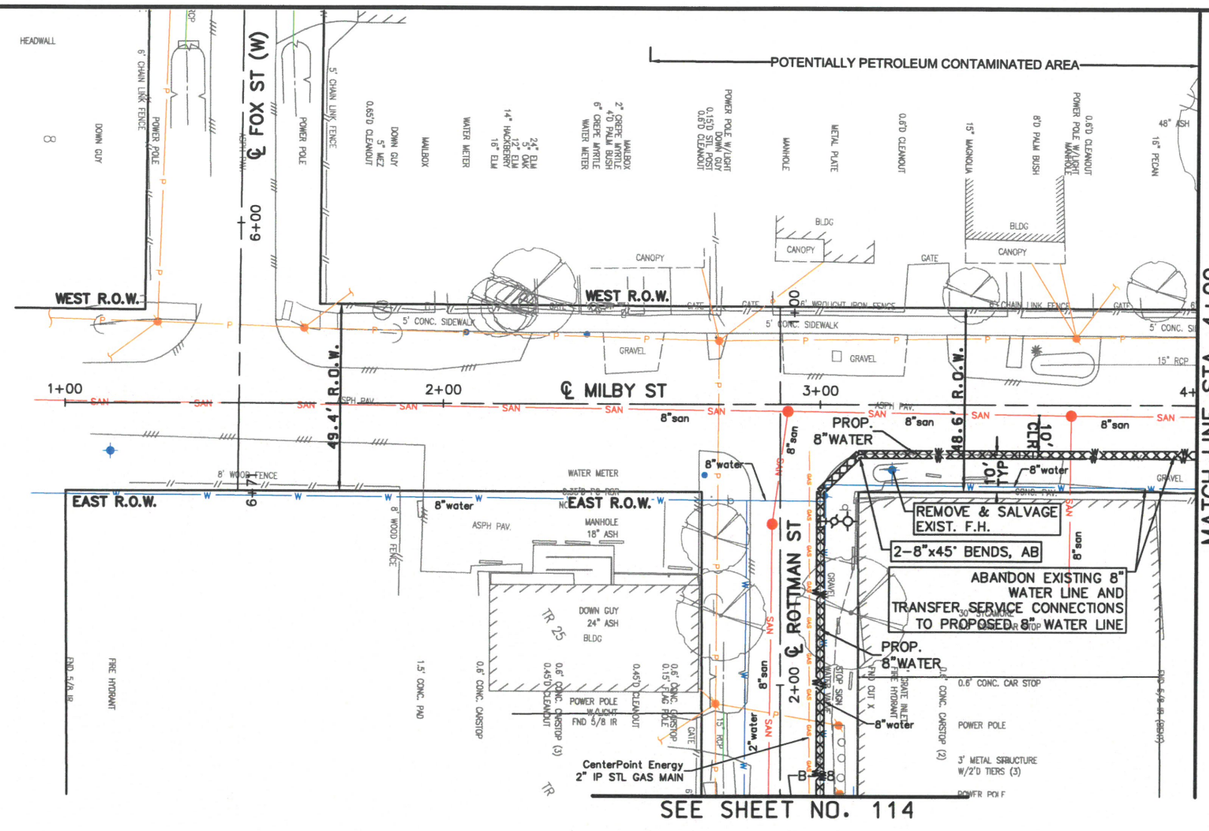
WATERLINE REPLACEMENT IN SECOND WARD

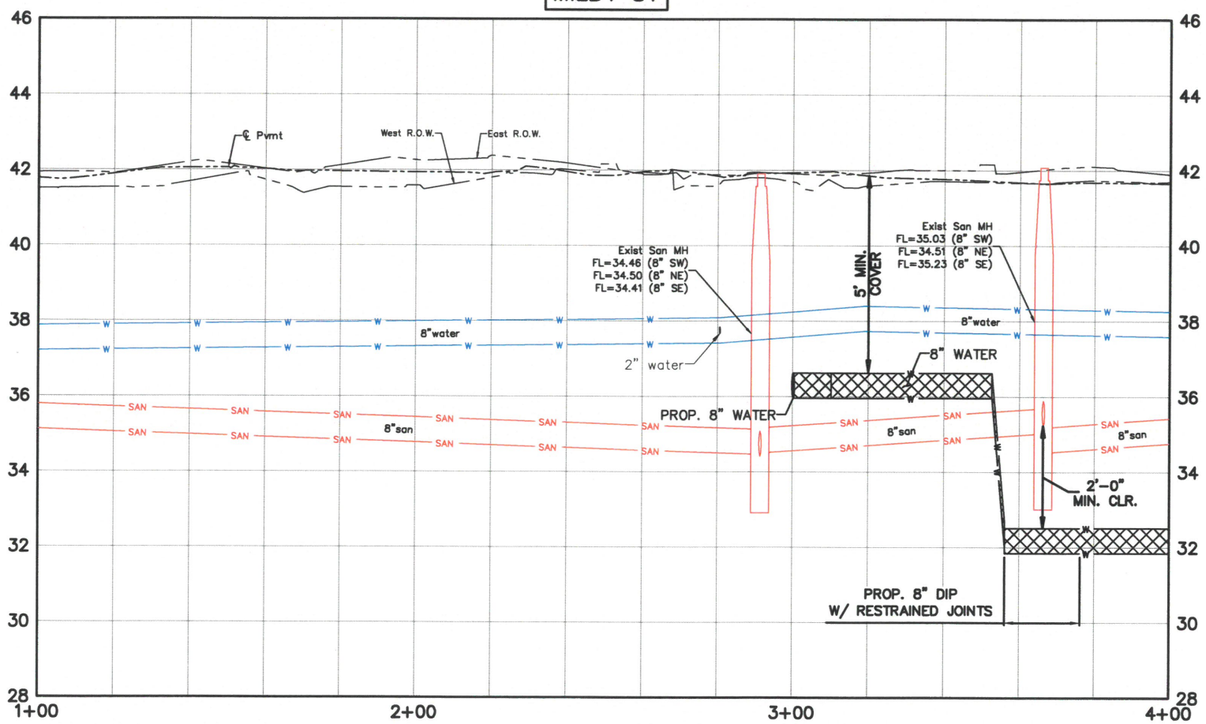
N EVERTON ST

PLAN AND PROFILE
FROM STA. 6+40.00 TO STA. 10+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 121 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:53:41 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG





LEGEND

- —STM— EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- —SAN— EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- —W— EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- —W— PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
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- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM## 14 ELEVATION 41.78'
STA. 2+91.87, 19.24' LF

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Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

MILBY ST

PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 4+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 122 OF 362	

FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 8:53:56 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 111

(SEE SHEET NO. 122)
MATCH LINE STA. 4+00

MATCH LINE STA. 7+80
(SEE SHEET NO. 124)

WATER METER (2)
POTENTIALLY PETROLEUM CONTAMINATED AREA
CenterPoint Energy
6" IP STL GAS MAIN

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

1-8" TEE, AB

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

1-8" TEE, AB

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

℄ FREUND ST
℄ MILBY ST
℄ BALL ST
℄ BURCH ST

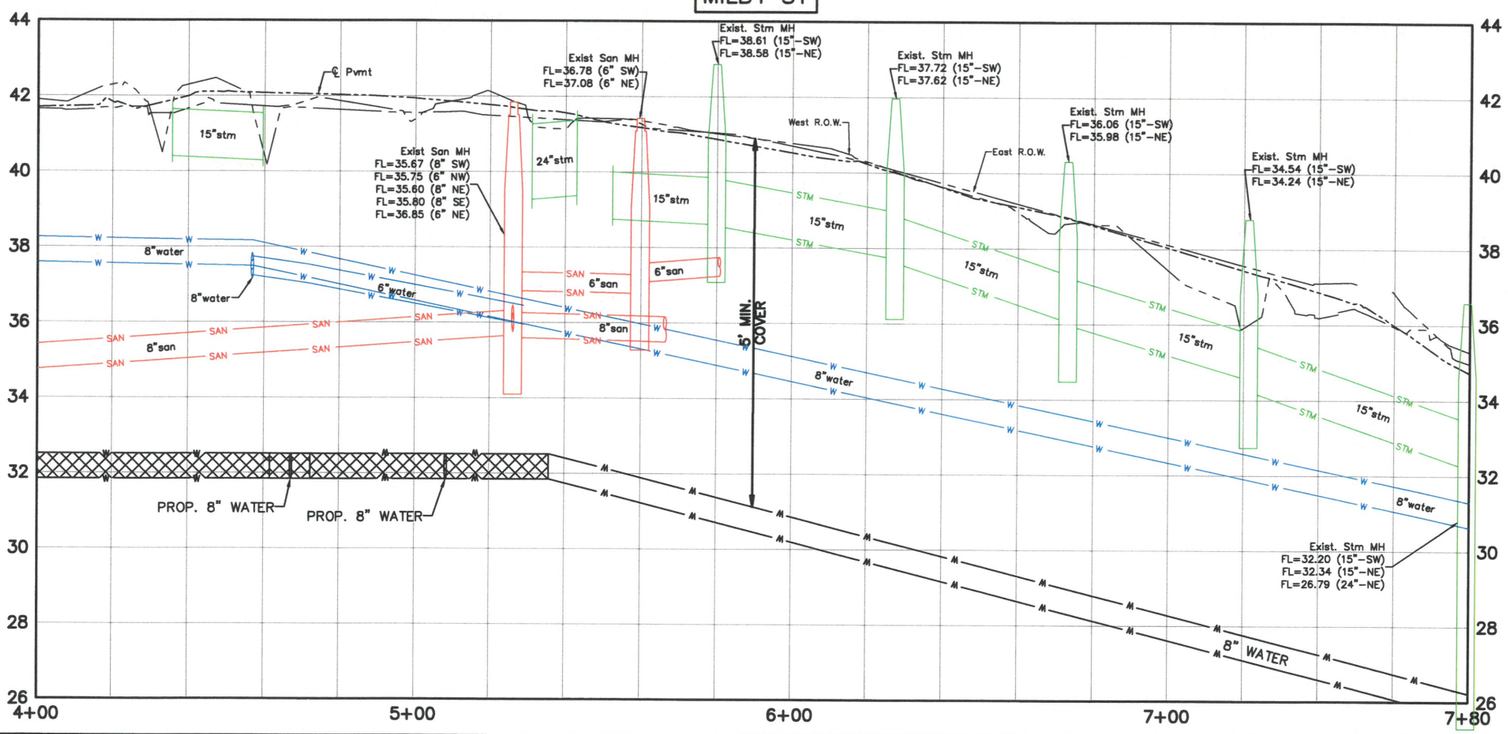
WEST R.O.W.
EAST R.O.W.

PROP. 8"WATER

B-25

SEE SHEET NO. 112

MILBY ST



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 13 ELEVATION 41.92'
STA. 4+34.38, 11.90' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE: Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

MILBY ST

PLAN AND PROFILE
FROM STA. 4+00.00 TO STA. 7+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 123 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:54:12 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale is inches

(SEE SHEET NO. 123)
MATCH LINE STA. 7+80

B-INLET
POWER POLE
30" CREPE MYRTLE
POWER POLE W/LIGHT
MAILBOX
DOWN GUY
0.8' CONC. CURBTOP
24" CAR OAK
1.4" HACKBERRY
3' GRATE INLET
WATER VALVE
5' CHAIN LINK FENCE
1.5'D MTL PLATE
0.8' TILE
4' BRICK
6' WOOD FENCE
WEST R.O.W.
6' CHAIN LINK FENCE
GRAVEL
5' TYP
GATE
PROP. 8"WATER
CONC. SIDEWALK
CONC. DRWY.
CenterPoint Energy
2" IP STL GAS MAIN
8"water
℄ MILBY ST
ASPH PAV.
8+00
9+00
10+00
10+71
46.3' R.O.W.
15' TYP
18"stm
B-26
ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE
2-8"x45° BENDS, AB
2-8"x45° BENDS, AB
℄ FOLEY ST
B-23
24"stm
15"stm
EAST R.O.W.
PROP. 8"WATER
CONC. PAV.
6' CHAIN LINK FENCE
50.0' R.O.W.
ANTER AREA
CONC. PAV.
5' CHAIN LINK FENCE
0.8' CONC. CURBTOP
CALLED 0.437 AC.
GULF METALS INDUSTRIES
C.F. NO. M416986
O.P.R.R.P.H.C.
BB-INLET
MANHOLE
4'x4' CONC. BOL
POWER POLE
DOWN GUY
HANDICAP SIGN (2)
70' HIGH MAST
YARD LIGHT
12' PALM BUSH
2' CRAPE MYRTLE
2'D BUSH
1.5' GRATE INLET
1.5'D MTL PLATE
POWER POLE
0.45'D TUC POLE
1'D BUSH (2)
2'D BUSH
YARD LIGHT
OUTLET

LEGEND

- —STM— EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- —SAN— EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- —W— EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- —W— PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 11 ELEVATION 41.88'
STA. 5+27.54, 21.47' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

MILBY ST

38 36 34 32 30 28 26 24 22 20

7+80 8+00 9+00 10+00 10+80

East R.O.W.
West R.O.W.
℄ Pvmt
15"stm
Exist. Inlet
FL=32.34 (15"-SW)
8"water
STM
24"stm
8" WATER
5' MIN. COVER
Exist. Stm MH
FL=24.20 (36"-SW)
FL=23.63 (18"-NW)
FL=28.11 (15"-NE)
FL=23.94 (24"-SE)
15"stm
36"stm
Exist. Inlet
FL=24.64 (18"-NW)
FL=24.24 (18"-SE)
Exist. Inlet
FL=24.80 (18"-SE)
2'-0" MIN. CLR.
PROP. 8" DIP
W/ RESTRAINED JOINTS
PROP. 8" WATER

SES HORIZON
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

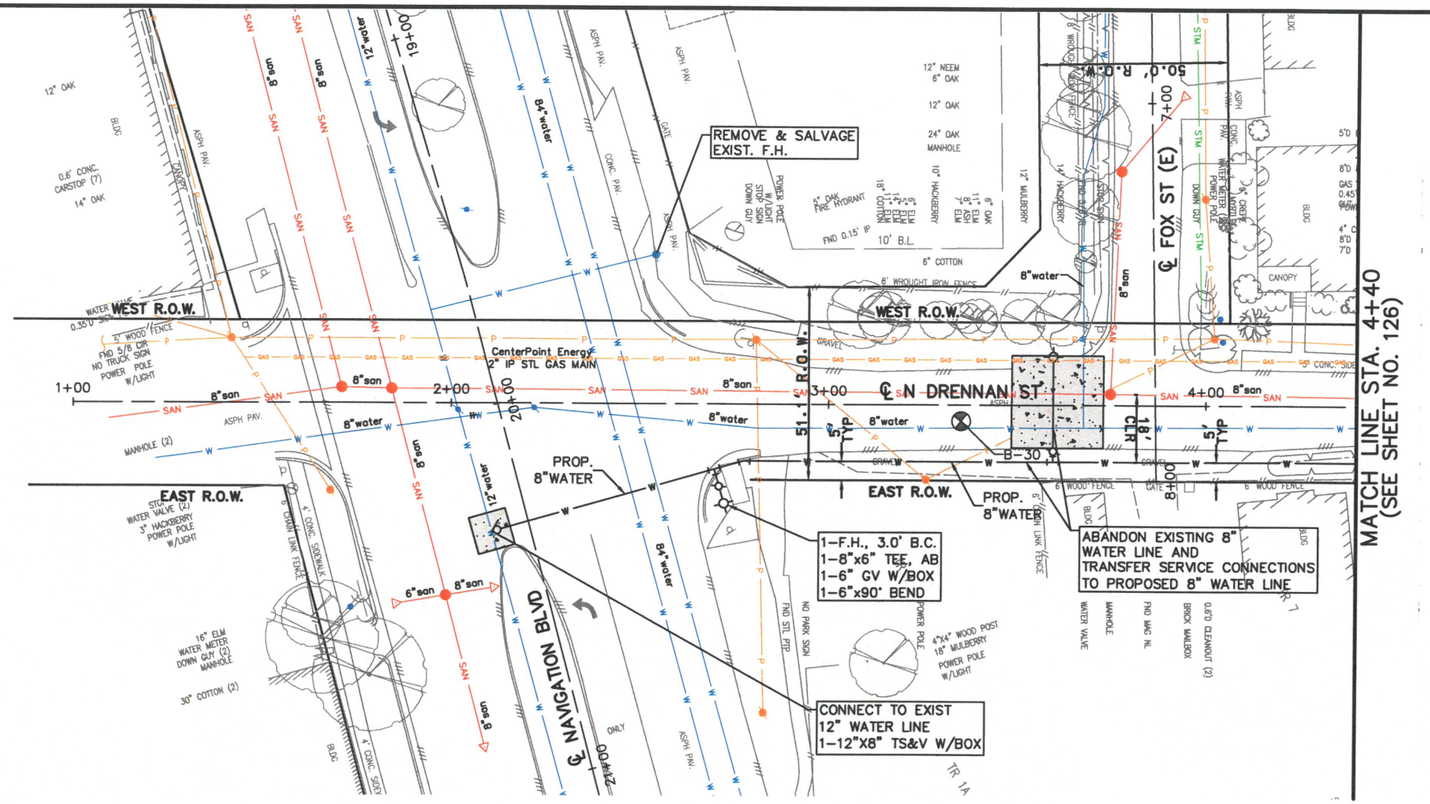
MILBY ST

PLAN AND PROFILE
FROM STA. 7+80.00 TO STA. 10+71.46

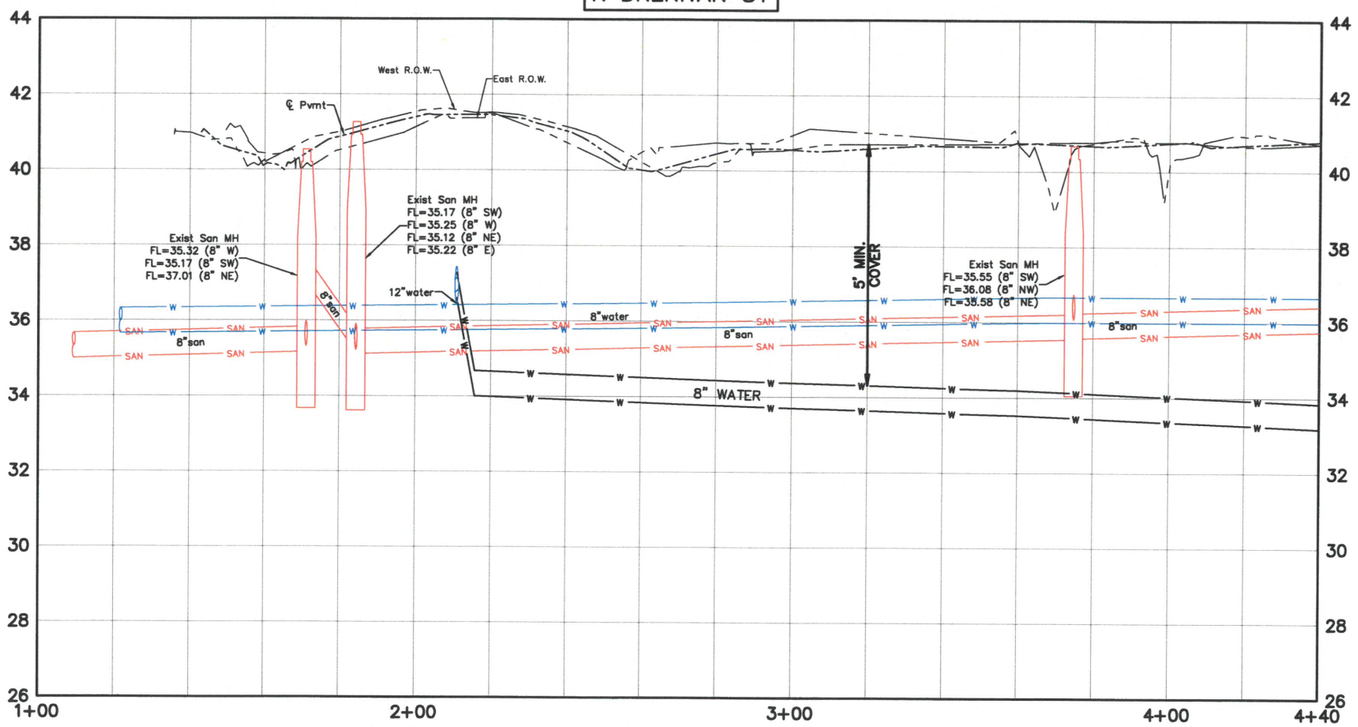
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 124 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:54:27 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches



N DRENNAN ST



LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W — PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 4 ELEVATION 40.05'
STA. 2+72.13, 23.12' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Site survey only - not drawn to scale)
(This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

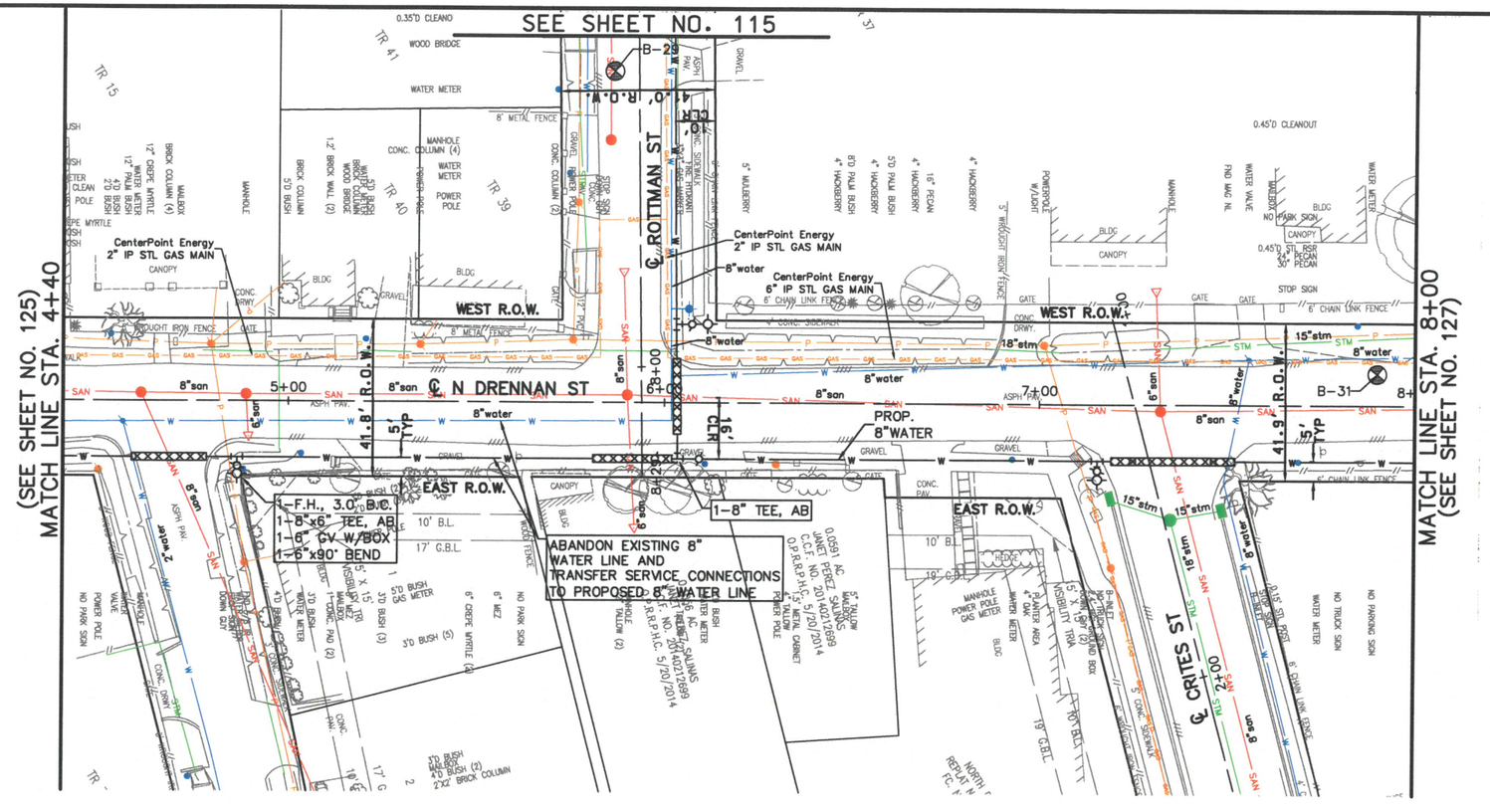
N DRENNAN ST

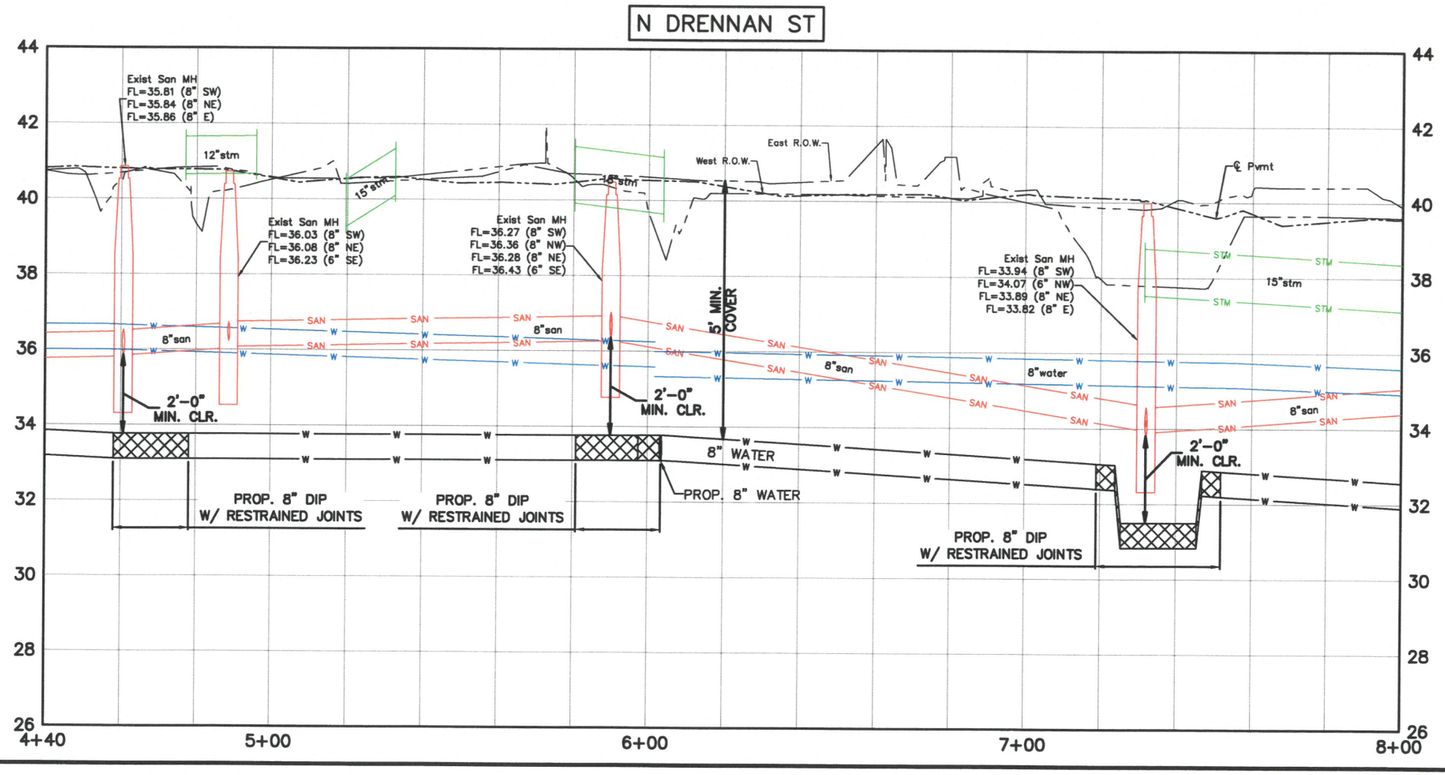
PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 4+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 125 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:54:42 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 6 ELEVATION 40.36'
STA. 4+78.69, 12.69' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities--not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

PLAN AND PROFILE
FROM STA. 4+40.00 TO STA. 8+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 126 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:54:57 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches

SEE SHEET NO. 113

(SEE SHEET NO. 126)
MATCH LINE STA. 8+00

MATCH LINE STA. 12+20
(SEE SHEET NO. 128)

POTENTIALLY PETROLEUM CONTAMINATED AREA

℄ BURCH ST

℄ N. DRENNAN ST

WEST R.O.W.

EAST R.O.W.

38.1' R.O.W.

39.4' R.O.W.

5' TYP

8"san

8"water

1–8" TEE, AB

1–F.H., 3.0' B.C.
1–8"x6" TEE, AB
1–6" GV W/BOX
1–6"x90° BEND
1–8" GV W/BOX

1–8" TEE, AB

PROP. 8"WATER

CenterPoint Energy
6" IP STL GAS MAIN

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

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

N DRENNAN ST

Exist. Inlet
FL=37.09 (15"–SW)
FL=37.82 (6"–NW)
FL=37.82 (6"–SE)
FL=36.92 (18"–NE)

Exist San MH
FL=37.25 (4" SW)
FL=34.62 (6" S)
FL=34.65 (6" NE)

Exist San MH
FL=34.55 (8" SW)
FL=34.67 (8" NE)

Exist. Inlet
FL=35.41 (18"–SW)
FL=35.46 (18"–NE)

℄ Pvmt

West R.O.W.

East R.O.W.

Exist. Inlet
FL=35.01 (18"–SW)
FL=35.01 (18"–NE)

Exist San MH
FL=35.27 (6" SW)
FL=35.31 (6" NW)
FL=35.42 (6" NE)

5' MIN. COVER

2'–0" MIN. CLR.

8" WATER

PROP. 8" WATER

PROP. 8" DIP
W/ RESTRAINED JOINTS

Exist San MH
FL=34.52 (8" SW)
FL=34.58 (8" N)
FL=34.58 (8" NW)
FL=34.55 (8" NE)
FL=34.60 (6" SE)

44 42 40 38 36 34 32 30 28 26

8+00 9+00 10+00 11+00 12+00 12+20

LEGEND

- EXIST. STORM SEWER
- EXIST. B–B INLET
- EXIST. A–INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457–1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 9 ELEVATION 39.57'
STA. 8+20.76, 8.53' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Use series time warp drawn.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities–not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

PLAN AND PROFILE
FROM STA. 8+00.00 TO STA. 12+20.00

WBS NUMBER	CITY DWG NO.:
S–000035–0312–4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 127 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:55:13 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches

0 1 2 3

POTENTIALLY PETROLEUM CONTAMINATED AREA

(SEE SHEET NO. 127)
MATCH LINE STA. 12+20

MATCH LINE STA. 15+20
(SEE SHEET NO. 129)

0.6'D CLEANOUT
0.45' STL GUARDRAIL
0.8' CONC BOLLARD
FND 5/8 OR TERRA
POWER POLE
MANHOLE
FND 5/8 OR TERRA
BACKFLOW PREVENTER
WATER METER
POWER POLE W/ ZT
8" ELM
FIRE HYDRANT
GAS METER
15" ELM
POWER POLE

6' CHAIN LINK FENCE
SAN SAN
5' TYP
SAN
PROP. 8"WATER
WEST R.O.W.
GRAVEL
P P P P
GAS GAS GAS

POTENTIALLY PETROLEUM CONTAMINATED AREA

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

2-8"x45° BENDS, AB

CenterPoint Energy 6" IP STL GAS MAIN

6' CHAIN LINK FENCE (TYP.)

5' TYP

NORTH R.O.W.

SOUTH R.O.W.

58.7' R.O.W.

℄ N DRENNAN ST

8"water

ASPH. PAV.

PROP. 8"WATER

CenterPoint Energy 4" IP STL GAS MAIN

B-33

16+00

17+00

10' B.L.

POWER POLE NO LINE

FND PK NAIL

FND CUT X

10' H.L.& P. ESMT. C.C.F. NO. F031761 O.P.R.R.P.H.C.

POWER POLE W/LIGHT

FND 1/2 IR

16" OAK

SIGN

0.35' BOLLARD(2)

DOWN GUY

FND 5/8 IR 3X3 GAS MARKER

CONC. PAV.

4' CONC. SIDEWALK

POWER POLE

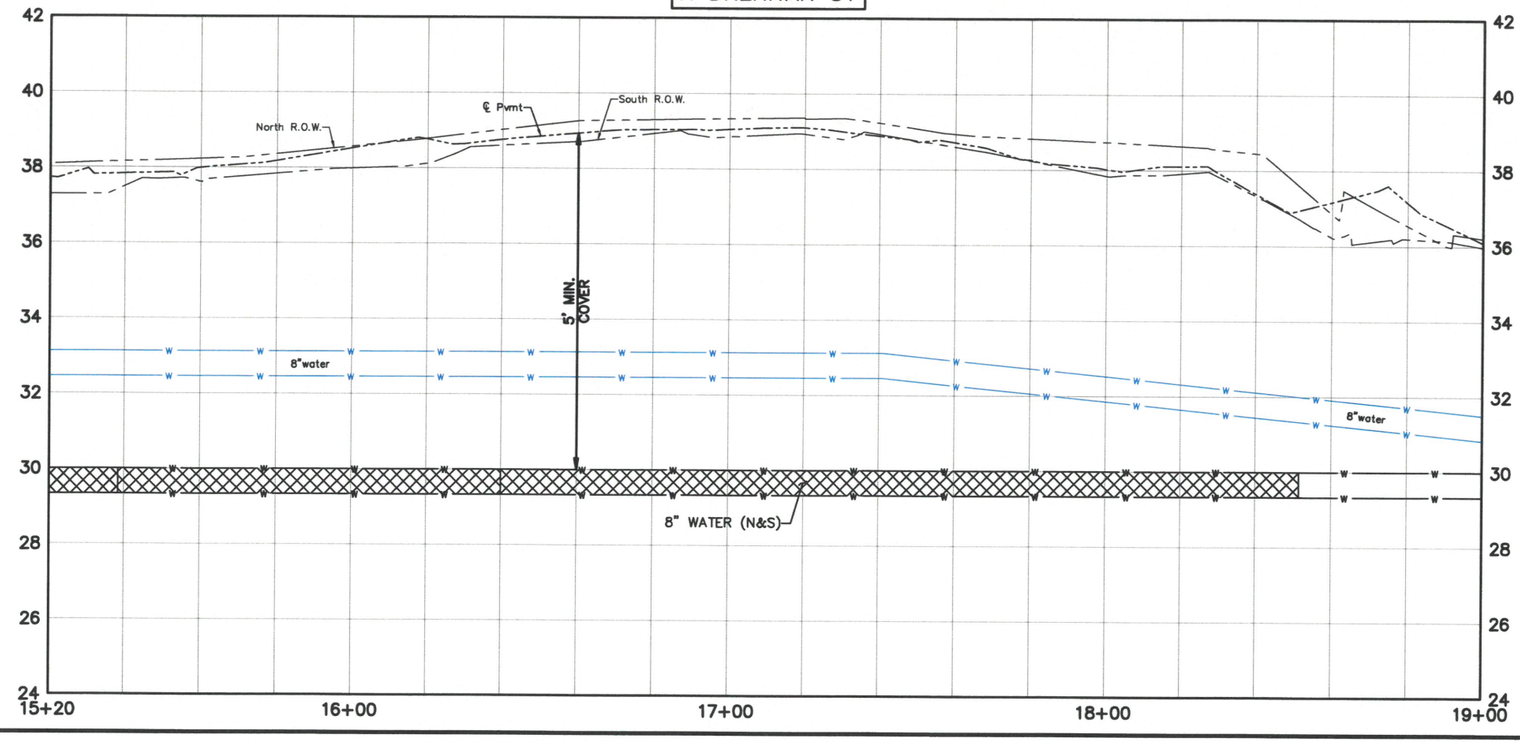
1.7172 AC
BINGLE BLANKENSHIP, LTD
C.F. NO. 20070524821
O.P.R.R.P.H.C.

MATCH LINE STA. 15+20 (SEE SHEET NO. 128)

MATCH LINE STA. 19+00 (SEE SHEET NO. 130)

FOR REDUCED PLANS original scale in inches

N DRENNAN ST



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 24 ELEVATION 37.70'
STA. 15+41.99, 9.96' RT

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, TO HAVE UNDERGROUND LINE CAN BE MARKED.
THIS VERIFICATION DOES NOT FULFILL YOUR OBLIGATION TO CALL 811.

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

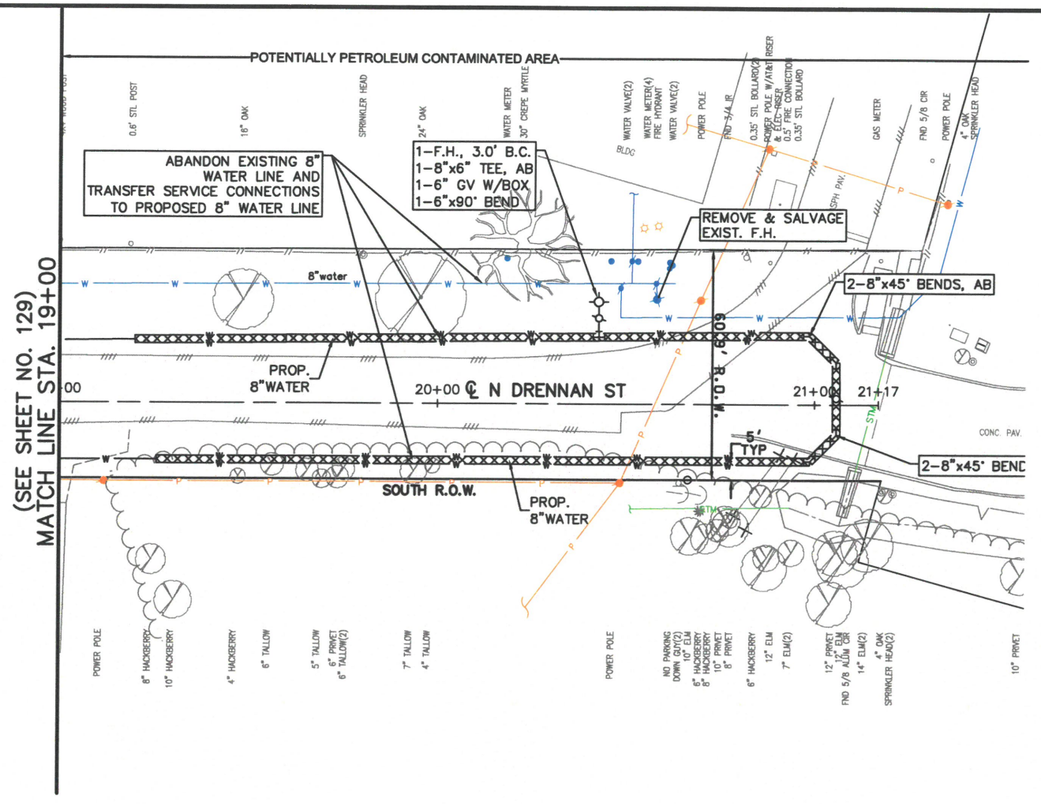
N DRENNAN ST

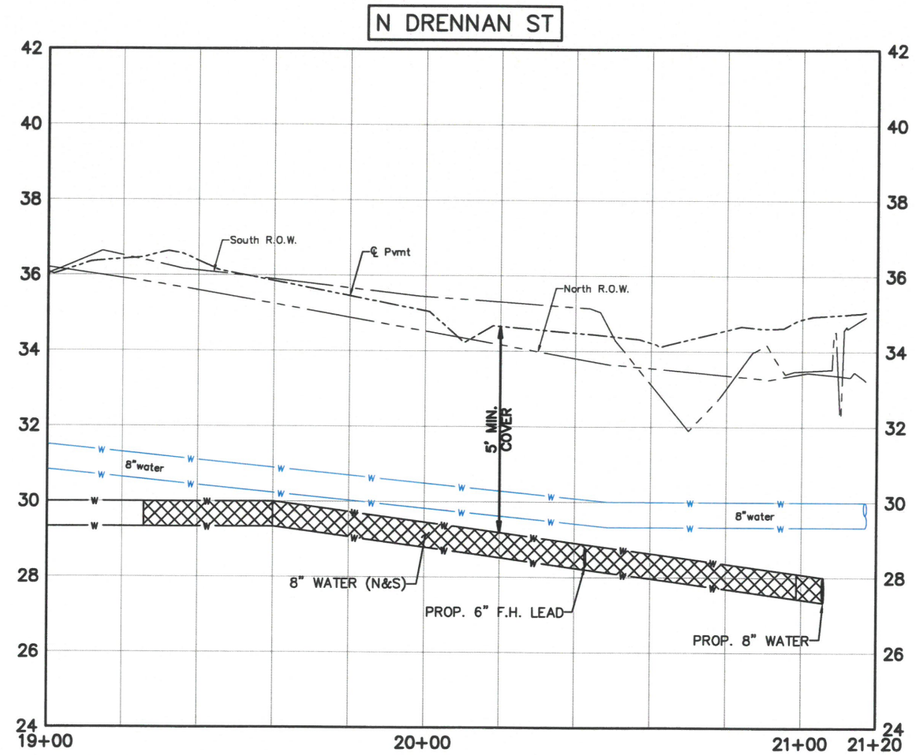
PLAN AND PROFILE
FROM STA. 15+20.00 TO STA. 19+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 129 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:55: 42 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 25 ELEVATION 35.60'
STA. 21+21.52, 37.25' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(No service lines are to be shown.)
(This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

PLAN AND PROFILE
FROM STA. 19+00.00 TO STA. 21+16.99

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 130 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:55:57 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS original scale in inches

POTENTIALLY PETROLEUM CONTAMINATED AREA

SOUTH R.O.W. — NORTH R.O.W. — WEST R.O.W. — EAST R.O.W.

℄ NAVIGATION BLVD 7+00

℄ JENKINS ST

MATCH LINE STA. 5+00 (SEE SHEET NO. 132)

CONNECT TO EXIST 12" WATER LINE
1-12"X8" TS&V W/BOX

PROP. 8"WATER

1-F.H., 3.0' B.C.
1-8"x6" TEE, AB
1-6" GV W/BOX
1-6"x90° BEND

REMOVE & SALVAGE EXIST. F.H.

ABANDON EXISTING 8" WATER LINE AND TRANSFER SERVICE CONNECTIONS TO PROPOSED 8" WATER LINE

CenterPoint Energy 2" IP STL GAS MAIN

B-34

JOSEPHINE STREET VOL. 532, PG. 23 D.R.

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

JENKINS ST

Exist San MH
FL=29.82 (8" NW)
FL=33.68 (8" SW)
FL=30.05 (8" NE)

Exist. Stm MH
FL=34.43 (18"-NW)
FL=31.75 (18"-S)
FL=31.15 (18"-SE)
FL=31.63 (18"-N)

℄ Pvmt

West R.O.W.

East R.O.W.

Exist. Inlet
FL=34.30 (15"-NW)

5' MIN. COVER

8"san
18"stm
12"water
8"water
84"water
8" WATER

42 40 38 36 34 32 30 28 26 24

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

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 3 ELEVATION 37.90'
STA. 2+17.83, 10.40' RT

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

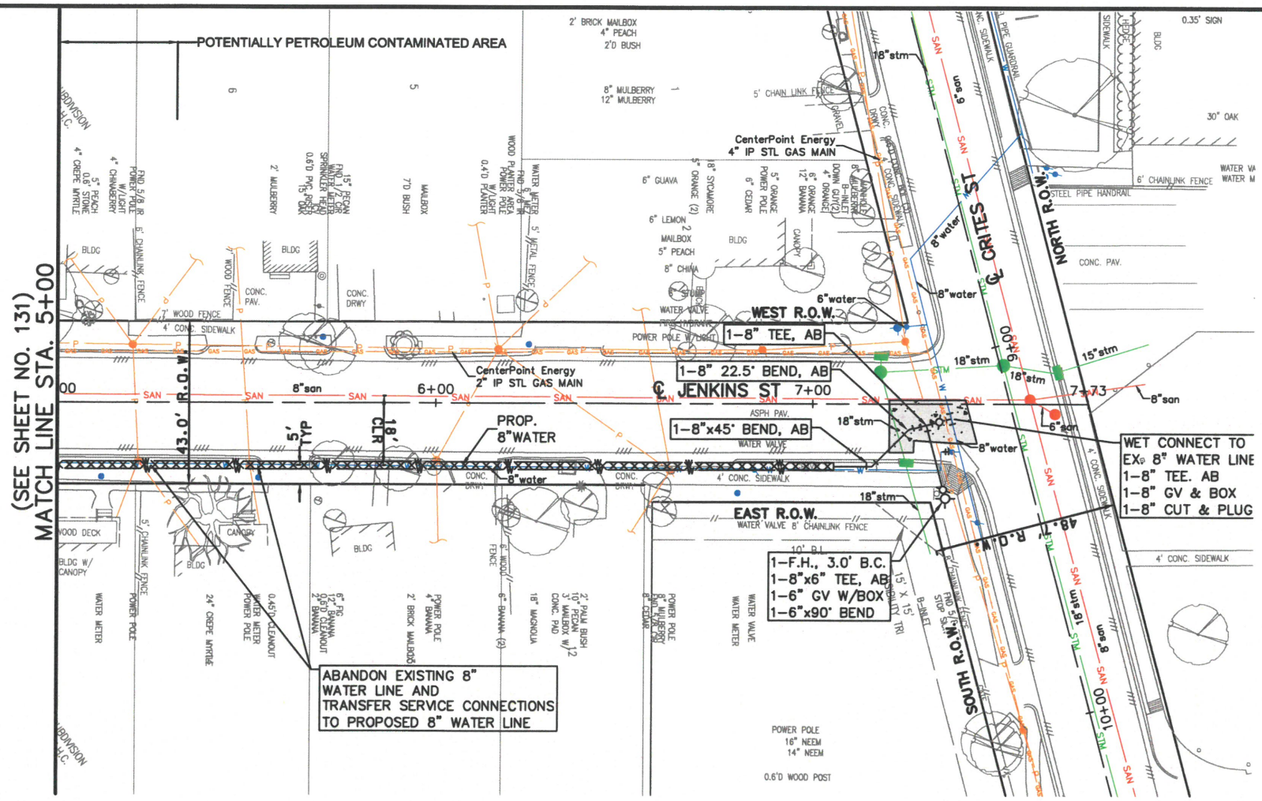
JENKINS ST

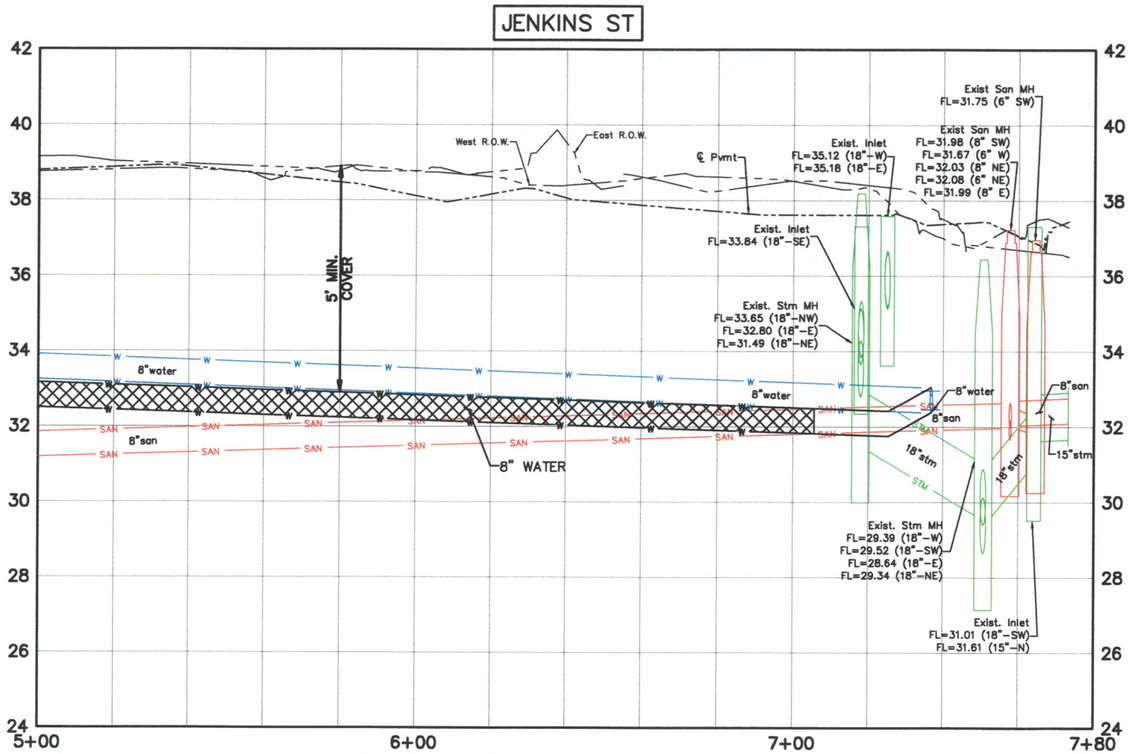
PLAN AND PROFILE
FROM STA. 1+00.00 TO STA. 5+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 131 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:56:13 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG

FOR REDUCED PLANS
original scale in inches





LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

0 20' 40'

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# 2 ELEVATION 38.61'
STA. 4+55.20, 9.74' LF

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Use series that we will direct)
The Signers not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(The Signers verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENKINS ST

PLAN AND PROFILE
FROM STA. 5+00.00 TO STA. 7+73.21

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20' VERT: 1"=2'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 132 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 8:56:28 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-P&PS-C-V.DWG



LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457- ELEV. 43.56'

PROJECT T.B.M.
TBM## ELEVATION

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(This Signature verifies only the natural gas facilities shown on this drawing. Signature Valid for six months.)

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

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TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ABANDON WATERLINE AREA-A

PLAN
ABANDON WATERLINE PLANS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 40'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 133 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 9:32:01 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-ABANDON WATER PLANS.DWG



LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
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- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM## ELEVATION

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, TO HAVE UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
This Signature not to be used for conflict verification.)
Signature Valid for 30 months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature applies existing underground facilities-not to be used for conflict verification.)
Signature Valid for 30 months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ABANDON WATERLINE AREA B-1

PLAN
ABANDON WATERLINE PLANS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 40'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 134 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 9:32:07 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-ABANDON WATER PLANS.DWG



FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-8211 ELEV. 33.22'

PROJECT T.B.M.
TBM# ELEVATION

NOTICE:
FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG, SO THAT UNDERGROUND LINE CAN BE MARKED.
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VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
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Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature verifies existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only.

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CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ABANDON WATERLINE AREA B-2

PLAN
ABANDON WATERLINE PLANS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 40'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 135 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:32:10 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-ABANDON WATER PLANS.DWG



FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 9:32:17 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\P&P'S\WLP-SECOND WARD-ABANDON WATER PLANS.DWG

LEGEND

- EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM# ELEVATION

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(This Signature verifies natural gas facilities only.)
This Signature not to be used for comfirm verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(This Signature verifies underground facilities-not to be used for comfirm verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ABANDON WATERLINE AREA C-1

PLAN
ABANDON WATERLINE PLANS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 40'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 136 OF 362	

FOR REDUCED PLANS
original scale in inches



LEGEND

- STM — EXIST. STORM SEWER
- EXIST. B-B INLET
- EXIST. A-INLET
- EXIST. STORM M.H.
- SAN — EXIST. SANITARY SEWER
- EXIST. SANITARY M.H.
- W — EXIST. WATER LINE
- EXIST. FIRE HYDRANT
- WATER METER
- WATER VALVE
- W — PROP. WATER LINE
- BORING LOG
- ENVIRONMENTAL BORING LOG EB
- REMOVE & REPLACE CONCRETE PAVEMENT WITH HIGH EARLY STRENGTH
- CRITICAL LOCATION
- REMOVE & REPLACE ASPHALT PAVEMENT
- REMOVE & REPLACE EXISTING SIDEWALK

No.	Date	Revisions	App.

PROJECT BENCHMARK
CITY OF HOUSTON SURVEY
MARKER 5457-1508 ELEV. 40.63'

PROJECT T.B.M.
TBM## ELEVATION

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

VERIFICATION OF PRIVATE UTILITY LINES

Date:
CenterPoint Energy/ Natural Gas Facilities Shown.
(Gas service lines are not shown.)
(No Signature not to be used for conflict verification.)
Signature Valid for six months.

Date:
CenterPoint Energy/ UNDERGROUND Electrical Facilities Verification ONLY.
(No Signature within existing underground facilities-not to be used for conflict verification.)
Signature Valid for six months.

AT&T TEXAS/SWBT UTILITY LINES SHOWN

Date:
Approved for AT&T Texas/SWBT underground conduit facilities only.
Signature valid for one year.

Date:
CABLE Approved for underground conduit facilities only

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Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ABANDON WATERLINE AREA C-2

PLAN
ABANDON WATERLINE PLANS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
1" = 40'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 137 OF 362	

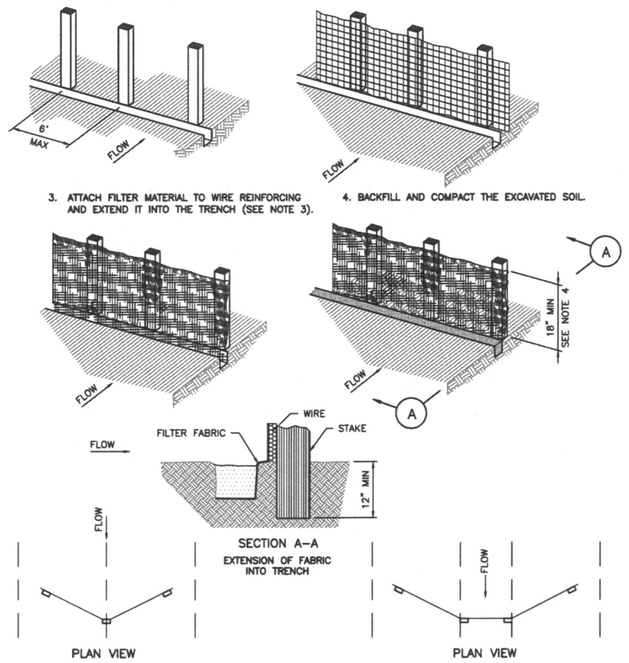
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FOR REDUCED PLANS
original scale in inches

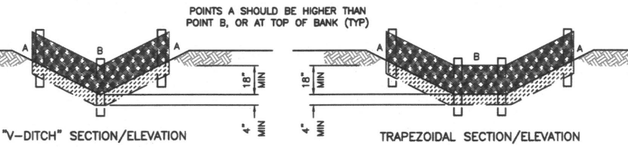
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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-STORM WATER POLLUTION PREVENTION DETAIL.DWG

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 RESULTS OR DAMAGES RESULTING FROM ITS USE.

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



POINTS A SHOULD BE HIGHER THAN POINT B, OR AT TOP OF BANK (TYP)

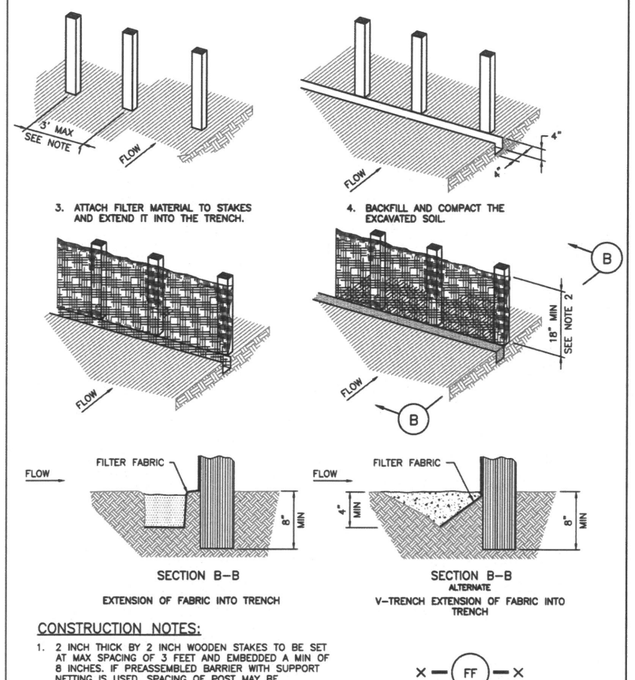
CONSTRUCTION NOTES:

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

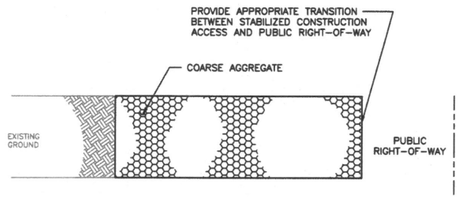
CONSTRUCTION NOTES:

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.

SYMBOL

FILTER FABRIC 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.

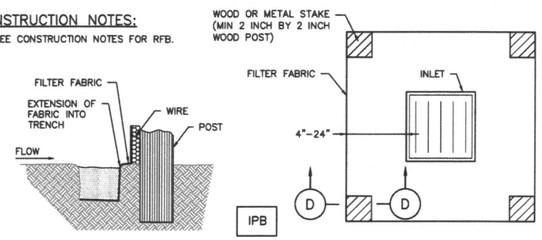
SC

SYMBOL

STABILIZED CONSTRUCTION ACCESS

CONSTRUCTION NOTES:

1. SEE CONSTRUCTION NOTES FOR RFB.



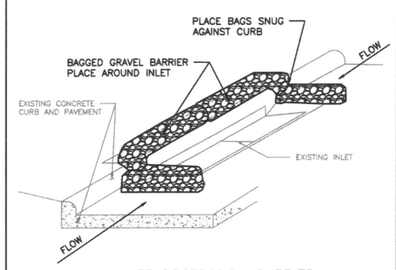
SECTION D–D

IPB

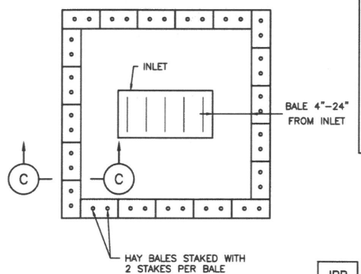
SYMBOL

PLAN VIEW

SILT FENCE INLET PROTECTION BARRIER



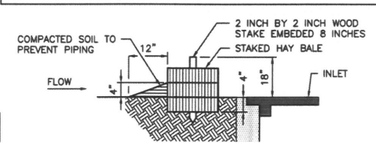
INLET PROTECTION BARRIER
(FOR STAGE II INLETS)
BAGGED GRAVEL BARRIER



PLAN VIEW

IPB

SYMBOL



SECTION C–C

HAY BALE INLET PROTECTION BARRIER

APPROVED BY:	APPROVED BY:
CITY ENGINEER	DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: MAR–02–2026	DWG NO: 01570–01

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STORMWATER POLLUTION PREVENTION PLAN DETAILS

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

STORM WATER POLLUTION PREVENTION DETAIL

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 138 OF 362	

No.	Date	Revisions	App.

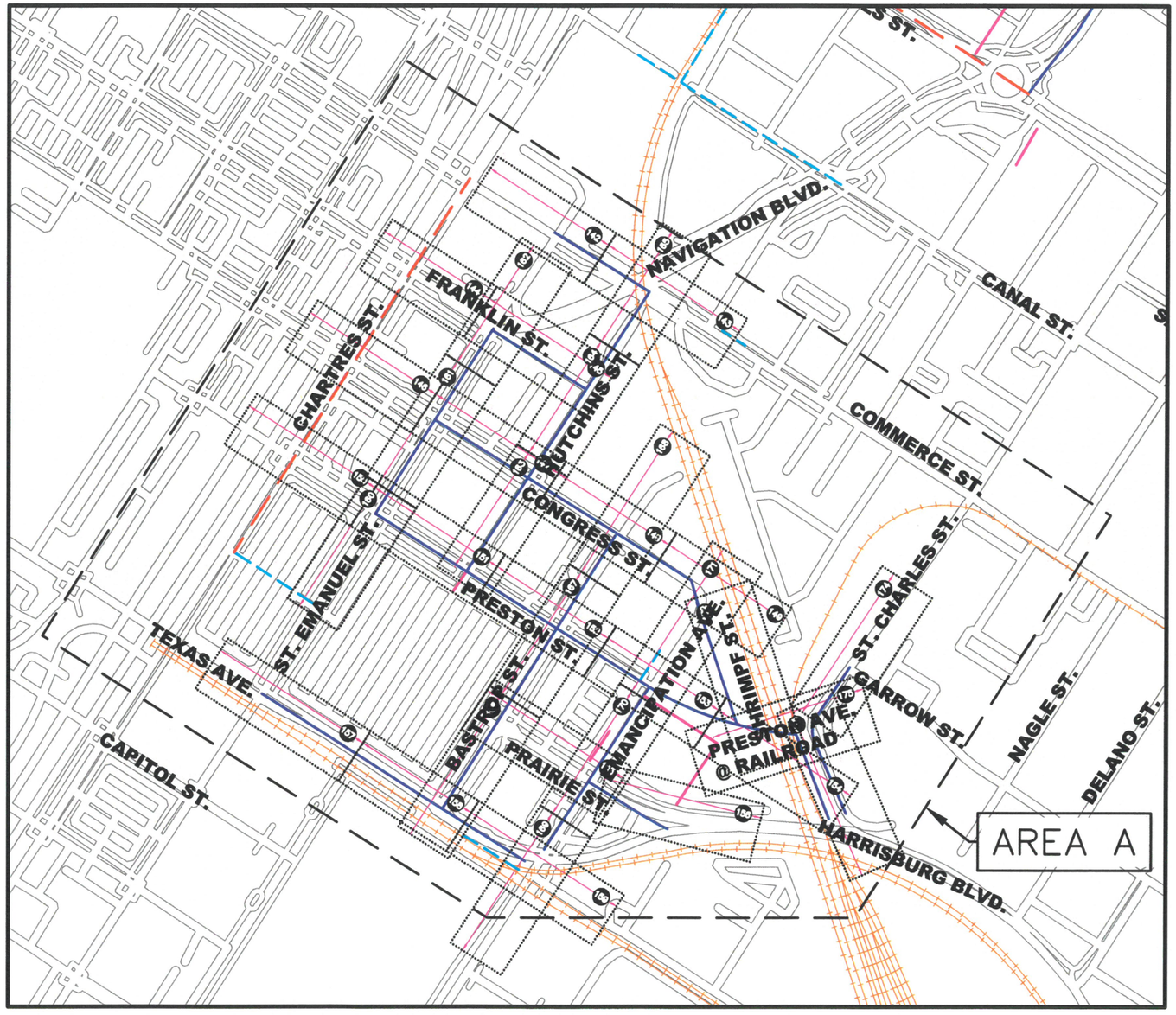
FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 9:43:05 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\OVERALL SW3P LAYOUT AREA ABC.DWG

LEGEND

- ## — TREE PLAN SHEET NUMBER
- PROJECT AREA LIMITS
- PROJECT SHEET LIMITS

No.	Date	Revisions	App.



N
W E
S

0 70' 140'

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CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

OVERALL SWPPP LAYOUT AREA-A

SHEET LAYOUT

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 139 OF 362	

FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

- ## — TREE PLAN SHEET NUMBER
- PROJECT AREA LIMITS
- PROJECT SHEET LIMITS

AREA B

INTERSTATE 10

RUNNELS ST.
LOTTMAN ST.
ANN ST.
S. JENSEN DR.
MCALPINE ST.
N. ST. CHARLES ST.
N. LIVE OAK
BAYOU PARKVIEW DR.
FREUND ST.
FOX ST.
MIDDLE ST.
BERING ST.
CARY ST.
N. NAGLE ST.
ENGELKE ST.
SALTUS ST.
N. VELASCO ST.
NAVIGATION BLVD.
CANAL ST.
COMMERCE ST.
CONGRESS ST.
HUTCHINS ST.
LIN ST.
ESTON ST.
OP ST.
PRESTON AVE.
RAILROAD
GARROW ST.
ST. CHARLES ST.
NAGLE ST.
NO ST.
N. PAIGE ST.
N. ENNIS ST.
N. PALMER ST.
NOLAN ST.
AMPSON ST.
N. YORK ST.

0 70' 140'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

OVERALL SWPPP LAYOUT AREA~B

SHEET LAYOUT

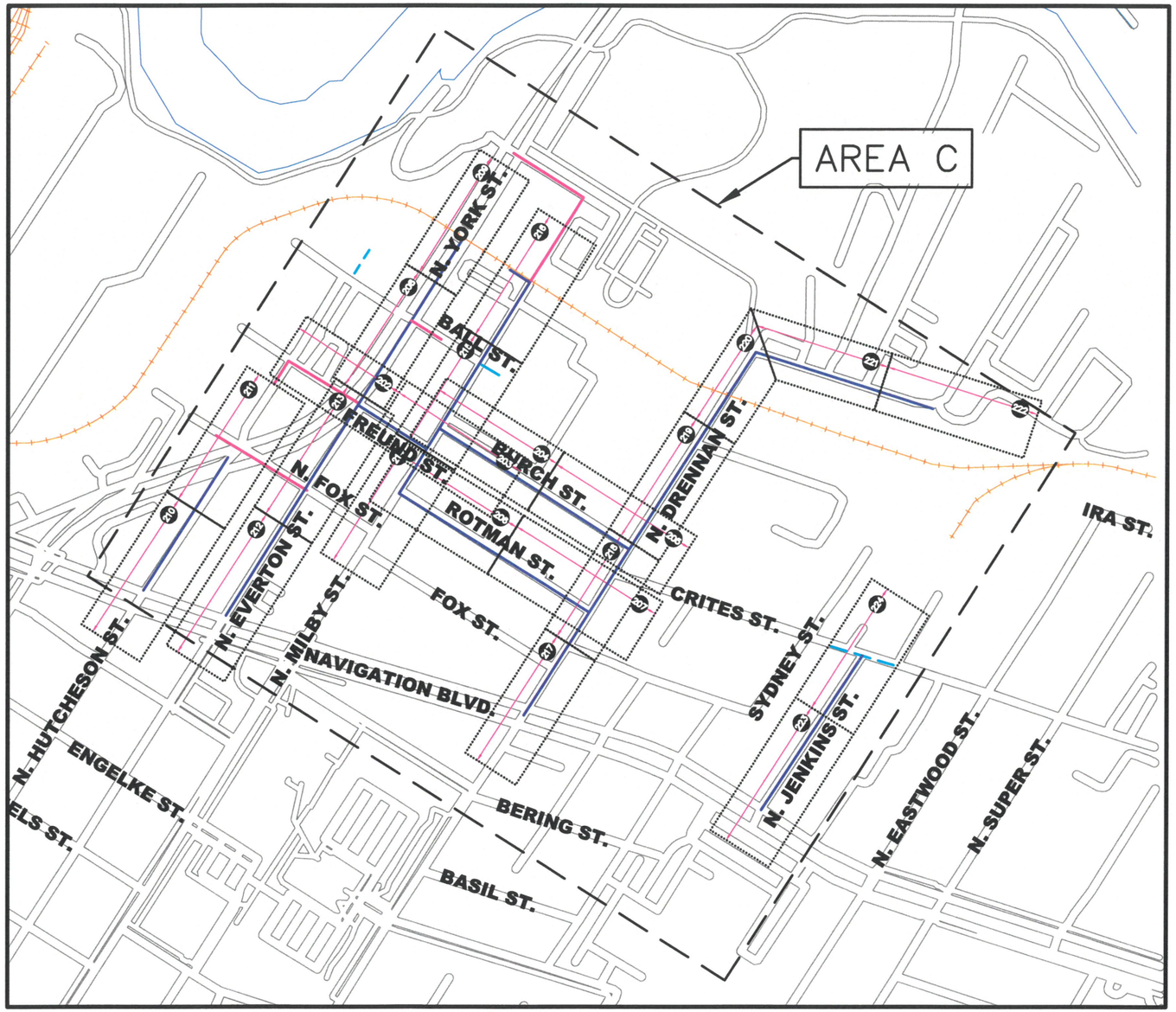
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S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 140 OF 362	

No.	Date	Revisions	App.

PLOTTED ON: Wednesday, September 23, 2026 9:43:09 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\OVERALL SW3P LAYOUT AREA ABC.DWG

FOR REDUCED PLANS
original scale in inches

3 2 1 0



LEGEND

- ## — TREE PLAN SHEET NUMBER
- PROJECT AREA LIMITS
- PROJECT SHEET LIMITS

No.	Date	Revisions	App.

N
W E
S

0 70' 140'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

OVERALL SWPPP LAYOUT AREA~C

SHEET LAYOUT

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 141 OF 362	

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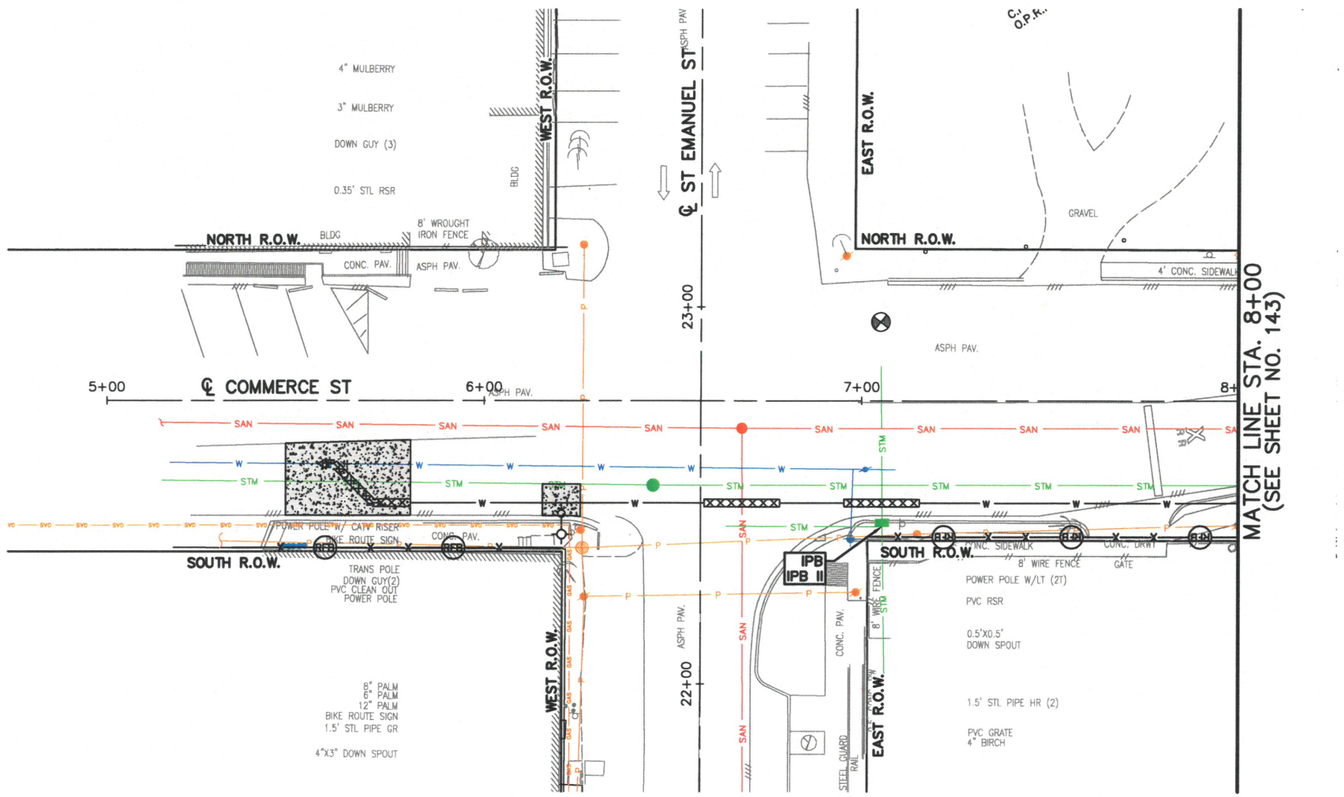
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

COMMERCE ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 8+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 142 OF 362	

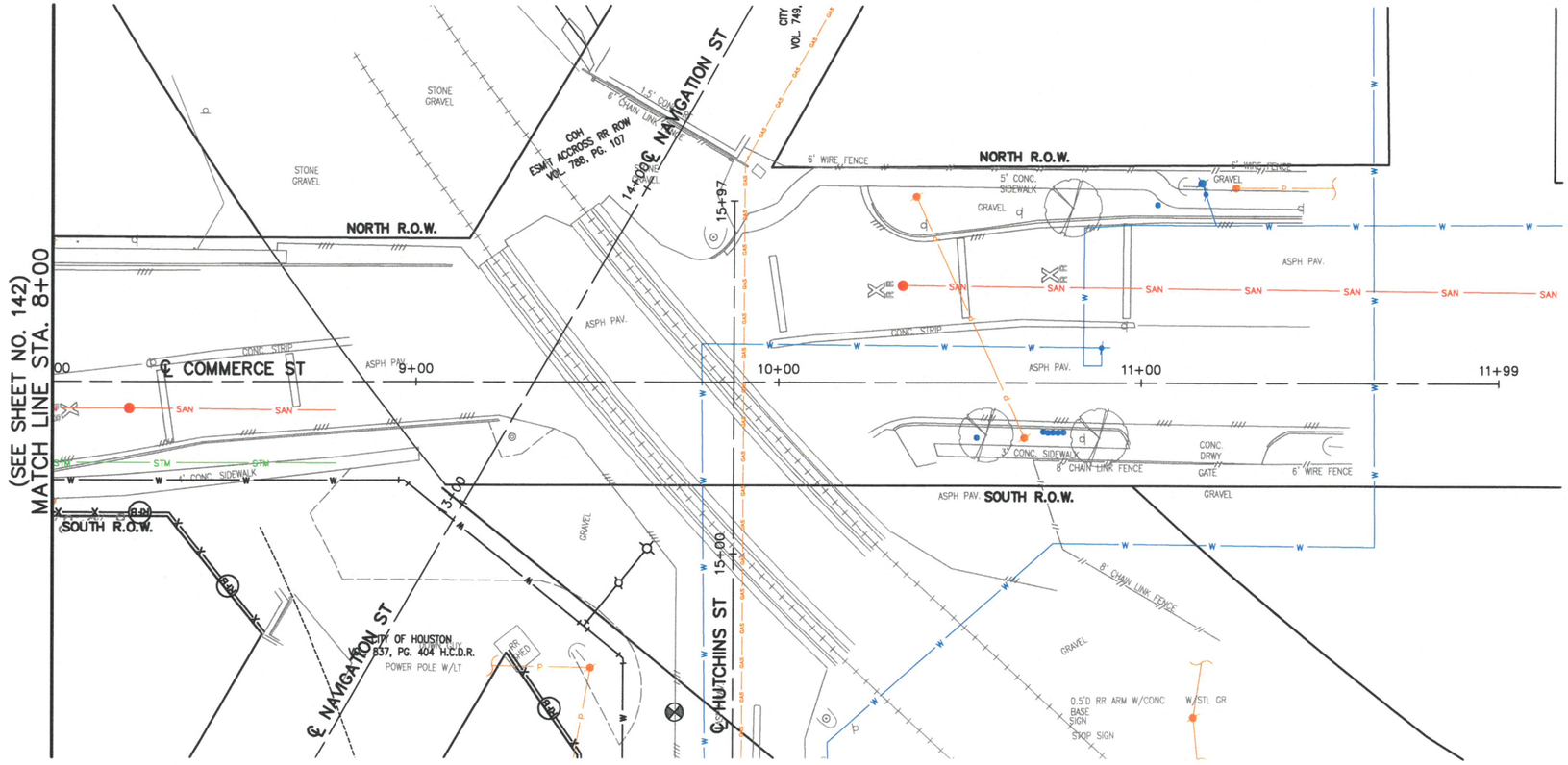
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

COMMERCE ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 8+00.00 TO STA. 11+98.84

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 143 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:48:18 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-H.DWG

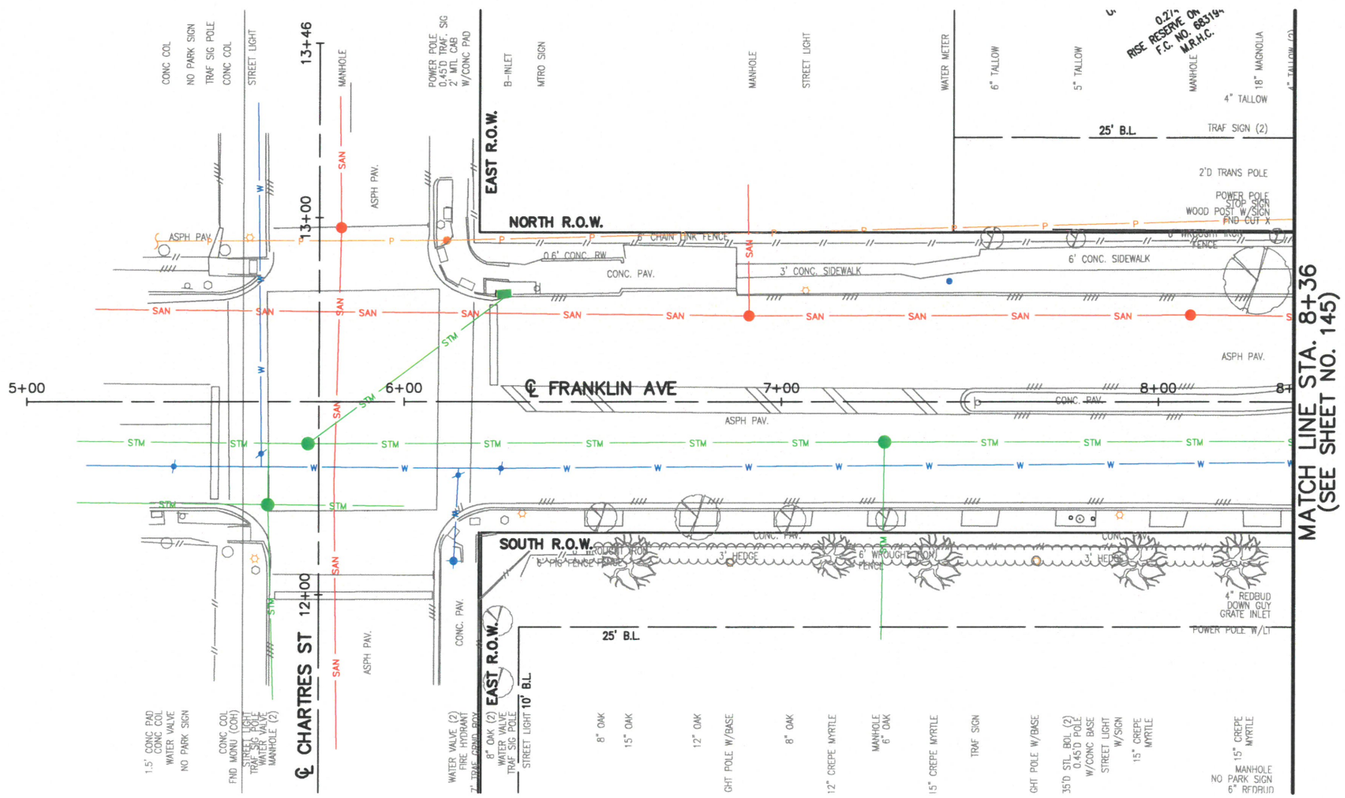
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



MATCH LINE STA. 8+36
(SEE SHEET NO. 145)

0 20' 40'

SES HORIZON
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Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES. EPIFANIO E. SALAZAR JR., P.E. TEXAS SERIAL NO. 67749 DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

FRANKLIN AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 8+36.20

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 144 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:48:28 AM
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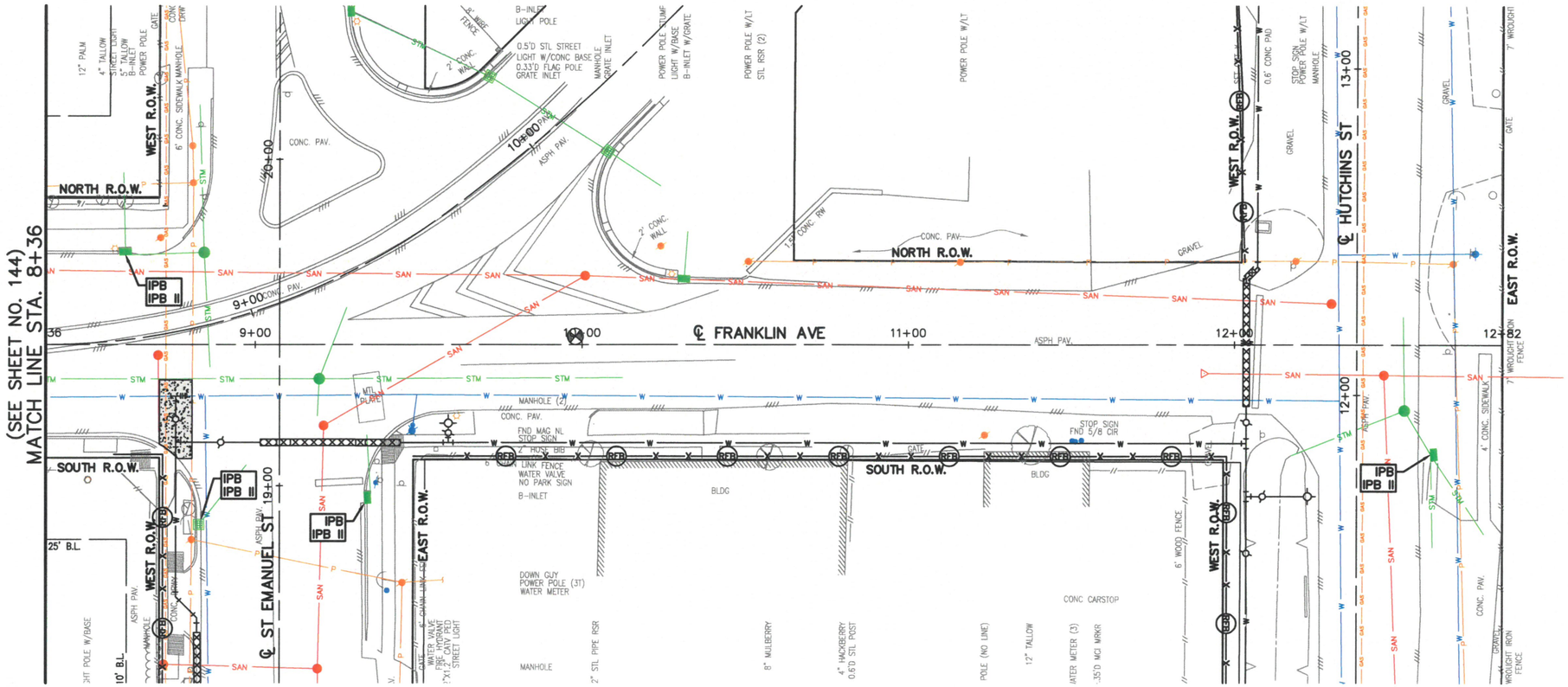
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

FRANKLIN AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 8+36.20 TO STA. 12+82.05

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 145 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:48:38 AM
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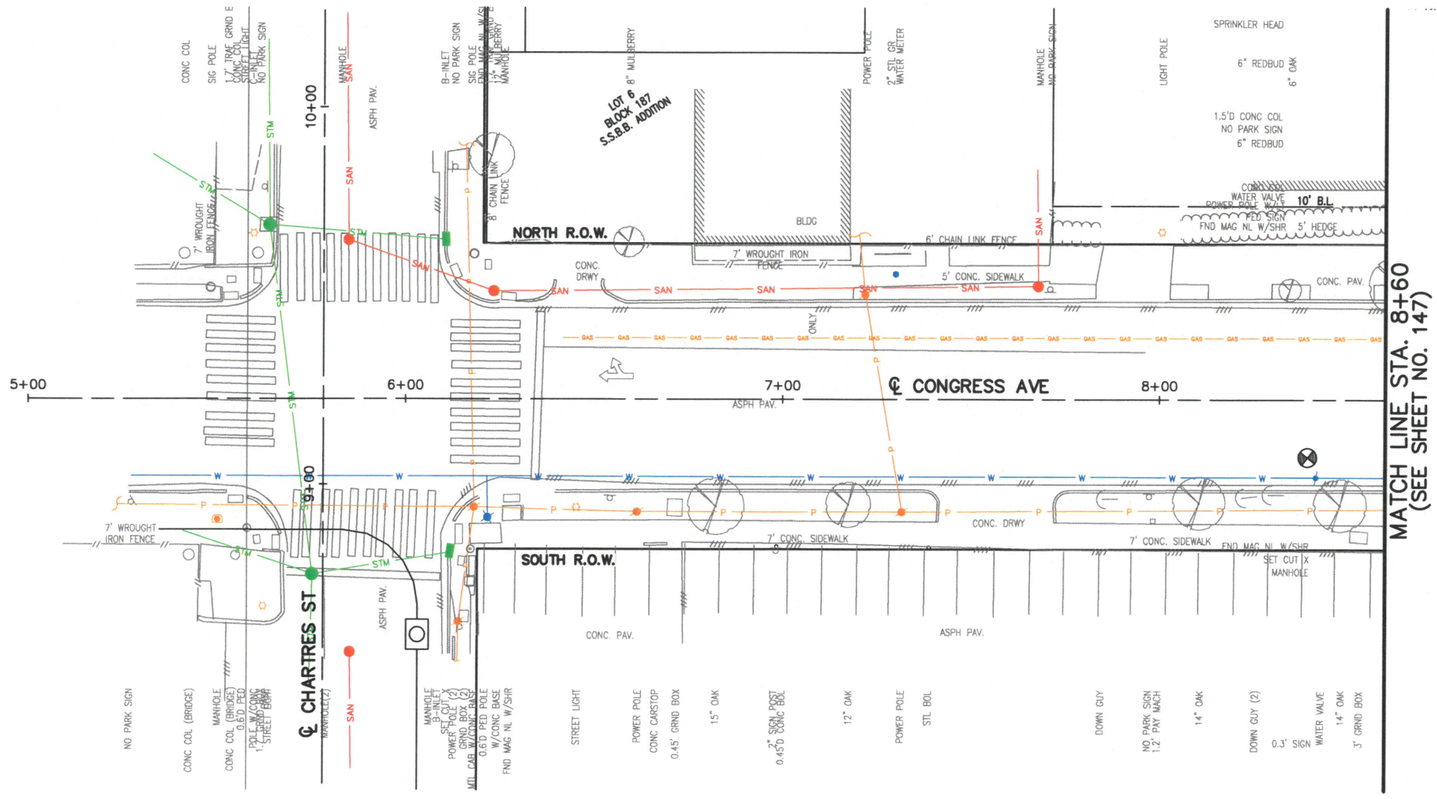
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 8+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 146 OF 362	

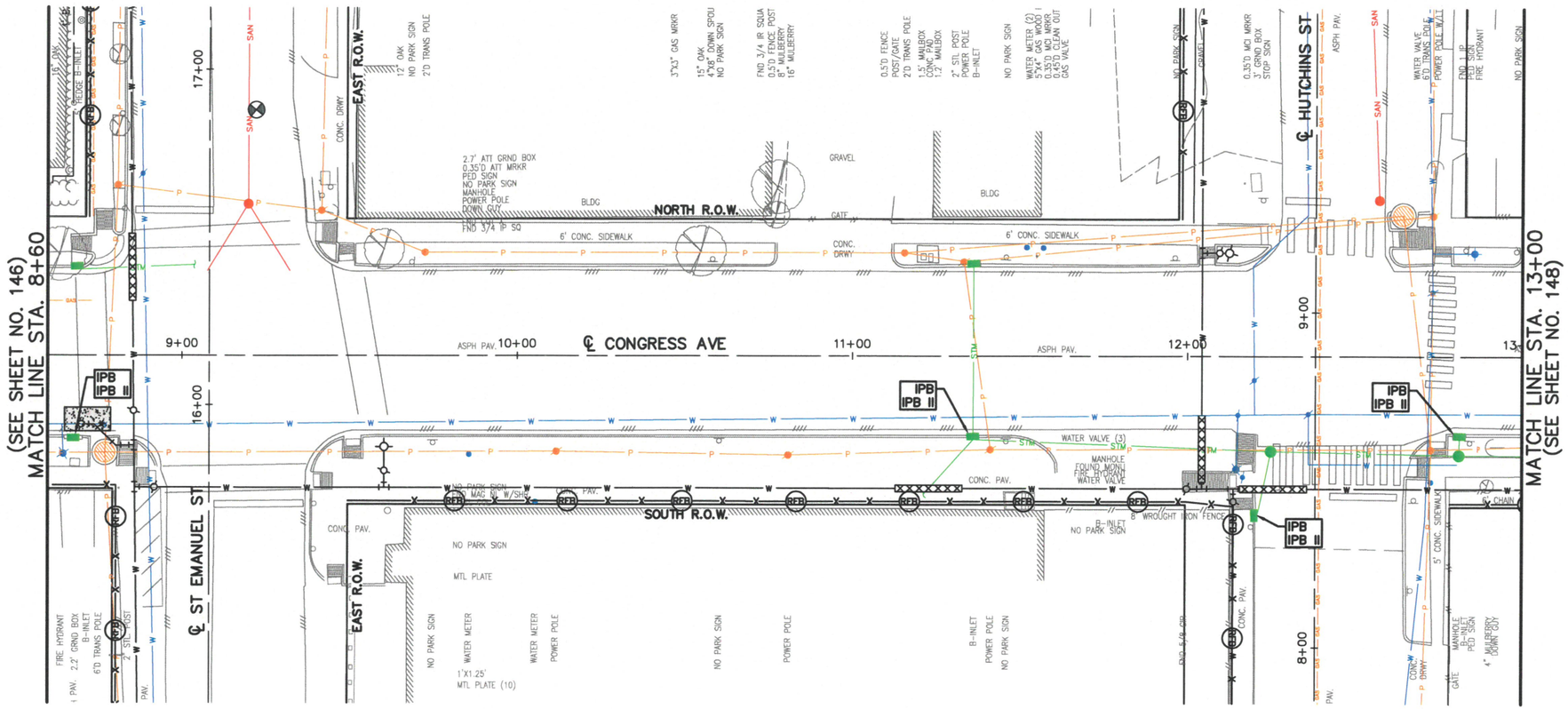
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 8+60.00 TO STA. 13+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 147 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:48:59 AM
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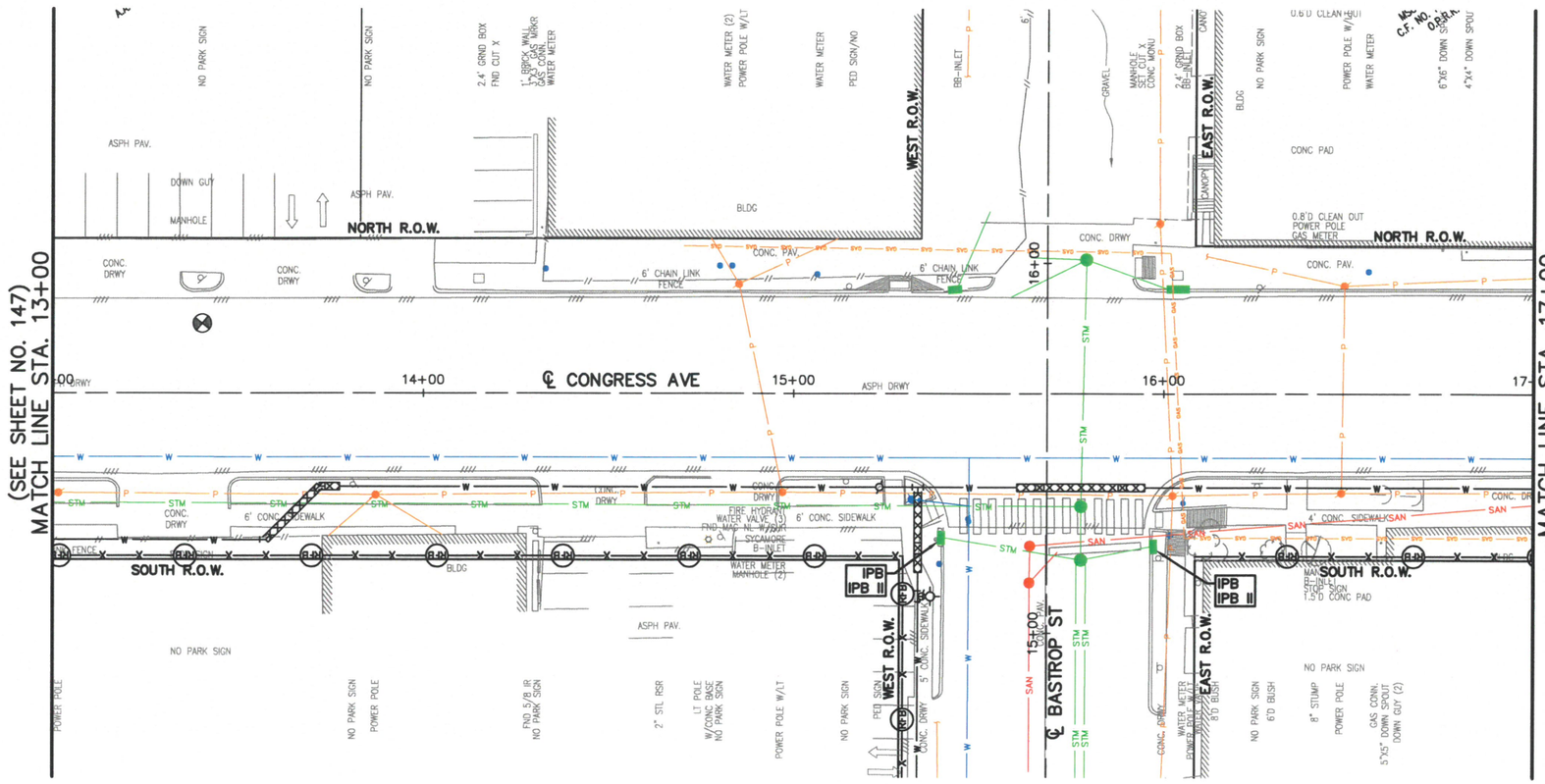
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 13+00.00 TO STA. 17+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 148 OF 362	

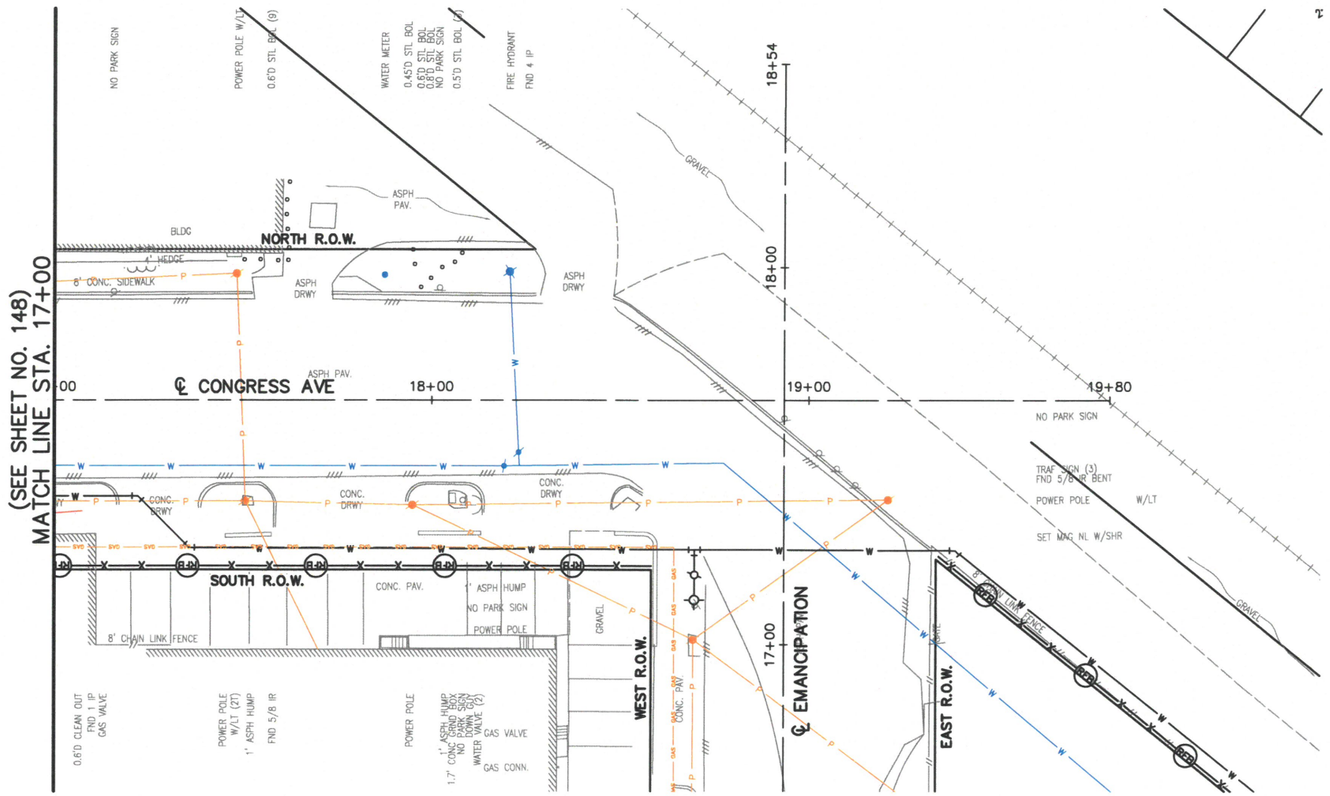
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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TEXAS SERIAL NO. 67749
DATE: Sep-26

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 17+00.00 TO STA. 19+79.86

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 149 OF 362	

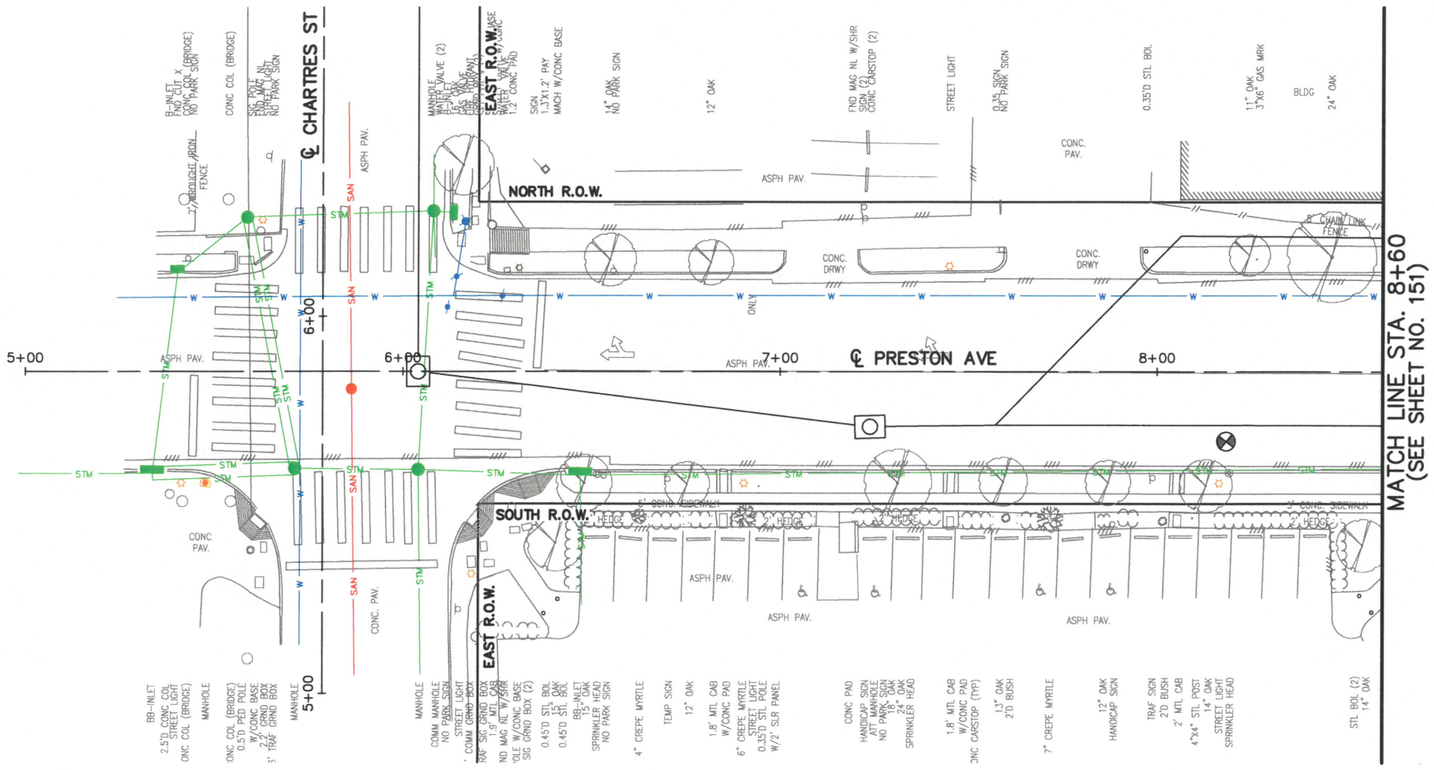
PLOTTED ON: Wednesday, September 23, 2026 9:49:18 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

PLOTTED ON: Wednesday, September 23, 2026 9:49:28 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-H.DWG

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TEXAS SERIAL NO. 67749
DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 8+60.00

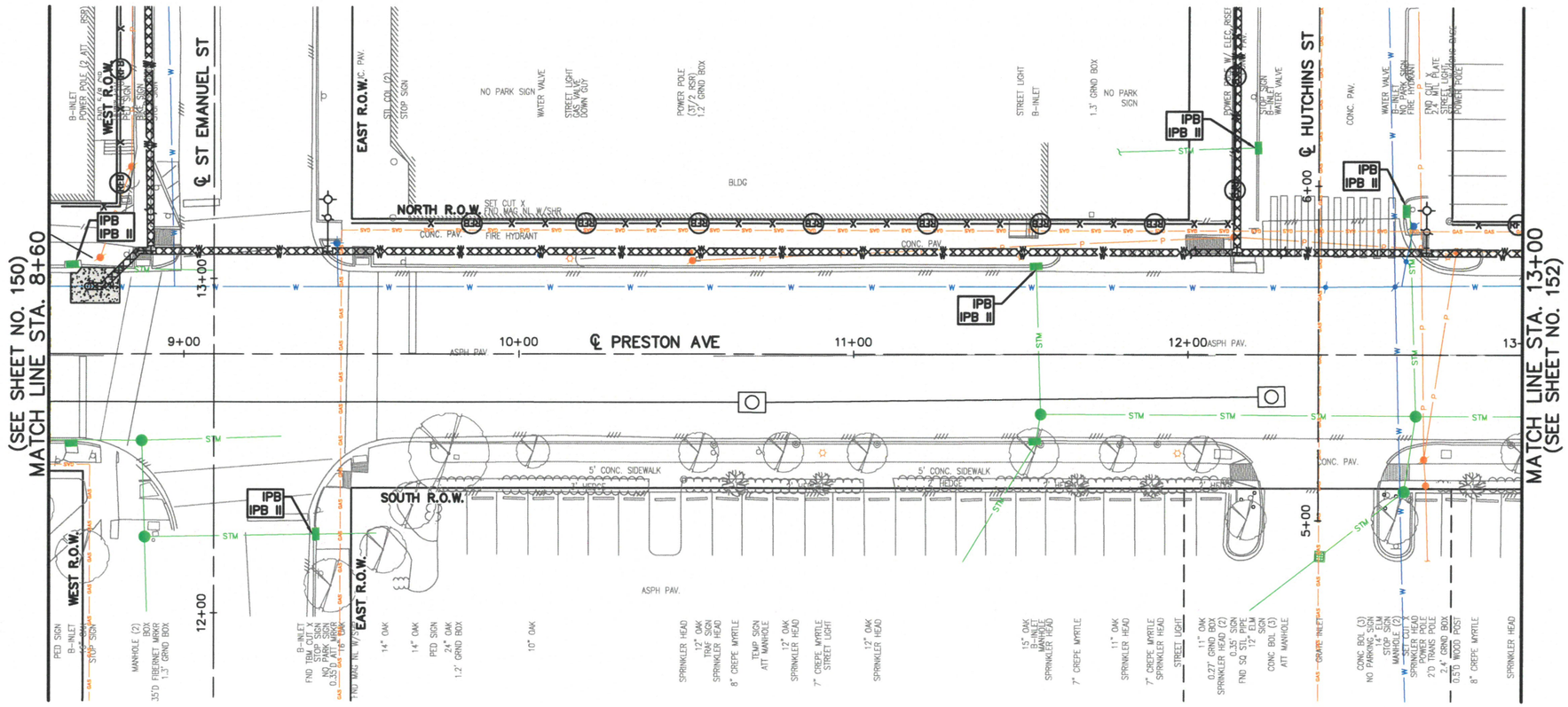
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S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 150 OF 362	

FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO.: P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

PRESTON AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 8+60.00 TO STA. 13+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 151 OF 362	

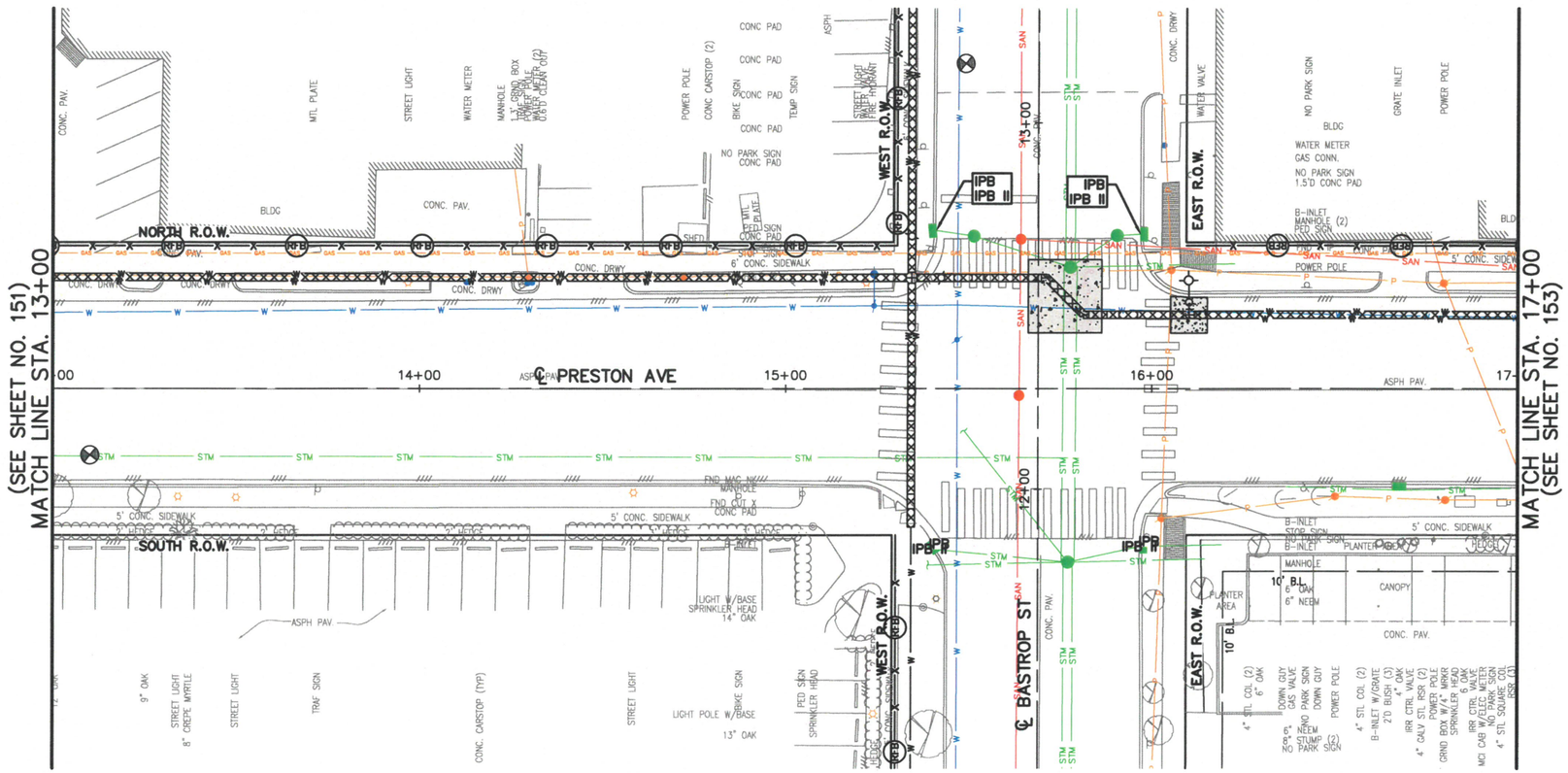
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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 13+00.00 TO STA. 17+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 152 OF 362	

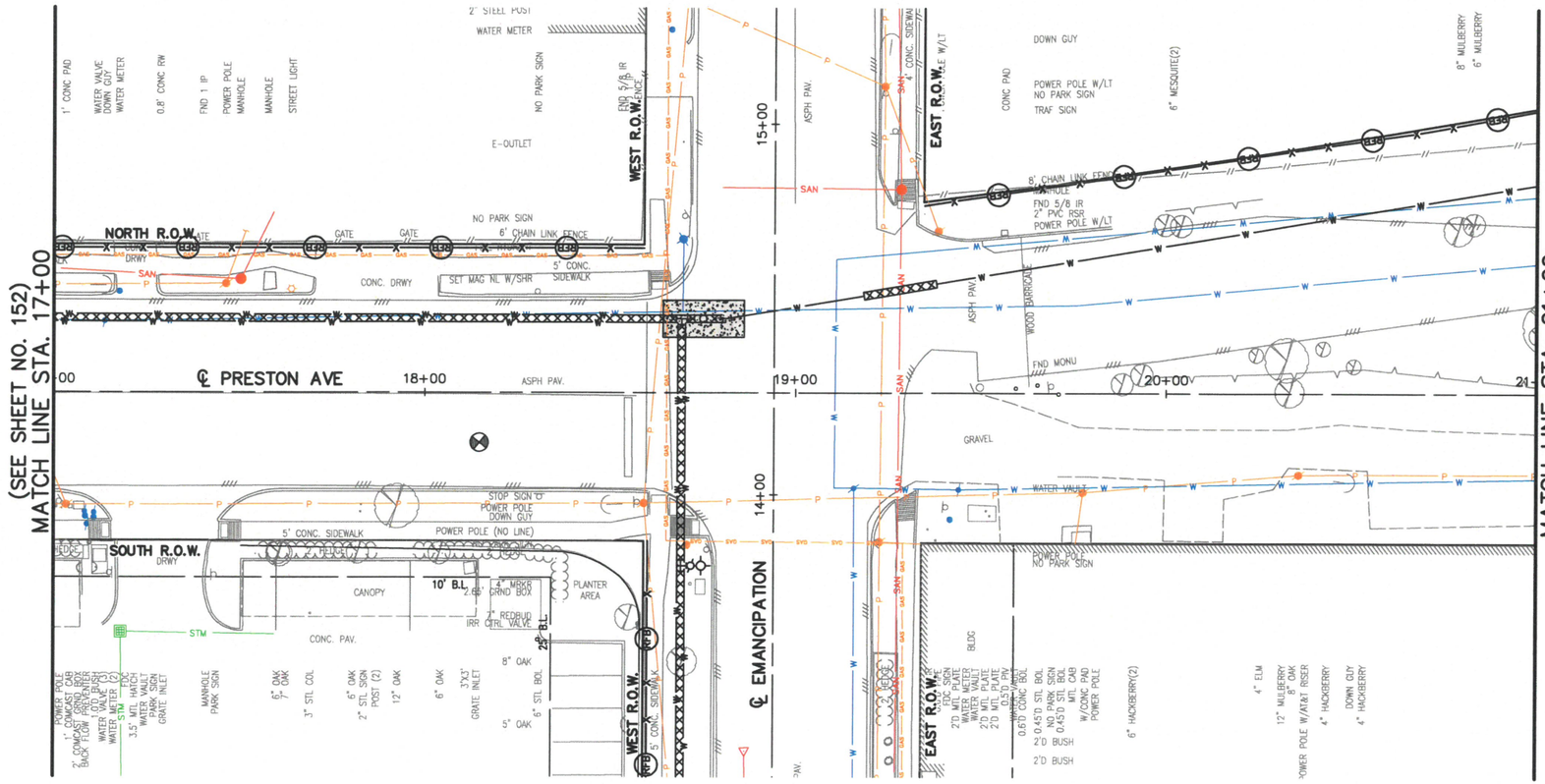
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 17+00.00 TO STA. 21+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 153 OF 362	

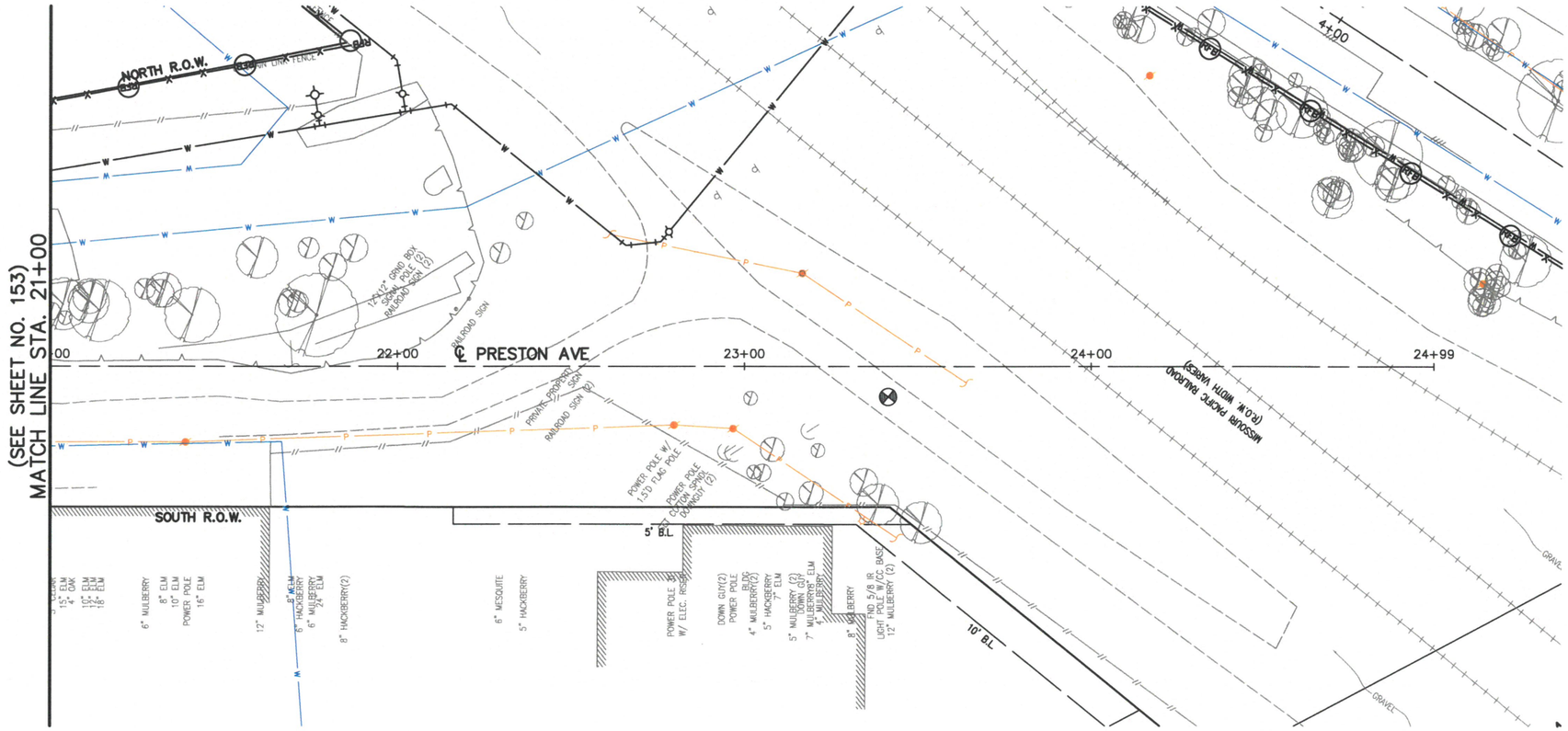
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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-H.DWG

FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 21+00.00 TO STA. 24+98.79

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 154 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:50:09 AM
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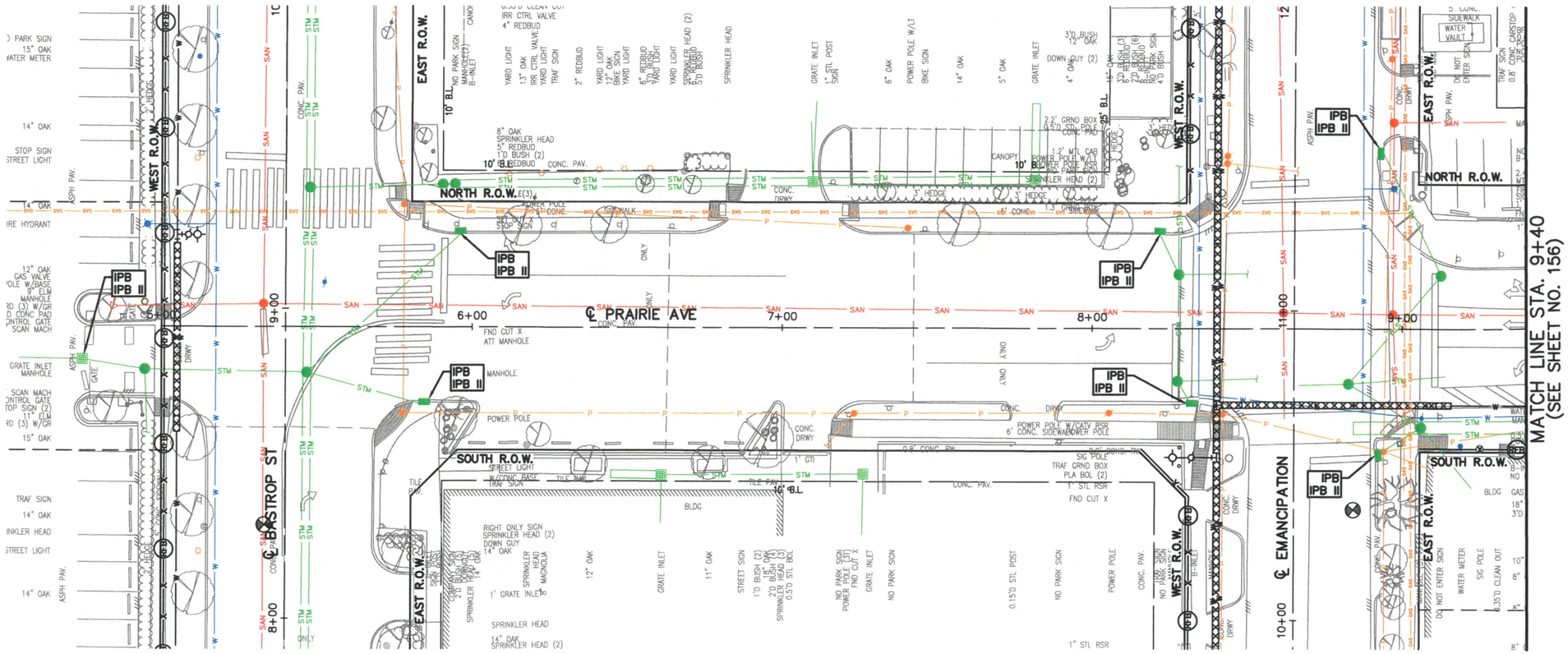
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



PLOTTED ON: Wednesday, September 23, 2026 9:50:19 AM
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRAIRIE AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 155 OF 362	

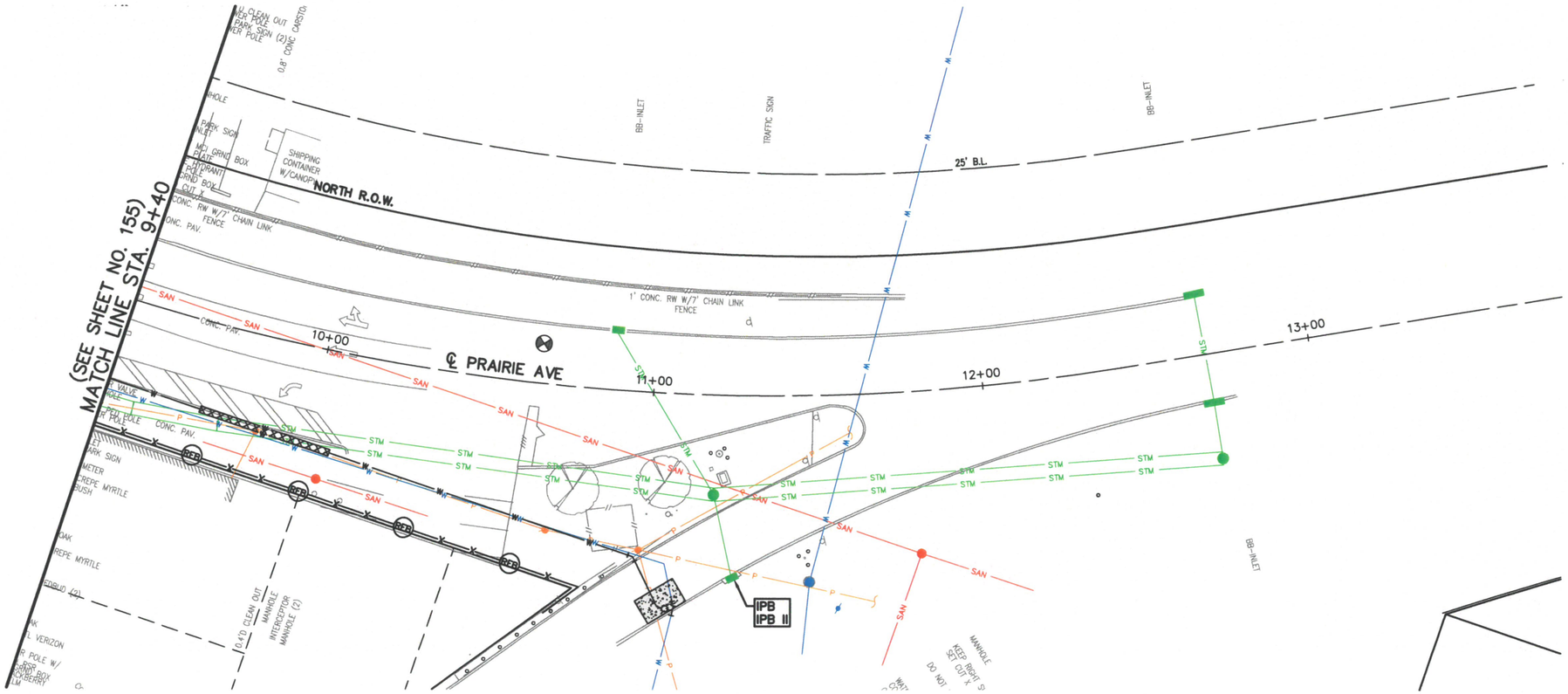
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



SES HORIZON
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Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRAIRIE AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+40.00 TO STA. 13+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 156 OF 362	

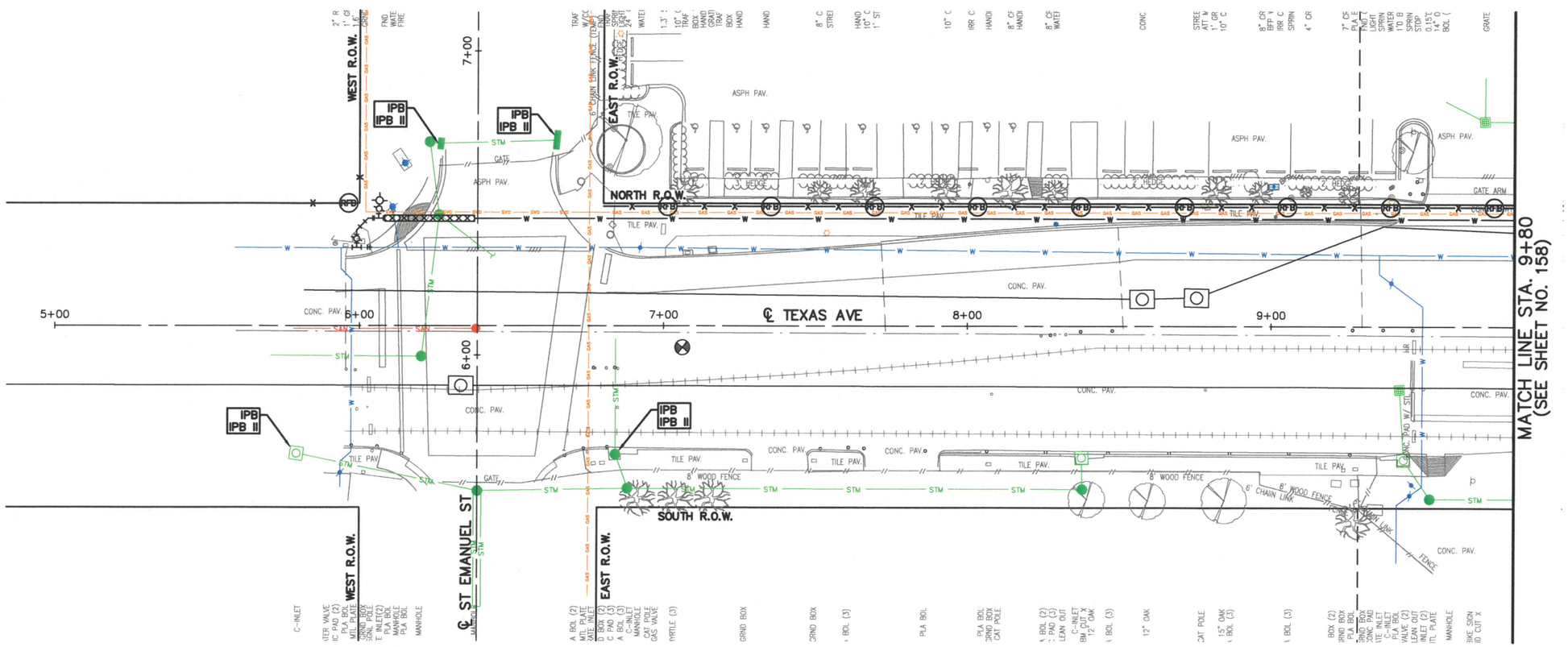
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FOR REDUCED PLANS
original scale in inches
3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

PLOTTED ON: Wednesday, September 23, 2026 9:50:39 AM
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TEXAS AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 9+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 157 OF 362	

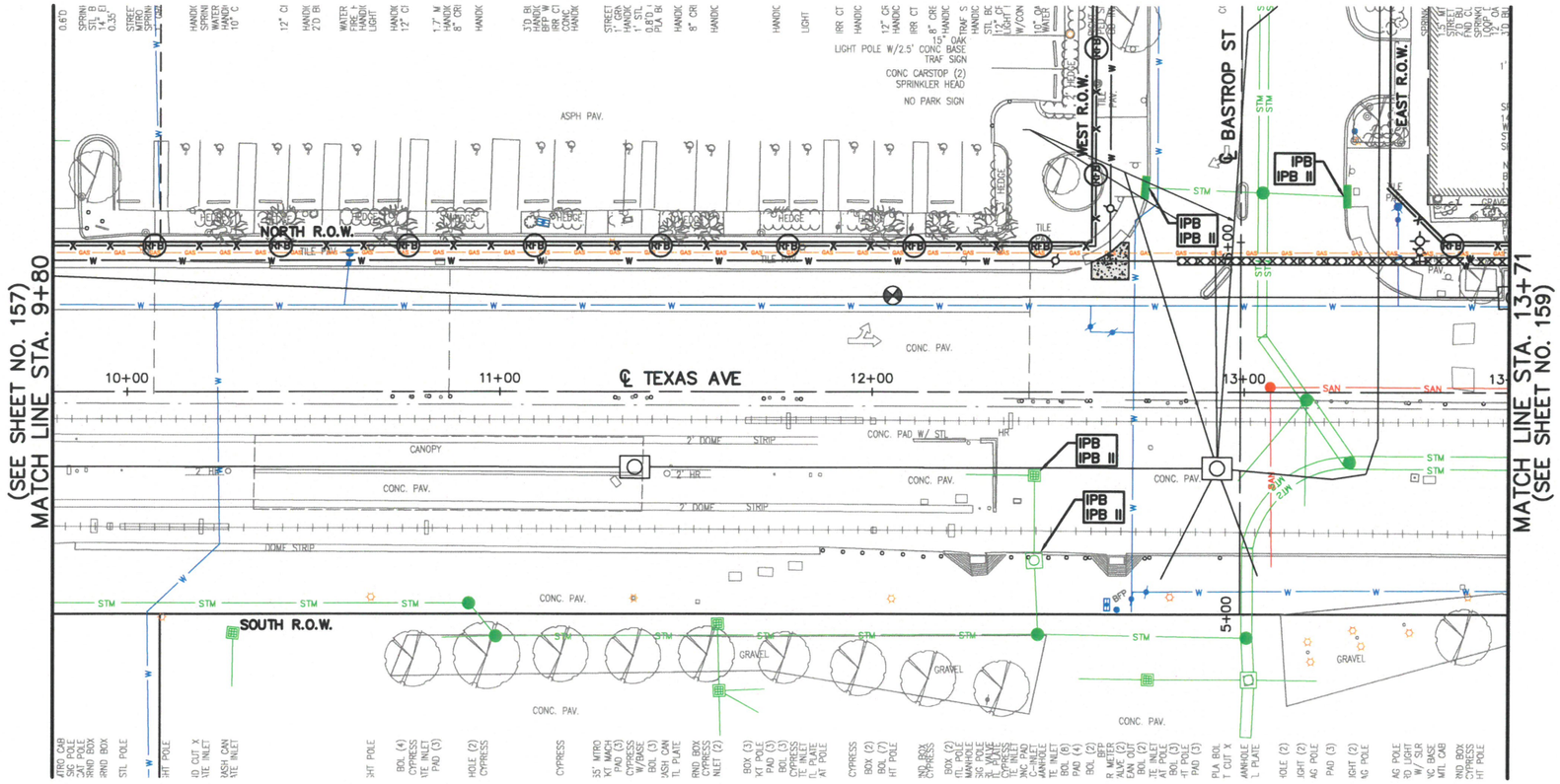
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TEXAS AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+80.00 TO STA. 13+71.27

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 158 OF 362	

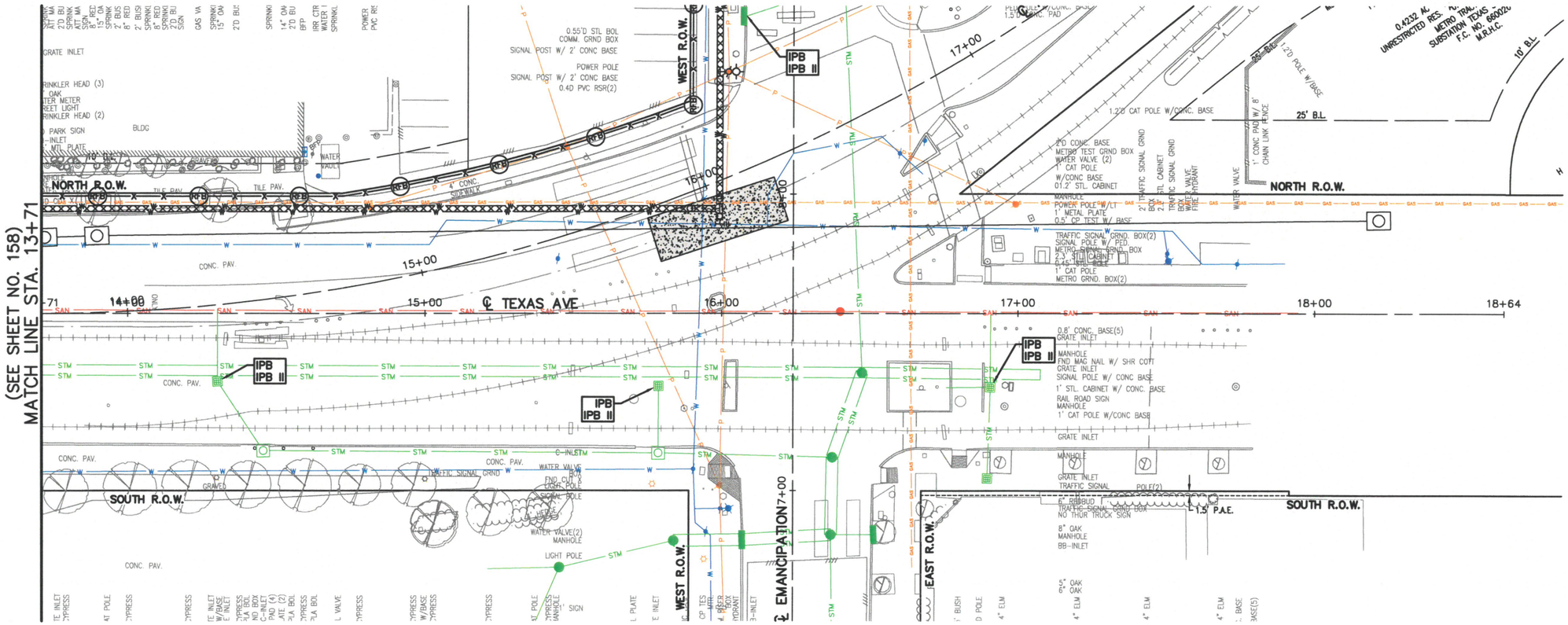
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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TEXAS SERIAL NO. 67749
DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO. : P-9355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TEXAS AVE

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 13+71.27 TO STA. 18+64.05

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 159 OF 362	

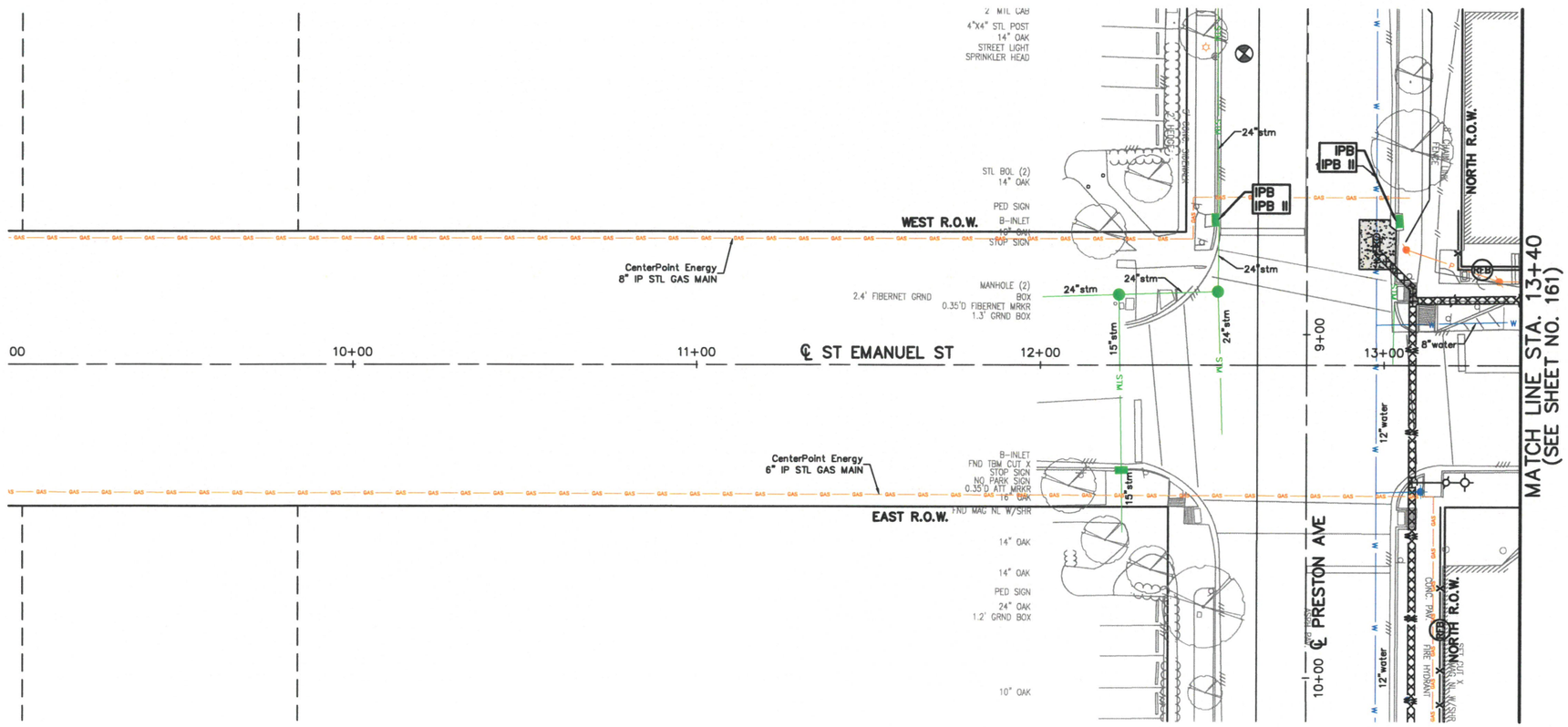
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

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DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

ST EMANUEL ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+00.00 TO STA. 13+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 160 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:51:42 AM
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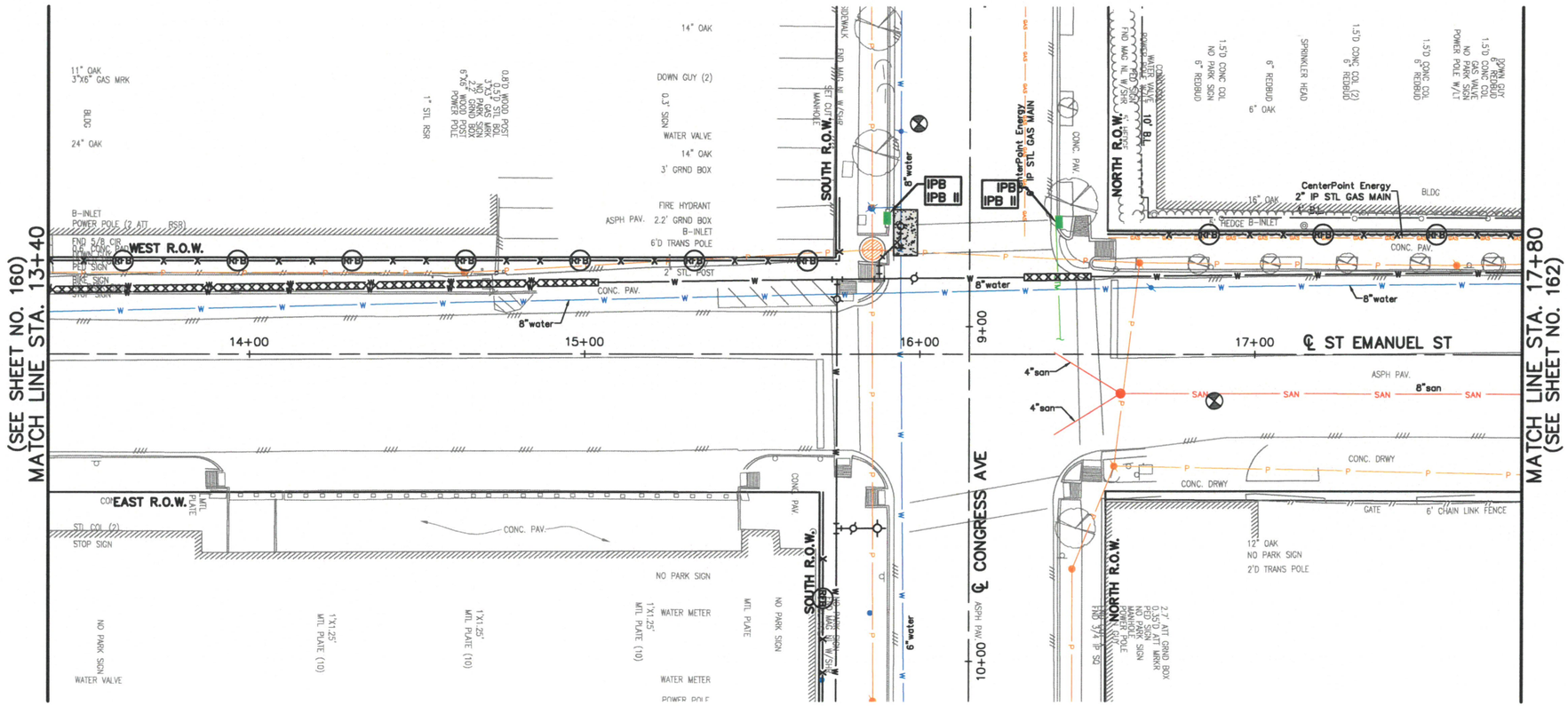
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ST EMANUEL ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 13+40.00 TO STA. 17+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 161 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:51:54 AM
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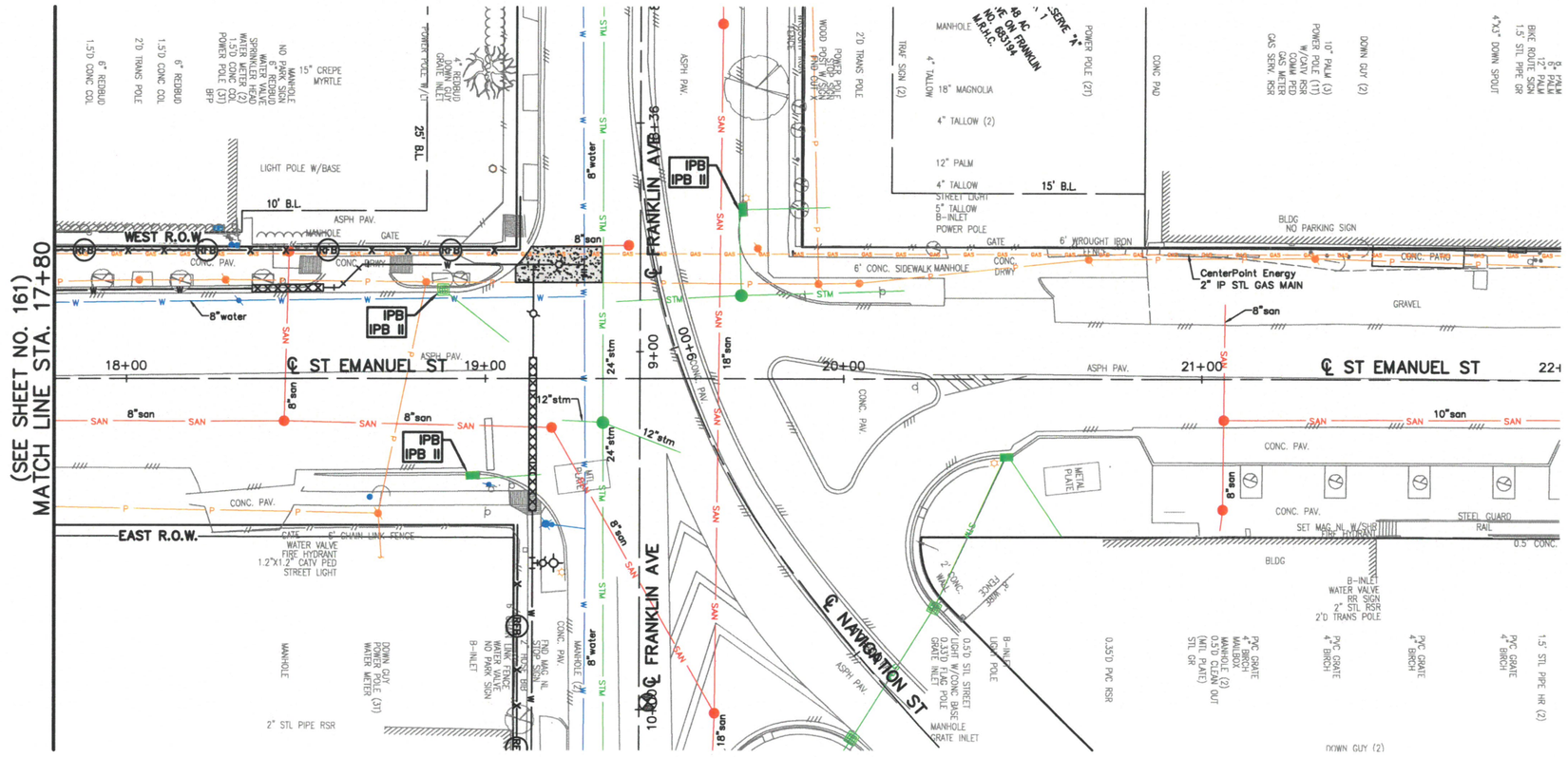
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ST EMANUEL ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 17+80.00 TO STA. 22+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 162 OF 362	

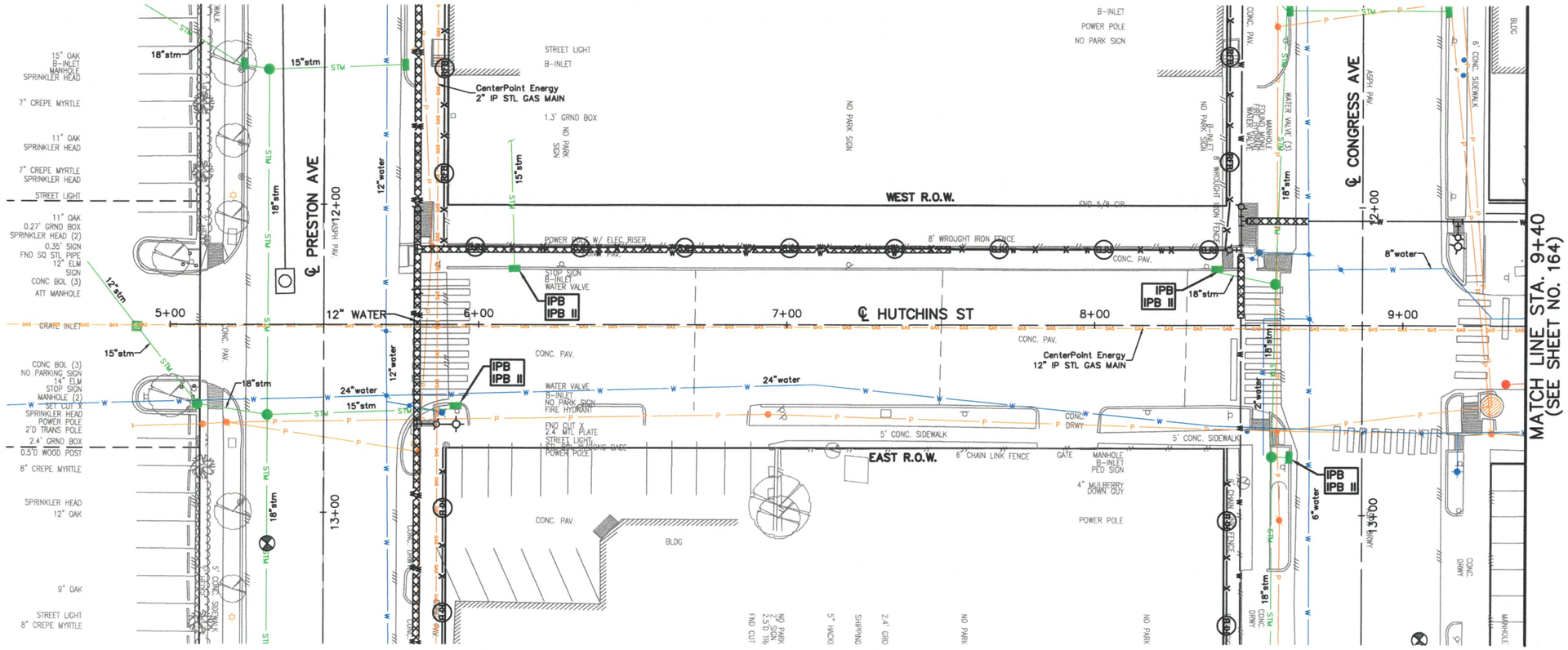
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

HUTCHINS ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 163 OF 362	

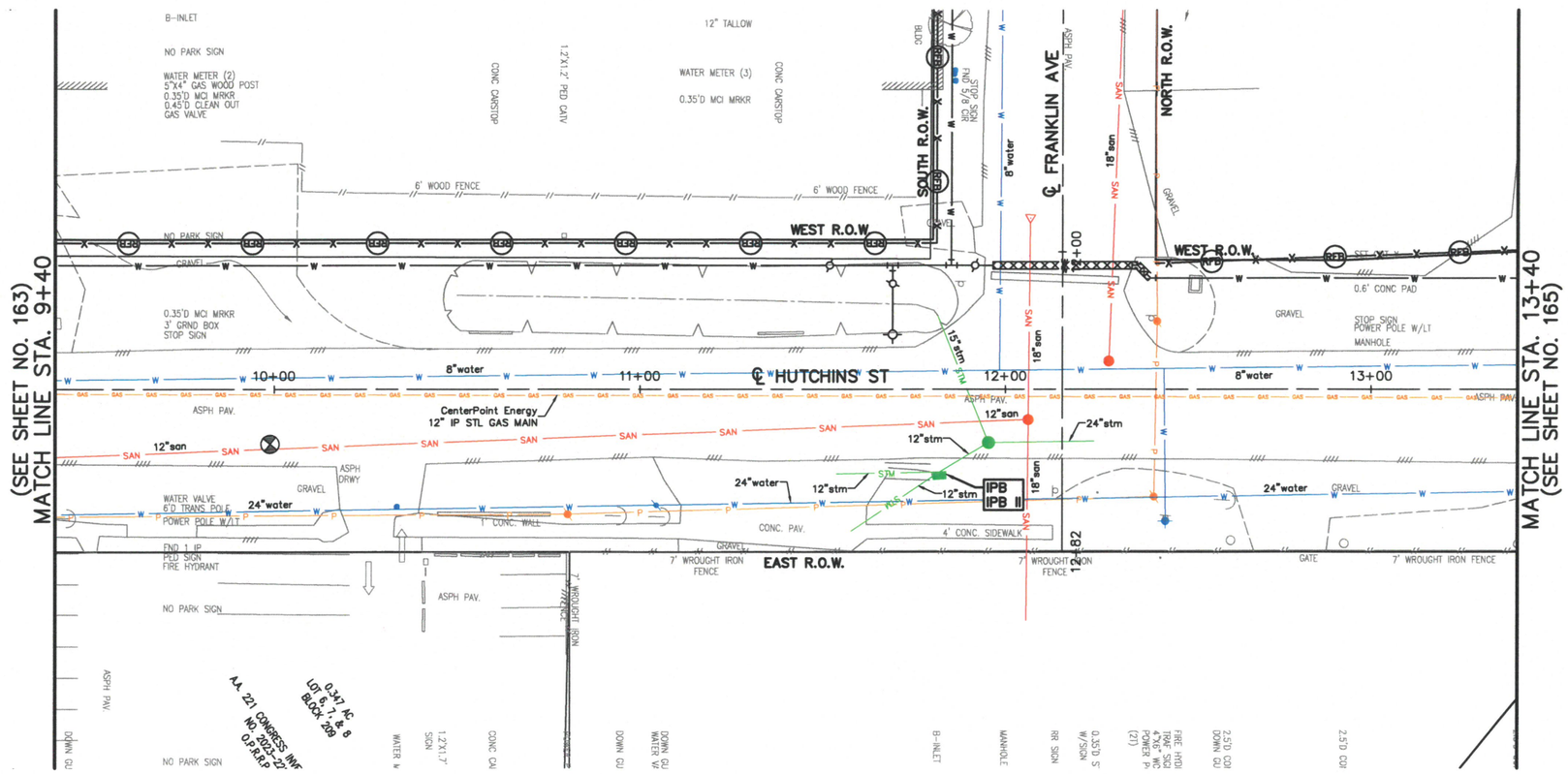
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

HUTCHINS ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+40.00 TO STA. 13+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 164 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:52:24 AM
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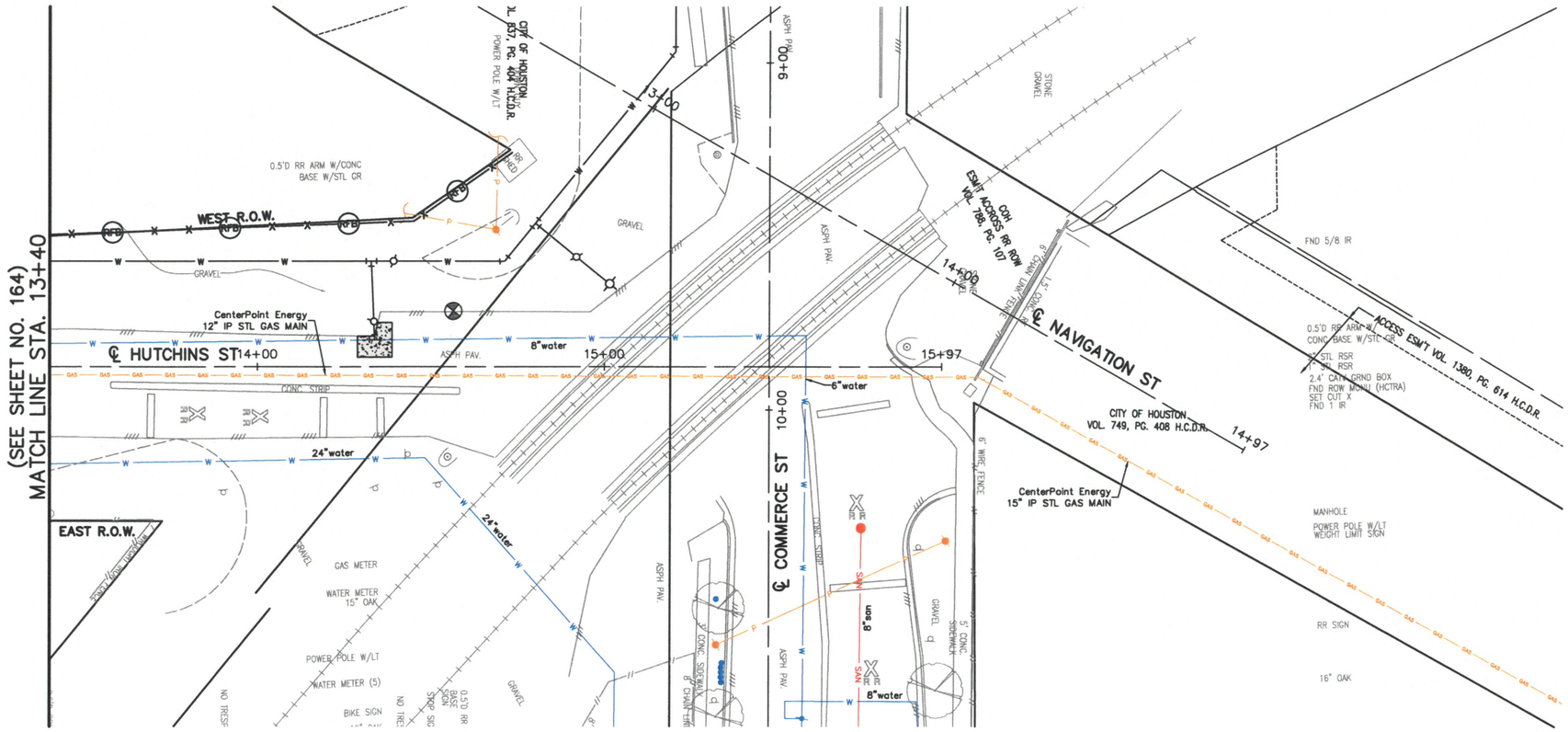
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

HUTCHINS ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 13+40.00 TO STA. 15+97.31

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 165 OF 362	

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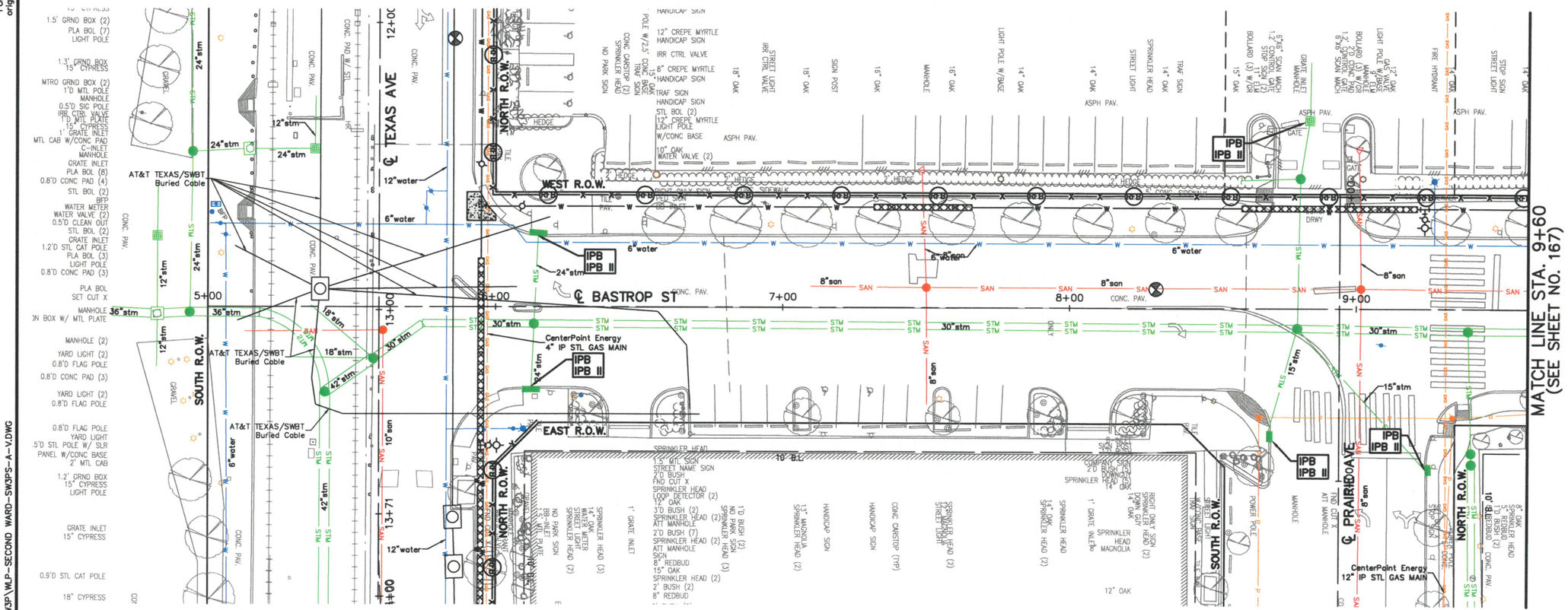
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BASTROP ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 9+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 166 OF 362	

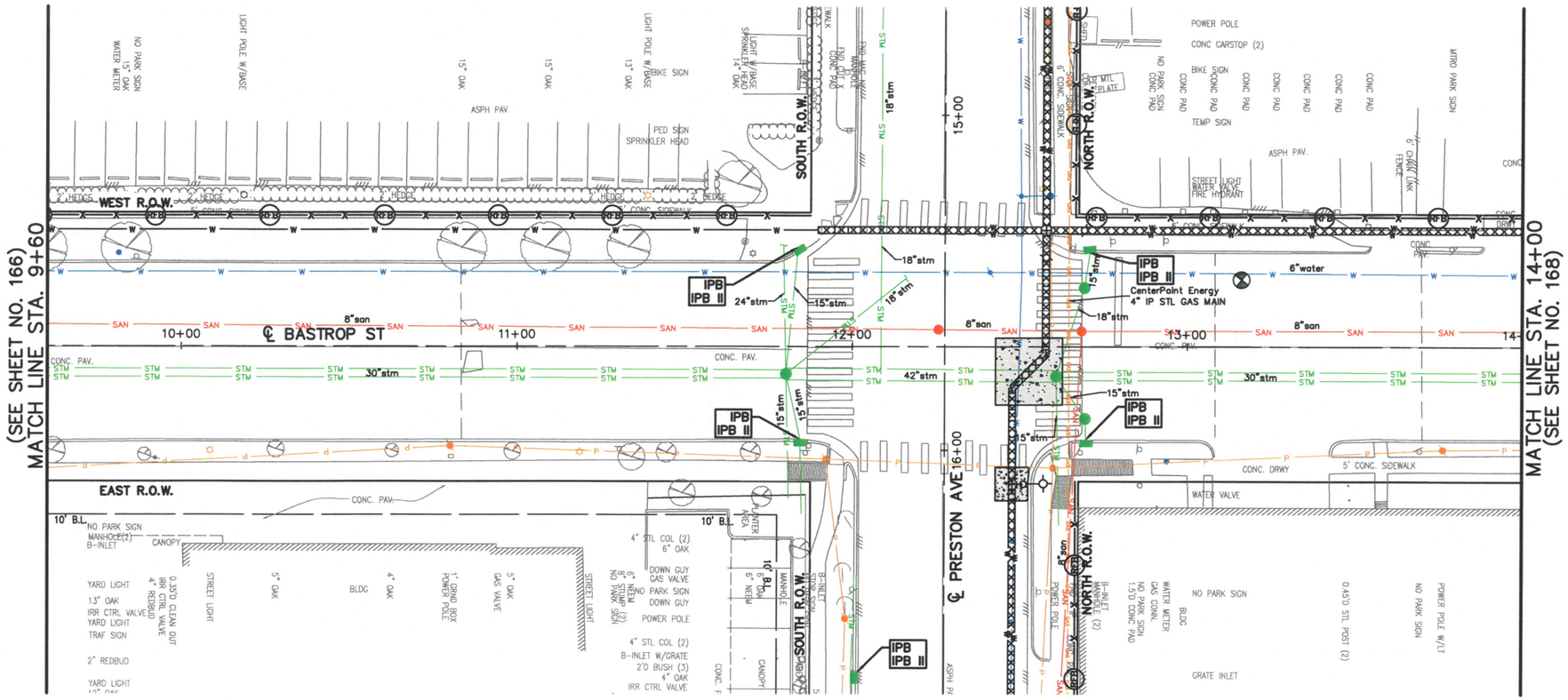
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BASTROP ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+60.00 TO STA. 14+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 167 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:52:54 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-V.DWG

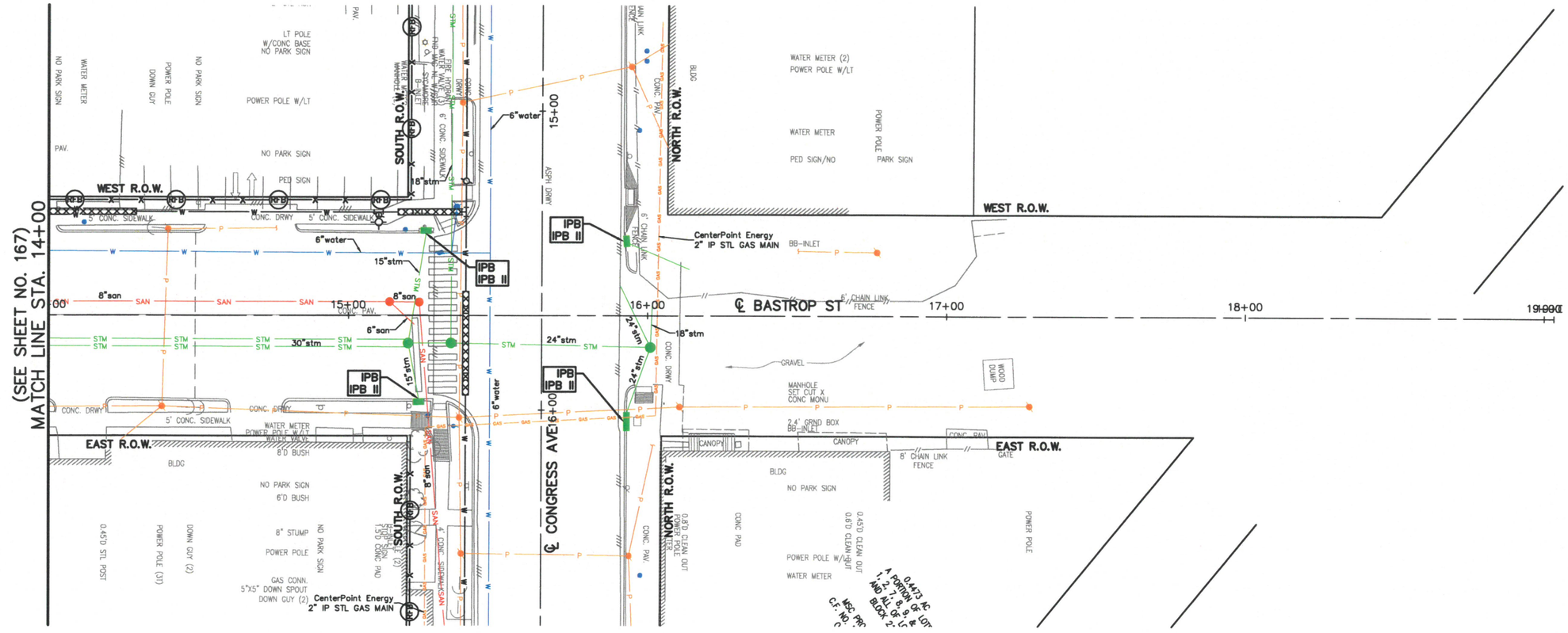
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

SES HORIZON
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Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BASTROP ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 14+00.00 TO STA. 19+03.25

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 168 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:53:04 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-V.DWG

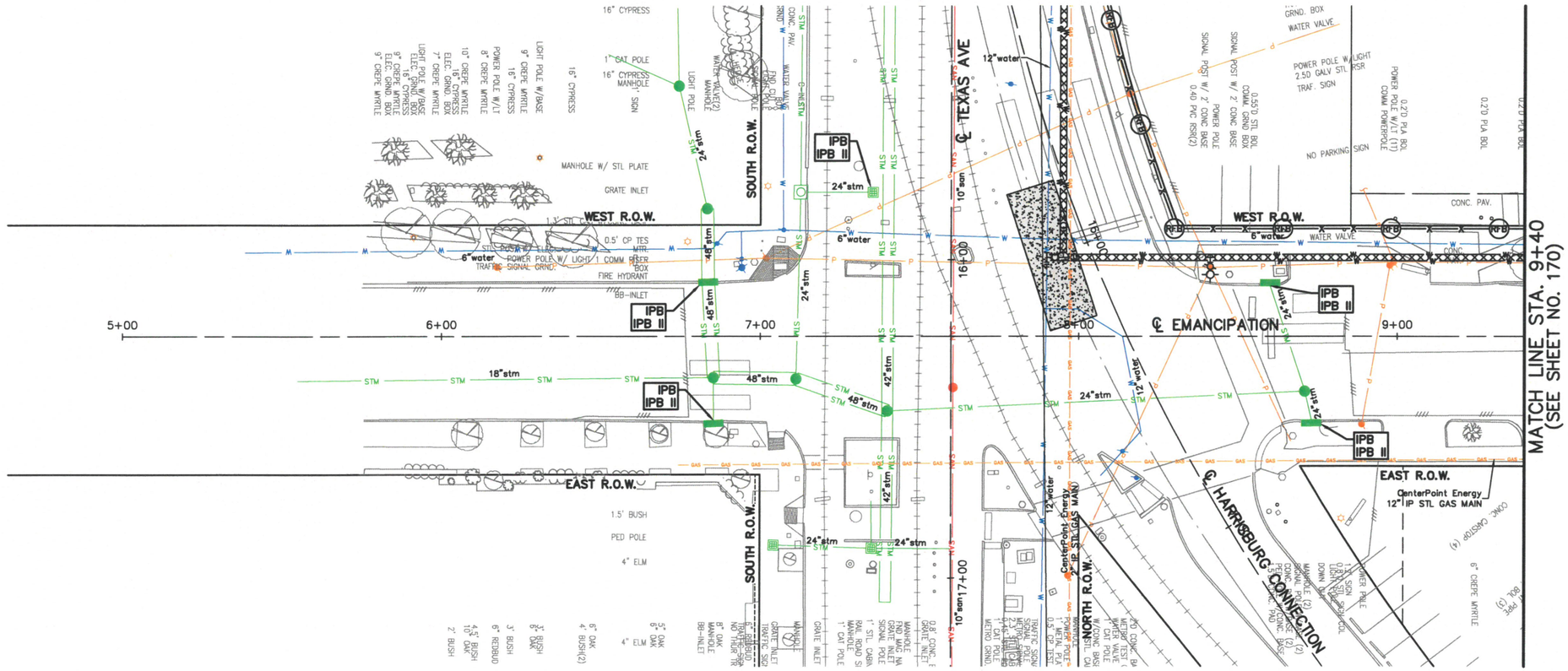
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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CONSULTING ENGINEERS, INC.
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

EMANCIPATION

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 169 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:53:14 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-V.DWG

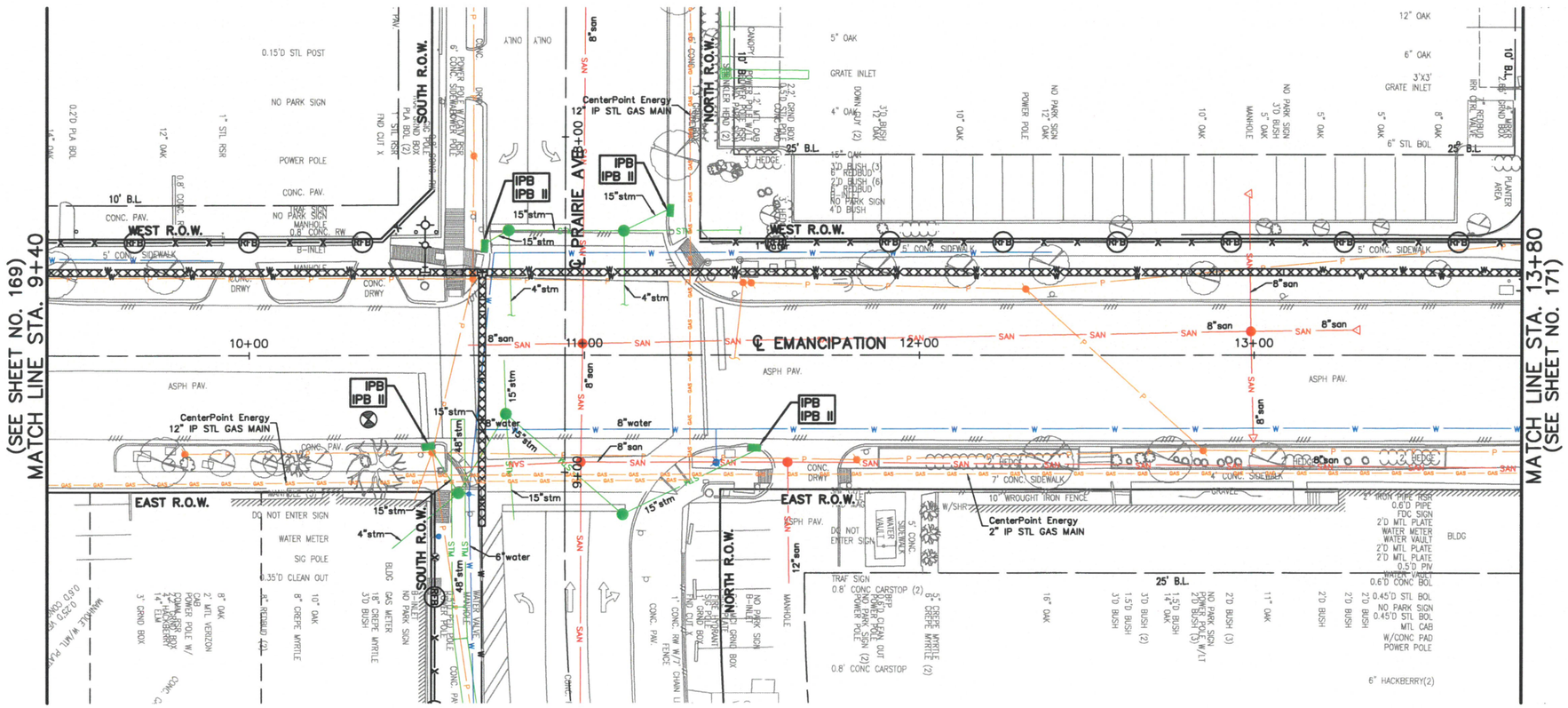
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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SES HORIZON CONSULTING ENGINEERS, INC.
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SURVEYED BY:
JAG ENGINEERING, INC.
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

EMANCIPATION

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+40.00 TO STA. 13+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 170 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:53:24 AM
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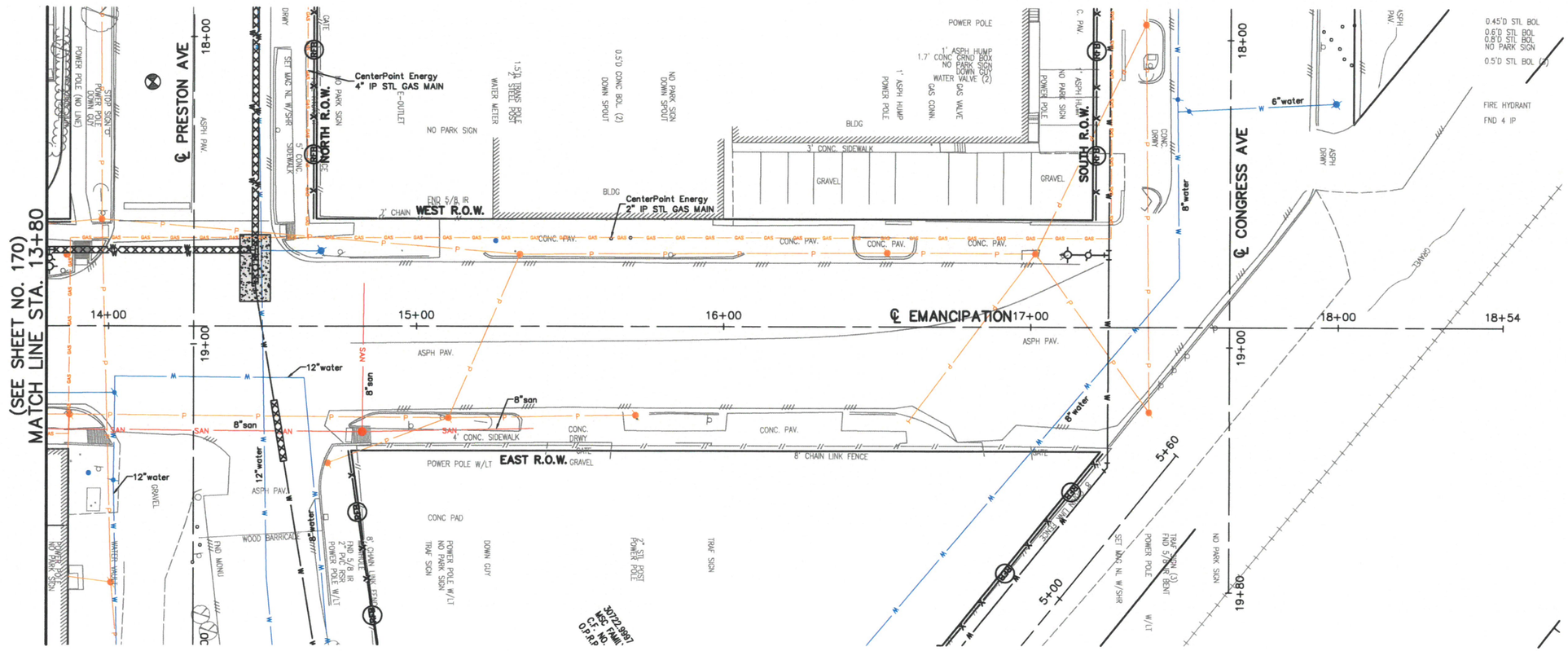
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

EMANCIPATION

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 13+80.00 TO STA. 18+53.83

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 171 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:53:34 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-V.DWG

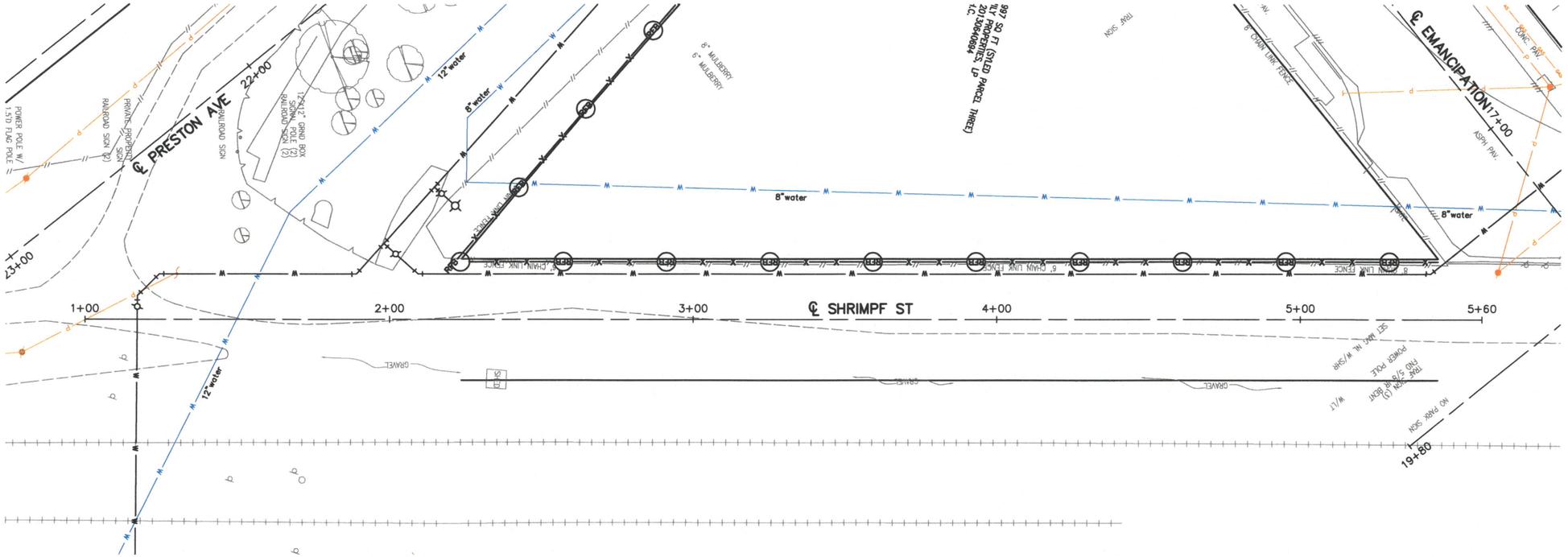
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.


℄ PRESTON AVE
22+00
23+00
℄ EMANCIPATION
17+00
℄ SHRIMPF ST
1+00
2+00
3+00
4+00
5+00
5+60
19+80
12"water
8"water
8" MULBERRY
6" MULBERRY
POWER POLE W/ 1.5'D FLAG POLE
PRIVATE PROPERTY SIGN
RAILROAD SIGN (2)
RAILROAD SIGN
12"x24" GRND BOX SIGNAL POLE (2) RAILROAD SIGN (2)
6' CHAIN LINK FENCE
8' CHAIN LINK FENCE
8' CHAIN LINK FENCE
8

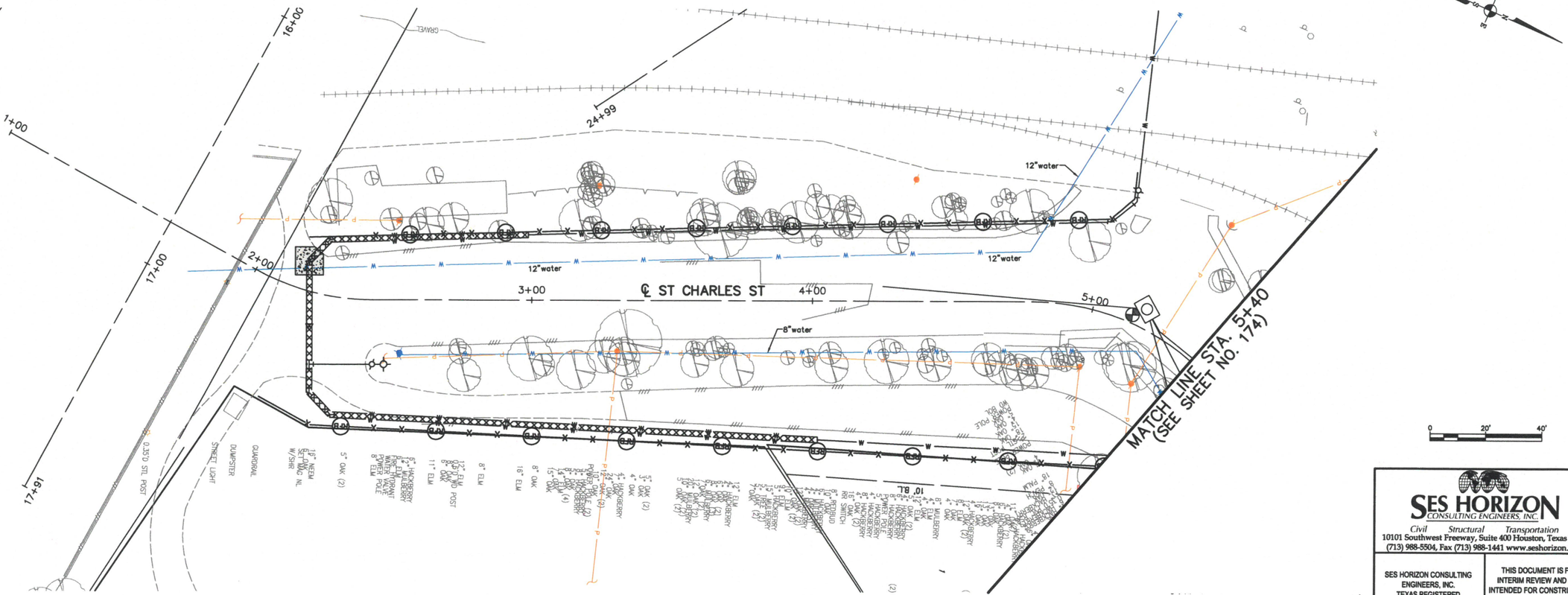
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.

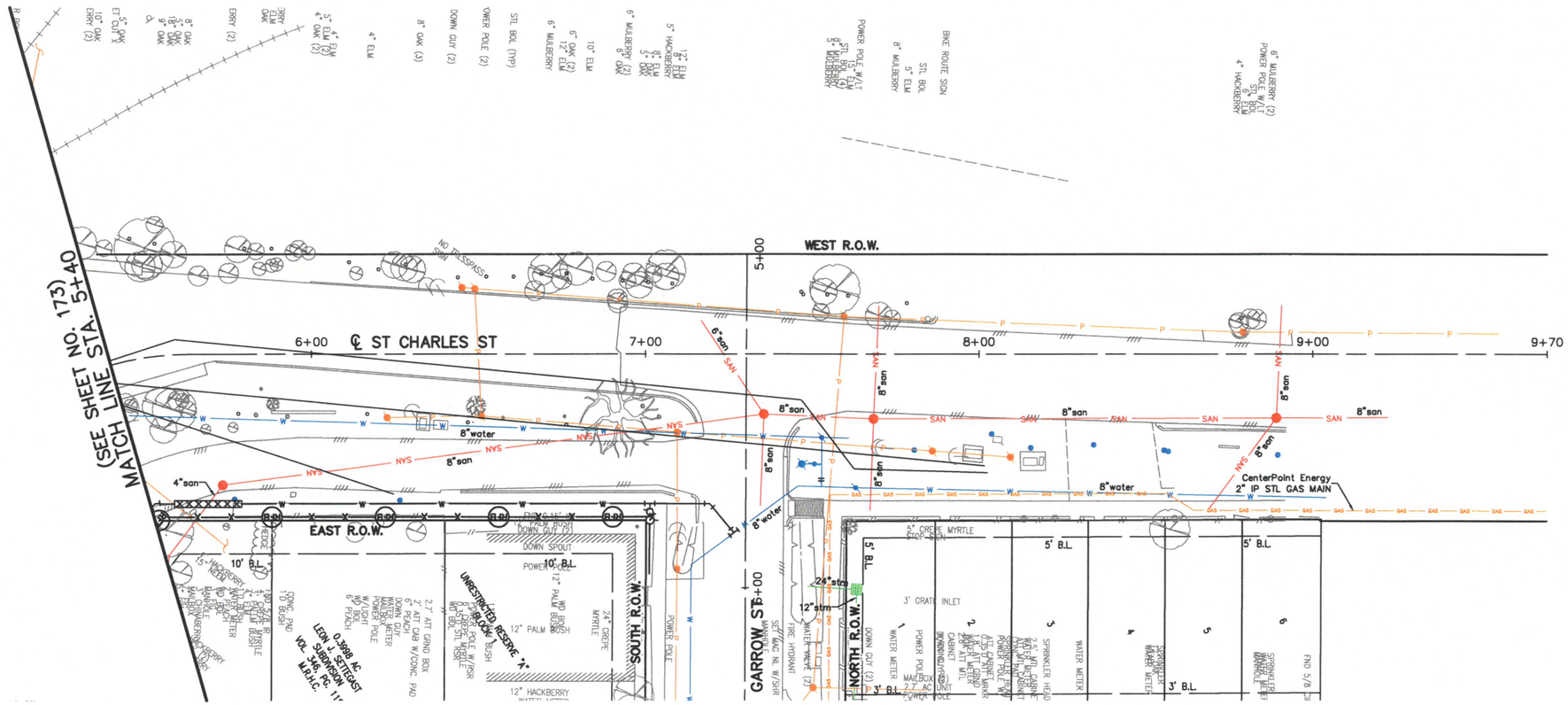

1+00
16+00
17+00
2+00
17+91
24+99
GRAVEL
12"water
12"water
12"water
3+00
℄ ST CHARLES ST
4+00
5+00
8"water
MATCH LINE STA. 5+40
(SEE SHEET NO. 174)
10' BL
0.35'D STL POST
STREET LIGHT
DUMPSTER
GUARDRAIL
18" NEEM
5" OAK (2)
8" ELM
11" ELM
8" ELM
16" ELM
15" OAK
4" OAK
12" ELM
8" MULBERRY
4" ELM
OAK
16" ELM
OAK
OAK
OAK

FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

ST CHARLES ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+40.00 TO STA. 9+70.26

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 174 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:54:04 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-A-V.DWG

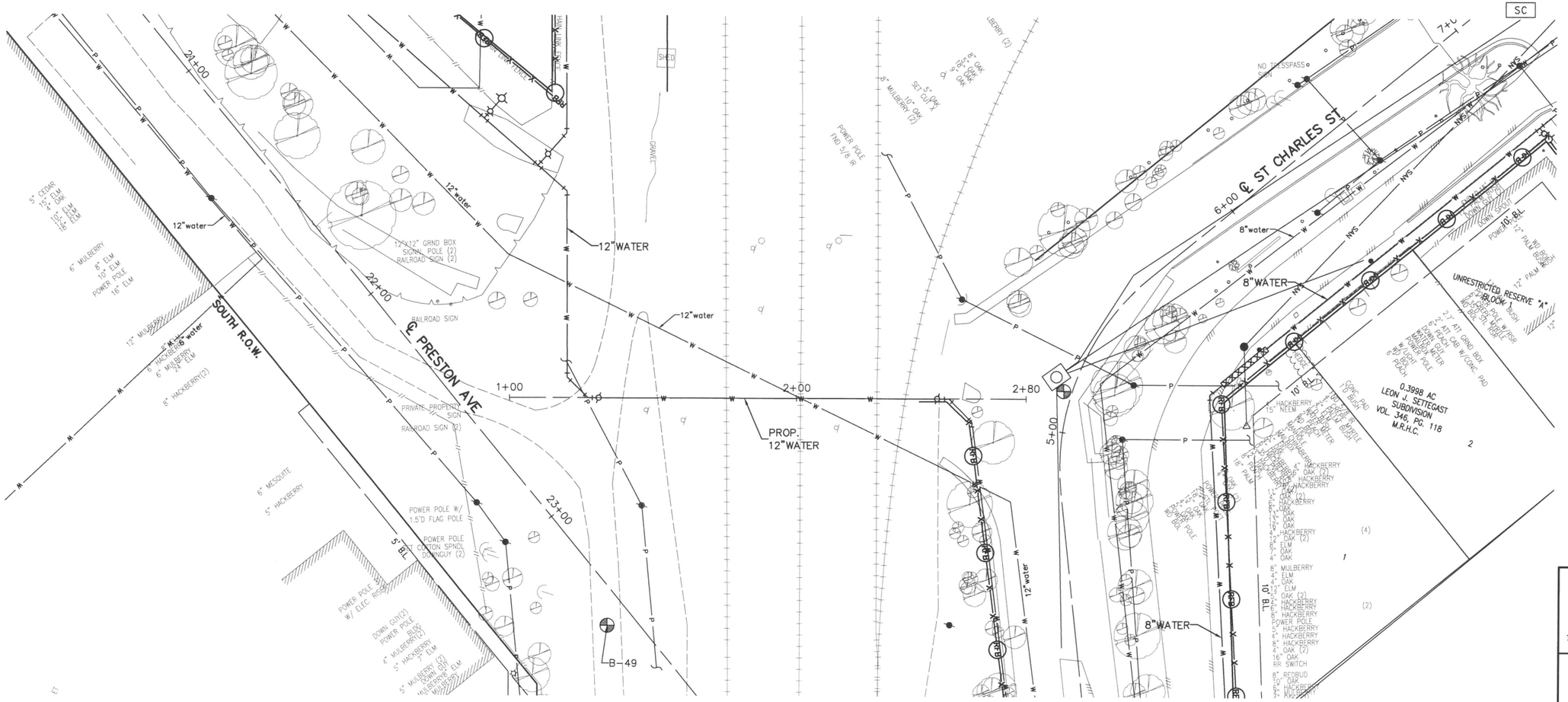
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

PRESTON AVE @ RAILROAD CROSSING

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 2+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 175 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:54:43 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-PRESTON@RAILROAD CROSSING-SW3P.DWG

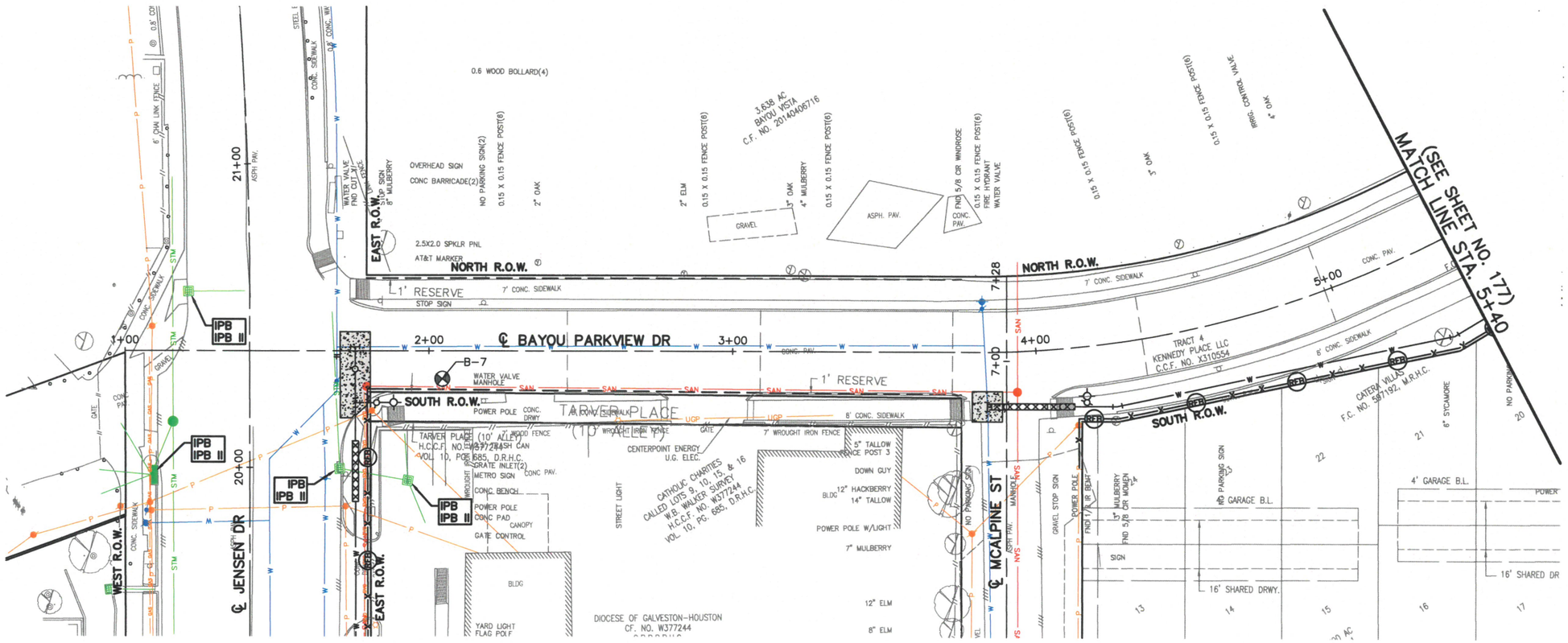
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BAYOU PARKVIEW DR

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 176 OF 362	

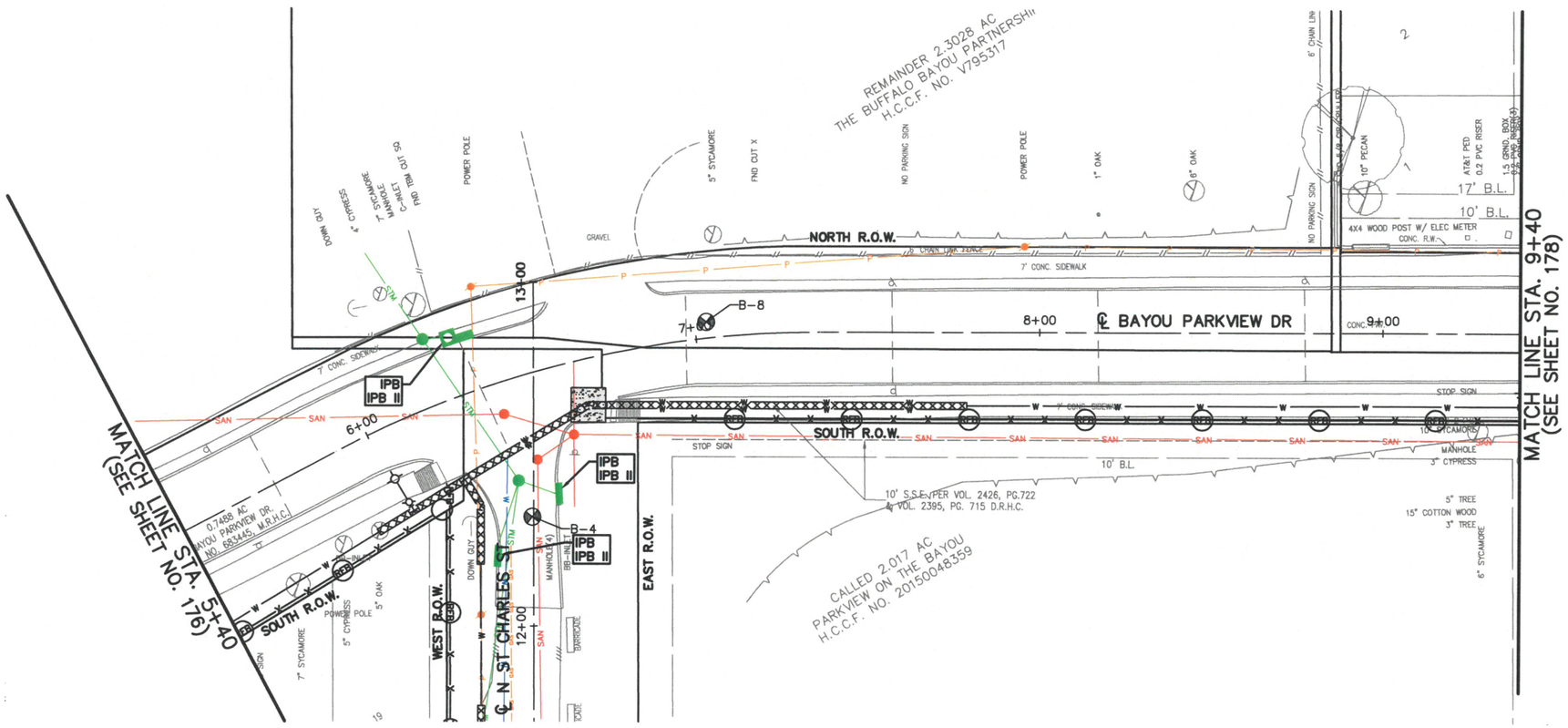
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FOR REDUCED PLANS
original scale in inches
3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

BAYOU PARKVIEW DR

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+40.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 177 OF 362	

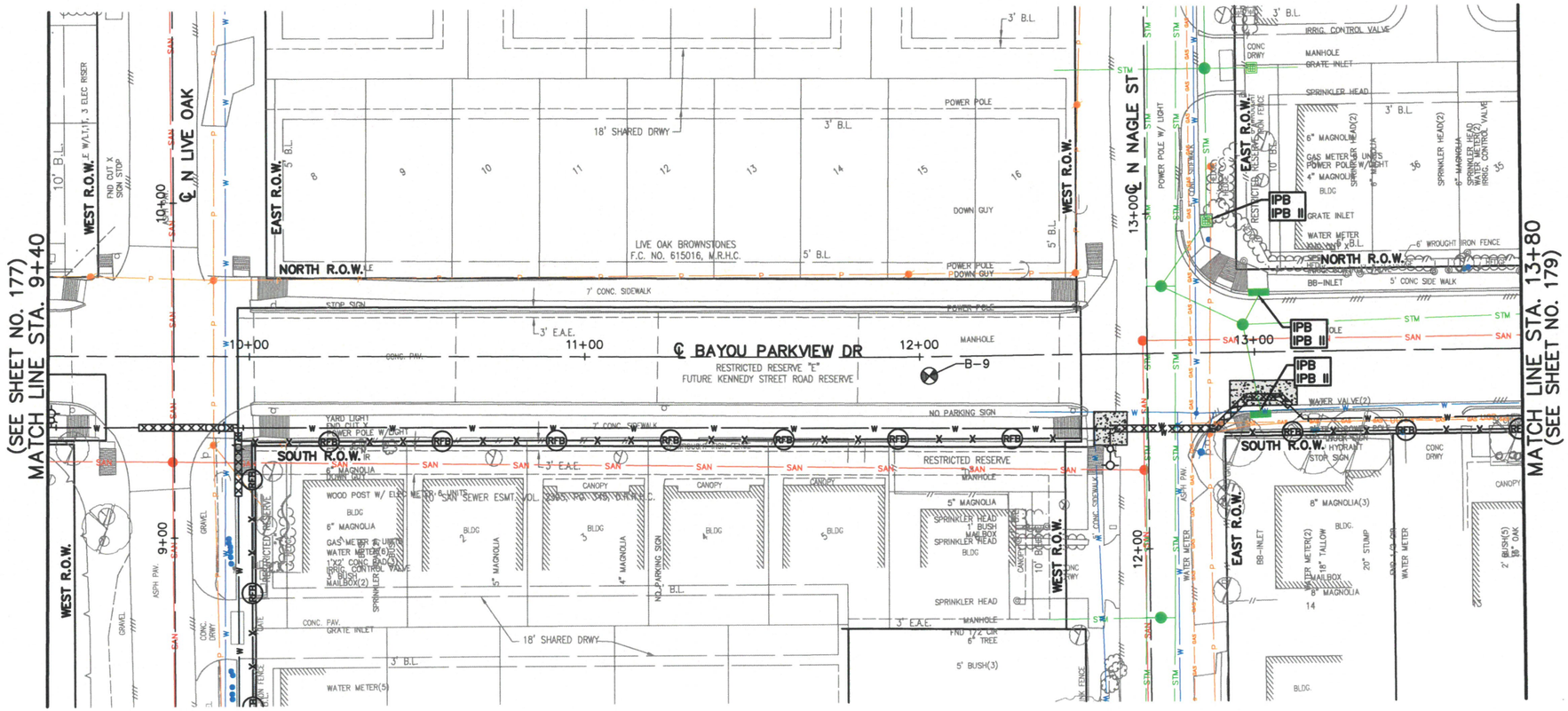
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BAYOU PARKVIEW DR

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+40.00 TO STA. 13+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 178 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:56:51 AM
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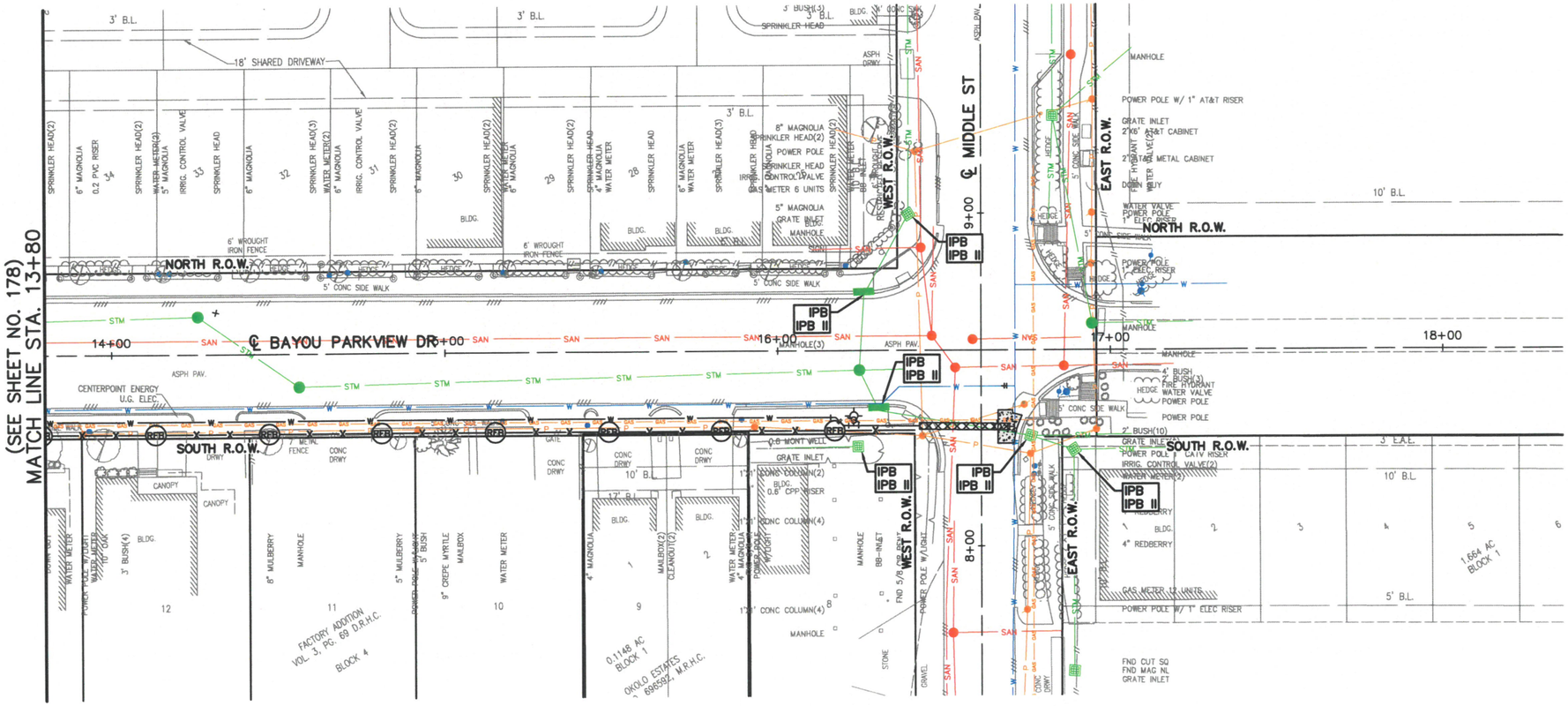
FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.

(SEE SHEET NO. 178)
MATCH LINE STA. 13+80



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

BAYOU PARKVIEW DR

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 13+80.00 TO STA. 18+20.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 179 OF 362	

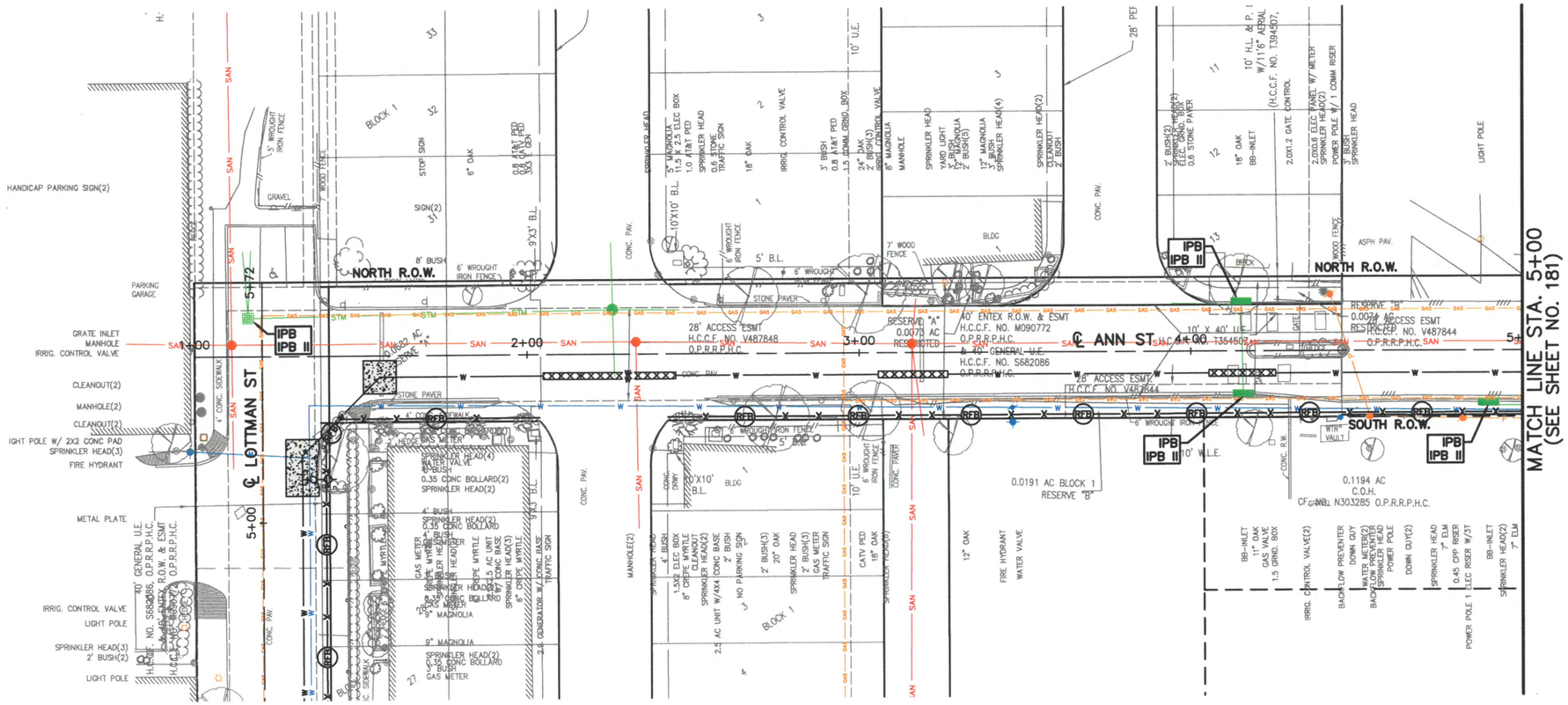
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES. EPIFANIO E. SALAZAR JR., P.E. TEXAS SERIAL NO. 67749 DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ANN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 5+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 180 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:57:11 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-B-H.DWG

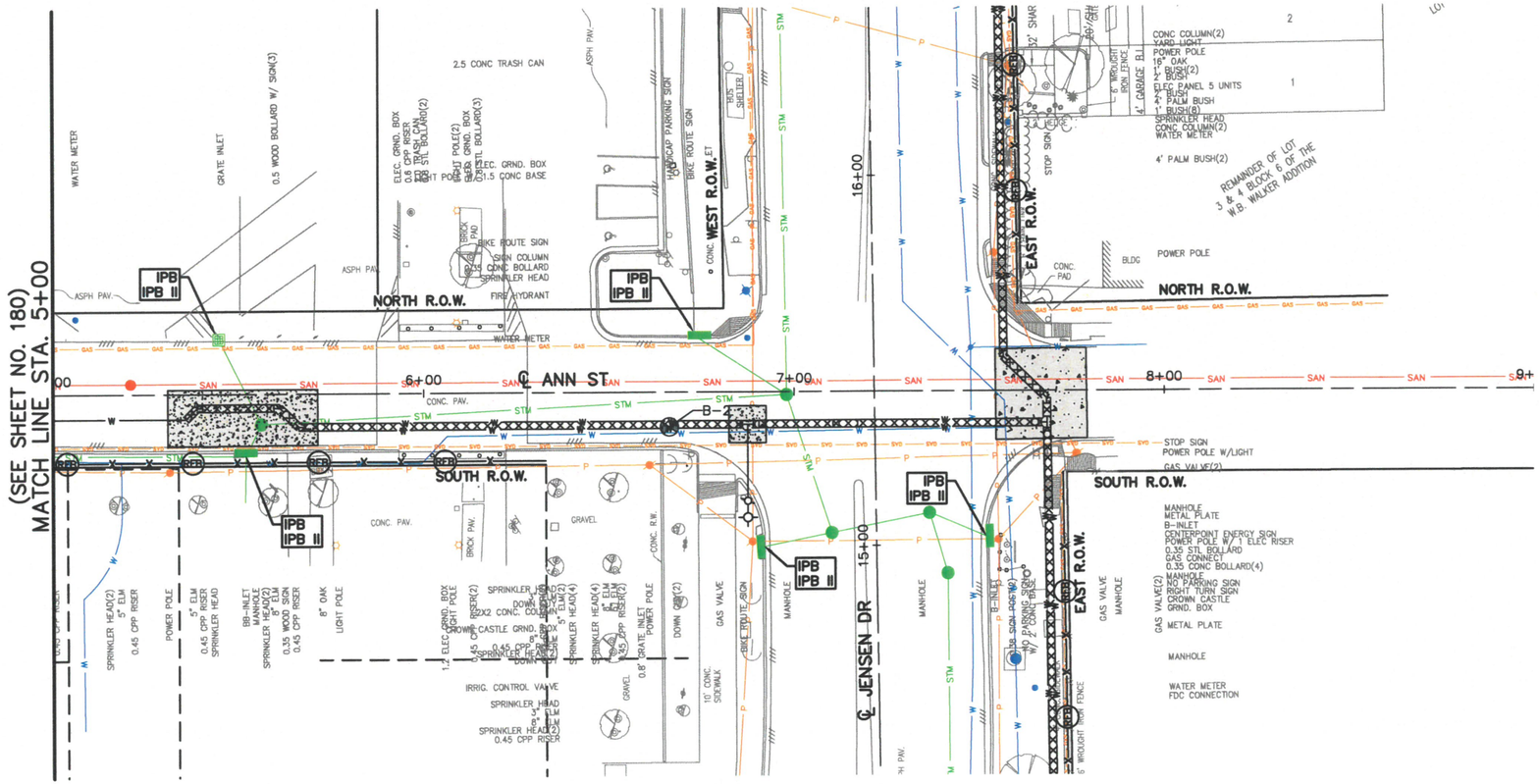
FOR REDUCED PLANS
original scale in inches

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LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

SES HORIZON
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Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ANN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 9+00.00

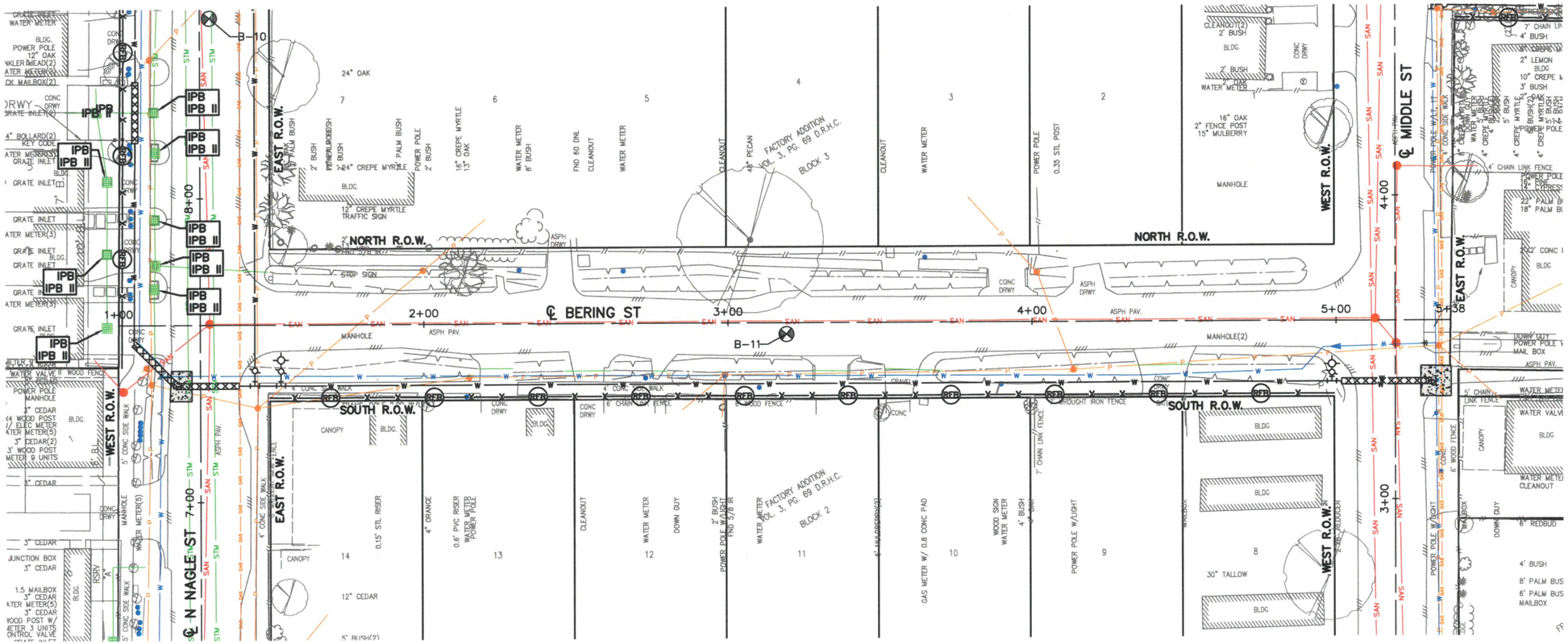
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 181 OF 362	

FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

SURVEYED BY:
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BERING ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 5+37.63

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 182 OF 362	

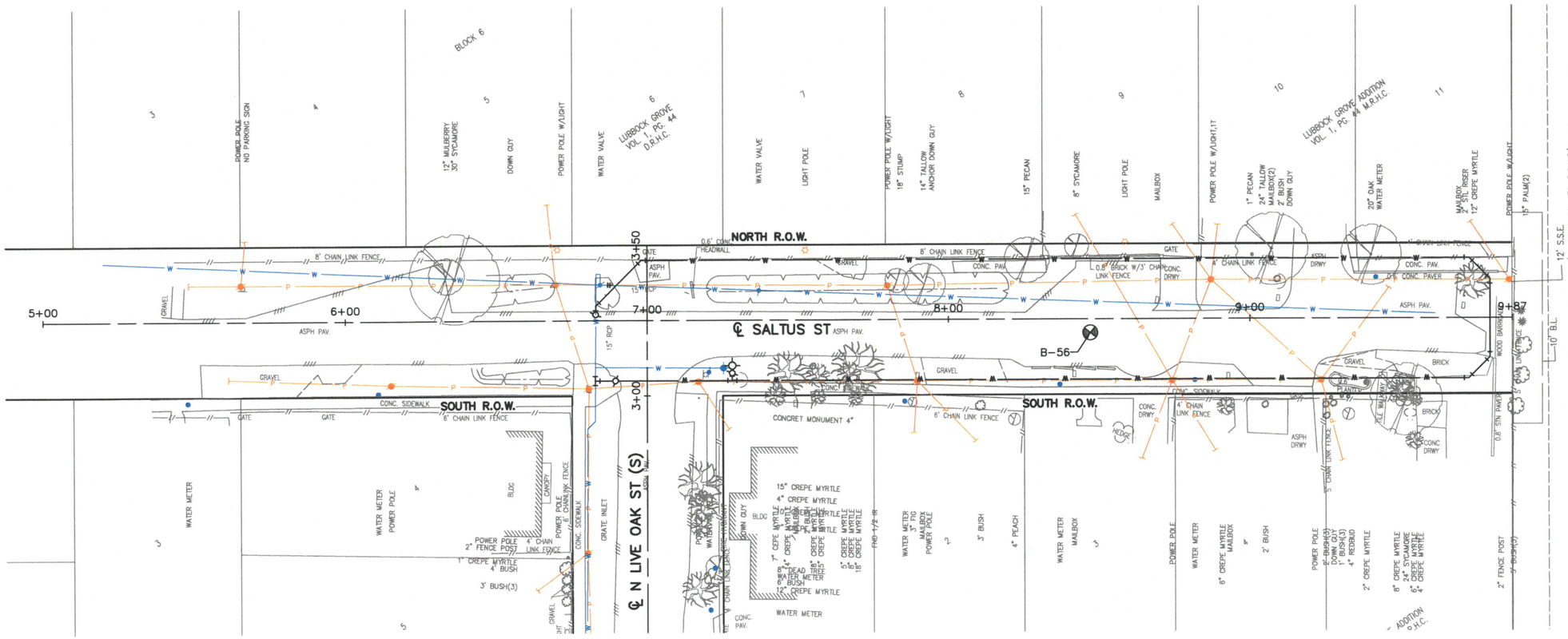
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SALTUS ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+20.00 TO STA. 9+87.10

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 183 OF 362	

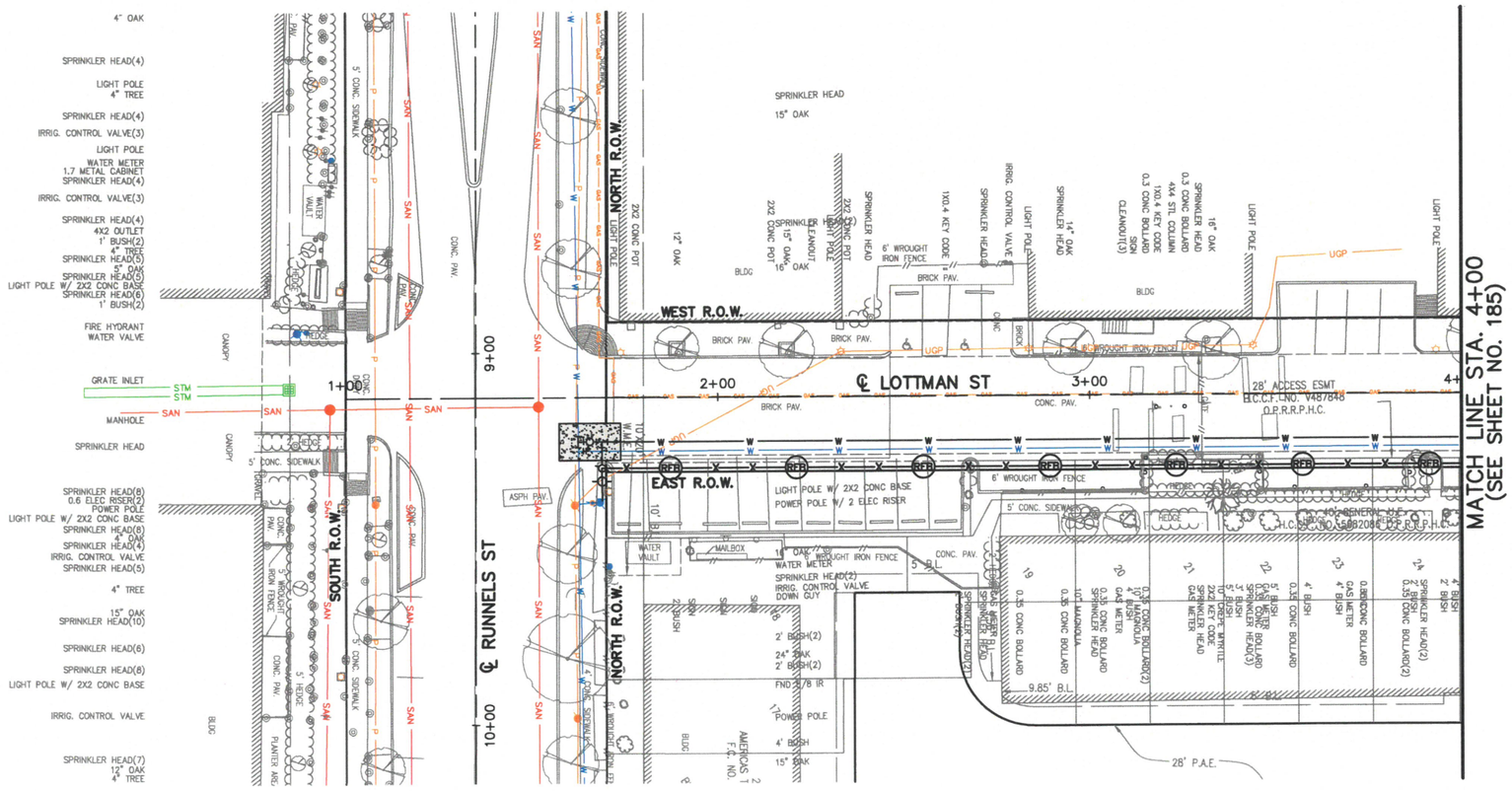
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
x—(FF)—x	FILTER FABRIC FENCE
x—(RFB)—x	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

LOTTMAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 4+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 184 OF 362	

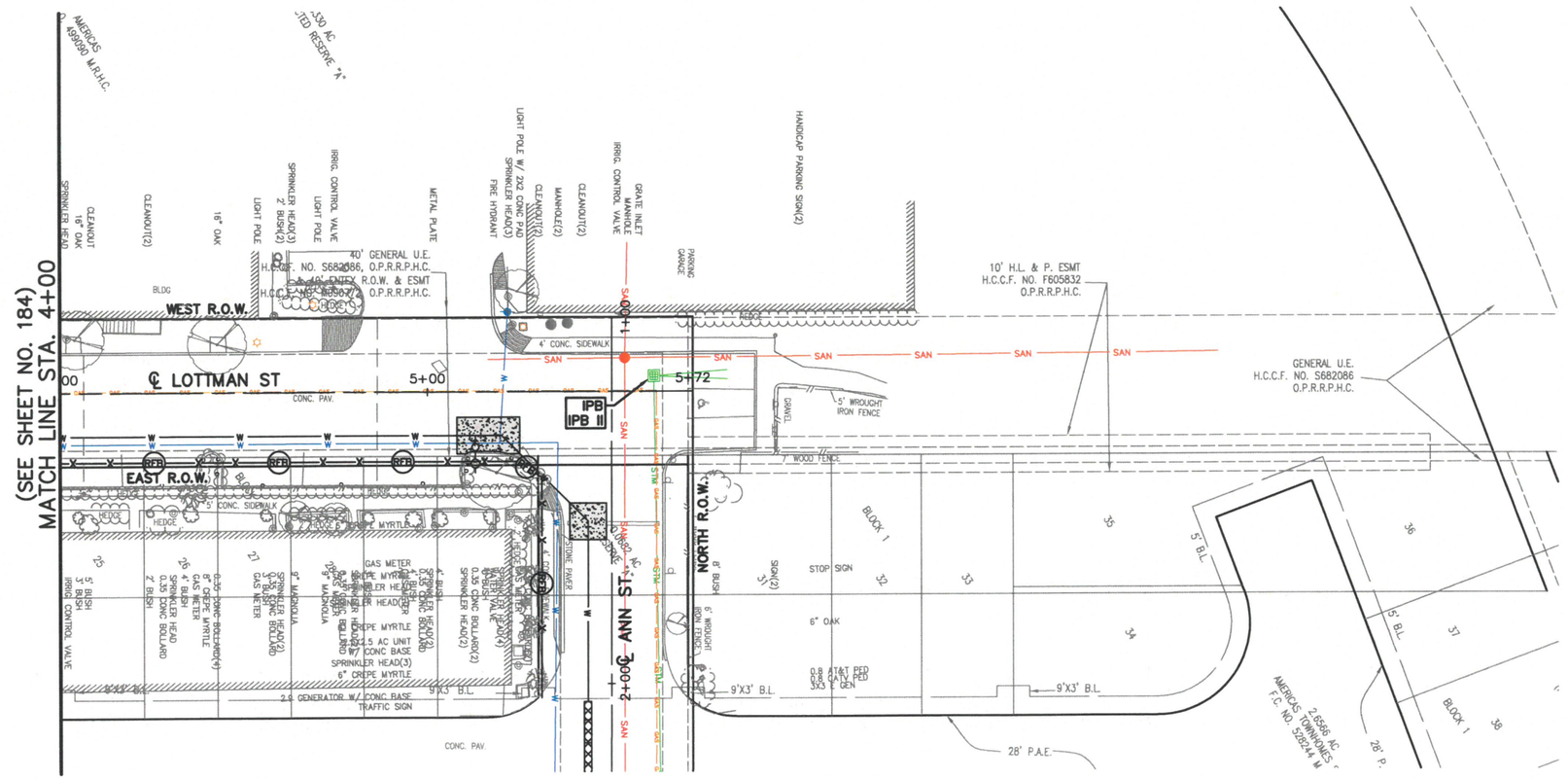
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

LOTTMAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 4+00.00 TO STA. 5+72.37

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 185 OF 362	

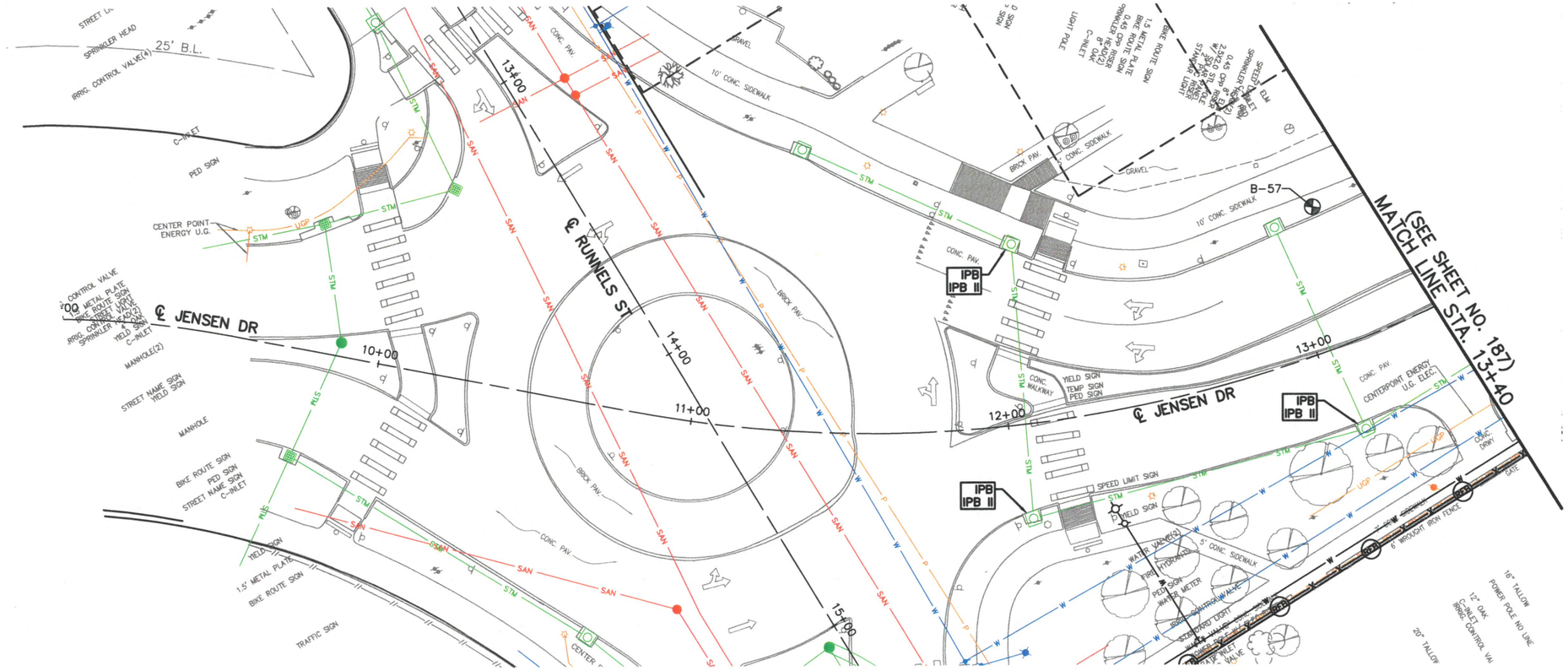
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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

JENSEN DR

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+00.00 TO STA. 13+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 186 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:58:46 AM
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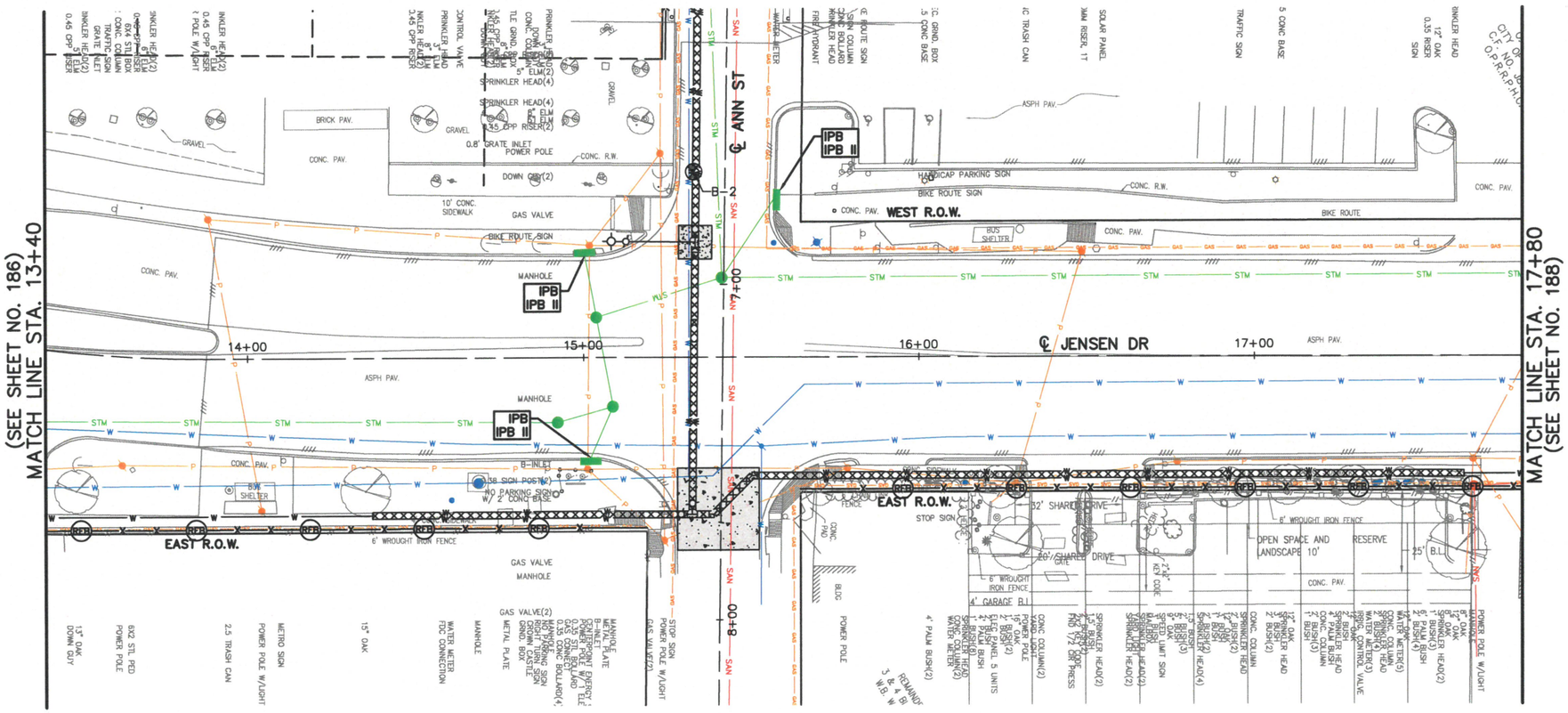
FOR REDUCED PLANS
original scale in inches

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LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENSEN DR

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 13+40.00 TO STA. 17+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 187 OF 362	

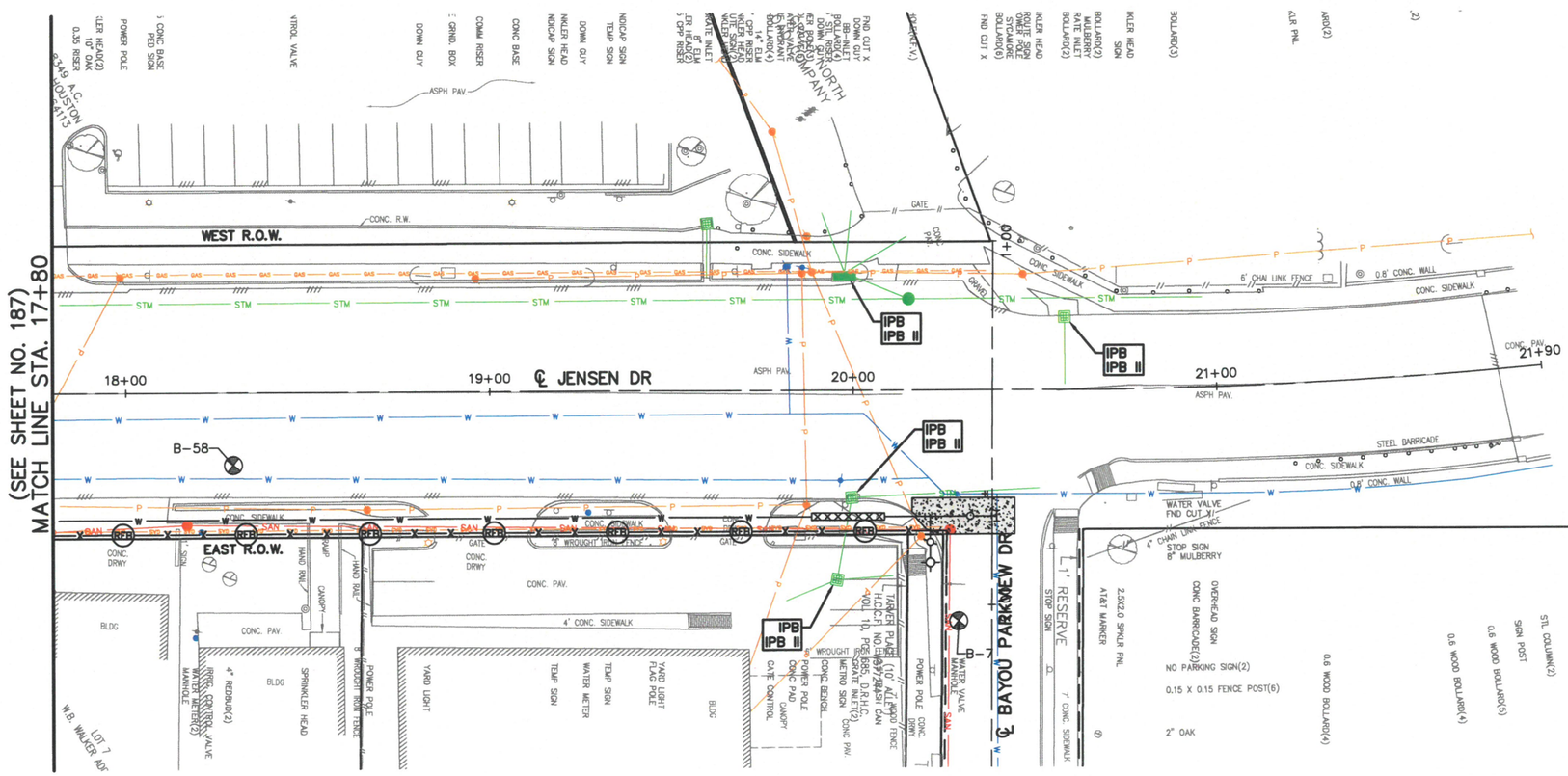
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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DATE: Sep-26

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

JENSEN DR

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 17+80.00 TO STA. 21+89.51

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 188 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:59:06 AM
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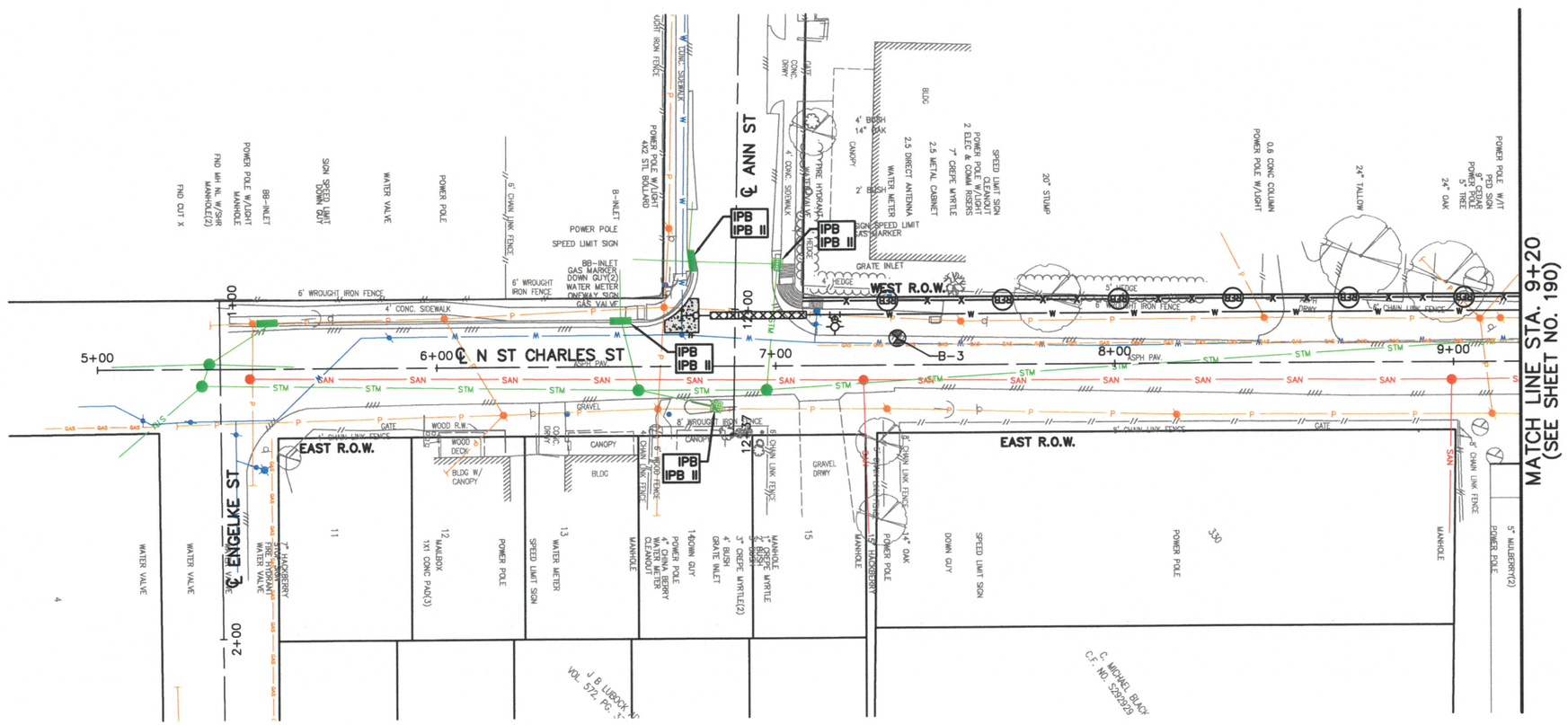
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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SURVEYED BY:
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N ST CHARLES ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 9+20.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 189 OF 362	

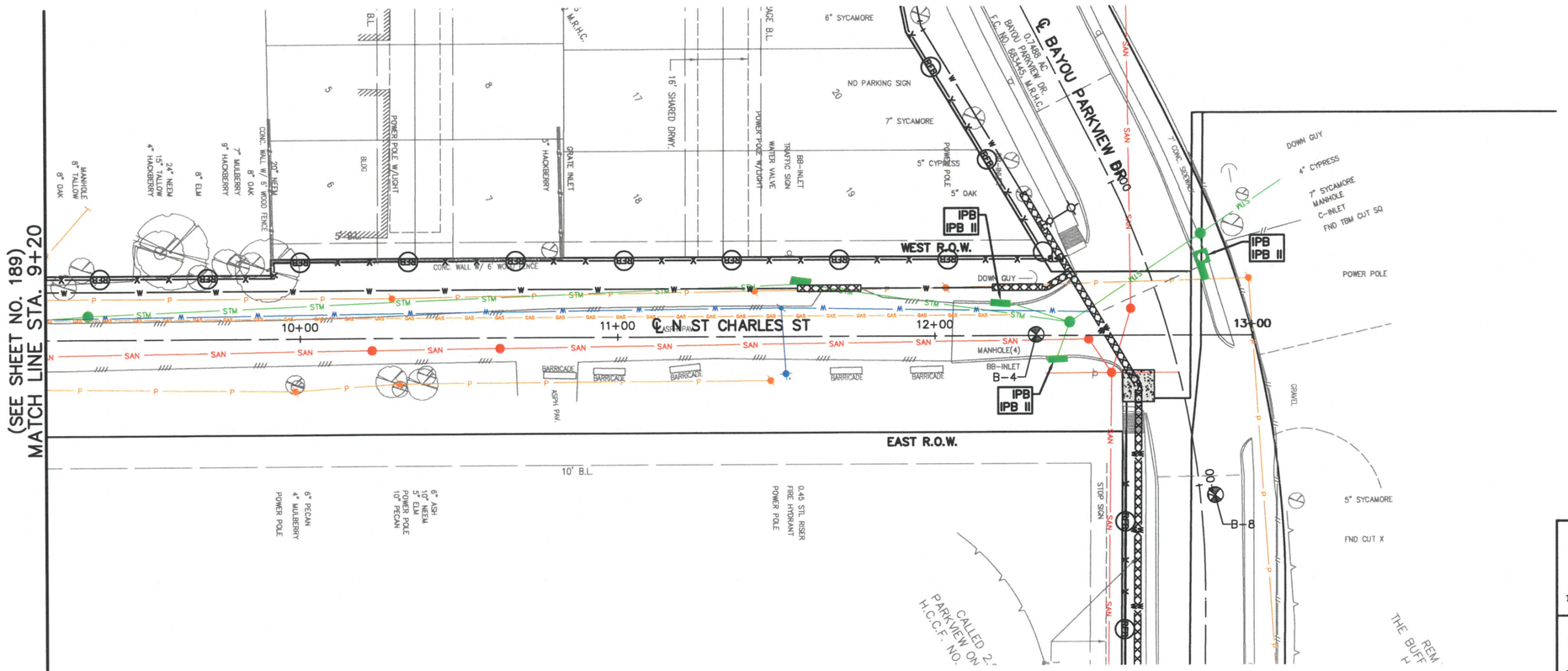
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N ST CHARLES ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+20.00 TO STA. 13+00.27

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 190 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 9:59:26 AM
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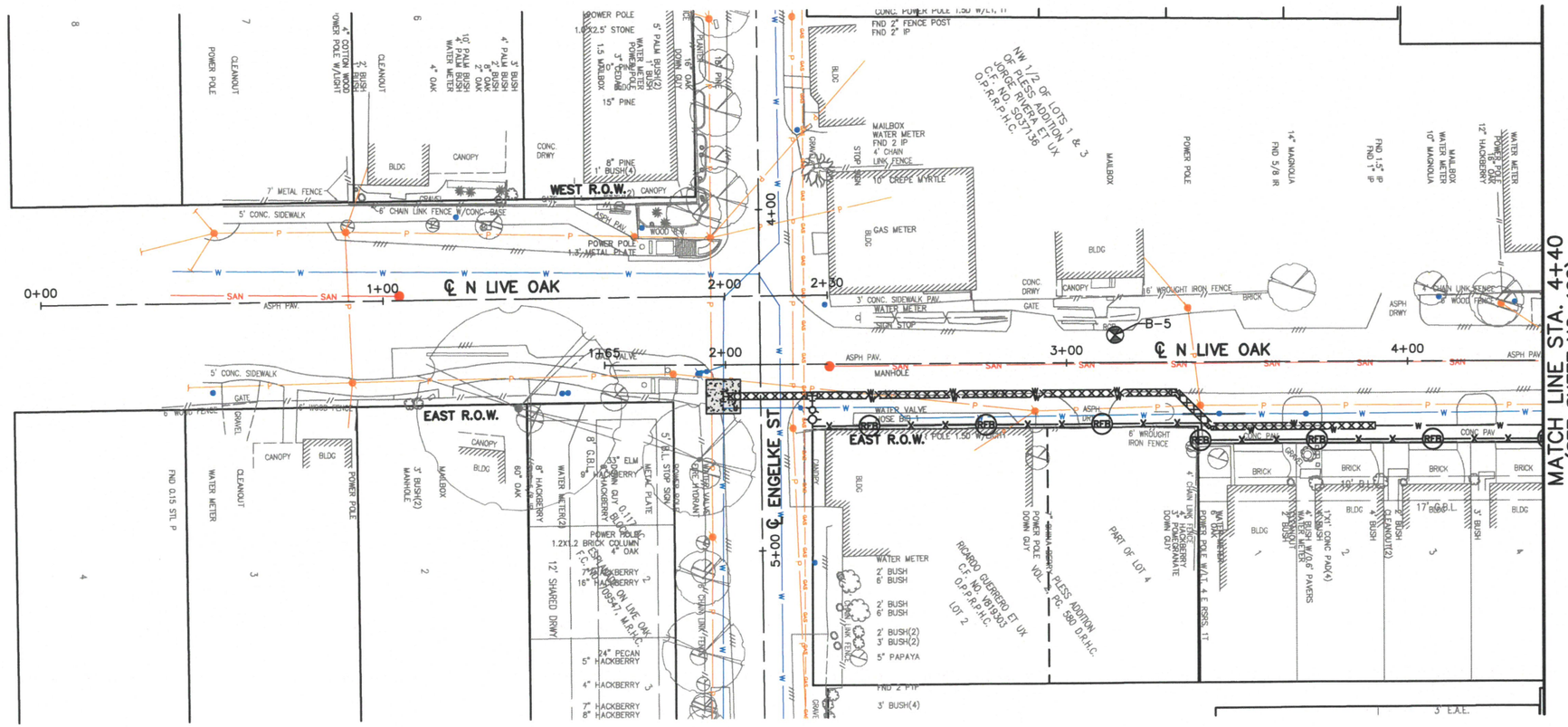
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



PLOTTED ON: Wednesday, September 23, 2026 9:59:36 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-B-V.DWG

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N LIVE OAK (N-2)

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+64.71 TO STA. 4+40.00

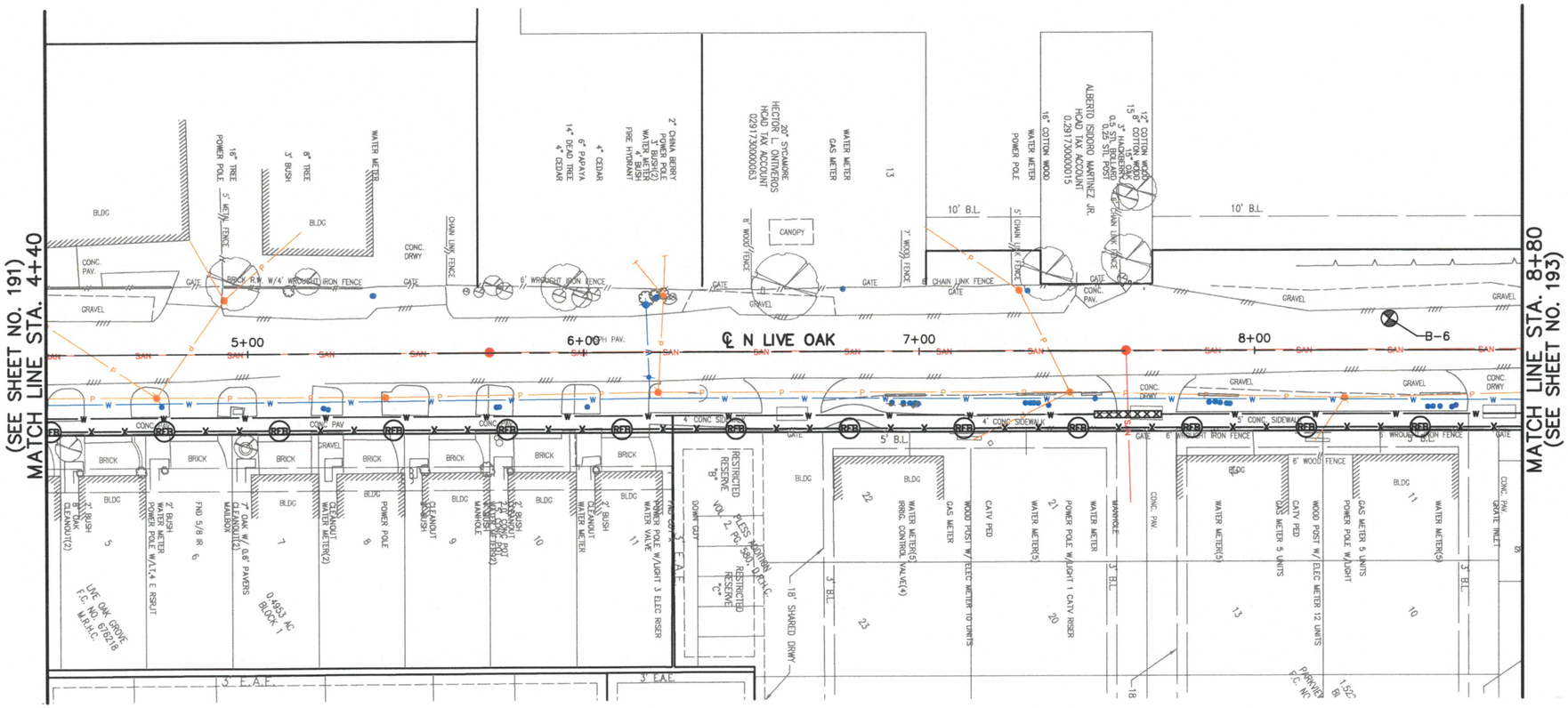
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 191 OF 362	

FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N LIVE OAK (N-2)

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 4+40.00 TO STA. 8+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 192 OF 362	

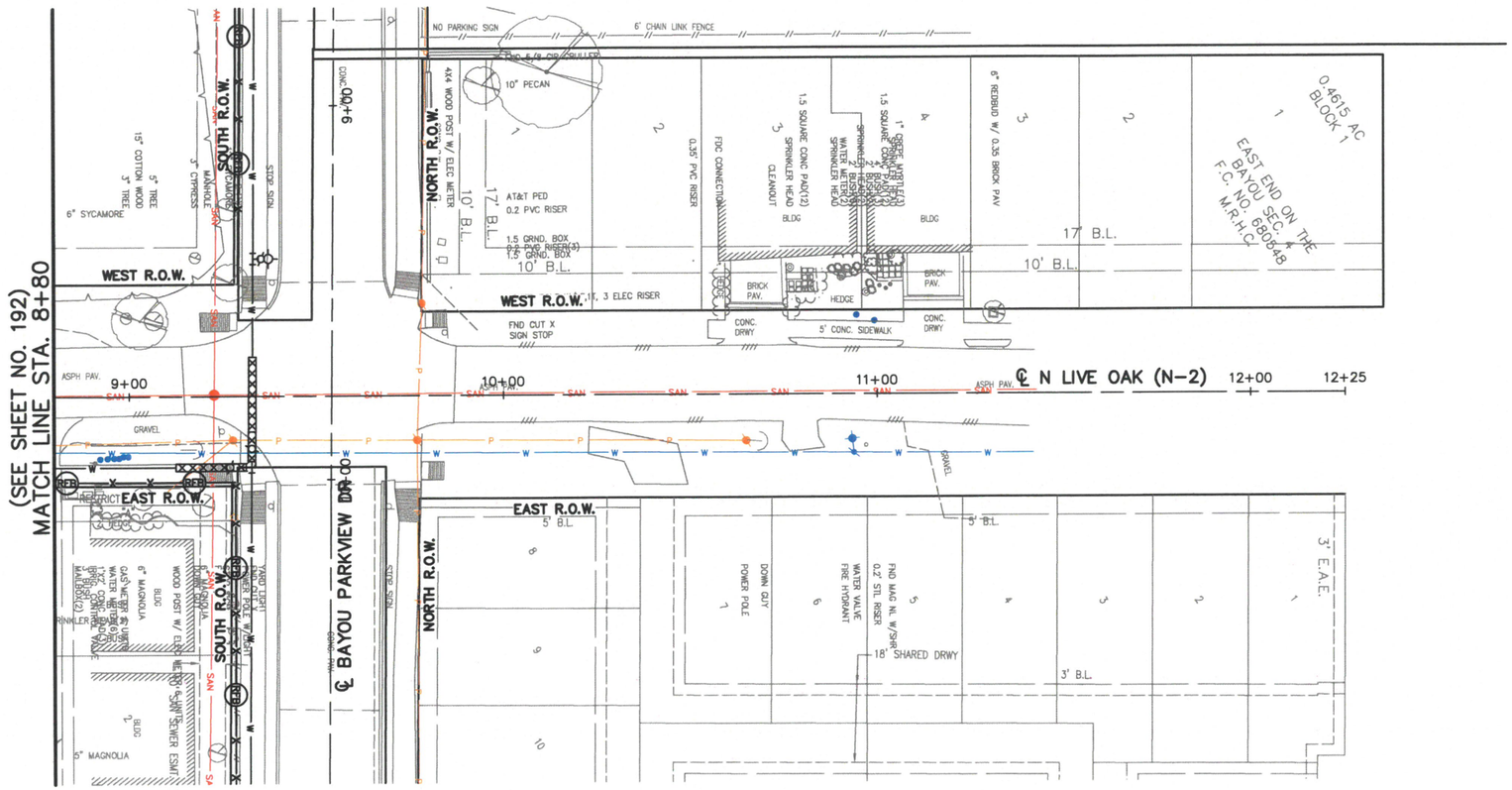
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
x—(FF)—x	FILTER FABRIC FENCE
x—(RFB)—x	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

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DATE: Sep-26

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N LIVE OAK (N-2)

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 8+80.00 TO STA. 12+25.47

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 193 OF 362	

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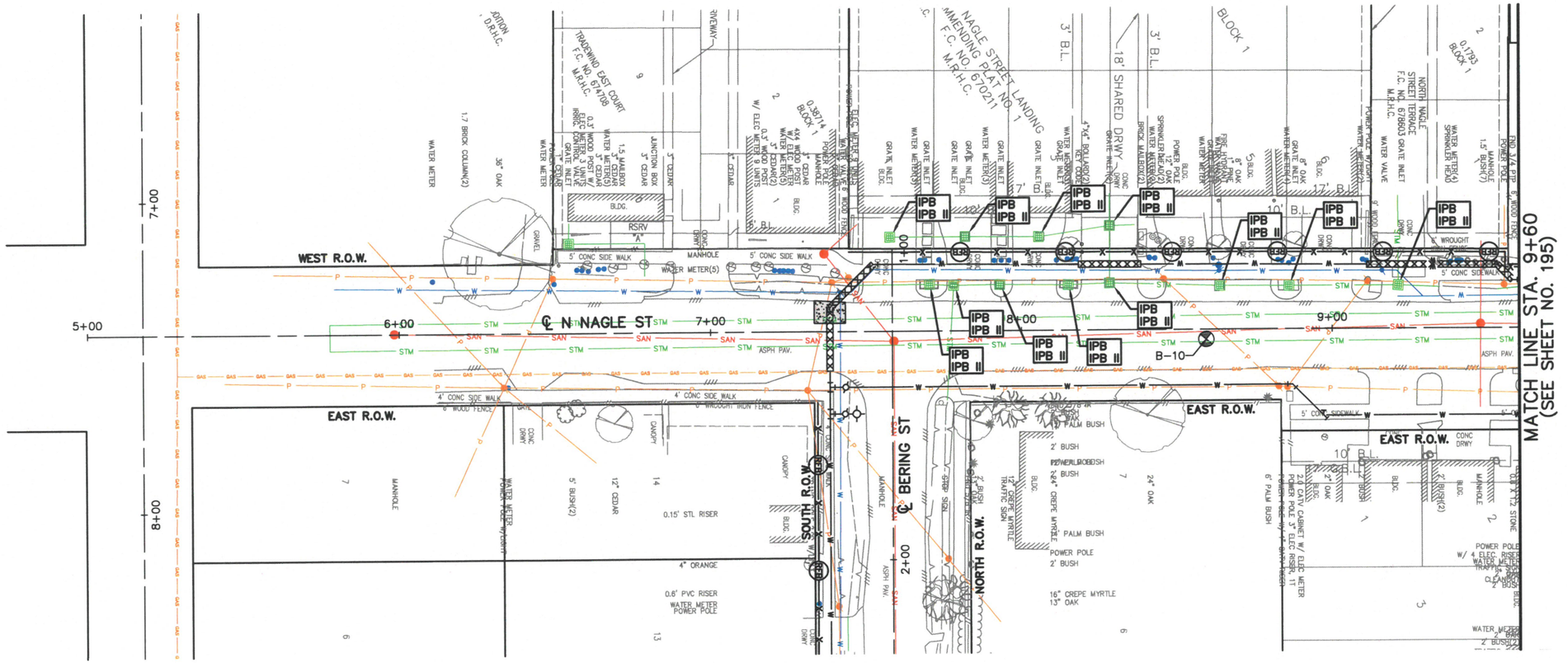
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N NAGLE ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 9+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 194 OF 362	

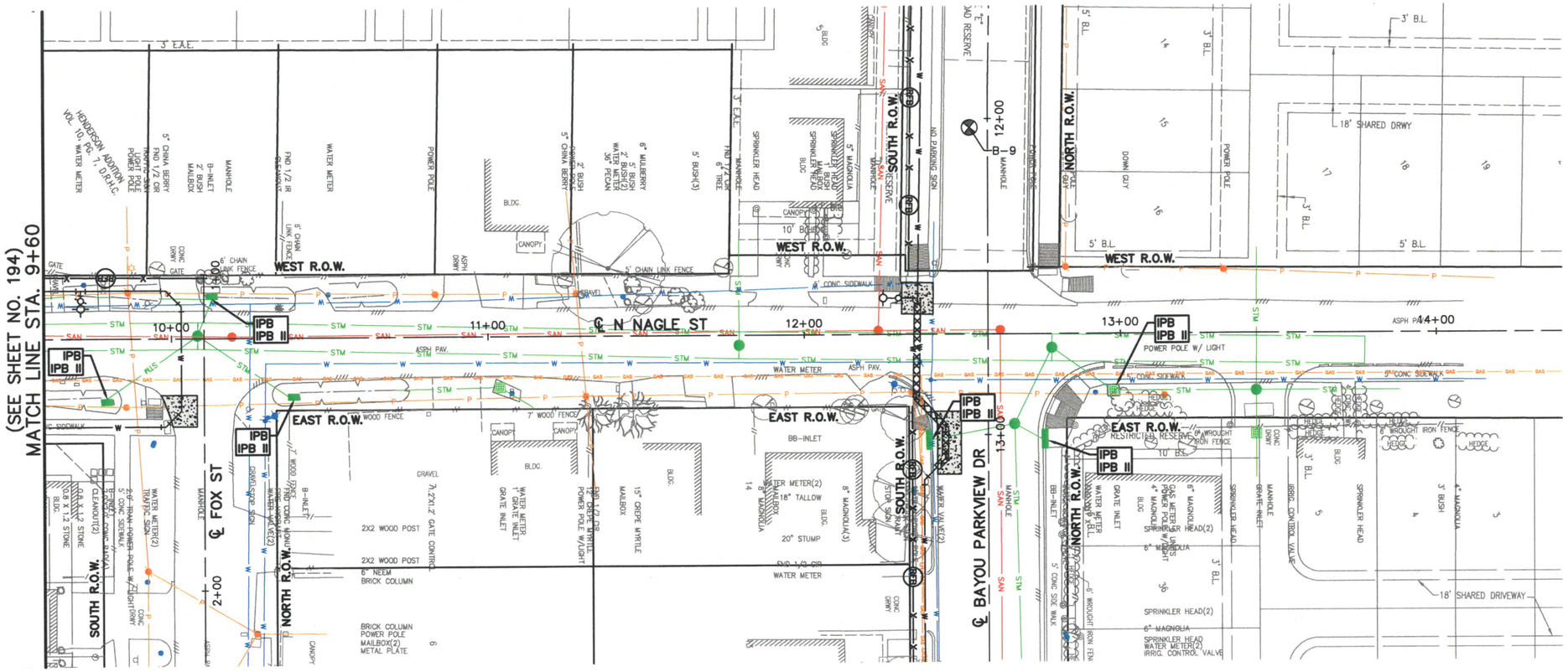
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N NAGLE ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 9+60.00 TO STA. 14+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 195 OF 362	

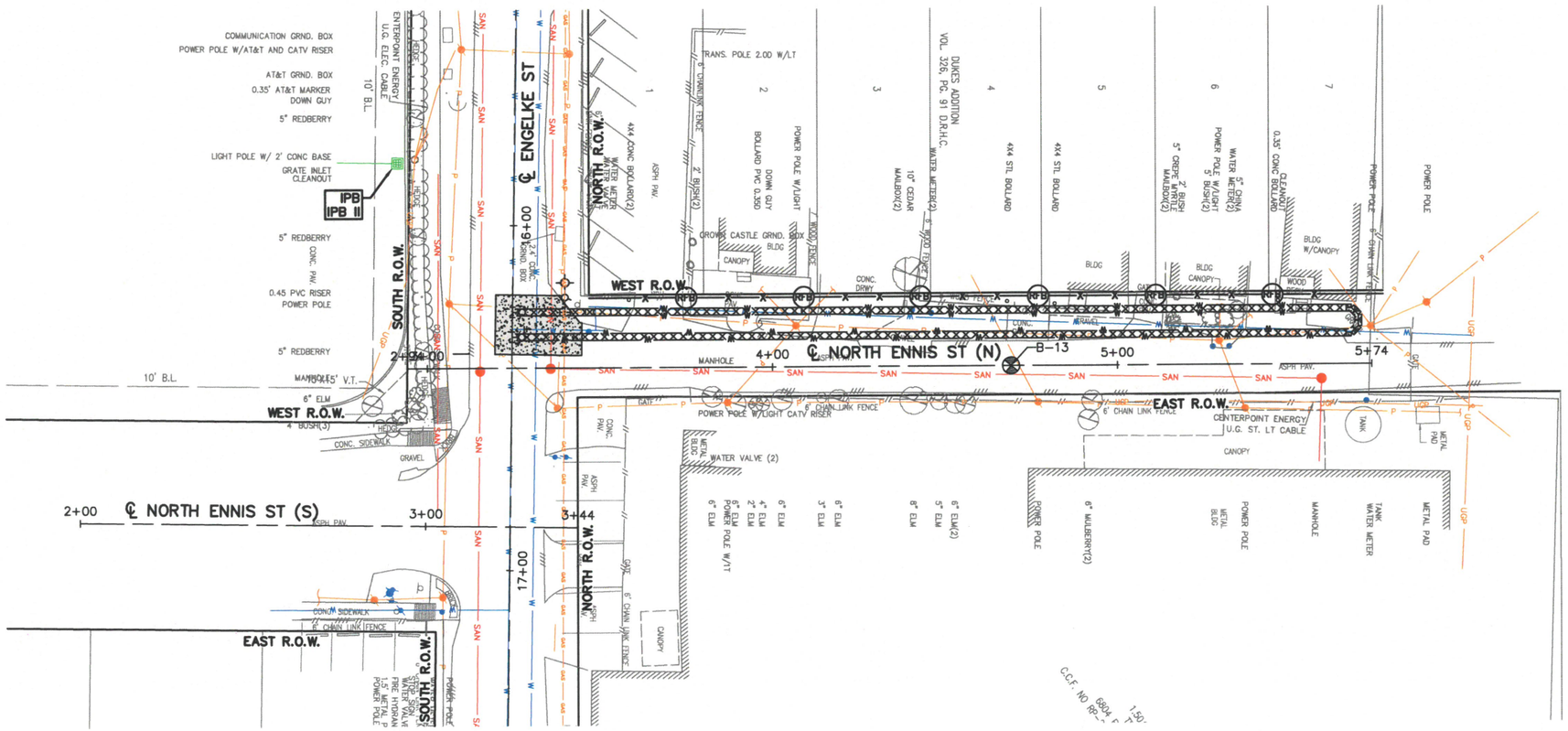
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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-B-V.DWG

FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

NORTH ENNIS ST (N)

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 2+94.15 TO STA. 5+73.89

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 196 OF 362	

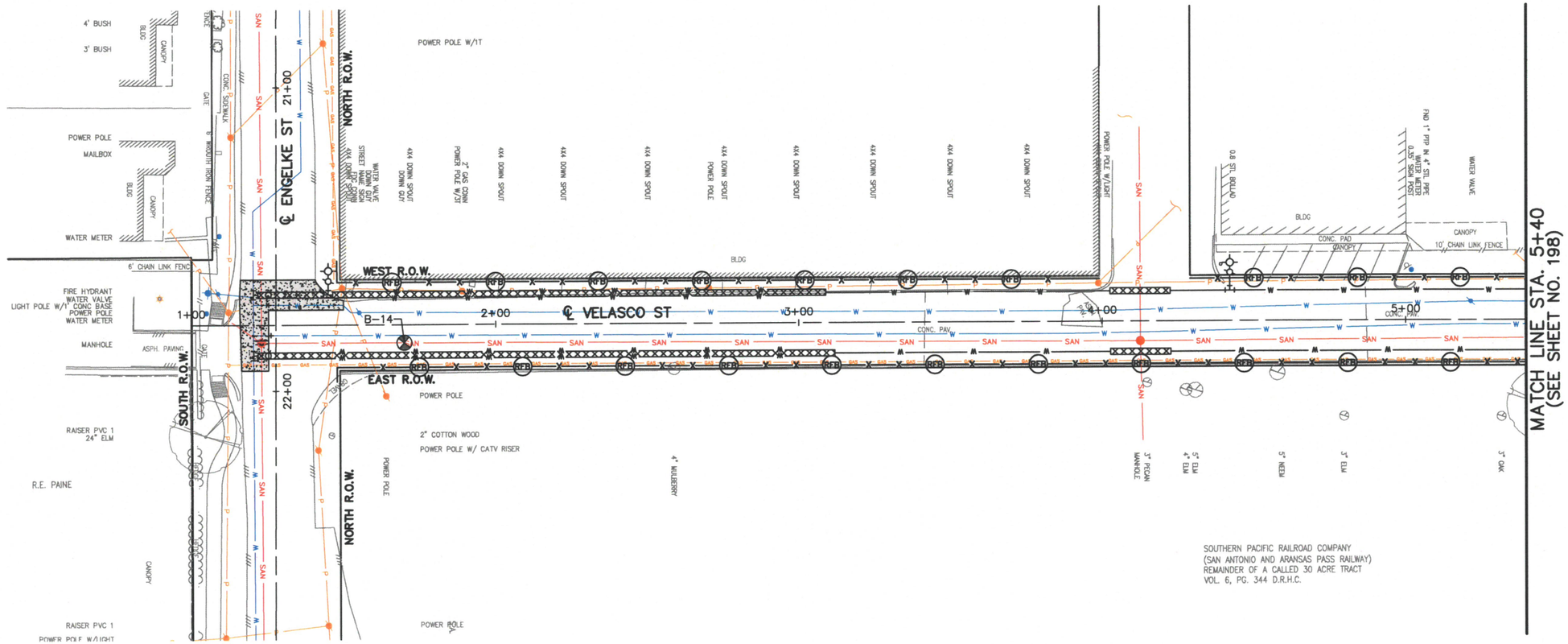
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

VELASCO ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 197 OF 362	

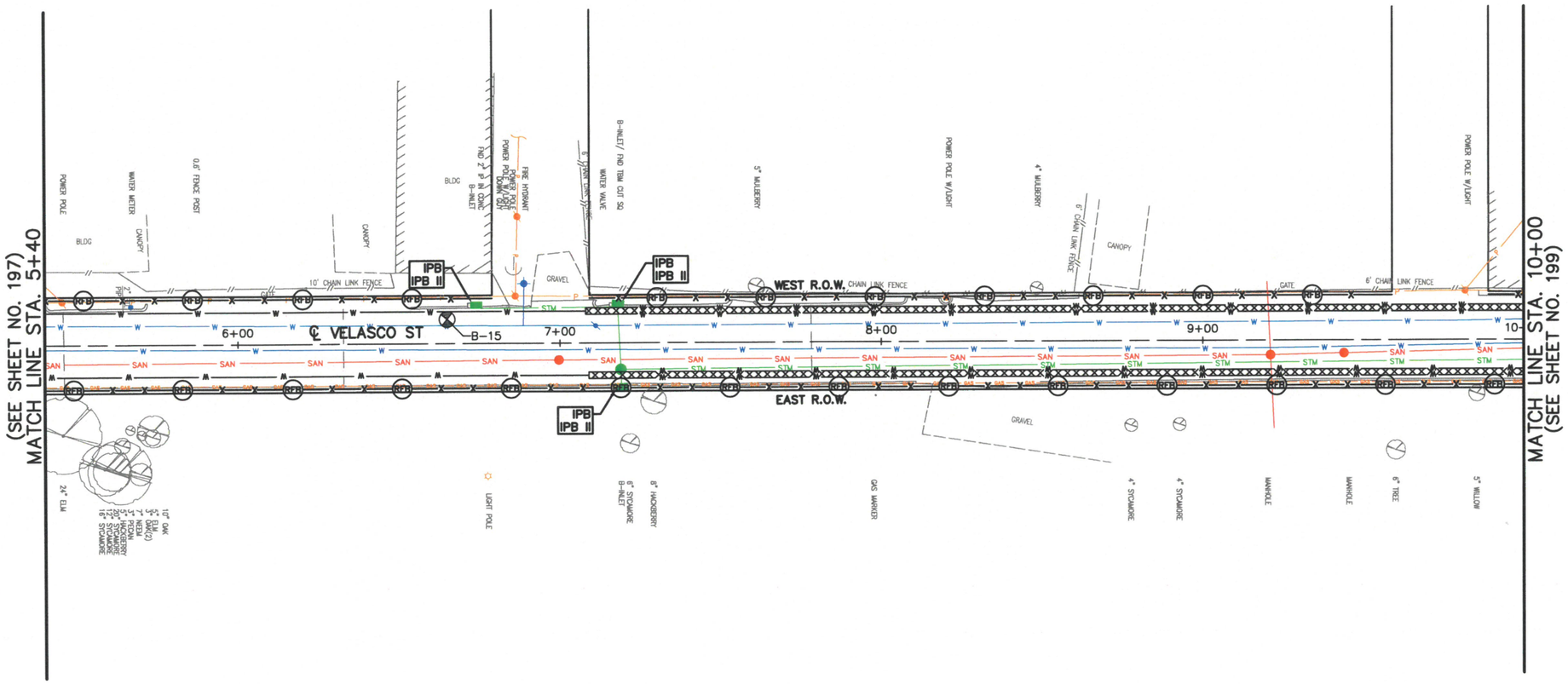
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

VELASCO ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+40.00 TO STA. 10+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 198 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:00:46 AM
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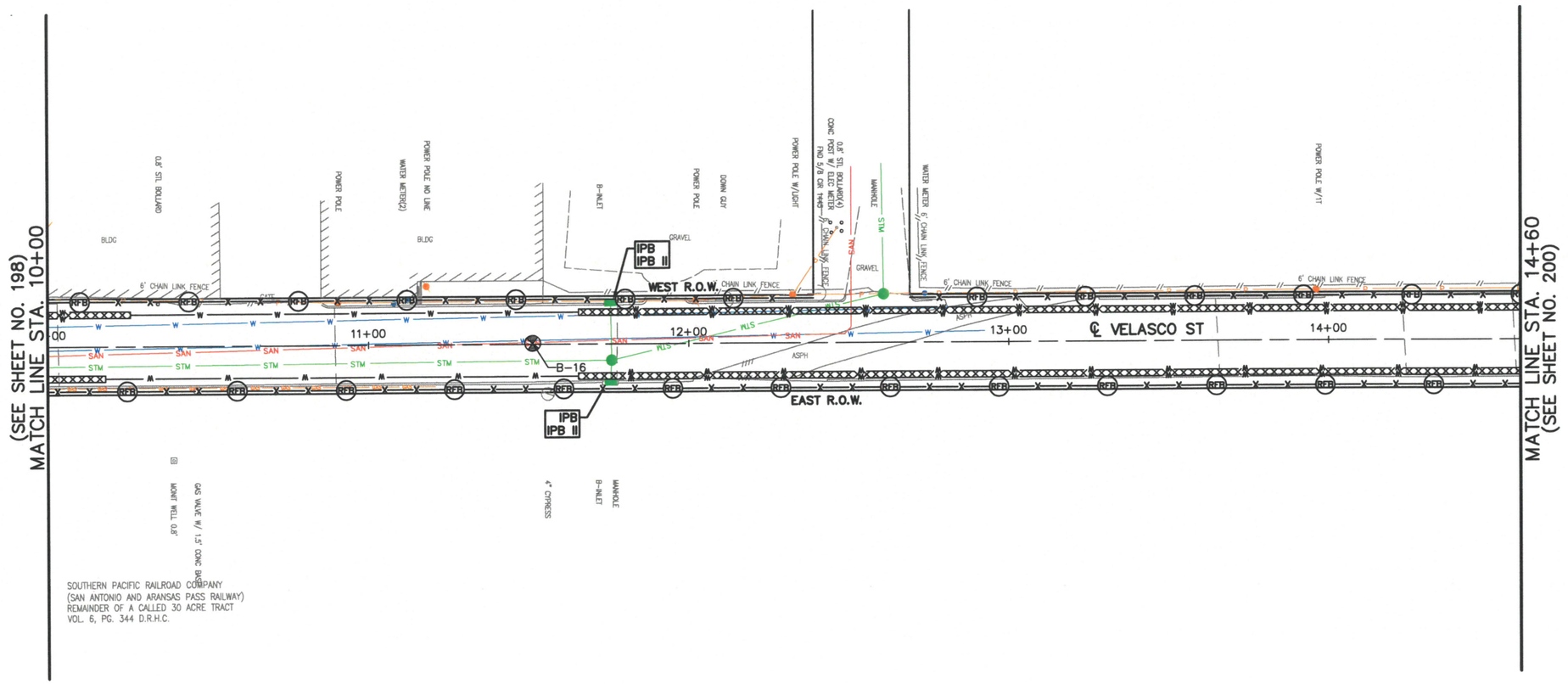
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

VELASCO ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 10+00.00 TO STA. 14+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 199 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:00:56 AM
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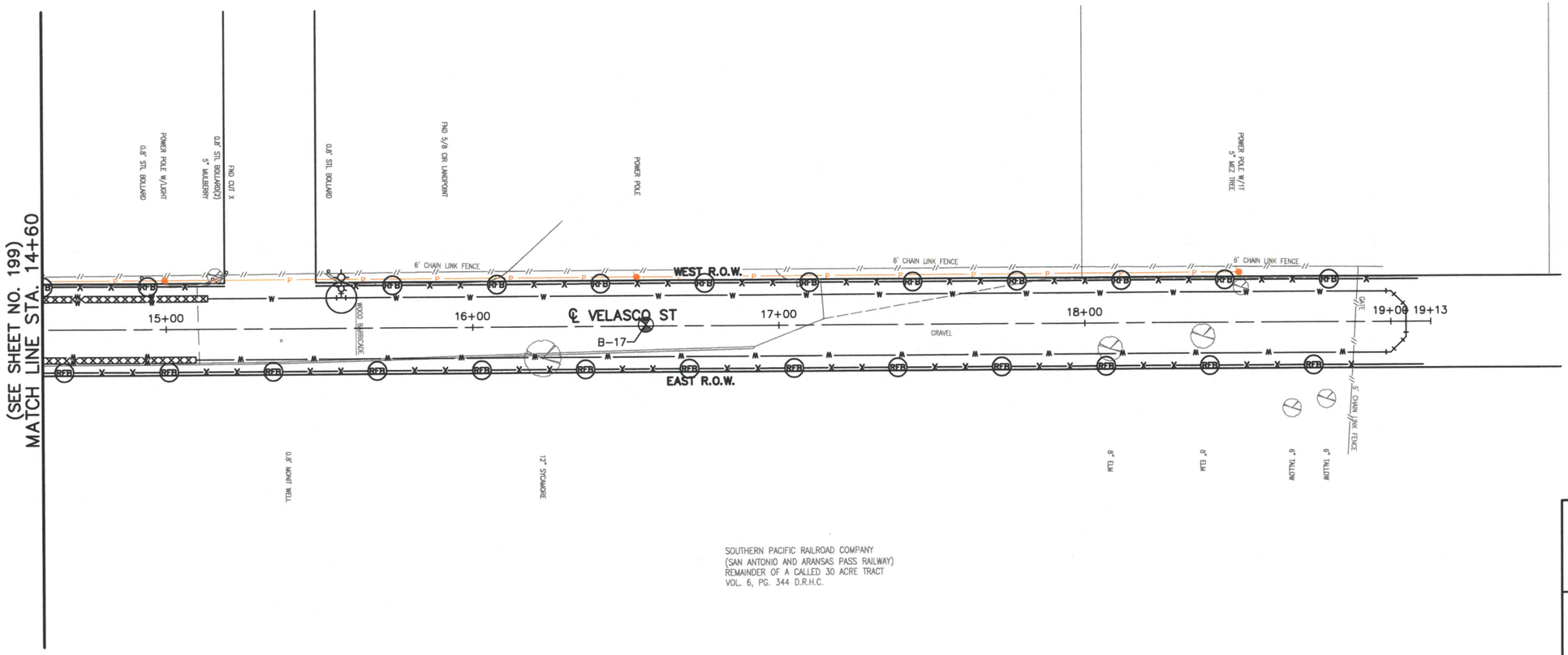
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



SOUTHERN PACIFIC RAILROAD COMPANY
(SAN ANTONIO AND ARANSAS PASS RAILWAY)
REMAINDER OF A CALLED 30 ACRE TRACT
VOL. 6, PG. 344 D.R.H.C.

0 20' 40'

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CONSULTING ENGINEERS, INC.
Civil Structural Transportation
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

VELASCO ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 14+60.00 TO STA. 19+12.97

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 200 OF 362	

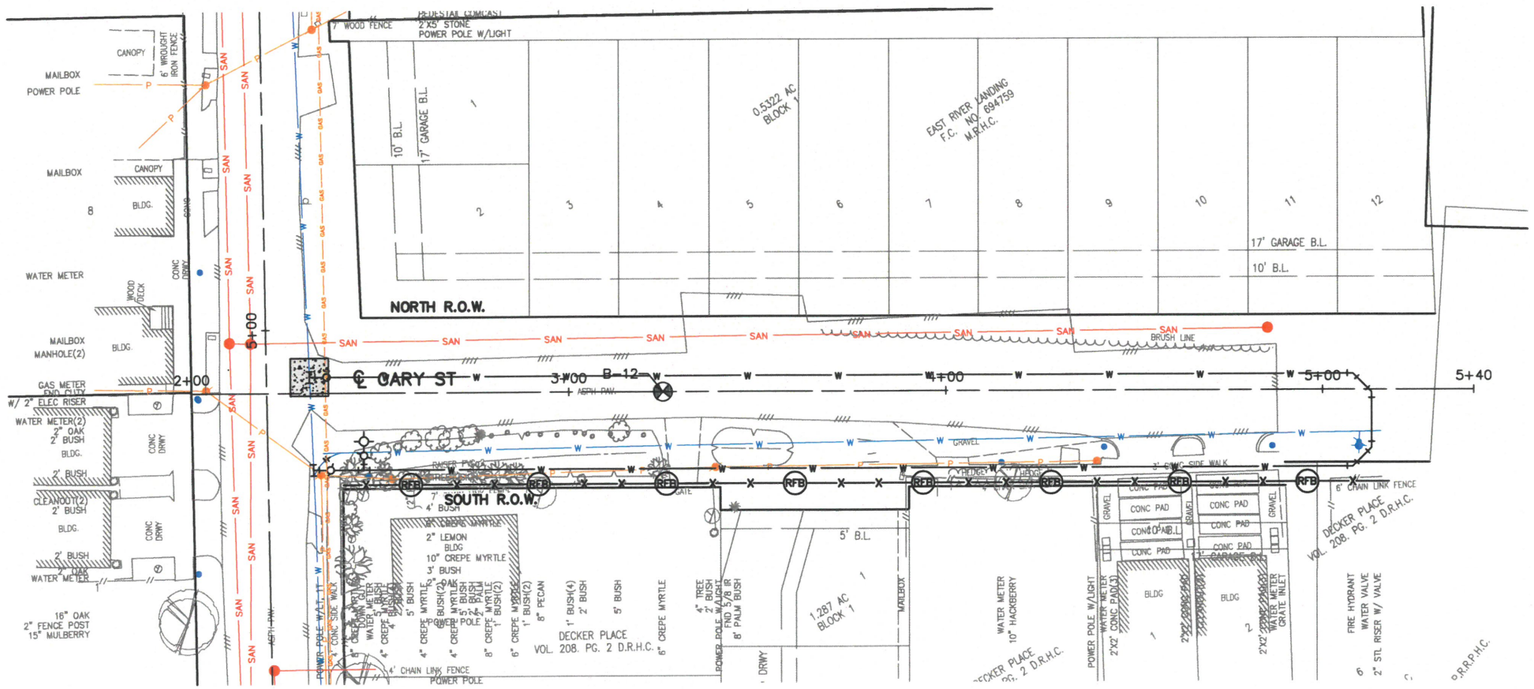
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CARY ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 2+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 201 OF 362	

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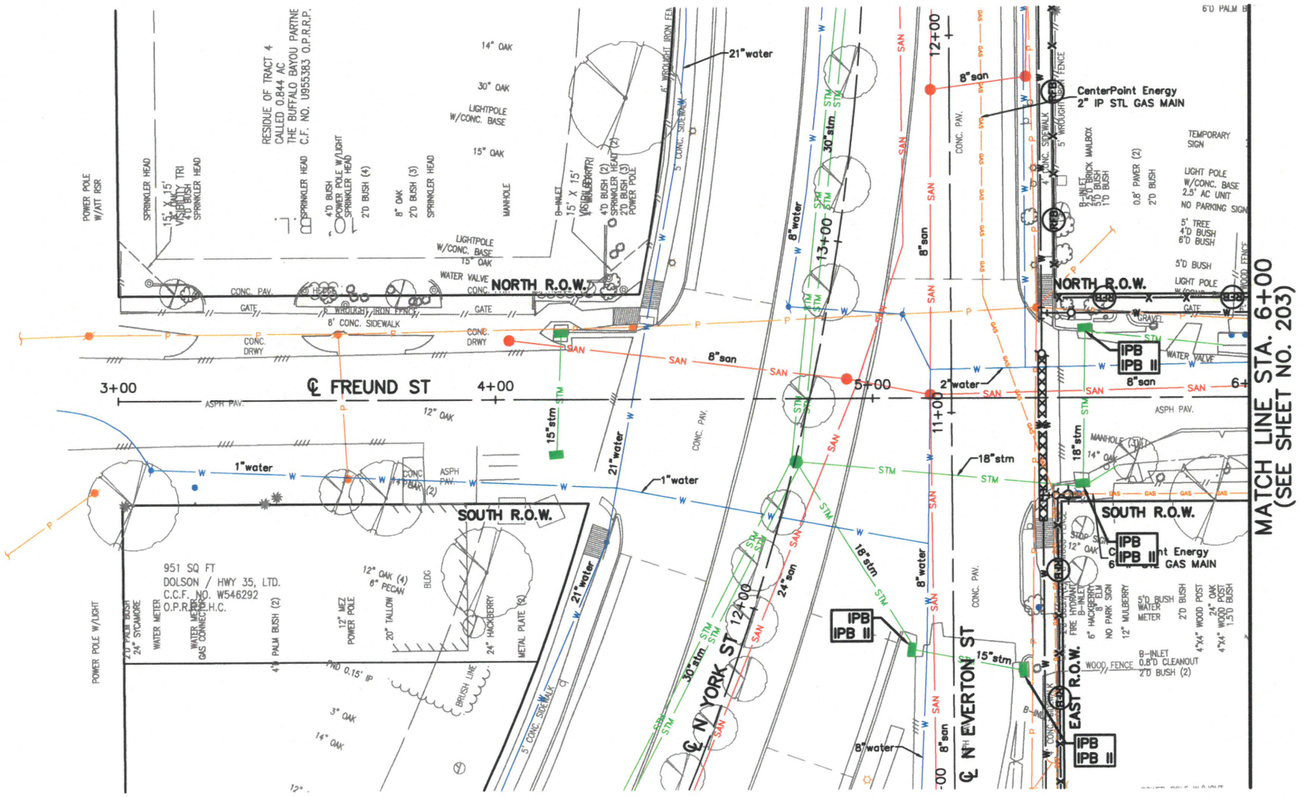
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

FREUND ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 3+00.00 TO STA. 6+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 202 OF 362	

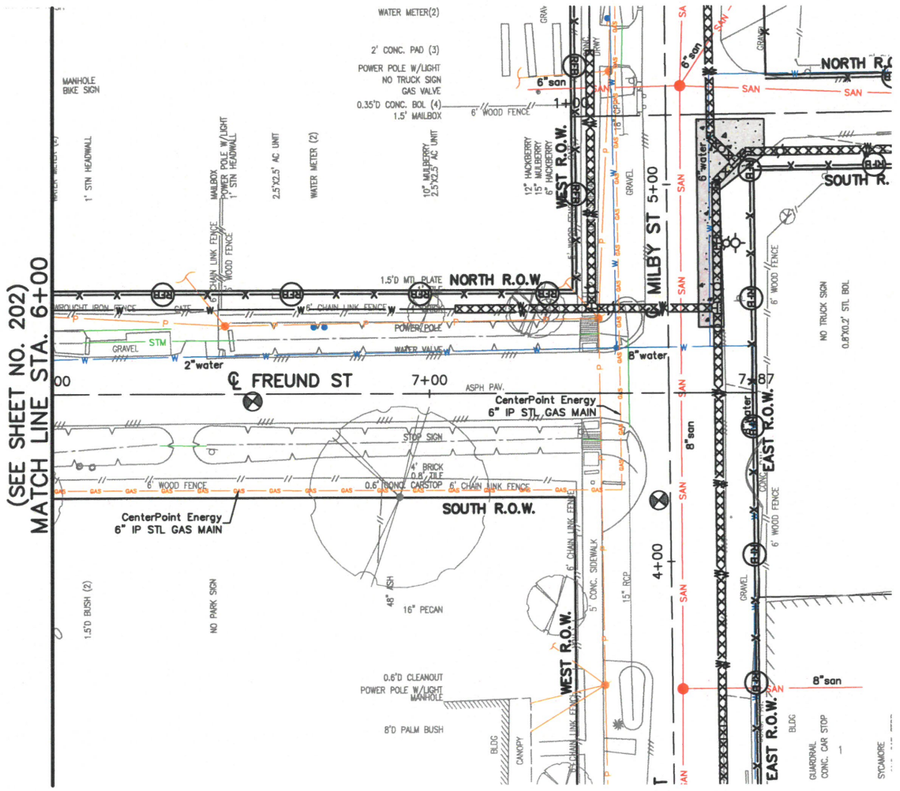
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

FREUND ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 6+00.00 TO STA. 7+66.87

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 203 OF 362	

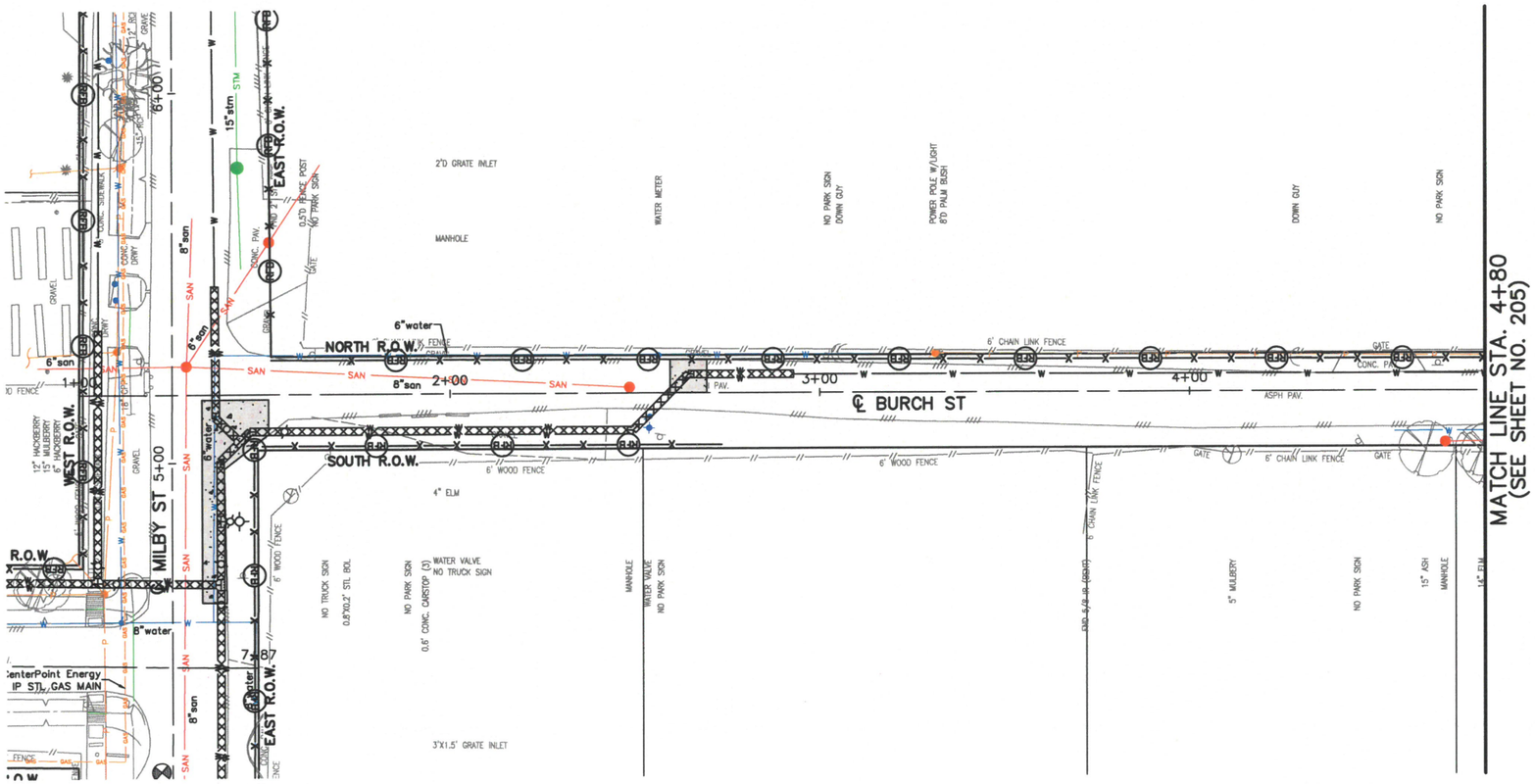
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BURCH ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 4+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 204 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:03:18 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-C-H.DWG

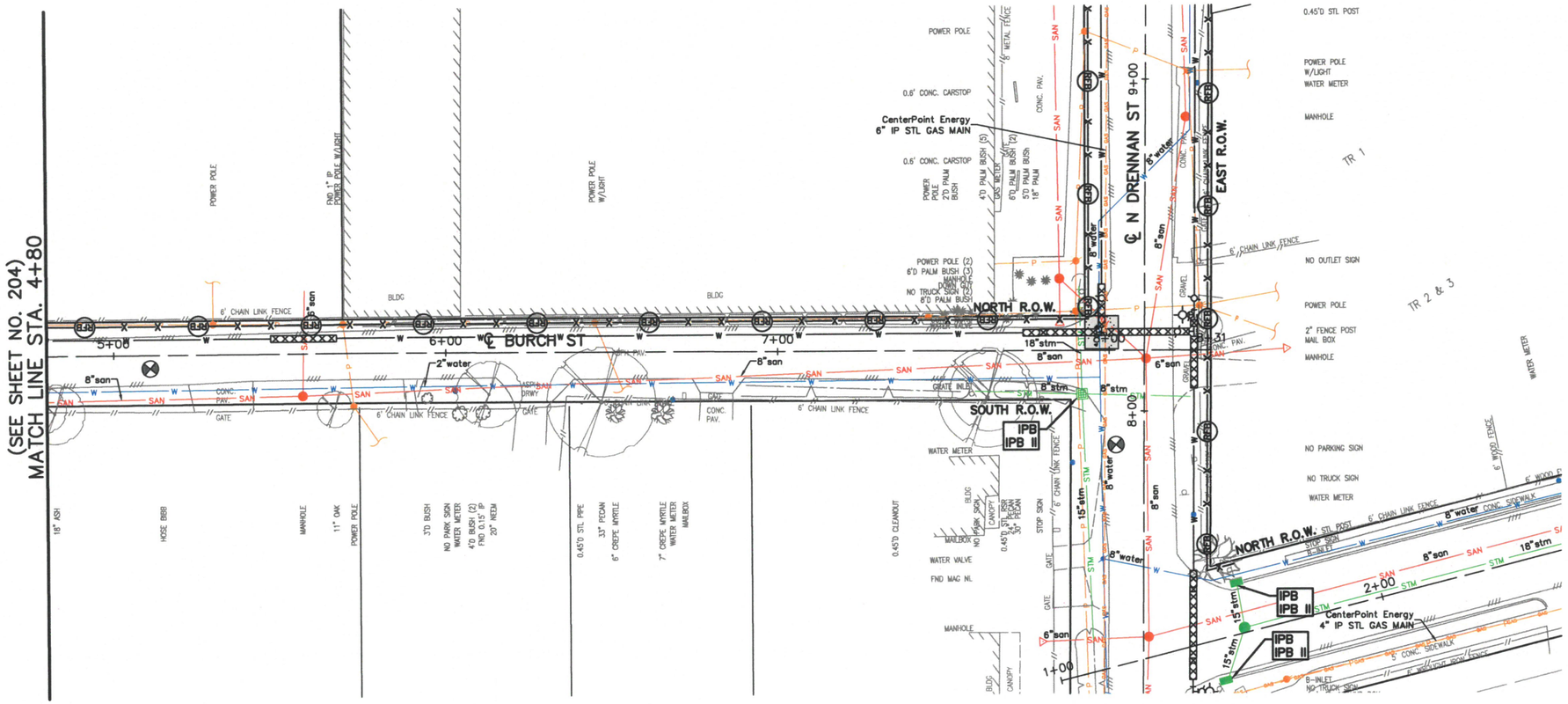
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BURCH ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 4+80.00 TO STA. 7+88.53

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 205 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:03:28 AM
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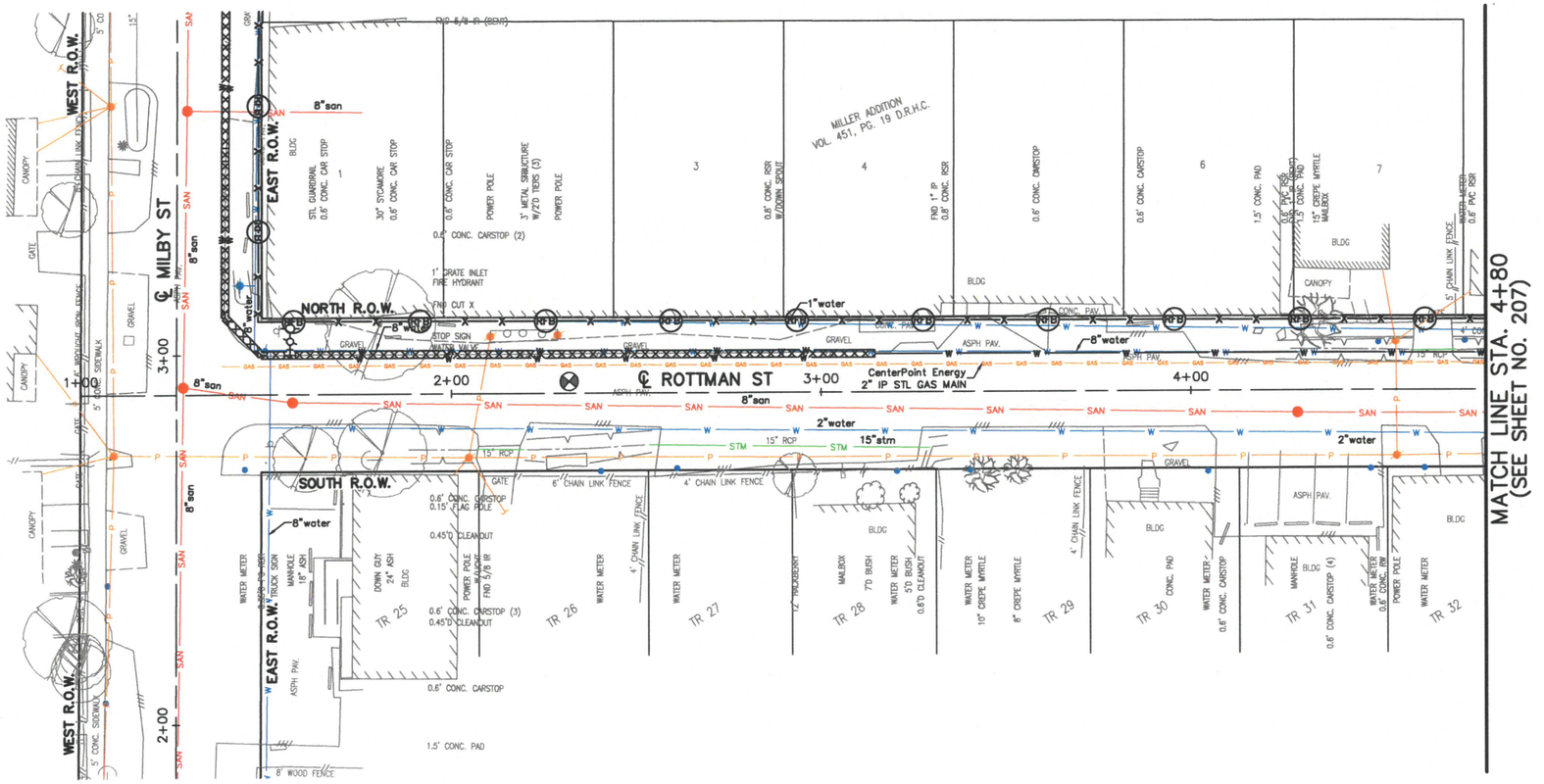
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

ROTTMAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 4+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 206 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:03:38 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-C-H.DWG

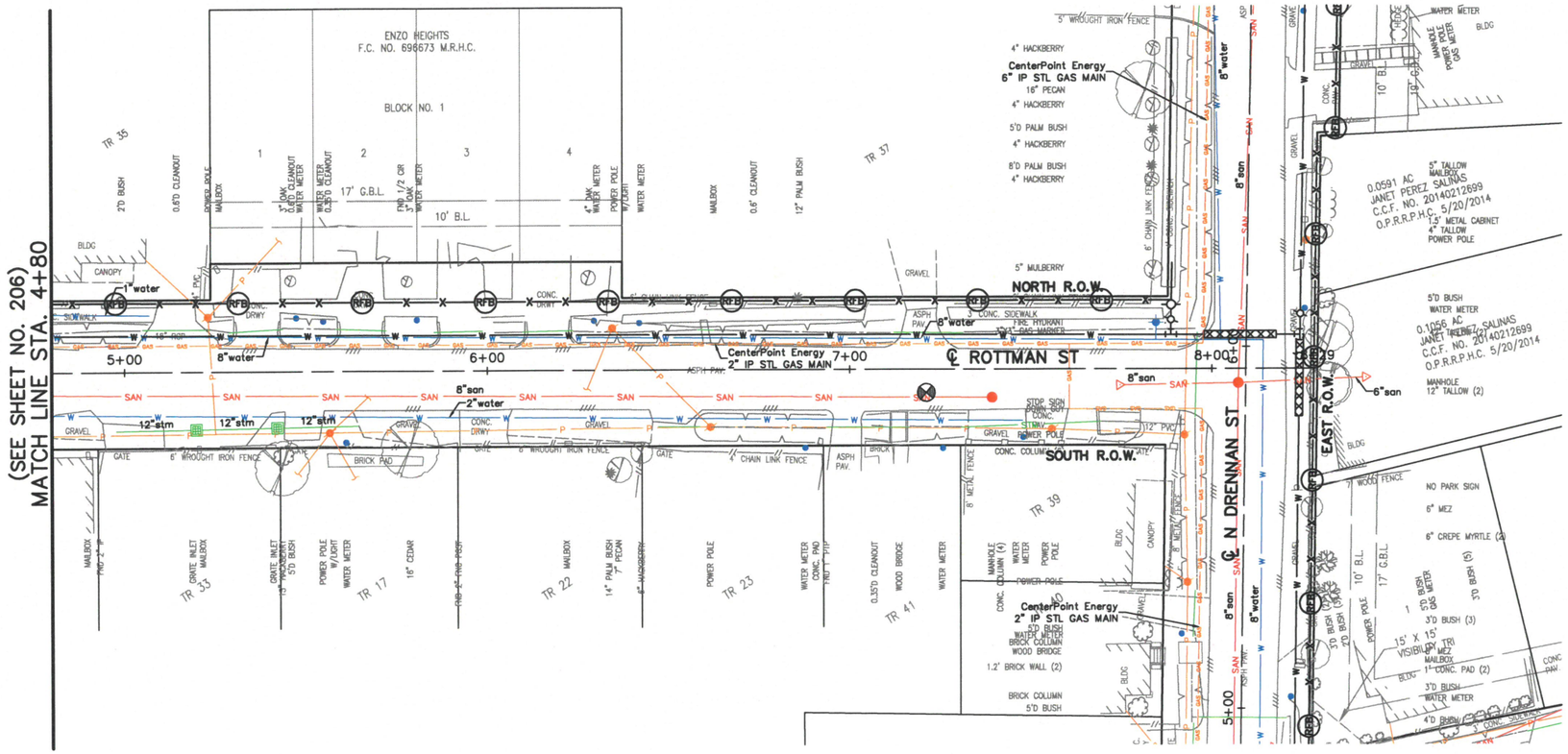
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ROTTMAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 4+80.00 TO STA. 8+29.32

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 207 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:03:48 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-C-H.DWG

FOR REDUCED PLANS
orignal scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:04:37 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-C-V.DWG

MATCH LINE STA. 16+60
(SEE SHEET NO. 209)

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.

N YORK ST

Exist San MH
FL=35.45 (8" NW)
FL=35.26 (8" SE)

Exist San MH
FL=34.45 (8" SW)
FL=34.69 (8" NW)
FL=34.61 (8" NE)
FL=34.32 (8" SE)

Exist San MH
FL=34.92 (8" SW)
FL=34.96 (8" NE)
FL=34.97 (8" SE)

Exist Stm MH
FL=28.64 (30"-SW)
FL=28.49 (30"-NE)
FL=31.74 (18"-SE)

Exist Stm MH
FL=24.77 (30"-SW)
FL=24.77 (18"-NW)
FL=24.74 (30"-NE)
FL=23.95 (18"-E)

Exist. Inlet
FL=28.51 (18"-W)
FL=28.60 (18"-NE)

Exist Stm MH
FL=28.64 (30"-SW)
FL=35.00 (18"-SE)
FL=28.64 (30"-NE)
FL=35.00 (18"-S)

℄ Pvmt
West R.O.W.
East R.O.W.
8"water
16"stm
8"san
2"water
24"san
21"water
30"stm
18"stm
55" MIN. COVER
2'-0" MIN. CLR.
PROP. 8" WATER
PROP. 8" DIP W/ RESTRAINED JOINTS
8" WATER
PROP. 8" DIP W/ RESTRAINED JOINTS

0 20' 40'

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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
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FB NO. : P-8355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N YORK ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 11+80.99 TO STA. 16+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 208 OF 362	

FOR REDUCED PLANS
original scale in inches

(SEE SHEET NO. 208)
MATCH LINE STA. 16+60

25' B.L. (C.O.H. ORD. 85-1878)

WEST R.O.W.

4' CONC. SIDEWALK

CONC. PAV.

ASPH PAV.

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

℄ N YORK ST

EAST R.O.W.

6' CHAIN LINK FENCE

5' WOOD FENCE

BLDG

℄ FOLEY ST

IPB
IPB II

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.

N YORK ST

℄ Pvmt
East R.O.W.
West R.O.W.

Exist. Inlet
FL=24.01 (18"-NW)

24"san
5' MIN. COVER
21"water
8" WATER
30"stm
8"water

Exist. Stm MH
FL=22.52 (30"-SW)
FL=22.47 (18"-NW)
FL=22.42 (30"-NE)
FL=22.41 (18"-SE)

Exist. Stm MH
FL=22.36 (30"-SW)
FL=22.31 (30"-NE)
FL=22.61 (24"-SE)

Exist. Stm MH
FL=22.10 (30"-SW)
FL=22.04 (30"-NE)
FL=22.40 (18"-SE)

0 20' 40'

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N YORK ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 16+60.00 TO STA. 20+55.82

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 209 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:04:54 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-C-V.DWG

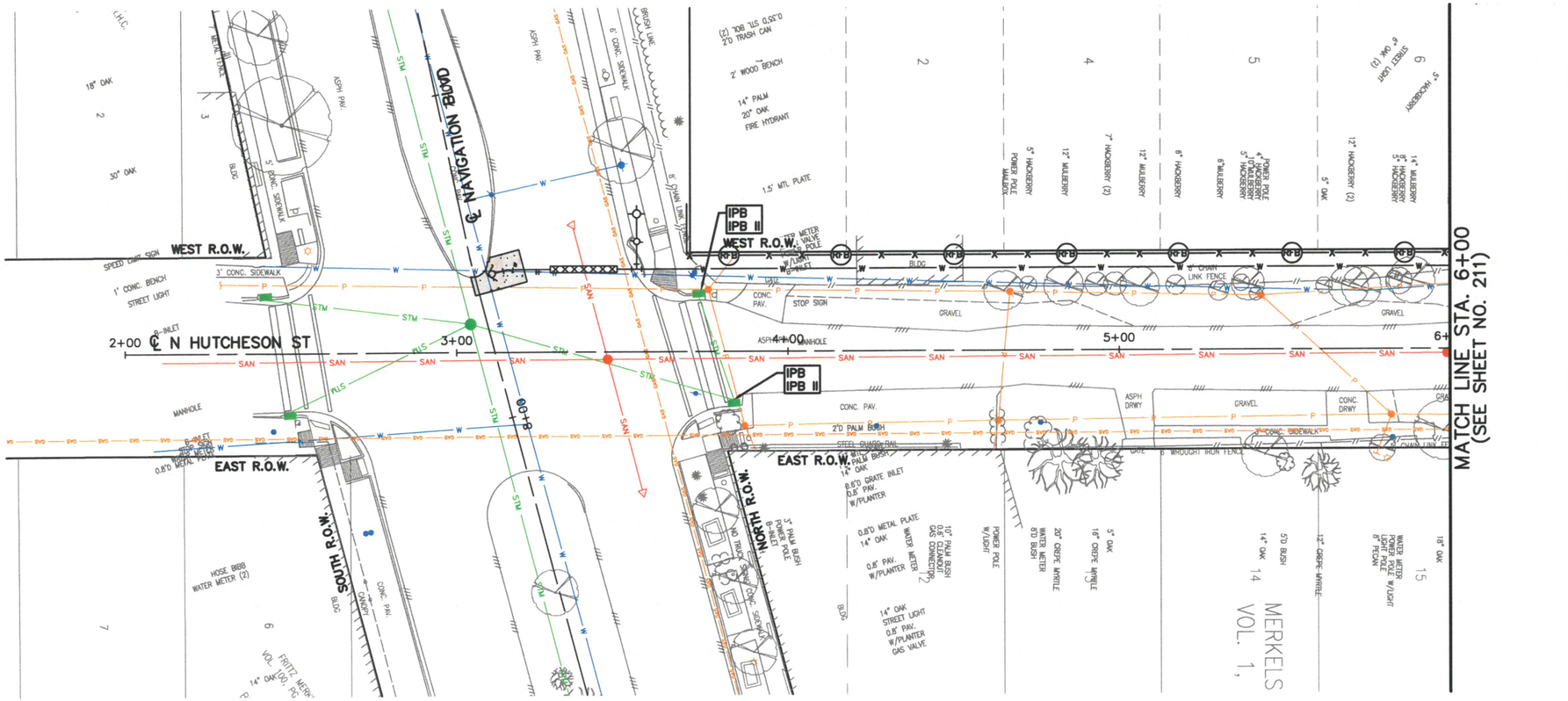
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N HUTCHESON ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 2+00.00 TO STA. 6+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 210 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:05:03 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-C-V.DWG

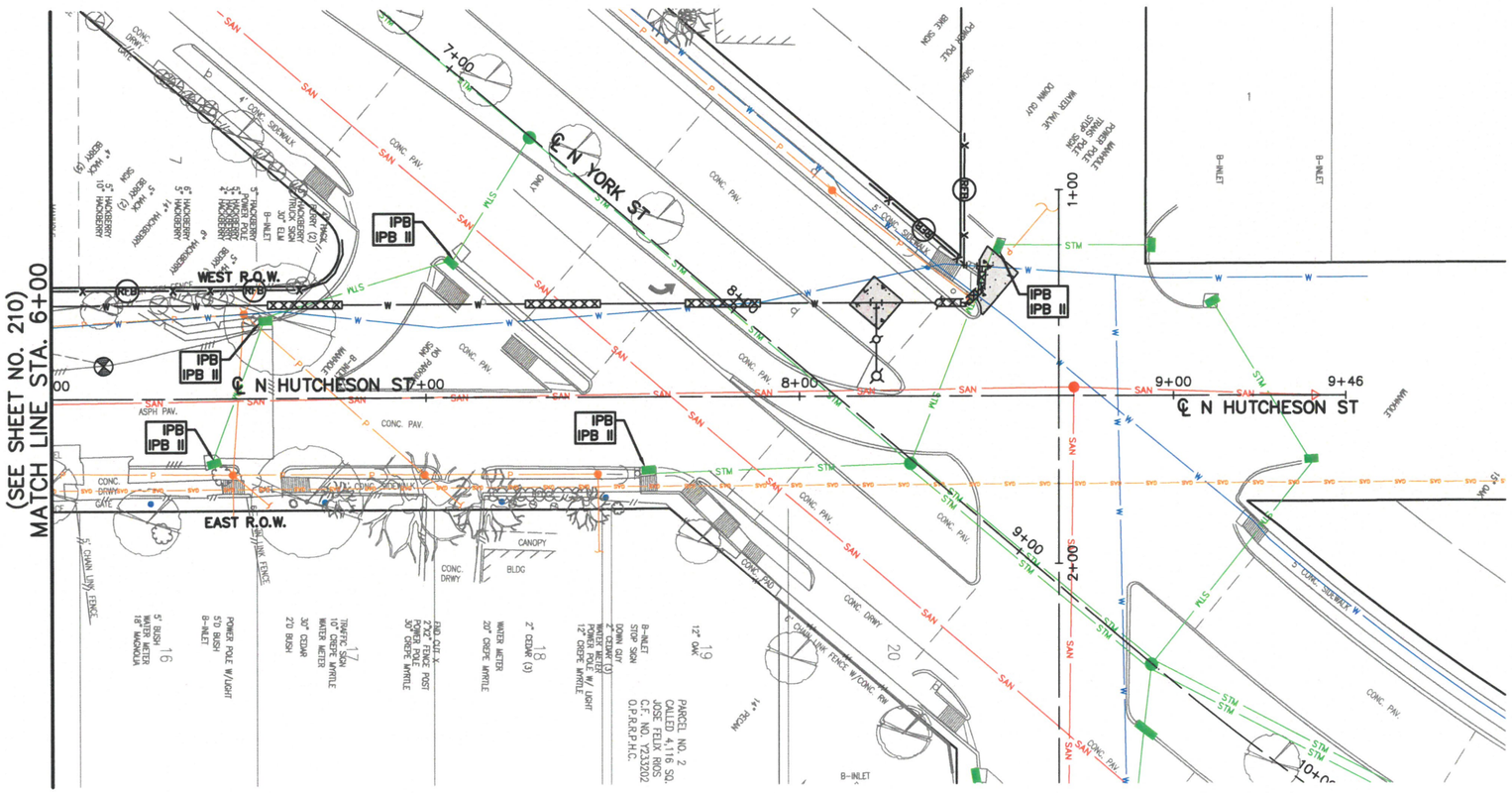
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N HUTCHESON ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 6+00.00 TO STA. 9+46.07

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 211 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:05:13 AM
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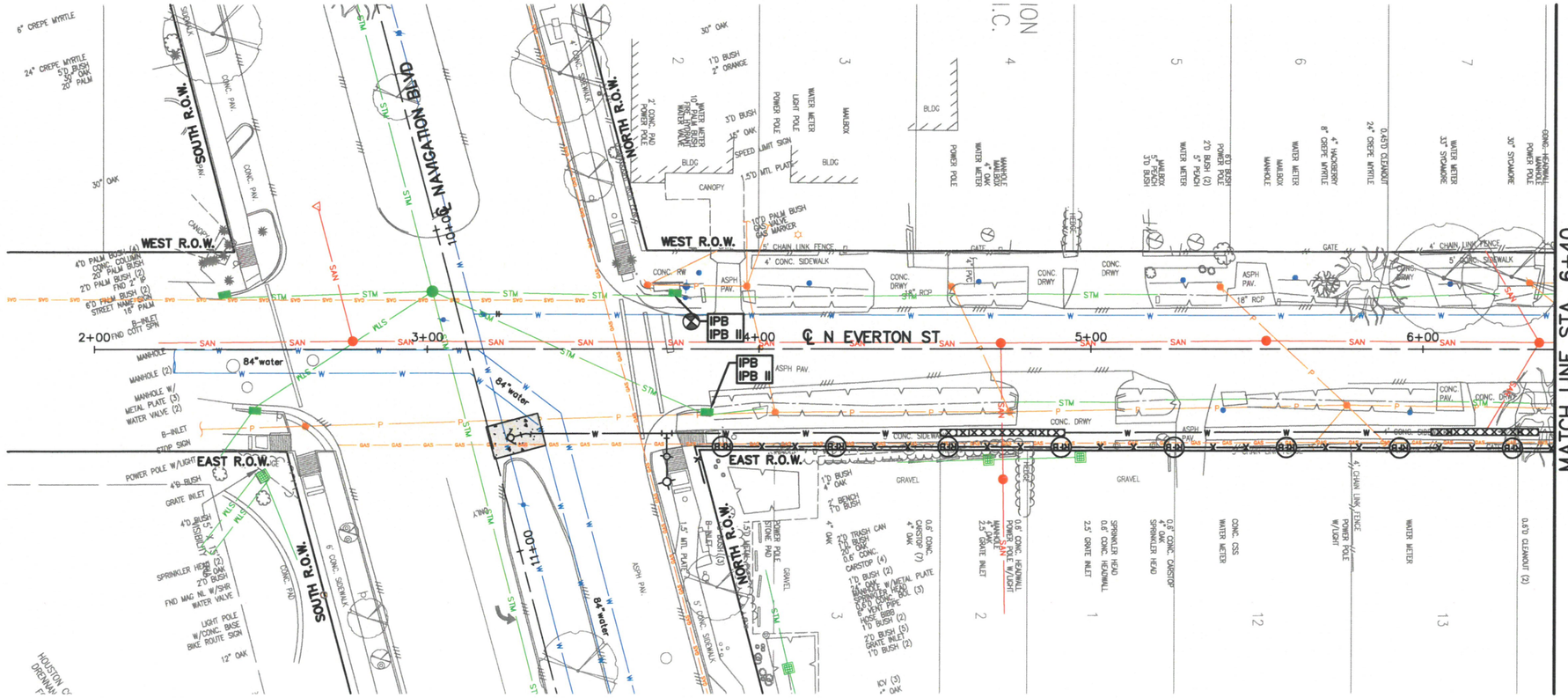
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N EVERTON ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 2+00.00 TO STA. 6+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 212 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:05:23 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-C-Y.DWG

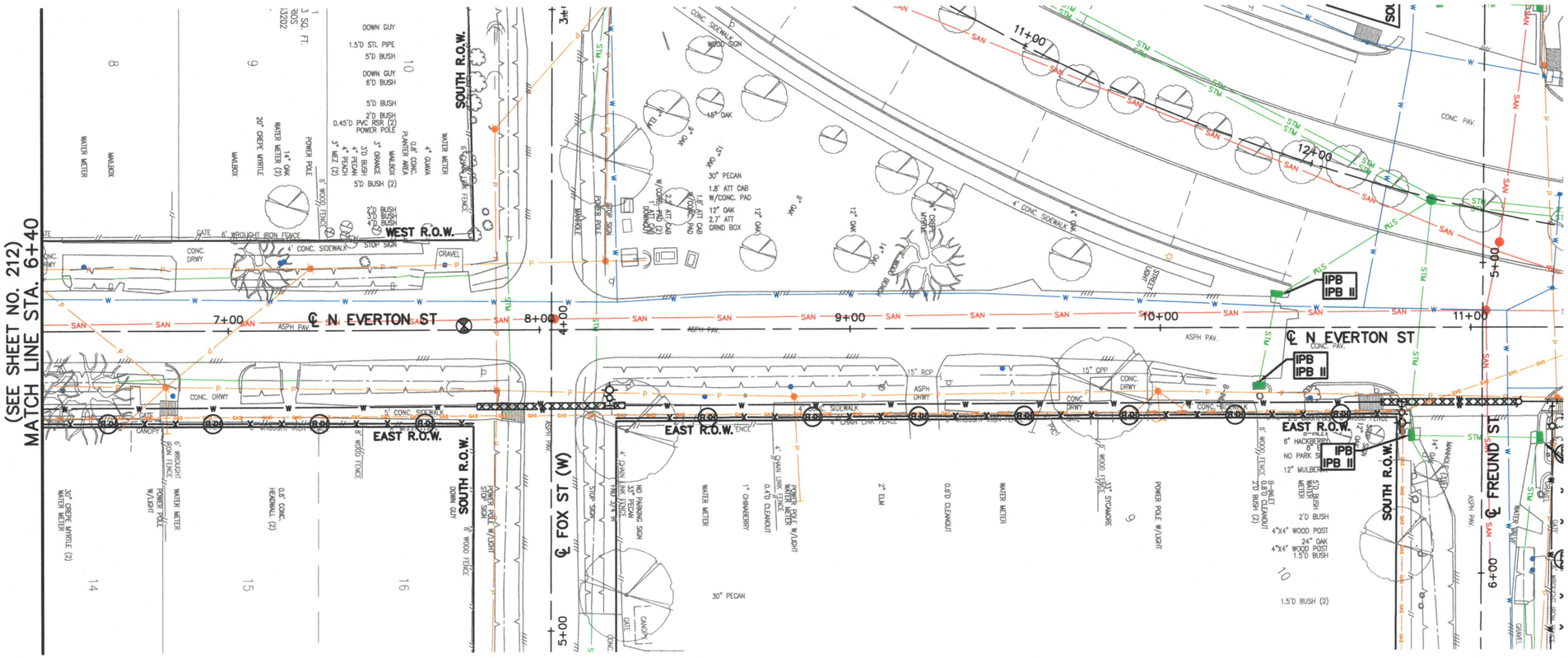
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N EVERTON ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 6+40.00 TO STA. 10+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 213 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:05:33 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-C-V.DWG

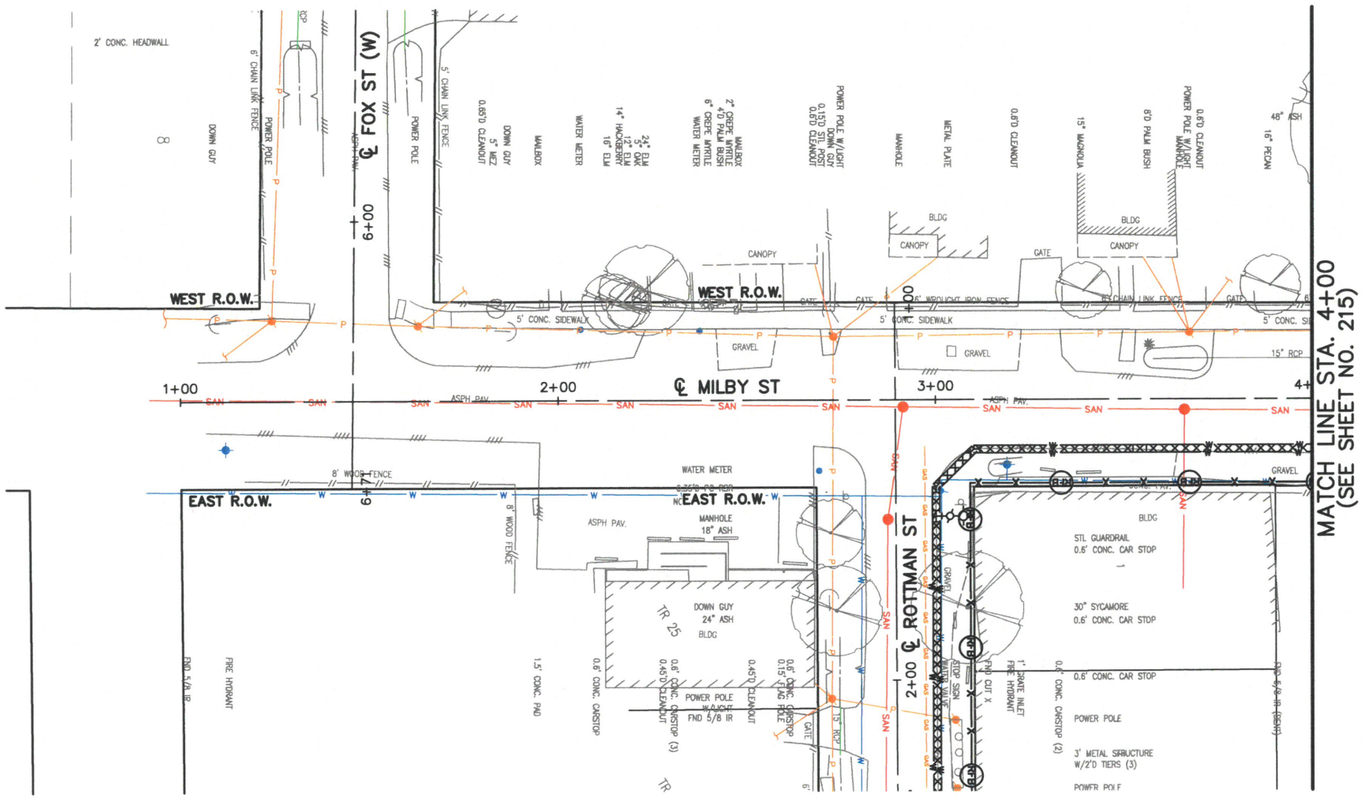
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

PLOTTED ON: Wednesday, September 23, 2026 10:05:43 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\SW3P\WLP-SECOND WARD-SW3PS-C-V.DWG

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

MILBY ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 4+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 214 OF 362	

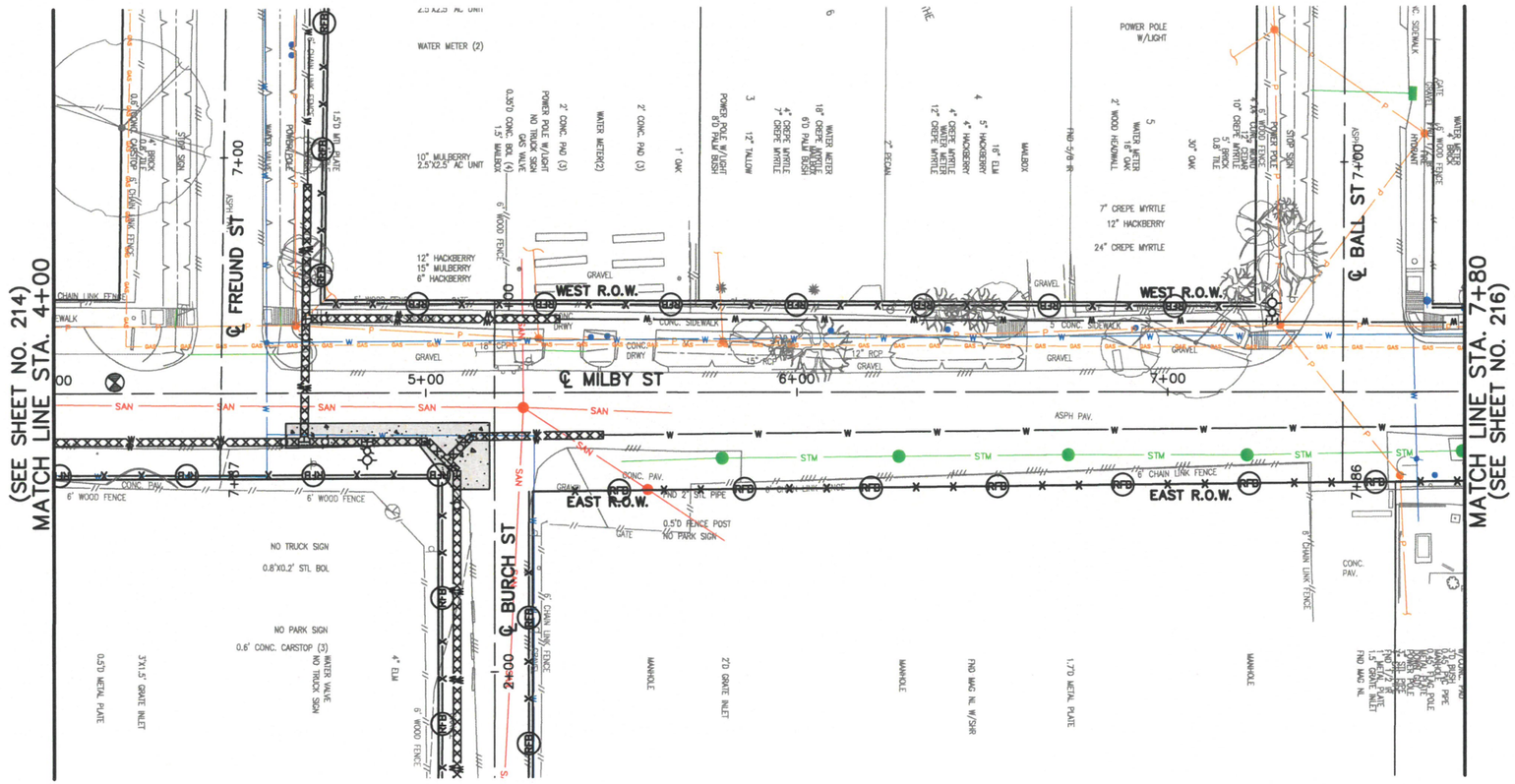
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

MILBY ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 4+00.00 TO STA. 7+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 215 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:05:53 AM
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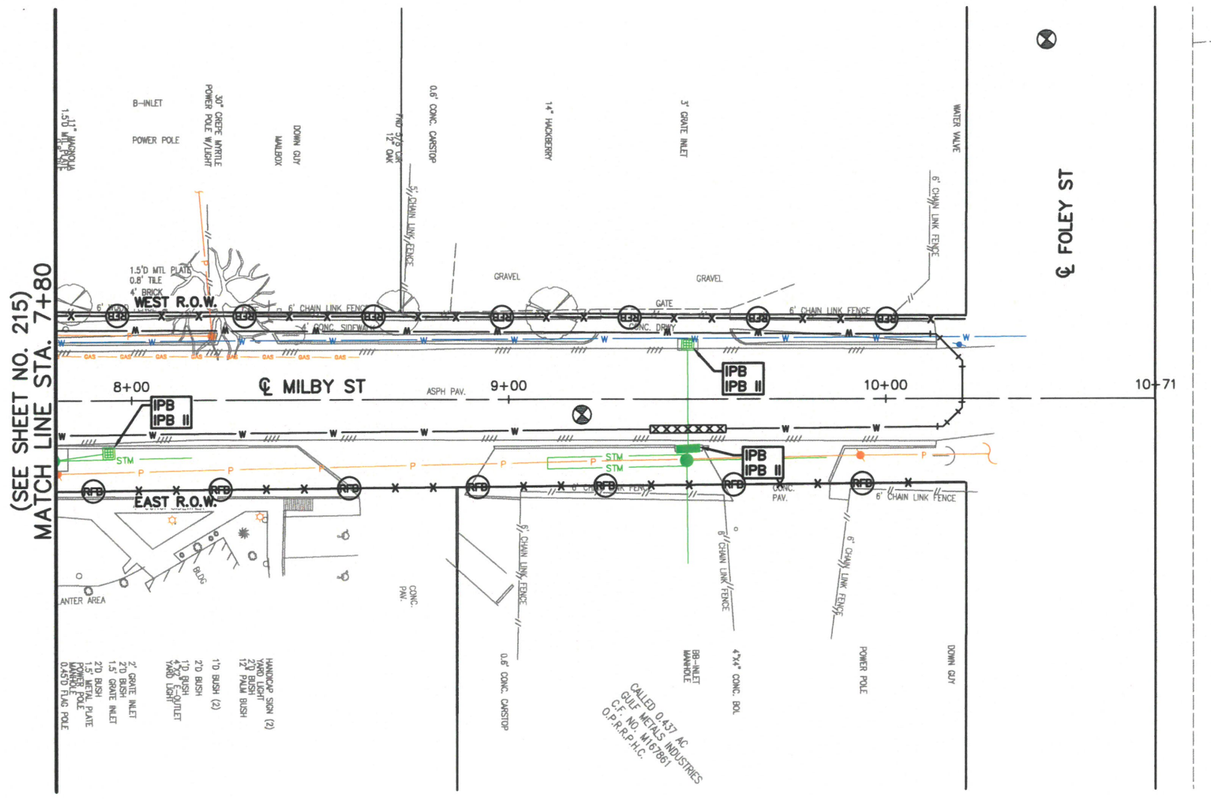
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES. EPIFANIO E. SALAZAR JR., P.E. TEXAS SERIAL NO. 67749 DATE: Sep-26

SURVEYED BY:
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

MILBY ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 7+80.00 TO STA. 10+71.46

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 216 OF 362	

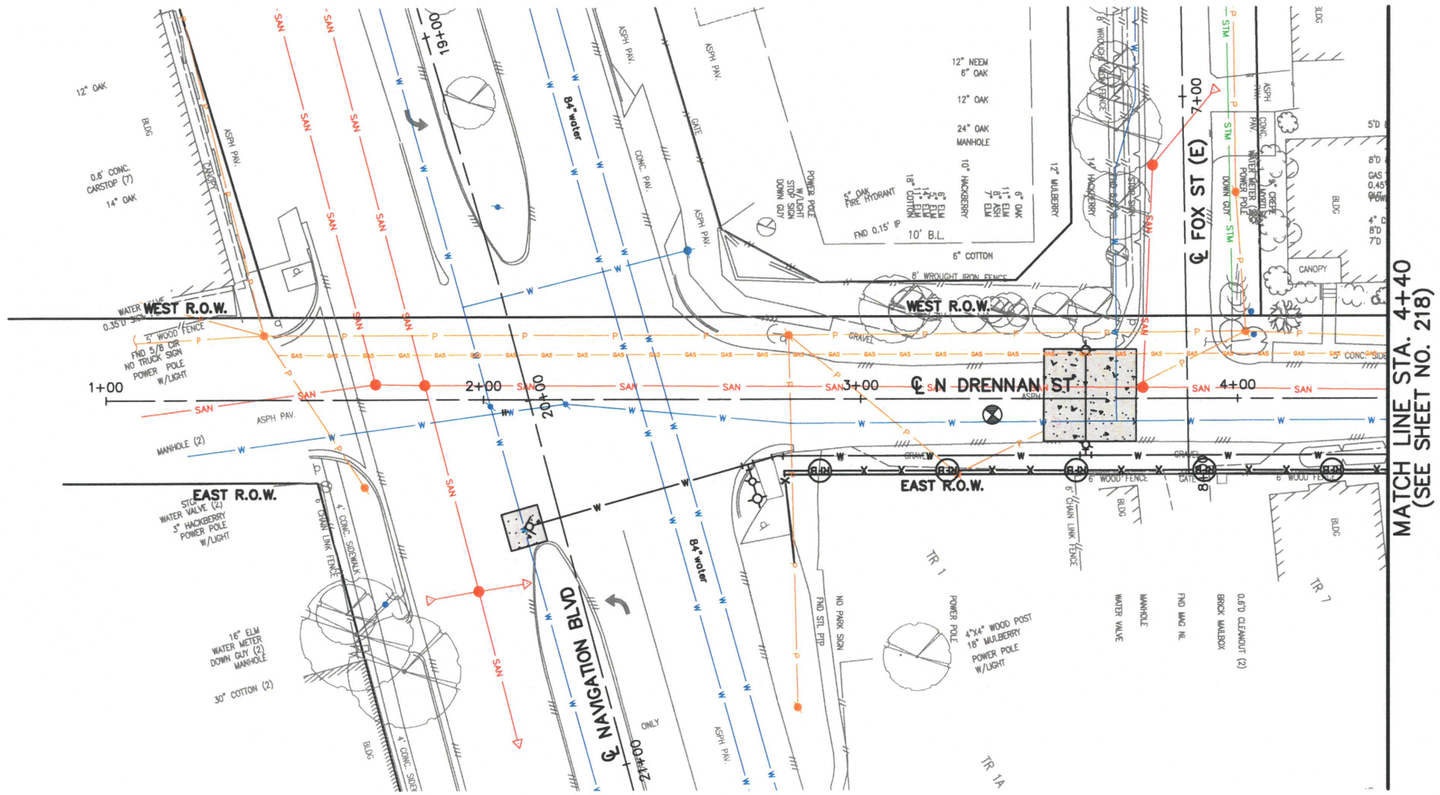
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

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0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 4+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 217 OF 362	

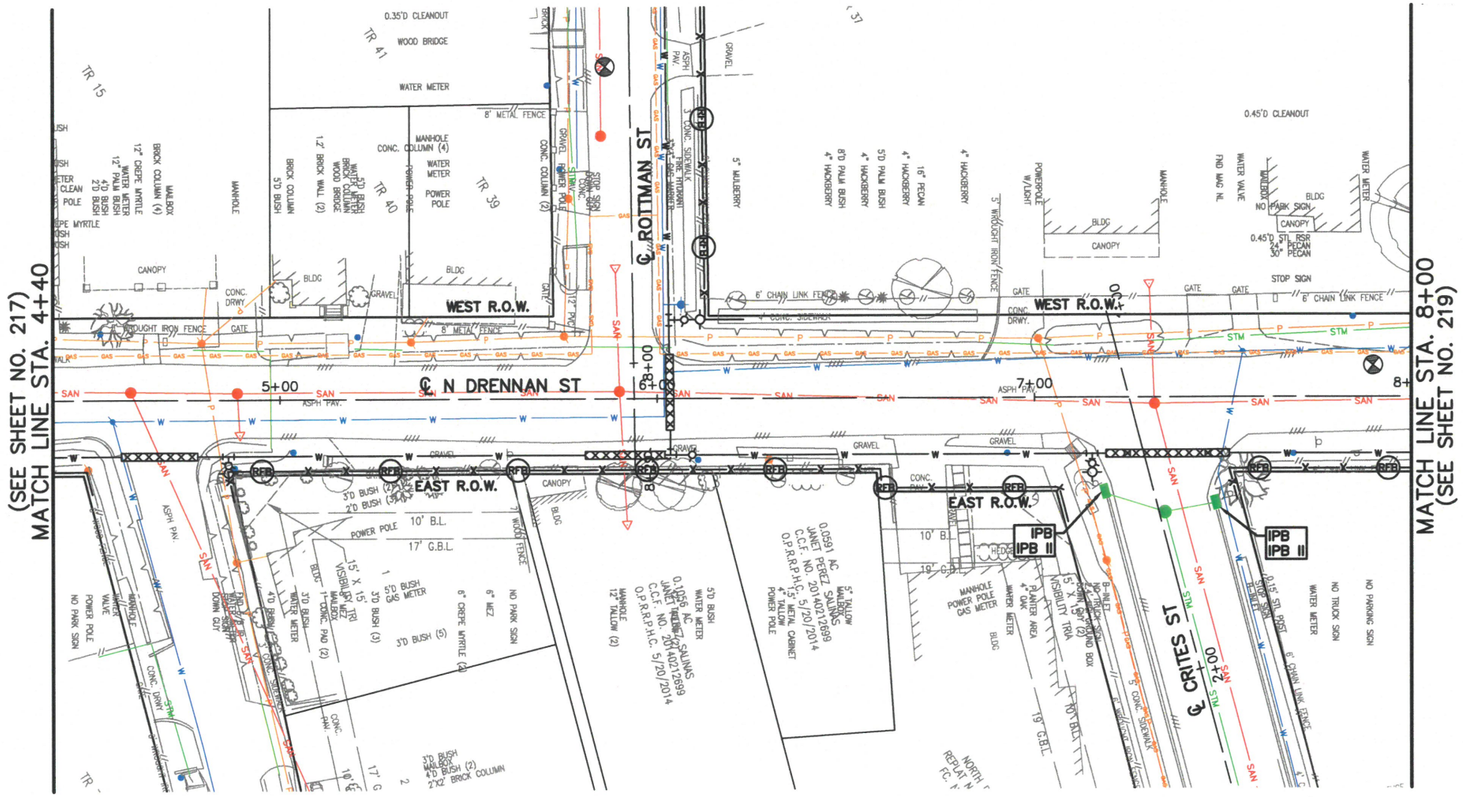
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FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
x—(FF)—x	FILTER FABRIC FENCE
x—(RFB)—x	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS



0 20' 40'

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 4+40.00 TO STA. 8+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 218 OF 362	

No.	Date	Revisions	App.

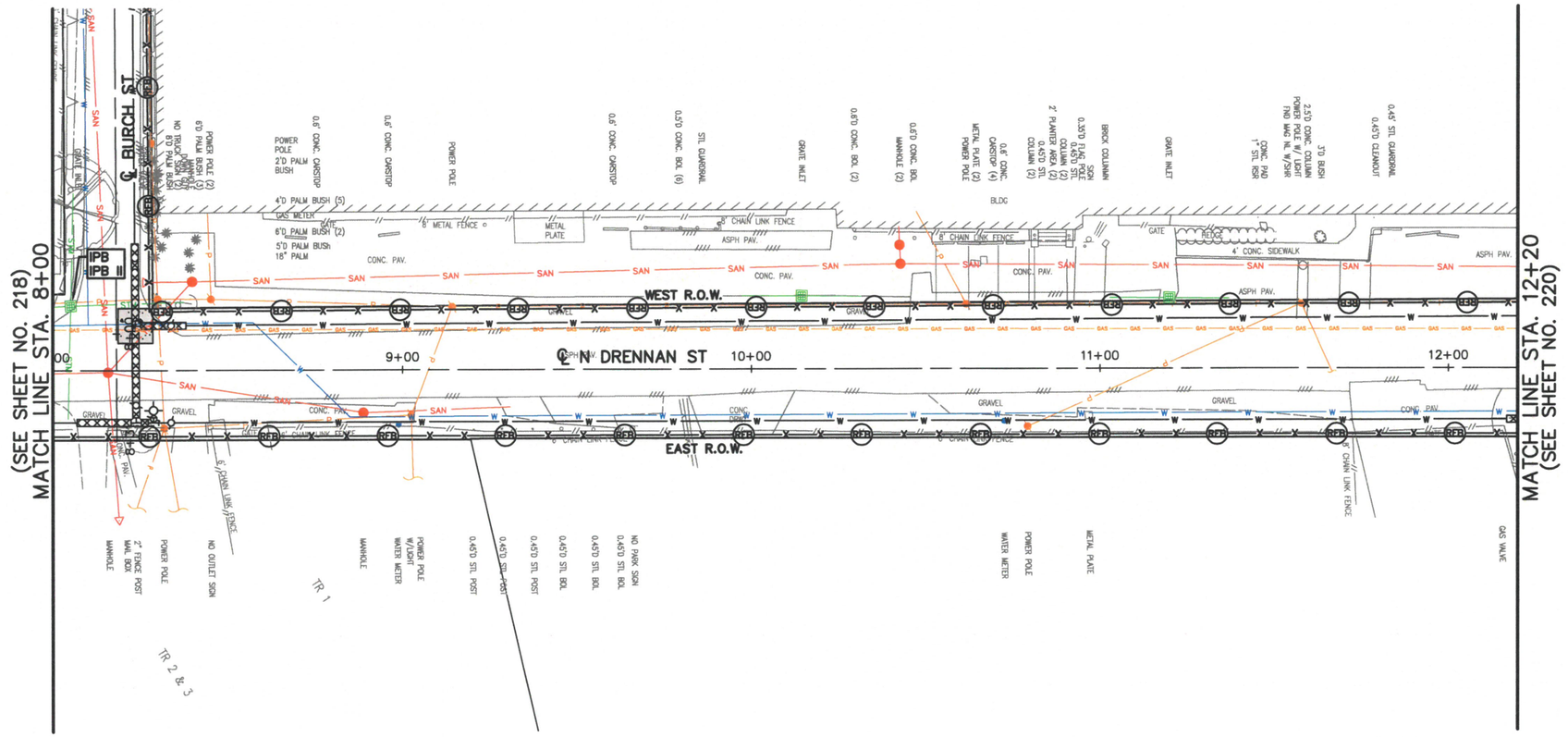
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 8+00.00 TO STA. 12+20.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 219 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:06:33 AM
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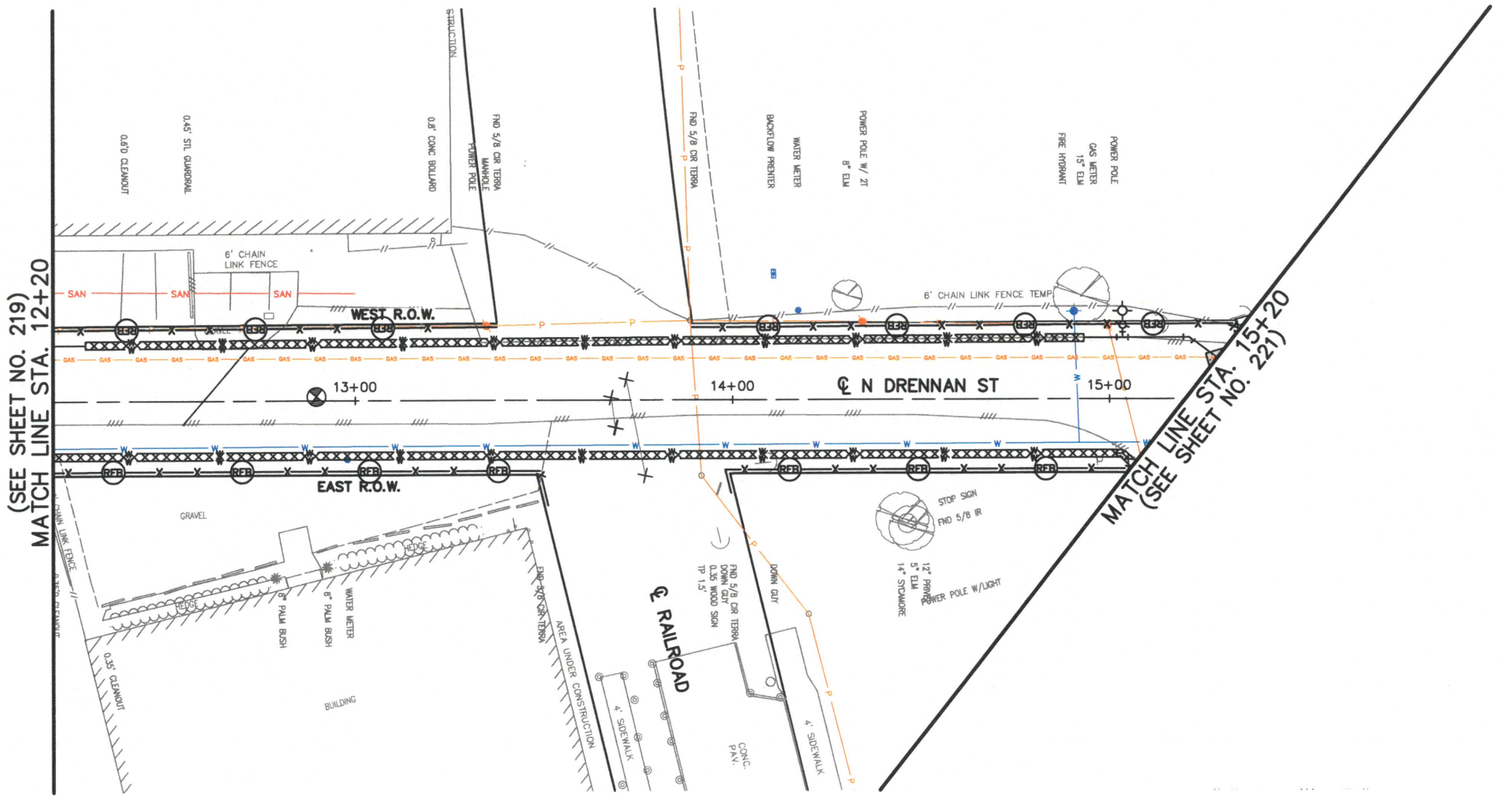
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 12+20.00 TO STA. 15+20.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 220 OF 362	

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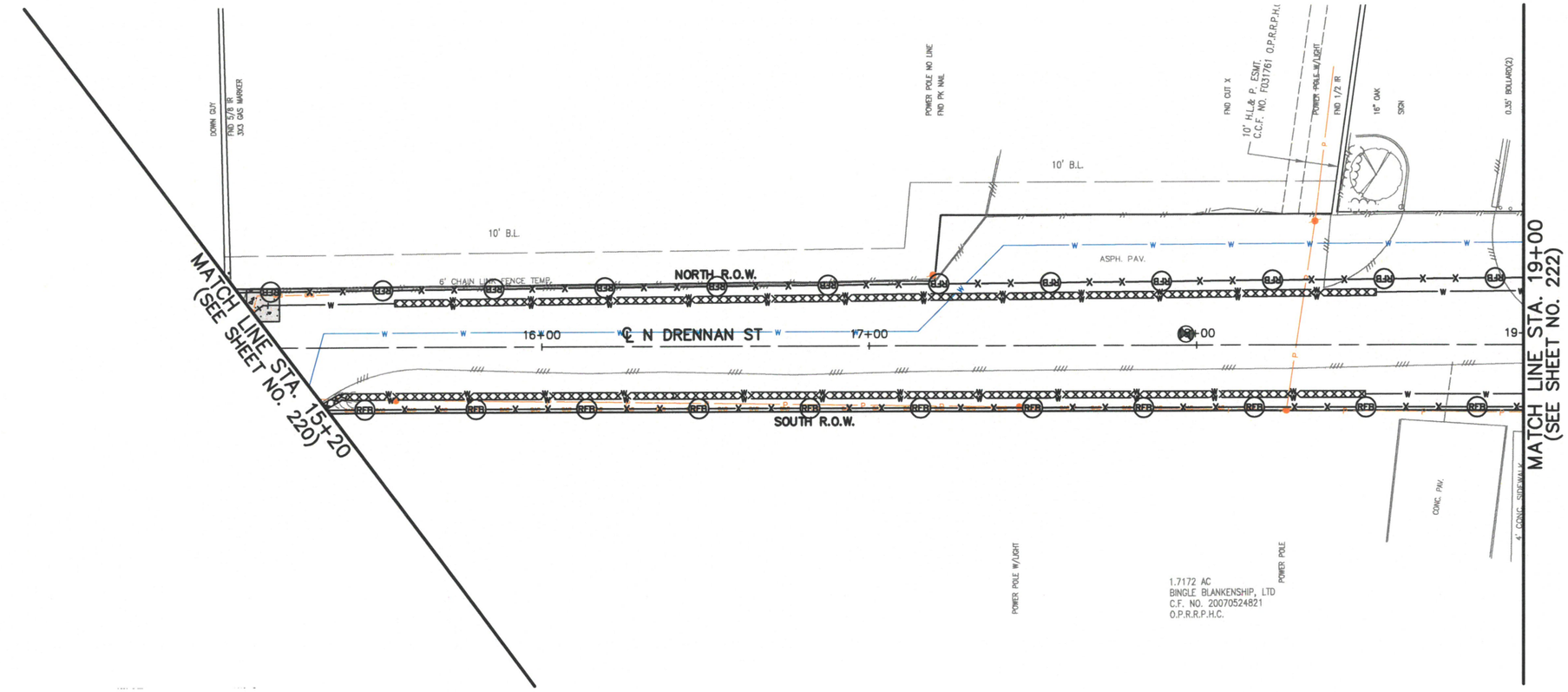
FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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DATE: Sep-26

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 15+20.00 TO STA. 19+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
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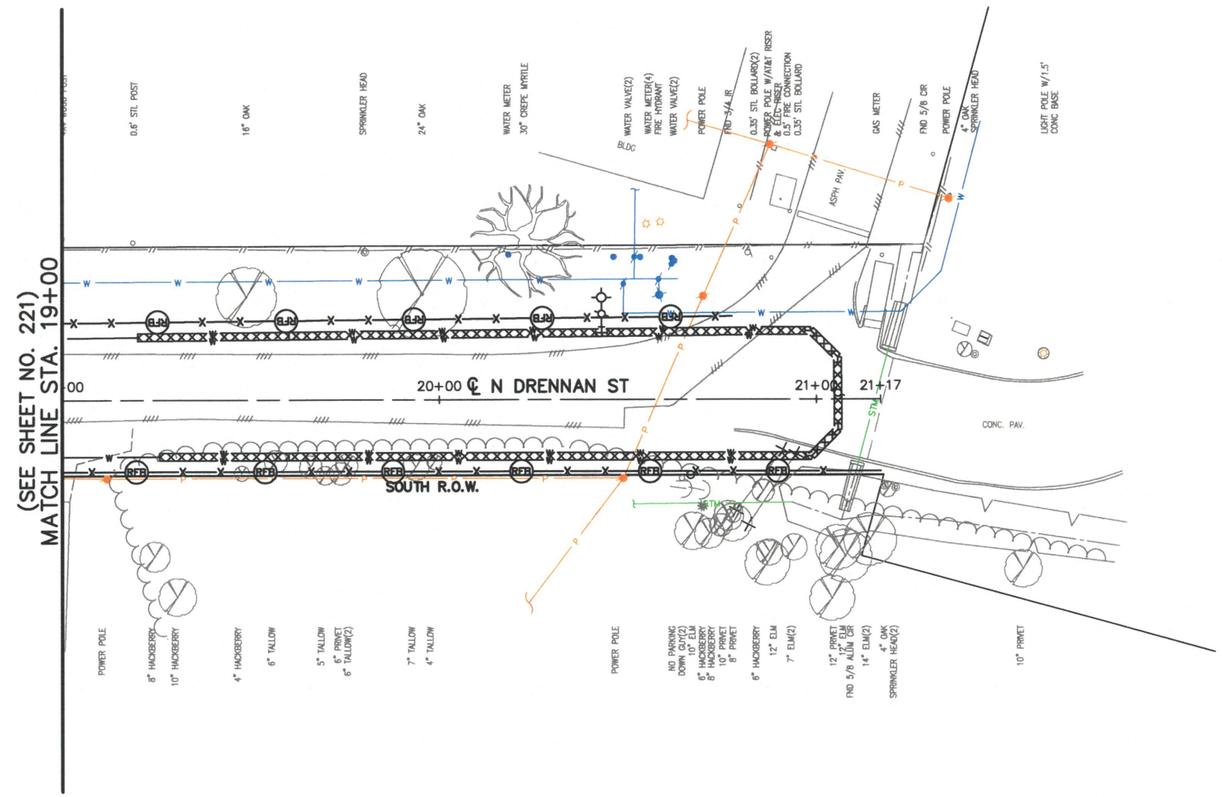
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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 19+00.00 TO STA. 21+16.99

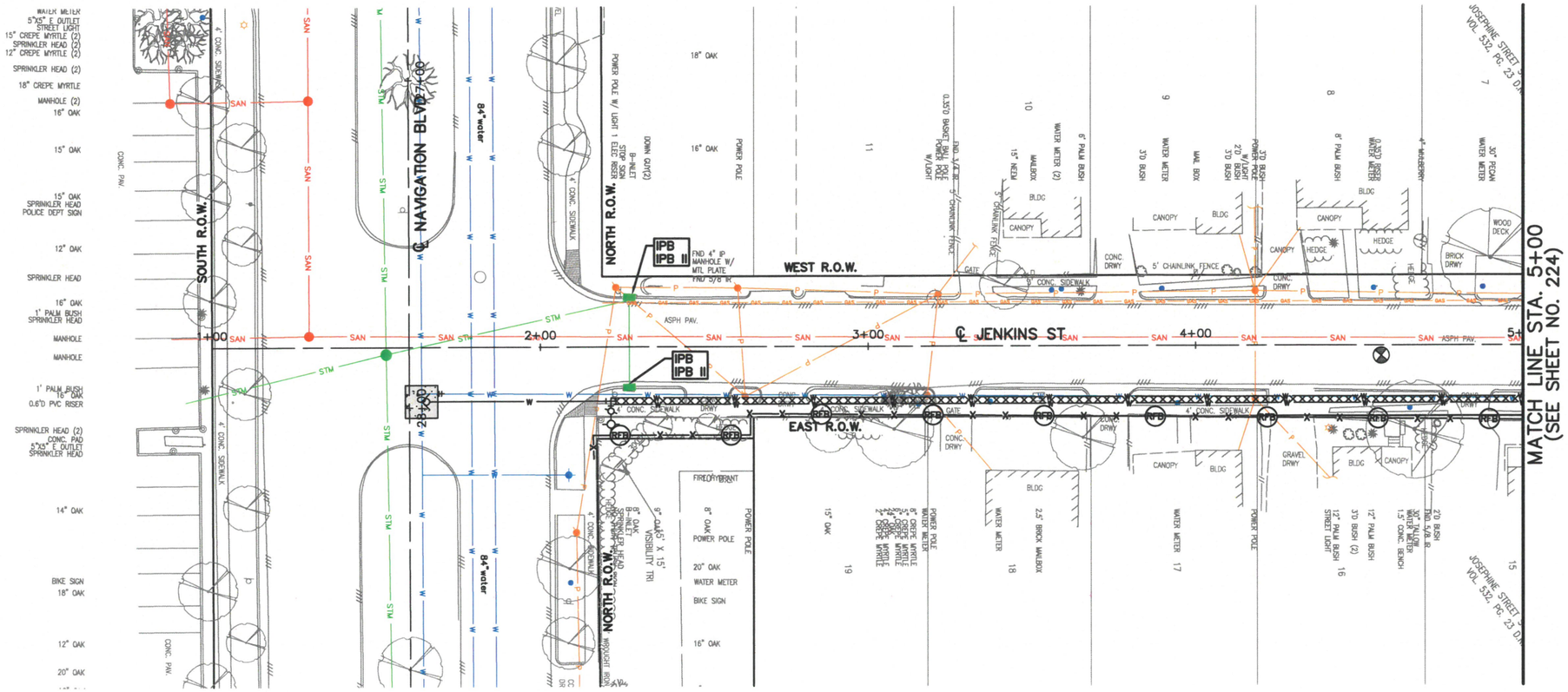
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CITY OF HOUSTON PM	
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SHEET NO. 222 OF 362	

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FOR REDUCED PLANS
original scale in inches

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS



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DATE: Sep-26

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FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENKINS ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 1+00.00 TO STA. 5+00.00

WBS NUMBER	S-000035-0312-4
DRAWING SCALE	HORIZ: 1"= 20'
CITY OF HOUSTON PM	UYEN NGUYEN
SHEET NO. 223 OF 362	

CITY DWG NO.:

No.	Date	Revisions	App.

PLOTTED ON: Wednesday, September 23, 2026 10:07:14 AM
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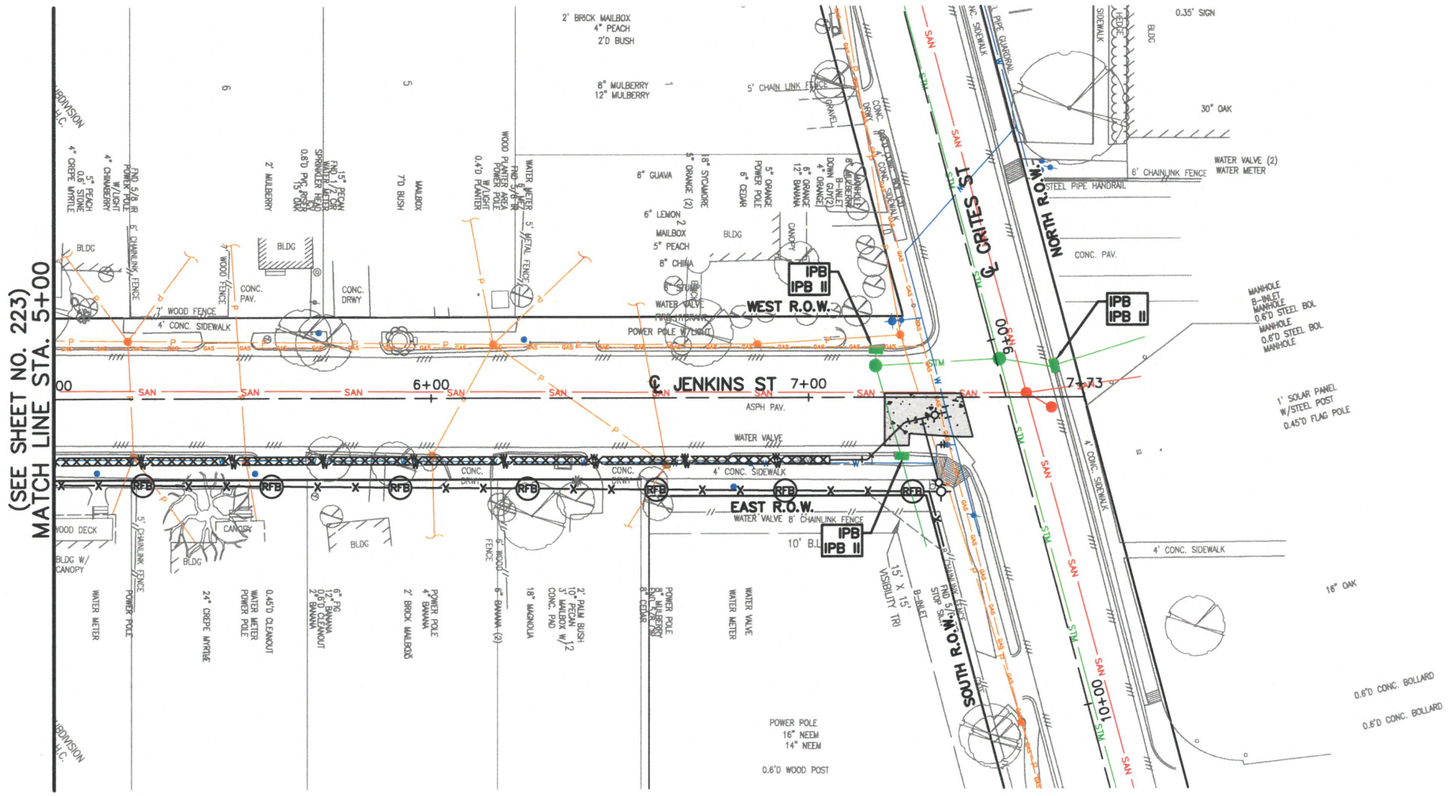
FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENKINS ST

STORMWATER POLLUTION PREVENTION PLAN
FROM STA. 5+00.00 TO STA. 7+73.21

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 224 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:07:24 AM
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TREE PRESERVATION AND TREATMENT SPECIFICATIONS

These Specifications are supplemental to the City of Houston Standard Specifications, Section 01562-Tree and Plant Protection and Harris County Specification, Item 501-Tree Protection and Trimming.

PART 1 - GENERAL

1.1 SUMMARY

A. Work includes:

1. Removal operation.
2. Maintenance pruning.
3. Fertilization treatment.
4. Tree protection fencing installation.
5. Mulching operation.
6. Root pruning operation.
7. Root pruning/chemical barrier operation.
8. Utility boring operation.
9. Zero curb cut operation
10. Transplant operation.
11. Replacement Planting.
12. Repair/replacement operation.
13. Sidewalk Installation.

B. All Contractors shall meet with the Urban Forester or Owner's Representative to review the Tree Preservation Plan for the site before startup of site work.

C. No site construction shall begin in any areas where tree preservation and treatment measures have not been implemented and approved.

D. Tree preservation and treatment measures shall be reviewed and approved by the Urban Forester or Owner's Representative prior to and immediately following installation.

E. Contractor shall be responsible for compliance to and maintenance of the Tree Preservation Plan.

F. The areas protected by the tree protection fencing are the tree preservation areas. No access to these areas shall be permitted during the construction period without first consulting with the Urban Forester or Owner's Representative.

G. Any roots of preservation trees exposed by construction activity shall be covered with a layer of light topsoil or 10 mil. polyethylene sheeting to prevent desiccation and loss of exposed roots.

H. Any work, excavation, or grading required by construction within the tree preservation areas shall be limited to 2' cut or fill with no roots over ½" being cut. This work shall be by hand or with approved equipment and root protection.

I. Trees damaged or lost due to Contractor's negligence during the construction period shall be appraised by the Urban Forester or Owner's Representative and the Owner compensated.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Fertilizer - "XL Injecto Feed" (32-7-7), a product of Dogget Corporation, Lebanon, NJ, (800)448-1862.

B. Mycorrhizal Fungi - MycorTree Ecto-Injectable, a product of Plant Health Care, Inc., (800) 421-9051.

C. Tree Protection Fencing:

1. 4' tall plastic, 1" mesh fence.
2. Iron T-bar posts, 6' tall.
3. Wire, 16 gauge ties.

D. Polyethylene Sheeting: minimum 10 mil. thickness, clear.

E. Mulch: First run mulch or site generated mulch.

F. Products of the same type from other sources shall not be excluded, provided they have like physical and functional characteristics and are approved by the Urban Forester or Owner's Representative.

G. Every effort shall be made to utilize chemicals of an organic or biodegradable nature in order to offer the least impact to the environment.

PART 3 - IMPLEMENTATION

3.1 TREATMENTS

A. Removal Operation: (Treatment A).

1. Trees designated to be removed by hand on the Tree Preservation Plan shall be painted with an "X" by the Urban Forester or Owner's Representative.
2. Designated removal trees shall be replaced on an inch for inch basis for the total diameter inches removed.
3. Plant replacement trees as near as possible to their original location (See planting procedure).
4. All tree removals shall be done by a certified Arborist by hand work.
5. All wood and debris from tree removal shall be removed from the site immediately.
6. All stumps shall be ground down to 12" below grade.
7. Any damage to preservation trees occurring during the removal operation shall be repaired.

B. Clearance Pruning: (Treatment B).

1. Trees to be pruned are designated on the Tree Treatment Schedule and will be identified by the Urban Forester or Owner's Representative.
2. All maintenance pruning work shall be done by a certified Arborist.
3. A Tree Treatment Schedule listing the preservation trees and treatments will be provided.
4. Pruning shall consist of the following method:

   (a) Pruning as defined by the American National Standard for Tree Care Operations - Tree Shrub and Other Woody Plant Maintenance Standards. This would include:

      (1) Crown raising or clearance pruning shall consist of the removal of the lower branches of a tree to provide clearance for streets and sidewalks while maintaining a balanced form.

   (b) All pruning cuts on Oak trees shall be covered with a thin coat of water-based black paint approved by Urban Forester or Owner's Representative if pruning is to occur in April, May, or June.

   (c) All wood and debris from pruning operations shall be removed from the site.

C. Fertilization Treatment - (Treatment C).

1. Preservation trees shall be treated as designated on the Tree Treatment Schedule.
2. Injection of the fertilizer into the root zone of a tree shall consist of the following methods:

   (a) Mix in a tank with agitation capability:

   (1) Fertilizer - 9 pounds by weight per 100 gallons water.
   (2) Mycorrhizal Fungi - 1 lb. per 100 gallons water.

   (b) Inject the Mixture on a 2.5 ft. square grid at 1/2 gallon of mix per hole or 8 gallons per 100 square feet.
   (c) Injection pressure shall be 100-150 PSI as soil conditions warrant.
   (d) Depth of injection shall be 6 - 12 inches.
   (e) Inject the root zone areas, where possible, in the available canopy areas plus 10 feet beyond dripline, but not in root loss zone.

3. Contractor is responsible for mixing, applying and disposal of all chemicals in accordance with strict adherence to manufacturer's directions and/or State and Federal Regulations.

D. Tree Protection Fencing Installation (Treatment D - refer to Tree Preservation Details).

1. Tree protection fencing is designated in the Tree Preservation Plan.
2. Fencing as follows:

   (a) Fabric, 4' tall plastic fence.
   (b) Iron T-bar posts, 6' tall, placed 8' - 0" on center, 24" into the ground.
   (c) Fence is to be attached to posts with wire ties placed every 24" on center.
   (d) Fence is to be placed a minimum of 1 foot from all root prune lines.

3. No access to fenced areas shall be permitted without prior approval of the Urban Forester or Owner's Representative.
4. Contractor shall provide for maintenance and repair of fencing during site work construction.
5. Contractor shall remove fence after completion of the site work unless otherwise notified by the Owner.

E. Mulching Operations (Treatment E).

1. A 4" layer of mulch shall be placed in the canopy area of trees where exposed soil or roots are present.
2. Approved access through the canopy areas for construction equipment or vehicles shall be covered with 6" of mulch covered by ¾" plywood.

F. Root Pruning Operation (Treatment F - refer to Tree Preservation Details).

1. Trenching areas are designated in the Tree Preservation Plan and exact locations will be marked in the field by the Urban Forester or Owner's Representative.
2. All encroachments located in the canopy of trees shall have the tree side of the excavation root pruned before excavation.
3. Trenching depth shall be 2 ft. minimum, not to exceed 6" in width.
4. Trenching shall be backfilled and compacted immediately after trenching.
5. All excavated material shall be placed outside the canopy of the tree or on plywood cover under the canopy of the tree to protect the root zone area.
6. Topsoil should be kept aside so as not to mix with sub grade material and placed back in the pit on the top of the backfill.

G. Root Pruning/Chemical Barrier Installation (Treatment G-refer to Tree Treatment Details).

1. Root Pruning Chemical barrier, barrier shall be installed where root pruning is scheduled to be done at the back of curb line for the new curb line.
2. All specifications for root pruning trenching shall apply to this installation with the following additional requirements:
   (a) 10 mil Polyethylene sheeting shall be placed in the trench to the bottom of the trench.
   (b) Anchor sheeting at the top of the trench in order to backfill the trench.
   (c) Cover the top of the sheeting so that no sheeting is exposed.

H. Utility Boring (Treatment H).

1. All utilities will be bored through the Critical Root Zone (CRZ) of all protected trees.
2. Bore pits will be outside the CRZ of each protected tree.
3. Bore layout must be approved in the field by the Urban Forester or Owner's Representative.
4. Any necessary excavations within the CRZ of protected trees will require the approval of the Urban Forester or Owner's Representative.

No.	Date	Revisions	App.

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10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TREE TREATMENT SPECIFICATIONS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 225 OF 362	

FOR REDUCED PLANS
original scale in inches
3 2 1 0

PLOTTED ON: Wednesday, September 23, 2026 10:10:06 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP NOTES.DWG

I. Zero Curb Cut Operation (Treatment I-refer to Tree Treatment Details).

1. Removal of the old curb located within the canopy area of preservation trees will be done in the following manner:
   (a) Dig out the existing street in front of curb to the bottom of existing curb.
   (b) Remove existing curb by pulling it into the street excavation without digging or clawing behind the curb.
   (c) Cover the exposed soil and roots immediately with 10 mil clear plastic to prevent desiccation of roots.
   (d) Anchor the plastic cover with wooden stakes driven into the soil (avoiding tree roots) behind the old curb edge.
   (e) Plastic shall remain in place until backfill operations are in progress. Plastic shall be removed at the same time as backfill is being placed so that the roots are not exposed to air.
   (f) New curb installation shall be formed and poured without disturbance or damage to the exposed roots located at the edge of the old removed curb.
   (g) Where necessary, backfill between the old and new curb area shall consist of:

(1) Backfill void up to within 6" of the top of the curb with a material acceptable to engineering standards. This material shall be clean and free of rocks, debris, or chemical residues that pose a threat to root environment.

(2) The remaining 6" of fill behind the curb shall be of the specified topsoil mix.

   (h) Backfill behind the old curb area (Tree Preservation Area) shall consist of the specified topsoil mix. This mix shall be applied in depths of no greater than 3" to the critical root zones of the protected trees by hand.

J. Transplant Operation (Treatment J refer to Tree Treatment Details).

1. Trees designated for transplanting are designated in the Tree Treatment Schedule.
2. Transplants are to be relocated to a location determined by the Urban Forester or Owner's Representative.
3. Contractor shall be responsible for proper relocation, planting, and maintenance of the transplanted trees for one (1) year.

K. Replacement Planting (Refer to Tree Treatment Details).

1. Replacement tree planting locations shall be indicated by the owner's representative.
2. Contractor is responsible for verifying locations of underground utilities prior to construction.
3. Trees shall be planted at least five (5') feet from any utility line, curb or sidewalk and outside all utility easements.
4. All plant material shall be maintained in a healthy growing condition, and must be replaced with plant material of similar variety and size if damaged, destroyed, diseased, or removed.
5. Measurement: Dimensions of trees and shrubs shall conform to the American Standard for Nursery Stock, latest edition (ANSI Z-60).
6. All trees shall be staked and secured according to accepted industry practice and details.
7. Each newly planted tree and shrub shall be pruned in accordance with the American Association of Nurserymen Standards or as directed by owner's representative to preserve the natural character of the plant. All dead wood, sucker, and broken or badly bruised branches shall be removed.
8. Guarantee: All plant material shall be guaranteed by the contractor for one full year from the date of installation. The owner shall be responsible for maintenance unless otherwise agreed with contractor. It shall be the contractor's responsibility to monitor the project during the guarantee period and inform the owner if problems develop with the plant material. A plant shall be considered dead if 25% or more of the crown, or main leader has died.

L. Repair/Replacement Operations

1. If any damage to preservation trees should occur beyond what is expected during the construction period, the Urban Forester or Owner's Representative shall appraise the damage and order the repair by the contractor or responsible party.
2. Trees other than those designated for removal that are destroyed or irreparably damaged as a result of construction operations, shall be removed and replaced with the same size species and variety up to and including 8 inches in diameter. Trees larger than 8 inches in diameter shall be replaced with an 8-inch diameter tree of the same species and variety and total contract amount will be reduced as determined by a qualified appraiser using the Guide for Plant Appraisal published by the International Society of Arboriculture (9th Edition 2000).
3. Owner shall be compensated for all costs involved in mitigation of damages and the appraisal thereof by the Urban Forester or Owner's Representative.

M. Sidewalk Installation

1. Route new sidewalks as far away from tree trunks as possible.
2. New sidewalks to be installed in the Critical Root Zone of protected trees shall be installed without excavating into grade and destroying vital roots.
3. Where possible, install new sidewalks in the footprint of the old sidewalks without disturbing underlying roots or existing grade.
4. Demolition of old sidewalks shall be done without disturbing underlying roots or existing grade.
5. All roots exposed from either demolition of an existing sidewalk or removal of vegetation cover shall be covered with 10 millimeter plastic sheeting or 2 inches of sand to prevent desiccation of roots.
6. No stabilized sand shall be used for sidewalks or in the Critical Root Zones of protected trees. Substitute geo-textile fabric for stabilized base.
7. Positive drainage must be maintained or provided in the Critical Root Zone where new sidewalks are to be installed.

No.	Date	Revisions	App.

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TREE TREATMENT SPECIFICATIONS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 226 OF 362	

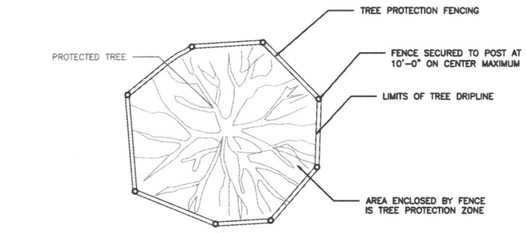
FOR REDUCED PLANS
original scale in inches
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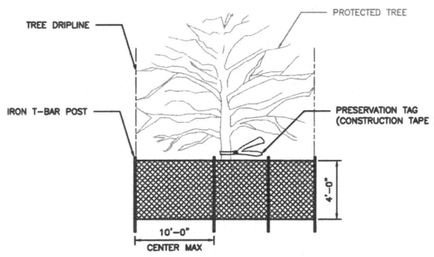
FOR REDUCED PLANS
original scale in inches
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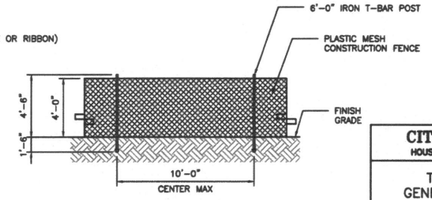
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PLAN VIEW
TREE PROTECTION FENCING DETAIL



FRONT VIEW
TREE PROTECTION FENCING DETAIL



DETAIL B-4
PROTECTIVE PLASTIC MESH FENCE

NOTES:

FENCE LOCATION MAY BE ADJUSTED TO ACTUAL SITE CONDITIONS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TREE PROTECTION
GENERAL REQUIREMENTS

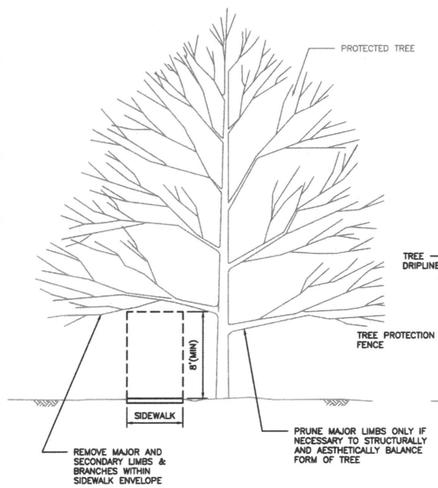
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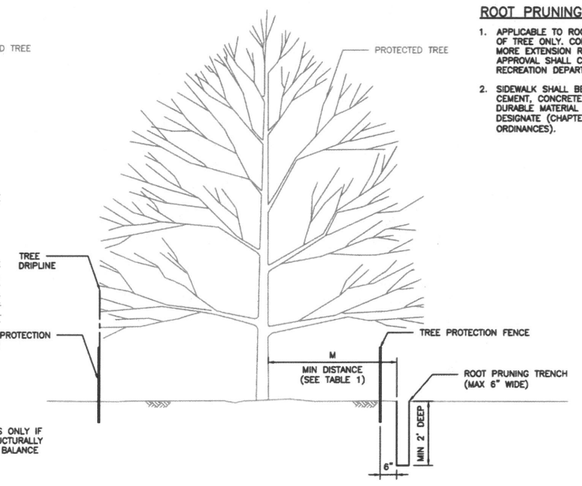
Standard by:	Standard by:
CITY ENGINEER	DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 01562-01

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TREE PRUNING



ROOT PRUNING DETAIL

ROOT PRUNING NOTE:

1. APPLICABLE TO ROOT PRUNING ON ONE SIDE OF TREE ONLY. CONSULT CITY ARBORIST FOR MORE EXTENSION ROOT PRUNING. FINAL APPROVAL SHALL COME FROM PARKS AND RECREATION DEPARTMENT.
2. SIDEWALK SHALL BE CONSTRUCTED OF EITHER CEMENT, CONCRETE, ASPHALT OR OTHER DURABLE MATERIAL AS THE COUNCIL MAY DESIGNATE (CHAPTER 40-91, CODE OF ORDINANCES).

TABLE 1
"M" DISTANCE TABLE

TREE TRUNK DIA. (IN)	*MINIMUM DISTANCE 'M'
< 6"	3 FEET
6" ≤ DIA. ≤ 20"	0.75 FEET PER DIA.-INCH
> 20"	CONSULT CITY ARBORIST

*MINIMUM DISTANCE FROM TREE TRUNK TO EDGE OF TRENCH

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TREE PROTECTION
TREE AND ROOT PRUNING

(SCALE: NOT TO SCALE)

APPROVED BY:

Standard by:	Standard by:
CITY ENGINEER	DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 01562-02

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

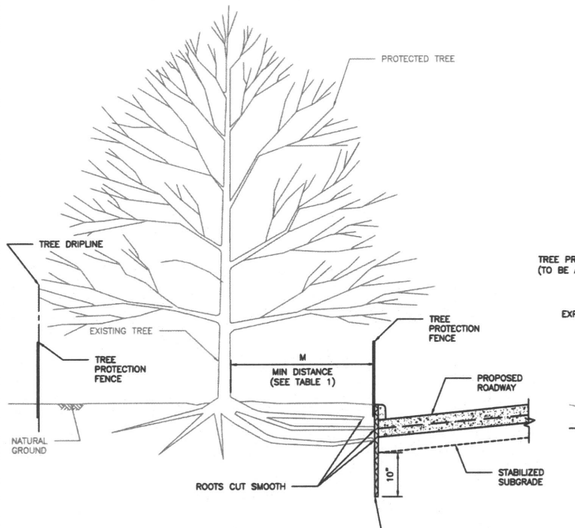
TREE PRESERVATION AND PROTECTION DETAILS

1 OF 4

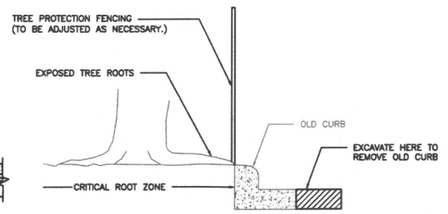
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S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 227 OF 362	

FOR REDUCED PLANS
original scale in inches
0 1 2 3

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ZERO CURB CUT DETAIL



OLD CURB REMOVAL

TABLE 1 "M" DISTANCE TABLE	
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< 6"	3 FEET
6" ≤ DIA. ≤ 20"	0.75 FEET PER DIA.–INCH
> 20"	CONSULT CITY ARBORIST

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TREE PROTECTION
ZERO CURB CUT

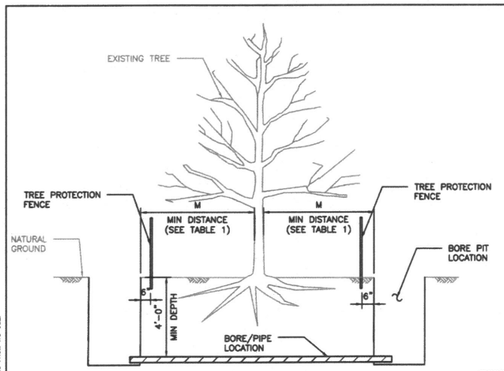
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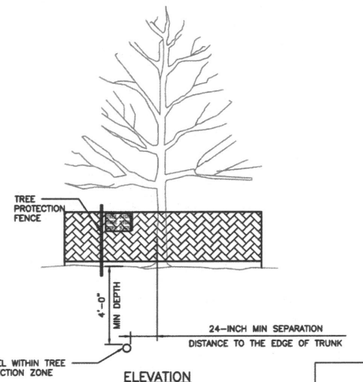
CITY ENGINEER	DIRECTOR OF HPW

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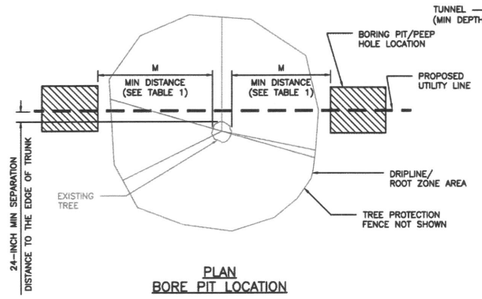
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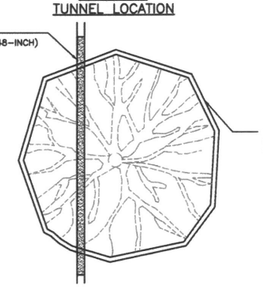
ELEVATION
BORE PIT LOCATION



ELEVATION
TUNNEL LOCATION



PLAN
BORE PIT LOCATION



PLAN
TUNNEL LOCATION

TABLE 1 "M" DISTANCE TABLE	
TREE TRUNK DIA. (IN)	*MINIMUM DISTANCE 'M'
< 6"	3 FEET
6" ≤ DIA. ≤ 20"	0.75 FEET PER DIA.–INCH
> 20"	CONSULT CITY ARBORIST

*MINIMUM DISTANCE FROM TREE TRUNK TO EDGE OF BORE PIT.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TREE PROTECTION
TUNNELING REQUIREMENTS

(SCALE: NOT TO SCALE)

APPROVED BY:

CITY ENGINEER	DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 01562-05

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SURVEYED BY:
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

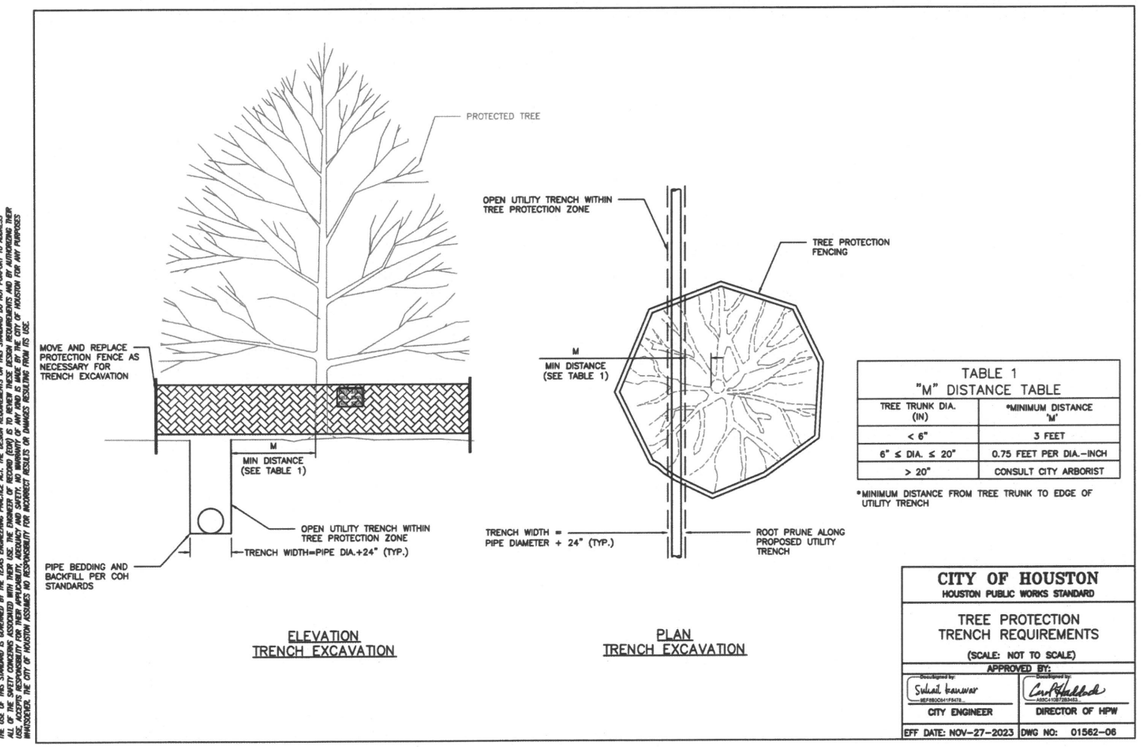
TREE PRESERVATION AND PROTECTION DETAILS

2 OF 4

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 228 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:10:29 AM
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FOR REDUCED PLANS
original scale in inches
3 2 1 0



ELEVATION
TRENCH EXCAVATION

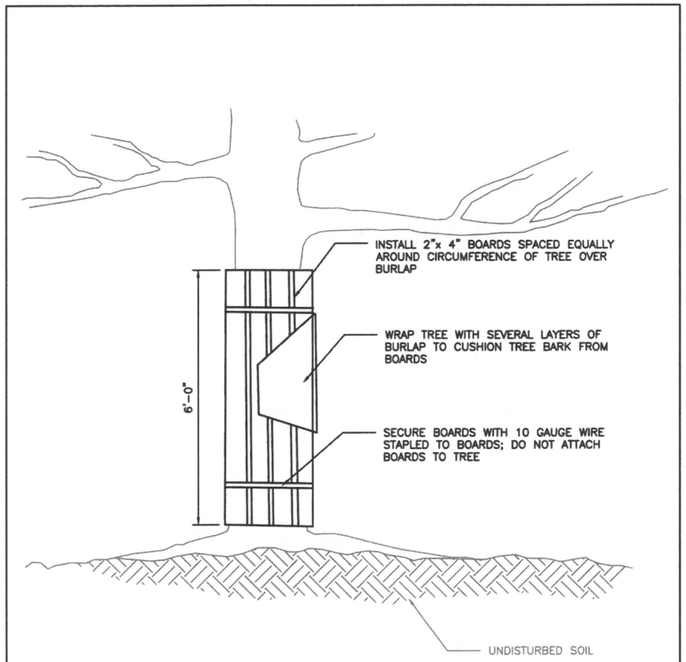
PLAN
TRENCH EXCAVATION

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> 20"	CONSULT CITY ARBORIST

*MINIMUM DISTANCE FROM TREE TRUNK TO EDGE OF UTILITY TRENCH

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CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TREE PROTECTION TRENCH REQUIREMENTS (SCALE: NOT TO SCALE)	
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DocuSigned by: Sukrit Kanwar CITY ENGINEER	DocuSigned by: Carol Haddock DIRECTOR OF HPW
EFF DATE: NOV-27-2023	DWG NO: 01562-06



ELEVATION

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CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
TREE BOARDING (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: Sukrit Kanwar CITY ENGINEER	DocuSigned by: Carol Haddock DIRECTOR OF HPW
EFF DATE: NOV-27-2023	DWG NO: 01562-07

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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TEXAS SERIAL NO. 87749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

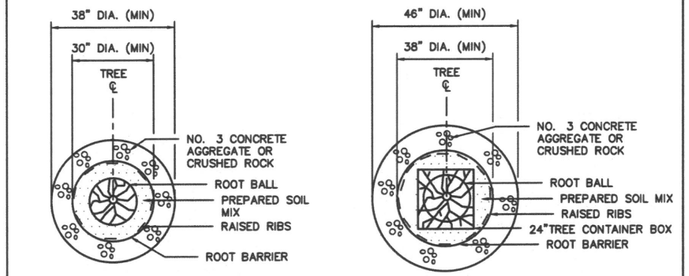
TREE PRESERVATION AND PROTECTION DETAILS

3 OF 4

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 229 OF 362	

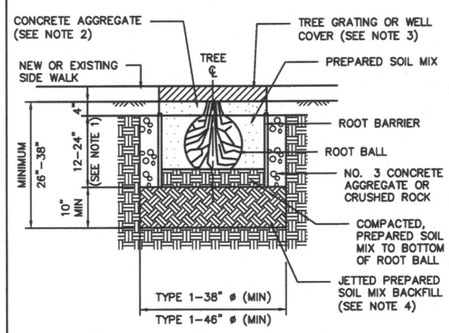
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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TREE PRESERVATION AND PROTECTION DETAILS.DWG

FOR REDUCED PLANS
original scale in inches
0 1 2 3



PLAN VIEW A
TYPE 1 (15 GAL./4 PANELS)

PLAN VIEW B
TYPE 2 (24" BOX/5 PANELS)



ELEVATION VIEW

NOTES:

1. ROOT BARRIERS SIZES 12"–24" SHALL BE USED DEPENDS ON THE SIZE OF THE TREE. SIZES 36" AND 48" ARE RECOMMENDED TO BE USED AT SLOPES AND RETAINING WALLS WHEN ADDITIONAL DEPTH IS REQUIRED.
2. CONCRETE AGGREGATE ONLY BE USED TO RAISE THE ELEVATION OF THE WELL COVER/TREE GRATING TO MATCH THE SIDE WALKS. IF TREE WELL COVER IS NOT REQUIRED, THE GRADE SURFACE OF THE TREE WELL SHALL BE 1" LOWER THAN THE SIDE WALK.
3. REFER PROJECT PLAN AND CITY OF HOUSTON STANDARDS FOR TREE GRATING/WELL COVER REQUIREMENTS.
4. PREPARED SOIL MIX SHALL BE PLACED IN PLANTING HOLE AND TEMPED TO BOTTOM OF ROOT BALL ELEVATION PRIOR TO PROCEEDING WITH TREE PLANTING. FOR PLANTING AND TREE MAINTENANCE, REFER STANDARD LANDSCAPE PLANTING SPECIFICATION FOR CITY OF HOUSTON.

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:

DocuSigned by: Suhail Kanwar — CITY ENGINEER

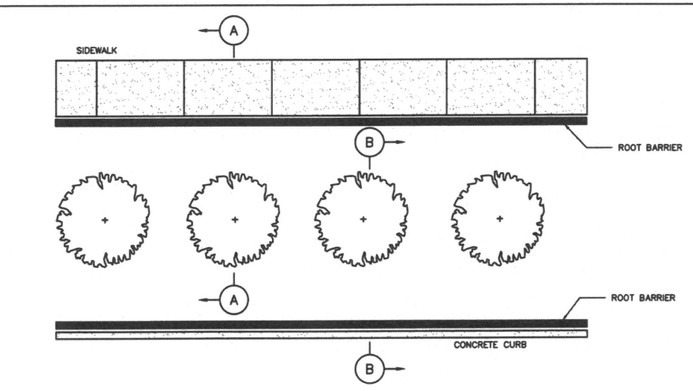
DocuSigned by: Carl Haddock — DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TREE ROOT BARRIERS
(CIRCULAR)

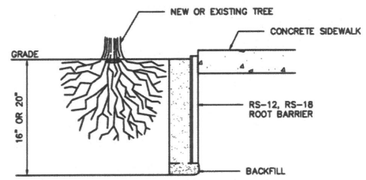
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EFF DATE: NOV–27–2023 | DWG NO: 02912–01

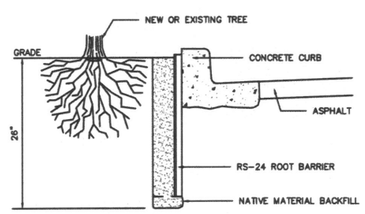


NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. THE RAISED ROOT GUIDING RIBS MUST BE FACING TOWARDS THE TREE ROOTS.
3. THE TOP OF THE BARRIER PANELS MUST BE SLIGHTLY ABOVE GRADE (NEVER BELOW GRADE).
4. POSITION BARRIER PANELS VERTICALLY WITH TOP AGAINST THE STRUCTURE TO BE PROTECTED.
5. SEE LANDSCAPE SITE PLAN TO DETERMINE TREES THAT REQUIRE BARRIER PANEL.
6. KEEP THE BARRIER TOP EDGE AT LEAST 1/2" ABOVE GRADE.



SECTION A–A
SIDEWALK



SECTION B–B
CURB & GUTTER PROTECTIONS

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

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TREE ROOT BARRIERS (LINEAR)

(SCALE: NOT TO SCALE)

APPROVED BY:

DocuSigned by: Suhail Kanwar — CITY ENGINEER

DocuSigned by: Carl Haddock — DIRECTOR OF HPW

EFF DATE: NOV–27–2023 | DWG NO: 02912–02

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TREE PRESERVATION AND PROTECTION DETAILS

4 OF 4

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 230 OF 362	

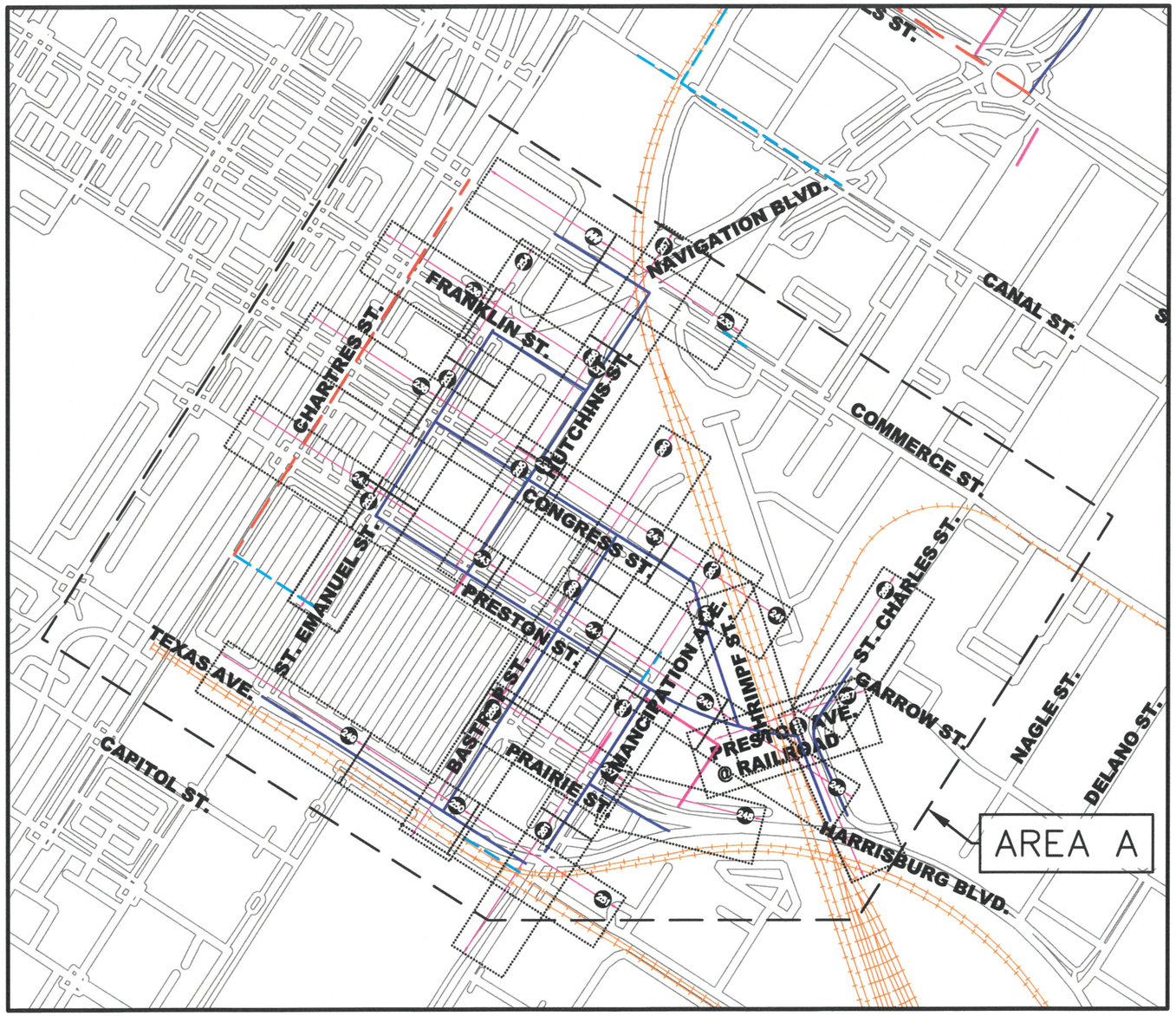
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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TREE PRESERVATION AND PROTECTION DETAILS.DWG

FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

##	SWPPP PLAN SHEET NUMBER
	PROJECT AREA LIMITS
	PROJECT SHEET LIMITS



N
W E
S

0 70' 140'

No.	Date	Revisions	App.

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

OVERALL TREE LAYOUT AREA~A

SHEET LAYOUT

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 231 OF 382	

PLOTTED ON: Wednesday, September 23, 2026 10:11:02 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\OVERALL TREE LAYOUT AREA ABC.DWG

FOR REDUCED PLANS
original scale in inches

3 2 1 0

LEGEND

- ## — SWPPP PLAN SHEET NUMBER
- PROJECT AREA LIMITS
- PROJECT SHEET LIMITS

No.	Date	Revisions	App.

AREA B

INTERSTATE 10

LOTTMAN ST.
ANN ST.
S. JENSEN DR.
RUNNELS ST.
MCALPINE ST.
N. ST. CHARLES ST.
BAYOU PARKVIEW DR.
FREUND ST.
N. LIVE OAK
FOX ST.
MIDDLE ST.
BERING ST.
CARY ST.
N. NAGLE ST.
ENGELKE ST.
SALTUS ST.
NAVIGATION BLVD.
CANAL ST.
N. VELASCO ST.
HUTCHINS ST.
COMMERCE ST.
CONGRESS ST.
N. PAIGE ST.
N. ENNIS ST.
N. PALMER ST.
ST. CHARLES ST.
GARROW ST.
NOLAN ST.
N. YORK ST.

N
W E
S

0 70' 140'

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DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

OVERALL TREE LAYOUT AREA~B

SHEET LAYOUT

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 232 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:11:05 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\OVERALL TREE LAYOUT AREA ABC.DWG

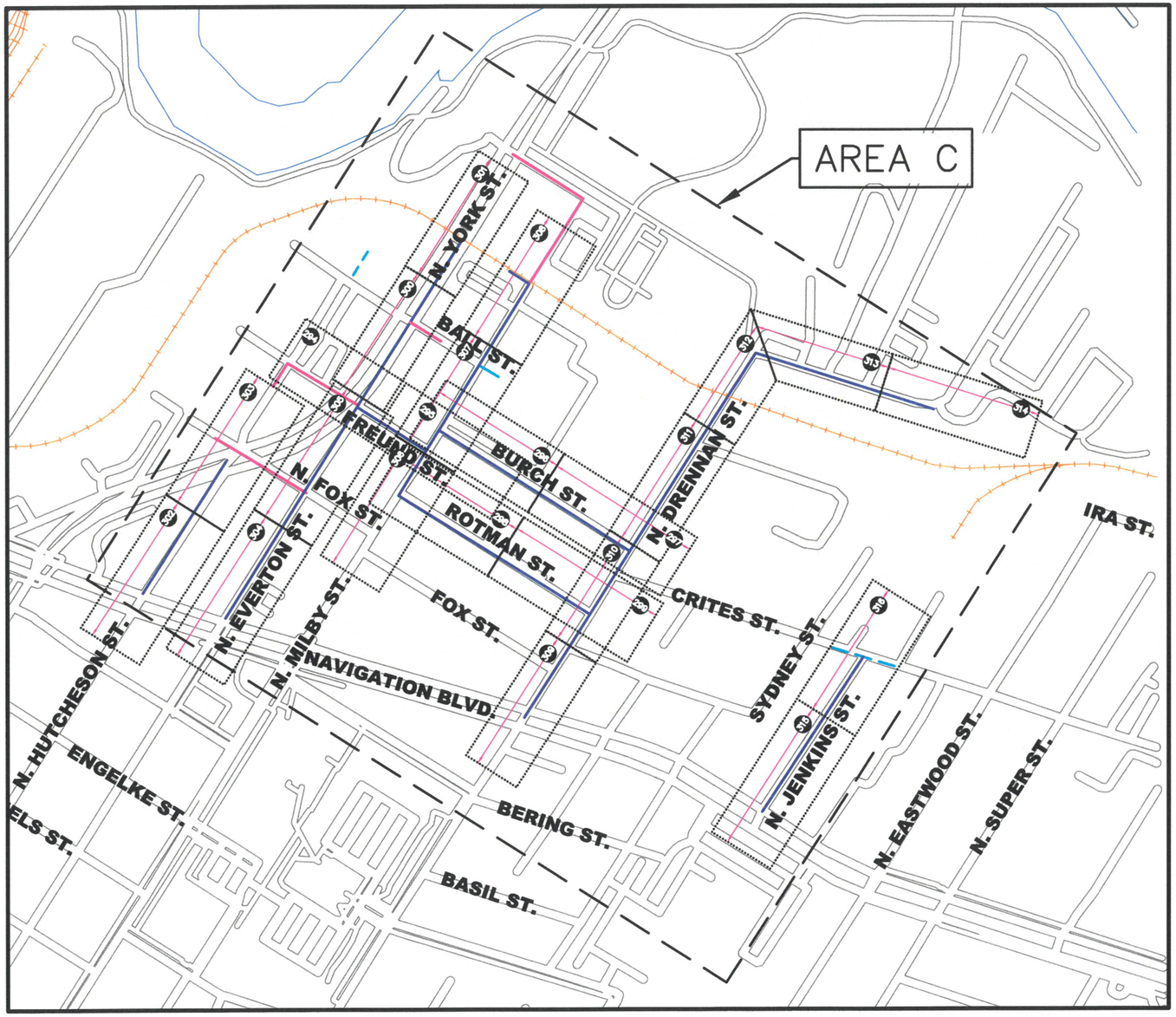
FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:11:09 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\OVERALL TREE LAYOUT AREA ABC.DWG

LEGEND

- ## — SWPPP PLAN SHEET NUMBER
- PROJECT AREA LIMITS
- PROJECT SHEET LIMITS

No.	Date	Revisions	App.



N
W E
S

0 70' 140'

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TEXAS SERIAL NO. 67749
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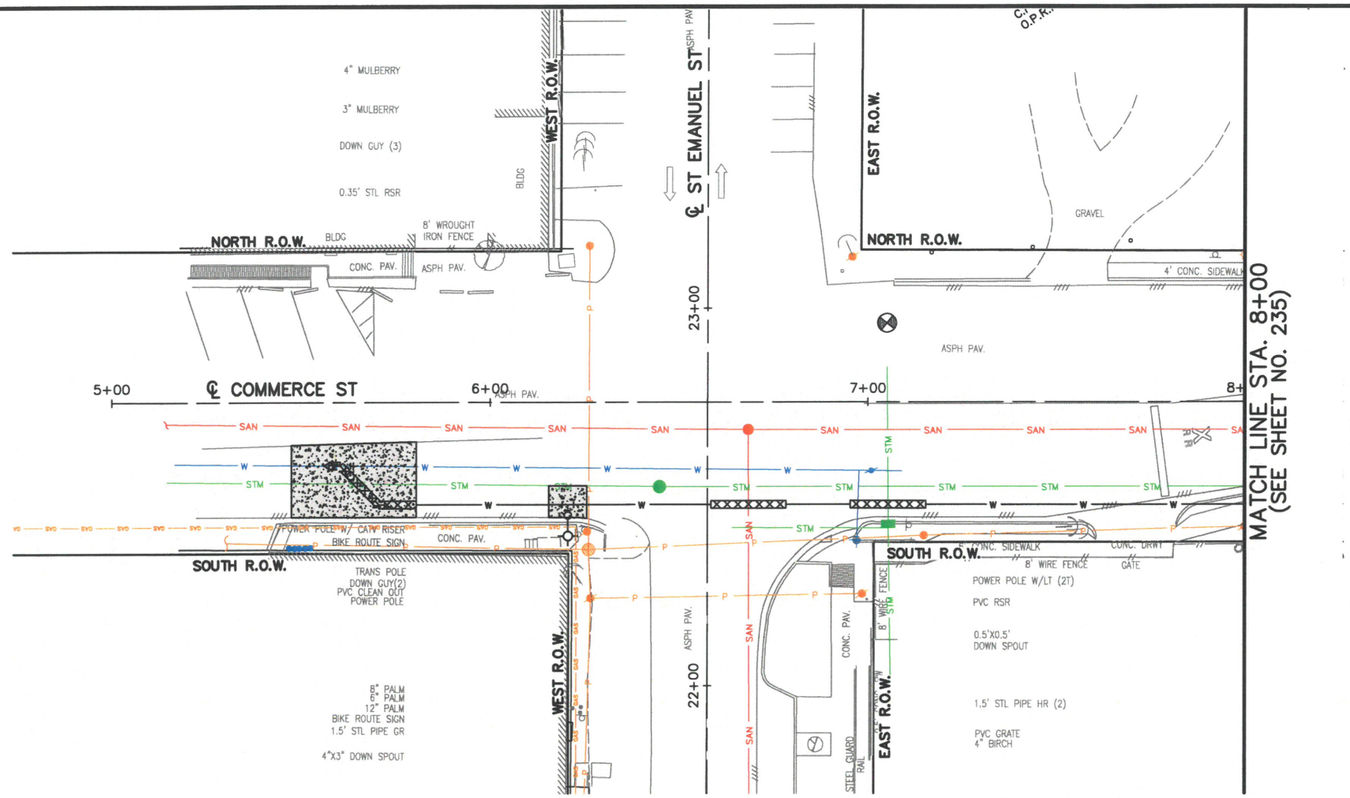
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

OVERALL TREE LAYOUT AREA~C

SHEET LAYOUT

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 233 OF 362	



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

0 20' 40'

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
2. REFER TO TREE PRESERVATION AND TREATMENT SPECIFICATIONS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.
3. LOCATE ALL BORE PITS OUTSIDE TREE CANOPY AREAS, AND USE THE NECESSARY AUGER LENGTH TO CLEAR THE TREE CANOPIES.
4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
TREATMENT E - MULCHING OPERATION
TREATMENT F - ROOT PRUNING TREATMENT
TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
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TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

No.	Date	Revisions	App.

SES HORIZON CONSULTING ENGINEERS, INC.
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

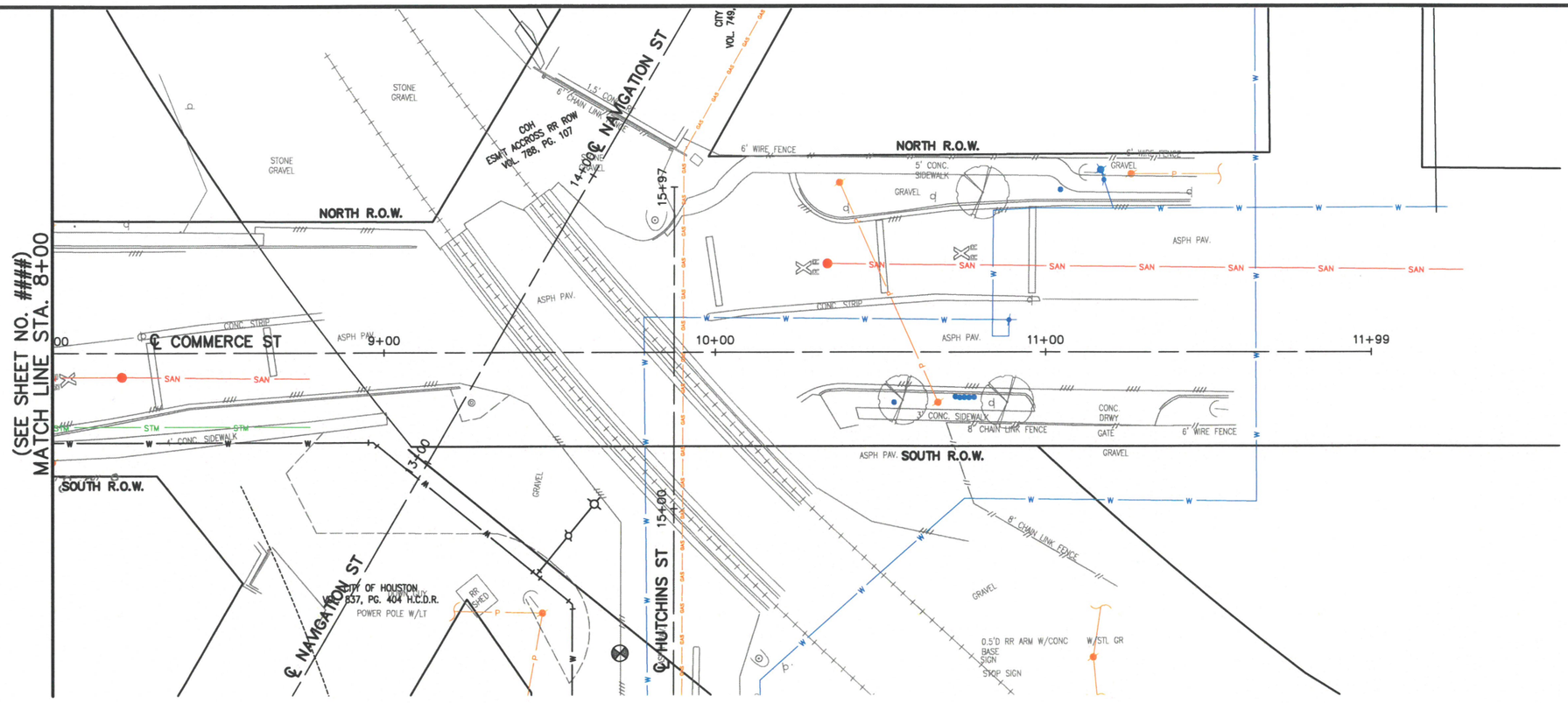
COMMERCE ST

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 8+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 234 OF 362	

FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 10:12:48 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

0 20' 40'

TREE PRESERVATION AND TREATMENT NOTES:

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TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

No.	Date	Revisions	App.

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TEXAS REGISTERED ENGINEERING FIRM F-003922

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

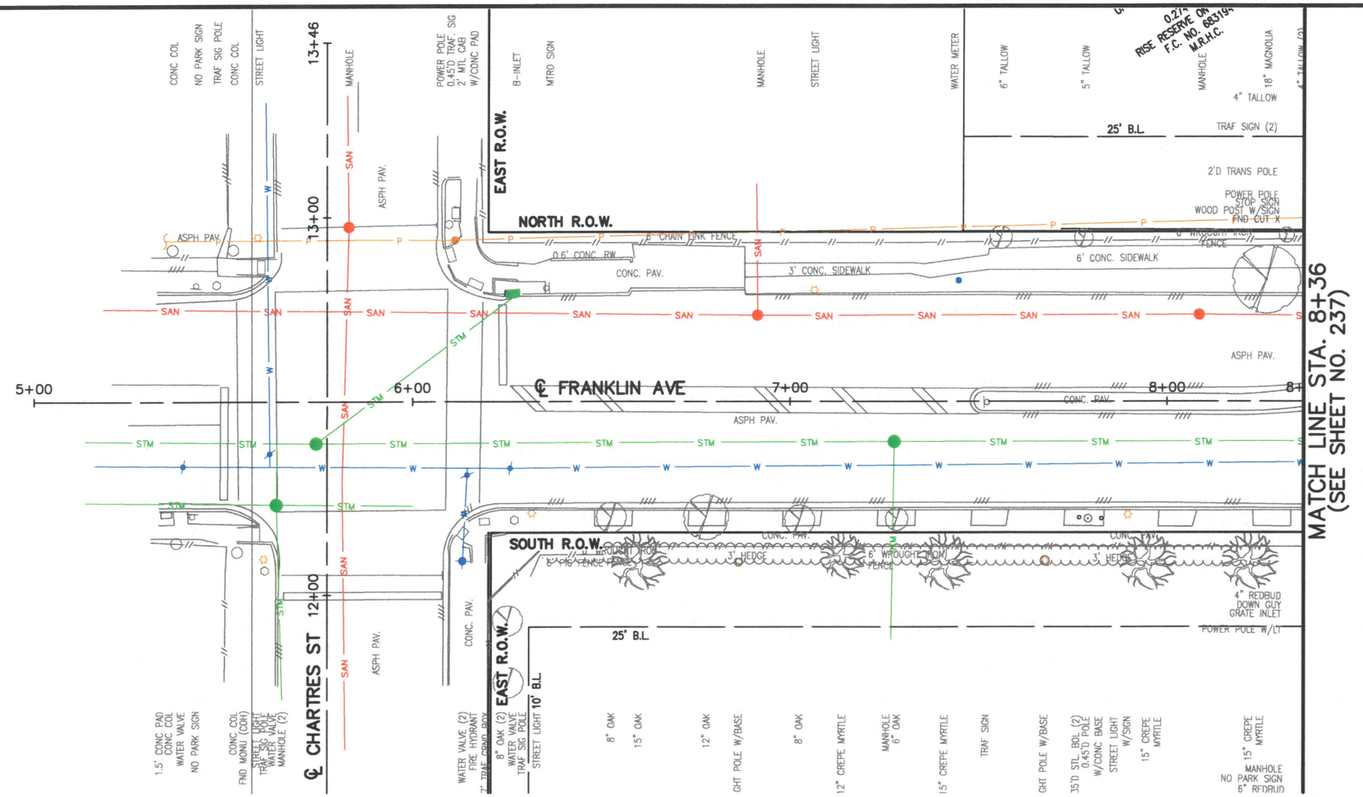
WATERLINE REPLACEMENT IN SECOND WARD

COMMERCE ST

TREE PRESERVATION PLAN
FROM STA. 8+00.00 TO STA. 11+98.64

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 235 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:12:59 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

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No.	Date	Revisions	App.

0 20' 40'

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

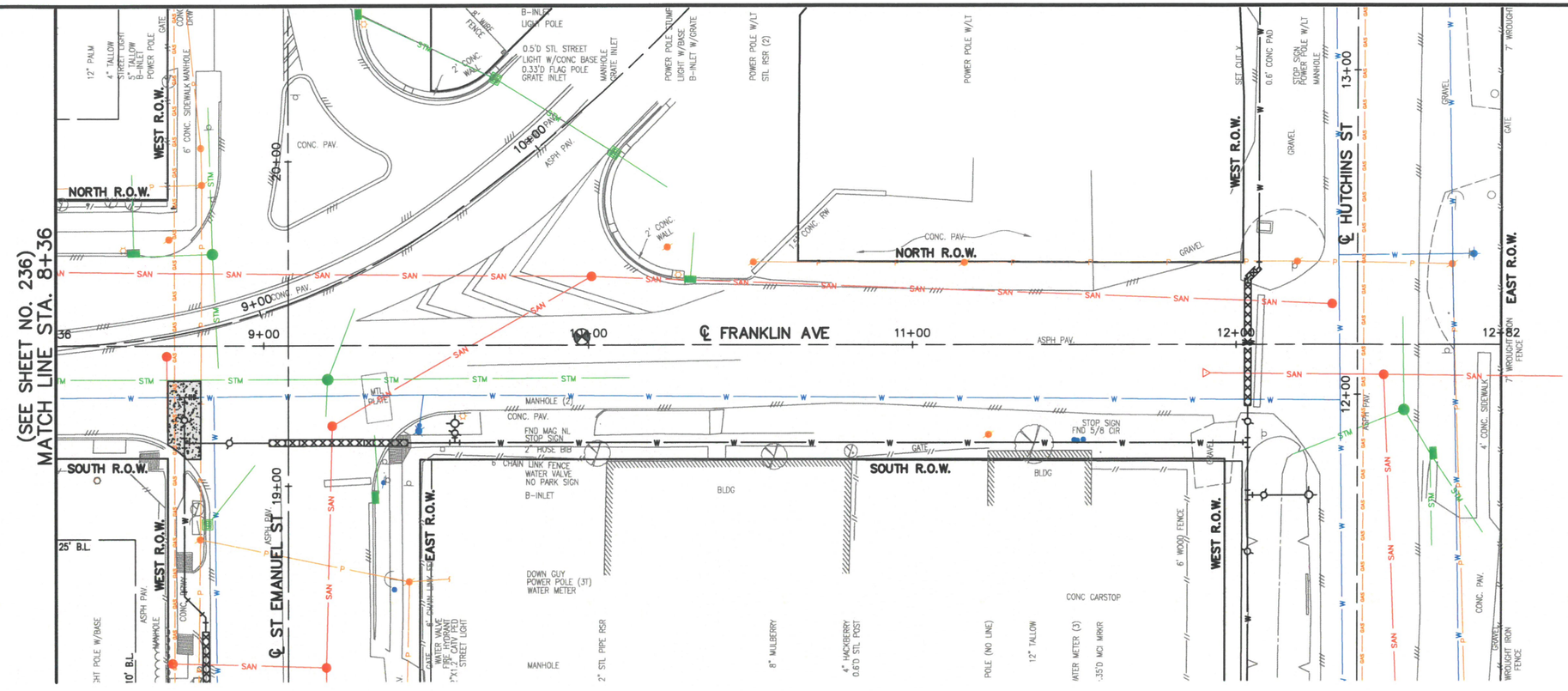
WATERLINE REPLACEMENT IN SECOND WARD

FRANKLIN AVE

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 8+36.20

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 236 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:13:09 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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- REPLACEMENT TREE

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0 20' 40'

No.	Date	Revisions	App.

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TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
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TREATMENT I - ZERO CURB CUT OPERATION
TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

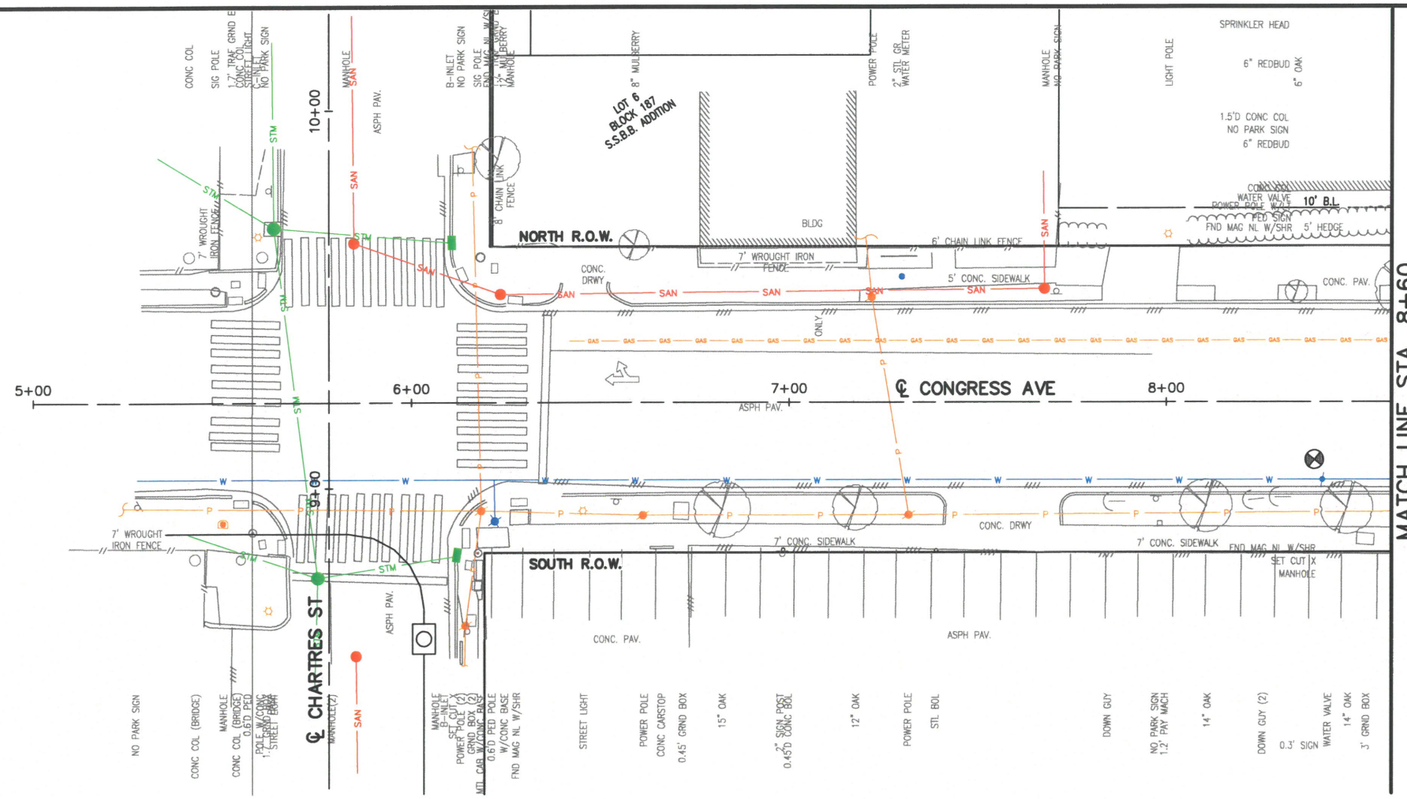
WATERLINE REPLACEMENT IN SECOND WARD

FRANKLIN AVE

TREE PRESERVATION PLAN
FROM STA. 8+36.20 TO STA. 12+82.05

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 237 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:13:19 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
2. REFER TO TREE PRESERVATION AND TREATMENT SPECIFICATIONS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.
3. LOCATE ALL BORE PITS OUTSIDE TREE CANOPY AREAS, AND USE THE NECESSARY AUGER LENGTH TO CLEAR THE TREE CANOPIES.
4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

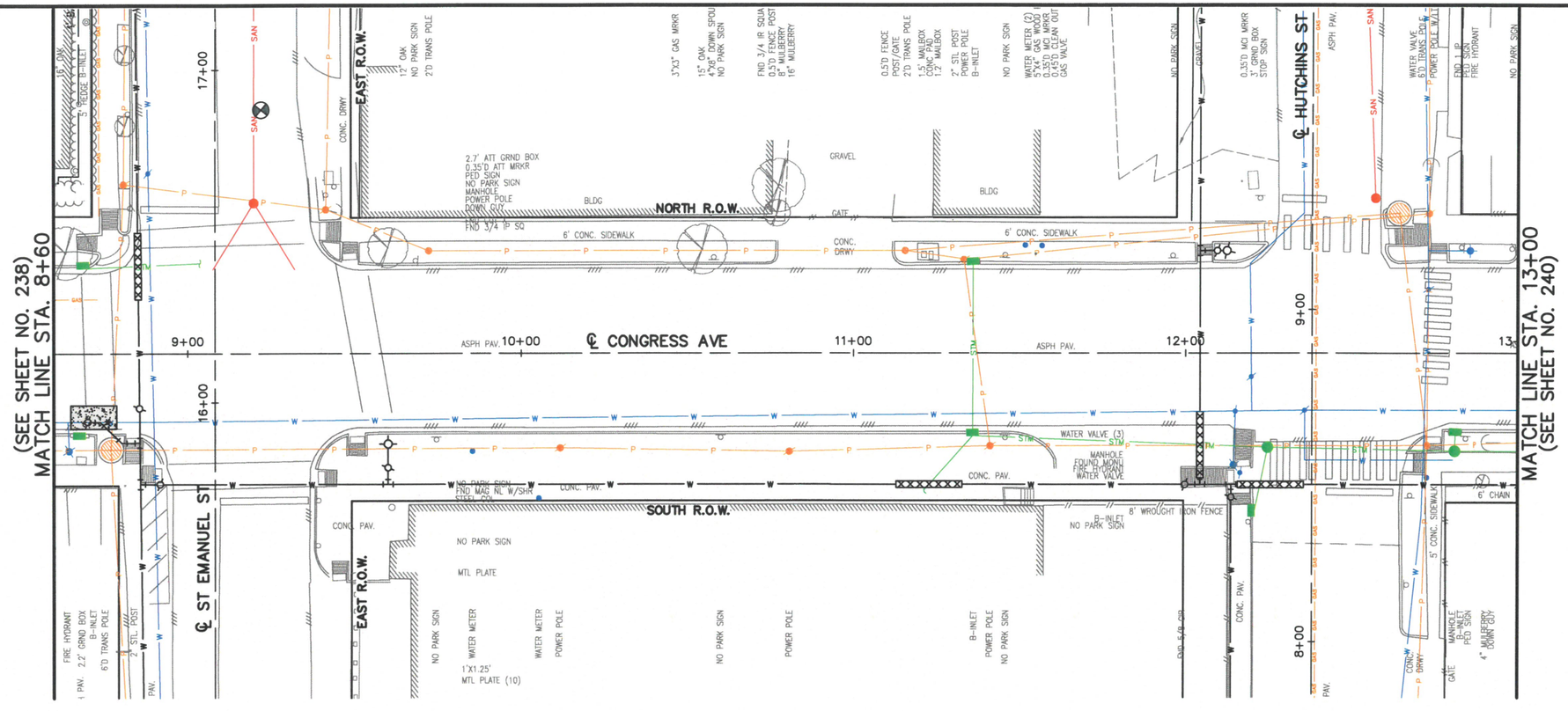
TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 8+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 238 OF 362	

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
3 2 1 0

PLOTTED ON: Wednesday, September 23, 2026 10:13:29 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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No.	Date	Revisions	App.

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0 20' 40'

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

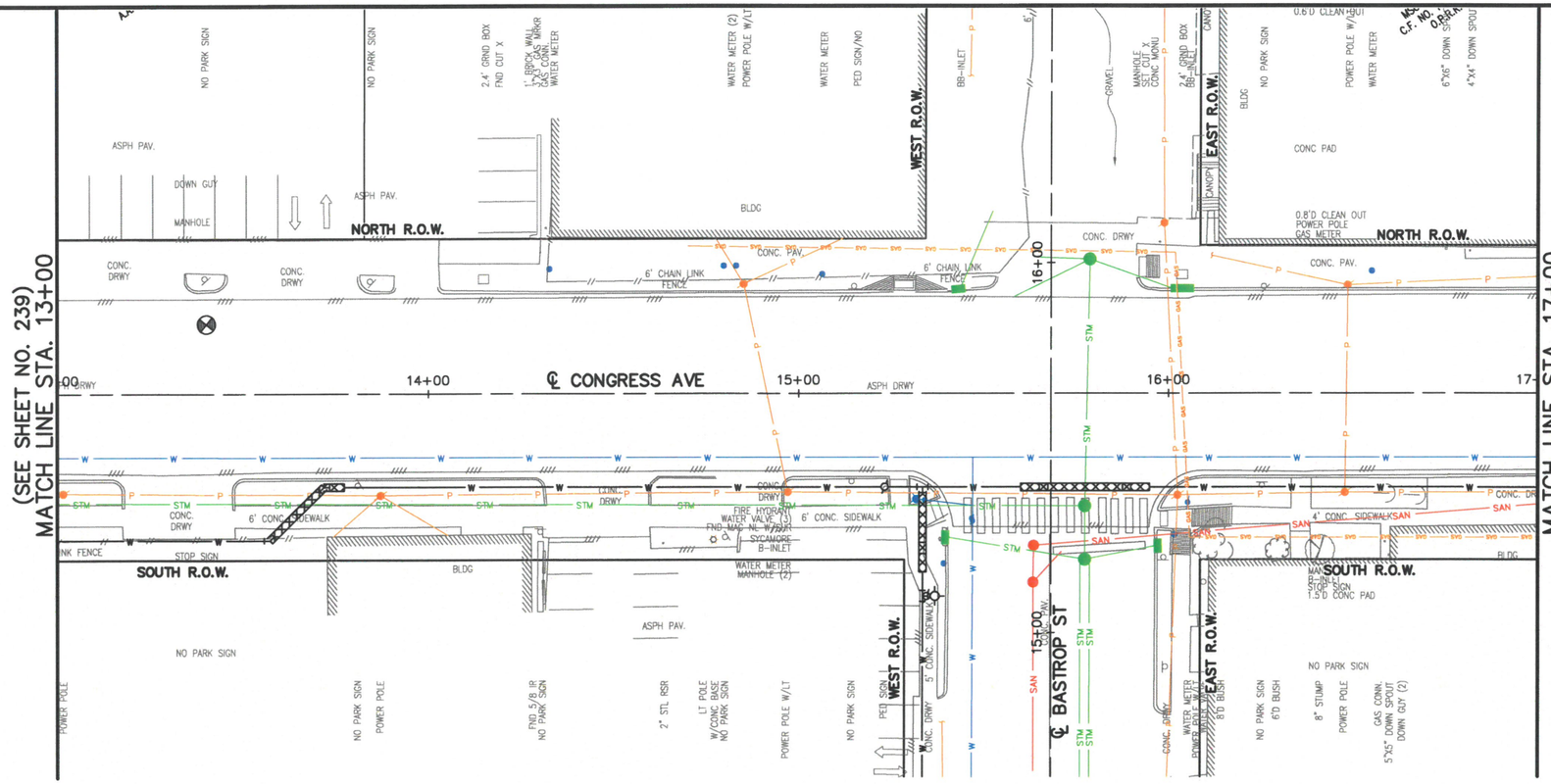
WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

TREE PRESERVATION PLAN
FROM STA. 8+60.00 TO STA. 13+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 239 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:13:39 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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- TREE PROTECTION FENCING (SEE DETAIL)
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No.	Date	Revisions	App.

0 20' 40'

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

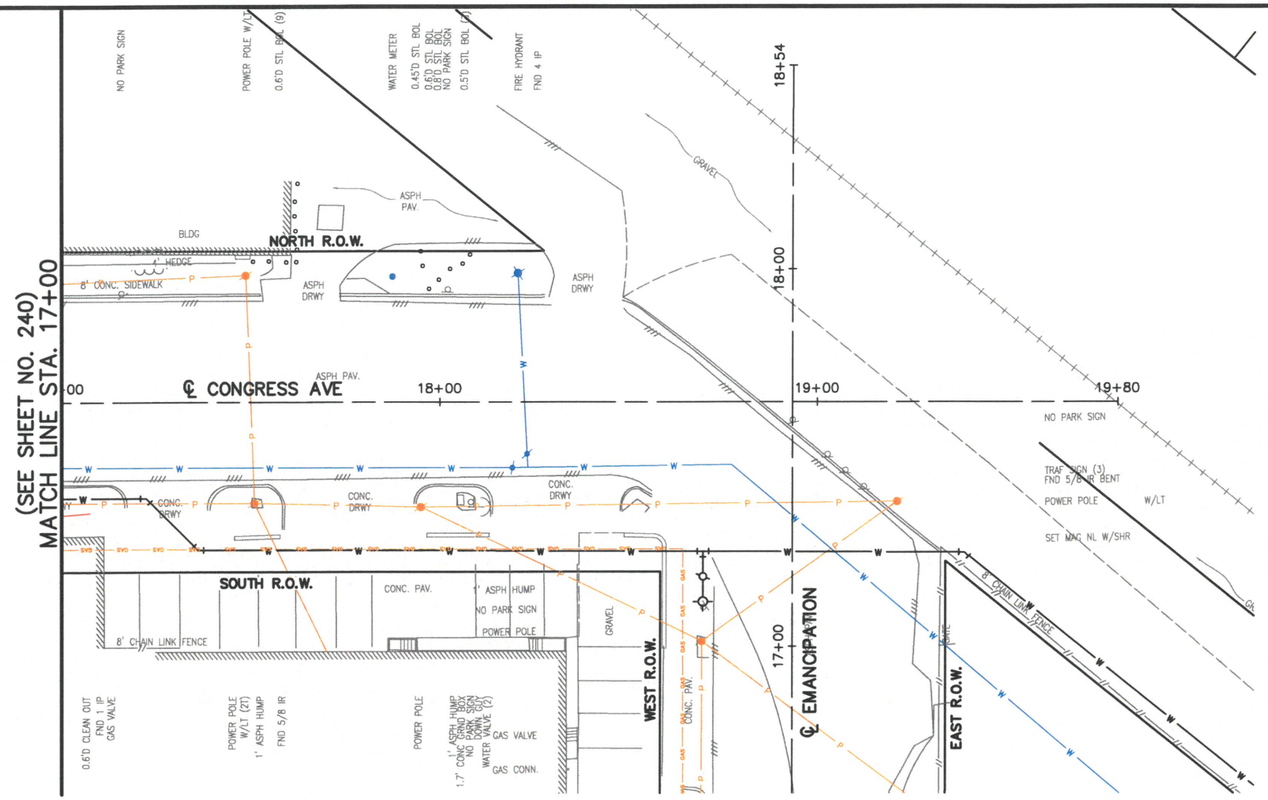
WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

TREE PRESERVATION PLAN
FROM STA. 13+00.00 TO STA. 17+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 240 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:13:49 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
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0 20' 40'

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SURVEYED BY: JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

CONGRESS AVE

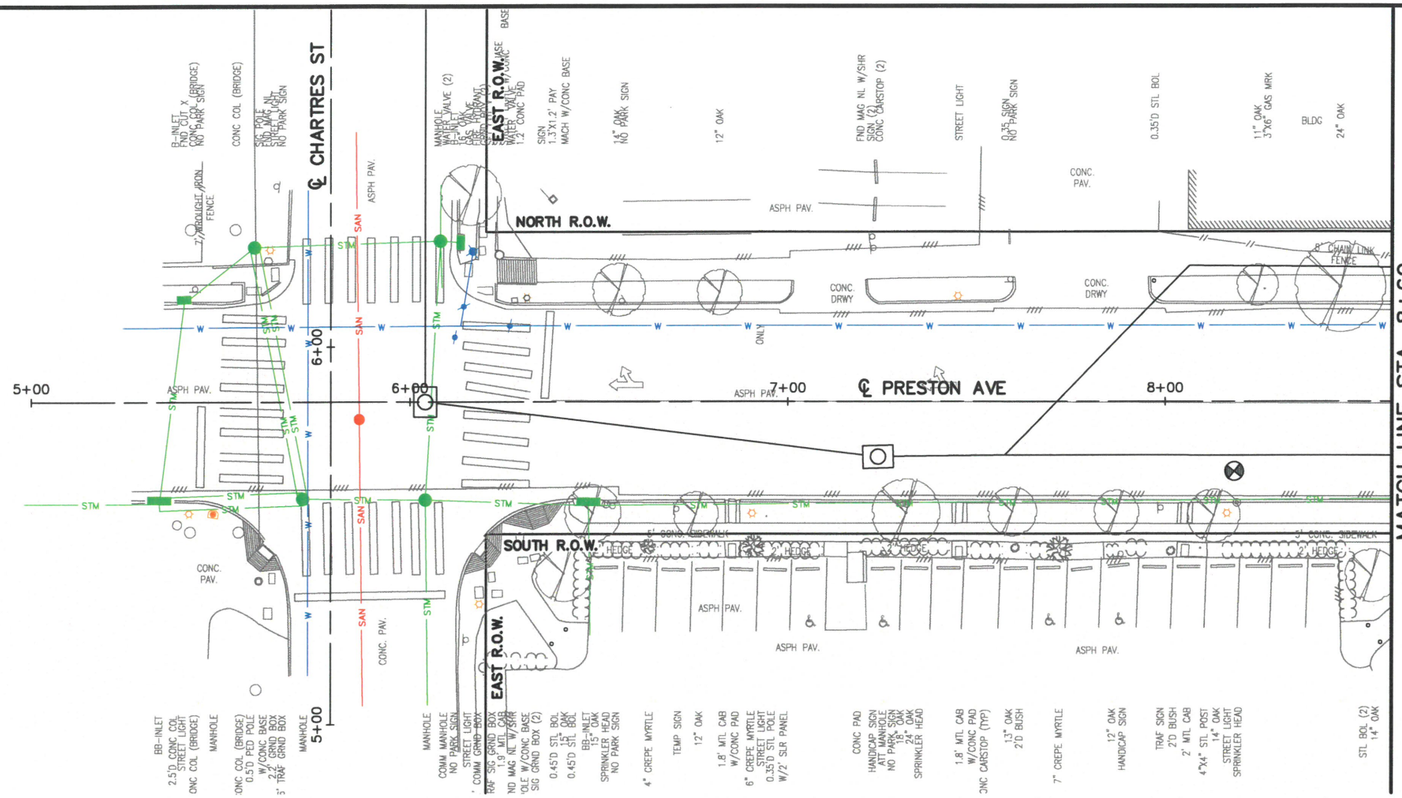
TREE PRESERVATION PLAN
FROM STA. 17+00.00 TO STA. 19+79.86

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 241 OF 362	

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 10:13:59 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

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- REPLACEMENT TREE

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No.	Date	Revisions	App.

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0 20' 40'

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

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CITY OF HOUSTON
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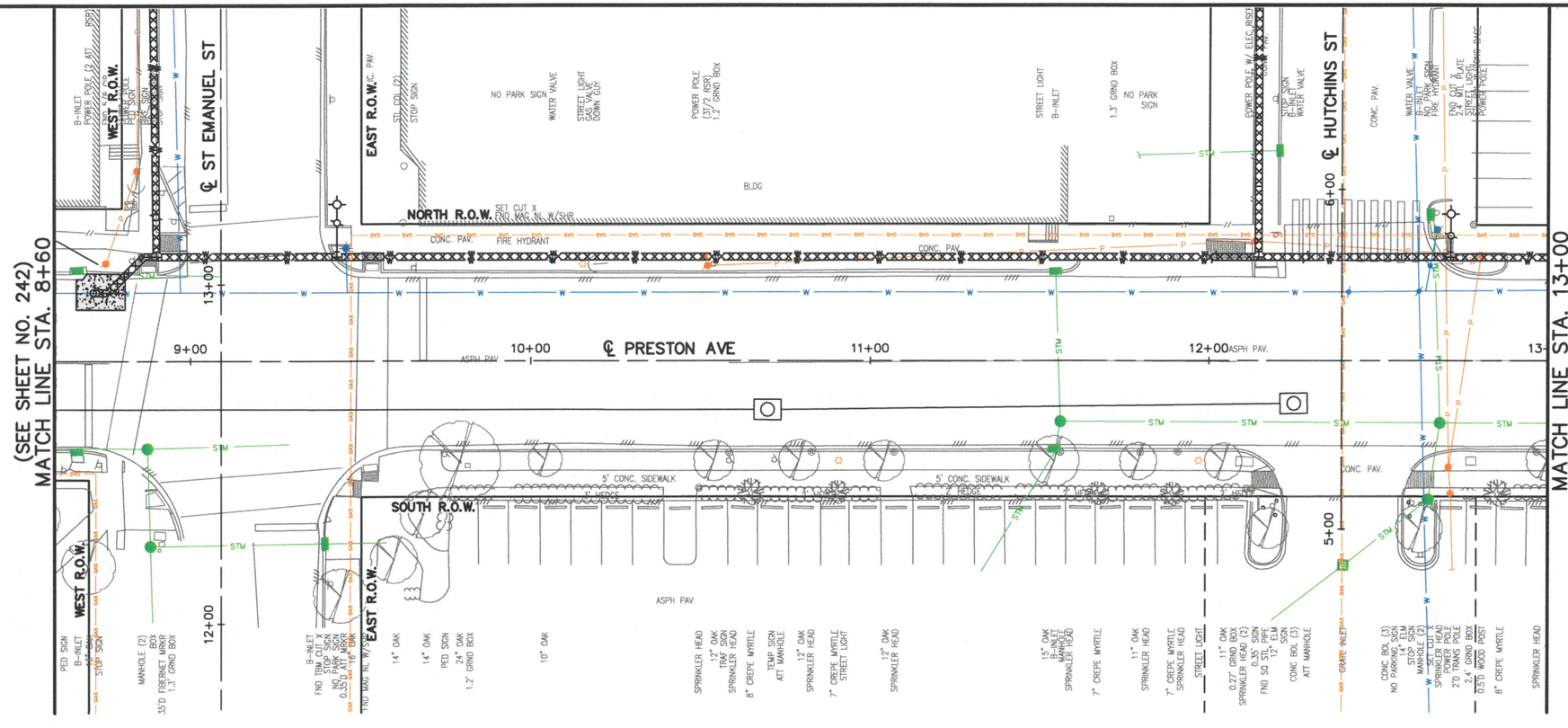
WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 8+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
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UYEN NGUYEN	
SHEET NO. 242 OF 362	

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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

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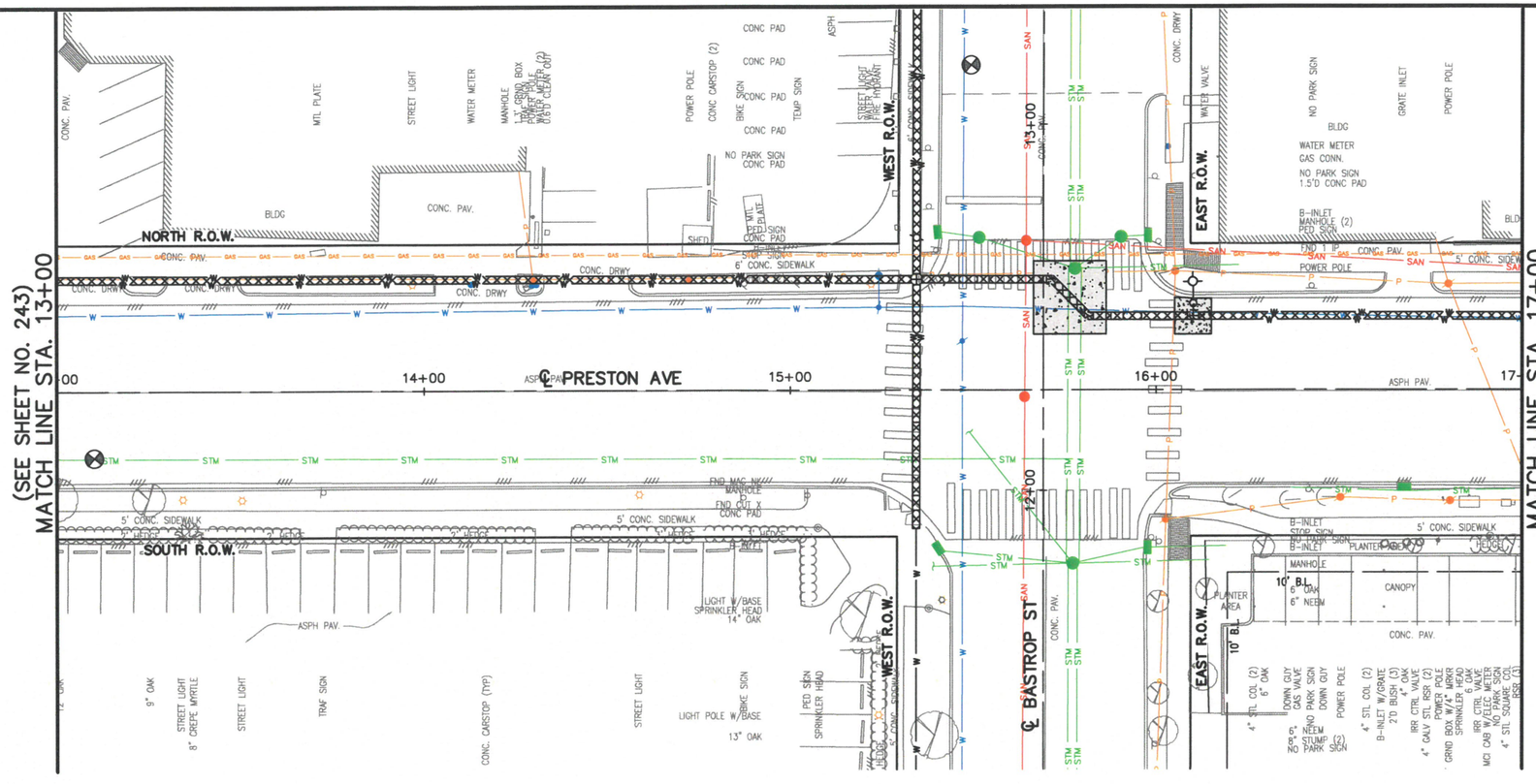
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TREE PRESERVATION PLAN
FROM STA. 8+60.00 TO STA. 13+00.00

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UYEN NGUYEN	
SHEET NO. 243 OF 362	

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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



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TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
TREATMENT E - MULCHING OPERATION
TREATMENT F - ROOT PRUNING TREATMENT
TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
TREATMENT H - UTILITY BORING OPERATION
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TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

No.	Date	Revisions	App.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

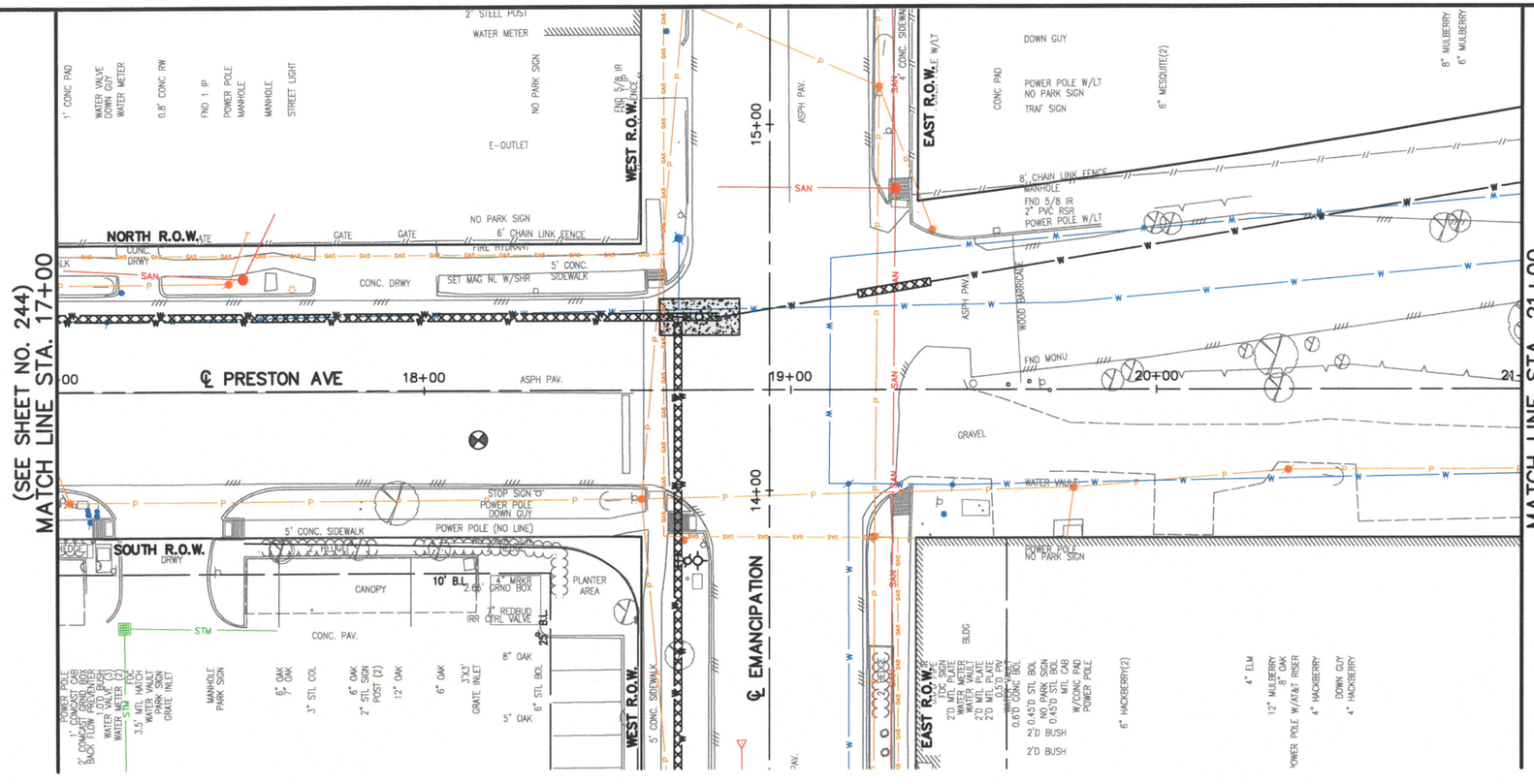
PRESTON AVE

TREE PRESERVATION PLAN
FROM STA. 13+00.00 TO STA. 17+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 244 OF 362	

FOR REDUCED PLANS
original scale in inches
3 2 1 0

PLOTTED ON: Wednesday, September 23, 2026 10:14:30 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

No.	Date	Revisions	App.

TREE PRESERVATION AND TREATMENT NOTES:

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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

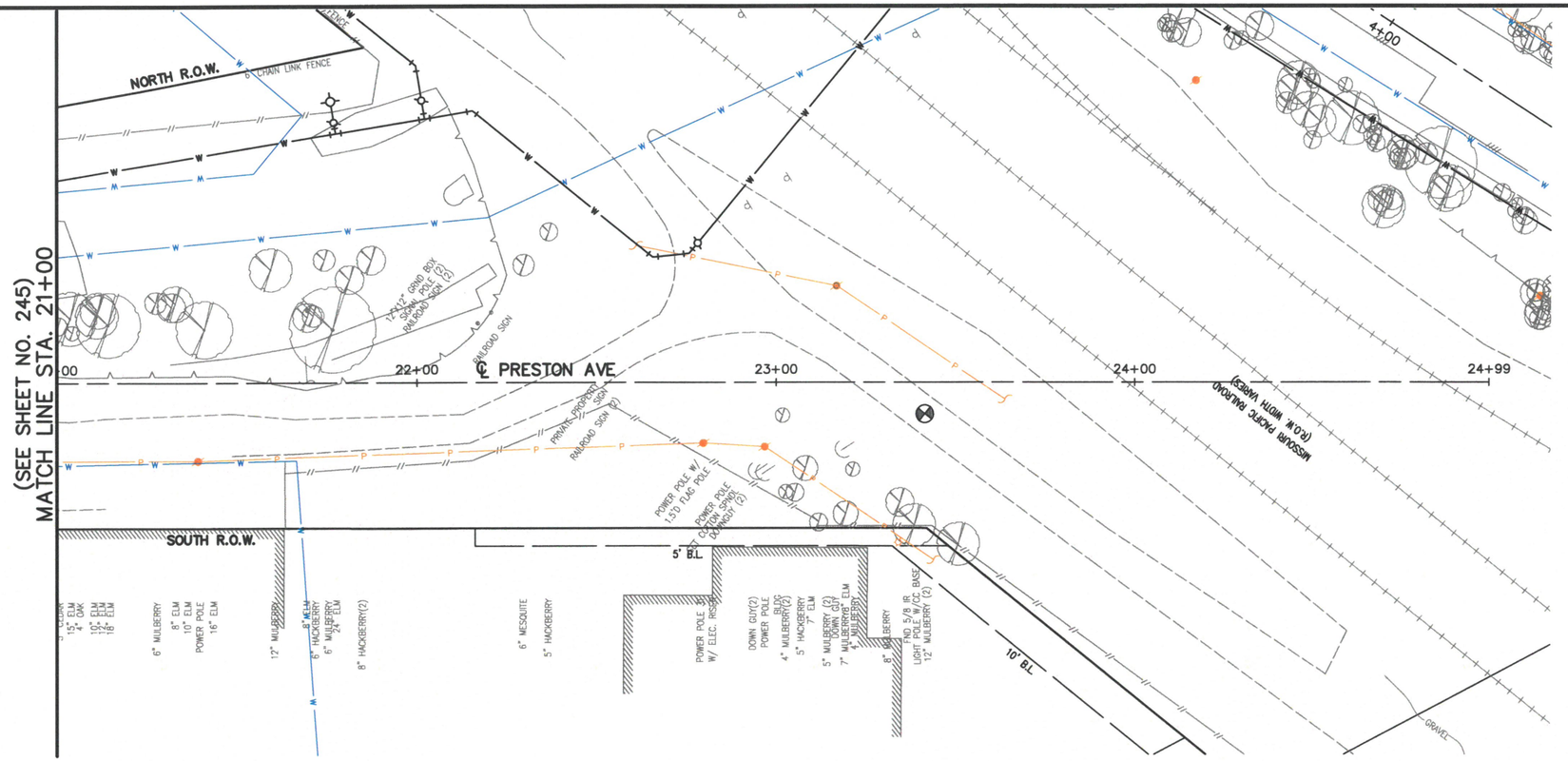
WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

TREE PRESERVATION PLAN
FROM STA. 17+00.00 TO STA. 21+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 245 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:14:40 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRESTON AVE

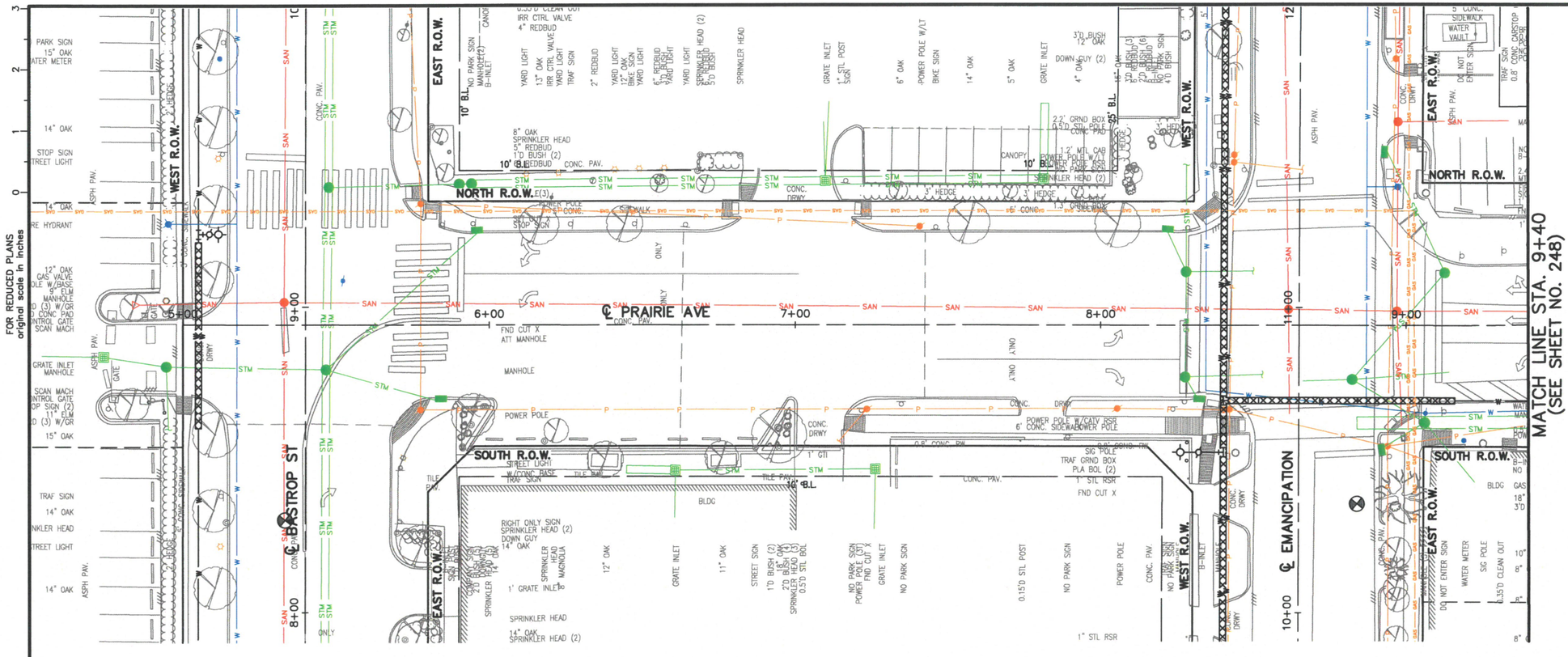
TREE PRESERVATION PLAN
FROM STA. 21+00.00 TO STA. 24+98.79

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 246 OF 362	

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 10:14:50 AM
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No.	Date	Revisions	App.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

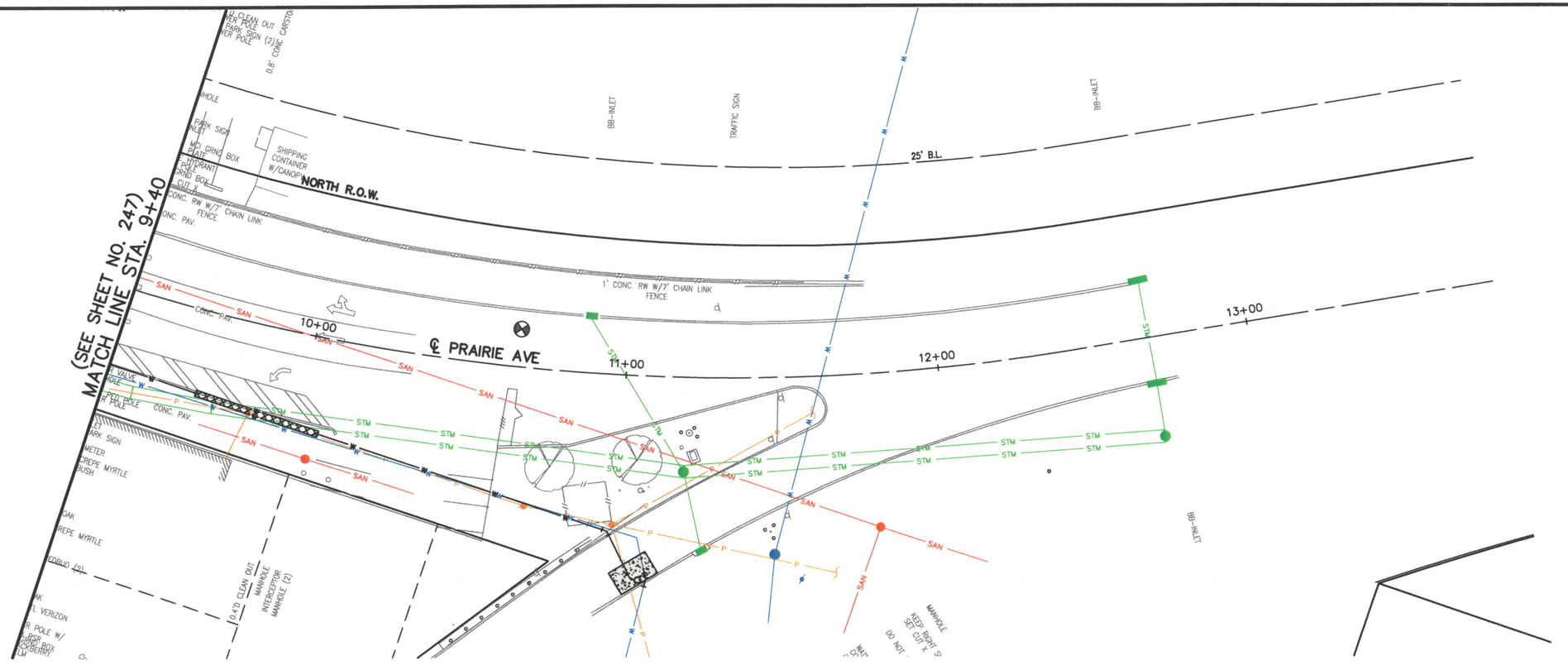
WATERLINE REPLACEMENT IN SECOND WARD

PRAIRIE AVE

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 247 OF 362	

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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

PRAIRIE AVE

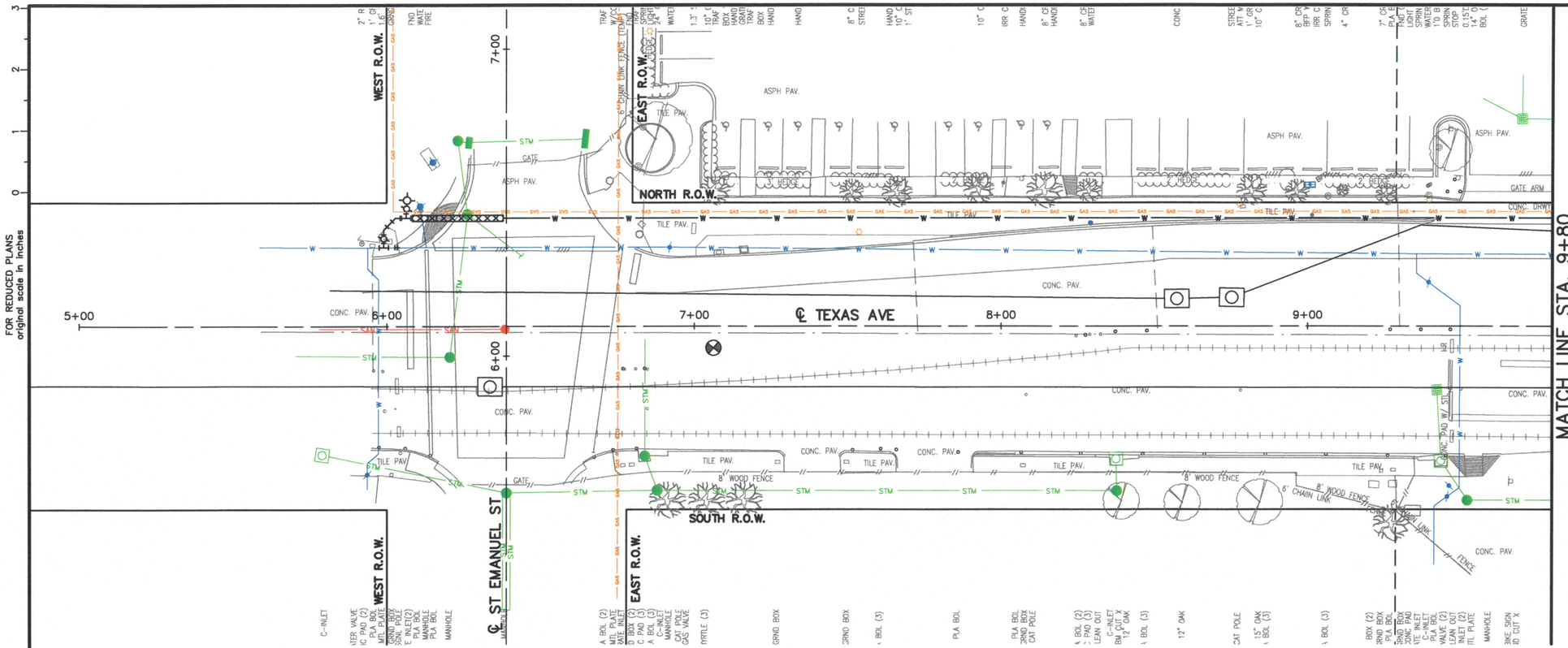
TREE PRESERVATION PLAN
FROM STA. 9+40.00 TO STA. 13+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 248 OF 362	

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
3 2 1 0

PLOTTED ON: Wednesday, September 23, 2026 10:15:10 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

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0 20' 40'

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CITY OF HOUSTON
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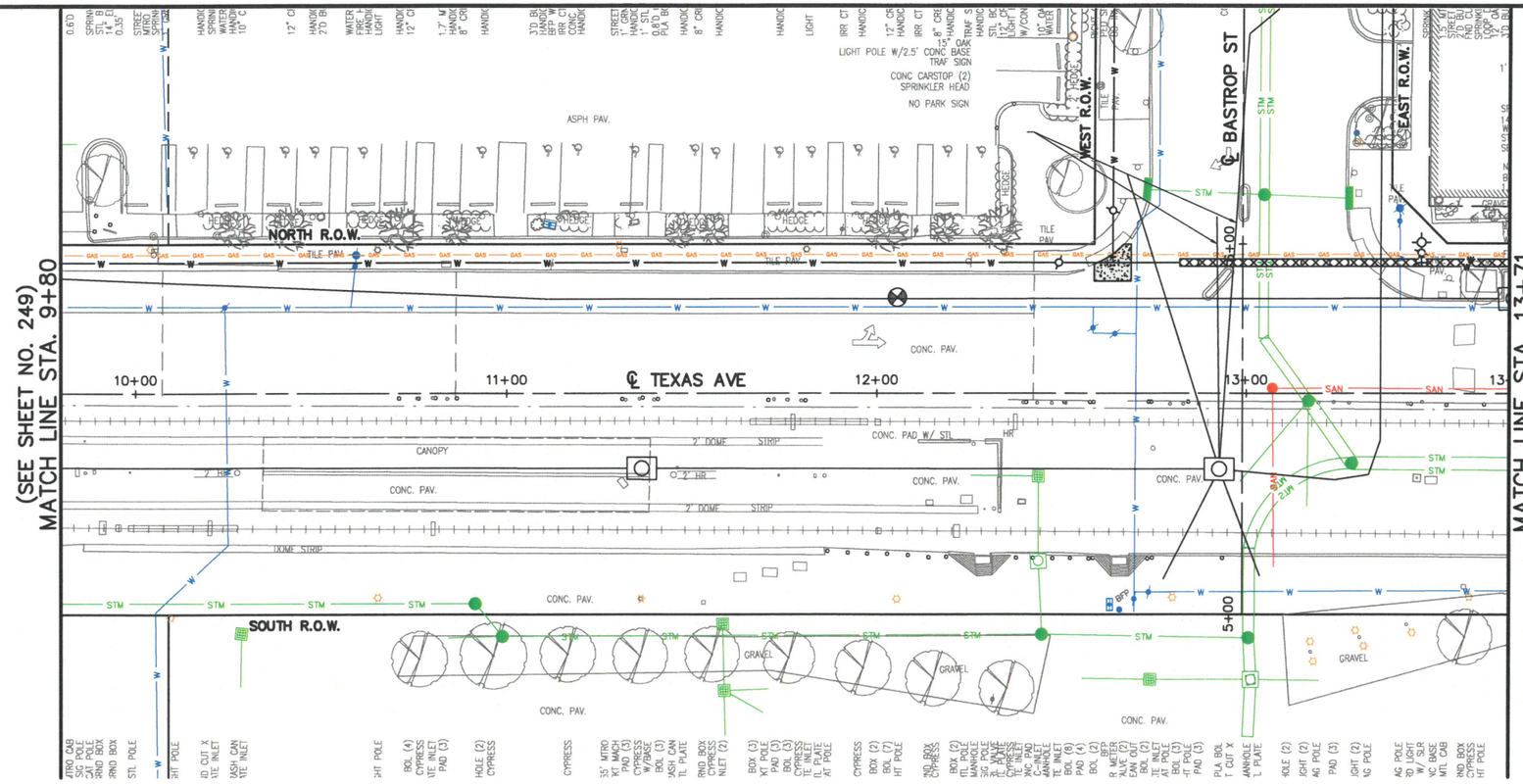
WATERLINE REPLACEMENT IN SECOND WARD

TEXAS AVE

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 9+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
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UYEN NGUYEN	
SHEET NO. 249 OF 362	

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CITY OF HOUSTON
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WATERLINE REPLACEMENT IN SECOND WARD

TEXAS AVE

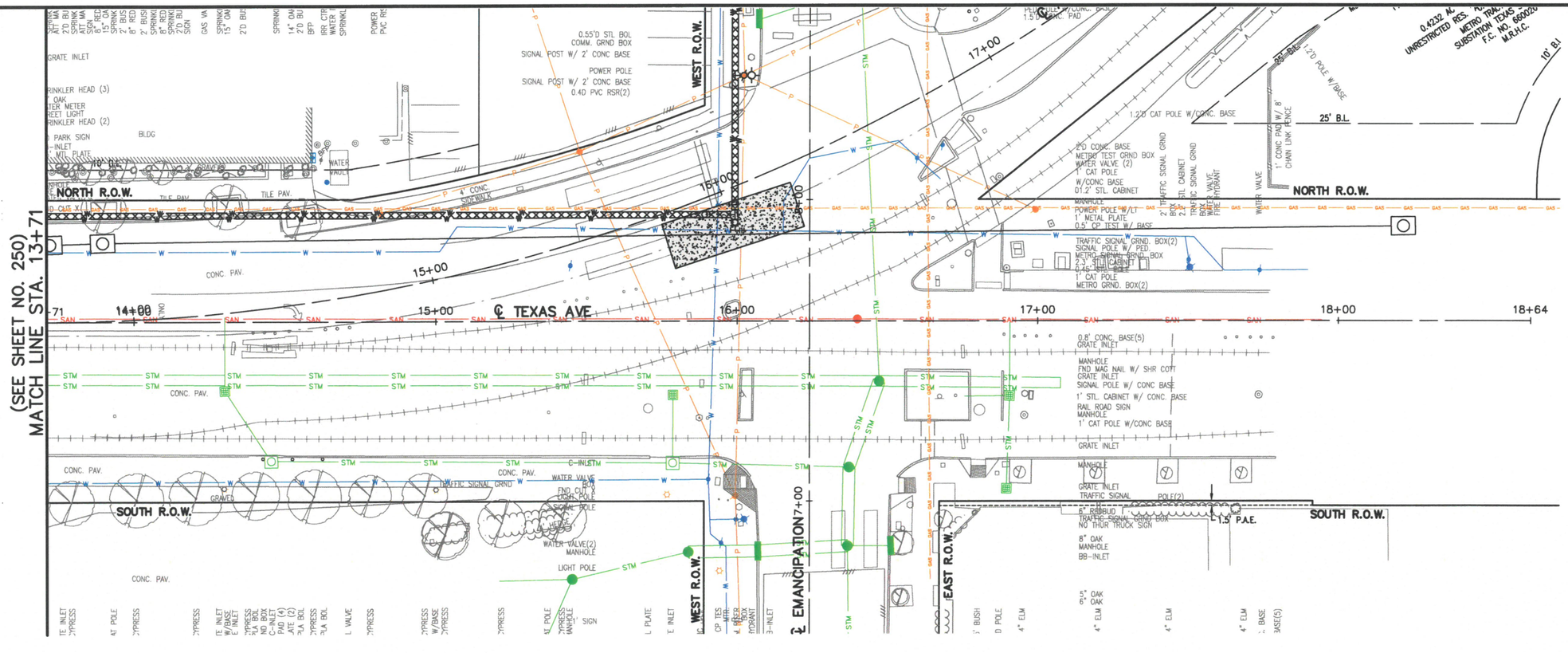
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No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 10:15:31 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

0 20' 40'

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
2. REFER TO TREE PRESERVATION AND TREATMENT SPECIFICATIONS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.
3. LOCATE ALL BORE PITS OUTSIDE TREE CANOPY AREAS, AND USE THE NECESSARY AUGER LENGTH TO CLEAR THE TREE CANOPIES.
4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
TREATMENT E - MULCHING OPERATION
TREATMENT F - ROOT PRUNING TREATMENT
TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
TREATMENT H - UTILITY BORING OPERATION
TREATMENT I - ZERO CURB CUT OPERATION
TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

No.	Date	Revisions	App.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

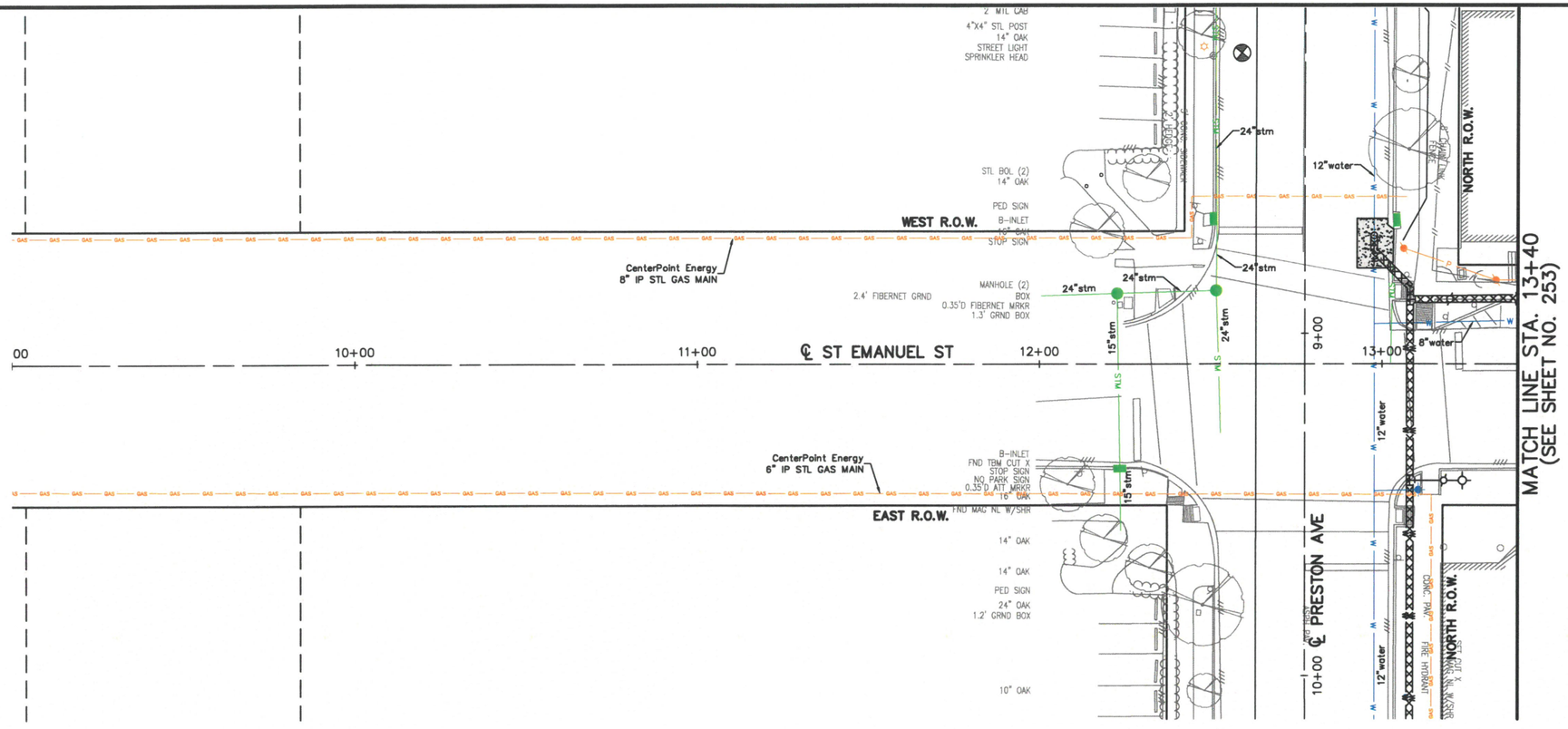
WATERLINE REPLACEMENT IN SECOND WARD

TEXAS AVE

TREE PRESERVATION PLAN
FROM STA. 13+71.27 TO STA. 18+64.05

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 251 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:15:40 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-H.DWG



FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

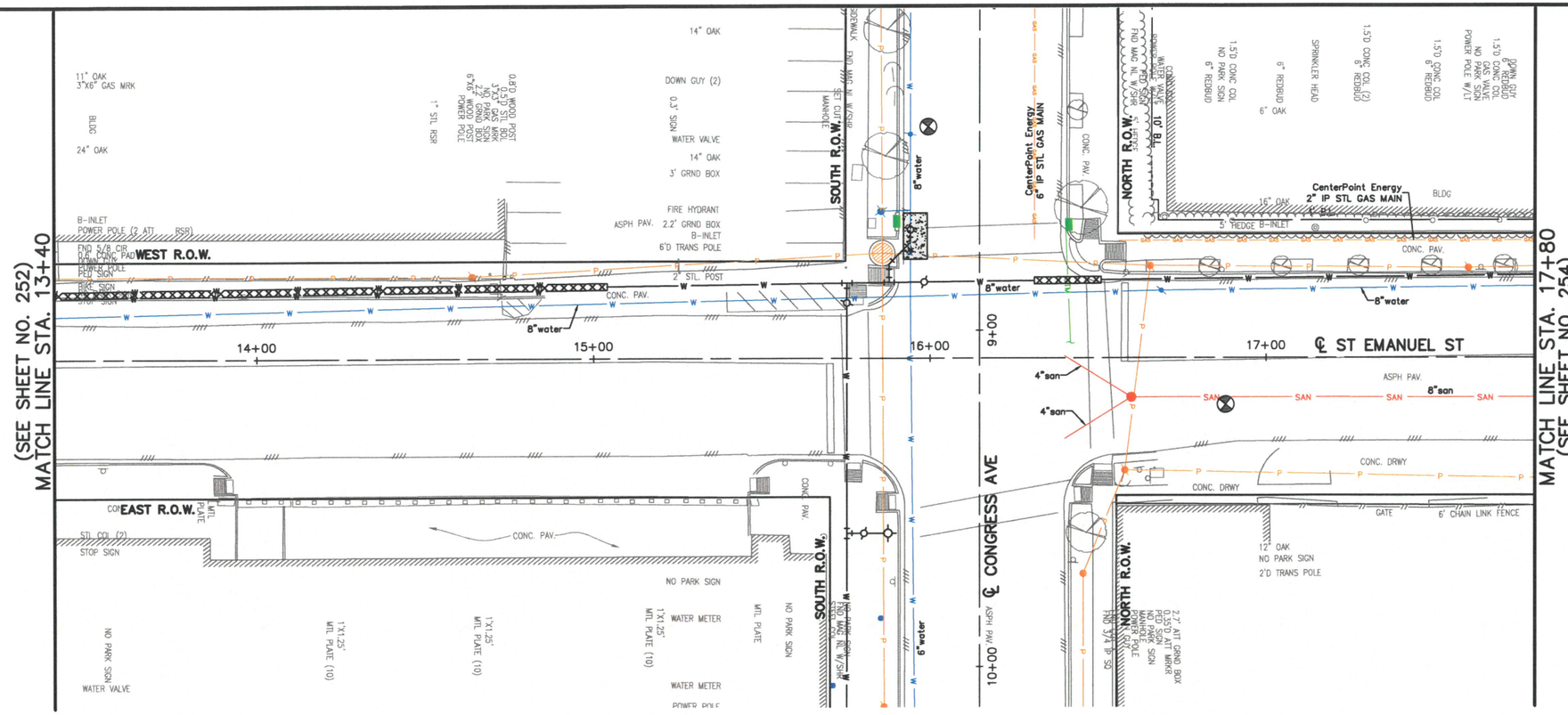
WATERLINE REPLACEMENT IN SECOND WARD

ST EMANUEL ST

TREE PRESERVATION PLAN
FROM STA. 9+00.00 TO STA. 13+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 252 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:16:23 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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0 20' 40'

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HOUSTON PUBLIC WORKS

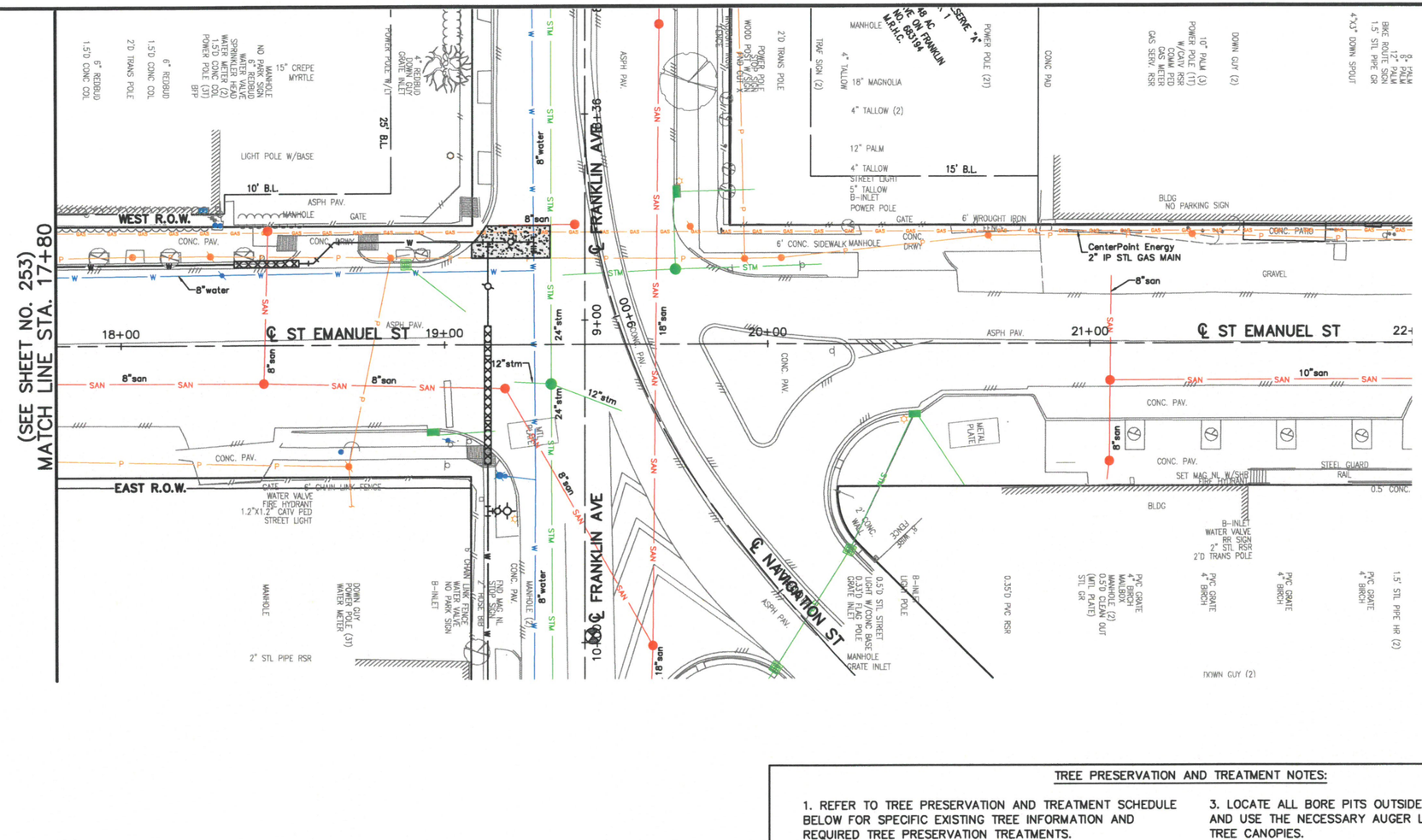
WATERLINE REPLACEMENT IN SECOND WARD

ST EMANUEL ST

TREE PRESERVATION PLAN
FROM STA. 13+40.00 TO STA. 17+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 253 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:16:35 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG



LEGEND

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0 20' 40'

No.	Date	Revisions	App.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

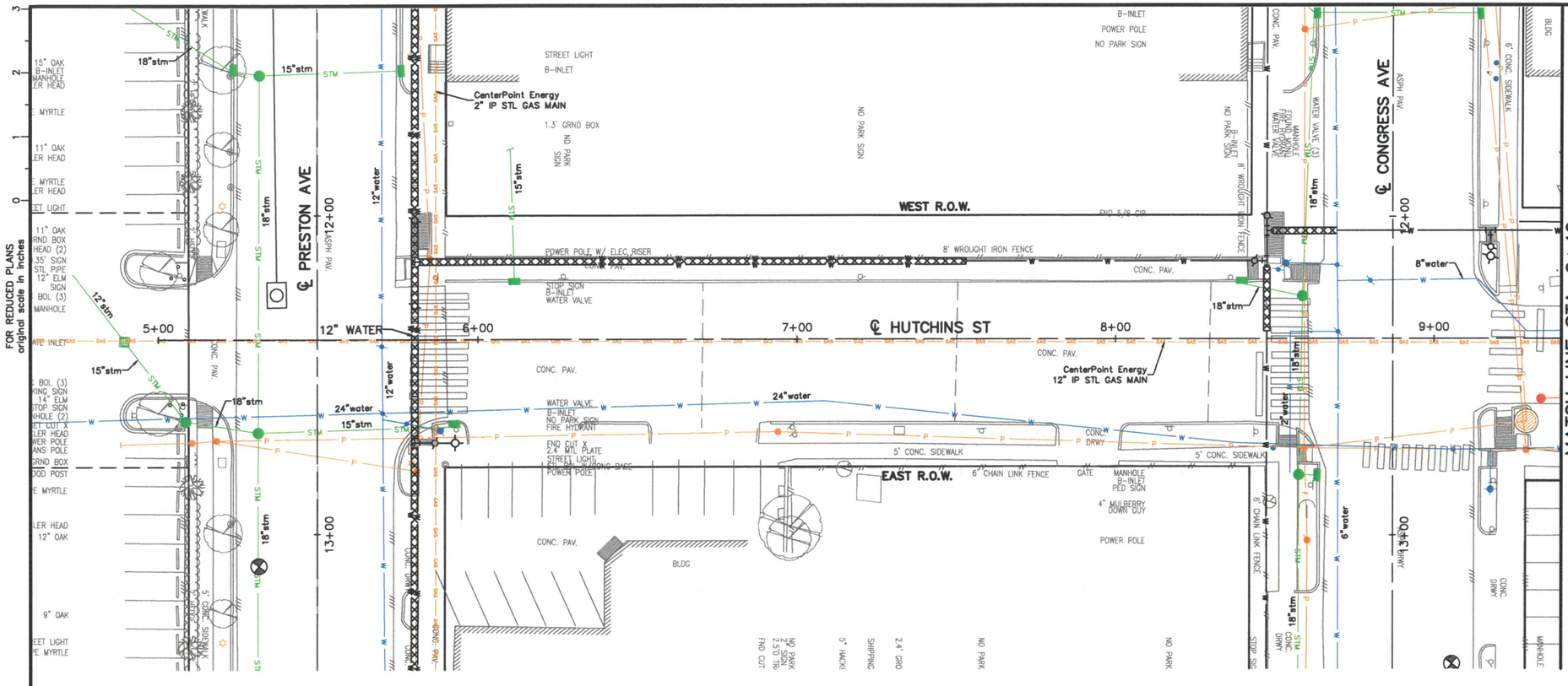
ST EMANUEL ST

TREE PRESERVATION PLAN
FROM STA. 17+80.00 TO STA. 22+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 254 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:16:45 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-Y.DWG



FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:16:55 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG

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0 20' 40'

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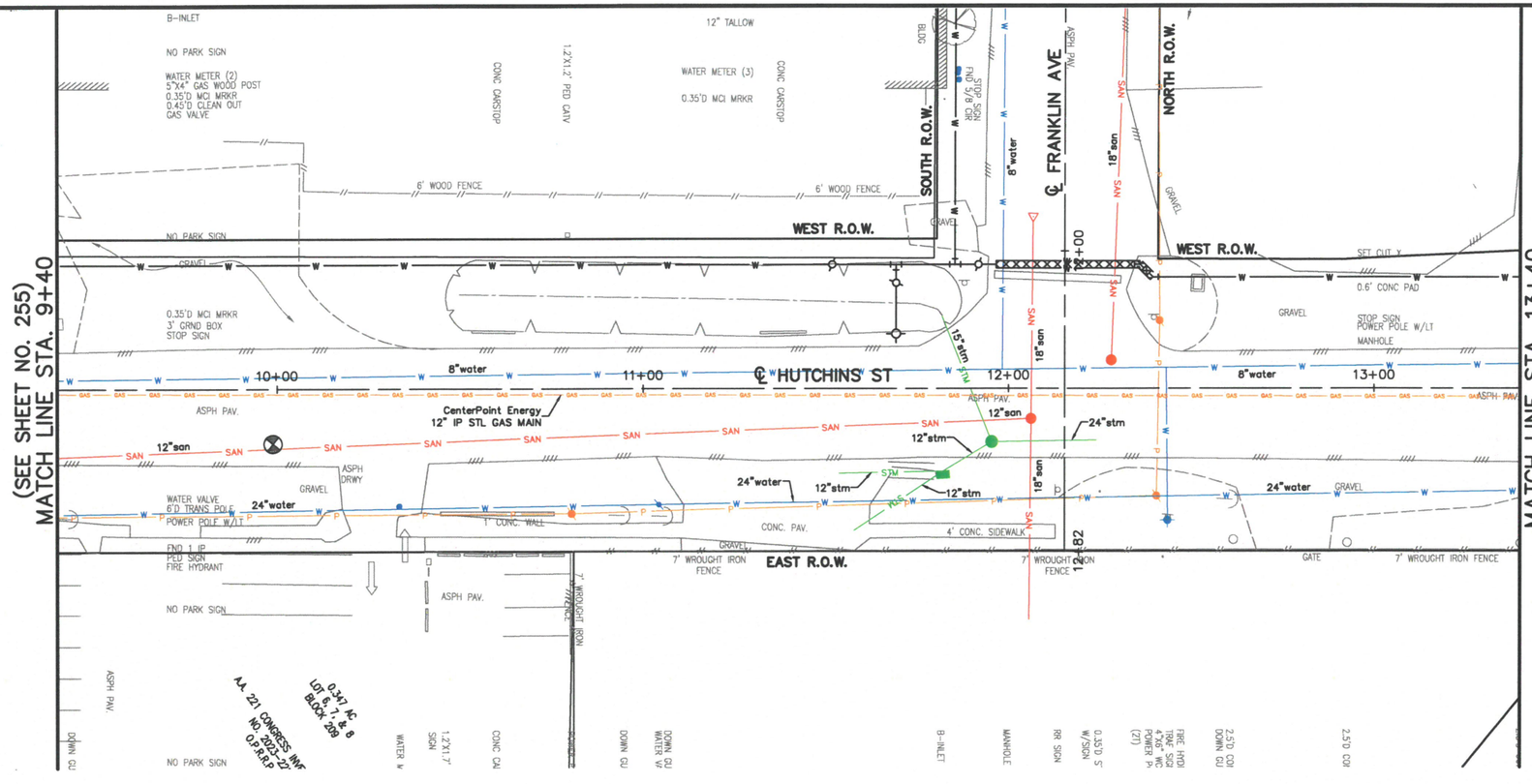
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

HUTCHINS ST

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
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CITY OF HOUSTON PM	
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SHEET NO. 255 OF 362	



FOR REDUCED PLANS
original scale in inches

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CITY OF HOUSTON
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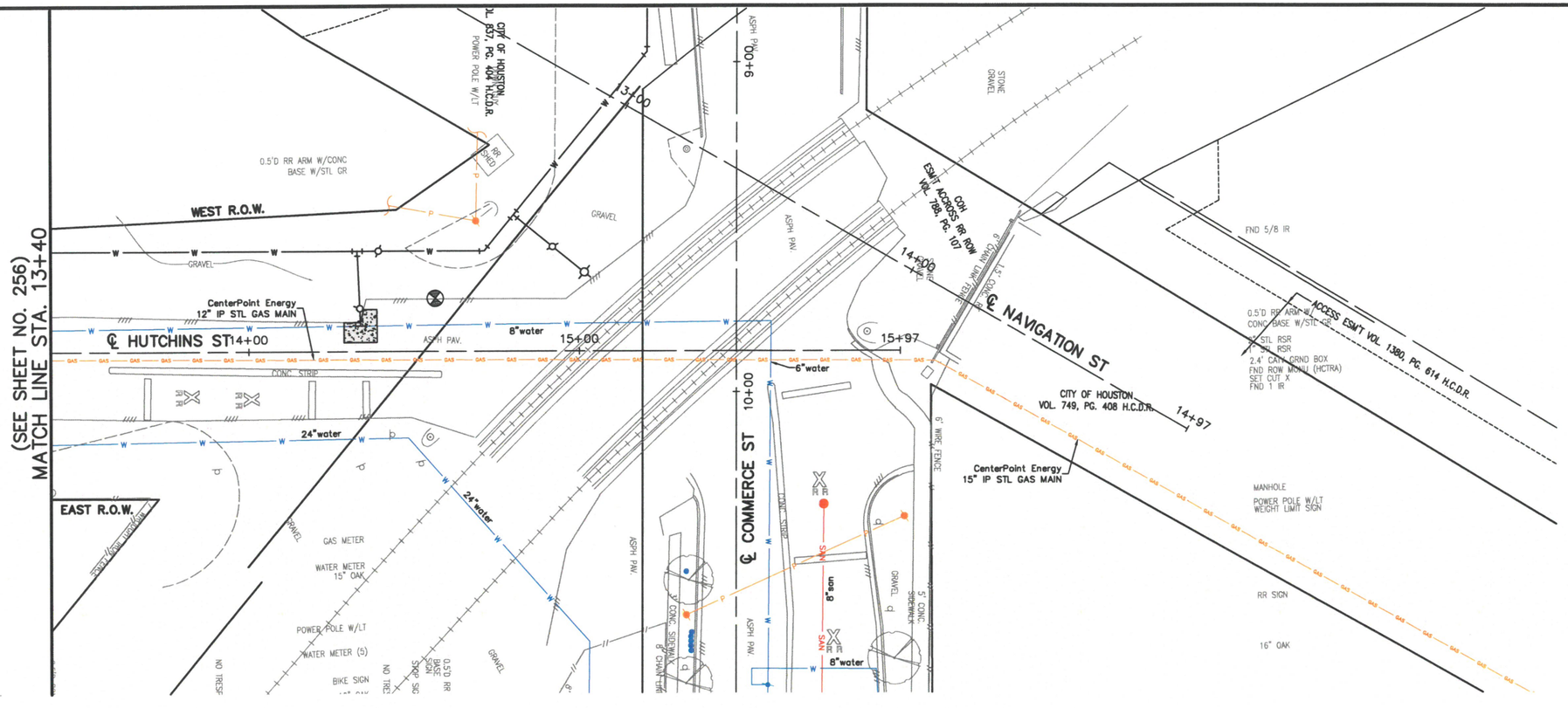
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TREE PRESERVATION PLAN
FROM STA. 9+40.00 TO STA. 13+40.00

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UYEN NGUYEN	
SHEET NO. 256 OF 362	

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FOR REDUCED PLANS
original scale in inches

0 1 2 3

0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

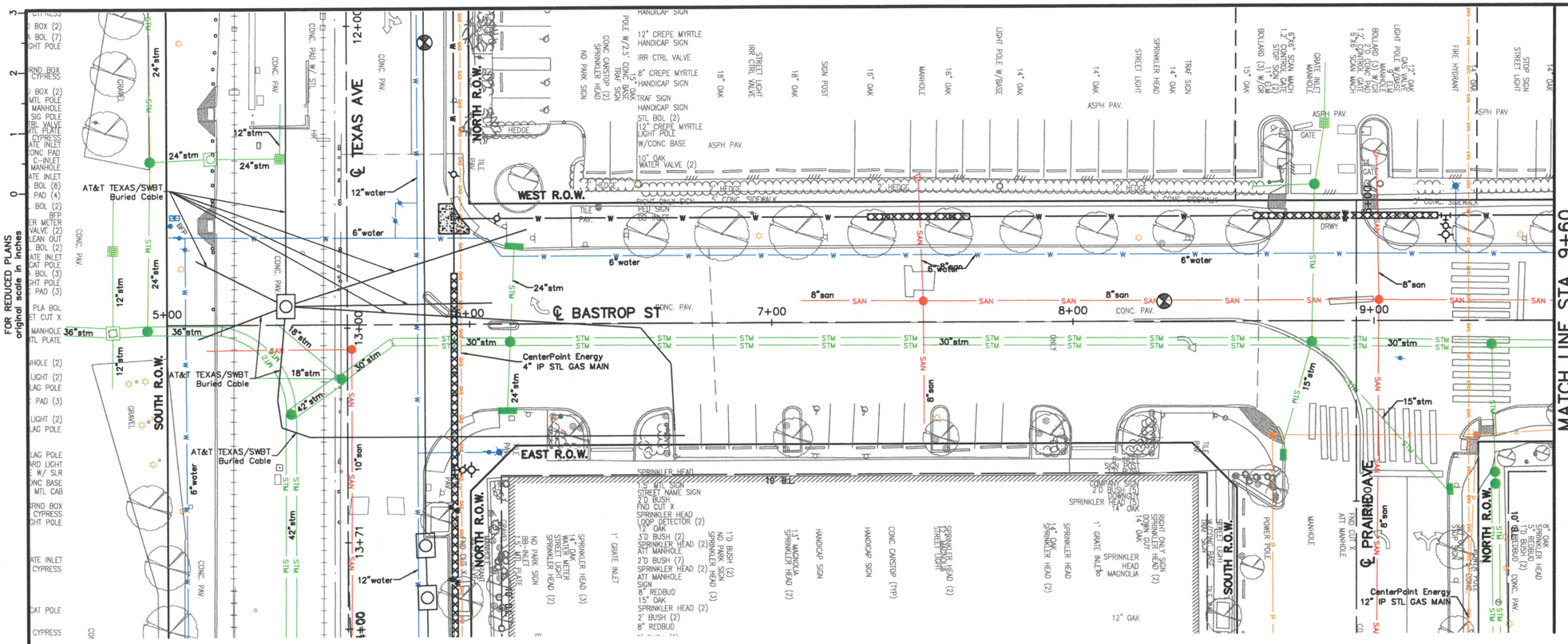
WATERLINE REPLACEMENT IN SECOND WARD

HUTCHINS ST

TREE PRESERVATION PLAN
FROM STA. 13+40.00 TO STA. 15+97.31

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 257 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:17:15 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

No.	Date	Revisions	App.

0 20' 40'

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
2. REFER TO TREE PRESERVATION AND TREATMENT SPECIFICATIONS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.
3. LOCATE ALL BORE PITS OUTSIDE TREE CANOPY AREAS, AND USE THE NECESSARY AUGER LENGTH TO CLEAR THE TREE CANOPIES.
4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
TREATMENT E - MULCHING OPERATION
TREATMENT F - ROOT PRUNING TREATMENT
TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
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TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

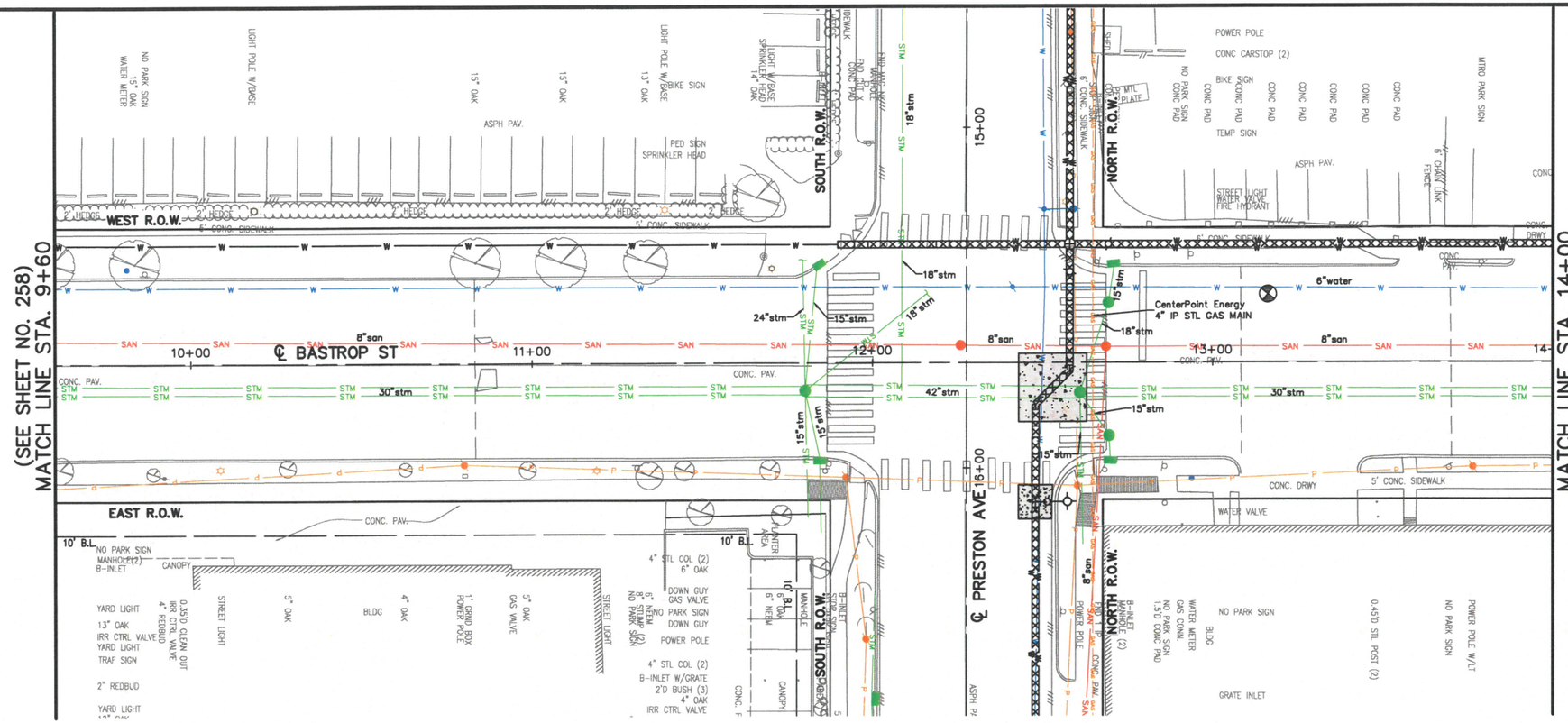
WATERLINE REPLACEMENT IN SECOND WARD

BASTROP ST

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 9+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 258 OF 362	

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No.	Date	Revisions	App.

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CITY OF HOUSTON
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WATERLINE REPLACEMENT IN SECOND WARD

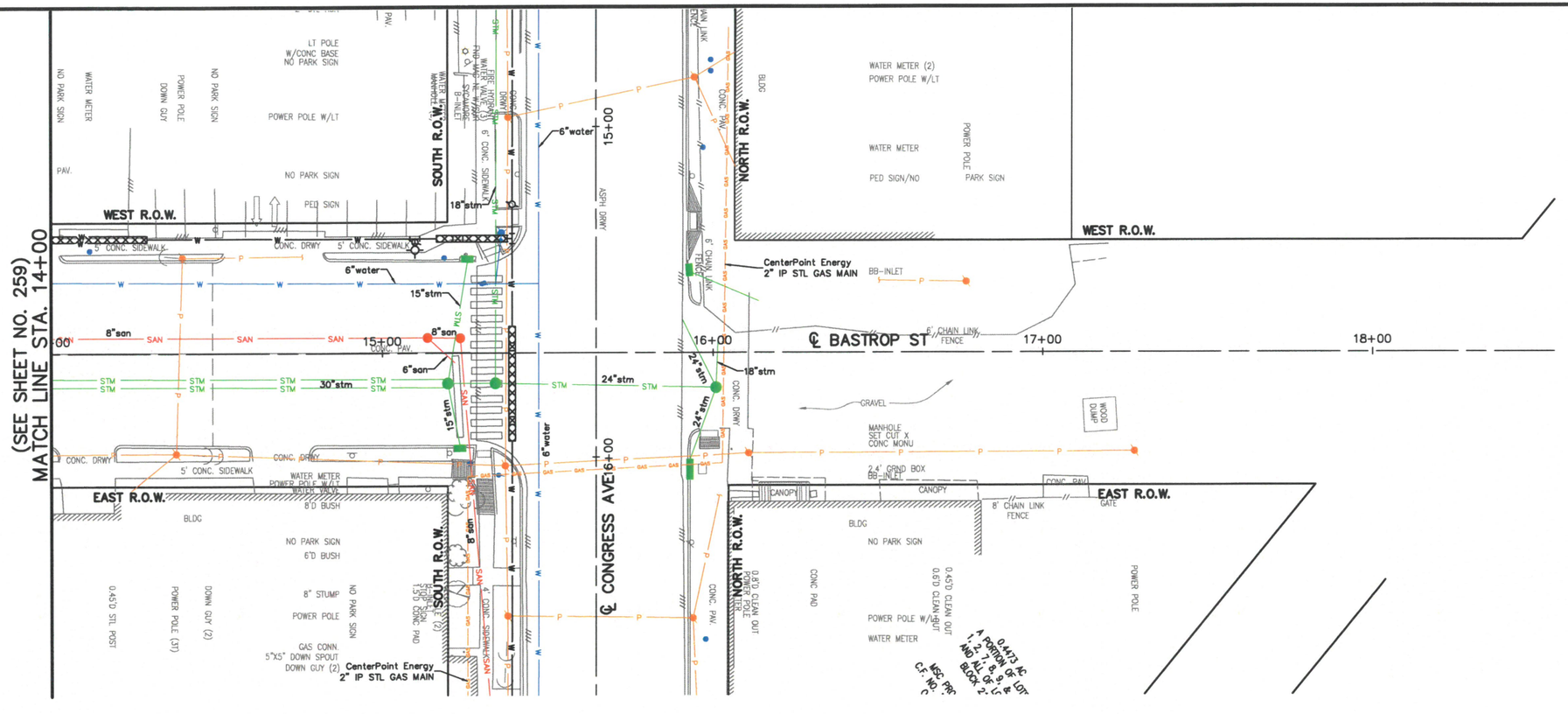
BASTROP ST

TREE PRESERVATION PLAN
FROM STA. 9+60.00 TO STA. 14+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 259 OF 362	

FOR REDUCED PLANS
original scale in inches
3 2 1 0

PLOTTED ON: Wednesday, September 23, 2026 10:17:35 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG



FOR REDUCED PLANS
original scale in inches

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0 20' 40'

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CITY OF HOUSTON
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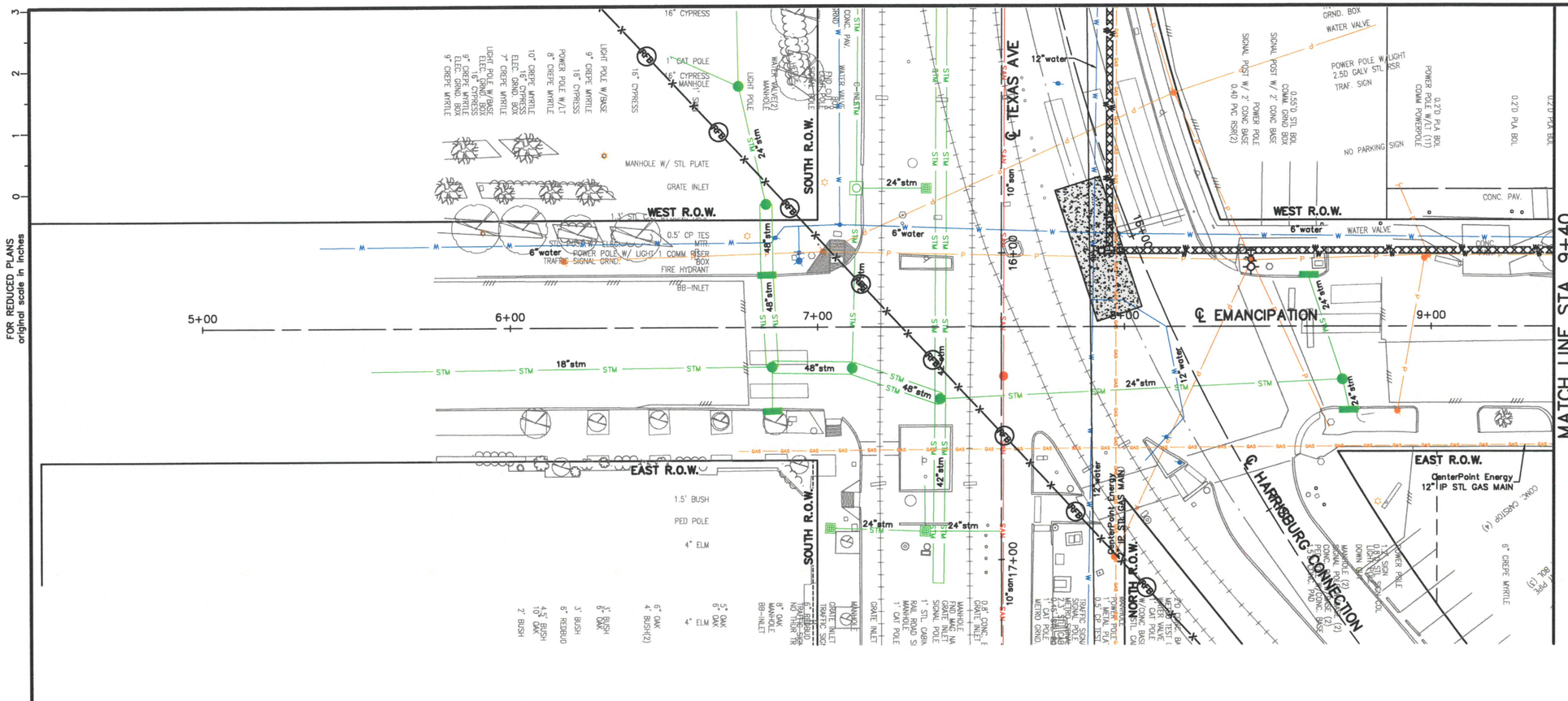
WATERLINE REPLACEMENT IN SECOND WARD

BASTROP ST

TREE PRESERVATION PLAN
FROM STA. 14+00.00 TO STA. 19+03.25

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 260 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:17:45 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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CITY OF HOUSTON
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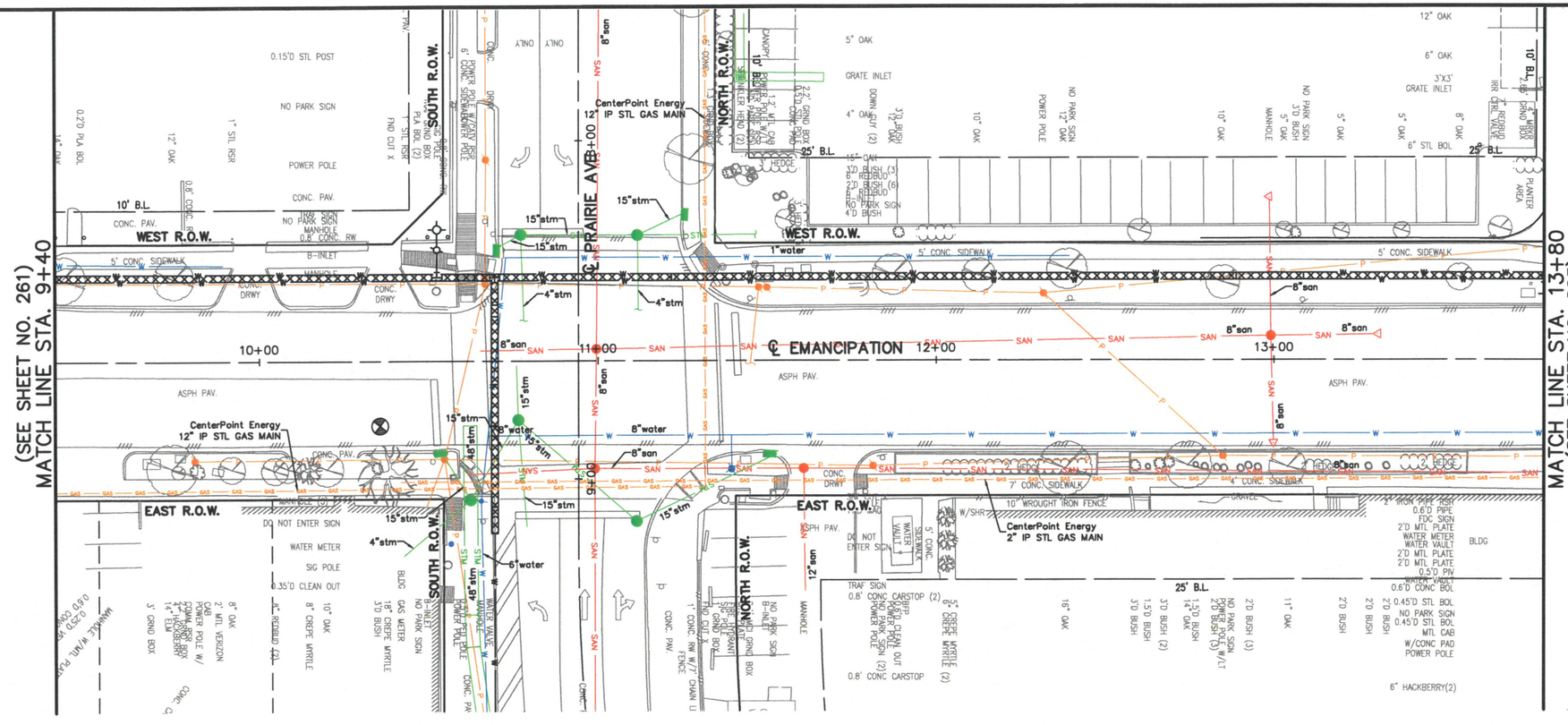
WATERLINE REPLACEMENT IN SECOND WARD

EMANCIPATION

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 261 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:17:55 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

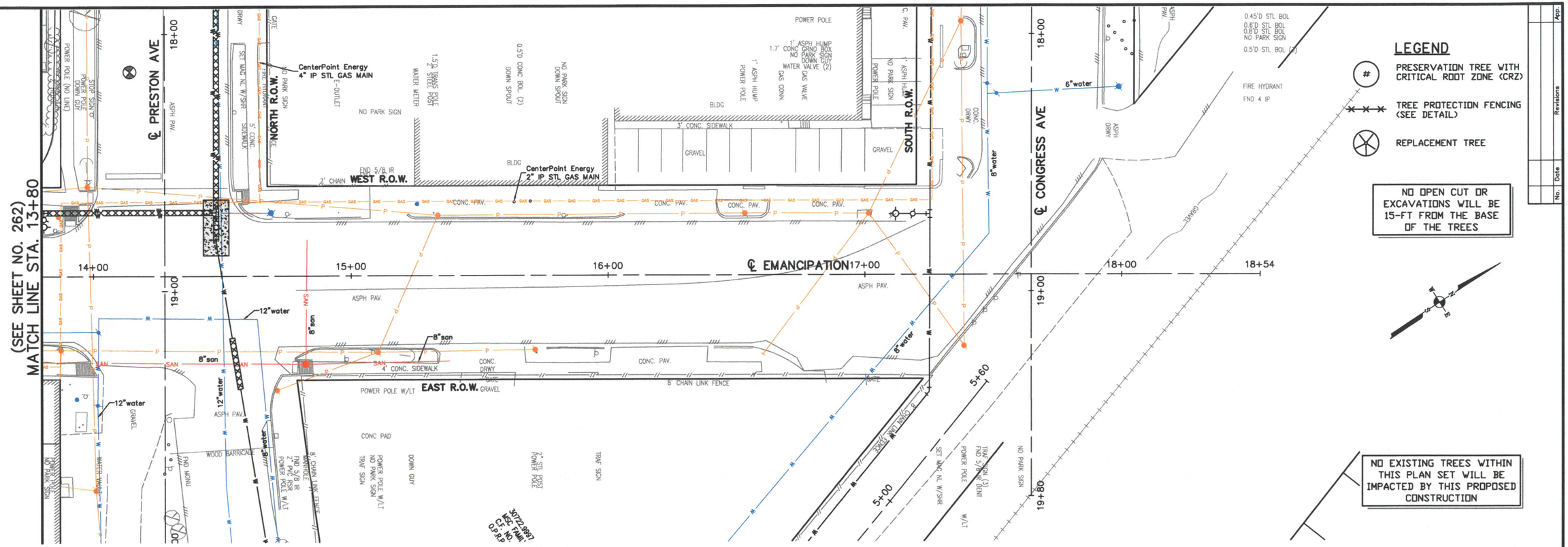
EMANCIPATION

TREE PRESERVATION PLAN
FROM STA. 9+40.00 TO STA. 13+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
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UYEN NGUYEN	
SHEET NO. 262 OF 362	

FOR REDUCED PLANS
original scale in inches

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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG



FOR REDUCED PLANS
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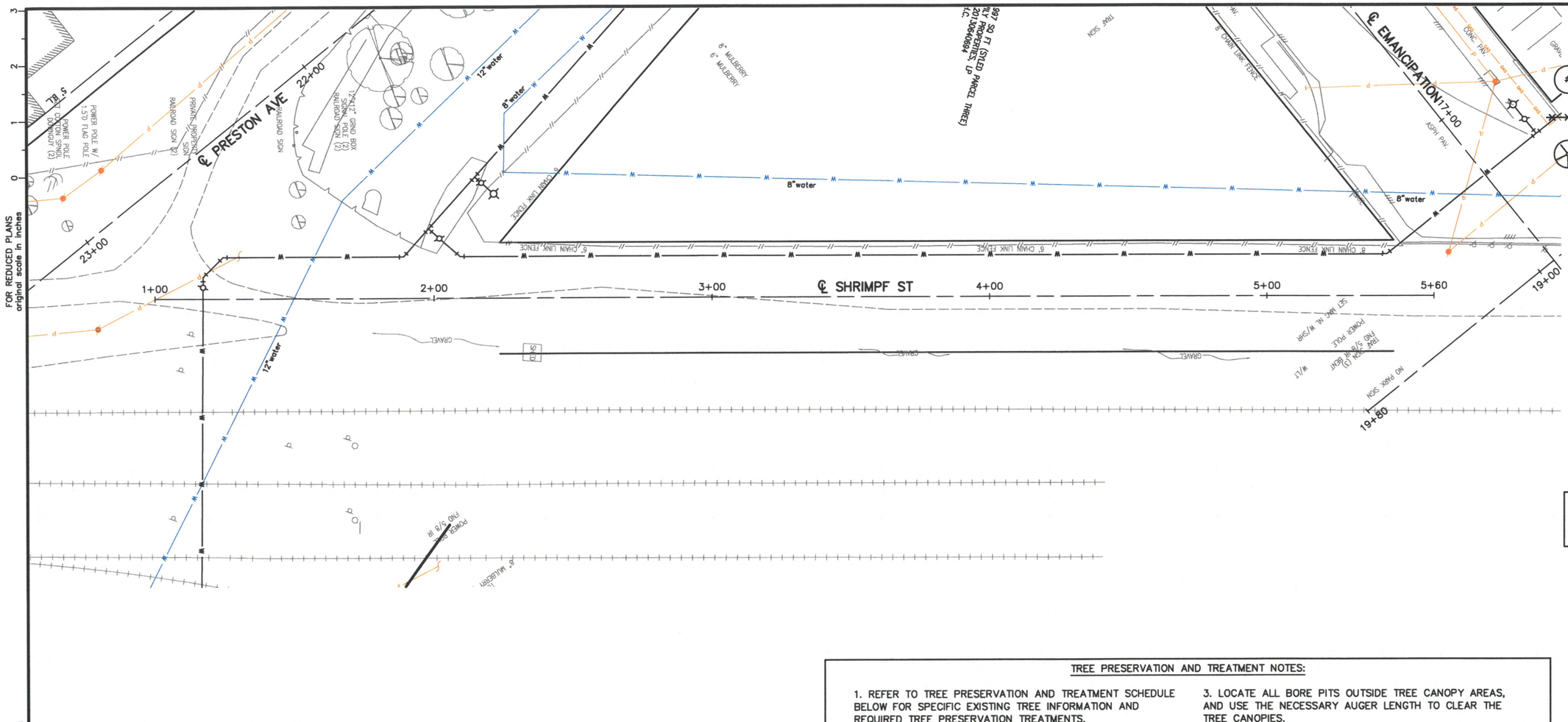
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WATERLINE REPLACEMENT IN SECOND WARD

EMANCIPATION

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FROM STA. 13+80.00 TO STA. 18+53.83

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FOR REDUCED PLANS
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TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

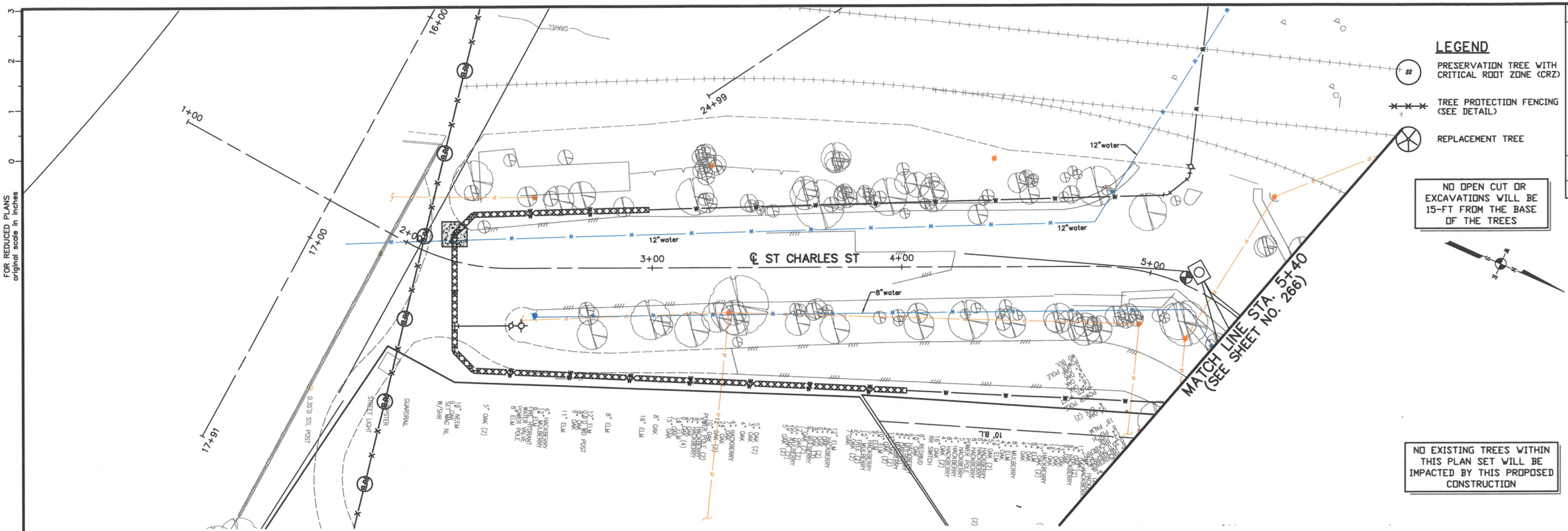
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

SHRIMPF ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 5+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 264 OF 362	



LEGEND

- PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:18:35 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG

No.	Date	Revisions	App.

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
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4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

0 20' 40'

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
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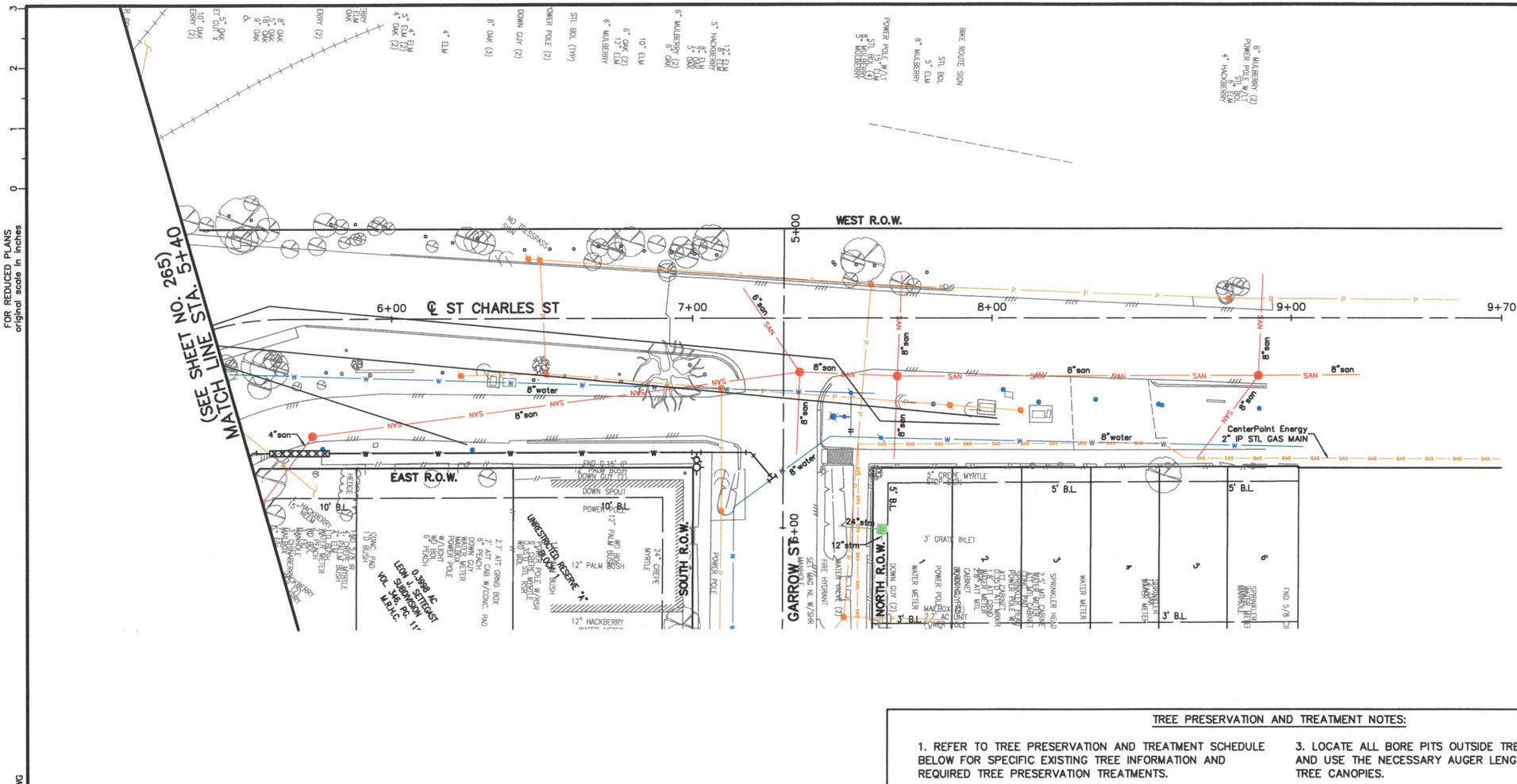
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ST CHARLES ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 265 OF 362	



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0 20' 40'

No.	Date	Revisions	App.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

ST CHARLES ST

TREE PRESERVATION PLAN
FROM STA. 5+40.00 TO STA. 9+70.26

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 266 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:18:45 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-A-V.DWG

FOR REDUCED PLANS
original scale in inches

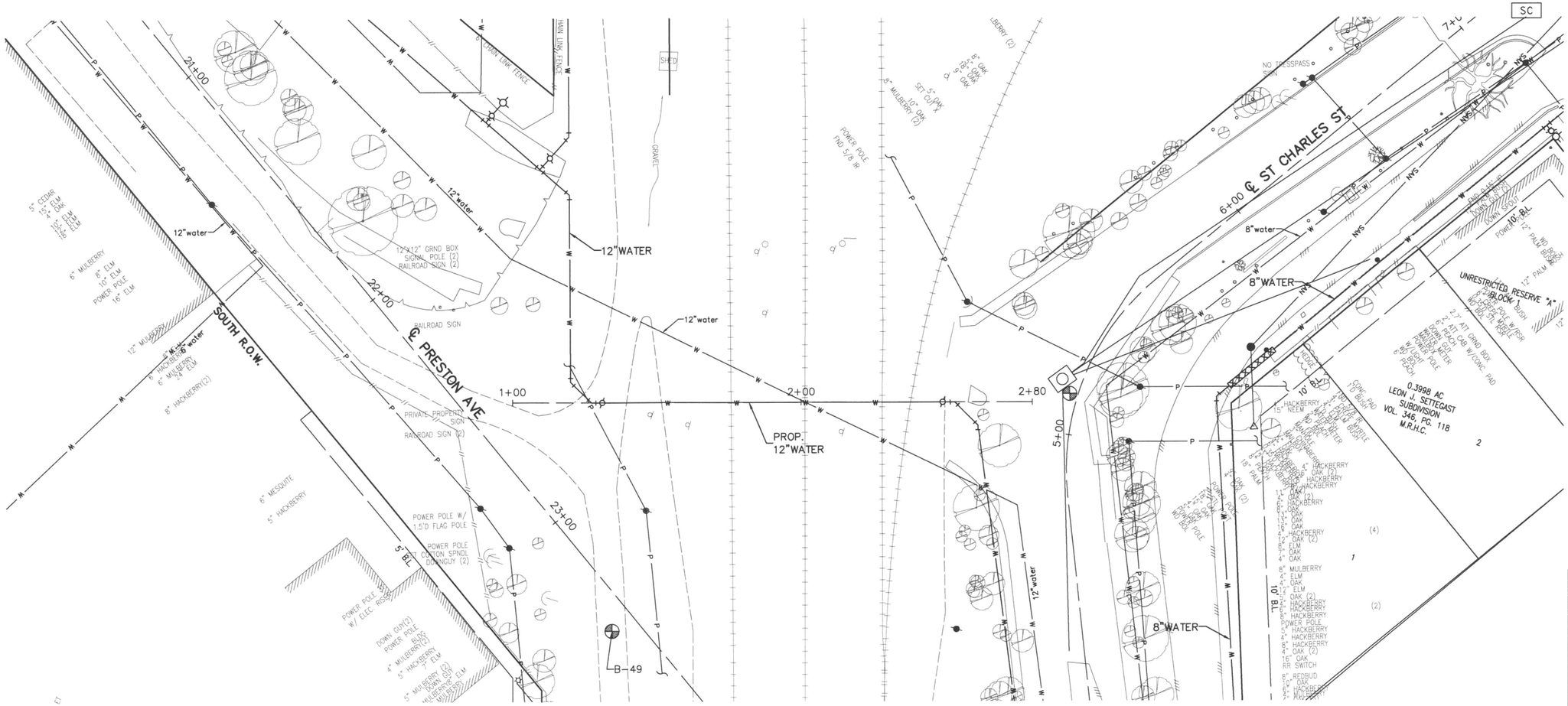
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PLOTTED ON: Wednesday, September 23, 2026 10:19:23 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-PRESTON@RAILROAD CROSSING-TPP.DWG

LEGEND

IPB	INLET PROTECTION BARRIER STAGE I
IPB-II	INLET PROTECTION BARRIER STAGE II
FF	FILTER FABRIC FENCE
RFB	REINFORCED FILTER FABRIC BARRIER
SC	STABILIZED CONSTRUCTION ACCESS

No.	Date	Revisions	App.



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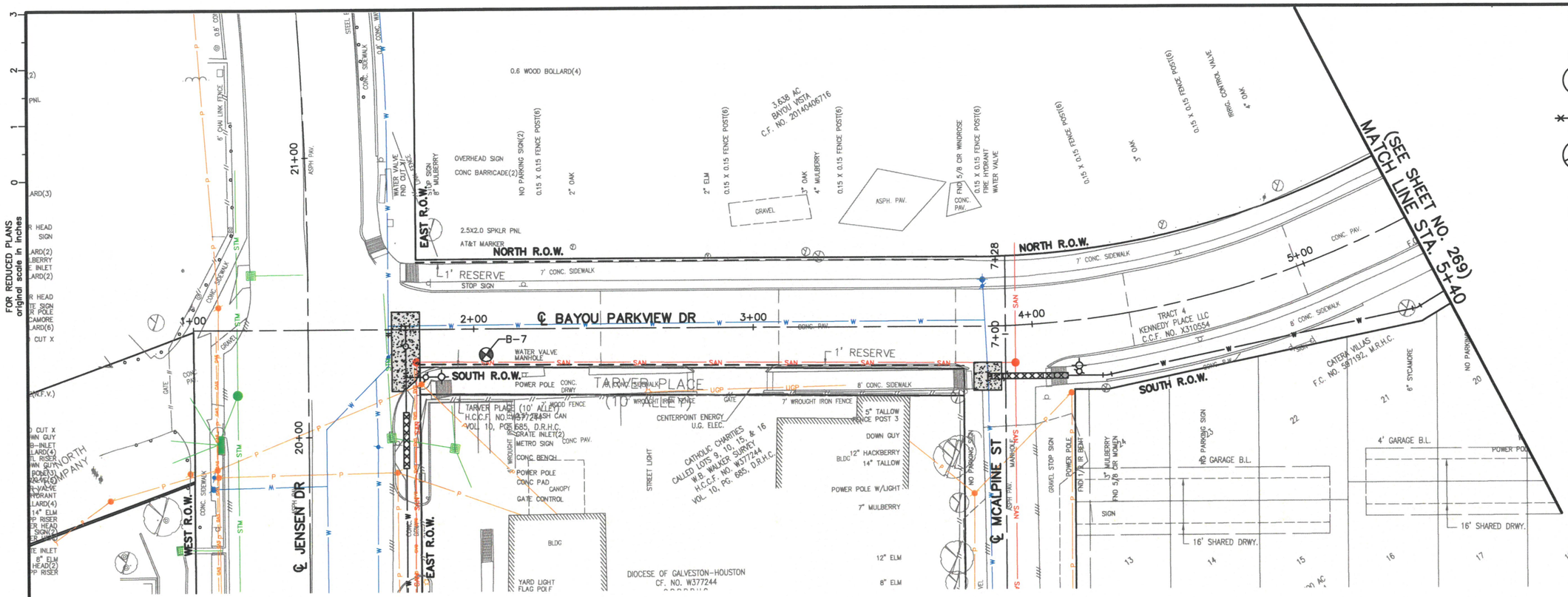
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

PRESTON AVE @ RAILROAD CROSSING

FROM STA. 1+00.00 TO STA. 2+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 267 OF 362	



FOR REDUCED PLANS original scale in inches

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

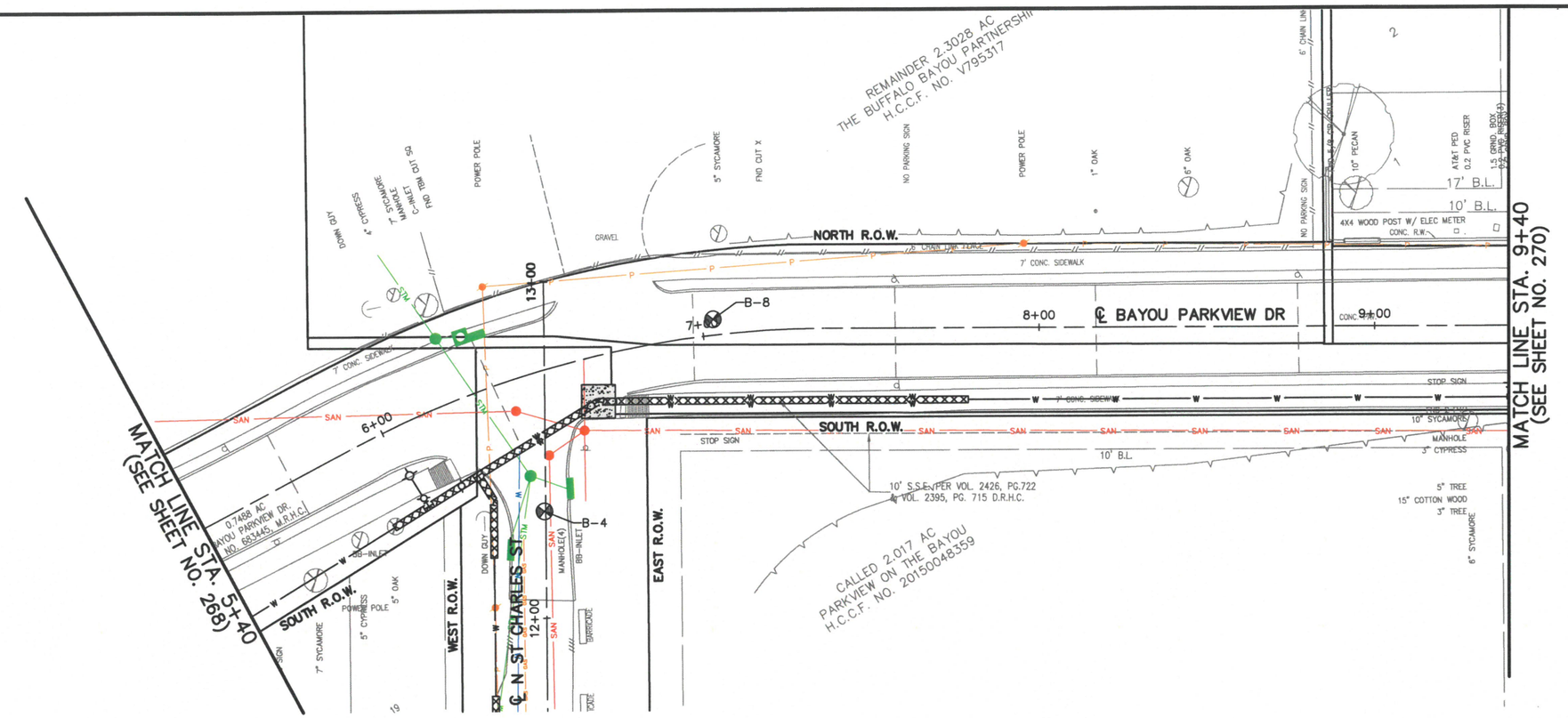
WATERLINE REPLACEMENT IN SECOND WARD

BAYOU PARKVIEW DR

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 268 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:21:11 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-H.DWG



LEGEND

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

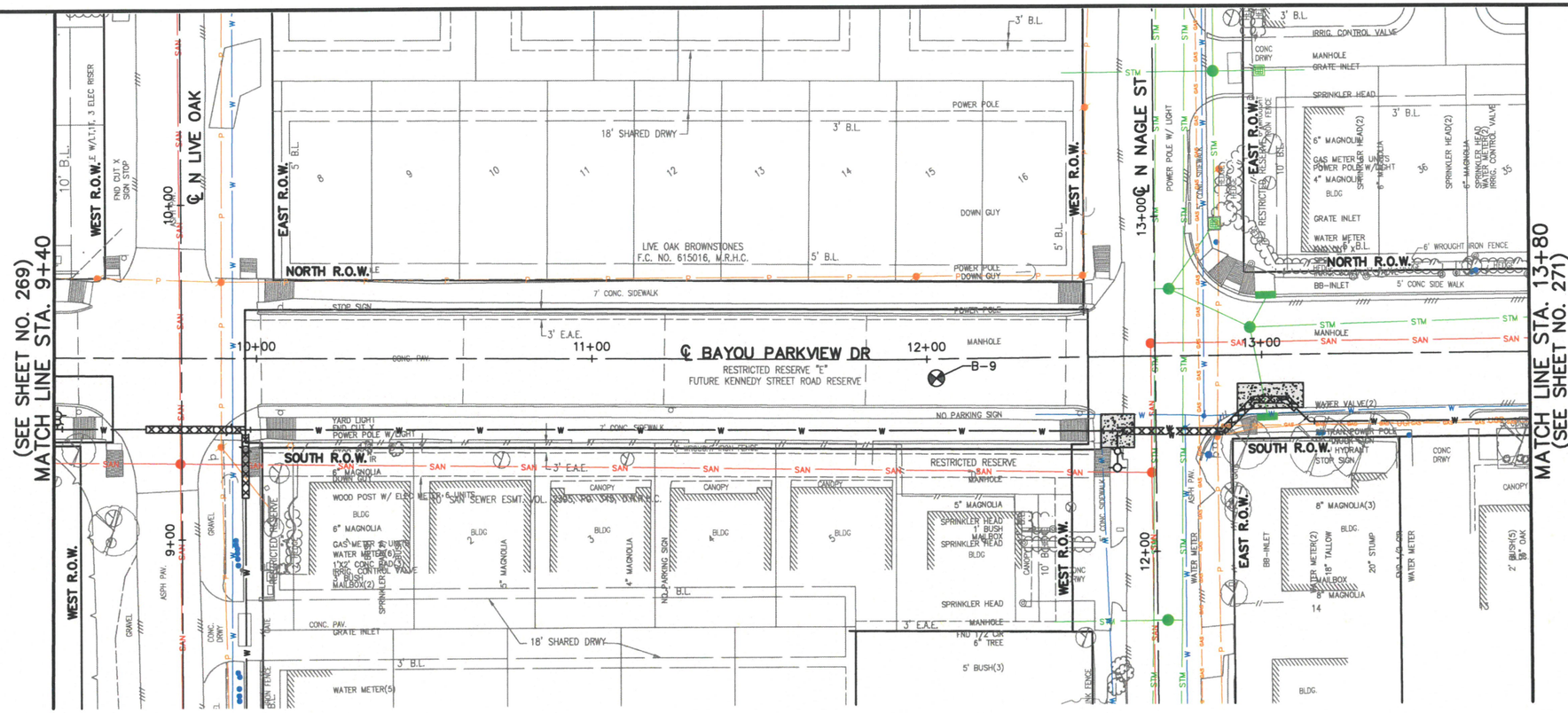
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TREE PRESERVATION PLAN
FROM STA. 5+40.00 TO STA. 9+40.00

WBS NUMBER	CITY DWG NO.:
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CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 269 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:21:22 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-H.DWG



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BAYOU PARKVIEW DR

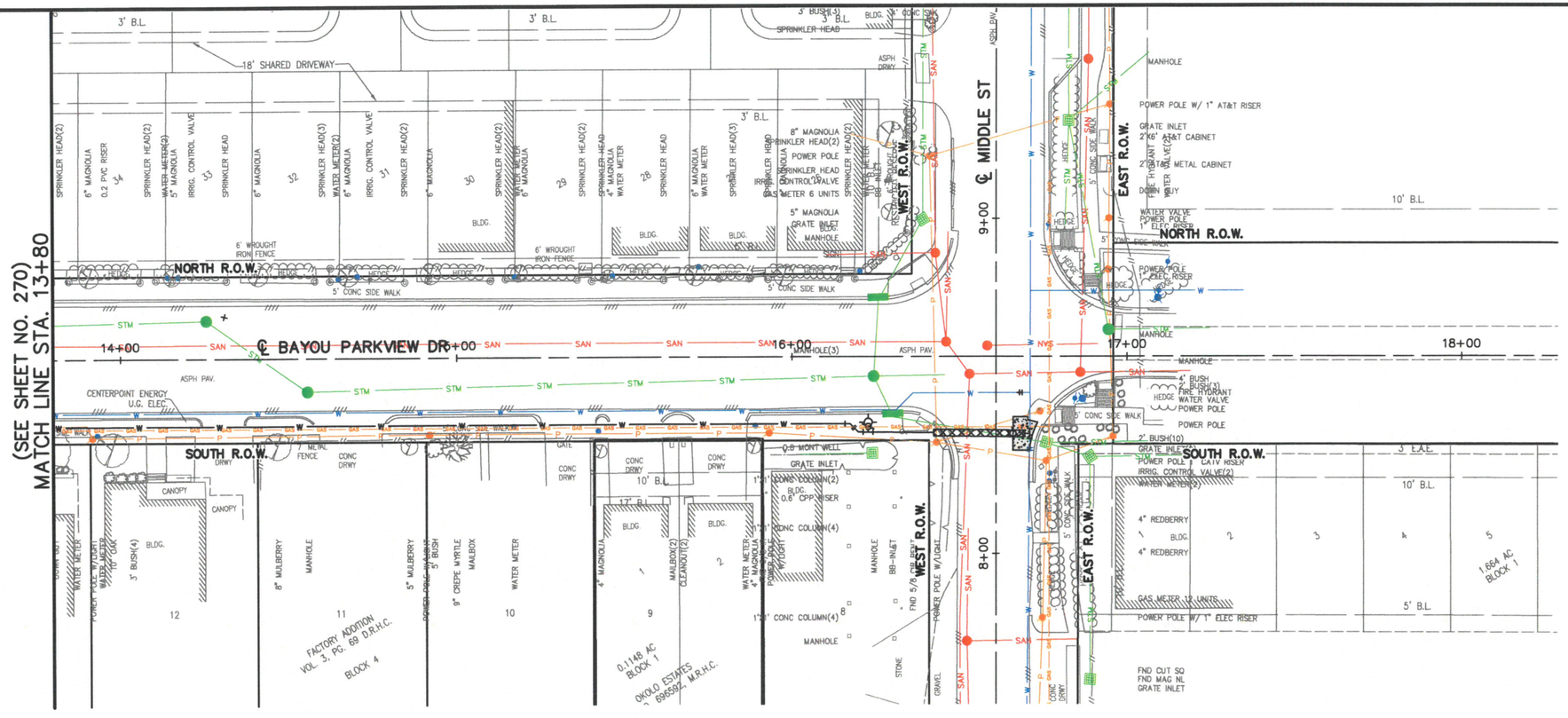
TREE PRESERVATION PLAN
FROM STA. 9+40.00 TO STA. 13+80.00

WBS NUMBER	CITY DWG NO.:
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UYEN NGUYEN	
SHEET NO. 270 OF 362	

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches

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FOR REDUCED PLANS
original scale in inches

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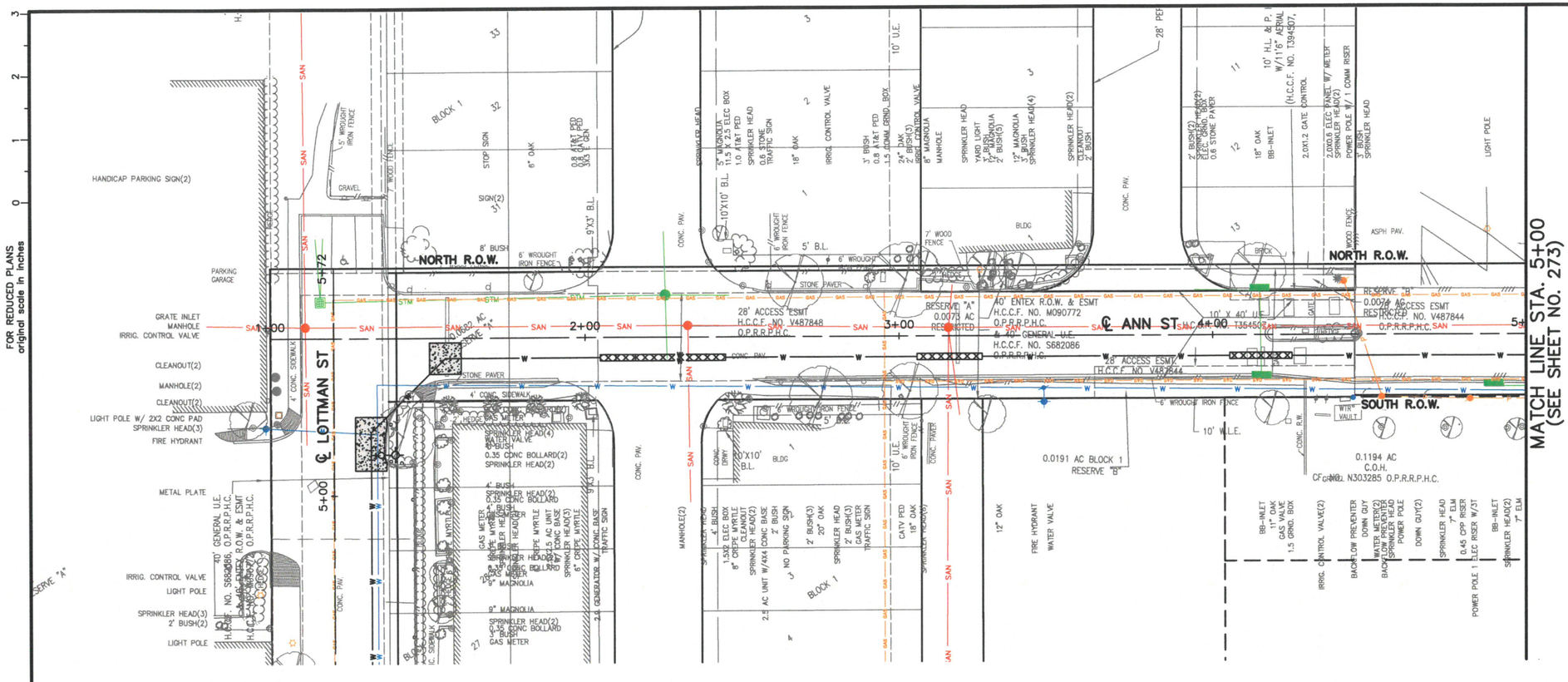
WATERLINE REPLACEMENT IN SECOND WARD

BAYOU PARKVIEW DR

TREE PRESERVATION PLAN
FROM STA. 13+80.00 TO STA. 18+20.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
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UYEN NGUYEN	
SHEET NO. 271 OF 362	

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- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

No.	Date	Revisions	App.

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
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4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

0 20' 40'

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
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TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
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TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

SES HORIZON
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

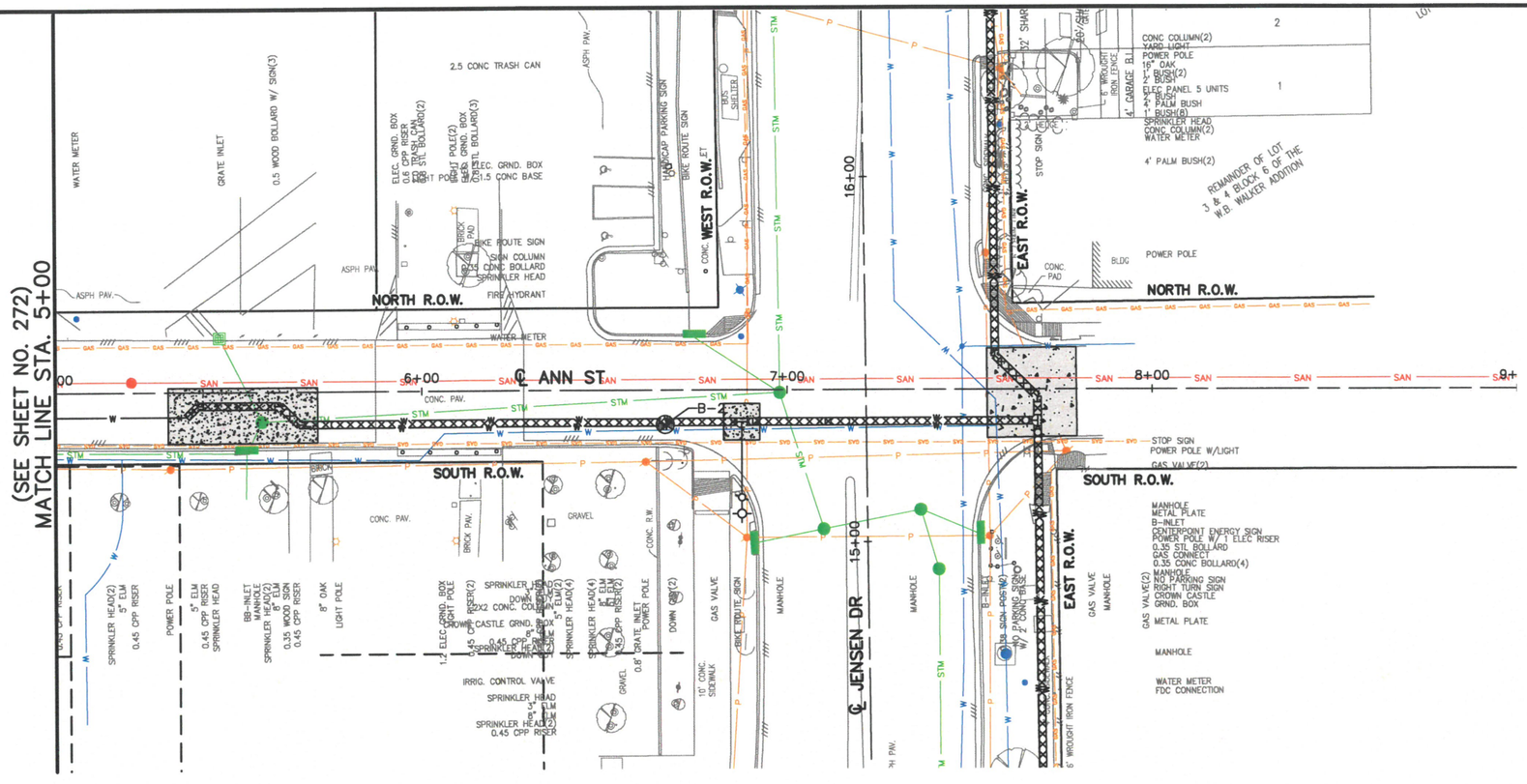
WATERLINE REPLACEMENT IN SECOND WARD

ANN ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 5+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 272 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:21:51 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-H.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

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FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

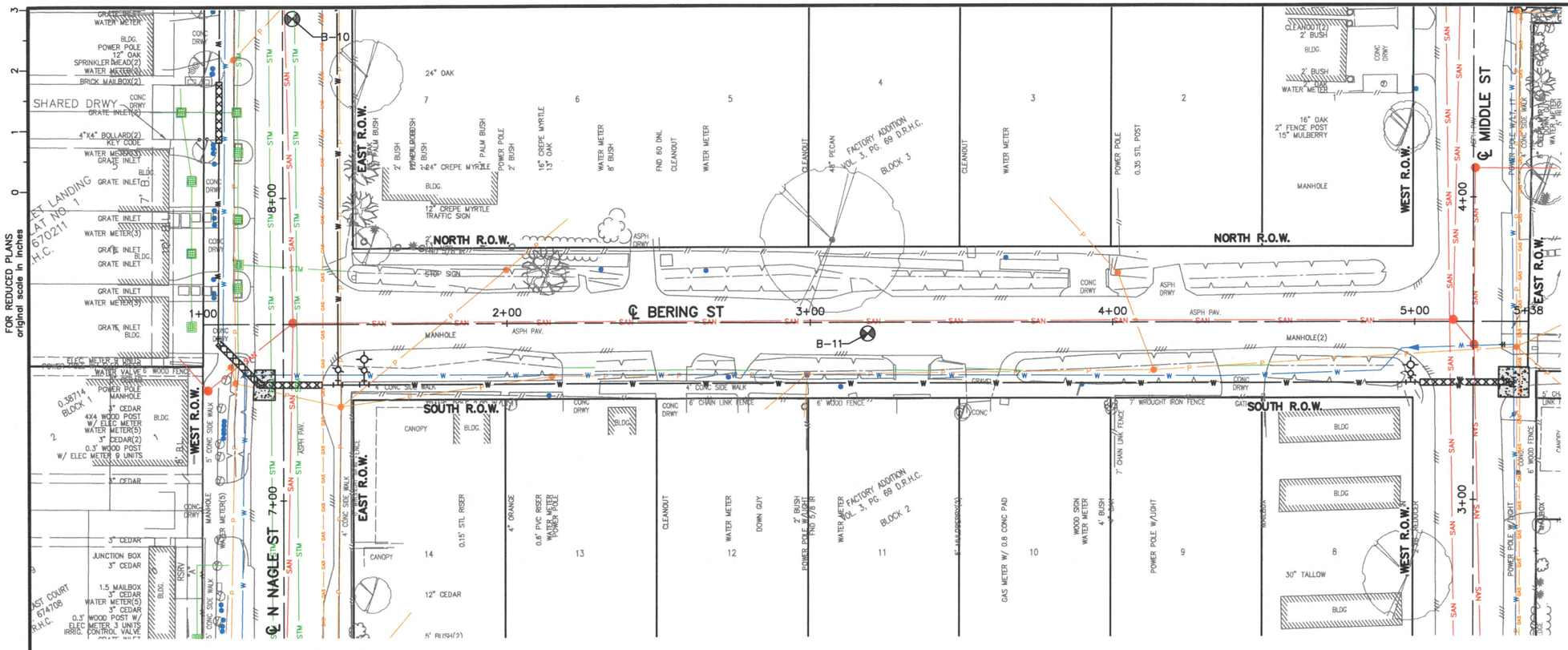
WATERLINE REPLACEMENT IN SECOND WARD

ANN ST

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 9+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 273 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:22:01 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-H.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
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0 20' 40'

No.	Date	Revisions	App.

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

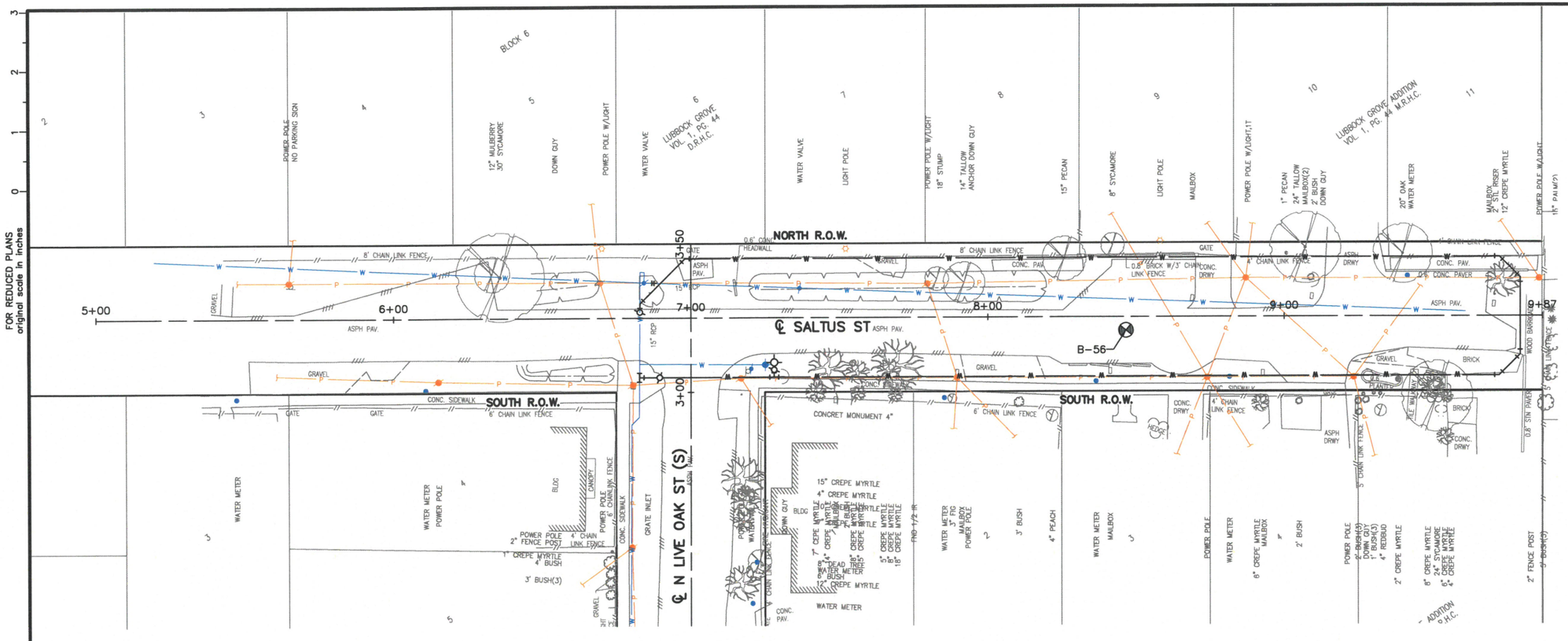
WATERLINE REPLACEMENT IN SECOND WARD

BERING ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 5+37.63

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 274 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:22:11 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-H.DWG



LEGEND

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SURVEYED BY: JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

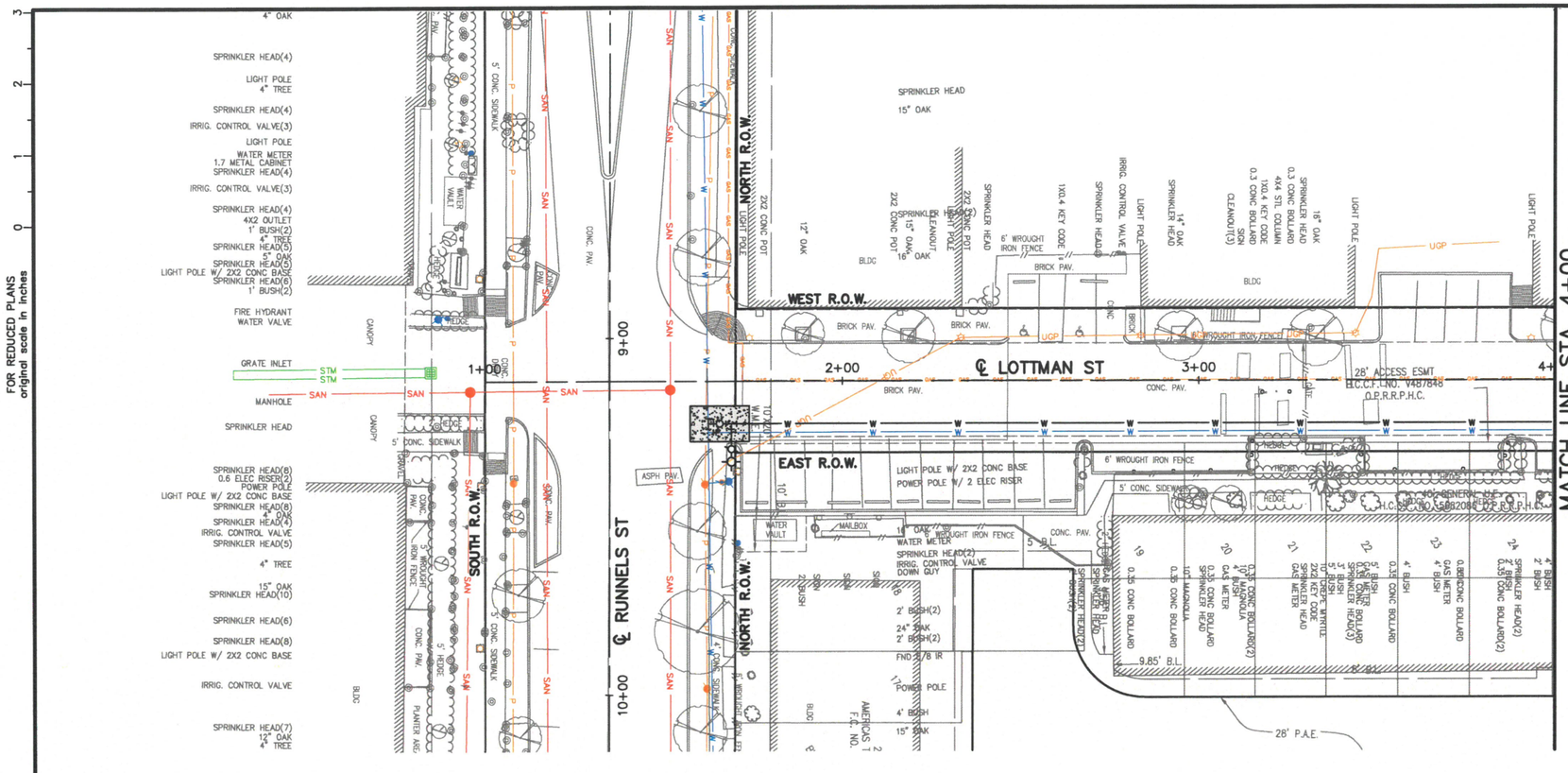
WATERLINE REPLACEMENT IN SECOND WARD

SALTUS ST

TREE PRESERVATION PLAN
FROM STA. 5+20.00 TO STA. 9+87.10

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 275 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:22:21 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-H.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

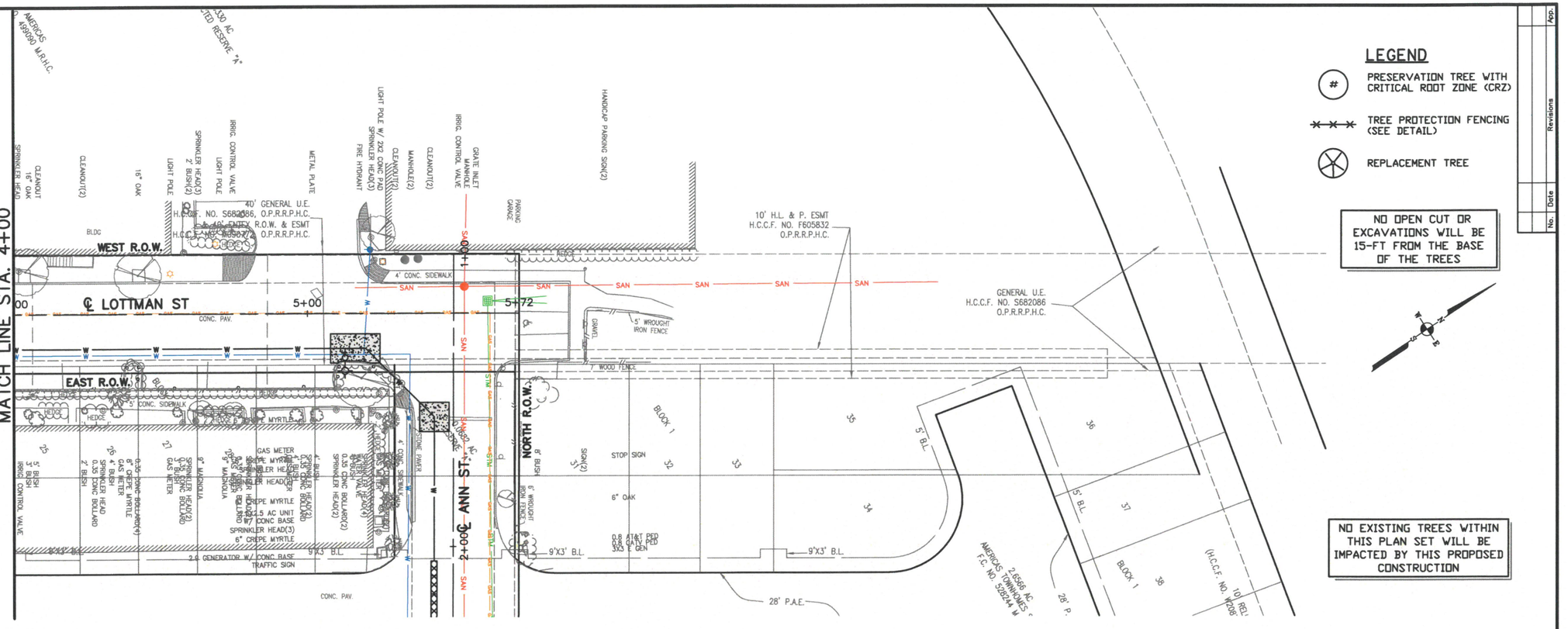
WATERLINE REPLACEMENT IN SECOND WARD

LOTTMAN ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 4+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 276 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:23:07 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

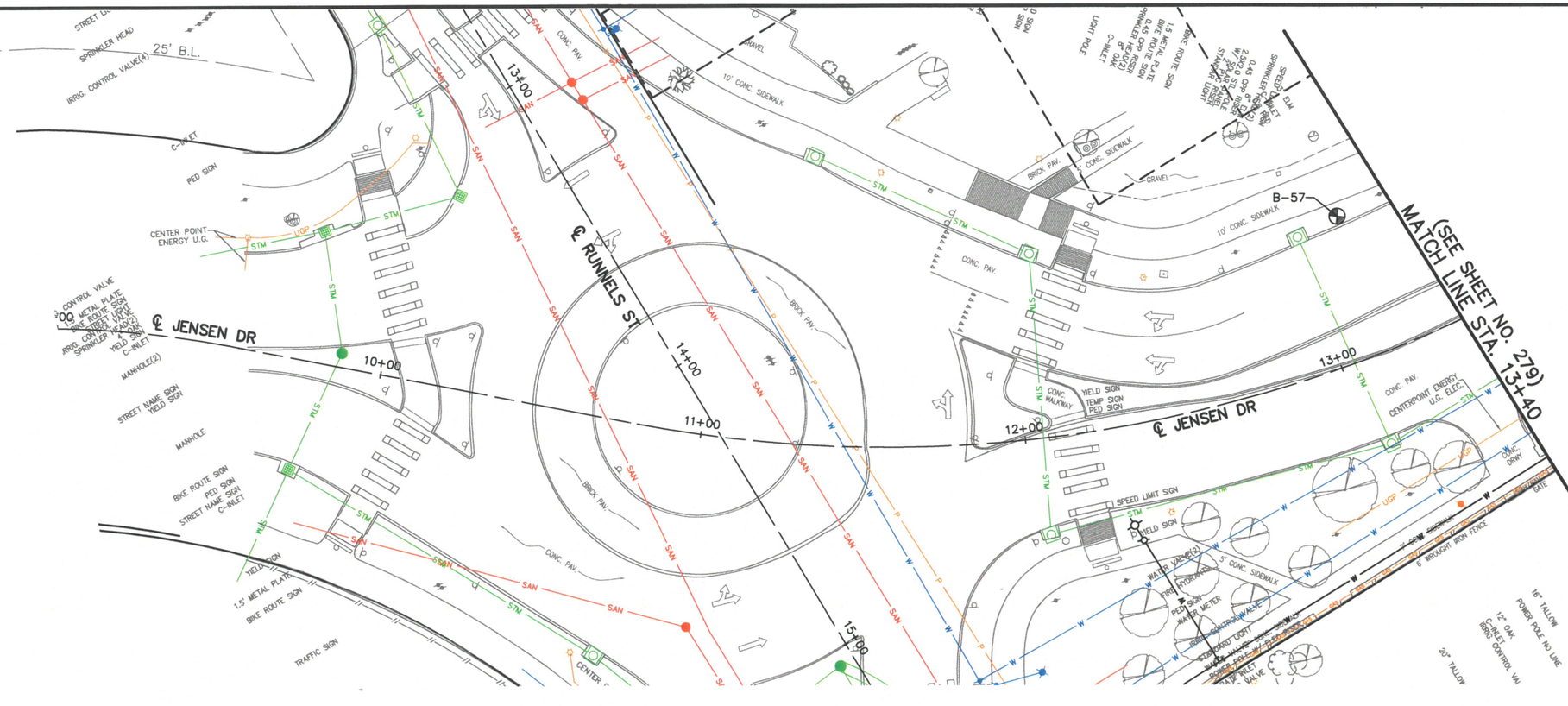
LOTTMAN ST

TREE PRESERVATION PLAN
FROM STA. 4+00.00 TO STA. 5+72.37

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 277 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:23:17 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



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DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENSEN DR

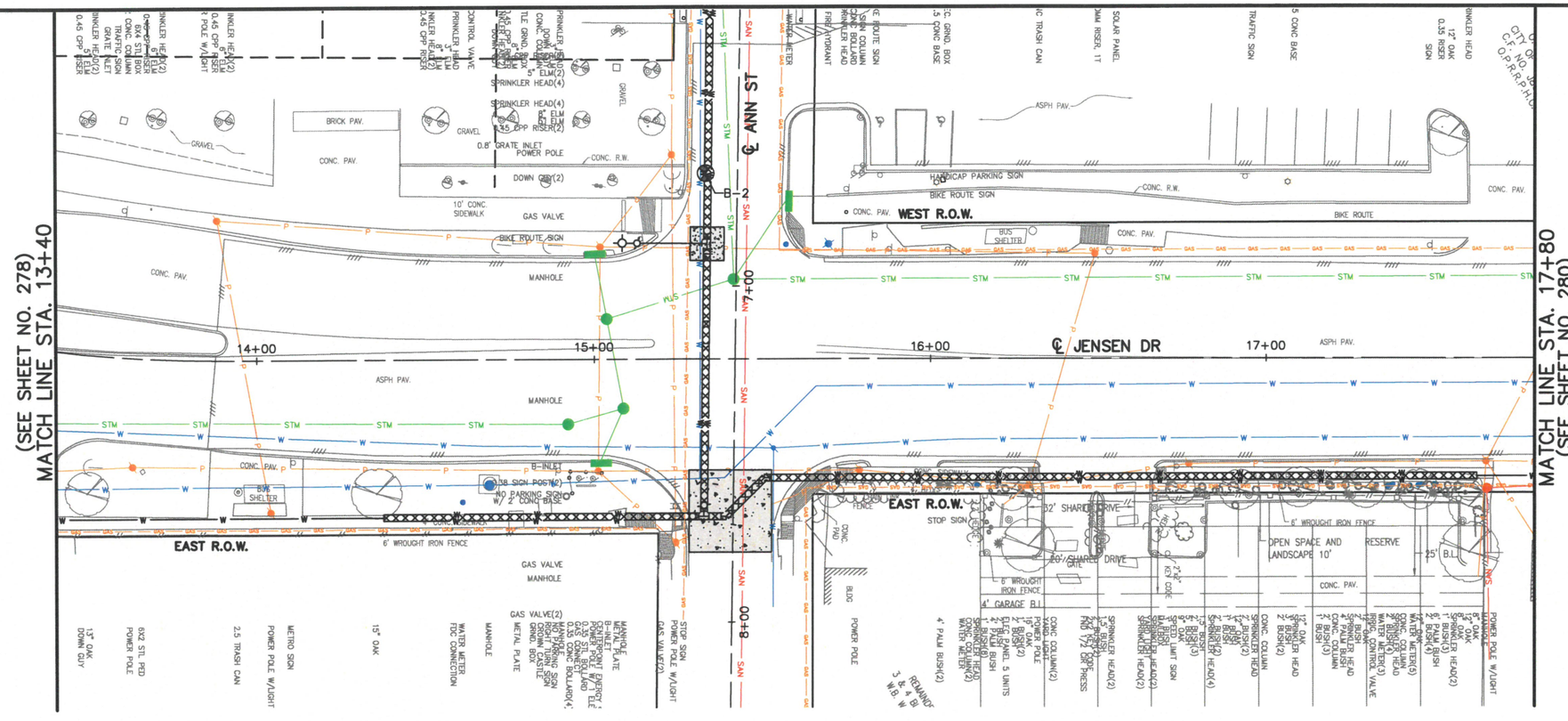
TREE PRESERVATION PLAN
FROM STA. 9+00.00 TO STA. 13+40.00

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UYEN NGUYEN	
SHEET NO. 278 OF 362	

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
3 2 1 0

PLOTTED ON: Wednesday, September 23, 2026 10:23:27 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

0 20' 40'

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
2. REFER TO TREE PRESERVATION AND TREATMENT SPECIFICATIONS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.
3. LOCATE ALL BORE PITS OUTSIDE TREE CANOPY AREAS, AND USE THE NECESSARY AUGER LENGTH TO CLEAR THE TREE CANOPIES.
4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
TREATMENT E - MULCHING OPERATION
TREATMENT F - ROOT PRUNING TREATMENT
TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
TREATMENT H - UTILITY BORING OPERATION
TREATMENT I - ZERO CURB CUT OPERATION
TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

No.	Date	Revisions	Appr.

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

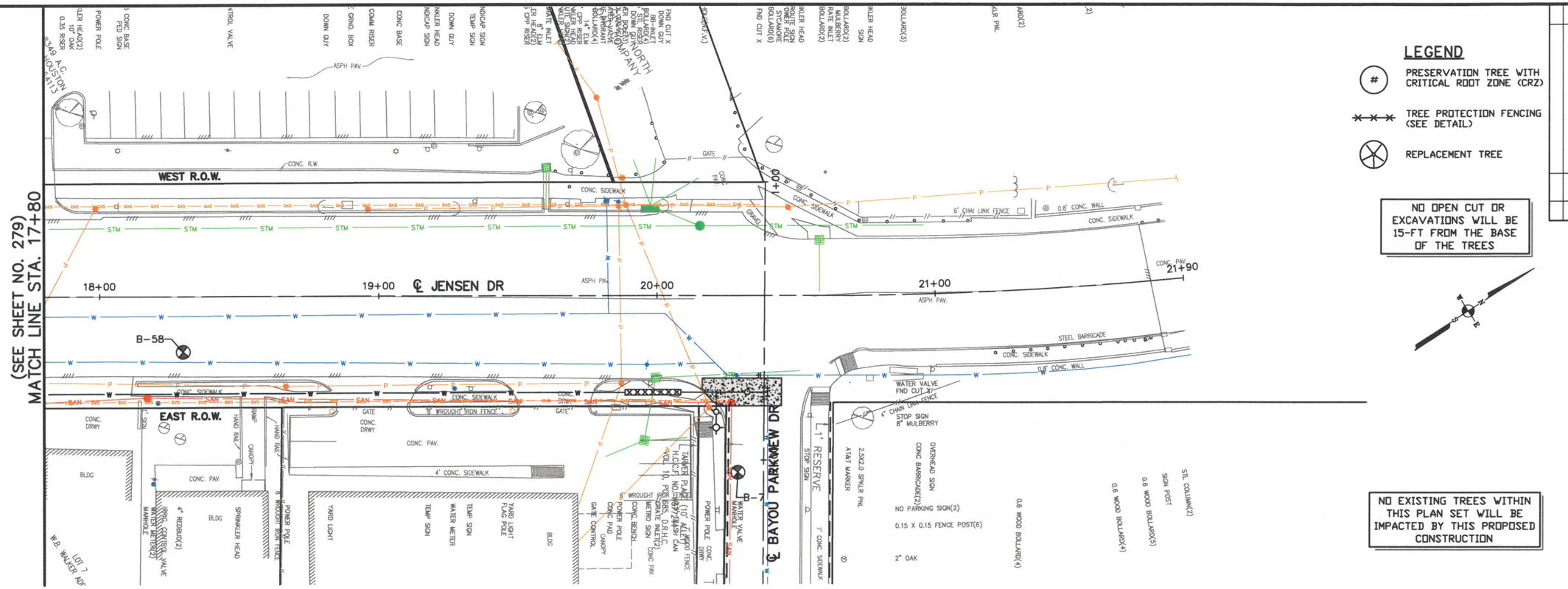
JENSEN DR

TREE PRESERVATION PLAN
FROM STA. 13+40.00 TO STA. 17+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 279 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:23:37 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



LEGEND

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- REPLACEMENT TREE

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0 20' 40'

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SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENSEN DR

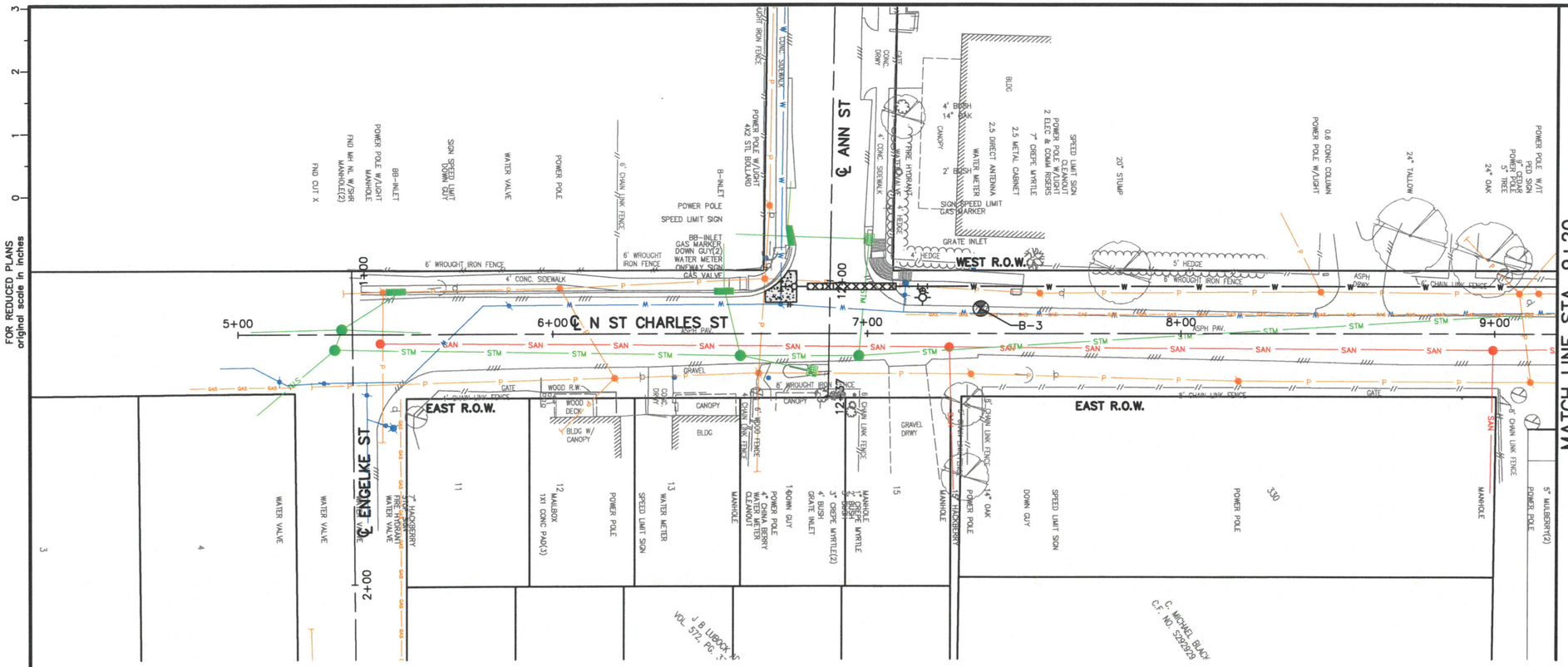
TREE PRESERVATION PLAN
FROM STA. 17+80.00 TO STA. 21+89.51

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 280 OF 362	

No.	Date	Revisions	Apps.

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:23:47 AM
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LEGEND

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No.	Date	Revisions	App.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

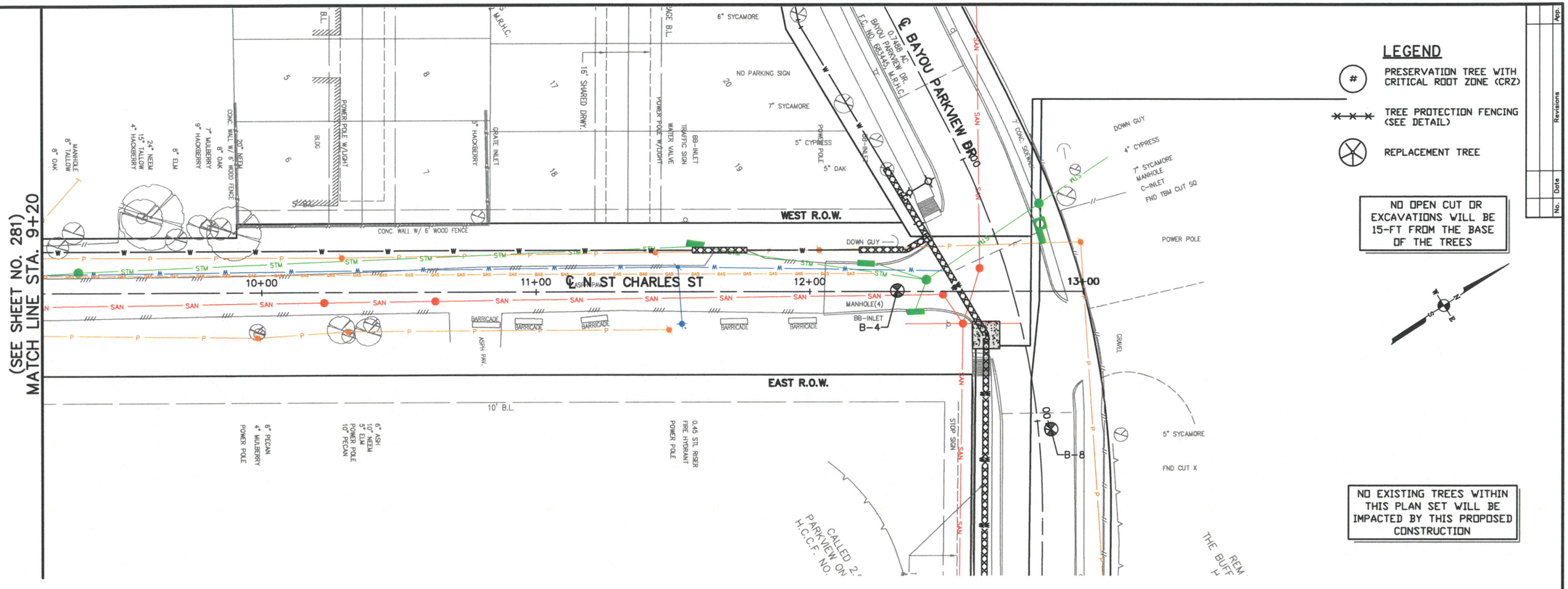
WATERLINE REPLACEMENT IN SECOND WARD

N ST CHARLES ST

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 9+20.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 281 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:23:57 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

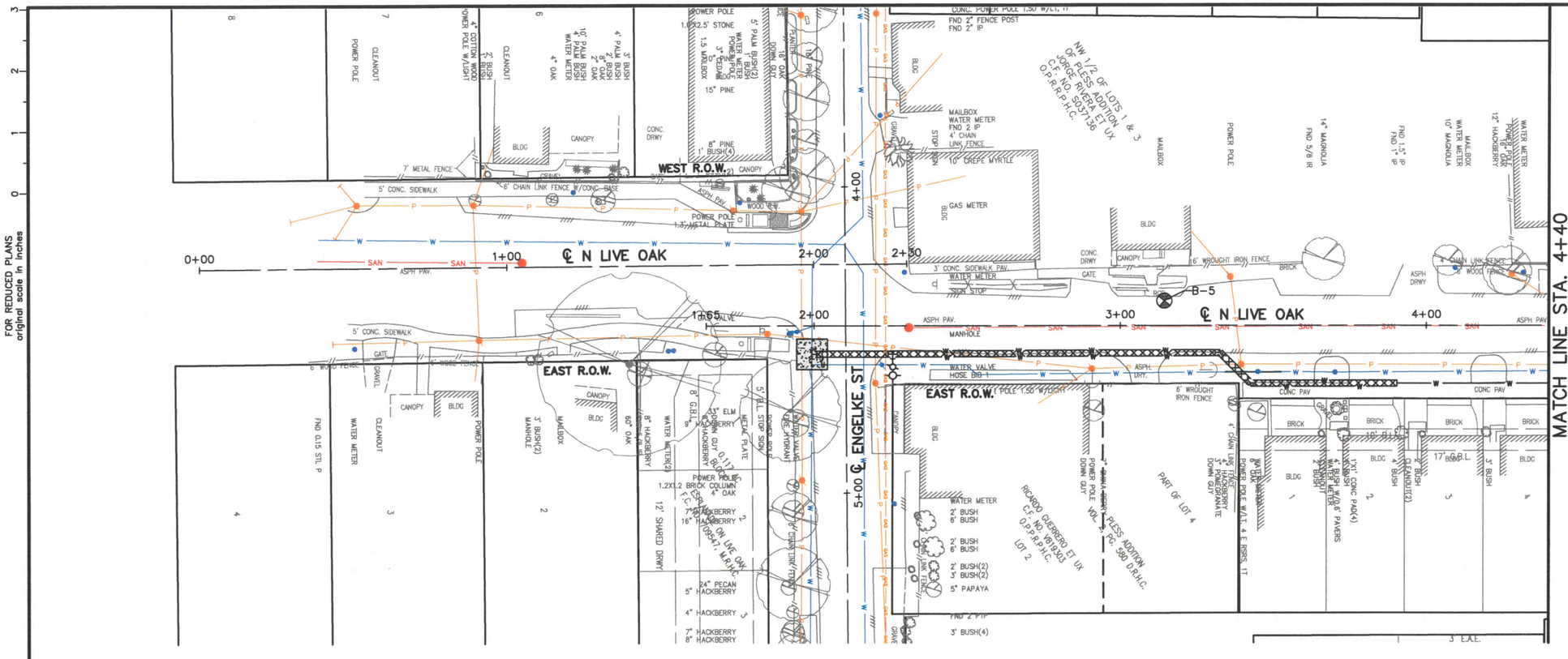
WATERLINE REPLACEMENT IN SECOND WARD

N ST CHARLES ST

TREE PRESERVATION PLAN
FROM STA. 9+20.00 TO STA. 13+00.27

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 282 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:24:07 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

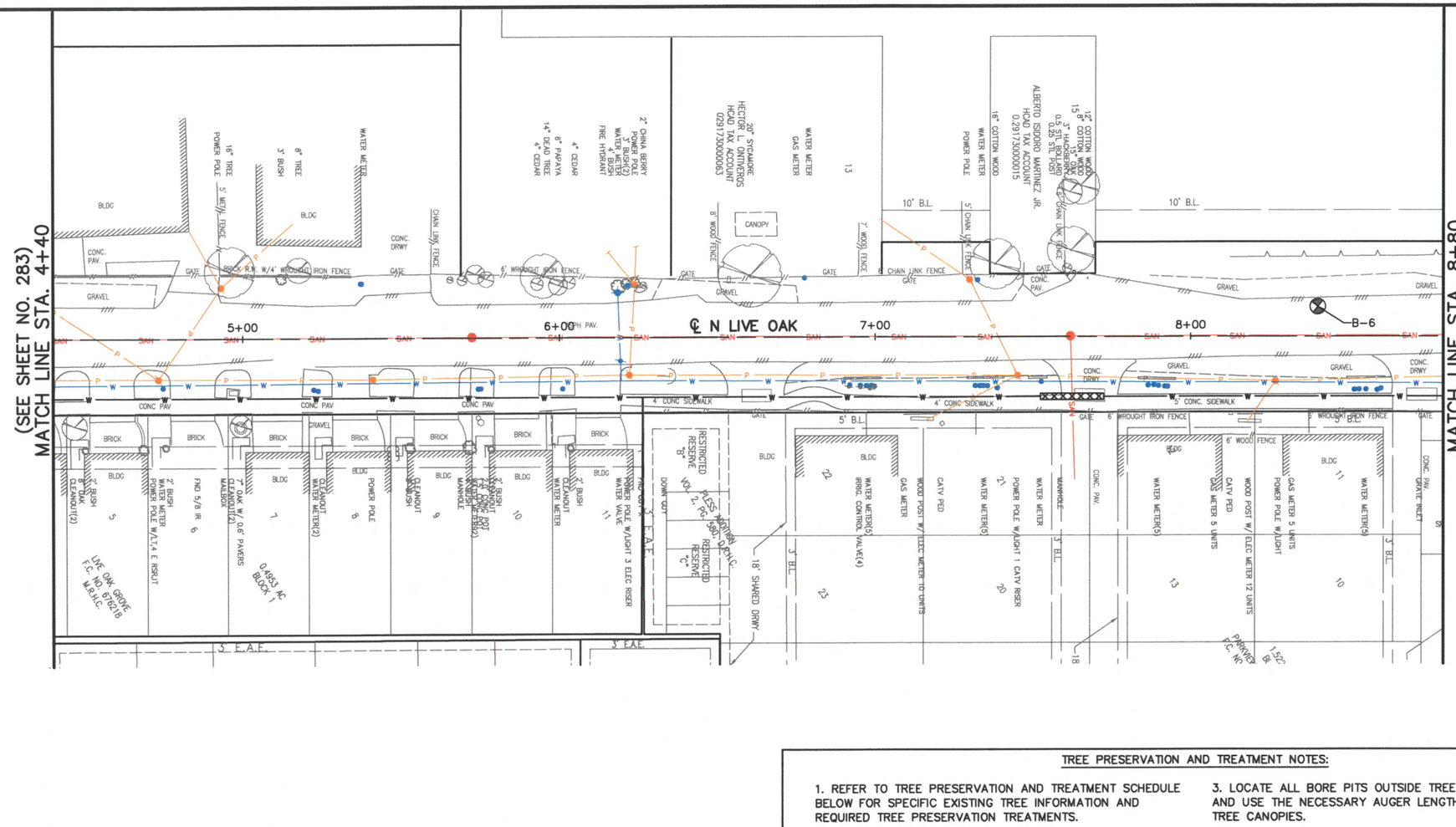
N LIVE OAK (N-2)

TREE PRESERVATION PLAN
FROM STA. 1+64.71 TO STA. 4+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 283 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:24:17 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



FOR REDUCED PLANS
original scale in inches

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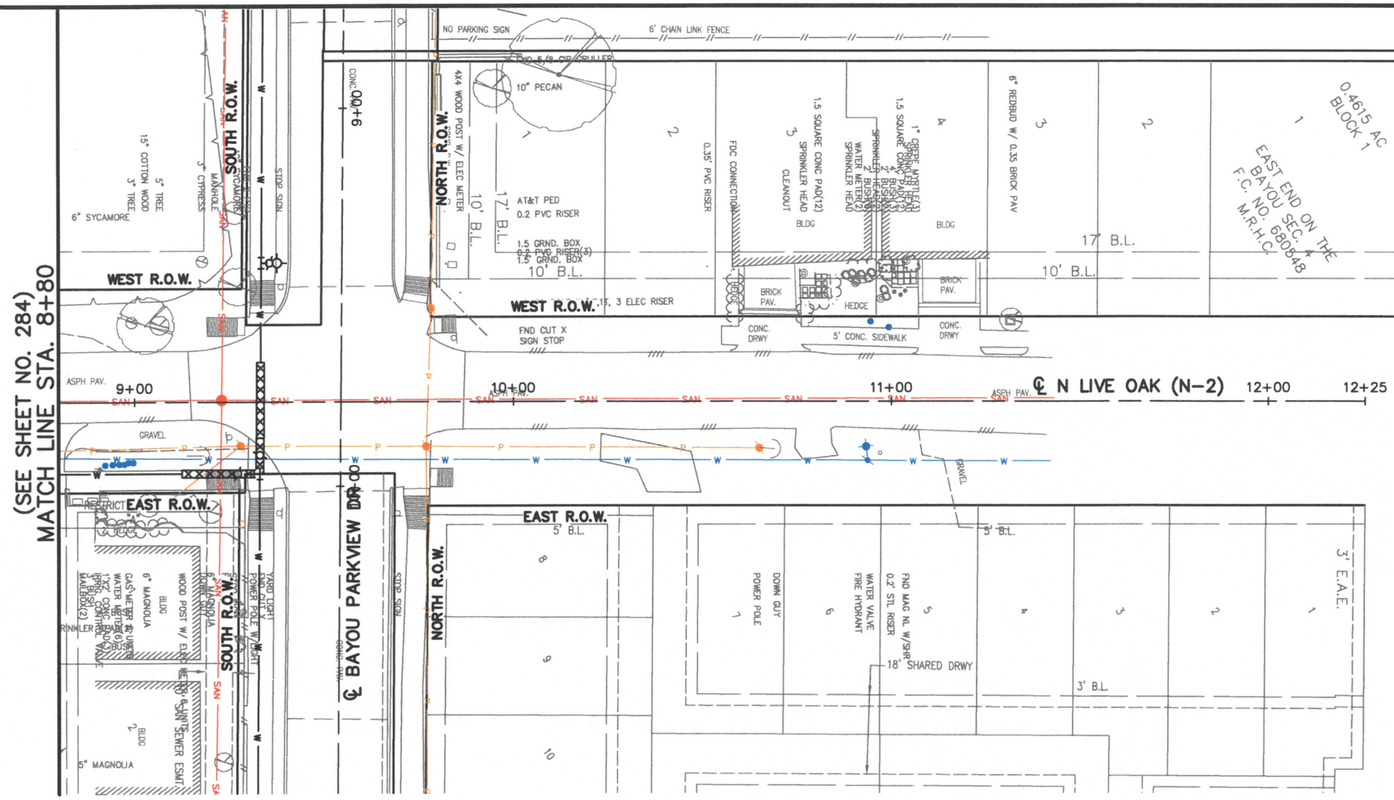
WATERLINE REPLACEMENT IN SECOND WARD

N LIVE OAK (N-2)

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FROM STA. 4+40.00 TO STA. 8+80.00

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S-000035-0312-4	
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

N LIVE OAK (N-2)

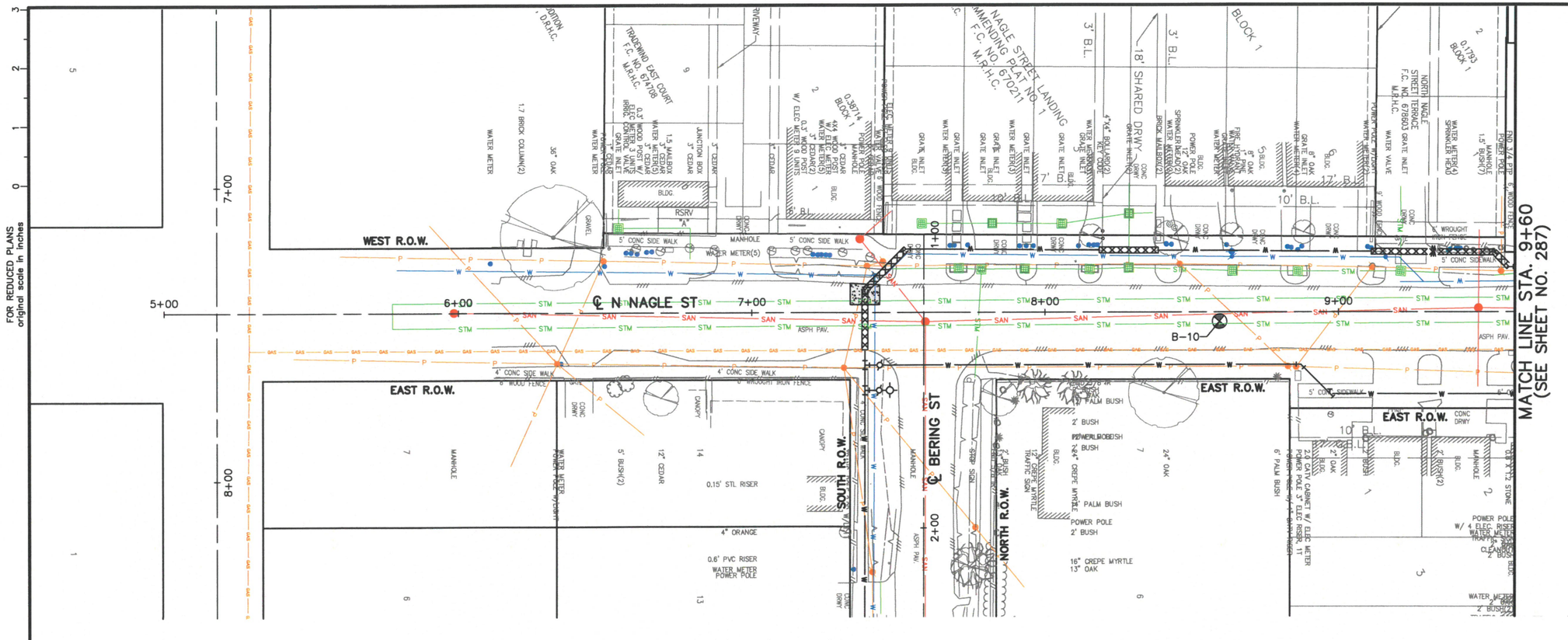
TREE PRESERVATION PLAN
FROM STA. 8+80.00 TO STA. 12+25.47

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 285 OF 362	

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 10:24:37 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



TREE PRESERVATION AND TREATMENT NOTES:

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2. REFER TO TREE PRESERVATION AND TREATMENT SPECIFICATIONS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.
3. LOCATE ALL BORE PITS OUTSIDE TREE CANOPY AREAS, AND USE THE NECESSARY AUGER LENGTH TO CLEAR THE TREE CANOPIES.
4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
TREATMENT E - MULCHING OPERATION
TREATMENT F - ROOT PRUNING TREATMENT
TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
TREATMENT H - UTILITY BORING OPERATION
TREATMENT I - ZERO CURB CUT OPERATION
TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

No.	Date	Revisions	App.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

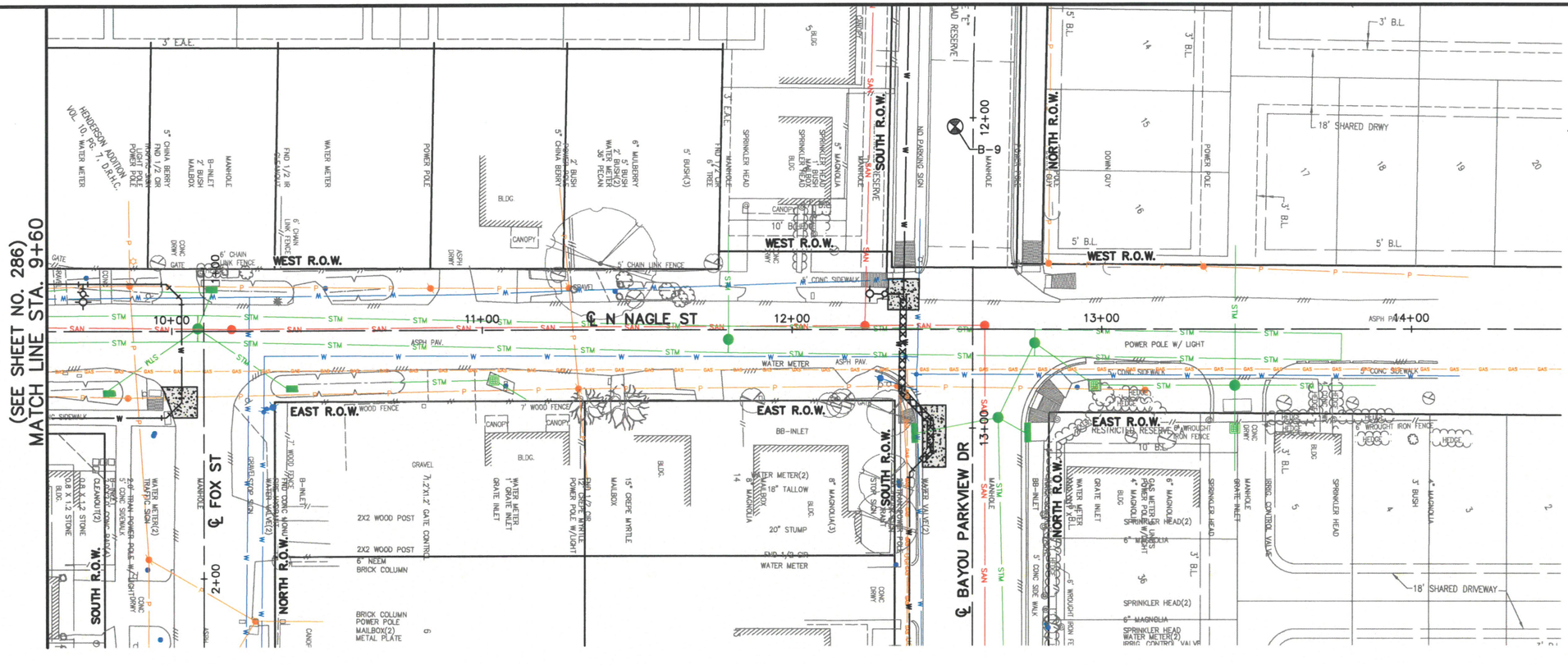
WATERLINE REPLACEMENT IN SECOND WARD

N NAGLE ST

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 9+60.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 286 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:24:47 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

0 20' 40'

TREE PRESERVATION AND TREATMENT NOTES:

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

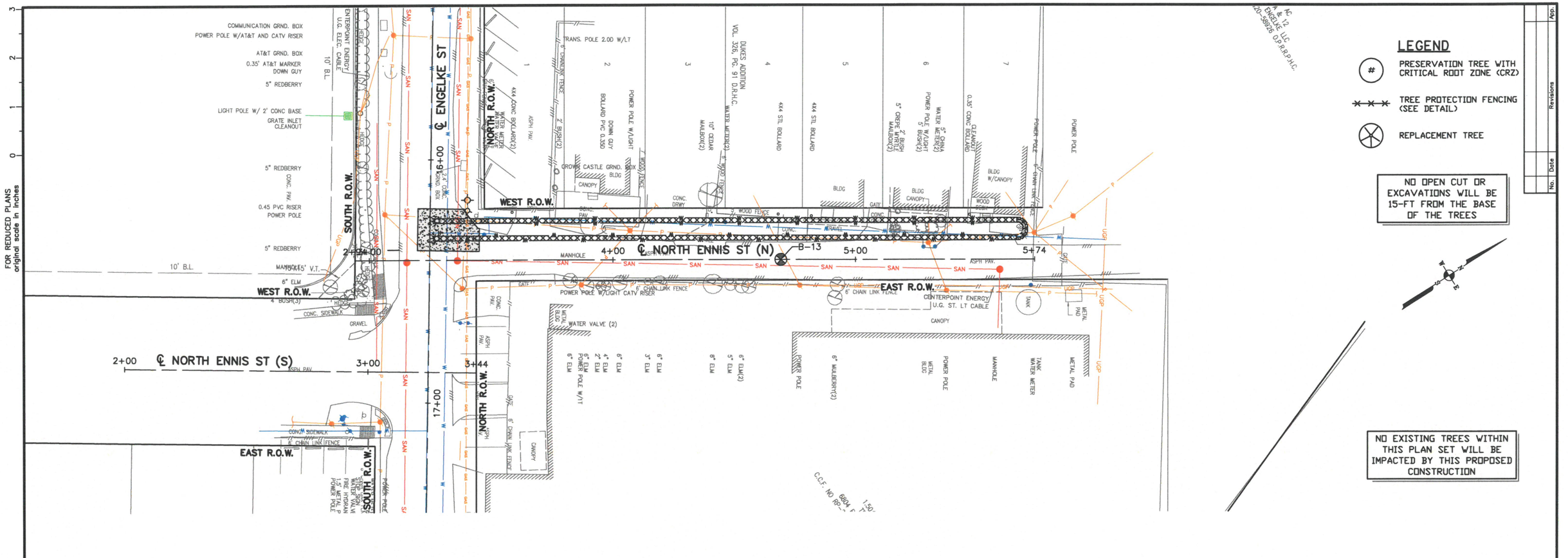
N NAGLE ST

TREE PRESERVATION PLAN
FROM STA. 9+60.00 TO STA. 14+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 287 OF 362	

FOR REDUCED PLANS
original scale in Inches

PLOTTED ON: Wednesday, September 23, 2026 10:24:57 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



LEGEND

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

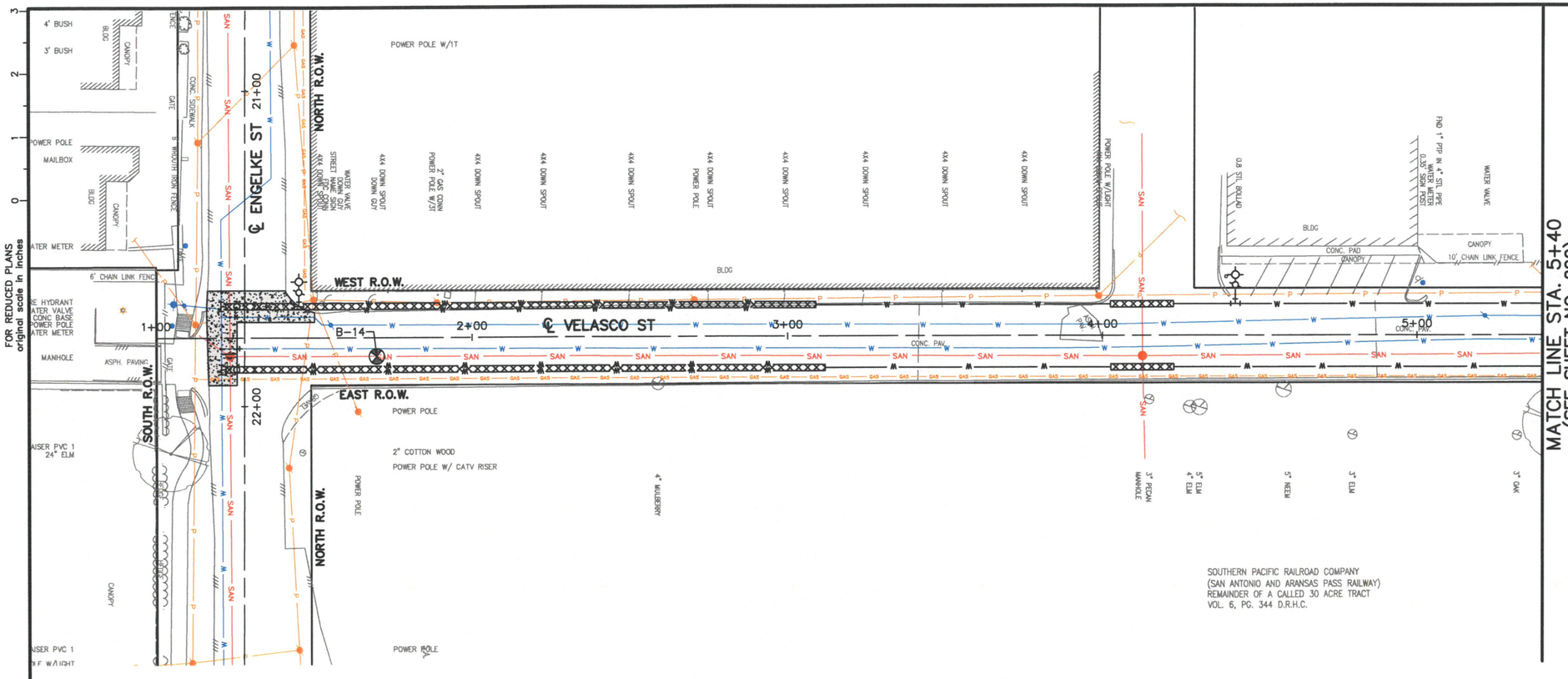
WATERLINE REPLACEMENT IN SECOND WARD

NORTH ENNIS ST (N)

TREE PRESERVATION PLAN
FROM STA. 2+94.15 TO STA. 5+73.89

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 288 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:25:07 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

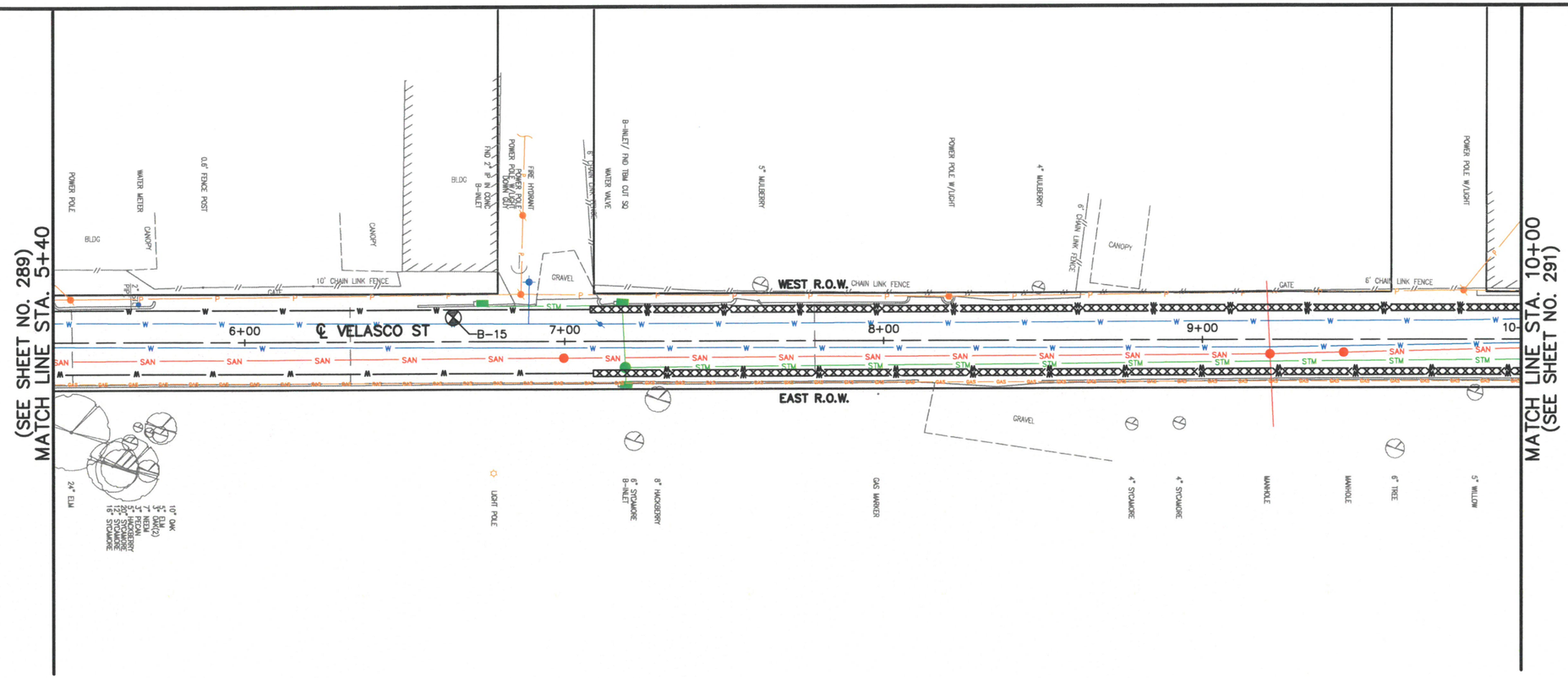
WATERLINE REPLACEMENT IN SECOND WARD

VELASCO ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 289 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:25:17 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

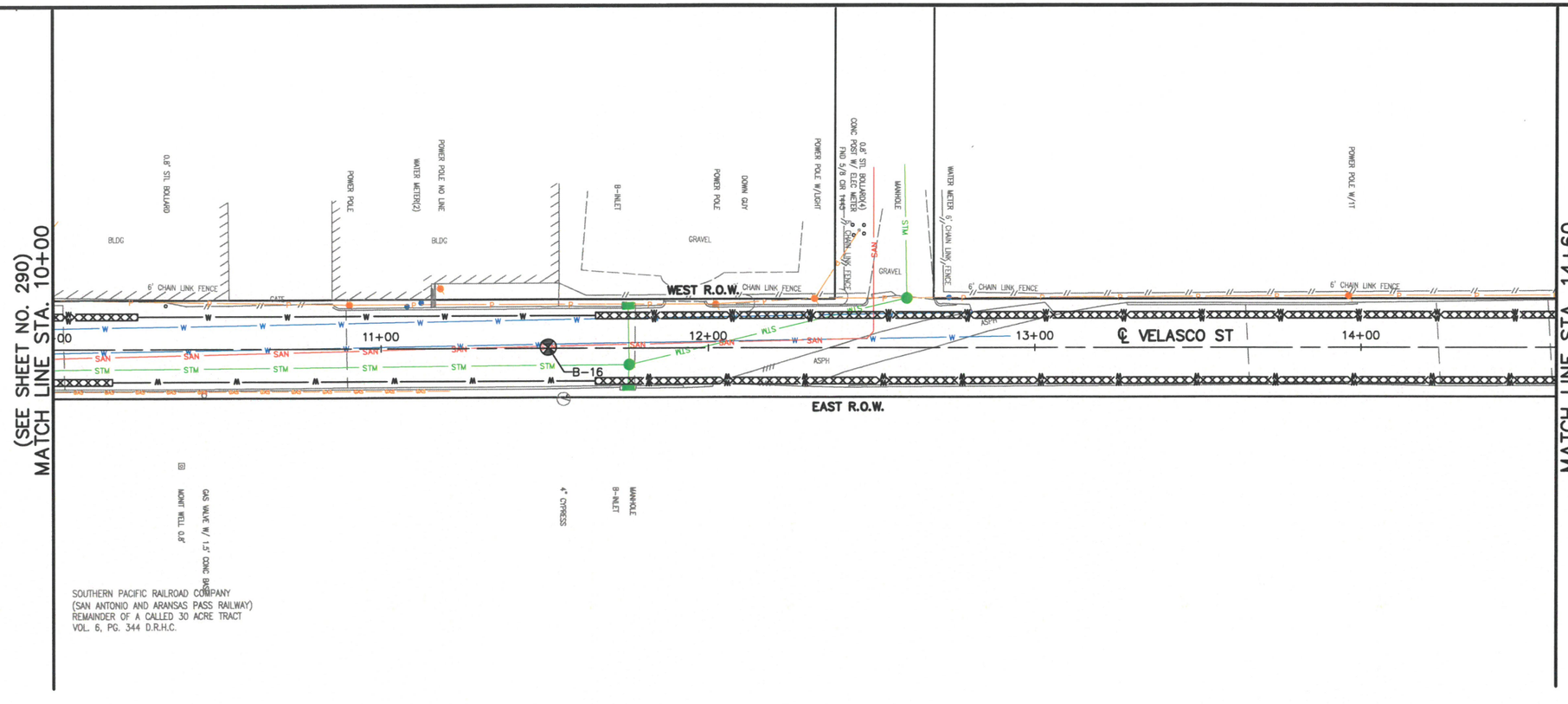
VELASCO ST

TREE PRESERVATION PLAN
FROM STA. 5+40.00 TO STA. 10+00.00

WBS NUMBER	S-000035-0312-4
DRAWING SCALE	HORIZ: 1"= 20'
CITY OF HOUSTON PM	UYEN NGUYEN
SHEET NO. 290 OF 362	

CITY DWG NO.:

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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



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HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

VELASCO ST

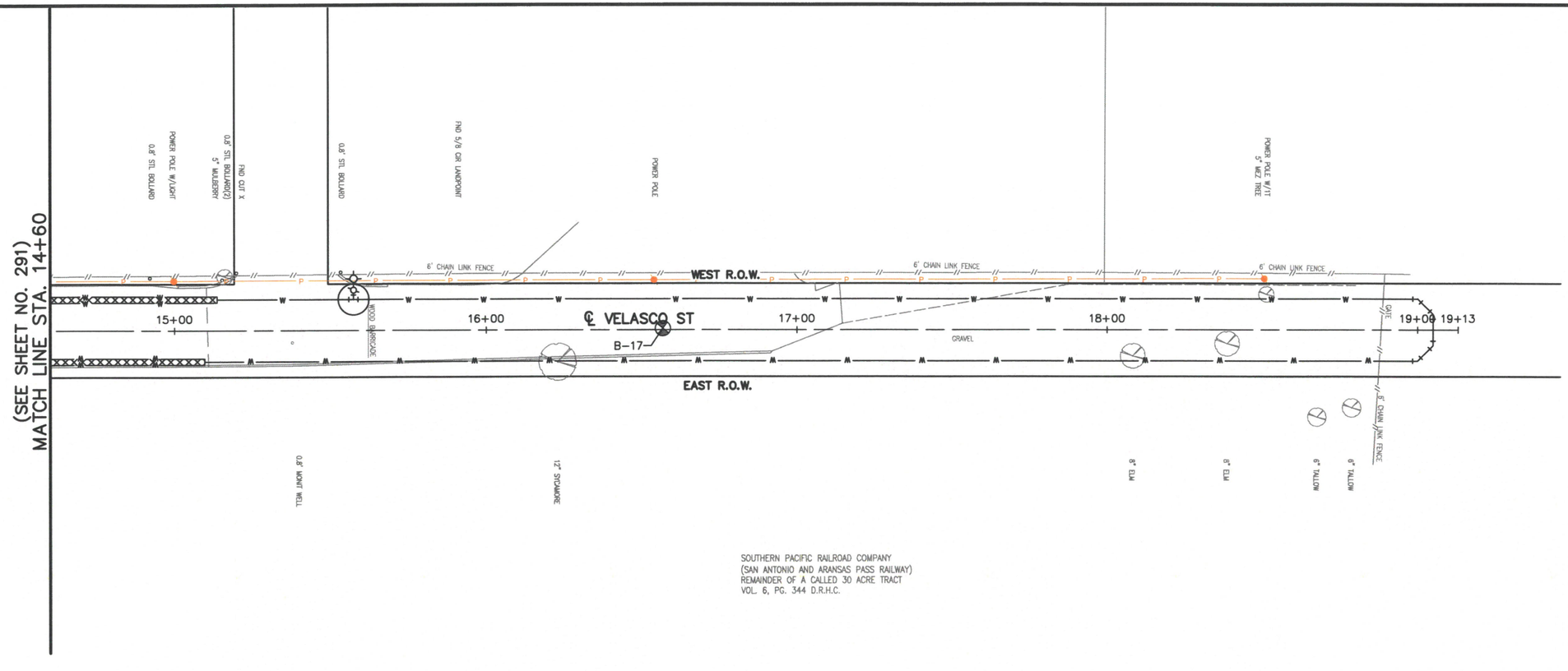
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UYEN NGUYEN	
SHEET NO. 291 OF 362	

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
0 1 2 3

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SOUTHERN PACIFIC RAILROAD COMPANY
(SAN ANTONIO AND ARANSAS PASS RAILWAY)
REMAINDER OF A CALLED 30 ACRE TRACT
VOL. 6, PG. 344 D.R.H.C.

LEGEND

(#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)

TREE PROTECTION FENCING (SEE DETAIL)

REPLACEMENT TREE

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(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

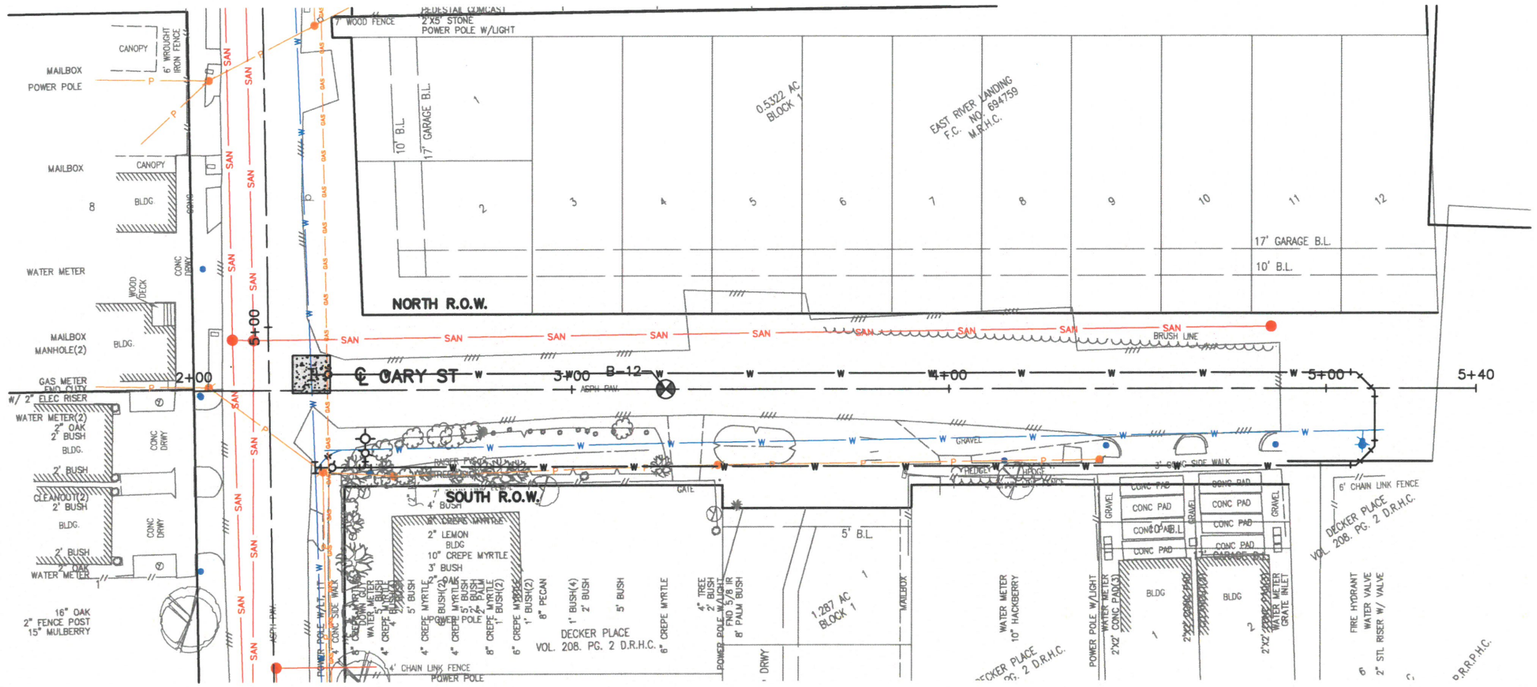
VELASCO ST

TREE PRESERVATION PLAN
FROM STA. 14+60.00 TO STA. 19+12.97

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 292 OF 362	

FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 10:25:47 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

0 20' 40'

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
2. REFER TO TREE PRESERVATION AND TREATMENT SPECIFICATIONS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.
3. LOCATE ALL BORE PITS OUTSIDE TREE CANOPY AREAS, AND USE THE NECESSARY AUGER LENGTH TO CLEAR THE TREE CANOPIES.
4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
TREATMENT E - MULCHING OPERATION
TREATMENT F - ROOT PRUNING TREATMENT
TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
TREATMENT H - UTILITY BORING OPERATION
TREATMENT I - ZERO CURB CUT OPERATION
TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

No.	Date	Revisions	App.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

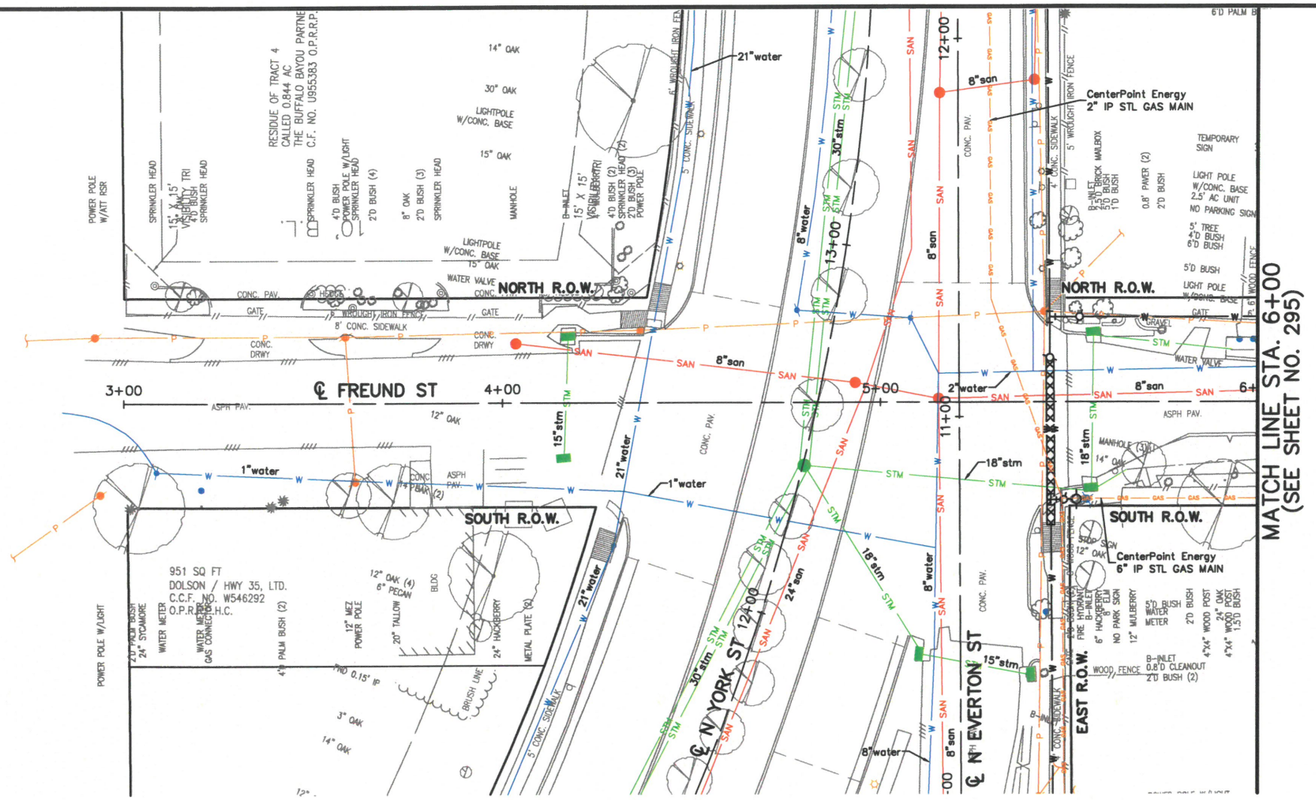
CARY ST.

FROM STA. 2+00.00 TO STA. 5+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 293 OF 362	

FOR REDUCED PLANS original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:25:57 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-B-V.DWG



FOR REDUCED PLANS
original scale in inches

0 1 2 3

LEGEND

(#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)

TREE PROTECTION FENCING (SEE DETAIL)

REPLACEMENT TREE

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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

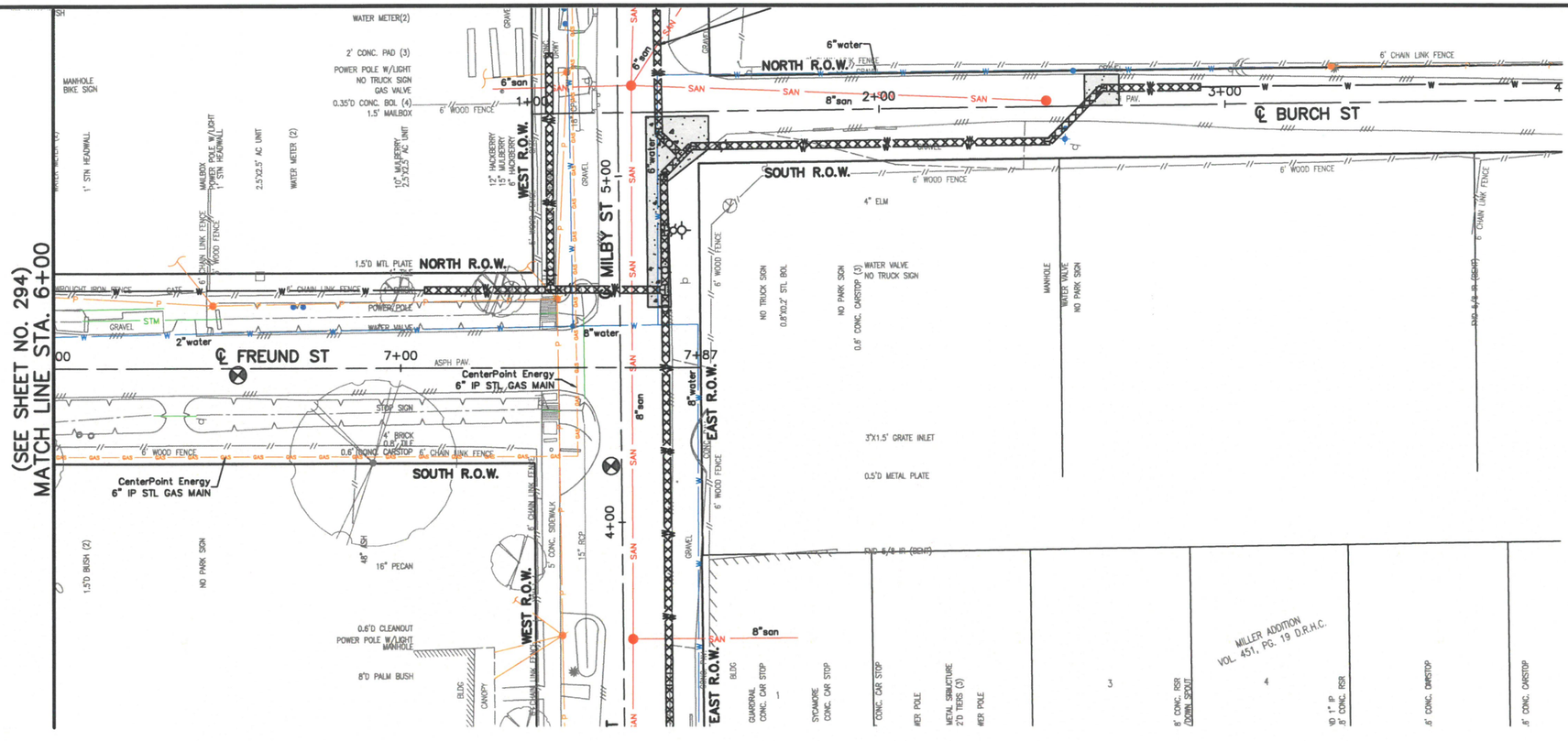
WATERLINE REPLACEMENT IN SECOND WARD

FREUND ST

TREE PRESERVATION PLAN
FROM STA. 3+00.00 TO STA. 6+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 294 OF 382	

PLOTTED ON: Wednesday, September 23, 2026 10:27:39 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-H.DWG



LEGEND

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- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

FREUND ST

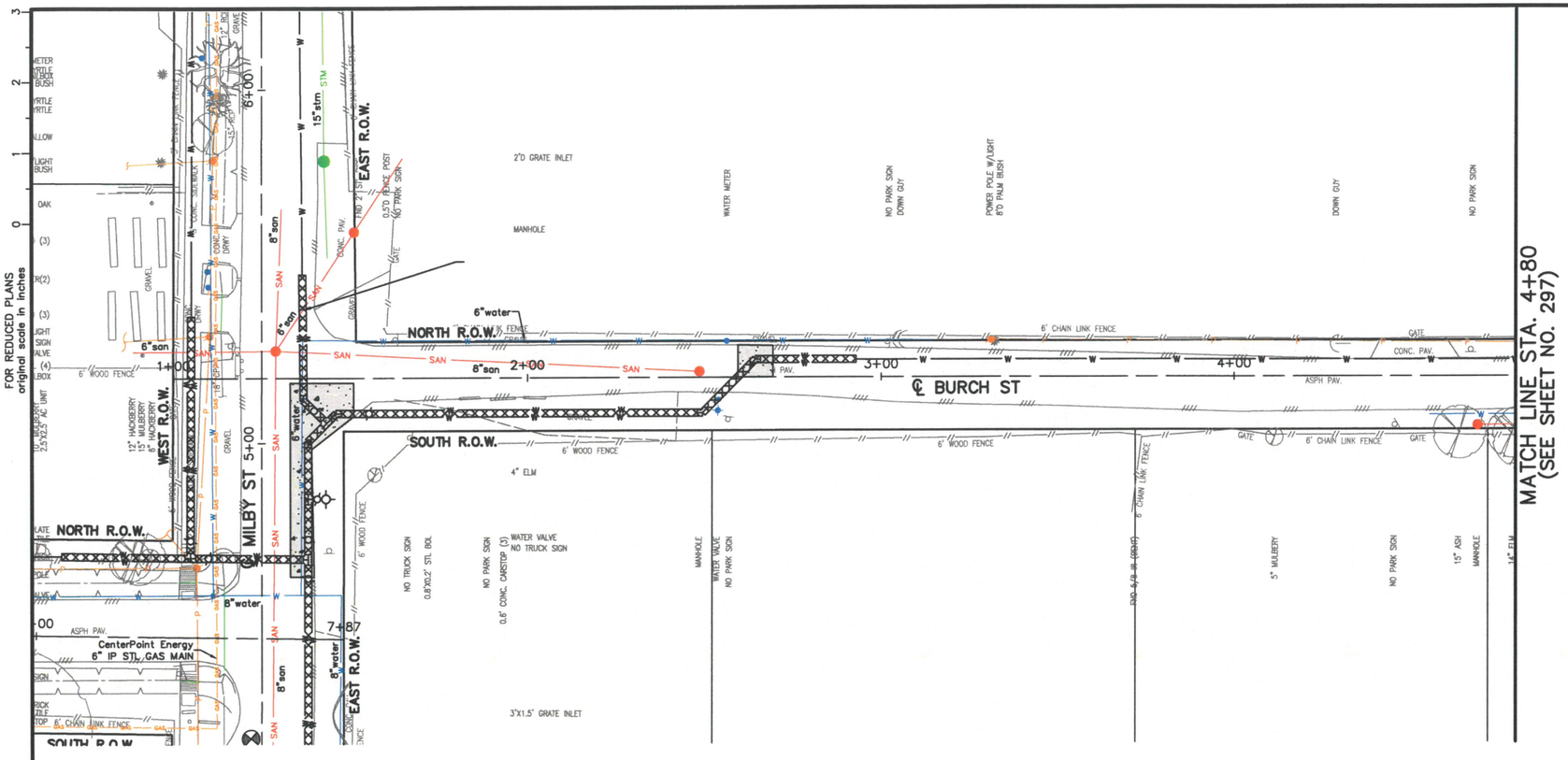
TREE PRESERVATION PLAN
FROM STA. 6+00.00 TO STA. 7+86.67

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 295 OF 362	

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:27:47 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-H.DWG



MATCH LINE STA. 4+80
(SEE SHEET NO. 297)

FOR REDUCED PLANS
original scale in inches

LEGEND

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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

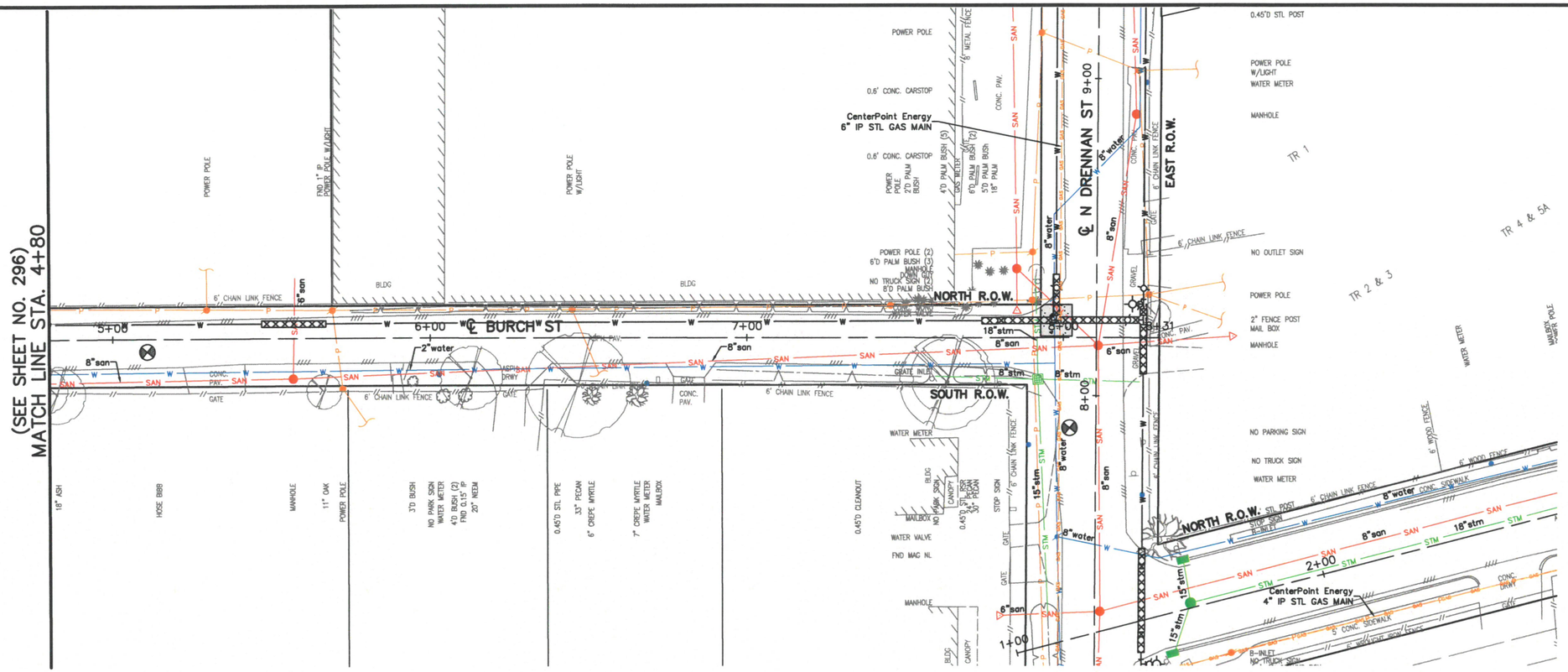
BURCH ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 4+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 296 OF 362	

No.	Date	Revisions	App.

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FOR REDUCED PLANS
original scale in inches

LEGEND

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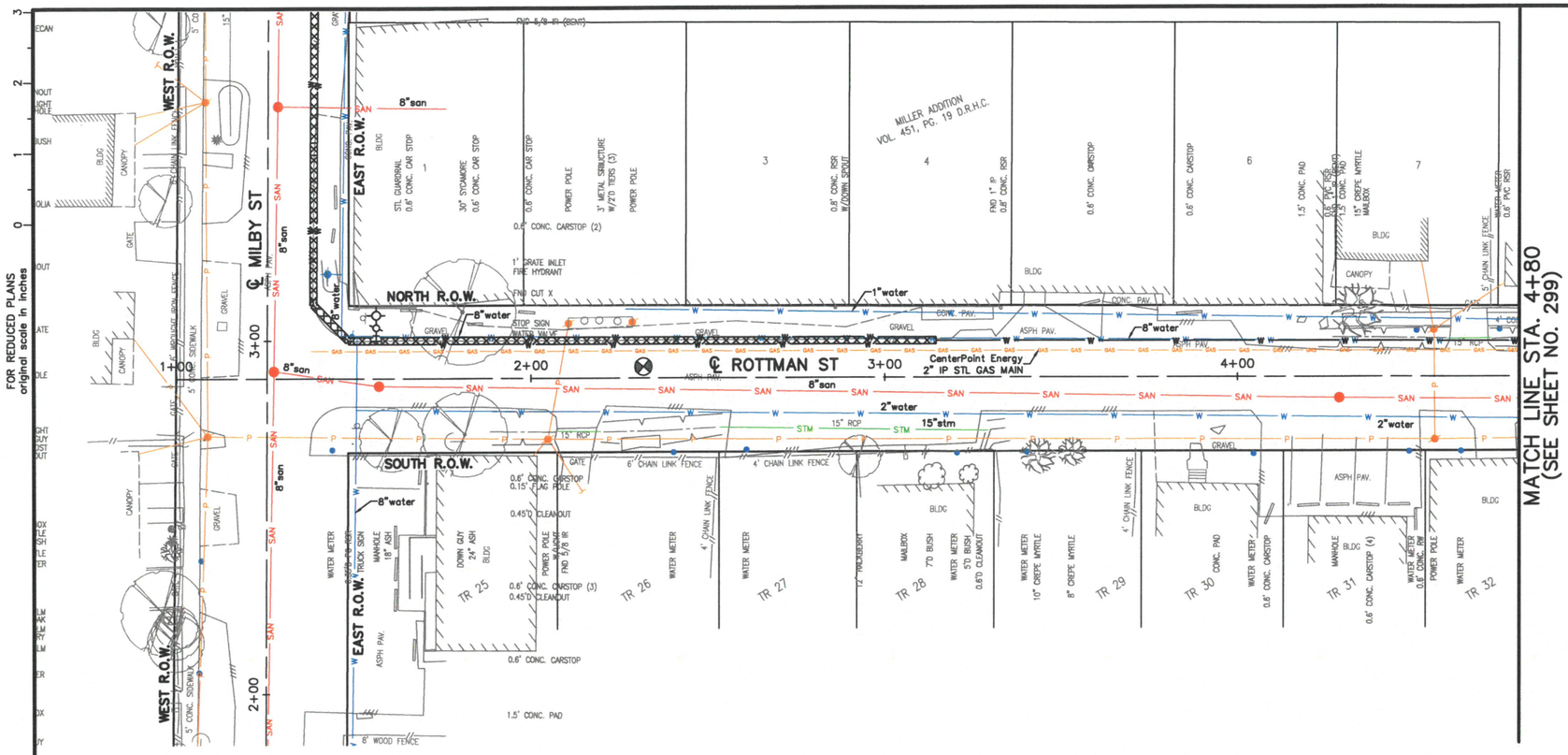
WATERLINE REPLACEMENT IN SECOND WARD

BURCH ST

TREE PRESERVATION PLAN
FROM STA. 4+80.00 TO STA. 7+88.53

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FOR REDUCED PLANS
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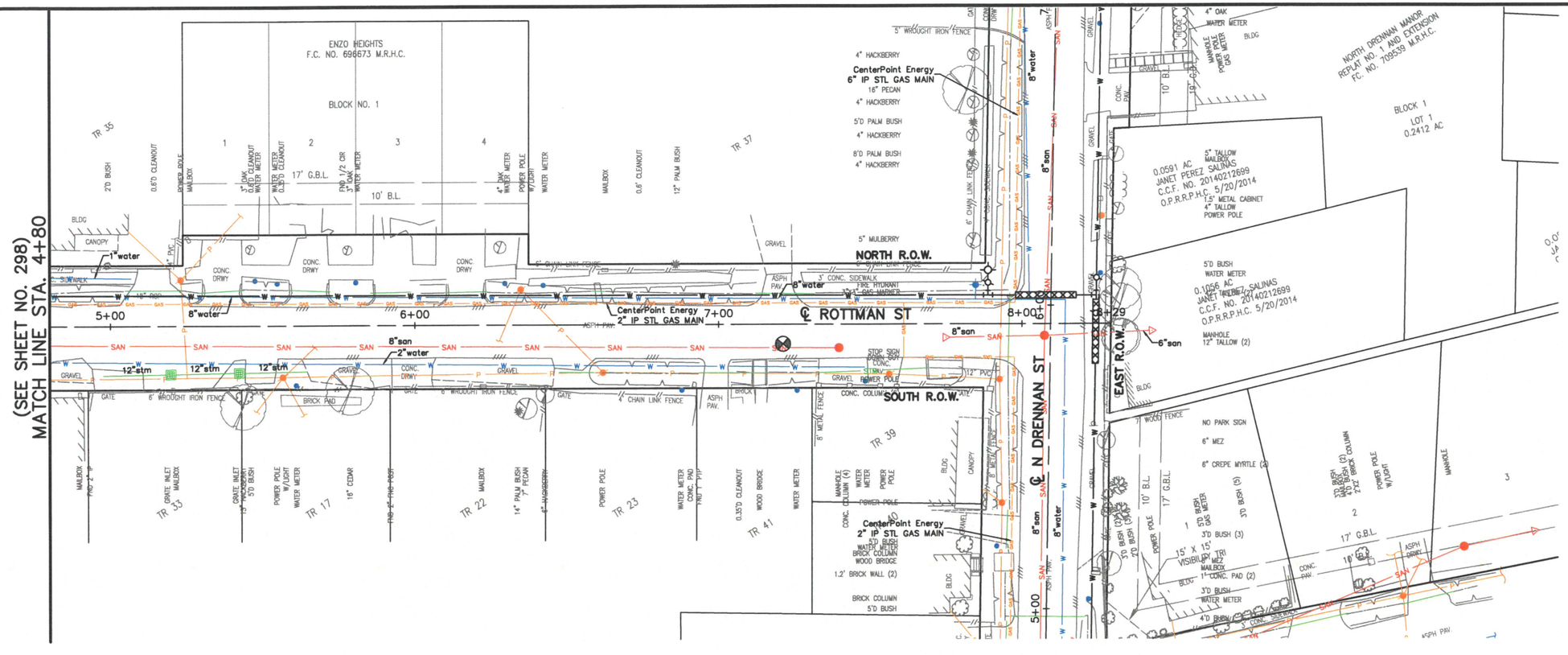
WATERLINE REPLACEMENT IN SECOND WARD

ROTTMAN ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 4+80.00

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TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
TREATMENT E - MULCHING OPERATION
TREATMENT F - ROOT PRUNING TREATMENT
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SES HORIZON
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(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES. EPIFANIO E. SALAZAR JR., P.E. TEXAS SERIAL NO. 67749 DATE: Sep-26

SURVEYED BY: JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

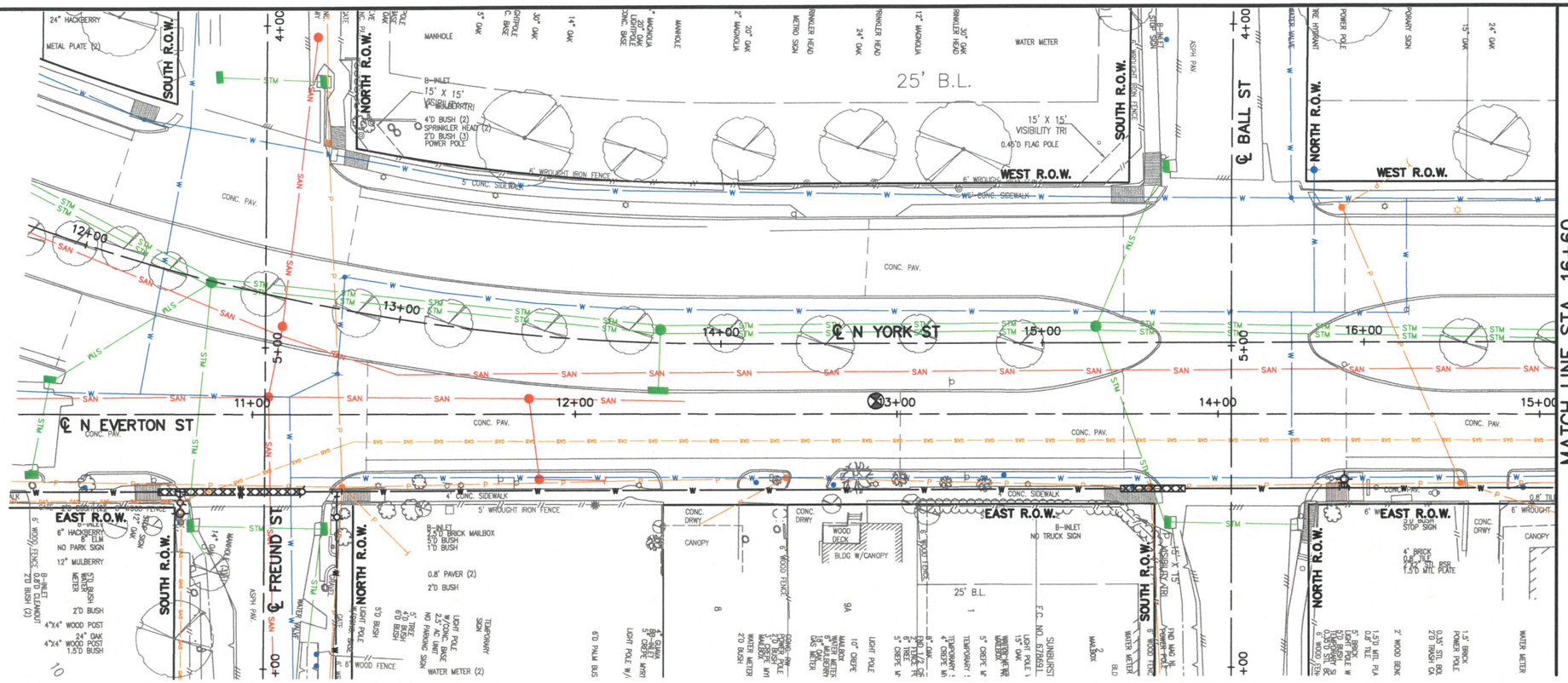
WATERLINE REPLACEMENT IN SECOND WARD

ROTTMAN ST

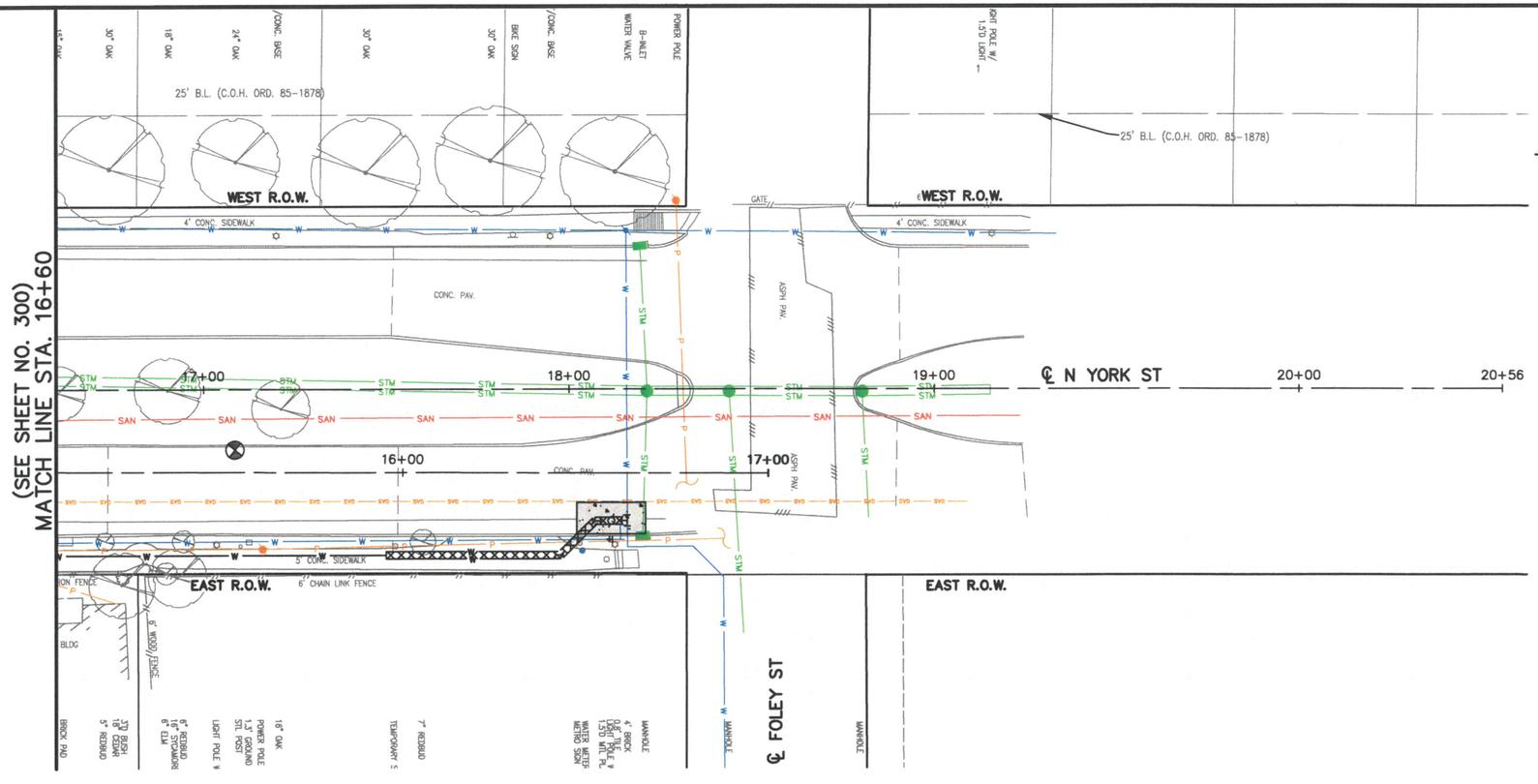
TREE PRESERVATION PLAN
FROM STA. 4+80.00 TO STA. 8+29.32

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 299 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:28:28 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-H.DWG


25' B.L.
15' X 15' VISIBILITY TRI
0.45'D FLAG POLE
6' WROUGHT IRON FENCE
5' CONC. SIDEWALK
6' WROUGHT IRON FENCE
4' CONC. SIDEWALK
CONC. PAV.
℄ N YORK ST
℄ N EVERTON ST
℄ FREUND ST
℄ BALL ST
11+00
12+00
13+00
14+00
15+00
16+00
3+00
4+00
5+00
+00
SOUTH R.O.W.
NORTH R.O.W.
WEST R.O.W.
EAST R.O.W.
B-INLET
15' X 15' VISIBILITY TRI
4'D BUSH (2)
SPRINKLER HEAD (2)
2'D BUSH (3)
POWER POLE
MANHOLE
WATER METER
FIRE HYDRANT
POWER POLE
DRIVWAY SIGN
24" HACKBERRY
METAL PLATE (2)
6" HACKBERRY
8" ELM
NO PARK SIGN
12" MULBERRY
NO TRUCK SIGN
0.8' PAVER (2)
2'D BUSH
5'D BUSH
4'D BUSH
6'D BUSH
4"X4" WOOD POST
24" OAK
4"X4" WOOD POST
1.5'D BUSH
B-INLET
2'D BUSH
5' TREE
NO PARKING SIGN
WOOD FENCE
WATER METER (2)
BLDG W/CANOPY
CANOPY
CONC. DRWY
WOOD DECK
8' WOOD FENCE
6' WOOD FENCE
F.C. NO. 878931
SUNBURST
4" BRICK MAILBOX
2'D BUSH
1'D BUSH
STOP SIGN
1.5'D MTL PLATE
1.5' BRICK POWER POLE
0.35' STL BOL
2'D TRASH CA
2' WOOD BENC
0.8' TILE
1.5'D MTL PLA
5' BRICK
LIGHT POLE W
TEMPORARY SIGN
10' CREPE MYRTLE
MAILBOX
WATER METER
GAS METER
LIGHT POLE
6'D PALM BUS
LIGHT POLE W/A
8' OAK
5' CREPE MYRTLE
6' TREE
5' CREPE MYRTLE
TEMPORARY SIGN
4' CREPE MYRTLE
15" OAK
LIGHT POLE W/
5' CREPE MYRTLE
WATER METER
2'D BUSH
CONC. PAV.
CONC. DRWY
CANOPY
6' WROUGHT
0.8' TILE
6' WROUGHT
CONC. PAV.
CONC. DRWY
CANOPY
WATER METER
2'D BUSH

FOR REDUCED PLANS
original scale in inches



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

0 20' 40'

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
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5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

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No.	Date	Revisions	App.

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TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

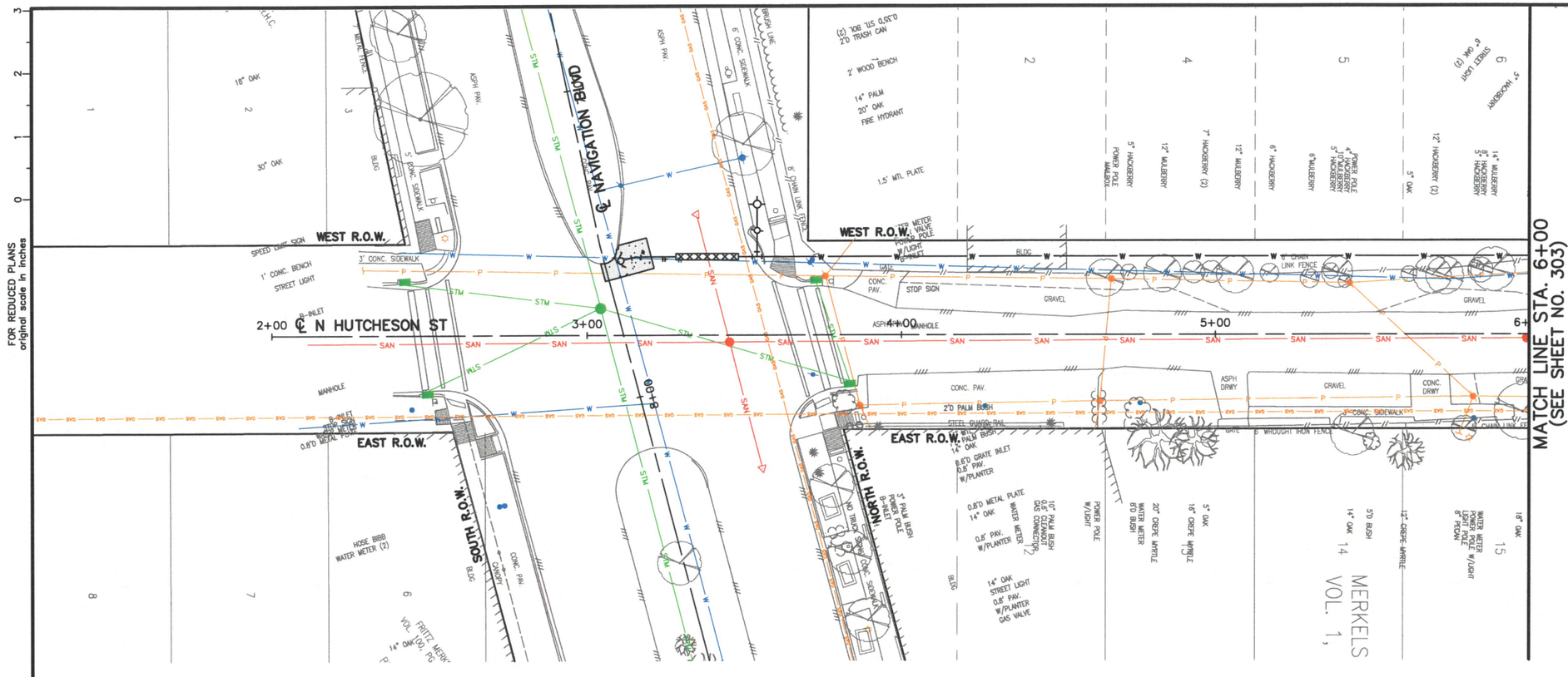
WATERLINE REPLACEMENT IN SECOND WARD

N YORK ST

TREE PRESERVATION PLAN
FROM STA. 16+60.00 TO STA. 20+55.82

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 301 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:29:17 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG



LEGEND

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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

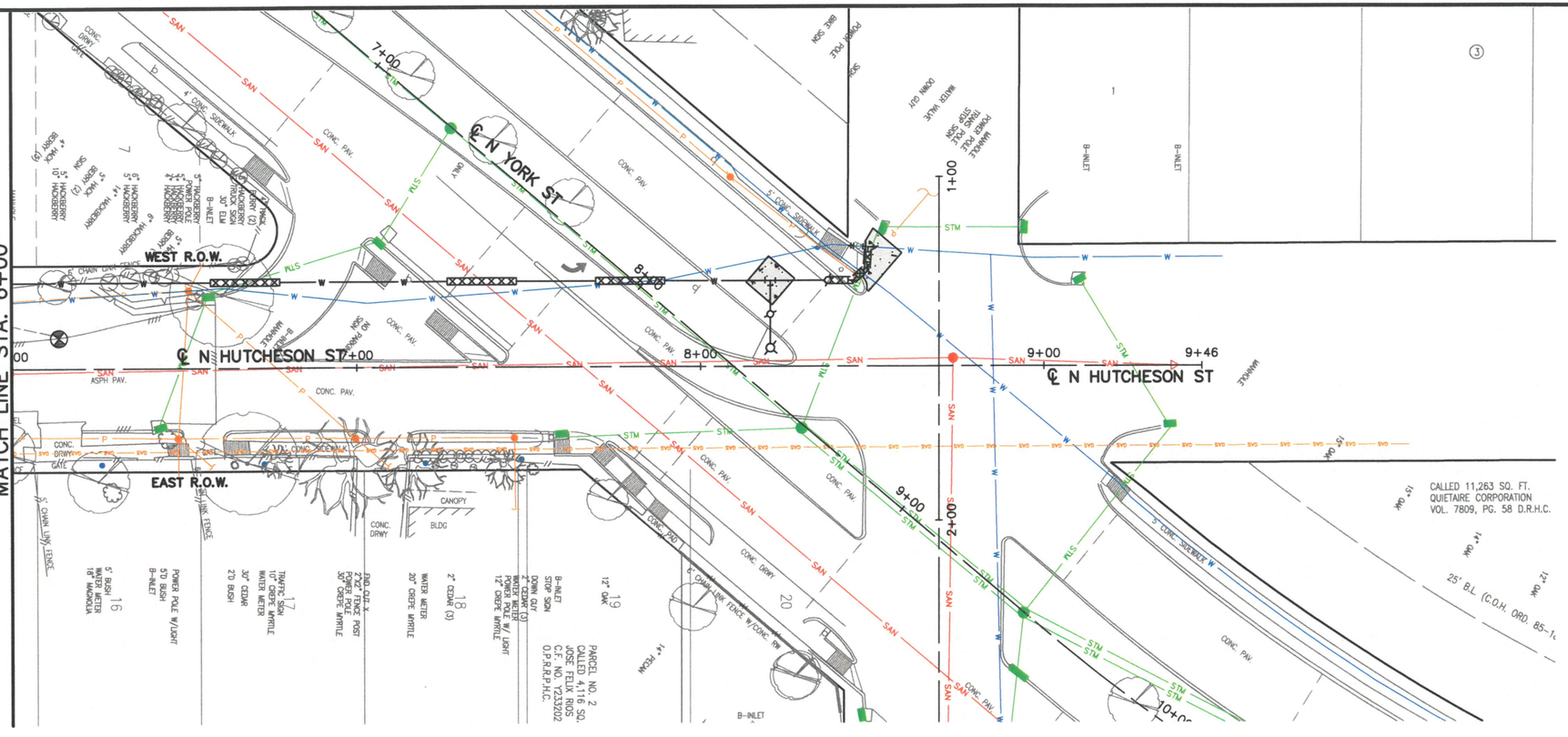
WATERLINE REPLACEMENT IN SECOND WARD

N HUTCHESON ST

TREE PRESERVATION PLAN
FROM STA. 2+00.00 TO STA. 6+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 302 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:29:27 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG



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0 20' 40'

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No.	Date	Revisions	App.

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TEXAS SERIAL NO. 67749
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SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

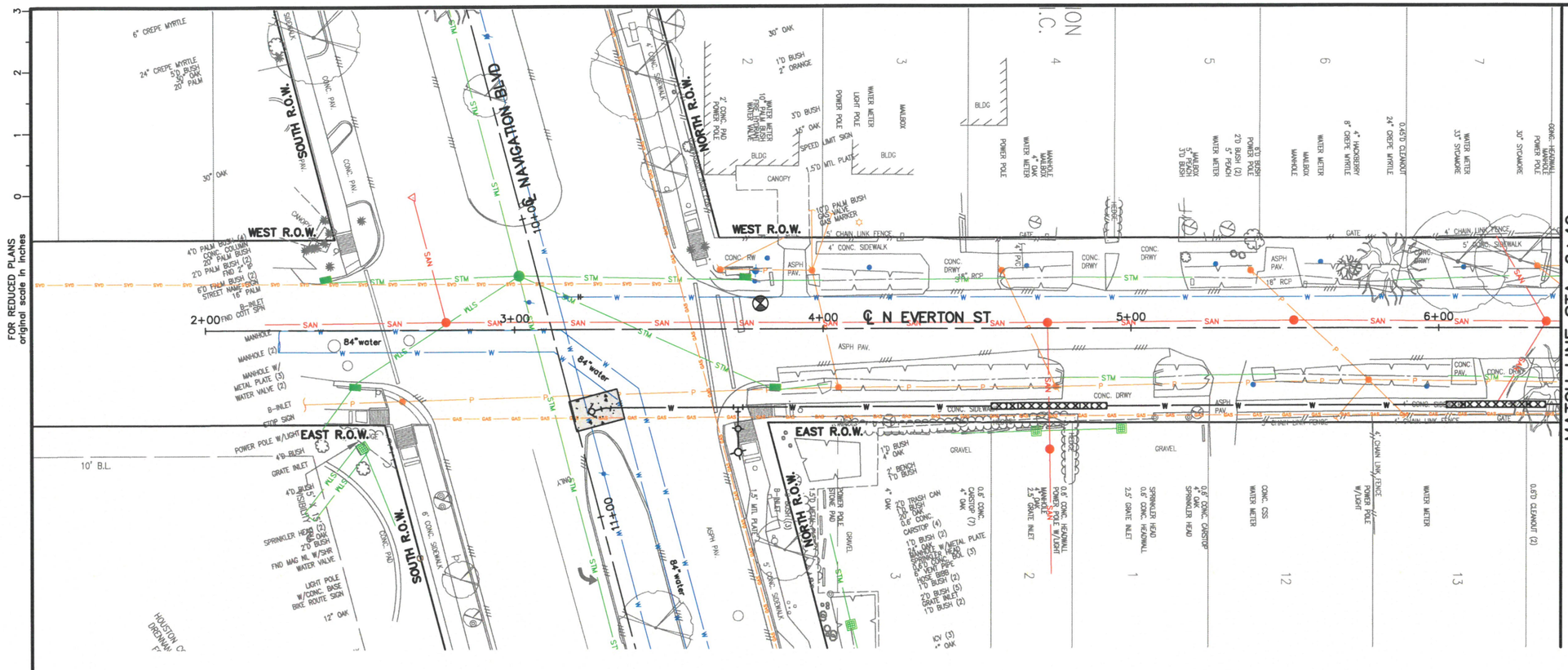
N HUTCHESON ST

TREE PRESERVATION PLAN
FROM STA. 6+00.00 TO STA. 9+46.07

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 303 OF 362	

FOR REDUCED PLANS
original scale in inches
3 2 1 0

PLOTTED ON: Wednesday, September 23, 2026 10:29:37 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG



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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

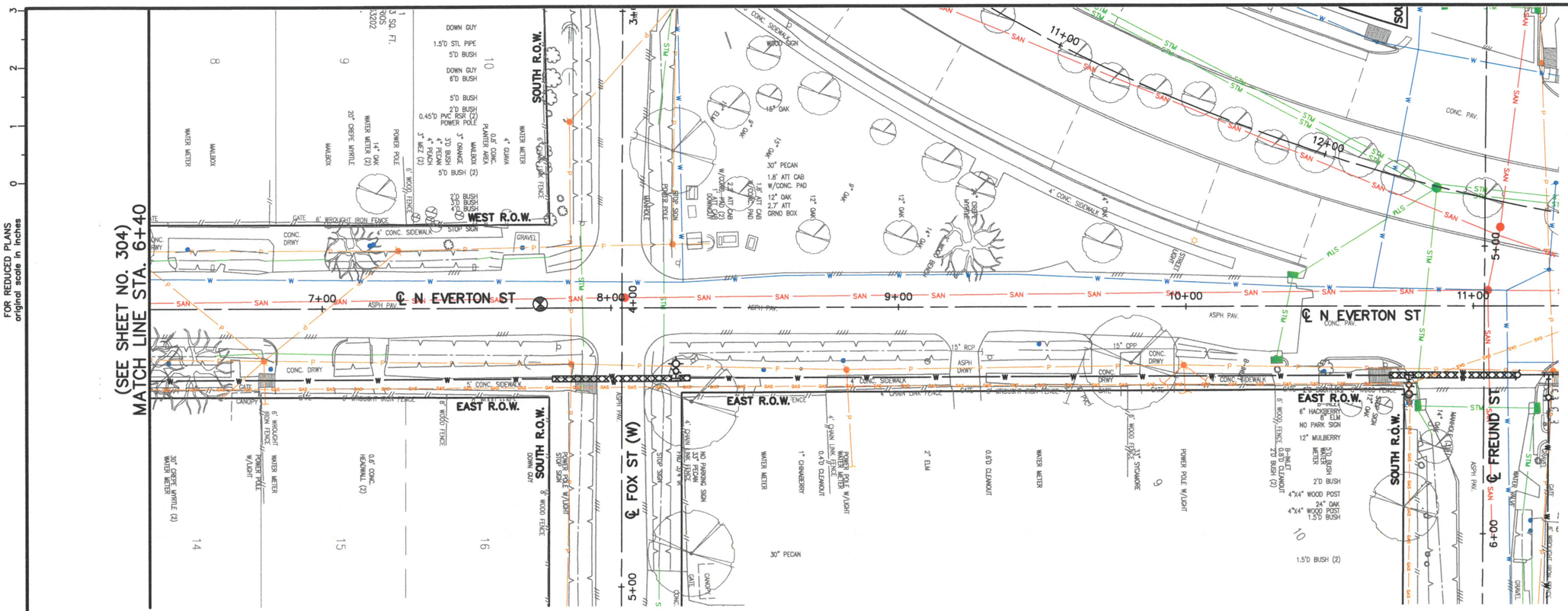
N EVERTON ST

TREE PRESERVATION PLAN
FROM STA. 2+00.00 TO STA. 6+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
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CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 304 OF 362	

No.	Date	Revisions	App.

PLOTTED ON: Wednesday, September 23, 2026 10:29:47 AM
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HOUSTON PUBLIC WORKS

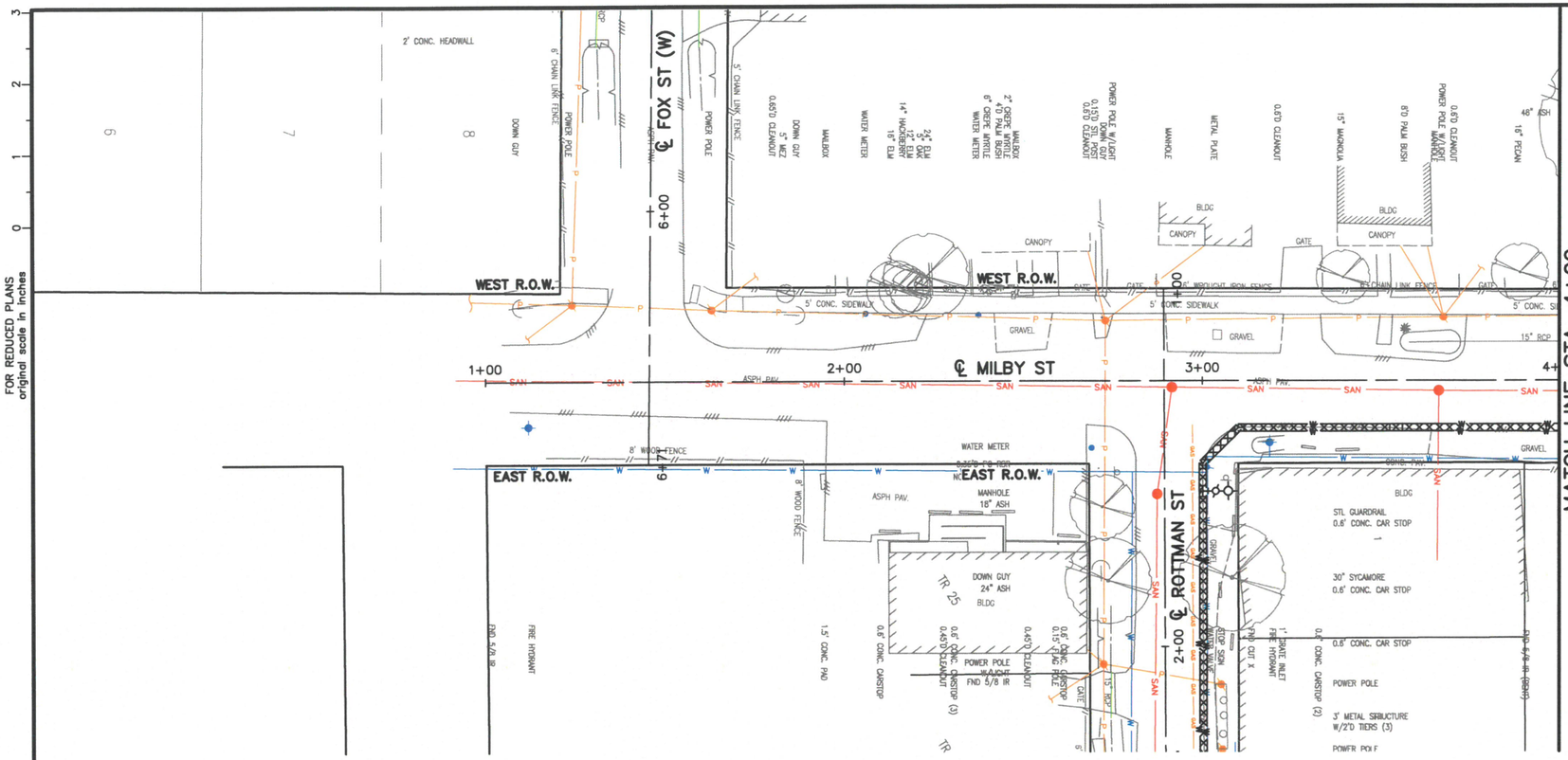
WATERLINE REPLACEMENT IN SECOND WARD

N EVERTON ST

TREE PRESERVATION PLAN
FROM STA. 6+40.00 TO STA. 10+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 305 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:29:57 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

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SES HORIZON CONSULTING ENGINEERS, INC.
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

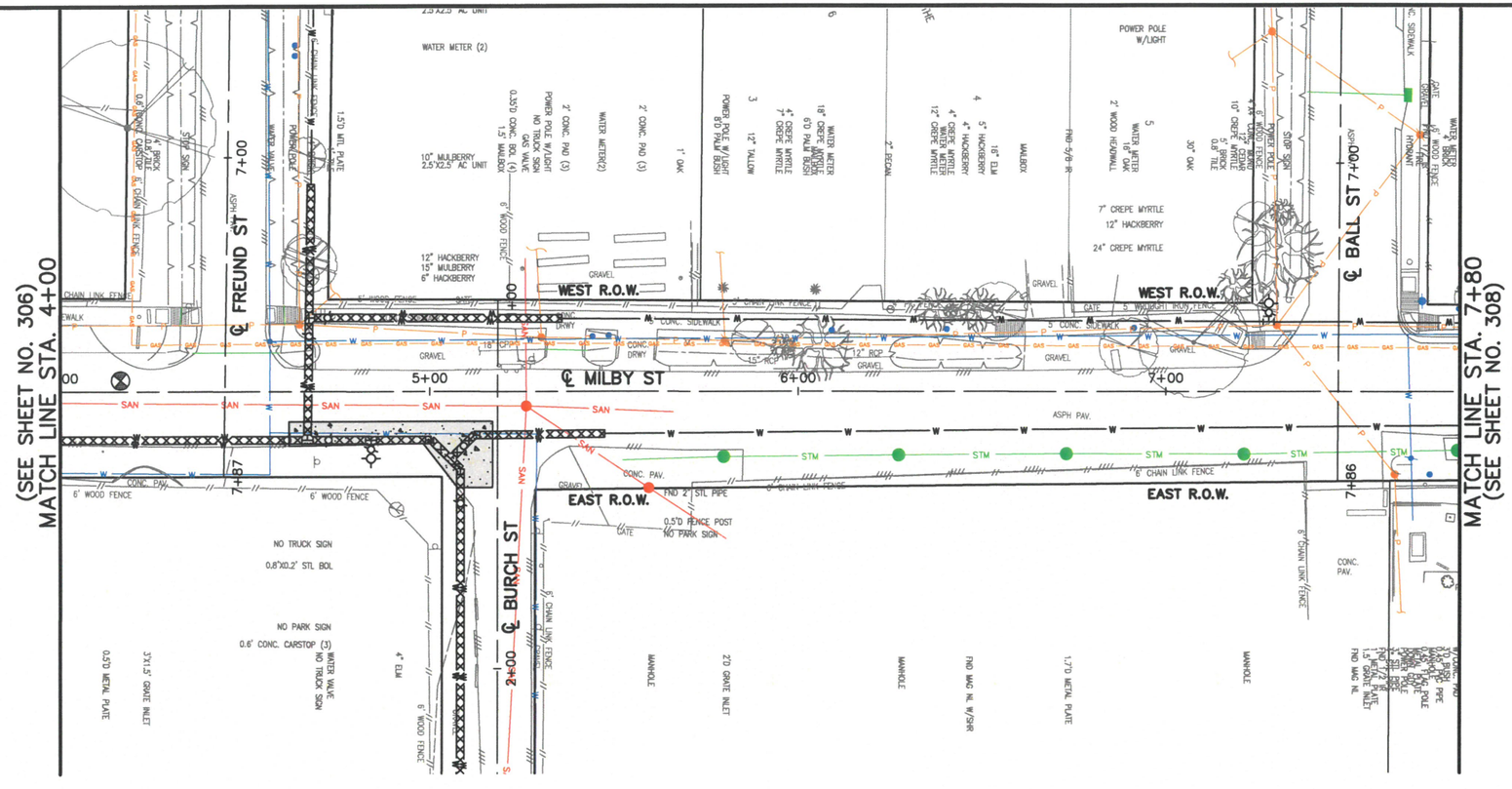
WATERLINE REPLACEMENT IN SECOND WARD

MILBY ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 4+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 306 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:30:07 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG



FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:30:18 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG

LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

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TREE PRESERVATION AND TREATMENT NOTES:

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5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

0 20' 40'

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

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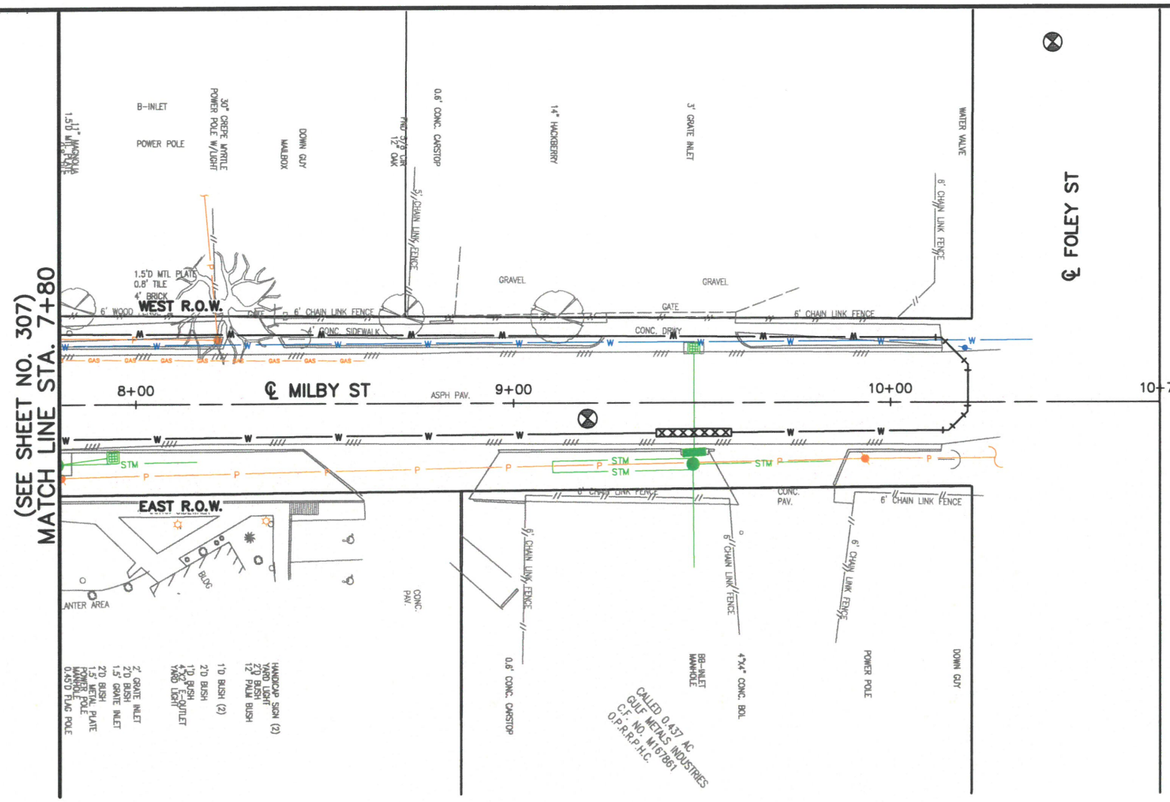
WATERLINE REPLACEMENT IN SECOND WARD

MILBY ST

TREE PRESERVATION PLAN
FROM STA. 4+00.00 TO STA. 7+80.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 307 OF 362	

FOR REDUCED PLANS
original scale in inches



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HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

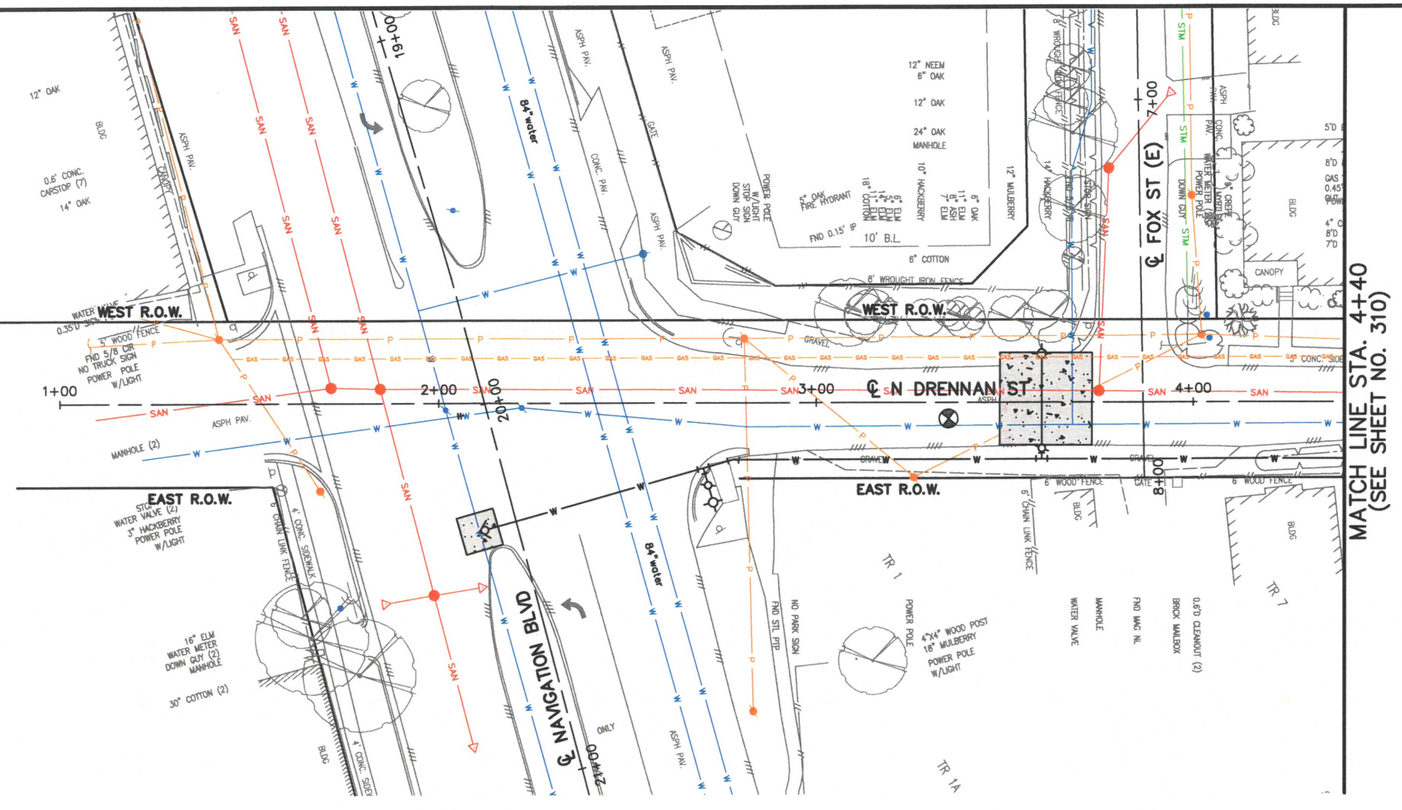
MILBY ST

TREE PRESERVATION PLAN
FROM STA. 7+80.00 TO STA. 10+71.46

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 308 OF 362	

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FOR REDUCED PLANS
original scale in inches

LEGEND

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TREE PROTECTION FENCING (SEE DETAIL)

REPLACEMENT TREE

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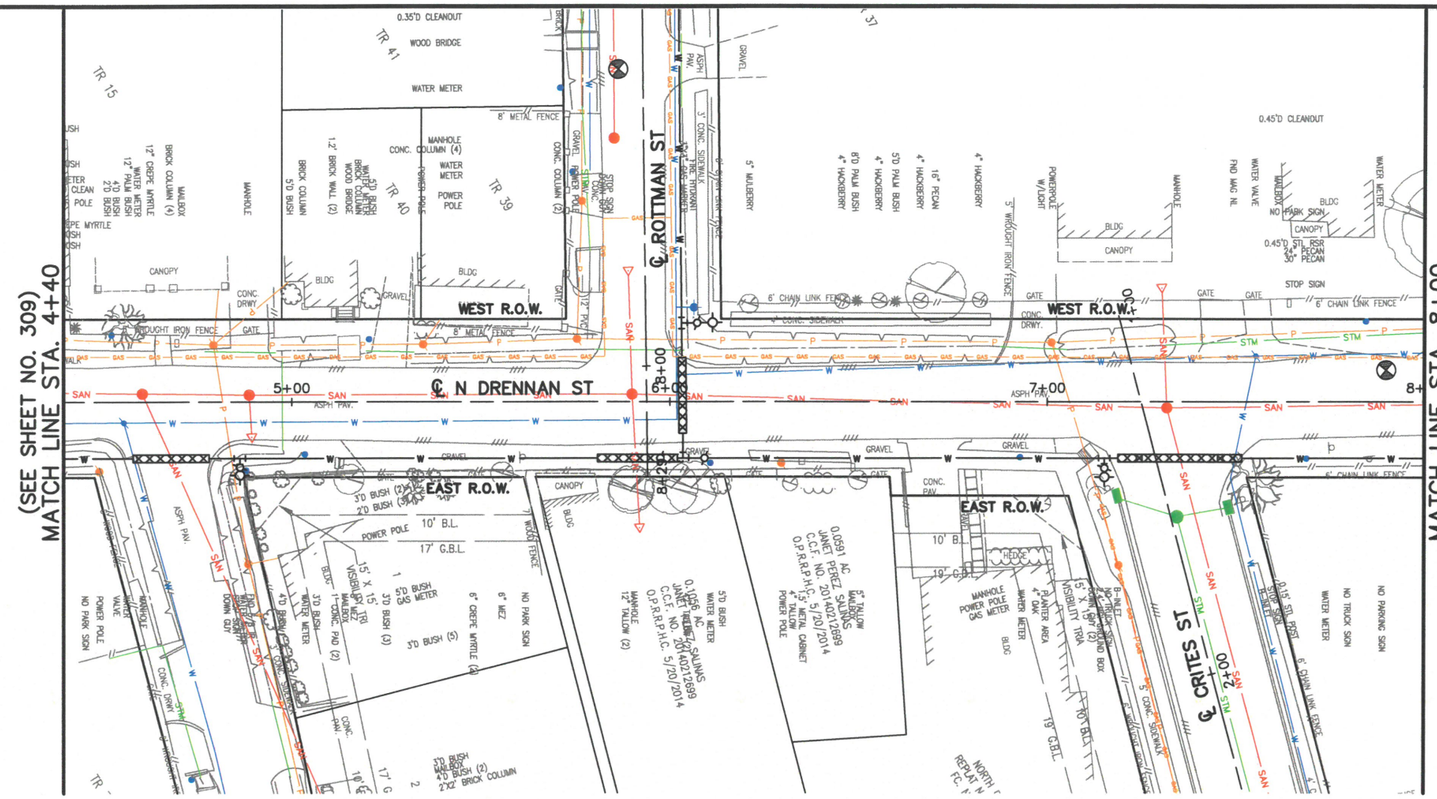
WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 4+40.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 309 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:30:38 AM
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LEGEND

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

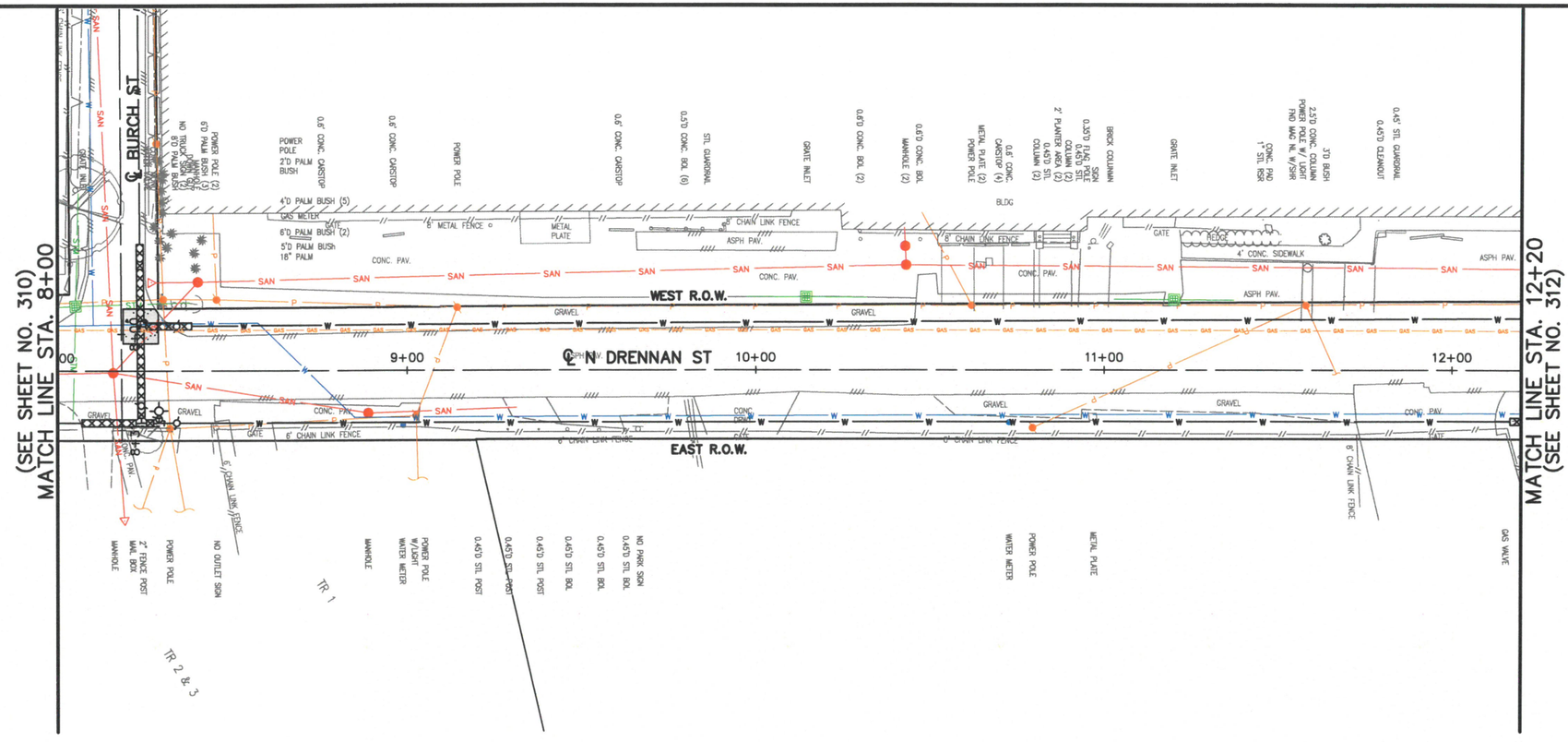
N DRENNAN ST

TREE PRESERVATION PLAN
FROM STA. 4+40.00 TO STA. 8+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 310 OF 362	

FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:30:48 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG



FOR REDUCED PLANS
original scale in inches

LEGEND

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CITY OF HOUSTON
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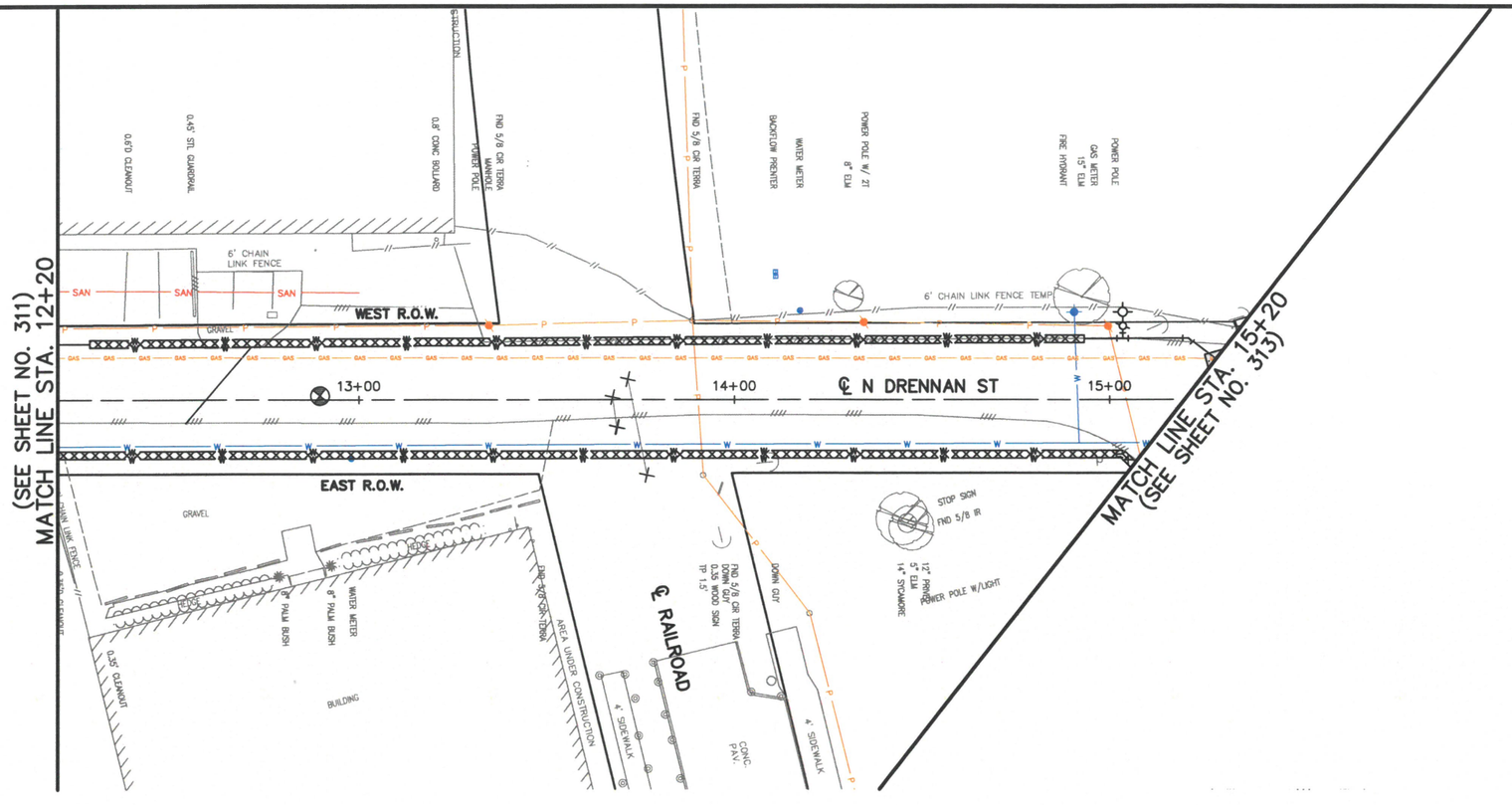
WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

TREE PRESERVATION PLAN
FROM STA. 8+00.00 TO STA. 12+20.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
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UYEN NGUYEN	
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WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

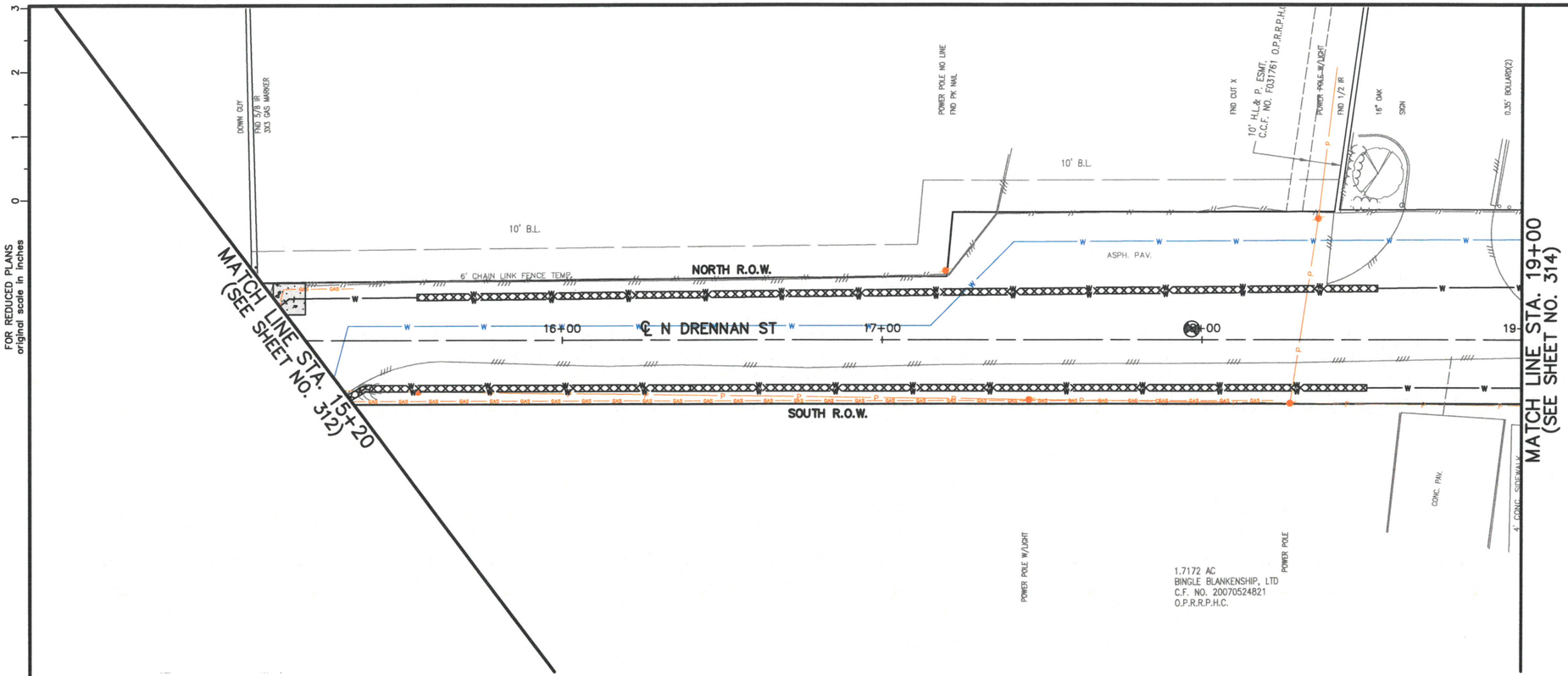
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No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
0 1 2 3

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4. CONTRACTOR HAVE CERTIFIED ARBORIST CLEARANCE PRUNE RIGHT-OF-WAY AREA FOR WATER LINE CONTRACTOR.
5. REFER TO TREE PLANTING DETAILS & SPECS FOR TREE PLANTING SCHEDULE.

TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS	TREE	LOCATION	SPECIES	DIA.	CONDITION	STATUS	TREATMENT	MITIGATION	COMMENTS

TREATMENT A - REMOVAL OPERATIONS
TREATMENT B - CLEARANCE PRUNING
TREATMENT C - FERTILIZATION TREATMENT
TREATMENT D - TREE PROTECTION FENCING
TREATMENT E - MULCHING OPERATION
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TREATMENT G - ROOT PRUNING/CHEM. BARRIER INSTALLATION
TREATMENT H - UTILITY BORING OPERATION
TREATMENT I - ZERO CURB CUT OPERATION
TREATMENT J - TRANSPLANT OPERATION
TREATMENT M - INSTALL SIDEWALK ON TOP OF EXIST. GRADE
TREATMENT N - INSTALL SIDEWALK WITHOUT EXCAVATION INTO EXIST. GRADE
TREATMENT O - REMOVE EXIST. DRIVEWAY VIA HAND WORK OR LIGHT EQUIPMENT ONLY

0 20' 40'

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

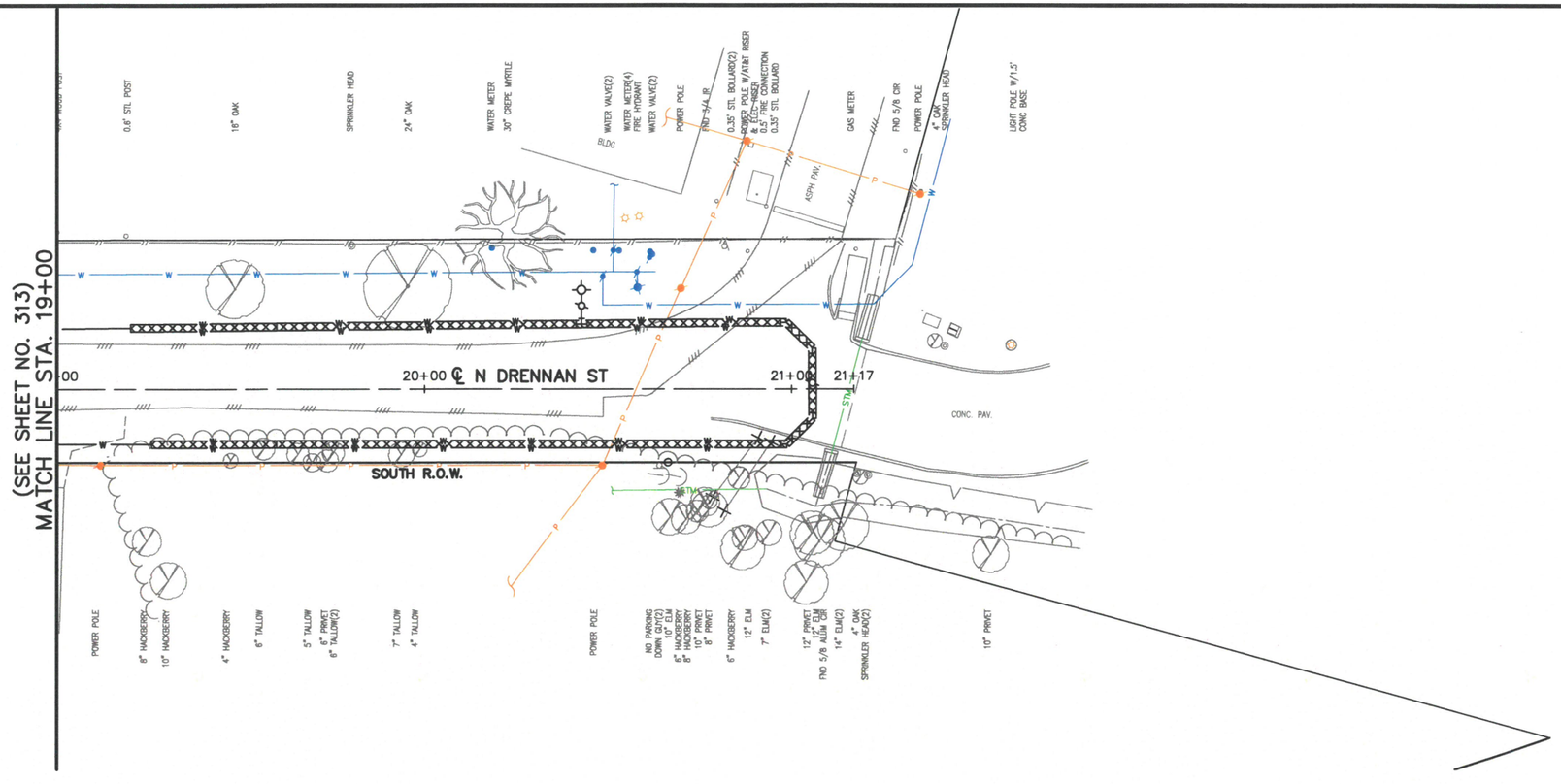
WATERLINE REPLACEMENT IN SECOND WARD

N DRENNAN ST

TREE PRESERVATION PLAN
FROM STA. 15+20.00 TO STA. 19+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 313 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:31:18 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG



LEGEND

- (#) PRESERVATION TREE WITH CRITICAL ROOT ZONE (CRZ)
- TREE PROTECTION FENCING (SEE DETAIL)
- REPLACEMENT TREE

NO OPEN CUT OR EXCAVATIONS WILL BE 15-FT FROM THE BASE OF THE TREES

NO EXISTING TREES WITHIN THIS PLAN SET WILL BE IMPACTED BY THIS PROPOSED CONSTRUCTION

0 20' 40'

TREE PRESERVATION AND TREATMENT NOTES:

1. REFER TO TREE PRESERVATION AND TREATMENT SCHEDULE BELOW FOR SPECIFIC EXISTING TREE INFORMATION AND REQUIRED TREE PRESERVATION TREATMENTS.
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No.	Date	Revisions	App.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

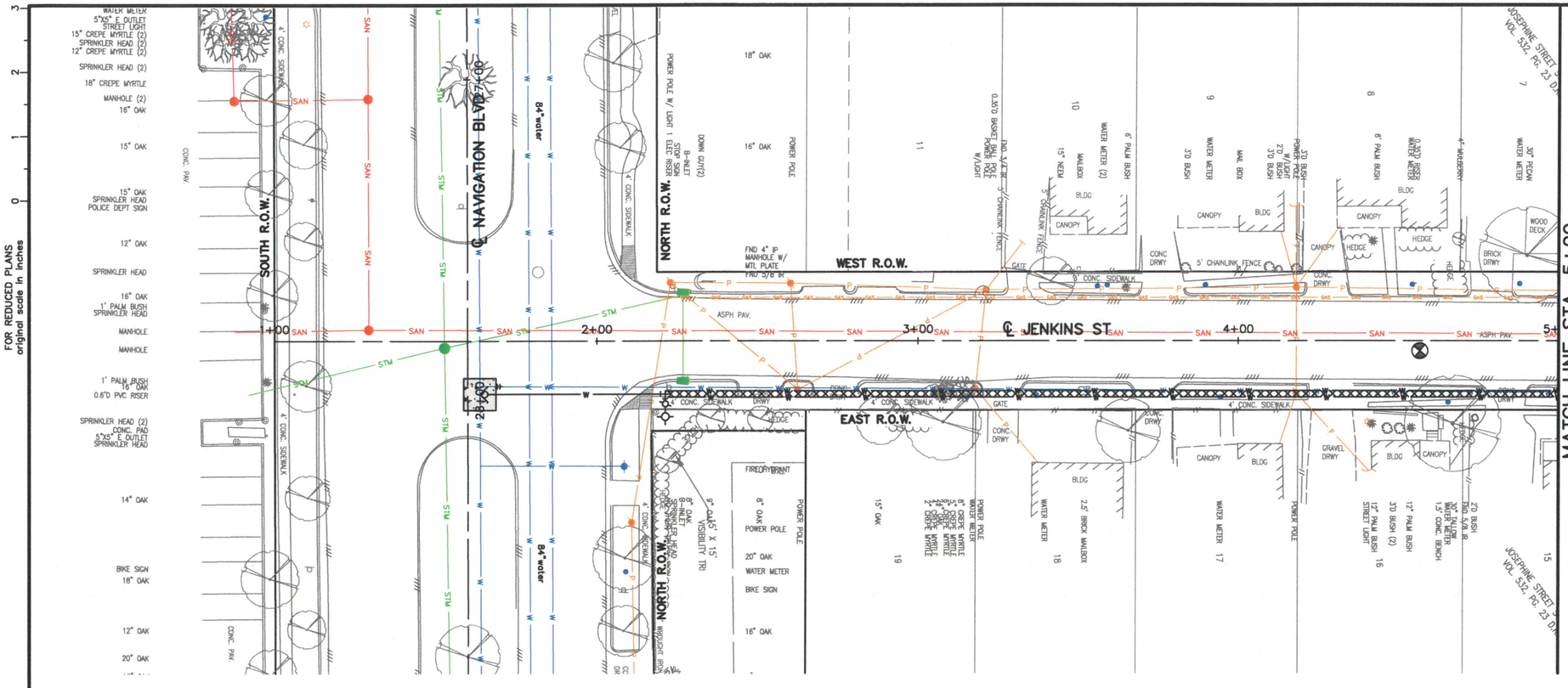
N DRENNAN ST

TREE PRESERVATION PLAN
FROM STA. 19+00.00 TO STA. 21+16.99

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 314 OF 362	

FOR REDUCED PLANS
original scale in. inches

PLOTTED ON: Wednesday, September 23, 2026 10:31:27 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG



FOR REDUCED PLANS
original scale in inches

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No.	Date	Revisions	App.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

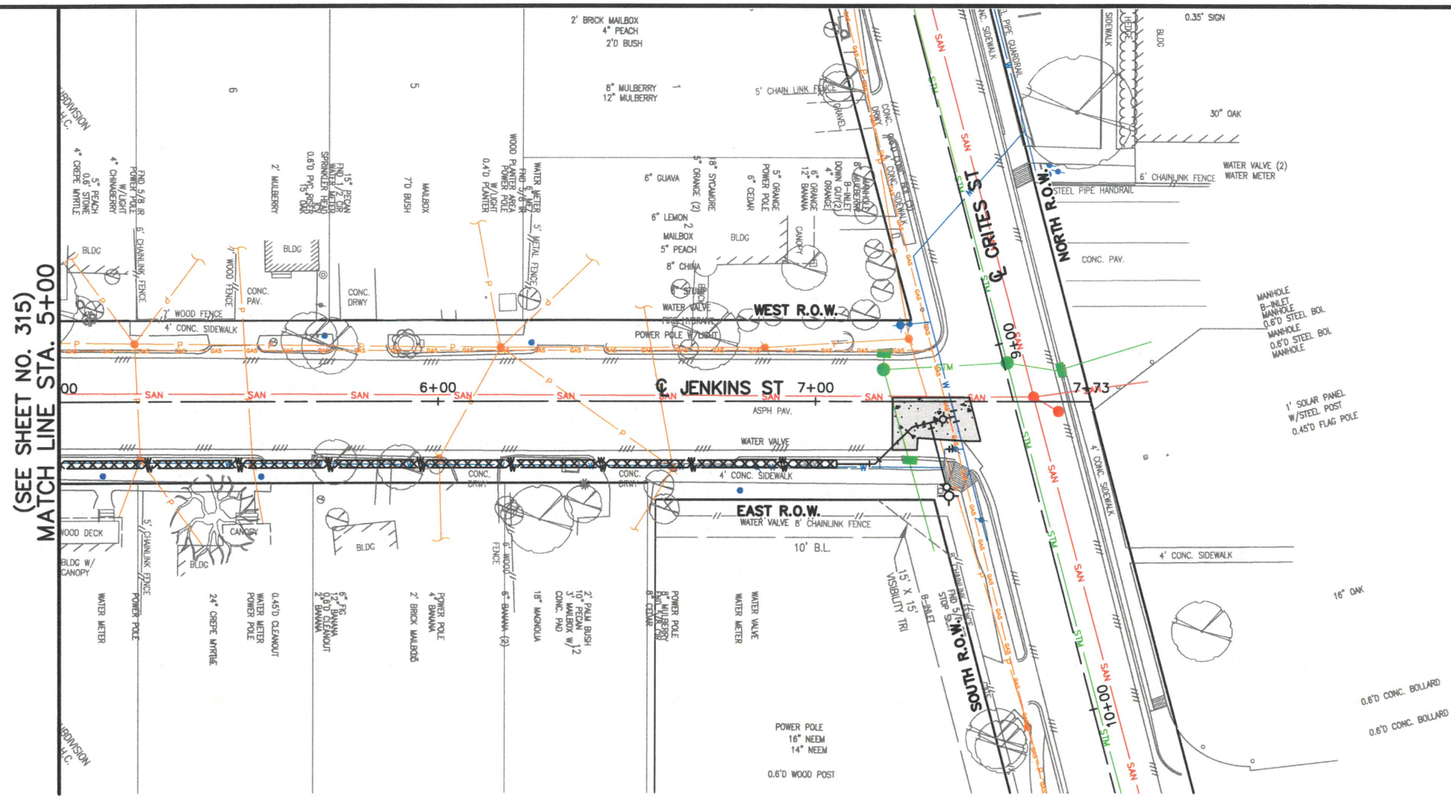
JENKINS ST

TREE PRESERVATION PLAN
FROM STA. 1+00.00 TO STA. 5+00.00

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
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UYEN NGUYEN	
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PLOTTED ON: Wednesday, September 23, 2026 10:31:38 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG

FOR REDUCED PLANS
original scale in inches



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0 20' 40'

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

JENKINS ST

TREE PRESERVATION PLAN
FROM STA. 5+00.00 TO STA. 7+73.21

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
HORIZ: 1"= 20'	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 316 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:31:48 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\TPP\WLP-SECOND WARD-TPP-C-V.DWG

FOR REDUCED PLANS
original scale in inches
3
2
1
0

GENERAL NOTES FOR TRAFFIC HANDLING

1. THE CONSTRUCTION TRAFFIC CONTROL SIGNS, DEVICES, AND BARRICADES ON THESE DRAWINGS CONSTITUTE MINIMUM REQUIREMENTS AND ARE NOT INTENDED TO COVER SPECIAL CIRCUMSTANCES OR OTHER CONDITIONS THAT MAY ARISE DUE TO UNFORESEEN FIELD CONDITIONS. THE CONTRACTOR SHALL PLACE AND MAINTAIN SUFFICIENT ADDITIONAL SIGNS, BARRICADES, AND WARNING DEVICES TO WARN THE PUBLIC AND PROVIDE FOR THE SAFE MOVEMENT OF TRAFFIC AND THE CONSTRUCTION ZONE SAFETY WHERE PROJECT REQUIREMENTS ARE NOT FULLY SATISFIED BY THE STANDARDS SHOWN HEREON. "THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" SHALL GOVERN.

2. CONTRACTOR SHALL PROVIDE AND INSTALL ALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (T.M.U.T.C.D), MOST RECENT EDITION WITH REVISIONS, DURING CONSTRUCTION.

3. ALL SIGNS AND MARKINGS SHALL COMPLY WITH THE REQUIREMENTS OF THE TEXAS MANUAL ON UNIFORM CONTROL DEVICES FOR STREETS AND HIGHWAYS, UNLESS SPECIFICALLY DIRECTED BY THE TRAFFIC ENGINEER OR SPECIFIED ON THE PLANS.

4. BARRICADES, SIGNS, CHANNELIZING DEVICES, AND TRAFFIC HANDLING DEVICES AS SHOWN SHALL BE ADJUSTED TO FIT FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

5. NO LANES SHALL BE BLOCKED DURING THE HOURS OF 7:00 AM TO 9:00 AM AND FROM 4:00 PM TO 6:00 PM (MONDAY THRU FRIDAY) ON MAJOR THOROUGHFARES, UNLESS NOTED OTHERWISE.

6. CONTRACTOR SHALL MAKE EVERY EFFORT TO MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION DURING WORKING HOURS.

7. CONTRACTOR SHALL PROVIDE ACCESS TO ALL BUSINESSES AND HOMES ALONG THIS PROJECT AT ALL TIMES DURING CONSTRUCTION UNLESS OTHERWISE AUTHORIZED SPECIFICALLY BY THE ENGINEER.

8. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING STOP SIGNS, STREET NAME SIGNS, AND WARNING SIGNS IN PLACE DURING THE ENTIRE PERIOD OF CONSTRUCTION BY THE CONTRACTOR.

9. OMITTED.

10. THE ENGINEER MAY DIRECT THE CONTRACTOR TO FURNISH ADDITIONAL SIGNS, BARRICADES, AND CHANNELIZING DEVICES AS REQUIRED TO MAINTAIN TRAFFIC AND CONSTRUCTION ZONE SAFETY DURING CONSTRUCTION. ANY SUCH ADDITIONAL SIGNS, BARRICADES, ETC. SHALL BE CONSIDERED A PART OF THE LUMP SUM PAY ITEM.

11. WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE FLAGGERS TO DIRECT TRAFFIC. THIS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY OR TAKING OTHER STEPS AND PROVIDING OTHER PERSONNEL WHICH THE CONTRACTOR MAY DEEM NECESSARY FOR PROTECTION OF WORK AND THE PUBLIC.

12. CONTRACTOR SHALL INSURE THAT ALL BARRICADES, SIGNS, CHANNELIZING DEVICES, WARNING LIGHTS, AND TRAFFIC HANDLING DEVICES ARE MAINTAINED IN A CLEAN FUNCTIONAL CONDITION AT ALL TIMES.

13. ALL SIGNS, WARNING DEVICES, AND BARRICADES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING ACTS OF VANDALISM OR ACCIDENT.

14. ALL CONSTRUCTION SIGNS MOUNTED ON BARRICADES SHALL BE EQUIPPED WITH TYPE A WARNING LIGHTS (TWO PER STRUCTURE).

15. PORTABLE SIGNS MAY BE PROVIDED BETWEEN LOCATIONS AS REQUIRED FOR CONSTRUCTION. THESE HAVE TO BE APPROVED BY THE TRAFFIC ENGINEER.

16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE TEMPORARY AND EXISTING PAVEMENT MARKINGS IN A GOOD VISIBLE CONDITION THROUGHOUT THE LENGTH OF THE PROJECT.

17. THE CONTRACTOR SHALL SEQUENCE THE CONSTRUCTION IN SUCH A MANNER THAT NO ADJACENT CROSS STREETS AND MEDIAN OPENINGS ARE CLOSED AT THE SAME TIME.

18. THE CONTRACTOR SHALL MAINTAIN BARRICADES AND SAFETY FENCES AT EACH SITE WHERE PEDESTRIAN TRAFFIC IS EVIDENT.

19. THE TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING THE ENTIRE PERIOD OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SIGNAL IN PROPER AND SAFE OPERATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADJUSTING, RELOCATING, AND/OR PROVIDING TEMPORARY SIGNALS AND POLES, IF REQUIRED, TO FACILITATE THE VARIOUS TRAFFIC HANDLING SEQUENCES. IMMEDIATELY CALL THE CITY OF HOUSTON, SIGNAL SHOP DISPATCHER AT (832) 395-3000.

20. CONTRACTOR SHALL REALIGN AND READJUST SIGNAL HEADS AS REQUIRED AND DIRECTED BY THE CITY OF HOUSTON AND THE FIELD ENGINEER DURING ENTIRE CONSTRUCTION ACTIVITY. IMMEDIATELY CALL THE CITY OF HOUSTON SIGNAL DISPATCHER AT (832) 395-3000.

21. ALL TEMPORARY SIGNAL WORK AND REPAIR SHALL BE COMPLETED IN CONFORMANCE WITH TRAFFIC AND TRANSPORTATION BOOKLET 202 SPECIFICATIONS AND C-3900 SERIES STANDARD DRAWINGS AND CALL IMMEDIATELY THE CITY OF HOUSTON'S SIGNAL DISPATCHER AT (832) 395-3000.

22. THE CONTRACTOR SHALL CALL THE CITY OF HOUSTON TRAFFIC SIGNAL SHOP WHEN WORK IS SCHEDULED NEAR SIGNAL CONDUIT AT (832) 395-3000. CALL AT LEAST FIVE (5) WORKING DAYS IN ADVANCE.

23. THE CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS AND STRIPING WHICH ARE IN CONFLICT WITH THE CONSTRUCTION SIGNS AND STRIPING. EXISTING PAVEMENT MARKINGS SHALL BE REMOVED IN AREAS WHERE TRAFFIC IS DIRECTED TO CROSS THEM. THE SIGNS SHALL BE PROPERLY STORED IN A SAFE PLACE UNTIL THE CONSTRUCTION HAS BEEN COMPLETED.

24. ALL CONSTRUCTION SIGNS, WARNING DEVICES AND BARRICADES SHALL REMAIN IN PLACE UNTIL THEIR REMOVAL IS DIRECTED BY THESE PLANS OR BY THE ENGINEER.

25. AT THE CONCLUSION OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE ALL PAVEMENT MARKINGS TO THEIR ORIGINAL CONDITION WITH TRAFFIC PAINT STRIPES RAISED PAVEMENT MARKER BUTTONS AND REINSTALL THE SIGNS AT THEIR EXISTING LOCATION.

26. CONSTRUCTION IN ANY AREA, THAT IS ADVERSELY AFFECTING TRAFFIC FLOW AND SAFETY MUST BE PURSED DILIGENTLY BY THE CONTRACTOR IF, IN THE OPINION OF THE ENGINEER, THE CONTRACTOR IS NOT DIRECTLY PURSUING THE CONSTRUCTION IN THOSE AREAS, THE ENGINEER MAY REQUIRE THE CONTRACTOR TO CHANGE HIS/HER WORK SCHEDULE TO EXPEDITE COMPLETION IN THOSE AREAS OF CONCERN.

27. THE "TRAFFIC CONTROL PLANS" EXIST AS A PART OF THE CONTRACT DRAWINGS. THE OBJECTIVE IS TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC THROUGH THE CONSTRUCTION AREA. SHOULD THE CONTRACTOR ELECT TO USE A DIFFERENT PLAN OF TRAFFIC CONTROL, HE/SHE SHALL PREPARE AND SUBMIT AN ALTERNATE SET OF PLANS TO THE TRAFFIC MANAGEMENT AND MAINTENANCE DIVISION, PUBLIC WORKS AND ENGINEERING DEPARTMENT, FOR REVIEW AND APPROVAL 10 WORKING DAYS PRIOR TO PROCEEDING WITH THE WORK. THESE PLANS SHALL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER AND DRAWN TO AN ACCEPTABLE SCALE, ON REPRODUCIBLE MYLARS, AND SHALL BECOME PART OF THE CONTRACT DRAWING.

28. OMITTED.

29. CONTRACTOR SHALL MAINTAIN TRAFFIC LAW(S) ACCORDING TO TRAFFIC CONTROL PLAN(S) DURING WORKING HOURS.

30. CONTRACTOR SHALL COVER OPEN UTILITY EXCAVATIONS WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS, AND OPEN LANES FOR NORMAL TRAFFIC FLOW.

31. OFF-DUTY UNIFORMED POLICE OFFICER(S)/FLAGGER(S) IS/ARE REQUIRED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED.

32. APPROVED COPIES OF "TRAFFIC CONTROL PLANS" AND LANE/SIDEWALK CLOSURE PERMITS SHALL BE AVAILABLE FOR INSPECTION AT JOB SITE AT ALL TIMES.

    CONTRACTOR SHALL SECURE LANE/SIDEWALK/BICYCLE FACILITY PERMITS FROM MOBILITY PERMIT SECTION HTTPS://GEOHUB.HOUSTONTX.GOV OR 832-395-3020 BEFORE IMPLEMENTING THE TRAFFIC CONTROL PLANS, SEQUENCING, AND CONSTRUCTION SCHEDULE WITH AN APPLICATION.

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC GENERAL NOTES FOR TRAFFIC HANDLING

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 317 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:32:44 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-SES-TRAFFIC GENERAL NOTES.DWG

FOR REDUCED PLANS
original scale in inches

GENERAL NOTES

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. ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL CONFORM THE LATEST VERSION OF THE TMUTCD.
3. NO LANES SHALL BE CLOSED DURING THE HOURS OF 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM MONDAY THRU FRIDAY WITHOUT APPROVAL OF THE CITY TRAFFIC ENGINEER.
4. NO WORK SHALL BE PERFORMED IN RESIDENTIAL AREAS FROM 7:00 PM TO 7:00 AM.
5. CONTRACTOR SHALL MAINTAIN APPROVED NUMBER OF THROUGH LANES OF TRAFFIC IN EACH DIRECTION DURING CONSTRUCTION WORKING HOURS. TRAFFIC CONTROL PLANS SHALL INCLUDE ONE-WAY AND/OR DETOUR PLANS. CONTRACTOR SHALL MAINTAIN ADA COMPLIANT PEDESTRIAN ACCESS TO BUS STOPS AND ADEQUATE BUS ACCESS TO ALL THE BUS STOPS.
6. CONTRACTOR SHALL MAINTAIN TRAFFIC LANES AND DETOURS ACCORDING TO TRAFFIC CONTROL PLANS DURING WORKING HOURS.
7. CONTRACTOR SHALL COVER OPEN PAVEMENT EXCAVATIONS FOR MINOR UTILITY WORK WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS, AND OPEN LANES FOR NORMAL TRAFFIC FLOW WHEN FEASIBLE.
8. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING THE CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT AN ALTERNATE SET OF TRAFFIC CONTROL PLANS TO THE CITY OF HOUSTON PROJECT MANAGER FOR APPROVAL TEN WORKING DAYS PRIOR TO IMPLEMENTATION. THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLARS AND SHALL BE SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. OFFICE OF CITY ENGINEER, MOBILITY PERMITS SECTION REPRESENTATIVE APPROVAL IS REQUIRED TO ACCEPT THE PROPOSED CHANGES.
9. CONTRACTOR SHALL SECURE LANE/SIDEWALK/BICYCLE FACILITY CLOSURE PERMITS FROM OFFICE OF CITY ENGINEER (MOBILITY PERMIT SECTION AT https://gohub.houstontx.gov) BEFORE IMPLEMENTING THE TRAFFIC CONTROL PLAN. THE APPLICATION MUST BE SUBMITTED AT LEAST TEN DAYS PRIOR TO THE IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN AND/OR BEGINNING CONSTRUCTION WORK. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS, CONSTRUCTION SEQUENCING, AND CONSTRUCTION SCHEDULE WITH THE APPLICATION.
10. CONTRACTOR SHALL HAVE APPROVED TRAFFIC CONTROL PLAN AND PERMIT AT THE JOB SITE FOR INSPECTION AT ALL TIMES.
11. DURING PAVEMENT SURFACE RESTORATION PROJECTS; THE CONTRACTOR SHALL NOT OPEN CLOSED LANES UNTIL THE PAVEMENT SURFACE HAS CURED ENOUGH TO ALLOW VEHICULAR TRAFFIC ACCORDING TO CITY OF HOUSTON STANDARD SPECIFICATIONS.
12. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING ALL CONSTRUCTION ACTIVITIES WITH STAKE HOLDERS IN THE VICINITY INCLUDING EMERGENCY RESPONSE AGENCIES SUCH AS HOUSTON POLICE DEPARTMENT, HOUSTON FIRE DEPARTMENT, AND METROPOLITAN TRANSIT AUTHORITY.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ISSUING ALL WORK DIRECTIVES TO ALL SUB-CONTRACTORS, UTILITY COMPANIES, AND ALL OTHER ENTITIES PERFORMING CONSTRUCTION WORK ASSOCIATED WITH THE PROJECT.
14. NOTHING IN THESE NOTES OR PLANS SHALL RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT; INCLUDING SAFETY OF ALL MODES OF TRANSPORTATION, PERSONS, AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.
15. THE OFFICE OF CITY ENGINEER (MOBILITY PERMITS GROUP) PER THE DIRECTION OF THE CITY TRAFFIC ENGINEER HAVE THE RIGHT TO DEMAND THE INSTALLATION OF ADDITIONAL TRAFFIC CONTROL DEVICES OR MODIFICATIONS OF THESE PLANS AND NOTES, AS DEEMED NECESSARY TO PROMOTE THE SAFE AND ORDERLY FLOW OF TRAFFIC, INCLUDING PEDESTRIANS AND BICYCLES, THROUGH THE CONSTRUCTION WORK ZONE. THE CONTRACTOR SHALL COMPLY WITH THESE ADDITIONAL REQUESTS OR MODIFICATIONS WITH DUE DILIGENCE.
16. ALL EXISTING TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE MAINTAINED IN VISIBLE LOCATIONS DURING CONSTRUCTION UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM CITY OF HOUSTON PROJECT MANAGER. THE CONTRACTOR SHALL RESTORE OR REPLACE (AT THE DISCRETION OF THE CITY TRAFFIC ENGINEER) ANY PAVEMENT MARKING OR SIGNING DAMAGE DURING CONSTRUCTION OPERATIONS, INCLUDING RAISED PAVEMENT MARKERS (RPMS).
17. WHEN ENTERING OR LEAVING ROADWAYS CARRYING PUBLIC TRAFFIC, THE CONTRACTOR'S EQUIPMENT, WHETHER EMPTY OR LOADED SHALL IN ALL CASES YIELD TO PUBLIC TRAFFIC WITH THE ASSISTANCE OF CONTRACTOR PROVIDED CERTIFIED FLAGGER/PEACE OFFICER.
18. ACCESS TO DRIVEWAYS ADJACENT TO THE CONSTRUCTION WORK ZONE SHALL BE MAINTAINED AT ALL TIMES AS MUCH AS POSSIBLE. ADDITIONAL CONES AND/OR DELINEATORS MAY BE REQUIRED TO DELINEATE THE DRIVEWAY ACCESS ROUTE THROUGH THE CONSTRUCTION WORK ZONE. A MINIMUM OF ONE TRAVEL LANE SHALL BE MAINTAINED ACROSS THE DRIVEWAYS, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM CITY OF HOUSTON PROJECT MANAGER.
19. SPILLAGE RESULTING FROM HAULING OPERATIONS ALONG OR ACROSS ANY PUBLIC TRAVELED WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
20. THE CONTRACTOR SHALL SUBMIT AN APPLICATION FOR TEMPORARY PARKING RESTRICTIONS IF THERE ARE PARKING METERS LOCATED AT THE PROPOSED LANE CLOSURES FROM PARKING MANAGEMENT DIVISION (832-393-8690) AT LEAST TEN BUSINESS DAYS BEFORE IMPLEMENTATION OF LANE CLOSURES. IN ADDITION, TEMPORARY NO PARKING SIGNS SHALL BE POSTED 24 HOURS PRIOR TO COMMENCEMENT OF WORK.
21. ADDITIONAL OFF DUTY OFFICERS/FLAGGERS MAY BE REQUESTED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED AT THE DISCRETION OF THE CITY PROJECT MANAGER EVEN IF THEY ARE NOT SPECIFICALLY IDENTIFIED ON THE PROJECT PLANS.
22. THE CONTRACTOR SHALL REPLACE WITHIN 72 HOURS, ALL TRAFFIC SIGNAL LOOP DETECTORS DAMAGED DURING CONSTRUCTION.
23. IN GENERAL, A SOLAR POWERED FLASHING ARROW BOARD SHALL BE REQUIRED ON ALL MAJOR THOROUGHFARE LANES CLOSURES. EXCEPTIONS TO FLASHING ARROW BOARDS AND/OR IMPLEMENTATION ON RESIDENTIAL LANE CLOSURES SHALL BE APPROVED BY CITY TRAFFIC ENGINEER.
24. APPROVED TRAFFIC CONTROL PLAN SHALL BE IN PLACE BEFORE STARTING ANY EXCAVATION.
25. WATER FILLED BARRIERS CAN BE USED AS INSTRUCTED BY THE ENGINEER AND APPROVED BY THE CITY FOR PROJECTS WHERE SPACE IS LIMITED AND HEAVY EQUIPMENT TO PLACE CONCRETE BARRIERS IS NOT FEASIBLE. WATER FILLED BARRIERS SHALL NOT BE USED ON ROADWAYS WITH A POSTED SPEED LIMIT MORE THAN 45 MPH.
26. WATER FILLED BARRIERS MUST BE INSTALLED AND MAINTAINED PER THE MANUFACTURER'S REQUIREMENTS AND ROUTINELY INSPECTED FOR DEFECTS.
27. IF WATER FILLED BARRIER IS PROVIDED, USE ENVIRONMENTALLY SAFE ANTI-FREEZING AGENT IN THE WATER WHEN IT IS APPLICABLE PER MANUFACTURER SPECIFICATIONS AND RECOVER AGENT WHEN THE BARRIER IS DRAINED.
28. DISPOSE OF WATER AND AGENT PROPERLY. DO NOT DRAIN WATER FILLED BARRIER INTO OR ACROSS AN EXISTING TRAVEL LANE.
29. PROVIDE BARRIER UNITS THAT ARE CAPABLE OF BEING LIFTED AND MOVED WHEN FILLED IF DRAINING IS NOT POSSIBLE.
30. PROVIDE WATER FILLED BARRIER THAT ACTS AS ITS OWN FREE STANDING, NON-REDIRECTIVE END TREATMENT.
31. WHEN WATER FILLED BARRIERS ARE USED TO CHANNELIZE PEDESTRIANS, THEY MUST HAVE A CONTINUOUS DETECTABLE BOTTOM FOR USERS OF LONG CANES AND THE TOP OF THE UNIT SHALL NOT BE LESS THAN 32 INCHES IN HEIGHT.
32. ANY CLOSURE OF A PEDESTRIAN OR BICYCLE FACILITY SHALL REQUIRE THE SHORTEST DETOUR THAT MAINTAINS THE SAFETY OF PEDESTRIAN AND/OR BICYCLISTS.

SPACING FOR CHANNELIZING DEVICES

A. PLASTIC DRUMS ON MERGING TAPER @ 30' C – C WITH CHEVRON SIGN @ 60' C – C AND WARNING LIGHTS FOR OVERNIGHT CLOSURE.

B. PLASTIC DRUMS ON DOWNSTREAM TAPER @ 30' C – C (RETURN TAPER AND BARRICADE ARE OPTIONAL AND DIVIDED ROADWAY SECTION)

C. PLASTIC DRUMS ON RADII @ 35' C –C.

D. PLASTIC DRUMS ON TANGENT @ 35' C – C WITH VERTICAL PANEL AT 70' C – C AND APPROVED WARNING LIGHT @ 70' C – C (FOR OVERNIGHT CLOSURE).

E. PLASTIC DRUMS IN FRONT OF CONSTRUCTION ZONE @ 20' C – C WITH VERTICAL PANEL AT 40' C – C AND APPROVED WARNING LIGHT @ 40' C – C (FOR OVERNIGHT CLOSURE).

F. CONCRETE TRAFFIC BARRIER (CTB) OR LOW PROFILE CONCRETE TRAFFIC BARRIER (LPCTB) WITH APPROVED REFLECTORS @ 10' C – C IF PAVEMENT DROP IS GREATER THAN 1 FOOT.

G. PLASTIC DRUMS W/GUARD RAIL MOUNTED.

H. SELF- RIGHTING VERTICAL PANEL SPACING.
- 4 LANES TO 2 LANES UNDIVIDED ROADWAY SECTION @ 20' C – C.
- 4 LANES DIVIDED ROADWAY TO ONE SIDE TWO WAY ROADWAY @ 20' C – C.
- LEFT LANE AND RIGHT LANE STORAGE BAYS @ 15' C – C.

I. SPACING SHOWN ON TRAFFIC CONTROL SHALL SUPERSEDE THE ABOVE SPACING.

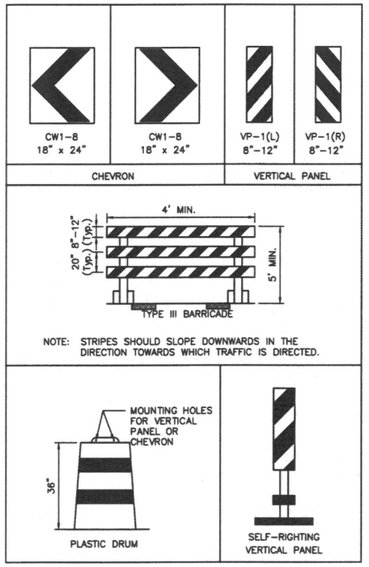
J. SPACING MAY BE ADJUSTED TO PROVIDE DRIVEWAYS, INTERSECTIONS AND /OR MEDIAN OPENINGS.

TABLE C3 – TYPICAL SIGN SPACING, TAPER LENGTHS, AND SUGGESTED SPACING OF CHANNELIZATION DEVICES

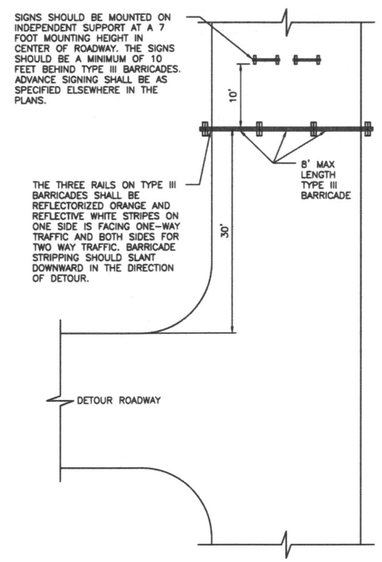
POSTED SPEED (MPH)	SIGN SPACING "X" (FEET)	MIN. DESIRABLE TAPER LENGTH "L"			SUGGESTED MAXIMUM SPACING OF DEVICE	
		10' OFFSET	11' OFFSET	12' OFFSET	ON A TAPER	ON A TANGENT
30	120'	150'	165'	180'	30'	60'–75'
35	160'	205'	225'	245'	35'	70'–90'
40	240'	265'	295'	320'	40'	80'–100'
45	320'	450'	495'	540'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

TABLE C4 – STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED

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



CHANNELIZATION AND BARRICADES



PLAN VIEW
TYPE III BARRICADE (POST AND SKID)
TYPICAL APPLICATION

LEGEND:

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

APPROVED BY:	APPROVED BY:
DocuSigned by: Sukat Kanwar	DocuSigned by: KHANG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER

APPROVED BY:
DocuSigned by: Carl Haddock
DIRECTOR OF HOUSTON PUBLIC WORKS

EFF DATE: NOV–27–2023 | DWG NO: 01555–01

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP NOTES CHANNELIZING DEVICES AND BARRICADES

DRAWING SCALE
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(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN & NOTES

TRAFFIC CONTROL NOTES
CHANNELIZING DEVICES & BARRICADES

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 318 OF 362	

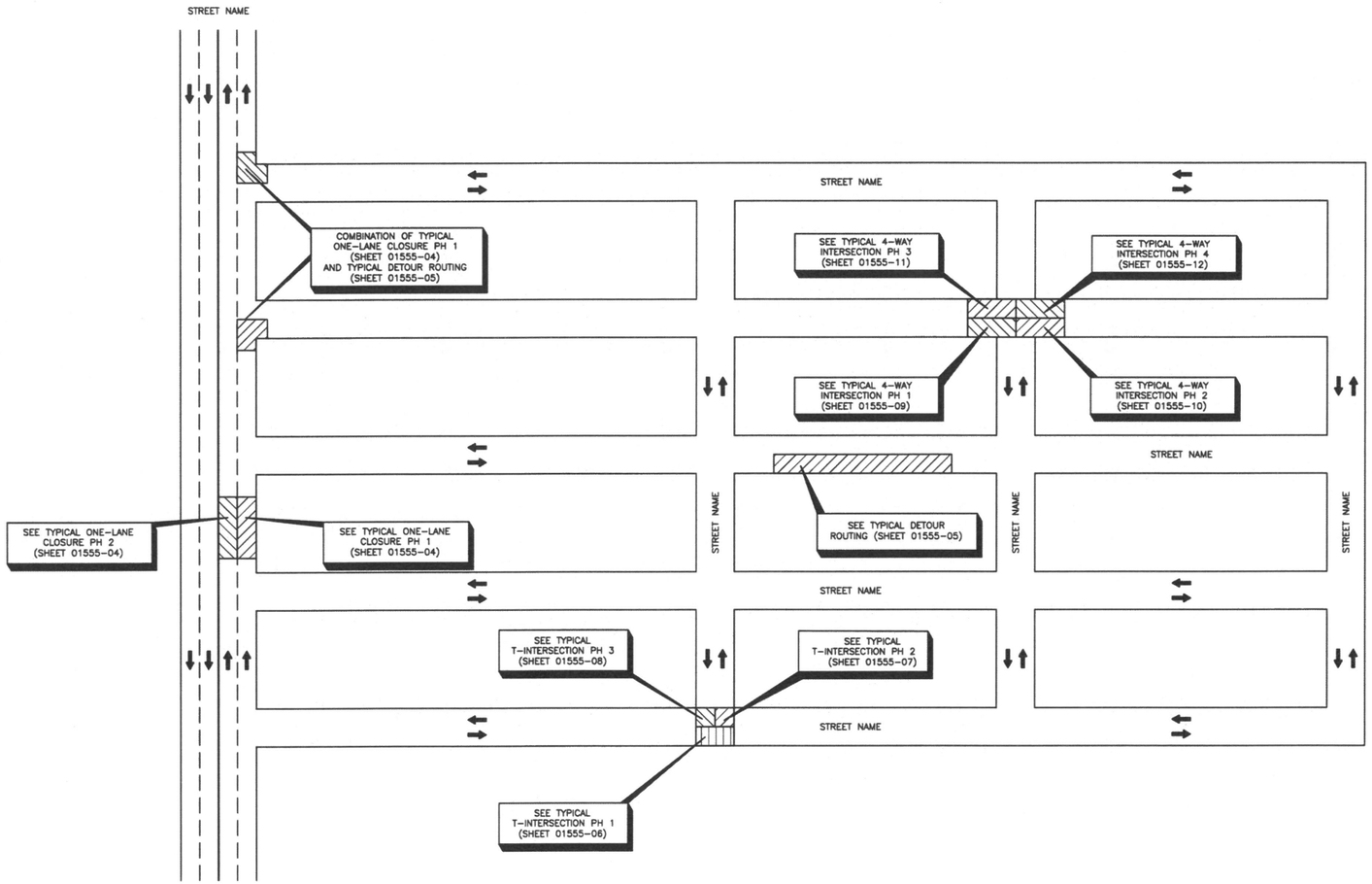
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FOR REDUCED PLANS
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APPROVED BY:	APPROVED BY:
Docusigned by: Sukut Kaunwar	Docusigned by: HIEUNG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Docusigned by: Carol Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-02

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP OVERALL TRAFFIC CONTROL LAYOUT

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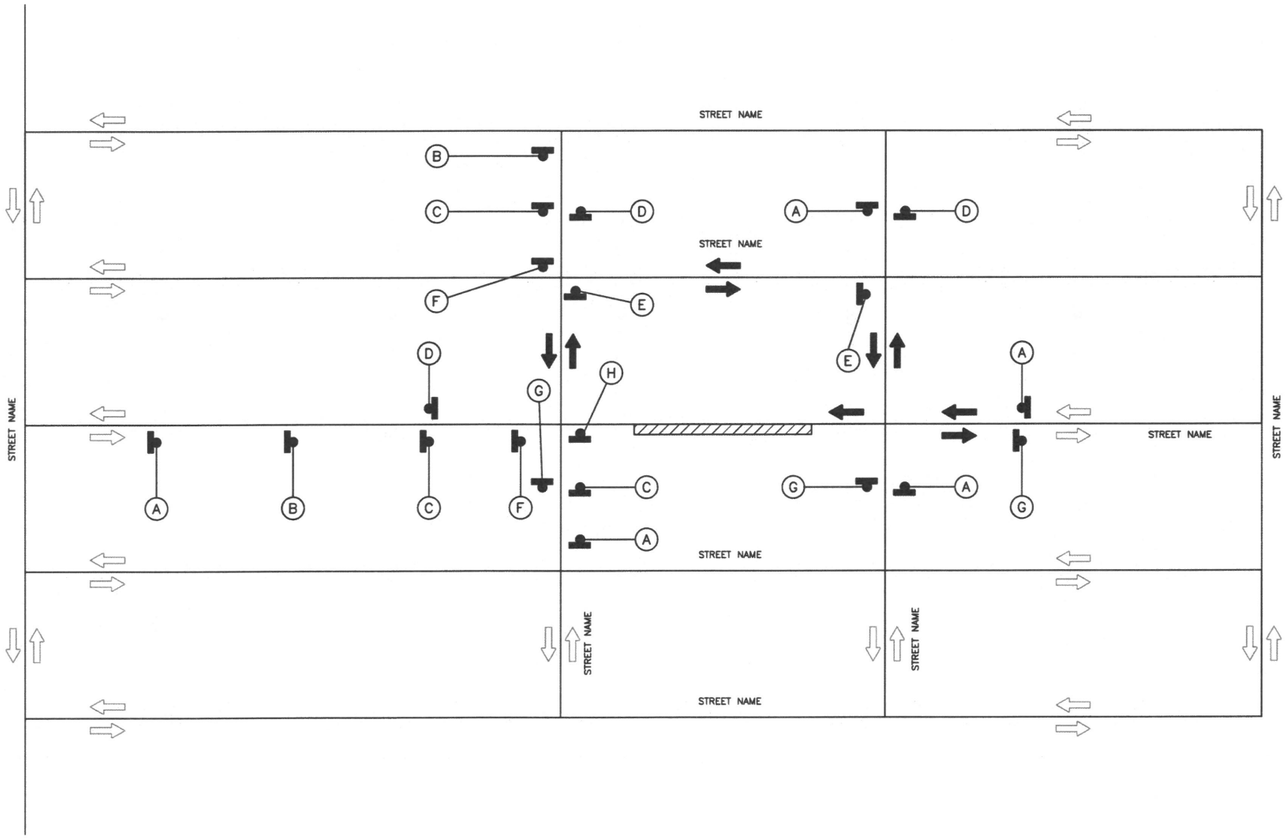
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 319 OF 362	

A	B	C	D	E	F	G	H
ROAD WORK AHEAD	ROAD CLOSED AHEAD	DETOUR AHEAD	END ROAD WORK	STREET NAME DETOUR →	STREET NAME DETOUR ←	END DETOUR	STREET NAME DETOUR ↑
CW20-1	CW20-3	CW20-2	G20-2	M4-9R	M4-9L	M4-8a	M4-9T



LEGEND:

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

APPROVED BY:	APPROVED BY:
Sulad Kauwar	HANG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Carl Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-03

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TRAFFIC CONTROL LAYOUT

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 320 OF 362	

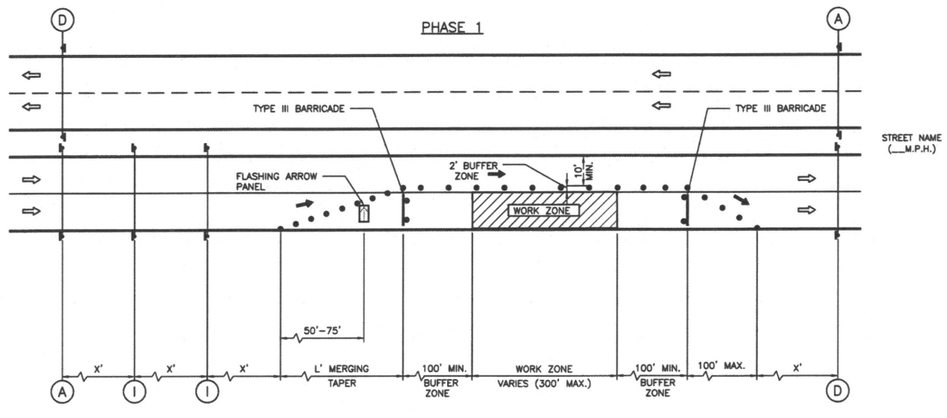
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FOR REDUCED PLANS
original scale in inches

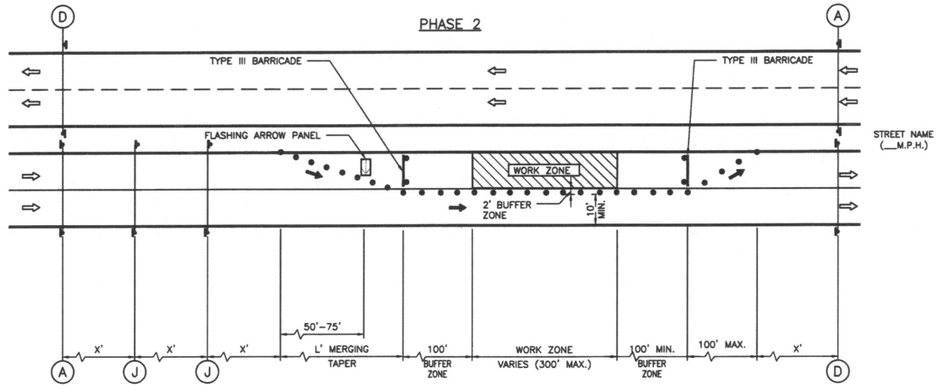
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A	D	I	J
ROAD WORK AHEAD CW20-1	END ROAD WORK G20-2	RIGHT LANE CLOSED AHEAD CW20-5(2) CW16-3	LEFT LANE CLOSED AHEAD CW20-5(1) CW16-3

PHASE 1



PHASE 2



LEGEND:

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

NOTES:

1. RETURN TAPERS AND DOWNSTREAM BARRICADES ARE OPTIONAL ON A DIVIDED ROADWAY SECTION.
2. DOUBLE SIGNS SHALL BE USED ONLY ON ROADWAYS WITH MEDIANS.
3. FOR DIMENSIONS REFER TO SHEET 01555-01.
4. INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.

APPROVED BY:	APPROVED BY:
Docusigned by: Sukut Inamwar	Docusigned by: LAMNG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Docusigned by: Curt Hadlock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-04

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP ONE LANE CLOSURE
PHASE 1 & 2

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TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN DETAILS

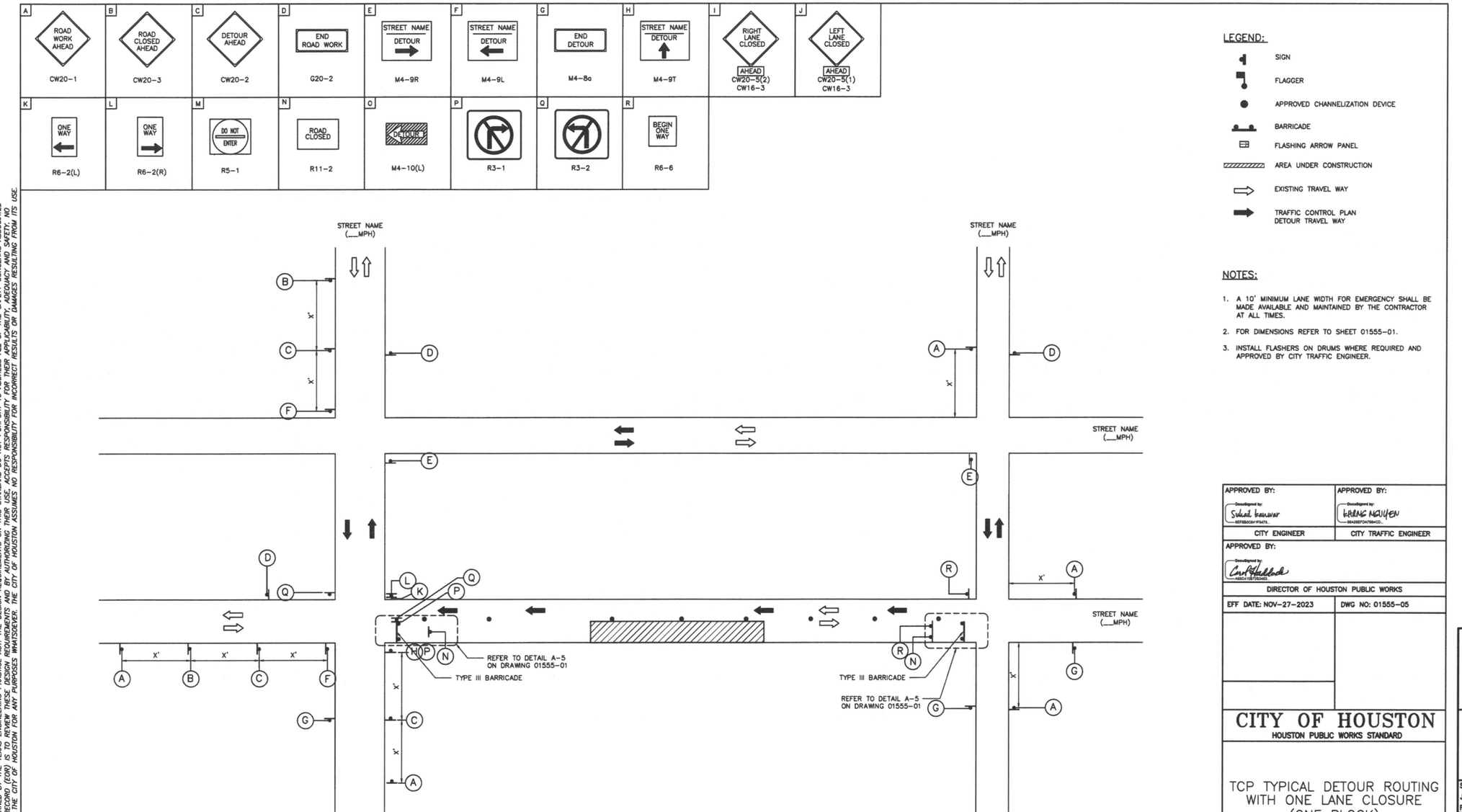
WBS NUMBER	CITY DWG NO.:
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CITY OF HOUSTON PM	
UYEN NGUYEN	
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FOR REDUCED PLANS
original scale in inches



LEGEND:

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

NOTES:

1. A 10' MINIMUM LANE WIDTH FOR EMERGENCY SHALL BE MADE AVAILABLE AND MAINTAINED BY THE CONTRACTOR AT ALL TIMES.
2. FOR DIMENSIONS REFER TO SHEET 01555-01.
3. INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.

APPROVED BY:	APPROVED BY:
Suhail Kanwar	KHANG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER

APPROVED BY:

DIRECTOR OF HOUSTON PUBLIC WORKS

EFF DATE: NOV-27-2023	DWG NO: 01555-05

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP TYPICAL DETOUR ROUTING WITH ONE LANE CLOSURE (ONE BLOCK)

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

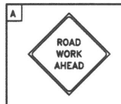
WATERLINE REPLACEMENT IN SECOND WARD

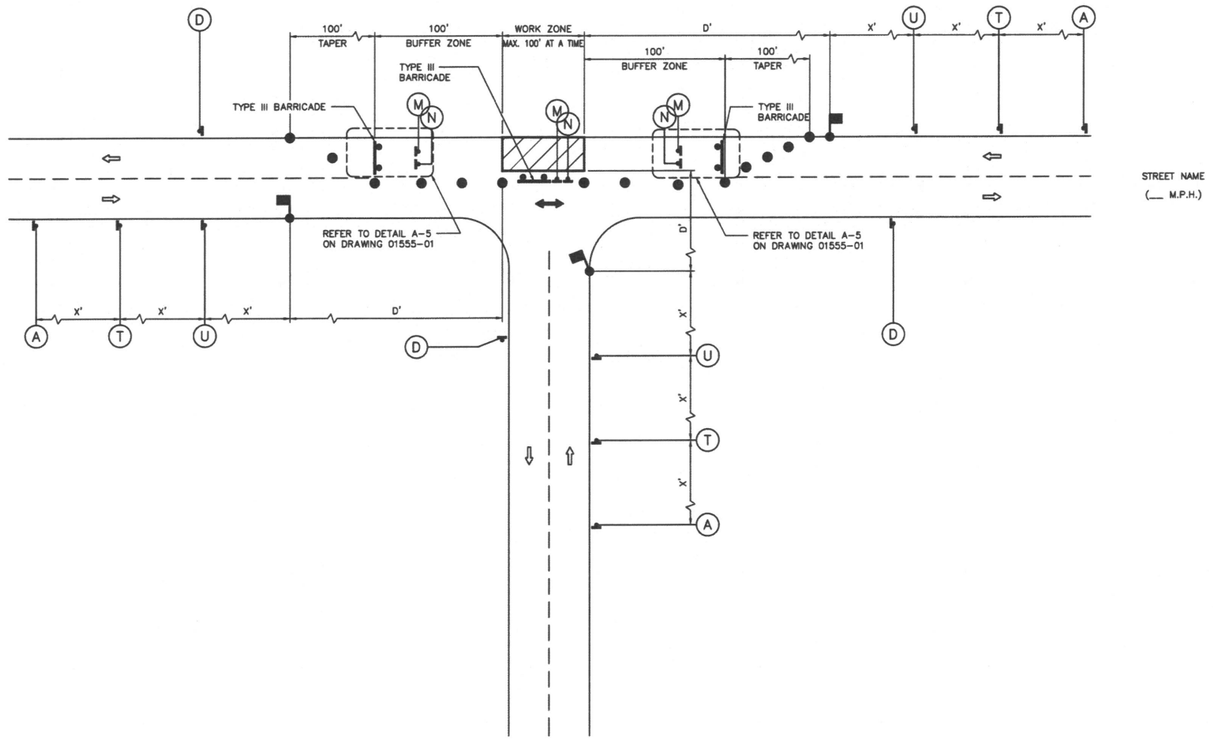
TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
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FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TRAFFIC CONTROL PLAN DETAILS.DWG

A	T	U	D	M	N
					
CW20-1	CW20-4	CW20-7	G20-2	R5-1	R11-2



LEGEND:

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

NOTES:

1. MINOR WORK AND DAYTIME OPERATIONS ONLY.
2. REFER TO PROJECT SPECIFIC TRAFFIC CONTROL PLANS FOR MAJOR OPERATIONS AND OVERNIGHT LANE CLOSURES.
3. FOR DIMENSIONS REFER TO SHEET 01555-01.
4. INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.
5. MAX. 100' WORK ZONE AT A TIME.

APPROVED BY:	APPROVED BY:
DocuSigned by: Suhail Kanawar 8EF693D61F5478...	DocuSigned by: KHANG NGUYEN 89A28EFDA7884CD...
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: DocuSigned by: Carol Haddock A93C410B72B3483...	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-06

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP TYPICAL CONSTRUCTION ZONE AT A T-INTERSECTION PHASE 1 OF 3

	FOR CITY OF HOUSTON USE ONLY
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NOT TO SCALE	

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

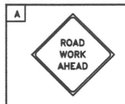
TRAFFIC CONTROL PLAN DETAILS

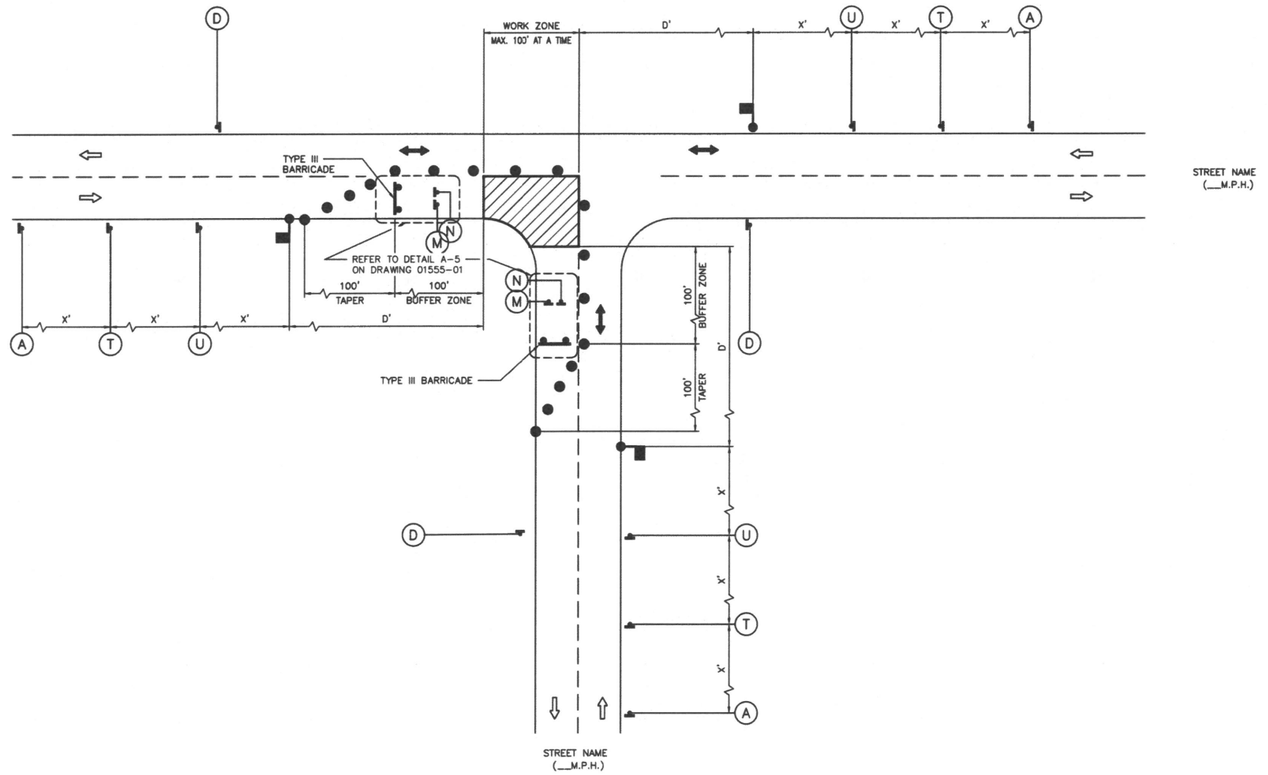
WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 323 OF 362	

DISCLAIMER:
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PLOTTED ON: Wednesday, September 23, 2026 10:33:55 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TRAFFIC CONTROL PLAN DETAILS.DWG

FOR REDUCED PLANS
original scale in inches

A	T	U	D	M	N
					
CW20-1	CW20-4	CW20-7	G20-2	R5-1	R11-2



LEGEND:

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

NOTES:

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2. REFER TO PROJECT SPECIFIC TRAFFIC CONTROL PLANS FOR MAJOR OPERATIONS AND OVERNIGHT LANE CLOSURES.
3. FOR DIMENSIONS REFER TO SHEET 01555-01.
4. INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.
5. MAX. 100' WORK ZONE AT A TIME.

APPROVED BY:	APPROVED BY:
Sukesh Kumar	KHANG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY:	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-07

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP TYPICAL CONSTRUCTION ZONE AT A T-INTERSECTION PHASE 2 OF 3

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 324 OF 362	

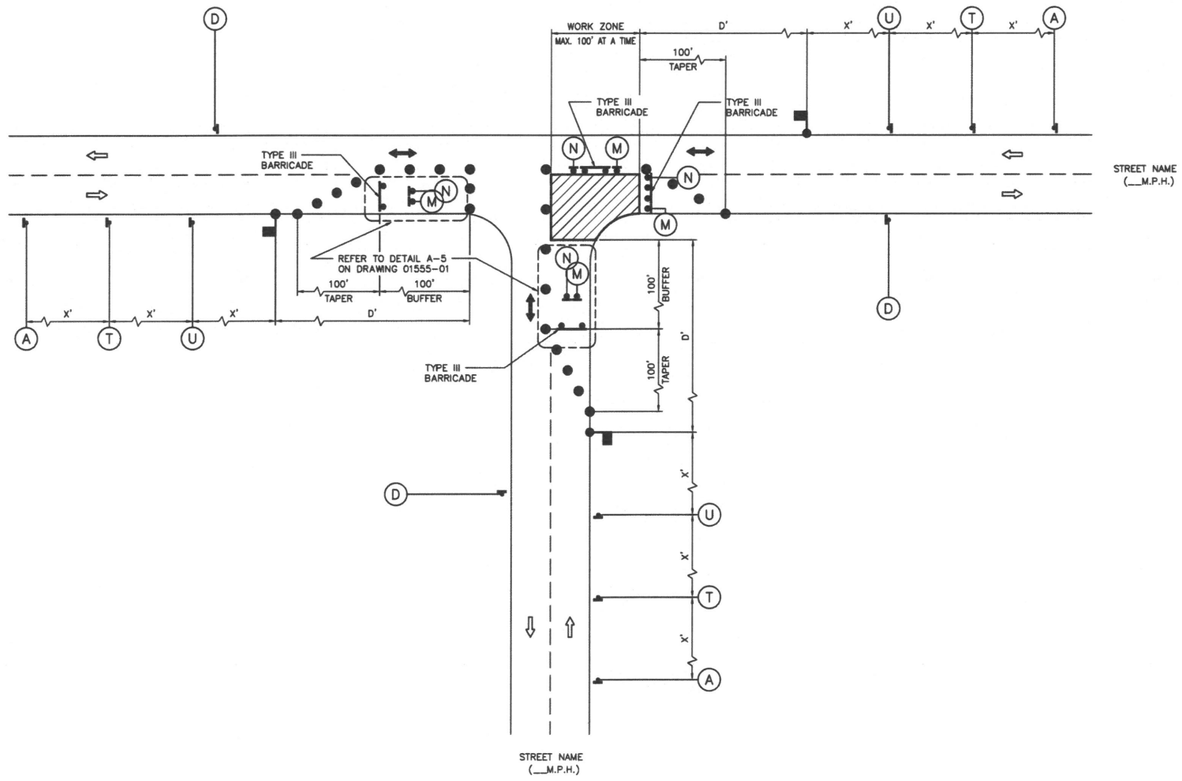
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FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:34:06 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TRAFFIC CONTROL PLAN DETAILS.DWG

FOR REDUCED PLANS
original scale in inches

A	T	U	D	M	N
ROAD WORK AHEAD	ONE LANE ROAD AHEAD		END ROAD WORK	DO NOT ENTER	ROAD CLOSED
CW20-1	CW20-4	CW20-7	G20-2	R5-1	R11-2



LEGEND:

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

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5. MAX. 100' WORK ZONE AT A TIME.

APPROVED BY:	APPROVED BY:
Docusigned by: Sukut Kamwar	Docusigned by: KHANG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Docusigned by: Carl Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-08

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP TYPICAL CONSTRUCTION ZONE AT A T-INTERSECTION PHASE 3 OF 3

FOR CITY OF HOUSTON USE ONLY

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NOT TO SCALE

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TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 325 OF 362	

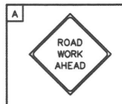
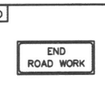
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WITH THE USE OF THIS STANDARD IN DIGITAL FORMAT. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN TO ENSURE THE ACCURACY OF THE INFORMATION CONTAINED HEREIN, THE CITY OF HOUSTON MAKES NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY

PLOTTED ON: Wednesday, September 23, 2026 10:34:16 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TRAFFIC CONTROL PLAN DETAILS.DWG

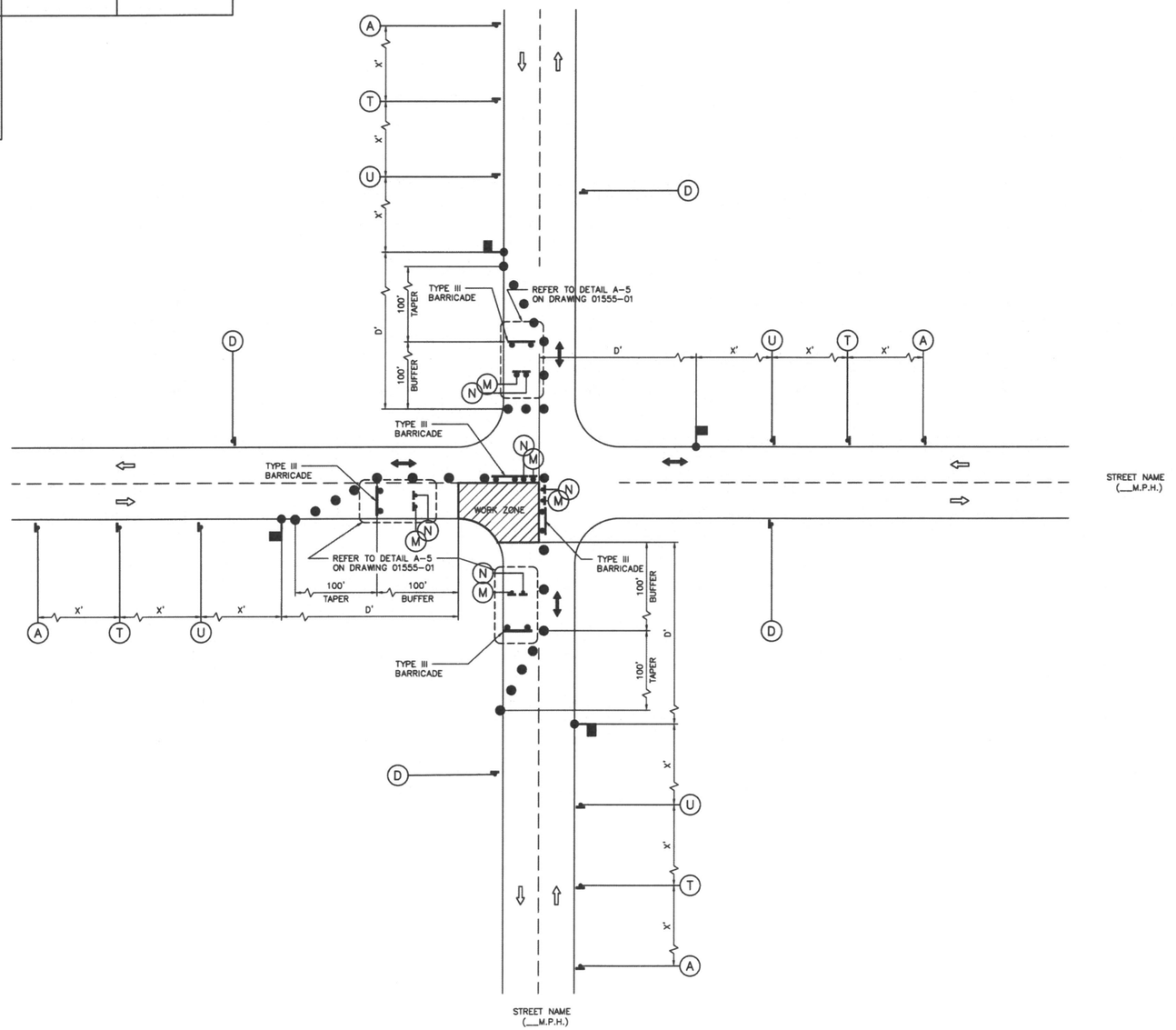
FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 10:34:28 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TRAFFIC CONTROL PLAN DETAILS.DWG

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A	T	U	D
 CW20-1	 CW20-4	 CW20-7	 G20-2

M	N
 R5-1	 R11-2



LEGEND:

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

NOTES:

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2. REFER TO PROJECT SPECIFIC TRAFFIC CONTROL PLANS FOR MAJOR OPERATIONS AND OVERNIGHT LANE CLOSURES.
3. FOR DIMENSIONS REFER TO SHEET 01555-01.
4. INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.
5. MAX. 100' WORK ZONE AT A TIME.

APPROVED BY:	APPROVED BY:
DocuSigned by: Sukut kanuwar	DocuSigned by: KHANG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: DocuSigned by: Carol Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-09

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP TYPICAL CONSTRUCTION ZONE AT A 4-WAY INTERSECTION (LOW VOLUME TRAFFIC) PHASE 1 OF 4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

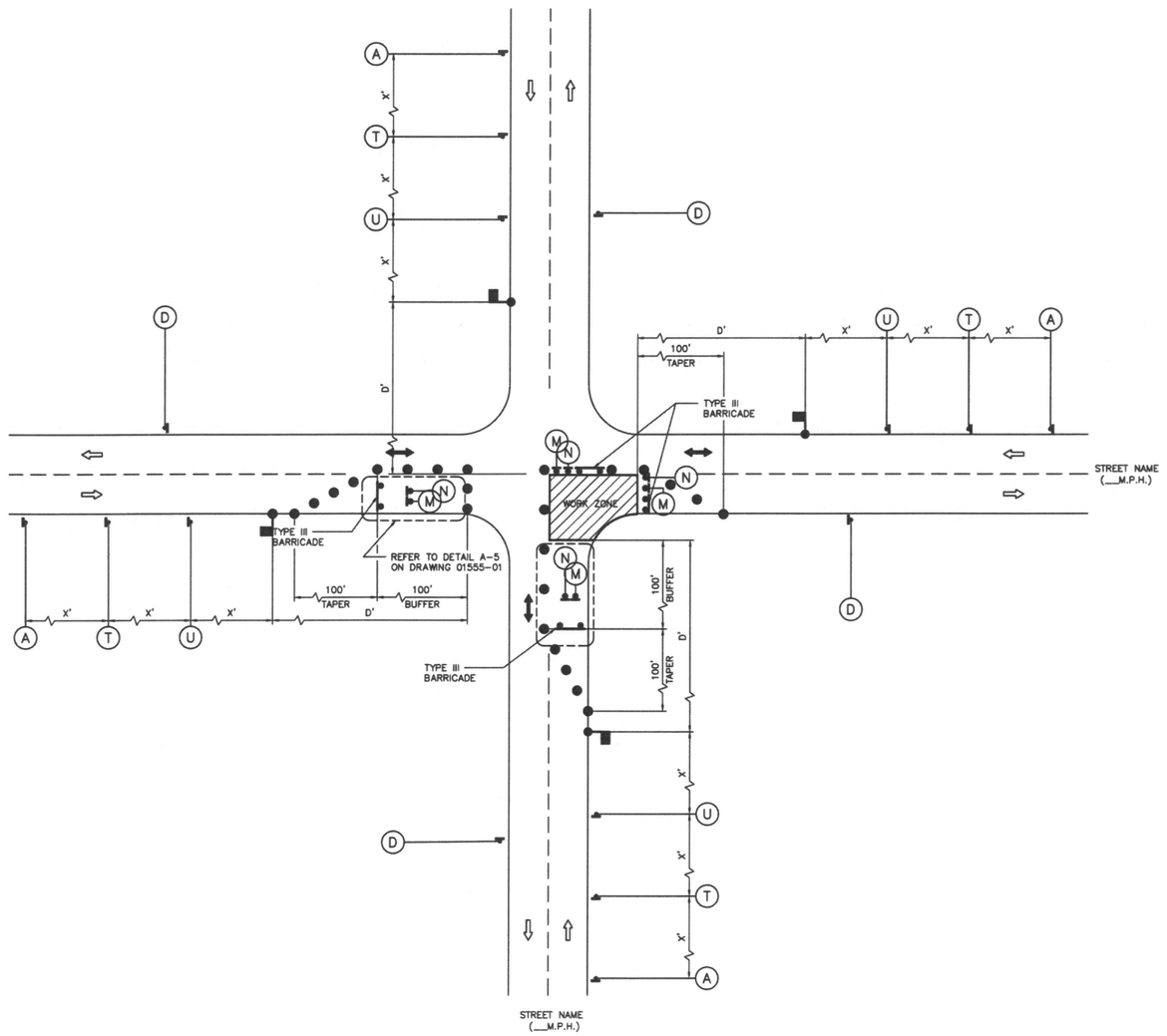
TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 326 OF 362	

FOR REDUCED PLANS
original scale in inches

A	T	U	D
ROAD WORK AHEAD CW20-1	ONE LANE ROAD AHEAD CW20-4	 CW20-7	END ROAD WORK G20-2

M	N
DO NOT ENTER R5-1	ROAD CLOSED R11-2



LEGEND:

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

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5. MAX. 100' WORK ZONE AT A TIME.

APPROVED BY:	APPROVED BY:
DocuSigned by: Sulat Kanwar 9EF6B5DC61F5474...	DocuSigned by: UYEN NGUYEN 90A29EFDA7EB4CC...
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: DocuSigned by: Carol Haddock 46DC41EB7EB4451...	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-10

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP TYPICAL CONSTRUCTION ZONE AT A 4-WAY INTERSECTION (LOW VOLUME TRAFFIC) PHASE 2 OF 4

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NOT TO SCALE	

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Civil Structural Transportation
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(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922	THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES. EPIFANIO E. SALAZAR JR., P.E. TEXAS SERIAL NO. 67749 DATE: Sep-26
SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 327 OF 362	

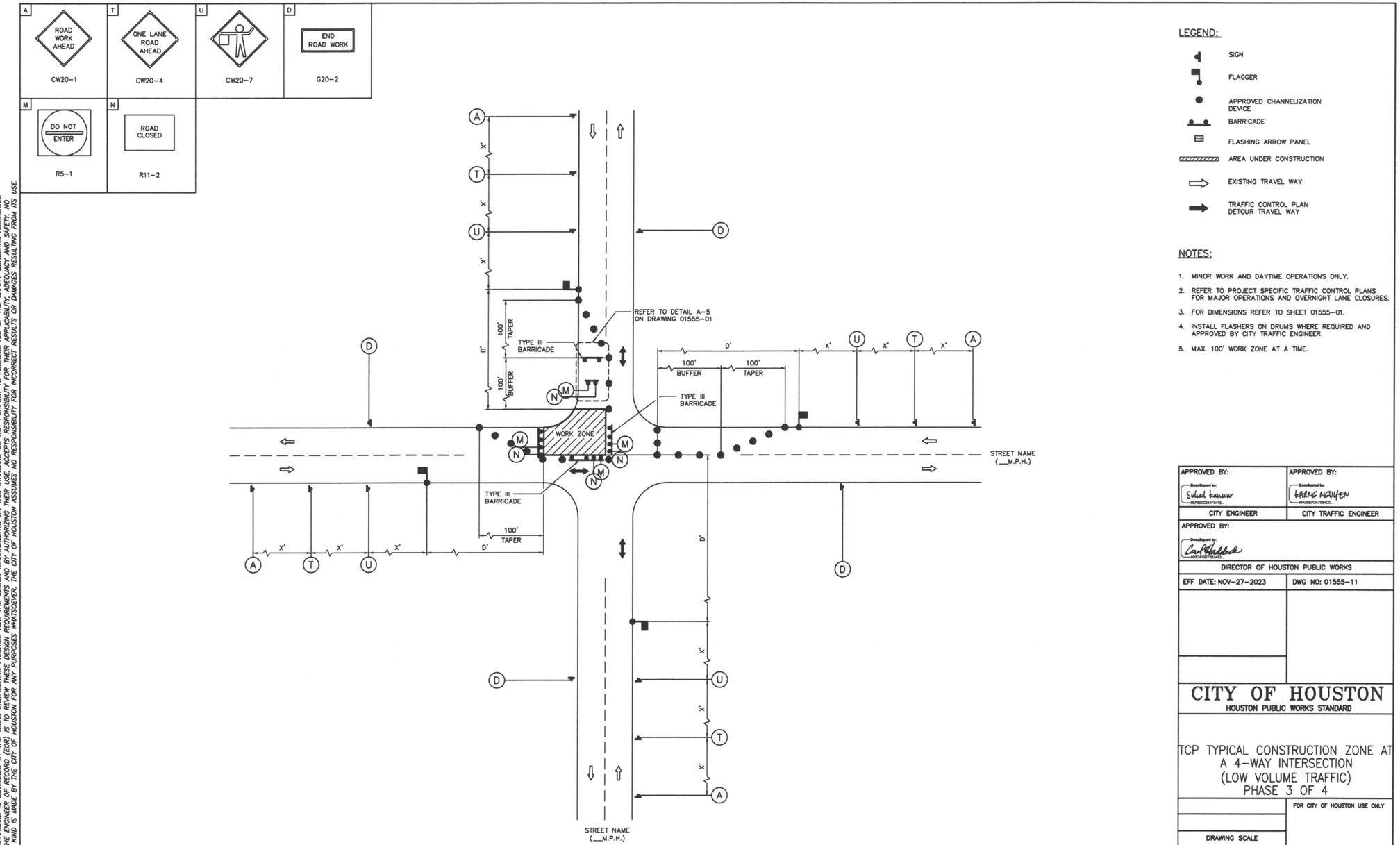
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PLOTTED ON: Wednesday, September 23, 2026 10:34:40 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TRAFFIC CONTROL PLAN DETAILS.DWG

FOR REDUCED PLANS
original scale in inches

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PLOTTED ON: Wednesday, September 23, 2026 10:34:51 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TRAFFIC CONTROL PLAN DETAILS.DWG



LEGEND:

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

NOTES:

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4. INSTALL FLASHERS ON DRUMS WHERE REQUIRED AND APPROVED BY CITY TRAFFIC ENGINEER.
5. MAX. 100' WORK ZONE AT A TIME.

APPROVED BY:	APPROVED BY:
Docusigned by: Suhail Kanuwar	Docusigned by: LUYEN NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER

APPROVED BY: Docusigned by: Carl Haddock
DIRECTOR OF HOUSTON PUBLIC WORKS

EFF DATE: NOV-27-2023	DWG NO: 01555-11

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP TYPICAL CONSTRUCTION ZONE AT A 4-WAY INTERSECTION (LOW VOLUME TRAFFIC) PHASE 3 OF 4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

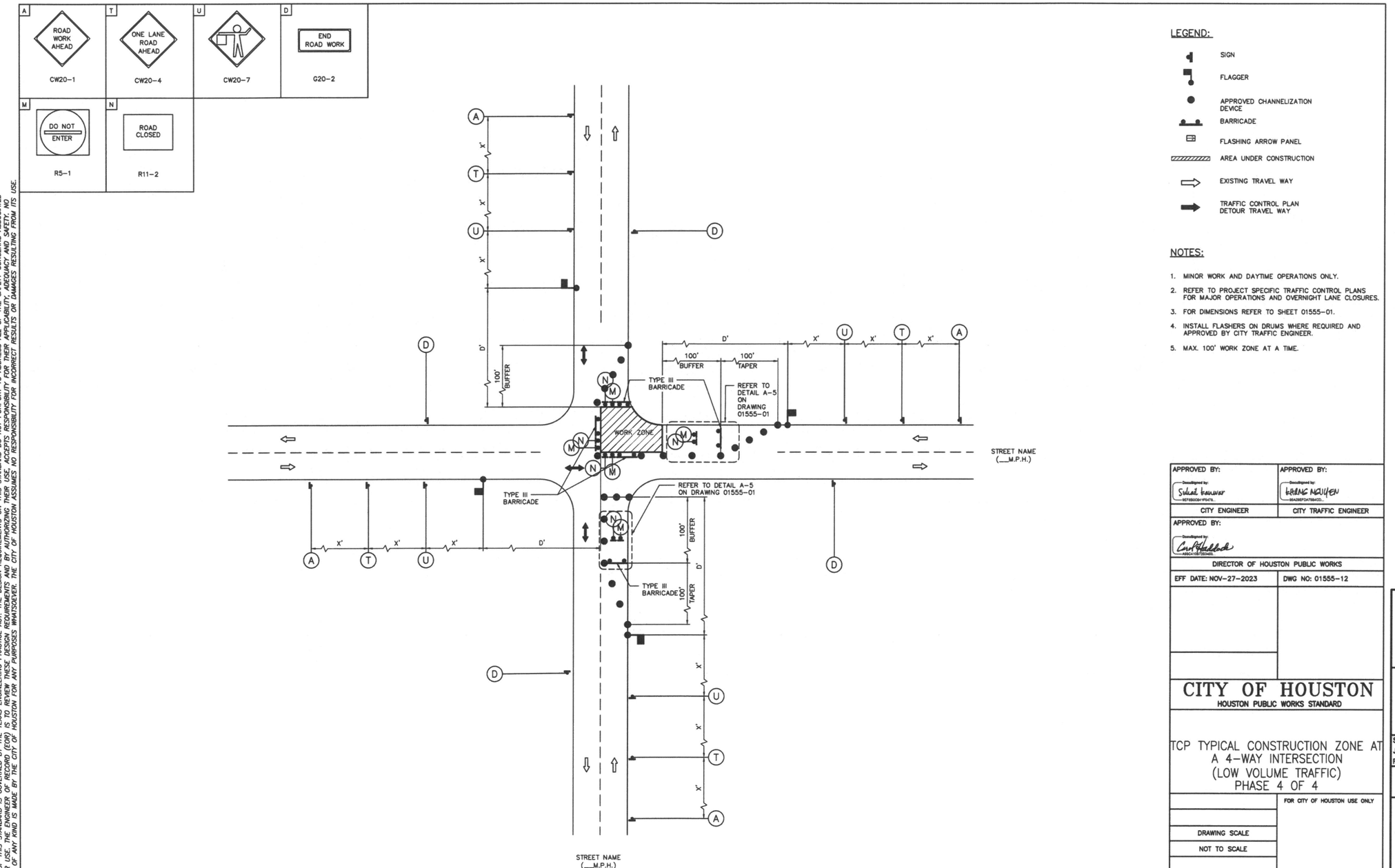
SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 328 OF 362	



LEGEND:

- SIGN
- FLAGGER
- APPROVED CHANNELIZATION DEVICE
- BARRICADE
- FLASHING ARROW PANEL
- AREA UNDER CONSTRUCTION
- EXISTING TRAVEL WAY
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5. MAX. 100' WORK ZONE AT A TIME.

APPROVED BY:	APPROVED BY:
Salad Kanwar	UYEN NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Carol Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-12

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TCP TYPICAL CONSTRUCTION ZONE AT A 4-WAY INTERSECTION (LOW VOLUME TRAFFIC) PHASE 4 OF 4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC. TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES. EPIFANIO E. SALAZAR JR., P.E. TEXAS SERIAL NO. 67749 DATE: Sep-26

SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

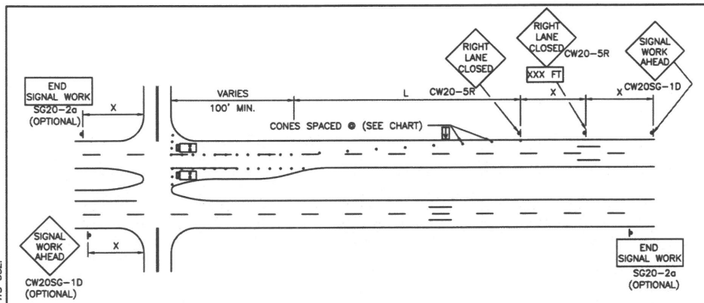
TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 329 OF 362	

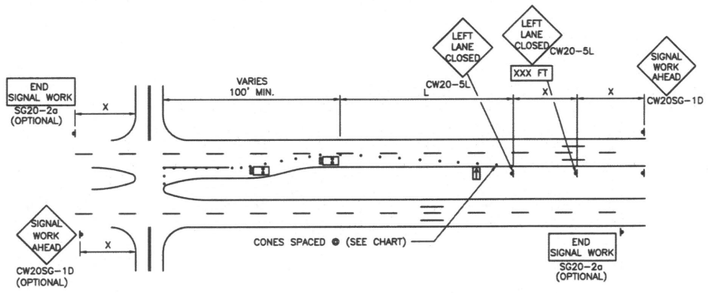
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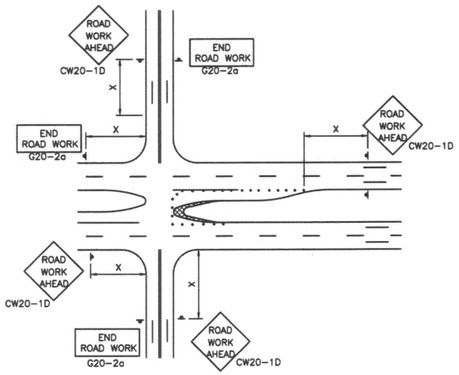
FOR REDUCED PLANS
original scale in inches
0 1 2 3



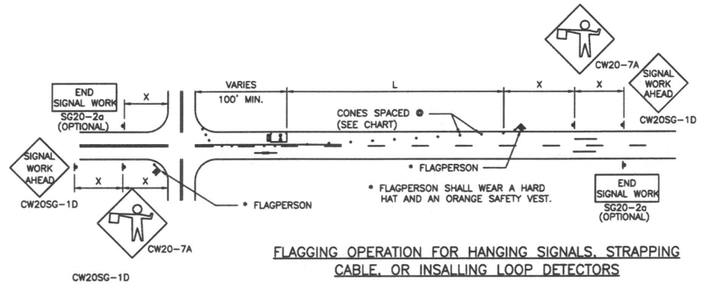
ONE LANE CLOSURE W/ RIGHT LANE AND/OR LEFT TURN LANE CLOSED



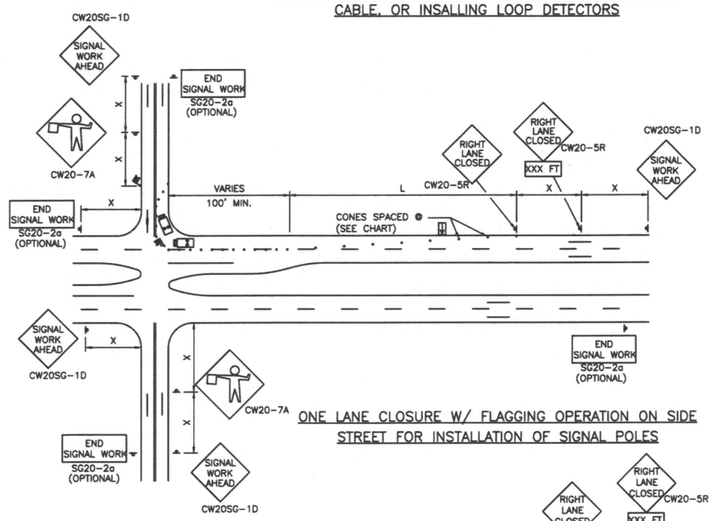
ONE LANE CLOSURE W/ LEFT LANE AND/OR LEFT TURN LANE CLOSED



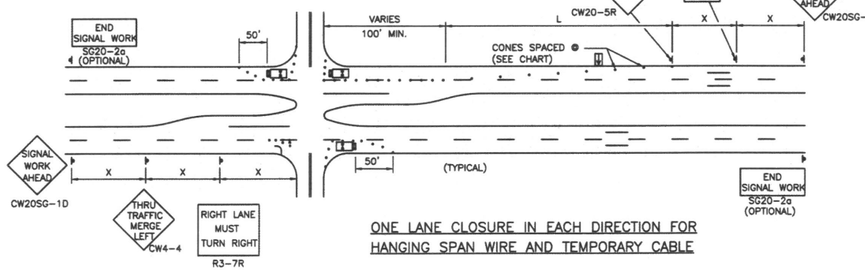
MEDIAN NOSE MODIFICATION



FLAGGING OPERATION FOR HANGING SIGNALS, STRAPPING CABLE, OR INSALLING LOOP DETECTORS



ONE LANE CLOSURE W/ FLAGGING OPERATION ON SIDE STREET FOR INSTALLATION OF SIGNAL POLES



ONE LANE CLOSURE IN EACH DIRECTION FOR HANGING SPAN WIRE AND TEMPORARY CABLE

TYPICAL TRANSITION LENGTHS

SUGGESTED MAXIMUM SPACING OF DEVICES

POSTED SPEED	FORMULA	MINIMUM DESIRABLE TAPER LENGTHS **			SUGGESTED MAXIMUM SPACING OF DEVICE		MINIMUM SIGN SPACING X DISTANCE
		10' OFFSET	11' OFFSET	12' OFFSET	ON A TAPER	ON A TANGENT	
30	$L=WS^2/60$	150'	165'	180'	30'	60'–75'	120'
35		205'	225'	245'	35'	70'–90'	160'
40		265'	295'	320'	40'	80'100'	240'
45	L=WS	450'	495'	540'	45'	90'–110'	320'
50		500'	550'	600'	50'	100'–125'	400'
55		550'	605'	660'	55'	100'–140'	500'
60		600'	660'	720'	60'	120'–150'	600'

** TAPER LENGTHS HAVE BEEN ROUNDED OFF
L=LENGTH OF TAPER (FT.)
W=WIDTH OF OFFSET (FT.)
S=POSTED SPEED(MPH)

NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.
2. THE MINIMUM LANE WIDTH ALLOWED IS 10 FEET. THE MINIMUM BUFFER ZONE BETWEEN THE WORK ZONE AND ADJACENT TRAFFIC IS 2 FEET.
3. FLORESCENT ORANGE SHALL BE THE BACKGROUND COLOR ON ALL WORK ZONE SIGNS.
4. THE CONTRACTOR SHALL REMOVE ADVANCE SIGNS WHEN NO CONSTRUCTION OPERATIONS ARE UNDERWAY.
5. OBSTRUCTIONS OR HAZARDS AT THE WORK AREA SHALL BE CLEARLY MARKED AND DELINEATED AT ALL TIMES.
6. ALL HOLES, TRENCHES OR OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY LIGHTS OR OTHER PROTECTIVE DEVICES.
7. TRENCHES SHALL BE COVERED OR SURROUNDED WITH ORANGE PLASTIC CONSTRUCTION FENCE AS DIRECTED BY THE ENGINEER.
8. FLAGGER AND FCW20-7a SIGN MAY BE REQUIRED ACCORDING TO FIELD CONDITIONS.
9. VEHICLES PARKED IN ROADWAY SHALL BE EQUIPPED WITH TWO STROBES.

LEGEND:

HEAVY WORK VEHICLE

FLASHING ARROW PANEL

APPROVED BY:	APPROVED BY:
Docusigned by: Sukut Kaushwar	Docusigned by: HIEU NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Docusigned by: Carl Hallock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-13

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TRAFFIC CONTROL PLAN FOR SIGNAL CONSTRUCTION

	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
NOT TO SCALE	

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SURVEYED BY: JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

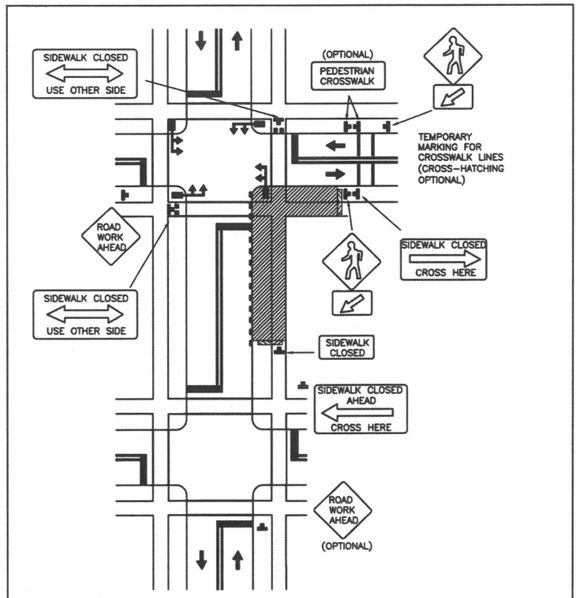
TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 330 OF 362	

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FOR REDUCED PLANS
original scale in inches



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APPROVED BY:

CITY ENGINEER	CITY TRAFFIC ENGINEER	DIRECTOR OF HPW
Developed by:	Developed by:	Developed by:

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

CROSSWALK CLOSURES
AND PEDESTRIAN DETOURS

(SCALE: NOT TO SCALE)

EFF DATE: NOV-27-2023 | DWG NO: 01555-16

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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

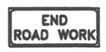
TRAFFIC CONTROL PLAN DETAILS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 331 OF 362	

FOR REDUCED PLANS
original scale in inches

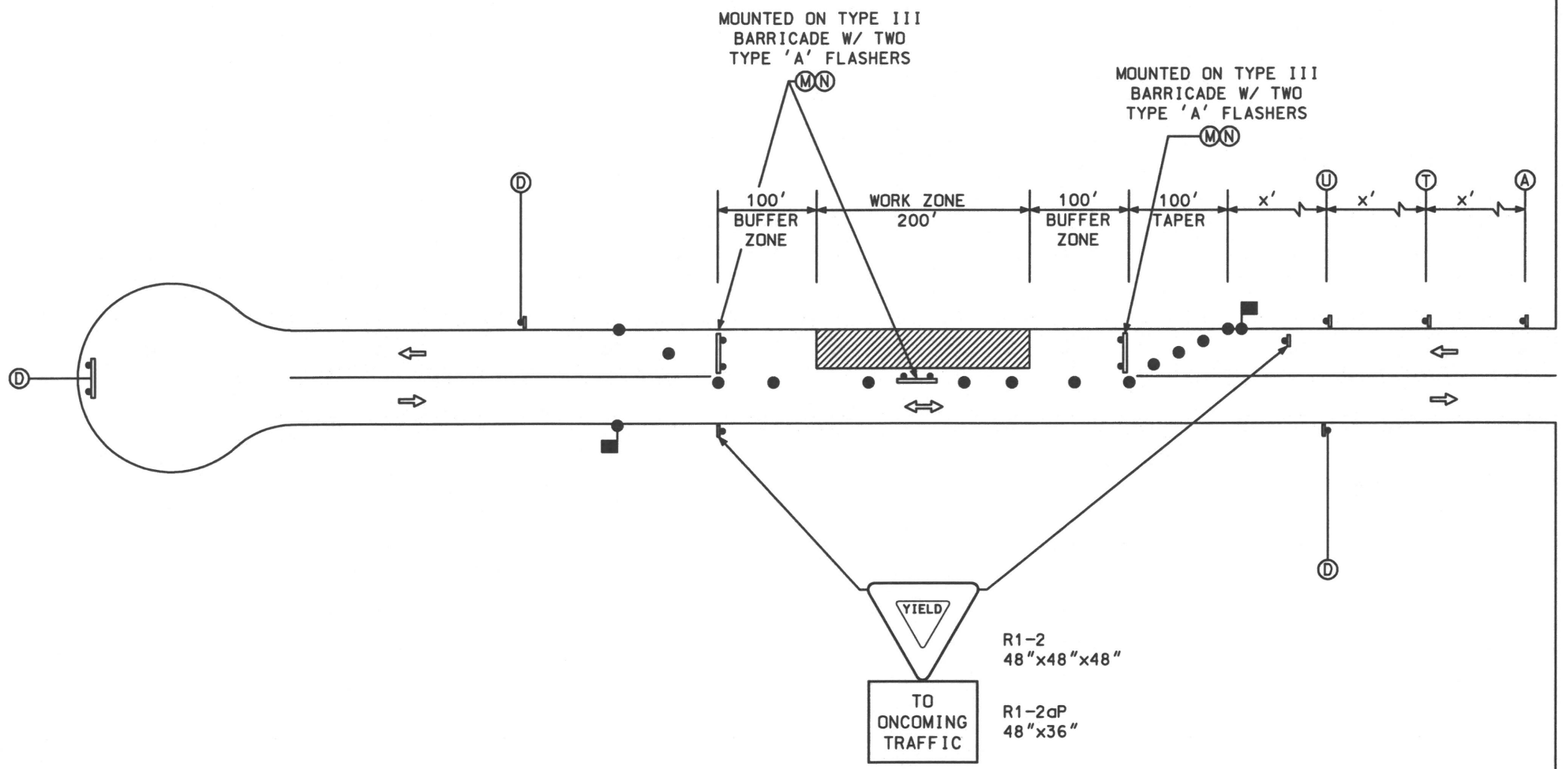
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FOR REDUCED PLANS
original scale in inches

A	T	U	D	M	N
					
CW20-1	CW20-4	CW20-7	G20-2	R5-1	R11-2

LEGEND

- SIGN
- FLAGGER
- APPROVED CHANNELIZATION DEVICE
- TRAFFIC FLOW
- BARRICADE
- FLASHING ARROW PANEL



THIS SIGN IS REQUIRED WHEN NO FLAGGERS ARE PRESENT.

CONSTRUCTION NOTES FOR EXISTING CUL-DE-SAC AND DEAD-END STREETS:

1. THE CONTRACTOR IS NOT ALLOWED TO WORK ON ADJACENT STREETS SIMULTANEOUSLY WITHIN THE PROJECT AREA. UNTIL CONSTRUCTION IS COMPLETE ON AN ADJACENT STREET SO THAT RESIDENTS ARE NOT ADVERSELY IMPACTED BY CONSTRUCTION AND INGRESS/EGRESS PATTERNS ON THE ABOVE REFERENCED STREETS.
2. THE CONTRACTOR IS REQUIRED TO ONLY DISTURB 200.0' AT ONE TIME. ON ANY OF THE ABOVE REFERENCED STREETS IN ORDER TO MINIMIZE RESIDENT INGRESS/EGRESS TRAFFIC PATTERNS.
3. THE CONTRACTOR IS REQUIRED TO PROVIDE TWO FLAGMAN ON EACH END OF THE ABOVE REFERENCED STREETS AT ONE TIME. TO PROVIDE FOR RESIDENT INGRESS/EGRESS DURING ALL DAY TIME CONSTRUCTION ACITIVITY.
4. THE CONTRACTOR IS REQUIRED TO PROVIDE A MINIMUM OF 20.0' WIDTH OF DRIVABLE PAVEMENT AT THE END OF DAY TIME CONSTRUCTION ACTIVITIES TO PROVIDE TWO WAY INGRESS/EGRESS ACCESS TO RESIDENTS FOR THE ABOVE REFERENCED SHEETS AFTER CONSTRUCTION ACTIVITY HAS BEEN COMPLETED EACH DAY.

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TEXAS SERIAL NO. 67749
DATE: Sep-26

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

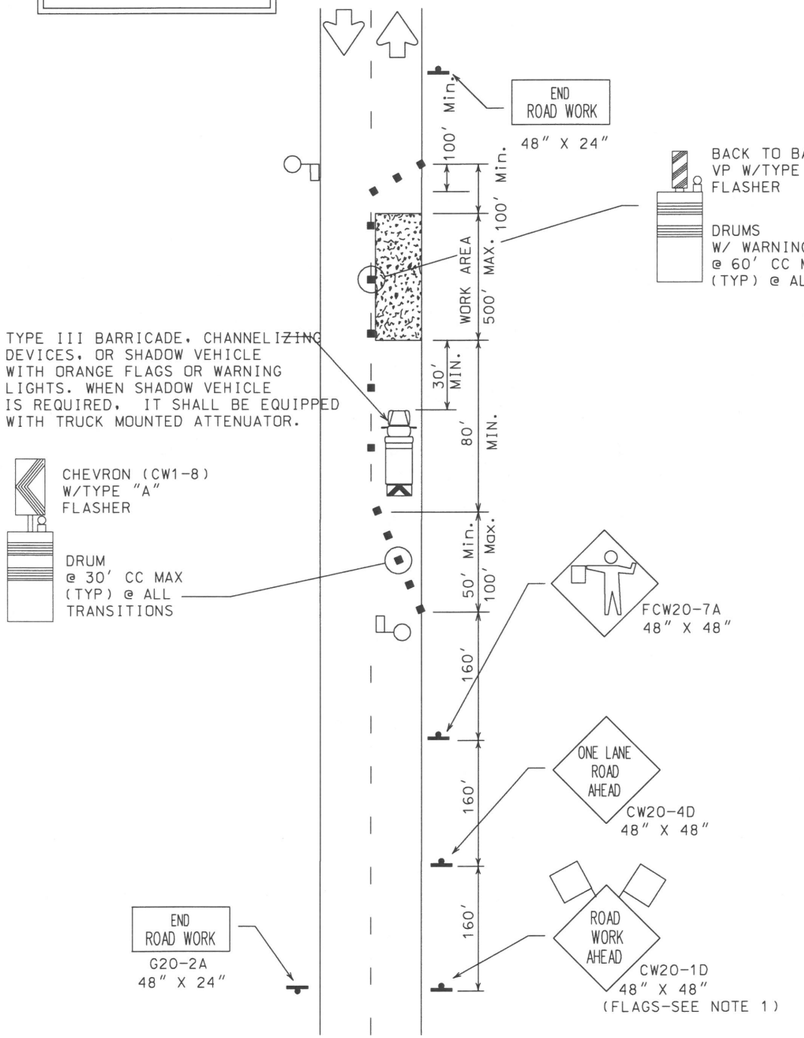
TYPICAL CUL-DE-SAC & DEAD-END TRAFFIC CONTROL PLAN

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 332 OF 362	

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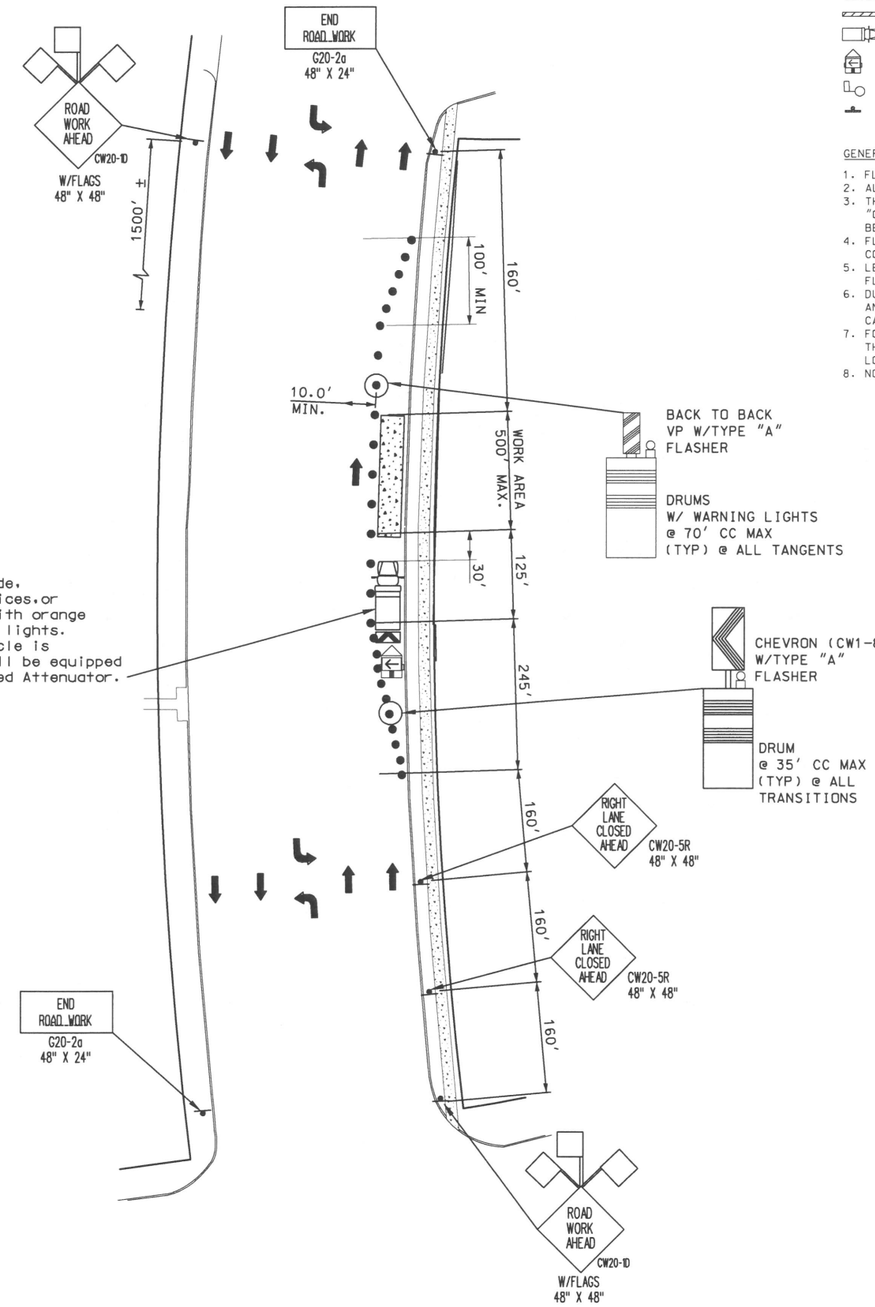
FOR REDUCED PLANS
original scale in inches

WARNING SIGN SEQUENCE
IN OPPOSITE DIRECTION
SAME AS BELOW



TRAFFIC CONTROL PLAN FOR

2-LANE ROADWAY WITHOUT PAVED SHOULDERS
ONE LANE CLOSED FOR LONG TERM DURATION CONSTRUCTION
ADEQUATE FIELD OF VIEW



TYPICAL ONE LANE CLOSURE @ 5 LANE ROAD

EXTERIOR LANE FOR 35
MPH, POSTED LIMIT

LEGEND

- TYPE III BARRICADE
- HEAVY WORK VEHICLE
- TRAILER MOUNTED FLASHING ARROW PANEL
- FLAGGER
- SIGN POST
- CHANNELIZING DEVICES
- TRUCK MOUNTED ATTENUATOR
- PORTABLE CHANGEABLE MESSAGE SIGN
- FLAG

GENERAL NOTES:

1. FLAGS ATTACHED TO SIGNS ARE REQUIRED.
2. ALL TRAFFIC CONTROL DEVICES ILLUSTRATED ARE REQUIRED.
3. THE "BE PREPARED TO STOP" SIGN MAY BE INSTALLED AFTER THE "ONE LANE ROAD AHEAD" SIGN, BUT PROPER SIGN SPACING SHALL BE MANTAINED.
4. FLAGGERS SHOULD USE TWO-WAY RADIOS OR OTHER METHODS OF COMMUNICATION TO CONTROL TRAFFIC.
5. LENGTH OF WORK AREA SHOULD BE BASED ON THE ABILITY OF FLAGGERS TO COMMUNICATE.
6. DURING NON-WORKING HOURS, ANY EXCAVATION SHALL BE BACK-FILLED AND COVERED WITH STEEL PLATES ANCHORED PROPERLY. TRAFFIC LANES CAN THEN BE REOPENED TO TRAFFIC.
7. FOR PROJECTS IN URBAN AREAS, WORK ZONES SHOULD BE NO LONGER THAN 500 LINEAR FEET MAXIMUM OF CONSTRUCTION AT A TIME FOR ALL LOCATIONS / STREETS COMBINED.
8. NO WORK TO BE PERFORMED IN RESIDENTIAL AREA FROM 7:00 PM TO 7:00 AM

No.	Date	Revisions	App.

SES HORIZON
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SURVEYED BY:
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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

TRAFFIC CONTROL PLAN FOR LANE CLOSURES

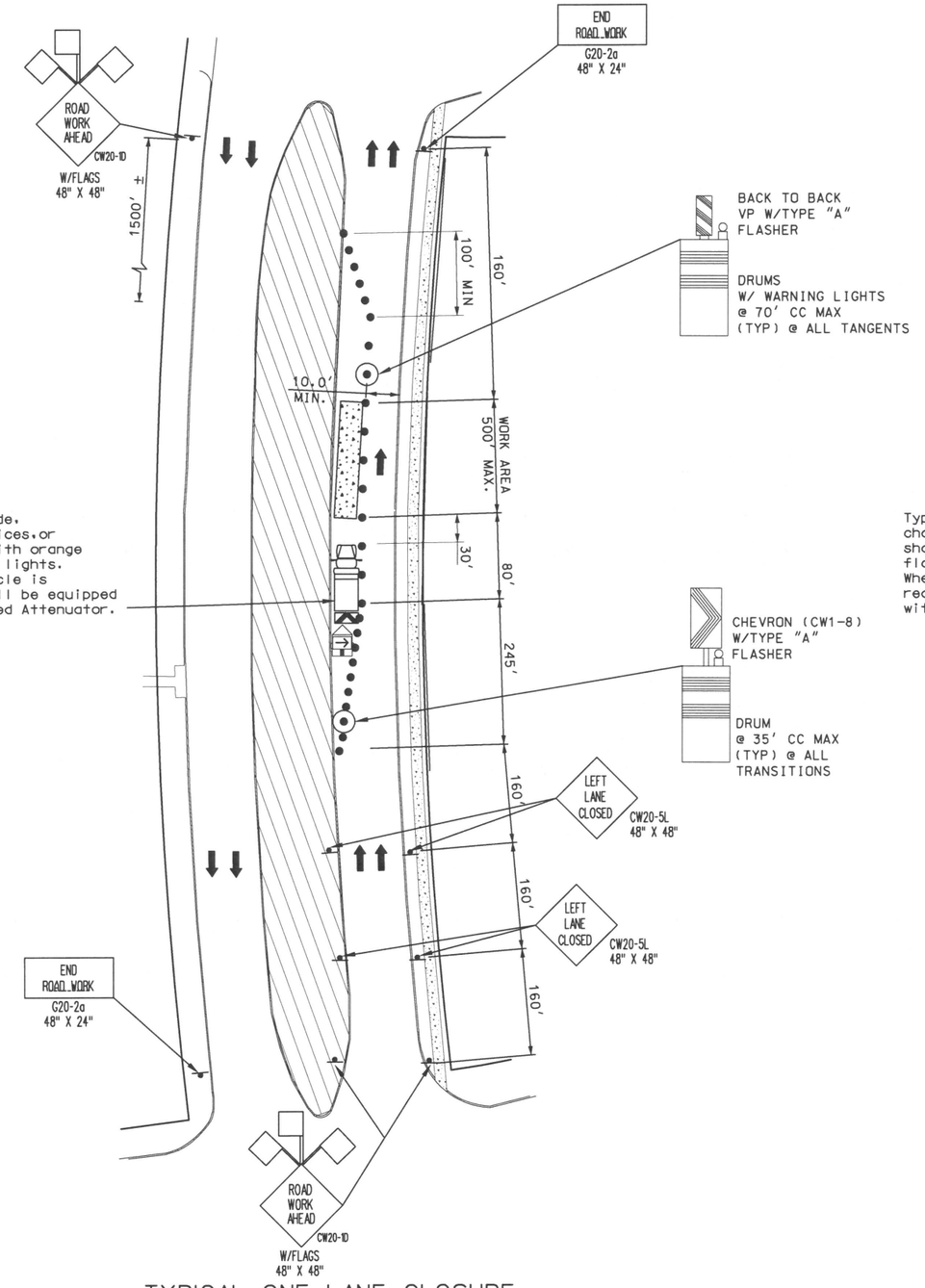
1 OF 2

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
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N.T.S.	
CITY OF HOUSTON PM	
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SHEET NO. 333 OF 362	

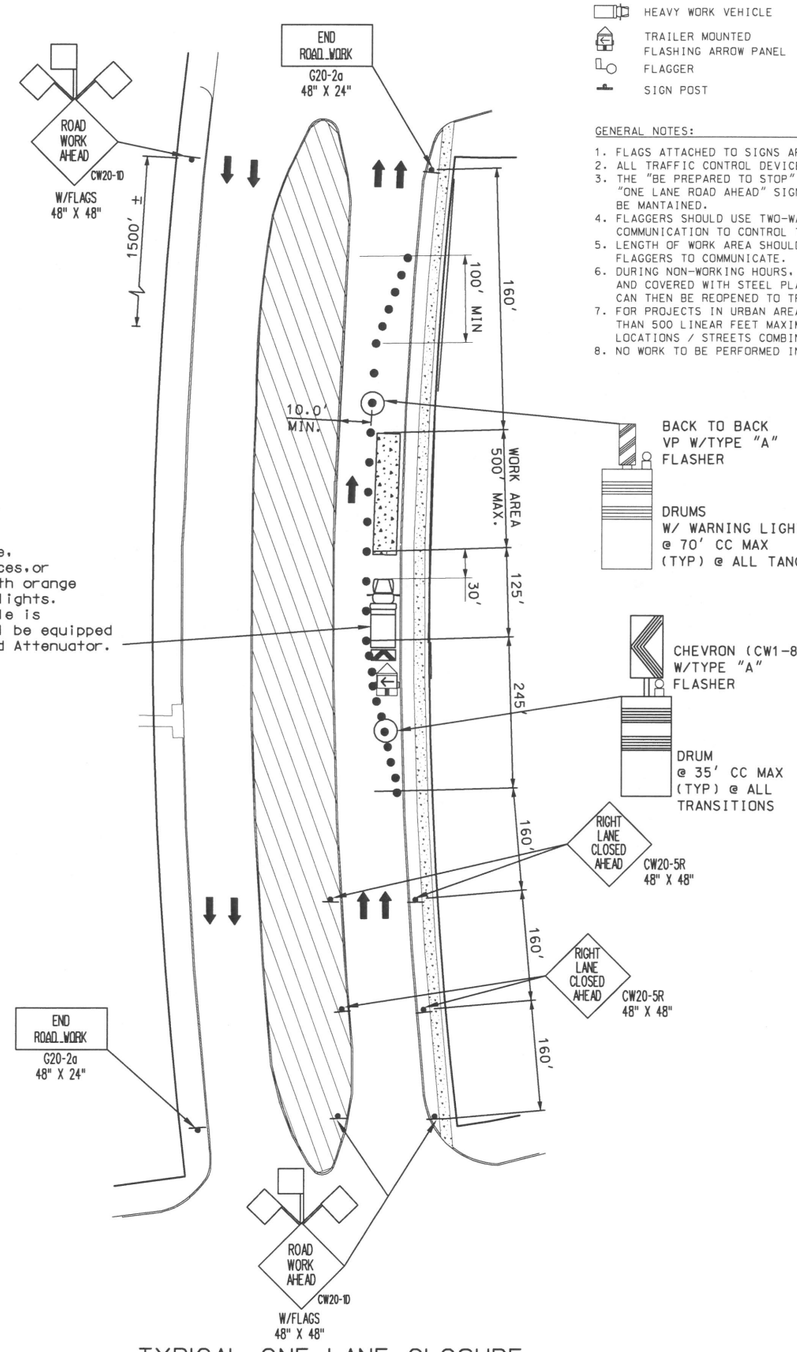
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FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:37:07 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TRAFFIC CONTROL_LANE CLOSURE.DWG



TYPICAL ONE LANE CLOSURE
INTERIOR LANE



TYPICAL ONE LANE CLOSURE
EXTERIOR LANE
FOR 35 MPH, POSTED LIMIT

LEGEND

- TYPE III BARRICADE
- HEAVY WORK VEHICLE
- TRAILER MOUNTED FLASHING ARROW PANEL
- FLAGGER
- SIGN POST
- CHANNELIZING DEVICES
- TRUCK MOUNTED ATTENUATOR
- PORTABLE CHANGEABLE MESSAGE SIGN
- FLAG

GENERAL NOTES:

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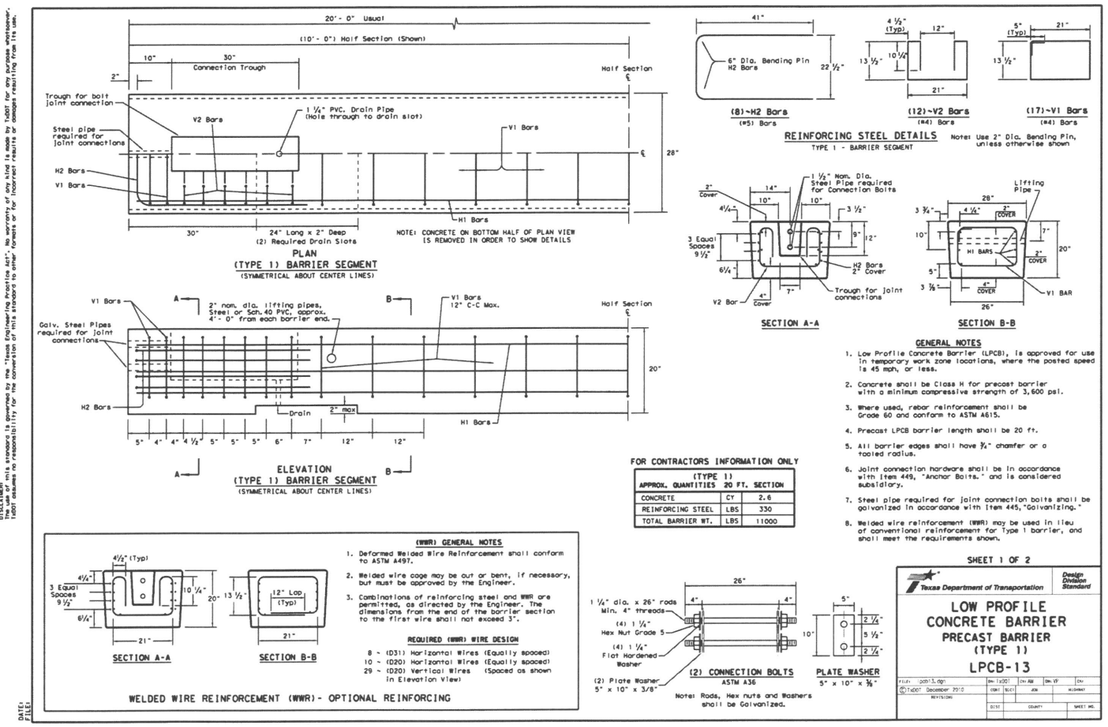
WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN FOR LANE CLOSURES

2 OF 2

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 334 OF 362	

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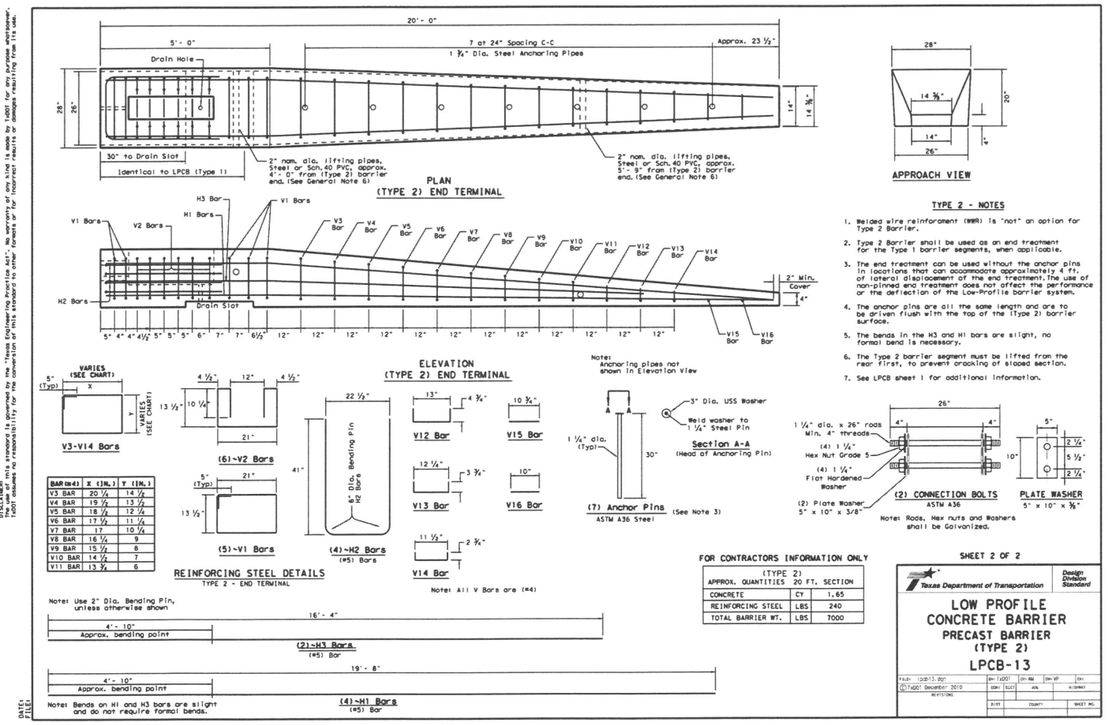


SHEET 1 OF 2

Texas Department of Transportation — Design Division Standard

LOW PROFILE CONCRETE BARRIER
PRECAST BARRIER (TYPE 1)
LPCB-13

FILE: lpcb13.dgn	DN: TxDOT	CK: dw	DW: VP	CK:
©TxDOT December 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.



BAR (#4)	X (IN.)	Y (IN.)
V3 BAR	20 ½	14 ½
V4 BAR	19 ½	13 ½
V5 BAR	18 ½	12 ½
V6 BAR	17 ½	11 ¼
V7 BAR	17	10 ¼
V8 BAR	16 ½	9
V9 BAR	15 ½	8
V10 BAR	14 ½	7
V11 BAR	13 ½	6

FOR CONTRACTORS INFORMATION ONLY

(TYPE 2) APPROX. QUANTITIES	20 FT. SECTION	
CONCRETE	CY	1.65
REINFORCING STEEL	LBS	240
TOTAL BARRIER WT.	LBS	7000

REINFORCING STEEL DETAILS
TYPE 2 - END TERMINAL

Notes: Use 2" Dia. Bending Pin, unless otherwise shown

Notes: Bends on H1 and H3 bars are slight and do not require formal bends.

SHEET 2 OF 2

Texas Department of Transportation — Design Division Standard

LOW PROFILE CONCRETE BARRIER
PRECAST BARRIER (TYPE 2)
LPCB-13

FILE: lpcb13.dgn	DN: TxDOT	CK: dw	DW: VP	CK:
©TxDOT December 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

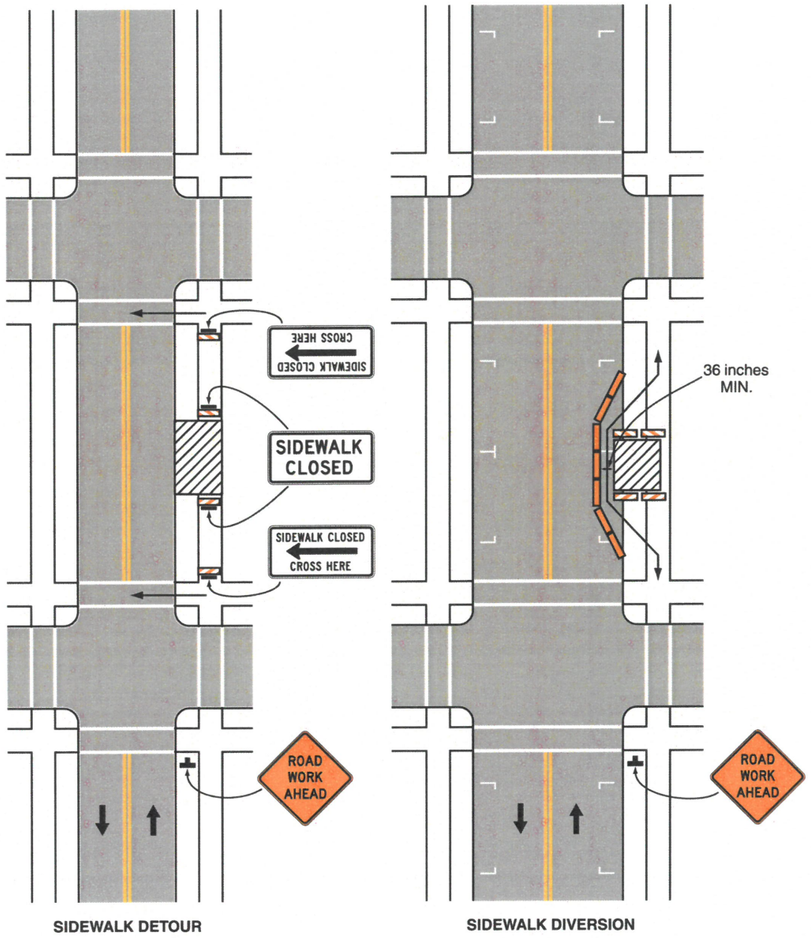
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

TRAFFIC CONTROL PLAN LOW PROFILE CONCRETE BARRIER

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 335 OF 362	

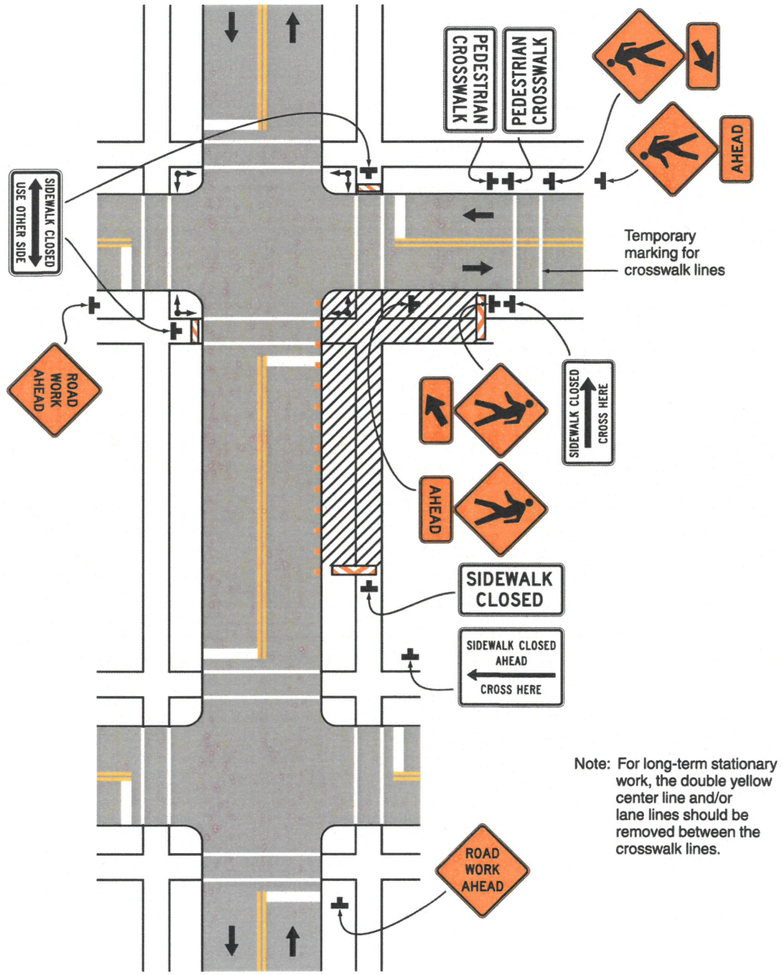
PLOTTED ON: Wednesday, September 23, 2026 10:37:18 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TRAFFIC CONTROL PLAN LOW PROFILE CONCRETE BARRIER.DWG
FOR REDUCED PLANS
original scale in inches



SIDEWALK DETOUR

SIDEWALK DIVERSION

SIDEWALK DETOUR



Note: For long-term stationary work, the double yellow center line and/or lane lines should be removed between the crosswalk lines.

CROSSWALK CLOSURES AND PEDESTRIAN DETOURS

No.	Date	Revisions	App.

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

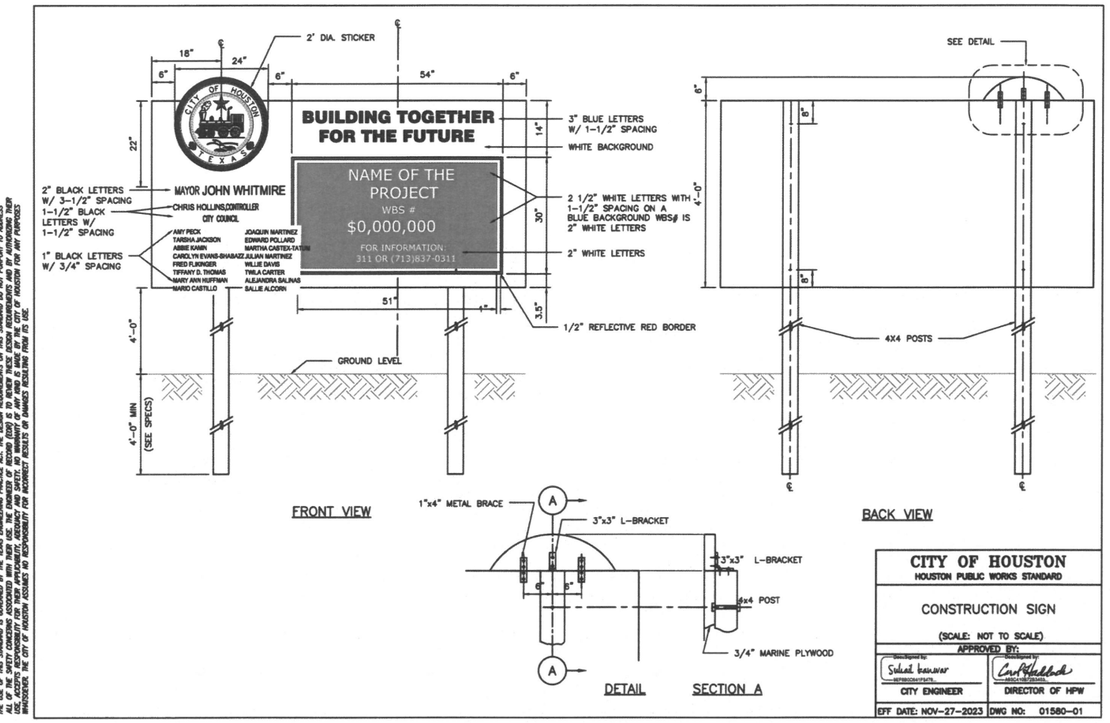
TYPICAL SIDEWALK DETOURS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 336 OF 362	

FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 10:37:28 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\TCP\WLP-SECOND WARD-TYPICAL SIDEWALK DETOURS.DWG

FOR REDUCED PLANS
original scale in inches



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

CONSTRUCTION SIGN

(SCALE: NOT TO SCALE)

APPROVED BY:

CITY ENGINEER	DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 01580-01

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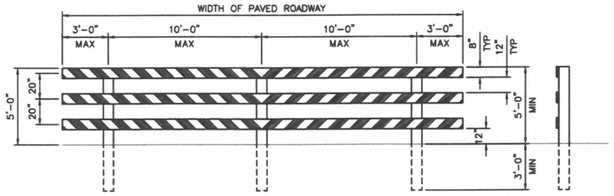
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

CONSTRUCTION SIGN DETAIL

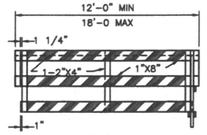
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S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 337 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:38:24 AM
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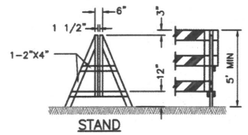


TYPE III BARRICADE FOR END OF ROAD

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



PANEL

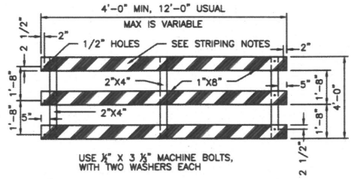


STAND

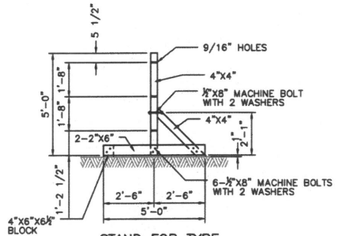


ASSEMBLY

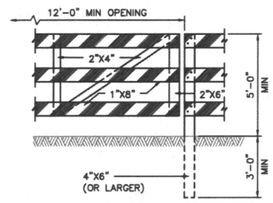
DEMOUNTABLE TYPE III BARRICADE



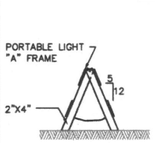
PANEL FOR TYPE III BARRICADE



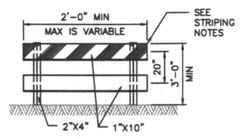
STAND FOR TYPE III BARRICADE



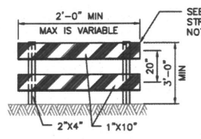
GATE FOR TYPE III BARRICADE



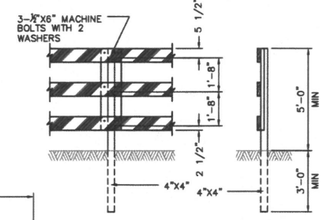
"A" FRAME



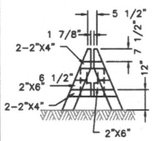
TYPE I



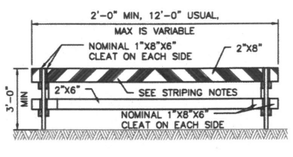
TYPE II



POST FOR TYPE III BARRICADE



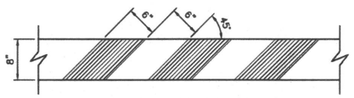
DEMOUNTABLE



TYPE I



TYPE II



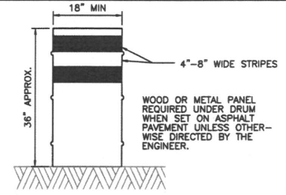
STRIPING FOR BARRICADE

BARRICADE NOTES:

1. THE MOST RECENT EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND IT'S REVISIONS, SHALL GOVERN THE CONSTRUCTION AND USE OF ALL ITEMS HEREIN DESCRIBED.
2. CHANNELIZATION DEVICES OTHER THAN BARRICADES SHOULD NORMALLY BE USED FOR CHANNELIZATION PURPOSES.
3. BARRICADES SHOULD NORMALLY BE PLACED PERPENDICULAR TO THE TRAFFIC FLOW. OTHER CHANNELIZING DEVICES, SUCH AS DRUMS, VERTICAL PANELS OR PORTABLE BARRIERS, SHOULD BE USED WHERE NEEDED TO SEPARATE TRAFFIC FROM THE WORK AREA. IN ALL CASES, THE BARRICADES SHOULD BE SO LOCATED AS TO MOST ADVANTAGEOUSLY WARN AND DIRECT TRAFFIC.
4. BARRICADES MAY BE DESIGNED AND CONSTRUCTED FROM WOOD OR ANY OTHER SUITABLE MATERIAL APPROVED BY THE TMUTCD. THE CONSTRUCTION DETAILS SHOWN HEREON ARE TYPICAL AND ARE SUGGESTED DETAILS FOR WOOD SUPPORT SYSTEMS FOR BARRICADES. THE DETAILS OF RAIL WIDTH AND STRIPING, NUMBER AND SPACING OF RAILS, MINIMUM LENGTH AND HEIGHT (ABOVE PAVEMENT) OF RAILS MUST BE ADHERED TO WHEN ALTERNATE DESIGNS ARE USED.
5. BARRICADES ARE TO BE CONSTRUCTED OF CLEAN SOUND MATERIAL. ALL SURFACES ABOVE GROUND, WHICH ARE NOT STRIPED, SHALL BE WHITE EXCEPT THE UNPAINTED GALVANIZED METAL OR ALUMINUM COMPONENTS MAY BE USED. COMPONENTS MADE OF LUMBER SHALL BE PAINTED WITH A MINIMUM OF TWO COATS OF AN APPROVED BRAND OF WHITE PAINT TO SECURE THOROUGH COVERAGE AND A UNIFORM WHITE COLOR.
6. THE REFLECTORIZED WHITE AND REFLECTORIZED ORANGE (REFLECTORIZED RED) STRIPES FOR BARRICADES, DRUMS AND VERTICAL PANELS SHALL BE CONSTRUCTED OF HIGH INTESITY SHEETING AND SHALL BE MAINTAINED TO MEET THE APPEARANCE, COLOR AND REFLECTIVITY REQUIREMENTS SET BY DOTT.
7. THE CONTRACTOR SHALL MAINTAIN EACH BARRICADE IN A CLEAN AND GOOD CONDITION.
8. BARRICADES SHALL BE REMOVED UPON COMPLETION OF THE WORK AND/OR THE ELIMINATION OF THE HAZARD ON ANY SECTION.

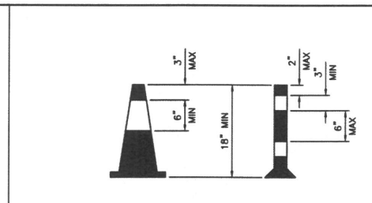
STRIPING FOR BARRICADE NOTES:

1. FOR ALL TYPES OF BARRICADES WITH RAILS LESS THAN 3'-0" LONG, STRIPES 4" WIDE SHALL BE USED. IDENTIFICATION MARKINGS MAY BE SHOWN ONLY ON BACK SIDE OF BARRICADE RAILS.
2. STRIPING SHOULD COVER THE FULL WIDTH OF THE RAIL. STRIPING OF RAILS, PANELS, ETC. SHOULD SLOPE DOWNWARD AT AN ANGLE OF 45° DEGREES IN DIRECTIONS TRAFFIC IS TO PASS.
3. WHERE A BARRICADE EXTENDS ENTIRELY ACROSS A ROADWAY, IT IS DESIRABLE THAT THE STRIPES SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING. WHEN BOTH RIGHT AND LEFT TURNS ARE PROVIDED FOR, THE CHEVRON STRIPING MAY SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE.



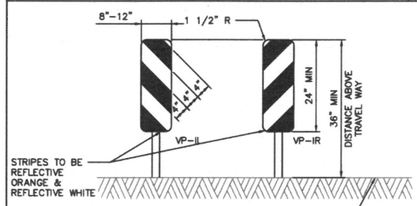
DRUMS

1. DRUMS, SET ON END, AND USED FOR TRAFFIC WARNING OR CHANNELIZATION SHALL BE APPROX 36" IN HEIGHT AND A MIN OF 18" IN DIAMETER. THE CONTRACTOR, AT HIS OPTION, MAY USE DRUMS MADE FROM STEEL BARRELS OR BLACK POLYETHYLENE PLASTIC DRUM LINERS WEIGHING APPROX EIGHT POUNDS EACH. THE MARKINGS ON DRUMS SHALL BE HORIZONTAL, CIRCUMFERENTIAL, REFLECTORIZED ORANGE AND REFLECTORIZED WHITE STRIPES, 4 TO 8 INCHES WIDE, THE FIRST REFLECTORIZED STRIPE SHOULD START WITHIN TWO (2) INCHES OF THE TOP OF THE DRUM. THERE SHALL BE AT LEAST TWO ORANGE AND TWO WHITE STRIPES ON EACH DRUM. IF THERE ARE NON-REFLECTORIZED SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES, THEY SHALL BE NO MORE THAN 2 INCHES WIDE. METAL DRUMS SHALL BE PAINTED BLACK OR ORANGE BEFORE REFLECTORIZED STRIPES ARE ADDED. ALL DRUMS ON PROJECT WILL BE THE SAME COLOR. WHEN DRUMS ARE PLACED IN THE ROADWAY, APPROPIATE WARNING SIGNS SHOULD BE USED. DURING HOURS OF DARKNESS, A FLASHING WARNING LIGHT SHOULD BE PLACED ON DRUMS USED SINGLY AS A WARNING DEVICE. STEADY BURN ELECTRIC LIGHTS OR DELINEATORS SHOULD BE PLACED ON DRUMS USED IN SERIES FOR TRAFFIC CHANNELIZATION. DRUMS SHALL BE WEIGHTED WITH SAND TO THE EXTENT INDICATED IN THE PLANS.
2. CWI-8 CHEVRON SIGNS, CWI-6A ARROW SIGNS OR VP-I VERTICAL PANELS MOUNTED ABOVE DRUMS MAY BE USED AS SUPPLEMENTS TO DRUM DELINEATION.



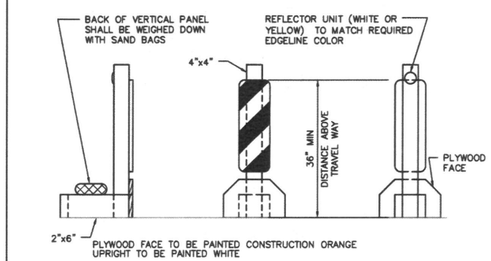
CONES

1. TRAFFIC CONES AND TUBULAR MARKERS SHALL BE A MIN OF 18" INCHES IN HEIGHT WITH A BROADENED BASE AND MAY BE MADE OF VARIOUS MATERIALS TO WITHSTAND IMPACT WITHOUT DAMAGE TO THEMSELVES OR TO VEHICLES. LARGER SIZES SHOULD BE USED ON FREEWAYS AND OTHER ROADWAYS WHERE SPEED ARE RELATIVELY HIGH OR WHERE EVER MORE CONSPICUOUS GUIDANCE IS NEEDED. ORANGE SHALL BE THE PREDOMINANT COLOR ON CONES AND TUBULAR MARKERS. THEY SHOULD BE KEPT CLEAN AND BRIGHT FOR MAX TARGET VALUE. FOR NIGHT TIME USE THEY SHALL BE REFLECTORIZED OR EQUIPPED WITH LIGHTING DEVICES FOR MAX VISIBILITY. REFLECTORIZED MATERIAL SHALL HAVE A SMOOTH, SEALED OUTER SURFACE WHICH WILL DISPLAY THE SAME APPROX COLOR DAY AND NIGHT.
2. REFLECTORIZATION OF TUBULAR MARKERS SHALL BE A MIN OF TWO THREE-INCH BANDS PLACED A MAX OF 2" FROM THE TOP WITH A MAX OF 6" BETWEEN THE BANDS. REFLECTORIZATION OF CONES SHALL BE PROVIDED BY A MIN 6" BAND PLACED A MAX OF 3" FROM THE TOP.
3. CONES OR TUBULAR MARKERS ARE GENERALLY ONLY SUITABLE FOR TEMPORARY USAGE (UP TO 8 HOURS) WITH OTHER CHANNELIZATION DEVICES SUCH AS VERTICAL PANELS OR BARRICADES PREFERRED FOR LONGER TERM USAGE. CARE SHOULD BE TAKEN TO INSURE THAT THEY REMAIN IN THEIR PROPER LOCATION AND IN AN UPRIGHT POSITION.



VERTICAL PANELS (VP)

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



TYPICAL PORTABLE VERTICAL PANEL OR DELINEATOR

OTHER SIMILAR SUPPORTS MAY BE USED WHEN APPROVED BY TMUTCD AND DIRECTED BY THE CITY OF HOUSTON.

APPROVED BY:	APPROVED BY:
Docusigned by: Sukat Kunwar	Docusigned by: KHANG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Docusigned by: Carl Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 01555-14

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

BARRICADE AND CHANNELIZING DEVICES

DRAWING SCALE	FOR CITY OF HOUSTON USE ONLY
NOT TO SCALE	

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SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

BARRICADE STANDARDS

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 338 OF 362	

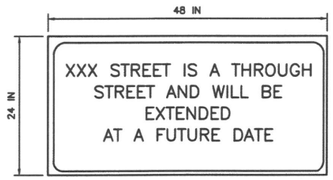
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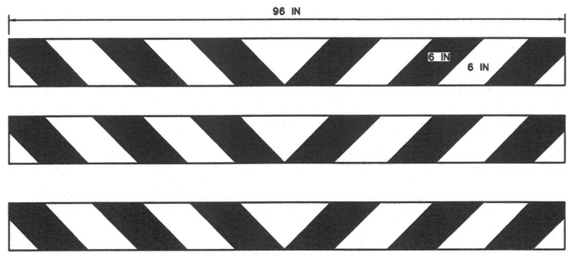
FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:38:37 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-BARRICADE STANDARDS.DWG

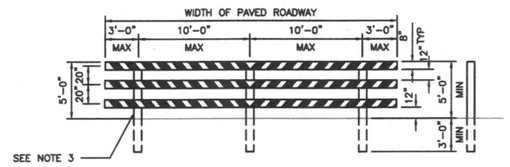
FOR REDUCED PLANS
original scale in inches
0 1 2 3

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TYPE III BARRICADE
TYPICAL END OF ROAD BARRICADE



TYPE III BARRICADE
FOR END OF ROAD

NOTES:

1. FONT SHALL BE HWY GOTHIC C, 4 INCH HEIGHT.
2. REFER TO STANDARD DETAIL NO. 01555-14 FOR TYPE III BARRICADE DETAIL.
3. FOR TYPE III BARRICADE FOR END OF ROAD, THE THREE (3) RAILS SHALL BE REFLECTIVE RED AND REFLECTIVE WHITE STRIPES ON SIDE FACING TRAFFIC.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

END OF STREET SIGN

(SCALE: NOT TO SCALE)

APPROVED BY:

DocuSigned by: Suleal Kanwar
CITY ENGINEER

DocuSigned by: KHANG NGUYEN
CITY TRAFFIC ENGINEER

DocuSigned by: Carl Hallbeck
DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 01555-15

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

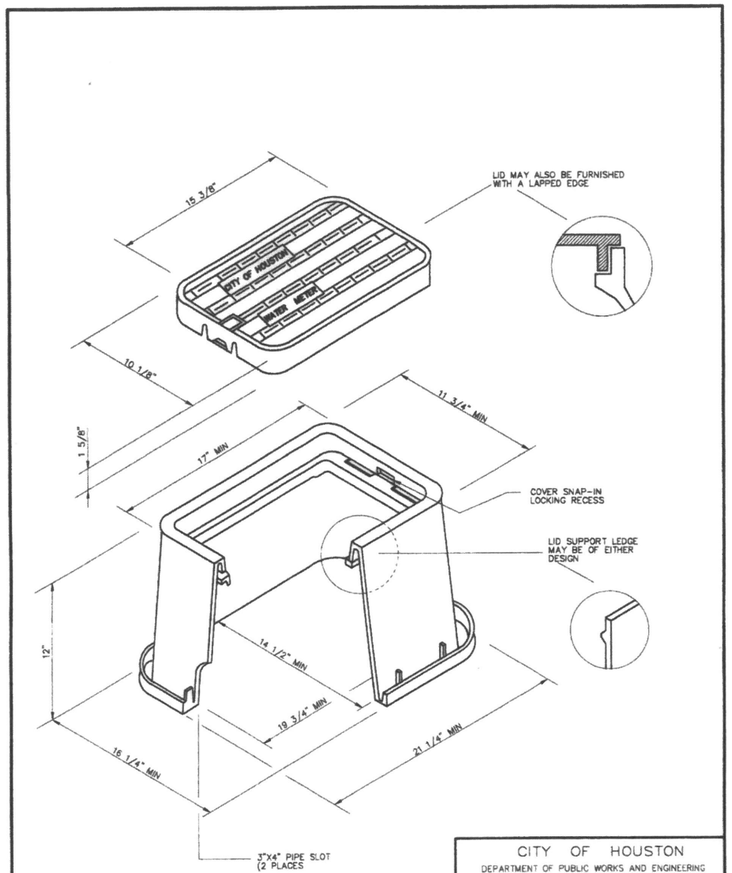
WATERLINE REPLACEMENT IN SECOND WARD

END OF STREET SIGN

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 339 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:38:44 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-BARRICADE STANDARDS.DWG

FOR REDUCED PLANS
original scale in inches



NOTE

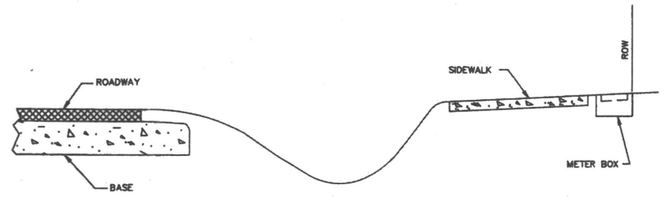
1. LID MUST BE ABLE TO ACCEPT THE CITY'S AMR TRANSMITTING ENDPOINT.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

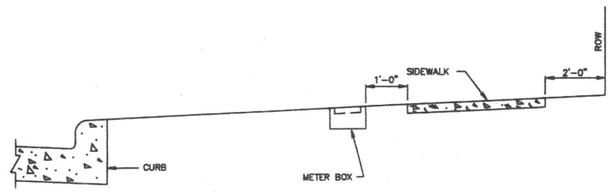
STANDARD PLASTIC METER BOX FOR 5/8" AND 1" METERS
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER | APPROVED BY: DIRECTOR PUBLIC WORKS AND ENGINEERING

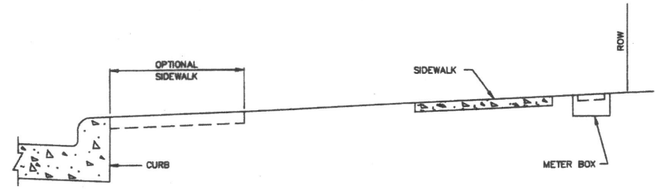
EFF DATE: JUL-01-2010 | DWG NO: 02085-01



OPEN DITCH STREET



CURB STREET



CURB STREET

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

LOCATION OF WATER METER BOX FOR 2" DIAMETER AND LESS
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER | APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: JUL-01-2010 | DWG NO: 02085-02

No.	Date	Revisions	App.

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TEXAS SERIAL NO. 67749
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

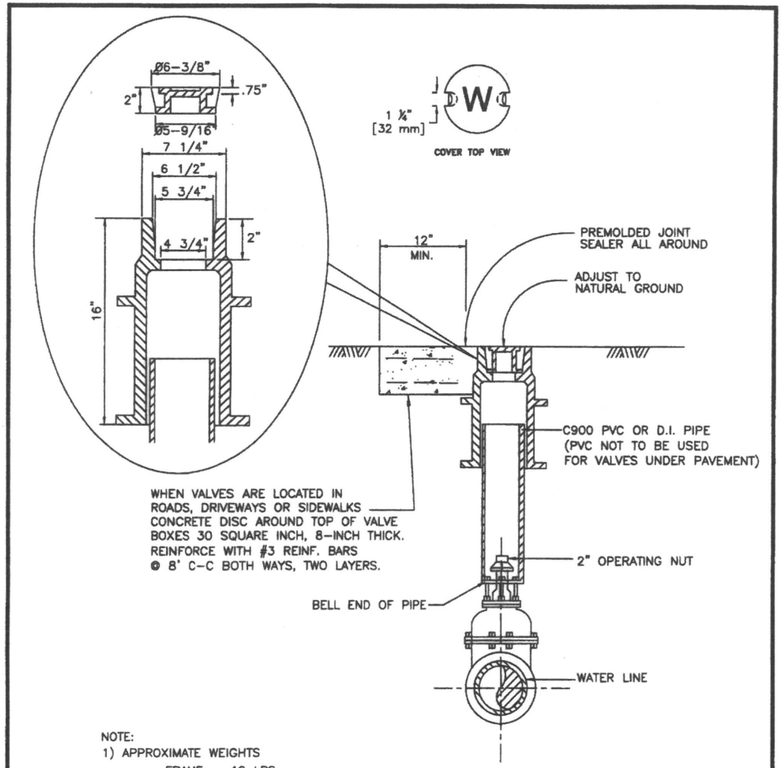
WATER LINE DETAILS

1 OF 8

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 340 OF 362	

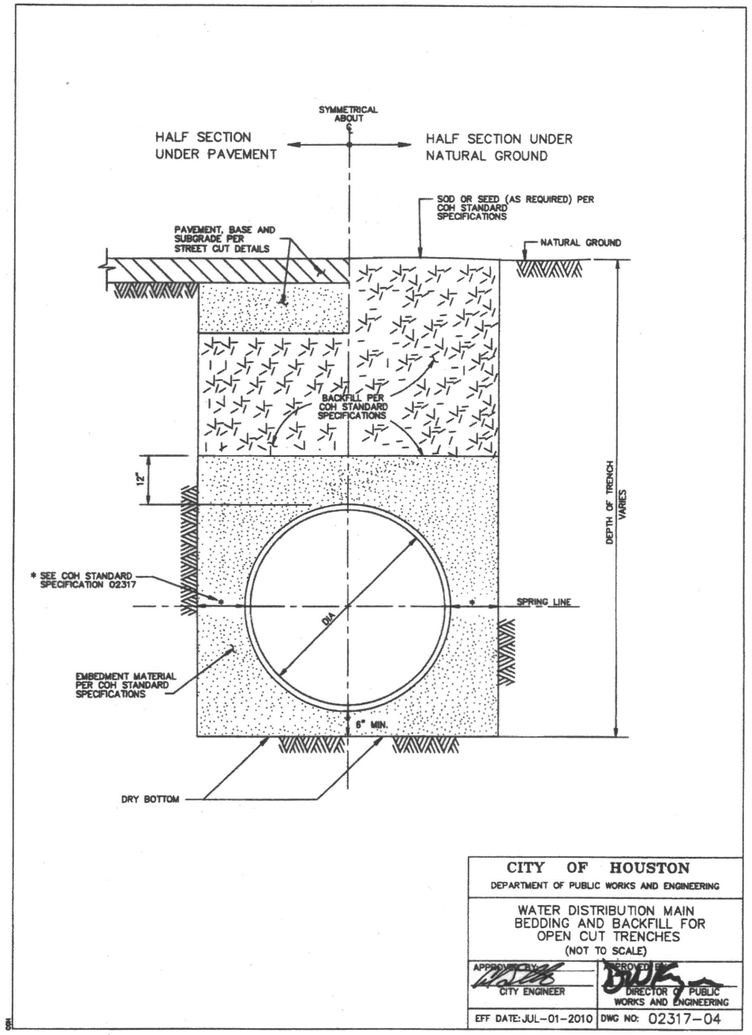
PLOTTED ON: Wednesday, September 23, 2026 10:38:58 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-WATER DETAILS STANDARDS.DWG

FOR REDUCED PLANS
original scale in inches



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	Revisions	App.

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SURVEYED BY: JAG ENGINEERING, INC. FB NO. : P-6355	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

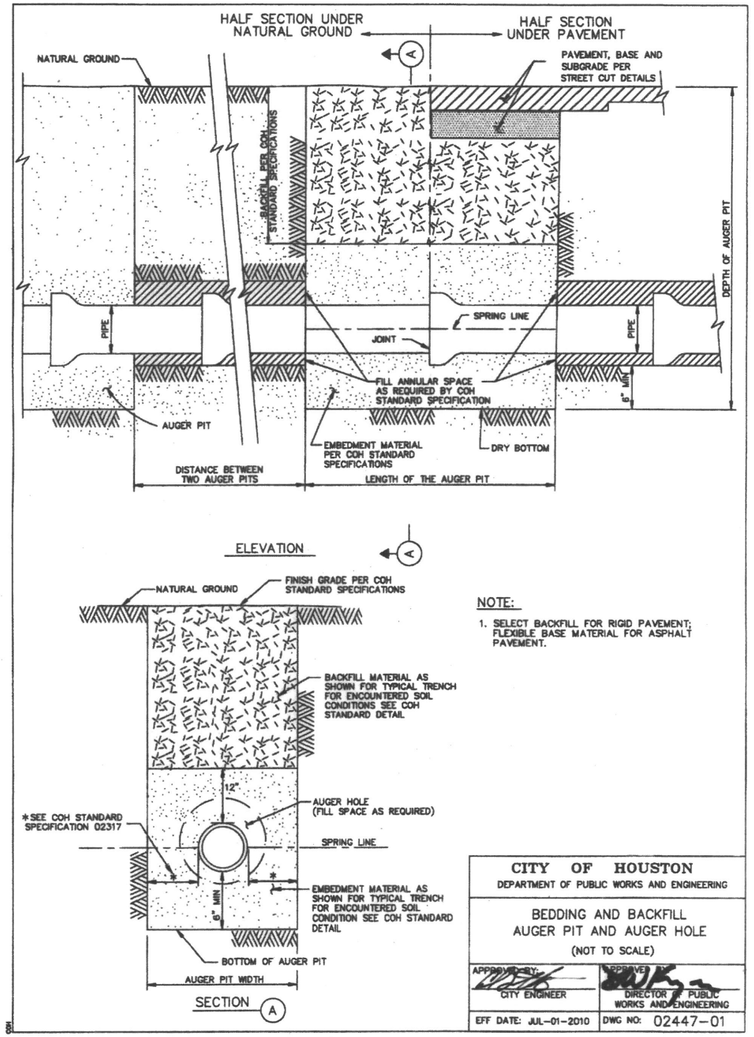
WATERLINE REPLACEMENT IN
SECOND WARD

WATER LINE DETAILS

2 OF 8

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 341 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:39:05 AM
FILE NAME: F:\ON-CALL_WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-WATER DETAILS STANDARDS.DWG



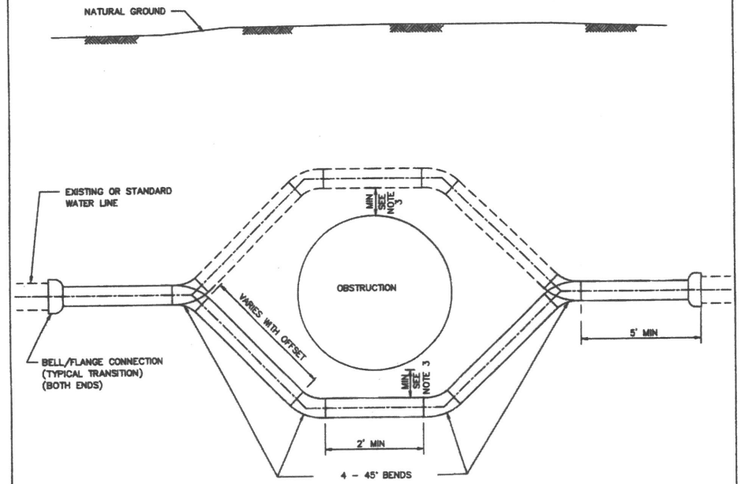
NOTE:

1. SELECT BACKFILL FOR RIGID PAVEMENT; FLEXIBLE BASE MATERIAL FOR ASPHALT PAVEMENT.

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
BEDDING AND BACKFILL AUGER PIT AND AUGER HOLE (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010	DWG NO: 02447-01

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

No.	Date	Revisions	App.

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EPIFANIO E. SALAZAR JR., P.E.
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SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

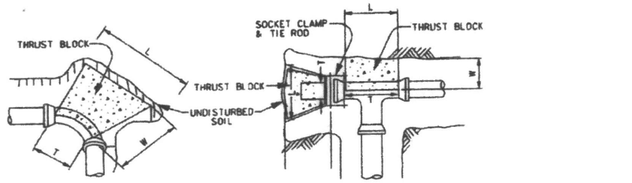
WATERLINE REPLACEMENT IN SECOND WARD

WATER LINE DETAILS

3 OF 8

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 342 OF 362	

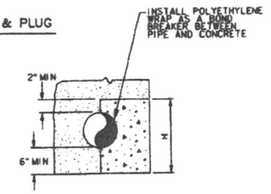
FOR REDUCED PLANS
original scale in inches
0 1 2 3
PLOTTED ON: Wednesday, September 23, 2026 10:39:15 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-WATER DETAILS STANDARDS.DWG



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:

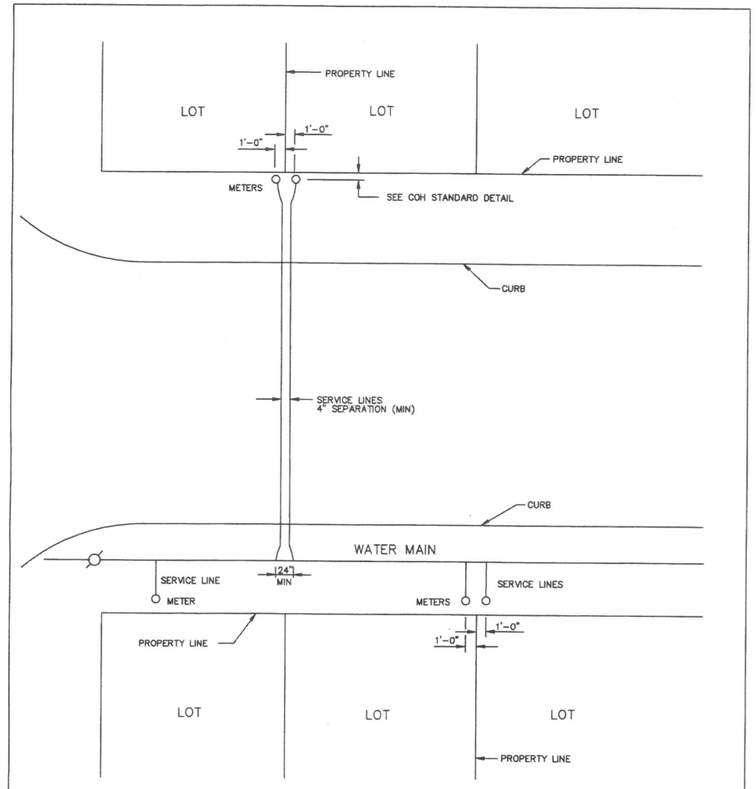
1. DEPTH "W" MAY BE GREATER THAN SPECIFIED TO ALLOW WORKING SPACE.
2. BLOCKING MUST BE PLACED AGAINST UNDISTURBED EARTH. WHERE THIS IS NOT POSSIBLE, THE FILL BETWEEN THE BEARING SURFACE AND UNDISTURBED SOIL MUST BE COMPACTED TO AT LEAST 90% STANDARD PROCTOR DENSITY.
3. PROVIDE CONCRETE IN ACCORDANCE 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 | DIRECTOR OF PUBLIC WORKS AND ENGINEERING

EFF DATE: JULY-01-2010 | DWG NO: 02511-02



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

No.	Date	Revisions	App.

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SURVEYED BY:
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FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD

WATER LINE DETAILS

4 OF 8

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 343 OF 362	

FOR REDUCED PLANS
original scale in inches
3 2 1 0

PLOTTED ON: Wednesday, September 23, 2026 10:39:25 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-WATER DETAILS STANDARDS.DWG

FOR REDUCED PLANS
original scale in inches

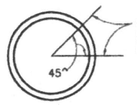
3 2 1 0

No.	Date	Revisions	App.

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



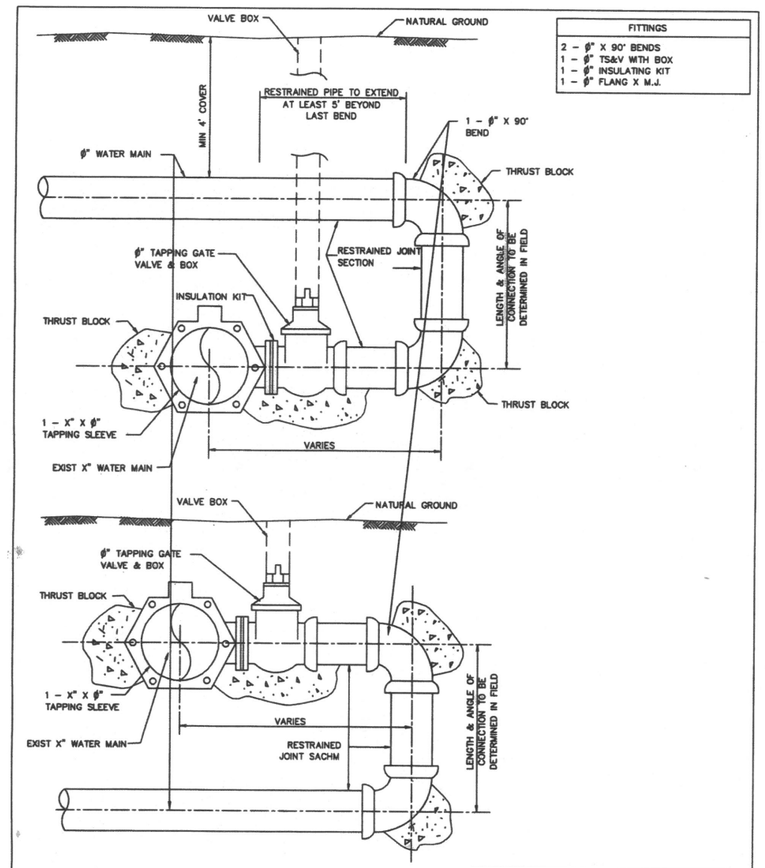
WIDE BAND SINGLE SADDLE OR DUAL SADDLES

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



FITTINGS
2 - ϕ" X 90° BENDS
1 - ϕ" TS&V WITH BOX
1 - ϕ" INSULATING KIT
1 - ϕ" FLANG X M.J.

GENERAL NOTES:

1. X" AND ϕ" DENOTE RUN AND BRANCH LINE SIZES RESPECTIVELY.
2. 90° BENDS ARE TO BE ROLLED TO PROVIDE CLEARANCE FOR VALVE BOX.
3. WATER MAIN ASSEMBLY FOR BACK TAP SAME FOR PROPOSED WATER MAIN UNDER EXISTING MAIN.
4. PROVIDE RESTRAINED JOINT PIPE AS SHOWN.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

BACK TAP ON EXISTING LINE

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER	APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2016	DWG NO: 02512-03

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

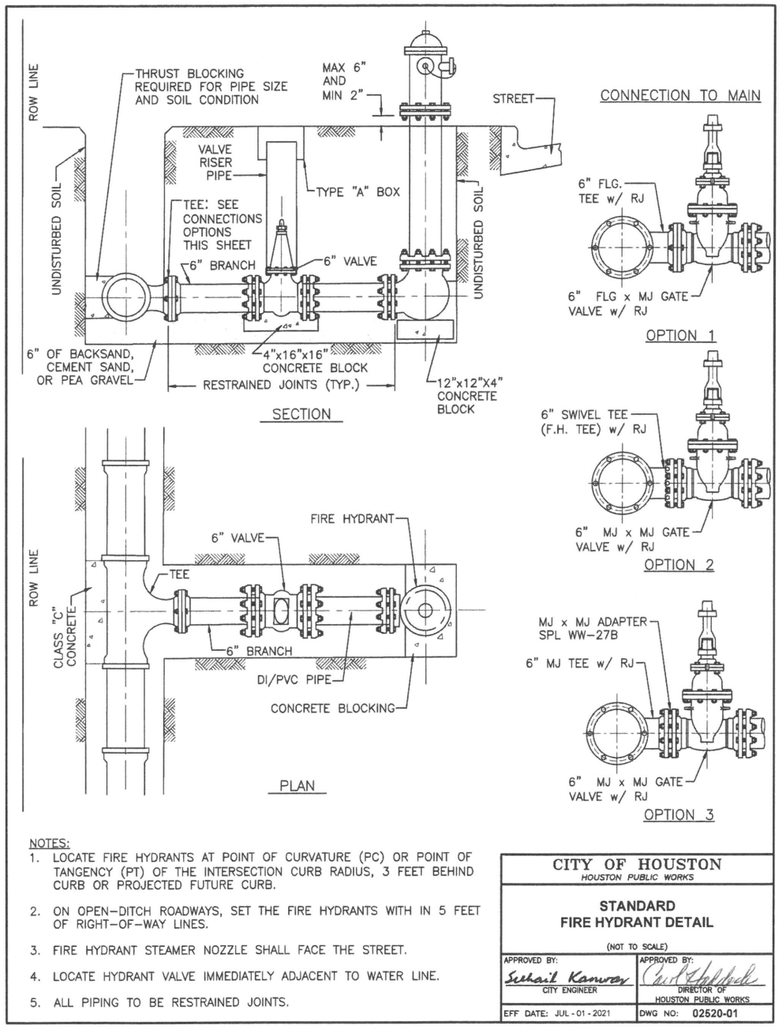
WATER LINE DETAILS

5 OF 8

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 344 OF 382	

PLOTTED ON: Wednesday, September 23, 2026 10:39:34 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-WATER DETAILS STANDARDS.DWG

FOR REDUCED PLANS
original scale in inches
0 1 2 3



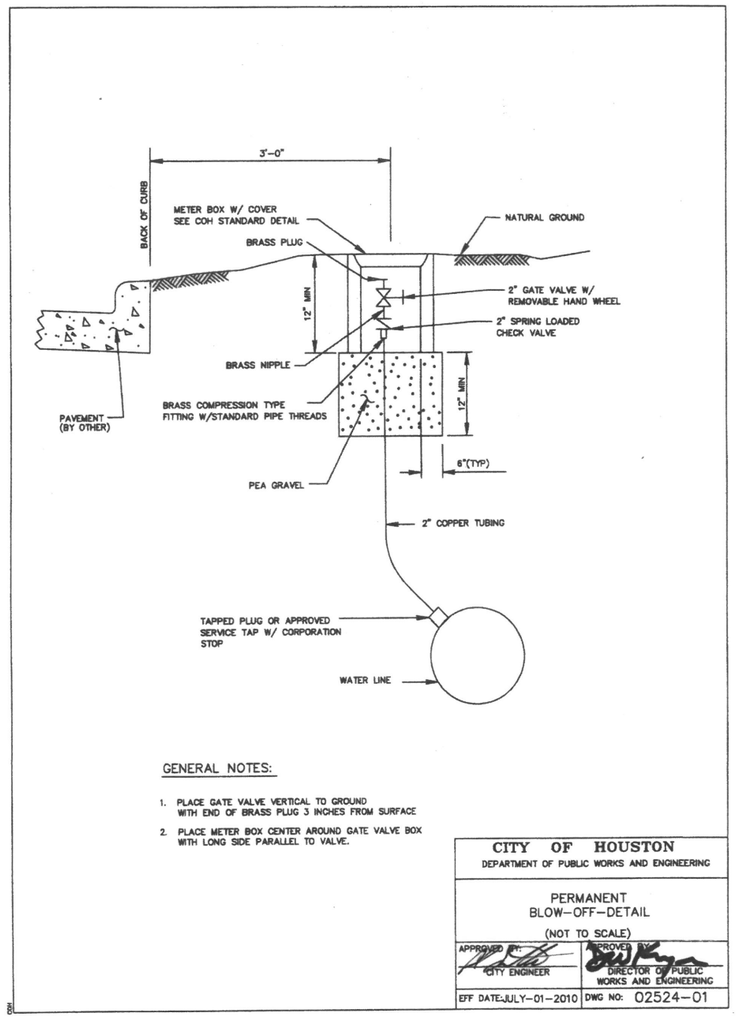
NOTES:
1. LOCATE FIRE HYDRANTS AT POINT OF CURVATURE (PC) OR POINT OF TANGENCY (PT) OF THE INTERSECTION CURB RADIUS, 3 FEET BEHIND CURB OR PROJECTED FUTURE CURB.
2. ON OPEN-DITCH ROADWAYS, SET THE FIRE HYDRANTS WITH IN 5 FEET OF RIGHT-OF-WAY LINES.
3. FIRE HYDRANT STEAMER NOZZLE SHALL FACE THE STREET.
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:
Sehail Kanwaty CITY ENGINEER	DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: JUL-01-2021	DWG NO: 02520-01



GENERAL NOTES:

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

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

PERMANENT BLOW-OFF-DETAIL

(NOT TO SCALE)

APPROVED BY:	APPROVED BY:
CITY ENGINEER	DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE:JULY-01-2010	DWG NO: 02524-01

No.	Date	Revisions	App.

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TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

WATER LINE DETAILS

6 OF 8

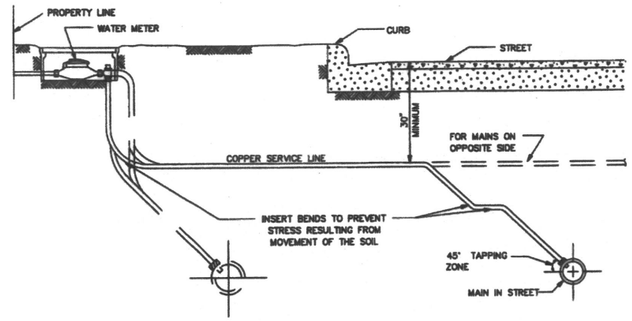
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DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 345 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:39:44 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-WATER DETAILS STANDARDS.DWG

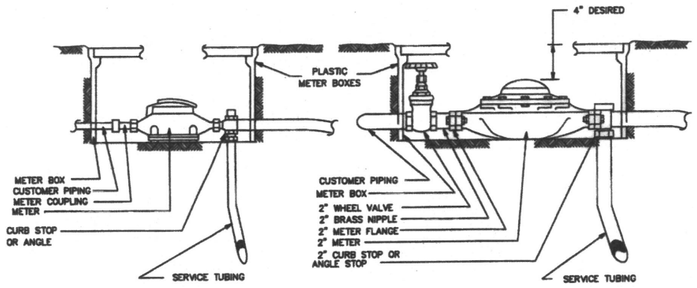
FOR REDUCED PLANS
original scale in inches

NOTES:

1 1/2" METER SET IS SAME AS 2" EXCEPT WHEEL VALVE IS NOT REQUIRED.



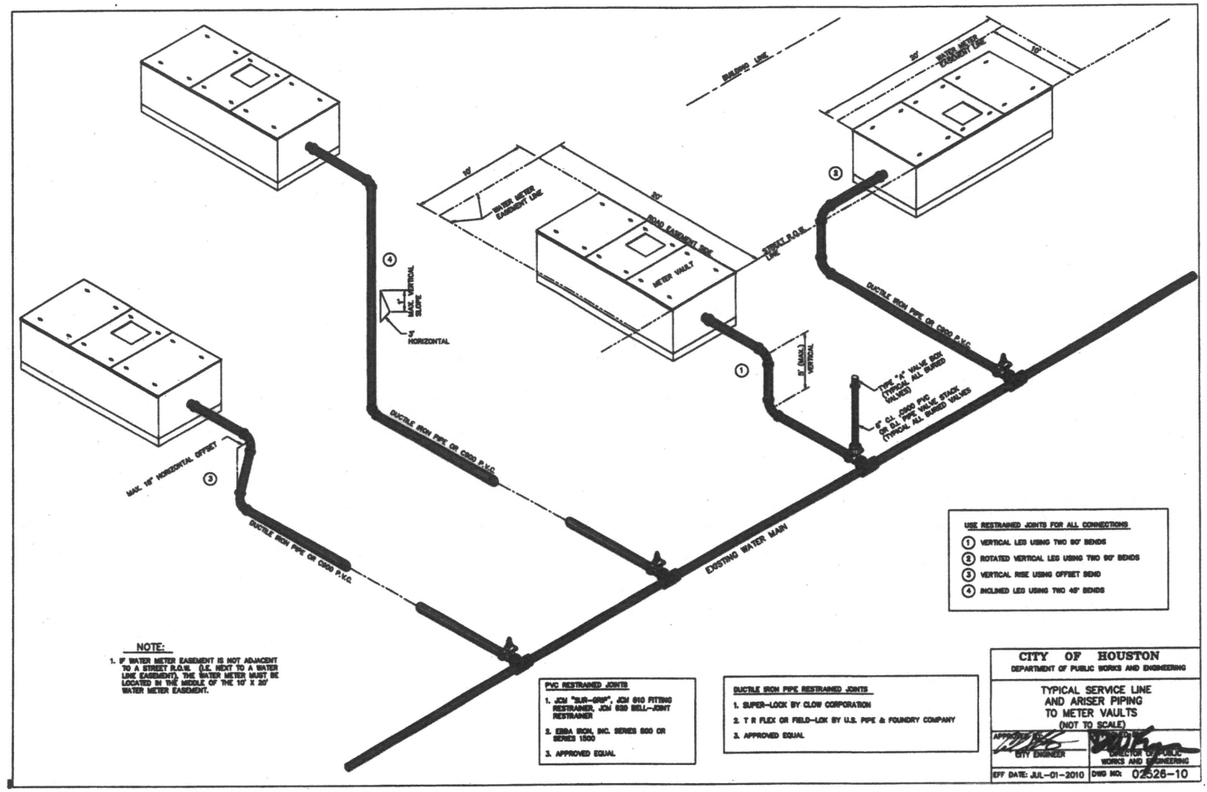
TYPICAL SECTION SERVICE LINE



5/8", 3/4" AND 1" METER SET

2" METER SET

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
TYPICAL METER SETTINGS (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010	DWG NO: 02526-01



USE RESTRAINED JOINTS FOR ALL CONNECTIONS

1. VERTICAL LEG USING TWO 90° BENDS
2. ROTATED VERTICAL LEG USING TWO 90° BENDS
3. VERTICAL RISE USING OFFSET BEND
4. INCLINED LEG USING TWO 45° BENDS

NOTE:

1. IF WATER METER EASEMENT IS NOT ADJACENT TO A STREET R.O.W. (I.E. NEXT TO A WATER LINE EASEMENT), THE WATER METER MUST BE LOCATED IN THE MIDDLE OF THE 10' X 20' WATER METER EASEMENT.

PVC RESTRAINED JOINTS

1. JCM "SUR-GRIP", JCM 610 FITTING RESTRAINER, JCM 620 BELL-JOINT RESTRAINER
2. EBBA IRON, INC. SERIES 600 OR SERIES 1500
3. APPROVED EQUAL

DUCTILE IRON PIPE RESTRAINED JOINTS

1. SUPER-LOCK BY CLOW CORPORATION
2. T R FLEX OR FIELD-LOK BY U.S. PIPE & FOUNDRY COMPANY
3. APPROVED EQUAL

CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
TYPICAL SERVICE LINE AND ARISER PIPING TO METER VAULTS (NOT TO SCALE)	
APPROVED BY: CITY ENGINEER	APPROVED: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010	DWG NO: 02526-10

No.	Date	Revisions	App.

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

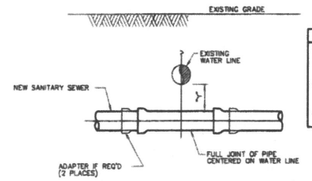
WATERLINE REPLACEMENT IN SECOND WARD

WATER LINE DETAILS

7 OF 8

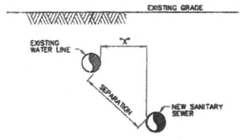
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INSTALLATION REQUIREMENTS
1. IF "Y" IS GREATER THAN 1' AND "Y" IS LESS THAN 5', USE MINIMUM 18 FT JOINT OF PRESSURE-RATED PIPE PER COH STANDARD DRAWING.
2. IF "Y" IS GREATER THAN 5' AND "Y" IS LESS THAN 9', USE GRAVITY SEWER PIPE IN CEMENT-STABILIZED 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

No.	Date	Revisions	App.

FOR REDUCED PLANS
original scale in inches
0 1 2 3

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

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JAG ENGINEERING, INC.
FB NO. : P-6355

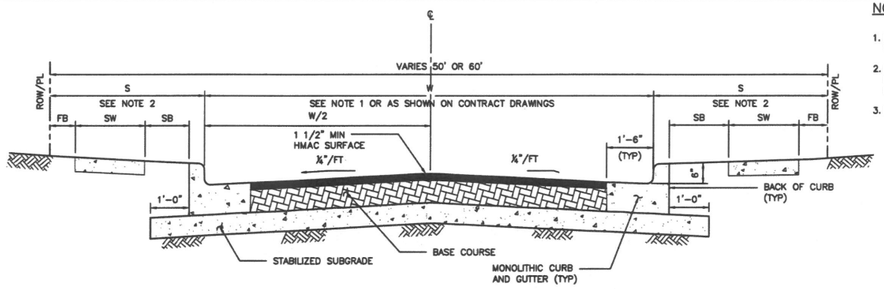
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

WATER LINE DETAILS

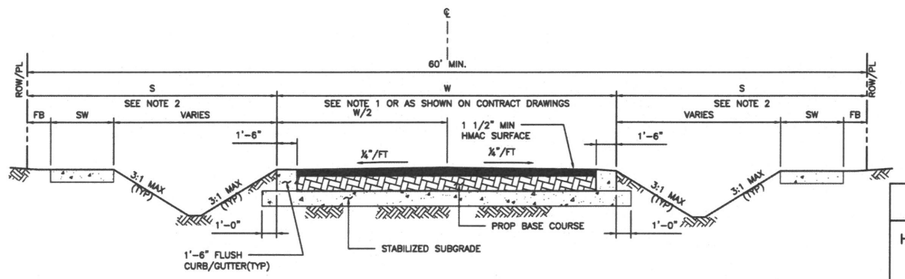
8 OF 8

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S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 347 OF 362	



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)

NOTES:

1. FOR TRAVEL WAY WIDTH (W) REFER TO IDM SECTION 10.3.03.A.
2. REFER TO CONTRACT DRAWINGS FOR "S" DIMENSION (S), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
3. BASE COURSE SHALL BE:
   ALTERNATES:
   A) 6" (MIN) HOT MIX ASPHALTIC CONCRETE.
   B) 8" (MIN) CRUSHED CONCRETE.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

HOT MIX ASPHALTIC CONCRETE PAVEMENT DETAILS

(SCALE: NOT TO SCALE)

APPROVED BY:

Recommended by: Suhail Ibrahimi
SUHAIL IBRAHIMI
CITY ENGINEER

Recommended by: Karen Nguyen
KAREN NGUYEN
CITY TRAFFIC ENGINEER

Recommended by: Carol Haddock
CAROL HADDOCK
DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 02741-01

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SURVEYED BY:
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TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

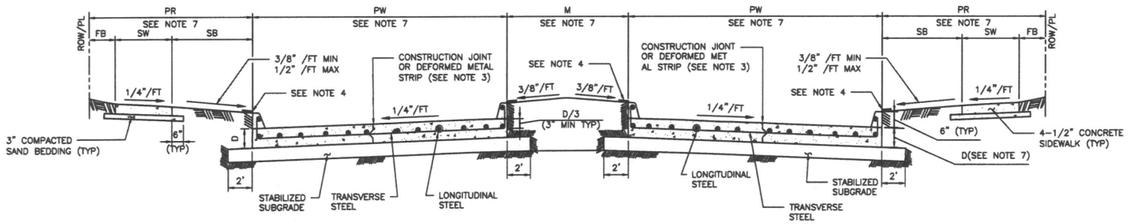
STREET PAVING AND SIDEWALK DETAILS

1 OF 12

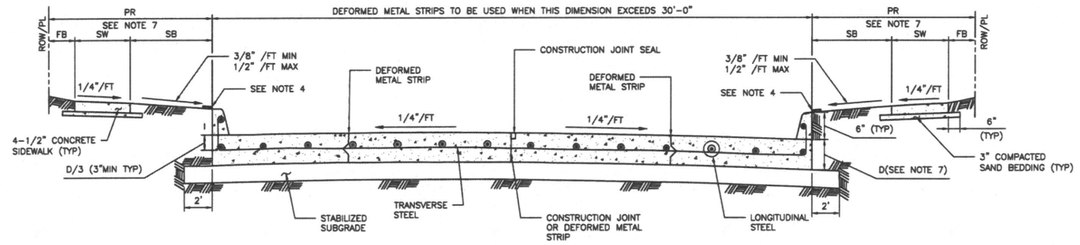
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SHEET NO. 348 OF 362	

FOR REDUCED PLANS
original scale in inches
0 1 2 3

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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
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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.

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APPROVED BY:	APPROVED BY:
Digitally signed by: Suhail Kanawar	Digitally signed by: UYEN NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Digitally signed by: Carol Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02751-01

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

CONCRETE PAVEMENT DETAILS

DRAWING SCALE
NOT TO SCALE

FOR CITY OF HOUSTON USE ONLY

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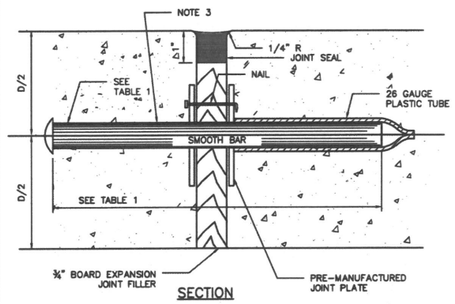
WATERLINE REPLACEMENT IN SECOND WARD
STREET PAVING AND SIDEWALK DETAILS
2 OF 12

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FOR REDUCED PLANS
original scale in inches

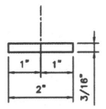
FOR REDUCED PLANS
original scale in inches
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PLOTTED ON: Wednesday, September 23, 2026 10:40:26 AM
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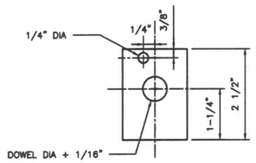
SECTION

DOWEL TYPE EXPANSION JOINT



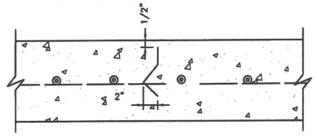
PLAN VIEW

JOINT PLATE



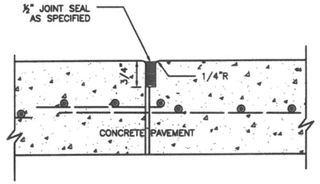
ELEVATION VIEW

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

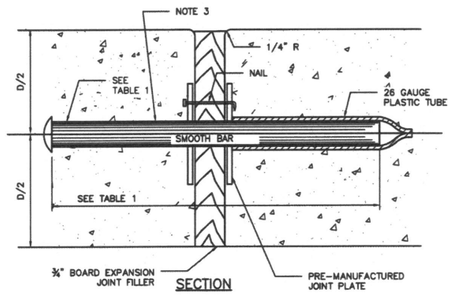
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APPROVED BY:

Sukat kanwar — CITY ENGINEER
KHANG NGUYEN — CITY TRAFFIC ENGINEER
DIRECTOR OF HPW

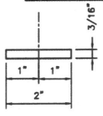
EFF DATE: NOV-27-2023 | DWG NO: 02752-01

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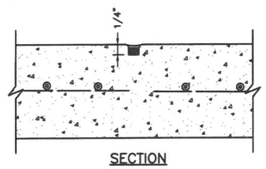
SECTION

DOWEL TYPE EXPANSION JOINT



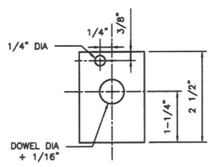
PLAN VIEW

JOINT PLATE



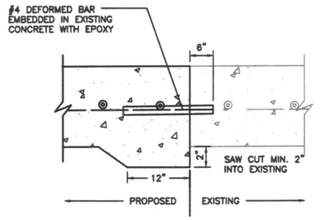
SECTION

CONTROL JOINT



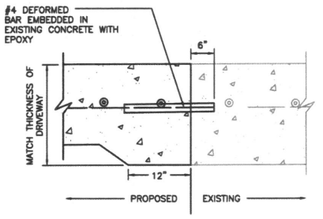
ELEVATION VIEW

JOINT PLATE



SECTION

SIDEWALK TO EXISTING SIDEWALK



SECTION

SIDEWALK TO EXISTING DRIVEWAY

TABLE 1

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

NOTES:

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

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

SIDEWALK EXPANSION AND CONSTRUCTION JOINT DETAILS

(SCALE: NOT TO SCALE)

APPROVED BY:

Sukat kanwar — CITY ENGINEER
KHANG NGUYEN — CITY TRAFFIC ENGINEER
DIRECTOR OF HPW

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

SES HORIZON
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Civil Structural Transportation
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

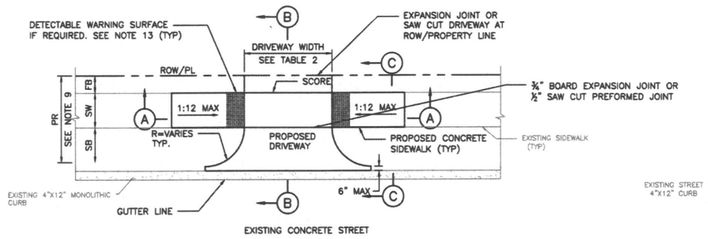
STREET PAVING AND SIDEWALK DETAILS

3 OF 12

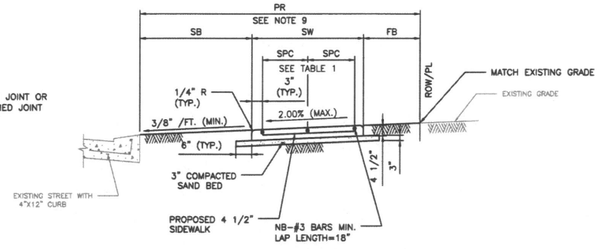
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S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 350 OF 362	

FOR REDUCED PLANS
original scale in inches
0 1 2 3

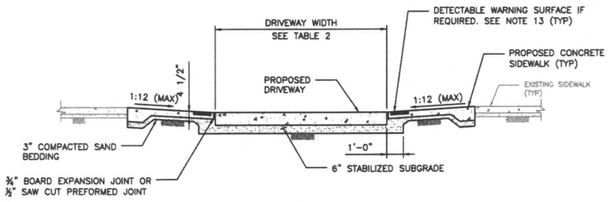
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PLAN VIEW
DRIVEWAY



SECTION C–C
TYPICAL SIDEWALK SECTION

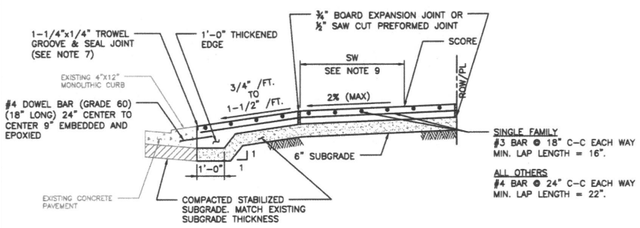


SECTION A–A
PROPOSED SIDEWALK, THROUGH DRIVEWAY WITH EXCESSIVE GRADES

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			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



SECTION B–B
TYPICAL DRIVEWAY SECTION

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(3)	16(3)	4(3)	10(3)	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.

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. IF AVAILABLE ROW IS NOT SUFFICIENT TO ACCOMMODATE SIDEWALK WIDTH (SW) ACCORDING TO IDM REQUIREMENTS, ENGINEER SHALL OBTAIN A VARIANCE FROM THE CITY ENGINEER.
4. DRIVEWAYS SHALL BE 6" THICK FOR SINGLE FAMILY OR DUPLEXES.
5. DRIVEWAYS AND SIDEWALKS SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE AND INCLUDE 5 1/2 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
6. THE OUTER DOWEL BARS ARE TO BE LOCATED 12" FROM END OF PROPOSED EDGE OF DRIVEWAY RETURN. EXTEND DOWEL 3" INCHES INTO PROPOSED DRIVEWAY AND BEND REMAINING BAR TO EXTEND TO RADIUS RETURN BOTH SIDES.
7. TROWEL GROOVE SEALANT SHALL BE LOW MODULUS SILICONE OR POLYURETHANE SEALANT.
8. ALL JOINTS ALONG THE SIDEWALK SHALL BE CONSTRUCTED ACCORDING TO DRAWING 02752-02 AND SPECIFICATION 02752.
9. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
10. CEMENT STABILIZED SAND 1.5 SACKS OF CEMENT PER TON OF DRY SAND.
11. 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.
12. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
13. DETECTABLE WARNING SURFACES:
    - 13.1. SIDEWALK SHALL HAVE A DETECTABLE WARNING SURFACE WHERE:
      - 13.1.1. SIDEWALK INTERSECTS TYPE C DRIVEWAYS (COMMERCIAL DRIVEWAYS) THAT ARE STOP, YIELD OR TRAFFIC SIGNAL CONTROLLED; OR
      - 13.1.2. SIDEWALK SLOPE IS GREATER THAN 1:20 AND INTERSECTS A TYPE C DRIVEWAY (COMMERCIAL DRIVEWAY)
    - 13.2. 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).
    - 13.3. REFER TO STANDARD DETAILS 02775-06 TO 02775-07 FOR DETECTABLE WARNING SURFACE STANDARDS.

APPROVED BY:	APPROVED BY:
Sukut Iswawar	WENG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Carl Pittenbert	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02754-01A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

DRIVEWAY DETAIL WITH 4"x12" CURB FOR LOCAL RESIDENTIAL STREETS

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

STREET PAVING AND SIDEWALK DETAILS

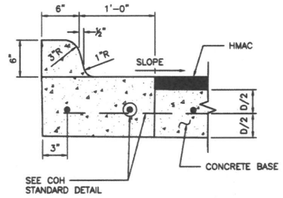
4 OF 12

WBS NUMBER	CITY DWG NO.:
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SHEET NO. 351 OF 362	

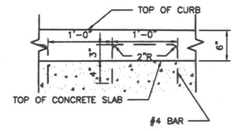
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FOR REDUCED PLANS
original scale in inches

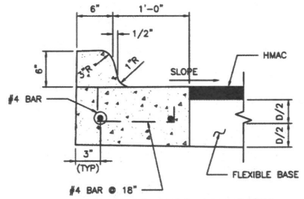
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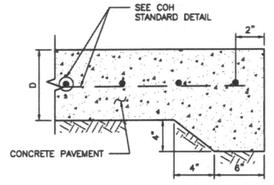
ESPLANADE CURB CONNECTED TO CONCRETE BASE



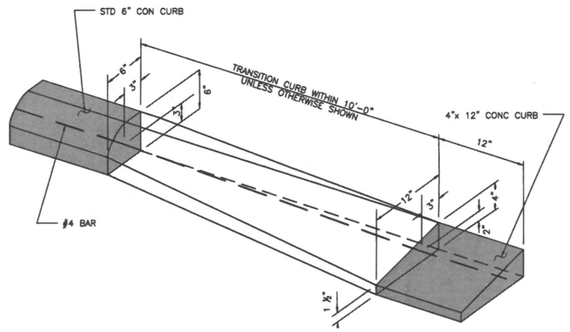
ALTERNATE CONCRETE CURB REINFORCEMENT



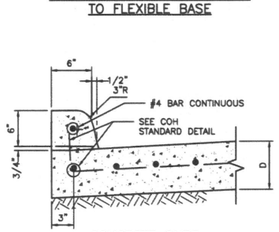
ESPLANADE CURB CONNECTED TO FLEXIBLE BASE



STANDARD CONCRETE PAVING HEADER

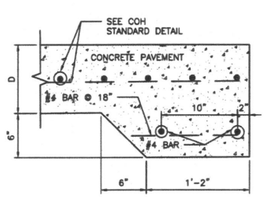


CURB TRANSITION
(SEE NOTES)

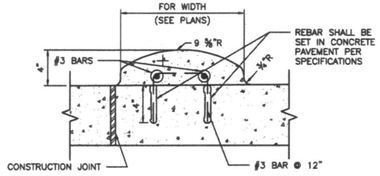


CONCRETE CURB

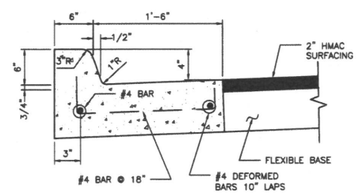
WHEN CONCRETE CURB IS TO BE PLACED EXISTING CONCRETE USE BASE #4 BAR @ 18x10" LONG, DOWELED AND SET IN EPOXY GROUT. SET #4 DOWEL BARS, 25" LONG AT 12" C-C WHEN PAVEMENT SECTION POURED.



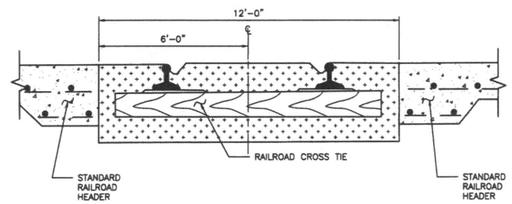
STANDARD RAILROAD HEADER



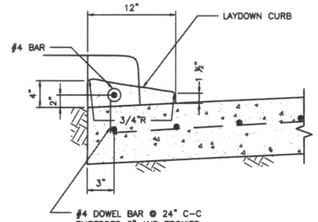
MOUNTABLE CURB



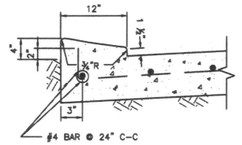
MONOLITHIC CURB AND GUTTER



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.

APPROVED BY:	APPROVED BY:
Sukai Kanwar	HANG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY:	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02771-01

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

CURB, CURB AND GUTTER AND HEADER DETAILS

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FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

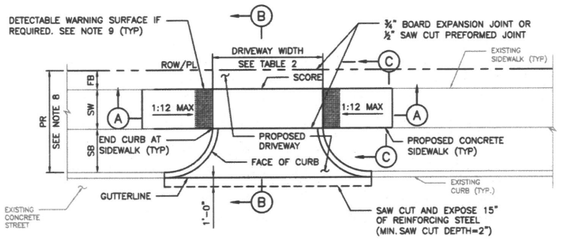
WATERLINE REPLACEMENT IN
SECOND WARD
STREET PAVING AND SIDEWALK DETAILS

5 OF 12

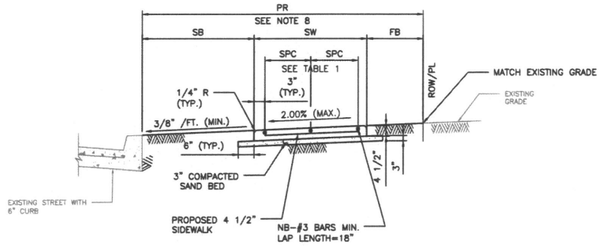
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N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 352 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:40:45 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-STREET PAVING AND SIDEWALK DETAILS STANDARDS.DWG

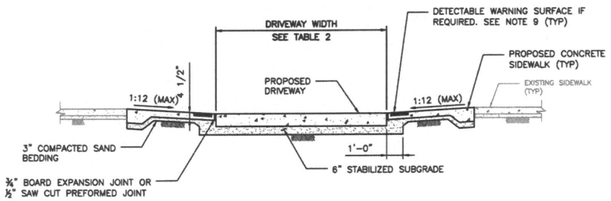
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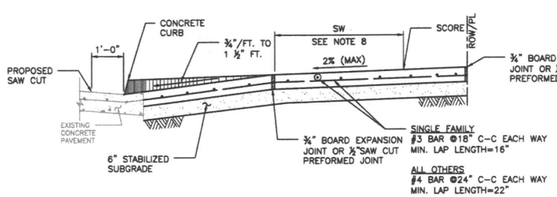
PLAN VIEW
DRIVEWAY



SECTION C–C
TYPICAL SIDEWALK SECTION



SECTION A–A
PROPOSED SIDEWALK THROUGH DRIVEWAY
WITH EXCESSIVE ELEVATION DIFFERENCE
WITH EXISTING SIDEWALK



SECTION B–B
TYPICAL DRIVEWAY SECTION

TABLE 1

REINFORCING STEEL INFORMATION
FOR 4 ½ " THICK SIDEWALKS
EXPANSION JOINT SPACING = 40 FT
f'_c = 3,500 PSI AND f_y = 60,000 PSI
REFER TO CONTRACT DRAWINGS FOR SIDEWALKS WIDER THAN 6 FEET.

SIDEWALK THICKNESS (IN)	SIDEWALK WIDTH (FT)	LONGITUDINAL STEEL			TRANSVERSE STEEL #3 BARS SPACING (IN)
		#3 BARS			
		NO. OF BARS "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(3)	16(3)	4(3)	10(3)	15	20	10	20
TWO-WAY	10(3)	24(4)	4	10	16(3)	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.

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. ALL JOINTS ALONG THE SIDEWALK SHALL BE CONSTRUCTED ACCORDING TO DRAWING 02752–02 AND SPECIFICATION 02752.
4. 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.)
5. DRIVEWAYS AND SIDEWALKS SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE AND INCLUDE 5 1/2 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
6. 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.
7. CURB RAMPS THAT ARE STEEPER THAN A 1:12 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
8. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
9. DETECTABLE WARNING SURFACES:
   - 9.1. SIDEWALK SHALL HAVE A DETECTABLE WARNING SURFACE WHERE:
     - 9.1.1. SIDEWALK INTERSECTS TYPE C DRIVEWAYS (COMMERCIAL DRIVEWAYS) THAT ARE STOP, YIELD, OR TRAFFIC SIGNAL CONTROLLED; OR
     - 9.1.2. SIDEWALK SLOPE IS GREATER THAN 1:20 AND INTERSECTS A TYPE C DRIVEWAY (COMMERCIAL DRIVEWAY)
   - 9.2. 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).
   - 9.3. REFER TO STANDARD DETAILS 02775–06 TO 02775–07 FOR DETECTABLE WARNING SURFACE STANDARDS.

APPROVED BY:	APPROVED BY:
Sukut Kaushal	UYEN NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY:	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV–27–2023	DWG NO: 02754–01B

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

DRIVEWAY DETAIL WITH 6" CURBED STREETS

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NOT TO SCALE

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD
STREET PAVING AND SIDEWALK DETAILS
6 OF 12

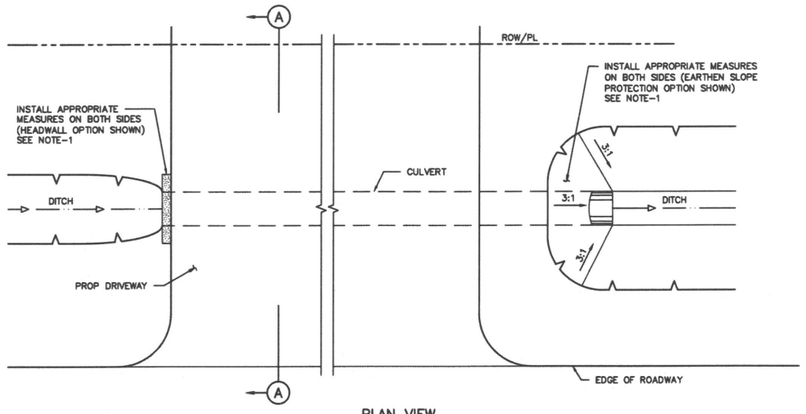
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CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 353 OF 362	

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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 FOR EACH PROJECT IS TO DETERMINE THE 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.

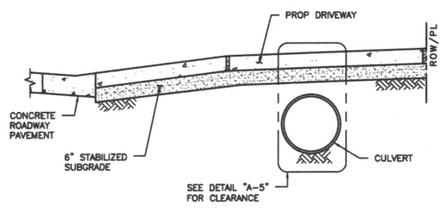
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FOR REDUCED PLANS
original scale in inches
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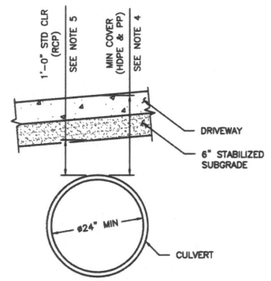
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PLAN VIEW
STANDARD OPEN DITCH DRIVEWAY



SECTION A-A
STANDARD PIPE CULVERT CLEARANCE



DETAIL A-5
CULVERT CLEARANCE

NOTES:

1. PIPE CULVERTS SHALL CONFORM TO CHAPTER 9 DESIGN REQUIREMENTS OF THE INFRASTRUCTURE DESIGN MANUAL AND MATERIAL REQUIREMENTS OF STANDARD CONSTRUCTION SPECIFICATION SECTION 02631.
   - 1.1. INSTALL APPROPRIATE MEASURES (E.G., HEADWALLS, SAFETY END TREATMENTS, RIPRAP, SLOPED PAVING, EARTHEN SLOPE PROTECTION, ETC.) AT BOTH SIDES OF INLET AND OUTLET OF A CULVERT AS REQUIRED.
   - 1.2. CURBED OR FLUSH HEADWALL OR SAFETY END TREATMENT SHALL BE PROVIDED FOR COMMERCIAL DRIVEWAY CULVERTS.
   - 1.3. RIP RAP, SLOPED PAVING AND EARTHEN SLOPE PROTECTION ARE ONLY ALLOWED FOR SINGLE FAMILY RESIDENTIAL DRIVEWAY CULVERTS LOCATED ALONG LOCAL STREETS.
   - 1.4. WHERE EARTHEN SLOPE PROTECTION IS SPECIFIED, FACTORS SUCH AS EROSION CONTROL, SOIL AND PIPE STRENGTH TO CARRY ERRANT VEHICLE LOADS SHALL BE DESIGN CONSIDERATIONS.
   - 1.5. WHERE EARTHEN SLOPES ARE SPECIFIED, THE SLOPE SHALL NOT BE STEEPER THAN 3H:1V. THE PIPE END SHALL EXTEND 2 FT MINIMUM BEYOND THE EDGE OF DRIVEWAY PAVEMENT ON EACH SIDE OF THE DRIVEWAY CULVERT.
2. CULVERT SIZE WILL BE APPROVED BY CITY ENGINEER WITH 24" DIAMETER MINIMUM.
3. DRIVEWAY MATERIAL WITHIN THE RIGHT OF WAY SHALL BE CONCRETE OR ASPHALT.
4. FOR MIN COVER REQUIREMENTS FOR THERMOPLASTIC PIPES (HDPE & PP) REFER TO COH STD DETAIL 02317-10G.
5. FOR RCP WHERE STANDARD 1'-0" CLEARANCE IS NOT FEASIBLE, MINIMUM CLEARANCE OF 6" IS ALLOWED WHEN APPROVED BY THE OFFICE OF THE CITY ENGINEER (OCE).
6. DITCH FLOW LINE DIRECTION DEPICTED IS SHOWN AS AN EXAMPLE AND MAY NOT MATCH SITE SPECIFIC CONDITIONS. REFER TO CONTRACT DRAWINGS FOR FLOW LINE DIRECTION AND ELEVATIONS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

DRIVEWAYS WITH CULVERTS ON OPEN DITCH TYPE STREETS

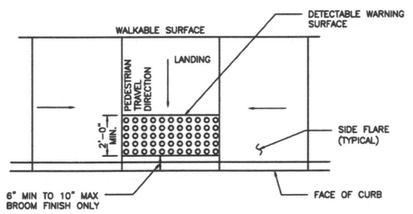
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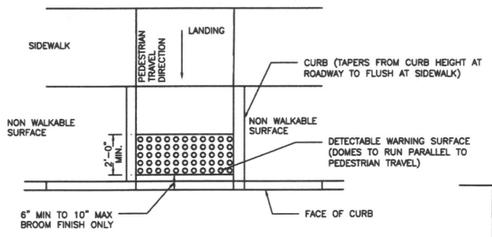
CITY ENGINEER	DIRECTOR OF HPW
CITY TRAFFIC ENGINEER	

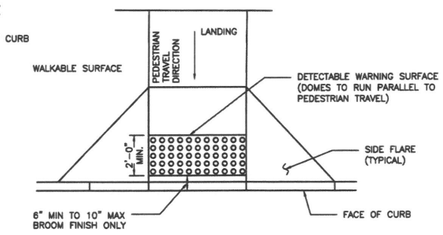
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TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE





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

(SCALE: NOT TO SCALE)

APPROVED BY:

CITY ENGINEER	DIRECTOR OF HPW
CITY TRAFFIC ENGINEER	

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

SES HORIZON
CONSULTING ENGINEERS, INC.
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10101 Southwest Freeway, Suite 400 Houston, Texas 77074
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO.: P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

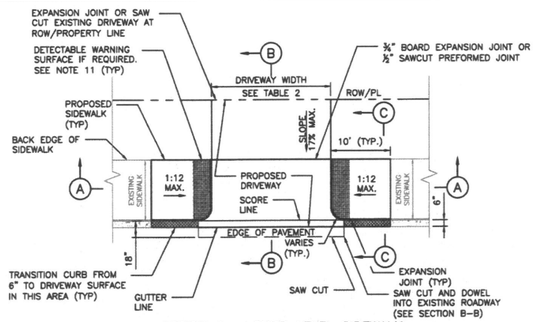
WATERLINE REPLACEMENT IN SECOND WARD

STREET PAVING AND SIDEWALK DETAILS

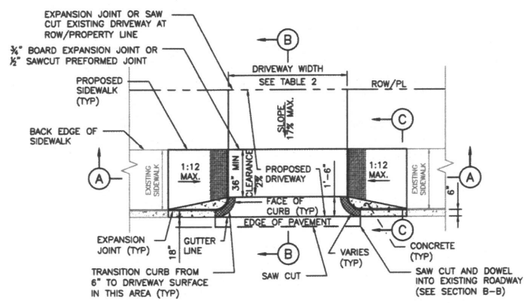
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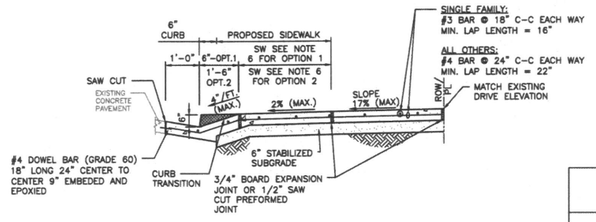
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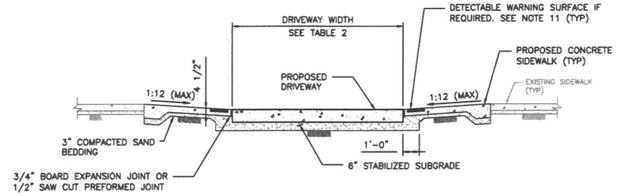
OPTION 1 – CURB LEVEL SIDEWALK
PLAN VIEW – DRIVEWAY WITHOUT CURB AT CURB RETURN



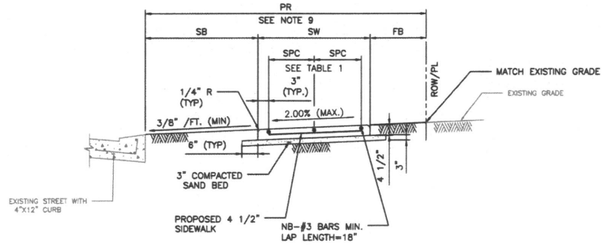
OPTION 2 – CURB LEVEL SIDEWALK
PLAN VIEW – DRIVEWAY WITH CURB AT CURB RETURN



SECTION B–B
TYPICAL DRIVEWAY SECTION THROUGH DRIVEWAY



SECTION A–A
PROPOSED SIDEWALK THROUGH DRIVEWAY



SECTION C–C
TYPICAL SIDEWALK SECTION

TABLE 1

REINFORCING STEEL INFORMATION
FOR 4 ½ " THICK SIDEWALKS
EXPANSION JOINT SPACING = 40 FT
f_c' = 3,500 PSI AND f_y = 60,000 PSI
REFER TO CONTRACT DRAWINGS FOR SIDEWALKS WIDER THAN 6 FEET.

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

TABLE 2

DRIVEWAY DESIGN CRITERIA (1)(2)

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

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.

APPROVED BY:	APPROVED BY:
Sukat Kanwar	Hoang Nguyen
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY:	
Carol Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02754-03

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PROPOSED SIDEWALK THROUGH DRIVEWAY WITH EXCESSIVE ELEVATION DIFFERENCE

DRAWING SCALE
NOT TO SCALE

FOR CITY OF HOUSTON USE ONLY

SES HORIZON CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

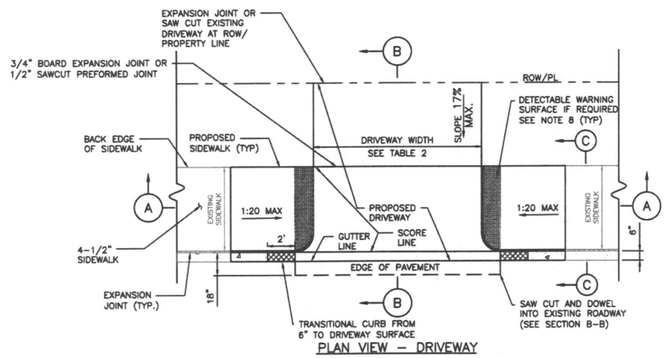
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD
STREET PAVING AND SIDEWALK DETAILS
8 OF 12

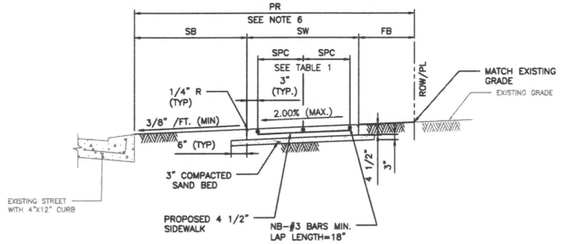
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S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 355 OF 362	

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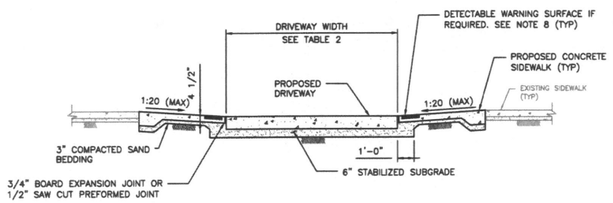
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FOR REDUCED PLANS original scale in inches



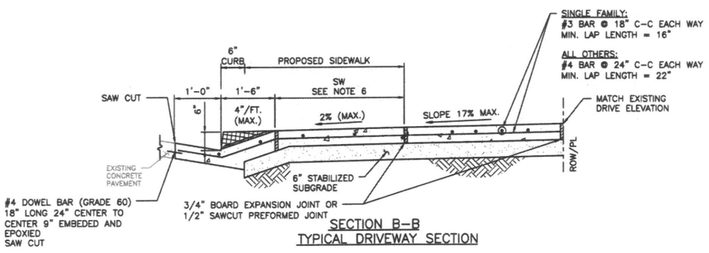
PLAN VIEW – DRIVEWAY



SECTION C–C
TYPICAL SIDEWALK SECTION



SECTION A–A
PROPOSED SIDEWALK THROUGH DRIVEWAY



SECTION B–B
TYPICAL DRIVEWAY 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. 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.
5. CURB RAMPS THAT ARE STEEPER THAN A 1:20 MAX SLOPE WILL NOT BE ACCEPTED BY THE CITY OF HOUSTON.
6. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), SIDEWALK (SW), FRONTAGE BUFFER (FB), AND SAFETY BUFFER (SB) WIDTHS.
7. 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.)
8. DETECTABLE WARNING SURFACES:
   - 8.1. SIDEWALK SHALL HAVE A DETECTABLE WARNING SURFACE WHERE SIDEWALK INTERSECTS TYPE C DRIVEWAYS (COMMERCIAL DRIVEWAYS) THAT ARE STOP, YIELD, OR TRAFFIC SIGNAL CONTROLLED.
   - 8.2. 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).
   - 8.3. 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 #3 BARS			TRANSVERSE STEEL #3 BARS SPACING (IN)
		NO. OF BARS "NB"	SPACING "SPC" (IN)	END BAR SPACING (IN)	
4.5	5	3	27	3	48
4.5	6	4	22	3	48

TABLE 2

DRIVEWAY DESIGN CRITERIA (1)(2)

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

(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.

APPROVED BY:	APPROVED BY:
Signed by: Suhail Kanwar	Signed by: LONG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Signed by: Carol Haddock	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02754-04

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

PROPOSED SIDEWALK THROUGH DRIVEWAY WITH MINIMAL ELEVATION DIFFERENCE

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DRAWING SCALE
NOT TO SCALE

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10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

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SURVEYED BY: JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD
STREET PAVING AND SIDEWALK DETAILS
9 OF 12

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 356 OF 362	

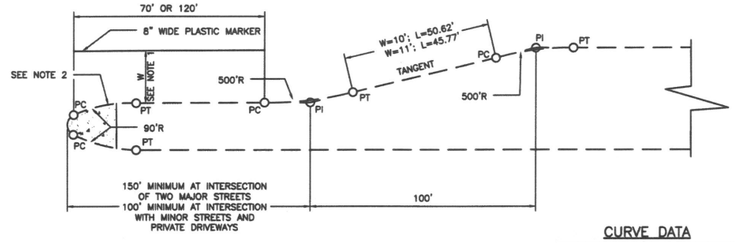
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FOR REDUCED PLANS
original scale in inches

PLOTTED ON: Wednesday, September 23, 2026 10:41:25 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-STREET PAVING AND SIDEWALK DETAILS STANDARDS.DWG

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original scale in inches
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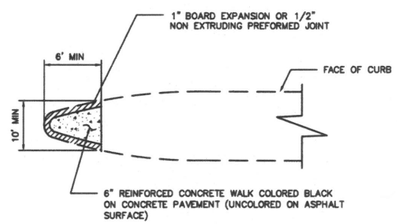
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DETAIL OF LEFT TURN LANE

CURVE DATA

W=10' R=500' Δ = 5°42'38.14" L = 49.83' T=24.94'	W=11' R=500' Δ = 6°16'38.27" L = 54.78' T=27.42'



ESPLANADE NOSE

NOTES:

1. 10 FT FOR 80 FT ROW; 11 FT FOR 100 FT ROW.
2. FOR MEDIANS WITH BULLET NOSE CONFIGURATION, PAINT CURB WITH YELLOW REFLECTORIZED PAINT AROUND THE ESPLANADE NOSE TO THE PT OF THE 90 FT R. FOR MEDIANS WITHOUT BULLET NOSE CONFIGURATION, PAINT CURB FROM PC TO PT AND 30 FT BACK OF PC/PT.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

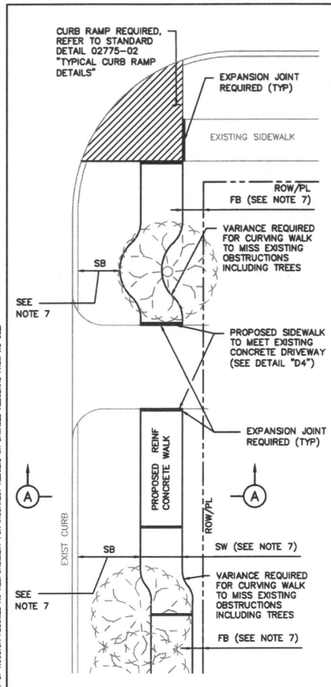
ESPLANADE NOSE AND LEFT TURN DETAILS
(SCALE: NOT TO SCALE)

APPROVED BY:

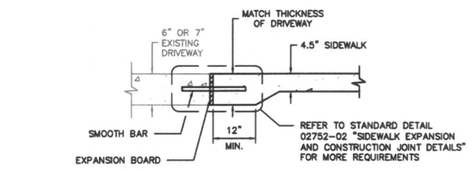
Sylvia Isauwar — CITY ENGINEER
KHANG NGUYEN — CITY TRAFFIC ENGINEER
Carol Haddock — DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 02772-01

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PLAN VIEW

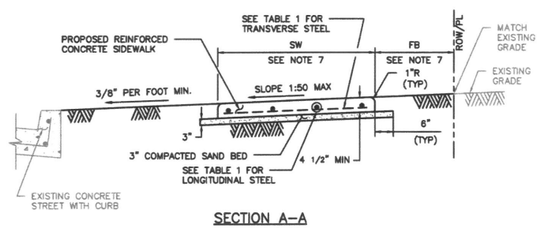


DETAIL D4
DRIVEWAY/SIDEWALK HEADER

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



SECTION A-A

NOTES:

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:

Sylvia Isauwar — CITY ENGINEER
KHANG NGUYEN — CITY TRAFFIC ENGINEER
Carol Haddock — DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 02775-01

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Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

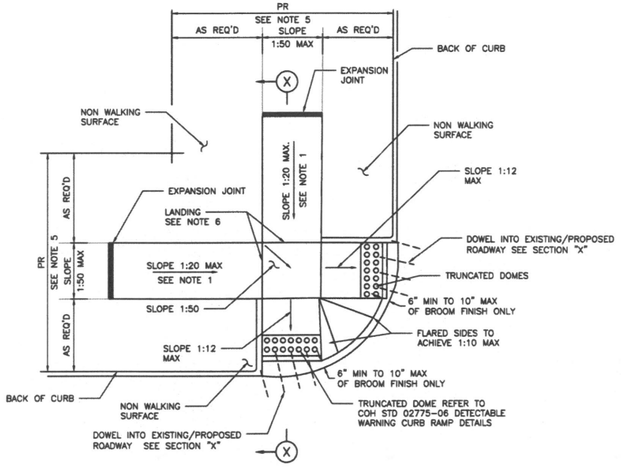
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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

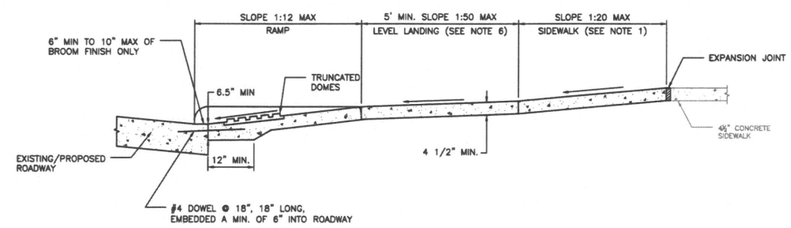
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD
STREET PAVING AND SIDEWALK DETAILS
10 OF 12

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 357 OF 362	



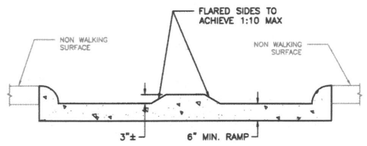
STREETS WITH NON- WALKING SURFACE BEHIND CURB
SEE NOTE-7



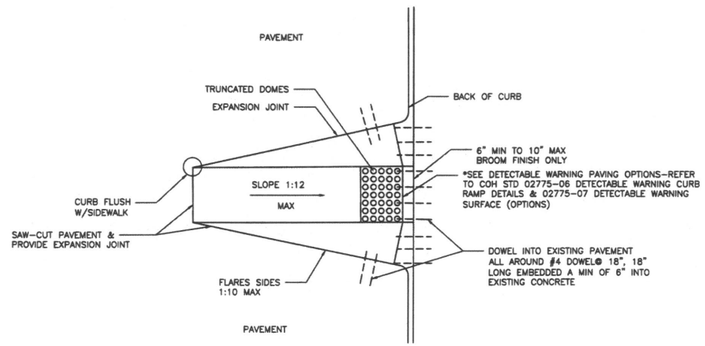
SECTION X-X

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.



ELEVATION
LOOKING UP RAMP



CURB RAMP CONSTRUCTION FOR EXISTING PAVEMENT

APPROVED BY:	APPROVED BY:
Digitally signed by: Sukut kumar	Digitally signed by: UYENG NGUYEN
CITY ENGINEER	CITY TRAFFIC ENGINEER
APPROVED BY: Digitally signed by:	
DIRECTOR OF HOUSTON PUBLIC WORKS	
EFF DATE: NOV-27-2023	DWG NO: 02775-02

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

TYPICAL CURB RAMP DETAILS

	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
NOT TO SCALE	

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CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 87749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN
SECOND WARD
STREET PAVING AND SIDEWALK DETAILS

11 OF 12

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 358 OF 362	

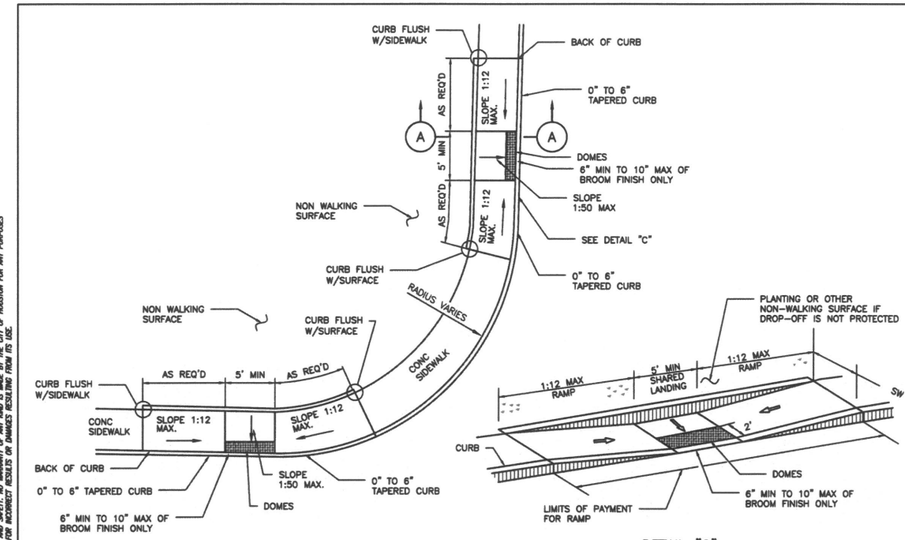
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FOR REDUCED PLANS
original scale in inches
0 1 2 3

PLOTTED ON: Wednesday, September 23, 2026 10:41:45 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-STREET PAVING AND SIDEWALK DETAILS STANDARDS.DWG

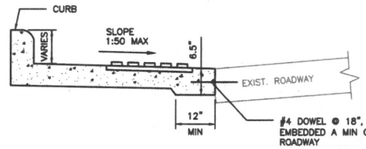
PLOTTED ON: Wednesday, September 23, 2026 10:41:54 AM
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FOR REDUCED PLANS
original scale in inches
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SIDEWALK ON BACK OF CURB

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

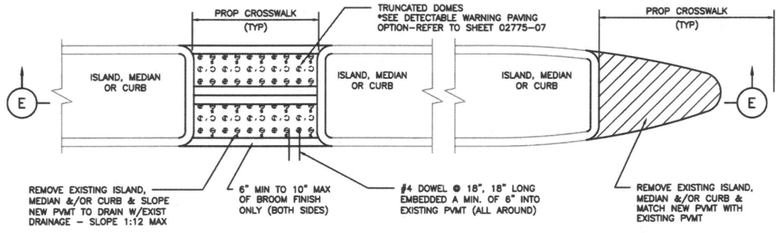
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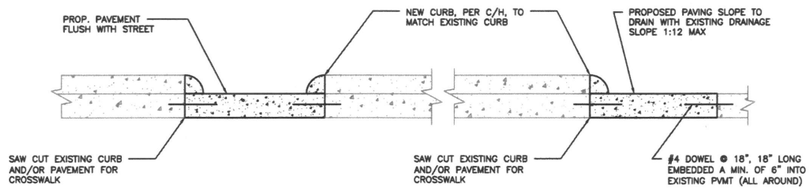
APPROVED BY:

Salad Ibrahim — CITY ENGINEER
KHANG NGUYEN — CITY TRAFFIC ENGINEER
Carol Haddock — DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 02775-03

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

NOTES:

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

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

CURB MODIFICATION FOR CURB RAMPS & CROSSWALKS

(SCALE: NOT TO SCALE)

APPROVED BY:

Salad Ibrahim — CITY ENGINEER
KHANG NGUYEN — CITY TRAFFIC ENGINEER
Carol Haddock — DIRECTOR OF HPW

EFF DATE: NOV-27-2023 | DWG NO: 02775-04

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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-8355

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION BIDDING, OR PERMIT PURPOSES.
EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

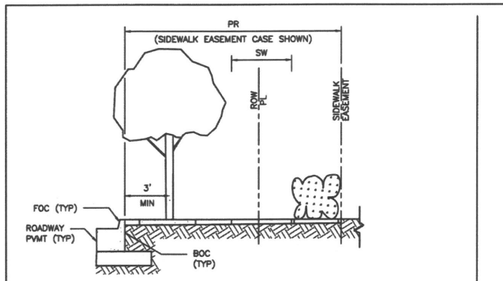
STREET PAVING AND SIDEWALK DETAILS

12 OF 12

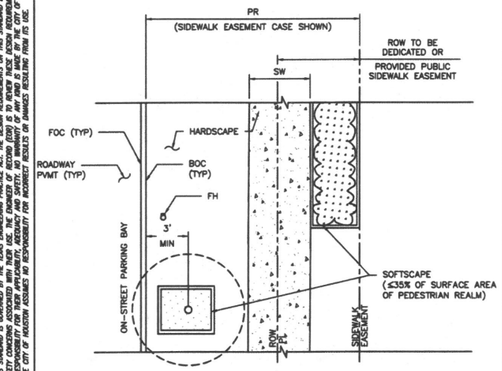
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CITY OF HOUSTON PM	
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SHEET NO. 359 OF 362	

FOR REDUCED PLANS
original scale in inches
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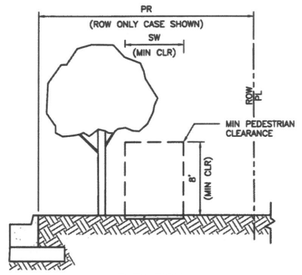
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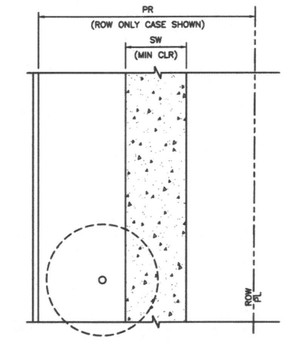
ELEVATION



PLAN
PEDESTRIAN REALM PERFORMANCE STANDARD



ELEVATION



PLAN
SIDEWALK & CLEAR PEDESTRIAN ZONE
MANDATORY MINIMUM REQUIREMENT

NOTES

1. REFER TO CONTRACT DRAWINGS FOR PEDESTRIAN REALM (PR), AND SIDEWALK (SW) WIDTHS.
2. THE MINIMUM UNOBSTRUCTED VERTICAL CLEARANCE OF A SIDEWALK IS EIGHT (8) FEET AS MEASURED VERTICALLY FROM THE SURFACE OF THE SIDEWALK. FOR VERTICAL CLEARANCE TO IMPROVEMENTS CONSTRUCTED OVER A SIDEWALK WITHIN THE PEDESTRIAN REALM, REFER TO THE CONTRACT DRAWINGS.
3. FOR PEDESTRIAN REALM DESIGN BACKGROUND, REFER TO CHAPTER 42 OF THE CODE OF ORDINANCES, ARTICLE IV – ENHANCED PEDESTRIAN REALM STANDARDS AND THE USERS' GUIDE FOR WALKABLE PLACES AND TRANSIT–ORIENTED DEVELOPMENT.
4. FOR ADDITIONAL PLANTING REQUIREMENTS, REFER TO CHAPTER 33 OF THE CODE OF ORDINANCES, SECTION 129 – GENERAL PLANTING STANDARDS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

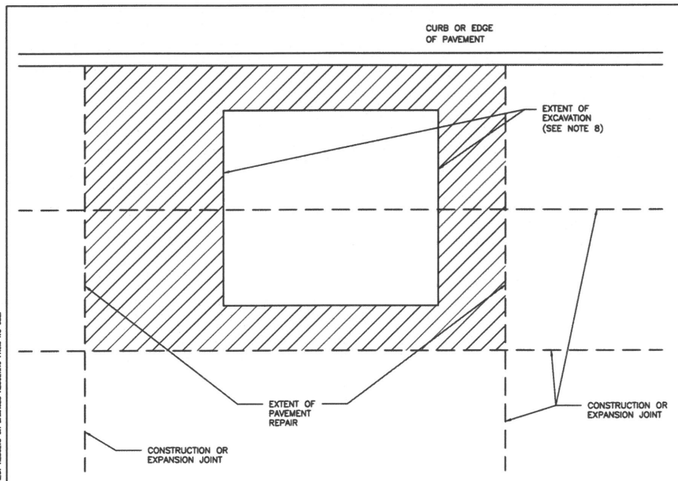
SIDEWALK AND CLEAR ZONE
TRANSIT CORRIDOR STREET
(SCALE: NOT TO SCALE)

APPROVED BY:

Docusigned by: Sulat Ibanwar — CITY ENGINEER
Docusigned by: KHANG NGUYEN — CITY TRAFFIC ENGINEER
Docusigned by: Carol Haddock — DIRECTOR OF HPW

EFF DATE: NOV–27–2023 | DWG NO: 02775–08

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NOTES:

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

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STREET CUT FOR CONCRETE PAVEMENT REPLACEMENT/RESTORATION AGE OF PAVEMENT ≤ 5YRS
(SCALE: NOT TO SCALE)

APPROVED BY:

Docusigned by: Sulat Ibanwar — CITY ENGINEER
Docusigned by: KHANG NGUYEN — CITY TRAFFIC ENGINEER
Docusigned by: Carol Haddock — DIRECTOR OF HPW

EFF DATE: NOV–27–2023 | DWG NO: 02951–01

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10101 Southwest Freeway, Suite 400 Houston, Texas 77074
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SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

STREET CUT DETAILS

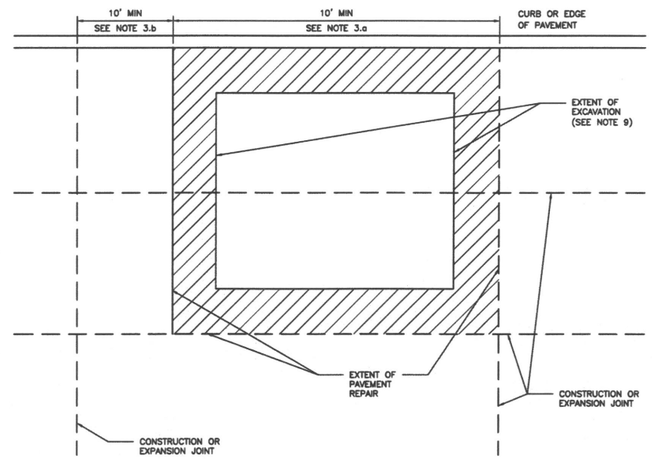
1 OF 3

WBS NUMBER	CITY DWG NO.:
S–000035–0312–4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 360 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:42:06 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-STREET CUT REPAIR.DWG

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original scale in inches
0 1 2 3

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NOTES:

1. EXTENT OF PAVEMENT REPAIR SHALL BE PERPENDICULAR AND PARALLEL TO TRAVEL WAY.
2. WIDTH:
   REPLACE PANEL WIDTH TO NEAREST CONSTRUCTION OR EXPANSION JOINT BEYOND EDGE OF EXCAVATION.
3. LENGTH:
   a. MINIMUM LENGTH OF PAVEMENT REPAIR ALONG TRAVEL WAY IS 10' FROM THE NEAREST JOINT.
   b. IF EXTENT OF PAVEMENT REPAIR IS LESS THAN 10' FROM EXISTING CONSTRUCTION OR EXPANSION JOINT, EXTEND PAVEMENT REPAIR TO EXISTING JOINT.
4. SAW CUT AND EXPOSE 15" OF REINFORCING STEEL AROUND EDGE OF PANEL REPLACEMENT. PROVIDE HORIZONTAL DOWELS (PER SPECIFICATION SECTION 02951–PAVEMENT REPAIR AND RESTORATION) IF REINFORCING IS BROKEN OFF OR DOES NOT EXIST.
5. REPLACE CURB WHEN ADJACENT LANE IS REPLACED.
6. MAINTAIN EXPANSION JOINTS AT EXISTING LOCATIONS UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
7. SPECIALTY PAVEMENTS (IE: BRICK PAVERS) TO BE REPLACED WITH MATCHING PAVEMENT IN ALL CASES.
8. REPLACE PAVEMENT MARKINGS IN ACCORDANCE WITH CITY OF HOUSTON STANDARD SPECIFICATIONS 02764–RAISED PAVEMENT MARKERS AND 02767–THERMOPLASTIC PAVEMENT MARKINGS.
9. EXTENT OF EXCAVATION INCLUDES 18" OVERCUT AS SHOWN ON STANDARD DETAIL 02951–04 PAVEMENT REPAIR DETAIL FOR STREET CUTS (FLEX–BASE PAVEMENT & CONCRETE PAVEMENT).

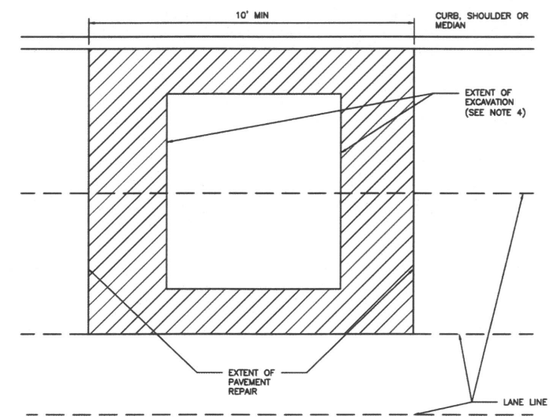
CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

STREET CUT FOR CONCRETE PAVEMENT REPLACEMENT/RESTORATION AGE OF PAVEMENT > 5YRS
(SCALE: NOT TO SCALE)

APPROVED BY:

Digitally signed by Sukut Bamwar — CITY ENGINEER	Digitally signed by Carol Haddock — DIRECTOR OF HPW
Digitally signed by HIEN NGUYEN — CITY TRAFFIC ENGINEER	
EFF DATE: NOV–27–2023	DWG NO: 02951–02

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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:

Digitally signed by Sukut Bamwar — CITY ENGINEER	Digitally signed by Carol Haddock — DIRECTOR OF HPW
Digitally signed by HIEN NGUYEN — CITY TRAFFIC ENGINEER	
EFF DATE: NOV–27–2023	DWG NO: 02951–03

SES HORIZON
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

STREET CUT DETAILS

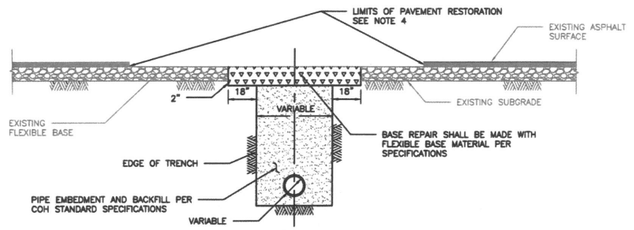
2 OF 3

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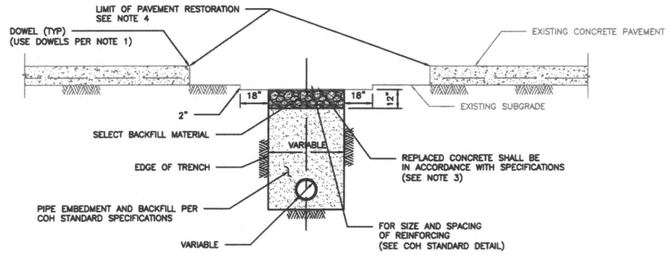
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original scale in inches

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE GENERALLY ACCEPTED ENGINEERING PRACTICE AND THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY PROBLEMS ASSOCIATED WITH ITS USE. IT IS THE RESPONSIBILITY OF THE USER OF THIS STANDARD TO ESTABLISH APPROPRIATE SAFETY AND HEALTH PRACTICES AND DETERMINE THE APPLICABILITY OF REGULATORY LIMITATIONS BEFORE ITS USE. ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ACCURACY 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.



ELEVATION A
REPAIR OF FLEXIBLE BASE PAVEMENT



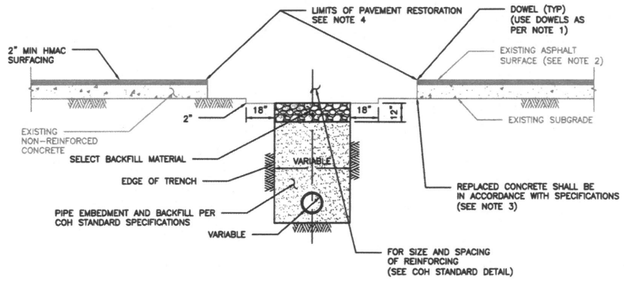
ELEVATION B
REPAIR OF REINFORCED CONCRETE PAVEMENT

NOTES:

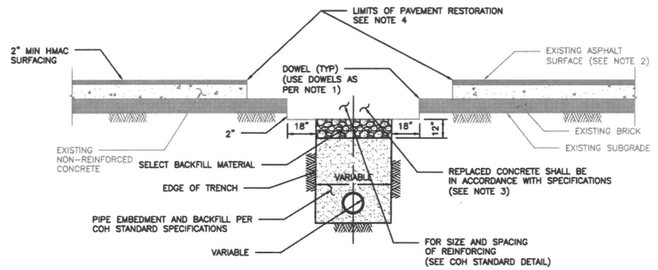
1. EXPOSE 15" OF REINFORCING STEEL AT PROPOSED SAWED JOINT. IF NO REINFORCING STEEL EXISTS, USE HORIZONTAL DOWELS. HORIZONTAL DOWELS SHALL BE #6 BAR, 24" LONG, 24" C-C, DRILLED AND EMBEDDED 8" INTO THE CENTER OF THE EXISTING SLAB. WITH "PO ROC" OR EQUAL.
2. IF REINFORCED CONCRETE IS OVERLAYED WITH ASPHALT, 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: Sukut kanwar CITY ENGINEER DocuSigned by: UYENG NGUYEN CITY TRAFFIC ENGINEER	DocuSigned by: Carol Haddock DIRECTOR OF HPW
EFF DATE: NOV-27-2023	DWG NO: 02951-04

DISCLAIMER:
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ELEVATION C
REPAIR OF NON-REINFORCED CONCRETE PAVEMENT



ELEVATION D
REPAIR OF NON-REINFORCED CONCRETE PAVEMENT WITH BRICK

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 REPLACE WITH SAME THICKNESS OF HMAC SURFACING.
3. REFER TO STANDARD DETAIL 02751-01 FOR REINFORCING STEEL REQUIREMENT
4. REFER TO STANDARD DETAILS 02951-01 THROUGH 03 FOR PAVEMENT RESTORATION LIMITS.

CITY OF HOUSTON HOUSTON PUBLIC WORKS STANDARD	
PAVEMENT REPAIR DETAIL FOR STREET CUTS (NON-REINFORCED CONCRETE & BRICK PAVEMENT) (SCALE: NOT TO SCALE)	
APPROVED BY:	
DocuSigned by: Sukut kanwar CITY ENGINEER DocuSigned by: UYENG NGUYEN CITY TRAFFIC ENGINEER	DocuSigned by: Carol Haddock DIRECTOR OF HPW
EFF DATE: NOV-27-2023	DWG NO: 02951-05

SES HORIZON
CONSULTING ENGINEERS, INC.
Civil Structural Transportation
10101 Southwest Freeway, Suite 400 Houston, Texas 77074
(713) 988-5504, Fax (713) 988-1441 www.seshorizon.com

SES HORIZON CONSULTING ENGINEERS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-003922

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EPIFANIO E. SALAZAR JR., P.E.
TEXAS SERIAL NO. 67749
DATE: Sep-26

SURVEYED BY:
JAG ENGINEERING, INC.
FB NO. : P-6355

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

WATERLINE REPLACEMENT IN SECOND WARD

STREET CUT DETAILS

3 OF 3

WBS NUMBER	CITY DWG NO.:
S-000035-0312-4	
DRAWING SCALE	
N.T.S.	
CITY OF HOUSTON PM	
UYEN NGUYEN	
SHEET NO. 362 OF 362	

PLOTTED ON: Wednesday, September 23, 2026 10:42:25 AM
FILE NAME: F:\ON-CALL-WLP-2026\WLP-SECOND WARD\CAD\STD\WLP-SECOND WARD-STREET CUT REPAIR.DWG