

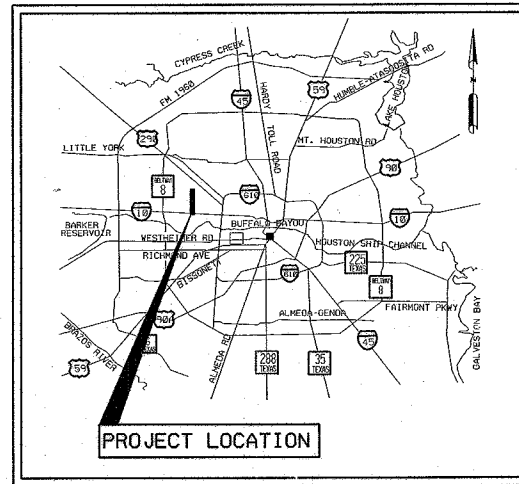
# MEMORIAL CITY REDEVELOPMENT AUTHORITY

## BUNKER HILL ROAD IMPROVEMENTS I-10 TO LONGPOINT ROAD

### CITY OF HOUSTON

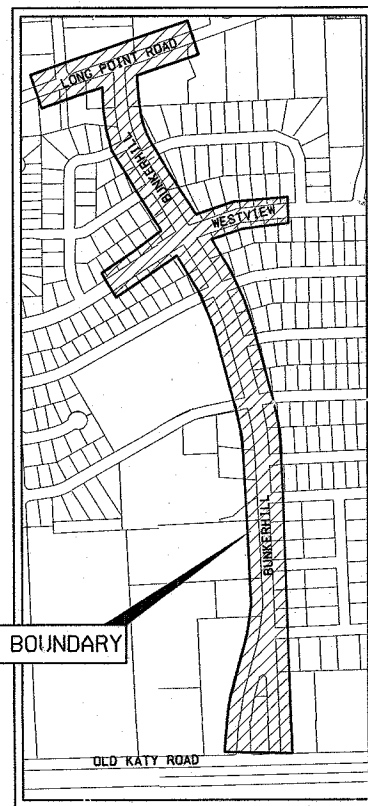
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
ENGINEERING AND CONSTRUCTION DIVISION

WBS NO. N-000767-0001-4



LOCATION MAP  
NTS

KEY MAP\* 490B, 450X  
GIMS\* 4958B, 5058A, 5058C



VICINITY MAP  
NTS

KEY MAP\* 490B, 450X  
GIMS\* 4958B, 5058A, 5058C



MAYOR  
BILL WHITE

CONTROLLER  
ANNISE D. PARKER

#### DISTRICT COUNCIL MEMBERS

TONI LAWRENCE DISTRICT A	JARVIS JOHNSON DISTRICT B	ANNE CLUTTERBUCK DISTRICT C
ADA EDWARDS DISTRICT D	ADDIE WISEMAN DISTRICT E	M. J. KHAN, P.E. DISTRICT F
PAM HOLM DISTRICT G	ADRIAN GARCIA DISTRICT H	CAROL ALVARADO DISTRICT I

#### COUNCIL MEMBERS AT-LARGE

PETER H. BROWN POSITION 1	SUE LOVELL POSITION 2
MELISSA NORIEGA POSITION 3	RONALD C. GREEN POSITION 4
MICHAEL BERRY POSITION 5	

**Bidding Purposes Only**  
Not for Construction

TCB | AECOM

TCB, INC.  
5787 WOODWAY  
HOUSTON, TEXAS 77057  
WWW.TCB.AECOM.COM



SURVEYED BY: UNITED ENGINEERS, INC.

WATER \_\_\_\_\_

CONSTRUCTION \_\_\_\_\_

WASTEWATER \_\_\_\_\_

TRAFFIC AND TRANSPORTATION \_\_\_\_\_

STORM WATER \_\_\_\_\_

SPONSOR DEPARTMENT \_\_\_\_\_

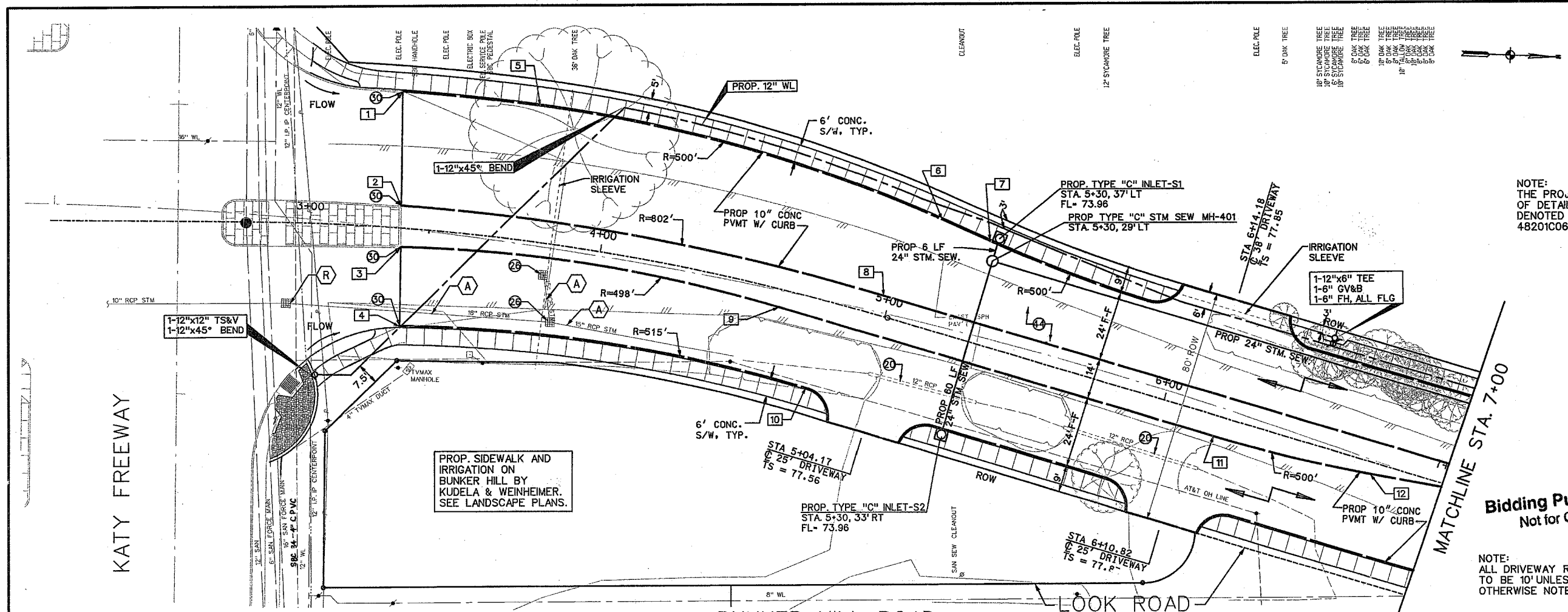
STREET & BRIDGE \_\_\_\_\_

CHIEF ENGINEER \_\_\_\_\_

CITY ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

DIRECTOR OF PUBLIC WORKS AND ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_

SHEET NO 1 OF 146 SHEETS

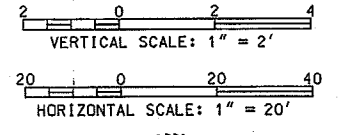


**PROJECT BENCHMARK**  
 (TSARP) HARRIS COUNTY FLOODPLAIN  
 REFERENCE MARK NUMBER 210275  
 FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
 RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
 HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
 ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
 TRAVERSE PT. #1  
 1/2" IRON ROD W/CAP  
 STA. 4+28.09 159.86' RT. BL. "A"  
 NORTHING: 13849475.13  
 EASTING: 3068633.50  
 ELEV. 79.04'

NOTE:  
 THE PROJECT AREA IS OUTSIDE OF THE LIMITS  
 OF DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
 DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
 48201C0645L (EFFECTIVE JUNE 18, 2007)

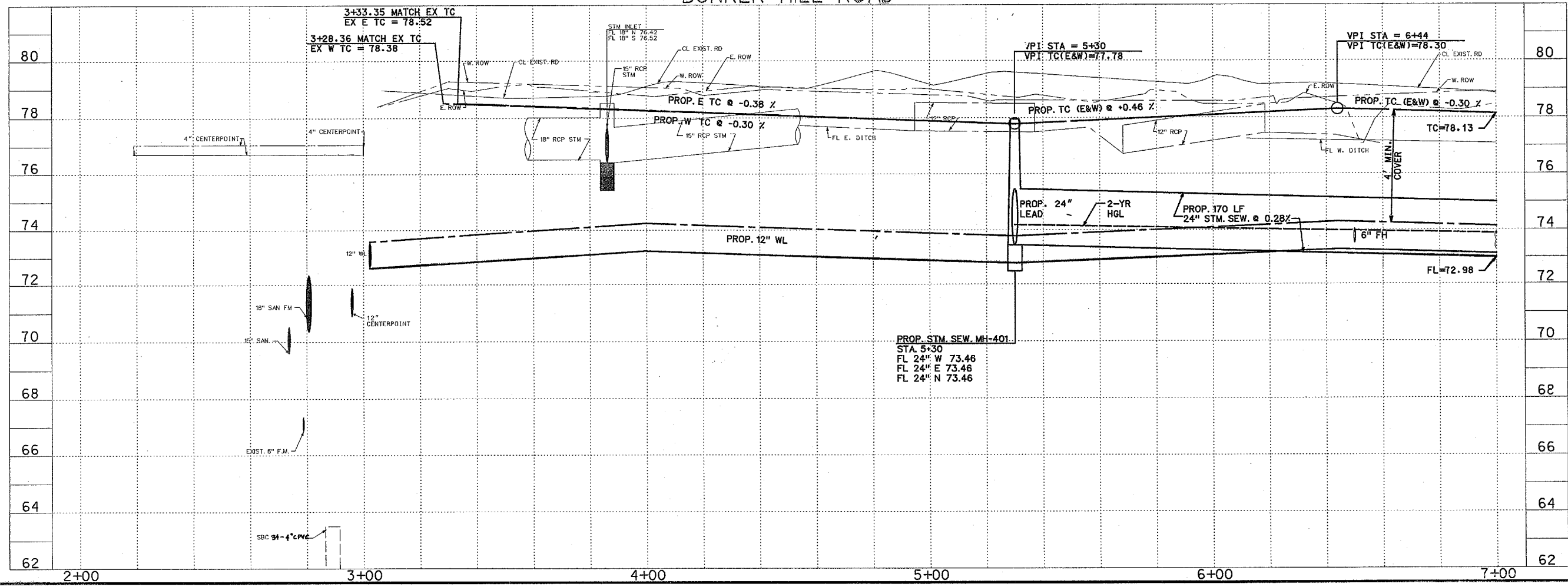
PAVEMENT STATION AND OFFSETS			
NO.	DESCRIP.	STATION	TC ELEV.
1	PC	3+28.36	47.54' LT.
2	PC	3+30.68	7.77' LT.
3	PCC	3+31.58	6.47' RT.
4	PCC	3+33.35	33.38' RT.
5	PCC	3+73.08	47.21' LT.
6	PT	5+09.32	37.64' LT.
7	PC	5+27.07	35.29' LT.
8	PT	4+98.82	7.01' LT.
9	PT	4+84.18	6.15' RT.
10	PT	4+80.39	30.74' RT.
11	PC	6+19.70	7.00' RT.
12	PT	6+74.80	3.95' RT.



**Bidding Purposes Only**  
 Not for Construction



NOTE:  
 ALL DRIVEWAY RADII  
 TO BE 10' UNLESS  
 OTHERWISE NOTED



<b>TCB   AECOM</b>	TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 WWW.TCB.AECOM.COM
Approved _____	QUALITY CONTROL Date _____
<b>NOTICE:</b>	
AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4667.	
<b>PRIVATE UTILITIES LINES SHOWN</b>	
CENTERPOINT ENERGY/ELECTRIC FACILITIES (APPROVED ONLY FOR CROSSING UNDERGROUND DUCTLINES. UNLESS NOTED, VALID AT TIME OF REVIEW ONLY.) DATE: 11/13/07	
SBC APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY. SIGNATURE VALID FOR ONE YEAR. DATE: 11-28-07	
CENTERPOINT ENERGY/GAS FACILITIES (GAS SERVICE LINES ARE NOT SHOWN.) DATE: 11/13/07	
TC B INC. 5757 WOODWAY HOUSTON, TEXAS 77057 713.780.4100 tel. 713.780.0838 fax.	
SURVEYED BY: U.E.I. FB NO. P-5392	
<b>CITY OF HOUSTON</b>	
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
<b>BUNKER HILL ROAD IMPROVEMENTS</b>	
<b>PLAN &amp; PROFILE FROM 2+00 TO STA. 7+00</b>	
WBS NO. N-000767-0001-4	
DRAWING SCALE	
V - " = 2'	
H - " = 40'	
CITY OF HOUSTON PM	
AZAR A. HADIAN	
SHEET NO. 26 OF 146	

FILENAME: P:\60025130 BH Phase I\9.0 Cadd\N\RP\p01.dgn

- 8" OAK TREE
- 6" OAK TREE
- 4" OAK TREE
- 12" OAK TREE
- 18" OAK TREE
- 24" OAK TREE
- 30" OAK TREE
- 36" OAK TREE
- 42" OAK TREE
- 48" OAK TREE
- 54" OAK TREE
- 60" OAK TREE
- 66" OAK TREE
- 72" OAK TREE
- 78" OAK TREE
- 84" OAK TREE
- 90" OAK TREE
- 96" OAK TREE
- 102" OAK TREE
- 108" OAK TREE
- 114" OAK TREE
- 120" OAK TREE
- 126" OAK TREE
- 132" OAK TREE
- 138" OAK TREE
- 144" OAK TREE
- 150" OAK TREE
- 156" OAK TREE
- 162" OAK TREE
- 168" OAK TREE
- 174" OAK TREE
- 180" OAK TREE
- 186" OAK TREE
- 192" OAK TREE
- 198" OAK TREE
- 204" OAK TREE
- 210" OAK TREE
- 216" OAK TREE
- 222" OAK TREE
- 228" OAK TREE
- 234" OAK TREE
- 240" OAK TREE
- 246" OAK TREE
- 252" OAK TREE
- 258" OAK TREE
- 264" OAK TREE
- 270" OAK TREE
- 276" OAK TREE
- 282" OAK TREE
- 288" OAK TREE
- 294" OAK TREE
- 300" OAK TREE

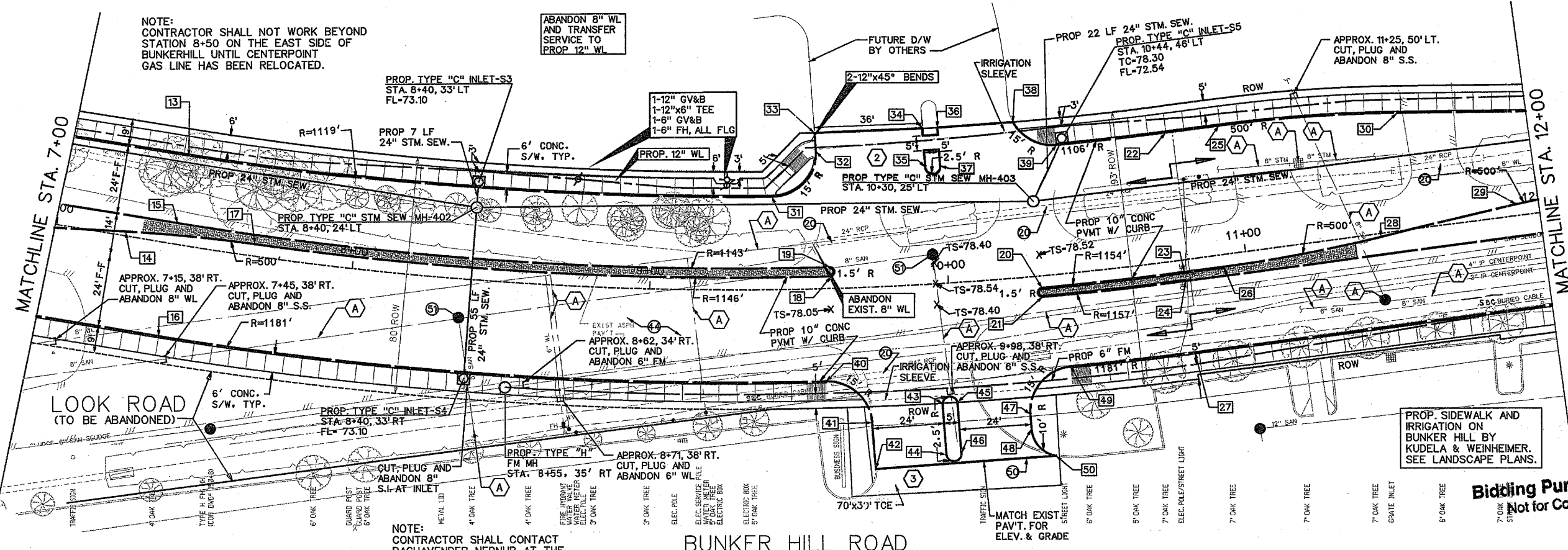
NOTE:  
ALL DRIVEWAY RADII  
TO BE 10' UNLESS  
OTHERWISE NOTED

**PROJECT BENCHMARK**  
(TSARP) HARRIS COUNTY FLOODPLAIN  
REFERENCE MARK NUMBER 210275  
FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
TRAVERSE PT. #12  
60D NAIL IN NATURAL GROUND  
STA. 7+25.98 78.15' RT. BL. "A"  
NORTHING: 13849770.30  
EASTING: 3086622.10  
ELEV. 78.30'

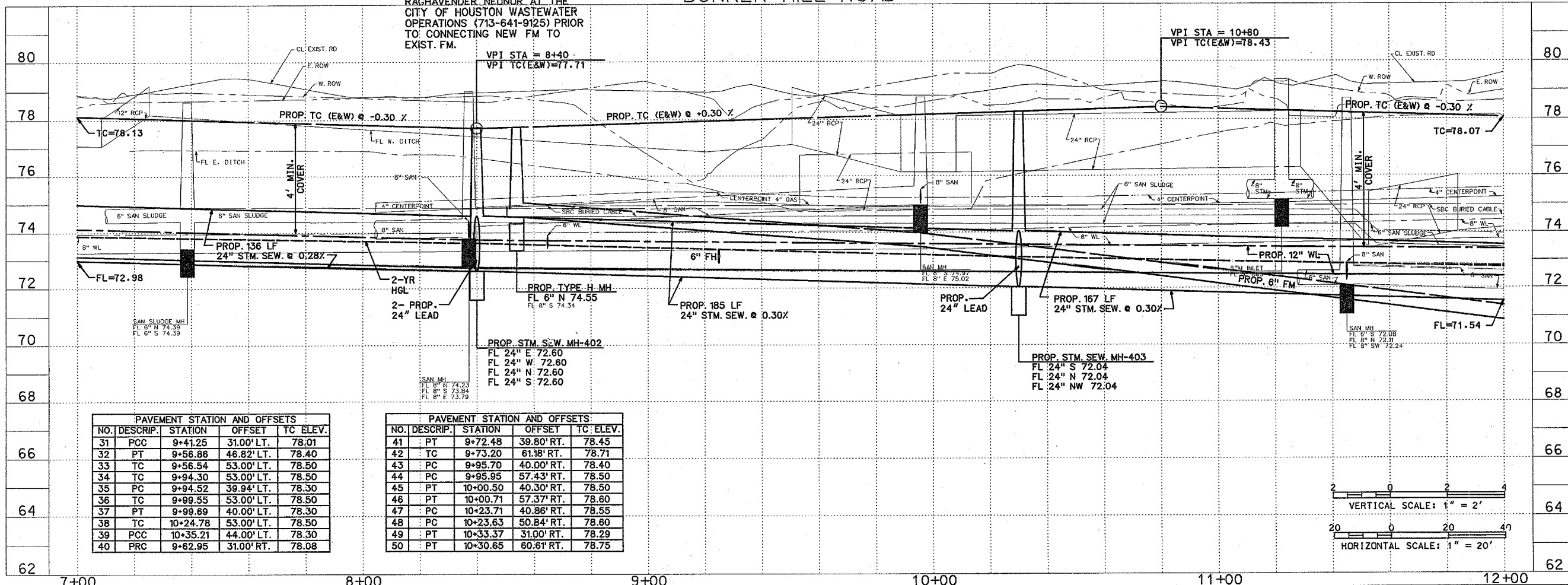
NOTE:  
THE PROJECT AREA IS OUTSIDE OF  
THE LIMITS OF DETAILED STUDY FOR  
THE FEMA FLOODPLAIN, IT IS DENOTED  
AS ZONE X ON THE FEMA FIRM PANEL  
48201C0645L (EFFECTIVE JUNE 18, 2007)

PAVEMENT STATION AND OFFSETS				
NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
13	PC	7+39.74	31.00' LT.	78.01
14	PC	7+23.12	1.40' LT.	78.71
15	PC	7+39.74	7.00' LT.	78.49
16	PC	7+39.74	31.00' RT.	78.01
17	PT	7+66.63	4.00' LT.	78.63
18	PCC	9+60.37	4.00' LT.	78.77
19	PRC	9+60.37	7.00' LT.	78.55
20	PC	10+31.03	4.00' RT.	79.26
21	PT	10+31.03	7.00' RT.	79.26
22	PT	10+78.85	44.00' LT.	78.43
23	PT	10+78.85	4.00' RT.	79.39
24	PT	10+78.85	7.00' RT.	79.39
25	PC	10+96.84	44.00' LT.	78.38
26	PC	10+92.11	4.00' RT.	79.35
27	PT	10+78.85	31.00' RT.	78.43
28	PT	11+45.58	1.13' RT.	79.09
29	PC	11+92.05	3.87' LT.	78.74
30	PT	11+56.62	40.48' LT.	78.20



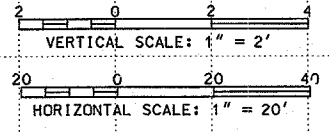
NOTE:  
CONTRACTOR SHALL CONTACT  
RACHAVENDER NEDNUR AT THE  
CITY OF HOUSTON WASTEWATER  
OPERATIONS (713-641-9125) PRIOR  
TO CONNECTING NEW FM TO  
EXIST. FM.

**BUNKER HILL ROAD**



PAVEMENT STATION AND OFFSETS				
NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
31	PCC	9+41.25	31.00' LT.	78.01
32	PT	9+56.86	46.82' LT.	78.40
33	TC	9+56.54	53.00' LT.	78.50
34	TC	9+94.30	53.00' LT.	78.50
35	PC	9+94.52	39.94' LT.	78.30
36	TC	9+99.55	53.00' LT.	78.50
37	PT	9+99.89	40.00' LT.	78.30
38	TC	10+24.78	53.00' LT.	78.50
39	PCC	10+35.21	44.00' LT.	78.30
40	PRC	9+62.95	31.00' RT.	78.08

PAVEMENT STATION AND OFFSETS				
NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
41	PT	9+72.48	39.80' RT.	78.45
42	TC	9+73.20	61.18' RT.	78.71
43	PC	9+95.70	40.00' RT.	78.40
44	PC	9+95.95	57.43' RT.	78.50
45	PT	10+00.50	40.30' RT.	78.50
46	PT	10+00.71	57.37' RT.	78.60
47	PC	10+23.71	40.86' RT.	78.55
48	PC	10+23.63	50.84' RT.	78.60
49	PT	10+33.37	31.00' RT.	78.29
50	PT	10+30.65	60.61' RT.	78.75



**Bidding Purposes Only**  
Not for Construction

**TCB | AECOM**

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
Quality Control: \_\_\_\_\_ Date: \_\_\_\_\_

**NOTICE:**  
AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR  
EASEMENTS CALL THE ONE STAR NOTIFICATION 713-223-4567.

**PRIVATE UTILITIES LINES SHOWN**

CENTERPOINT ENERGY/ELECTRIC FACILITIES  
DATE: 11/13/07  
APPROVED FOR CROSSING UNDERGROUND DUCT LINES:  
(UNLESS NOTED) VALID AT TIME OF REVIEW ONLY  
SBC  
APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY:  
SIGNATURE VALID FOR ONE YEAR.  
DATE: 11/13/07  
CENTERPOINT ENERGY, GAS FACILITIES  
(GAS SERVICE LINES ARE NOT SHOWN.)

TCB INC.  
5757 WOODWAY  
HOUSTON, TEXAS 77057  
713.780.4100 tel.  
713.780.0838 fax.  
SURVEYED BY: U.E.I.  
FB NO. P-5392

**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**BUNKER HILL  
ROAD IMPROVEMENTS**  
**PLAN & PROFILE  
FROM STA. 7+00  
TO STA. 12+00**

WBS NO. N-000767-0001-4  
DRAWING SCALE  
V - 1" = 2'  
H - 1" = 20'  
CITY OF HOUSTON PM  
AZAR AHMADIAN  
SHEET NO. 27 OF 146

FILENAME: P:\60025130 BH Phase (N.B.O. Coord)\P&P\p2.dgn

NOTE: THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS DENOTED AS ZONE X ON THE FEMA FIRM PANEL 48201C0645L (EFFECTIVE JUNE 18, 2007)

NOTE: TAILWATER USED IN THE HYDRAULIC ANALYSIS OF THE STM SEW IS:  
 2-YEAR (ALL STM SEW)-SOFFIT 100'-YEAR (84" OUTFALL)-76.22'  
 100'-YEAR (42" OUTFALL)-76.40'  
 100'-YEAR (30" OUTFALL)-76.40'

NOTE: ALL DRIVEWAY RADII TO BE 10' UNLESS OTHERWISE NOTED

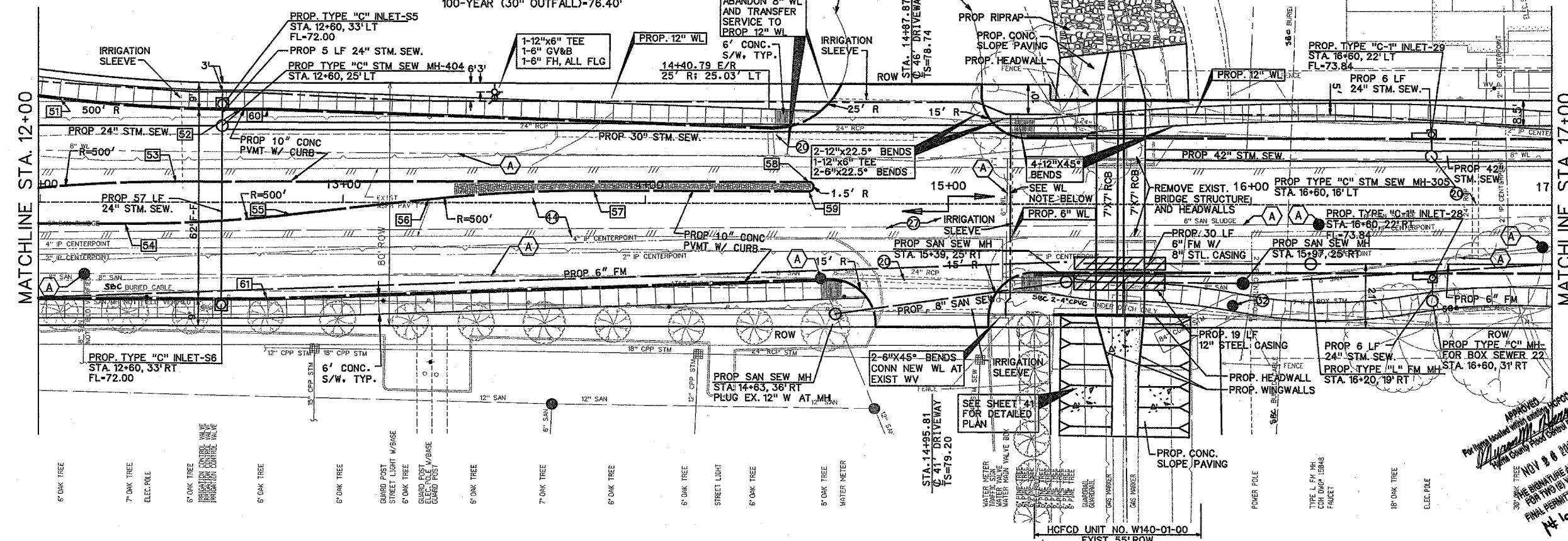
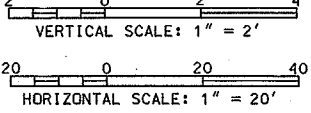
PROP. SIDEWALK AND IRRIGATION ON BUNKER HILL BY KUDELA & WEINHEIMER. SEE LANDSCAPE PLANS.

PROJECT BENCHMARK  
 (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 210275  
 FLOOD PLAN REFERENCE MARK BRASS DISK STAMPED RM 210275 ON SOUTHEAST CORNER OF BRIDGE W/ HEADWALL AT BUNKER HILL AND STREAM W140-01-00. ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

TEMPORARY BENCHMARK  
 TRAVERSE PT. #2  
 3/4" IRON ROD W/CAP STA. 12+06.89 23.74' RT BL. "A" NORTHING: 13850288.02 EASTING: 3068602.87 ELEV. 78.48'

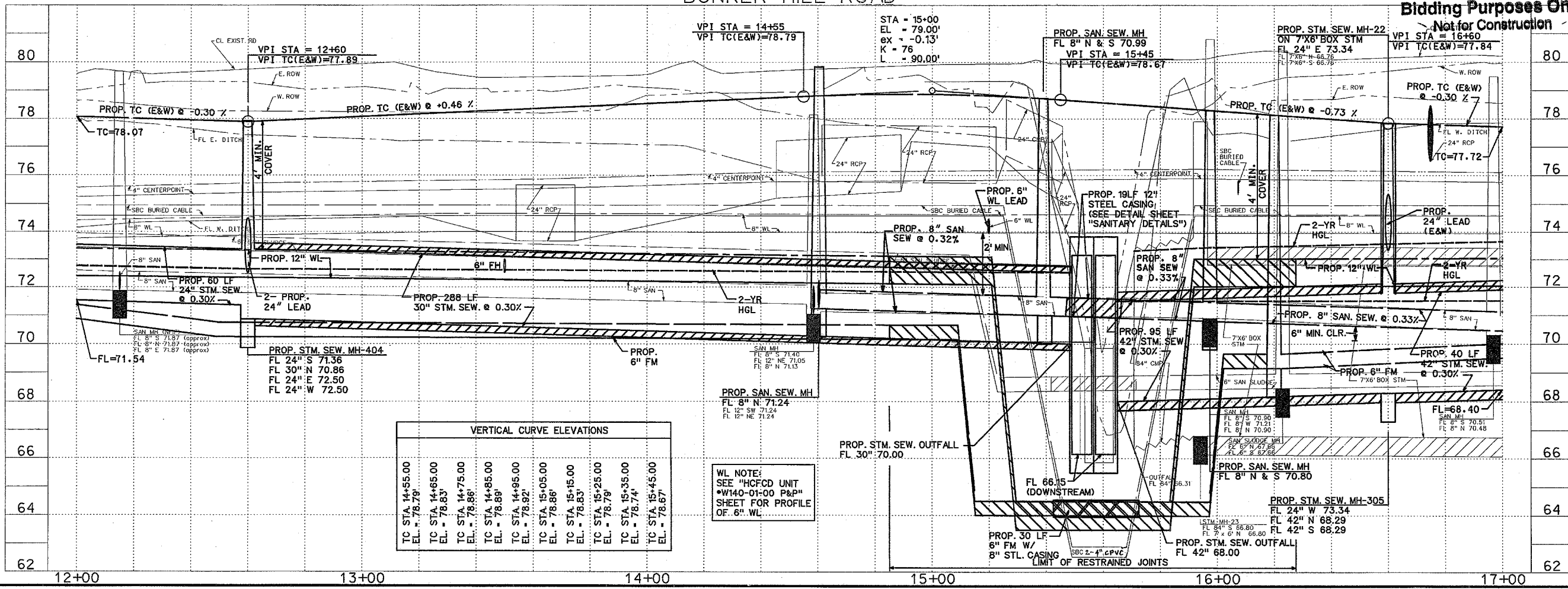
TEMPORARY BENCHMARK  
 TRAVERSE PT. #3  
 3/4" IRON ROD W/CAP STA. 15+36.87 26.35' RT BL. "A" NORTHING: 13850597.77 EASTING: 3068591.03 ELEV. 79.35'

PAVEMENT STATION AND OFFSETS				
NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
51	PC	12+06.63	34.52' LT.	78.05
52	PT	12+65.84	31.00' LT.	77.92
53	PT	12+44.81	6.73' LT.	78.42
54	PC	12+28.10	7.00' RT.	78.48
55	PT	12+82.74	4.00' LT.	78.49
56	PC	13+28.32	1.00' LT.	78.80
57	PT	13+82.96	4.00' LT.	79.08
58	E/R	14+54.07	7.00' LT.	79.35
59	E/R	14+54.07	4.00' LT.	79.35
60	ANG PT	12+75.00	31.00' LT.	77.96
61	ANG PT	12+75.00	31.00' RT.	77.96



BUNKER HILL ROAD

Bidding Purposes Only  
 Not for Construction



TCB | AECOM

TCB INC.  
 5757 GOODWAY  
 HOUSTON, TEXAS 77057  
 713.780.4100 tel.  
 713.780.0838 fax.

CITY OF HOUSTON  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

BUNKER HILL ROAD IMPROVEMENTS  
 PLAN & PROFILE FROM STA. 12+00 TO STA. 17+00

SHEET NO. 28 OF 146

NOTE:  
ALL DRIVEWAY RADII  
TO BE 10' UNLESS  
OTHERWISE NOTED

NOTE:  
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OF DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
48201C0645L (EFFECTIVE JUNE 18, 2007)

NOTE:  
CONTRACTOR TO FIELD VERIFY  
IF EXIST. DUAL 24" PIPES  
ARE IN SERVICE PRIOR TO  
CONSTRUCTING JB1. CONTRACTOR/  
TO NOTIFY ENGINEER OF RESULTS.

**PROJECT BENCHMARK**  
(TSARP) HARRIS COUNTY FLOODPLAIN  
REFERENCE MARK NUMBER 210275  
FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
TRAVERSE PT. #4  
3/4" IRON ROD W/CAP  
STA. 17+42.53 21.98' RT BL. "A"  
NORTHING: 13850803.02  
EASTING: 3068577.65  
ELEV. 78.47

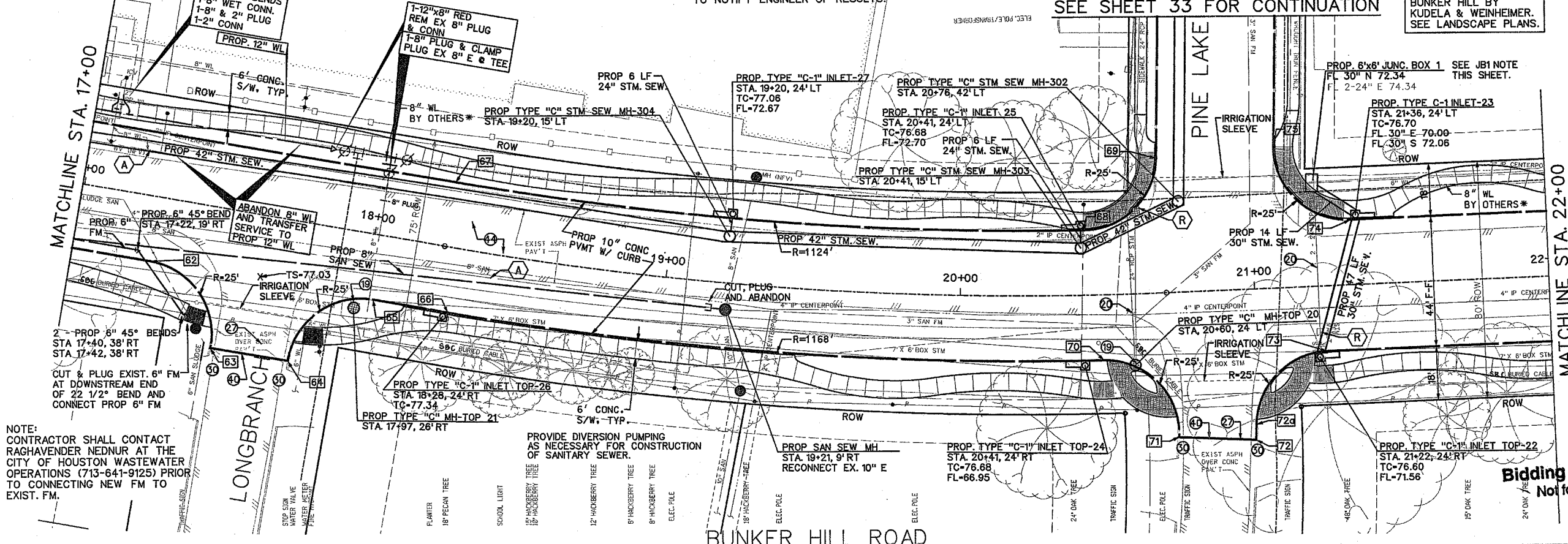
**TEMPORARY BENCHMARK**  
TRAVERSE PT. #5  
3/4" IRON ROD W/CAP  
STA. 21+10.61 28.49' LT BL. "A"  
NORTHING: 13851158.12  
EASTING: 3068477.24  
ELEV. 78.17

PAVEMENT STATION AND OFFSETS			
NO.	DESCRIP.	STATION	OFFSET TO ELEV.
62	E/R	17+26.37	22.00' RT. 77.64
63	E/R	17+51.57	47.50' RT. 78.00
64	E/R	17+78.20	47.23' RT. 77.90
65	E/R	18+03.16	22.00' RT. 77.42
66	PC	18+24.03	22.00' RT. 77.34
67	PC	18+24.03	22.00' LT. 76.76
68	PCC	20+42.44	22.00' LT. 76.68
69	E/R	20+68.47	50.59' LT. 77.73
70	PRC	20+48.31	22.00' RT. 76.66
71	E/R	20+72.33	48.83' RT. 77.10
72	E/R	20+98.47	50.83' RT. 77.21
72a	E/R	20+98.76	45.59' RT. 77.17
73	E/R	21+23.72	22.00' RT. 76.89
74	E/R	21+33.46	22.00' LT. 76.92
75	E/R	21+08.50	48.39' RT. 77.88

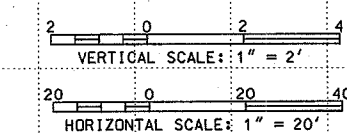
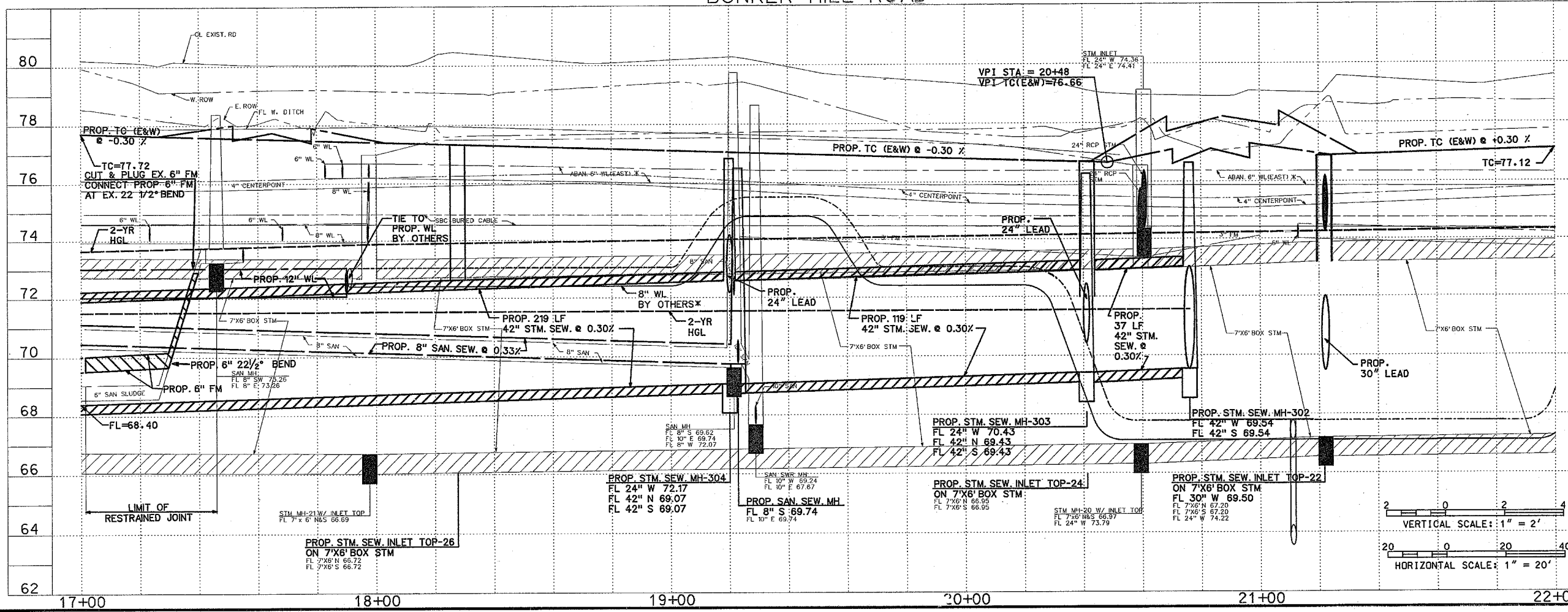
\* FOR MORE INFORMATION  
REFER TO CITY OF HOUSTON  
PROJECT WBS NO. S-000035-00F7-4



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Not for Construction



NOTE:  
CONTRACTOR SHALL CONTACT  
RAGHAVENDER NEDNUR AT THE  
CITY OF HOUSTON WASTEWATER  
OPERATIONS (713-641-9125) PRIOR  
TO CONNECTING NEW FM TO  
EXIST. FM.



**TCB | AECOM**

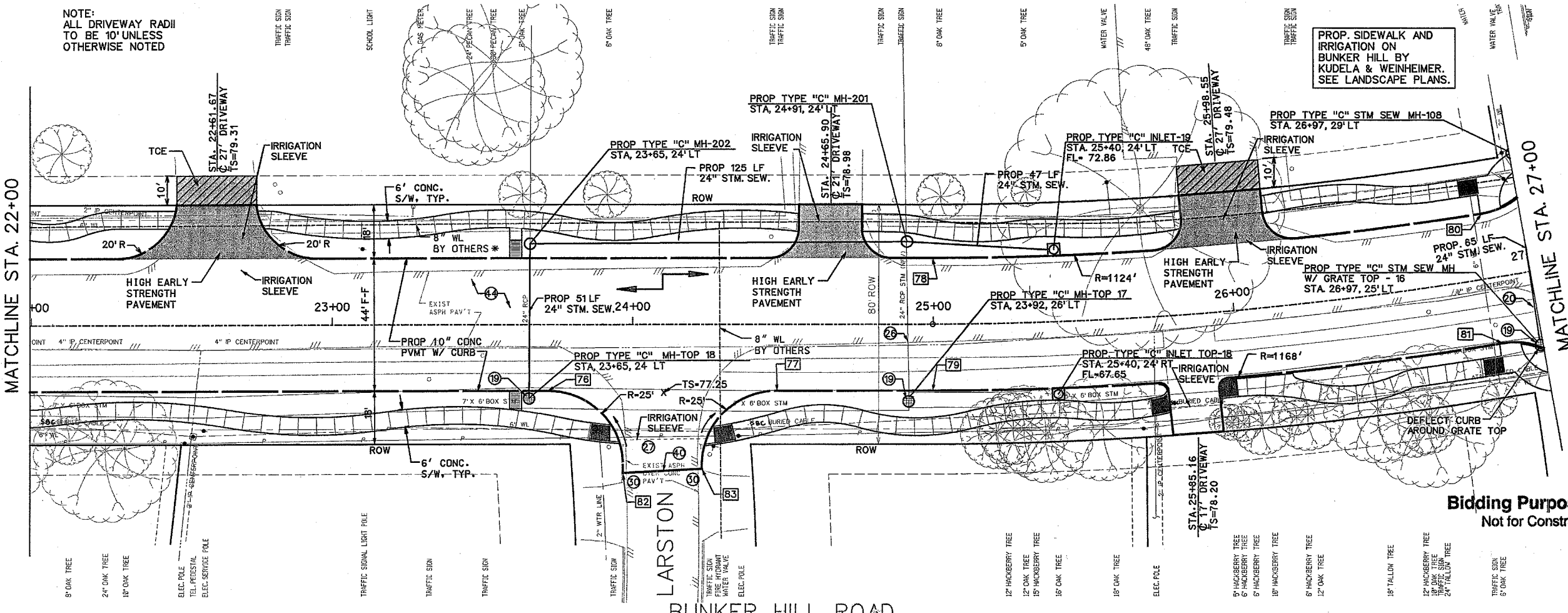
Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
Date: \_\_\_\_\_  
**NOTICE:**  
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EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.  
**PRIVATE UTILITIES LINES SHOWN**  
DATE: 11/13/07  
CENTERPOINT ENERGY/ELECTRIC FACILITIES  
APPROVED ONLY FOR CROSSING UNDERGROUND DUCT LINES.  
UNLESS NOTED, 1' VBI AT THE TOP OF REVIEW ONLY.  
DATE: 11-20-07  
SBC  
APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY.  
SIGNATURE VALID FOR ONE YEAR.  
DATE: 11/13/07  
CENTERPOINT ENERGY/GAS FACILITIES  
DATE: 11/13/07

TCB INC.  
5757 WOODWAY  
HOUSTON, TEXAS 77057  
713.780.4100 tel.  
713.780.0838 fax.

SURVEYED BY: U.E.I.  
FB NO. P-392  
**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
**BUNKER HILL  
ROAD IMPROVEMENTS**  
**PLAN & PROFILE  
FROM STA. 17+00  
TO STA. 22+00**

WBS NO. N-000767-0001-4  
DRAWING SCALE  
H = 1" = 2'  
V = 1" = 20'  
CITY OF HOUSTON PW  
AZAR AHMADIAN  
SHEET NO. 29 OF 146

FILENAME: P:\60253530 BH Phase IN 3.0 Cond\29.dwg, 11/16/07



**PROJECT BENCHMARK**  
 (TSARP) HARRIS COUNTY FLOODPLAIN  
 REFERENCE MARK NUMBER 210275  
 FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
 RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
 HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
 ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

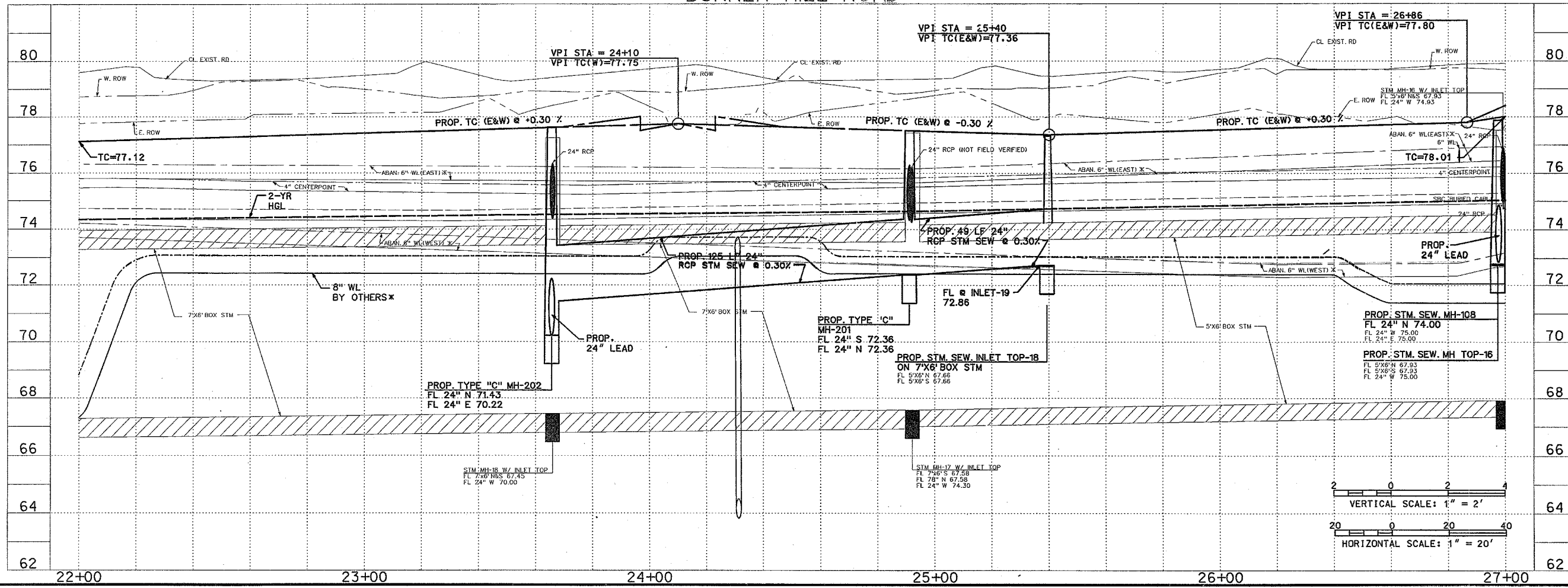
**TEMPORARY BENCHMARK**  
 TRAVERSE PT. #6  
 3/4" IRON ROD W/CAP  
 STA. 23+99.58 31.08' LT BL. "A"  
 NORTHING: 13851436.80  
 EASTING: 3068400.88  
 ELEV. 78.91'

NOTE:  
 THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF  
 DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
 DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
 48201C0645L (EFFECTIVE JUNE 18, 2007)

PAVEMENT STATION AND OFFSETS				
NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
76	E/R	23+71.74	22.00' RT.	77.61
77	E/R	24+48.04	22.00' RT.	77.64
78	PC	24+99.18	22.00' LT.	77.48
79	PC	24+99.18	22.00' RT.	77.48
80	PCC	26+86.56	22.00' LT.	77.80
81	PRC	26+86.56	22.00' RT.	77.80
82	E/R	23+96.74	49.75' RT.	78.01
83	E/R	24+23.07	48.34' RT.	78.01

\* FOR MORE INFORMATION  
 REFER TO CITY OF HOUSTON  
 PROJECT WBS NO. S-000035-00F7-4

**Bidding Purposes Only**  
 Not for Construction



**TCB | AECOM**

TCB INC.  
 5757 WOODWAY  
 HOUSTON, TEXAS 77057  
 WWW.TCB-AECOM.COM

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
 Quality Control: \_\_\_\_\_ Date: \_\_\_\_\_

**NOTICE:**  
 AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR  
 EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.

**PRIVATE UTILITIES LINES SHOWN**

CENTERPOINT ENERGY/ELECTRIC FACILITIES  
 DATE: 11/13/07  
 APPROVED FOR: \_\_\_\_\_  
 (APPROVED FOR CHANGING UNDERGROUND FACILITIES)  
 (UNLESS NOTED, IS VALID AT TIME OF REVIEW ONLY)

SBC  
 APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY.  
 SIGNATURE VALID FOR ONE YEAR.  
 DATE: 11/13/07

CENTERPOINT ENERGY, GAS FACILITIES  
 (GAS SERVICE LINES ARE NOT SHOWN.)

TCB INC.  
 5757 WOODWAY  
 HOUSTON, TEXAS 77057  
 713.780 4100 tel.  
 713.780 0838 fax.

SURVEYED BY: U.E. I.  
 FB NO. P-5392

**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**BUNKER HILL  
 ROAD IMPROVEMENTS**

**PLAN & PROFILE  
 FROM STA. 22+00  
 TO STA. 27+00**

WBS NO. N-000767-0001-4  
 DRAWING SCALE  
 V - 1" = 2'  
 H - 1" = 20'  
 CITY OF HOUSTON PM  
 AZAR A MADIAN  
 SHEET NO. 30 OF 146

FILENAME: P:\60025130 Btl Phase I\A9.0 Cadd\F&P.dwg

\* FOR MORE INFORMATION  
REFER TO CITY OF HOUSTON  
PROJECT WBS NO. S-000035-00F7-4

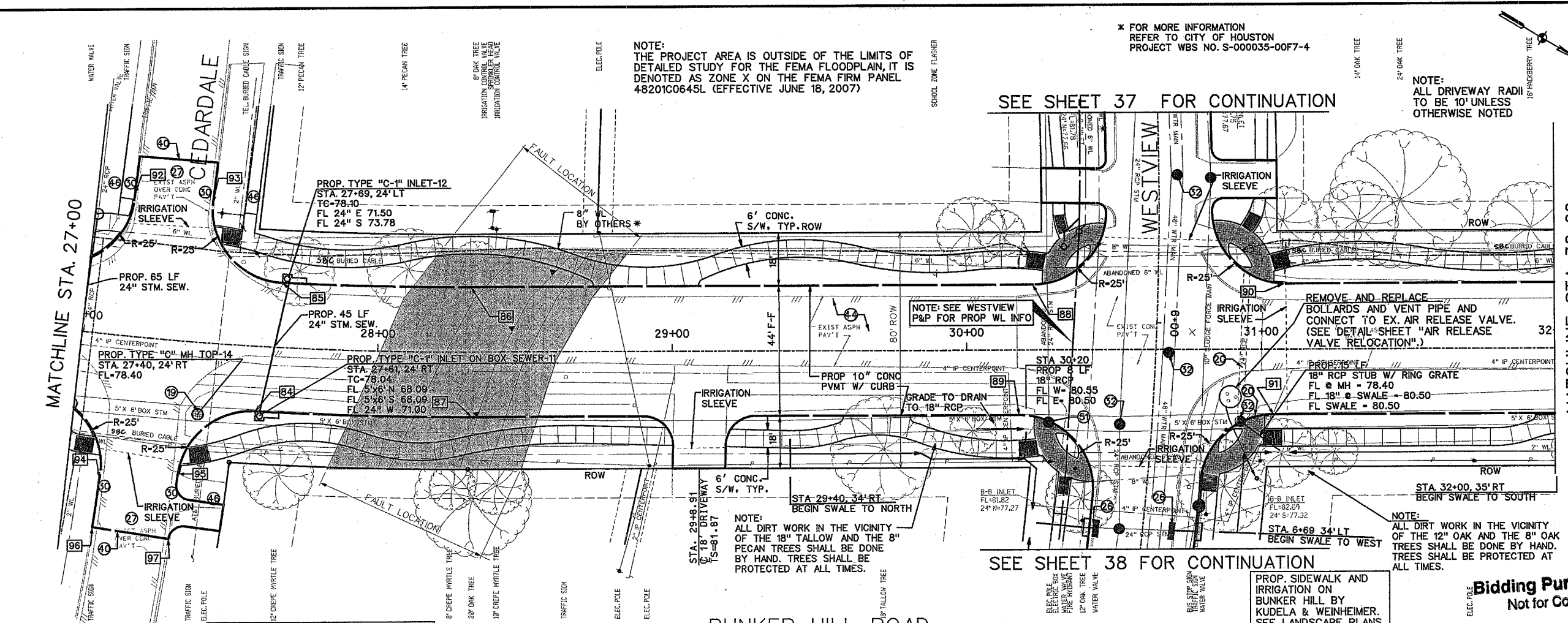
NOTE:  
THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF  
DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
48201C0645L (EFFECTIVE JUNE 18, 2007)

**PROJECT BENCHMARK**  
(TSARP) HARRIS COUNTY FLOODPLAIN  
REFERENCE MARK NUMBER 210275  
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED  
RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
TRAVERSE PT. #7  
1/2" IRON ROD W/CAP  
STA. 27+63.15 31.39' LT BL. "A"  
NORTHING: 13851771.53  
EASTING: 3068281.73  
ELEV. 79.97'

**TEMPORARY BENCHMARK**  
TRAVERSE PT. #8  
1/2" IRON ROD W/CAP  
STA. 30+35.10 24.92' LT BL. "A"  
NORTHING: 13852006.37  
EASTING: 3068148.24  
ELEV. 83.51'

PAVEMENT STATION AND OFFSETS				
NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
84	PRC	27+59.89	22.00' RT.	78.04
85	PCC	27+66.55	22.00' LT.	78.10
86	PT	28+31.74	22.00' LT.	78.87
87	PT	28+31.74	22.00' RT.	78.87
88	E/R	30+22.49	22.00' LT.	83.05
89	E/R	30+17.60	22.00' RT.	83.05
90	E/R	31+08.49	22.00' LT.	83.06
91	E/R	31+03.98	22.00' RT.	83.06
92	E/R	27+10.52	49.02' LT.	78.18
93	E/R	27+40.49	48.28' LT.	79.49
94	E/R	27+12.62	48.98' RT.	78.18
95	E/R	27+35.74	44.08' RT.	78.18
96	-	27+12.62	65.80' RT.	77.92
97	-	27+35.74	67.43' RT.	77.93



SEE SHEET 37 FOR CONTINUATION

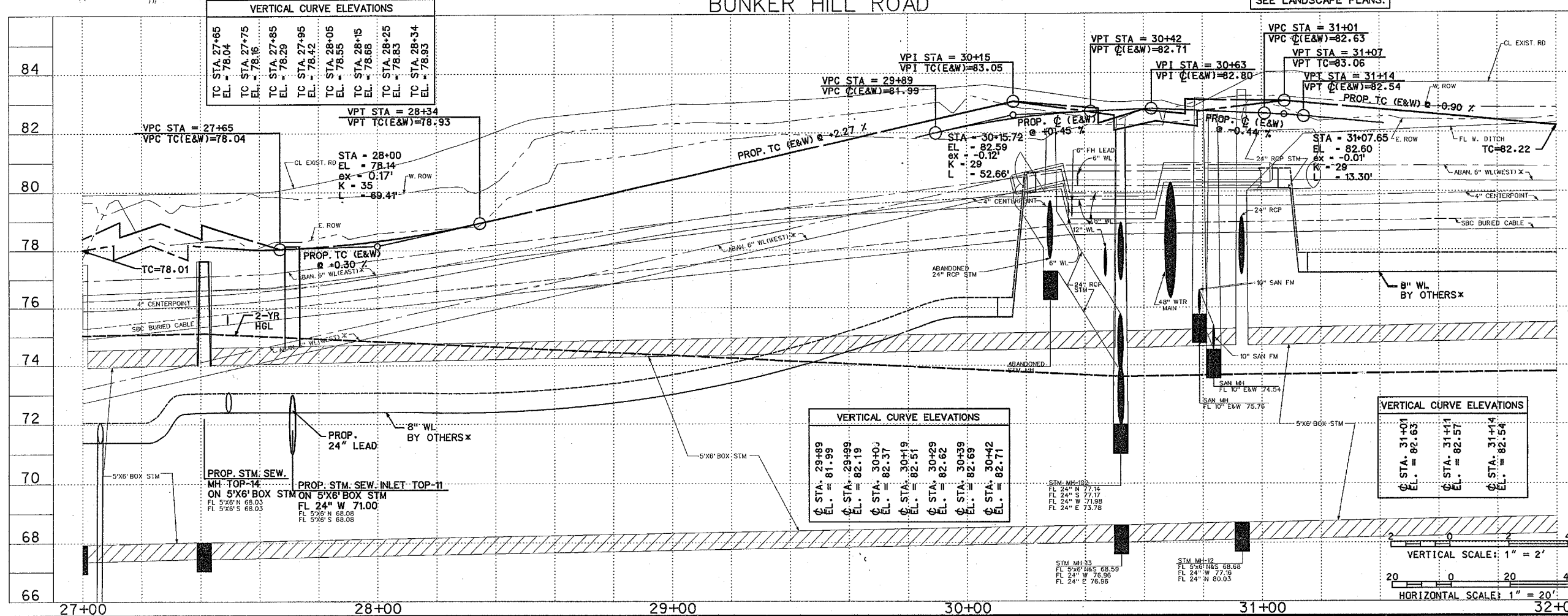
SEE SHEET 38 FOR CONTINUATION

NOTE:  
ALL DRIVEWAY RADI  
TO BE 10' UNLESS  
OTHERWISE NOTED

NOTE:  
ALL DIRT WORK IN THE VICINITY  
OF THE 12" OAK AND THE 8" OAK  
TREES SHALL BE DONE BY HAND.  
TREES SHALL BE PROTECTED AT  
ALL TIMES.

BUNKER HILL ROAD

**Bidding Purposes Only**  
Not for Construction



VERTICAL CURVE ELEVATIONS		
TC STA. 27+65	EL. = 78.04	
TC STA. 27+75	EL. = 78.16	
TC STA. 27+85	EL. = 78.29	
TC STA. 27+95	EL. = 78.42	
TC STA. 28+05	EL. = 78.55	
TC STA. 28+15	EL. = 78.68	
TC STA. 28+25	EL. = 78.83	
TC STA. 28+34	EL. = 78.93	

VERTICAL CURVE ELEVATIONS		
STA. 29+89	EL. = 81.99	
STA. 29+99	EL. = 82.19	
STA. 30+09	EL. = 82.37	
STA. 30+19	EL. = 82.51	
STA. 30+29	EL. = 82.62	
STA. 30+39	EL. = 82.69	
STA. 30+42	EL. = 82.71	

VERTICAL CURVE ELEVATIONS		
STA. 31+01	EL. = 82.63	
STA. 31+11	EL. = 82.57	
STA. 31+14	EL. = 82.54	

VERTICAL SCALE: 1" = 2'  
HORIZONTAL SCALE: 1" = 20'

**TCB | AECOM**

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
Quality Control: \_\_\_\_\_ Date: \_\_\_\_\_

**NOTICE:**  
AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR  
EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4667.

**PRIVATE UTILITIES LINES SHOWN**

CENTERPOINT ENERGY/ELECTRIC FACILITIES  
(APPROVED FOR CHANGING UNDERGROUND UTILITIES  
UNLESS NOTED.) VALID AT TIME OF REVIEW ONLY  
DATE: 11/13/07

SBC  
APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY.  
SIGNATURE OR L.P. FOR ONE YEAR.  
DATE: 11/13/07

CENTERPOINT ENERGY, GAS FACILITIES  
(GAS SERVICE LINES ARE NOT SHOWN.)

TCB INC.  
5757 WOODWAY  
HOUSTON, TEXAS 77057  
713.780.4100 tel.  
713.780.0838 fax.

SURVEYED BY: U.E. I.  
FB NO. P-5392

**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**BUNKER HILL  
ROAD IMPROVEMENTS**

**PLAN & PROFILE  
FROM STA. 27+00  
TO STA. 32+00**

WBS NO. N-000767-0001-4

DRAWING SCALE  
V - 1" = 2'  
H - 1" = 20'

CITY OF HOUSTON PM  
AZAR AHMADIAN

SHEET NO. 31 OF 146

FILENAME: P:\60025330\_BH\_Phase I\B.O. Coord\F&P\Vap6.dgn

PROP. SIDEWALK AND IRRIGATION ON BUNKER HILL BY KUDELA & WEINHEIMER. SEE LANDSCAPE PLANS.

\* FOR MORE INFORMATION REFER TO CITY OF HOUSTON PROJECT WBS NO. S-000035-00F7-4

**PROJECT BENCHMARK**  
 (TS&P) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 210275  
 FLOOD PLAN REFERENCE MARK BRASS DISK STAMPED RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN HEADWALL AT BUNKER HILL AND STREAM W140-01-00. ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
 TRAVERSE PT. #9  
 1/4" IRON ROD W/CAP STA. 34+04.24 24.15' LT. BL. "A" NORTHING: 13852321.79 EASTING: 3067956.53 ELEV. 84.33'

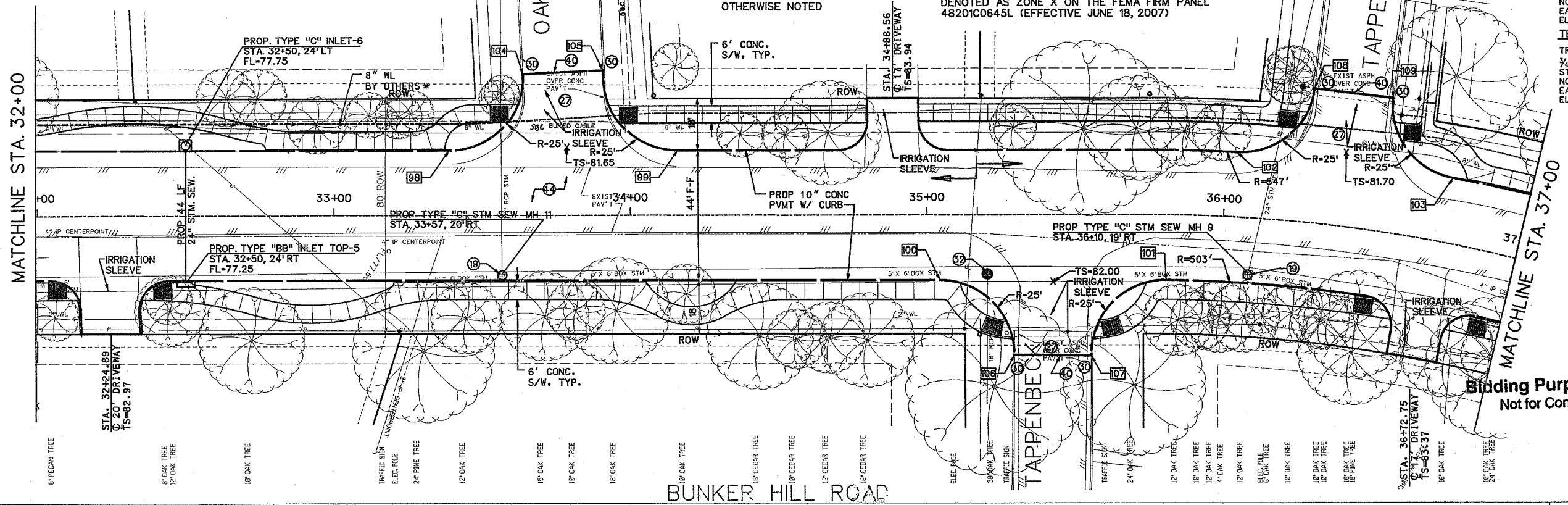
**TEMPORARY BENCHMARK**  
 TRAVERSE PT. #10  
 1/4" IRON ROD W/CAP STA. 35+89.57 19.14' LT. BL. "A" NORTHING: 13852483.18 EASTING: 3067864.15 ELEV. 84.30'

MATCHLINE STA. 32+00

MATCHLINE STA. 37+00

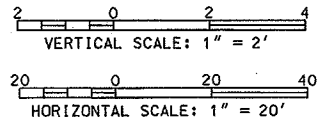
NOTE: ALL DRIVEWAY RADII TO BE 10' UNLESS OTHERWISE NOTED

NOTE: THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF DETAILED STUDY FOR THE FEMA FLOODPLAIN. IT IS DENOTED AS ZONE X ON THE FEMA FIRM PANEL 48201C0645L (EFFECTIVE JUNE 18, 2007)

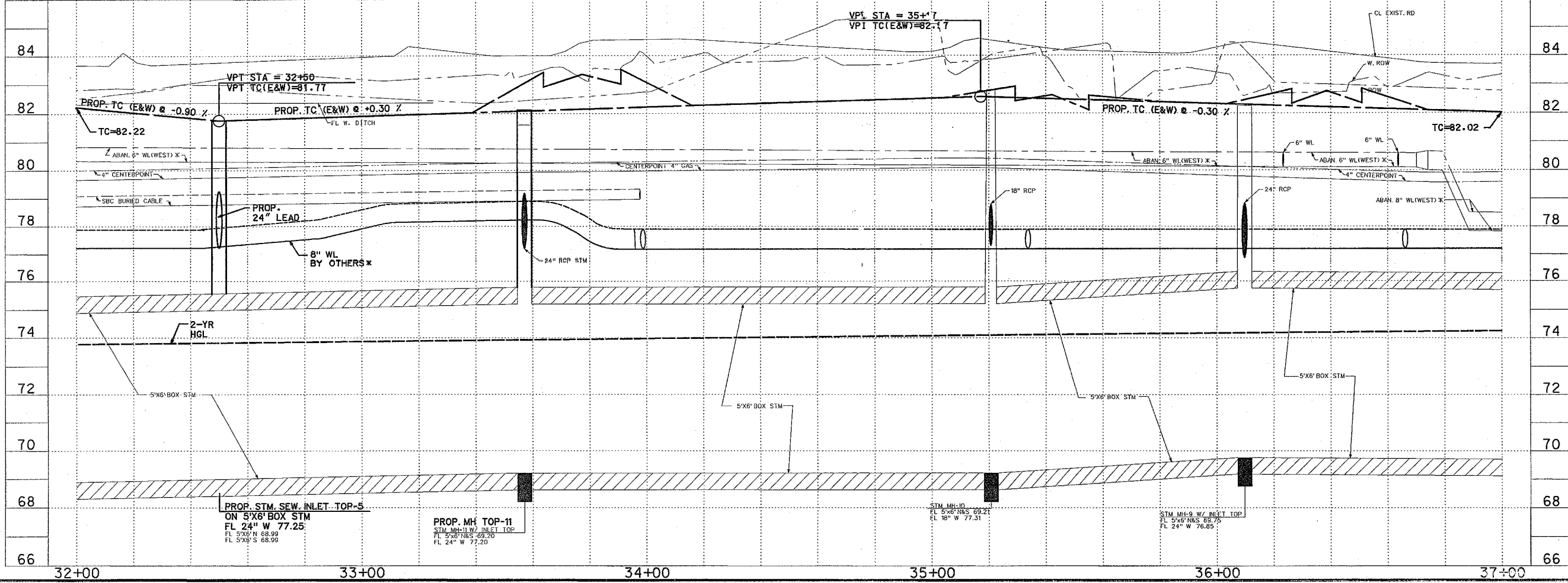


**PAVEMENT STATION AND OFFSETS**

NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
98	E/R	33+38.82	22.00' LT.	82.03
99	E/R	34+15.99	22.00' LT.	82.27
100	E/R	35+04.27	22.00' RT.	82.53
101	PCC	35+80.78	22.00' RT.	82.40
102	PRC	36+03.41	22.00' LT.	82.31
103	PRC	36+73.91	22.00' LT.	82.10
104	E/R	33+63.80	48.16' LT.	83.41
105	E/R	33+90.85	49.41' LT.	83.51
106	E/R	35+29.27	47.19' RT.	82.92
107	E/R	35+55.15	47.39' RT.	82.61
108	E/R	36+26.36	45.89' LT.	82.82
109	E/R	36+50.96	45.90' LT.	82.84



Bidding Purposes Only  
 Not for Construction



**TCB | AECOM**  
 TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 WWW.TCB-AECOM.COM

Approved: \_\_\_\_\_ Date: \_\_\_\_\_ QUALITY CONTROL Date: \_\_\_\_\_

**NOTICE:**  
 AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONG STAR NOTIFICATION 713-223-4567.

**PRIVATE UTILITIES LINES SHOWN**

CENTERPOINT ENERGY/ELECTRIC FACILITIES DATE: 11/13/07  
 APPROVED FOR CROSSING UNDERGROUND DUCT LINES. (UNLESS NOTED, I VALID AT TIME OF REVIEW ONLY)

SBC DATE: 11-20-07  
 APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY. SIGNATURE VALID FOR ONE YEAR.

CENTERPOINT ENERGY GAS FACILITIES DATE: 11/13/07  
 (GAS SERVICE LINES ARE NOT SHOWN)

TCB INC.  
 5757 WOODWAY HOUSTON, TEXAS 77057  
 713.780.4100 tel.  
 713.780.0838 fax.

SURVEYED BY: U.E. I.  
 FB NO. P-5392

**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**BUNKER HILL ROAD IMPROVEMENTS**

**PLAN & PROFILE FROM STA. 32+00 TO STA. 37+00**

WBS NO. N-06 1767-0001-4  
 DRAWING SCALE: V = 1" = 2', H = 1" = 20'  
 CITY OF HOUSTON PM: AZAR AP/ADIAN  
 SHEET NO. 32 OF 146

FILE NAME: P:\60202530 BH Phase II\6.0\_Cada\Plan\32-37.dwg



SEE LONG POINT PLANS  
FOR CONTINUATION

NOTE:  
THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF  
DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
48201C0645L (EFFECTIVE JUNE 18, 2007)

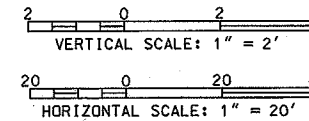
**PROJECT BENCHMARK**  
CISARP HARRIS COUNTY FLOODPLAIN  
REFERENCE MARK NUMBER 210275  
FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
TRAVERSE PT. #11  
3/4" IRON ROD W/CAP  
STA. 39+19.85 28.35' LT. BL. "A"  
NORTHING: 13852809.93  
EASTING: 3067783.11  
ELEV. 84.01'

**TEMPORARY BENCHMARK**  
TRAVERSE PT. #13  
60D NAIL  
STA. 40+22.12 32.77' LT. BL. "A"  
NORTHING: 13852911.85  
EASTING: 3067773.03  
ELEV. 83.37'

NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
110	PT	38+35.64	22.00' RT.	82.19
111	PT	38+50.32	22.00' LT.	82.21
112	E/R	39+37.49	22.00' LT.	82.49
113	PCC	39+78.30	29.59' LT.	82.75
114	PCC	40+10.23	73.61' LT.	83.11
115	E/R	39+89.55	22.43' RT.	82.64
116	PCC	40+28.94	30.51' RT.	82.36
117	PCC	40+42.26	40.54' RT.	82.46
118	E/R	40+60.41	74.49' RT.	82.71

\* FOR MORE INFORMATION  
REFER TO CITY OF HOUSTON  
PROJECT WBS NO. S-000035-00F7-4

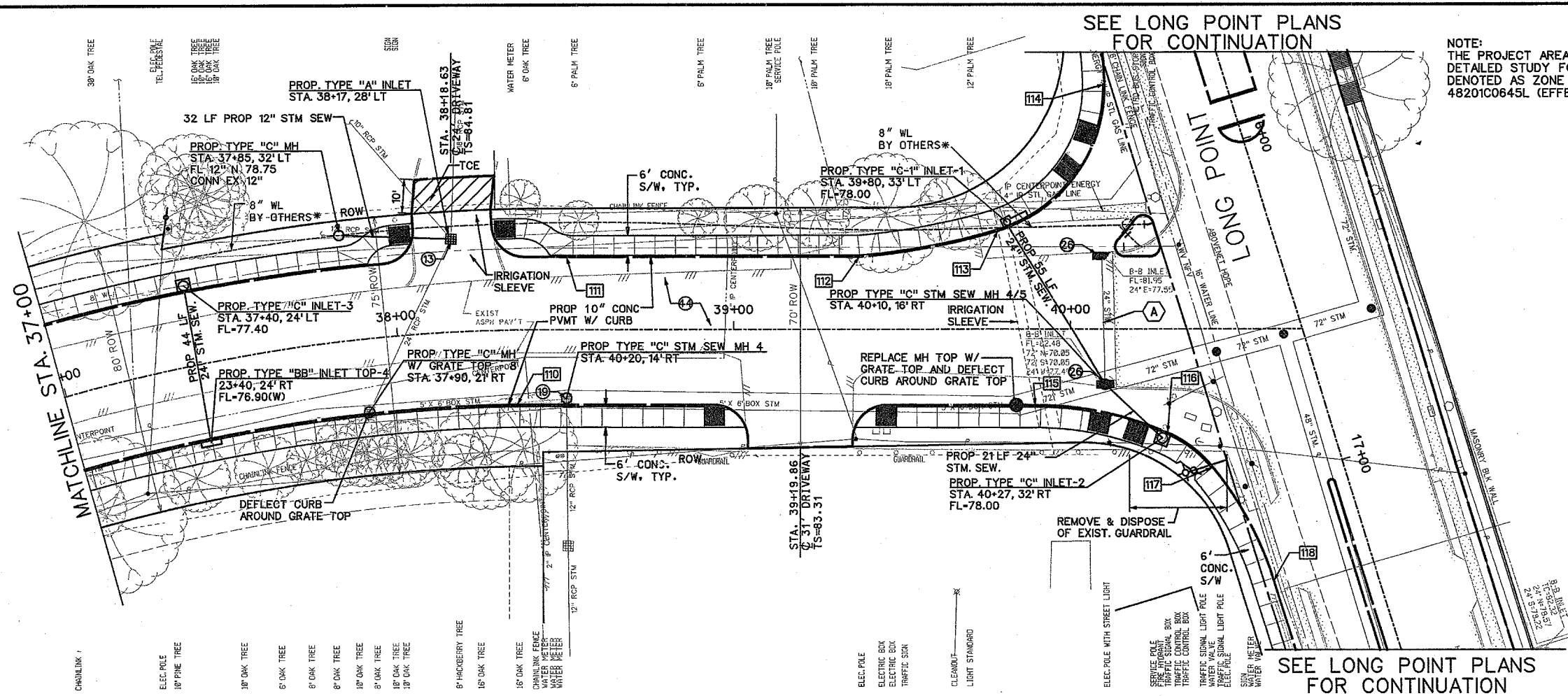


PROP. SIDEWALK AND  
IRRIGATION ON  
BUNKER HILL BY  
KUDELA & WEINHEIMER.  
SEE LANDSCAPE PLANS.

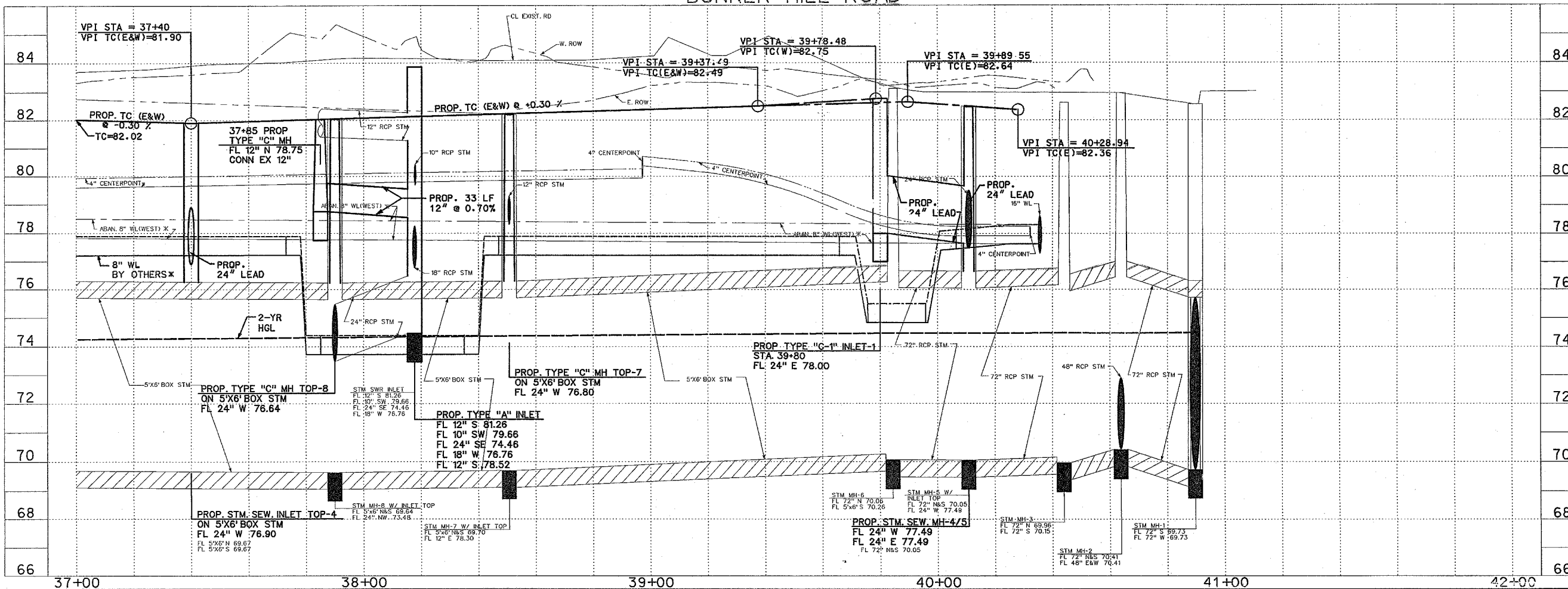


**Bidding Purposes Only**  
Not for Construction

SEE LONG POINT PLANS  
FOR CONTINUATION



**BUNKER HILL ROAD**



**TCB | AECOM**  
TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 WWW.TCB-AECOM.COM

Approved: \_\_\_\_\_ Date: \_\_\_\_\_ QUALITY CONTROL Date: \_\_\_\_\_

**NOTICE:**  
AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE ONE STOP NOTIFICATION 713-223-4547.

**PRIVATE UTILITIES LINES SHOWN**

CENTERPOINT ENERGY/ELECTRIC FACILITIES  
APPROVED FOR CROSSING UNDERGROUND FACILITIES.  
UNLESS NOTED, VALID AT TIME OF REVIEW ONLY. DATE: 11/13/07

SBC APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY. SIGNATURE VALID FOR ONE YEAR. DATE: 11/13/07

CENTERPOINT ENERGY GAS FACILITIES  
LOAD SERVICE LINES ARE NOT SHOWN.

TCB INC.  
5757 WOODWAY  
HOUSTON, TEXAS 77057  
713.780.4100 tel.  
713.780.0838 fax.

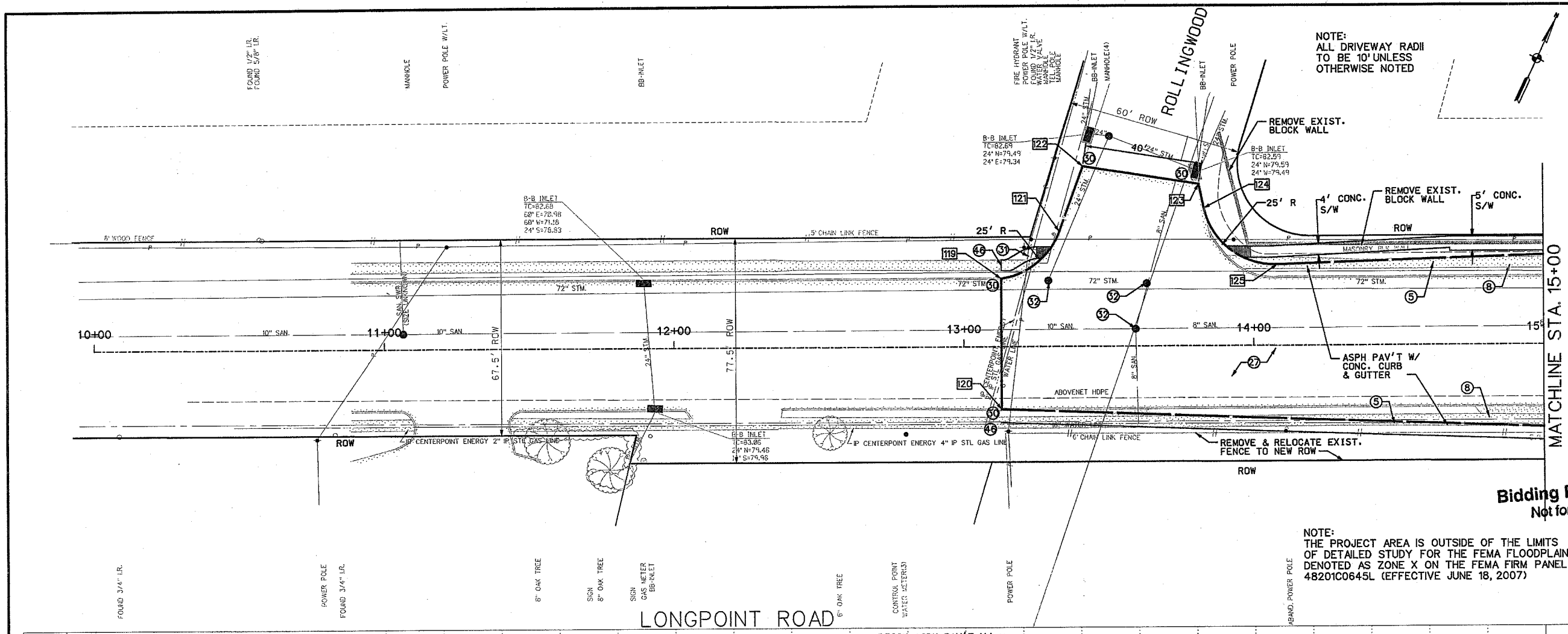
SURVEYED BY: U.E. I.  
FB NO. P-5392

**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**BUNKER HILL ROAD IMPROVEMENTS**  
**PLAN & PROFILE FROM STA. 37+00 TO 41+00**

WBS NO. N-000767-0001-4  
DRAWING SCALE  
V - 1" = 2'  
H - 1" = 20'  
CITY OF HOUSTON PM  
AZAR A-MADIAN  
SHEET NO. 33 OF 146

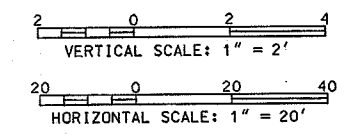
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**PROJECT BENCHMARK**  
 (TSARP) HARRIS COUNTY FLOODPLAIN  
 REFERENCE MARK NUMBER 210275  
 FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
 RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
 HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
 ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
 TRAVERSE PT. #27  
 PK NAL  
 STA. 12+55.83 26.32' LT BL. "C"  
 NORTHING: 13852854.32  
 EASTING: 3067413.13  
 ELEV. 83.44'

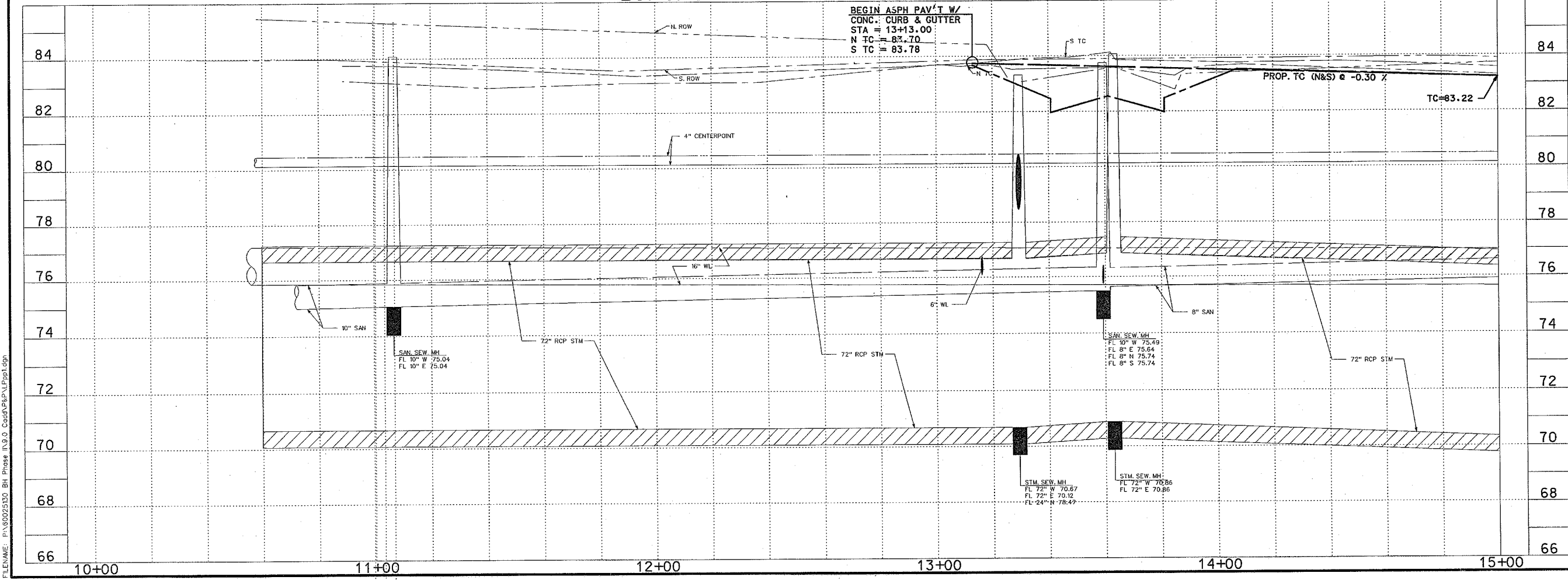
PAVEMENT STATION AND OFFSETS			
NO.	DESCRIP.	STATION	TC ELEV.
119	-	13+13.00	23.08' LT. 83.70
120	-	13+13.00	21.73' RT. 83.78
121	E/R	13+33.10	39.37' LT. 83.31
122	E/R	13+41.29	62.08' LT. 82.96
123	E/R	13+81.20	55.74' LT. 82.90
124	E/R	13+82.99	47.33' LT. 83.00
125	E/R	14+08.27	27.53' LT. 83.41



**Bidding Purposes Only**  
 Not for Construction



NOTE:  
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 OF DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
 DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
 48201C0645L (EFFECTIVE JUNE 18, 2007)



**TCB | AECOM**

Approved: \_\_\_\_\_ Date: \_\_\_\_\_

QUALITY CONTROL  
 Approved: \_\_\_\_\_ Date: \_\_\_\_\_

**NOTICE:**  
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 EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.

**PRIVATE UTILITIES LINES SHOWN**

CENTERPOINT ENERGY/ELECTRIC FACILITIES  
 APPROVED FOR EXISTING UNDERGROUND FACILITIES.  
 UNLESS NOTED, VALID AT TIME OF REVIEW ONLY.  
 DATE: 11/13/07

SBC  
 APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY.  
 SIGNATURE VALID FOR ONE YEAR.  
 DATE: 11-20-07

CENTERPOINT ENERGY, GAS FACILITIES  
 (GAS SERVICE LINES ARE NOT SHOWN.)  
 DATE: 11/13/07

TCB INC.  
 5757 WOODWAY  
 HOUSTON, TEXAS 77057  
 713.780.4100 tel.  
 713.780.0838 fax.

SURVEYED BY: U.E.I.  
 FB NO. P-5392

**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**BUNKER HILL  
 ROAD IMPROVEMENTS  
 LONG POINT  
 PLAN & PROFILE  
 FROM STA. 10+00  
 TO STA. 15+00**

WBS NO. N-000767-0001-4

DRAWING SCALE  
 V - 1" = 2"  
 H - 1" = 20'

CITY OF HOUSTON PM  
 AZAR A MADIAN

SHEET NO. 34 OF 146

FILENAME: P:\0022330\_BH\_Phase II\9.0\_Cadd\Plan\Prop1.dgn

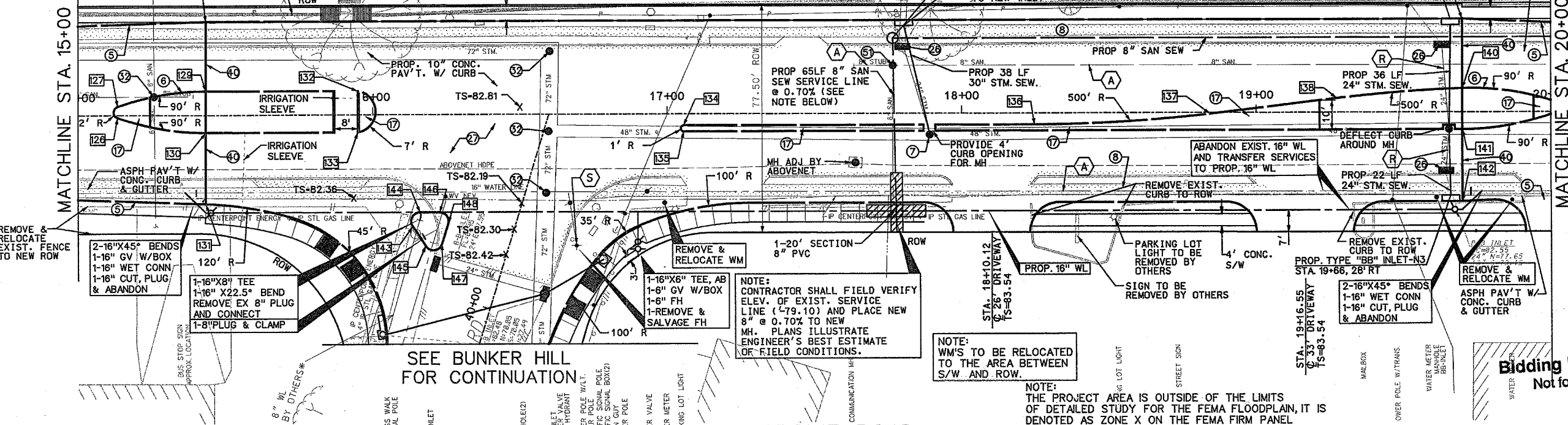
PROP. IRRIGATION BY KUDELA & WEINHEIMER. SEE LANDSCAPE PLANS.

NOTE:  
ALL DRIVEWAY RADII  
TO BE 10' UNLESS  
OTHERWISE NOTED

**PROJECT BENCHMARK**  
 (TS)P: HARRIS COUNTY FLOODPLAIN  
 REFERENCE MARK NUMBER 210275  
 FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED  
 RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
 HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
 ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
 TRAVERSE PT. #13  
 60D NAIL  
 STA. 40+22.12 32.77' LT BL. "A"  
 NORTHING: 13852911.85  
 EASTING: 3067773.03  
 ELEV. 83.37'

PAVEMENT STATION AND OFFSETS				
NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
126	PCC	15+13.46	0.89' LT.	83.66
127	PCC	15+13.46	2.69' RT.	83.66
128	ANG PT	15+43.39	32.00' LT.	83.09
129	PT	15+43.39	8.00' LT.	83.57
130	PT	15+43.39	6.00' RT.	83.57
131	E/R	15+43.39	30.00' RT.	82.59
132	E/R	15+94.97	8.00' LT.	83.34
133	E/R	15+94.97	6.00' RT.	83.34
134	E/R	17+05.66	4.00' RT.	83.24
135	E/R	17+05.66	6.00' RT.	83.24
136	PC	18+24.76	4.00' RT.	83.62
137	PT	18+84.33	0.45' RT.	83.56
138	PC	19+27.37	4.73' LT.	82.98
139	ANG PT	19+69.98	32.00' LT.	82.19
140	PCC	19+70.00	8.00' LT.	82.67
141	PC	19+70.02	6.00' RT.	83.07
142	ANG PT	19+70.02	30.00' RT.	82.59
143	PRC	16+13.53	37.79' RT.	82.81
144	PT	16+15.93	33.00' RT.	82.79
145	PC	16+18.05	44.87' RT.	82.53
146	PC	16+22.65	33.00' RT.	82.77
147	PT	16+23.38	43.85' RT.	82.53
148	PT	16+25.51	36.88' RT.	82.68

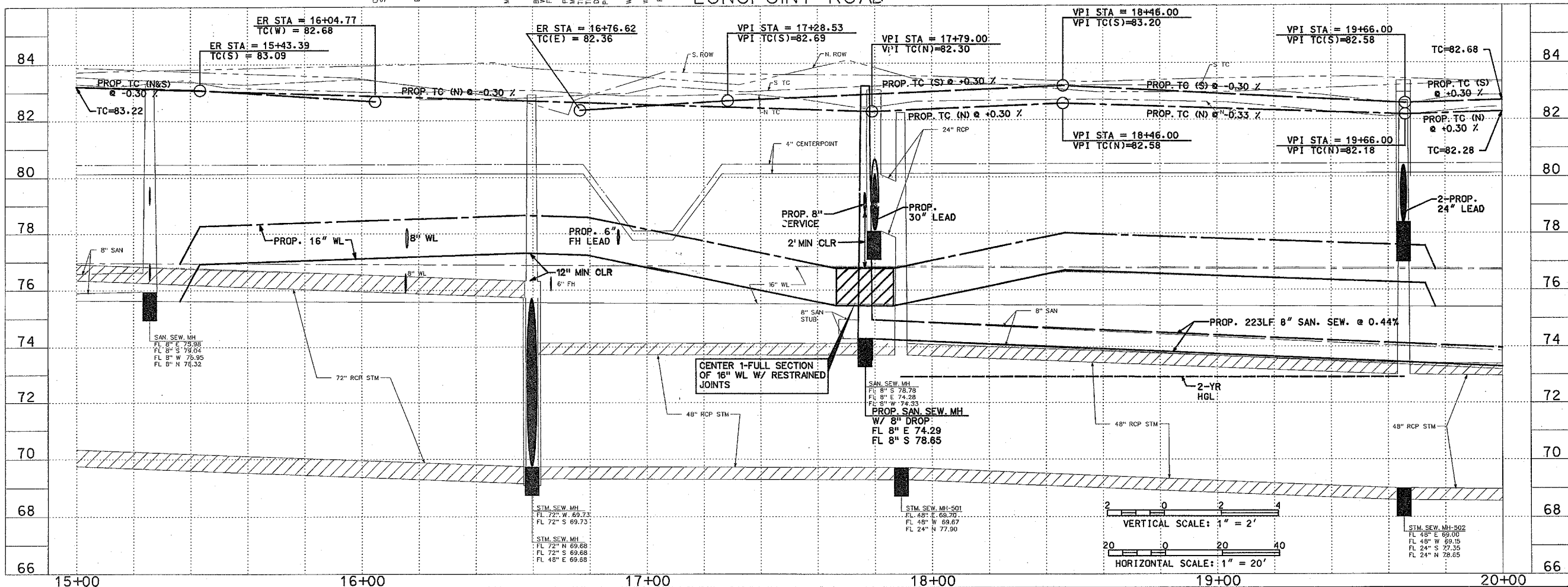


SEE BUNKER HILL  
FOR CONTINUATION

**LONGPOINT ROAD**

NOTE:  
THE PROJECT AREA IS OUTSIDE OF THE LIMITS  
OF DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
48201C0645L (EFFECTIVE JUNE 18, 2007)

Bidding Purposes Only  
Not for Construction



VERTICAL SCALE: 1" = 2'  
HORIZONTAL SCALE: 1" = 20'

**TCB AECOM**  
 TCB INC.  
 5757 WOODWAY  
 HOUSTON, TEXAS 77057  
 WWW.TCB-AECOM.COM

**NOTICE:**  
 AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR  
 EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.

**PRIVATE UTILITIES LINES SHOWN**

CENTERPOINT ENERGY/ELECTRIC FACILITIES  
 DATE: 11/13/07

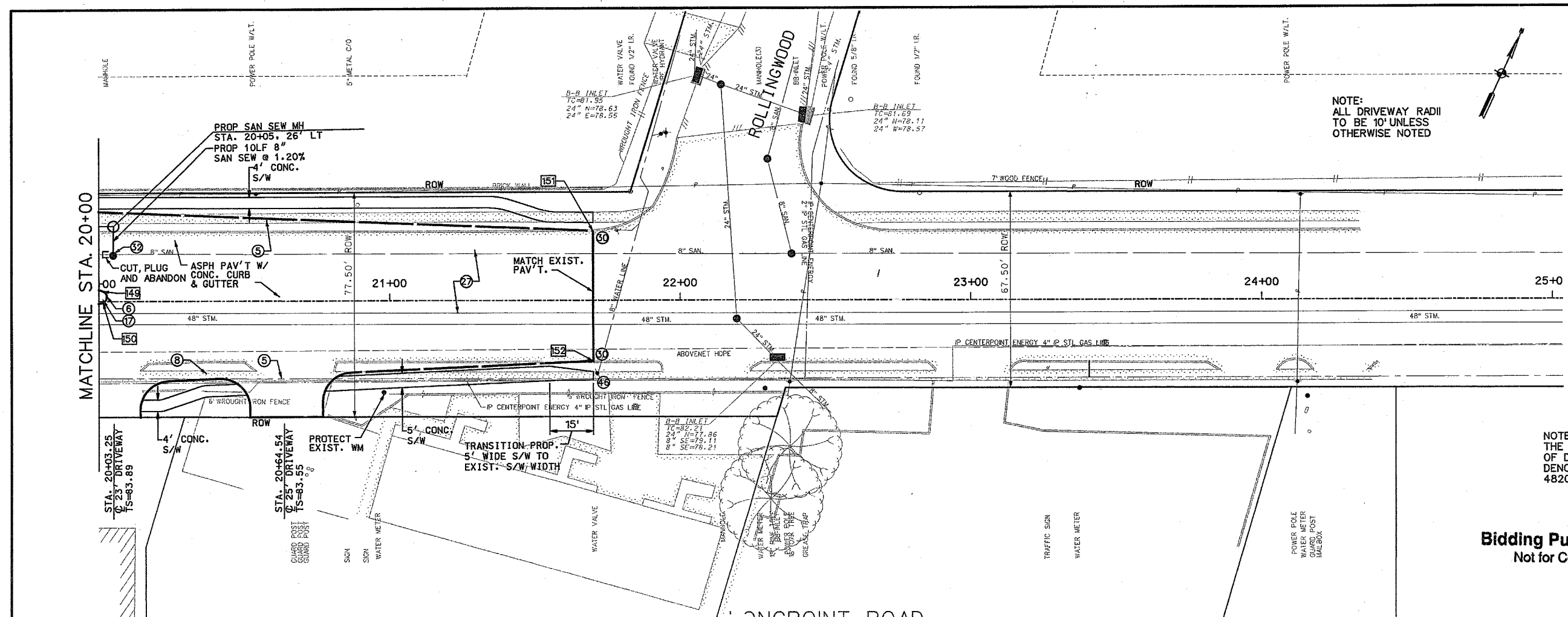
SBC  
 APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY.  
 SIGNATURE VALID FOR ONE YEAR.  
 DATE: 11/13/07

CENTERPOINT ENERGY, GAS FACILITIES  
 (GAS SERVICE LINES ARE NOT SHOWN.)

**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**BUNKER HILL  
 ROAD IMPROVEMENTS  
 LONG POINT  
 PLAN & PROFILE  
 FROM STA. 15+00  
 TO STA. 20+00**

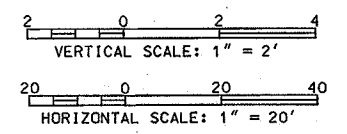
WBS NO. N-OC J767-0001-4  
 DRAWING SCALE  
 V - 1" = 2'  
 H - 1" = 20'  
 CITY OF HOUSTON PM  
 AZAR AHMADIAN  
 SHEET NO. 35 OF 146



**PROJECT BENCHMARK**  
 (TSARP) HARRIS COUNTY FLOODPLAIN REFERENCE MARK NUMBER 210275  
 FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN HEADWALL AT BUNKER HILL AND STREAM W140-01-00. ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

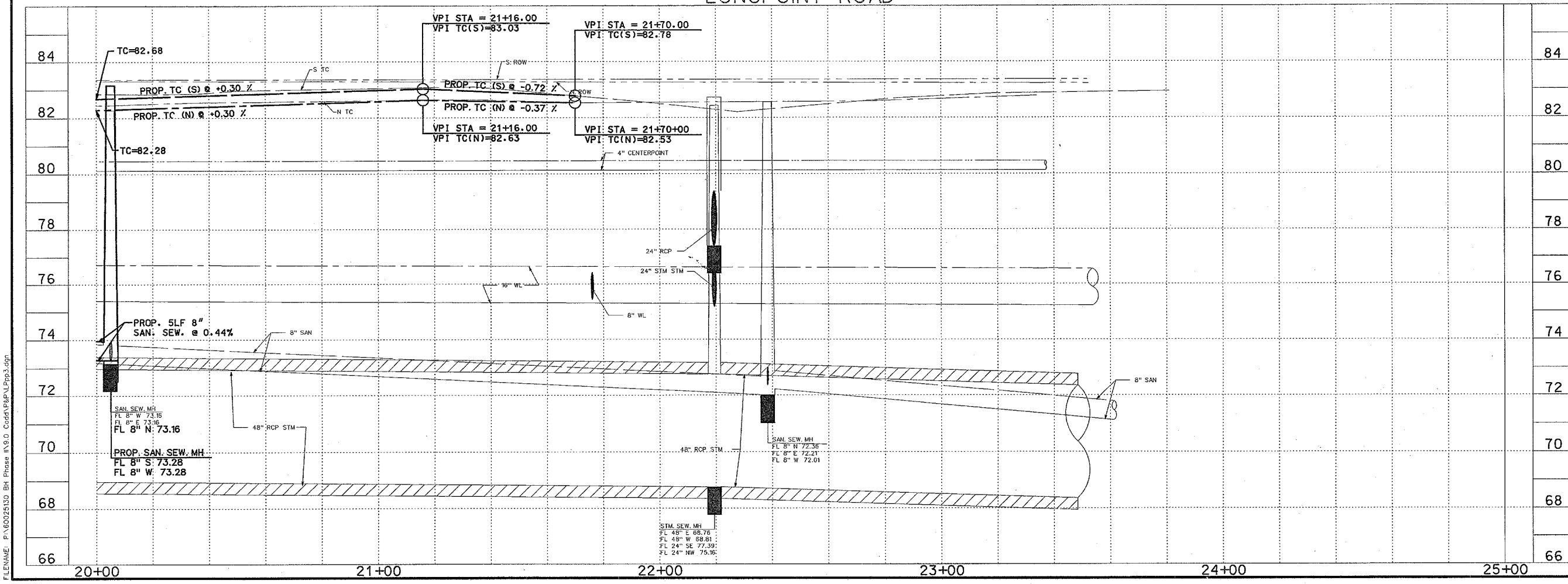
**TEMPORARY BENCHMARK**  
 TRAVERSE PT. \*26  
 60D NAIL  
 STA. 24+78.57 26.70' LT BL. "C"  
 NORTHING: 13853254.36  
 EASTING: 3068565.26  
 ELEV. 83.13'

PAVEMENT STATION AND OFFSETS			
NO.	DESCRIP.	STATION	OFFSET TC ELEV.
149	PCC	20+01.43	03.46' LT. 83.30
150	PCC	20+01.50	00.32' RT. 83.30
151	-	21+70.00	23.69' LT. 82.53
152	-	21+70.00	20.85' RT. 82.78



NOTE:  
 THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS DENOTED AS ZONE X ON THE FEMA FIRM PANEL 48201C0645L (EFFECTIVE JUNE 18, 2007)

**Bidding Purposes Only**  
 Not for Construction



**TCB | AECOM**

Approved: \_\_\_\_\_ Date: \_\_\_\_\_

QUALITY CONTROL: \_\_\_\_\_ Date: \_\_\_\_\_

**NOTICE:**  
 AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.

**PRIVATE UTILITIES LINES SHOWN**

CENTERPOINT ENERGY/ELECTRIC FACILITIES  
 APPROVED FOR CROSSING UNDERGROUND UTILITIES UNLESS NOTED. VALID AT TIME OF REVIEW ONLY.  
 Signature: \_\_\_\_\_ Date: 11/13/07

SBC APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY. SIGNATURE VALID FOR ONE YEAR.  
 Signature: \_\_\_\_\_ Date: 11/13/07

CENTERPOINT ENERGY GAS FACILITIES  
 (GAS SERVICE LINES ARE NOT SHOWN.)

TCE INC.  
 5757 WOODWAY  
 HOUSTON, TEXAS 77057  
 713.780.4100 tel.  
 713.780.0838 fax.

SURVEYED BY: U.E.I.  
 FB NO. P-5392

**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**BUNKER HILL ROAD IMPROVEMENTS  
 LONG POINT  
 PLAN & PROFILE  
 FROM STA. 20+00  
 TO STA. 25+00**

WBS NO. N-000767-0001-4

DRAWING SCALE  
 V - 1" = 2'  
 H - 1" = 20'

CITY OF HOUSTON PM  
 AZAR AHMADIAN

SHEET NO. 36 OF 146

FILENAME: P:\60025130 BH Phase 1\5.0 Civil\PLAN\Profile.dwg

NOTE:  
ALL DRIVEWAY RADII  
TO BE 10' UNLESS  
OTHERWISE NOTED

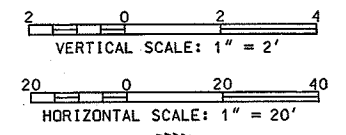
NOTE:  
THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF  
DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
48201C0645L (EFFECTIVE JUNE 18, 2007)

**PROJECT BENCHMARK**  
(TSARP) HARRIS COUNTY FLOODPLAIN  
REFERENCE MARK NUMBER 210275  
FLOOD PLAIN REFERENCE MARK, BRASS DISK STAMPED  
RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

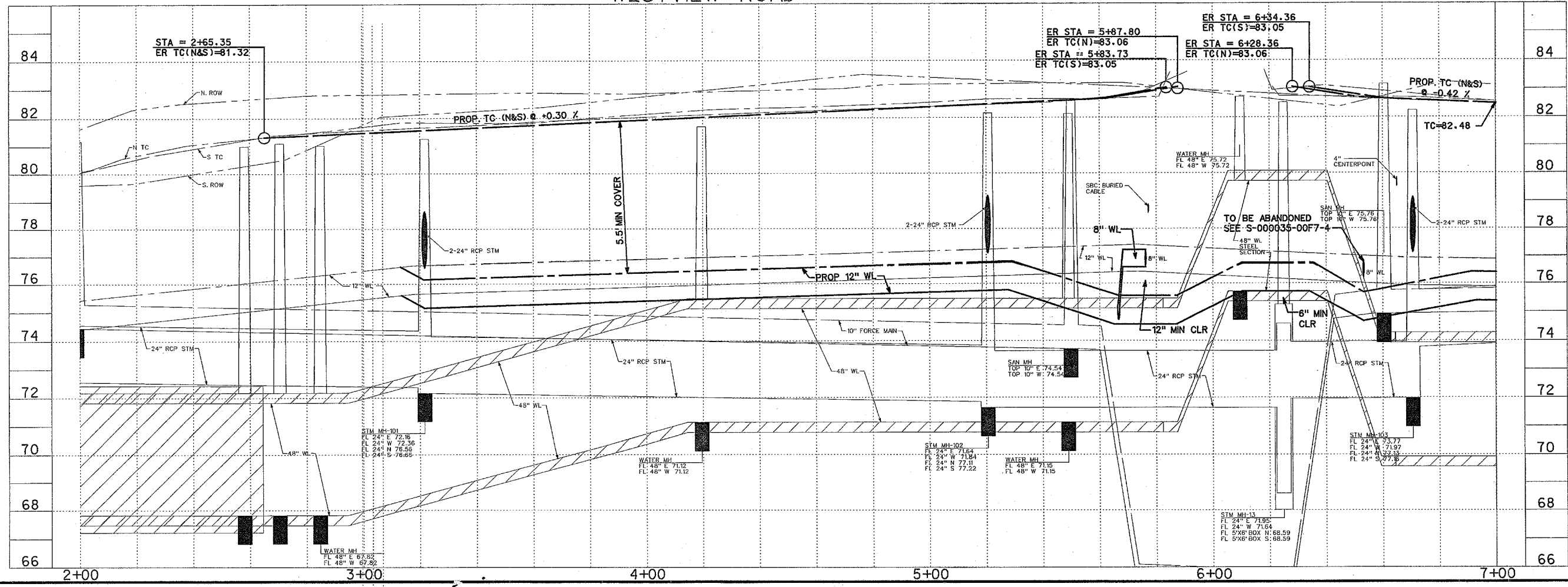
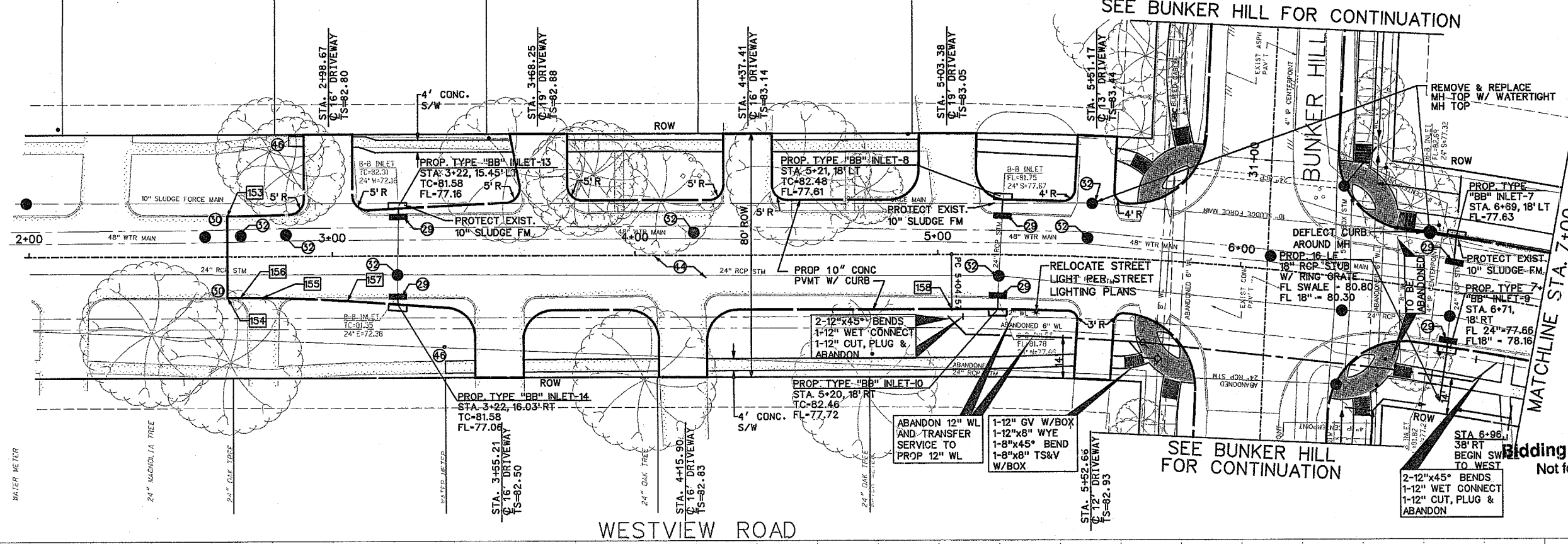
**TEMPORARY BENCHMARK**  
TRAVERSE PT. #8  
3/4" IRON ROD W/CAP  
STA. 30+35.10 24.92' LT BL. "A"  
NORTHING: 13852006.37  
EASTING: 3068148.24  
ELEV. 83.51'

TRAVERSE PT. #28  
3/4" IRON ROD W/CAP  
STA. 8+85.62 20.71' LT BL. "G"  
NORTHING: 13852063.57  
EASTING: 3068406.87  
ELEV. 82.02'

PAVEMENT STATION AND OFFSETS				
NO.	DESCRIP.	STATION	OFFSET	TC ELEV.
153	E/R	2+85.46	13.12' LT.	81.32'
154	E/R	2+65.46	13.63' RT.	81.32'
155	E/R	2+76.82	13.68' RT.	81.39'
156	E/R	2+69.75	13.63' RT.	81.34'
157	E/R	3+05.03	14.87' RT.	81.50'
158	E/R	5+04.57	18.00' RT.	82.32'



Bidding Purposes Only  
Not for Construction



**TCB | AECOM**

TCB INC.  
5757 WOODWAY  
HOUSTON, TEXAS 77057  
WWW.TCB-AECOM.COM

Approved: \_\_\_\_\_ Date: \_\_\_\_\_

Quality Control: \_\_\_\_\_ Date: \_\_\_\_\_

**NOTICE:**  
AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4667.

**PRIVATE UTILITIES LINES SHOWN**

CENTERPOINT ENERGY/ELECTRIC FACILITIES  
DATE: 1/13/07

CENTERPOINT ENERGY/GAS FACILITIES  
DATE: 1/13/07

TCB INC.  
5757 WOODWAY  
HOUSTON, TEXAS 77057  
713.780.4100 tel.  
713.780.0838 fax.

SURVEYED BY: U.E.I.  
FB NO. P-5392

**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**BUNKER HILL  
ROAD IMPROVEMENTS  
WESTVIEW  
PLAN & PROFILE  
FROM STA. 2+00  
TO STA. 7+00**

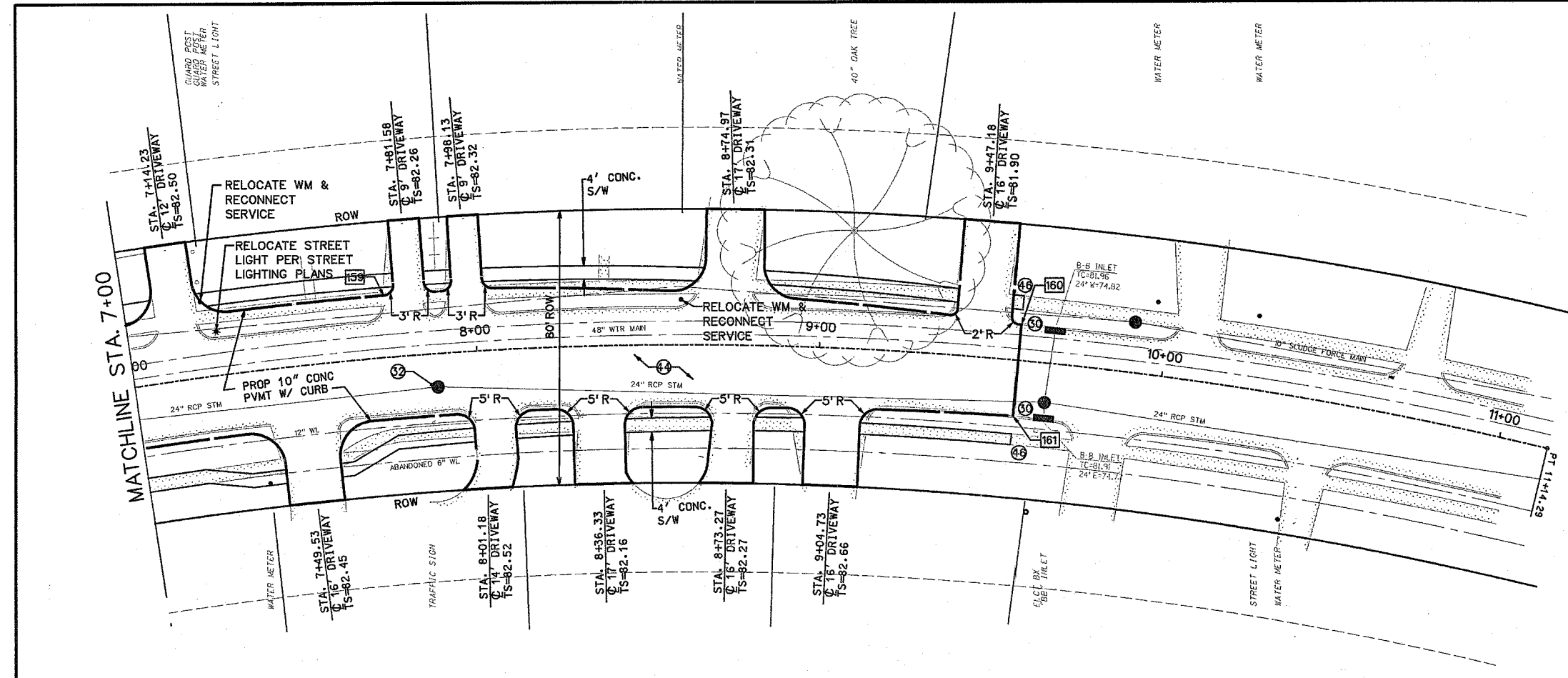
WBS NO. N-000767-0001-4

DRAWING SCALE  
V - 1" = 2'  
H - 1" = 20'

CITY OF HOUSTON PM  
AZAR A MADIAN

SHEET NO. 37 OF 146

FILENAME: P:\60023130 BR Phase I\3.0 Civil\Plan\WVpp1.dgn



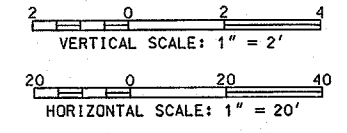
NOTE:  
ALL DRIVEWAY RADII  
TO BE 10' UNLESS  
OTHERWISE NOTED

**PROJECT BENCHMARK**  
(TS&P) HARRIS COUNTY FLOODPLAIN  
REFERENCE MARK NUMBER 210275  
FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
TRAVERSE PT. #8  
3/4" IRON ROD W/CAP  
STA. 30+35.10 24.92' LT. BL. "A"  
NORTHING: 13852066.37  
EASTING: 3068148.24  
ELEV. 83.51'

NOTE:  
THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF  
DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
48201C0645L (EFFECTIVE JUNE 18, 2007)

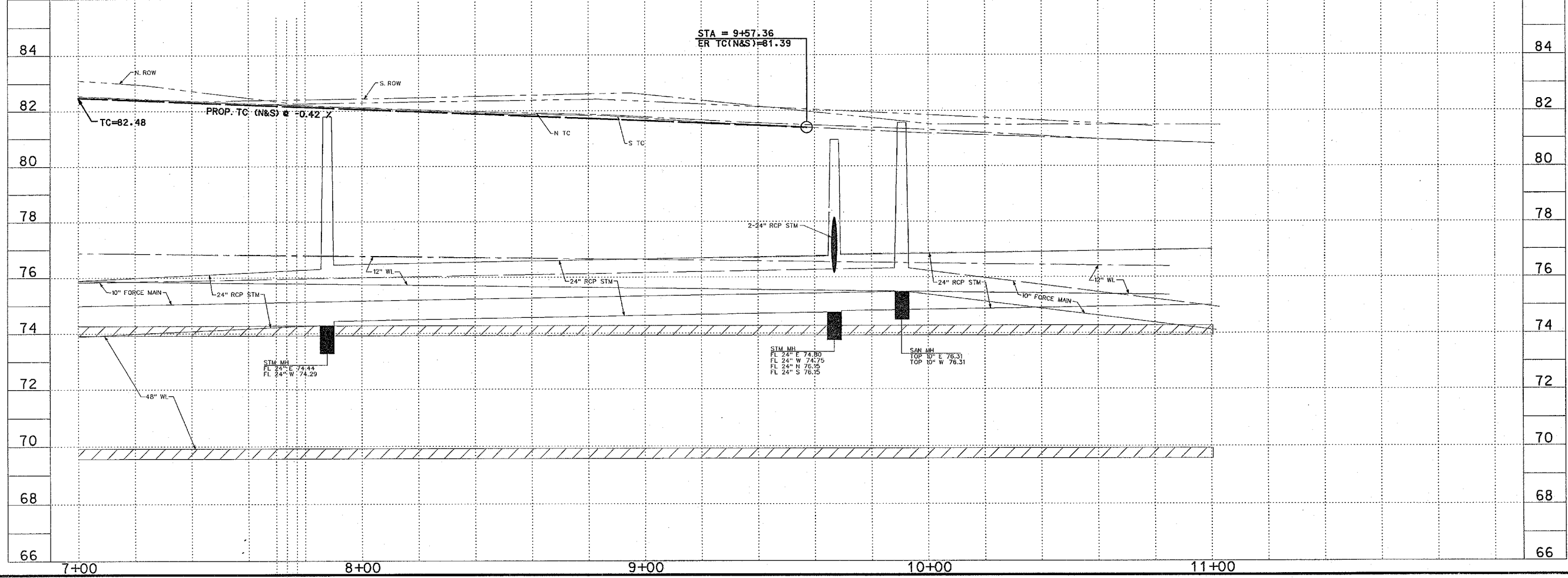
PAVEMENT STATION AND OFFSETS			
NO.	DESCRIP.	STATION	OFFSET TC ELEV.
159	E/R	7+74.30	18.00' LT. 82.28'
160	E/R	9+58.02	10.34' LT. 81.39'
161	E/R	9+58.02	16.28' RT. 81.39'



**Bidding Purposes Only**  
Not for Construction



**WESTVIEW ROAD**



<b>TCB   AECOM</b>		TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 713.780.4100 tel. 713.780.0838 fax.	
Approved	QUALITY CONTROL	Date	Date
<b>NOTICE:</b>			
AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.			
<b>PRIVATE UTILITIES LINES SHOWN</b>			
 CENTERPOINT ENERGY/ELECTRIC FACILITIES APPROVED FOR CROSSING UNDERGROUND FACILITIES. UNLESS NOTED, VALID AT TIME OF REVIEW ONLY.		DATE: 11/13/07	
 CENTERPOINT ENERGY/GAS FACILITIES APPROVED FOR UNDERGROUND FACILITIES ONLY. SIGNATURE VALID FOR ONE YEAR.		DATE: 1-20-07	
SURVEYED BY: U.E. I. FB NO. P-5392		<b>CITY OF HOUSTON</b> DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
<b>BUNKER HILL          ROAD IMPROVEMENTS          WESTVIEW          PLAN &amp; PROFILE          FROM STA. 7+00          TO STA. 11+00</b>			
WBS NO. N-000767-0001-4			
DRAWING SCALE			
V - 1" = 2'			
H - 1" = 20'			
CITY OF HOUSTON PM			
AZAR AHMADIAN			
SHEET NO. 38 OF 146			

FILENAME: P:\60025130 BH Phase IN 0.0 Corrd\128P\WVp2.dgn

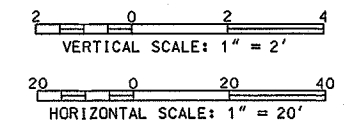
NOTE:  
ALL DRIVEWAY RADII  
TO BE 10' UNLESS  
OTHERWISE NOTED

**PROJECT BENCHMARK**  
(TSARP) HARRIS COUNTY FLOODPLAIN  
REFERENCE MARK NUMBER 210275  
FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

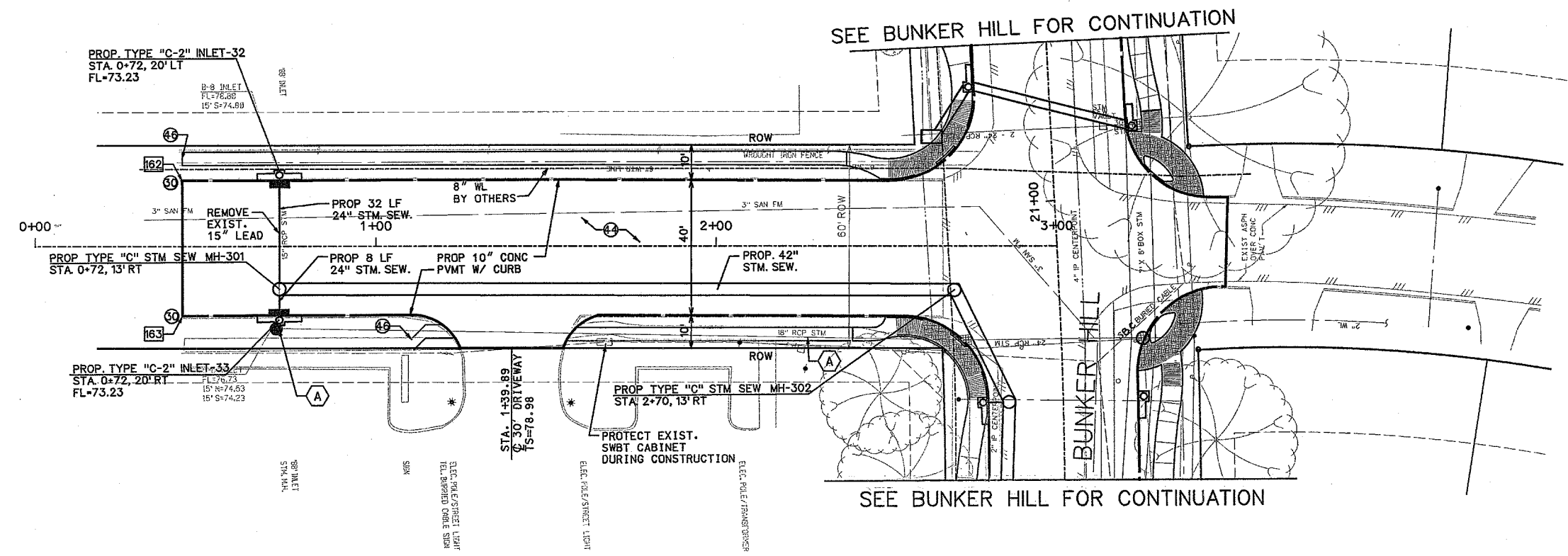
**TEMPORARY BENCHMARK**  
TRAVERSE PT. #5  
3/4" IRON ROD W/CAP  
STA. 21+10.61 28.49' LT BL. "A"  
NORTHING: 13851158.12  
EASTING: 3068477.24  
ELEV. 78.17'

NOTE:  
THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF  
DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
48201C0645L (EFFECTIVE JUNE 18, 2007)

PAVEMENT STATION AND OFFSETS			
NO.	DESCRIP.	STATION	OFFSET TC ELEV.
162	PI	0+42.29	20.00' LT. 77.58'
163	PI	0+43.51	20.00' RT. 77.63'



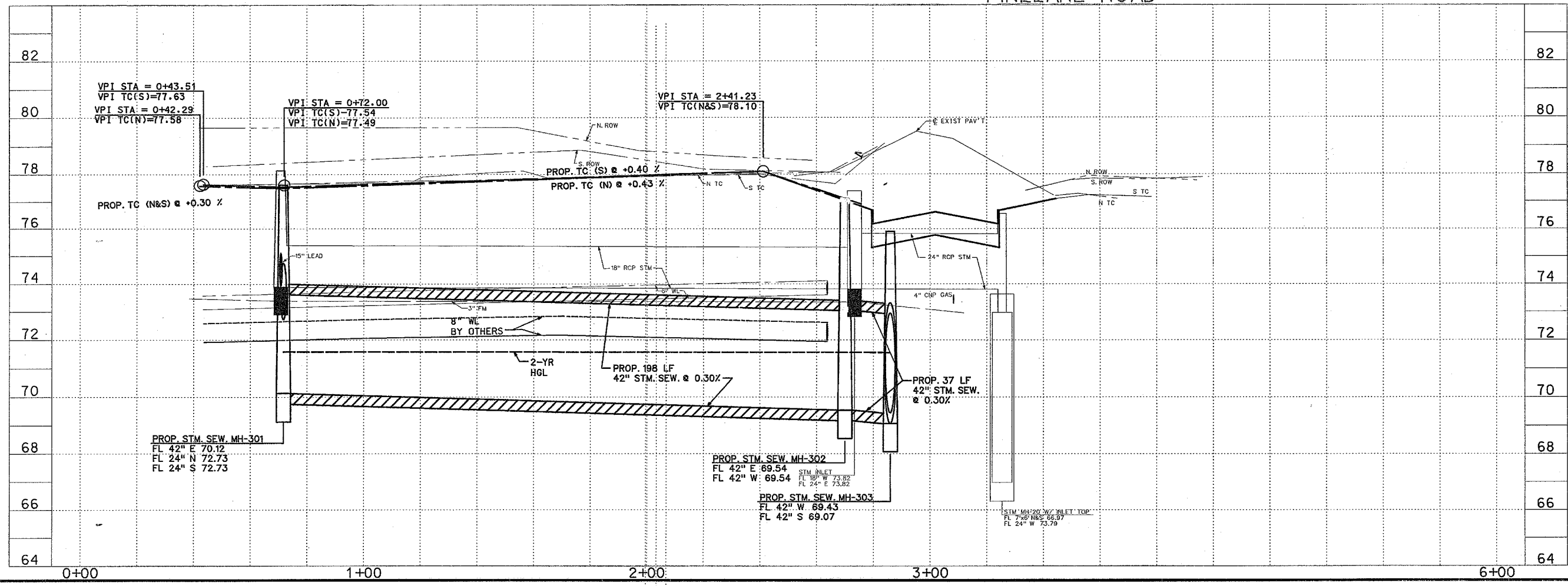
**Bidding Purposes Only**  
Not for Construction



SEE BUNKER HILL FOR CONTINUATION

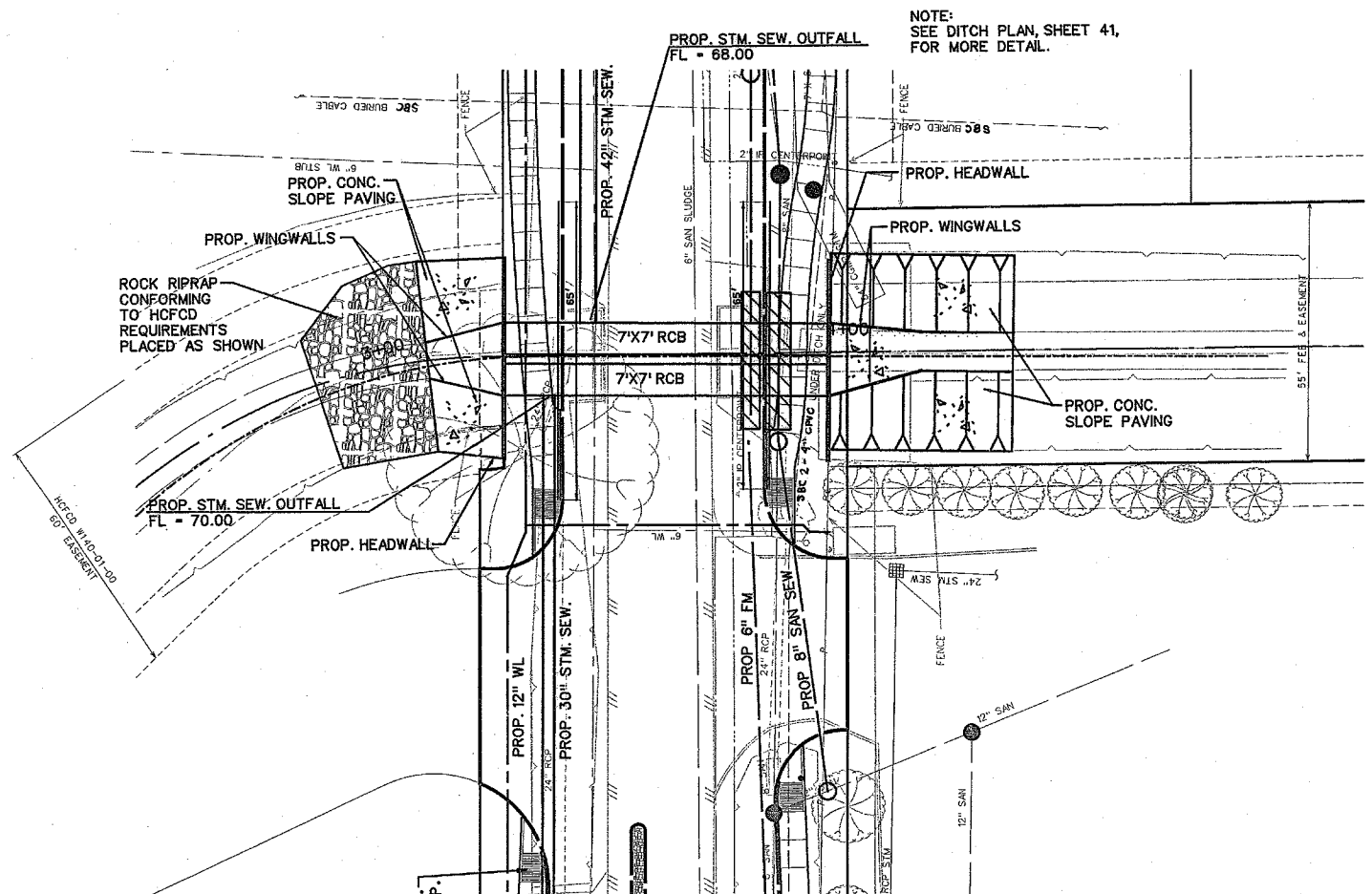
SEE BUNKER HILL FOR CONTINUATION

**PINELAKE ROAD**

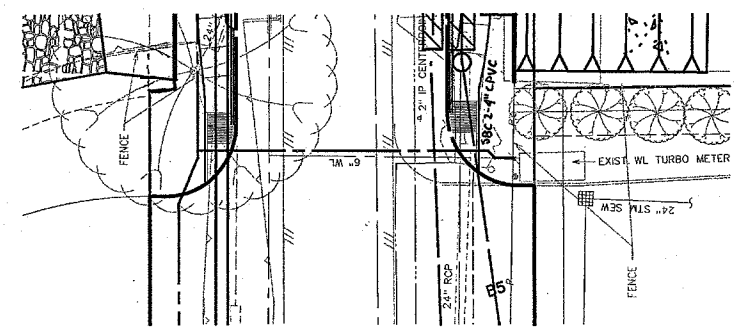


<b>TCB   AECOM</b>		TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 WWW.TCB-AECOM.COM
Approved Date	QUALITY CONTROL Date	
<b>NOTICE:</b> AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.		
<b>PRIVATE UTILITIES LINES SHOWN</b>		
 CENTERPOINT ENERGY/ELECTRIC FACILITIES (APPROVAL ONLY FOR CROSSING UNDERGROUND FACILITIES. UNLESS NOTED, VALID AT TIME OF REVIEW ONLY.) DATE 11-13-07		
 SBC APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY. STORAGE 10.10 FOR ONE YEAR. DATE 11-20-07		
 TCE INC. APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY. STORAGE 10.10 FOR ONE YEAR. DATE 11-13-07		
TCE INC. 5757 WOODWAY HOUSTON, TEXAS 77057 713.780.4100 tel. 713.780.0838 fax.		
SURVEYED BY: U.E.I. FB NO. P-1392		
<b>CITY OF HOUSTON</b> DEPARTMENT OF PUBLIC WORKS AND ENGINEERING		
<b>BUNKER HILL ROAD IMPROVEMENTS PINELAKE PLAN &amp; PROFILE FROM STA. 1+00 TO STA. 3+00</b>		
WBS NO. N-000767-0001-4		
DRAWING SCALE		
V - 1" = 2'		
H - 1" = 20'		
CITY OF HOUSTON PM		
AZAR AHMADIAN		
SHEET NO. 39 OF 146		

FILENAME: P:\60025130 BH Phase I\NS.D Coord\pkp\pinelake.dgn



NOTE:  
SEE DITCH PLAN, SHEET 41,  
FOR MORE DETAIL.



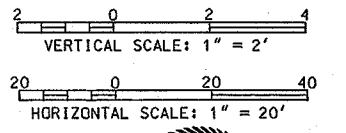
**PROJECT BENCHMARK**  
(TSARP) HARRIS COUNTY FLOODPLAIN  
REFERENCE MARK NUMBER 210275  
FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
TRAVERSE PT. \*3  
3/4" IRON ROD W/CAP  
STA. 15+36.87 26.35' RT BL. "A"  
NORTHING: 13850597.77  
EASTING: 3088591.03  
ELEV. 79.35'

NOTE:  
THE PROJECT AREA IS OUTSIDE OF THE LIMITS OF  
DETAILED STUDY FOR THE FEMA FLOODPLAIN, IT IS  
DENOTED AS ZONE X ON THE FEMA FIRM PANEL  
48201C0645L (EFFECTIVE JUNE 18, 2007)

NOTE: TAILWATER USED IN THE HYDRAULIC  
ANALYSIS OF THE STM SEW IS:

- 2-YEAR (ALL STM SEW)-SOFFIT
- 100-YEAR (84" OUTFALL)-76.22'
- 100-YEAR (42" OUTFALL)-76.40'
- 100-YEAR (30" OUTFALL)-76.40'

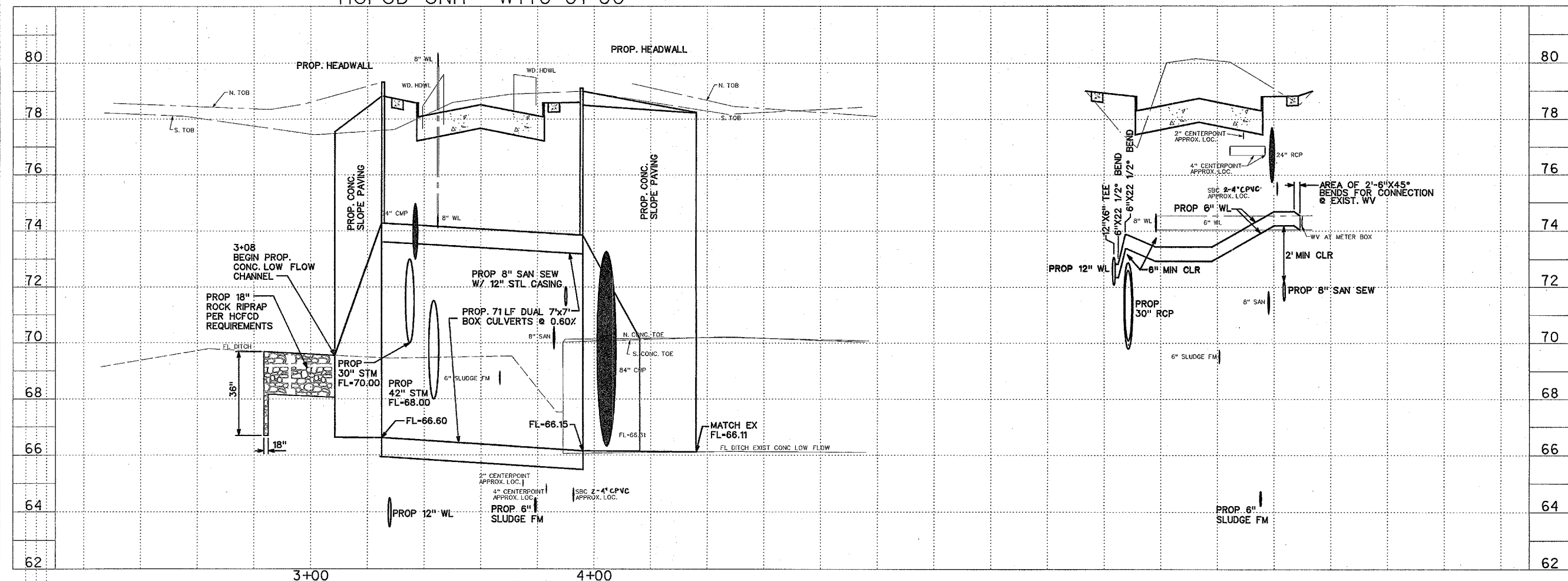


**Bidding Purposes Only**  
Not for Construction



HCFCD UNIT #W140-01-00

STA. 15+20  
WATER LINE CROSSING



<b>TCB   AECOM</b>		TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 WWW.TCB.AECOM.COM
Approved Date	QUALITY CONTROL Date	
<b>NOTICE:</b>		
AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4867.		
<b>PRIVATE UTILITIES LINES SHOWN</b>		
 DATE: 11/30/07 CENTERPOINT ENERGY/ELECTRIC FACILITIES (APPROVED FOR EXISTING UNDERGROUND FACILITIES, UNLESS NOTED, VALID AT TIME OF REVIEW ONLY.)		DATE: 11-20-07
 DATE: 1/2/07 SBC (APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY. SIGNATURE VALID FOR ONE YEAR.) CENTERPOINT ENERGY, GAS FACILITIES (GAS SERVICE LINES ARE NOT SHOWN.)		DATE: 1/2/07
TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 713.780.4100 tel. 713.780.0838 fax.		
SURVEYED BY: U.E. I. FB NO. P-5392		
<b>CITY OF HOUSTON</b> DEPARTMENT OF PUBLIC WORKS AND ENGINEERING		
BUNKER HILL ROAD IMPROVEMENTS HCFCD UNIT #W140-01-00 PLAN & PROFILE		
WBS NO. N-060767-0001-4		
DRAWING SCALE V - 1" = 2' H - 1" = 20'		
CITY OF HOUSTON PM AZAR AHMADIAN		
SHEET NO. 40 OF 146		

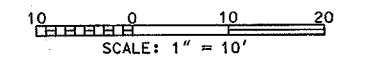
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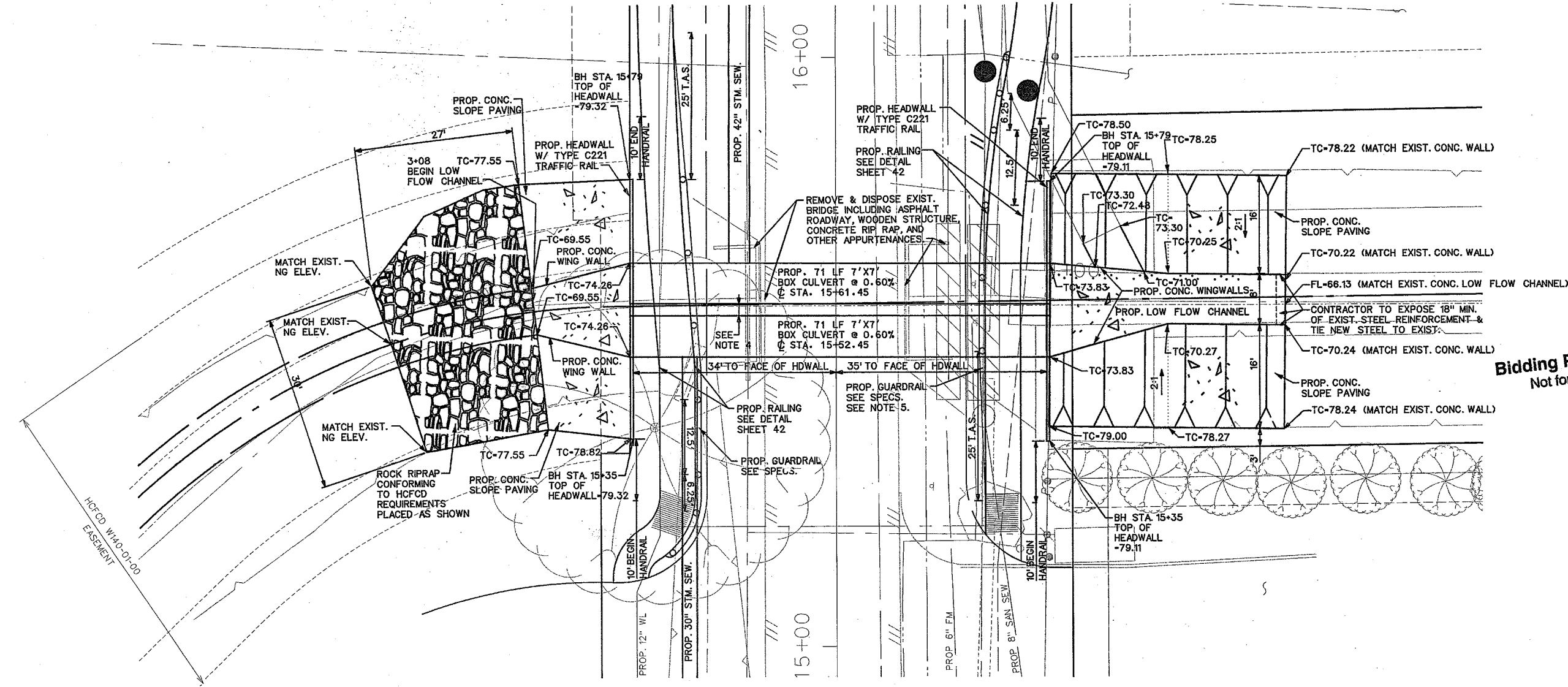
**PROJECT BENCHMARK**  
 (TSARP) HARRIS COUNTY FLOODPLAIN  
 REFERENCE MARK NUMBER 210275  
 FLOOD PLAN REFERENCE MARK, BRASS DISK STAMPED  
 RM 210275 ON SOUTHEAST CORNER OF BRIDGE IN  
 HEADWALL AT BUNKER HILL AND STREAM W140-01-00.  
 ELEV. 78.95 (NAVD 1988, 2001 ADJUSTMENT)

**TEMPORARY BENCHMARK**  
 TRAVERSE PT. #3  
 3/4" IRON ROD W/CAP  
 STA. 15+36.87 26.35' RT BL. "A"  
 NORTHING: 13850597.77  
 EASTING: 3068591.03  
 ELEV. 79.35'

- NOTES ON THIS SHEET ONLY:**
1. TC DENOTES TOP CONC.
  2. REFER TO HCFCD CONCRETE CHANNEL LINING DETAIL SHEET FOR ADDITIONAL DESIGN PARAMETERS FOR LOW FLOW CHANNEL
  3. "BH STA" REFERS TO BUNKER HILL BASELINE
  4. 8" SPACE BETWEEN OUTSIDE WALLS OF DUAL 7'X7' RCB TO BE FILLED WITH FLOWABLE FILL.
  5. GUARDRAIL POSTS SHALL BE PLACED ADJACENT TO "STREET SIDE" EDGE OF NEW SIDEWALK.

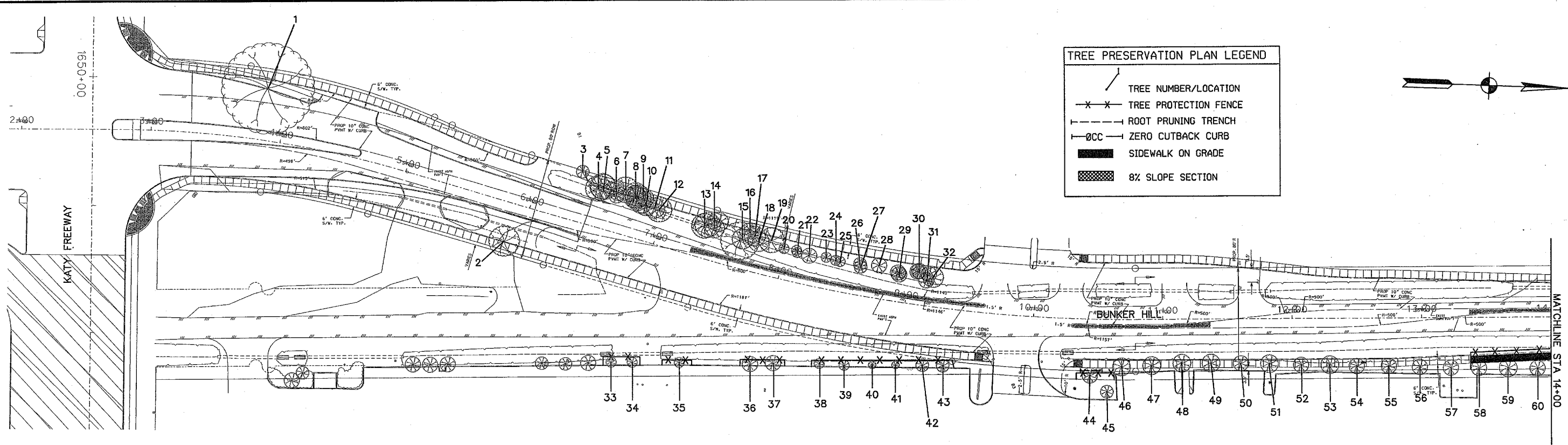


**Bidding Purposes Only**  
 Not for Construction



<b>TCB   AECOM</b>		TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 WWW.TCB-AECOM.COM	
Approved Date	QUALITY CONTROL Date	<b>NOTICE:</b> AT LEAST 48 HOURS BEFORE EXCAVATING IN STREET R.O.W. OR EASEMENTS CALL THE LONE STAR NOTIFICATION 713-223-4567.	
PRIVATE UTILITIES LINES SHOWN			
CENTERPOINT ENERGY/ELECTRIC FACILITIES (APPROVED ONLY FOR CROSSING UNDERGROUND UTILITIES) UNLESS NOTED, VALID AT TIME OF REVIEW ONLY		DATE: 11/13/07	
SBC APPROVED FOR UNDERGROUND CONDUIT FACILITIES ONLY. SIGNATURE VALID FOR ONE YEAR.		DATE: 11-20-07	
CENTERPOINT ENERGY, GAS FACILITIES (GAS SERVICE LINES ARE NOT SHOWN.)		DATE: 11/13/07	
TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 713.780.4100 tel. 713.780.0838 fax.		SURVEYED BY: U.E. I. FB NO. P-5392	
CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING			
BUNKER HILL ROAD IMPROVEMENTS HCFCD UNIT *W140-01-00 PROPOSED LOW FLOW CHANNEL			
WBS NO. N-000767-0001-4		DRAWING SCALE	
		1" = 10'	
CITY OF HOUSTON PM		AZAR A MADIAN	
SHEET NO. 41		OF 146	

FILENAME: P:\00025130 BH Phase 1\19 G Codes\08\plan\01\01.dwg

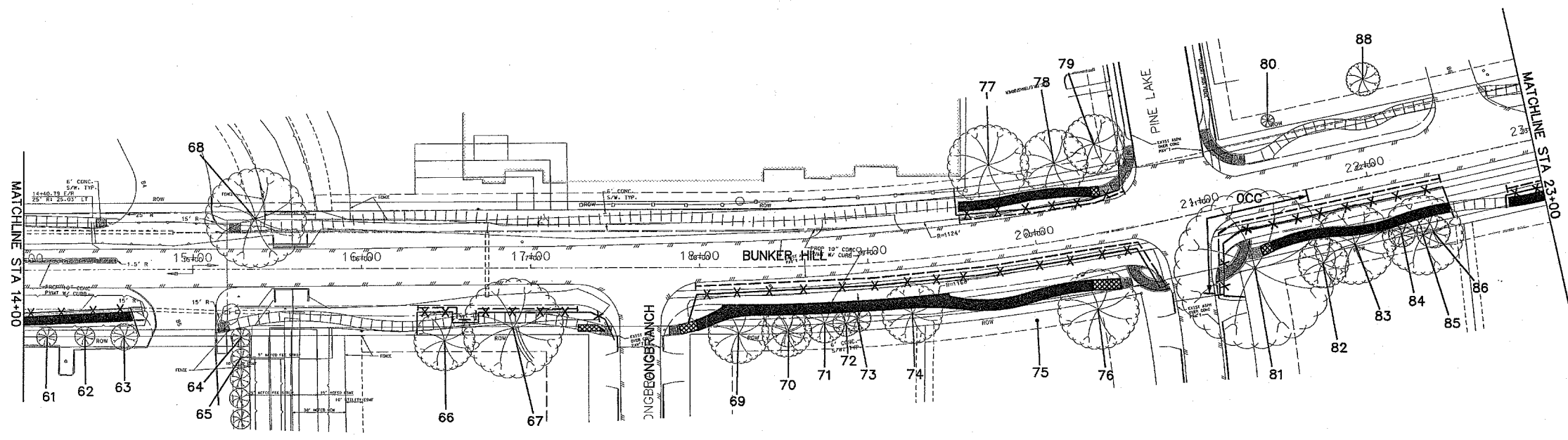


**TREE PROTECTION PLAN LEGEND**

- TREE NUMBER/LOCATION
- TREE PROTECTION FENCE
- ROOT PRUNING TRENCH
- ZERO CUTBACK CURB
- SIDEWALK ON GRADE
- 8% SLOPE SECTION



THIS TREE PROTECTION PLAN WAS DEVELOPED WITH INFORMATION PROVIDED BY DESIGN ENGINEER IN DRAWINGS DATED AUGUST 2007. THE PLAN CONSIDERS ALL FITTINGS, VERTICAL OFFSETS AND AREAS OF NECESSARY EXCAVATION. CHANGES MADE TO CONSTRUCTION DESIGN MAY COMPROMISE THE TREE PROTECTION PLAN AND BE A VIOLATION OF CITY OF HOUSTON STREET TREE ORDINANCE. REFER SUPPLEMENTAL SPECIFICATIONS 01562 AND 02915 FOR TREE PROTECTION AND TREE PLANTING SPECIFICATIONS.



**TCB | AECOM**  
 TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057  
 WWW.TCB-AECOM.COM

TCB INC.  
 5757 WOODWAY  
 HOUSTON, TEXAS 77057  
 713.780.4100 tel.  
 713.780.0838 fax.

SURVEYED BY:  
 FB NO.

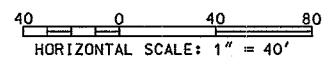
PARK AND RECREATION  
**C.N. Koehl**  
 Urban Forstry, Inc.  
 3237 Canvasback Street • Katy, Texas 77493  
 281-391-0022 CNKOEHL@COMCAST.NET  
 APPROVED: *Carly Noll* 11/15/07

**CITY OF HOUSTON**  
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**Bidding Purposes Only**  
 Not for Construction

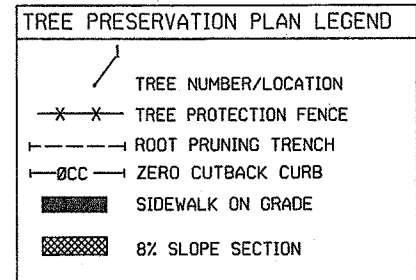
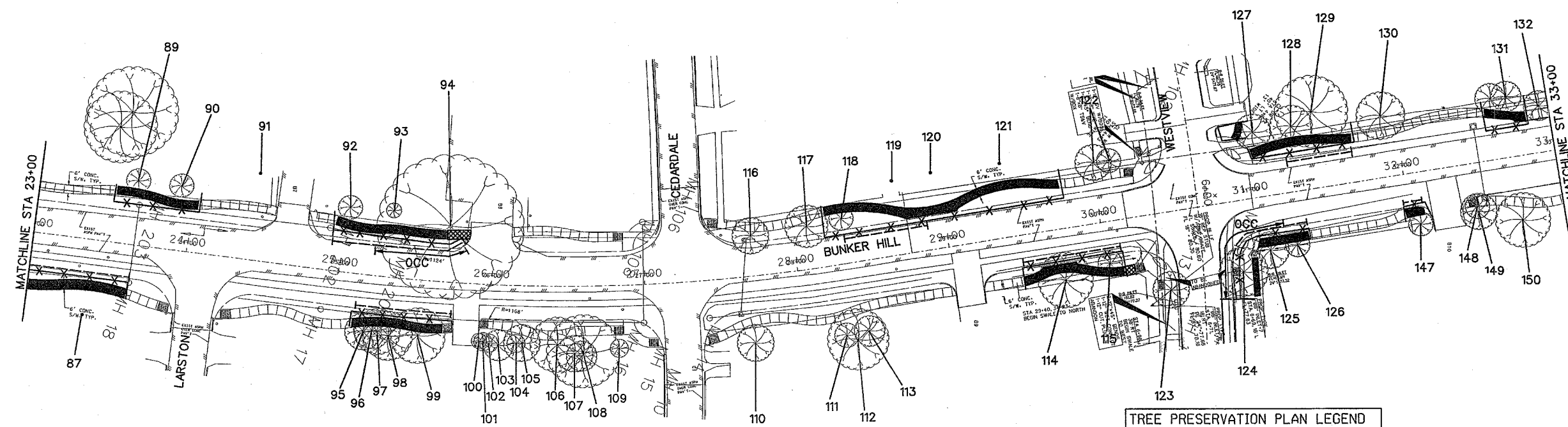
**TREE PROTECTION PLAN**  
 SHEET 1 OF 6

WBS NO. N-0767-001  
 DRAWING SCALE  
 AS SHOWN  
 CITY OF HOUSTON PW

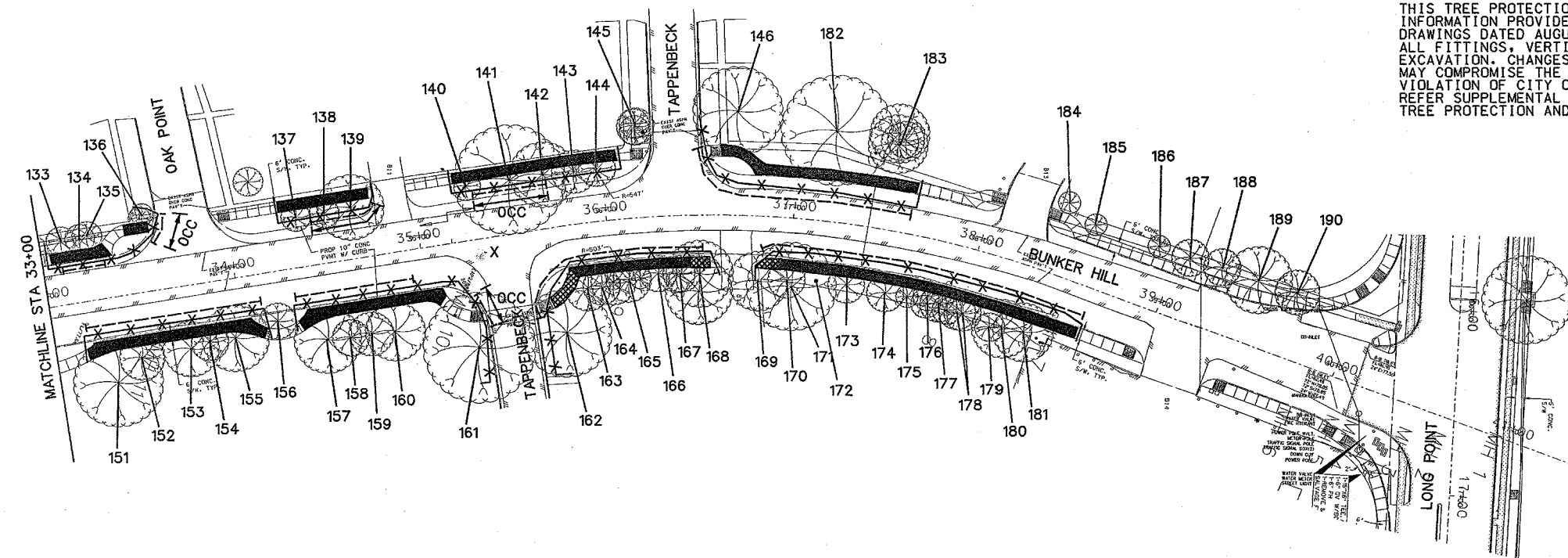


SHEET NO. 119 OF 196

FILENAME: P:\A6002530\_BH\_Phase 1\A.D. Coe\TreeStudy\BunkerHill-F1.dgn

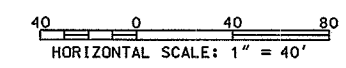


THIS TREE PROTECTION PLAN WAS DEVELOPED WITH INFORMATION PROVIDED BY DESIGN ENGINEER IN DRAWINGS DATED AUGUST 2007. THE PLAN CONSIDERS ALL FITTINGS, VERTICAL OFFSETS AND AREAS OF NECESSARY EXCAVATION. CHANGES MADE TO CONSTRUCTION DESIGN MAY COMPROMISE THE TREE PROTECTION PLAN AND BE A VIOLATION OF CITY OF HOUSTON STREET TREE ORDINANCE. REFER SUPPLEMENTAL SPECIFICATIONS 01562 AND 02915 FOR TREE PROTECTION AND TREE PLANTING SPECIFICATIONS.

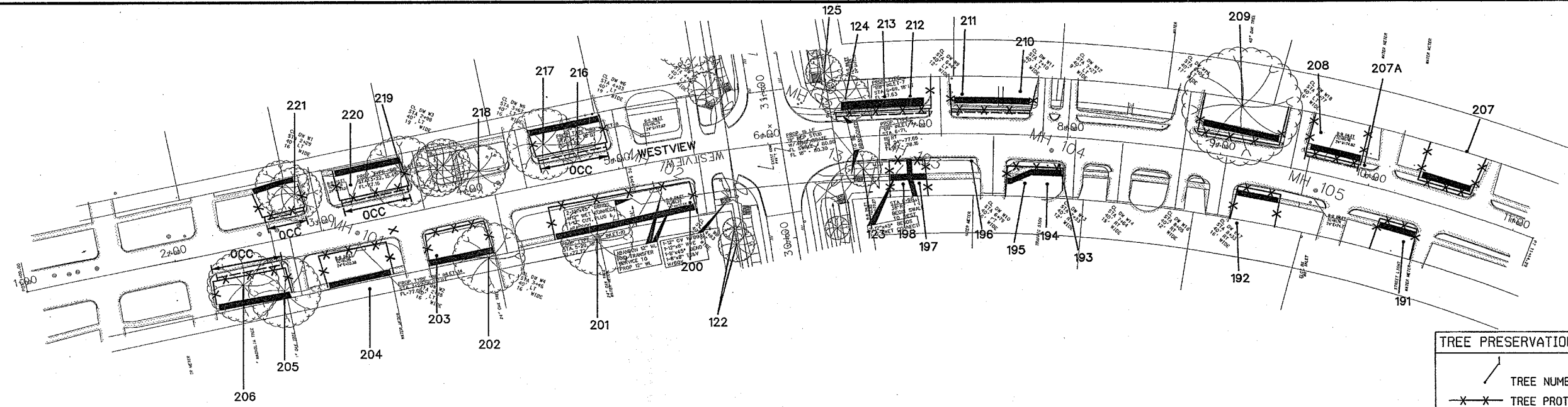


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TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 713.780.4100 tel. 713.780.0838 fax.		
SURVEYED BY: FB NO.		
PARK AND RECREATION		<b>C.N. Koehl</b> Urban Forestry, Inc. 3237 Canvasback Street • Katy, Texas 77493 281-391-0022 CNKOEHL@COMCAST.NET
APPROVED <i>Craig N. Koehl</i> 11/15/07		
CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING		
<b>TREE PROTECTION PLAN</b> SHEET 2 OF 6		
WBS NO. N-0767-001		
DRAWING SCALE		
AS SHOWN		
CITY OF HOUSTON PM		
SHEET NO. 115 OF 146		



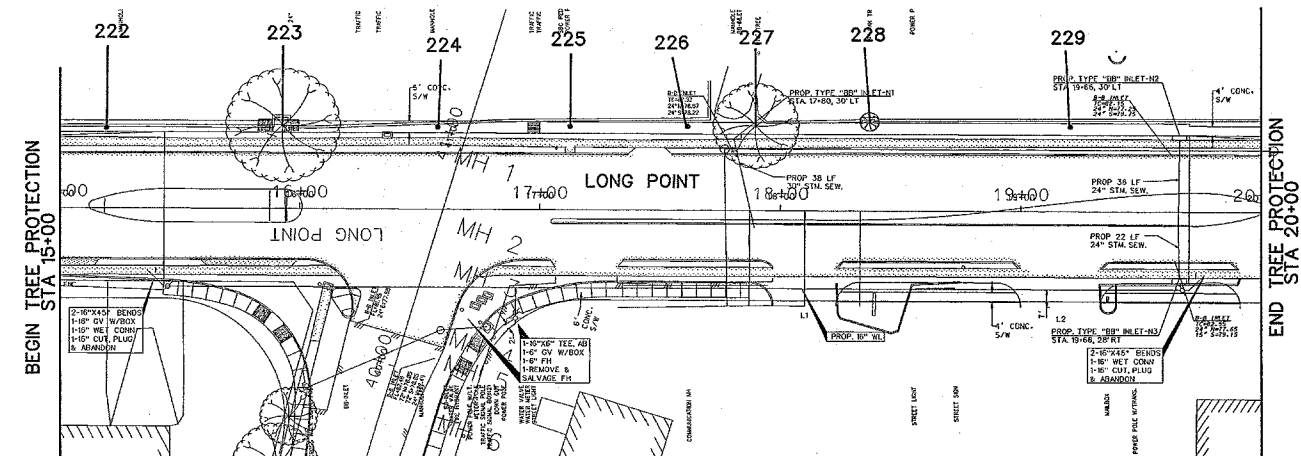
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**TREE PRESERVATION PLAN LEGEND**

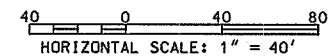
- TREE NUMBER/LOCATION
- TREE PROTECTION FENCE
- ROOT PRUNING TRENCH
- ZERO CUTBACK CURB
- SIDEWALK ON GRADE
- 8% SLOPE SECTION

THIS TREE PROTECTION PLAN WAS DEVELOPED WITH INFORMATION PROVIDED BY DESIGN ENGINEER IN DRAWINGS DATED AUGUST 2007. THE PLAN CONSIDERS ALL FITTINGS, VERTICAL OFFSETS AND AREAS OF NECESSARY EXCAVATION. CHANGES MADE TO CONSTRUCTION DESIGN MAY COMPROMISE THE TREE PROTECTION PLAN AND BE A VIOLATION OF CITY OF HOUSTON STREET TREE ORDINANCE. REFER SUPPLEMENTAL SPECIFICATIONS 01562 AND 02915 FOR TREE PROTECTION AND TREE PLANTING SPECIFICATIONS.



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Not for Construction

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TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 713.780.4100 tel. 713.780.0838 fax.	
SURVEYED BY: FB NO.	
PARK AND RECREATION <b>C.N. Koehl</b> Urban Forestry, Inc. <small>3237 Canvassack Street • Katy, Texas 77493 281-391-0022 CNKOEHL@COMCAST.NET</small>	
APPROVED <i>C.N. Koehl</i> 11/15/07	
<b>CITY OF HOUSTON</b> DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
<b>TREE PROTECTION PLAN</b> <b>SHEET 3 OF 6</b>	
WBS NO. N-0767-001	DRAWING SCALE AS SHOWN CITY OF HOUSTON PM
SHEET NO. 116 OF 146	



FILENAME: P:\60025\30 BH Phase II\9.0 Coord\TreeStudy\Bunkerhill TP3.dgn



14217" Tallow	Not ordinance tree, will be protected with 141	
14314" Tallow	Not ordinance tree, will be protected with 141	
14412" Tallow	Not ordinance tree, will be protected with 141	
1459" Rain tree	Not ordinance tree	Clearance prune
14623" Pine	Private tree, protect to avoid liability	Fence, Root prune for street, Sidewalk on grade, Clearance prune
1479" Pecan	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate
1489" Live Oak	Ordinance tree, will have to remove for road construction	Remove tree, provide 9" in replacement to comply with ordinance
14913" Boxelder	Not ordinance tree	Clearance prune
15017" Post Oak	Private tree, protect to avoid liability	Clearance prune
1525" Pine	Private tree, protect to avoid liability	Fence, Root prune for street, Sidewalk on grade, Clearance prune
15214" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate
15315" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate
15410" Pecan	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate
15518" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate
1569" Water Oak	Ordinance tree, will have to remove for road construction	Remove tree, provide 9" in replacement to comply with ordinance
15728" Cedar	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate
15812" Cedar	Not ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
15914" Cedar	Not ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
16016" Cedar	Not ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
16134" Water Oak	Ordinance tree	Fence, Root prune for street, Zero Curb Cutback, Clearance prune, Crown Cleaning
16226" Post Oak	Ordinance tree	Fence, Root prune for street, Zero Curb Cutback, Clearance prune, Crown Cleaning
16315" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, May need 8% slope to meet landing, Clearance prune, Root stimulate
16411" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
16513" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
16610" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
16713" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
16818" Pine	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, May need 8% slope to meet drive
16917" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, May need 8% slope to meet drive
1708" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
1727" Post Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
17217" Post Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
17312" Pine	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
1748" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
1755" Sugarberry	Not ordinance tree	Clearance prune
1768" American Elm	Not ordinance tree	Clearance prune
17711" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
17811" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
1796" Sugarberry	Not ordinance tree, should not be impacted	
18016" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
18116" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune
18225" Live Oak	Private tree, protect to avoid liability	Fence, Root prune for street, Sidewalk on grade, Clearance prune
18312" Water Oak	Private tree, protect to avoid liability	Fence, Root prune for street, Sidewalk on grade, Clearance prune
1846" Willow	Private tree, should not be impacted	
1853" Palm	Not ordinance tree, should not be impacted	
1863" Palm	Not ordinance tree, should not be impacted	
1873" Arborvitae	Not ordinance tree, should not be impacted	
1883" Palm	Not ordinance tree, should not be impacted	
1893" Palm	Not ordinance tree, should not be impacted	
1903" Palm	Not ordinance tree, should not be impacted	
Trees on Westview		
1921" Post Oak	Ordinance tree	Fence, Sidewalk on grade, Clearance prune
19214" Post Oak	Private tree, protect to avoid liability	Fence, Sidewalk on grade, Clearance prune
19317" Pine	Ordinance tree, will have to remove for road construction	Remove tree, provide 17" in replacement to comply with ordinance
1949" Pine	Ordinance tree	Fence, Sidewalk on grade, Clearance prune
1959" Pine	Ordinance tree	Fence, Sidewalk on grade, Clearance prune
19610" Pecan (dead)	Dead tree, will have to remove for road construction	Remove tree, no replacement required
19710" Persimmon	Not ordinance tree	Will be protected with tree 198
1987" Pecan	Ordinance tree	Fence, sidewalk on grade
199Not used		
20027" Post Oak	Ordinance tree	Fence, Sidewalk on grade, Clearance prune
2024" Post Oak	Ordinance tree	Fence, Sidewalk on grade, Clearance prune
20212" Pine	Ordinance tree	Fence, Sidewalk on grade, Clearance prune
20325" Water Oak	Ordinance tree	Fence, Sidewalk on grade, Clearance prune
20422" Pine	Private tree, protect to avoid liability	Fence, Sidewalk on grade
20525" Post Oak	Ordinance tree	Fence, Root prune for street, zero curb cutback, Sidewalk on grade, Root stimulate
20620" Magnolia	Ordinance tree	Fence, Root prune for street, zero curb cutback, Sidewalk on grade, Clearance
20715" Post Oak	Ordinance tree	Fence, Sidewalk on grade, Clearance prune
207A5" Redbud	Not ordinance tree, will have to remove for road construction	Remove tree, no replacement required
20835" Live Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Root stimulate
20919" Post Oak	Ordinance tree	Fence, Sidewalk on grade, Clearance prune
21026" Live Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate

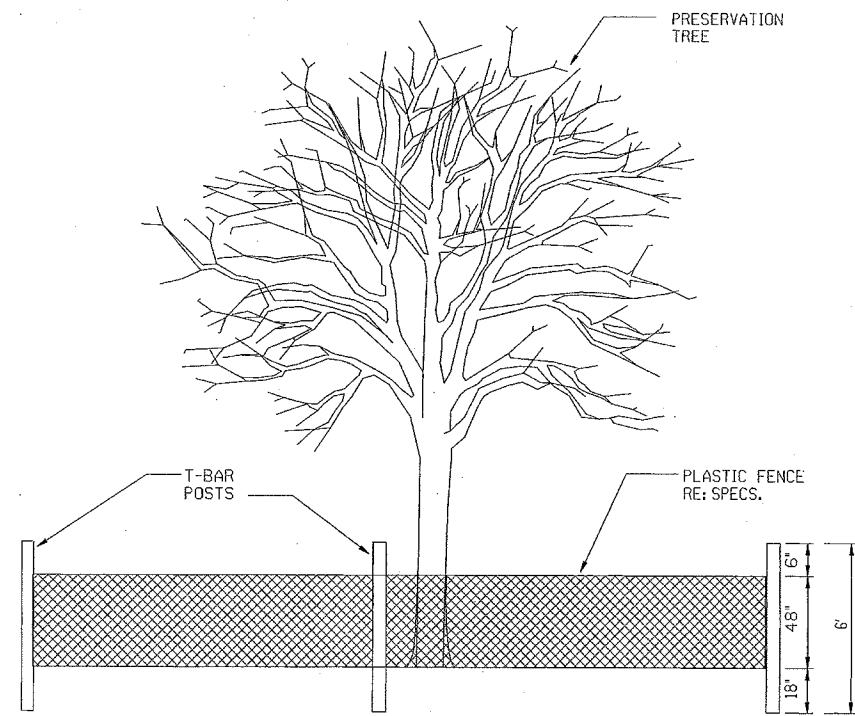
21114" Pine	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate
21224" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate
21328" Water Oak	Ordinance tree	Fence, Root prune for street, Sidewalk on grade, Clearance prune, Root stimulate
214Not used		
215Not used		
21613" Water Oak	Ordinance tree	Fence, Root prune for street, Zero curb cutback, Sidewalk on grade, Root stimulate
21723" Water Oak	Ordinance tree	Fence, Root prune for street, Zero curb cutback, Sidewalk on grade, Root stimulate
21814" Post Oak (thin)	Ordinance tree, will have to remove for road construction	Remove tree, provide 14" in replacement planting to comply with ordinance
21918" Post Oak	Ordinance tree	Fence, Root prune for street, Zero Curb cutback, Sidewalk on grade, Crown Cleaning
22017" Post Oak	Ordinance tree	Fence, Root prune for street, Zero Curb cutback, Sidewalk on grade, Crown Cleaning
22113" Post Oak	Ordinance tree	Fence, Root prune for street, Zero Curb cutback, Sidewalk on grade, Crown Cleaning
Trees on Lanapoint Road		
22215" Loblolly Pine	Ordinance tree, will have to remove for road construction	Remove tree, provide 15" in replacement planting to comply with ordinance
22310" Black Locust	Not ordinance tree, will have to remove for road construction	Remove tree, no replacement required
22414" Water Oak	Ordinance tree, will have to remove for road construction	Remove tree, provide 14" in replacement planting to comply with ordinance
2259" Loblolly Pine	Ordinance tree, will have to remove for road construction	Remove tree, provide 9" in replacement planting to comply with ordinance
22616" Water Oak	Ordinance tree, will have to remove for road construction	Remove tree, provide 16" in replacement planting to comply with ordinance
22711" Water Oak	Ordinance tree, will have to remove for road construction	Remove tree, provide 11" in replacement planting to comply with ordinance
22810" Loblolly Pine	Ordinance tree, topped by utility, poor condition, will have to remove for road construction	Remove tree, provide 2" in replacement planting to comply with ordinance
22914" Water Oak	Ordinance tree, topped by utility, poor condition, will have to remove for road construction	Remove tree, provide 2" in replacement planting to comply with ordinance

FILENAME: P:\60025130 BH Phase IN 3.0 Cadd\TreeStudy\Bunkerhill-TFS.dwg

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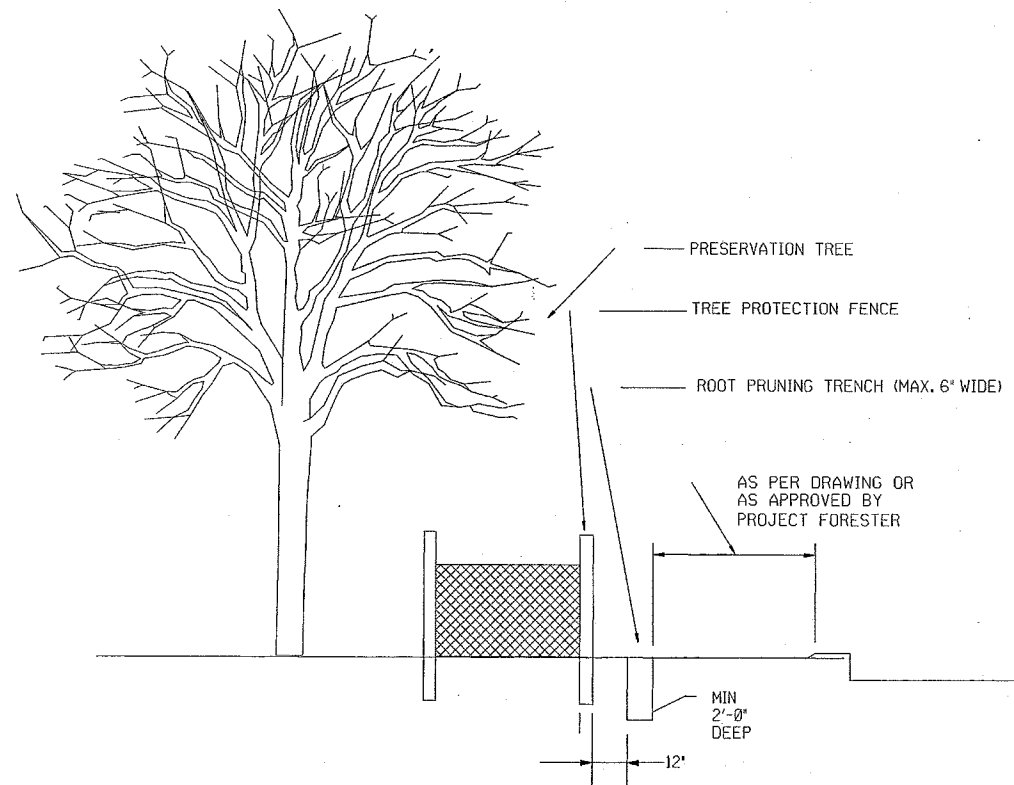
<b>TCB   AECOM</b> <small>TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 713.780.4100 tel. 713.780.0838 fax. WWW.TCB-AECOM.COM</small>	
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SURVEYED Y: FB NO.	
PARK AND RECREATION <b>C.N. Koehl</b> Urban Forestry, Inc. 3237 Canvassack Street • Katy, Texas 77493 281-391-0022 CNKOEHL@COMCAST.NET	
APPROVED <i>Craig N. Koehl</i> 11/15/07	
<b>CITY OF HOUSTON</b> DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
<b>TREE PROTECTION PLAN</b> <b>SHEET 5 OF 6</b>	
WBS NO. N-0767-001	
DRAWING SCALE AS SHOWN	
CITY OF HOUSTON PW	
SHEET NO. 118 OF 146	

No. Date Revision



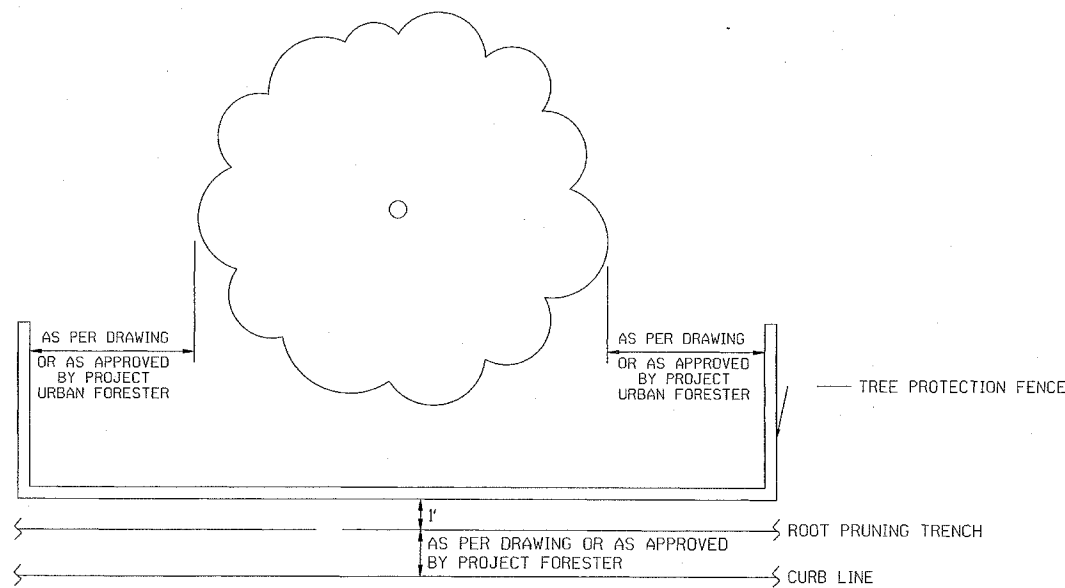
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NOT TO SCALE



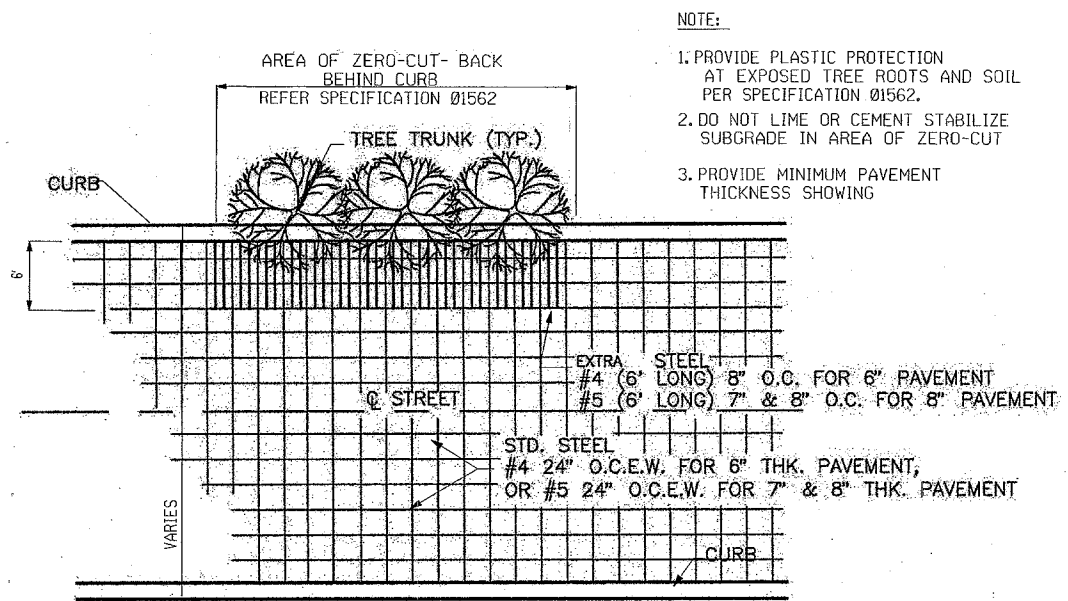
ROOT PRUNING DETAIL

NOT TO SCALE



TREE PROTECTION FENCING DETAIL B

NOT TO SCALE



ZERO CURB CUTBACK DETAIL  
EXTRA STEEL BEHIND CURB

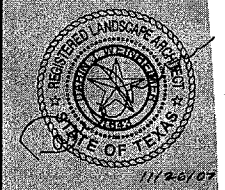
NOT TO SCALE

NOTE:

1. PROVIDE PLASTIC PROTECTION AT EXPOSED TREE ROOTS AND SOIL PER SPECIFICATION 01562.
2. DO NOT LIME OR CEMENT STABILIZE SUBGRADE IN AREA OF ZERO-CUT
3. PROVIDE MINIMUM PAVEMENT THICKNESS SHOWING

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TCB INC. 5757 WOODWAY HOUSTON, TEXAS 77057 713.780.4100 tel. 713.780.0838 fax.	
SURVEYED BY: FB NO.	
PARK AND RECREATION <b>C.N. Koehl</b> Urban Forestry, Inc. <small>3237 Canvasback Street • Katy, Texas 77493          281-391-0022 CNKOEHL@COMCAST.NET</small>	
APPROVED <i>Craig W. Koehl</i> 11/15/07 <b>CITY OF HOUSTON</b> DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
<b>TREE PROTECTION PLAN</b> <b>SHEET 6 OF 6</b>	
WBS NO. N-0767-001	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
SHEET NO. 119 OF 146	



LANDSCAPE ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

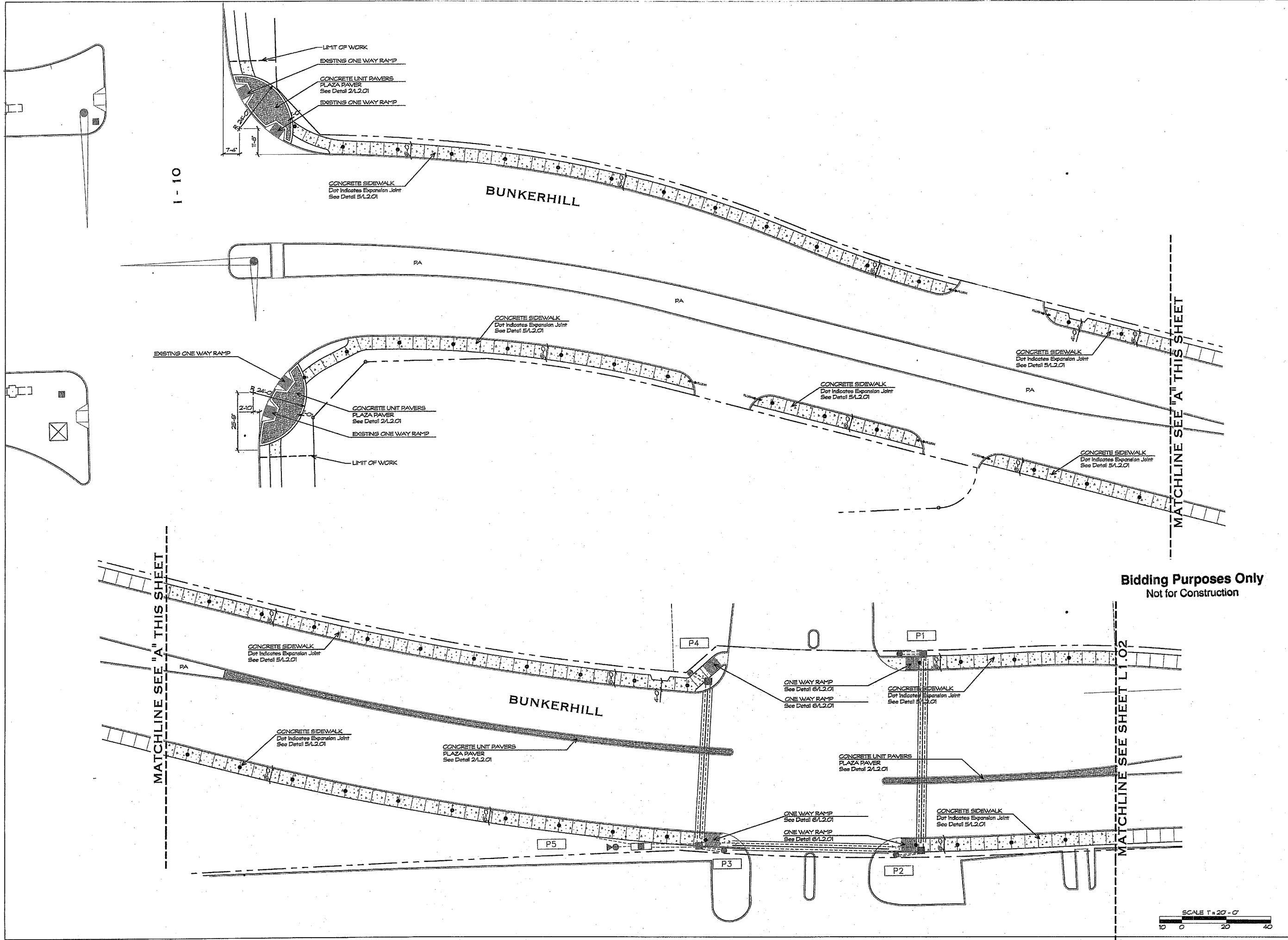
7166 OLD KATY ROAD  
SUITE 270  
HOUSTON, TEXAS 77024  
713-808-8987  
713-888-0918 FAX  
WWW.KWTEXAS.COM

PROJECT NUMBER  
MCD-705  
SCALE 1" = 20'-0"



SHEET TITLE  
LAYOUT AND MATERIALS PLAN

SHEET NUMBER  
L1.01



I-10

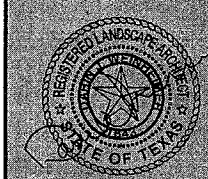
BUNKERHILL

BUNKERHILL

Bidding Purposes Only  
Not for Construction

SCALE 1" = 20'-0"  
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LANDSCAPE ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

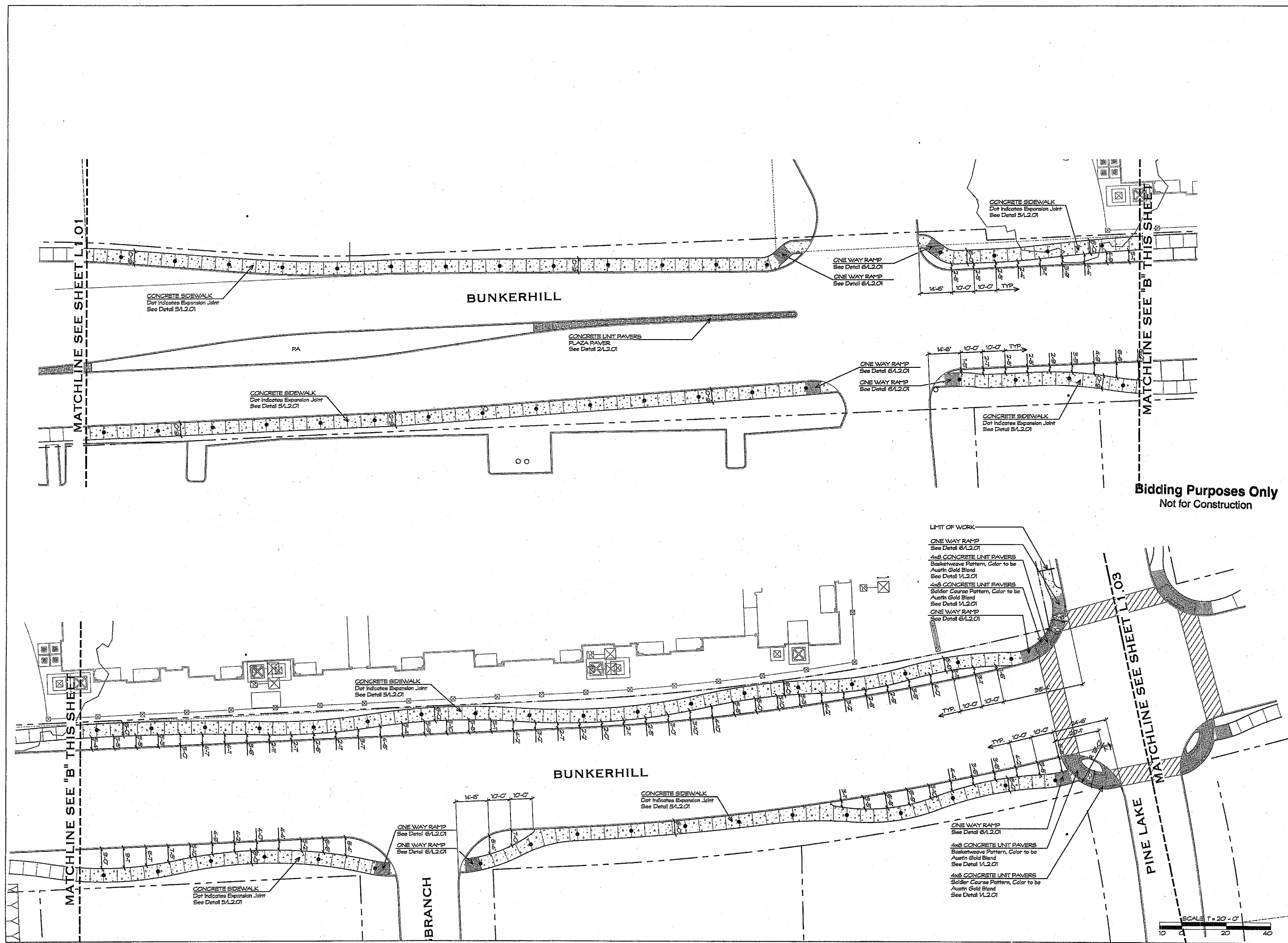
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SUITE 270  
HOUSTON, TEXAS 77024  
713 869 6987  
713 698 0908 FAX  
WWW.KWTEXAS.COM

PROJECT NUMBER  
MOD-705  
SCALE 1" = 20'-0"

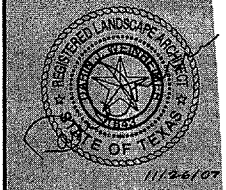


SHEET TITLE  
LAYOUT AND MATERIALS PLAN

SHEET NUMBER  
L1.02



Bidding Purposes Only  
Not for Construction



LANDSCAPE ARCHITECTURE  
 SITE PLANNING  
 URBAN DESIGN

7155 OLD KATY ROAD  
 SUITE 276  
 HOUSTON, TEXAS 77024  
 713-850-6687  
 713-888-0808 FAX  
 WWW.KWTEXAS.COM

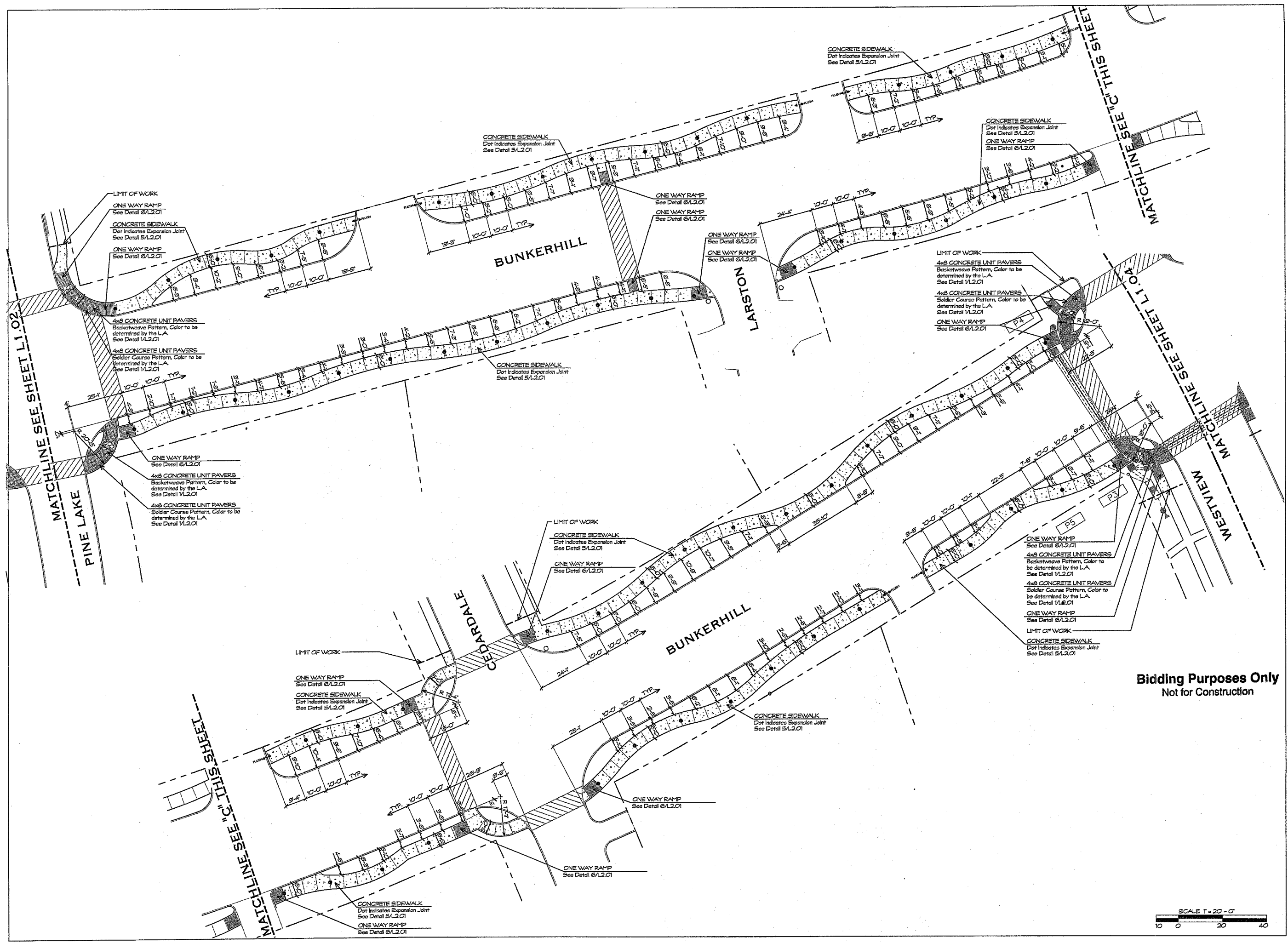
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 MCD-705

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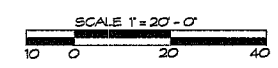


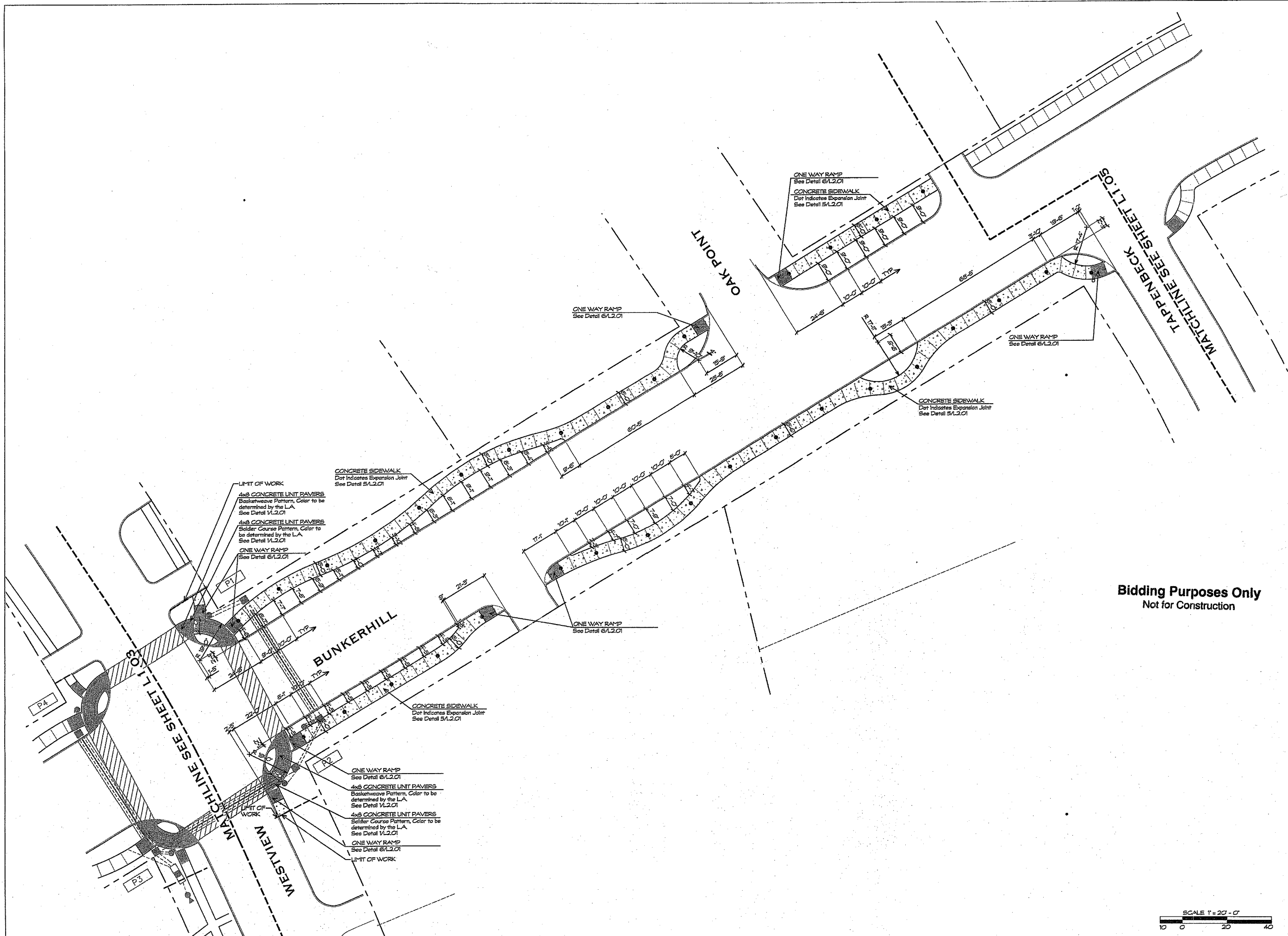
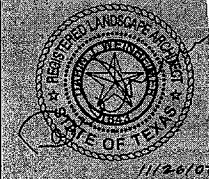
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 LAYOUT AND MATERIALS PLAN

SHEET NUMBER  
 L1.03

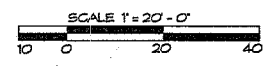


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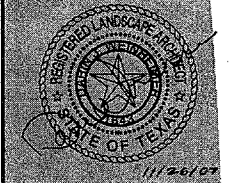




Bidding Purposes Only  
Not for Construction



DATE / ISSUE
02 NOVEMBER 2007 / ISSUED FOR REVIEW
16 NOVEMBER 2007 / ISSUED FOR REVIEW
26 NOVEMBER 2007 / ISSUED FOR CONSTRUCTION



LANDSCAPE ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

7155 OLD KATY ROAD  
SUITE 200  
HOUSTON, TEXAS 77024  
713-866-8827  
713-866-0808 FAX  
WWW.KWTEXAS.COM

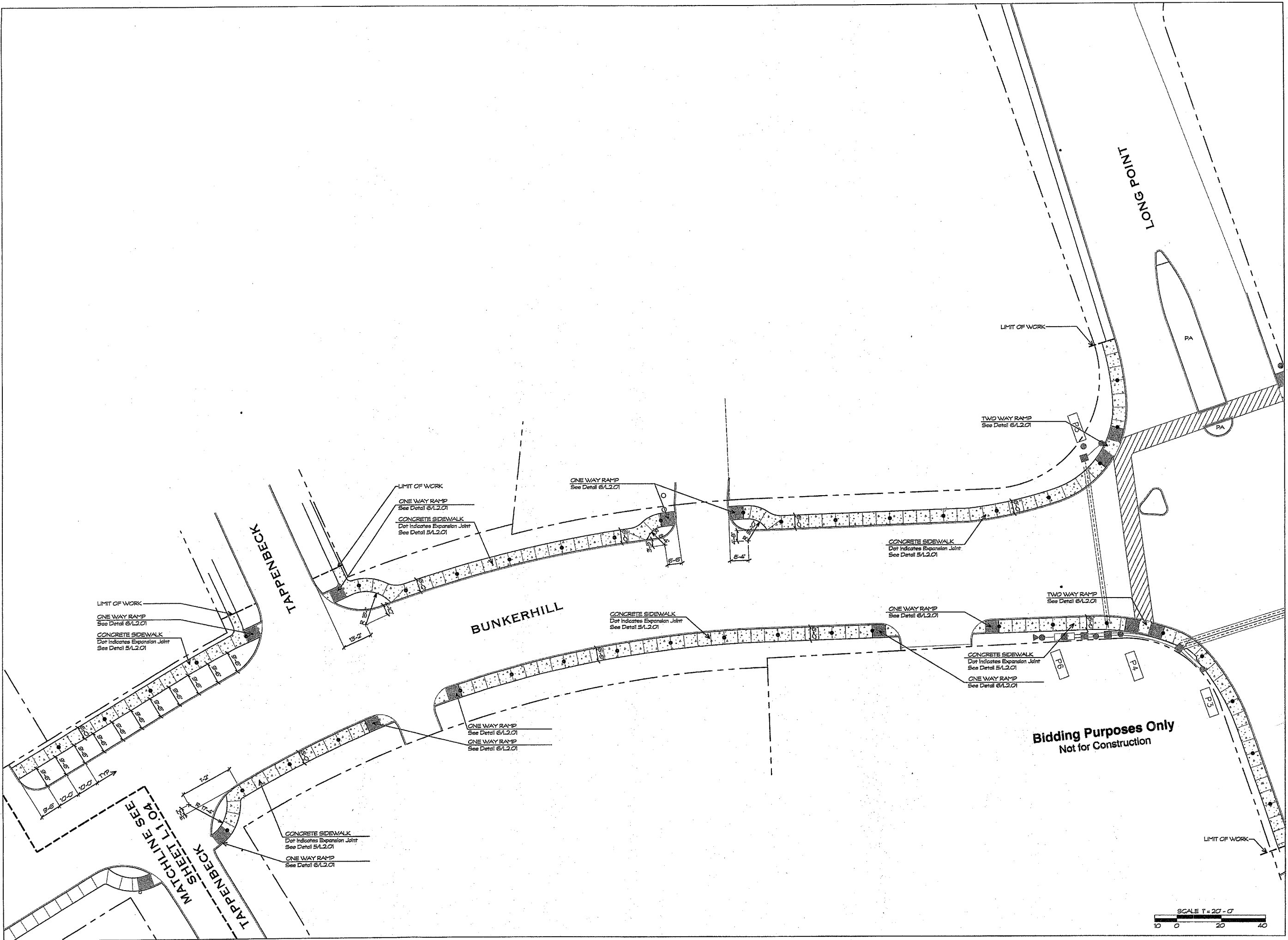
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MOD-705

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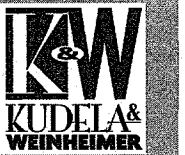


SHEET TITLE  
LAYOUT AND MATERIALS PLAN

SHEET NUMBER  
L1.05



DATE ASSUP  
 12 NOVEMBER 2007 ISSUED FOR REVIEW  
 18 NOVEMBER 2007 ISSUED FOR REVIEW  
 28 NOVEMBER 2007 ISSUED FOR CONSTRUCTION



LANDSCAPE ARCHITECTURE  
 SITE PLANNING  
 URBAN DESIGN

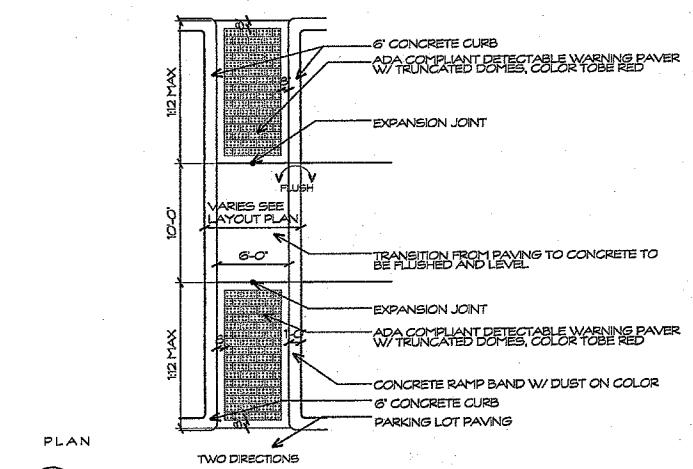
7166 OLD KATY ROAD  
 SUITE 270  
 HOUSTON, TEXAS 77024  
 713-869-8887  
 713-869-0987 FAX  
 WWW.KWTEXAS.COM

PROJECT NUMBER  
 MOD-705

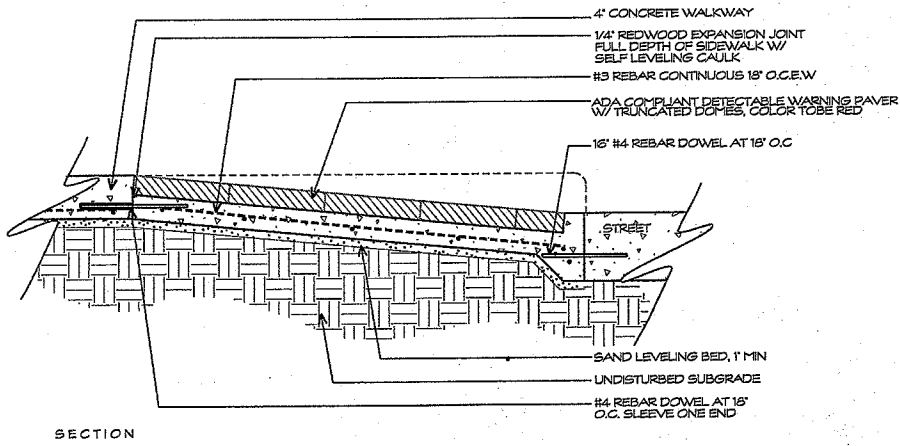
SCALE: AS NOTED

SHEET TITLE  
**HARDSCAPE DETAILS**

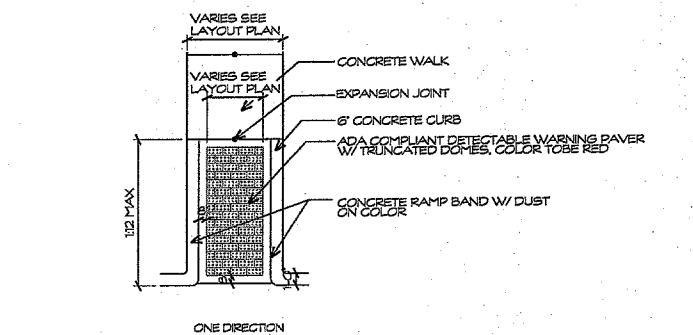
SHEET NUMBER  
**L2.01**



**C. ACCESSIBLE RAMP FROM PARKING**  
 SCALE 1/4" = 1'-0"

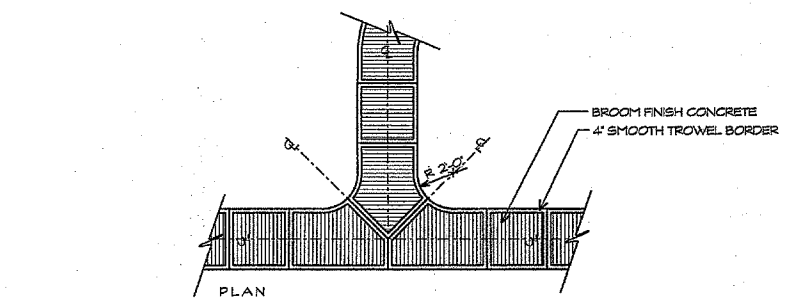


**B. ACCESSIBLE RAMP DETAIL**  
 SCALE 3/4" = 1'-0"

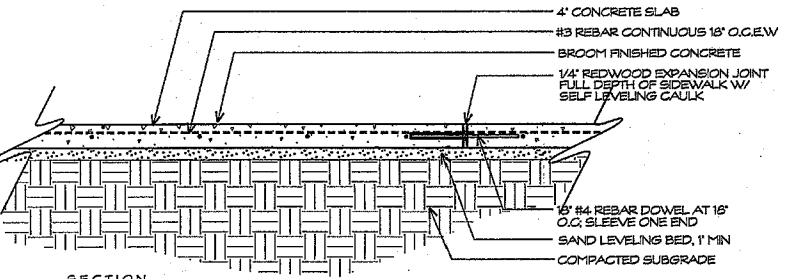


**A. ACCESSIBLE RAMP**  
 SCALE 1/4" = 1'-0"

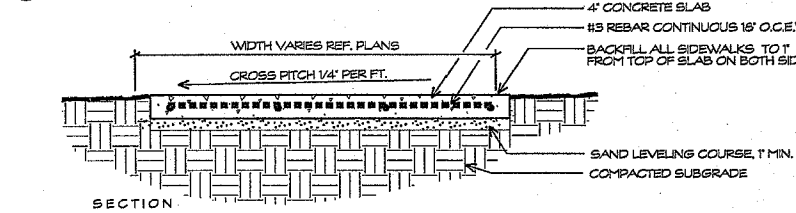
**6. ACCESSIBLE RAMP DETAILS**



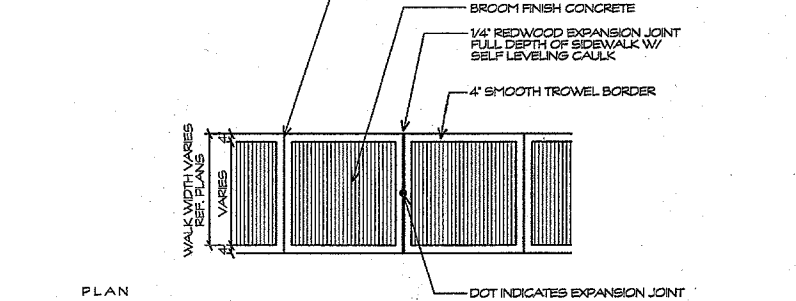
**D. TYPICAL SIDEWALK INTERSECTION**  
 SCALE 1/8" = 1'-0"



**C. CONTROL JOINT/EXPANSION JOINT**  
 SCALE 3/4" = 1'-0"

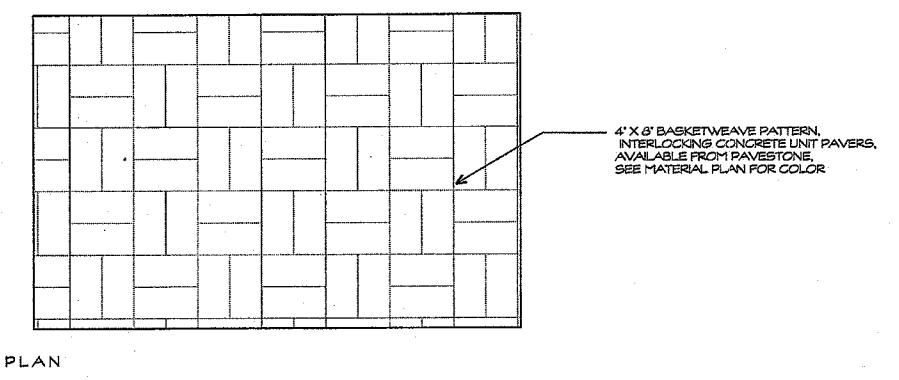


**B. TYPICAL SIDEWALK**  
 SCALE 3/4" = 1'-0"

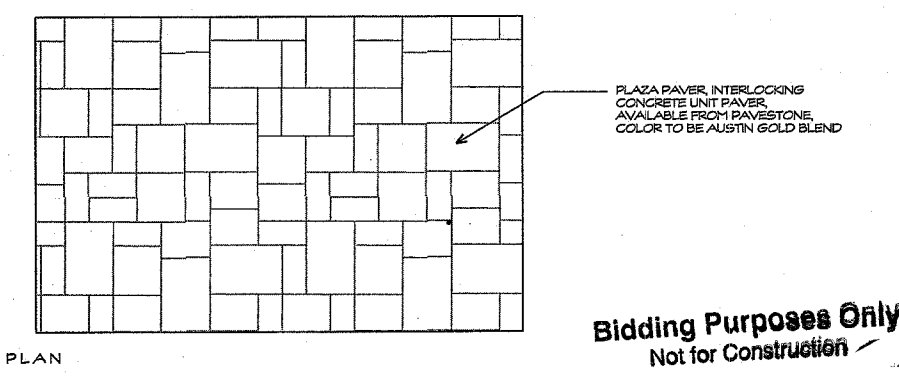


**A. SIDEWALK FINISH**  
 SCALE 1/4" = 1'-0"

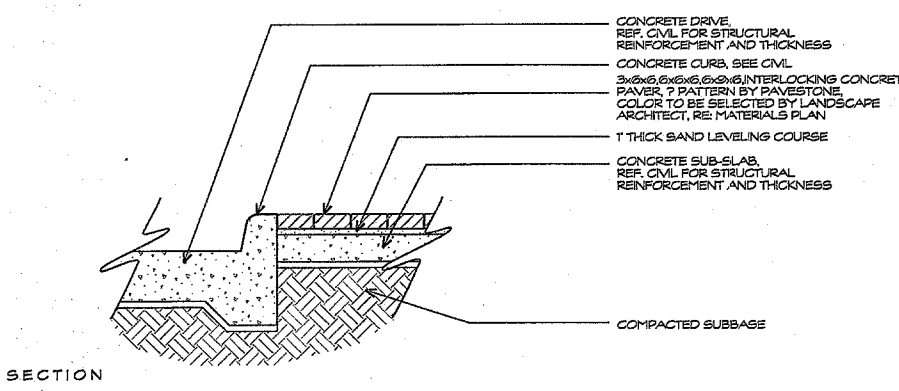
**5. SIDEWALK DETAILS**



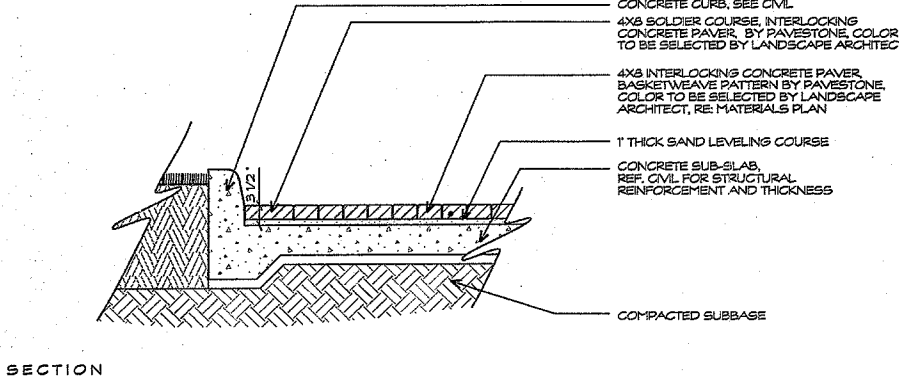
**4. BASKETWEAVE PATTERN**  
 SCALE 1" = 1'-0"



**3. PLAZA PAVER**  
 SCALE 1" = 1'-0"



**2. CONCRETE PAVERS IN MEDIAN**  
 SCALE 3/4" = 1'-0"



**1. CONCRETE PAVERS IN STREET**  
 SCALE 3/4" = 1'-0"

**Bidding Purposes Only**  
 Not for Construction



LANDSCAPE ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

7165 OLD KATY ROAD  
SUITE 270  
HOUSTON, TEXAS 77024  
713-868-6987  
713-868-0918 FAX  
WWW.KWTEXAS.COM

PROJECT NUMBER  
MCD-705  
SCALE: 1" = 20' - 0"



SHEET TITLE  
PLANTING PLAN

SHEET NUMBER  
L3.01

### LEGEND

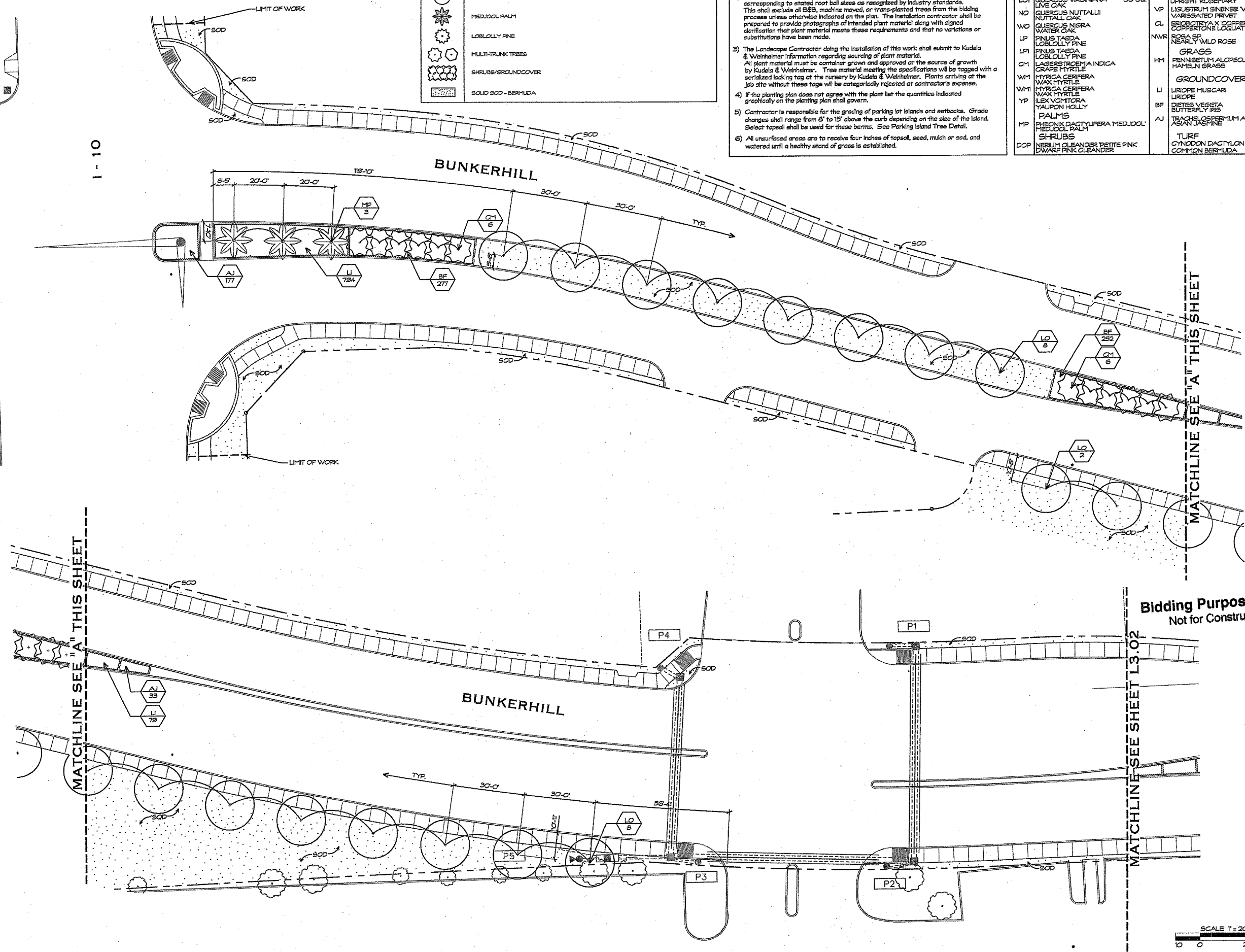
	EXISTING TREE
	NURSERY GROWN CONTAINERIZED TREES
	MEDIICAL PALM
	LOBLOLLY PINE
	MULTI-TRUNK TREES
	SHRUBS/GROUNDCOVER
	SOLID SOD - BER-MUDA

### GENERAL NOTES

- Planting soil mixture shall be composed of the following:  
40% Topsoil  
30% Shredded Bark Mulch  
30% Sand
- Bidding contractors be advised that all new tree material is to be container-grown corresponding to stated root ball sizes as recognized by industry standards. This shall exclude all B&B, machine moved, or trans-planted trees from the bidding process unless otherwise indicated on the plan. The installation contractor shall be prepared to provide photographs of intended plant material along with signed clarification that plant material meets these requirements and that no variations or substitutions have been made.
- The Landscape Contractor doing the installation of this work shall submit to Kudela & Weinheimer information regarding sourcing of plant material. All plant material must be container grown and approved on the source of growth by Kudela & Weinheimer. Tree material meeting the specifications will be tagged with a serialized locking tag at the nursery by Kudela & Weinheimer. Plants arriving at the job site without these tags will be categorically rejected at contractor's expense.
- If the planting plan does not agree with the plant list the quantities indicated graphically on the planting plan shall govern.
- Contractor is responsible for the grading of parking lot islands and setbacks. Grade changes shall range from 6" to 15" above the curb depending on the size of the island. Select topsoil shall be used for these berms. See Parking Island Tree Detail.
- All unsurfaced areas are to receive four inches of topsoil, seed, mulch or sod, and watered until a healthy stand of grass is established.

### PLANT KEY

ABV/	BOTANICAL NAME/ COMMON NAME	QUANTITY	UNIT	REMARKS
TR	SPRAEA PRUNIFOLIA BRIDAL WREATH SPREA			
LO	QUERCUS VIRGINIANA LIVE OAK	100 Gd.	BW	
LO1	QUERCUS VIRGINIANA LIVE OAK	30 Gd.	UR	ROSMARINUS OFFICINALIS UPRIGHT ROSEMARY
NO	QUERCUS NUTTALLII NUTTALL OAK		VP	LIGUSTRUM SINENSE VAREGATUM VAREGATED PRIVET
WO	QUERCUS NIGRA WATER OAK		CL	ERIOBOTRYA X COPPERTONE COPPERTONE LOGLIAT
LP	PINUS TAEDA LOBLOLLY PINE		NWR	ROSA SP NEARLY WILD ROSE
LPI	PINUS TAEDA LOBLOLLY PINE		HM	GRASS PENNSETUM ALOPECUROIDES HAMELN HAMELN GRASS
CH	LASSISTICHEA INDICA GRAPE MYRTLE			GROUNDCOVERS
WM	MYRICA CERIFERA WAX MYRTLE		LI	LIROPE MUSCARI LIROPE
YF	ILEX VOITICORA YALPON HOLLY		BF	DIETES VEGETA BUTTERFLY RES
MP	PHENIX DACTYLIFERA MEDJOL MEDJOL PALM		AJ	ASIAN JASPERINE
DOP	NEROLI CLEANDER PETITE PINK DWARF PINK CLEANDER			TURF CYNODON DACTYLON COMMON BER-MUDA





LANDSCAPE ARCHITECTURE  
 SITE PLANNING  
 URBAN DESIGN

2155 OLD KATY ROAD  
 SUITE 270  
 HOUSTON, TEXAS 77024  
 713.860.6587  
 713.869.7528 FAX  
 WWW.KWTEXAS.COM

PROJECT NUMBER  
 MCD-705  
 SCALE: 1" = 20' - 0"



SHEET TITLE  
 PLANTING PLAN

SHEET NUMBER  
 L3.02

**PLANT KEY**

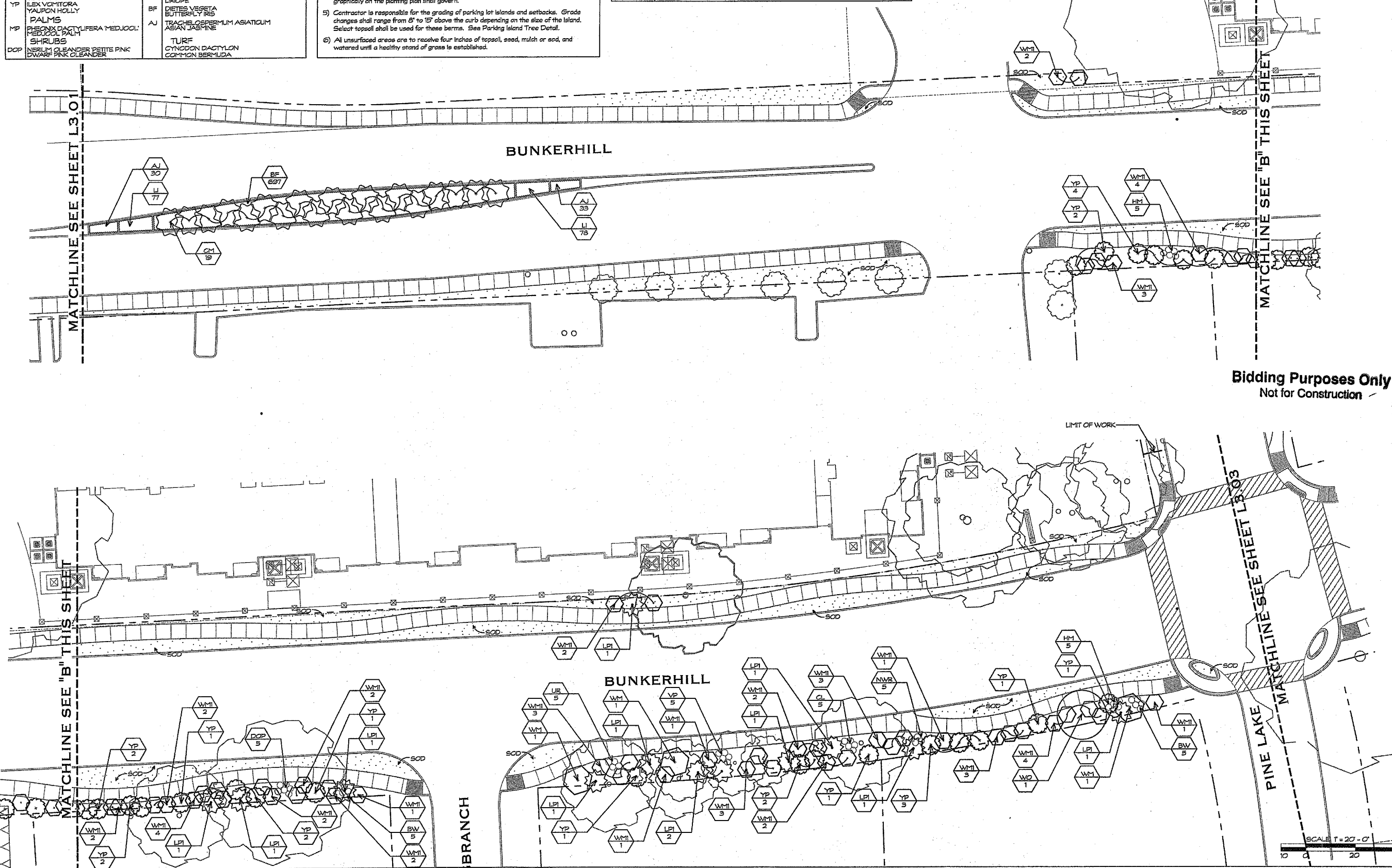
ABV.	BOTANICAL NAME/ COMMON NAME	QTY	ABV.	BOTANICAL NAME/ COMMON NAME
LO	TREES		BW	BIRDAEA FRUNIFOLIA
LO	QUERCUS VIRGINIANA LIVE OAK	100 Gal	UR	BROAD LEAFED SPREA
LOI	QUERCUS VIRGINIANA LIVE OAK	30 Gal	UR	ROSMARINUS OFFICINALIS UPRIGHT ROSEMARY
NO	QUERCUS NUTTALLI NUTTALL OAK		VP	LIGUSTRUM SINENSE VARIEGATUM VARIEGATED PRIVET
WO	QUERCUS NIGRA WATER OAK		CL	EPICLATRYA X COPPERTONE COPPERTONE LOGAN
LP	PNUS TAEDA LOBLOLLY PINE		NWR	ROSA SP. NEARBY WILD ROSE
LP	PNUS TAEDA LOBLOLLY PINE			GRASS
CI	LAGERSTROEMIA INDICA CRANE MYRTLE		HM	PENNISETUM ALOPECUROIDES HAMELN HAMELN GRASS
WM	MYRICA CERIFERA WAX MYRTLE			GROUNDCOVERS
WM	MYRICA CERIFERA WAX MYRTLE		LI	LIRIOPE MUSCARI
YP	ILEX VOMITORIA YAUPOH HOLLY		BF	DIPTERIS VEGETA BUTTERFLY IRIS
MP	THECOPHYLLA LIFERA MEDJOOI MEDJOOI PALM		AJ	TRACHELOSPERMUM ASIATICUM ASIAN JASMINE
DOP	NEROLIUM OLEANDER PETITE PINK DWARF PINK OLEANDER			TURF
				CYNODON DACTYLON COMMON BERMUDA

**GENERAL NOTES**

- 1) Planting soil mixture shall be composed the following:  
 40% Topsoil  
 30% Shredded Bark Mulch  
 30% Sand
- 2) Bidding contractors be advised that all new tree material is to be container-grown corresponding to stated root ball sizes as recognized by industry standards. This shall exclude all B&B, machine moved, or trans-planted trees from the bidding process unless otherwise indicated on the plan. The installation contractor shall be prepared to provide photographs of intended plant material along with signed certification that plant material meets these requirements and that no variations or substitutions have been made.
- 3) The Landscape Contractor doing the installation of this work shall submit to Kudela & Weinheimer information regarding sourcing of plant material. All plant material must be container-grown and approved at the source of growth by Kudela & Weinheimer. Tree material meeting the specifications will be tagged with a serialized locking tag at the nursery by Kudela & Weinheimer. Plants arriving at the job site without these tags will be categorically rejected at contractor's expense.
- 4) If the planting plan does not agree with the plant list the quantities indicated graphically on the planting plan shall govern.
- 5) Contractor is responsible for the grading of parking lot islands and setbacks. Grade changes shall range from 8" to 15" above the curb depending on the size of the island. Select topsoil shall be used for these berms. See Parking Island Tree Detail.
- 6) All unsurfaced areas are to receive four inches of topsoil, seed, mulch or sod, and watered until a healthy stand of grass is established.

**LEGEND**

- EXISTING TREE
- NURSERY GROWN CONTAINERIZED TREES
- MEDJOOI PALM
- LOBLOLLY PINE
- MULTI-TRUNK TREES
- SHRUBS/GROUNDCOVER
- SOLID SOD - BERMUDA



Bidding Purposes Only  
 Not for Construction



LANDSCAPE ARCHITECTURE  
 SITE PLANNING  
 URBAN DESIGN

7184 OLD KATY ROAD  
 SUITE 270  
 HOUSTON, TEXAS 77024  
 713-869-8997  
 713-869-0938 FAX  
 WWW.KWTEXAS.COM

PROJECT NUMBER  
 MCO-705

SCALE 1" = 20' @

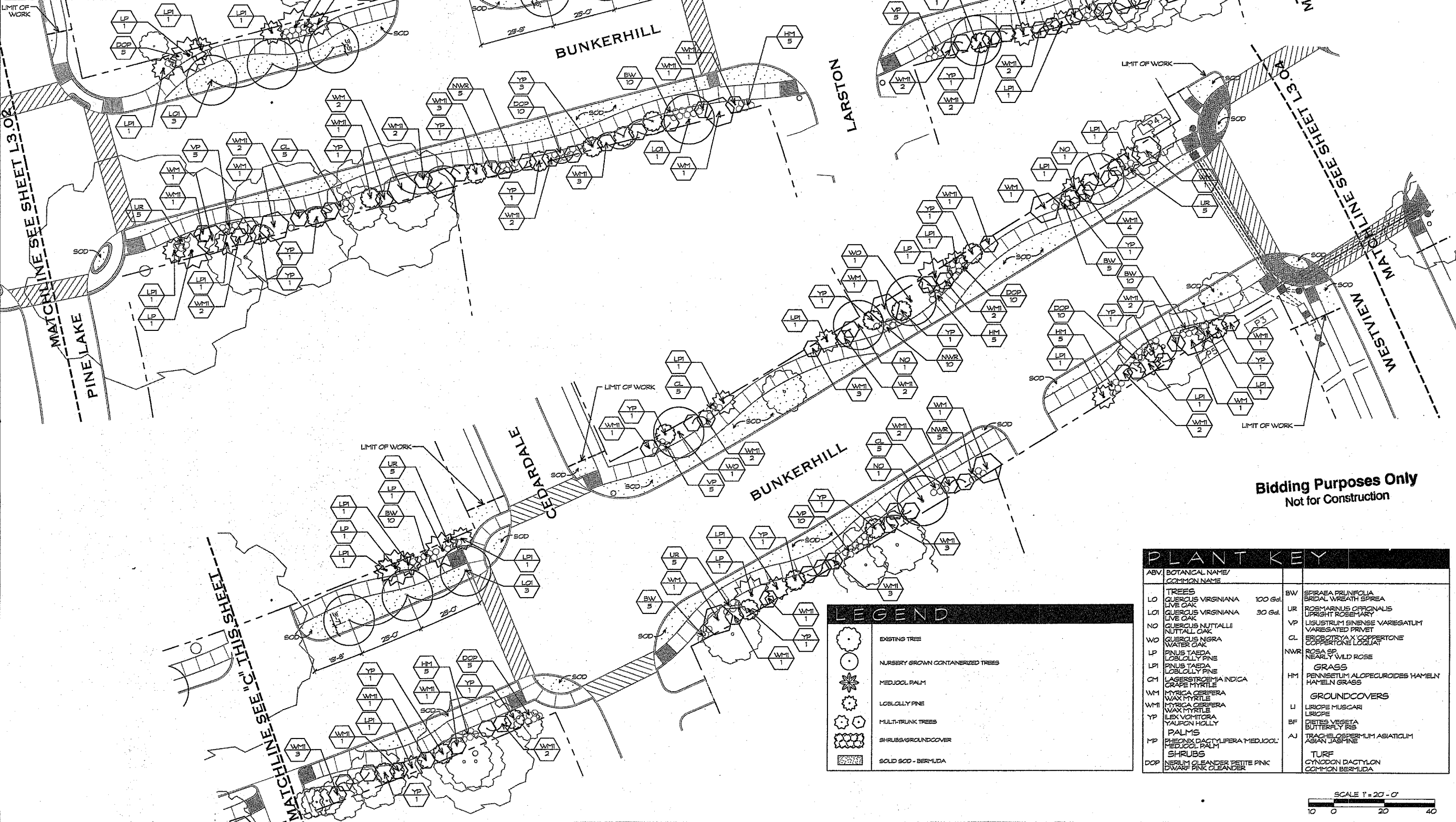


SHEET TITLE  
**PLANTING PLAN**

SHEET NUMBER  
**L3.03**

**GENERAL NOTES**

- 1) Planting soil mixture shall be composed the following:  
 40% Topsoil  
 30% Shredded Bark Mulch  
 30% Sand
- 2) Bidding contractors be advised that all new tree material is to be container-grown corresponding to stated root ball sizes as recognized by industry standards. This shall exclude all B&B, machine moved, or trans-planted trees from the bidding process unless otherwise indicated on the plan. The installation contractor shall be prepared to provide photographs of intended plant material along with signed certification that plant material meets these requirements and that no variations or substitutions have been made.
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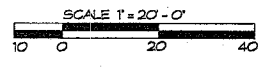
**Bidding Purposes Only**  
 Not for Construction

**LEGEND**

- EXISTING TREE
- NURSERY GROWN CONTAINERIZED TREES
- MEDJOL PALM
- LOBELLY PINE
- MULTI-TRUNK TREES
- SHRUBS/GROUNDCOVER
- SOLID SOD - BERMUDA

**PLANT KEY**

ABV	BOTANICAL NAME/ COMMON NAME		
<b>TREES</b>			
LD	QUERCUS VIRGINIANA LIVE OAK	100 Gal	SW
LOI	QUERCUS VIRGINIANA LIVE OAK	30 Gal	UR
NO	QUERCUS NUTTALLI NUTTALL OAK		VP
WO	QUERCUS NIGRA WATER OAK		CL
LP	PINUS TAEDA LOBLOLLY PINE		NWR
LP	PINUS TAEDA LOBLOLLY PINE		
CI	LAGERSTROEMIA INDICA GRAPHE MYRTLE		HM
WM	MYRTICA CERIFERA WAX MYRTLE		
WM	MYRTICA CERIFERA WAX MYRTLE		
YP	ILEX VOMITORIA YALPON HOLLY		LI
MP	PALMIS NERIUM DACTYLIFERA MEDJOL MEDJOL PALM		BF
DOP	NERIUM OLEANDER PETITE PINK DWARF PINK OLEANDER		AJ
SW	ERISEA PEUNIFOLIA SICAL WREATH SPREA		
UR	ROSMARINUS OFFICINALIS UPRIGHT ROSEMARY		
VP	LIGUSTRUM SINENSE VAREGATUM VAREGATED PRIVET		
CL	EREBUS ALTA COPPERTONE COPPERTONE LOGAN		
NWR	ROSA SP. NEARLY WILD ROSE		
<b>GRASS</b>			
HM	PENSETUM ALOPECUROIDES HAMELN HAMELN GRASS		
<b>GROUNDCOVERS</b>			
LI	LIRIOPE MUSCARI LIRIOPE		
BF	DIETES VEGETA BUTTERFLY IRIS		
AJ	TRACHELOSPERMUM ASIATICUM ASIAN JASMINE		
	TURF		
	CYNODON DACTYLON COMMON BERMUDA		







LANDSCAPE ARCHITECTURE  
 SITE PLANNING  
 URBAN DESIGN

7155 OLD KATY ROAD  
 SUITE 270  
 HOUSTON, TEXAS 77024  
 713-869-8867  
 713-868-0908 FAX  
 WWW.KWTEXAS.COM

PROJECT NUMBER  
 MCD-705  
 SCALE: 1" = 20' - 0"



SHEET TITLE  
 PLANTING PLAN

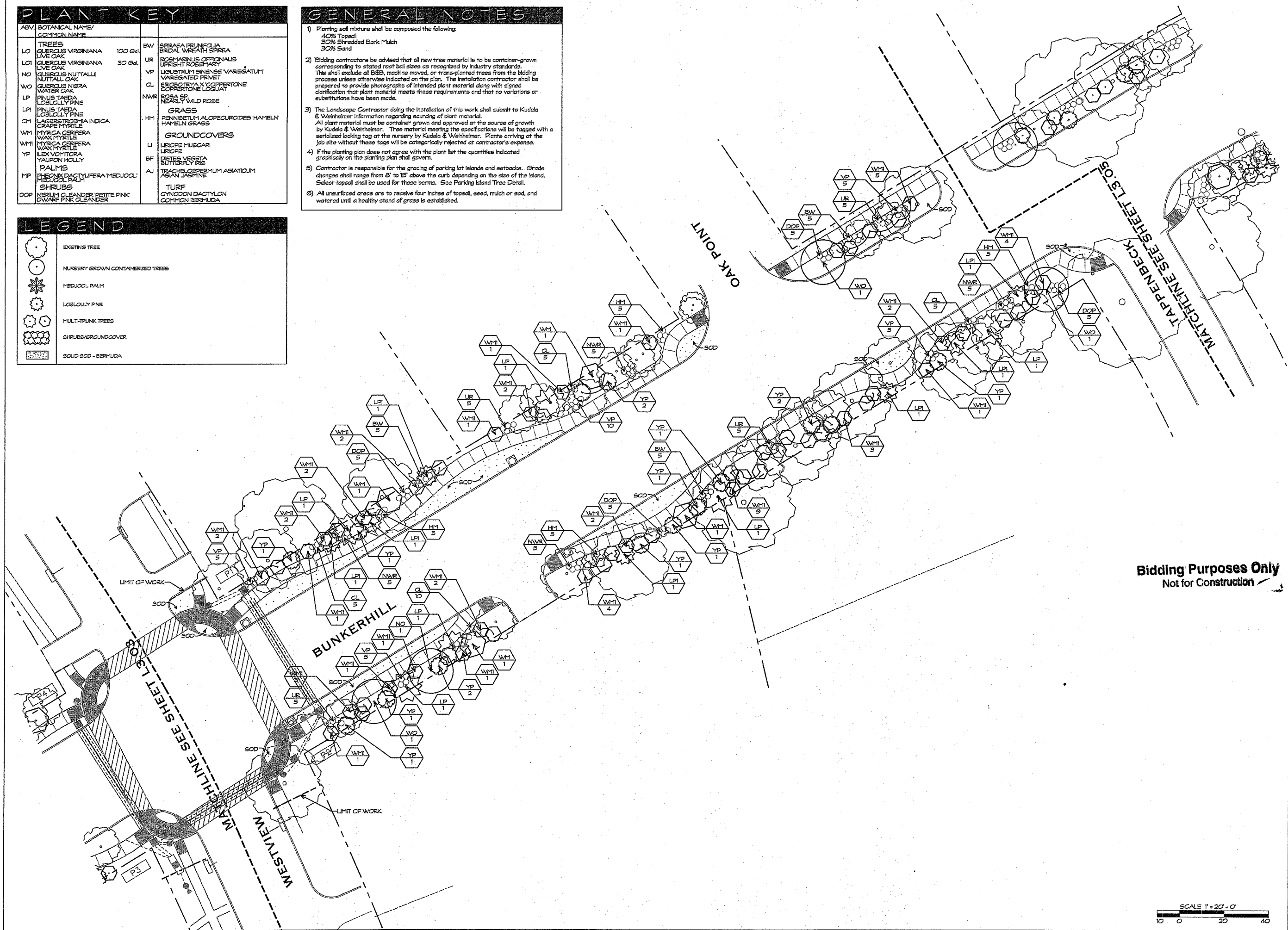
SHEET NUMBER  
 L3.04

PLANT KEY		
ABV	BOTANICAL NAME/ COMMON NAME	
LO	TREES QUERCUS VIRGINIANA LIVE OAK	100 Gal.
LO1	QUERCUS VIRGINIANA LIVE OAK	30 Gal.
NO	QUERCUS NUTTALLI NUTTALL OAK	
WO	QUERCUS NIGRA WATER OAK	
LP	PNUS TAEDA LOBLOLLY PINE	
LPI	PNUS TAEDA LOBLOLLY PINE	
GM	LAGERSTROMIA INDICA GRAPE MYRTLE	
WM	MYRICA CERIFERA WAX MYRTLE	
WM1	MYRICA CERIFERA WAX MYRTLE	
YP	LEX VORTICORA YALPION HOLLY	
MP	PHENIX DACTYLIFERA MEDJOOZ PALM	
DOP	SHRUBS NERIUM OLANDER PETITE PINK DWARF PINK CLEANDER	
BW	SPRAEA PRUNIFOLIA BRIDAL WREATH SPREA	
UR	ROSMARINUS OFFICINALIS UPRIGHT ROSEMARY	
VP	LIGUSTRUM SINENSE VARIEGATUM VARIEGATED PRIVET	
CL	ERODIAYA COPPERTONE COPPERTONE LOGLIAT	
NWR	ROSA SP. NEARLY WILD ROSE	
HM	GRASS PENNETUM ALOPECUROIDES HAMELN GRASS	
LI	GROUNDCOVERS LIRIOPE MUSCARI LIRIOPE	
BF	DIETES VEGETA BUTTERFLY IRIS	
AJ	TURF TRACHELOSPERUM ASIATICUM AGAW JASMINE	
	TURF CYNDON DACTYLON COMMON BERMUDA	

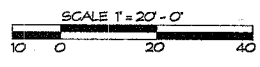
- GENERAL NOTES**
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 30% Shredded Bark Mulch  
 30% Sand
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**LEGEND**

	EXISTING TREE
	NURSERY GROWN CONTAINERIZED TREES
	MEDJOOZ PALM
	LOBLOLLY PINE
	MULTI-TRUNK TREES
	SHRUBS/GROUNDCOVER
	SOLID SOD - BERMUDA



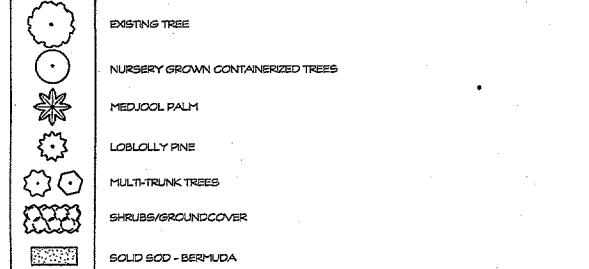
Bidding Purposes Only  
 Not for Construction



**PLANT KEY**

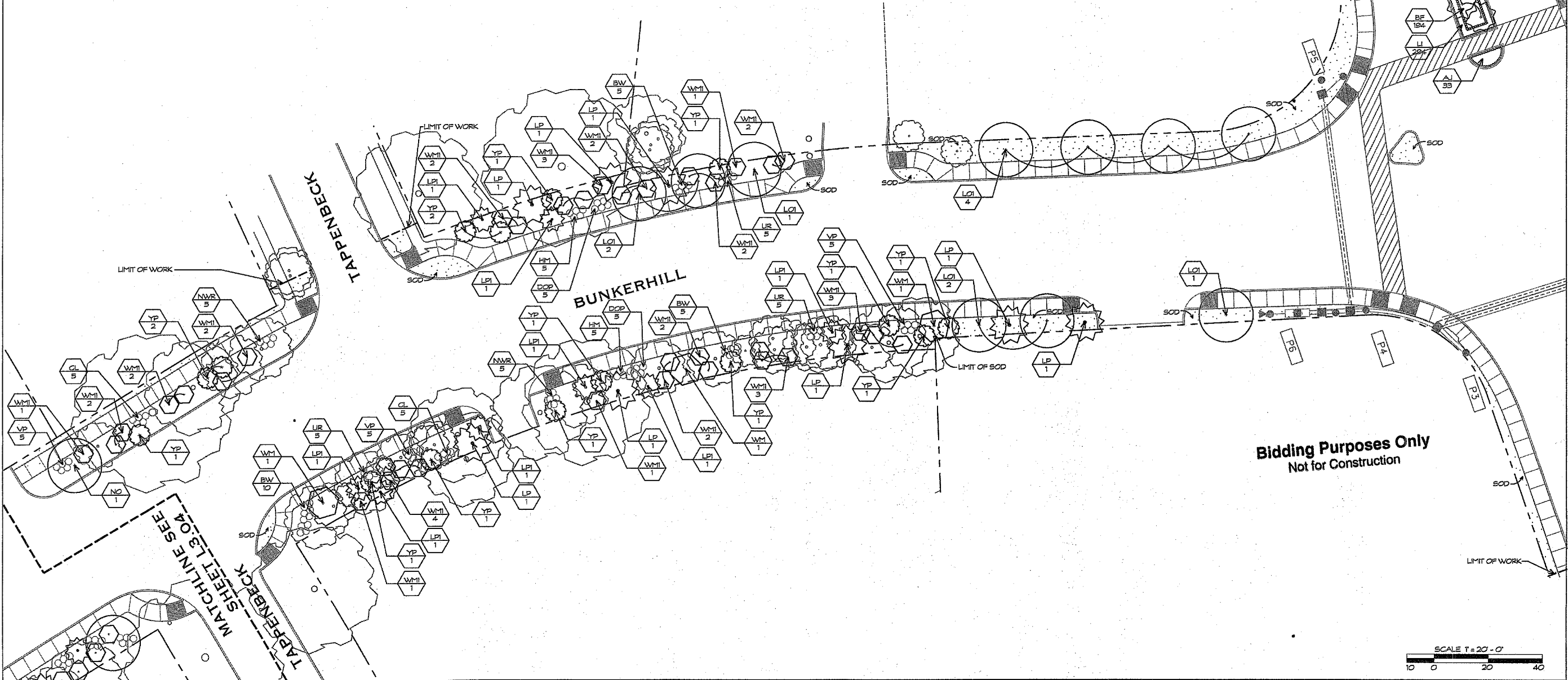
ABV.	BOTANICAL NAME/ COMMON NAME		
LD	TREES QUERCUS VIRGINIANA LIVE OAK	100 Gal.	BW SPIRAEA PRUNIFOLIA BRIDAL WREATH SPIREA
LOI	QUERCUS VIRGINIANA LIVE OAK	30 Gal.	UR ROSMARINUS OFFICINALIS UPRIGHT ROSEMARY
NO	QUERCUS NUTTALLII NUTTALL OAK		VP LIGUSTRUM SINENSE VAREGATUM VAREGATED PRIVET
WO	QUERCUS NIGRA WATER OAK		CL ERIOBOTRYA X COPPERTONE COPPERTONE LOGANIAT
LP	PNUS TAEDA LOBLOLLY PINE		NWR ROSA SP. NEARLY WILD ROSE
LPI	PNUS TAEDA LOBLOLLY PINE		
CH	LAGERSTROEMIA INDICA GRAPE MYRTLE		HM PENNSETUM ALOPECUROIDES HAMELII HAMELII GRASS
WM	MYRICA CERIFERA WAX MYRTLE		
WM1	MYRICA CERIFERA WAX MYRTLE		
YP	ILEX VOMITORIA YALPON HOLLY		LI LIROPE MUSCARI LIROPE
MP	CHORON DACTYLIFERA MEDJOL MEDJOL PALM		BF DIETES VEGETA BUTTERFLY RIS
DDP	NEROLIUM OLEANDER PETITE PINK DWARF PINK OLEANDER		AJ TRACHELOSPERMUM ASIATICUM ASIAN JASPERINE
			TURF CYNODON DACTYLON COMMON BERMUDA

**LEGEND**

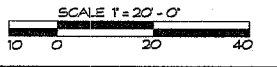


**GENERAL NOTES**

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**Bidding Purposes Only**  
Not for Construction



**BUNKERHILL ROAD**

**SPRING BRANCH DISTRICT**

DATE / ISSUE  
02 NOVEMBER 2007 ISSUED FOR REVIEW  
18 NOVEMBER 2007 ISSUED FOR REVIEW  
28 NOVEMBER 2007 ISSUED FOR CONSTRUCTION

**KW KUDELA & WEINHEIMER**

LANDSCAPE ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

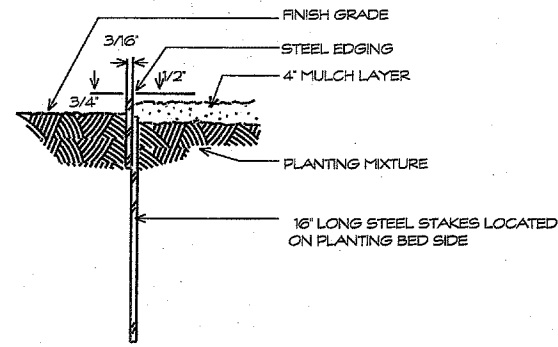
7185 OLD KATY ROAD  
SUITE 270  
HOUSTON, TEXAS 77024  
713-969-6987  
713-969-0908 FAX  
WWW.KWTEAS.COM

PROJECT NUMBER  
MCD-705

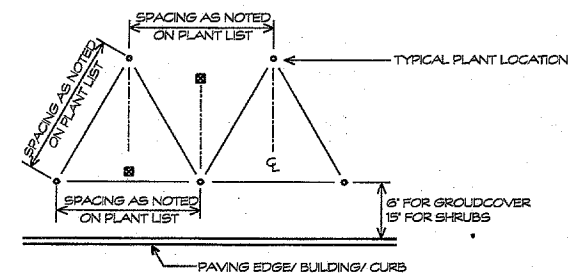
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SHEET TITLE  
**PLANTING PLAN**

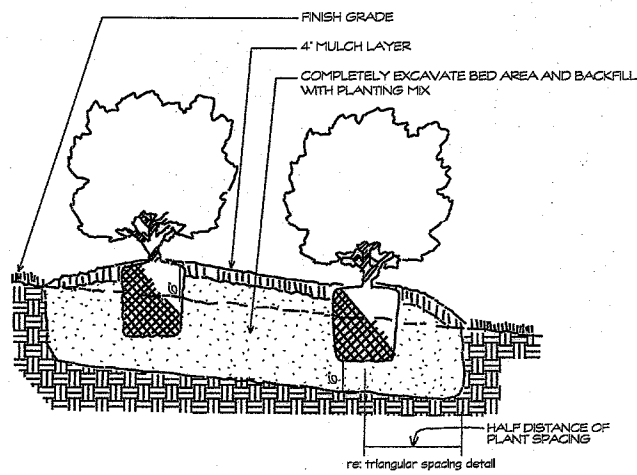
SHEET NUMBER  
L3.05



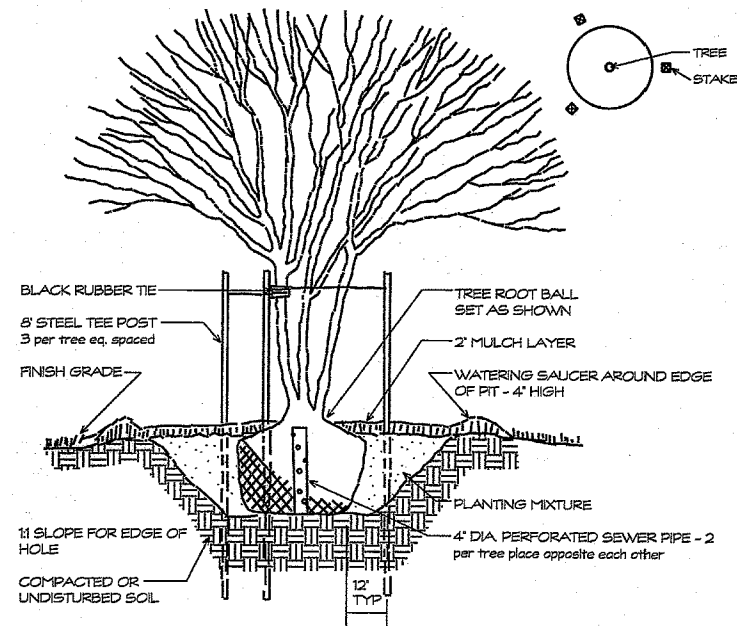
5 STEEL EDGING DETAIL  
NOT TO SCALE



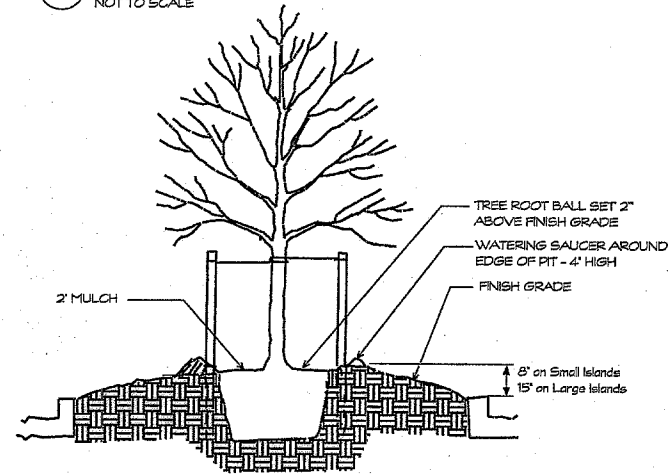
4 TRIANGULAR SPACING DIAGRAM  
NOT TO SCALE



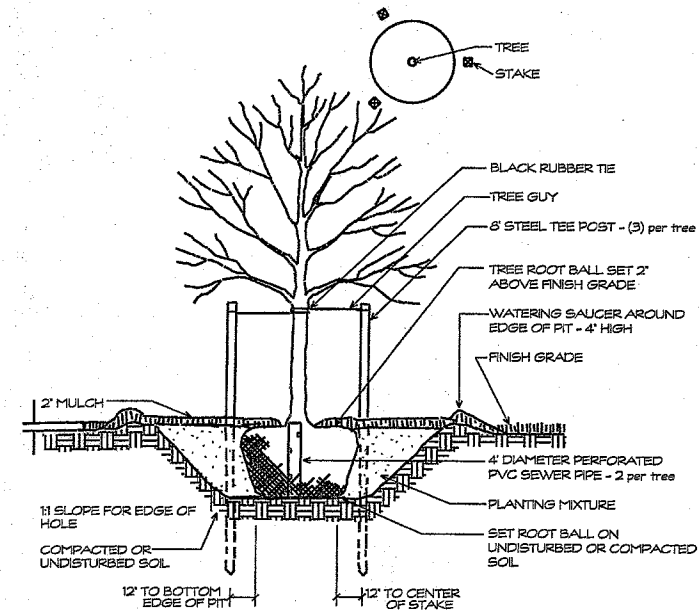
3 SHRUB/ GROUNDCOVER PLANTING  
NOT TO SCALE



3 MULTI-TRUNK TREE PLANTING DETAIL  
NOT TO SCALE



2 PARKING ISLAND TREE DETAIL  
NOT TO SCALE



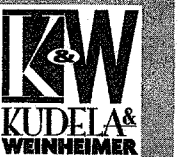
1 STANDARD TREE PLANTING DETAIL  
NOT TO SCALE

Bidding Purposes Only  
Not for Construction

ABV	BOTANICAL NAME/ COMMON NAME	CALIPER	HEIGHT	SPREAD	MIN. ROOT	REMARKS
<b>TREES</b>						
LO	QUERCUS VIRGINIANA LIVE OAK	4'-4 1/2"	9'-10'	4'-5'	100 Gal.	MATCHED, WELL ROOTED
LOI	QUERCUS VIRGINIANA LIVE OAK	2'-2 1/2"	9'-10'	4'-5'	30 Gal.	MATCHED, WELL ROOTED
NO	QUERCUS NUTTALLI NUTTALL OAK	2 1/2'-3'	9'-10'	4'-5'	30 Gal.	MATCHED, WELL ROOTED
WO	QUERCUS NIGRA WATER OAK	1 1/2'-2'	8'-10'	3'-4'	30 Gal.	MATCHED, WELL ROOTED, STAKED
LP	PINUS TAEDA LOBLOLLY PINE	2 1/2'	8'-10'	3'-4'	30 Gal.	MATCHED, WELL ROOTED, STAKED
LP1	PINUS TAEDA LOBLOLLY PINE	2 1/2'	8'-10'	3'-4'	30 Gal.	MATCHED, WELL ROOTED, STAKED
CM	LAGERSTROMIA INDICA GRAPE MYRTLE	1 1/4' EA CANE	8'-10'	3'-4'	30 Gal.	MATCHED, WELL ROOTED, 3 CANE, TRIPLE STAKED
WM	MYRTICA CERIFERA WAX MYRTLE	1 1/4' EA CANE	6'-7'	5'-6'	30 Gal.	MATCHED, WELL ROOTED, 3 CANE, TRIPLE STAKED
WMI	MYRTICA CERIFERA WAX MYRTLE	1 1/4' EA CANE	5'-6'	3'-5'	15 Gal.	MATCHED, WELL ROOTED, STAKED
YP	ILEX VOMITORIA YALPORN HOLLY	2'-2 1/2"	9'-10'	4'-5'	30 Gal.	MATCHED, WELL ROOTED
<b>PALMS</b>						
MP	PHOENIX DACTYLIFERA MEDJOL MEDJOL PALM		8'-20' C.T.		B & B	MATCHED, WELL ROOTED, PEELED
<b>SHRUBS</b>						
DOP	NEROLIUM OLEANDER PETITE PINK DWARF PINK GLEANDER		36"	36"	5 Gal.	FULL, WELL ROOTED 30" O.C.
BW	SPIRAEA PRUNICOLA BRIDAL WREATH SPIREA		24"	22"	5 Gal.	FULL, WELL ROOTED 30" O.C.
UR	ROSMARINUS OFFICINALIS UPRIGHT ROSEMARY		22"	22"	5 Gal.	FULL, WELL ROOTED 24" O.C.
VP	LIGUSTRUM SINENSE VARIEGATUM VARIEGATED PRIVET		22"	20"	5 Gal.	FULL, WELL ROOTED 30" O.C.
CL	ESCHOLZIA X COPPERTONE COPPERTONE LOGJAT		22"	22"	5 Gal.	FULL, WELL ROOTED 30" O.C.
NWR	ROSA SP. NEARLY WILD ROSE		18"	18"	5 Gal.	FULL, WELL ROOTED 24" O.C.
<b>GRASS</b>						
HM	PENNISETUM ALOPECUROIDES HAMELN HAMELN GRASS		24"	24"	5 Gal.	FULL, WELL ROOTED 30" O.C.
<b>GROUNDCOVERS</b>						
LI	LIRIOPE MUSCARI LIRIOPE		8"	8"	1 Gal.	FULL, WELL ROOTED 12" O.C.
BF	DIETES VEGETA BUTTERFLY BARS		16"	8"	5 Gal.	FULL, WELL ROOTED 18" O.C.
AJ	TRACHELOSPERMUM ASIATICUM ASIAN JASMINE		16"	8"	4' Pots	FULL, WELL ROOTED 18" O.C.
<b>TURF</b>						
	CYNODON DACTYLON COMMON BERMUDA					SOLID SOD

LEGEND	
	EXISTING TREE
	NURSERY GROWN CONTAINERIZED TREES
	MEDJOL PALM
	LOBLOLLY PINE
	MULTI-TRUNK TREES
	SHRUBS/GROUNDCOVER
	SOLID SOD - BERMUDA

GENERAL NOTES	
1)	Planting soil mixture shall be composed the following: 40% Topsoil 30% Shredded Bark Mulch 30% Sand
2)	Bidding contractors be advised that all new tree material is to be container-grown corresponding to stated root ball sizes as recognized by industry standards. This shall exclude all B&B, machine moved, or trans-planted trees from the bidding process unless otherwise indicated on the plan. The installation contractor shall be prepared to provide photographs of intended plant material along with signed clarification that plant material meets these requirements and that no variations or substitutions have been made.
3)	The Landscape Contractor doing the installation of this work shall submit to Kudela & Weinheimer information regarding sourcing of plant material. All plant material must be container grown and approved at the source of growth by Kudela & Weinheimer. Tree material meeting the specifications will be tagged with a serialized locking tag at the nursery by Kudela & Weinheimer. Plants arriving at the job site without these tags will be categorically rejected at contractor's expense.
4)	If the planting plan does not agree with the plant list the quantities indicated graphically on the planting plan shall govern.
5)	Contractor is responsible for the grading of parking lot islands and setbacks. Grade changes shall range from 6" to 18" above the curb depending on the size of the island. Select topsoil shall be used for these berms. See Parking Island Tree Detail.
6)	All unsurfaced areas are to receive four inches of topsoil, seed, mulch or sod, and watered until a healthy stand of grass is established.



LANDSCAPE ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

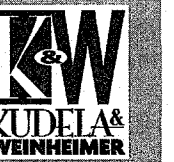
7166 OLD KATY ROAD  
SUITE 270  
HOUSTON, TEXAS 77024  
713-866-8887  
713-866-9594 FAX  
WWW.KWTEXAS.COM

PROJECT NUMBER  
MOD-768

SCALE: AS INDICATED

SHEET TITLE  
PLANTING DETAILS

SHEET NUMBER  
L3.06



LANDSCAPE ARCHITECTURE  
 SITE PLANNING  
 URBAN DESIGN

7125 OLD KATY ROAD  
 SUITE 270  
 HOUSTON, TEXAS 77024  
 713-886-9887  
 713-886-9908 FAX  
 WWW.KWTEXAS.COM

PROJECT NUMBER  
 MCD-705

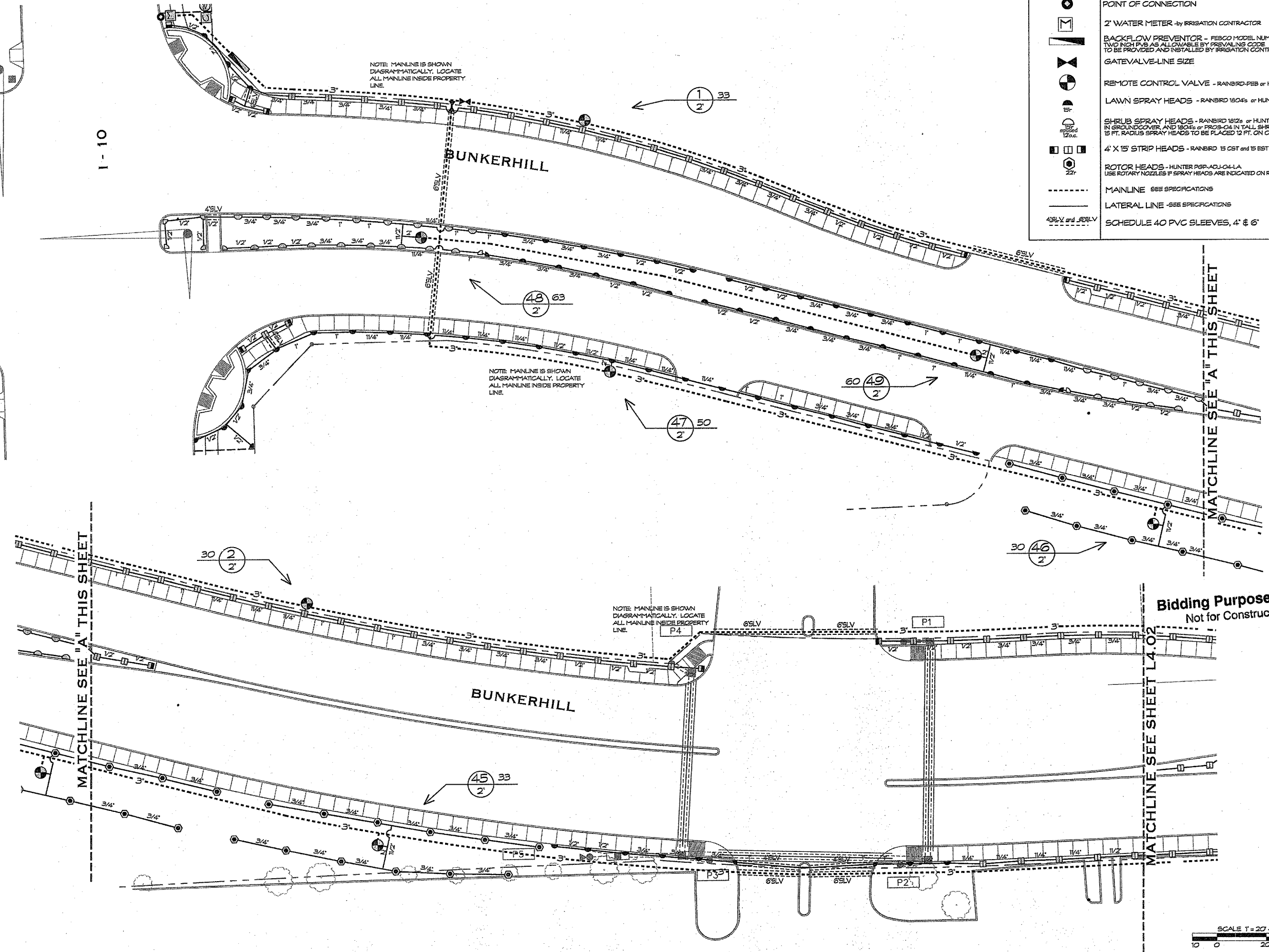
SCALE 1" = 20' - 0"



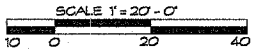
SHEET TITLE  
 IRRIGATION PLAN

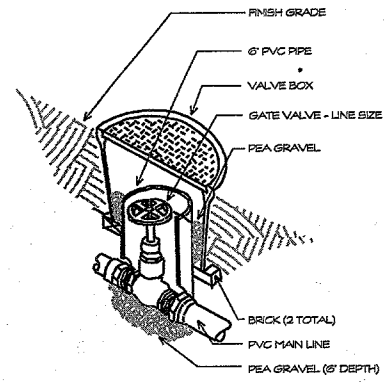
SHEET NUMBER  
 L4.01

IRRIGATION LEGEND	
SYMBOL	MANUFACTURER/ MODEL NUMBER
	HUNTER ACC DECODER CONTROLLER 2-Wire System
	RAIN SENSOR - HUNTER MINI-CLK or RAIN-CLK CONTRACTOR TO INSTALL ALL WIRING IN HARD CONDUIT TO ROOF.
	POINT OF CONNECTION
	2" WATER METER - by IRRIGATION CONTRACTOR
	BACKFLOW PREVENTOR - FEBGO MODEL NUMBER 765 TWO INCH PVB AS ALLOWABLE BY PREVAILING CODE TO BE PROVIDED AND INSTALLED BY IRRIGATION CONTRACTOR
	GATE VALVE - LINE SIZE
	REMOTE CONTROL VALVE - RAINBIRD-FEB or HUNTER-ICV
	LAWN SPRAY HEADS - RAINBIRD 1804s or HUNTER PROS-04
	SHRUB SPRAY HEADS - RAINBIRD 1812s or HUNTER PROS-12 IN GROUND COVER AND 1804s or PROS-04 IN TALL SHRUBS 15 FT. RADIUS SPRAY HEADS TO BE PLACED 12 FT. ON CENTER
	4' X 15' STRIP HEADS - RAINBIRD 15 CST and 15 EST
	ROTOR HEADS - HUNTER PGP-AQJ-Q4-LA USE ROTARY NOZZLES IF SPRAY HEADS ARE INDICATED ON ROTOR ZONES
	MAINLINE - SEE SPECIFICATIONS
	LATERAL LINE - SEE SPECIFICATIONS
	SCHEDULE 40 PVC SLEEVES, 4" & 6"

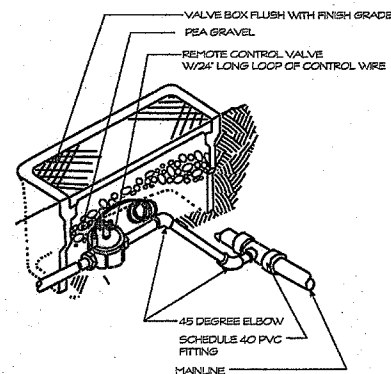


**Bidding Purposes Only**  
 Not for Construction

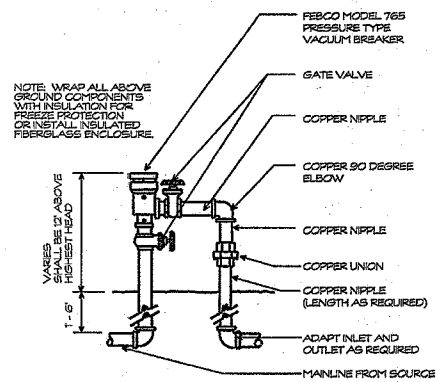




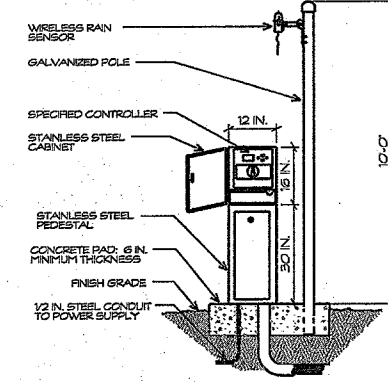
4 GATE VALVE DETAIL  
NO SCALE



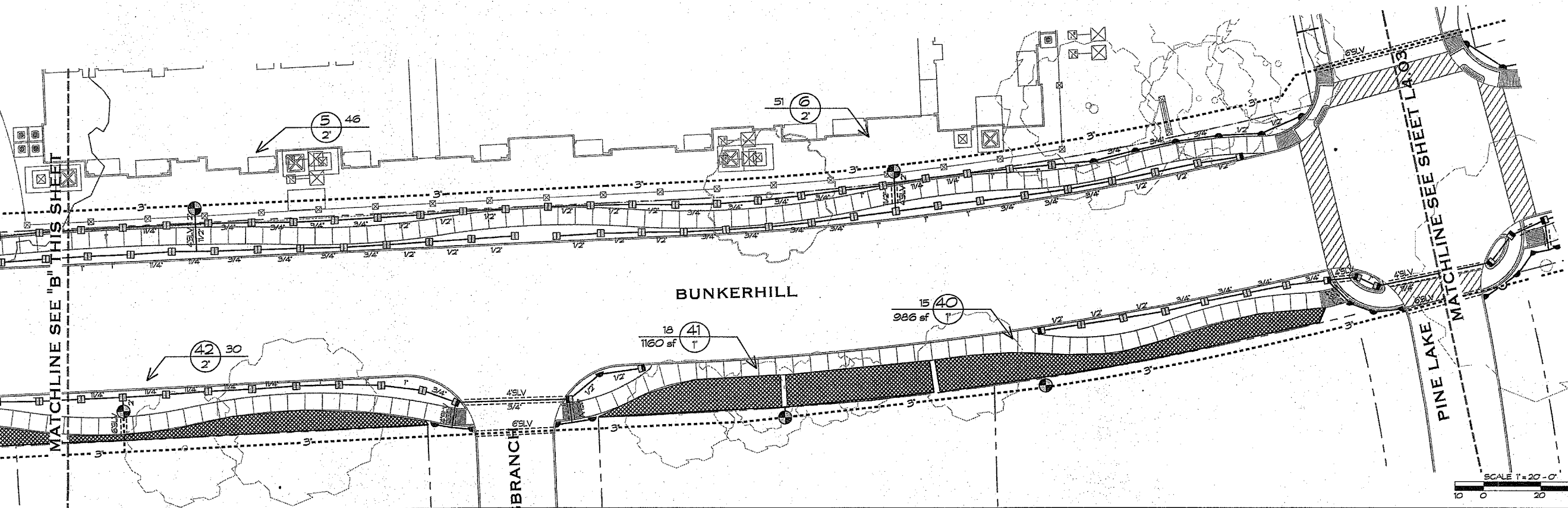
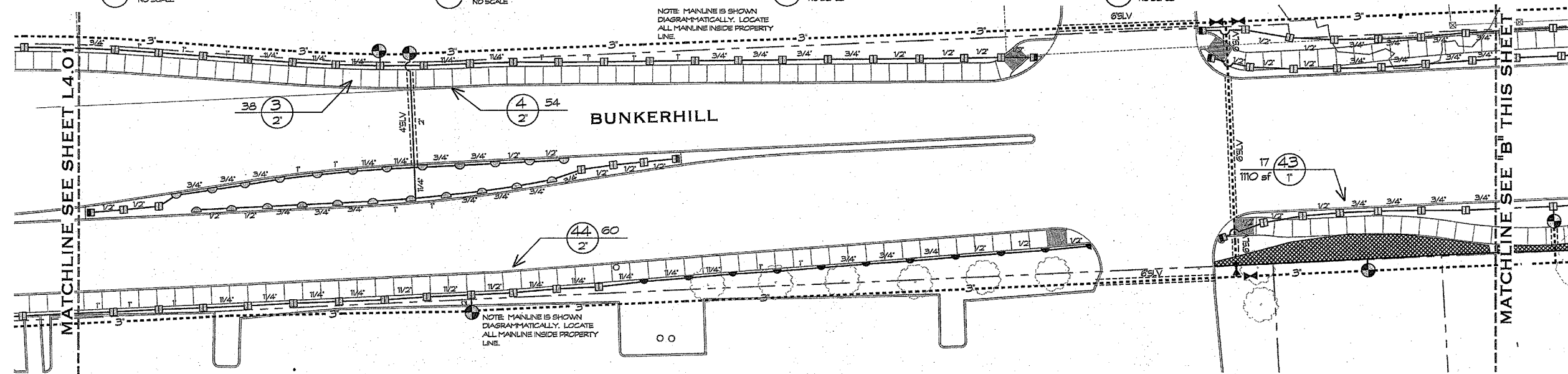
3 REMOTE CONTROL VALVE DETAIL  
NO SCALE



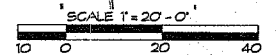
2 PRESSURE BACKFLOW PREVENTOR  
NO SCALE



1 PEDESTAL W/ POLE MOUNTED SENSOR  
NO SCALE



Bidding Purposes Only  
Not for Construction



BUNKERHILL ROAD

MEMORIAL CITY DISTRICT

DATE/ISSUE

18 NOVEMBER 2007 ISSUED FOR REVIEW

26 NOVEMBER 2007 ISSUED FOR CONSTRUCTION

11/24/07

KUDELA & WEINHEIMER

LANDSCAPE ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

765 OLD KATY ROAD  
SUITE 270  
HOUSTON, TEXAS 77024  
713.868.9357  
713.868.0508 FAX  
WWW.KWTEXAS.COM

PROJECT NUMBER  
MCD-765

SCALE 1" = 20'-0"

SHEET TITLE  
IRRIGATION PLAN

SHEET NUMBER  
L4.02



LANDSCAPE ARCHITECTURE  
 SITE PLANNING  
 URBAN DESIGN

7155 OLD KATY ROAD  
 SUITE 270  
 HOUSTON, TEXAS 77024  
 713-899-9987  
 713-899-9988 FAX  
 WWW.KWTEXAS.COM

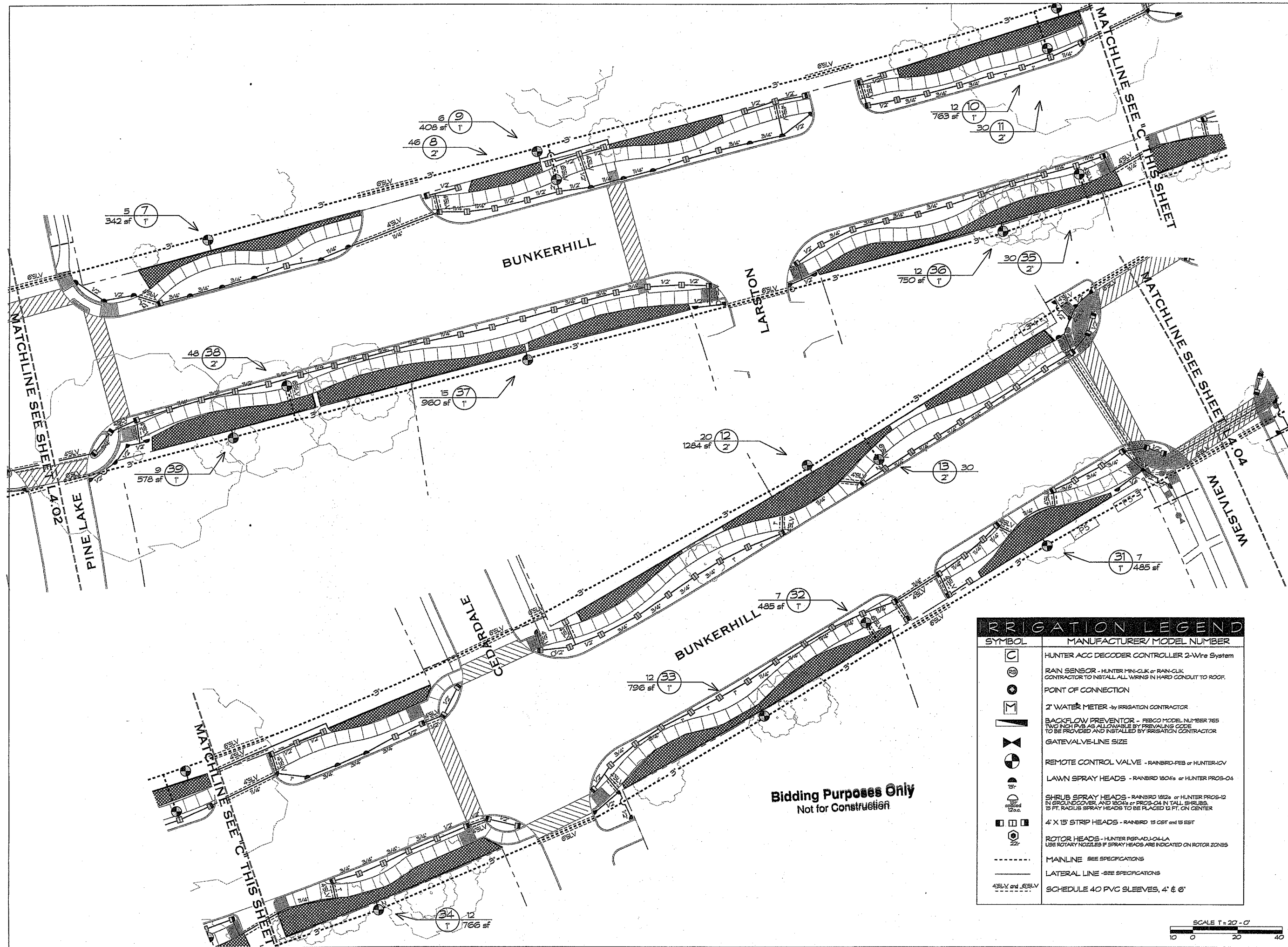
PROJECT NUMBER  
 MOD-705

SCALE: 1" = 20'-0"

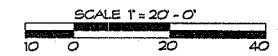


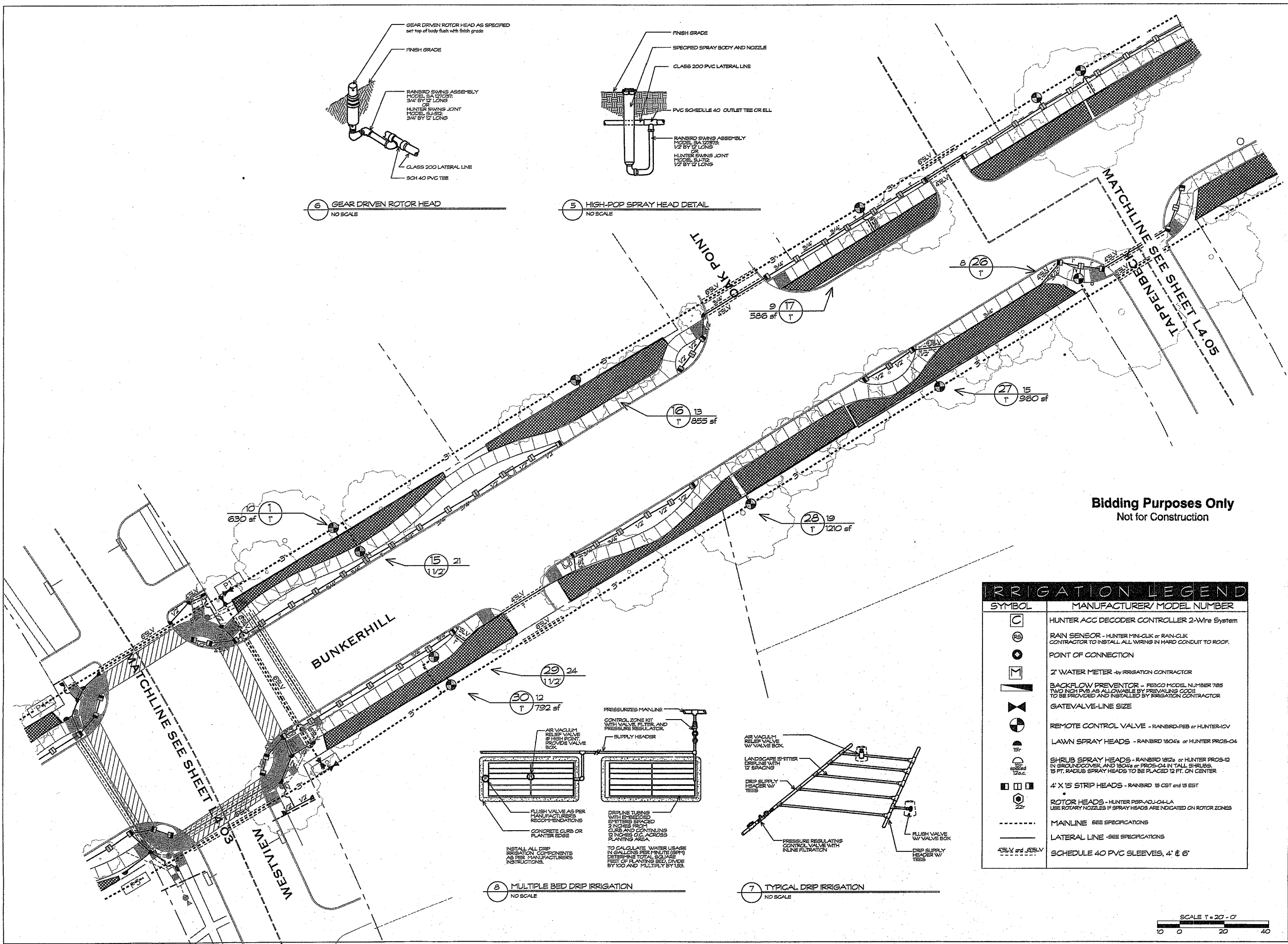
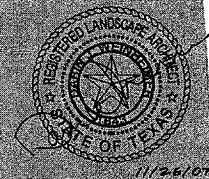
SHEET TITLE  
 IRRIGATION PLAN

SHEET NUMBER  
 L4.03



IRRIGATION LEGEND	
SYMBOL	MANUFACTURER/MODEL NUMBER
	HUNTER ACC DECODER CONTROLLER 2-Wire System
	RAIN SENSOR - HUNTER MINI-CLK or RAIN-CLK CONTRACTOR TO INSTALL ALL WIRING IN HARD CONDUIT TO ROOF.
	POINT OF CONNECTION
	2" WATER METER - by IRRIGATION CONTRACTOR
	BACKFLOW PREVENTOR - FIBCO MODEL NUMBER 765 TWO INCH PVB AS ALLOWABLE BY PREVAILING CODE TO BE PROVIDED AND INSTALLED BY IRRIGATION CONTRACTOR
	GATEVALVE-LINE SIZE
	REMOTE CONTROL VALVE - RAINBIRD-PEB or HUNTER-RCV
	LAWN SPRAY HEADS - RAINBIRD 1804s or HUNTER PROS-04
	SHRUB SPRAY HEADS - RAINBIRD 1812s or HUNTER PROS-12 IN GROUNDCOVER, AND 1804s or PROS-04 N TALL SHRUBS. 15 FT. RADIUS SPRAY HEADS TO BE PLACED 12 FT. ON CENTER
	4" X 15' STRIP HEADS - RAINBIRD 15 CST and 15 EST
	ROTOR HEADS - HUNTER RSP-ADJ-L-OLLA USE ROTARY NOZZLES IF SPRAY HEADS ARE INDICATED ON ROTOR ZONES
	MAINLINE - SEE SPECIFICATIONS
	LATERAL LINE - SEE SPECIFICATIONS
	SCHEDULE 40 PVC SLEEVES, 4" & 6"





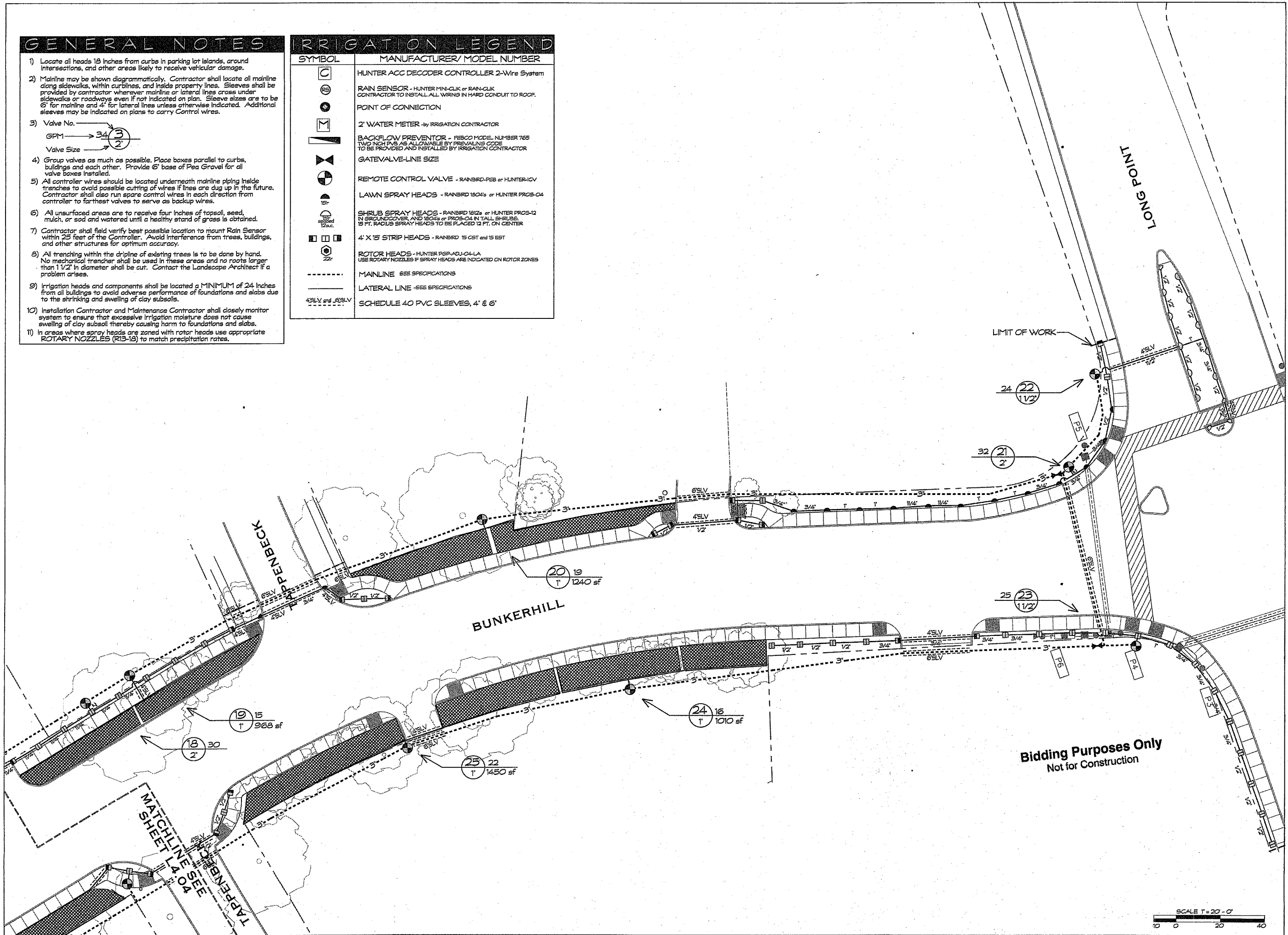
Bidding Purposes Only  
Not for Construction

**GENERAL NOTES**

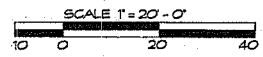
- 1) Locate all heads 18 inches from curbs in parking lot islands, around intersections, and other areas likely to receive vehicular damage.
- 2) Mainline may be shown diagrammatically. Contractor shall locate all mainline along sidewalks, within curblines, and inside property lines. Sleeves shall be provided by contractor wherever mainline or lateral lines cross under sidewalks or roadways even if not indicated on plan. Sleeve sizes are to be 6" for mainline and 4" for lateral lines unless otherwise indicated. Additional sleeves may be indicated on plans to carry Control wires.
- 3) Valve No.  $\rightarrow$   $\begin{matrix} 34 \\ \textcircled{3} \\ 2 \end{matrix}$   
 GPM  $\rightarrow$   $\begin{matrix} 34 \\ \textcircled{3} \\ 2 \end{matrix}$   
 Valve Size  $\rightarrow$   $\begin{matrix} 34 \\ \textcircled{3} \\ 2 \end{matrix}$
- 4) Group valves as much as possible. Place boxes parallel to curbs, buildings and each other. Provide 6" base of Pea Gravel for all valve boxes installed.
- 5) All controller wires should be located underneath mainline piping inside trenches to avoid possible cutting of wires if lines are dug up in the future. Contractor shall also run spare control wires in each direction from controller to farthest valves to serve as backup wires.
- 6) All unsurfaced areas are to receive four inches of topsoil, seed, mulch, or sod and watered until a healthy stand of grass is obtained.
- 7) Contractor shall field verify best possible location to mount Rain Sensor within 25 feet of the Controller. Avoid interference from trees, buildings, and other structures for optimum accuracy.
- 8) All trenching within the dripline of existing trees is to be done by hand. No mechanical trencher shall be used in these areas and no roots larger than 1 1/2" in diameter shall be cut. Contact the Landscape Architect if a problem arises.
- 9) Irrigation heads and components shall be located a MINIMUM of 24 inches from all buildings to avoid adverse performance of foundations and slabs due to the shrinking and swelling of clay subsoils.
- 10) Installation Contractor and Maintenance Contractor shall closely monitor system to ensure that excessive irrigation moisture does not cause swelling of clay subsoil thereby causing harm to foundations and slabs.
- 11) In areas where spray heads are zoned with rotor heads use appropriate ROTARY NOZZLES (R13-18) to match precipitation rates.

**IRRIGATION LEGEND**

SYMBOL	MANUFACTURER/ MODEL NUMBER
	HUNTER ACC DECODER CONTROLLER 2-Wire System
	RAIN SENSOR - HUNTER MIN-CLK or RAIN-CLK CONTRACTOR TO INSTALL ALL WIRING IN HARD CONDUIT TO ROOF.
	POINT OF CONNECTION
	2" WATER METER - by IRRIGATION CONTRACTOR
	BACKFLOW PREVENTOR - FESCO MODEL NUMBER 765 TWO INCH PVB AS ALLOWABLE BY PREVALENT CODE TO BE PROVIDED AND INSTALLED BY IRRIGATION CONTRACTOR
	GATEVALVE-LINE SIZE
	REMOTE CONTROL VALVE - RAINBIRD-PEB or HUNTER-ICV
	LAWN SPRAY HEADS - RAINBIRD 1804s or HUNTER PROS-04
	SHRUB SPRAY HEADS - RAINBIRD 1822s or HUNTER PROS-12 IN GROUND COVER, AND 1804s or PROS-04 IN TALL SHRUBS. 15 FT. RADIUS SPRAY HEADS TO BE PLACED 1/2 FT. ON CENTER
	4" X 15' STRIP HEADS - RAINBIRD 15 GST and 15 EST
	ROTOR HEADS - HUNTER R6FRADJ-04-LA USE ROTARY NOZZLES IF SPRAY HEADS ARE INDICATED ON ROTOR ZONES
	MAINLINE - SEE SPECIFICATIONS
	LATERAL LINE - SEE SPECIFICATIONS
	SCHEDULE 40 PVC SLEEVES, 4" & 6"



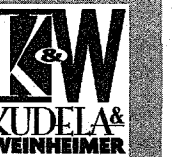
Bidding Purposes Only  
Not for Construction



BUNKERHILL ROAD

SPRING BRANCH DISTRICT

DATE/ISSUE  
18 NOVEMBER 2007 ISSUED FOR REVIEW  
28 NOVEMBER 2007 ISSUED FOR CONSTRUCTION



LANDSCAPE ARCHITECTURE  
SITE PLANNING  
URBAN DESIGN

7158 OLD VANTY ROAD  
SUITE 270  
HOUSTON, TEXAS 77024  
713-869-6997  
713-868-0909 FAX  
WWW.KWTEXAS.COM

PROJECT NUMBER  
MOD 705  
SCALE 1" = 20'-0"



SHEET TITLE  
IRRIGATION PLAN

SHEET NUMBER  
L4.05