

Appendix D

| Mustang Bayou Ultimate Improvements Costs | | | | |
|---|-------------|-----------------|-------------------|---------------------|
| Section 1: Cartwright Road to GCWA Canal - 3000 LF | | | | |
| Item | Unit | Quantity | Unit Price | Cost |
| Channel Excavation (spread) | CY | 128400 | \$5.00 | \$642,000.00 |
| Backslope Drains (24" CMP) (Max interval 800' - each bank) | EA | 8 | \$5,000.00 | \$40,000.00 |
| Bridge Improvement/Replacement | SF | 0 | \$120.00 | \$0.00 |
| Pipeline Relocation | EA | 0 | \$150,000.00 | \$0.00 |
| Seeding/Mulching/Fertilizing | AC | 16 | \$1,200.00 | \$19,200.00 |
| Miscellaneous Costs: GCWA Canal Crossing Improvements: | EA | 1 | \$150,000.00 | \$150,000.00 |
| TOTAL for Section 1 | | | | \$851,200.00 |

| Mustang Bayou Ultimate Improvements Costs | | | | |
|--|-------------|-----------------|-------------------|---------------------|
| Section 2: GCWA Canal Through Thunderbird North Subdivision - 3300 LF | | | | |
| Item | Unit | Quantity | Unit Price | Cost |
| Channel Excavation (load & haul) | CY | 6900 | \$7.00 | \$48,300.00 |
| Backslope Drains (24" CMP) (Max interval 800' - each bank) | EA | 10 | \$5,000.00 | \$50,000.00 |
| Bridge Improvement/Replacement | SF | 3200 | \$120.00 | \$384,000.00 |
| Pipeline Relocation | EA | 0 | \$150,000.00 | \$0.00 |
| Seeding/Mulching/Fertilizing | AC | 10 | \$1,200.00 | \$12,000.00 |
| Miscellaneous Costs: | EA | 0 | \$0.00 | \$0.00 |
| TOTAL for Section 2 | | | | \$494,300.00 |

| Mustang Bayou Ultimate Improvements Costs | | | | |
|---|-------------|-----------------|-------------------|---------------------|
| Section 3: D/S of Thunderbird North to Confluence with Old Channel - 5100 LF | | | | |
| Item | Unit | Quantity | Unit Price | Cost |
| Channel Excavation (spread) | CY | 25500 | \$5.00 | \$127,500.00 |
| Backslope Drains (24" CMP) (Max interval 800' - each bank) | EA | 14 | \$5,000.00 | \$70,000.00 |
| Bridge Improvement/Replacement | SF | 0 | \$120.00 | \$0.00 |
| Pipeline Relocation | EA | 1 | \$150,000.00 | \$150,000.00 |
| Seeding/Mulching/Fertilizing | AC | 20 | \$1,200.00 | \$24,000.00 |
| Miscellaneous Costs: | EA | 0 | \$0.00 | \$0.00 |
| TOTAL for Section 3 | | | | \$371,500.00 |

Appendix D

| Mustang Bayou Ultimate Improvements Costs | | | | |
|---|------|----------|--------------|-----------------------|
| Section 4: Confluence with Old Channel to Kitty Hollow Lake - 6600 LF | | | | |
| Item | Unit | Quantity | Unit Price | Cost |
| Channel Excavation (spread) | CY | 145400 | \$5.00 | \$727,000.00 |
| Backslope Drains (24" CMP) (Max interval 800' - each bank) | EA | 18 | \$5,000.00 | \$90,000.00 |
| Bridge Improvement/Replacement | SF | 0 | \$120.00 | \$0.00 |
| Pipeline Relocation | EA | 1 | \$150,000.00 | \$150,000.00 |
| Seeding/Mulching/Fertilizing | AC | 31 | \$1,200.00 | \$37,200.00 |
| Miscellaneous Costs: | EA | 0 | \$0.00 | \$0.00 |
| TOTAL for Section 4 | | | | \$1,004,200.00 |

| Mustang Bayou Ultimate Improvements Costs | | | | |
|--|------|----------|--------------|---------------------|
| Section 5: Old Channel from Confluence with Diversion Channel to Fort Bend Tollway - 4900 LF | | | | |
| Item | Unit | Quantity | Unit Price | Cost |
| Channel Excavation (spread) | CY | 40400 | \$5.00 | \$202,000.00 |
| Backslope Drains (24" CMP) (Max interval 800' - each bank) | EA | 14 | \$5,000.00 | \$70,000.00 |
| Bridge Improvement/Replacement | SF | 0 | \$120.00 | \$0.00 |
| Pipeline Relocation | EA | 0 | \$150,000.00 | \$0.00 |
| Seeding/Mulching/Fertilizing | AC | 18 | \$1,200.00 | \$21,600.00 |
| Miscellaneous Costs: Remove old timber walkway | EA | 1 | \$5,000.00 | \$5,000.00 |
| TOTAL for Section 5 | | | | \$298,600.00 |

| Mustang Bayou Ultimate Improvements Costs | | | | |
|---|------|----------|--------------|---------------|
| Kitty Hollow Lake Improvements | | | | |
| Item | Unit | Quantity | Unit Price | Cost |
| Seeding/Mulching/Fertilizing | AC | 1 | \$1,500.00 | \$0.00 |
| Miscellaneous Costs: | | | | |
| Enlarge Vicksburg Diversion Weir Lower and Rebuild 200 LF Kitty Hollow Lake Park Road | LS | 1 | \$8,400.00 | \$0.00 |
| Kitty Hollow Lake Outfall & Levee Improvements* | LS | 1 | \$32,000.00 | \$0.00 |
| | LS | 1 | \$200,000.00 | \$0.00 |
| TOTAL for Section 6 | | | | \$0.00 |

* Based on Jones & Carter report referenced in study. Levee improvement costs taken from J&C report and added to outfall improvements estimate by Dodson.

Appendix D

| Mustang Bayou Ultimate Improvements Total Costs For Improvements and R-O-W | | | | | | | |
|---|-------------|-----------|-------------|-------------|-------------|-----|-------------|
| Item | Section | | | | | | TOTAL |
| | 1 | 2 | 3 | 4 | 5 | KHL | |
| Construction Cost | \$851,200 | \$494,300 | \$371,500 | \$1,004,200 | \$298,600 | \$0 | \$3,019,800 |
| Engineering Cost 10% | \$85,120 | \$49,430 | \$37,150 | \$100,420 | \$29,860 | \$0 | \$301,980 |
| Contingency Estimate 20% | \$170,240 | \$98,860 | \$74,300 | \$200,840 | \$59,720 | \$0 | \$603,960 |
| Construction Total | \$1,106,560 | \$642,590 | \$482,950 | \$1,305,460 | \$388,180 | \$0 | \$3,925,740 |
| R-O-W Acquisition* | \$0 | \$0 | \$577,170 | \$1,241,460 | \$740,520 | \$0 | \$2,559,150 |
| TOTALS | \$1,106,560 | \$642,590 | \$1,060,120 | \$2,546,920 | \$1,128,700 | \$0 | \$6,484,890 |

*R-O-W Estimated at \$2.50 per square foot

| | | | | | | |
|---------------------|---|---|-----|------|-----|---|
| Right of Way needed | 0 | 0 | 5.3 | 11.4 | 6.8 | 0 |
|---------------------|---|---|-----|------|-----|---|

Appendix D

| Lower Oyster Creek Ultimate Improvements Costs | | | | |
|---|------|----------|--------------|--------------------|
| Section 1: Stations 36800 - 40960 Including Briscoe Canal Improvements | | | | |
| Item | Unit | Quantity | Unit Price | Cost |
| Channel Excavation (spread) | CY | 1500 | \$5.00 | \$7,500.00 |
| Fill Placement and Compaction | CY | 6900 | \$4.00 | \$27,600.00 |
| Backslope Drains (24" CMP) (Max interval 800' - each bank) | EA | 6 | \$5,000.00 | \$30,000.00 |
| Bridge Improvement/Replacement | SF | 0 | \$120.00 | \$0.00 |
| Pipeline Relocation | EA | 0 | \$150,000.00 | \$0.00 |
| Seeding/Mulching/Fertilizing | AC | 4.5 | \$1,200.00 | \$5,400.00 |
| Miscellaneous Costs: Erosion protection at BRA Canal and LPC Channel | EA | 1 | \$25,000.00 | \$25,000.00 |
| TOTAL for Section 1 | | | | \$95,500.00 |

Appendix D

| Lower Oyster Creek Ultimate Improvements Right-of-Way Estimates* | | | | | |
|---|----------------------|----------------------|------------------------|----------------|--------------------------|
| Section** | Existing ROW Feet | Ultimate ROW Feet | Additional ROW Feet | Length Feet | Additional Area Acres |
| KHL to Watts Plantation | 180 | 180 | 0 | 11000 | 0.0 |
| Watts Plantation to LP Div | 170 | 170 | 0 | 11500 | 0.0 |
| LP Diversion Channel | 0 | 100 | 100 | 1500 | 3.4 |
| LP Channel to McKeever | 150 | 200 | 50 | 350 | 0.4 |
| McKeever - Sienna | 200 | 200 | 0 | 1000 | 0.0 |
| Total Additional R-O-W | | | | | 3.8 |

* R-O-W widths and areas calculated are approximate and should be used for planning purposes only.

** Section stations are taken from LAN study. Right-of-way is recommended even where no channel improvements are proposed.

***Dedicated to Missouri City according to LAN study.

Appendix D

| Lower Oyster Creek Ultimate Improvements Total Costs For Improvements and R-O-W | | |
|--|------------------|------------------|
| Item | Section | |
| | 1 | TOTAL |
| Construction Cost | \$95,500 | \$95,500 |
| Engineering cost 10% | \$9,550 | \$9,550 |
| Contingency Estimate 20% | \$19,100 | \$19,100 |
| Construction Total | \$124,150 | \$124,150 |
| R-O-W Acquisition* | | \$418,750 |
| TOTALS | | \$542,900 |

*R-O-W Estimated at \$2.50 per square foot for project

| ULTIMATE CONDITIONS AREAS FOR COST ASSESSMENT | | | | | | | | | | | | |
|---|-------------|-------------|-------------------|---------------|--------------|--------------------|-------------|-------------|-------------------|---------------|--------------|--|
| Mustang Bayou | | | | | | Lower Oyster Creek | | | | | | |
| Subarea | Acreage | Developed | R-O-W* | Total | %Developed | Subarea | Acreage | Developed | R-O-W* | Total | %Developed | |
| 1A | 160 | 46 | 0 | 46 | 28.8% | 1 | 318 | 98 | 32.8 | 130.8 | 41.1% | |
| 1 | 175 | 61 | 15.8 | 76.8 | 43.9% | 2 | 292 | 207 | 17.2 | 224.2 | 76.8% | |
| 2 | 171 | 165 | 9.8 | 174.8 | 102.2% | 3 | 220 | 174 | 34 | 208 | 94.5% | |
| 3 | 113 | 0 | 19.9 | 19.9 | 17.6% | 4 | 186 | 70 | 45.5 | 115.5 | 62.1% | |
| 4 | 131 | 109 | 0 | 109 | 83.2% | 5 | 97 | 96 | 0.5 | 96.5 | 99.5% | |
| 5 | 153 | 153 | 0 | 153 | 100.0% | 6 | 83 | 46 | 16.1 | 62.1 | 74.8% | |
| 6 | 40 | 0 | 10.4 | 10.4 | 26.0% | 7 | 260 | 181 | 20.7 | 201.7 | 77.6% | |
| 7 | 154 | 6 | 10.4 | 16.4 | 10.6% | 8 | 31 | 12 | 9.2 | 21.2 | 68.4% | |
| 8 | 226 | 0 | 13.6 | 13.6 | 6.0% | 9 | 168 | 71 | 19.3 | 90.3 | 53.8% | |
| 9 | 171 | 7 | 4.4 | 11.4 | 6.7% | 10 | 110 | 100 | 7.7 | 107.7 | 97.9% | |
| 10 | 131 | 6 | 16.1 | 22.1 | 16.9% | 11 | 56 | 0 | 22 | 22 | 39.3% | |
| 11 | 415 | 0 | 415 | 415 | 100.0% | COW | 47 | 37 | 9.2 | 46.2 | 98.3% | |
| VICKS | 693 | 375 | 33.5 | 408.5 | 58.9% | | | | | | | |
| VICKS2 | 56 | 36 | 1 | 37 | 66.1% | | | | | | | |
| LSH1 | 85 | 85 | 0 | 85 | 100.0% | | | | | | | |
| LSH2 | 205 | 205 | 0 | 205 | 100.0% | | | | | | | |
| TOTAL | 3079 | 1254 | 549.9 | 1803.9 | 58.6% | TOTAL | 1868 | 1092 | 234.2 | 1326.2 | 71.0% | |
| | | | Remaining/Acreage | | 1275.1 | | | | Remaining/Acreage | | 541.8 | |

Notes:

Development estimated from 2004 aerial photographs. Includes areas in platting process.

*R-O-W Acreage based on ultimate drainage easement widths and areas reserved for drainage and storage of flood waters such as Kitty Hollow Lake, drainage channels, and Lower Oyster Creek Meanders.