

This Appendix includes a Planning-Level Opinion of Probable Cost for the proposed Cherry Bayou Drainage Master Plan improvements. The planning-level cost opinions are based on contemporary costs from similar projects, Tennessee Department of Transportation Average Unit Prices (2020 awarded contracts), and engineering judgement.

In general, a 35% mark-up has been included in the adjusted unit costs for mobilization/demobilization, maintenance of traffic, bonds and insurance, contingency, engineering, and permitting. Real estate and utility relocation costs are not included. We also recommend an additional 25% contingency for the conceptual level of design.

Planning-Level Cost Opinion Summary

Project	Type	Base Cost Opinion	With Contingency (25%)
Cherry Bayou			
CB-02 Alternative	Capacity Improvements	\$ 762,048	\$ 952,560
CB-03 Alternative	Capacity Improvements	\$ 110,125	\$ 137,657
CB-05 and CB-05.04 Alternative	Capacity Improvements	\$ 7,647,202	\$ 9,559,003
CB-07 Alternative	Capacity Improvements	\$ 530,439	\$ 663,049
CB-12.6 and CB-12.8 Alternative	Capacity Improvements	\$ 523,380	\$ 654,225
CB-20, CB-20.4, and CB-23 Alternative	Capacity Improvements	\$ 6,070,671	\$ 7,588,339
CB-21 Alternative	Capacity Improvements	\$ 1,783,281	\$ 2,229,101
CB-28 Alternative	Capacity Improvements	\$ 164,149	\$ 205,187
CB-30, CB-30.2, and CB-00 Alternative A ¹	Capacity Improvements	\$ 6,375,632	\$ 7,969,539
CB-30, CB-30.2, and CB-00 Alternative B	Capacity and Storage Improvements	\$ 4,525,488	\$ 5,656,860
CB-43 Alternative	Capacity Improvements	\$ 990,585	\$ 1,238,232
SUBTOTAL		\$ 23,107,370	\$ 28,884,212
Goodwin			
GW-11 Alternative	Capacity Improvements	\$ 1,018,732	\$ 1,273,415
GW-14 and GW-15 Alternative A	Capacity and Storage Improvements	\$ 4,994,568	\$ 6,243,210
GW-14 and GW-15 Alternative B ¹	Capacity and Storage Improvements	\$ 3,570,338	\$ 4,462,923
SUBTOTAL		\$ 6,013,300	\$ 7,516,625
TOTAL			\$ 36,400,837

Footnotes:

1 – Only costs of recommended improvements are included when more than one alternative is provided.

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

CB-02 Alternative - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	87	\$ 2,784.00	\$ 3,758.40	
Install 36" Culvert	LF	\$ 134.00	\$ 180.90	87	\$ 11,658.00	\$ 15,738.30	Class III
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	376	\$ 12,032.00	\$ 16,243.20	
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	376	\$ 71,440.00	\$ 96,444.00	Class III
Remove 30" Culvert	LF	\$ 32.00	\$ 43.20	255	\$ 8,160.00	\$ 11,016.00	
Install 54" Culvert	LF	\$ 274.00	\$ 369.90	255	\$ 69,870.00	\$ 94,324.50	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	319	\$ 265,500.44	\$ 358,425.60	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	6	\$ 55,536.00	\$ 74,973.60	Type 10, 4'-8'
Shore Structures	EA	\$ 6,000.00	\$ 8,100.00	10	\$ 60,000.00	\$ 81,000.00	
Silt Fence	LF	\$ 4.00	\$ 5.40	1476	\$ 5,904.00	\$ 7,970.40	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	1596	\$ 1,595.56	\$ 2,154.00	20' x Culvert Length - Road

TOTAL

\$ 762,048

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

CB-03 Alternative - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
Install 30" Culvert	LF	\$ 76.00	\$ 102.60	124	\$ 9,424.00	\$ 12,722.40	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	67	\$ 55,466.67	\$ 74,880.00	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	1	\$ 9,256.00	\$ 12,495.60	Type 10, 4'-8'
Shore Structures	EA	\$ 6,000.00	\$ 8,100.00	1	\$ 6,000.00	\$ 8,100.00	
Silt Fence	LF	\$ 4.00	\$ 5.40	288	\$ 1,152.00	\$ 1,555.20	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	276	\$ 275.56	\$ 372.00	20' x Culvert Length - Road

TOTAL

\$ 110,125

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

CB-05 and CB-05.4 Alternative - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
CB-05							
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	383	\$ 12,256.00	\$ 16,545.60	
Install 60" Culvert	LF	\$ 272.00	\$ 367.20	383	\$ 104,176.00	\$ 140,637.60	Class III
Remove 30" Culvert	LF	\$ 32.00	\$ 43.20	35	\$ 1,120.00	\$ 1,512.00	
Install 60" Culvert	LF	\$ 272.00	\$ 367.20	35	\$ 9,520.00	\$ 12,852.00	Class III
Remove 36" Culvert	LF	\$ 32.00	\$ 43.20	290	\$ 9,280.00	\$ 12,528.00	
Install 60" Culvert	LF	\$ 272.00	\$ 367.20	290	\$ 78,880.00	\$ 106,488.00	Class III
Remove 30" Culvert	LF	\$ 32.00	\$ 43.20	43	\$ 1,376.00	\$ 1,857.60	
Install 60" Culvert	LF	\$ 272.00	\$ 367.20	43	\$ 11,696.00	\$ 15,789.60	Class III
Remove 42" Culvert	LF	\$ 32.00	\$ 43.20	438	\$ 14,016.00	\$ 18,921.60	
Install 60" Culvert	LF	\$ 272.00	\$ 367.20	438	\$ 119,136.00	\$ 160,833.60	Class III
Install 66" Culvert	LF	\$ 356.00	\$ 480.60	3418	\$ 1,216,808.00	\$ 1,642,690.80	Class III
Remove 36" Culvert	LF	\$ 32.00	\$ 43.20	1038	\$ 33,216.00	\$ 44,841.60	
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	1038	\$ 197,220.00	\$ 266,247.00	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	2388	\$ 1,987,185.78	\$ 2,682,700.80	24' * Culvert Length * 0.5'
Shore Structures	EA	\$ 6,000.00	\$ 8,100.00	2	\$ 12,000.00	\$ 16,200.00	
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	1	\$ 9,256.00	\$ 12,495.60	Type 10, 4'-8'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	1	\$ 7,099.00	\$ 9,583.65	4'-8'
New Manholes	EA	\$ 10,118.00	\$ 13,659.30	6	\$ 60,708.00	\$ 81,955.80	8'-12'
New Manholes	EA	\$ 10,719.00	\$ 14,470.65	3	\$ 32,157.00	\$ 43,411.95	12'-16'
New Manholes	EA	\$ 11,320.00	\$ 15,282.00	3	\$ 33,960.00	\$ 45,846.00	16'-20'
Silt Fence	LF	\$ 4.00	\$ 5.40	11350	\$ 45,400.00	\$ 61,290.00	2 x Culvert Length + 60'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	12544	\$ 12,544.44	\$ 16,935.00	20' x Culvert Length - Road

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
CB-05.4							
Remove 30" Culvert	LF	\$ 32.00	\$ 43.20	1315	\$ 42,080.00	\$ 56,808.00	
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	1315	\$ 249,850.00	\$ 337,297.50	Class III
Remove 30" Culvert	LF	\$ 32.00	\$ 43.20	331	\$ 10,592.00	\$ 14,299.20	
Install 54" Culvert	LF	\$ 274.00	\$ 369.90	200	\$ 54,800.00	\$ 73,980.00	Class III
Remove 30" Culvert	LF	\$ 32.00	\$ 43.20	131	\$ 4,192.00	\$ 5,659.20	
Install 60" Culvert	LF	\$ 272.00	\$ 367.20	331	\$ 90,032.00	\$ 121,543.20	Class III
Install 60" Culvert	LF	\$ 272.00	\$ 367.20	875	\$ 238,000.00	\$ 321,300.00	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	1062	\$ 883,768.89	\$ 1,193,088.00	24' * Culvert Length * 0.5'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	1	\$ 7,099.00	\$ 9,583.65	4'-8'
New Manholes	EA	\$ 10,118.00	\$ 13,659.30	1	\$ 10,118.00	\$ 13,659.30	8'-12'
New Manholes	EA	\$ 10,719.00	\$ 14,470.65	3	\$ 32,157.00	\$ 43,411.95	12'-16'
Silt Fence	LF	\$ 4.00	\$ 5.40	6896	\$ 27,584.00	\$ 37,238.40	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	5311	\$ 5,311.11	\$ 7,170.00	20' x Culvert Length - Road

TOTAL

\$ 7,647,202

CB-07 Alternative - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
Install 30" Culvert	LF	\$ 103.00	\$ 139.05	794	\$ 81,782.00	\$ 110,405.70	Class III
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	1	\$ 9,256.00	\$ 12,495.60	Type 10, 4'-8'
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	353	\$ 293,603.56	\$ 396,364.80	24' * Culvert Length * 0.5'
Silt Fence	LF	\$ 4.00	\$ 5.40	1628	\$ 6,512.00	\$ 8,791.20	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	1764	\$ 1,764.44	\$ 2,382.00	20' x Culvert Length - Road

TOTAL

\$	530,439
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ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

CB-12.6 and CB-12.8 Alternative - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
CB-12.6							
Install 24" Culvert	LF	\$ 76.00	\$ 102.60	120	\$ 9,120.00	\$ 12,312.00	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	53	\$ 44,373.33	\$ 59,904.00	24' * Culvert Length * 0.5'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	2	\$ 14,198.00	\$ 19,167.30	4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	280	\$ 1,120.00	\$ 1,512.00	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	267	\$ 266.67	\$ 360.00	20' x Culvert Length - Road
CB-12.8							
Remove 27" Culvert	LF	\$ 32.00	\$ 43.20	18	\$ 576.00	\$ 777.60	
Install 36" Culvert	LF	\$ 134.00	\$ 180.90	18	\$ 2,412.00	\$ 3,256.20	Class III
Remove 27" Culvert	LF	\$ 32.00	\$ 43.20	139	\$ 4,448.00	\$ 6,004.80	
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	139	\$ 26,410.00	\$ 35,653.50	Class III
Remove 36" Culvert	LF	\$ 32.00	\$ 43.20	324	\$ 10,368.00	\$ 13,996.80	
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	324	\$ 61,560.00	\$ 83,106.00	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	206	\$ 171,207.11	\$ 231,129.60	24' * Culvert Length * 0.5'
Shore Structures	EA	\$ 6,000.00	\$ 8,100.00	1	\$ 6,000.00	\$ 8,100.00	
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	1	\$ 9,256.00	\$ 12,495.60	Type 10, 4'-8'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	3	\$ 21,297.00	\$ 28,750.95	4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	1002	\$ 4,008.00	\$ 5,410.80	2 x Culvert Length + 40'
Seed and Mulch	LF	\$ 1.00	\$ 1.35	1069	\$ 1,068.89	\$ 1,443.00	20' x Culvert Length - Road

TOTAL

\$ 523,380

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

CB-20, CB-20.4, and CB-23 Alternative - Storage and Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
CB-20							
Increase Open Channel to 50'	LF	\$ 1,000.00	\$ 1,350.00	943	\$ 943,000.00	\$ 1,273,050.00	
Shore Structures	EA	\$ 6,000.00	\$ 8,100.00	1	\$ 6,000.00	\$ 8,100.00	
Silt Fence	LF	\$ 4.00	\$ 5.40	1926	\$ 7,704.00	\$ 10,400.40	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	2096	\$ 2,095.56	\$ 2,829.00	20' x Culvert Length - Road
CB-20.4							
Install 3.5' x 5.5' Culvert	LF	\$ 850.00	\$ 1,147.50	850	\$ 722,500.00	\$ 975,375.00	
Remove 3.5' x 5.5' Culvert	LF	\$ 32.00	\$ 43.20	731	\$ 23,392.00	\$ 31,579.20	
Install 4' x 8' Culvert	LF	\$ 1,000.00	\$ 1,350.00	731	\$ 731,000.00	\$ 986,850.00	
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	703	\$ 584,618.67	\$ 789,235.20	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	1	\$ 9,256.00	\$ 12,495.60	Type 10, 4'-8'
New Manholes	EA	\$ 10,118.00	\$ 13,659.30	1	\$ 10,118.00	\$ 13,659.30	8'-12'
Silt Fence	LF	\$ 4.00	\$ 5.40	3202	\$ 12,808.00	\$ 17,290.80	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	3513	\$ 3,513.33	\$ 4,743.00	20' x Culvert Length - Road
CB-23							
Install 4'x8' Culvert	LF	\$ 1,000.00	\$ 1,350.00	380	\$ 380,000.00	\$ 513,000.00	
Remove 36" Culvert	LF	\$ 32.00	\$ 43.20	628	\$ 20,096.00	\$ 27,129.60	
Install 4'x8' Culvert	LF	\$ 1,000.00	\$ 1,350.00	628	\$ 628,000.00	\$ 847,800.00	
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	448	\$ 372,736.00	\$ 503,193.60	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	1	\$ 9,256.00	\$ 12,495.60	Type 10
New Manholes	EA	\$ 10,118.00	\$ 13,659.30	2	\$ 20,236.00	\$ 27,318.60	8'-12'
Silt Fence	LF	\$ 4.00	\$ 5.40	2056	\$ 8,224.00	\$ 11,102.40	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	2240	\$ 2,240.00	\$ 3,024.00	20' x Culvert Length - Road

TOTAL

\$ 6,070,671

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

CB-21 Alternative - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
Install 30" Culvert	LF	\$ 103.00	\$ 139.05	1176	\$ 121,128.00	\$ 163,522.80	Class III
Install 36" Culvert	LF	\$ 134.00	\$ 180.90	652	\$ 87,368.00	\$ 117,946.80	Class III
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	570	\$ 108,300.00	\$ 146,205.00	Class III
Install 54" Culvert	LF	\$ 274.00	\$ 369.90	162	\$ 44,388.00	\$ 59,923.80	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	1066	\$ 886,727.11	\$ 1,197,081.60	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	1	\$ 9,256.00	\$ 12,495.60	Type 10, 4'-8'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	1	\$ 7,099.00	\$ 9,583.65	4'-8'
New Manholes	EA	\$ 10,118.00	\$ 13,659.30	3	\$ 30,354.00	\$ 40,977.90	8'-12'
Silt Fence	LF	\$ 4.00	\$ 5.40	5160	\$ 20,640.00	\$ 27,864.00	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	5689	\$ 5,688.89	\$ 7,680.00	20' x Culvert Length - Road

TOTAL

\$ 1,783,281

CB-28 Alternative - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
Remove 4 'x 6' Culvert	LF	\$ 32.00	\$ 43.20	86	\$ 2,752.00	\$ 3,715.20	
Install 4.5' x 7.5' Culvert	LF	\$ 1,000.00	\$ 1,350.00	86	\$ 86,000.00	\$ 116,100.00	
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	38	\$ 31,800.89	\$ 42,931.20	24' * Culvert Length * 0.5'
Silt Fence	LF	\$ 4.00	\$ 5.40	212	\$ 848.00	\$ 1,144.80	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	191	\$ 191.11	\$ 258.00	20' x Culvert Length - Road

TOTAL

\$164,149

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

CB-30, CB-30.2, and CB-00 Alternative A - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
CB-30							
Remove 36" Culvert	LF	\$ 32.00	\$ 43.20	1188	\$ 38,016.00	\$ 51,321.60	
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	1188	\$ 225,720.00	\$ 304,722.00	Class III
Remove 42" Culvert	LF	\$ 32.00	\$ 43.20	587	\$ 18,784.00	\$ 25,358.40	
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	587	\$ 157,903.00	\$ 213,169.05	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	789	\$ 656,355.56	\$ 886,080.00	24' * Culvert Length * 0.5'
Shore Structures	EA	\$ 6,000.00	\$ 8,100.00	2	\$ 12,000.00	\$ 16,200.00	
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	1	\$ 9,256.00	\$ 12,495.60	Type 10
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	2	\$ 14,198.00	\$ 19,167.30	4'-8'
New Manholes	EA	\$ 10,118.00	\$ 13,659.30	3	\$ 30,354.00	\$ 40,977.90	8'-12'
New Manholes	EA	\$ 10,719.00	\$ 14,470.65	1	\$ 10,719.00	\$ 14,470.65	12'-16'
Silt Fence	LF	\$ 4.00	\$ 5.40	3590	\$ 14,360.00	\$ 19,386.00	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	3944	\$ 3,944.44	\$ 5,325.00	20' x Culvert Length - Road
CB-30, CB-30.2, and CB-00							
Install 30" Culvert	LF	\$ 103.00	\$ 139.05	115	\$ 11,845.00	\$ 15,990.75	Class III
Install 36" Culvert	LF	\$ 134.00	\$ 180.90	25	\$ 3,350.00	\$ 4,522.50	Class III
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	735	\$ 197,715.00	\$ 266,915.25	Class III
Install 60" Culvert	LF	\$ 272.00	\$ 367.20	300	\$ 81,600.00	\$ 110,160.00	Class III
Install 72" Culvert	LF	\$ 396.00	\$ 534.60	3,499	\$ 1,385,604.00	\$ 1,870,565.40	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	2015	\$ 1,676,572.44	\$ 2,263,372.80	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 7,099.00	\$ 9,583.65	3	\$ 21,297.00	\$ 28,750.95	Type 10
New Manholes	EA	\$ 10,118.00	\$ 13,659.30	4	\$ 40,472.00	\$ 54,637.20	8'-12'
New Manholes	EA	\$ 10,719.00	\$ 14,470.65	3	\$ 32,157.00	\$ 43,411.95	12'-16'
New Manholes	EA	\$ 11,320.00	\$ 15,282.00	3	\$ 33,960.00	\$ 45,846.00	16'-20'
Silt Fence	LF	\$ 4.00	\$ 5.40	9108	\$ 36,432.00	\$ 49,183.20	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	10076	\$ 10,075.56	\$ 13,602.00	20' x Culvert Length - Road

TOTAL

\$ 6,375,632

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

CB-30, CB-30.2, and CB-00 Alternative B - Capacity and Storage Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
CB-30							
Remove 36" Culvert	LF	\$ 32.00	\$ 43.20	1188	\$ 38,016.00	\$ 51,321.60	
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	1188	\$ 225,720.00	\$ 304,722.00	Class III
Remove 42" Culvert	LF	\$ 32.00	\$ 43.20	587	\$ 18,784.00	\$ 25,358.40	
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	587	\$ 157,903.00	\$ 213,169.05	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	789	\$ 656,355.56	\$ 886,080.00	24' * Culvert Length * 0.5'
Shore Structures	EA	\$ 6,000.00	\$ 8,100.00	2	\$ 12,000.00	\$ 16,200.00	
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	1	\$ 9,256.00	\$ 12,495.60	Type 10
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	2	\$ 14,198.00	\$ 19,167.30	4'-8'
New Manholes	EA	\$ 10,118.00	\$ 13,659.30	3	\$ 30,354.00	\$ 40,977.90	8'-12'
New Manholes	EA	\$ 10,719.00	\$ 14,470.65	1	\$ 10,719.00	\$ 14,470.65	12'-16'
Silt Fence	LF	\$ 4.00	\$ 5.40	3590	\$ 14,360.00	\$ 19,386.00	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	3944	\$ 3,944.44	\$ 5,325.00	20' x Culvert Length - Road

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
CB-30, CB-30.2, and CB-00							
<i>Marquette Park Storage</i>							<i>22.2 acre-ft</i>
Clearing and Grubbing	AC	\$ 1,800.00	\$ 2,430.00	4.34	\$ 7,812.00	\$ 10,546.20	
Sod	SY	\$ 4.00	\$ 5.40	1333	\$ 5,333.33	\$ 7,200.00	For Side Slopes
Cut	CY	\$ 25.00	\$ 33.75	30472	\$ 761,800.00	\$ 761,800.00	
Fill	CY	\$ 10.00	\$ 13.50	7618	\$ 76,180.00	\$ 76,180.00	
Install 15" Dewatering Pipe	LF	\$ 60.00	\$ 81.00	300	\$ 18,000.00	\$ 18,000.00	Class III
Install 30" Culvert	LF	\$ 103.00	\$ 139.05	115	\$ 11,845.00	\$ 15,990.75	Class III
Install 36" Culvert	LF	\$ 190.00	\$ 256.50	25	\$ 4,750.00	\$ 6,412.50	Class III
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	735	\$ 197,715.00	\$ 266,915.25	Class III
Install 54" Culvert	LF	\$ 274.00	\$ 369.90	372	\$ 101,928.00	\$ 137,602.80	Class III
Install 72" Culvert	LF	\$ 396.00	\$ 534.60	1085	\$ 429,660.00	\$ 580,041.00	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	809	\$ 672,995.56	\$ 908,544.00	
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	2	\$ 18,512.00	\$ 24,991.20	Type 10
New Manholes	EA	\$ 10,118.00	\$ 13,659.30	6	\$ 60,708.00	\$ 81,955.80	8'-12'
Silt Fence	LF	\$ 4.00	\$ 5.40	3434	\$ 13,736.00	\$ 18,543.60	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	1549	\$ 1,548.89	\$ 2,091.00	20' x Culvert Length - Road

TOTAL

\$ 4,525,488

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

CB-43 Alternative - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	564	\$ 18,048.00	\$ 24,364.80	
Install 30" Culvert	LF	\$ 103.00	\$ 139.05	564	\$ 58,092.00	\$ 78,424.20	Class III
Install 54" Culvert	LF	\$ 269.00	\$ 363.15	650	\$ 174,850.00	\$ 236,047.50	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	540	\$ 448,910.22	\$ 606,028.80	24' * Culvert Length * 0.5'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	3	\$ 21,297.00	\$ 28,750.95	4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	2468	\$ 9,872.00	\$ 13,327.20	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	2698	\$ 2,697.78	\$ 3,642.00	20' x Culvert Length - Road

TOTAL

\$ 990,585

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

GW-11 Alternative - Capacity Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
Remove 1.8' x 2.8' Culvert	LF	\$ 32.00	\$ 43.20	151	\$ 4,832.00	\$ 6,523.20	
Install 36" Culvert	LF	\$ 134.00	\$ 180.90	151	\$ 20,234.00	\$ 27,315.90	Class III
Remove 2.4' x 2.8' Culvert	LF	\$ 32.00	\$ 43.20	456	\$ 14,592.00	\$ 19,699.20	
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	456	\$ 86,640.00	\$ 116,964.00	Class III
Remove 2.4' x 2.8' Culvert	LF	\$ 32.00	\$ 43.20	542	\$ 17,344.00	\$ 23,414.40	
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	542	\$ 145,798.00	\$ 196,827.30	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	511	\$ 424,874.67	\$ 573,580.80	24' * Culvert Length * 0.5'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	4	\$ 28,396.00	\$ 38,334.60	4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	2338	\$ 9,352.00	\$ 12,625.20	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	2553	\$ 2,553.33	\$ 3,447.00	20' x Culvert Length - Road

TOTAL

\$ 1,018,732

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

GW-14 and GW-15 Alternative A - Capacity and Storage Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
GW-14							
<i>Barr Avenue Storage</i>							<i>7.4 acre-ft</i>
Clearing and Grubbing	AC	\$ 1,800.00	\$ 2,430.00	1.61	\$ 2,898.00	\$ 3,912.30	
Cut	CY	\$ 25.00	\$ 33.75	13167	\$ 329,175.00	\$ 444,386.25	
Fill	CY	\$ 10.00	\$ 13.50	1317	\$ 13,170.00	\$ 17,779.50	
Sod	SY	\$ 4.00	\$ 5.40	795	\$ 3,178.67	\$ 4,291.20	
Install 24" Dewatering Pipe	LF	\$ 76.00	\$ 102.60	1650	\$ 125,400.00	\$ 169,290.00	Class III
Install 24" Culvert	LF	\$ 76.00	\$ 102.60	202	\$ 15,352.00	\$ 20,725.20	Class III
Install 36" Culvert	LF	\$ 134.00	\$ 180.90	484	\$ 64,856.00	\$ 87,555.60	Class III
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	524	\$ 140,956.00	\$ 190,290.60	Class III
Regrade/Replace 30" Culvert	LF	\$ 135.00	\$ 182.25	940	\$ 126,900.00	\$ 171,315.00	Class III
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	197	\$ 6,304.00	\$ 8,510.40	
Install 38" x 60" Elliptical Culvert	LF	\$ 625.00	\$ 843.75	197	\$ 123,125.00	\$ 166,218.75	Class III
Install 38" x 60" Elliptical Culvert	LF	\$ 625.00	\$ 843.75	800	\$ 500,000.00	\$ 675,000.00	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	1861	\$ 1,548,259.56	\$ 2,090,150.40	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	2	\$ 18,512.00	\$ 24,991.20	Type 10, 4'-8'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	5	\$ 35,495.00	\$ 47,918.25	4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	6553	\$ 26,212.00	\$ 35,386.20	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	10660	\$ 10,660.00	\$ 14,391.00	20' x Culvert Length - Road
Titus Road							
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	197	\$ 6,304.00	\$ 8,510.40	
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	197	\$ 52,993.00	\$ 71,540.55	Class III
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	61	\$ 1,952.00	\$ 2,635.20	
Install 30" Culvert	LF	\$ 103.00	\$ 139.05	61	\$ 6,283.00	\$ 8,482.05	Class III
Remove 27" Culvert	LF	\$ 32.00	\$ 43.20	268	\$ 8,576.00	\$ 11,577.60	
Install 36" Culvert	LF	\$ 134.00	\$ 180.90	268	\$ 35,912.00	\$ 48,481.20	Class III
Clean/Dig Out Ditch	LF	\$ 100.00	\$ 135.00	241	\$ 24,100.00	\$ 32,535.00	
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	234	\$ 194,503.11	\$ 262,579.20	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	2	\$ 18,512.00	\$ 24,991.20	Type 10, 4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	1092	\$ 4,368.00	\$ 5,896.80	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	1169	\$ 1,168.89	\$ 1,578.00	20' x Culvert Length - Road

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
GW-15							
Install 30" Culvert	LF	\$ 103.00	\$ 139.05	512	\$ 52,736.00	\$ 71,193.60	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	228	\$ 189,326.22	\$ 255,590.40	24' * Culvert Length * 0.5'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	1	\$ 7,099.00	\$ 9,583.65	4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	1064	\$ 4,256.00	\$ 5,745.60	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	1138	\$ 1,137.78	\$ 1,536.00	20' x Culvert Length - Road

TOTAL

\$ 4,994,568

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

GW-14 and GW-15 Alternative B - Capacity and Storage Improvements

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
GW-14							
<i>Board of Education Storage</i>							<i>9.6 ac-ft</i>
Clearing and Grubbing	AC	\$ 1,800.00	\$ 2,430.00	1.38	\$ 2,484.00	\$ 3,353.40	
Cut	CY	\$ 25.00	\$ 33.75	13883	\$ 347,075.00	\$ 468,551.25	
Fill	CY	\$ 10.00	\$ 13.50	1388	\$ 13,880.00	\$ 18,738.00	
Chain Link Fence	LF	\$ 12.00	\$ 16.20	1000	\$ 12,000.00	\$ 16,200.00	School Adjacent to Project Site
Sod	SY	\$ 4.00	\$ 5.40	12000	\$ 48,000.00	\$ 64,800.00	
Install 15" Dewatering Pipe	LF	\$ 60.00	\$ 81.00	650	\$ 39,000.00	\$ 52,650.00	Class III
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	197	\$ 6,304.00	\$ 8,510.40	
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	197	\$ 52,993.00	\$ 71,540.55	Class III
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	500	\$ 134,500.00	\$ 181,575.00	Class III
Install 54" Culvert	LF	\$ 274.00	\$ 369.90	735	\$ 201,390.00	\$ 271,876.50	Class III
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	20	\$ 640.00	\$ 864.00	
Install 36" Culvert	LF	\$ 134.00	\$ 180.90	20	\$ 2,680.00	\$ 3,618.00	Class III
Remove 30" Culvert	LF	\$ 32.00	\$ 43.20	460	\$ 14,720.00	\$ 19,872.00	
Install 42" Culvert	LF	\$ 190.00	\$ 256.50	460	\$ 87,400.00	\$ 117,990.00	Class III
Remove 30" Culvert	LF	\$ 32.00	\$ 43.20	462	\$ 14,784.00	\$ 19,958.40	
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	462	\$ 124,278.00	\$ 167,775.30	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	1034	\$ 860,472.89	\$ 1,161,638.40	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	2	\$ 18,512.00	\$ 24,991.20	Type 10, 4'-8'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	3	\$ 21,297.00	\$ 28,750.95	4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	6694	\$ 26,776.00	\$ 36,147.60	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	6282	\$ 6,282.22	\$ 8,481.00	20' x Culvert Length - Road

ENGINEER'S OPINION OF PROBABLE COST
(PLANNING LEVEL)

Cherry Bayou Drainage Master Plan

Item	Unit	Base Price	*Unit Price	Estimate Quantity	Cost	Adjusted Cost	Description
Titus Road							
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	197	\$ 6,304.00	\$ 8,510.40	
Install 48" Culvert	LF	\$ 269.00	\$ 363.15	197	\$ 52,993.00	\$ 71,540.55	Class III
Remove 24" Culvert	LF	\$ 32.00	\$ 43.20	61	\$ 1,952.00	\$ 2,635.20	
Install 30" Culvert	LF	\$ 103.00	\$ 139.05	61	\$ 6,283.00	\$ 8,482.05	Class III
Remove 27" Culvert	LF	\$ 32.00	\$ 43.20	268	\$ 8,576.00	\$ 11,577.60	
Install 36" Culvert	LF	\$ 134.00	\$ 180.90	268	\$ 35,912.00	\$ 48,481.20	Class III
Clean/Dig Out Ditch	CY	\$ 100.00	\$ 135.00	241	\$ 24,100.00	\$ 32,535.00	
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	234	\$ 194,503.11	\$ 262,579.20	24' * Culvert Length * 0.5'
New Curb Inlets	EA	\$ 9,256.00	\$ 12,495.60	2	\$ 18,512.00	\$ 24,991.20	Type 10, 4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	1092	\$ 4,368.00	\$ 5,896.80	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	1169	\$ 1,168.89	\$ 1,578.00	20' x Culvert Length - Road
GW-15							
Install 30" Culvert	LF	\$ 103.00	\$ 139.05	512	\$ 52,736.00	\$ 71,193.60	Class III
24' Road Repair/Curb/Sidewalk	CY	\$ 832.00	\$ 1,123.20	228	\$ 189,326.22	\$ 255,590.40	24' * Culvert Length * 0.5'
New Manholes	EA	\$ 7,099.00	\$ 9,583.65	1	\$ 7,099.00	\$ 9,583.65	4'-8'
Silt Fence	LF	\$ 4.00	\$ 5.40	1064	\$ 4,256.00	\$ 5,745.60	2 x Culvert Length + 40'
Seed and Mulch	SY	\$ 1.00	\$ 1.35	1138	\$ 1,137.78	\$ 1,536.00	20' x Culvert Length - Road

TOTAL

\$ 3,570,338